



IndianOil

रिफाइनरीज प्रभाग
Refineries Division

Ref: PDR/HSE/HC/MOEFCC/2023-24/002

Date: 26-07-2023

इंडियन ऑयल कॉर्पोरेशन लिमिटेड

पारादीप रिफाइनरी

डाकघर : झिमानो, भाया : कुजंग, जिला : जगतसिंहपुर, ओडिशा-754141

Indian Oil Corporation Limited

Paradip Refinery

PO : Jhimani, Via : Kujang, Dist. : Jagatsinghpur, Odisha - 754 141

Tel.: 06722 - 252001, 252002, Fax : 06722 - 252101

Website: www.iocl.com, E-mail : paradiprefinery@indianoil.in

To,
Deputy Director General of Forests,
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office,
A/3, Chandrasekharapur, Bhubaneswar – 751023
Email: roe.z.bsr-mef@nic.in

Subject: Half Yearly Compliance Report of ECs issued to IOCL, Paradip Refinery

Dear Sir,

Please find enclosed the Half Yearly Compliance Report of the following ECs for period **Oct'22 to Mar'23**.

1. Compliance Status for Environment Clearance for Grass Root Refinery-cum Petrochemical Complex of 15 MMTPA at Paradip (Letter F.No.J-11011/70/2007-1A II (I) dated 06th Jul, 2007) is enclosed as Annexure-A.
2. Compliance Status for CRZ Clearance for laying of Storm Water Outfall Pipelines to sea for Paradip Refinery Project. (Letter F. No.11-86/2011-IA III dated 21st Feb'2012) is enclosed as Annexure-B.
3. Compliance Status for CRZ Clearance for laying of pipeline from Paradip Refinery to South Oil Jetty at Paradip Port, Odisha (Letter F. No. 11-33/2013-IA III, Government of India, Ministry of Environment & Forests (IA Division), Dated 19th Sep'2013) is enclosed as Annexure-C.
4. Compliance Status for CRZ Clearance for 'Pet Coke Evacuation Project' for Paradip Refinery in District Jagatsinghpur (Odisha) by Indian Oil Corporation Ltd – CRZ Clearance - reg. issued by Ministry of Environment and Forest (MoEF) (Letter no. F. No. 11-30/2015-IA.III dated 11th Feb'2016) enclosed as Annexure-D.
5. Compliance Status for EC and CRZ Clearance for "Installation Ethylene Recovery Unit, Mono Ethylene Glycol Unit and BS-VI facility by M/s Indian Oil Corporation Ltd (IOCL) at Paradip Refinery cum Petrochemical Complex, village Abhayachandrapur, Tehsil Kujang, District Jagatsinghpur (Odisha) – Environmental and CRZ Clearance - reg. issued by Ministry of Environment and Forest (MoEF) (Letter no. F. No. J-11011-344/2016-IA-II (I) dated 11th Oct' 2018) enclosed as Annexure-E.
6. Compliance Status for EC and CRZ Clearance for "Integrated Para-Xylene & Purified Terephthalic Acid (PTA) Project within existing Refinery complex by M/s. Indian Oil Corporation Limited, Paradip Refinery located at S.F. No-218, Abhayachandrapur Village, Jagatsinghpur District, Odisha State" reg. issued by Ministry of Environment and Forest (MoEF) (Letter no. F. No. J-11011/395/2012-IA-II (I) dated 9th Aug 2021) enclosed as Annexure-F.

Thanking you,

With regards


(S Vijay Kumar)
Deputy General Manager (HSE)
IOCL Paradip Refinery

Enclosures: As above

Copy to:

1. The Member Secretary, Odisha Pollution Control Board, Paribesh Bhawan,
A/118, Neelkanthanagar, Unit-8, Bhubaneswar - 751012, Orissa.

Contact: vijaysk@indianoil.in; +91 6722 252042

पंजीकृत कार्यालय, जी-9, अली यावर जंग मार्ग, बांद्रा (पूर्व), मुंबई - 400051, महाराष्ट्र (भारत)
Regd. Office : G-9, Ali Yavar Jung Marg, Bandra (East), Mumbai - 400051, Maharashtra (India)
CIN-L23201 MH 1959 GOI 011388

IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

Annexure-A

Name of Project	:	Grass Root Refinery-cum-Petrochemical Complex of 15 MMTPA at Paradip, Odisha
Clearance Letter(s) No. & Date	:	F.No.J-11011/70/2007-1A II (I) dated 06th July, 2007
Period of Compliance Report	:	Oct'22 to Mar'23

S. No.	CONDITION	STATUS	REMARKS
A.	SPECIFIC CONDITIONS:		
i.	The company shall ensure strict implementation/ compliance to the stipulations made by MOEF vide OM No.J-11011/26/1997-IA-II dated 24 th December, 1997.	Complied	All stipulations are complied. Compliance report attached as Annexure-1
ii.	The gaseous emissions (SO ₂ , NO _x , CO, NMHC & Benzene) from the various process units shall conform to the standards prescribed under the Environment (Protection) Rules, 1986 or norms stipulated by the SPCB whichever is more stringent. At no time, the emission level shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	Complied	Stack emission being monitored for adherence to the MoEF notification dated 18 th March'2008. Stack Report attached as Annexure-2 NHMC and Benzene monitoring Report attached as Annexure-3

IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

iii.	Ambient air monitoring stations, [SPM, SO ₂ , NO _x and NMHC, Benzene] shall be set up in the refinery complex in consultation with SPCB, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modelling exercise to represent short term GLCs. Continuous on-line stack monitoring equipment shall be installed for measurement of SO ₂ and NO _x . Data on VOC shall be monitored and submitted to the SPCB/ Ministry.	Complied	<p>7 nos. of Ambient Air Quality Monitoring (AAQM) stations were set up based on the modelling exercise conducted under the Comprehensive EIA Study</p> <p>Continuous monitoring in all the 7 monitoring station already implemented. On-line data transmission to OSPCB/CPCB server is already done.</p> <p>Continuous monitoring in all stacks already implemented. On-line data transmission to OSPCB/CPCB server is already done.</p> <p>VOC monitoring being done at various locations of the Refinery. VOC Reports attached as Annexure-4. Ambient Air quality attached as Annexure-5. Stack report attached as Annexure-2.</p>
iv.	The total SO ₂ emission from the refinery complex shall not exceed 1000 kg/hr after fully stabilizing of the expansion and modernization of the refinery complex and upgrading the existing facilities. SO ₂ emission report may be made on daily basis for all the stacks (fuel burning and process emissions through the computerized mechanism). Further, regular monitoring of stacks every fortnight must also be carried out to cross check the data obtained from computerized monitoring by engaging a reputed organization. In addition, a monthly sulphur balance statement indicating type of fluid, its S – content, product S - content, SO ₂ emission etc. may be made. Daily, fortnightly and monthly reports generated as above shall be sent to the SPCB and MOEF.	Complied	<p>SO₂ emission in kg/hr being calculated monthly basis.</p> <p>Stack Report attached as Annexure-2. Sulphur Balance attached as Annexure-6.</p>
v.	All the Sulphur Recovery Units shall have overall efficiency of 99.9%.	Complied	Sulphur Recovery Units with overall efficiency of 99.9% has been commissioned.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

vi.	Ultra Low – NO _x burners shall be provided in the new furnaces to avoid excessive formation of NO _x .	Complied	Ultra Low NO _x burners installed in major fired heaters.
vii.	Company shall install online SO ₂ and NO _x analysers in all the stacks of the refinery.	Complied	On-line SO ₂ and NO _x analysers installed in all the stacks of the refinery. Data being reflected in OSPCB/CPCB RTDAS.
viii.	Fugitive emissions of HC from product storage tank farms etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations. Necessary measures shall be adopted so as to ensure that the NMHC levels outside the refinery complex premises do not exceed prescribed limits. Monitored data shall be submitted to OPCB / CPCB every three months and to Ministry of Environment & Forests every six months.	Complied	HC detectors installed in strategic locations of the tankage area. Fugitive emission in tankage area is attached as Annexure-7 .
ix.	For control of fugitive emissions, the company shall augment route all unsaturated hydrocarbons to the flare system in addition to the existing flare system. All the pumps and other equipment where there is a likelihood of HC leakages shall be provided with LEL indicators and also provide for immediate isolation of such equipment, in case of a leakage. The company shall adopt Leak Detection and Repair (LDAR) programme for quantification and control of fugitive emissions.	Complied	To safeguard process units during emergency, flare system is installed for complete combustion of hydrocarbon before releasing to atmosphere. HC detectors are installed in strategic locations throughout the Refinery complex. LDAR programme is carried out and reports attached as Annexure-7 .
x.	All the stacks shall be of appropriate design and height shall be attached to pollution control systems, wherever necessary. All stacks in the complex must meet the minimum stack height criteria as prescribed in the Environment Protection emissions.	Complied	The minimum stack height designed as per the following: $H = 14 Q_g^{0.3}$ H = Height of stack in meters Q _g = Quantity of SO ₂ emission in kg/hr All the major stacks are of height more than 60 m and tallest height is the flare of 131 m.
xi.	All new standards/ norms which are being proposed by CPCB for refinery projects/ petrochemical units shall be applicable for the proposed expansion and modernization of the petrochemical refinery complex. These standards shall be	Complied	The Refinery in its design has incorporated the updated environment standard issued on 18 th March'2008 for



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

	incorporated into the detail designs for the proposed expansion and modernization. The existing refinery complex shall also be upgraded to the new above mentioned emission standards.		emission & discharge and 18 th November'2009 for Ambient Air Quality.
xii.	Ground water shall not be tapped for construction, industrial or domestic uses including the township.	Complied	No ground water tapping done during construction work
xiii.	Liquid effluents shall be treated to conform to the standards stipulated by CPCB / Ministry of Environment & Forests under EPA 1986 and also the new norms being specified. Treated effluent will be recycled and reused. The treated effluent shall be discharged into the sea through a pipeline of about 3 km from low tide line. The domestic effluent after treatment and conforming to the prescribed standards shall be used for greenbelt development.	Complied	State-of-the-art effluent treatment plant has been commissioned to treat industrial effluent as well as domestic sewage with maximum recycle facility. Balanced treated effluent after recycle being discharged to the sea through a pipeline of about 3 km from low tide line. Treated effluent water quality report attached as Annexure-8.
xiv.	The company shall undertake monitoring of the groundwater quality at the locations as suggested by the Central Ground Water Board. Monitoring results of the same shall be submitted to the OPCB/CPCB and MOEF.	Complied	Ground water monitoring being carried out in the Refinery. Ground water quality monitoring report attached as Annexure-9.
xv.	M/s IOCL shall undertake rainwater harvesting measures to recharge the ground water in the area in consultation with Central Ground Water Board and Orissa Pollution Control Board.	Complied	Two storm water reservoirs (Capacities: 2,96,000 KL and 3,13,000 KL) have been developed to store rain water in monsoon in the Refinery premises. Also, storm water collection pond of capacity @ 470000 KL has been developed in Ecological park.
xvi.	Green belt shall be raised in 580 acre area as per CPCB guidelines.	Complied	Greenbelt has been developed in an area of 580 acres with the help of Orissa Forest Development Corporation Ltd. (OFDCL). 595000 trees have been planted around the Refinery area and approx. 41104 trees have been planted in the township. Every year also, Paradip Refinery is doing plantation in and around Refinery. Till date approximately >9 Lac trees have been planted.
xvii.	Occupational Health Surveillance of the employees and workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied	Occupational Health Report attached as Annexure-10.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

xviii.	The marine water quality shall be regularly monitored for the water quality (temperature, petroleum hydrocarbons, phenols, sulphides, total organic carbon), sediment quality (trace elements, petroleum hydrocarbons, TOC and sediment size) and biological parameters (primary productivity, benthos, fish quality and growth, biomass, phytoplankton and zooplankton).	Complied	Marine water quality monitoring job is being carried out by third party lab recognized by MoEFCC. Marine water quality monitoring Report attached as Annexure-11 .
xix.	The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the oil shall be governed by ASME/ANSI B31.8/B31.4 and OISD standard 141.	Complied	The Refinery is strictly following the standards
xx.	The project authorities should install SCADA system with dedicated optical fibre based telecommunication link for safe operation of pipeline and Leak Detection System. Intelligent pigging facility should be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system should be provided to prevent external corrosion.	Complied	Online detection of leak in the pipeline is through Optical fibre cable and is installed in South Oil jetty pipelines. Cathodic protection system is provided for all underground pipelines to prevent external corrosion.
xxi.	The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD guidelines and continuous monitoring of pipeline operation by adopting non-destructive method(s) of testing as envisaged in the EMP. Pearson survey and continuous potential survey should be carried out at regular intervals to ensure the adequacy of cathodic protection system.	Complied	Regular patrolling is being done for the SOJ and Marketing pipelines. CAT & DCVG survey has been carried out within 05 years of commissioning of the lines (ie, by 2021) as per OISD-138 guidelines.
xxii.	The solid waste shall be disposed of in secured landfill facility within the refinery. The spent catalyst and incinerated sludge will be stored in segregated manner in the secured landfill area. Tank bottom sludge from refinery operation shall be put to oil recovery system and the residual sludge will be incinerated. The incinerated sludge ash shall be stored in secured landfill inside refinery. Bio sludge shall be stored in drying pit for natural weathering and then used as manure inside refinery premises.	Complied	Melting pit has been constructed to recover oil from tank bottom sludge and Incinerator has been installed to burn the residual sludge. SLF has been constructed to dispose the incinerated ash. In ETP, sludge drying bed is constructed for drying of bio sludge.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

xxiii.	The company shall also comply with all the conditions and safeguards prescribed in the EIA & Risk Assessment Reports.	Complied	Paradip Refinery fully implemented all the conditions stipulated in EIA and Risk Assessment reports.
xxiv.	The On-site and Off-site Emergency Preparedness Plans, Oil Spill Contingency Plans, Marine Disaster Management Plan shall be prepared for the enhanced refinery throughput and submitted to the Ministry before commissioning at the enhanced capacity.	Complied	On-site and off-site preparedness plan of Paradip Refinery is in place. Emergency Response and Disaster management Plan (ERDMP) has been approved by MoP&G On-site emergency plan is approved by Director of Factories and Boiler. Off-site plan is incorporated in District Emergency Plan.
xxv.	The Environment Management Cell and laboratory facilities for the collection of the samples shall be augmented with suitable facilities and qualified personnel and directly report to the chief executive of the refinery complex.	Complied	Dedicated Environment Management Cell headed by a HOD exists in the Refinery to take care of all the environmental issues.
xxvi.	The company shall prepare comprehensive EIA/EMP report and submit to the Ministry within one year.	Complied	Comprehensive EIA Report was prepared and submitted to SPCB on 12.09.2008 and MOEF on 22.09.2008.
B.	GENERAL CONDITIONS:		
i.	The project authorities must strictly adhere to the stipulations made by the Orissa State Pollution Control Board and the State Government.	Agreed for Compliance	Noted for compliance.
ii.	No further expansion or modernization in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Agreed for Compliance	Noted for compliance.
iii.	At no time, the emissions shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit should be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	Agreed for Compliance	Noted for compliance.
iv.	The overall noise levels in and around the plant area should be kept well within the standards (75 dBA) by providing noise control measures including acoustic	Being Complied	Noise survey is regularly carried out by Industrial Hygienist. Noise Survey Report attached as Annexure-12 .



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

	hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).		
v.	The project authorities must strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals etc. Necessary approvals from Chief Controller of Explosives must be obtained before commission of the project.	Being Complied	All required licenses obtained from CCE.
vi.	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules, 2003. Authorization from the State Pollution Control Board must be obtained for collections/treatment/storage/disposal of hazardous wastes.	Being Complied	HW authorization obtained from OSPCB vide Ref no. IND-IV-HW-930/5028 dated 24-05-2019 with a validity till 31-03-2024
vii.	The project authorities will provide requisite funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.	Being Complied	Paradip Refinery has installed all the pollution control units at an approximate cost of 10% of the capital expenditure of Refinery. In 2022-23, total expenditure on account of environment related job was approximately of Rs. 35.42 Cr. Year wise budget provision is made for environment related activities.
viii.	The stipulated conditions will be monitored by the Regional of this Ministry at Bhubaneswar / Central Pollution Control Board / State Pollution Control Board. A six monthly compliance report and the monitored data should be submitted to them regularly.	Being Complied	Six monthly compliance report is being sent to MoEF. Last report was submitted vide letter no. PDR/HSE/HC/MOEFCC/2022-23/001 dated 26.11.2022
ix.	The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at http://www.envfor.nic.in . This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the	Complied	The information has been published in the two daily local newspapers i.e. 'The Samaj' in Oriya and 'The Indian Express' in English dated 18.07.2007.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

	locality concerned and a copy of the same should be forwarded to the Regional Office.		
x.	The Project Authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Complied	<p>The Board of Directors of IOCL accorded investment approval on 28.02.2009 for the project.</p> <p>EC-No. J-11011/70/2007-1A-II (I) dt. 06.07.2007. Consent to Establish (CTE) was granted by SPCB, Odisha on 14.07.2008.</p> <p>The land development work for the project commenced from 16.03.2009.</p>



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

Annexure-B

Name of Project	:	CRZ Clearance for laying of Storm Water Outfall Pipelines to sea for Paradip Refinery Project
Clearance Letter(s) No. & Date	:	F. No.11-86/2011-IA III dated 21st February 2012
Period of Compliance Report	:	Oct'22 to Mar'23

S.N.	SPECIFIC CONDITIONS :	STATUS	REMARKS
4(i)	"Consent for Establishment" shall be obtained from State Pollution Control Board under Air and Water Act and a copy shall be submitted' to the Ministry before start of any construction work at the site.	Complied	"Consent for Establishment" obtained vide letter no. 12048 Ind-II-NOC- 4600 dated 25-06-2012
(ii)	The proposed storm water line shall be laid along the Crude Oil pipeline corridor which was accorded CRZ clearance for transportation of crude oil after the recommendation of the SCZMA. However, the proponent shall submit the CRZ map showing the proposed pipeline route to SCZMA with a copy to the Ministry before commencement of the work.	Being Complied	Complied with CRZ map has already been submitted (Ref. No. IOCL/PDRP/LSTK-11/1/014)
(iii)	The unit shall provide separate drains and collection system at the process area so as to prevent any possible mixing of process spillage in to storm water as proposed.	Being Complied	Separate drains for storm water and process drains have been provided in the process area of the Refinery.
(iv)	The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	Being Complied	Dedicated Environment Management Cell headed by a HOD exists in the Refinery to take care of all the environmental issues.
(v)	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	Being Complied	Paradip Refinery has installed all the pollution control units at an approximate cost of 10% of the capital expenditure of Refinery. In 2022-23, total expenditure on account of environment related job was approximately of Rs. 35.42 Cr.

IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	SPECIFIC CONDITIONS :	STATUS	REMARKS
			Year wise budget provision is made for environment related activities.
	<u>GENERAL CONDITIONS:</u>		
5(i)	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Complied	Taken care during construction activities. Now lines are already commissioned.
(ii)'	Full support shall be extended to the officers of this Ministry/ Regional Office at Bhubaneswar by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental' protection activities.	Agreed for Compliance	Noted for compliance
(iii)	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhubaneswar regarding the implementation of the stipulated conditions.	Being Complied	Six monthly compliance report is being sent to MoEF. Last report was submitted vide letter no. PDR/HSE/HC/MOEFCC/2022-23/001 dated 26.11.2022
(iv)	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.	Agreed for Compliance	Noted for compliance
(v)	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Agreed for Compliance	Noted
(vi)	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.	Agreed for Compliance	Noted for compliance
(vii)	The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date' of start of land development work.	Complied	This is the part of the entire Refinery Project. The Board of Directors of IOCL accorded investment approval for the entire project at Paradip on 28.02.2009 for the project.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	SPECIFIC CONDITIONS :	STATUS	REMARKS
(viii)	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.	Agreed for Compliance	For compliance by OSPCB office.
6	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter	Agreed for Compliance	Noted
7	All other statutory clearances such as the approvals for storage of diesel from Chief Controller. of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Complied	Paradip Refinery has already obtained all necessary statutory approvals
8	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the- project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhubaneswar.	Complied	Advertisement placed in two newspapers (One is "The Samaja" and other is "The Times of India"), dated 1st March'12).
9	Environmental clearance is subject to final order of the Hon'ble-Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.	Agreed for Compliance	Noted



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	SPECIFIC CONDITIONS :	STATUS	REMARKS
10	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website	Complied	Complied
11.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied	Complied
12	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Complied	Six monthly compliance report is being sent to MoEF. Last report was submitted vide letter no. PDR/HSE/HC/MOEFCC/2022-23/001 dated 26.11.2022
13	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Complied	Paradip Refinery regularly submitting the Environment Statement in September. Environment Statement for FY 2021-22 submitted on 30.09.2022 vide ref no. PDR/HSE/Env-S/2021-22

IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

Annexure-C

Name of Project	:	CRZ Clearance for laying of pipeline from Paradip Refinery to South Oil Jetty at Paradip Port, Odisha
Clearance Letter(s) No. & Date	:	F. No. 11-33/2013-IA III dated 19th September, 2013
Period of Compliance Report	:	Oct'22 to Mar'23

S.N.	SPECIFIC CONDITIONS :	STATUS	REMARKS
5(i)	"Consent for Establishment" shall be obtained from State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.	Complied	"Consent for Establishment" obtained vide letter no 12048 Ind-II-NOC- 4600 dated 25-06-2012. Copy has been submitted to the ministry vide letter no. PDRP/HSE/CRZ/MoEF/2013-1 dated 03.10.2013.
(ii)	All the conditions of Forest Clearance dated 06/02/2013 shall be complied with.	Complied	Compliance status already submitted and based on the status, Forest and Environment Dept. Govt. of Odisha has been issued a letter (Letter No. 10F(Cons)510/2012 23891/F&E. Dtd 20/11/13) to accord the final clearance.
(iii)	The laying of pipeline at creek shall be carried out in such a way that it shall not obstruct tidal flow of the creek.	Complied	Due care was taken during laying of the pipeline.
(iv)	All the conditions stipulated by the Odisha Coastal Zone Management Authority (OCZMA) shall be complied with.	Complied	Complied.
(v)	Laying pipe line shall not be carried out during the breeding of olive Ridely turtle as committed vide undertaking dated 25.06.2013.	Complied	Point was taken care. No construction work was done during the breeding season of olive Ridely turtle.
(vi)	Soil and water samples shall be regularly monitored along the pipeline route to check the leakage/contamination, if any and shall examine if any strengthening is required.	Complied	Soil quality monitoring job is being carried out by third party lab recognized by MoEFCC. Soil quality monitoring Report attached as Annexure-13 .



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	SPECIFIC CONDITIONS :	STATUS	REMARKS
(vii)	Proper oil spillage contingency plan shall be put in place.	Complied	PDR has submitted the oil contingency plan for SOJ facility to PPT to incorporation in the existing plan of PPT.
(viii)	It shall be ensured that there is no disturbance to people, houses or fishing activity as a result of the project.	Complied	Taken care during construction. Now it is commissioned.
(ix)	The smooth and safe operation of the system shall be ensured by incorporating a computerized SCADA (Supervisory Control And Data Automation) system. Any leakage in the pipeline shall be immediately detected by the Computer system and product pumping shall be immediately cut off.	Complied	Leak detection by optical fibre cable installed for south oil jetty pipelines.
(x)	All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.	Complied	Complied
(xi)	The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	Complied	Dedicated Environment Management Cell headed by a HOD exists in the Refinery to take care of all the environmental issues.
(xii)	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	Being Complied	Paradip Refinery has installed all the pollution control units at an approximate cost of 10% of the capital expenditure of Refinery. In 2022-23, total expenditure on account of environment related job was approximately of Rs. 35.42 Cr. Year wise budget provision is made for environment related activities.
	GENERAL CONDITIONS :		
6(i)	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Complied	Due care was taken during construction. Now the lines are already commissioned.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	SPECIFIC CONDITIONS :	STATUS	REMARKS
(ii)	Full support shall be extended to the officers of this Ministry/Regional Office at Bhubaneswar by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Agreed to Compliance	Noted for compliance
(iii)	A six-monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhubaneswar regarding the implementation of the stipulated conditions.	Being Complied	Six monthly compliance report is being sent to MoEF. Last report was submitted vide letter no. PDR/HSE/HC/MOEFCC/2022-23/001 dated 26.11.2022
(iv)	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.	Agreed to Compliance	Noted
(v)	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Agreed to Compliance	Noted
(vi)	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.	Agreed to Compliance	Noted
(vii)	The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Complied	This is the part of the entire Refinery Project. The Board of Directors of IOCL accorded investment approval for the entire project at Paradip on 28.02.2009 for the project.
(viii)	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's Office/Tehsildar's office for 30 days.	Agreed to Compliance	Compliance by OSPCB
9	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may	Complied	Advertisement placed in two newspapers (One is "The Samaj" and other is "The New Indian Express", dated 29th Sept'13)



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	SPECIFIC CONDITIONS :	STATUS	REMARKS
	also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhubaneswar.		
11	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Complied	Complied
12	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad /Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied	Complied
14	The proponent shall upload the status of compliance of the stipulated Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Being Complied	Six monthly compliance report is being sent to MoEF. Last report was submitted vide letter no. PDR/HSE/HC/MOEFCC/2022-23/001 dated 26.11.2022
15	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of Clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Complied	Complied

IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

Annexure-D

Name of Project	:	CRZ Clearance for 'Pet Coke Evacuation Project' for Paradip Refinery in District Jagatsinghpur (Odisha)
Clearance Letter(s) No. & Date	:	F. No. 11-30/2015-IA.III dated 11th February, 2016
Period of Compliance Report	:	Oct'22 to Mar'23

S.N.	CONDITIONS :	STATUS	REMARKS
A	SPECIFIC CONDITIONS:		
i)	The project proponent shall undertake periodic inspection and maintenance to avoid spillages, wear and tear of the proposed conveying system.	Complied	Complied
ii)	Adequate safe guards including alarm and emergency shutdown system shall be provided for the proposed conveying system.	Complied	Complied
iii)	Proper fire hydrant and fire extinguisher shall be provided at appropriate locations conforming to prevailing norms or fire safety.	Complied	Complied
iv)	There shall no destruction of the mangrove during construction as well as the operation phase.	Complied	Complied
v)	The top soil of excavated area during the construction shall be kept separately and to be used for vegetation.	Complied	Excavated soil used in Ecological Park and road side land filling which used for vegetation.
vi)	The labour camps, storage of material and machinery during construction phase shall be located outside the CRZ.	Complied	Yes, located outside the CRZ.
vii)	Crossing of creek shall be on trestles with adequate clearance thereby having negligible impact on the flow.	Complied	The RRLS facility is laid on the existing bridge for which sufficient clearance already exist.
viii)	During construction, solid waste generated will include packaging and wrapping material, stubs of spent welding electrodes, used rags and housekeeping etc. The project proponent shall ensure disposal of such wastes at approved sites. There shall be no disposal in CRZs.	Complied	Complied
ix)	There shall be no ground water withdrawal within CRZ limits.	Complied	Complied



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
x)	All the recommendations and conditions specified by Odisha Coastal Zone Management Authority (OCZMA) vide letter No. 56/OCZMA dated 25.08.2015, shall be complied with.	Complied	Complied
xi)	Project proponent shall implement all the recommendations stipulated in the EIA, EMP and Risk Assessment reports pertaining to the project.	Complied	Complied
xii)	The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	Complied	Dedicated Environment Management Cell headed by a HOD exists in the Refinery to take care of all the environmental issues.
xiii)	The project proponent shall take up mangrove plantation/ green belt in the project area, wherever possible. Adequate budget shall be provided in the Environment Management Plan for such mangrove development.	Complied	Complied
B	General Conditions		
i)	'Consent to Establish' shall be obtained from the State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	Complied	Complied
ii)	A copy of the clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.	Agreed for Compliance	Compliance at OSPCB site
iii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.	Complied	Year wise budget provision being made for environment related activities. In 2022-23, total expenditure on account of environment related job was approximately of Rs. 35.42 Cr
5	The above stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the	Agreed for Compliance	Noted



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
	Public Liability (Insurance) Act, 1991, EIA Notification, 2006 and CRZ Notification, 2011.		
6	Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/ data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF&CC should be forwarded to the CCF, Regional Office of MoEF&CC Bhubaneswar.	Agreed for Compliance	Noted
7	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.	Agreed for Compliance	Noted for Compliance
8	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the CRZ Clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	Agreed for Compliance	Noted
9	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Complied	Complied
10	The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest & Climate Change at http://www.envfor.nic.in . The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the	Complied	Complied



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
	same should be forwarded to the Regional Office of this Ministry at Bhubaneswar.		
11	This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.	Agreed for Compliance	Noted
12	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Agreed for Compliance	Noted
13	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied	Complied



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

Annexure-E

Name of Project	:	EC and CRZ Clearance for “Installation Ethylene Recovery Unit, Mono Ethylene Glycol Unit and BS-VI facility at Paradip Refinery cum Petrochemical Complex, village Abhayachandrapur, Tehsil Kujanga, District Jagatsinghpur (Odisha)
Clearance Letter(s) No. & Date	:	F. No. J-11011-344/2016-IA-II (I) dated 11 th October, 2018
Period of Compliance Report	:	Oct'22 to Mar'23

S.N.	CONDITIONS :	STATUS	REMARKS
11.0	EC CONDITIONS:		
i)	Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	Complied	Consent to Establish for the said project obtained from OSPCB vide letter ref: 9365/IND-II-NOC-6193 dated 06-08-2018.
ii)	Necessary authorization required under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and Solid Waste Management Rule, 2016 shall be obtained and provisions contained in the Rules shall be strictly adhered to.	Complied	MEG&ERU and BS-VI project is part of the existing Refinery which is having valid HW Authorization vide ref no. IND-IV-HW-930/5028 dated 24-05-2019 with a validity till 31-03-2024
iii)	National Emission standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R 608 € dated 21st July, 2010 and amended from time to time shall be followed.	Being Complied	G.S.R 186 (E) dated 18 th March, 2008 is applicable to Oil Refinery and IOCL Paradip Refinery is complying the same.
iv)	To control source and the fugitive emissions, suitable pollution control devices shall be installed with different stacks to meet the prescribed norms and/or the NAAQMS. The gaseous emissions shall be dispersed through stacks of adequate height as per the CPCB/SPCB guideline.	Being Complied	Stack height is as per statutory requirement i.e. $H = 14 Qg^{0.3}$ H = Height of stack in meters Qg = Quantity of SO ₂ emission in kg/hr
v)	The project proponent shall take necessary steps to prevent any liquid hydrocarbon falling on the water body of the creek from the pipelines passing	Being Complied	The External Safety Audit of the refinery during Nov-2018 by Oil Industry Safety Directorate (OISD) MoP&NG Government of India during audit



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
	over the bridge of Santra creek by creating a tray like barrier below the pipelines which can hold any leakage materials.		<p>reviewed in detail the CRZ concerns & recommendation, OISD recommended to review two options 1. Providing enclosure around these pipelines. 2. Develop approach to the creek waterway and deploy oil spill containment boom & skimmers so as to address if any incidental oil leakage spill containment and mitigation.</p> <p>Accordingly IOCL reviewed the hydrocarbon pipelines crossing Santra creek for design, Inspection, Operation & Maintenance, environment & safety procedures, its location within refinery complex and pipelines leak occurrence probability, mitigation measures options feasibility for Spill oil containment in detail and observed as below.</p> <p>Design, O&M, inspection:</p> <ul style="list-style-type: none"> • The refinery location compatible Design standards, O&M & Inspection practices ensures integrity of pipelines and structure stability. • Illumination at pipeline bridge area has been enhanced. • The bridge area is under round the clock patrolling by CISF personnel placed at site. • All the pipelines crossing the creek are subject to health checks like monthly walk thru inspection, quarterly thickness sampling for corrosion detection and periodical LRUT survey as per



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
			<p>standards (once in two years) and records maintained.</p> <p>View the above actions, hydrocarbon pipelines leakage probability is almost NIL.</p> <p>The option 1 providing tray barrier or enclosure around the pipelines crossing over the creek require humongous structures erection at the extant pipelines bridge, so as to maintain integrity & stability of structures against high wind pressure load considering super cyclones prone location of Paradip Refinery. While reviewing pipe racks adequacy for new projects, it is found that the structures cannot accommodate additional load. Hence the option is not found feasible.</p> <p>The alternate option found feasible and implemented as detailed below so as to ensure compliance with the recommendation.</p> <p>Oil spill containment Booms, Boats, oil adsorbent, oil dispersant and cleaning kit are deployed. Employee's knowledge & skill development action taken through Oil Spill Response (OSR) drill conducted on 07.10.2020 involving an expert agency. Regular drills will be conducted to ensure skill readiness for attending any emergency in minimum possible time.</p>



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
vi)	Total water requirement shall not exceed 4685 cum/hr to be met from Mahanadi River. Necessary permission in this regard shall be obtained from the concerned regulatory authority.	Being Complied	Being complied
vii)	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arrestors shall be provided on tank farm, and solvent transfer to be done through pumps.	Being Complied	Being complied
viii)	Process effluent/any waste water shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Being Complied	Being complied
ix)	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic and evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturer/cement industry.	Being Complied	MEG-ERU and BS-VI facility is integral part of the existing Refinery. So, existing facility is complying the same.
x)	The company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemical (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.	Being Complied	Being complied
xi)	Regular VOC monitoring to be done at vulnerable points	Being Complied	Being complied
xii)	The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system	Being Complied	MEG-ERU and BS-VI facility is integral part of the existing Refinery. So, existing facility is complying the same
xiii)	Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme	Complied	Water Audit by M/s EIL has been carried out for entire Refinery in 2019-20.
xiv)	Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises	Complied	MEG-ERU and BS-VI facility is integral part of the existing Refinery. Oil catchers are already provided in the existing facility.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
xv)	The company shall undertake waste minimization measures as below:- (a) Metering and control of quantities of active ingredients to minimize waste. (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.	Complied	IOCL PDR has installed facilities like Vapor recovery system, Closed feed system etc. to minimize spillage or vent.
xvi)	The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	Agreed for Compliance	Noted for compliance. Green belt has already been developed for the existing Refinery as per the previous EC requirement. Additional green belt is under development to comply with the requirement of 33%.
xvii)	At least 0.25% of the total project cost shall be allocated for Corporate Environment Responsibility (GER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	Being complied	Being complied
xviii)	For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution	Agreed for Compliance	Shall be complied
xix)	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms	Complied	MEG-ERU and BS-VI facility is integral part of the existing Refinery. So, existing facility is complied for the same.
xx)	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server.		The MEG-ERU and BS-VI facility is integral part of the existing Refinery. The units under this EC are under construction.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
	For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet		<p>At Paradip Refinery, all the effluents within the Refinery premises are carried through a closed system, for online continuous monitoring of effluents, flow meters had been provided for individual effluent streams going to ETP and CCTV Cameras, alarm have been provided at each process unit generating effluent and the monitored at Main Control room for each unit.</p> <p>Treated effluent water meeting MINAS parameters limits is discharged from the Refinery through a closed system into deep Sea at 3 km from LTL through diffuser. Online analysers have been provided in the effluent discharge line for continuous monitoring of the treated effluent discharge water quality and quantity and real time data sent online to CPCB, SPCB.</p> <p>CCTV camera is installed for monitoring of effluent discharge line area.</p>
xxi)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act	Complied	Occupational Health Report attached as Annexure-10.
xxii)	All terms and conditions stipulated by the State Coastal Zone Management Authority in their recommendation/NOC letter dated 11 th January, 2018 shall be strictly adhered to	Complied	Complied
xxiii)	The National Emission Standards for Petroleum Oil Refinery issued by the Ministry vide G.S.R. 186(E) dated 181h March, 2008 and G.S.R. 595(E) dated 2P1 August, 2009 as amended from time to time shall be followed	Being Complied	Paradip Refinery is strictly following the Standards vide G.S.R. 186(E) dated 181h March, 2008 and G.S.R. 595(E) dated 21 August, 2009



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
xxiv)	The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9th November, 2012 as amended time to time shall be followed.	Agreed for Compliance	Shall be complied.
11.1		Compliance of other general conditions:	
i)	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority	Being complied	Being complied
ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any	Agreed for Compliance	Noted for Compliance
iii)	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Complied	The AAQMS installed in existing Refinery shall be extended for the MEG & BS-VI project.
iv)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.	Complied	Complied
v)	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Complied	Complied



IOCL, Paradip Refinery cum Petrochemicals Complex

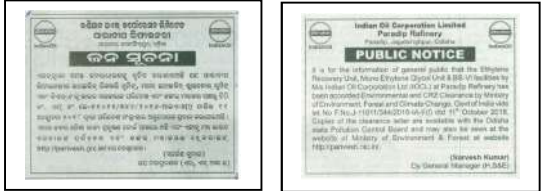
Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
vi)	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water	Complied	Ground water recharging is not suitable in Paradip region as water table is very high. However, Refinery has constructed two storm water reservoirs (Capacities: 2,96,000 KL and 3,13,000 KL) to store monsoon rain water in Refinery premises for re-use. Further, Refinery has developed an Ecological park integrated with rain water harvesting pond which can store approximately 470000 KL water during rain.
vii)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Being complied	Being complied
viii)	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	Complied	EIA/EMP recommendations are compiled and attached
ix)	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration	Being complied	IOCL PDR is implementing projects under CSR and CER extensively for improving the socio-economic conditions of the surrounding area
x)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment	Being complied	Paradip Refinery has recently developed an ecological park to create an ambience for ecology and sustainability.
xi)	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government	Being complied	In 2022-23, total expenditure on account of environment related job was approximately of Rs. 35.42 Cr.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
	along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose		Year wise budget provision is made for environment related activities.
xii)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal	Complied	Complied
xiii)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company	Being complied	Being complied Six monthly compliance report is being sent to MoEF. Last report was submitted vide letter no. PDR/HSE/HC/MOEFCC/2022-23/001 dated 26.11.2022
xiv)	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail	Being complied	Being complied Paradip Refinery regularly submitting the Environment Statement in September. Environment Statement for FY 2021-22 submitted on 30.09.2022 vide ref no. PDR/HSE/Env-S/2021-22
xv)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://moef.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry	Complied	Advertisement placed in two newspapers (One is "The Samaja" and other is "The Times of India") 



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
xvi)	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project	Agreed for Compliance	Shall be complied



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

Annexure-F

Name of Project	:	EC and CRZ Clearance for “Integrated Para-Xylene & Purified Terephthalic Acid (PTA) Project within existing Refinery complex by M/s. Indian Oil Corporation Limited, Paradip Refinery located at S.F. No-218, Abhayachandrapur Village, Jagatsinghpur District, Odisha State
Clearance Letter(s) No. & Date	:	F. No. J-11011/395/2012-IA-II (I) dated 9th Aug 2021
Period of Compliance Report	:	Oct’22 to Mar’23

S.N.	CONDITIONS :	STATUS	REMARKS
A	EC CONDITIONS:		
i)	Construction in CRZ area shall be in accordance with the provision of CRZ Notification, 2011 and as amended from time to time. The project proponent shall comply with all the conditions stipulated in OCZMA/CRZ recommendations and NOC issued for the same.	Agreed for Compliance	Noted for compliance.
(ii)	No groundwater shall be extracted to meet the water requirements during the construction phase of the project, within CRZ area.	Being complied	No ground water is extracted at Paradip Refinery. Entire water demand is met from River Mahanadi.
(iii)	The PESO clearance shall be obtained, if related by M/s IOCL before commencing the project activities.	Agreed for Compliance	Noted for compliance.
(iv)	No excavated material during the construction shall be dumped in water bodies adjacent to CRZ areas. CRZ site shall be restored to near original condition after completion of construction.	Agreed for Compliance	Noted for compliance.
(v)	The company shall submit detailed study report on odour pollutants from the industry, their control and mitigation within petrochemical refinery after carrying out continuous monitoring for one month and the report shall be submitted within three (03) months to the Ministry.	Agreed for Compliance	Tender for the Odour Pollutant Study was cancelled as no relevant agencies participated in the tender. Tender is re- floated. Report shall be submitted at the earliest once the agency is lined up. Request letter sent to MoEFCC regarding the same.
(vi)	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental	Agreed for Compliance	Noted for compliance.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
	management, and risk mitigation measures relating to the project shall be implemented.		
(vii)	Total fresh water requirement shall not exceed 89832 m ³ /day, proposed to be met from River Mahanadi. Necessary permission in this regard shall be obtained from the concerned regulatory authority. The fresh water requirement shall be reduced after installation of rainwater harvesting system in the unit/project area.	Agreed for Compliance	Noted for compliance.
(viii)	Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.	Complied	Water Audit by M/s EIL has been carried out for entire Refinery in 2019-20 and recommendations have been implemented.
(ix)	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Being Complied	Being Complied for existing Refinery complex and shall be complied with in PX-PTA unit as well.
(x)	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.	Being Complied	Being Complied for existing Refinery complex and shall be complied with in PX-PTA unit as well.
(xi)	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.	Agreed for Compliance	Noted for compliance. Refinery ETP sludge is processed in Delayed Coker unit in Refinery itself as per HW authorization. Ash generation from boilers is very less ~ 20MT/ Annum as cleaner fuel is fired in boilers and ash being a small quantity is disposed in captive SLF.
(xii)	Regular VOC monitoring shall be done at vulnerable points.	Being Complied	Being Complied for existing Refinery complex and shall be complied with in PX-PTA unit as well.
(xiii)	The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.	Agreed for Compliance	Noted for compliance.
xiv)	Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.	Complied	PX-PTA facility is integral part of the existing Refinery. Oil catchers are already provided in the existing facility.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
xv)	The company shall undertake waste minimization measures as below: a) Metering and control of quantities of active ingredients to minimize waste. b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. c) Use of automated filling to minimize spillage. d) Use of Close Feed system into batch reactors. e) Venting equipment through vapour recovery system. f) Use of high pressure hoses for equipment cleaning etc. to reduce wastewater generation.	Complied	IOCL PDR has installed facilities like Vapor recovery system, Closed feed system etc. to minimize spillage or vent.
xvi)	The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	Agreed for Compliance	Noted for compliance. Green belt has already been developed for the existing Refinery as per the previous EC requirement. Additional green belt is under development to comply with the requirement of 33%.
xvii)	As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.	Agreed for Compliance	Noted for compliance IOCL PDR is implementing projects under CER extensively for improving the socio-economic conditions of the surrounding area.
xviii)	The project proponent shall ensure 70% of the employment to the local people, as per the applicable law. The project proponent shall set up a skill development center/provide skill development training to village people.	Being Complied	The employment of local people is being carried out as per the applicable law. Various developmental activities e.g. promoting education, skill development trainings etc. in nearby Gram Panchayats under CSR are being finalized by



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
			CSR team of Paradip Refinery in consultation with District Administration. Skill development in association with NSDC & CIPET is being carried out periodically. Skill development Institute has been set up at Bhubaneswar with an aim to provide opportunities to the unemployed and underprivileged youth of Odisha and to provide skilled manpower to the industry.
xix)	A separate Environmental Management Cell (having qualified person with Environmental Science/ Environmental Engineering/ specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Being complied	Dedicated Environment Management Cell headed by a HOD exists in the Refinery to take care of all the environmental issues
xx)	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.	Being complied	Being Complied for existing Refinery complex and shall be complied with in PX-PTA unit as well.
xxi)	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.	Agreed for Compliance	Noted for compliance. Continuous online (24x7) monitoring system for stack emissions is already in place at Paradip Refinery and same shall be complied for PX-PTA unit stacks. Real time monitoring system shall be installed at the ETP outlet.
xxii)	PP to set up occupational health Centre for surveillance of the worker's health within and outside the plant on a regular basis. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.	Being Complied	Occupational health Centre is already available for the Refinery. Same facility shall be used for PX-PTA unit as well. OHC report for Refinery employees is enclosed as Annexure- 10.
xxiii)	The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9th November, 2012 as amended time to time shall be followed.	Agreed for Compliance	Noted for compliance.



IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
xxiv)	Recommendations of mitigation measures from possible accident shall be implemented based on Risk Assessment studies conducted for worst case scenarios using latest techniques.	Agreed for Compliance	Noted for compliance.
xxv)	The project proponent shall develop R&D facilities to develop their own technologies for propylene and polypropylene processing.	Complied	IOCL has a fully established R&D facility located at Faridabad, Haryana.
B			
(i)	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Agreed for Compliance	Noted for compliance.
(ii)	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Agreed for Compliance	Noted for compliance.
(iii)	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Agreed for Compliance	Noted for compliance.
(iv)	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco developmental measures including community welfare measures in the project area for the overall improvement of the environment	Being complied	IOCL PDR is implementing projects under CSR and CER extensively for improving the socio-economic conditions of the surrounding area.




IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
(v)	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	Being complied	In 2022-23, total expenditure on account of environment related job for Paradip Refinery was approximately of Rs. 35.42 Cr. Year wise budget provision is made for environment related activities.
(vi)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	Complied	Complied
(vii)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Complied	Six monthly compliance report is being sent to MoEF. Last report was submitted vide letter no. PDR/HSE/HC/MOEFCC/2022-23/001 dated 26.11.2022
(viii)	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	Being Complied	Paradip Refinery regularly submitting the Environment Statement in September. Environment Statement for FY 2021-22 submitted on 30.09.2022 vide ref no. PDR/HSE/Env-S/2021-22

IOCL, Paradip Refinery cum Petrochemicals Complex

Subject: EC CRZ - Compliance Status Report

S.N.	CONDITIONS :	STATUS	REMARKS
(ix)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/ . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied	Advertisement placed in two newspapers (One is “The Samaja” and other is “The Times of India”) 
(x)	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Agreed for Compliance	Noted for compliance
(xi)	This Environmental clearance is granted subject to final outcome of Hon’ble Supreme Court of India, Hon’ble High Court, Hon’ble NGT and any other Court of Law, if any, as may be applicable to this project.	Agreed for Compliance	Noted
23	The ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the siad conditions in a time bound manner. The ministry may revoke or suspend the environmental clearance, if implementation of any of the condition is not found satisfactory.	Agreed for Compliance	Noted
24	Concealing factual data or submission of false/ fabricated data and failure to comply with any conditions mentioned above may result in withdrawal of this clearance and attract action under the provision of Environment (Protection) Act , 1986.	Agreed for Compliance	Noted



ANNEXURES

Annexures	Description
Annexure-1	Compliance report of EC OM No.J-11011/26/1997-IA-II dated 24th December, 1997.
Annexure-2	Stack Emission Report
Annexure-3	NHMC & Benzene monitoring Report
Annexure-4	VOC monitoring report
Annexure-5	Ambient Air quality report
Annexure-6	Sulphur Balance
Annexure-7	LDAR Report
Annexure-8	Treated effluent water quality report
Annexure-9	Ground water quality report
Annexure-10	Occupational Health report
Annexure-11	Marine water quality report
Annexure-12	Noise survey report
Annexure-13	Soil analysis report
Annexure-14	Forest clearance

Annexure-1

**Compliance report of EC OM No.
J-11011/26/1997-IA-II dt. 24th Dec'1997**

Sub: Compliance Status for Environment Clearance of Grass Root Petroleum Refinery for processing 9.0 MMTPA crude including LPG dispatch facility and associated marine facilities, namely SPM, jetty and crude product pipeline at Abhayachandrapur, District Jagatsinghpur, Orissa of M/s Indian oil Corporation Ltd (Letter F.No.J-11011/26/97-1A II (I) dated Dec 24, 1997)

Note: The project was deferred as withdrawal of tax incentives from Govt. of Orissa and viability of the project affected. Later on the capacity is revised to 15 MMTPA for improving economic viability after agreement with Govt. of Orissa on tax incentives. Accordingly, DFR prepared with revised project details and EC obtained in 2007 (F.No. J-11011/70/2007-IA. II (I)).


S. NO.	CONDITION	STATUS
A.	SPECIFIC CONDITIONS:	
i.	The total land earmarked for refinery involves around 70 acres of forest land. Diversion of forest land and any construction work in forest area shall not be taken up till forestry clearance is obtained under Forest (Conservation) Act, 1980.	Complied. Forest clearance attached as Annexure-14 .
ii.	The total SO ₂ emission from the refinery shall not exceed 1000 kg/hr (max.). The gaseous emission from various process units including IGCC unit should conform to the standards prescribed under Environment (Protection) Rules, 86 or norms stipulated by the SPCB whichever is more stringent. At no time, the emission level should go beyond the stipulated standards. In the event of failure of pollution control system (s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	Complied with. SO ₂ emission in kg/hr being calculated on monthly basis. Stack Report attached as Annexure-2 . Sulphur Balance attached as Annexure-6 .
iii.	Sulphur Recovery Units with more than 99% efficiency shall be provided.	Sulphur Recovery Units with overall efficiency of >99% has been commissioned.
iv.	A minimum of 7 ambient air quality monitoring stations (SO ₂ , NO _x and HC) should be set up in the refinery area in consultation with SPCB, based on occurrence of maximum ground level concentration and down wind direction of wind as well as in the direction of Betelvine plantations. The monitoring network must be decided based on modelling exercise to represent short term GLCs. In addition, a mobile van with adequate facilities to monitor ambient air quality outside the refinery premises should be provided.	7 nos. of Ambient Air Quality Monitoring (AAQM) stations were set up based on the modelling exercise conducted under the Comprehensive EIA Study Continuous monitoring in all the 7 monitoring station already implemented. On-line data transmission to OSPCB/CPCB server is already done. A dedicated mobile ambient air quality monitoring van is in place for monitoring of ambient air quality. Ambient Air quality monitoring report attached as Annexure-5
v.	Data on ambient air quality and stack emissions as well as fugitive emissions of HC from product storage tank yard, crude oil tanks etc. must be regularly monitored and submitted to CPCB/SPCB regularly once in 3 months and to Ministry (Regional Office, Bhubaneswar) once in 6 months.	Being Complied. Ambient Air quality attached as Annexure-5 Stack Report attached as Annexure-2 Fugitive emission in tankage area is enclosed as Annexure-4 .

S. NO.	CONDITION	STATUS
vi.	Liquid effluents generated from the refinery should be treated comprehensively to conform to the load based standards and concentration limits prescribed under EPA rules.	State-of-the-art effluent treatment plant has been commissioned to treat industrial effluent as well as domestic sewage with maximum recycle facility. Balance treated effluent confirming to prescribed limits is being discharged to the sea through a pipeline of about 3 km from low tide line. Treated effluent quality report attached as Annexure-8.
vii.	In consultation with SPCB, adequate number of influent and effluent quality monitoring stations have to be planned. As recommended by NIO and approved by SPCB, the treated effluent shall be discharged at a distance of 3 km from the low tide line into the sea. The process effluent generated and discharged shall not exceed 8400 m ³ /day by incorporating maximum recycling and water conservation measures as per EMP. Regular monitoring of the effluent (Industrial/domestic and others) quality should be carried out and monitored data submitted quarterly to CPCB/SPCB and half yearly to Ministry (Regional Office, Bhubaneswar).	ETP Treated effluent after recycle is being discharged to the sea through a pipeline of about 3 km from low tide line. Treated effluent quality and flow are regularly monitored. On-line data transmission to OSPCB/CPCB server is already being done. Treated effluent quality report attached as Annexure-8. Treated Effluent Flow data attached as Annexure-8.
viii.	Guard ponds of sufficient holding capacity should be provided to contain the effluent during process disturbances and or ETP failure. The concerned units must be shut down in cases of effluent quality exceeding prescribed limits.	Complied. ETP Treated water is stored in separate ponds and in case of any upset, the same can be reprocessed again in ETP till the quality complies with prescribed limits.
ix.	Detailed Risk Analysis of the Refinery and associated facilities must be done once the engg. design and layout is frozen. Based on this, on-site and off-site emergency preparedness plan must be prepared. Approval from the nodal agency must be obtained before commissioning the project.	Complied. Paradip Refinery fully implemented all the conditions stipulated in EIA and Risk Assessment reports. Complied. On-site and off-site preparedness plan of Paradip Refinery is in place. Emergency Response and Disaster management Plan (ERDMP) has been approved by MoP&G On-site emergency plan is approved by Director of Factories and Boiler. Off-site plan is incorporated in District Emergency Plan.
x.	The project involves displacement of around 584 people. The R&R of project affected population shall be carried out as per the State Govt. guidelines prepared in consultation with the affected people. It is the responsibility of the State Govt. and Project Authority to see that adequate compensation and relief are provided to the affected population in a time bound fashion as per	Complied.

S. NO.	CONDITION	STATUS
	agreed norms. IOC also must consider adopting certain villages in the area and contribute to peripheral developments. A progress report on the R&R must be submitted to Ministry (Regional office), Bhubaneswar every 6 months.	
xi.	The dredging of Jatadhar Mohan River mouth for meeting the requirement of fill material (for raising the level of project site) as recommended by NIO and State Govt. must be conducted with no disturbance to the sand bars and it must be ensured that the dredging is done within the LTLs from either side of river bank. For this IOC must firm up the scheme of dredging in consultation with NIO. Also, NIO must monitor the river/creek ecology including quality of water on a continuous/regular basis.	Complied.
xii.	IOC and State Govt. must strictly ensure that the guidelines and regulations contained in the approved CZMP of Orissa are adhered to w.r.t. Santra Creek, Jatadhar Mohan River, sea front and other surface water streams, if any, while taking up project related activities including Refinery, LPG storage, marine facilities laying of crude/product pipelines etc. All the conditions stipulated by the Odisha Coastal Zone Management Authority (OCZMA) shall be complied with.	Complied.
xiii.	A drainage pattern study of the region has to be carried out in view of large scale land-filling involved. As informed by IOC, the study has already been initiated by Water Resources Department, Government of Orissa. The study report must be submitted to the Ministry for its review. IOC must implement the action plans and recommendations in order to mitigate adverse impacts on the drainage aspects of the region.	Complied.
xiv.	The laying of submarine pipelines to the SPM should avoid the season when Ridley turtles frequent the coast.	Complied. Point was taken care. No construction work was done during the breeding season of olive Ridely turtles.
xv.	An oil spill contingency plan must be drawn up by IOC in consultation with Coast Guard to combat any oil spills around SPM, before commencement of operations. A copy of the plan must be submitted to the Ministry.	Complied. Oil spill contingency plan for SPM facility is in place.
xvi.	The marine facilities including SPM, jetty etc. must be provided with full-fledged firefighting set up etc. as prescribed by the competent authority dealing with such port establishments.	Complied.

S. NO.	CONDITION	STATUS
B.	GENERAL CONDITIONS:	
i.	The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry.	Noted
ii.	The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991, the Coastal zone regulation Notification of February 1991 and amendments thereof.	Noted
C.	ANNEXURE-I Conditions	
1.	The project authorities must strictly adhere to the stipulations made by the State Government and the State Pollution Control Board.	Noted for compliance.
2.	No expansion or modification of the project can be undertaken without prior approval of the Ministry.	Noted for compliance.
3.	In case of deviations or alterations in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any	Noted for Compliance.
4.	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 as amended on 3 rd October 1994. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained.	Complied. All required licenses obtained from Competent Authorities.
5.	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules, 1989. Authorization from the State Pollution Control Board must be obtained for collections/ treatment/ storage/ disposal of hazardous wastes.	Complied. HW authorization obtained from OSPCB vide Ref no. IND-IV-HW-930/5028 dated 24-05-2019 with a validity till 31-03-2024
6.	Occupational Health Surveillance programme should be undertaken as regular exercise for all employees, specifically for those engaged in handling hazardous substances.	Complied with. Report attached as Annexure-10 .
7.	The green belt of adequate width and density should be developed using native plant species, within and around plant premises in consultation with State Forest	Complied with Greenbelt has been developed in an area of 580 acres with the help of Orissa Forest Development Corporation Ltd.

S. NO.	CONDITION	STATUS
	Department. A norm of 2000-2500 plants per ha. may be followed. As indicated in the EMPs supplementary data, a minimum of 580 acres shall be brought under green belt.	(OFDCL). 5,95,000 trees have been planted around the refinery area and approx. 41104 trees have been planted in the township. Every year also, Paradip Refinery is doing plantation in and around Refinery. Till date approximately >9 Lac trees have been planted.
8.	A separate environmental management cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	Complied. Dedicated Environment Management Cell headed by Chief General Manager-HSE exists in the Refinery to take care of all the environmental issues along with a dedicated Environmental monitoring laboratory to take care of all the environmental monitoring functions.
9.	Adequate financial provision should be made for time bound implementation of environment management plan and other measures. The funds earmarked for the environmental management and safeguard measures should not be diverted for other purposes and details giving year wise and itemise expenditure must be reported to the Ministry.	Being complied.
10.	The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Bhubaneswar / State Pollution Control Board / Central pollution Control Board. A six-monthly compliance status report should be submitted to monitoring agencies.	Being complied.



Annexure-2

Stack Emission Report



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY

STACK MONITORING REPORT - OCTOBER-2022 (Report No: PDR/QC/STACK/2022/10)

Parameter			SO ₂	NO _x	PM	CO
UOM			mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
Method			IS 11255 [P-2]	IS 11255 [P-7]	IS 11255 [P-1]	IS 11255 [P-3]
CEMS-5	DCU-Heater 1	Dt: 01.10.2022	29.3	17.3	16.32	6.0
CEMS-3	DCU-Heater 2	Dt: 01.10.2022	18.2	16.8	14.7	3
CEMS-14	AVU-VDU	Dt: 04.10.2022	128.6	67.3	44.38	20.8
CEMS-4	AVU-CDU	Dt: 04.10.2022	131.8	65.9	39.49	14.6
CEMS-17	FCC HEATER	Dt: 10.10.2022	152.0	38.2	43.4	5.7
CEMS-15	FCC RR	Dt: 10.10.2022	131.0	34.6	39.8	165.6
CEMS-6	SRU/TGTU	Dt: 11.10.2022	338.3	58.3	15.92	44.4
CEMS-1	DHDT	Dt: 12.10.2022	32.4	98.3	4.6	17.4
CEMS-18	CCRU -P	Dt: 13.10.2022	27.3	52.4	4.1	6.9
CEMS-7	NHDT	Dt: 14.10.2022	29.4	57.3	13.7	2.9
CEMS-4	AVU-CDU	Dt: 17.10.2022	136.8	68.4	32.0	11.5
CEMS-14	AVU-VDU	Dt: 17.10.2022	133.4	66.8	40.40	20.4
CEMS-5	DCU-Heater 1	Dt: 20.10.2022	30.4	18.2	17.63	4.0
CEMS-3	DCU-Heater 2	Dt: 20.10.2022	29.1	19.8	13.28	2.9
CEMS-22	HRS-3	Dt: 21.10.2022	38.2	141.6	33.89	25.0
CEMS-21	HRS-2	Dt: 21.10.2022	39.2	145.6	25.8	20.4
CEMS-10	UB-3	Dt: 22.10.2022	43.8	138.4	45.1	20.4
CEMS-11	UB-4	Dt: 22.10.2022	41.8	132.6	35.7	26.1
CEMS-1	DHDT	Dt: 25.10.2022	31.8	92.8	3.95	16.0
CEMS-17	FCC HEATER	Dt: 26.10.2022	162.0	41.3	12.54	7.4
CEMS-15	FCC RR	Dt: 28.10.2022	129.0	32.8	47.8	136.3
CEMS-2	VGOHT MHC-1	Dt: 29.10.2022	48.3	87.9	4.57	9
CEMS-13	VGOHT MHC-2	Dt: 29.10.2022	42.1	79.3	3.9	6.9
CEMS-5	DCU-Heater 1	Dt: 29.10.2022	31.5	20.1	19.9	4.9
CEMS-3	DCU-Heater 2	Dt: 29.10.2022	21.3	20.2	15.43	4.0
CEMS-19	VGOHT Atmospheric	Dt: 31.10.2022	36.8	74.2	20.2	4.6

Dr. Nruparaj Sahu

Dr. Nruparaj Sahu, Quality Control Manager, IOCL, Paradip Refinery



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY

STACK MONITORING REPORT - NOVEMBER-2022 (Report No: PDR/QC/STACK/2022/11)

Parameter			SO ₂	NO _x	PM	CO
UOM			mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
Method			IS 11255 [P-2]	IS 11255 [P-7]	IS 11255 [P-1]	IS 11255 [P-3]
CEMS-5	DCU-Heater 1	Dt: 2 .11. 2022	35.2	22.8	17.4	3.7
CEMS-3	DCU-Heater 2	Dt: 2 .11. 2022	24.8	21.3	13.3	3.4
CEMS-21	HRS-2	Dt: 3 .11. 2022	40.2	147.3	8.6	20.4
CEMS-22	HRS-3	Dt: 3 .11. 2022	39.2	151.5	28.3	26.1
CEMS-12	HRS-1	Dt: 4 .11. 2022	33.8	138.2	35.5	31.8
CEMS-09	UB-2	Dt: 4 .11. 2022	40.2	142.8	47.41	31.6
CEMS-10	UB-3	Dt: 5 .11. 2022	44.8	148.3	45.47	16.2
CEMS-11	UB-4	Dt: 5 .11. 2022	45.2	139.2	44.6	14.7
CEMS-14	AVU-VDU	Dt: 7 .11. 2022	137.6	68.3	46.5	30.0
CEMS-4	AVU-CDU	Dt: 7 .11. 2022	141.8	70.2	40.0	20.2
CEMS-2	VGOHT MHC-1	Dt: 8 .11. 2022	47.3	88.3	4.4	4.6
CEMS-13	VGOHT MHC-2	Dt: 8 .11. 2022	44.2	80.1	4.8	3.4
CEMS-19	VGOHT Atmospheric	Dt: 9 .11. 2022	32.4	67.3	17.9	6.3
CEMS-08	UB-1	Dt: 11 .11. 2022	36.7	117.3	15.11	2.9
CEMS-09	UB-2	Dt: 11 .11. 2022	39.7	108.6	5.68	5.7
CEMS-18	CCRU -P	Dt: 12 .11. 2022	28.4	58.3	4.71	6
CEMS-7	NHDT	Dt: 12 .11. 2022	31.2	58.4	14.93	3.4
CEMS-6	SRU/TGTU	Dt: 14 .11. 2022	325.6	62.7	24.24	57.0
CEMS-1	DHDT	Dt: 14 .11. 2022	30.8	95.2	4.25	11.5
CEMS-14	AVU-VDU	Dt: 15 .11. 2022	138.2	73.4	42.1	16.0
CEMS-4	AVU-CDU	Dt: 15 .11. 2022	142.8	71.8	36.4	26.1
CEMS-6	SRU/TGTU	Dt: 16 .11. 2022	336.8	51.4	22.6	46.2
CEMS-15	FCC RR	Dt: 16 .11. 2022	162.8	46.6	48.50	202.4
CEMS-17	FCC HEATER	Dt: 17 .11. 2022	165.2	47.4	12.26	5.2
CEMS-7	NHDT	Dt: 17 .11. 2022	33.8	66.8	12.13	3.4
CEMS-18	CCRU -P	Dt: 18 .11. 2022	44.8	54.6	4.17	15.8
CEMS-1	DHDT	Dt: 18 .11. 2022	44.6	96.8	3.51	16.7
CEMS-19	VGOHT Atmospheric	Dt: 19 .11. 2022	39.6	79.4	12.65	7.4
CEMS-3	DCU-Heater 2	Dt: 23 .11. 2022	21.8	19.2	7.89	2.9
CEMS-5	DCU-Heater 1	Dt: 23 .11. 2022	30.2	18.4	21.93	18.1
CEMS-1	DHDT	Dt: 23 .11. 2022	36.3	98.3	3.75	14.7
CEMS-15	FCC RR	Dt: 24 .11. 2022	13.4	35.4	46.27	117.9
CEMS-17	FCC HEATER	Dt: 24 .11. 2022	14.4	35.7	13.12	4.6
CEMS-18	CCRU -P	Dt: 26 .11. 2022	32.6	56.1	2.34	3.4
CEMS-4	AVU-CDU	Dt: 28 .11. 2022	138.3	69.3	35.67	5.7
CEMS-13	VGOHT MHC-2	Dt: 30 .11. 2022	48.2	91.3	2.79	8.4
CEMS-2	VGOHT MHC-1	Dt: 30 .11. 2022	46.3	78.6	3.41	6.6

N Sahu

Dr. Nruparaj Sahu, Quality Control Manager, IOCL, Paradip Refinery



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY

STACK MONITORING REPORT - DECEMBER-2022(Report No: PDR/QC/STACK/2022/12)

Parameter			SO ₂	NO _x	PM	CO
UOM			mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
Method			IS 11255 [P-2]	IS 11255 [P-7]	IS 11255 [P-1]	IS 11255 [P-3]
CEMS-19	VGOHT Atmospheric	Dt: 1 .12. 2022	38.3	62.8	17.3	5.7
CEMS-14	AVU-VDU	Dt: 1 .12. 2022	141.6	72.3	43.5	34.4
CEMS-4	AVU-CDU	Dt: 2 .12. 2022	144.2	75.3	45.9	6.9
CEMS-21	HRS-2	Dt: 5 .12. 2022	40.2	148.9	26.4	20.4
CEMS-22	HRS-3	Dt: 5 .12. 2022	42.3	152.4	34.23	25.0
CEMS-08	UB-1	Dt: 7 .12. 2022	42.3	120.7	17.08	4.0
CEMS-09	UB-2	Dt: 7 .12. 2022	43.5	114.3	14.1	4.6
CEMS-15	FCC RR	Dt: 8 .12. 2022	1.4	41.2	45.1	77.4
CEMS-17	FCC HEATER	Dt: 8 .12. 2022	151.0	42.3	12.6	5.7
CEMS-5	DCU-Heater 1	Dt: 9 .12. 2022	35.4	25.6	15.4	3.4
CEMS-3	DCU-Heater 2	Dt: 9 .12. 2022	27.9	20.3	17.9	5.5
CEMS-6	SRU/TGTU	Dt: 10 .12. 2022	201.6	68.9	27.5	20.6
CEMS-1	DHDT	Dt: 10 .12. 2022	35.8	89.3	3.6	11.5
CEMS-19	VGOHT Atmospheric	Dt: 13 .12. 2022	39.2	61.4	19.1	6.9
CEMS-2	VGOHT MHC-1	Dt: 13 .12. 2022	45.3	76.2	4.5	5.7
CEMS-13	VGOHT MHC-2	Dt: 13 .12. 2022	41.2	91.3	4.20	6.9
CEMS-18	CCRU -P	Dt: 14 .12. 2022	35.3	58.2	4.03	5.7
CEMS-7	NHDT	Dt: 14 .12. 2022	34.8	53.1	16.6	6.9
CEMS-14	AVU-VDU	Dt: 15 .12. 2022	142.8	73.4	34.4	34.4
CEMS-4	AVU-CDU	Dt: 16 .12. 2022	142.8	73.2	32.2	4.6
CEMS-22	HRS-3	Dt: 16 .12. 2022	40.2	138.3	25.0	22.9
CEMS-12	HRS-1	Dt: 17 .12. 2022	37.2	151.3	34.0	13.7
CEMS-21	HRS-2	Dt: 19 .12. 2022	43.2	151.3	24.69	9.2
CEMS-08	UB-1	Dt: 19 .12. 2022	46.2	132.7	18.07	4.6
CEMS-10	UB-3	Dt: 19 .12. 2022	47.3	151.2	19.38	6.9
CEMS-5	DCU-Heater 1	Dt: 20 .12. 2022	32.7	23.6	17.12	9.2
CEMS-3	DCU-Heater 2	Dt: 20 .12. 2022	28.2	22.1	15.71	6.9
CEMS-6	SRU/TGTU	Dt: 21 .12. 2022	212.3	71.3	22.13	34.4
CEMS-1	DHDT	Dt: 22 .12. 2022	37.2	58.2	4.30	13.7
CEMS-2	VGOHT MHC-1	Dt: 22 .12. 2022	48.2	78.3	4.67	8.0
CEMS-13	VGOHT MHC-2	Dt: 22 .12. 2022	43.4	86.2	4.71	9.2
CEMS-19	VGOHT Atmospheric	Dt: 24 .12. 2022	42.1	62.3	17.3	8.0
CEMS-18	CCRU -P	Dt: 27 .12. 2022	34.6	58.2	4.2	12.6
CEMS-7	NHDT	Dt: 27 .12. 2022	36.4	55.4	16.3	2.3
CEMS-15	FCC RR	Dt: 28 .12. 2022	132.0	10.8	41.8	97.3
CEMS-17	FCC HEATER	Dt: 29 .12. 2022	158.0	45.3	17.3	13.7

Dr. Nruparaj Sahu

Dr. Nruparaj Sahu, Quality Control Manager, IOCL, Paradip Refinery

**INDIAN OIL CORPORATION LIMITED****PARADIP REFINERY****QUALITY CONTROL LABORATORY****STACK MONITORING REPORT - JANUARY-2023 (Report No: PDR/QC/STACK/2023/01)**

Parameter			SO ₂	NO _x	PM	CO
UOM			mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
Method			IS 11255 [P-2]	IS 11255 [P-7]	IS 11255 [P-1]	IS 11255 [P-3]
CEMS-5	DCU Furnace-1	Dt.02.01.2023	34.8	24.6	17.1	10.3
CEMS-3	DCU Furnace-2	Dt.02.01.2023	30.6	25.4	17.4	8.0
CEMS-4	AVU CDU	Dt.03.01.2023	151.3	78.3	37.2	28.6
CEMS-14	AVU VDU	Dt.03.01.2023	146.2	71.6	36.5	19.5
CEMS-12	CPP HRSG -1	Dt.06.01.2023	35.6	141.3	24.4	23.2
CEMS-22	CPP HRSG -3	Dt.06.01.2023	39.8	133.6	19.5	18.3
CEMS-21	CPP HRSG -2	Dt.06.01.2023	42.2	149.6	18.2	12.6
CEMS-7	NHT	Dt.07.01.2023	38.2	58.3	13.9	4.6
CEMS-18	CCR	Dt.07.01.2023	35.2	57.3	4.1	9.2
CEMS-08	CPP UB-1	Dt.09.01.2023	48.3	133.6	25.1	8.0
CEMS-10	CPP UB-3	Dt.09.01.2023	45.2	148.6	28.4	11.5
CEMS-02	VGO- MHC-1	Dt.10.01.2023	47.3	81.2	4.4	16.0
CEMS-19	VGO(ADH)	Dt.11.01.2023	43.8	62.7	14.9	5.7
CEMS-13	VGO-MHC-2	Dt.12.01.2023	41.2	91.3	4.7	6.9
CEMS-01	DHDT	Dt.12.01.2023	39.3	61.3	4.7	17.2
CEMS-17	FCC HEATER	Dt.17.01.2023	147.0	45.3	16.2	11.5
CEMS-15	FCC RR	Dt.17.01.2023	131.0	46.3	45.1	290.8
CEMS-6	SRU/TGTU	Dt.17.01.2023	224.3	75.3	20.2	17.2
CEMS-18	CCRU -P	Dt.20.01.2023	36.2	55.8	3.77	2.3
CEMS-21	HRSG-2	Dt.21.01.2023	48.3	150.3	13.96	8.0
CEMS-12	HRSG-1	Dt.21.01.2023	36.7	149.3	17.02	10
CEMS-09	CPP UB-2	Dt.23.01.2023	45.3	109.9	25.3	6.9
CEMS-10	CPP UB-3	Dt.23.01.2023	44.3	133.9	21.39	4.6
CEMS-07	NHT	Dt.23.01.2023	40.3	55.3	15.66	9.2
CEMS-01	DHDT	Dt.23.01.2023	41.3	62.8	4.65	13.7
CEMS-3	DCU-Heater 2	Dt.25.01.2023	38.2	26.4	19.17	11.5
CEMS-5	DCU-Heater 1	Dt.25.01.2023	38.2	26.4	17.72	13.7
CEMS-19	VGOHT Atmospheric	Dt.26.01.2023	42.8	61.9	17.6	6.9
CEMS-6	SRU/TGTU	Dt.28.01.2023	231.2	81.3	20.8	20.6
CEMS-4	AVU CDU	Dt.30.01.2023	148.0	75.3	28.4	16.0
CEMS-15	FCC RR	Dt.30.01.2023	139.0	51.3	43.9	227.5
CEMS-17	FCC HEATER	Dt.30.01.2023	146.0	46.3	15.6	5.7

Dr. Nruparaj Sahu, Quality Control Manager, IOCL, Paradip Refinery

**INDIAN OIL CORPORATION LIMITED****PARADIP REFINERY****QUALITY CONTROL LABORATORY****STACK MONITORING REPORT - FEBRUARY-2023 (Report No: PDR/QC/STACK/2023/02)**

Parameter			SO ₂	NOx	PM	CO
UOM			mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
Method			IS 11255 [P-2]	IS 11255 [P-7]	IS 11255 [P-1]	IS 11255 [P-3]
CEMS-2	VGOHT MHC-1	Dt.01.02.2023	46.9	80.2	4.6	9.2
CEMS-13	VGOHT MHC-2	Dt.01.02.2023	43.8	82.7	4.5	4.6
CEMS-4	AVU-CDU	Dt.01.02.2023	148.3	81.2	35.0	20.6
CEMS-14	AVU-VDU	Dt.01.02.2023	151.3	72.4	31.4	14.9
CEMS-21	CPP HRSG -2	Dt.02.02.2023	46.3	147.2	27.1	13.7
CEMS-22	CPP HRSG -3	Dt.02.02.2023	44.3	142.1	34.7	22.9
CEMS-09	CPP UB-2	Dt.05.02.2023	42.9	114.3	27.0	11.5
CEMS-10	CPP UB-3	Dt.05.02.2023	51.3	141.2	47.8	20.6
CEMS-3	DCU-Heater 2	Dt.05.02.2023	38.2	27.3	14.6	3.4
CEMS-5	DCU-Heater 1	Dt.05.02.2023	39.1	26.8	17.9	2.3
CEMS-10	CPP UB-3	Dt.08.02.2023	52.8	146.3	31.5	2.3
CEMS-09	CPP UB-2	Dt.08.02.2023	55.3	138.2	42.5	6.9
CEMS-15	FCC RR	Dt.08.02.2023	133.0	50.7	43.3	200.3
CEMS-17	FCC HEATER	Dt.08.02.2023	138.0	51.3	15.1	8.0
CEMS-19	VGO(ADH)	Dt.11.02.2023	45.2	64.3	19.8	5.7
CEMS-18	CCRU -P	Dt.14.02.2023	39.2	51.8	2.4	4.6
CEMS-07	NHT	Dt.14.02.2023	38.7	52.2	11.20	6.9
CEMS-1	DHDT	Dt.14.02.2023	44.3	67.3	3.97	17.2
CEMS-6	SRU/TGTU	Dt.14.02.2023	228.2	82.3	28.70	27
CEMS-21	HRSG-2	Dt.18.02.2023	45.3	151.2	26.9	13.7
CEMS-12	HRSG-1	Dt.18.02.2023	41.3	144.3	28.24	20.6
CEMS-22	CPP HRSG -3	Dt.18.02.2023	41.8	137.6	18.89	11.5
CEMS-10	UB-3	Dt.18.02.2023	106.3	152.7	25.30	17.2
CEMS-09	UB-2	Dt.20.02.2023	114.3	161.2	32.9	13.7
CEMS-04	AVU CDU	Dt.21.02.2023	151.2	92.3	35.3	17.2
CEMS-14	AVU VDU	Dt.21.02.2023	147.0	81.3	27.3	13.7
CEMS-3	DCU-Heater 2	Dt.24.02.2023	35.4	24.9	19.2	11.5
CEMS-5	DCU-Heater 1	Dt.24.02.2023	38.2	26.4	17.7	13.7
CEMS-19	VGO(ADH)	Dt.24.02.2023	48.3	71.2	16.33	6.9
CEMS-13	VGO-MHC-2	Dt.25.02.2023	40.1	79.3	4.72	8.0
CEMS-02	VGO- MHC-1	Dt.25.02.2023	41.3	80.2	4.60	9.2
CEMS-18	CCRU -P	Dt.25.02.2023	35.6	49.2	2.8	5.7
CEMS-07	NHT	Dt.25.02.2023	36.8	49.3	11.1	5.7
CEMS-15	FCC RR	Dt.25.02.2023	141.0	52.4	40.4	166.0
CEMS-17	FCC HEATER	Dt.27.02.2023	136.0	50.3	15.1	6.9
CEMS-01	DHDT	Dt.27.02.2023	48.3	69.2	4.5	19.5

Dr. Nruparaj Sahu, Quality Control Manager, IOCL, Paradip Refinery

**INDIAN OIL CORPORATION LIMITED****PARADIP REFINERY****QUALITY CONTROL LABORATORY****STACK MONITORING REPORT - MARCH-2023 (Report No: PDR/QC/STACK/2023/03)**

Parameter			SO ₂	NOx	PM	CO
UOM			mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
Method			IS 11255 [P-2]	IS 11255 [P-7]	IS 11255 [P-1]	IS 11255 [P-3]
CEMS-6	SRU/TGTU	Dt.01.03.2023	221.2	78.3	22.0	32.1
CEMS-21	HRSO-2	Dt.03.03.2023	48.3	152.4	23.6	13.7
CEMS-12	HRSO-1	Dt.04.03.2023	44.6	149.3	18.4	13.7
CEMS-22	HRSO -3	Dt.04.03.2023	45.9	141.2	31.3	22.9
CEMS-09	CPP UB-2	Dt.04.03.2023	118.2	167.4	46.5	13.7
CEMS-08	CPP UB-1	Dt.04.03.2023	124.3	177.6	34.7	25.2
CEMS-04	AVU CDU	Dt.04.03.2023	148.3	84.6	38.3	11.5
CEMS-14	AVU VDU	Dt.04.03.2023	157.3	91.5	32.7	9.2
CEMS-3	DCU-Heater 2	Dt.07.03.2023	45.3	31.6	11.8	4.6
CEMS-5	DCU-Heater 1	Dt.07.03.2023	41.3	29.4	14.0	8.0
CEMS-15	FCC RR	Dt.10.03.2023	84.3	76.8	46.8	219.8
CEMS-17	FCC HEATER	Dt.10.03.2023	228.4	81.3	14.9	2.3
CEMS-1	DHDT	Dt.11.03.2023	41.3	71.4	4.6	13.7
CEMS-15	FCC RR	Dt.11.03.2023	76.8	73.4	43.5	200.4
CEMS-13	VGO-MHC-2	Dt.13.03.2023	48.3	73.6	4.5	4.6
CEMS-02	VGO- MHC-1	Dt.13.03.2023	40.1	77.3	4.6	5.7
CEMS-19	VGO(ADH)	Dt.14.03.2023	45.3	69.8	14.8	2.3
CEMS-15	FCC RR	Dt.15.03.2023	81.3	50.3	46.0	203.8
CEMS-18	CCRU -P	Dt.17.03.2023	38.6	45.2	4.05	3.4
CEMS-07	NHT	Dt.17.03.2023	40.2	45.6	10.81	4.6
CEMS-15	FCC RR	Dt.17.03.2023	103.8	66.8	42.07	140
CEMS-17	FCC HEATER	Dt.17.03.2023	263.8	76.3	13.3	2.3
CEMS-08	UB-1	Dt.18.03.2023	132.3	185.4	43.69	11.5
CEMS-09	UB-2	Dt.18.03.2023	109.3	155.4	25.41	6.9
CEMS-21	CPP HRSO -2	Dt.21.03.2023	50.4	166.3	19.4	6.9
CEMS-22	CPP HRSO -3	Dt.21.03.2023	45.8	144.3	12.9	5.7
CEMS-14	AVU-VDU	Dt.21.03.2023	139.6	80.1	15.3	13.7
CEMS-4	AVU-CDU	Dt.23.03.2023	141.3	82.3	30.3	40.1
CEMS-3	DCU-Heater 2	Dt.23.03.2023	42.3	30.8	14.3	2.3
CEMS-5	DCU-Heater 1	Dt.23.03.2023	43.5	31.2	11.50	2.3
CEMS-13	VGO-MHC-2	Dt.24.03.2023	41.3	76.2	4.54	5.7
CEMS-02	VGO- MHC-1	Dt.24.03.2023	48.6	74.3	3.46	6.9
CEMS-19	VGO(ADH)	Dt.25.03.2023	48.3	71.2	15.6	4.6
CEMS-1	DHDT	Dt.28.03.2023	21.8	81.3	4.1	6.9
CEMS-07	NHT	Dt.28.03.2023	38.8	51.3	10.9	5.7
CEMS-18	CCRU -P	Dt.29.03.2023	41.5	51.3	3.7	6.9

Dr. Nruparaj Sahu, Quality Control Manager, IOCL, Paradip Refinery

Annexure-3

NHMC & Benzene Monitoring Report



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY
VOC/FUGITIVE EMISSION SUMMARY: 2022-23 Report

Source of sample: Inside the Plant (CCRU)

Reason for testing: VOC/Fugitive Emission (Non Methane Hydrocarbons-NMHC) study

Sample drawn by: QC Lab/ HSE representative

Test report No: PDR/QC/FE-NMHC/2022-23/Q3-Q4

Date of sample		Dt: 08.12.2022	Dt: 22.03.2023
SI No	Test Method	NMHC (ppm)	NMHC (ppm)
1	UOP 539	<100	<100

Dr. Nruparaj Sahu
Quality Control Manager
IOCL, Paradip Refinery

Annexure-4

VOC Monitoring Report



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY
VOC/FUGITIVE EMISSION SUMMARY: 2022-23 Report

Source of sample: Inside the Plant

Reason for testing: VOC/Fugitive Emission study

Sample drawn by: QC Lab representative

Test report No: PDR/QC/FE/2022-23/03

Date: 16.12.2022

SI No	UNIT	Date of measurement	VOC (kg/hr)
1	AVU	06.12.2022 – 07.12.2022	0.03253
2	CCR	08.12.2022 – 09.12.2022	0.00311
3	NHT	09.12.2022	0.03564
4	DHDT	10.12.2022	0.01219
5	VGOHDT	12.12.2022 – 13.12.2022	0.09837
TOTAL		06.12.2022 – 13.12.2022	0.18184

Dr. Nruparaj Sahu
Quality Control Manager
Indian Oil Corporation Ltd
Paradip Refinery



INDIAN OIL CORPORATION LIMITED

PARADIP REFINERY

QUALITY CONTROL LABORATORY

VOC/FUGITIVE EMISSION SUMMARY: 2022-23 Report

Source of sample: Inside the Plant

Reason for testing: VOC/Fugitive Emission study

Sample drawn by: QC Lab representative

Test report No: PDR/QC/FE/2022-23/04

Date: 03.04.2023

SI No	UNIT	Date of measurement	VOC (kg/hr)
1	AVU	14.03.2023 – 17.03.2023	0.04513
2	DHDT	18.03.2023	0.02366
3	NHT	21.03.2023	0.05143
4	CCR	22.03.2023	0.0059
5	VGOHDT	22.03.2023 - 25.03.2023	0.070675
TOTAL		14.03.2023 - 25.03.2023	0.196795

Dr. Nruparaj Sahu
Quality Control Manager
Indian Oil Corporation Ltd
Paradip Refinery

Annexure-5

Ambient Air Quality Report

Table: 4 Period of Monitoring: October 2022

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM _{2.5}) µg/m ³	Particulate Matter (PM ₁₀) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) µg/m ³	Lead (as Pb ¹) µg/ m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) µg/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆) µg/m ³
Mon./Tue.	03/10/2022	TC636622000001228F	30.76	81.40	23.40	32.40	22.47	ND	1.21	48.40	ND	ND	ND	ND
Fri./Sat.	07/10/2022	TC636622000001255F	31.62	82.60	19.40	29.80	22.75	ND	1.17	51.20	ND	ND	ND	ND
Mon./Tue.	10/10/2022	TC636622000001293F	26.92	79.40	24.40	36.80	21.91	ND	1.20	53.40	ND	ND	ND	ND
Wed./Thu.	12/10/2022	TC636622000001297F	30.34	85.60	22.80	34.80	19.10	ND	1.26	46.60	ND	ND	ND	ND
Fri./Sat.	14/10/2022	TC636622000001342F	28.63	83.40	22.90	38.60	20.78	ND	1.16	51.30	ND	ND	ND	ND
Tues./Wed.	18/10/2022	TC636622000001379F	27.77	86.20	21.80	30.60	21.06	ND	1.19	55.40	ND	ND	ND	ND
Fri./Sat.	21/10/2022	TC636622000001480F	29.91	83.60	24.60	37.60	23.60	ND	1.15	52.90	ND	ND	ND	ND
Tues./Wed.	25/10/2022	TC636622000001496F	28.63	82.40	22.60	34.60	21.40	ND	1.17	48.60	ND	ND	ND	ND
Fri./Sat.	28/10/2022	TC636622000001514F	30.49	84.85	20.93	36.71	26.23	ND	1.30	54.22	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			26.92	79.40	19.40	29.80	19.10	-	1.15	46.60	-	-	-	-
Maximum			31.62	86.20	24.60	38.60	26.23	-	1.30	55.40	-	-	-	-
Average			29.45	83.27	22.53	34.63	22.14	-	1.20	51.33	-	-	-	-
98 th Percentile			31.62	86.20	24.6	38.6	26.23	-	1.30	55.40	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 C PCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

*NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec-3(i)] 16.11.2009, *Performed at *43, Sector-1A Ext., Bhalia Enclave, Channi Himmat, Jamnua, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 *ND-Not Detected, *Arsenic-ND[DL- 0.5], *BAP-ND[DL- 0.5], *Benzene-ND[DL- 0.5], *Lead-ND[DL- 0.5], *Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced or used for any purpose without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaint regarding this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited to invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2486597, +91-191-3511592, +91-9679941963.

Table: 5 Period of Monitoring: October 2022

Location: Secured Landfill Area

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) ug/m3	Ozone (as O3) ug/m3	Lead (as Pb ¹) µg/ m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) ug/m3	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m3	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C6H6 ⁵) ug/m3
Mon./Tue.	03/10/2022	TC636622000001229F	28.20	85.40	29.40	35.30	20.50	ND	1.21	54.40	ND	ND	ND	ND
Fri./Sat.	07/10/2022	TC636622000001256F	27.77	82.60	24.60	40.60	27.60	ND	1.19	49.60	ND	ND	ND	ND
Mon./Tue.	10/10/2022	TC636622000001294F	31.33	80.40	25.20	42.30	23.40	ND	1.25	48.60	ND	ND	ND	ND
Wed./Thu.	12/10/2022	TC636622000001298F	35.89	83.40	22.50	38.60	28.50	ND	1.22	54.40	ND	ND	ND	ND
Fri./Sat.	14/10/2022	TC636622000001343F	32.47	83.70	21.70	31.50	26.60	ND	1.16	51.20	ND	ND	ND	ND
Tues./Wed.	18/10/2022	TC636622000001380F	36.75	79.40	23.60	37.60	22.60	ND	1.23	55.10	ND	ND	ND	ND
Fri./Sat.	21/10/2022	TC636622000001481F	31.62	85.50	26.20	39.40	26.80	ND	1.24	49.80	ND	ND	ND	ND
Tues./Wed.	25/10/2022	TC636622000001497F	32.90	82.70	25.30	38.60	24.60	ND	1.18	47.60	ND	ND	ND	ND
Fri./Sat.	28/10/2022	TC636622000001515F	39.23	88.45	28.32	36.34	30.12	ND	1.35	56.23	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			27.77	79.40	21.70	31.50	20.50	-	1.16	47.60	-	-	-	-
Maximum			39.23	88.45	29.40	42.30	30.12	-	1.35	56.23	-	-	-	-
Average			32.90	83.50	25.20	37.80	25.63	-	1.22	51.89	-	-	-	-
98th Percentile			39.23	88.45	29.40	42.30	30.12	-	1.35	56.23	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec-3(0)] 16.11.2009. *Performed at '43, Sector-1A Ext., Bhella Enclave, ChanniHimmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 * ND-Not Detected, ¹Arsenic-ND[DL- 0.6], ²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint related to the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-191-3511562, +91-9873924093

Table: 6 Period of Monitoring: October 2022

Location: Township Market Complex

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) ug/m3	Ozone (as O3) ug/m3	Lead (as Pb ¹) µg/ m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) ug/m3	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m3	Benzo (a) pyrene (as BAP ⁴) ng/m ²	Benzene (C6H6 ⁵) ug/m3
Mon./Tue.	03/10/2022	TC836622000001230F	36.75	84.20	25.60	33.10	22.60	ND	1.19	42.60	ND	ND	ND	ND
Fri./Sat.	07/10/2022	TC836622000001257F	27.77	81.60	27.60	29.60	23.90	ND	1.15	48.40	ND	ND	ND	ND
Mon./Tue.	10/10/2022	TC836622000001295F	36.75	82.29	20.90	35.20	22.60	ND	1.10	40.90	ND	ND	ND	ND
Wed./Thu.	12/10/2022	TC836622000001299F	35.89	86.30	22.30	38.10	25.90	ND	1.02	44.50	ND	ND	ND	ND
Fri./Sat.	14/10/2022	TC836622000001344F	31.62	83.60	25.80	30.90	22.80	ND	1.13	50.60	ND	ND	ND	ND
Tues./Wed.	18/10/2022	TC836622000001381F	36.75	85.90	22.10	31.50	19.90	ND	1.16	44.29	ND	ND	ND	ND
Fri./Sat.	21/10/2022	TC836622000001482F	31.62	86.20	25.30	31.40	26.80	ND	1.09	43.10	ND	ND	ND	ND
Tues./Wed.	25/10/2022	TC836622000001498F	34.61	84.30	23.30	32.30	25.40	ND	1.17	41.60	ND	ND	ND	ND
Fri./Sat.	28/10/2022	TC836622000001516F	40.05	87.23	29.55	34.32	28.96	ND	1.39	50.45	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			27.77	81.60	20.90	29.60	19.90	-	1.02	40.90	-	-	-	-
Maximum			40.05	87.23	29.55	38.10	28.96	-	1.39	50.60	-	-	-	-
Average			34.64	84.62	24.71	32.93	24.31	-	1.15	45.15	-	-	-	-
98 th Percentile			40.05	87.23	20.90	29.60	28.96	-	1.39	50.60	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 16.11.2009. *Performed at *43, Sector-1A Ext., Bhalia Enclave, ChanniHimmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.

 * ND-Not Detected, ²Arsenic-ND[DL- 0.5], ³BAP-ND[DL- 0.5], ⁴Benzene-ND[DL- 0.5], ⁵Lead-ND[DL- 0.5], ⁶Nickel-ND[DL- 1.0]


TC-6366


 NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited to invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nitya.com and call at +91-191-246597, +91-191-3511562, +91-9873924093

Table: 10 Period of Monitoring: October 2022

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) µg/m3	Ozone (as O3) µg/m3	Lead (as Pb ¹) µg/ m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) µg/m3	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m3	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C6H6 ⁵) µg/m3
Mon./Tue.	03/10/2022	TC836622000001231F	35.89	78.60	21.60	36.70	19.60	ND	1.11	40.90	ND	ND	ND	ND
Fri./Sat.	07/10/2022	TC836622000001258F	27.77	72.90	25.70	28.80	26.50	ND	1.03	38.40	ND	ND	ND	ND
Mon./Tue.	10/10/2022	TC836622000001296F	31.62	71.60	19.40	38.60	29.10	ND	1.18	44.40	ND	ND	ND	ND
Wed./Thu.	12/10/2022	TC836622000001300F	27.77	80.10	24.80	32.60	21.40	ND	1.20	48.20	ND	ND	ND	ND
Fri./Sat.	14/10/2022	TC836622000001345F	32.90	68.80	23.60	35.40	22.10	ND	1.02	42.90	ND	ND	ND	ND
Tues./Wed.	18/10/2022	TC836622000001382F	35.47	74.60	27.20	40.30	25.40	ND	1.03	38.90	ND	ND	ND	ND
Fri./Sat.	21/10/2022	TC836622000001483F	32.90	77.40	25.80	31.90	26.50	ND	1.19	46.80	ND	ND	ND	ND
Tues./Wed.	25/10/2022	TC836622000001499F	34.61	74.30	22.30	29.40	25.30	ND	1.19	42.30	ND	ND	ND	ND
Fri./Sat.	28/10/2022	TC836622000001517F	37.45	82.79	28.45	42.39	30.67	ND	1.40	51.45	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			27.77	68.80	19.40	28.80	19.60	-	1.02	38.40	-	-	-	-
Maximum			37.45	82.79	28.45	42.39	30.67	-	1.40	51.45	-	-	-	-
Average			32.93	75.67	24.31	35.12	25.17	-	1.15	43.80	-	-	-	-
98th Percentile			37.45	82.79	28.45	42.39	30.67	-	1.40	51.45	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009. *Performed at '43, Sector-1A Ext., Bhalia Enclave, ChanniHimmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
* ND-Not Detected, ¹Arsenic-ND[DL- 0.5], ²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2485597, +91-191-3511562, +91-9873924093

Table: 4 Period of Monitoring: November 2022

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) µg/m3	Ozone (as O3) ug/m3	Lead (as Pb ¹) µg/ m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) ug/m3	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m3	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C6H6 ⁵) ug/m3
Tues./Wed.	01/11/2022	TC636622000001536F	31.40	82.60	24.50	33.50	23.50	ND	1.23	49.50	ND	ND	ND	ND
Fri./Sat.	04/11/2022	TC636622000001566F	32.40	83.70	20.60	30.90	23.60	ND	1.19	52.30	ND	ND	ND	ND
Tues./Wed.	08/11/2022	TC636622000001580F	27.20	80.20	25.60	37.40	22.40	ND	1.22	54.50	ND	ND	ND	ND
Fri./Sat.	11/11/2022	TC636622000001631F	31.40	86.40	23.60	35.70	20.40	ND	1.28	47.70	ND	ND	ND	ND
Tues./Wed.	15/11/2022	TC636622000001672F	29.70	84.20	23.80	39.70	21.60	ND	1.18	52.40	ND	ND	ND	ND
Fri./Sat.	18/11/2022	TC636622000001710F	28.60	87.40	22.90	31.70	22.40	ND	1.21	56.20	ND	ND	ND	ND
Tues./Wed.	22/11/2022	TC636622000001724F	30.40	84.50	25.70	38.80	24.70	ND	1.17	53.20	ND	ND	ND	ND
Fri./Sat.	25/11/2022	TC636622000001738F	29.60	83.60	23.70	35.70	22.50	ND	1.20	49.40	ND	ND	ND	ND
Tues./Wed.	29/11/2022	TC636622000001777F	31.40	85.20	21.40	37.90	27.50	ND	1.31	55.60	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			27.20	80.20	20.60	30.90	20.40	-	1.17	47.70	-	-	-	-
Maximum			31.40	87.40	25.70	39.70	27.50	-	1.31	56.20	-	-	-	-
Average			29.30	83.80	23.15	35.30	23.95	-	1.24	51.95	-	-	-	-
98th Percentile			31.40	87.40	25.70	39.70	27.50	-	1.31	56.20	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark: *NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 16.11.2009, *Performed at '43, Sector-1A Ext., Bhalis-Enclave, Channi Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt

*ND-Not Detected, *Arsenic-ND[DL- 0.5], *BAP-ND[DL- 0.5], *Benzene-ND[DL- 0.5], *Lead-ND[DL- 0.5], *Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise stated. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya laboratories is limited involved amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2465597, +91-161-3511563, +91-9873924093

Table: 5 Period of Monitoring: November 2022

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) ug/m3	Ozone (as O3) ug/m3	Lead (as Pb ¹) µg/ m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) ug/m3	Nickel (as Ni ²) ng/m ³ .	Arsenic (as As ³) ng/m3	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C6H6 ⁵) ug/m3
Tues./Wed.	01/11/2022	TC636622000001537F	29.40	86.20	30.10	36.20	21.40	ND	1.23	55.10	ND	ND	ND	ND
Fri./Sat.	04/11/2022	TC636622000001567F	28.20	83.40	25.60	41.20	28.40	ND	1.21	50.20	ND	ND	ND	ND
Tues./Wed.	08/11/2022	TC636622000001581F	32.40	81.20	26.20	43.60	24.50	ND	1.27	49.20	ND	ND	ND	ND
Fri./Sat.	11/11/2022	TC636622000001632F	36.90	84.60	23.40	39.40	29.20	ND	1.23	55.20	ND	ND	ND	ND
Tues./Wed.	15/11/2022	TC636622000001673F	33.50	84.40	22.50	32.20	27.30	ND	1.18	52.40	ND	ND	ND	ND
Fri./Sat.	18/11/2022	TC636622000001711F	37.40	80.20	24.50	38.40	23.40	ND	1.25	56.40	ND	ND	ND	ND
Tues./Wed.	22/11/2022	TC636622000001725F	32.40	86.40	27.40	40.20	27.40	ND	1.27	50.20	ND	ND	ND	ND
Fri./Sat.	25/11/2022	TC636622000001739F	33.60	83.40	26.50	39.20	25.20	ND	1.21	48.10	ND	ND	ND	ND
Tues./Wed.	29/11/2022	TC636622000001778F	40.20	89.20	29.40	37.20	31.40	ND	1.37	57.10	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			28.20	80.20	22.50	32.20	21.40	-	1.18	48.10	-	-	-	-
Maximum			40.20	89.20	30.10	43.60	31.40	-	1.37	57.10	-	-	-	-
Average			34.20	84.70	26.95	38.20	26.00	-	1.27	52.60	-	-	-	-
98th Percentile			40.20	89.20	30.10	43.60	31.40	-	1.37	57.10	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 2 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark: * NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 16.11.2009. * Performed at '43, Sector-1A Ext., Bhalia Enclave, Channi-Himmat, Jammu, J&K (JT) of NITYA Labs, Sample Analysed within Five days after Receipt.

* ND-Not Detected, ¹Arsenic-ND[DL- 0.5], ²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. This report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-191-3511562, +91-9873924093

Table: 6 Period of Monitoring: November 2022

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m ³	Particulate Matter (PM10) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) µg/m ³	Lead (as Pb ¹) µg/m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) µg/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆ ⁵) µg/m ³
Tues./Wed.	01/11/2022	TC636622000001538F	37.40	85.20	26.20	34.20	23.40	ND	1.21	43.20	ND	ND	ND	ND
Fri./Sat.	04/11/2022	TC636622000001568F	28.30	82.70	28.20	30.20	24.50	ND	1.17	49.10	ND	ND	ND	ND
Tues./Wed.	08/11/2022	TC636622000001582F	37.10	83.40	21.20	36.10	23.10	ND	1.14	41.20	ND	ND	ND	ND
Fri./Sat.	11/11/2022	TC636622000001633F	36.20	87.10	23.10	39.20	26.20	ND	1.05	45.20	ND	ND	ND	ND
Tues./Wed.	15/11/2022	TC636622000001673F	32.40	84.20	26.40	31.20	23.20	ND	1.15	51.10	ND	ND	ND	ND
Fri./Sat.	18/11/2022	TC636622000001712F	37.40	86.20	23.20	32.10	20.40	ND	1.18	45.10	ND	ND	ND	ND
Tues./Wed.	22/11/2022	TC636622000001726F	32.50	87.40	26.20	32.00	27.40	ND	1.11	44.10	ND	ND	ND	ND
Fri./Sat.	25/11/2022	TC636622000001740F	35.40	85.40	24.10	33.10	26.10	ND	1.20	42.30	ND	ND	ND	ND
Tues./Wed.	29/11/2022	TC636622000001779F	41.10	88.10	30.10	35.20	29.40	ND	1.41	51.10	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			28.30	82.70	21.20	30.20	20.40	-	1.05	41.20	-	-	-	-
Maximum			41.10	88.10	30.10	39.20	29.40	-	1.41	51.10	-	-	-	-
Average			34.75	85.4	25.65	34.70	24.90	-	1.23	46.15	-	-	-	-
98th Percentile			41.10	88.10	30.10	39.20	29.40	-	1.41	51.10	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark: * NAAQS: National Ambient Air Quality Standards: Schedule-VII, [Rule 3 (3B)], [Part-II-sec-3(i)] 16.11.2009, *Performed at '45, Sector-1A Ext., Bhalla Enclave, ChanniHimmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.

* ND-Not Detected, ¹Arsenic-ND[DL- 0.5], ²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]



TC-6366



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of the organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2465597, +91-191-3611562, +91-9873924093

Table: 10 Period of Monitoring: November 2022

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) µg/m3	Ozone (as O3) ug/m3	Lead (as Pb ¹) µg/ m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) ug/m3	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m3	Benzo (a) pyrene (as BAP ⁴) ng/m ²	Benzene (C6H6 ⁵) ug/m3
Tues./Wed.	01/11/2022	TC636622000001539F	36.40	79.20	22.10	37.10	20.10	ND	1.14	41.20	ND	ND	ND	ND
Fri./Sat.	04/11/2022	TC636622000001569F	28.40	73.40	26.20	29.20	27.10	ND	1.05	39.20	ND	ND	ND	ND
Tues./Wed.	08/11/2022	TC636622000001583F	32.40	72.10	20.10	39.10	30.20	ND	1.20	45.20	ND	ND	ND	ND
Fri./Sat.	11/11/2022	TC636622000001634F	28.40	81.20	25.20	33.20	22.20	ND	1.23	49.10	ND	ND	ND	ND
Tues./Wed.	15/11/2022	TC636622000001674F	33.40	69.20	24.10	36.50	23.20	ND	1.05	43.40	ND	ND	ND	ND
Fri./Sat.	18/11/2022	TC636622000001713F	36.10	75.20	28.10	41.50	26.10	ND	1.05	39.40	ND	ND	ND	ND
Tues./Wed.	22/11/2022	TC636622000001727F	33.10	78.20	26.40	32.20	27.20	ND	1.22	47.30	ND	ND	ND	ND
Fri./Sat.	25/11/2022	TC636622000001741F	35.10	75.10	23.10	30.20	26.20	ND	1.23	43.10	ND	ND	ND	ND
Tues./Wed.	29/11/2022	TC636622000001780F	38.10	83.40	29.10	43.40	31.10	ND	1.41	52.10	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			28.40	69.20	20.10	29.20	20.10	-	1.05	39.20	-	-	-	-
Maximum			38.10	83.40	29.10	43.40	31.10	-	1.41	52.10	-	-	-	-
Average			33.55	76.30	24.60	36.60	25.60	-	1.23	45.65	-	-	-	-
98 th Percentile			41.10	88.10	30.10	39.20	29.40	-	1.41	51.10	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards: Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 16.11.2009, *Performed at *43, Sector-1A Ext., Bhalha Enclave, Channi Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 * ND-Not Detected, *Arsenic-ND[DL- 0.5], *BAP-ND[DL- 0.5], *Benzene-ND[DL- 0.5], *Lead-ND[DL- 0.5], *Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityyalab.com and call at +91-191-2465597, +91-191-3511562, +91-9873924093

Table: 4 Period of Monitoring: December 2022

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM _{2.5}) µg/m ³	Particulate Matter (PM ₁₀) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) µg/m ³	Lead (as Pb ¹) µg/m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) µg/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆ ⁵) µg/m ³
Fri./Sat.	02/12/2022	TC636622000001910F	32.68	83.40	25.70	34.70	24.90	ND	1.20	51.30	ND	ND	ND	ND
Tues./Wed.	06/12/2022	TC636622000001951F	33.79	84.10	22.71	31.50	25.33	ND	1.24	53.45	ND	ND	ND	ND
Fri./Sat.	09/12/2022	TC636622000001974F	28.19	81.53	26.91	38.05	23.52	ND	1.30	56.30	ND	ND	ND	ND
Tues./Wed.	13/12/2022	TC636622000002025F	32.90	85.90	24.70	36.40	20.98	ND	1.25	48.60	ND	ND	ND	ND
Fri./Sat.	16/12/2022	TC636622000002065F	30.45	85.70	25.10	40.53	22.40	ND	1.35	51.20	ND	ND	ND	ND
Tues./Wed.	20/12/2022	TC636622000002071F	30.52	88.20	24.30	33.90	23.16	ND	1.36	57.35	ND	ND	ND	ND
Fri./Sat.	23/12/2022	TC636622000002130F	31.82	86.20	26.64	39.90	25.80	ND	1.28	55.45	ND	ND	ND	ND
Tues./Wed.	27/12/2022	TC636622000002164F	32.70	84.50	26.32	36.80	24.30	ND	1.24	51.45	ND	ND	ND	ND
Fri./Sat.	30/12/2022	TC636622000002213F	33.28	85.25	25.38	35.19	23.24	ND	1.21	48.68	ND	ND	ND	ND
No. of Observation			8	8	8	8	8	8	8	8	8	8	8	8
Minimum			28.19	81.53	22.71	31.50	20.98	-	1.20	48.60	-	-	-	-
Maximum			33.79	88.20	26.91	40.53	25.80	-	1.36	57.35	-	-	-	-
Average			30.99	84.86	24.80	36.01	23.50		1.28	52.97	-	-	-	-
98th Percentile			33.79	88.20	26.91	40.53	25.80	-	1.36	57.35	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

*NAAQMS: National Ambient Air Quality Standards, Schedule-VII, [Rule 3 (3B)], [Part-II-sec-3(i)] 16.11.2009, *Performed at: 43, Sector-1A Ext., Bhalala Enclave, Channi Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysis within Five days after Receipt.
¹ND-Not Detected, ²Arsenic-ND[DL- 0.5], ³BAP-ND[DL- 0.5], ⁴Benzene-ND[DL- 0.5], ⁵Lead-ND[DL- 0.5], ⁶Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited to invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-191-3511562, +91-9873924053

Table: 5 Period of Monitoring: December 2022

Location: Secured Landfill Area

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m ³	Particulate Matter (PM10) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) ug/m ³	Ozone (as O ₃) ug/m ³	Lead (as Pb ¹) µg/ m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) ug/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆ ⁵) ug/m ³
Fri./Sat.	02/12/2022	TC636622000001911F	29.85	87.40	31.45	37.45	22.04	ND	1.35	55.40	ND	ND	ND	ND
Tues./Wed.	06/12/2022	TC636622000001952F	30.12	84.45	26.35	42.44	30.45	ND	1.25	51.45	ND	ND	ND	ND
Fri./Sat.	09/12/2022	TC636622000001975F	33.98	82.40	27.45	44.70	24.90	ND	1.30	50.45	ND	ND	ND	ND
Tues./Wed.	13/12/2022	TC636622000002026F	37.54	85.90	25.55	38.90	30.45	ND	1.26	56.45	ND	ND	ND	ND
Fri./Sat.	16/12/2022	TC636622000002066F	34.90	85.30	23.45	34.35	29.88	ND	1.22	53.25	ND	ND	ND	ND
Tues./Wed.	20/12/2022	TC636622000002072F	38.56	81.35	25.39	36.20	26.77	ND	1.32	57.80	ND	ND	ND	ND
Fri./Sat.	23/12/2022	TC636622000002131F	33.50	87.34	26.45	43.10	28.31	ND	1.33	51.45	ND	ND	ND	ND
Tues./Wed.	27/12/2022	TC636622000002165F	34.73	84.32	26.95	39.45	26.35	ND	1.23	50.24	ND	ND	ND	ND
Fri./Sat.	30/12/2022	TC636622000002214F	33.28	85.26	24.26	36.58	24.34	ND	1.20	48.68	ND	ND	ND	ND
No. of Observation			8	8	8	8	8	8	8	8	8	8	8	8
Minimum			29.85	81.35	23.45	34.35	22.04	-	1.23	50.24	-	-	-	-
Maximum			38.56	87.40	31.45	44.70	30.45	-	1.35	57.80	-	-	-	-
Average			34.20	84.37	27.45	39.52	26.24	-	1.29	54.02	-	-	-	-
98th Percentile			38.56	87.40	31.45	44.70	30.45	-	1.35	57.80	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec-3(i)] 16.11.2009. *Performed at *43, Sector-1A Ex., Bhalla Enclave, Channi Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five Days after Receipt.
 * ND-Not Detected, ¹Arsenic-ND[DL- 0.5], ²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-191-3511562, +91-9873924093

Table: 6 Period of Monitoring: December 2022

Location: Township Market Complex

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) µg/m3	Ozone (as O3) µg/m3	Lead (as Pb ¹) µg/m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) µg/m3	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m3	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C6H6 ⁵) µg/m3
Fri./Sat.	02/12/2022	TC636622000001912F	39.40	86.30	28.32	35.45	24.80	ND	1.25	44.45	ND	ND	ND	ND
Tues./Wed.	06/12/2022	TC636622000001953F	29.82	84.31	29.45	31.39	25.60	ND	1.20	50.35	ND	ND	ND	ND
Fri./Sat.	09/12/2022	TC636622000001976F	38.45	84.75	23.59	37.45	24.95	ND	1.10	42.41	ND	ND	ND	ND
Tues./Wed.	13/12/2022	TC636622000002027F	37.45	88.20	26.66	40.11	28.30	ND	1.15	46.45	ND	ND	ND	ND
Fri./Sat.	16/12/2022	TC636622000002067F	32.95	85.45	27.74	32.95	24.26	ND	1.25	52.45	ND	ND	ND	ND
Tues./Wed.	20/12/2022	TC636622000002073F	38.85	87.39	25.83	33.45	25.45	ND	1.30	46.32	ND	ND	ND	ND
Fri./Sat.	23/12/2022	TC636622000002132F	34.25	88.32	27.30	33.10	28.45	ND	1.19	46.60	ND	ND	ND	ND
Tues./Wed.	27/12/2022	TC636622000002166F	36.70	86.40	25.45	34.24	25.88	ND	1.18	43.90	ND	ND	ND	ND
Fri./Sat.	30/12/2022	TC636622000002215F	34.28	82.16	24.39	35.22	24.12	ND	1.26	ND	ND	ND	ND	ND
No. of Observation			8	8	8	8	8	8	8	8	8	8	8	8
Minimum			29.82	84.31	23.59	31.39	24.26	-	1.10	42.41	-	-	-	-
Maximum			39.40	88.32	29.45	40.11	28.45	-	1.30	52.45	-	-	-	-
Average			34.61	86.30	26.54	35.75	26.35	-	1.20	47.43	-	-	-	-
98th Percentile			39.40	88.32	29.45	40.11	28.45	-	1.30	52.45	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009. *Performed at *43, Sector-1A Extn., Bhalia Enclave, Chandi Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
¹ ND-Not Detected, ² Arsenic-ND[DL- 0.5], ³ BAP-ND[DL- 0.5], ⁴ Benzene-ND[DL- 0.5], ⁵ Lead-ND[DL- 0.5], ⁶ Nickel-ND[DL- 1.0]



TC-6366



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing, within 7 days of issue of this report. Total liability of Nitya Laboratory is limited to involved amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-151-2465997, +91-191-3511562, +91-9873924093

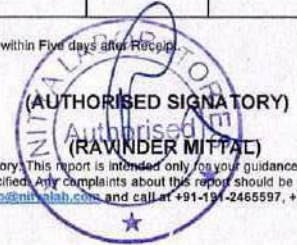
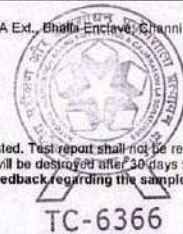
Table: 10 Period of Monitoring: December 2022

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) µg/m3	Ozone (as O3) µg/m3	Lead (as Pb ¹) µg/ m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) µg/m3	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m3	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C6H6 ⁵) µg/m3
Fri./Sat.	02/12/2022	TC636622000001913F	37.90	80.30	24.45	40.31	21.45	ND	1.20	43.45	ND	ND	ND	ND
Tues./Wed.	06/12/2022	TC636622000001954F	30.45	74.80	27.34	30.42	28.45	ND	1.07	40.32	ND	ND	ND	ND
Fri./Sat.	09/12/2022	TC636622000001977F	33.60	73.80	20.88	40.41	33.42	ND	1.22	46.39	ND	ND	ND	ND
Tues./Wed.	13/12/2022	TC636622000002028F	29.40	82.45	25.99	35.45	25.42	ND	1.25	50.45	ND	ND	ND	ND
Fri./Sat.	16/12/2022	TC636622000002068F	34.45	70.61	24.45	37.50	24.32	ND	1.10	44.39	ND	ND	ND	ND
Tues./Wed.	20/12/2022	TC636622000002074F	37.45	76.82	29.45	42.90	27.45	ND	1.12	40.41	ND	ND	ND	ND
Fri./Sat.	23/12/2022	TC636622000002133F	34.60	80.45	27.40	33.42	28.45	ND	1.30	50.69	ND	ND	ND	ND
Tues./Wed.	27/12/2022	TC636622000002167F	36.80	76.85	24.45	33.45	27.45	ND	1.30	45.75	ND	ND	ND	ND
Fri./Sat.	30/12/2022	TC636622000002216F	35.68	74.28	26.34	30.21	26.45	ND	1.26	47.68	ND	ND	ND	ND
No. of Observation			8	8	8	8	8	8	8	8	8	8	8	8
Minimum			29.40	70.61	20.88	30.42	21.45	-	1.07	40.32	-	-	-	-
Maximum			37.90	82.45	29.45	42.90	33.42	-	1.30	50.69	-	-	-	-
Average			33.65	76.53	25.15	36.67	27.45	-	1.18	45.50	-	-	-	-
98th Percentile			37.90	82.45	29.45	42.90	33.42	-	1.30	50.69	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 C PCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/ AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/ AAQ-13	NL/SOP/ AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 16.11.2009. *Performed at '43, Sector-1A Ext., Bhalla Enclave, Channi Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 * ND-Not Detected, ¹Arsenic-ND[DL- 0.5], ²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-191-3511562, +91-9673924093



TC-6366

Table: 4 Period of Monitoring:

Location: South Fire Station

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m ³	Particulate Matter (PM10) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) µg/m ³	Lead (as Pb ¹) µg/m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) µg/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆ ⁵) µg/m ³
Tues./Wed.	03/01/2023	TC63662300000007F	31.50	82.60	24.60	33.50	23.40	ND	1.18	50.20	ND	ND	ND	ND
Fri./Sat.	06/01/2023	TC636623000000035F	32.80	83.50	21.80	30.40	24.20	ND	1.20	52.50	ND	ND	ND	ND
Tues./Wed.	10/01/2023	TC636623000000055F	27.60	80.40	25.90	37.50	22.60	ND	1.24	56.40	ND	ND	ND	ND
Thur./Fri.	12/01/2023	TC636623000000068F	31.60	84.50	23.80	35.70	19.50	ND	1.21	47.30	ND	ND	ND	ND
Tues./Wed.	17/01/2023	TC636623000000093F	29.50	84.70	24.40	39.40	21.60	ND	1.28	50.30	ND	ND	ND	ND
Fri./Sat.	20/01/2023	TC636623000000128F	29.60	87.50	23.50	32.30	22.30	ND	1.29	56.10	ND	ND	ND	ND
Tues./Wed.	24/01/2023	TC636623000000183F	30.70	85.50	25.70	38.40	24.30	ND	1.27	54.20	ND	ND	ND	ND
Fri./Sat.	27/01/2023	TC636623000000207F	31.80	83.70	25.50	35.40	23.50	ND	1.21	50.40	ND	ND	ND	ND
Mon./Tue.	30/01/2023	TC636623000000326F	32.50	84.60	24.60	34.30	22.40	ND	1.18	47.20	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			27.60	80.40	21.80	30.40	19.50	-	1.18	47.20	-	-	-	-
Maximum			32.50	87.50	25.90	39.40	24.30	-	1.29	56.10	-	-	-	-
Average			30.05	83.90	23.85	34.00	21.90	-	1.23	51.20	-	-	-	-
98th Percentile			32.50	87.50	25.90	39.40	24.30	-	1.29	56.10	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 PCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

*NAAQS: National Ambient Air Quality Standards, Schedule-VII, [Rule 3 (3B)], [Part-II-sec-3(i)] 16.11.2008, *Performed at: 43, Sector-1A Ext., Bhalia Enclave, Chhanni Himmat, Jammu, J&K (UT) of NITYA Labs. Sample analysed within Five days after Receipt.
 *ND-Not Detected, ¹Arsenic-ND[DL-0.5], ²BAP-ND[DL-0.5], ³Benzene-ND[DL-0.5], ⁴Lead-ND[DL-0.5], ⁵Nickel-ND[DL-1.0]



(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for other claim. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465907, +91-191-3511562, +91-9873924093

TC-6356

Table: 5 Period of Monitoring:

Location: Secured Landfill Area

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM _{2.5}) µg/m ³	Particulate Matter (PM ₁₀) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) µg/m ³	Lead (as Pb ¹) µg/m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) µg/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆ ⁵) µg/m ³
Tues./Wed.	03/01/2023	TC63662300000008F	28.40	86.20	30.20	36.20	21.50	ND	1.27	54.20	ND	ND	ND	ND
Fri./Sat.	06/01/2023	TC636623000000036F	29.50	83.30	35.30	41.50	29.20	ND	1.19	50.40	ND	ND	ND	ND
Tues./Wed.	10/01/2023	TC636623000000056F	32.40	81.50	26.40	43.40	23.20	ND	1.24	49.30	ND	ND	ND	ND
Thur./Fri.	12/01/2023	TC636623000000069F	36.30	84.60	24.50	37.30	29.30	ND	1.20	55.40	ND	ND	ND	ND
Tues./Wed.	17/01/2023	TC636623000000094F	33.50	84.50	22.30	33.40	28.20	ND	1.15	52.10	ND	ND	ND	ND
Fri./Sat.	20/01/2023	TC636623000000129F	37.30	80.40	24.60	35.40	25.10	ND	1.25	56.50	ND	ND	ND	ND
Tues./Wed.	24/01/2023	TC636623000000184F	32.40	86.20	25.40	42.50	27.40	ND	1.26	50.30	ND	ND	ND	ND
Fri./Sat.	27/01/2023	TC636623000000208F	33.60	83.20	25.10	38.30	25.30	ND	1.15	49.20	ND	ND	ND	ND
Mon./Tue.	30/01/2023	TC636623000000327F	32.40	84.20	23.40	35.20	23.20	ND	1.14	47.20	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			28.40	80.40	22.30	33.40	21.50	-	1.14	47.50	-	-	-	-
Maximum			37.30	86.20	30.20	43.40	29.30	-	1.27	56.50	-	-	-	-
Average			32.85	83.30	26.50	38.40	25.40	-	1.20	52.00	-	-	-	-
98th Percentile			37.30	86.20	30.20	43.40	29.30	-	1.27	56.50	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec-3(i)] 16.11.2009. * Performed at *43, Sector-1A Ext., Bhalia Enclave, Channi Himmat, Jammu-180 014 (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 * ND-Not Detected, ³Arsenic-ND[DL- 0.5], ⁴BAP-ND[DL- 0.5], ⁵Benzene-ND[DL- 0.5], ⁶Lead-ND[DL- 0.5], ⁷Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced or used for any purpose without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-191-3511562, +91-9873924093

Table: 6 Period of Monitoring:

Location: Township Market Complex

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m ³	Particulate Matter (PM10) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) ug/m ³	Lead (as Pb ¹) µg/ m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) ug/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆) ug/m ³
Tues./Wed.	03/01/2023	TC63662300000009F	38.20	85.20	27.20	34.20	23.20	ND	1.20	43.20	ND	ND	ND	ND
Fri./Sat.	06/01/2023	TC636623000000037F	28.60	83.20	28.30	30.10	24.30	ND	1.14	49.10	ND	ND	ND	ND
Tues./Wed.	10/01/2023	TC636623000000057F	37.30	83.30	22.30	36.20	23.10	ND	1.07	41.20	ND	ND	ND	ND
Thur./Fri.	12/01/2023	TC636623000000070F	36.40	87.10	25.40	39.20	27.20	ND	1.10	45.10	ND	ND	ND	ND
Tues./Wed.	17/01/2023	TC636623000000095F	31.70	84.20	26.20	31.10	23.30	ND	1.19	51.20	ND	ND	ND	ND
Fri./Sat.	20/01/2023	TC636623000000130F	37.30	86.30	24.10	32.20	24.40	ND	1.24	45.10	ND	ND	ND	ND
Tues./Wed.	24/01/2023	TC636623000000185F	33.10	87.20	26.20	32.10	27.10	ND	1.14	45.20	ND	ND	ND	ND
Fri./Sat.	27/01/2023	TC636623000000209F	35.30	85.30	24.20	33.20	24.20	ND	1.13	42.20	ND	ND	ND	ND
Mon./Tue.	30/01/2023	TC636623000000328F	33.20	81.10	23.30	34.10	23.10	ND	1.26	43.10	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			28.60	81.10	22.30	30.10	23.10	-	1.07	41.20	-	-	-	-
Maximum			38.30	87.10	28.30	39.20	27.20	-	1.24	51.20	-	-	-	-
Average			33.45	84.00	25.30	34.60	25.15	-	1.15	46.20	-	-	-	-
98th Percentile			38.30	87.10	28.30	39.20	27.20	-	1.24	51.20	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 16.11.2009, *Performed at *43, Sector-1A Ext., Bhalla Enclave, GanganHimmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 * ND-Not Detected, *Arsenic-ND[DL- 0.5], *BAP-ND[DL- 0.5], *Benzene-ND[DL- 0.5], *Lead-ND[DL- 0.5], *Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report shall be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2465997, +91-191-5511962, +91-9873924093

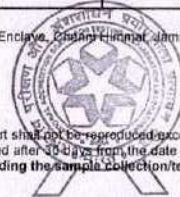
Table: 10 Period of Monitoring:

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m ³	Particulate Matter (PM10) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) µg/m ³	Lead (as Pb ¹) µg/ m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) µg/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆ ⁵) µg/m ³
Tues./Wed.	03/01/2023	TC636623000000010F	36.30	79.20	23.10	39.10	20.30	ND	1.15	42.30	ND	ND	ND	ND
Fri./Sat.	06/01/2023	TC636623000000038F	29.30	73.30	26.20	29.20	27.30	ND	1.04	39.20	ND	ND	ND	ND
Tues./Wed.	10/01/2023	TC636623000000058F	32.30	72.10	19.50	39.20	32.30	ND	1.16	45.10	ND	ND	ND	ND
Thur./Fri.	12/01/2023	TC636623000000071F	28.20	81.20	24.30	34.10	24.40	ND	1.19	49.20	ND	ND	ND	ND
Tues./Wed.	17/01/2023	TC636623000000096F	33.20	69.40	23.20	36.20	23.30	ND	1.05	43.20	ND	ND	ND	ND
Fri./Sat.	20/01/2023	TC636623000000131F	36.20	75.30	26.30	41.20	26.20	ND	1.07	39.30	ND	ND	ND	ND
Tues./Wed.	24/01/2023	TC636623000000186F	33.40	79.20	26.30	32.30	27.30	ND	1.24	49.30	ND	ND	ND	ND
Fri./Sat.	27/01/2023	TC636623000000210F	35.20	75.30	23.10	32.40	26.40	ND	1.25	44.40	ND	ND	ND	ND
Mon./Tue.	30/01/2023	TC636623000000329F	34.40	73.10	25.10	29.10	25.10	ND	1.20	46.40	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			28.20	69.40	19.50	29.10	20.30	-	1.04	39.20	-	-	-	-
Maximum			36.20	81.20	28.30	41.20	32.30	-	1.25	49.30	-	-	-	-
Average			32.00	75.30	23.90	35.15	26.30	-	1.15	44.25	-	-	-	-
98th Percentile			36.20	81.20	28.30	41.20	32.30	-	1.25	49.30	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(0)] 16.11.2009. *Performed at *43, Sector-1A Ext., Bhalia Enclave, Chandernagore, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 * ND-Not Detected, ¹Arsenic-ND[DL- 0.5], ²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2466597, +91-191-3611662, +91-9873924093



AUTHORISED SIGNATORY
(RAVINDER MITAL)

TC-6366

Table: 4 Period of Monitoring:

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) µg/m3	Ozone (as O3) µg/m3	Lead (as Pb') µg/m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) µg/m3	Nickel (as Ni ²⁺) ng/m ³	Arsenic (as As ³⁺) ng/m ³	Benzo (a) pyrene (as BAP ⁴⁺) ng/m ³	Benzene (C6H6 ⁵) µg/m ³
Fri./Sat.	03/02/2023	TC636623000000359F	32.20	83.40	25.10	34.10	24.10	ND	1.20	51.30	ND	ND	ND	ND
Tues./Wed.	07/02/2023	TC636623000000370F	33.10	84.10	22.50	31.20	25.20	ND	1.22	53.10	ND	ND	ND	ND
Fri./Sat.	10/02/2023	TC636623000000410F	28.40	81.20	26.40	38.20	23.10	ND	1.26	56.10	ND	ND	ND	ND
Tues./Wed.	14/02/2023	TC636623000000442F	32.40	85.40	24.50	36.20	20.10	ND	1.23	48.10	ND	ND	ND	ND
Fri./Sat.	17/02/2023	TC636623000000550F	30.20	85.10	25.60	40.20	22.30	ND	1.29	51.40	ND	ND	ND	ND
Tues./Wed.	21/02/2023	TC636623000000576F	30.40	88.20	24.20	33.10	23.40	ND	1.30	57.20	ND	ND	ND	ND
Fri./Sat.	24/02/2023	TC636623000000602F	31.40	86.20	26.40	39.10	25.20	ND	1.29	55.30	ND	ND	ND	ND
Mon./Tue.	27/02/2023	TC636623000000640F	32.0	84.20	26.20	36.10	24.10	ND	1.24	51.50	ND	ND	ND	ND
No. of Observation			8	8	8	8	8	8	8	8	8	8	8	8
Minimum			28.40	81.20	22.50	31.20	20.10	-	1.20	48.10	-	-	-	-
Maximum			33.10	88.20	26.40	40.20	25.20	-	1.30	57.20	-	-	-	-
Average			30.75	84.70	24.45	35.70	22.65	-	1.25	52.65	-	-	-	-
98th Percentile			33.10	88.20	26.40	40.20	25.20	-	1.30	57.20	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark: *NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 16.11.2009, *Performed at *43, Sector-1A Ext., Bhalia Enclave, Chattri Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
*ND-Not Detected, *Arsenic-ND[DL- 0.5], *BAP-ND[DL- 0.5], *Benzene-ND[DL- 0.5], *Lead-ND[DL- 0.5], *Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose. Any complaint about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited to the amount paid only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2485597, +91-191-3511582, +91-9873924093

Table: 5 Period of Monitoring:

Location: Secured Landfill Area

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m ³	Particulate Matter (PM10) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) ug/m ³	Ozone (as O ₃) ug/m ³	Lead (as Pb ¹) µg/ m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) ug/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆ ⁵) ug/m ³
Fri./Sat.	03/02/2023	TC636623000000360F	29.20	87.30	31.30	37.30	22.40	ND	1.29	55.10	ND	ND	ND	ND
Tues./Wed.	07/02/2023	TC636623000000371F	30.20	84.20	36.40	42.40	30.30	ND	1.22	51.50	ND	ND	ND	ND
Fri./Sat.	10/02/2023	TC636623000000411F	33.30	82.40	27.50	44.50	24.30	ND	1.27	50.40	ND	ND	ND	ND
Tues./Wed.	14/02/2023	TC636623000000443F	37.10	85.70	25.60	38.40	30.40	ND	1.24	56.50	ND	ND	ND	ND
Fri./Sat.	17/02/2023	TC636623000000551F	34.40	85.60	23.40	34.50	29.40	ND	1.19	53.40	ND	ND	ND	ND
Tues./Wed.	21/02/2023	TC636623000000577F	38.40	81.20	25.70	36.30	26.20	ND	1.28	57.60	ND	ND	ND	ND
Fri./Sat.	24/02/2023	TC636623000000603F	33.50	87.40	26.50	43.40	28.50	ND	1.29	51.40	ND	ND	ND	ND
Mon./Tue.	27/02/2023	TC636623000000641F	34.10	84.50	26.20	39.40	26.40	ND	1.19	50.20	ND	ND	ND	ND
No. of Observation			8	8	8	8	8	8	8	8	8	8	8	8
Minimum			29.20	81.20	23.40	34.50	22.40	-	1.19	50.20	-	-	-	-
Maximum			38.40	87.40	36.40	44.50	30.40	-	1.29	57.60	-	-	-	-
Average			33.80	84.30	29.00	39.50	26.40	-	1.24	53.90	-	-	-	-
98 th Percentile			38.40	87.40	36.40	44.50	30.40	-	1.29	57.60	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009, *Performed at *43, Sector-1A Ext., Bhalia Enclave, ChanniHimmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 * ND-Not Detected, ³Arsenic-ND[DL- 0.5], ⁴BAP-ND[DL- 0.5], ⁵Benzene-ND[DL- 0.5], ¹Lead-ND[DL- 0.5], ²Nickel-ND[DL- 1.0]


 (AUTHORISED SIGNATORY)
 AUTHORIZED
 (RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-9873924093, +91-9873924093.

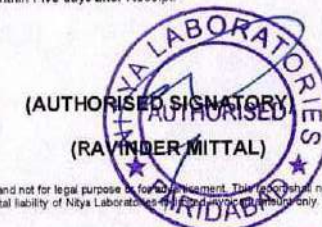
Table: 6 Period of Monitoring:

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m ³	Particulate Matter (PM10) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) µg/m ³	Lead (as Pb ¹) µg/m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) µg/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆ ⁵) µg/m ³
Fri./Sat.	03/02/2023	TC636623000000361F	39.10	86.30	28.30	35.30	24.30	ND	1.23	44.26	ND	ND	ND	ND
Tues./Wed.	07/02/2023	TC636623000000372F	29.40	84.30	29.40	31.20	25.40	ND	1.17	50.20	ND	ND	ND	ND
Fri./Sat.	10/02/2023	TC636623000000412F	38.40	84.40	23.40	37.30	24.20	ND	1.12	42.40	ND	ND	ND	ND
Tues./Wed.	14/02/2023	TC636623000000444F	37.50	88.20	26.50	40.30	28.30	ND	1.14	46.20	ND	ND	ND	ND
Fri./Sat.	17/02/2023	TC636623000000552F	32.50	85.30	27.40	32.30	24.40	ND	1.22	52.20	ND	ND	ND	ND
Tues./Wed.	21/02/2023	TC636623000000578F	38.40	87.40	25.20	33.40	25.50	ND	1.27	46.20	ND	ND	ND	ND
Fri./Sat.	24/02/2023	TC636623000000604F	34.20	88.40	27.30	33.20	28.20	ND	1.17	46.30	ND	ND	ND	ND
Mon./Tue.	27/02/2023	TC636623000000642F	36.40	86.40	25.30	34.20	25.30	ND	1.16	43.40	ND	ND	ND	ND
No. of Observation			8	8	8	8	8	8	8	8	8	8	8	8
Minimum			29.40	84.30	23.40	31.20	24.20	-	1.12	42.40	-	-	-	-
Maximum			39.10	88.40	29.40	40.30	28.30	-	1.27	52.20	-	-	-	-
Average			34.25	86.35	26.40	35.75	26.25	-	1.19	47.30	-	-	-	-
98 th Percentile			39.10	88.40	29.40	40.30	28.30	-	1.27	52.20	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 63 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards, Schedule-VII, [Rule 3 (3B)], [Part-II-sec-3(i)] 16.11.2009. *Performed at *43, Sector-1A Ext., Bhalis Enclave, Channi-Himmat, Jammu, J&K (JT) of NITYA Labs. Sample Analysed within Five days after Receipt.

* ND-Not Detected, ²Arsenic-ND[DL- 0.5], ⁴BAP-ND[DL- 0.5], ⁵Benzene-ND[DL- 0.5], ¹Lead-ND[DL- 0.5], ²Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for any claim. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories shall be limited to the amount paid only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2466597, +91-191-3511562, +91-8873924093

Table: 10 Period of Monitoring:

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) µg/m3	Ozone (as O3) ug/m3	Lead (as Pb ¹) µg/ m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) ug/m3	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m3	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C6H6 ⁵) ug/m3
Fri./Sat.	03/02/2023	TC636623000000362F	37.20	80.30	24.20	40.20	21.40	ND	1.19	43.40	ND	ND	ND	ND
Tues./Wed.	07/02/2023	TC636623000000373F	30.40	74.30	27.30	30.30	28.50	ND	1.08	40.30	ND	ND	ND	ND
Fri./Sat.	10/02/2023	TC636623000000413F	33.40	73.20	20.60	40.30	33.40	ND	1.19	46.20	ND	ND	ND	ND
Tues./Wed.	14/02/2023	TC636623000000445F	29.30	82.30	25.40	35.20	25.50	ND	1.22	50.10	ND	ND	ND	ND
Fri./Sat.	17/02/2023	TC636623000000553F	34.30	70.50	24.30	37.40	24.40	ND	1.09	44.30	ND	ND	ND	ND
Tues./Wed.	21/02/2023	TC636623000000579F	37.30	76.40	29.40	42.40	27.40	ND	1.11	40.40	ND	ND	ND	ND
Fri./Sat.	24/02/2023	TC636623000000605F	34.50	80.30	27.40	33.40	28.40	ND	1.28	50.40	ND	ND	ND	ND
Mon./Tue.	27/02/2023	TC636623000000643F	36.30	76.40	24.20	33.50	27.50	ND	1.29	45.40	ND	ND	ND	ND
No. of Observation			8	8	8	8	8	8	8	8	8	8	8	8
Minimum			29.30	70.50	20.60	30.30	21.40	-	1.08	40.30	-	-	-	-
Maximum			37.30	82.30	29.40	42.40	33.40	-	1.29	50.40	-	-	-	-
Average			33.30	76.40	25.00	36.35	27.40	-	1.18	45.35	-	-	-	-
98th Percentile			37.30	82.30	29.40	42.40	33.40	-	1.29	50.40	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 C PCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/ AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/ AAQ-13	NL/SOP/A AQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards, Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 16.11.2009. *Performed at '43, Sector-1A Ext., Bhalla Enclave, Channi Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.

* ND-Not Detected, ¹Arsenic-ND[DL- 0.5], ²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]

(AUTHORISED SIGNATORY)
AUTHORISED
(RAVINDER MITTAL)
NITYA LABORATORIES
PARADIP

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-981-2488997, +91-191-3511562, +91-9873924093

Table: 4 Period of Monitoring:

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m3	Particulate Matter (PM10) µg/m3	Sulphur Dioxide (as SO2) µg/m3	Nitrogen Dioxide (as NO2) µg/m3	Ozone (as O3) µg/m3	Lead (as Pb ¹) µg/ m3	Carbon Monoxide (as CO) mg/m3	Ammonia (as NH3) µg/m3	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m3	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C6H6 ⁵) µg/m3
Fri./Sat.	03/03/2023	TC636623000000696F	33.40	84.50	22.45	31.95	23.45	ND	1.25	52.30	ND	ND	ND	ND
Mon./Tue.	06/03/2023	TC636623000000706F	31.20	82.90	25.48	32.84	26.30	ND	1.25	54.30	ND	ND	ND	ND
Fri./Sat.	10/03/2023	TC636623000000723F	29.45	83.50	28.30	35.60	26.30	ND	1.30	58.90	ND	ND	ND	ND
Tues./Wed.	14/03/2023	TC636623000000749F	33.60	84.10	26.70	38.45	24.50	ND	1.10	47.70	ND	ND	ND	ND
Fri./Sat.	17/03/2023	TC636623000000790F	31.95	86.70	29.70	41.32	28.95	ND	1.15	52.40	ND	ND	ND	ND
Mon./Tue.	20/03/2023	TC636623000000816F	29.15	89.45	29.50	35.88	26.42	ND	1.12	59.30	ND	ND	ND	ND
Wed./Thu.	22/03/2023	TC636623000000892F	34.32	82.41	24.91	38.20	29.41	ND	1.19	57.40	ND	ND	ND	ND
Fri./Sat.	24/03/2023	TC636623000000923F	33.00	80.95	25.20	39.45	25.14	ND	1.30	50.32	ND	ND	ND	ND
Tues./Wed.	28/03/2023	TC636623000000972F	32.20	81.40	24.80	38.40	26.70	ND	1.26	51.50	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			29.15	80.95	22.45	31.95	23.45	-	1.12	47.70	-	-	-	-
Maximum			34.32	86.70	29.70	41.32	29.41	-	1.30	59.30	-	-	-	-
Average			31.13	83.82	26.07	36.63	26.43	-	1.21	53.50	-	-	-	-
98 th Percentile			34.32	86.70	29.70	41.32	29.41	-	1.30	59.30	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 C PCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

*NAAQS: National Ambient Air Quality Standards; Schedule-VI, [Rule 3 (3B)], [Part-II-sec-3(i)] 16.11.2009. *Performed at *43, Sector-1A Ext., Bhalta Enclave, Channi Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 *ND-Not Detected, ¹Arsenic-ND[DL- 0.5], ²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for any other purpose. The report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited to the amount paid only. If you have any complaint/feedback regarding the sample collection/testing/tes: report, please send an email at info@nityalabs.com and call at +91-191-2465597, +91-191-3511552, +91-9873924093

Table: 5 Period of Monitoring:

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m ³	Particulate Matter (PM10) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) µg/m ³	Lead (as Pb ¹) µg/ m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) µg/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆) µg/m ³
Fri./Sat.	03/03/2023	TC63662300000697F	28.45	84.95	30.42	35.90	25.90	ND	1.30	51.30	ND	ND	ND	ND
Mon./Tue.	06/03/2023	TC63662300000707F	31.42	82.30	31.40	38.62	31.40	ND	1.20	50.45	ND	ND	ND	ND
Fri./Sat.	10/03/2023	TC63662300000724F	32.15	81.40	28.30	42.80	25.60	ND	1.20	51.32	ND	ND	ND	ND
Tues./Wed.	14/03/2023	TC63662300000750F	39.42	86.70	26.40	40.12	31.32	ND	1.19	58.40	ND	ND	ND	ND
Fri./Sat.	17/03/2023	TC63662300000791F	31.45	86.95	22.90	36.70	28.41	ND	1.15	56.70	ND	ND	ND	ND
Mon./Tue.	20/03/2023	TC63662300000817F	34.25	80.30	24.41	38.95	25.90	ND	1.32	58.40	ND	ND	ND	ND
Wed./Thu.	22/03/2023	TC63662300000893F	32.45	88.14	25.45	45.20	27.00	ND	1.35	53.70	ND	ND	ND	ND
Fri./Sat.	24/03/2023	TC63662300000924F	35.40	84.30	29.45	38.41	28.50	ND	1.15	49.40	ND	ND	ND	ND
Tues./Wed.	28/03/2023	TC63662300000973F	33.20	83.60	27.90	39.50	29.40	ND	1.21	50.10	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			28.45	80.30	22.90	35.90	25.60	-	1.15	49.40	-	-	-	-
Maximum			39.42	88.14	31.40	45.20	31.40	-	1.30	58.40	-	-	-	-
Average			33.93	84.22	27.15	40.55	28.50	-	1.22	53.90	-	-	-	-
98th Percentile			39.42	88.14	31.40	45.20	31.40	-	1.30	58.40	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards, Schedule-VII, [Rule 3 (3B)], [Part-II-sec-3(i)] 16.11.2009, *Performed at '43, Sector-1A Exd., Bhalia Enclave, ChanniHimmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 * ND-Not Detected, ¹Arsenic-ND[DL- 0.5],²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaint about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and/or call us at +91-9873924093, +91-9873924093

Table: 6 Period of Monitoring:

Location: Township Market Complex

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m ³	Particulate Matter (PM10) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) µg/m ³	Lead (as Pb ¹) µg/m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) µg/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆ ⁵) µg/m ³
Fri./Sat.	03/03/2023	TC63662300000698F	37.40	81.90	26.10	34.40	21.45	ND	1.15	42.70	ND	ND	ND	ND
Mon./Tue.	06/03/2023	TC63662300000708F	31.42	82.30	30.45	35.60	26.40	ND	1.20	51.62	ND	ND	ND	ND
Fri./Sat.	10/03/2023	TC63662300000725F	37.70	79.40	22.30	38.20	25.40	ND	1.10	44.40	ND	ND	ND	ND
Tues./Wed.	14/03/2023	TC63662300000751F	36.20	85.50	24.50	41.90	29.30	ND	1.20	48.30	ND	ND	ND	ND
Fri./Sat.	17/03/2023	TC63662300000792F	33.50	86.80	28.50	34.40	28.45	ND	1.30	54.50	ND	ND	ND	ND
Mon./Tue.	20/03/2023	TC63662300000818F	37.40	89.70	26.40	36.15	29.30	ND	1.35	48.30	ND	ND	ND	ND
Wed./Thu.	22/03/2023	TC63662300000894F	35.60	84.45	21.40	34.15	30.45	ND	1.20	49.30	ND	ND	ND	ND
Fri./Sat.	24/03/2023	TC63662300000925F	32.40	81.45	23.20	39.50	26.45	ND	1.25	45.60	ND	ND	ND	ND
Tues./Wed.	28/03/2023	TC63662300000974F	34.50	41.40	24.70	35.30	25.90	ND	1.28	46.10	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			31.42	79.40	21.40	34.15	21.45	-	1.10	42.70	-	-	-	-
Maximum			37.70	89.70	30.45	41.90	30.45	-	1.35	54.50	-	-	-	-
Average			34.50	84.55	25.92	38.02	25.95	-	1.22	48.60	-	-	-	-
98 th Percentile			37.70	89.70	30.45	41.90	30.45	-	1.35	54.50	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards, Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 16.11.2009, *Performed at *43, Sector-1A Ext., Bhalia Enclave, Channi-Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 * ND-Not Detected, ²Arsenic-ND[DL- 0.5], ⁴BAP-ND[DL- 0.5], ⁵Benzene-ND[DL- 0.5], ¹Lead-ND[DL- 0.5], ²Nickel-ND[DL- 1.0]

(AUTHORISED SIGNATORY)
 (RAVINDER MITTAL)



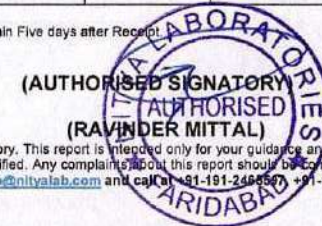
NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratory is limited to the amount paid only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2466597, +91-191-3511562, +91-9673924093

Table: 10 Period of Monitoring:

Day	Date of Sampling	ULR No	Concentration of Pollutants											
			Particulate Matter (PM2.5) µg/m ³	Particulate Matter (PM10) µg/m ³	Sulphur Dioxide (as SO ₂) µg/m ³	Nitrogen Dioxide (as NO ₂) µg/m ³	Ozone (as O ₃) ug/m ³	Lead (as Pb ¹) µg/ m ³	Carbon Monoxide (as CO) mg/m ³	Ammonia (as NH ₃) ug/m ³	Nickel (as Ni ²) ng/m ³	Arsenic (as As ³) ng/m ³	Benzo (a) pyrene (as BAP ⁴) ng/m ³	Benzene (C ₆ H ₆ ⁵) ug/m ³
Fri./Sat.	03/03/2023	TC636623000000699F	36.42	81.40	23.45	41.40	24.95	ND	1.20	40.45	ND	ND	ND	ND
Mon./Tue.	06/03/2023	TC636623000000709F	31.42	73.45	26.30	29.40	30.45	ND	1.10	39.65	ND	ND	ND	ND
Fri./Sat.	10/03/2023	TC636623000000726F	32.33	70.41	22.45	41.40	32.62	ND	1.30	48.32	ND	ND	ND	ND
Tues./Wed.	14/03/2023	TC636623000000752F	28.41	80.22	26.32	39.41	26.42	ND	1.35	50.42	ND	ND	ND	ND
Fri./Sat.	17/03/2023	TC636623000000793F	35.60	72.45	25.31	32.41	30.42	ND	1.15	41.35	ND	ND	ND	ND
Mon./Tue.	20/03/2023	TC636623000000819F	38.40	78.95	30.45	43.45	31.45	ND	1.15	42.45	ND	ND	ND	ND
Wed./Thu.	22/03/2023	TC636623000000895F	35.90	82.33	26.30	32.40	29.45	ND	1.30	48.32	ND	ND	ND	ND
Fri./Sat.	24/03/2023	TC636623000000926F	37.15	78.45	23.40	34.12	23.45	ND	1.25	48.35	ND	ND	ND	ND
Tues./Wed.	28/03/2023	TC636623000000975F	36.80	76.80	25.10	32.90	26.20	ND	1.23	44.60	ND	ND	ND	ND
No. of Observation			9	9	9	9	9	9	9	9	9	9	9	9
Minimum			28.41	70.41	22.45	29.40	23.45	-	1.10	39.65	-	-	-	-
Maximum			38.40	82.33	30.45	43.45	32.62	-	1.35	50.42	-	-	-	-
Average			33.40	76.37	26.45	36.42	28.03	-	1.22	45.03	-	-	-	-
98th Percentile			38.40	82.33	30.45	43.45	32.62	-	1.35	50.42	-	-	-	-
NAAQM Standards			60	100	80	80	100	1	2	400	20	6	1	5
Test Method			40CFR Appendix L Part 53 CPCB Guidelines	IS:5182 (P-23)	IS:5182 (P-2)	IS:5182 (P-6)	IS:5182 (P-9)	NL/SOP/AAQ-11	IS:5182 (P-10)	Method of Air Sampling & Analysis	NL/SOP/AAQ-13	NL/SOP/AAQ-12	IS:5182 (P-12)	IS:5182 (P-11)

Remark:

* NAAQS: National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec-3(i)] 16.11.2009, *Performed at '43, Sector-1A Ext., Bhalala Enclave, Channi Himmat, Jammu, J&K (UT) of NITYA Labs, Sample Analysed within Five days after Receipt.
 * ND-Not Detected, ¹Arsenic-ND[DL- 0.5], ²BAP-ND[DL- 0.5], ³Benzene-ND[DL- 0.5], ⁴Lead-ND[DL- 0.5], ⁵Nickel-ND[DL- 1.0]



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call +91-191-2465567, +91-191-3511562, +91-9873924093



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY
AAQMS TEST REPORT OCTOBER-2022



Source of sample: AAQMS-1, 2, 3, 4, 5, 6 & 7 (All Ambient Air Monitoring Stations)

Date of Sample: 03, 06, 10, 14, 17, 20, 24, 27, & 31.10.2022

Test report No: PDR/QC/AAQM/2022/10

Date: 03.11.2022

S. No.	Parameter	UoM	Limit	AAQMS-1: Main Gate			AAQMS-2: IOTL Tech Bld			AAQMS-3: LT Flare			AAQMS-4: IOT Loading Area			AAQMS-5: ETP area			AAQMS-6: S-Fire Station/QCLab.			AAQMS-7: Incinerator		
				Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max
1	PM2.5	µg/m ³	60 Max	25.8	12.0	46.0	36.9	22.0	46.0	17.6	11.0	22.0	14.4	10.0	20.0	29.3	13.0	38.0	29.3	16.0	43.0	28.0	13.0	42.0
2	PM10	µg/m ³	100 Max	61.4	23.0	99.0	91.6	46.0	125.0	41.8	24.0	64.0	31.4	21.0	48.0	76.2	38.0	94.0	67.4	33.0	92.0	62.2	26.0	92.0
3	Ozone	µg/m ³	100 Max	31.88	21.45	39.30	33.32	26.04	38.64	34.19	30.15	41.55	35.92	25.65	41.00	36.14	31.50	39.40	33.59	24.00	37.20	32.93	24.25	38.00
4	Ammonia	µg/m ³	400 Max	67.46	46.20	81.00	77.66	39.90	97.00	61.68	8.00	98.00	77.91	36.30	99.00	73.99	38.70	94.00	67.11	49.00	87.30	65.41	41.70	79.20
5	NO _x	µg/m ³	80 Max	21.2	15.0	30.0	22.9	16.0	31.0	19.0	14.0	22.0	24.2	18.0	36.0	21.4	17.0	27.0	22.6	18.0	28.0	21.0	13.0	30.0
6	Benzene	µg/m ³	5 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	BenzoPyrene	ng/m ³	1 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	SO _x	µg/m ³	80 Max	24.1	19.0	32.0	25.3	19.0	37.0	20.0	15.0	25.0	26.6	21.0	39.0	24.0	19.0	32.0	22.8	15.0	30.0	23.1	18.0	31.0
9	Pb	µg/m ³	1 Max	0.013	0.009	0.017	0.013	0.010	0.019	0.012	0.009	0.016	0.009	0.007	0.013	0.011	0.008	0.015	0.012	0.009	0.015	0.010	0.009	0.014
10	As	ng/m ³	6 Max	0.23	0.15	0.28	0.23	0.15	0.32	0.18	0.12	0.25	0.20	0.14	0.24	0.18	0.13	0.19	0.21	0.16	0.28	0.25	0.19	0.35
11	Ni	ng/m ³	20 Max	6.33	4.73	9.05	8.34	6.41	10.48	6.29	4.07	9.13	4.82	3.98	5.72	7.74	5.24	9.24	6.88	4.90	9.03	6.73	4.81	8.20
12	CO	mg/m ³	2 Max																0.23	0.08	0.31			

Note: 1. Customer Information: Indian Oil Corporation Limited, Paradip Refinery, HSE Department.

2. Sample details: Sample collected by QC personnel and received as such.

3. The results relate only to the samples collected.

4. All tests/analyses performed at PDR Quality Control Laboratory as per applicable test methods, unless otherwise stated without any deviations to test method.

5. Customer confidential information shall be maintained as per customer agreement, if any.

6. This report shall not be produced except in full, without the written approval of Quality Control Laboratory, Paradip Refinery.

7. All test methods referred to in this certificate include a precision statement. The interpretation of results based on test method/ precision shall be used whenever applicable.

8. Laboratory Environmental Condition: 23±2 °C and 65 ± 10 %RH.

Dr. Nruparaj Sahu
Quality Control Manager
Indian Oil Corporation Ltd
Paradip Refinery



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY
AAQMS TEST REPORT NOVEMBER-2022



Source of sample: AAQMS-1, 2, 3, 4, 5, 6 & 7 (All Ambient Air Monitoring Stations)

Date of Sample: 03, 07, 10, 14, 17, 21, 24, & 28.11.2022

Test report No: PDR/QC/AAQM/2022/11

Date: 03.12.2022

S. No.	Parameter	UoM	Limit	AAQMS-1: Main Gate			AAQMS-2: IOTL Tech Bld			AAQMS-3: LT Flare			AAQMS-4: IOT Loading Area			AAQMS-5: ETP area			AAQMS-6: S-Fire Station/QCLab.			AAQMS-7: Incinerator		
				Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max
1	PM2.5	µg/m ³	60 Max	37.0	16.0	51.0	39.1	23.0	58.0	34.6	14.0	53.0	32.8	16.0	57.0	31.3	15.0	51.0	35.0	17.0	49.0	32.4	17.0	58.0
2	PM10	µg/m ³	100 Max	75.5	39.0	98.0	75.4	55.0	96.0	73.0	25.0	99.0	56.4	29.0	75.0	61.6	35.0	98.0	68.4	35.0	88.0	66.4	37.0	97.0
3	Ozone	µg/m ³	100 Max	2.45	1.72	5.98	2.70	1.75	7.76	2.51	1.71	6.52	2.49	1.72	6.36	2.54	1.72	7.32	2.18	0.77	7.14	2.53	1.73	6.60
4	Ammonia	µg/m ³	400 Max	2.33	1.24	8.22	2.46	1.27	9.10	2.42	1.23	8.84	2.41	1.19	8.93	2.42	1.18	8.42	2.63	1.58	7.92	2.33	1.24	8.16
5	NO _x	µg/m ³	80 Max	21.4	16.0	48.0	21.8	16.0	52.0	19.3	14.0	33.0	20.0	14.0	39.0	23.8	16.0	50.2	19.8	17.0	32.0	19.3	15.0	34.0
6	Benzene	µg/m ³	5 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	BenzoPyrene	ng/m ³	1 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	SO _x	µg/m ³	80 Max	19.0	16.0	23.0	19.5	16.0	24.0	18.6	13.0	22.0	18.6	12.0	24.0	21.9	15.0	35.4	19.7	16.3	25.0	18.3	14.0	23.0
9	Pb	µg/m ³	1 Max	0.010	0.008	0.014	0.010	0.006	0.015	0.009	0.006	0.015	0.009	0.007	0.014	0.009	0.007	0.014	0.010	0.006	0.015	0.009	0.006	0.013
10	As	ng/m ³	6 Max	0.11	0.04	0.35	0.14	0.02	0.32	0.10	0.03	0.35	0.11	0.03	0.34	0.13	0.05	0.37	0.14	0.03	0.36	0.13	0.04	0.37
11	Ni	ng/m ³	20 Max	3.26	1.98	8.69	3.22	1.28	10.20	3.00	1.24	10.33	3.07	1.62	8.78	3.05	1.28	10.37	3.15	1.29	10.22	2.82	0.82	9.39
12	CO	mg/m ³	2 Max																0.17	0.10	0.26			

- Note: 1. Customer Information: Indian Oil Corporation Limited, Paradip Refinery, HSE Department.
2. Sample details: Sample collected by QC personnel and received as such.
3. The results relate only to the samples collected.
4. All tests/analyses performed at PDR Quality Control Laboratory as per applicable test methods, unless otherwise stated without any deviations to test method.
5. Customer confidential information shall be maintained as per customer agreement, if any.
6. This report shall not be produced except in full, without the written approval of Quality Control Laboratory, Paradip Refinery.
7. All test methods referred to in this certificate include a precision statement. The interpretation of results based on test method/ precision shall be used whenever applicable.
8. Laboratory Environmental Condition: 23±2 °C and 65 ± 10 %RH.

Dr. Nruparaj Sahu
Quality Control Manager
Indian Oil Corporation Ltd
Paradip Refinery



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY
AAQMS TEST REPORT DECEMBER-2022



Source of sample: AAQMS-1, 2, 3, 4, 5, 6 & 7 (All Ambient Air Monitoring Stations)

Date of Sample: 01, 05, 08, 12, 15, 19, 22, 26, & 29.12.2022

Test report No: PDR/QC/AAQM/2022/12

Date: 04.01.2023

S. No.	Parameter	UoM	Limit	AAQMS-1: Main Gate			AAQMS-2: IOTL Tech Bid			AAQMS-3: LT Flare			AAQMS-4: IOT Loading Area			AAQMS-5: ETP area			AAQMS-6: S-Fire Station/QCLab.			AAQMS-7: Incinerator		
				Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max
1	PM2.5	µg/m ³	60 Max	46.4	34.0	55.0	47.6	39.0	55.0	39.2	26.0	47.0	32.3	23.0	42.0	43.0	31.0	53.0	45.2	37.0	54.0	43.3	32.0	56.0
2	PM10	µg/m ³	100 Max	93.9	76.0	98.0	96.7	92.0	99.0	76.8	55.0	89.0	76.0	45.0	97.0	88.3	62.0	99.0	94.9	85.0	99.0	89.9	63.0	99.0
3	Ozone	µg/m ³	100 Max	14.83	7.08	26.77	11.91	7.49	18.44	12.29	5.92	20.51	13.84	6.87	29.24	15.25	7.02	26.01	13.94	6.48	21.78	14.11	6.95	23.12
4	Ammonia	µg/m ³	400 Max	14.55	7.62	21.83	13.10	7.95	22.28	13.29	6.19	19.92	13.57	8.03	21.25	13.99	7.13	20.15	13.82	5.93	23.25	13.76	6.74	20.37
5	NO _x	µg/m ³	80 Max	52.8	41.0	63.0	49.0	41.0	56.0	43.1	27.0	54.0	47.1	40.0	54.0	49.6	40.0	63.0	46.0	27.0	75.0	47.4	41.0	54.0
6	Benzene	µg/m ³	5 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	BenzoPyrene	ng/m ³	1 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	SO _x	µg/m ³	80 Max	29.1	23.0	36.0	30.1	23.0	40.0	26.8	22.0	31.0	29.4	24.0	34.0	28.9	24.0	35.0	27.3	22.0	31.0	27.6	23.0	31.0
9	Pb	µg/m ³	1 Max	0.021	0.014	0.036	0.019	0.016	0.023	0.018	0.011	0.027	0.016	0.012	0.020	0.013	0.008	0.017	0.016	0.012	0.020	0.018	0.015	0.023
10	As	ng/m ³	6 Max	0.35	0.24	0.39	0.34	0.29	0.37	0.28	0.18	0.39	0.31	0.14	0.43	0.26	0.16	0.33	0.34	0.18	0.42	0.39	0.22	0.48
11	Ni	ng/m ³	20 Max	10.05	9.15	11.57	11.39	10.32	12.42	7.87	6.29	8.54	9.07	6.57	10.12	9.10	7.36	9.72	10.63	9.13	11.30	9.72	8.68	10.53
12	CO	mg/m ³	2 Max																0.32	0.13	0.56			

Note: 1. Customer Information: Indian Oil Corporation Limited, Paradip Refinery, HSE Department.

2. Sample details: Sample collected by QC personnel and received as such.

3. The results relate only to the samples collected.


4. All tests/analyses performed at PDR Quality Control Laboratory as per applicable test methods, unless otherwise stated without any deviations to test method.

5. Customer confidential information shall be maintained as per customer agreement, if any.

6. This report shall not be produced except in full, without the written approval of Quality Control Laboratory, Paradip Refinery.

7. All test methods referred to in this certificate include a precision statement. The interpretation of results based on test method/ precision shall be used whenever applicable.

8. Laboratory Environmental Condition: 23±2 °C and 65 ± 10 %RH.


Dr. Nruparaj Sahu
Quality Control Manager
Indian Oil Corporation Ltd
Paradip Refinery



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY
AAQMS TEST REPORT JANUARY-2023



Source of sample: AAQMS-1, 2, 3, 4, 5, 6 & 7 (All Ambient Air Monitoring Stations)

Date of Sample: 02, 05, 09, 12, 16, 19, 23, 26, & 30.01.2023

Test report No: PDR/QC/AAQM/2022/01

Date: 04.02.2023

S. No.	Parameter	UoM	Limit	AAQMS-1: Main Gate			AAQMS-2: IOTL Tech Bid			AAQMS-3: LT Flare			AAQMS-4: IOT Loading Area			AAQMS-5: ETP area			AAQMS-6: S-Fire Station/QCLab.			AAQMS-7: Incinerator		
				Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max
1	PM2.5	µg/m ³	60 Max	51.9	47.0	55.0	56.6	54.0	58.0	46.4	37.0	53.0	40.4	28.0	47.0	49.1	37.0	56.0	54.8	50.0	57.0	52.7	49.0	58.0
2	PM10	µg/m ³	100 Max	96.1	91.0	99.0	98.0	95.0	99.0	85.2	77.0	97.0	80.7	68.0	91.0	93.1	87.0	98.0	96.7	91.0	99.0	95.4	93.0	99.0
3	Ozone	µg/m ³	100 Max	36.41	31.78	40.59	39.33	37.43	42.80	33.32	29.62	38.68	36.14	28.99	41.79	36.57	32.87	41.15	35.89	33.07	37.90	37.29	33.97	39.77
4	Ammonia	µg/m ³	400 Max	34.72	26.89	40.60	37.52	36.26	38.40	32.45	27.88	37.70	34.99	29.09	41.11	34.58	28.70	40.70	32.98	27.69	36.90	33.62	26.90	39.00
5	NO _x	µg/m ³	80 Max	68.9	60.0	77.0	70.0	65.0	75.0	64.1	57.0	75.0	66.6	58.0	73.0	67.2	60.0	75.0	67.7	58.0	74.0	70.1	63.0	77.0
6	Benzene	µg/m ³	5 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	BenzoPyrene	ng/m ³	1 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	SO _x	µg/m ³	80 Max	34.2	30.0	39.0	35.4	32.0	38.0	30.2	26.0	34.0	35.7	32.0	39.0	33.0	28.0	37.0	33.0	30.0	37.0	33.0	29.0	38.0
9	Pb	µg/m ³	1 Max	0.019	0.015	0.023	0.021	0.017	0.025	0.018	0.014	0.025	0.021	0.017	0.025	0.018	0.015	0.020	0.017	0.013	0.022	0.022	0.018	0.028
10	As	ng/m ³	6 Max	0.26	0.19	0.36	0.26	0.19	0.31	0.24	0.03	0.35	0.22	0.15	0.32	0.24	0.19	0.34	0.23	0.17	0.31	0.22	0.02	0.29
11	Ni	ng/m ³	20 Max	10.43	9.53	11.24	9.38	8.76	9.85	9.99	8.17	11.98	9.98	8.72	10.95	10.60	8.97	11.82	10.07	8.53	11.05	10.14	9.26	11.79
12	CO	mg/m ³	2 Max																0.33	0.24	0.38			

Note: 1. Customer Information: Indian Oil Corporation Limited, Paradip Refinery, HSE Department.

2. Sample details: Sample collected by QC personnel and received as such.

3. The results relate only to the samples collected.

4. All tests/analyses performed at PDR Quality Control Laboratory as per applicable test methods, unless otherwise stated without any deviations to test method.

5. Customer confidential information shall be maintained as per customer agreement, if any.

6. This report shall not be produced except in full, without the written approval of Quality Control Laboratory, Paradip Refinery.

7. All test methods referred to in this certificate include a precision statement. The interpretation of results based on test method/ precision shall be used whenever applicable.

8. Laboratory Environmental Condition: 23±2 °C and 65 ± 10 %RH.

Dr. Nruparaj Sahu
Quality Control Manager
Indian Oil Corporation Ltd
Paradip Refinery



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY
AAQMS TEST REPORT FEBRUARY-2023



Source of sample: AAQMS-1, 2, 3, 4, 5, 6 & 7 (All Ambient Air Monitoring Stations)

Date of Sample: 02, 06, 10, 13, 16, 20, 23, & 27.02.2023

Test report No: PDR/QC/AAQM/2022/02

Date: 04.03.2023

S. No.	Parameter	UoM	Limit	AAQMS-1: Main Gate			AAQMS-2: IOTL Tech Bid			AAQMS-3: LT Flare			AAQMS-4: IOT Loading Area			AAQMS-5: ETP area			AAQMS-6: S-Fire Station/QCLab.			AAQMS-7: Incinerator		
				Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max
1	PM2.5	µg/m ³	60 Max	46.6	36.0	55.0	51.9	44.0	56.0	36.6	32.0	43.0	34.0	29.0	42.0	41.3	32.0	47.0	44.5	37.0	53.0	44.3	40.0	50.0
2	PM10	µg/m ³	100 Max	87.5	82.0	95.0	94.4	90.0	99.0	72.6	64.0	82.0	69.6	62.0	79.0	79.4	64.0	90.0	86.4	69.0	99.0	88.1	79.0	97.0
3	Ozone	µg/m ³	100 Max	39.66	36.07	47.68	38.24	32.68	45.59	35.80	30.57	39.87	38.34	31.15	47.05	38.88	32.87	48.86	36.74	33.27	43.49	37.03	33.45	41.90
4	Ammonia	µg/m ³	400 Max	38.17	34.02	41.25	38.84	32.42	42.76	35.18	30.44	38.72	38.77	35.58	41.50	37.23	33.19	39.76	35.01	31.11	37.87	35.70	32.48	39.28
5	NO _x	µg/m ³	80 Max	66.5	59.0	74.0	66.3	63.0	71.0	62.1	55.0	68.0	62.1	59.0	66.0	63.9	58.0	70.0	62.6	54.0	65.0	64.4	57.0	69.0
6	Benzene	µg/m ³	5 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	BenzoPyrene	ng/m ³	1 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	SO _x	µg/m ³	80 Max	36.8	32.0	43.0	35.6	31.0	38.0	32.3	29.0	35.0	38.4	34.0	41.0	36.3	32.0	40.0	35.5	33.0	41.0	34.8	31.0	39.0
9	Pb	µg/m ³	1 Max	0.021	0.015	0.028	0.017	0.011	0.024	0.018	0.013	0.022	0.016	0.010	0.021	0.019	0.013	0.023	0.019	0.014	0.023	0.021	0.014	0.030
10	As	ng/m ³	6 Max	0.24	0.02	0.36	0.21	0.14	0.33	0.21	0.14	0.30	0.18	0.13	0.25	0.20	0.14	0.24	0.21	0.14	0.30	0.19	0.01	0.28
11	Ni	ng/m ³	20 Max	9.83	8.53	11.48	9.09	8.37	10.35	9.74	8.35	11.38	8.53	7.22	9.85	9.69	8.08	10.85	9.11	8.15	10.38	10.04	9.13	10.81
12	CO	mg/m ³	2 Max															0.30	0.26	0.33				

- Note: 1. Customer Information: Indian Oil Corporation Limited, Paradip Refinery, HSE Department.
2. Sample details: Sample collected by QC personnel and received as such.
3. The results relate only to the samples collected.
4. All tests/analyses performed at PDR Quality Control Laboratory as per applicable test methods, unless otherwise stated without any deviations to test method.
5. Customer confidential information shall be maintained as per customer agreement, if any.
6. This report shall not be produced except in full, without the written approval of Quality Control Laboratory, Paradip Refinery.
7. All test methods referred to in this certificate include a precision statement. The interpretation of results based on test method/ precision shall be used whenever applicable.
8. Laboratory Environmental Condition: 23±2 °C and 65 ± 10 %RH.

Dr. Nruparaj Sahu
Quality Control Manager
Indian Oil Corporation Ltd
Paradip Refinery



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY
AAQMS TEST REPORT MARCH-2023



Source of sample: AAQMS-1, 2, 3, 4, 5, 6 & 7 (All Ambient Air Monitoring Stations)

Date of Sample: 02, 07, 10, 13, 16, 20, 23, 27, & 30.03.2023

Test report No: PDR/QC/AAQM/2023/03

Date: 05.04.2023

S. No.	Parameter	UoM	Limit	AAQMS-1: Main Gate			AAQMS-2: IOTL Tech Bid			AAQMS-3: LT Flare			AAQMS-4: IOT Loading Area			AAQMS-5: ETP area			AAQMS-6: S-Fire Station/QCLab.			AAQMS-7: Incinerator		
				Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max
1	PM2.5	µg/m ³	60 Max	43.0	26.0	56.0	48.8	40.0	55.0	31.7	30.0	33.0	31.8	23.0	41.0	38.6	29.0	53.0	39.3	33.0	53.0	44.4	37.0	52.0
2	PM10	µg/m ³	100 Max	79.3	59.0	99.0	90.1	78.0	99.0	65.3	63.0	68.0	63.1	49.0	80.0	72.2	51.0	96.0	75.9	65.0	97.0	82.7	63.0	98.0
3	Ozone	µg/m ³	100 Max	39.81	31.05	48.30	39.18	32.35	45.82	34.43	30.49	39.01	35.92	30.19	42.61	39.01	33.95	44.52	39.31	37.04	41.27	40.48	37.26	43.89
4	Ammonia	µg/m ³	400 Max	39.05	35.89	40.95	38.15	34.69	41.69	35.85	33.51	38.32	38.94	34.94	40.97	37.89	35.48	41.62	37.57	34.30	40.44	37.43	36.16	39.23
5	NO _x	µg/m ³	80 Max	71.6	64.0	78.0	67.8	61.0	72.0	63.7	62.0	66.0	64.1	56.0	71.0	66.9	60.0	74.0	67.7	60.0	76.0	65.9	57.0	73.0
6	Benzene	µg/m ³	5 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	BenzoPyrene	ng/m ³	1 Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	SO _x	µg/m ³	80 Max	40.2	37.0	44.0	38.6	36.0	44.0	36.3	35.0	38.0	40.8	38.0	46.0	37.9	34.0	42.0	37.1	32.0	42.0	37.8	33.0	41.0
9	Pb	µg/m ³	1 Max	0.016	0.008	0.024	0.014	0.009	0.019	0.017	0.010	0.022	0.017	0.011	0.021	0.020	0.015	0.024	0.019	0.011	0.025	0.020	0.009	0.028
10	As	ng/m ³	6 Max	0.23	0.18	0.26	0.19	0.12	0.27	0.16	0.13	0.19	0.18	0.14	0.26	0.23	0.18	0.35	0.22	0.15	0.31	0.22	0.16	0.26
11	Ni	ng/m ³	20 Max	8.85	6.93	10.96	9.18	7.91	10.86	9.74	8.91	10.47	8.48	6.73	12.03	9.91	7.48	12.19	10.12	8.58	12.25	10.04	7.09	11.95
12	CO	mg/m ³	2 Max																0.28	0.10	0.37			

- Note: 1. Customer Information: Indian Oil Corporation Limited, Paradip Refinery, HSE Department.
2. Sample details: Sample collected by QC personnel and received as such.
3. The results relate only to the samples collected.
4. All tests/analyses performed at PDR Quality Control Laboratory as per applicable test methods, unless otherwise stated without any deviations to test method.
5. Customer confidential information shall be maintained as per customer agreement, if any.
6. This report shall not be produced except in full, without the written approval of Quality Control Laboratory, Paradip Refinery.
7. All test methods referred to in this certificate include a precision statement. The interpretation of results based on test method/ precision shall be used whenever applicable.
8. Laboratory Environmental Condition: 23±2 °C and 65 ± 10 %RH.


Dr. Nruparaj Sahu
Quality Control Manager
Indian Oil Corporation Ltd
Paradip Refinery

Annexure-6

Sulphur Balance

SULPHUR BALANCE

Oct'22

INPUT

TOTAL CRUDE CHARGED	TMT/Month		1239.114
SULPHUR CONTENT OF CRUDE MIX	% WT		2.235
ADDITIONAL VGO INPUT	TMT/Month		0.000
SULPHUR CONTENT OF ADDITIONAL INPUT	% WT		0.000
INTERMEDIATE FEED STOCK BUILD-UP	TMT/Month		0.000
SULPHUR CONTENT OF ISD	% WT		0.000
SULPHUR CONTENT IN INPUT	TMT/Month		27.70

PRODUCTS MAKE	TMT/Month	AVG. SULPHUR IN PRODUCT, PPM	SULPHUR WT. %	SULPHUR CONTENT, TMT/Month
LPG	97.083	150	0.015	0.01
NAPHTHA	-9.163	250	0.025	0.00
PROPYLENE/Fuel for PP	7.134	0.01	0.000	0.00
GASOLENE-88	0.000	20	0.002	0.00
REFORMATE	84.664	1	0.000	0.00
MS-VI	234.388	10	0.001	0.00
KERO	2.510	1000	0.100	0.00
ATF	53.392	1000	0.100	0.05
HSD	480.395	10	0.001	0.00
HF HSD	35.594	10	0.001	0.00
LCO	8.950	700	0.070	0.01
COKE	118.283	71000.0	7.100	8.40
SULPHUR PRODUCT	19.122			19.12
Sulphur content in product				27.60
ISD build up/line fill				
Sulphur in Input	27.70			
Sulphur in Product	27.60			
S' emission, TMT/Month	0.10			
SO2 emission, kg/hr	264.0			

SULPHUR BALANCE

Nov'22

INPUT

TOTAL CRUDE CHARGED	TMT/Month		1470.807
SULPHUR CONTENT OF CRUDE MIX	% WT		2.266
ADDITIONAL VGO INPUT	TMT/Month		0.000
SULPHUR CONTENT OF ADDITIONAL INPUT	% WT		0.000
INTERMEDIATE FEED STOCK BUILD-UP	TMT/Month		0.000
SULPHUR CONTENT OF ISD	% WT		0.000
SULPHUR CONTENT IN INPUT	TMT/Month		33.33

PRODUCTS MAKE	TMT/Month	AVG. SULPHUR IN PRODUCT, PPM	SULPHUR WT.%	SULPHUR CONTENT, TMT/Month
LPG	103.592	150	0.015	0.02
NAPHTHA	16.167	250	0.025	0.00
PROPYLENE/Fuel for PP	6.083	0.01	0.000	0.00
GASOLENE-88	0.000	20	0.002	0.00
REFORMATE	69.822	1	0.000	0.00
MS-VI	254.709	10	0.001	0.00
KERO	3.538	1000	0.100	0.00
ATF	59.219	1000	0.100	0.06
HSD	513.314	10	0.001	0.01
HF HSD	37.306	10	0.001	0.00
LCO	23.396	700	0.070	0.02
COKE	115.614	82300.0	8.230	9.52
SULPHUR PRODUCT	23.580			23.58
Sulphur content in product				33.20
ISD build up/line fill				
Sulphur in Input	33.33			
Sulphur in Product	33.20			
S' emission, TMT/Month	0.13			
SO2 emission, kg/hr	352.2			

SULPHUR BALANCE

Dec'22

INPUT

TOTAL CRUDE CHARGED	TMT/Month		1416.576
SULPHUR CONTENT OF CRUDE MIX	% WT		2.566
ADDITIONAL VGO INPUT	TMT/Month		0.000
SULPHUR CONTENT OF ADDITIONAL INPUT	% WT		0.000
INTERMEDIATE FEED STOCK BUILD-UP	TMT/Month		0.000
SULPHUR CONTENT OF ISD	% WT		0.000
SULPHUR CONTENT IN INPUT	TMT/Month		36.34

PRODUCTS MAKE	TMT/Month	AVG. SULPHUR IN PRODUCT, PPM	SULPHUR WT.%	SULPHUR CONTENT, TMT/Month
LPG	110.157	150	0.015	0.02
NAPHTHA	13.334	250	0.025	0.00
PROPYLENE/Fuel for PP	6.418	0.01	0.000	0.00
GASOLENE-88	0.000	20	0.002	0.00
REFORMATE	84.521	1	0.000	0.00
MS-VI	272.067	10	0.001	0.00
KERO	9.014	1000	0.100	0.01
ATF	74.485	1000	0.100	0.07
HSD	506.726	10	0.001	0.01
HF HSD	59.383	10	0.001	0.00
LCO	13.742	700	0.070	0.01
COKE	116.232	70230.0	7.023	8.16
SULPHUR PRODUCT	27.933			27.93
Sulphur content in product				36.22
ISD build up/line fill				
Sulphur in Input	36.34			
Sulphur in Product	36.22			
S' emission, TMT/Month	0.13			
SO2 emission, kg/hr	340.9			

SULPHUR BALANCE

Jan'23

INPUT

TOTAL CRUDE CHARGED	TMT/Month		1425.155
SULPHUR CONTENT OF CRUDE MIX	% WT		2.453
ADDITIONAL VGO INPUT	TMT/Month		0.000
SULPHUR CONTENT OF ADDITIONAL INPUT	% WT		0.000
INTERMEDIATE FEED STOCK BUILD-UP	TMT/Month		0.000
SULPHUR CONTENT OF ISD	% WT		0.000
SULPHUR CONTENT IN INPUT	TMT/Month		34.96

PRODUCTS MAKE	TMT/Month	AVG. SULPHUR IN PRODUCT, PPM	SULPHUR WT.%	SULPHUR CONTENT, TMT/Month
LPG	117.872	150	0.015	0.02
NAPHTHA	14.972	250	0.025	0.00
PROPYLENE/Fuel for PP	13.779	0.01	0.000	0.00
GASOLENE-88	0.000	20	0.002	0.00
REFORMATE	112.763	1	0.000	0.00
MS-VI	250.637	10	0.001	0.00
KERO	0.000	1000	0.100	0.00
ATF	62.002	1000	0.100	0.06
HSD	517.773	10	0.001	0.01
HF HSD	60.080	10	0.001	0.00
LCO	34.130	700	0.070	0.02
COKE	126.345	70230.0	7.023	8.87
SULPHUR PRODUCT	25.841			25.84
Sulphur content in product				34.83
ISD build up/line fill				
Sulphur in Input	34.96			
Sulphur in Product	34.83			
S' emission, TMT/Month	0.13			
SO2 emission, kg/hr	341.3			

SULPHUR BALANCE

Feb'23

INPUT

TOTAL CRUDE CHARGED	TMT/Month		1191.959
SULPHUR CONTENT OF CRUDE MIX	% WT		2.303
ADDITIONAL VGO INPUT	TMT/Month		0.000
SULPHUR CONTENT OF ADDITIONAL INPUT	% WT		0.000
INTERMEDIATE FEED STOCK BUILD-UP	TMT/Month		0.000
SULPHUR CONTENT OF ISD	% WT		0.000
SULPHUR CONTENT IN INPUT	TMT/Month		27.46

PRODUCTS MAKE	TMT/Month	AVG. SULPHUR IN PRODUCT, PPM	SULPHUR WT.%	SULPHUR CONTENT, TMT/Month
LPG	102.685	150	0.015	0.02
NAPHTHA	22.166	250	0.025	0.01
PROPYLENE/Fuel for PP	11.426	0.01	0.000	0.00
GASOLENE-88	0.000	20	0.002	0.00
REFORMATE	81.819	1	0.000	0.00
MS-VI	216.393	10	0.001	0.00
KERO	6.515	1000	0.100	0.01
ATF	58.473	1000	0.100	0.06
HSD	433.620	10	0.001	0.00
HF HSD	32.883	10	0.001	0.00
LCO	27.837	700	0.070	0.02
COKE	99.170	70230.0	7.023	6.96
SULPHUR PRODUCT	20.284			20.28
Sulphur content in product				27.36
ISD build up/line fill				
Sulphur in Input	27.46			
Sulphur in Product	27.36			
S' emission, TMT/Month	0.09			
SO2 emission, kg/hr	252.6			

SULPHUR BALANCE

Mar'23

INPUT

TOTAL CRUDE CHARGED	TMT/Month		1418.039
SULPHUR CONTENT OF CRUDE MIX	% WT		2.265
ADDITIONAL VGO INPUT	TMT/Month		0.000
SULPHUR CONTENT OF ADDITIONAL INPUT	% WT		0.000
INTERMEDIATE FEED STOCK BUILD-UP	TMT/Month		0.000
SULPHUR CONTENT OF ISD	% WT		0.000
SULPHUR CONTENT IN INPUT	TMT/Month		32.12

PRODUCTS MAKE	TMT/Month	AVG. SULPHUR IN PRODUCT, PPM	SULPHUR WT.%	SULPHUR CONTENT, TMT/Month
LPG	113.931	150	0.015	0.02
NAPHTHA	15.698	250	0.025	0.00
PROPYLENE/Fuel for PP	13.951	0.01	0.000	0.00
GASOLENE-88	0.000	20	0.002	0.00
REFORMATE	100.040	1	0.000	0.00
MS-VI	237.332	10	0.001	0.00
KERO	-4.195	1000	0.100	0.00
ATF	79.079	1000	0.100	0.08
HSD	499.154	10	0.001	0.00
HF HSD	73.538	10	0.001	0.00
LCO	35.158	700	0.070	0.02
COKE	109.076	70190.0	7.019	7.66
SULPHUR PRODUCT	24.213			24.21
Sulphur content in product				32.00
ISD build up/line fill				
Sulphur in Input	32.12			
Sulphur in Product	32.00			
S' emission, TMT/Month	0.12			
SO2 emission, kg/hr	330.5			

Annexure-7

LDAR Report



REPORT ON
LDAR MONITORING AT
INDIAN OIL TANKING LIMITED,
BOOT#3 IOCL PARADIP, DEC 2022

PREPARED BY:

SGS India Private Limited

CS Plot-512 (P), Mouza, Hanspukuria,

Diamond Harbour Road,

PO-Joka,

South 24Parganas

Kolkata - 700104

Contents

1	Introduction	3
1.1	About Industry	3
2	Objective	Error! Bookmark not defined.
3	Present study.....	4
4	Scope of Work.....	4
5	About LDAR:.....	4
6	Methodology of the study:	5
6.1	Sampling Methodology:.....	Error! Bookmark not defined.
6.2	Individual Source Surveys.....	5
7	Calculation:.....	6
8	Results	8

1 Introduction

SGS India Private Limited has been contracted to conduct LDAR monitoring at BOOT # 3 & SOJ of IOCL Paradip for 2021-2022 period. Accordingly the measurement of the identified fugitive emission sources within the study area to detect leaking components as per USEPA 21 Guideline were conducted during November-December 2021. Although the leak definition as per CPCB guideline is 3000 ppmv and 5000 ppmv, M/s IOT wanted SGS to report any source emission above 300 ppmv.

2 About Industry

Oiltanking has been active in tank storage logistics since 1972, and is one of the largest independent operators of tank terminals for oils, gases and chemicals worldwide. The company owns and operates 45 terminals in 20 countries with a total storage capacity of more than 18.5 million cbm, on five continents – in Europe, North America, Latin America, the Middle East, Africa, India, and the Asia-Pacific region.

At the tank terminals, Oiltanking stores and handles nearly 500 different products including crude oil, petroleum products, biofuels, gases and chemicals. The total throughput of all terminals in 2019 was around 155 million tons.

Oiltanking is not the owner of the goods stored, but merely provides its services in the field of tank storage logistics. Our clients include private and state oil companies, refiners, petrochemical companies, and traders in petroleum products and chemicals.

Often we develop and operate our business with reputable local, private and state-owned companies, whereby Oiltanking acts as operating partner in the joint venture. In developing capital-intensive terminal facilities alone – or with substantial local business partners – the financial strength of parent company Marquard & Bahls AG is a valuable resource.

To further improve our shareholders value we continue to employ a strategy of controlled growth of our tank terminal-based service network through acquisitions, new buildings and upgrading of existing facilities.

Oiltanking has a strong customer orientation and provides tailor-made infrastructure. Its focus is on safe, efficient and reliable services in constructing and operating its facilities.

Besides tank storage, Oiltanking is active in the engineering, procurement and construction (EPC) of tank terminals.

In 2020, about 2,600 employees worked for Oiltanking.

PARADIP TERMINAL FACTS

Tank Capacity 1,513,968 cbm

Tanks 51

Tank Types Mild steel, pressure vessel steel

Access Types - Vessels, Tank Trucks, Pipeline, Berth

No. of Berths - 1

Products - Clean Petroleum Products, Crude Oil, Gases

Services - Pipeline connections to refineries, Tank-to-tank transfer, Vessel loading and unloading, Truck loading, Blending services, Homogenizing

2 Sampling Schedule

From 07.12.2022 to 14.12.2022

3 Objective

The objective of the studies to Identifying potential fugitive emission sources and quantification of the fugitive emission during oil production in terminals.

A typical industry can emit tons per year of VOCs from leaking equipment, such as valves, connectors, pumps, sampling connections, compressors, pressure relief devices and open-ended lines etc. Process components covering all joints as mentioned above are monitored under “fugitive emission monitoring” program covering all the components in Boot # 3 & SOJ.

4 Present study

- a) Carry out onsite detection through physical scanning for leaks and vented emissions (if any) in the operating assets using portable analyzer according USEPA Method 21 (sniffing method).
- b) Monitoring and measurement of the identified fugitive emission sources within the study area and tagging the detected leaking components.
- c) The outcome of the study shall focus on the details the programme undertaken, methodology, findings, monitored fugitive emissions rates, conclusion and recommendations for improvement.

5 Scope of Work

- Fugitive emission monitoring at IOCL Paradip (Boot # 3 & SOJ) terminal.
- Monitoring and measurement of the identified fugitive emission sources (supplied by IOT) within the study area and tagging the detected leaking components as per USEPA method 21.

About LDAR:

Leak Detection and Repair (LDAR) is a program implemented to comply with environmental regulations for reducing the fugitive emissions of targeted chemicals into the environment. Several standards such as *Maximum Achievable Control Technology* (MACT) standards, *New Source Performance Standards* (NSPS), *National Emissions Standards for Hazardous Air Pollutants* (NESHAP) and Central Pollution Control Board (CPCB) require the monitoring and reporting of these fugitive emissions from process equipment.

Process components covering Boot # 3 and SOJ were monitored as LDAR and covered all the components in the process plant. The environmental regulations are prescribed LDAR programs as a means of reducing emissions have very specific standards and applied to a monitoring and repair program. The LDAR study included the following protocols:

- **Types of components (pumps, valves, connectors, Flanges etc.) to be monitored** – All the sources assumed to be leaking source are monitored as per the USEPA Method 21 Protocol.
- **Measured concentration in PPM that indicates a leak** – Emission source is measured at PPM (parts per million) level.
- **Frequency of monitoring** – As per EPA act 1986 page 409, Fugitive emission monitoring program is undertaken every year (including Heat Exchangers and Pump seal as a part of Quarterly Monitoring).
- Method of monitoring
- **Actions to be taken if a leak is discovered** – A leak source above the limit as per EPA act should be reported and repaired immediately and the sources emitting the leak under the limit should be reported and an appropriate action should be undertaken.
- **Length of time in which an initial attempt to repair the leak must be performed** – Depending upon the nature of leak source, a leak source above the limits as per EPA guidelines should be reported and repaired immediately.
- **Actions that must be taken if a leak cannot be repaired within guidelines** – A proper action should be undertaken as a leaking source contributes in air pollution.
- **Record-keeping and reporting requirements** – A proper record should be maintained so that the leak source can be monitored again to see discrepancies if any.

Affected Sources: Each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, flange and connector that contains or contacts a fluid or gas, that is exceeding more than 5000ppm of pump and compressor seals and 3000 ppm other components is an affected source.

Equipment Leak: A leak is defined as greater than or equal to 3,000 & 5000 ppmv as methane, for organic compounds, as determined by EPA Reference Method 21. Most of the emissions are from valves and connectors because these are most prevalent components and can number in the thousands. The major cause of emissions from valves and connectors is seal or gasket failure due to normal wear or improper maintenance. More than 90% of emissions from the leaking equipment with valves are being the most significant source. The open-ended lines and sampling connections account for as much as 5 – 10% of total VOC emissions from equipment leaks.

Minimum Requirements for an Acceptable Organic LDAR Program:

- Each affected source is screened initially using USEPA Method 21.
- Monthly visual inspections must be performed by industry on each affected source for signs of leakage (e.g. dripping liquid, spraying, misting, clouding, ice formation, distinctive odors, etc.).
- Monitoring of each affected source is to be conducting quarterly using Method 21.

All potential leak points associated with a component must be identified and screened for leaks. The detected leaks by Method 21 test was tagged and repaired. The leak sources are measured after repair and the same is recorded.

6 Methodology of the study:

USEPA Method – 21 was followed to monitor source emissions at IOT/IOCL Paradip.

6.1 Individual Source Surveys.

Leak Definition Based on Concentration. Place the probe inlet at the surface of the component interface where leakage could occur. Move the probe along the interface periphery while

observing the instrument readout. If an increased meter reading is observed, slowly sample the interface where leakage is indicated until the maximum meter reading is obtained. Leave the probe inlet at this maximum reading location for approximately two times the instrument response time. If the maximum observed meter reading is greater than the leak definition in the applicable regulation, record and report the results as specified in the regulation reporting requirements. Examples of the application of this general technique to specific equipment types are:

- **Valves** - The most common source of leaks from valves is the seal between the stem and housing. Place the probe at the interface where the stem exits the packing gland and sample the stem circumference. Also, place the probe at the interface of the packing gland take-up flange seat and sample the periphery. In addition, survey valve housings of multipart assembly at the surface of all interfaces where a leak could occur.
- **Flanges and Other Connections** - For welded flanges, place the probe at the outer edge of the flange-gasket interface and sample the circumference of the flange. Sample other types of nonpermanent joints (such as threaded connections) with a similar traverse.
- **Pumps and Compressors** - Conduct a circumferential traverse at the outer surface of the pump or compressor shaft and seal interface. If the source is a rotating shaft, position the probe inlet within 1 cm of the shaft-seal interface for the survey. If the housing configuration prevents a complete traverse of the shaft periphery, sample all accessible portions. Sample all other joints on the pump or compressor housing where leakage could occur.
- **Pressure Relief Devices** - The configuration of most pressure relief devices prevents sampling at the sealing seat interface. For those devices equipped with an enclosed extension, or horn, place the probe inlet at approximately the center of the exhaust area to the atmosphere.
- **Process Drains** - For open drains, place the probe inlet at approximately the center of the area open to the atmosphere. For covered drains, place the probe at the surface of the cover interface and conduct a peripheral traverse.
- **Access door seals**. Place the probe inlet at the surface of the door seal interface and conduct a peripheral traverse.

Calculation:

(Reference – EPA 1995 Protocol for Equipment Leak Emission Estimation Table 2-10)

Component Type	Default Zero Factor [Kg/hr]	Correlation Equation [Kg/hr]
Valves	[7.8E-06]	[2.29E-06(SV)^0.746]
Pump Seals	[1.9E-05]	[5.03E-05(SV)^0.610]
Others	[4.0E-06]	[1.36E-05(SV)^0.589]
Connectors	[7.5E-06]	[1.53E-06(SV)^0.735]
Flanges	[3.1E-07]	[4.61E-06(SV)^0.703]
Open-ended Lines	[2.0E-06]	[2.20E-06(SV)^0.704]

The default zero factors apply only when the screening value(SV) corrected for background equals 0 ppmv.

The correlation equations apply for actual screening values, corrected for background.

The “other” component type includes instruments, loading arms, pressure relief valves, vents, compressors, dump lever arms, diaphragms, drains, hatches, meters and polished rods stuffing boxes. This “other” component type should be applied for any component type other than connectors, flanges, open-ended lines, pumps or valves.

For example.

Reference USEPA-Method-21)

The screening value (SV) concentration in Valves is 2600 ppm

$$= \text{RF (\% of VOC Flow/100)} * 0.0000023 * \text{SV}^{0.746}$$

$$\text{RF} = \text{Response Factor} = 1$$

Response Factors of Different Volatiles (USEPA Method-21):	
Gasoline Vapors	1.05
Naphtha	1.0
Heavy Oil	1.1
Petrol & Diesel	0.8
Gasoline Vapors 2	0.7
Light Oil	1.0

% of VOC Flow = material passing on that particular pipe line.

$$0.00000227 = \text{Correlation factor}$$

$$\text{SV} = \text{Screening Value in ppm}$$

If we will apply all the values in the below formula

$$= \text{RF (\% of VOC Flow/100)} * 0.0000023 * \text{SV}^{0.746}$$

$$= 1 (100/100) * 0.0000023 * 2600^{0.746}$$

$$= 0.000815 \text{ kg/hr}$$

Total hours of operation per year are 8760 (24 hours x 365 days)

$$\text{The volatile emission} = 7.109 \text{ Kgs/year.}$$

SUMMARY OF THE STUDY

SGS has monitored more than four thousand points in study area selected by IOT at IOCL Paradip Boot # 3 area and more than one thousand points at the Berth at Paradip Port.

TEST RESULTS

SUMMARY SHEET OF TVOC EMISSION MEASUREMENT			
UNIT	NO. OF POINT MEASURE	TOTAL VOC EMISSION IN kg/Hr.	TOTAL VOC EMISSION IN kg/Year
Boot # 3	4222	0.015047	131.81561
SOJ	1417	0.001978	17.32832
TOTAL POINTS	5639	0.017025	149.14393

CONCLUSION:

The results are submitted component wise in the enclosed Annexure-1 As per CPCB guidelines no components detected with more than the standard values of 3000ppmv and 5000ppmv. Hence no recommendations are given for repairing of any leakage sources. However M/s IOT wanted SGS to report any source emission above 300 ppmv and accordingly SGS has tagged and reported for the points with emission of 300 ppmv and above. Total 8 points with emission of 300 ppmv and above were detected at BOOT # 3 and no such point was detected at SOJ area.

Maximum Screening Value at Boot # 3 was 2661 ppmv and that at SOJ(Dock Yard at Paradip Port) was 281.5 ppmv.

Based on the calculation and concentrations of VOC in the equipment, we took default value 1 for Response Factor (RF).

Results

www.sgs.com

LDAR points BOOT#3

S.NO	Date	Unit	Component ID & Location	Type	SCREENING VALUE OF VOC (ppm)	RF	% of VOC FLOW	Kg/Hrs.	HOURS OF OPERATION	Kg/Year
1	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	1 SUCTION HOV-1-UP steam	Flange	0.5	1	100	0.000003	8760	0.024807383
2	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	1 SUCTION HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
3	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	1 BT SUCTION HOV-1-UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
4	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	1BT SUCTION HOV-1-down steam	Flange	82.7	1	100	0.000103	8760	0.899935543
5	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	STRAINER FLANGE	Flange	0.2	1	100	0.000001	8760	0.013026541
6	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	STRAINER FLANGE HOV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
7	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	STRAINER FLANGE HOV DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
8	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	PUMP SEAL	Pump Seal	0.1	1	100	0.000012	8760	0.108161348
9	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	NRV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
10	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	NRV DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
11	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	DISCHARGE HOV UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
12	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	DISCHARGE HOV DOWN STEAM	Flange	0.9	1	100	0.000004	8760	0.037500539
13	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	HOV-2-UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
14	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	HOV-2-down steam	Flange	0.3	1	100	0.000002	8760	0.017322927
15	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	LT FLARE HOV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
16	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	LT FLARE HOV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
17	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	LT FLARE NRV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
18	09.12.2022	LPG PUMP HOUSE-6 PUMP 205 - P-001A	LT FLARE NRV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
19	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	1 SUCTION HOV-1-UP steam	Flange	0.6	1	100	0.000003	8760	0.028199757
20	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	1 SUCTION HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034520517
21	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	1 BT SUCTION HOV-1-UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
22	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	1BT SUCTION HOV-1-down steam	Flange	0.4	1	100	0.000002	8760	0.021205729
23	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	STRAINER FLANGE	Flange	0.6	1	100	0.000003	8760	0.028199757
24	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	STRAINER FLANGE HOV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
25	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	STRAINER FLANGE HOV DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
26	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	PUMP SEAL	Pump Seal	464	1	100	0.002129	8760	18.64867839
27	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	NRV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
28	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	NRV DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
29	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	DISCHARGE HOV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
30	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	DISCHARGE HOV DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
31	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	HOV-2-UP STEAM	Flange	0	1	100	0.000000	8760	0
32	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
33	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	LT FLARE HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
34	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	LT FLARE HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
35	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	LT FLARE NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
36	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001B	LT FLARE NRV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
37	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	1 SUCTION HOV-1-UP steam	Flange	0.1	1	100	0.000001	8760	0.008002119
38	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	1 SUCTION HOV-1-down steam	Flange	0.6	1	100	0.000003	8760	0.028199757
39	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	1 BT SUCTION HOV-1-UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
40	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	1BT SUCTION HOV-1-down steam	Flange	0.5	1	100	0.000003	8760	0.024807383
41	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	STRAINER FLANGE	Flange	0.2	1	100	0.000001	8760	0.013026541
42	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	STRAINER FLANGE HOV UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
43	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	STRAINER FLANGE HOV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
44	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	PUMP SEAL	Pump Seal	0.1	1	100	8.79653E-05	8760	0.770576032
45	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	NRV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
46	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	NRV DOWN STEAM	Flange	2.5	1	100	0.000009	8760	0.076905404
47	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	DISCHARGE HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
48	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	DISCHARGE HOV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
49	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	HOV-2-UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
50	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	HOV-2-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
51	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	LT FLARE HOV UP STEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
52	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	LT FLARE HOV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
53	09.12.2022	LPG PUMP HOUSE PUMP 205 - P-001C	LT FLARE NRV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
54	09.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001C	LT FLARE NRV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
55	09.12.2022	LPG AREA MOUND I BULLET 205-V-003	BULLET INLET XZV 0001 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
56	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	1 SUCTION HOV-1-UP steam	Flange	6.4	1	100	0.000017	8760	0.148918809
57	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	1 SUCTION HOV-1-down steam	Flange	36.2	1	100	0.000057	8760	0.503474126
58	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	1 BT SUCTION HOV-1-UP steam	Flange	8.1	1	100	0.000020	8760	0.175739748
59	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	1BT SUCTION HOV-1-down steam	Flange	40.1	1	100	0.000062	8760	0.541022747
60	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	STRAINER FLANGE	Flange	0.1	1	100	0.000001	8760	0.008002119
61	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	STRAINER FLANGE HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
62	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	STRAINER FLANGE HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
63	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	PUMP SEAL	Pump Seal	3.6	1	100	1.8845E-05	8760	0.165082253
64	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	NRV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
65	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	NRV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
66	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	DISCHARGE HOV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
67	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	DISCHARGE HOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
68	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	HOV-2-UP STEAM	Flange	0	1	100	0.000000	8760	0
69	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
70	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	LT FLARE HOV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
71	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	LT FLARE HOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
72	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	LT FLARE NRV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
73	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001D	LT FLARE NRV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
74	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	1 SUCTION HOV-1-UP steam	Flange	0.1	1	100	0.000001	8760	0.008002119
75	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	1 SUCTION HOV-1-down steam	Flange	6.15	1	100	0.000017	8760	0.144805227
76	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	1 BT SUCTION HOV-1-UP steam	Flange	0.8	1	100	0.000004	8760	0.034520517
77	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	1BT SUCTION HOV-1-down steam	Flange	5.63	1	100	0.000016	8760	0.136085682
78	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	STRAINER FLANGE	Flange	0.2	1	100	0.000001	8760	0.013026541
79	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	STRAINER FLANGE HOV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
80	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	STRAINER FLANGE HOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
81	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	PUMP SEAL	Pump Seal	1.2	1	100	1.8845E-05	8760	0.165082253
82	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
83	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	NRV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
84	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	DISCHARGE HOV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541

85	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	DISCHARGE HOV DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
86	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	HOV-2-UP STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
87	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	HOV-2-down steam	Flange	0,1	1	100	0.000001	8760	0.008002119
88	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	LT FLARE HOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
89	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	LT FLARE HOV DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
90	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	LT FLARE NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
91	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001E	LT FLARE NRV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
92	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	1 SUCTION HOV-1-UP steam	Flange	0,2	1	100	0.000001	8760	0.013026541
93	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	1 SUCTION HOV-1-down steam	Flange	48,3	1	100	0.000070	8760	0.616623205
94	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	1 BT SUCTION HOV-1-UP steam	Flange	0,3	1	100	0.000002	8760	0.017322927
95	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	1BT SUCTION HOV-1-down steam	Flange	36,5	1	100	0.000058	8760	0.506403753
96	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	STRAINER FLANGE	Flange	0	1	100	0.000000	8760	0
97	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	STRAINER FLANGE HOV UP STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
98	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	STRAINER FLANGE HOV DOWN STEAM	Flange	0,4	1	100	0.000002	8760	0.021205729
99	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	PUMP SEAL	Pump Seal	1,5	1	100	6.44145E-05	8760	0.564271037
100	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	NRV UP STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
101	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	NRV DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
102	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	DISCHARGE HOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
103	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	DISCHARGE HOV DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
104	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	HOV-2-UP STEAM	Flange	0	1	100	0.000000	8760	0
105	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
106	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	LT FLARE HOV UP STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
107	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	LT FLARE HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
108	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	LT FLARE NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
109	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-001F	LT FLARE NRV DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
110	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	1 SUCTION HOV-1-UP steam	Flange	0,1	1	100	0.000001	8760	0.008002119
111	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	1 SUCTION HOV-1-down steam	Flange	0,1	1	100	0.000001	8760	0.008002119
112	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	STRAINER FLANGE	Flange	0,2	1	100	0.000001	8760	0.013026541
113	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	STRAINER FLANGE HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
114	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	STRAINER FLANGE HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
115	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	PUMP SEAL	Pump Seal	123	1	100	0.000947131	8760	8.296868545
116	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	NRV UP STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
117	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	NRV DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
118	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	DISCHARGE HOV UP STEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
119	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	DISCHARGE HOV DOWN STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
120	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	LT FLARE HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
121	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	LT FLARE HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
122	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	LT FLARE NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
123	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027A	LT FLARE NRV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
124	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	1 SUCTION HOV-1-UP steam	Flange	0,2	1	100	0.000001	8760	0.013026541
125	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	1 SUCTION HOV-1-down steam	Flange	0,1	1	100	0.000001	8760	0.008002119
126	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	STRAINER FLANGE	Flange	0,1	1	100	0.000001	8760	0.008002119
127	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	STRAINER FLANGE HOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
128	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	STRAINER FLANGE HOV DOWN STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
129	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	PUMP SEAL	Pump Seal	0,5	1	100	3.29564E-05	8760	0.288698012
130	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	NRV UP STEAM	Flange	0,6	1	100	0.000003	8760	0.028199757
131	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	NRV DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
132	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	DISCHARGE HOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
133	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	DISCHARGE HOV DOWN STEAM	Flange	0,5	1	100	0.000003	8760	0.024807383
134	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	LT FLARE HOV UP STEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
135	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	LT FLARE HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
136	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	LT FLARE NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
137	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027B	LT FLARE NRV DOWN STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
138	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	1 SUCTION HOV-1-UP steam	Flange	0	1	100	0.000000	8760	0
139	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	1 SUCTION HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
140	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	STRAINER FLANGE	Flange	0,4	1	100	0.000002	8760	0.021205729
141	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	STRAINER FLANGE HOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
142	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	STRAINER FLANGE HOV DOWN STEAM	Flange	0,4	1	100	0.000002	8760	0.021205729
143	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	PUMP SEAL	Pump Seal	0,8	1	100	4.38988E-05	8760	0.38455369
144	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
145	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	NRV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
146	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	DISCHARGE HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
147	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	DISCHARGE HOV DOWN STEAM	Flange	0,4	1	100	0.000002	8760	0.021205729
148	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	LT FLARE HOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
149	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	LT FLARE HOV DOWN STEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
150	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	LT FLARE NRV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
151	08.12.2022	LPG PUMP HOUSE-5 PUMP 205 - P-027C	LT FLARE NRV DOWN STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
152	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	1 SUCTION HOV-1-UP steam	Flange	36,3	1	100	0.000058	8760	0.504451467
153	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	1 SUCTION HOV-1-down steam	Flange	2,5	1	100	0.000009	8760	0.076905404
154	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	STRAINER FLANGE	Flange	0,6	1	100	0.000003	8760	0.028199757
155	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	STRAINER FLANGE HOV UP STEAM	Flange	1,1	1	100	0.000005	8760	0.043182133
156	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	STRAINER FLANGE HOV DOWN STEAM	Flange	0,8	1	100	0.000004	8760	0.034520517
157	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	PUMP SEAL	Pump Seal	1208	1	100	0.000167703	8760	1.4690782
158	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	NRV UP STEAM	Flange	7,2	1	100	0.000018	8760	0.161774392
159	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	NRV DOWN STEAM	Flange	1,5	1	100	0.000006	8760	0.053702832
160	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	DISCHARGE HOV UP STEAM	Flange	0,6	1	100	0.000003	8760	0.028199757
161	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	DISCHARGE HOV DOWN STEAM	Flange	1,2	1	100	0.000005	8760	0.045905999
162	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	LT FLARE HOV UP STEAM	Flange	1,5	1	100	0.000006	8760	0.053702832
163	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	LT FLARE HOV DOWN STEAM	Flange	0,8	1	100	0.000004	8760	0.034520517
164	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	LT FLARE NRV UP STEAM	Flange	0,4	1	100	0.000002	8760	0.021205729
165	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028A	LT FLARE NRV DOWN STEAM	Flange	0,8	1	100	0.000004	8760	0.034520517
166	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028B	1 SUCTION HOV-1-UP steam	Flange	0,2	1	100	0.000001	8760	0.013026541
167	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028B	1 SUCTION HOV-1-down steam	Flange	0,5	1	100	0.000003	8760	0.024807383
168	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028B	STRAINER FLANGE	Flange	0,4	1	100	0.000002	8760	0.021205729
169	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028B	STRAINER FLANGE HOV UP STEAM	Flange	0,7	1	100	0.000004	8760	0.031427436
170	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028B	STRAINER FLANGE HOV DOWN STEAM	Flange	0,9	1	100	0.000004	8760	0.037500539
171	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028B	PUMP SEAL	Pump Seal	2,5	1	100	8.79653E-05	8760	0.770576032
172	09.12.2022	LPG PUMP HOUSE-9 PUMP 205 - P-028B	NRV UP STEAM	Flange	0,4	1	100	0.000002	8760	0.021205729

613	09.12.2022	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	0	1	100	0.000000	8760	0
614	09.12.2022	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	0.1	1	100	0.000001	8760	0.008002119
615	09.12.2022	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	0	1	100	0.000000	8760	0
616	09.12.2022	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	0.1	1	100	0.000001	8760	0.008002119
617	09.12.2022	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	0.1	1	100	0.000001	8760	0.008002119
618	09.12.2022	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	0.3	1	100	0.000002	8760	0.017322927
619	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
620	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
621	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
622	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
623	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
624	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
625	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
626	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
627	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
628	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
629	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
630	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
631	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
632	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
633	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
634	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
635	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
636	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
637	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV 873117	Flange	0	1	100	0.000000	8760	0
638	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
639	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
640	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
641	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
642	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
643	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV 873112	Flange	0	1	100	0.000000	8760	0
644	09.12.2022	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0
645	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-1-UPsteam	Flange	0.5	1	100	0.000003	8760	0.024807383
646	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
647	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-2-UPsteam	Flange	50.8	1	100	0.000073	8760	0.638891663
648	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-2-down steam	Flange	0.6	1	100	0.000003	8760	0.028199757
649	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-3-UPsteam	Flange	0.2	1	100	0.000001	8760	0.013026541
650	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-3-down steam	Flange	0.5	1	100	0.000003	8760	0.024807383
651	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-4-UPsteam	Flange	0.2	1	100	0.000001	8760	0.013026541
652	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-4-down steam	Flange	0	1	100	0.000000	8760	0
653	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-5-UPsteam	Flange	0	1	100	0.000000	8760	0
654	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-5-down steam	Flange	0	1	100	0.000000	8760	0
655	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-6-UPsteam	Flange	0	1	100	0.000000	8760	0
656	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-6-down steam	Flange	0	1	100	0.000000	8760	0
657	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-7-UPsteam	Flange	0.8	1	100	0.000004	8760	0.034520517
658	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-7-down steam	Flange	0.5	1	100	0.000003	8760	0.024807383
659	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-8-UPsteam	Flange	1.2	1	100	0.000005	8760	0.045905999
660	09.12.2022	COMPRESSOR HOUSE - SECTION LINE	HOV-8-down steam	Flange	0.4	1	100	0.000002	8760	0.021205729
661	09.12.2022	KOD VOLUME BOTTLE	HOV-1-UPsteam	Flange	0.9	1	100	0.000004	8760	0.037500539
662	09.12.2022	KOD VOLUME BOTTLE	HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034520517
663	09.12.2022	KOD VOLUME BOTTLE	SPOOL PIECE UPsteam	Flange	0.8	1	100	0.000004	8760	0.034520517
664	09.12.2022	KOD VOLUME BOTTLE	SPOOL PIECE DOWN steam	Flange	0.3	1	100	0.000002	8760	0.017322927
665	09.12.2022	KOD VOLUME BOTTLE	KOD FLANGE UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
666	09.12.2022	KOD VOLUME BOTTLE	KOD FLANGE DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
667	09.12.2022	DISCHARGE VOLUME DRUM BODY FLANGES	HOV-1-UPsteam	Flange	0.2	1	100	0.000001	8760	0.013026541
668	09.12.2022	DISCHARGE VOLUME DRUM BODY FLANGES	HOV-1-down steam	Flange	0.5	1	100	0.000003	8760	0.024807383
669	09.12.2022	DISCHARGE VOLUME DRUM BODY FLANGES	KOD BODY UPSTEAM	Flange	0	1	100	0.000000	8760	0
670	09.12.2022	DISCHARGE VOLUME DRUM BODY FLANGES	KOD BODY DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
671	09.12.2022	CTMS PIPELINE LPG	MAIN INLET LINE HOV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
672	09.12.2022	CTMS PIPELINE LPG	MAIN INLET LINE HOV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
673	09.12.2022	BRANCH LINE - 1	PSV UPSTEAM	Flange	0.9	1	100	0.000004	8760	0.037500539
674	09.12.2022	BRANCH LINE - 1	PSV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
675	09.12.2022	BRANCH LINE - 1	HOV-1-UPsteam	Flange	0.4	1	100	0.000002	8760	0.021205729
676	09.12.2022	BRANCH LINE - 1	HOV-1-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
677	09.12.2022	BRANCH LINE - 1	HOV-2-UPsteam	Flange	0.3	1	100	0.000002	8760	0.017322927
678	09.12.2022	BRANCH LINE - 1	HOV-2-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
679	09.12.2022	BRANCH LINE - 1	MOV - 1 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
680	09.12.2022	BRANCH LINE - 1	MOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
681	09.12.2022	BRANCH LINE - 1	BASKET FILTER	Flange	0	1	100	0.000000	8760	0
682	09.12.2022	BRANCH LINE - 1	BASKET FILTER OUTLET	Flange	0	1	100	0.000000	8760	0
683	09.12.2022	BRANCH LINE - 1	MOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
684	09.12.2022	BRANCH LINE - 1	MOV - 2 DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
685	09.12.2022	BRANCH LINE - 1	FCV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
686	09.12.2022	BRANCH LINE - 1	FCV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
687	09.12.2022	BRANCH LINE - 1	MOV - 3 UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
688	09.12.2022	BRANCH LINE - 1	MOV - 3 DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
689	09.12.2022	BRANCH LINE - 2	MOV - 1 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
690	09.12.2022	BRANCH LINE - 2	MOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
691	09.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET 1	Flange	0.2	1	100	0.000001	8760	0.013026541
692	09.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET 2	Flange	0.1	1	100	0.000001	8760	0.008002119
693	09.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET 3	Flange	0.3	1	100	0.000002	8760	0.017322927
694	09.12.2022	BRANCH LINE - 2	PSV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
695	09.12.2022	BRANCH LINE - 2	PSV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
696	09.12.2022	BRANCH LINE - 2	HOV-1-UPsteam	Flange	0.2	1	100	0.000001	8760	0.013026541
697	09.12.2022	BRANCH LINE - 2	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
698	09.12.2022	BRANCH LINE - 2	HOV-2-UPsteam	Flange	0	1	100	0.000000	8760	0
699	09.12.2022	BRANCH LINE - 2	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
700	09.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET	Flange	0.1	1	100	0.000001	8760	0.008002119

701	09.12.2022	BRANCH LINE - 2	MOV - 2 UPSTEAM	Flange	1.3	1	100	0.000006	8760	0.04856319
702	09.12.2022	BRANCH LINE - 2	MOV - 2 DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
703	09.12.2022	BRANCH LINE - 2	FCV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
704	09.12.2022	BRANCH LINE - 2	FCV DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
705	09.12.2022	BRANCH LINE - 2	MOV - 3 UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
706	09.12.2022	BRANCH LINE - 2	MOV - 3 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
707	09.12.2022	BRANCH LINE - 3	MOV - 1 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
708	09.12.2022	BRANCH LINE - 3	MOV - 1 DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
709	09.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET 1	Flange	0.7	1	100	0.000004	8760	0.031427436
710	09.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET 2	Flange	0.4	1	100	0.000002	8760	0.021205729
711	09.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET 3	Flange	0.9	1	100	0.000004	8760	0.037500539
712	09.12.2022	BRANCH LINE - 3	PSV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
713	09.12.2022	BRANCH LINE - 3	PSV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
714	09.12.2022	BRANCH LINE - 3	HOV-1-UPsteam	Flange	0.8	1	100	0.000004	8760	0.034520517
715	09.12.2022	BRANCH LINE - 3	HOV-1-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
716	09.12.2022	BRANCH LINE - 3	HOV-2-UPsteam	Flange	0.1	1	100	0.000001	8760	0.008002119
717	09.12.2022	BRANCH LINE - 3	HOV-2-down steam	Flange	0.5	1	100	0.000003	8760	0.024807383
718	09.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET	Flange	0.2	1	100	0.000001	8760	0.013026541
719	09.12.2022	BRANCH LINE - 3	MOV - 2 UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
720	09.12.2022	BRANCH LINE - 3	MOV - 2 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
721	09.12.2022	BRANCH LINE - 3	FCV UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
722	09.12.2022	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
723	09.12.2022	BRANCH LINE - 3	MOV - 3 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
724	09.12.2022	BRANCH LINE - 3	MOV - 3 DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
725	09.12.2022	BRANCH LINE - 3	MOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
726	09.12.2022	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
727	09.12.2022	BRANCH LINE - 3	PROVER FLANGE UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
728	09.12.2022	BRANCH LINE - 3	PROVER FLANGE DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
729	09.12.2022	BRANCH LINE - 3	FCV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
730	09.12.2022	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
731	09.12.2022	BRANCH LINE - 3	MOV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
732	09.12.2022	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
733	09.12.2022	BRANCH LINE - 3	PUMP SEAL	Pump Seal	72.4	1	100	0.000685502	8760	6.004994536
734	09.12.2022	BRANCH LINE - 3	BYE PASS MOV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
735	09.12.2022	BRANCH LINE - 3	BYE PASS MOV DOWN STEAM	Flange	0.7	1	100	0.000004	8760	0.031427436
736	09.12.2022	BRANCH LINE - 3	LINE HOV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
737	09.12.2022	BRANCH LINE - 3	LINE HOV DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
738	09.12.2022	BRANCH LINE - 3	FCV UPSTEAM	Flange	0.9	1	100	0.000004	8760	0.037500539
739	09.12.2022	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
740	09.12.2022	BRANCH LINE - 3	HOV UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
741	09.12.2022	BRANCH LINE - 3	HOV DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
742	09.12.2022	BRANCH LINE - 3	LAST HOV UPSTEAM	Flange	3.9	1	100	0.000012	8760	0.105129222
743	09.12.2022	BRANCH LINE - 3	LAST HOV DOWNSTEAM	Flange	15.1	1	100	0.000031	8760	0.272286322
744	14.12.2022	CTMS MARKETING LPG -1	MAIN INLET HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
745	14.12.2022	CTMS MARKETING LPG -1	MAIN INLET HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
746	14.12.2022	BRANCH LINE - 1	MOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
747	14.12.2022	BRANCH LINE - 1	MOV - 1 DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
748	14.12.2022	BRANCH LINE - 1	BASKET FILTER	Flange	0	1	100	0.000000	8760	0
749	14.12.2022	BRANCH LINE - 1	PSV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
750	14.12.2022	BRANCH LINE - 1	PSV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
751	14.12.2022	BRANCH LINE - 1	HOV-1-UPsteam	Flange	0	1	100	0.000000	8760	0
752	14.12.2022	BRANCH LINE - 1	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
753	14.12.2022	BRANCH LINE - 1	HOV-2-UPsteam	Flange	0.2	1	100	0.000001	8760	0.013026541
754	14.12.2022	BRANCH LINE - 1	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
755	14.12.2022	BRANCH LINE - 1	BASKET FILTER OUTLET	Flange	0	1	100	0.000000	8760	0
756	14.12.2022	BRANCH LINE - 1	MOV - 2 UPSTEAM	Flange	2.1	1	100	0.000008	8760	0.068033873
757	14.12.2022	BRANCH LINE - 1	MOV - 2 DOWNSTEAM	Flange	10.8	1	100	0.000025	8760	0.215130473
758	14.12.2022	BRANCH LINE - 1	FCV UPSTEAM	Flange	0	1	100	0.000000	8760	0
759	14.12.2022	BRANCH LINE - 1	FCV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
760	14.12.2022	BRANCH LINE - 1	MOV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0
761	14.12.2022	BRANCH LINE - 1	MOV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
762	14.12.2022	BRANCH LINE - 2	MOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
763	14.12.2022	BRANCH LINE - 2	MOV - 1 DOWNSTEAM	Flange	25.3	1	100	0.000045	8760	0.391380116
764	14.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET 1	Flange	0.4	1	100	0.000002	8760	0.021205729
765	14.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET 2	Flange	0.1	1	100	0.000001	8760	0.008002119
766	14.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET 3	Flange	0.5	1	100	0.000003	8760	0.024807383
767	14.12.2022	BRANCH LINE - 2	PSV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
768	14.12.2022	BRANCH LINE - 2	PSV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
769	14.12.2022	BRANCH LINE - 2	HOV-1-UPsteam	Flange	0.6	1	100	0.000003	8760	0.028199757
770	14.12.2022	BRANCH LINE - 2	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
771	14.12.2022	BRANCH LINE - 2	HOV-2-UPsteam	Flange	0.4	1	100	0.000002	8760	0.021205729
772	14.12.2022	BRANCH LINE - 2	HOV-2-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
773	14.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET	Flange	0.3	1	100	0.000002	8760	0.017322927
774	14.12.2022	BRANCH LINE - 2	MOV - 2 UPSTEAM	Flange	5.1	1	100	0.000014	8760	0.126948293
775	14.12.2022	BRANCH LINE - 2	MOV - 2 DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
776	14.12.2022	BRANCH LINE - 2	FCV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
777	14.12.2022	BRANCH LINE - 2	FCV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
778	14.12.2022	BRANCH LINE - 2	MOV - 3 UPSTEAM	Flange	100.4	1	100	0.000118	8760	1.031392174
779	14.12.2022	BRANCH LINE - 2	MOV - 3 DOWNSTEAM	Flange	12.1	1	100	0.000027	8760	0.233025338
780	14.12.2022	BRANCH LINE - 3	MOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
781	14.12.2022	BRANCH LINE - 3	MOV - 1 DOWNSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427436
782	14.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET 1	Flange	0	1	100	0.000000	8760	0
783	14.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET 2	Flange	0	1	100	0.000000	8760	0
784	14.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET 3	Flange	0.2	1	100	0.000001	8760	0.013026541
785	14.12.2022	BRANCH LINE - 3	PSV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
786	14.12.2022	BRANCH LINE - 3	PSV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
787	14.12.2022	BRANCH LINE - 3	HOV-1-UPsteam	Flange	0	1	100	0.000000	8760	0
788	14.12.2022	BRANCH LINE - 3	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0

789	14.12.2022	BRANCH LINE - 3	HOV-2-UPsteam	Flange	0	1	100	0.000000	8760	0
790	14.12.2022	BRANCH LINE - 3	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
791	14.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET	Flange	0	1	100	0.000000	8760	0
792	14.12.2022	BRANCH LINE - 3	MOV - 2 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
793	14.12.2022	BRANCH LINE - 3	MOV - 2 DOWNSTEAM	Flange	2.6	1	100	0.000009	8760	0.079055355
794	14.12.2022	BRANCH LINE - 3	FCV UPSTEAM	Flange	0	1	100	0.000000	8760	0
795	14.12.2022	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
796	14.12.2022	BRANCH LINE - 3	MOV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0
797	14.12.2022	BRANCH LINE - 3	MOV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
798	14.12.2022	BRANCH LINE - 3	MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
799	14.12.2022	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
800	14.12.2022	BRANCH LINE - 3	PROVER FLANGE UPSTEAM	Flange	0	1	100	0.000000	8760	0
801	14.12.2022	BRANCH LINE - 3	PROVER FLANGE DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
802	14.12.2022	BRANCH LINE - 3	FCV UPSTEAM	Flange	0	1	100	0.000000	8760	0
803	14.12.2022	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
804	14.12.2022	BRANCH LINE - 3	MOV UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
805	14.12.2022	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
806	14.12.2022	BRANCH LINE - 3	PUMP SEAL	Pump Seal	6.6	1	100	0.000159034	8760	1.393137209
807	14.12.2022	BRANCH LINE - 3	BYE PASS MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
808	14.12.2022	BRANCH LINE - 3	BYE PASS MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
809	14.12.2022	BRANCH LINE - 3	LINE HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
810	14.12.2022	BRANCH LINE - 3	LINE HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
811	14.12.2022	BRANCH LINE - 3	FCV UPSTEAM	Flange	0	1	100	0.000000	8760	0
812	14.12.2022	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
813	14.12.2022	BRANCH LINE - 3	HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
814	14.12.2022	BRANCH LINE - 3	HOV DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
815	14.12.2022	BRANCH LINE - 3	XZV VALVE UPSTEAM	Flange	0	1	100	0.000000	8760	0
816	14.12.2022	BRANCH LINE - 3	XZV VALVE DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
817	14.12.2022	BRANCH LINE - 3	LAST HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
818	14.12.2022	BRANCH LINE - 3	LAST HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
819	14.12.2022	CTMS MARKETING LPG -2	MAIN INLET HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
820	14.12.2022	CTMS MARKETING LPG -2	MAIN INLET HOV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
821	14.12.2022	BRANCH LINE - 1	MOV - 1 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
822	14.12.2022	BRANCH LINE - 1	MOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
823	14.12.2022	BRANCH LINE - 1	BASKET FILTER	Flange	0	1	100	0.000000	8760	0
824	14.12.2022	BRANCH LINE - 1	PSV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
825	14.12.2022	BRANCH LINE - 1	PSV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
826	14.12.2022	BRANCH LINE - 1	HOV-1-UPsteam	Flange	0.5	1	100	0.000003	8760	0.024807383
827	14.12.2022	BRANCH LINE - 1	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
828	14.12.2022	BRANCH LINE - 1	HOV-2-UPsteam	Flange	0.3	1	100	0.000002	8760	0.017322927
829	14.12.2022	BRANCH LINE - 1	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
830	14.12.2022	BRANCH LINE - 1	BASKET FILTER OUTLET	Flange	0.1	1	100	0.000001	8760	0.008002119
831	14.12.2022	BRANCH LINE - 1	MOV - 2 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
832	14.12.2022	BRANCH LINE - 1	MOV - 2 DOWNSTEAM	Flange	5.3	1	100	0.000015	8760	0.13042804
833	14.12.2022	BRANCH LINE - 1	FCV UPSTEAM	Flange	1.1	1	100	0.000005	8760	0.043182133
834	14.12.2022	BRANCH LINE - 1	FCV DOWNSTEAM	Flange	6.9	1	100	0.000018	8760	0.157005889
835	14.12.2022	BRANCH LINE - 1	MOV - 3 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
836	14.12.2022	BRANCH LINE - 1	MOV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
837	14.12.2022	BRANCH LINE - 2	MOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
838	14.12.2022	BRANCH LINE - 2	MOV - 1 DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
839	14.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET 1	Flange	0	1	100	0.000000	8760	0
840	14.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET 2	Flange	0	1	100	0.000000	8760	0
841	14.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET 3	Flange	0	1	100	0.000000	8760	0
842	14.12.2022	BRANCH LINE - 2	PSV UPSTEAM	Flange	0	1	100	0.000000	8760	0
843	14.12.2022	BRANCH LINE - 2	PSV DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
844	14.12.2022	BRANCH LINE - 2	HOV-1-UPsteam	Flange	0.2	1	100	0.000001	8760	0.013026541
845	14.12.2022	BRANCH LINE - 2	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
846	14.12.2022	BRANCH LINE - 2	HOV-2-UPsteam	Flange	0.1	1	100	0.000001	8760	0.008002119
847	14.12.2022	BRANCH LINE - 2	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
848	14.12.2022	BRANCH LINE - 2	BASKET FILTER OUTLET	Flange	0	1	100	0.000000	8760	0
849	14.12.2022	BRANCH LINE - 2	MOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
850	14.12.2022	BRANCH LINE - 2	MOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
851	14.12.2022	BRANCH LINE - 2	FCV UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
852	14.12.2022	BRANCH LINE - 2	FCV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
853	14.12.2022	BRANCH LINE - 2	MOV - 3 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
854	14.12.2022	BRANCH LINE - 2	MOV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
855	14.12.2022	BRANCH LINE - 3	MOV - 1 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
856	14.12.2022	BRANCH LINE - 3	MOV - 1 DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
857	14.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET 1	Flange	0	1	100	0.000000	8760	0
858	14.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET 2	Flange	0	1	100	0.000000	8760	0
859	14.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET 3	Flange	0	1	100	0.000000	8760	0
860	14.12.2022	BRANCH LINE - 3	PSV UPSTEAM	Flange	0	1	100	0.000000	8760	0
861	14.12.2022	BRANCH LINE - 3	PSV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
862	14.12.2022	BRANCH LINE - 3	HOV-1-UPsteam	Flange	0	1	100	0.000000	8760	0
863	14.12.2022	BRANCH LINE - 3	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
864	14.12.2022	BRANCH LINE - 3	HOV-2-UPsteam	Flange	0	1	100	0.000000	8760	0
865	14.12.2022	BRANCH LINE - 3	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
866	14.12.2022	BRANCH LINE - 3	BASKET FILTER OUTLET	Flange	0	1	100	0.000000	8760	0
867	14.12.2022	BRANCH LINE - 3	MOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
868	14.12.2022	BRANCH LINE - 3	MOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
869	14.12.2022	BRANCH LINE - 3	FCV UPSTEAM	Flange	0	1	100	0.000000	8760	0
870	14.12.2022	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
871	14.12.2022	BRANCH LINE - 3	MOV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0
872	14.12.2022	BRANCH LINE - 3	MOV - 3 DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
873	14.12.2022	BRANCH LINE - 3	MOV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
874	14.12.2022	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
875	14.12.2022	BRANCH LINE - 3	PROVER FLANGE UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
876	14.12.2022	BRANCH LINE - 3	PROVER FLANGE DOWNSTEAM	Flange	0	1	100	0.000000	8760	0

877	14.12.2022	BRANCH LINE - 3	FCV UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
878	14.12.2022	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
879	14.12.2022	BRANCH LINE - 3	MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
880	14.12.2022	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
881	14.12.2022	BRANCH LINE - 3	PUMP SEAL	Pump Seal	1,8	1	100	7.1992E-05	8760	0.630649883
882	14.12.2022	BRANCH LINE - 3	BYE PASS MOV UP STEAM	Flange	0,4	1	100	0.000002	8760	0.021205729
883	14.12.2022	BRANCH LINE - 3	BYE PASS MOV DOWN STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
884	14.12.2022	BRANCH LINE - 3	LINE HOV UPSTEAM	Flange	0,5	1	100	0.000003	8760	0.024807383
885	14.12.2022	BRANCH LINE - 3	LINE HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
886	14.12.2022	BRANCH LINE - 3	FCV UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
887	14.12.2022	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
888	14.12.2022	BRANCH LINE - 3	HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
889	14.12.2022	BRANCH LINE - 3	HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
890	14.12.2022	BRANCH LINE - 3	XZV VALVE UPSTEAM	Flange	0	1	100	0.000000	8760	0
891	14.12.2022	BRANCH LINE - 3	XZV VALVE DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
892	14.12.2022	BRANCH LINE - 3	LAST HOV UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
893	14.12.2022	BRANCH LINE - 3	LAST HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
894	09.12.2022	LPG AREA MOUND I BULLET 205-V-003	BULLET INLET XZV 001 DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
895	09.12.2022	VAPOUR BALANCE LINE	HOV-1-UP steam	Flange	0,3	1	100	0.000002	8760	0.017322927
896	09.12.2022	VAPOUR BALANCE LINE	HOV-1-down steam	Flange	0,2	1	100	0.000001	8760	0.013026541
897	09.12.2022	VAPOUR BALANCE LINE	XZV VALVE UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
898	09.12.2022	VAPOUR BALANCE LINE	XZV VALVE DOWN STEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
899	09.12.2022	BULLET OUTLET LINE	XZV VALVE UP STEAM 0002	Flange	0,2	1	100	0.000001	8760	0.013026541
900	09.12.2022	BULLET OUTLET LINE	XZV VALVE DOWN STEAM 0002	Flange	0,1	1	100	0.000001	8760	0.008002119
901	09.12.2022	BULLET OUTLET LINE	HOV-1-UP steam	Flange	0,3	1	100	0.000002	8760	0.017322927
902	09.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0,6	1	100	0.000003	8760	0.028199757
903	09.12.2022	BULLET OUTLET LINE	HOV-2-UP steam	Flange	0,1	1	100	0.000001	8760	0.008002119
904	09.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0,2	1	100	0.000001	8760	0.013026541
905	09.12.2022	BULLET INLET LINE	BLENDING HEADER TOP OFF HOV	Flange	0,1	1	100	0.000001	8760	0.008002119
906	09.12.2022	BULLET INLET LINE	BLENDING HEADER TOP OFF HOV	Flange	0,8	1	100	0.000004	8760	0.034520517
907	09.12.2022	BULLET INLET LINE	NRV VALVE UPSTEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
908	09.12.2022	BULLET INLET LINE	NRV VALVE DOWNSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
909	09.12.2022	BULLET INLET LINE	PUMP 28A/B/C PROPYLENE T BT HOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
910	09.12.2022	BULLET INLET LINE	PUMP 28A/B/C PROPYLENE T BT HOV DOWN STEAM	Flange	0,6	1	100	0.000003	8760	0.028199757
911	09.12.2022	BULLET INLET LINE	NRV VALVE UPSTEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
912	09.12.2022	BULLET INLET LINE	NRV VALVE DOWNSTEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
913	09.12.2022	BULLET INLET LINE	PM 01A/B/C UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
914	09.12.2022	BULLET INLET LINE	PM 01A/B/C DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
915	09.12.2022	BULLET OUTLET LINE	28 A/B/C HOV UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
916	09.12.2022	BULLET OUTLET LINE	28 A/B/C HOV DOWNSTEAM	Flange	0,4	1	100	0.000002	8760	0.021205729
917	09.12.2022	BULLET INLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
918	09.12.2022	BULLET INLET LINE	IBT DISCHARGE HOV DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
919	09.12.2022	BULLET INLET LINE	NRV VALVE UPSTEAM	Flange	0,4	1	100	0.000002	8760	0.021205729
920	09.12.2022	BULLET INLET LINE	NRV VALVE DOWNSTEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
921	09.12.2022	BULLET INLET LINE	BLENDING SPILLAGE OF SPEE LPG HOV UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
922	09.12.2022	BULLET INLET LINE	BLENDING SPILLAGE OF SPEE LPG HOV DOWNSTEAM	Flange	0,8	1	100	0.000004	8760	0.034520517
923	09.12.2022	BULLET INLET LINE	NRV VALVE UPSTEAM	Flange	0	1	100	0.000000	8760	0
924	09.12.2022	BULLET INLET LINE	NRV VALVE DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
925	09.12.2022	BULLET INLET LINE	OFF SPEE LPG HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
926	09.12.2022	BULLET INLET LINE	OFF SPEE LPG HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
927	09.12.2022	BULLET INLET LINE	NRV VALVE UPSTEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
928	09.12.2022	BULLET INLET LINE	NRV VALVE DOWNSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
929	09.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	PM 27A/B/C SUCTION HEADER HOV-1-UP steam	Flange	0,3	1	100	0.000002	8760	0.017322927
930	09.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	PM 27A/B/C SUCTION HEADER HOV-1-DOWN steam	Flange	0,1	1	100	0.000001	8760	0.008002119
931	09.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	PM 27A/B/C SUCTION HEADER HOV-2-UP steam	Flange	0,1	1	100	0.000001	8760	0.008002119
932	09.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	PM 27A/B/C SUCTION HEADER HOV-2-DOWN steam	Flange	0,6	1	100	0.000003	8760	0.028199757
933	09.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV 1 UP steam	Flange	0,4	1	100	0.000002	8760	0.021205729
934	09.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV-1-DOWN steam	Flange	1,3	1	100	0.000006	8760	0.04856319
935	09.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV 2 UP steam	Flange	0,4	1	100	0.000002	8760	0.021205729
936	09.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV-2-DOWN steam	Flange	0,2	1	100	0.000001	8760	0.013026541
937	09.12.2022	Bullet water Draining line	HOV-1-up steam	Flange	1,4	1	100	0.000006	8760	0.051160295
938	09.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	0,8	1	100	0.000004	8760	0.034520517
939	09.12.2022	Bullet water Draining line	HOV-2-up steam	Flange	0,5	1	100	0.000003	8760	0.024807383
940	09.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	0,9	1	100	0.000004	8760	0.037500539
941	14.12.2022	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0
942	14.12.2022	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0,3	1	100	0.000002	8760	0.017322927
943	14.12.2022	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0,1	1	100	0.000001	8760	0.008002119
944	14.12.2022	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0	1	100	0.000000	8760	0
945	14.12.2022	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0
946	14.12.2022	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0,2	1	100	0.000001	8760	0.013026541
947	14.12.2022	BULLET TOP AREA(EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0
948	14.12.2022	BULLET TOP AREA(EAST SIDE)	OTHER	Flange	0,2	1	100	0.000001	8760	0.013026541
949	09.12.2022	BULLET 205 - V- 004	BULLET INLET XZV 0003 UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
950	09.12.2022	BULLET 205 - V- 004	BULLET INLET XZV 0003 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
951	09.12.2022	BULLET 205 - V- 004 VAPOUR BALANCING LINE	HOV-1 UP steam	Flange	0	1	100	0.000000	8760	0
952	09.12.2022	BULLET 205 - V- 004 VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
953	09.12.2022	BULLET 205 - V- 004 VAPOUR BALANCING LINE	XZV VALVE 0024 UPSTEAM	Flange	0,4	1	100	0.000002	8760	0.021205729
954	09.12.2022	BULLET 205 - V- 004 VAPOUR BALANCING LINE	XZV VALVE 0024 DOWNSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
955	09.12.2022	BULLET OUTLET LINE	XZV 0004 VALVE - 1- UP STEAM	Flange	0	1	100	0.000000	8760	0
956	09.12.2022	BULLET OUTLET LINE	XZV 0004 VALVE - 1- DOWN STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
957	09.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0,1	1	100	0.000001	8760	0.008002119
958	09.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0,1	1	100	0.000001	8760	0.008002119
959	09.12.2022	BULLET OUTLET LINE	BLENDING HEADER TOP OFF HOV UP STEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
960	09.12.2022	BULLET OUTLET LINE	BLENDING HEADER TOP OFF HOV DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
961	09.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
962	09.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
963	09.12.2022	BULLET OUTLET LINE	PUMP 29 A/B/C SUCTION HEADER HOV-1 UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
964	09.12.2022	BULLET OUTLET LINE	PUMP 29 A/B/C SUCTION HEADER HOV-1 DOWNSTEAM	Flange	0,6	1	100	0.000003	8760	0.028199757

965	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
966	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.4	1	100	0.000002	8760	0.021205729
967	09.12.2022	BULLET OUTLET LINE	PM 01 A/B/C UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
968	09.12.2022	BULLET OUTLET LINE	PM 01 A/B/C DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
969	09.12.2022	BULLET OUTLET LINE	28 A/B/C MINIMUM HOV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
970	09.12.2022	BULLET OUTLET LINE	28 A/B/C MINIMUM HOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
971	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
972	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0.8	1	100	0.000004	8760	0.0234520517
973	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
974	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
975	09.12.2022	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG HOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
976	09.12.2022	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG HOV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
977	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP Steam	Flange	0.1	1	100	0.000001	8760	0.008002119
978	09.12.2022	BULLET OUTLET LINE	NRV VALVE DOWN Steam	Flange	0.6	1	100	0.000003	8760	0.028199757
979	09.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0.6	1	100	0.000003	8760	0.028199757
980	09.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWN steam	Flange	0.5	1	100	0.000003	8760	0.024807383
981	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
982	09.12.2022	BULLET OUTLET LINE	NRV VALVE DOWN steam	Flange	0.3	1	100	0.000002	8760	0.017322927
983	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV - 1 DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
984	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV - 1 DOWNSTEAM	Flange	227	1	100	0.000209	8760	1.83016906
985	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.3	1	100	0.000002	8760	0.017322927
986	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.5	1	100	0.000003	8760	0.024807383
987	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV 1 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
988	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV 1 DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
989	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
990	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
991	09.12.2022	Bullet water Draining line	HOV-1-up steam	Flange	0.3	1	100	0.000002	8760	0.017322927
992	09.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	5.5	1	100	0.000015	8760	0.133868995
993	09.12.2022	Bullet water Draining line	HOV-2-up steam	Flange	1.4	1	100	0.000006	8760	0.051160295
994	09.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	0.7	1	100	0.000004	8760	0.031427436
995	14.12.2022	bullet top AREA(west SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0
996	14.12.2022	bullet top AREA(west SIDE)	BULLET INLET FLANGE	Flange	0.2	1	100	0.000001	8760	0.013026541
997	14.12.2022	bullet top AREA(west SIDE)	BULLET VAPOUR BALANCING	Flange	0.2	1	100	0.000001	8760	0.013026541
998	14.12.2022	bullet top AREA(west SIDE)	LT FLARE FLANG	Flange	0.1	1	100	0.000001	8760	0.008002119
999	14.12.2022	bullet top AREA(west SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1000	14.12.2022	bullet top AREA(west SIDE)	LEVEL TRANSMITTER	Flange	0.2	1	100	0.000001	8760	0.013026541
1001	14.12.2022	BULLET TOP AREA(EAST SIDE)	MAN HOLE - 2	Flange	0.1	1	100	0.000001	8760	0.008002119
1002	14.12.2022	BULLET TOP AREA(EAST SIDE)	OTHER	Flange	0.3	1	100	0.000002	8760	0.017322927
1003	09.12.2022	BULLET 205 - V- 005	BULLET INLET XZV 0005 UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1004	09.12.2022	BULLET 205 - V- 005	BULLET INLET XZV 0005 DOWNSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427436
1005	09.12.2022	BULLET 205 - V- 005 VAPOUR BALANCING LINE	HOV-1 UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1006	09.12.2022	BULLET 205 - V- 005 VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1007	09.12.2022	BULLET 205 - V- 005 VAPOUR BALANCING LINE	XZV VALVE 0025 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1008	09.12.2022	BULLET 205 - V- 005 VAPOUR BALANCING LINE	XZV VALVE 0025 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1009	09.12.2022	BULLET OUTLET LINE	XZV 0006 VALVE - 1- UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1010	09.12.2022	BULLET OUTLET LINE	XZV 0006 VALVE - 1- DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1011	09.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1012	09.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1013	09.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0	1	100	0.000000	8760	0
1014	09.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
1015	09.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
1016	09.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
1017	09.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1018	09.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1019	09.12.2022	BULLET OUTLET LINE	PUMP 28 A/B/C propylene IOL HOV -1 UP STEAM	Flange	0	1	100	0.000000	8760	0
1020	09.12.2022	BULLET OUTLET LINE	PUMP 28 A/B/C propylene IOL HOV -1 DOWN STEAM	Flange	0	1	100	0.000000	8760	0
1021	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0	1	100	0.000000	8760	0
1022	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1023	09.12.2022	BULLET OUTLET LINE	029 minimum flow HOV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1024	09.12.2022	BULLET OUTLET LINE	029 Minimum flow HOV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
1025	09.12.2022	BULLET OUTLET LINE	028 A/B/C minimum flow HOV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1026	09.12.2022	BULLET OUTLET LINE	028 A/B/C minimum flow HOV down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1027	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
1028	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0	1	100	0.000000	8760	0
1029	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0	1	100	0.000000	8760	0
1030	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0	1	100	0.000000	8760	0
1031	09.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG UPSTEAM	Flange	0	1	100	0.000000	8760	0
1032	09.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1033	09.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
1034	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.5	1	100	0.000003	8760	0.024807383
1035	09.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1036	09.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0.3	1	100	0.000002	8760	0.017322927
1037	09.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
1038	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1039	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
1040	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
1041	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1042	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
1043	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	0	1	100	0.000000	8760	0
1044	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1045	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.3	1	100	0.000002	8760	0.017322927
1046	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1047	09.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	0.8	1	100	0.000004	8760	0.034520517
1048	09.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1049	09.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	3.5	1	100	0.000011	8760	0.097428242
1050	09.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	1	1	100	0.000005	8760	0.0403836
1051	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0.2	1	100	0.000001	8760	0.013026541
1052	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0.000000	8760	0

1053	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0
1054	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.3	1	100	0.000002	8760	0.017322927
1055	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0.8	1	100	0.000004	8760	0.034520517
1056	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0.1	1	100	0.000001	8760	0.008002119
1057	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0
1058	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0
1059	09.12.2022	BULLET 205 - V-007	BULLET INLET XZV 0188 UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1060	09.12.2022	BULLET 205 - V-007	BULLET INLET XZV 0188 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1061	09.12.2022	VAPOUR BALANCING LINE	XZV VALVE 0189 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1062	09.12.2022	VAPOUR BALANCING LINE	XZV VALVE 0189 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
1063	09.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0	1	100	0.000000	8760	0
1064	09.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1065	09.12.2022	BULLET OUTLET LINE	XZV 0190 VALVE - 1- UP STEAM	Flange	0	1	100	0.000000	8760	0
1066	09.12.2022	BULLET OUTLET LINE	XZV 0006 VALVE - 1- DOWN STEAM	Flange	0	1	100	0.000000	8760	0
1067	09.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0	1	100	0.000000	8760	0
1068	09.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034520517
1069	09.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1070	09.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.9	1	100	0.000004	8760	0.037500539
1071	09.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1072	09.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1073	09.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
1074	09.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
1075	09.12.2022	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 UP STEAM	Flange	1.1	1	100	0.000005	8760	0.043182133
1076	09.12.2022	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 down STEAM	Flange	0	1	100	0.000000	8760	0
1077	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1078	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1079	09.12.2022	BULLET OUTLET LINE	PM 01 A/B/C/ minimum flow HOV	Flange	0.2	1	100	0.000001	8760	0.013026541
1080	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
1081	09.12.2022	BULLET OUTLET LINE	028 A/B/C minimum flow HOV UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1082	09.12.2022	BULLET OUTLET LINE	028 A/B/C minimum flow HOV down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1083	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
1084	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1085	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0	1	100	0.000000	8760	0
1086	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0	1	100	0.000000	8760	0
1087	09.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1088	09.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
1089	09.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1090	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1091	09.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1092	09.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0.8	1	100	0.000004	8760	0.034520517
1093	09.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1094	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1095	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1096	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
1097	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0.5	1	100	0.000003	8760	0.024807383
1098	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.8	1	100	0.000004	8760	0.034520517
1099	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1100	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1101	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1102	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1103	09.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1104	09.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1105	09.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	0.3	1	100	0.000002	8760	0.017322927
1106	09.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	0.5	1	100	0.000003	8760	0.024807383
1107	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0
1108	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0.000000	8760	0
1109	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0.3	1	100	0.000002	8760	0.017322927
1110	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0	1	100	0.000000	8760	0
1111	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1112	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0.1	1	100	0.000001	8760	0.008002119
1113	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0
1114	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0
1115	09.12.2022	BULLET 205 - V-008	BULLET INLET XZV 0603 UPSTEAM	Flange	0	1	100	0.000000	8760	0
1116	09.12.2022	BULLET 205 - V-008	BULLET INLET XZV 0603 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1117	09.12.2022	VAPOUR BALANCING LINE	XZV VALVE 0191 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1118	09.12.2022	VAPOUR BALANCING LINE	XZV VALVE 0191 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
1119	09.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0	1	100	0.000000	8760	0
1120	09.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1121	09.12.2022	BULLET OUTLET LINE	XZV 0192 VALVE - 1- UP STEAM	Flange	0	1	100	0.000000	8760	0
1122	09.12.2022	BULLET OUTLET LINE	XZV 0192 VALVE - 1- DOWN STEAM	Flange	0	1	100	0.000000	8760	0
1123	09.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0	1	100	0.000000	8760	0
1124	09.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1125	09.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0	1	100	0.000000	8760	0
1126	09.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
1127	09.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1128	09.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1129	09.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1130	09.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
1131	09.12.2022	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1132	09.12.2022	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 down STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1133	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1134	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1135	09.12.2022	BULLET OUTLET LINE	029 minimum flow HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
1136	09.12.2022	BULLET OUTLET LINE	029 Minimum flow HOV DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1137	09.12.2022	BULLET OUTLET LINE	028 A/B/C minimum flow HOV UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1138	09.12.2022	BULLET OUTLET LINE	028 A/B/C minimum flow HOV down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1139	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383

1140	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0,4	1	100	0,000002	8760	0,021205729
1141	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1142	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0	1	100	0,000000	8760	0
1143	09.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG UPSTEAM	Flange	0	1	100	0,000000	8760	0
1144	09.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0	1	100	0,000000	8760	0
1145	09.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0	1	100	0,000000	8760	0
1146	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1147	09.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1148	09.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0,1	1	100	0,000001	8760	0,008002119
1149	09.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1150	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0	1	100	0,000000	8760	0
1151	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0	1	100	0,000000	8760	0
1152	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0	1	100	0,000000	8760	0
1153	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1154	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,1	1	100	0,000001	8760	0,008002119
1155	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	0	1	100	0,000000	8760	0
1156	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWN STEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1157	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,5	1	100	0,000003	8760	0,024807383
1158	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,8	1	100	0,000004	8760	0,034520517
1159	09.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	1,5	1	100	0,000006	8760	0,053702832
1160	09.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1161	09.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	0,8	1	100	0,000004	8760	0,034520517
1162	09.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	3,7	1	100	0,000012	8760	0,101309657
1163	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0,000000	8760	0
1164	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0,2	1	100	0,000001	8760	0,013026541
1165	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0,8	1	100	0,000004	8760	0,034520517
1166	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0	1	100	0,000000	8760	0
1167	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0,1	1	100	0,000001	8760	0,008002119
1168	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	1,7	1	100	0,000007	8760	0,05864225
1169	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0,000000	8760	0
1170	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0,000000	8760	0
1171	09.12.2022	BULLET 205 - V- 009	BULLET INLET XZV 0193 UPSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1172	09.12.2022	BULLET 205 - V- 009	BULLET INLET XZV 0193 DOWNSTEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1173	09.12.2022	VAPOUR BALANCING LINE	XZV VALVE 0194 UPSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1174	09.12.2022	VAPOUR BALANCING LINE	XZV VALVE 0194 DOWNSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1175	09.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1176	09.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0,5	1	100	0,000003	8760	0,024807383
1177	09.12.2022	BULLET OUTLET LINE	XZV 0195 VALVE - 1- UP STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1178	09.12.2022	BULLET OUTLET LINE	XZV 0195 VALVE - 1- DOWN STEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1179	09.12.2022	BULLET OUTLET LINE	HOV-1-UP steam	Flange	3,1	1	100	0,000010	8760	0,089460702
1180	09.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	80,6	1	100	0,000101	8760	0,883809298
1181	09.12.2022	BULLET OUTLET LINE	HOV-2-UP steam	Flange	0,3	1	100	0,000002	8760	0,017322927
1182	09.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0,6	1	100	0,000003	8760	0,028199757
1183	09.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG UPSTEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1184	09.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0,5	1	100	0,000003	8760	0,024807383
1185	09.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0	1	100	0,000000	8760	0
1186	09.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0	1	100	0,000000	8760	0
1187	09.12.2022	BULLET OUTLET LINE	PM 28 A/B/C propylene lbt HOV -1 UP STEAM	Flange	0	1	100	0,000000	8760	0
1188	09.12.2022	BULLET OUTLET LINE	PM 28 A/B/C propylene lbt HOV -1 DOWN STEAM	Flange	0	1	100	0,000000	8760	0
1189	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,7	1	100	0,000004	8760	0,031427436
1190	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,1	1	100	0,000001	8760	0,008002119
1191	09.12.2022	BULLET OUTLET LINE	029 minimum flow HOV UPSTEAM	Flange	0,8	1	100	0,000004	8760	0,034520517
1192	09.12.2022	BULLET OUTLET LINE	029 Minimum flow HOV DOWNSTEAM	Flange	0,7	1	100	0,000004	8760	0,031427436
1193	09.12.2022	BULLET OUTLET LINE	028 A/B/C minimum flow HOV UPSTEAM	Flange	0,5	1	100	0,000003	8760	0,024807383
1194	09.12.2022	BULLET OUTLET LINE	028 A/B/C minimum flow HOV down steam	Flange	0,4	1	100	0,000002	8760	0,021205729
1195	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0	1	100	0,000000	8760	0
1196	09.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0	1	100	0,000000	8760	0
1197	09.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,5	1	100	0,000003	8760	0,024807383
1198	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,3	1	100	0,000002	8760	0,017322927
1199	09.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG UPSTEAM	Flange	0,8	1	100	0,000004	8760	0,034520517
1200	09.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0,8	1	100	0,000004	8760	0,034520517
1201	09.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0,5	1	100	0,000003	8760	0,024807383
1202	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,1	1	100	0,000001	8760	0,008002119
1203	09.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0	1	100	0,000000	8760	0
1204	09.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0,1	1	100	0,000001	8760	0,008002119
1205	09.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1206	09.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0	1	100	0,000000	8760	0
1207	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0	1	100	0,000000	8760	0
1208	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1209	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1210	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1211	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	2,1	1	100	0,000008	8760	0,068033873
1212	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWN STEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1213	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,7	1	100	0,000004	8760	0,031427436
1214	09.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	27,4	1	100	0,000047	8760	0,413945988
1215	09.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	0,5	1	100	0,000003	8760	0,024807383
1216	09.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1217	09.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	0,3	1	100	0,000002	8760	0,017322927
1218	09.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	0,5	1	100	0,000003	8760	0,024807383
1219	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0,000000	8760	0
1220	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0,4	1	100	0,000002	8760	0,021205729
1221	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0,1	1	100	0,000001	8760	0,008002119
1222	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0,2	1	100	0,000001	8760	0,013026541
1223	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0,000000	8760	0
1224	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0,000000	8760	0
1225	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0,1	1	100	0,000001	8760	0,008002119
1226	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0,000000	8760	0
1227	08.12.2022	LPG AREA MOUND II BULLET 205-V-012	BULLET INLET XZV 1188 UPSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119

1228	08.12.2022	LPG AREA MOUND II BULLET 205-V-012	BULLET INLET XZV 1188 DOWNSTEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1229	08.12.2022	VAPOUR BALANCE LINE	HOV-1-UP steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1230	08.12.2022	VAPOUR BALANCE LINE	HOV-1-down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1231	08.12.2022	VAPOUR BALANCE LINE	XZV 1189 VALVE UP STEAM	Flange	0	1	100	0,000000	8760	0
1232	08.12.2022	VAPOUR BALANCE LINE	XZV 1189 VALVE DOWN STEAM	Flange	0	1	100	0,000000	8760	0
1233	08.12.2022	BULLET OUTLET LINE	XZV VALVE UP STEAM 1190	Flange	0,3	1	100	0,000002	8760	0,017322927
1234	08.12.2022	BULLET OUTLET LINE	XZV VALVE DOWN STEAM 1190	Flange	0,1	1	100	0,000001	8760	0,008002119
1235	08.12.2022	BULLET OUTLET LINE	HOV-1 OFF V12-UP steam	Flange	0,3	1	100	0,000002	8760	0,017322927
1236	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0,4	1	100	0,000002	8760	0,021205729
1237	08.12.2022	BULLET OUTLET LINE	HOV-2-UP steam	Flange	0,4	1	100	0,000002	8760	0,021205729
1238	08.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1239	08.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV	Flange	0,3	1	100	0,000002	8760	0,017322927
1240	08.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV	Flange	0,1	1	100	0,000001	8760	0,008002119
1241	08.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1242	08.12.2022	BULLET OUTLET LINE	NRV VALVE DOWNSTEAM	Flange	0	1	100	0,000000	8760	0
1243	08.12.2022	BULLET OUTLET LINE	PUMP 28 A/B/C PROPYLENE TBT HOV UP STEAM	Flange	0	1	100	0,000000	8760	0
1244	08.12.2022	BULLET OUTLET LINE	PUMP 28 A/B/C PROPYLENE TBT HOV DOWNSTEAM	Flange	0	1	100	0,000000	8760	0
1245	08.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0	1	100	0,000000	8760	0
1246	08.12.2022	BULLET OUTLET LINE	NRV VALVE DOWNSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1247	08.12.2022	BULLET OUTLET LINE	PM 01A/B/C MINIMUM FLOW UPSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1248	08.12.2022	BULLET OUTLET LINE	PM 01A/B/C MINIMUM FLOW DOWNSTEAM	Flange	0,6	1	100	0,000003	8760	0,028199757
1249	08.12.2022	BULLET OUTLET LINE	27 A/B/C MINIMUM FLOW HOV UPSTEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1250	08.12.2022	BULLET OUTLET LINE	27 A/B/C MINIMUM FLOW HOV DOWNSTEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1251	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1252	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV DOWNSTEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1253	08.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1254	08.12.2022	BULLET OUTLET LINE	NRV VALVE DOWNSTEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1255	08.12.2022	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG HOV UPSTEAM	Flange	0	1	100	0,000000	8760	0
1256	08.12.2022	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG HOV DOWNSTEAM	Flange	0	1	100	0,000000	8760	0
1257	08.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0	1	100	0,000000	8760	0
1258	08.12.2022	BULLET OUTLET LINE	NRV VALVE DOWNSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1259	08.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV UPSTEAM	Flange	0	1	100	0,000000	8760	0
1260	08.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1261	08.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0,5	1	100	0,000003	8760	0,024807383
1262	08.12.2022	BULLET OUTLET LINE	NRV VALVE DOWNSTEAM	Flange	0	1	100	0,000000	8760	0
1263	08.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	PM 27 A/B/C SUCTION HEADER HOV-1-UP STEAM	Flange	0	1	100	0,000000	8760	0
1264	08.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	PM 27 A/B/C SUCTION HEADER HOV-1-DOWN STEAM	Flange	0	1	100	0,000000	8760	0
1265	08.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	PM 27 A/B/C SUCTION HEADER HOV-2-UP STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1266	08.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	PM 27 A/B/C SUCTION HEADER HOV-2-DOWN STEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1267	08.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPPING HEADER HOV 1 UP	Flange	0,4	1	100	0,000002	8760	0,021205729
1268	08.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPPING HEADER HOV 1 DOWN	Flange	0,1	1	100	0,000001	8760	0,008002119
1269	08.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPPING HEADER HOV 2 UP	Flange	0,3	1	100	0,000002	8760	0,017322927
1270	08.12.2022	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPPING HEADER HOV 2 DOWN	Flange	0	1	100	0,000000	8760	0
1271	08.12.2022	Bullet water Draining line	HOV-1-up steam	Flange	8,6	1	100	0,000021	8760	0,18329788
1272	08.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	12,1	1	100	0,000027	8760	0,233025338
1273	08.12.2022	Bullet water Draining line	HOV-2-up steam	Flange	0,9	1	100	0,000004	8760	0,037500539
1274	08.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	6,3	1	100	0,000017	8760	0,147279207
1275	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0,2	1	100	0,000001	8760	0,013026541
1276	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	40,2	1	100	0,000062	8760	0,541970873
1277	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0,1	1	100	0,000001	8760	0,008002119
1278	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0,2	1	100	0,000001	8760	0,013026541
1279	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0,000000	8760	0
1280	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0,1	1	100	0,000001	8760	0,008002119
1281	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0,1	1	100	0,000001	8760	0,008002119
1282	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0,000000	8760	0
1283	08.12.2022	BULLET 205 - V - 013	BULLET INLET XZV 1003 UPSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1284	08.12.2022	BULLET 205 - V - 013	BULLET INLET XZV 1003 DOWNSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1285	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE 1191 UPSTEAM	Flange	0,5	1	100	0,000003	8760	0,024807383
1286	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE 1191DOWNSTEAM	Flange	0	1	100	0,000000	8760	0
1287	08.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0	1	100	0,000000	8760	0
1288	08.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0,1	1	100	0,000001	8760	0,008002119
1289	08.12.2022	BULLET OUTLET LINE	XZV 1192 VALVE - 1- UP STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1290	08.12.2022	BULLET OUTLET LINE	XZV 1192 VALVE - 1- DOWN STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1291	08.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0,4	1	100	0,000002	8760	0,021205729
1292	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0,1	1	100	0,000001	8760	0,008002119
1293	08.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0,5	1	100	0,000003	8760	0,024807383
1294	08.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1295	08.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV UP STEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1296	08.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV DOWN STEAM	Flange	0,6	1	100	0,000003	8760	0,028199757
1297	08.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0,9	1	100	0,000004	8760	0,037500539
1298	08.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1299	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C PROPYLENE TBT HOV -1 UP STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1300	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C PROPYLENE TBT HOV -1 DOWN STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1301	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,3	1	100	0,000002	8760	0,017322927
1302	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,1	1	100	0,000001	8760	0,008002119
1303	08.12.2022	BULLET OUTLET LINE	PM01 D/E/F minimum flow HOV UPSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1304	08.12.2022	BULLET OUTLET LINE	PM01 D/E/F minimum flow HOV DOWNSTEAM	Flange	0,8	1	100	0,000004	8760	0,034520517
1305	08.12.2022	BULLET OUTLET LINE	027 A/B/C minimum flow HOV UPSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1306	08.12.2022	BULLET OUTLET LINE	027 A/B/C minimum flow HOV down steam	Flange	0,6	1	100	0,000003	8760	0,028199757
1307	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1308	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0	1	100	0,000000	8760	0
1309	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0	1	100	0,000000	8760	0
1310	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0	1	100	0,000000	8760	0
1311	08.12.2022	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG UPSTEAM	Flange	0	1	100	0,000000	8760	0
1312	08.12.2022	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG DOWNSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1313	08.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1314	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,1	1	100	0,000001	8760	0,008002119
1315	08.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0,1	1	100	0,000001	8760	0,008002119

1316	08.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0.3	1	100	0.000002	8760	0.017322927
1317	08.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
1318	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1319	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1320	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1321	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0.9	1	100	0.000004	8760	0.037500539
1322	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.3	1	100	0.000002	8760	0.017322927
1323	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1324	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
1325	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1326	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.2	1	100	0.000001	8760	0.008002119
1327	08.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	2.1	1	100	0.000008	8760	0.070295606
1328	08.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034520517
1329	08.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	6.4	1	100	0.000017	8760	0.148918809
1330	08.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	5.1	1	100	0.000014	8760	0.126948293
1331	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0
1332	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0.000000	8760	0
1333	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0
1334	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.2	1	100	0.000001	8760	0.013026541
1335	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1336	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1337	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0
1338	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0
1339	08.12.2022	BULLET 205 - V- 014	BULLET INLET XZV 1193 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1340	08.12.2022	BULLET 205 - V- 014	BULLET INLET XZV 1193 DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
1341	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE 1194 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1342	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE 1194 DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1343	08.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1344	08.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1345	08.12.2022	BULLET OUTLET LINE	XZV 1195 VALVE - 1- UP STEAM	Flange	0	1	100	0.000000	8760	0
1346	08.12.2022	BULLET OUTLET LINE	XZV 1195 VALVE - 1- DOWN STEAM	Flange	0	1	100	0.000000	8760	0
1347	08.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1348	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0.5	1	100	0.000003	8760	0.024807383
1349	08.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1350	08.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.8	1	100	0.000004	8760	0.034520517
1351	08.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1352	08.12.2022	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1353	08.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1354	08.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1355	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C propylene hot HOV -1 UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1356	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C propylene hot HOV -1 DOWN STEAM	Flange	0	1	100	0.000000	8760	0
1357	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0	1	100	0.000000	8760	0
1358	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0	1	100	0.000000	8760	0
1359	08.12.2022	BULLET OUTLET LINE	PM 01 A/B/C minimum flow HOV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1360	08.12.2022	BULLET OUTLET LINE	PM 01 A/B/C minimum flow HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
1361	08.12.2022	BULLET OUTLET LINE	027 A/B/C minimum flow HOV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1362	08.12.2022	BULLET OUTLET LINE	027 A/B/C minimum flow HOV down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1363	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1364	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1365	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1366	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.3	1	100	0.000002	8760	0.017322927
1367	08.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1368	08.12.2022	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
1369	08.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1370	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1371	08.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1372	08.12.2022	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0.2	1	100	0.000001	8760	0.013026541
1373	08.12.2022	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1374	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.8	1	100	0.000004	8760	0.034520517
1375	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
1376	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1377	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0.5	1	100	0.000003	8760	0.024807383
1378	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1379	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1380	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1381	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1382	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1383	08.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	1.3	1	100	0.000006	8760	0.04856319
1384	08.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	0.6	1	100	0.000003	8760	0.028199757
1385	08.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	2.4	1	100	0.000009	8760	0.074729751
1386	08.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1387	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0.1	1	100	0.000001	8760	0.008002119
1388	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0.000000	8760	0
1389	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0.3	1	100	0.000002	8760	0.017322927
1390	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.7	1	100	0.000004	8760	0.031427436
1391	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1392	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1393	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0
1394	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0
1395	08.12.2022	BULLET 205 - V- 006	BULLET INLET XZV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1396	08.12.2022	BULLET 205 - V- 006	BULLET INLET XZV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
1397	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	0	1	100	0.000000	8760	0
1398	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
1399	08.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0	1	100	0.000000	8760	0
1400	08.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1401	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1402	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034520517

1403	08.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0,1	1	100	0.000001	8760	0.008002119
1404	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0,4	1	100	0.000002	8760	0.021205729
1405	08.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0	1	100	0.000000	8760	0
1406	08.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
1407	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STREAM	Flange	0,5	1	100	0.000003	8760	0.024807383
1408	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
1409	08.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
1410	08.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1411	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
1412	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0	1	100	0.000000	8760	0
1413	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	0	1	100	0.000000	8760	0
1414	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
1415	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,3	1	100	0.000002	8760	0.017322927
1416	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,1	1	100	0.000001	8760	0.008002119
1417	08.12.2022	BULLET OUTLET LINE	PM 29 A/B/C minimum flow HOV DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
1418	08.12.2022	BULLET OUTLET LINE	PM 29 A/B/C minimum flow HOV DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
1419	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
1420	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0	1	100	0.000000	8760	0
1421	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
1422	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HOV2 down steam	Flange	0	1	100	0.000000	8760	0
1423	08.12.2022	BULLET OUTLET LINE	PM 027 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1424	08.12.2022	BULLET OUTLET LINE	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1425	08.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0	1	100	0.000000	8760	0
1426	08.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0,4	1	100	0.000002	8760	0.021205729
1427	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
1428	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 down STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1429	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0	1	100	0.000000	8760	0
1430	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0	1	100	0.000000	8760	0
1431	08.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	0	1	100	0.000000	8760	0
1432	08.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1433	08.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	0	1	100	0.000000	8760	0
1434	08.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	0,2	1	100	0.000001	8760	0.013026541
1435	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0,2	1	100	0.000001	8760	0.013026541
1436	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0,6	1	100	0.000003	8760	0.028199757
1437	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0
1438	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0	1	100	0.000000	8760	0
1439	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1440	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0,2	1	100	0.000001	8760	0.013026541
1441	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0,4	1	100	0.000002	8760	0.021205729
1442	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0,5	1	100	0.000003	8760	0.024807383
1443	08.12.2022	BULLET 205 - V- 010	BULLET INLET XZV UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1444	08.12.2022	BULLET 205 - V- 010	BULLET INLET XZV DOWNSTEAM	Flange	0,5	1	100	0.000003	8760	0.024807383
1445	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	0	1	100	0.000000	8760	0
1446	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
1447	08.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0,2	1	100	0.000001	8760	0.013026541
1448	08.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0,8	1	100	0.000004	8760	0.034520517
1449	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	0	1	100	0.000000	8760	0
1450	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1451	08.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0,2	1	100	0.000001	8760	0.013026541
1452	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0,4	1	100	0.000002	8760	0.021205729
1453	08.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	35,8	1	100	0.000057	8760	0.499556713
1454	08.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0,6	1	100	0.000003	8760	0.028199757
1455	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STREAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1456	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STEAM	Flange	0,4	1	100	0.000002	8760	0.021205729
1457	08.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
1458	08.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0,7	1	100	0.000004	8760	0.031427436
1459	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
1460	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV down steam	Flange	0,5	1	100	0.000003	8760	0.024807383
1461	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1462	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER DOWN STEAM	Flange	0	1	100	0.000000	8760	0
1463	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0	1	100	0.000000	8760	0
1464	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,4	1	100	0.000002	8760	0.021205729
1465	08.12.2022	BULLET OUTLET LINE	PM 29 A/B/C minimum flow HOV DOWNSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1466	08.12.2022	BULLET OUTLET LINE	PM 29 A/B/C minimum flow HOV DOWNSTEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1467	08.12.2022	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING UPSTEAM	Flange	561	1	100	0.000395	8760	3.457211294
1468	08.12.2022	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
1469	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,1	1	100	0.000001	8760	0.008002119
1470	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,5	1	100	0.000003	8760	0.024807383
1471	08.12.2022	BULLET OUTLET LINE	HOV-1-UP steam	Flange	0,2	1	100	0.000001	8760	0.013026541
1472	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0,1	1	100	0.000001	8760	0.008002119
1473	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0,2	1	100	0.000001	8760	0.013026541
1474	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0	1	100	0.000000	8760	0
1475	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0	1	100	0.000000	8760	0
1476	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
1477	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 UP STEAM	Flange	0,3	1	100	0.000002	8760	0.017322927
1478	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002119
1479	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,6	1	100	0.000003	8760	0.028199757
1480	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,3	1	100	0.000002	8760	0.017322927
1481	08.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	0,7	1	100	0.000004	8760	0.031427436
1482	08.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	1,2	1	100	0.000005	8760	0.045905999
1483	08.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	4,1	1	100	0.000012	8760	0.108891024
1484	08.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	2,2	1	100	0.000008	8760	0.070295606
1485	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0
1486	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0.000000	8760	0
1487	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0
1488	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	1,2	1	100	0.000005	8760	0.045905999

1489	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0,3	1	100	0,000002	8760	0,017322927
1490	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0,000000	8760	0
1491	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0,000000	8760	0
1492	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0,1	1	100	0,000001	8760	0,008002119
1493	08.12.2022	BULLET 205 - V - 011	BULLET INLET XZV UPSTEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1494	08.12.2022	BULLET 205 - V - 011	BULLET INLET XZV DOWNSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1495	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1496	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	0,6	1	100	0,000003	8760	0,028199757
1497	08.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1498	08.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0,1	1	100	0,000001	8760	0,008002119
1499	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	60,2	1	100	0,000082	8760	0,719882083
1500	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	5,2	1	100	0,000015	8760	0,128693135
1501	08.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0,5	1	100	0,000003	8760	0,024807383
1502	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	16,7	1	100	0,000033	8760	0,292263587
1503	08.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0,8	1	100	0,000004	8760	0,034520517
1504	08.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	35,3	1	100	0,000056	8760	0,494641613
1505	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1506	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STEAM	Flange	0,5	1	100	0,000003	8760	0,024807383
1507	08.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1508	08.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1509	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV UPSTEAM	Flange	0	1	100	0,000000	8760	0
1510	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV down steam	Flange	0	1	100	0,000000	8760	0
1511	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1512	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER DOWN STEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1513	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,6	1	100	0,000003	8760	0,028199757
1514	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,4	1	100	0,000002	8760	0,021205729
1515	08.12.2022	BULLET OUTLET LINE	PM 29 A/B/C MINIMUM FLOW HOV UPSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1516	08.12.2022	BULLET OUTLET LINE	PM 29 A/B/C MINIMUM FLOW HOV DOWNSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1517	08.12.2022	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING UPSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1518	08.12.2022	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING DOWNSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1519	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0	1	100	0,000000	8760	0
1520	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0	1	100	0,000000	8760	0
1521	08.12.2022	BULLET OUTLET LINE	HOV-1-UP steam	Flange	0,4	1	100	0,000002	8760	0,021205729
1522	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1523	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 28 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0	1	100	0,000000	8760	0
1524	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 28 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0	1	100	0,000000	8760	0
1525	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0,4	1	100	0,000002	8760	0,021205729
1526	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1527	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 UP STEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1528	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 DOWN STEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1529	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1530	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,4	1	100	0,000002	8760	0,021205729
1531	08.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	0,9	1	100	0,000004	8760	0,037500539
1532	08.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	1,5	1	100	0,000006	8760	0,053702832
1533	08.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	4,1	1	100	0,000012	8760	0,108891024
1534	08.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	7,2	1	100	0,000018	8760	0,161774392
1535	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0,000000	8760	0
1536	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0,000000	8760	0
1537	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	32,8	1	100	0,000054	8760	0,469747355
1538	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0	1	100	0,000000	8760	0
1539	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0,2	1	100	0,000001	8760	0,013026541
1540	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0,000000	8760	0
1541	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0,000000	8760	0
1542	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0,000000	8760	0
1543	08.12.2022	BULLET 205 - V - 015	BULLET INLET XZV UPSTEAM	Flange	5,2	1	100	0,000015	8760	0,128693135
1544	08.12.2022	BULLET 205 - V - 015	BULLET INLET XZV DOWNSTEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1545	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1546	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	0,3	1	100	0,000002	8760	0,017322927
1547	08.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0,1	1	100	0,000001	8760	0,008002119
1548	08.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0,1	1	100	0,000001	8760	0,008002119
1549	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	2661	1	100	0,001179	8760	10,3278894
1550	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	10,2	1	100	0,000024	8760	0,206657396
1551	08.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	3,1	1	100	0,000010	8760	0,089460702
1552	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	75,2	1	100	0,000096	8760	0,841755908
1553	08.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0,6	1	100	0,000003	8760	0,028199757
1554	08.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	0,8	1	100	0,000004	8760	0,034520517
1555	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1556	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STEAM	Flange	0,7	1	100	0,000004	8760	0,031427436
1557	08.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1558	08.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1559	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV UPSTEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1560	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV down steam	Flange	0	1	100	0,000000	8760	0
1561	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	0	1	100	0,000000	8760	0
1562	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER DOWN STEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1563	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1564	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1565	08.12.2022	BULLET OUTLET LINE	PM 29 A/B/C MINIMUM FLOW HOV UPSTEAM	Flange	0,1	1	100	0,000001	8760	0,008002119
1566	08.12.2022	BULLET OUTLET LINE	PM 29 A/B/C MINIMUM FLOW HOV DOWNSTEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1567	08.12.2022	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING UPSTEAM	Flange	0,4	1	100	0,000002	8760	0,021205729
1568	08.12.2022	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING DOWNSTEAM	Flange	6,2	1	100	0,000017	8760	0,145631858
1569	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,5	1	100	0,000003	8760	0,024807383
1570	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,3	1	100	0,000002	8760	0,017322927
1571	08.12.2022	BULLET OUTLET LINE	HOV-1-UP steam	Flange	1,1	1	100	0,000005	8760	0,043182133
1572	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0,2	1	100	0,000001	8760	0,013026541
1573	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 28 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0,2	1	100	0,000001	8760	0,013026541
1574	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM 28 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0	1	100	0,000000	8760	0

1575	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0	1	100	0.000000	8760	0
1576	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
1577	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1578	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1579	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.5	1	100	0.000003	8760	0.024807383
1580	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.9	1	100	0.000004	8760	0.037500539
1581	08.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	8.1	1	100	0.000020	8760	0.175739748
1582	08.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	11.7	1	100	0.000026	8760	0.227582934
1583	08.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	5.8	1	100	0.000016	8760	0.138961634
1584	08.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	6.9	1	100	0.000018	8760	0.157005889
1585	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0
1586	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0.000000	8760	0
1587	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0.5	1	100	0.000003	8760	0.024807383
1588	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0	1	100	0.000000	8760	0
1589	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1590	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1591	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0.2	1	100	0.000001	8760	0.013026541
1592	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0
1593	08.12.2022	BULLET 205 - V- 016	BULLET INLET XZV UPSTEAM	Flange	5.7	1	100	0.000016	8760	0.137272978
1594	08.12.2022	BULLET 205 - V- 016	BULLET INLET XZV DOWNSTEAM	Flange	16.4	1	100	0.000033	8760	0.288562742
1595	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	12.1	1	100	0.000027	8760	0.233025338
1596	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	7.3	1	100	0.000019	8760	0.163350701
1597	08.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	1.5	1	100	0.000006	8760	0.053702832
1598	08.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	7.8	1	100	0.000020	8760	0.171138428
1599	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	98.4	1	100	0.000116	8760	1.016905475
1600	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	5.9	1	100	0.000016	8760	0.140641664
1601	08.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	23.5	1	100	0.000042	8760	0.371591472
1602	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	20.1	1	100	0.000038	8760	0.332929179
1603	08.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	381	1	100	0.000301	8760	2.633875784
1604	08.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	442	1	100	0.000334	8760	2.923727461
1605	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STREAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1606	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1607	08.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1608	08.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1609	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1610	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV down steam	Flange	0.3	1	100	0.000002	8760	0.017322927
1611	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	0	1	100	0.000000	8760	0
1612	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1613	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1614	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1615	08.12.2022	BULLET OUTLET LINE	PM 29 A/B/C MINIMUM FLOW HOV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1616	08.12.2022	BULLET OUTLET LINE	PM 29 A/B/C MINIMUM FLOW HOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1617	08.12.2022	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING	Flange	0.6	1	100	0.000003	8760	0.028199757
1618	08.12.2022	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1619	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1620	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.3	1	100	0.000002	8760	0.017322927
1621	08.12.2022	BULLET OUTLET LINE	HOV-1-UP steam	Flange	0.3	1	100	0.000002	8760	0.017322927
1622	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1623	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	2.1	1	100	0.000008	8760	0.068033873
1624	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034520517
1625	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	344	1	100	0.000280	8760	2.451351654
1626	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	1.4	1	100	0.000006	8760	0.051160295
1627	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 UP STEAM	Flange	5.7	1	100	0.000016	8760	0.137272978
1628	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 DOWN STEAM	Flange	2.8	1	100	0.000010	8760	0.083283147
1629	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	419	1	100	0.000321	8760	2.815927634
1630	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	10.4	1	100	0.000024	8760	0.209497801
1631	08.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	1.8	1	100	0.000007	8760	0.061046617
1632	08.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	4.6	1	100	0.000013	8760	0.118065711
1633	08.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	8.3	1	100	0.000020	8760	0.178779176
1634	08.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	1.9	1	100	0.000007	8760	0.063411615
1635	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0
1636	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0.000000	8760	0
1637	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0
1638	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.2	1	100	0.000001	8760	0.013026541
1639	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1640	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0
1641	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0
1642	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0
1643	08.12.2022	BULLET 205 - V- 017	BULLET INLET XZV UPSTEAM	Flange	3.6	1	100	0.000011	8760	0.099376956
1644	08.12.2022	BULLET 205 - V- 017	BULLET INLET XZV DOWNSTEAM	Flange	5	1	100	0.000014	8760	0.125193259
1645	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	6.2	1	100	0.000017	8760	0.145631858
1646	08.12.2022	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	4.4	1	100	0.000013	8760	0.114433258
1647	08.12.2022	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	1.7	1	100	0.000007	8760	0.05864225
1648	08.12.2022	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	2.3	1	100	0.000008	8760	0.072526998
1649	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	0	1	100	0.000000	8760	0
1650	08.12.2022	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	0	1	100	0.000000	8760	0
1651	08.12.2022	BULLET OUTLET LINE	HOV-1- UP steam	Flange	8.1	1	100	0.000020	8760	0.175739748
1652	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	6.3	1	100	0.000017	8760	0.147279207
1653	08.12.2022	BULLET OUTLET LINE	HOV-2- UP steam	Flange	2.4	1	100	0.000009	8760	0.074729751
1654	08.12.2022	BULLET OUTLET LINE	HOV-2-down steam	Flange	6.8	1	100	0.000018	8760	0.155402785
1655	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STREAM	Flange	0.2	1	100	0.000001	8760	0.013026541
1656	08.12.2022	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STEAM	Flange	0.7	1	100	0.000004	8760	0.031427436
1657	08.12.2022	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1658	08.12.2022	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
1659	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
1660	08.12.2022	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV down steam	Flange	0.6	1	100	0.000003	8760	0.028199757
1661	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
1662	08.12.2022	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807383

1663	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1664	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1665	08.12.2022	BULLET OUTLET LINE	PM A/B/C minimum flow HOV	Flange	0.8	1	100	0.000004	8760	0.034520517
1666	08.12.2022	BULLET OUTLET LINE	PM A/B/C minimum flow HOV	Flange	0.5	1	100	0.000003	8760	0.024807383
1667	08.12.2022	BULLET OUTLET LINE	BULLET FROM GANTRY LOADING	Flange	0.4	1	100	0.000002	8760	0.021205729
1668	08.12.2022	BULLET OUTLET LINE	PROPTERNE FROM GANTRY LOADING	Flange	0.4	1	100	0.000002	8760	0.021205729
1669	08.12.2022	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1670	08.12.2022	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0	1	100	0.000000	8760	0
1671	08.12.2022	BULLET OUTLET LINE	HOV-1-UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1672	08.12.2022	BULLET OUTLET LINE	HOV-1-down steam	Flange	0.3	1	100	0.000002	8760	0.017322927
1673	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM A/B/C SUCTION HEADER HOV-1 UP	Flange	0.5	1	100	0.000003	8760	0.024807383
1674	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	PM A/B/C SUCTION HEADER HOV-1	Flange	0.7	1	100	0.000004	8760	0.031427436
1675	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.6	1	100	0.000003	8760	0.028199757
1676	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.6	1	100	0.000003	8760	0.028199757
1677	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-1-UP steam	Flange	0.7	1	100	0.000004	8760	0.031427436
1678	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1679	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1680	08.12.2022	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.8	1	100	0.000004	8760	0.034520517
1681	08.12.2022	Bullet water Draining line	HOV-1-UP steam	Flange	95.2	1	100	0.000113	8760	0.993543317
1682	08.12.2022	Bullet water Draining line	HOV-1-down steam	Flange	3.3	1	100	0.000011	8760	0.09348035
1683	08.12.2022	Bullet water Draining line	HOV-2-UP steam	Flange	1.8	1	100	0.000007	8760	0.061046617
1684	08.12.2022	Bullet water Draining line	HOV-2-down steam	Flange	7.8	1	100	0.000020	8760	0.171138428
1685	14.12.2022	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0
1686	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0.000000	8760	0
1687	14.12.2022	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0
1688	14.12.2022	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	8.1	1	100	0.000020	8760	0.175739748
1689	14.12.2022	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	50.7	1	100	0.000073	8760	0.638007269
1690	14.12.2022	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0.2	1	100	0.000001	8760	0.013026541
1691	14.12.2022	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0
1692	14.12.2022	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0
1693	14.12.2022	LPG GANTRY BAY - 1	XZV LPG line up steam	Flange	0.3	1	100	0.000002	8760	0.017322927
1694	14.12.2022	LPG GANTRY BAY - 1	XZV LPG line down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1695	14.12.2022	LPG GANTRY BAY - 1	HOV 1 up steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1696	14.12.2022	LPG GANTRY BAY - 1	HOV 1 down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1697	14.12.2022	LPG GANTRY BAY - 1	HOV 2 up steam	Flange	0	1	100	0.000000	8760	0
1698	14.12.2022	LPG GANTRY BAY - 1	HOV 2 down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1699	14.12.2022	LPG GANTRY BAY - 1	LPG liquid loding arm	Flange	0.1	1	100	0.000001	8760	0.008002119
1700	14.12.2022	LPG VAPOR LINE	MOV- 1- 6001 up steam	Flange	0	1	100	0.000000	8760	0
1701	14.12.2022	LPG VAPOR LINE	MOV- 1- 6002 down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1702	14.12.2022	LPG VAPOR LINE	HOV-1-up steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1703	14.12.2022	LPG VAPOR LINE	HOV-1- down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1704	14.12.2022	LPG VAPOR LINE	Vapor loading arm flange	Flange	0.1	1	100	0.000001	8760	0.008002119
1705	14.12.2022	LPG LIQUID RETURN LINE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0
1706	14.12.2022	LPG LIQUID RETURN LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1707	14.12.2022	LPG LIQUID RETURN LINE	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0
1708	14.12.2022	LPG LIQUID RETURN LINE	HOV-2-down steam	Flange	0.3	1	100	0.000002	8760	0.017322927
1709	14.12.2022	LPG VENTING TO LT FLANGE	HOV-1-up steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1710	14.12.2022	LPG VENTING TO LT FLANGE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1711	14.12.2022	LPG VENTING TO LT FLANGE	HOV-2-up steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1712	14.12.2022	LPG VENTING TO LT FLANGE	HOV-2- down steam	Flange	2.1	1	100	0.000008	8760	0.068033873
1713	14.12.2022	LPG VENTING TO LT FLANGE	HOV-3-up steam	Flange	0	1	100	0.000000	8760	0
1714	14.12.2022	LPG VENTING TO LT FLANGE	HOV-3-down steam	Flange	0	1	100	0.000000	8760	0
1715	14.12.2022	LPG VENTING TO LT FLANGE	HOV-4-up steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1716	14.12.2022	LPG VENTING TO LT FLANGE	HOV-4- down steam	Flange	0	1	100	0.000000	8760	0
1717	14.12.2022	LPG GANTRY BAY - 2	XZV LPG liquid line 6002	Flange	0	1	100	0.000000	8760	0
1718	14.12.2022	LPG GANTRY BAY - 2	XZV LPG liquid line 6002	Flange	0.2	1	100	0.000001	8760	0.013026541
1719	14.12.2022	LPG GANTRY BAY - 2	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0
1720	14.12.2022	LPG GANTRY BAY - 2	HOV-1-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1721	14.12.2022	LPG GANTRY BAY - 2	HOV-2-up steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1722	14.12.2022	LPG GANTRY BAY - 2	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
1723	14.12.2022	LPG GANTRY BAY - 2	LPG liquid loding arm	Flange	0	1	100	0.000000	8760	0
1724	14.12.2022	LPG VAPOR LINE	MOV-1-up steam 6001	Flange	0.2	1	100	0.000001	8760	0.013026541
1725	14.12.2022	LPG VAPOR LINE	MOV-1-down steam 6001	Flange	0.1	1	100	0.000001	8760	0.008002119
1726	14.12.2022	LPG VAPOR LINE	HOV-1-up steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1727	14.12.2022	LPG VAPOR LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1728	14.12.2022	LPG VAPOR LINE	vapour loading arm	Flange	0	1	100	0.000000	8760	0
1729	14.12.2022	LPG LIQUID RETURN LINE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0
1730	14.12.2022	LPG LIQUID RETURN LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1731	14.12.2022	LPG LIQUID RETURN LINE	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0
1732	14.12.2022	LPG LIQUID RETURN LINE	HOV-2-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1733	14.12.2022	LPG VENTING TO LT FLANGE	HOV-1-up steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1734	14.12.2022	LPG VENTING TO LT FLANGE	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1735	14.12.2022	LPG VENTING TO LT FLANGE	HOV-2- up steam	Flange	0	1	100	0.000000	8760	0
1736	14.12.2022	LPG VENTING TO LT FLANGE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
1737	14.12.2022	LPG VENTING TO LT FLANGE	HOV-3-up steam	Flange	0	1	100	0.000000	8760	0
1738	14.12.2022	LPG VENTING TO LT FLANGE	HOV-3-down steam	Flange	0	1	100	0.000000	8760	0
1739	14.12.2022	LPG VENTING TO LT FLANGE	HOV-4-up steam	Flange	0	1	100	0.000000	8760	0
1740	14.12.2022	LPG VENTING TO LT FLANGE	HOV-4-down steam	Flange	0	1	100	0.000000	8760	0
1741	14.12.2022	LPG GANTRY BAY - 3	XZV LPG liquid line 6003	Flange	0	1	100	0.000000	8760	0
1742	14.12.2022	LPG GANTRY BAY - 3	XZV LPG liquid line 6003	Flange	0	1	100	0.000000	8760	0
1743	14.12.2022	LPG GANTRY BAY - 3	HOV-1-up steam	Flange	0.2	1	100	0.000001	8760	0.013026541
1744	14.12.2022	LPG GANTRY BAY - 3	HOV-1-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
1745	14.12.2022	LPG GANTRY BAY - 3	HOV-2-up steam	Flange	0.4	1	100	0.000002	8760	0.021205729
1746	14.12.2022	LPG GANTRY BAY - 3	LPG liquid loding arm	Flange	0.1	1	100	0.000001	8760	0.008002119
1747	14.12.2022	LPG VAPOUR LINE	MOV 1 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
1748	14.12.2022	LPG VAPOUR LINE	MOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
1749	14.12.2022	LPG VAPOUR LINE	HOV-1-UP STEAM	Flange	0	1	100	0.000000	8760	0
1750	14.12.2022	LPG VAPOUR LINE	HOV-1-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119

1839	14.12.2022	LPG GANTRY BAY - 7	HOV-1-down steam	Flange	0,1	1	100	0.000001	8760	0.008002119
1840	14.12.2022	LPG GANTRY BAY - 7	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0
1841	14.12.2022	LPG GANTRY BAY - 7	HOV-2-down steam	Flange	0,1	1	100	0.000001	8760	0.008002119
1842	14.12.2022	LPG GANTRY BAY - 7	LPG liquid loding arm	Flange	0	1	100	0.000000	8760	0
1843	14.12.2022	LPG VAPOUR LINE	MOV-1-up steam	Flange	0	1	100	0.000000	8760	0
1844	14.12.2022	LPG VAPOUR LINE	MOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1845	14.12.2022	LPG VAPOUR LINE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0
1846	14.12.2022	LPG VAPOUR LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1847	14.12.2022	LPG VAPOUR LINE	vapour loading arm	Flange	0	1	100	0.000000	8760	0
1848	14.12.2022	LPG LIQUID RETURN LINE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0
1849	14.12.2022	LPG LIQUID RETURN LINE	HOV-1-down steam	Flange	0,2	1	100	0.000001	8760	0.013026541
1850	14.12.2022	LPG LIQUID RETURN LINE	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0
1851	14.12.2022	LPG LIQUID RETURN LINE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
1852	14.12.2022	LPG VENTING TO LT FLANGE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0
1853	14.12.2022	LPG VENTING TO LT FLANGE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
1854	14.12.2022	LPG VENTING TO LT FLANGE	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0
1855	14.12.2022	LPG VENTING TO LT FLANGE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0
1856	14.12.2022	LPG VENTING TO LT FLANGE	HOV-3-up steam	Flange	0	1	100	0.000000	8760	0
1857	14.12.2022	LPG VENTING TO LT FLANGE	HOV-3-down steam	Flange	0	1	100	0.000000	8760	0
1858	14.12.2022	LPG VENTING TO LT FLANGE	HOV-4-up steam	Flange	0	1	100	0.000000	8760	0
1859	14.12.2022	LPG VENTING TO LT FLANGE	HOV-4-down steam	Flange	0	1	100	0.000000	8760	0
1860	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-A1	Flange	0	1	100	0.000000	8760	0
1861	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-A2	Flange	0,2	1	100	0.000001	8760	0.013026541
1862	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-B1	Flange	0	1	100	0.000000	8760	0
1863	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-B2	Flange	0,1	1	100	0.000001	8760	0.008002119
1864	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-C1	Flange	0,1	1	100	0.000001	8760	0.008002119
1865	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-C2	Flange	0	1	100	0.000000	8760	0
1866	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-D1	Flange	0	1	100	0.000000	8760	0
1867	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-D2	Flange	0	1	100	0.000000	8760	0
1868	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-E1	Flange	0	1	100	0.000000	8760	0
1869	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-E2	Flange	0,1	1	100	0.000001	8760	0.008002119
1870	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	XZV6005	Flange	0	1	100	0.000000	8760	0
1871	14.12.2022	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	XZV6005	Flange	0	1	100	0.000000	8760	0
1872	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	MOV-1-UP steam	Flange	0,2	1	100	0.000001	8760	0.013026541
1873	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	HOV-1-down steam	Flange	0,1	1	100	0.000001	8760	0.008002119
1874	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	STRAINER FLANGE	Flange	0,1	1	100	0.000001	8760	0.008002119
1875	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	STRAINER FLANGE	Flange	0,1	1	100	0.000001	8760	0.008002119
1876	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	STRAINER FLANGE	Flange	0,3	1	100	0.000002	8760	0.017322927
1877	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	PVC HOV TRV B013	Flange	0,2	1	100	0.000001	8760	0.013026541
1878	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	PVC HOV TRV B013	Flange	0,4	1	100	0.000002	8760	0.021205729
1879	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	PVC HOV TRV B013	Flange	0,2	1	100	0.000001	8760	0.013026541
1880	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	PVC HOV TRV B013	Flange	0,6	1	100	0.000003	8760	0.028199757
1881	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	FLOW METER FLANGE	Flange	0,5	1	100	0.000003	8760	0.024807383
1882	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	FLOW METER FLANGE	Flange	0,2	1	100	0.000001	8760	0.013026541
1883	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	MOV-1-FLANGE	Flange	0,5	1	100	0.000003	8760	0.024807383
1884	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	MOV-1-FLANGE	Flange	0,5	1	100	0.000003	8760	0.024807383
1885	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	DLV VALVE FLANGE	Flange	0,7	1	100	0.000004	8760	0.031427436
1886	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	DLV VALVE FLANGE	Flange	0,3	1	100	0.000002	8760	0.017322927
1887	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	MOV FLANGE	Flange	0,9	1	100	0.000004	8760	0.037500539
1888	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	MOV FLANGE	Flange	0,1	1	100	0.000001	8760	0.008002119
1889	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	HOV-1-up steam	Flange	0,1	1	100	0.000001	8760	0.008002119
1890	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	HOV-1-down steam	Flange	0,5	1	100	0.000003	8760	0.024807383
1891	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	HOV-2-up steam	Flange	0,8	1	100	0.000004	8760	0.034520517
1892	14.12.2022	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	HOV-2-down steam	Flange	0,8	1	100	0.000004	8760	0.034520517

2217	14.12.2022	MASTER LINE-2	G03289 downstream	Flange	0	1	100	0.000000	8760	0
2218	14.12.2022	MASTER LINE-2	C85R2 (885263)	Flange	0	1	100	0.000000	8760	0
2219	14.12.2022	MASTER LINE-2	C85R2 (885263)	Flange	0	1	100	0.000000	8760	0
2220	14.12.2022	MASTER LINE-2	C85R2 (885263)	Flange	0	1	100	0.000000	8760	0
2221	14.12.2022	MASTER LINE-2	C85R2 (885263)	Flange	0	1	100	0.000000	8760	0
2222	14.12.2022	MASTER LINE-2	C85R2 (885263)	Flange	0.1	1	100	0.000001	8760	0.008002119
2223	14.12.2022	MASTER LINE-2	TG - B048	Flange	0.2	1	100	0.000001	8760	0.013026541
2224	14.12.2022	MASTER LINE-2	TG - B048	Flange	0.1	1	100	0.000001	8760	0.008002119
2225	14.12.2022	MASTER LINE-2	TE- B047	Flange	0	1	100	0.000000	8760	0
2226	14.12.2022	MASTER LINE-2	PI-B028 upsteam	Flange	0.1	1	100	0.000001	8760	0.008002119
2227	14.12.2022	MASTER LINE-2	PI-B028 downsteam	Flange	0	1	100	0.000000	8760	0
2228	14.12.2022	MASTER LINE-2	PT-B027 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2229	14.12.2022	MASTER LINE-2	PT-B027DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2230	14.12.2022	MASTER LINE-2	G03334 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2231	14.12.2022	MASTER LINE-2	G03334 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2232	14.12.2022	MASTER LINE-2	G04653 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2233	14.12.2022	MASTER LINE-2	G04653 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2234	14.12.2022	MASTER LINE-2	G04653 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2235	14.12.2022	MASTER LINE-2	G04653 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2236	14.12.2022	MASTER LINE-2	G04653 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2237	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	RECIRCULATION MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2238	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	RECIRCULATION MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2239	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	INLET XZV 5088 UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
2240	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	INLET XZV 5088 DOWN STEAM	Flange	0	1	100	0.000000	8760	0
2241	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	MINIMUM FLOW HEADER MOV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2242	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	MINIMUM FLOW HEADER MOV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2243	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2244	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2245	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2246	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2247	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2248	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2249	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2250	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2251	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2252	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2253	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2254	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
2255	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	PESSURE TRANSMITTER HOV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
2256	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	PESSURE TRANSMITTER HOV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2257	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0
2258	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	MAN HOLE - 2	Flange	0.2	1	100	0.000001	8760	0.013026541
2259	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	MAN HOLE - 3	Flange	0	1	100	0.000000	8760	0
2260	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	MAN HOLE - 4	Flange	0	1	100	0.000000	8760	0
2261	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	HEEL STRIPING MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2262	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	HEEL STRIPING MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2263	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	OUTLET XZV 5054 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2264	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	OUTLET XZV 5054 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2265	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0
2266	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	OUTLET BODY FLANGE	Flange	0	1	100	0.000000	8760	0
2267	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SPECTACLE BLIND UPSTEAM	Flange	0	1	100	0.000000	8760	0
2268	07.12.2022	NAPHTHA TANK NO 7 INSIDE DYKE	SPECTACLE BLIND DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2269	07.12.2022	OUTSIDE DYKE	INLET HEADER MOV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2270	07.12.2022	OUTSIDE DYKE	INLET HEADER MOV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2271	07.12.2022	OUTSIDE DYKE	INLET HEADER PSV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
2272	07.12.2022	OUTSIDE DYKE	INLET HEADER PSV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2273	07.12.2022	OUT SIDE DYKE	STREAM HOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2274	07.12.2022	OUT SIDE DYKE	STREAM HOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2275	07.12.2022	OUT SIDE DYKE	STREAM HOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2276	07.12.2022	OUT SIDE DYKE	STREAM HOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2277	07.12.2022	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2278	07.12.2022	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2279	07.12.2022	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2280	07.12.2022	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2281	07.12.2022	MOVS CONNECTED TO INLET	MOV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2282	07.12.2022	MOVS CONNECTED TO INLET	MOV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2283	07.12.2022	MOVS CONNECTED TO INLET	MOV - 4 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2284	07.12.2022	MOVS CONNECTED TO INLET	MOV - 4 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2285	07.12.2022	MOVS CONNECTED TO INLET	MOV - 5 UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
2286	07.12.2022	MOVS CONNECTED TO INLET	MOV - 5 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2287	07.12.2022	MOVS CONNECTED TO INLET	NRV - 1 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2288	07.12.2022	MOVS CONNECTED TO INLET	NRV - 1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2289	07.12.2022	MOVS CONNECTED TO INLET	NRV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2290	07.12.2022	MOVS CONNECTED TO INLET	NRV - 2 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2291	07.12.2022	MOVS CONNECTED TO INLET	NRV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2292	07.12.2022	MOVS CONNECTED TO INLET	NRV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2293	07.12.2022	MOVS CONNECTED TO INLET	NRV - 4 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2294	07.12.2022	MOVS CONNECTED TO INLET	NRV - 4 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2295	07.12.2022	MOVS CONNECTED TO INLET	NRV - 5 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2296	07.12.2022	MOVS CONNECTED TO INLET	NRV - 5 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2297	07.12.2022	MOVS CONNECTED TO INLET	MOV - 5 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2298	07.12.2022	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2299	07.12.2022	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2300	07.12.2022	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2301	07.12.2022	MOVS CONNECTED TO INLET	ITT HEADER HOV UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2302	07.12.2022	MOVS CONNECTED TO INLET	ITT HEADER HOV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2303	07.12.2022	MOVS CONNECTED TO INLET	RECIRCULATION MOV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
2304	07.12.2022	MOVS CONNECTED TO INLET	RECIRCULATION MOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119

2481	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	RECIRCULATION MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2482	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	RECIRCULATION MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2483	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	INLET XZV 5001 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2484	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	INLET XZV 5001 DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2485	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	MINIMUM FLOW HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2486	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	MINIMUM FLOW HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2487	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2488	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2489	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2490	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2491	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2492	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2493	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2494	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2495	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2496	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2497	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2498	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2499	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	PESSURE TRANSMITTER HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2500	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	PESSURE TRANSMITTER HOV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2501	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0
2502	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	MAN HOLE - 2	Flange	15.7	1	100	0.000032	8760	0.27984818
2503	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	MAN HOLE - 3	Flange	0	1	100	0.000000	8760	0
2504	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	MAN HOLE - 4	Flange	0	1	100	0.000000	8760	0
2505	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	HEEL STRIPING MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2506	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	HEEL STRIPING MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2507	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	OUTLET XZV 5004 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2508	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	OUTLET XZV 5004 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2509	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0
2510	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	OUTLET BODY FLANGE	Flange	0	1	100	0.000000	8760	0
2511	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SPECTACLE BLIND UPSTEAM	Flange	0	1	100	0.000000	8760	0
2512	07.12.2022	NAPHTHA TANK NO 4 INSIDE DYKE	SPECTACLE BLIND DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2513	07.12.2022	OUTSIDE DYKE	INLET HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2514	07.12.2022	OUTSIDE DYKE	INLET HEADER MOV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2515	07.12.2022	OUTSIDE DYKE	INLET HEADER PSV UPSTEAM	Flange	18.1	1	100	0.000035	8760	0.309280878
2516	07.12.2022	OUTSIDE DYKE	INLET HEADER PSV DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
2517	07.12.2022	OUT SIDE DYKE	STREAM HOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2518	07.12.2022	OUT SIDE DYKE	STREAM HOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2519	07.12.2022	OUT SIDE DYKE	STREAM HOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2520	07.12.2022	OUT SIDE DYKE	STREAM HOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2521	07.12.2022	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2522	07.12.2022	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2523	07.12.2022	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2524	07.12.2022	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2525	07.12.2022	MOVS CONNECTED TO INLET	MOV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2526	07.12.2022	MOVS CONNECTED TO INLET	MOV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2527	07.12.2022	MOVS CONNECTED TO INLET	MOV - 4 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2528	07.12.2022	MOVS CONNECTED TO INLET	MOV - 4 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2529	07.12.2022	MOVS CONNECTED TO INLET	MOV - 5 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2530	07.12.2022	MOVS CONNECTED TO INLET	MOV - 5 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2531	07.12.2022	MOVS CONNECTED TO INLET	NRV - 1 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2532	07.12.2022	MOVS CONNECTED TO INLET	NRV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2533	07.12.2022	MOVS CONNECTED TO INLET	NRV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2534	07.12.2022	MOVS CONNECTED TO INLET	NRV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2535	07.12.2022	MOVS CONNECTED TO INLET	NRV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2536	07.12.2022	MOVS CONNECTED TO INLET	NRV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2537	07.12.2022	MOVS CONNECTED TO INLET	NRV - 4 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2538	07.12.2022	MOVS CONNECTED TO INLET	NRV - 4 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2539	07.12.2022	MOVS CONNECTED TO INLET	NRV - 5 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2540	07.12.2022	MOVS CONNECTED TO INLET	NRV - 5 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2541	07.12.2022	MOVS CONNECTED TO INLET	PUMP DISCHARGE HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2542	07.12.2022	MOVS CONNECTED TO INLET	PUMP DISCHARGE HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2543	07.12.2022	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2544	07.12.2022	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2545	07.12.2022	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2546	07.12.2022	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2547	07.12.2022	MOVS CONNECTED TO INLET	ITT HEADER HOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
2548	07.12.2022	MOVS CONNECTED TO INLET	ITT HEADER HOV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
2549	07.12.2022	MOVS CONNECTED TO INLET	RECIRCULATION MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2550	07.12.2022	MOVS CONNECTED TO INLET	RECIRCULATION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
2551	07.12.2022	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2552	07.12.2022	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2553	07.12.2022	MOVS CONNECTED TO INLET	OUTLET HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2554	07.12.2022	MOVS CONNECTED TO INLET	OUTLET HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2555	07.12.2022	MOVS CONNECTED TO INLET	HEEL STRIPING MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
2556	07.12.2022	MOVS CONNECTED TO INLET	HEEL STRIPING MOV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
2557	07.12.2022	MOVS CONNECTED TO INLET	OUTLET HEADER PSV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
2558	07.12.2022	MOVS CONNECTED TO INLET	OUTLET HEADER PSV DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
2559	07.12.2022	MOVS CONNECTED TO INLET	STREAM HOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2560	07.12.2022	MOVS CONNECTED TO INLET	STREAM HOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2561	07.12.2022	MOVS CONNECTED TO INLET	STREAM HOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
2562	07.12.2022	MOVS CONNECTED TO INLET	STREAM HOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
2563	08.12.2022	MS TANK AREA 11 INSIDE DYKE	RECIRCULATION MOV UPSTEAM	Flange	0.1	0.8	100	0.000001	8760	0.006401696
2564	08.12.2022	MS TANK AREA 11 INSIDE DYKE	RECIRCULATION MOV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0
2565	08.12.2022	MS TANK AREA 11 INSIDE DYKE	RECIRCULATION BODY	Flange	0	0.8	100	0.000000	8760	0
2566	08.12.2022	MS TANK AREA 11 INSIDE DYKE	INLET XZV 5005 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0
2567	08.12.2022	MS TANK AREA 11 INSIDE DYKE	INLET XZV 5005 DOWN STEAM	Flange	0.2	0.8	100	0.000001	8760	0.010421233
2568	08.12.2022	MS TANK AREA 11 INSIDE DYKE	MINIMUM FLOW HEADER MOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0

3273	08.12.2022	FLOW control valve (NORTH east corner of PH-06)	HOV-2-UP steam	Flange	0,8	1	100	0.000004	8760	0.034520517
3274	08.12.2022	FLOW control valve (NORTH east corner of PH-06)	HOV-2-down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
3275	08.12.2022	FLOW control valve (NORTH east corner of PH-06)	HOV-3- BYPASS UP steam	Flange	0.6	1	100	0.000003	8760	0.028199757
3276	08.12.2022	FLOW control valve (NORTH east corner of PH-06)	HOV-3- BYPASS down steam	Flange	0	1	100	0.000000	8760	0
3277	08.12.2022	COMPRESSER HOUSE LBG	HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3278	08.12.2022	COMPRESSER HOUSE LBG	HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3279	08.12.2022	COMPRESSER HOUSE LBG	HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3280	08.12.2022	COMPRESSER HOUSE LBG	HOV 2 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3281	08.12.2022	COMPRESSER HOUSE LBG	MOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3282	08.12.2022	COMPRESSER HOUSE LBG	MOV 1 DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
3283	08.12.2022	COMPRESSER HOUSE LBG	MOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3284	08.12.2022	COMPRESSER HOUSE LBG	MOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3285	08.12.2022	PROTECT TANK	TK 04 PSV UP STEAM	Flange	0	1	100	0.000000	8760	0
3286	08.12.2022	PROTECT TANK	TK 04 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3287	08.12.2022	PROTECT TANK	TK 07 PSV UP STEAM	Flange	0	1	100	0.000000	8760	0
3288	08.12.2022	PROTECT TANK	TK 07 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3289	08.12.2022	PROTECT TANK	TK 11 PSV UP STEAM	Flange	0	1	100	0.000000	8760	0
3290	08.12.2022	PROTECT TANK	TK 11 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3291	08.12.2022	PROTECT TANK	TK 14 PSV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
3292	08.12.2022	PROTECT TANK	TK 14 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3293	08.12.2022	PROTECT TANK	TK 08 PSV UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807383
3294	08.12.2022	PROTECT TANK	TK 08 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3295	08.12.2022	PROTECT TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3296	08.12.2022	PUMP HOUSE 2	MOV 1 UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028199757
3297	08.12.2022	PUMP HOUSE 2	MOV 1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3298	08.12.2022	PUMP HOUSE 2	MOV 2 UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
3299	08.12.2022	PUMP HOUSE 2	MOV 2 DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021205729
3300	08.12.2022	PUMP HOUSE 2	HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3301	08.12.2022	PUMP HOUSE 2	HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3302	08.12.2022	OTHER FLANGES	HOV	Flange	0	1	100	0.000000	8760	0
3303	08.12.2022	OTHER FLANGES	HOV	Flange	0	1	100	0.000000	8760	0
3304	08.12.2022	OTHER FLANGES	HOV	Flange	0.2	1	100	0.000001	8760	0.013026541
3305	08.12.2022	OTHER FLANGES	HOV	Flange	0.7	1	100	0.000004	8760	0.031427436
3306	08.12.2022	OTHER FLANGES	HOV	Flange	0.1	1	100	0.000001	8760	0.008002119
3307	08.12.2022	OTHER FLANGES	HOV	Flange	0.3	1	100	0.000002	8760	0.017322927
3308	13.12.2022	crude tank area crude receipt live from south jetty at battery limit	200-xzv-0011 up steam	Flange	0	1	100	0.000000	8760	0
3309	13.12.2022	crude tank area crude receipt live from south jetty at battery limit	200-xzv-0011 down steam	Flange	0	1	100	0.000000	8760	0
3310	13.12.2022	crude tank area crude receipt live from south jetty at battery limit	MOV-3 UP STEAM	Flange	0	1	100	0.000000	8760	0
3311	13.12.2022	crude tank area crude receipt live from south jetty at battery limit	MOV-3 DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3312	13.12.2022	crude tank area crude receipt live from south jetty at battery limit	200-MOV-003 UP steam	Flange	0	1	100	0.000000	8760	0
3313	13.12.2022	crude tank area crude receipt live from south jetty at battery limit	200-MOV-003 DOWN steam	Flange	0	1	100	0.000000	8760	0
3314	13.12.2022	crude tank area crude receipt live from south jetty at battery limit	200-MOV-016 UP steam	Flange	0	1	100	0.000000	8760	0
3315	13.12.2022	crude tank area crude receipt live from south jetty at battery limit	200-MOV-016 DOWN steam	Flange	0.2	1	100	0.000001	8760	0.013026541
3316	13.12.2022	crude tank area crude receipt live from south jetty at battery limit	200-MOV-015 UP steam	Flange	0	1	100	0.000000	8760	0
3317	13.12.2022	crude tank area crude receipt live from south jetty at battery limit	200-MOV-015 DOWN steam	Flange	0	1	100	0.000000	8760	0
3318	13.12.2022	crude tank area crude receipt From SPM/Pipe Line	200-MOV-01 BATTERY LIMIT	Flange	0	1	100	0.000000	8760	0
3319	13.12.2022	crude tank area crude receipt From SPM/Pipe Line	FLANGE NO 2 CONNETING TO ONLINE SAMPLER	Flange	0	1	100	0.000000	8760	0
3320	13.12.2022	crude tank area crude receipt From SPM/Pipe Line	INLET FLANGE TO PUMP NO 2	Flange	0.1	1	100	0.000001	8760	0.008002119
3321	13.12.2022	crude tank area crude receipt From SPM/Pipe Line	INLET FLANGE TO PUMP NO 1	Flange	0	1	100	0.000000	8760	0
3322	13.12.2022	crude tank area crude receipt From SPM/Pipe Line	FLANGE NO 2 CONNETING TO SAMPLER	Flange	0	1	100	0.000000	8760	0
3323	13.12.2022	crude tank area crude receipt From SPM/Pipe Line	FLANGE NO 2 CONNETING TO SAMPLER	Flange	0	1	100	0.000000	8760	0
3324	13.12.2022	CRude tank NO -1	OUTLET XZV UP STEAM 5002	Flange	0	1	100	0.000000	8760	0
3325	13.12.2022	CRude tank NO -1	OUTLET XZV down steam 5002	Flange	0	1	100	0.000000	8760	0
3326	13.12.2022	CRude tank NO -1	MANWAY A	Flange	0.1	1	100	0.000001	8760	0.008002119
3327	13.12.2022	CRude tank NO -1	MANWAY B	Flange	0	1	100	0.000000	8760	0
3328	13.12.2022	CRude tank NO -1	MANWAY C	Flange	0.2	1	100	0.000001	8760	0.013026541
3329	13.12.2022	CRude tank NO -1	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0
3330	13.12.2022	CRude tank NO -1	WD/A down steam	Flange	0	1	100	0.000000	8760	0
3331	13.12.2022	CRude tank NO -1	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0
3332	13.12.2022	CRude tank NO -1	WD/B down steam	Flange	0	1	100	0.000000	8760	0
3333	13.12.2022	CRude tank NO -1	WD/C UP STEAM	Flange	0	1	100	0.000000	8760	0
3334	13.12.2022	CRude tank NO -1	WD/C down steam	Flange	0	1	100	0.000000	8760	0
3335	13.12.2022	CRude tank NO -1	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0
3336	13.12.2022	CRude tank NO -1	WD/D down steam	Flange	0	1	100	0.000000	8760	0
3337	13.12.2022	CRude tank NO -1	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0
3338	13.12.2022	CRude tank NO -1	JET MIXTURE MOV 0004	Flange	0	1	100	0.000000	8760	0
3339	13.12.2022	CRude tank NO -1	JET MIXTURE MOV 0004	Flange	0	1	100	0.000000	8760	0
3340	13.12.2022	CRude tank NO -1	INLET XZV UP STEAM 5001	Flange	0	1	100	0.000000	8760	0
3341	13.12.2022	CRude tank NO -1	INLET XZV DOWN STEAM 5001	Flange	0.1	1	100	0.000001	8760	0.008002119
3342	13.12.2022	OUTSIDE DYKE	INLET MOV	Flange	0	1	100	0.000000	8760	0
3343	13.12.2022	OUTSIDE DYKE	INLET MOV	Flange	0.1	1	100	0.000001	8760	0.008002119
3344	13.12.2022	OUTSIDE DYKE	OUTLET MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3345	13.12.2022	OUTSIDE DYKE	OUTLET MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3346	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3347	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3348	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3349	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0

3350	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3351	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3352	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3353	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3354	13.12.2022	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0
3355	13.12.2022	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0
3356	13.12.2022	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0
3357	13.12.2022	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0
3358	13.12.2022	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0
3359	13.12.2022	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0
3360	13.12.2022	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0
3361	13.12.2022	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0
3362	13.12.2022	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0
3363	13.12.2022	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0
3364	13.12.2022	END FLANGES	MOV-0002	Flange	0	1	100	0.000000	8760	0
3365	13.12.2022	END FLANGES	MOV-0002	Flange	0	1	100	0.000000	8760	0
3366	13.12.2022	END FLANGES	MOV-0002	Flange	0	1	100	0.000000	8760	0
3367	13.12.2022	END FLANGES	MOV-0002	Flange	0	1	100	0.000000	8760	0
3368	13.12.2022	CRude tank NO -2	OUTLET XZV UP STEAM 5004	Flange	0	1	100	0.000000	8760	0
3369	13.12.2022	CRude tank NO -2	OUTLET XZV down steam 5004	Flange	0	1	100	0.000000	8760	0
3370	13.12.2022	CRude tank NO -2	MANWAY A	Flange	0	1	100	0.000000	8760	0
3371	13.12.2022	CRude tank NO -2	MANWAY B	Flange	0	1	100	0.000000	8760	0
3372	13.12.2022	CRude tank NO -2	MANWAY C	Flange	0.3	1	100	0.000002	8760	0.017322927
3373	13.12.2022	CRude tank NO -2	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0
3374	13.12.2022	CRude tank NO -2	WD/A down steam	Flange	0	1	100	0.000000	8760	0
3375	13.12.2022	CRude tank NO -2	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0
3376	13.12.2022	CRude tank NO -2	WD/B down steam	Flange	0	1	100	0.000000	8760	0
3377	13.12.2022	CRude tank NO -2	WD/C UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3378	13.12.2022	CRude tank NO -2	WD/C down steam	Flange	0	1	100	0.000000	8760	0
3379	13.12.2022	CRude tank NO -2	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0
3380	13.12.2022	CRude tank NO -2	WD/D down steam	Flange	0	1	100	0.000000	8760	0
3381	13.12.2022	CRude tank NO -2	CLEAN OUT DOOR	Flange	0.2	1	100	0.000001	8760	0.013026541
3382	13.12.2022	CRude tank NO -2	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0
3383	13.12.2022	CRude tank NO -2	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0
3384	13.12.2022	CRude tank NO -2	INLET XZV UP STEAM	Flange	0	1	100	0.000000	8760	0
3385	13.12.2022	CRude tank NO -2	INLET XZV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3386	13.12.2022	OUTSIDE DYKE	INLET MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3387	13.12.2022	OUTSIDE DYKE	INLET MOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3388	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3389	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3390	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3391	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3392	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3393	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3394	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3395	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3396	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3397	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3398	13.12.2022	END FLANGES	CRUDE RECIPT HEADER	Flange	0	1	100	0.000000	8760	0
3399	13.12.2022	END FLANGES	PUMP SECTION HEADER-2	Flange	0	1	100	0.000000	8760	0
3400	13.12.2022	END FLANGES	PUMP SECTION HEADER-1	Flange	0	1	100	0.000000	8760	0
3401	13.12.2022	END FLANGES	ITT SECTION HEADER-1	Flange	0	1	100	0.000000	8760	0
3402	13.12.2022	END FLANGES	ITT MAIN DELIVERY TANK MOV	Flange	0	1	100	0.000000	8760	0
3403	13.12.2022	END FLANGES	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0
3404	13.12.2022	END FLANGES	OUTLET DYKE	Flange	0	1	100	0.000000	8760	0
3405	13.12.2022	CRude tank NO -3 INSIDE DYKE	OUTLET XZV UP STEAM 5003	Flange	0	1	100	0.000000	8760	0
3406	13.12.2022	CRude tank NO -3 INSIDE DYKE	OUTLET XZV down steam 5003	Flange	0	1	100	0.000000	8760	0
3407	13.12.2022	CRude tank NO -3 INSIDE DYKE	MANWAY A	Flange	0.2	1	100	0.000001	8760	0.013026541
3408	13.12.2022	CRude tank NO -3 INSIDE DYKE	MANWAY B	Flange	0.1	1	100	0.000001	8760	0.008002119
3409	13.12.2022	CRude tank NO -3 INSIDE DYKE	MANWAY C	Flange	0	1	100	0.000000	8760	0
3410	13.12.2022	CRude tank NO -3 INSIDE DYKE	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0
3411	13.12.2022	CRude tank NO -3 INSIDE DYKE	WD/A down steam	Flange	0	1	100	0.000000	8760	0
3412	13.12.2022	CRude tank NO -3 INSIDE DYKE	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0
3413	13.12.2022	CRude tank NO -3 INSIDE DYKE	WD/B down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
3414	13.12.2022	CRude tank NO -3 INSIDE DYKE	WD/C UP STEAM	Flange	0	1	100	0.000000	8760	0
3415	13.12.2022	CRude tank NO -3 INSIDE DYKE	WD/C down steam	Flange	0	1	100	0.000000	8760	0
3416	13.12.2022	CRude tank NO -3 INSIDE DYKE	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0
3417	13.12.2022	CRude tank NO -3 INSIDE DYKE	WD/D down steam	Flange	0	1	100	0.000000	8760	0
3418	13.12.2022	CRude tank NO -3 INSIDE DYKE	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0
3419	13.12.2022	CRude tank NO -3 INSIDE DYKE	JET MIXTURE MOV 0022	Flange	0	1	100	0.000000	8760	0
3420	13.12.2022	CRude tank NO -3 INSIDE DYKE	JET MIXTURE MOV 0022	Flange	0	1	100	0.000000	8760	0
3421	13.12.2022	CRude tank NO -3 INSIDE DYKE	INLET XZV UP STEAM 5005	Flange	0	1	100	0.000000	8760	0
3422	13.12.2022	CRude tank NO -3 INSIDE DYKE	INLET XZV DOWN STEAM 5005	Flange	0	1	100	0.000000	8760	0
3423	13.12.2022	OUTSIDE DYKE	INLET MOV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3424	13.12.2022	OUTSIDE DYKE	INLET MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3425	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3426	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3427	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3428	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3429	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3430	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3431	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3432	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3433	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3434	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3435	13.12.2022	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0
3436	13.12.2022	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0
3437	13.12.2022	CRude tank NO -4 INSIDE DYKE	OUTLET XZV UP STEAM 5008	Flange	0	1	100	0.000000	8760	0

3614	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV U/S 0070	Flange	0	1	100	0.000000	8760	0
3615	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV D/S	Flange	0	1	100	0.000000	8760	0
3616	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV U/S 0071	Flange	0	1	100	0.000000	8760	0
3617	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV D/S	Flange	0.1	1	100	0.000001	8760	0.008002119
3618	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0068	Flange	0.1	1	100	0.000001	8760	0.008002119
3619	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3620	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0066	Flange	0	1	100	0.000000	8760	0
3621	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3622	13.12.2022	END FLANGES	CRUDE OUTLET LAST	Flange	0.1	1	100	0.000001	8760	0.008002119
3623	13.12.2022	CRude tank NO -10 INSIDE DYKE	OUTLET XZV UP STEAM 5020	Flange	0	1	100	0.000000	8760	0
3624	13.12.2022	CRude tank NO -10 INSIDE DYKE	OUTLET XZV down steam 5020	Flange	0.2	1	100	0.000001	8760	0.013026541
3625	13.12.2022	CRude tank NO -10 INSIDE DYKE	MANWAY A	Flange	0.1	1	100	0.000001	8760	0.008002119
3626	13.12.2022	CRude tank NO -10 INSIDE DYKE	MANWAY B	Flange	0	1	100	0.000000	8760	0
3627	13.12.2022	CRude tank NO -10 INSIDE DYKE	MANWAY C	Flange	0	1	100	0.000000	8760	0
3628	13.12.2022	CRude tank NO -10 INSIDE DYKE	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0
3629	13.12.2022	CRude tank NO -10 INSIDE DYKE	WD/A down steam	Flange	0	1	100	0.000000	8760	0
3630	13.12.2022	CRude tank NO -10 INSIDE DYKE	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0
3631	13.12.2022	CRude tank NO -10 INSIDE DYKE	WD/B down steam	Flange	0	1	100	0.000000	8760	0
3632	13.12.2022	CRude tank NO -10 INSIDE DYKE	WD/C UP STEAM	Flange	0	1	100	0.000000	8760	0
3633	13.12.2022	CRude tank NO -10 INSIDE DYKE	WD/C down steam	Flange	0	1	100	0.000000	8760	0
3634	13.12.2022	CRude tank NO -10 INSIDE DYKE	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0
3635	13.12.2022	CRude tank NO -10 INSIDE DYKE	WD/D down steam	Flange	0	1	100	0.000000	8760	0
3636	13.12.2022	CRude tank NO -10 INSIDE DYKE	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0
3637	13.12.2022	CRude tank NO -10 INSIDE DYKE	JET MIXTURE MOV 0085	Flange	0	1	100	0.000000	8760	0
3638	13.12.2022	CRude tank NO -10 INSIDE DYKE	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0
3639	13.12.2022	CRude tank NO -10 INSIDE DYKE	INLET XZV UP STEAM 5019	Flange	0.1	1	100	0.000001	8760	0.008002119
3640	13.12.2022	CRude tank NO -10 INSIDE DYKE	INLET XZV DOWN STEAM 5019	Flange	0	1	100	0.000000	8760	0
3641	13.12.2022	OUTSIDE DYKE	INLET MOV UPSTEAM 0053	Flange	0	1	100	0.000000	8760	0
3642	13.12.2022	OUTSIDE DYKE	INLET MOV DOWNSTEAM 0053	Flange	0	1	100	0.000000	8760	0
3643	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3644	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3645	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV U/S 0089	Flange	0.2	1	100	0.000001	8760	0.013026541
3646	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV D/S	Flange	0	1	100	0.000000	8760	0
3647	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV U/S 0088	Flange	0	1	100	0.000000	8760	0
3648	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV D/S	Flange	0	1	100	0.000000	8760	0
3649	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0086	Flange	0	1	100	0.000000	8760	0
3650	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3651	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0084	Flange	0	1	100	0.000000	8760	0
3652	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3653	13.12.2022	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0
3654	13.12.2022	CRude tank NO -11 INSIDE DYKE	OUTLET XZV UP STEAM 5022	Flange	0	1	100	0.000000	8760	0
3655	13.12.2022	CRude tank NO -11 INSIDE DYKE	OUTLET XZV down steam 5022	Flange	0	1	100	0.000000	8760	0
3656	13.12.2022	CRude tank NO -11 INSIDE DYKE	MANWAY A	Flange	0.2	1	100	0.000001	8760	0.013026541
3657	13.12.2022	CRude tank NO -11 INSIDE DYKE	MANWAY B	Flange	0	1	100	0.000000	8760	0
3658	13.12.2022	CRude tank NO -11 INSIDE DYKE	MANWAY C	Flange	0.3	1	100	0.000002	8760	0.017322927
3659	13.12.2022	CRude tank NO -11 INSIDE DYKE	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0
3660	13.12.2022	CRude tank NO -11 INSIDE DYKE	WD/A down steam	Flange	0	1	100	0.000000	8760	0
3661	13.12.2022	CRude tank NO -11 INSIDE DYKE	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0
3662	13.12.2022	CRude tank NO -11 INSIDE DYKE	WD/B down steam	Flange	0	1	100	0.000000	8760	0
3663	13.12.2022	CRude tank NO -11 INSIDE DYKE	WD/C UP STEAM	Flange	0	1	100	0.000000	8760	0
3664	13.12.2022	CRude tank NO -11 INSIDE DYKE	WD/C down steam	Flange	0	1	100	0.000000	8760	0
3665	13.12.2022	CRude tank NO -11 INSIDE DYKE	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0
3666	13.12.2022	CRude tank NO -11 INSIDE DYKE	WD/D down steam	Flange	0.1	1	100	0.000001	8760	0.008002119
3667	13.12.2022	CRude tank NO -11 INSIDE DYKE	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0
3668	13.12.2022	CRude tank NO -11 INSIDE DYKE	JET MIXTURE MOV 0094	Flange	0	1	100	0.000000	8760	0
3669	13.12.2022	CRude tank NO -11 INSIDE DYKE	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0
3670	13.12.2022	CRude tank NO -11 INSIDE DYKE	INLET XZV UP STEAM 5021	Flange	0	1	100	0.000000	8760	0
3671	13.12.2022	CRude tank NO -11 INSIDE DYKE	INLET XZV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3672	13.12.2022	OUTSIDE DYKE	INLET MOV UPSTEAM 0091	Flange	0	1	100	0.000000	8760	0
3673	13.12.2022	OUTSIDE DYKE	INLET MOV DOWNSTEAM 0091	Flange	0	1	100	0.000000	8760	0
3674	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3675	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3676	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV U/S 0098	Flange	0	1	100	0.000000	8760	0
3677	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV D/S	Flange	0	1	100	0.000000	8760	0
3678	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV U/S 0097	Flange	0	1	100	0.000000	8760	0
3679	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV D/S	Flange	0	1	100	0.000000	8760	0
3680	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV U/S 0095	Flange	0	1	100	0.000000	8760	0
3681	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3682	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0093	Flange	0	1	100	0.000000	8760	0
3683	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3684	13.12.2022	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0
3685	13.12.2022	END FLANGES	CRUDE RECEIPT HEADER MOV	Flange	0	1	100	0.000000	8760	0
3686	13.12.2022	END FLANGES	CRUDE RECEIPT HEADER MOV	Flange	0	1	100	0.000000	8760	0
3687	13.12.2022	END FLANGES	CRUDE RECEIPT HEADER MOV	Flange	0	1	100	0.000000	8760	0
3688	13.12.2022	END FLANGES	ITT PUMP SUCTION HEADER	Flange	0.1	1	100	0.000001	8760	0.008002119
3689	13.12.2022	END FLANGES	ITT PUMP SUCTION HEADER	Flange	0	1	100	0.000000	8760	0
3690	13.12.2022	END FLANGES	PUMP SUCTION MOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3691	13.12.2022	END FLANGES	PUMP SUCTION MOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3692	13.12.2022	END FLANGES	PUMP SUCTION MOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3693	13.12.2022	END FLANGES	PUMP SUCTION MOV 1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3694	13.12.2022	END FLANGES	ITT MAIN DELIVERY HEADER MOV	Flange	0	1	100	0.000000	8760	0
3695	13.12.2022	END FLANGES	ITT MAIN DELIVERY HEADER MOV	Flange	0	1	100	0.000000	8760	0
3696	13.12.2022	CRude tank NO -11 OTHER FLANGES	CRUDE INLET MOV - 2 - 009 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3697	13.12.2022	CRude tank NO -11 OTHER FLANGES	CRUDE INLET MOV - 2 - 009 DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3698	13.12.2022	CRude tank NO -11 OTHER FLANGES	HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3699	13.12.2022	CRude tank NO -11 OTHER FLANGES	HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3700	13.12.2022	CRude tank NO -11 OTHER FLANGES	PSV UP STEAM	Flange	0	1	100	0.000000	8760	0
3701	13.12.2022	CRude tank NO -11 OTHER FLANGES	PSV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119

3878	13.12.2022	FLOW CONTROL VALVE	HOV-3- DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3879	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	SUCTION MOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3880	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	SUCTION MOV 1 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3881	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	SUCTION MOV 2 UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
3882	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	SUCTION MOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3883	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	BASKET FILTER HOV 1 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3884	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	BASKET FILTER HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3885	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	BASKET FILTER HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3886	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	BASKET FILTER HOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3887	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	BASKET FILTER - 1	Flange	0.4	1	100	0.000002	8760	0.021205729
3888	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	BASKET FILTER - 2	Flange	0	1	100	0.000000	8760	0
3889	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	SUCTION LINE PSV AND MOV	Flange	0	1	100	0.000000	8760	0
3890	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	SUCTION LINE PSV AND MOV	Flange	0	1	100	0.000000	8760	0
3891	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	PUMP SEAL	Pump Seal	0.8	1	100	4.38988E-05	8760	0.38455369
3892	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	DISCHARGE LINE NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
3893	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	DISCHARGE LINE NRV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3894	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	DISCHARGE LINE MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3895	13.12.2022	CRUDE CHARGE PUMP FLANGE 201 - P - 001 E	DISCHARGE LINE MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3896	13.12.2022	FLOW CONTROL VALVE	FCV 1004 UP STEAM	Flange	0	1	100	0.000000	8760	0
3897	13.12.2022	FLOW CONTROL VALVE	FCV 1004 DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3898	13.12.2022	FLOW CONTROL VALVE	HOV -1-UP STEAM	Flange	0	1	100	0.000000	8760	0
3899	13.12.2022	FLOW CONTROL VALVE	HOV-1- DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3900	13.12.2022	FLOW CONTROL VALVE	HOV-2-UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3901	13.12.2022	FLOW CONTROL VALVE	HOV-2- DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3902	13.12.2022	FLOW CONTROL VALVE	HOV-3-UP STEAM	Flange	0	1	100	0.000000	8760	0
3903	13.12.2022	FLOW CONTROL VALVE	HOV-3- DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3904	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	SUCTION MOV 1 UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
3905	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	SUCTION MOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3906	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	BASKET FILTER HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3907	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	BASKET FILTER HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3908	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	DISCHARGE LINE NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
3909	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	DISCHARGE LINE NRV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3910	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	DISCHARGE LINE MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3911	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	DISCHARGE LINE MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3912	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	MOV 1 - UPSTEAM	Flange	0	1	100	0.000000	8760	0
3913	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	MOV 1 - DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3914	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	MOV 2 - UPSTEAM	Flange	0	1	100	0.000000	8760	0
3915	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	MOV 2 - DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3916	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	FCV 0011 UPSTEAM	Flange	0	1	100	0.000000	8760	0
3917	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	FCV 0011 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3918	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	HOV -1-UP STEAM	Flange	0	1	100	0.000000	8760	0
3919	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	HOV-1- DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3920	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	HOV-2-UP STEAM	Flange	0	1	100	0.000000	8760	0
3921	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	HOV-2- DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3922	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	HOV-3- UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3923	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 A	HOV-3- DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017322927
3924	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	SUCTION MOV 1 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3925	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	SUCTION MOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3926	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	BASKET FILTER HOV 1 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3927	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	BASKET FILTER HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3928	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	DISCHARGE LINE NRV UP STEAM	Flange	0	1	100	0.000000	8760	0
3929	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	DISCHARGE LINE NRV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3930	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	DISCHARGE LINE MOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3931	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	DISCHARGE LINE MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3932	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	MOV 1 - UPSTEAM	Flange	0	1	100	0.000000	8760	0
3933	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	MOV 1 - DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3934	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	MOV 2 - UPSTEAM	Flange	0	1	100	0.000000	8760	0
3935	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	MOV 2 - DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3936	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	MOV 3 - UPSTEAM	Flange	0	1	100	0.000000	8760	0
3937	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	MOV 3 - DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3938	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	MOV 4 - UPSTEAM	Flange	0	1	100	0.000000	8760	0
3939	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	MOV 4 - DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3940	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	MOV 5 - UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3941	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	MOV 5 - DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3942	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	STRAINER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0
3943	13.12.2022	CRUDE ITT PUMP FLANGE 201 P 002 B	STRAINER MOV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3944	13.12.2022	TPI FLANGE	HOV AT OILY WATER UPSTEM	Flange	0	1	100	0.000000	8760	0
3945	13.12.2022	TPI FLANGE	HOV AT OILY WATER DOWNSTEM	Flange	0	1	100	0.000000	8760	0
3946	13.12.2022	TPI FLANGE	FLANGE CONNECTED TO GROUND TANK	Flange	0	1	100	0.000000	8760	0
3947	13.12.2022	TPI FLANGE	FLANGE CONNECTED TO TK-1101A	Flange	0	1	100	0.000000	8760	0
3948	13.12.2022	TPI FLANGE	FLANGE DISCHARGE LINE OF K-1101A	Flange	0	1	100	0.000000	8760	0
3949	13.12.2022	TPI FLANGE	HOV FLANGE FROM WATER	Flange	0	1	100	0.000000	8760	0
3950	13.12.2022	TPI FLANGE	GROUND OILY WATER TANK	Flange	0	1	100	0.000000	8760	0
3951	13.12.2022	TPI FLANGE	SUCTION AND DISCHARGE SCREW PUMP	Flange	0	1	100	0.000000	8760	0
3952	13.12.2022	TPI FLANGE	HOV - 1 OILY WATER TO TPI UPSTEAM	Flange	0	1	100	0.000000	8760	0
3953	13.12.2022	TPI FLANGE	HOV - 1 OILY WATER TO TPI DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3954	13.12.2022	TPI FLANGE	HOV - 2 OILY WATER TO TPI UPSTEAM	Flange	0	1	100	0.000000	8760	0
3955	13.12.2022	TPI FLANGE	HOV - 2 OILY WATER TO TPI DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3956	13.12.2022	TPI FLANGE	SKIMMED OIL LINE TK 1101A	Flange	0	1	100	0.000000	8760	0
3957	13.12.2022	TPI FLANGE	SKIMMED OIL LINE TK 1102A	Flange	0.2	1	100	0.000001	8760	0.013026541
3958	13.12.2022	TPI FLANGE	SKIMMED OIL LINE TK 1102C	Flange	0.1	1	100	0.000001	8760	0.008002119
3959	13.12.2022	TPI FLANGE	TPI INLET TK-1101A UPSTEAM	Flange	0	1	100	0.000000	8760	0
3960	13.12.2022	TPI FLANGE	TPI INLET TK-1101A DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3961	13.12.2022	TPI FLANGE	TPI INLET TK-1101C UPSTEAM	Flange	0	1	100	0.000000	8760	0
3962	13.12.2022	TPI FLANGE	TPI INLET TK-1101C DOWNSTEAM	Flange	0	1	100	0.000000	8760	0
3963	13.12.2022	TPI FLANGE	FLANGE SUCTION BLOWER OF VOL	Flange	0	1	100	0.000000	8760	0
3964	13.12.2022	CRUDE TANK	TK 01 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0
3965	13.12.2022	CRUDE TANK	TK 01 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0

3966	13.12.2022	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3967	13.12.2022	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013026541
3968	13.12.2022	CRUDE TANK	TK 02 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0
3969	13.12.2022	CRUDE TANK	TK 02 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3970	13.12.2022	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3971	13.12.2022	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3972	13.12.2022	CRUDE TANK	TK 03 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0
3973	13.12.2022	CRUDE TANK	TK 03PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3974	13.12.2022	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3975	13.12.2022	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3976	13.12.2022	CRUDE TANK	TK 04 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0
3977	13.12.2022	CRUDE TANK	TK 04PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3978	13.12.2022	CRUDE TANK	STREAM HOV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3979	13.12.2022	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3980	13.12.2022	CRUDE TANK	TK 05 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0
3981	13.12.2022	CRUDE TANK	TK 05PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3982	13.12.2022	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3983	13.12.2022	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3984	13.12.2022	CRUDE TANK	TK 06 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0
3985	13.12.2022	CRUDE TANK	TK 06 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3986	13.12.2022	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3987	13.12.2022	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
3988	13.12.2022	CRUDE TANK	TK 07 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0
3989	13.12.2022	CRUDE TANK	TK 07 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3990	13.12.2022	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3991	13.12.2022	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3992	13.12.2022	CRUDE TANK	TK 08 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0
3993	13.12.2022	CRUDE TANK	TK 08 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3994	13.12.2022	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3995	13.12.2022	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3996	13.12.2022	CRUDE TANK	TK 09 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0
3997	13.12.2022	CRUDE TANK	TK 09 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
3998	13.12.2022	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
3999	13.12.2022	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
4000	13.12.2022	CRUDE TANK	LAST HOV	Flange	0	1	100	0.000000	8760	0
4001	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	OUTLET XZV UP STEAM 5024	Flange	0	1	100	0.000000	8760	0
4002	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	OUTLET XZV down steam 5024	Flange	0	1	100	0.000000	8760	0
4003	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	MANWAY A	Flange	0	1	100	0.000000	8760	0
4004	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	MANWAY B	Flange	0.3	1	100	0.000002	8760	0.017322927
4005	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	MANWAY C	Flange	0	1	100	0.000000	8760	0
4006	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0
4007	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	WD/A down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
4008	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0
4009	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	WD/B down steam	Flange	0	1	100	0.000000	8760	0
4010	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	WD/C UP STEAM	Flange	0	1	100	0.000000	8760	0
4011	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	WD/C down steam	Flange	0	1	100	0.000000	8760	0
4012	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0
4013	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	WD/D down steam	Flange	0	1	100	0.000000	8760	0
4014	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	CLEAN OUT DOOR	Flange	0.2	1	100	0.000001	8760	0.013026541
4015	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	JET MIXTURE MOV 0103	Flange	0	1	100	0.000000	8760	0
4016	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0
4017	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	INLET XZV UP STEAM 5023	Flange	0	1	100	0.000000	8760	0
4018	13.12.2022	CRUDE tank NO -12 INSIDE DYKE	INLET XZV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
4019	13.12.2022	OUTSIDE DYKE	INLET MOV 0100	Flange	0	1	100	0.000000	8760	0
4020	13.12.2022	OUTSIDE DYKE	INLET MOV 0101	Flange	0	1	100	0.000000	8760	0
4021	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING HOV UP STEAM	Flange	0	1	100	0.000000	8760	0
4022	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
4023	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM 0106	Flange	0	1	100	0.000000	8760	0
4024	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
4025	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM 0107	Flange	0	1	100	0.000000	8760	0
4026	13.12.2022	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
4027	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0104	Flange	0	1	100	0.000000	8760	0
4028	13.12.2022	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
4029	13.12.2022	OUTSIDE DYKE	ITT DISCHARGE MOV UP STEAM 0102	Flange	0	1	100	0.000000	8760	0
4030	13.12.2022	OUTSIDE DYKE	ITT DISCHARGE MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
4031	13.12.2022	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0
4032	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	OUTLET XZV UP STEAM 5026	Flange	0.2	1	100	0.000001	8760	0.013026541
4033	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	OUTLET XZV down steam 5026	Flange	0	1	100	0.000000	8760	0
4034	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	MANWAY A	Flange	0	1	100	0.000000	8760	0
4035	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	MANWAY B	Flange	0.1	1	100	0.000001	8760	0.008002119
4036	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	MANWAY C	Flange	0.3	1	100	0.000002	8760	0.017322927
4037	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0
4038	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	WD/A down steam	Flange	0	1	100	0.000000	8760	0
4039	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0
4040	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	WD/B down steam	Flange	0.2	1	100	0.000001	8760	0.013026541
4041	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	WD/C UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002119
4042	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	WD/C down steam	Flange	0	1	100	0.000000	8760	0
4043	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0
4044	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	WD/D down steam	Flange	0	1	100	0.000000	8760	0
4045	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0
4046	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	JET MIXTURE MOV 0112	Flange	0.1	1	100	0.000001	8760	0.008002119
4047	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0
4048	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	INLET XZV UP STEAM 5025	Flange	0	1	100	0.000000	8760	0
4049	13.12.2022	CRUDE tank NO -13 INSIDE DYKE	INLET XZV DOWN STEAM	Flange	0	1	100	0.000000	8760	0
4050	13.12.2022	OUTSIDE DYKE	INLET MOV 0110	Flange	0	1	100	0.000000	8760	0
4051	13.12.2022	OUTSIDE DYKE	INLET MOV 0109	Flange	0	1	100	0.000000	8760	0
4052	13.12.2022	OUTSIDE DYKE	HEEL STRIPPING HOV UP STEAM	Flange	0	1	100	0.000000	8760	0

4219	13.12.2022	END FLANGES	ITT PUMP SUCTION HEADER LAST	Flange	0	1	100	0.000000	8760	0
4220	13.12.2022	END FLANGES	PUMP SUCTION-1 LAST	Flange	0	1	100	0.000000	8760	0
4221	13.12.2022	END FLANGES	PUMP SUCTION-2 LAST	Flange	0	1	100	0.000000	8760	0
4222	13.12.2022	END FLANGES	ITT DISCHARGE LAST	Flange	0	1	100	0.000000	8760	0



REPORT ON
LDAR MONITORING AT
INDIAN OIL TANKING LIMITED,
BOOT#3 IOCL PARADIP, MAR 2023

PREPARED BY:

SGS India Private Limited

CS Plot-512 (P), Mouza, Hanspukuria,

Diamond Harbour Road,

PO-Joka,

South 24Parganas

Kolkata - 700104

Contents

1	Introduction	3
1.1	About Industry	3
2	Objective	Error! Bookmark not defined.
3	Present study.....	4
4	Scope of Work.....	4
5	About LDAR:.....	4
6	Methodology of the study:	5
6.1	Sampling Methodology:.....	Error! Bookmark not defined.
6.2	Individual Source Surveys.....	5
7	Calculation:.....	6
8	Results	8

1 Introduction

SGS India Private Limited has been contracted to conduct LDAR monitoring at BOOT # 3 & SOJ of IOCL Paradip for 2021-2022 period. Accordingly the measurement of the identified fugitive emission sources within the study area to detect leaking components as per USEPA 21 Guideline were conducted during November-December 2021. Although the leak definition as per CPCB guideline is 3000 ppmv and 5000 ppmv, M/s IOT wanted SGS to report any source emission above 300 ppmv.

2 About Industry

Oiltanking has been active in tank storage logistics since 1972, and is one of the largest independent operators of tank terminals for oils, gases and chemicals worldwide. The company owns and operates 45 terminals in 20 countries with a total storage capacity of more than 18.5 million cbm, on five continents – in Europe, North America, Latin America, the Middle East, Africa, India, and the Asia-Pacific region.

At the tank terminals, Oiltanking stores and handles nearly 500 different products including crude oil, petroleum products, biofuels, gases and chemicals. The total throughput of all terminals in 2019 was around 155 million tons.

Oiltanking is not the owner of the goods stored, but merely provides its services in the field of tank storage logistics. Our clients include private and state oil companies, refiners, petrochemical companies, and traders in petroleum products and chemicals.

Often we develop and operate our business with reputable local, private and state-owned companies, whereby Oiltanking acts as operating partner in the joint venture. In developing capital-intensive terminal facilities alone – or with substantial local business partners – the financial strength of parent company Marquard & Bahls AG is a valuable resource.

To further improve our shareholders value we continue to employ a strategy of controlled growth of our tank terminal-based service network through acquisitions, new buildings and upgrading of existing facilities.

Oiltanking has a strong customer orientation and provides tailor-made infrastructure. Its focus is on safe, efficient and reliable services in constructing and operating its facilities.

Besides tank storage, Oiltanking is active in the engineering, procurement and construction (EPC) of tank terminals.

In 2020, about 2,600 employees worked for Oiltanking.

PARADIP TERMINAL FACTS

Tank Capacity 1,513,968 cbm

Tanks 51

Tank Types Mild steel, pressure vessel steel

Access Types - Vessels, Tank Trucks, Pipeline, Berth

No. of Berths - 1

Products - Clean Petroleum Products, Crude Oil, Gases

Services - Pipeline connections to refineries, Tank-to-tank transfer, Vessel loading and unloading, Truck loading, Blending services, Homogenizing

2 Sampling Schedule

From 31.03.2023 to 08.04.2023

3 Objective

The objective of the studies to Identifying potential fugitive emission sources and quantification of the fugitive emission during oil production in terminals.

A typical industry can emit tons per year of VOCs from leaking equipment, such as valves, connectors, pumps, sampling connections, compressors, pressure relief devices and open-ended lines etc. Process components covering all joints as mentioned above are monitored under “fugitive emission monitoring” program covering all the components in Boot # 3 & SOJ.

4 Present study

- a) Carry out onsite detection through physical scanning for leaks and vented emissions (if any) in the operating assets using portable analyzer according USEPA Method 21 (sniffing method).
- b) Monitoring and measurement of the identified fugitive emission sources within the study area and tagging the detected leaking components.
- c) The outcome of the study shall focus on the details the programme undertaken, methodology, findings, monitored fugitive emissions rates, conclusion and recommendations for improvement.

5 Scope of Work

- Fugitive emission monitoring at IOCL Paradip (Boot # 3 & SOJ) terminal.
- Monitoring and measurement of the identified fugitive emission sources (supplied by IOT) within the study area and tagging the detected leaking components as per USEPA method 21.

About LDAR:

Leak Detection and Repair (LDAR) is a program implemented to comply with environmental regulations for reducing the fugitive emissions of targeted chemicals into the environment. Several standards such as *Maximum Achievable Control Technology* (MACT) standards, *New Source Performance Standards* (NSPS), *National Emissions Standards for Hazardous Air Pollutants* (NESHAP) and Central Pollution Control Board (CPCB) require the monitoring and reporting of these fugitive emissions from process equipment.

Process components covering Boot # 3 and SOJ were monitored as LDAR and covered all the components in the process plant. The environmental regulations are prescribed LDAR programs as a means of reducing emissions have very specific standards and applied to a monitoring and repair program. The LDAR study included the following protocols:

- **Types of components (pumps, valves, connectors, Flanges etc.) to be monitored** – All the sources assumed to be leaking source are monitored as per the USEPA Method 21 Protocol.
- **Measured concentration in PPM that indicates a leak** – Emission source is measured at PPM (parts per million) level.
- **Frequency of monitoring** – As per EPA act 1986 page 409, Fugitive emission monitoring program is undertaken every year (including Heat Exchangers and Pump seal as a part of Quarterly Monitoring).
- Method of monitoring
- **Actions to be taken if a leak is discovered** – A leak source above the limit as per EPA act should be reported and repaired immediately and the sources emitting the leak under the limit should be reported and an appropriate action should be undertaken.
- **Length of time in which an initial attempt to repair the leak must be performed** – Depending upon the nature of leak source, a leak source above the limits as per EPA guidelines should be reported and repaired immediately.
- **Actions that must be taken if a leak cannot be repaired within guidelines** – A proper action should be undertaken as a leaking source contributes in air pollution.
- **Record-keeping and reporting requirements** – A proper record should be maintained so that the leak source can be monitored again to see discrepancies if any.

Affected Sources: Each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, flange and connector that contains or contacts a fluid or gas, that is exceeding more than 5000ppm of pump and compressor seals and 3000 ppm other components is an affected source.

Equipment Leak: A leak is defined as greater than or equal to 3,000 & 5000 ppmv as methane, for organic compounds, as determined by EPA Reference Method 21. Most of the emissions are from valves and connectors because these are most prevalent components and can number in the thousands. The major cause of emissions from valves and connectors is seal or gasket failure due to normal wear or improper maintenance. More than 90% of emissions from the leaking equipment with valves are being the most significant source. The open-ended lines and sampling connections account for as much as 5 – 10% of total VOC emissions from equipment leaks.

Minimum Requirements for an Acceptable Organic LDAR Program:

- Each affected source is screened initially using USEPA Method 21.
- Monthly visual inspections must be performed by industry on each affected source for signs of leakage (e.g. dripping liquid, spraying, misting, clouding, ice formation, distinctive odors, etc.).
- Monitoring of each affected source is to be conducting quarterly using Method 21.

All potential leak points associated with a component must be identified and screened for leaks. The detected leaks by Method 21 test was tagged and repaired. The leak sources are measured after repair and the same is recorded.

6 Methodology of the study:

USEPA Method – 21 was followed to monitor source emissions at IOT/IOCL Paradip.

6.1 Individual Source Surveys.

Leak Definition Based on Concentration. Place the probe inlet at the surface of the component interface where leakage could occur. Move the probe along the interface periphery while

observing the instrument readout. If an increased meter reading is observed, slowly sample the interface where leakage is indicated until the maximum meter reading is obtained. Leave the probe inlet at this maximum reading location for approximately two times the instrument response time. If the maximum observed meter reading is greater than the leak definition in the applicable regulation, record and report the results as specified in the regulation reporting requirements. Examples of the application of this general technique to specific equipment types are:

- **Valves** - The most common source of leaks from valves is the seal between the stem and housing. Place the probe at the interface where the stem exits the packing gland and sample the stem circumference. Also, place the probe at the interface of the packing gland take-up flange seat and sample the periphery. In addition, survey valve housings of multipart assembly at the surface of all interfaces where a leak could occur.
- **Flanges and Other Connections** - For welded flanges, place the probe at the outer edge of the flange-gasket interface and sample the circumference of the flange. Sample other types of nonpermanent joints (such as threaded connections) with a similar traverse.
- **Pumps and Compressors** - Conduct a circumferential traverse at the outer surface of the pump or compressor shaft and seal interface. If the source is a rotating shaft, position the probe inlet within 1 cm of the shaft-seal interface for the survey. If the housing configuration prevents a complete traverse of the shaft periphery, sample all accessible portions. Sample all other joints on the pump or compressor housing where leakage could occur.
- **Pressure Relief Devices** - The configuration of most pressure relief devices prevents sampling at the sealing seat interface. For those devices equipped with an enclosed extension, or horn, place the probe inlet at approximately the center of the exhaust area to the atmosphere.
- **Process Drains** - For open drains, place the probe inlet at approximately the center of the area open to the atmosphere. For covered drains, place the probe at the surface of the cover interface and conduct a peripheral traverse.
- **Access door seals**. Place the probe inlet at the surface of the door seal interface and conduct a peripheral traverse.

Calculation:

(Reference – EPA 1995 Protocol for Equipment Leak Emission Estimation Table 2-10)

Component Type	Default Zero Factor [Kg/hr]	Correlation Equation [Kg/hr]
Valves	[7.8E-06]	[2.29E-06(SV) ^{0.746}]
Pump Seals	[1.9E-05]	[5.03E-05(SV) ^{0.610}]
Others	[4.0E-06]	[1.36E-05(SV) ^{0.589}]
Connectors	[7.5E-06]	[1.53E-06(SV) ^{0.735}]
Flanges	[3.1E-07]	[4.61E-06(SV) ^{0.703}]
Open-ended Lines	[2.0E-06]	[2.20E-06(SV) ^{0.704}]

The default zero factors apply only when the screening value(SV) corrected for background equals 0 ppmv.

The correlation equations apply for actual screening values, corrected for background.

The “other” component type includes instruments, loading arms, pressure relief valves, vents, compressors, dump lever arms, diaphragms, drains, hatches, meters and polished rods stuffing boxes. This “other” component type should be applied for any component type other than connectors, flanges, open-ended lines, pumps or valves.

For example.

Reference USEPA-Method-21)

The screening value (SV) concentration in Valves is 2600 ppm

$$= \text{RF (\% of VOC Flow/100)} * 0.0000023 * \text{SV}^{0.746}$$

$$\text{RF} = \text{Response Factor} = 1$$

Response Factors of Different Volatiles (USEPA Method-21):	
Gasoline Vapors	1.05
Naphtha	1.0
Heavy Oil	1.1
Petrol & Diesel	0.8
Gasoline Vapors 2	0.7
Light Oil	1.0

% of VOC Flow = material passing on that particular pipe line.

$$0.00000227 = \text{Correlation factor}$$

$$\text{SV} = \text{Screening Value in ppm}$$

If we will apply all the values in the below formula

$$= \text{RF (\% of VOC Flow/100)} * 0.0000023 * \text{SV}^{0.746}$$

$$= 1 (100/100) * 0.0000023 * 2600^{0.746}$$

$$= 0.000815 \text{ kg/hr}$$

Total hours of operation per year are 8760 (24 hours x 365 days)

$$\text{The volatile emission} = 7.109 \text{ Kgs/year.}$$

SUMMARY OF THE STUDY

SGS has monitored more than four thousand points in study area selected by IOT at IOCL Paradip Boot # 3 area and more than one thousand points at the Berth at Paradip Port.

TEST RESULTS

SUMMARY SHEET OF TVOC EMISSION MEASUREMENT			
UNIT	NO. OF POINT MEASURE	TOTAL VOC EMISSION IN kg/Hr.	TOTAL VOC EMISSION IN kg/Year
Boot # 3	4357	0.024607	215.55707
SOJ	1417	0.0009042	7.920635
TOTAL POINTS	5774	0.0255112	223.47771

CONCLUSION:

The results are submitted component wise in the enclosed Annexure-1 As per CPCB guidelines no components detected with more than the standard values of 3000ppmv and 5000ppmv. Hence no recommendations are given for repairing of any leakage sources. However M/s IOT wanted SGS to report any source emission above 300 ppmv and accordingly SGS has tagged and reported for the points with emission of 300 ppmv and above. Total 8 points with emission of 300 ppmv and above were detected at BOOT # 3 and no such point was detected at SOJ area.

Maximum Screening Value at Boot # 3 was 9024 ppmv and that at SOJ(Dock Yard at Paradip Port) was 164.7 ppmv.

Based on the calculation and concentrations of VOC in the equipment, we took default value 1 for Response Factor (RF).

Results

www.sgs.com

LDAR points BOOT#3

S.NO	Date	Unit	Component ID & Location	Type	SCREENING VALUE OF VOC (ppm)	RF	% of VOC FLOW	Kg/Hrs.	HOURS OF OPERATION	Kg/Year
1	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	1 SUCTION HOV-1-UP steam	Flange	0.3	1	100	0.000002	8760	0.017323
2	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	1 SUCTION HOV-1-down steam	Flange	0.9	1	100	0.000004	8760	0.037501
3	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	1 BT SUCTION HOV-1- UP steam	Flange	0.2	1	100	0.000001	8760	0.013027
4	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	1BT SUCTION HOV-1-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
5	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	STRAINER FLANGE	Flange	0.7	1	100	0.000004	8760	0.031427
6	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	STRAINER FLANGE HOV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
7	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	STRAINER FLANGE HOV DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
8	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	PUMP SEAL	Pump Seal	1.8	1	100	0.000072	8760	0.630650
9	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	NRV UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
10	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	NRV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
11	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	DISCHARGE HOV UP STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
12	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	DISCHARGE HOV DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
13	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	HOV-2-UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
14	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	HOV-2-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
15	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	LT FLARE HOV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
16	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	LT FLARE HOV DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
17	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	LT FLARE NRV UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
18	05.04.2023	LPG PUMP HOUSE-6 PUMP 205 - P-001A	LT FLARE NRV DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
19	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	1 SUCTION HOV-1-UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
20	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	1 SUCTION HOV-1-down steam	Flange	0.7	1	100	0.000004	8760	0.031427
21	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	1 BT SUCTION HOV-1- UP steam	Flange	0.2	1	100	0.000001	8760	0.013027
22	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	1BT SUCTION HOV-1-down steam	Flange	0.6	1	100	0.000003	8760	0.028200
23	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	STRAINER FLANGE	Flange	0.9	1	100	0.000004	8760	0.037501
24	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	STRAINER FLANGE HOV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
25	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	STRAINER FLANGE HOV DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
26	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	PUMP SEAL	Pump Seal	1.3	1	100	0.000059	8760	0.517104
27	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	NRV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
28	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	NRV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
29	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	DISCHARGE HOV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
30	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	DISCHARGE HOV DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
31	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	HOV-2-UP STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
32	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	HOV-2-down steam	Flange	0.7	1	100	0.000004	8760	0.031427
33	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	LT FLARE HOV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
34	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	LT FLARE HOV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
35	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	LT FLARE NRV UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
36	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001B	LT FLARE NRV DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
37	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	1 SUCTION HOV-1-UP steam	Flange	0.3	1	100	0.000002	8760	0.017323
38	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	1 SUCTION HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013027
39	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	1 BT SUCTION HOV-1- UP steam	Flange	0.4	1	100	0.000002	8760	0.021206
40	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	1BT SUCTION HOV-1-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
41	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	STRAINER FLANGE	Flange	0.9	1	100	0.000004	8760	0.037501
42	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	STRAINER FLANGE HOV UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
43	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	STRAINER FLANGE HOV DOWN STEAM	Flange	1.3	1	100	0.000006	8760	0.048563
44	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	PUMP SEAL	Pump Seal	3.4	1	100	3.29564E-05	8760	0.288698
45	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	NRV UP STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
46	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	NRV DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
47	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	DISCHARGE HOV UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
48	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	DISCHARGE HOV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
49	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	HOV-2-UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
50	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	HOV-2-down steam	Flange	1.7	1	100	0.000007	8760	0.058642
51	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	LT FLARE HOV UP STEAM	Flange	1.1	1	100	0.000005	8760	0.043182
52	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	LT FLARE HOV DOWN STEAM	Flange	2.5	1	100	0.000009	8760	0.076905
53	05.04.2023	LPG PUMP HOUSE PUMP 205 - P-001C	LT FLARE NRV UP STEAM	Flange	2.8	1	100	0.000010	8760	0.083283
54	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001C	LT FLARE NRV DOWN STEAM	Flange	2.2	1	100	0.000008	8760	0.070296
55	05.04.2023	LPG AREA MOUND I BULLET 205-V-003	BULLET INLET XZV 0001 UPSTEAM	Flange	1.9	1	100	0.000007	8760	0.063412
56	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	1 SUCTION HOV-1-UP steam	Flange	0.3	1	100	0.000002	8760	0.017323
57	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	1 SUCTION HOV-1-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
58	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	1 BT SUCTION HOV-1- UP steam	Flange	0.6	1	100	0.000003	8760	0.028200
59	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	1BT SUCTION HOV-1-down steam	Flange	0.4	1	100	0.000002	8760	0.021206
60	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	STRAINER FLANGE	Flange	0.3	1	100	0.000002	8760	0.017323
61	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	STRAINER FLANGE HOV UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
62	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	STRAINER FLANGE HOV DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
63	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	PUMP SEAL	Pump Seal	13.5	1	100	3.29564E-05	8760	0.288698
64	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	NRV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
65	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	NRV DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
66	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	DISCHARGE HOV UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
67	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	DISCHARGE HOV DOWN STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
68	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	HOV-2-UP STEAM	Flange	1.2	1	100	0.000005	8760	0.045906
69	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	HOV-2-down steam	Flange	0.3	1	100	0.000002	8760	0.017323
70	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	LT FLARE HOV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
71	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	LT FLARE HOV DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
72	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	LT FLARE NRV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
73	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001D	LT FLARE NRV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
74	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	1 SUCTION HOV-1-UP steam	Flange	0.6	1	100	0.000003	8760	0.028200
75	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	1 SUCTION HOV-1-down steam	Flange	0.4	1	100	0.000002	8760	0.021206
76	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	1 BT SUCTION HOV-1- UP steam	Flange	1.1	1	100	0.000005	8760	0.043182
77	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	1BT SUCTION HOV-1-down steam	Flange	0.7	1	100	0.000004	8760	0.031427
78	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	STRAINER FLANGE	Flange	3.3	1	100	0.000011	8760	0.093480
79	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	STRAINER FLANGE HOV UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
80	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	STRAINER FLANGE HOV DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
81	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	PUMP SEAL	Pump Seal	1.3	1	100	3.68333E-05	8760	0.322659
82	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	NRV UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
83	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	NRV DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
84	05.04.2023	LPG PUMP HOUSE- 5 PUMP 205 - P-001E	DISCHARGE HOV UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501

173	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028B	NRV DOWN STEAM	Flange	1.7	1	100	0.000007	8760	0.058642
174	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028B	DISCHARGE HOV UP STEAM	Flange	1.8	1	100	0.000007	8760	0.061047
175	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028B	DISCHARGE HOV DOWN STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
176	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028B	LT FLARE HOV UP STEAM	Flange	1	1	100	0.000005	8760	0.040384
177	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028B	LT FLARE HOV DOWN STEAM	Flange	3.3	1	100	0.000011	8760	0.093480
178	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028B	LT FLARE NRV UP STEAM	Flange	2.6	1	100	0.000009	8760	0.079055
179	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028B	LT FLARE NRV DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
180	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	1 SUCTION HOV-1-UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
181	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	1 SUCTION HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
182	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	STRAINER FLANGE	Flange	2.4	1	100	0.000009	8760	0.074730
183	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	STRAINER FLANGE HOV UP STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
184	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	STRAINER FLANGE HOV DOWN STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
185	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	PUMP SEAL	Pump Seal	5.2	1	100	0.000137509	8760	1.204576
186	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	NRV UP STEAM	Flange	1.4	1	100	0.000006	8760	0.051160
187	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	NRV DOWN STEAM	Flange	1.5	1	100	0.000006	8760	0.053703
188	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	DISCHARGE HOV UP STEAM	Flange	2.1	1	100	0.000008	8760	0.068034
189	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	DISCHARGE HOV DOWN STEAM	Flange	1.8	1	100	0.000007	8760	0.061047
190	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	LT FLARE HOV UP STEAM	Flange	1.2	1	100	0.000005	8760	0.045906
191	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	LT FLARE HOV DOWN STEAM	Flange	2.5	1	100	0.000009	8760	0.076905
192	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	LT FLARE NRV UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
193	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-028C	LT FLARE NRV DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
194	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	1 SUCTION HOV-1-UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
195	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	1 SUCTION HOV-1-down steam	Flange	0.4	1	100	0.000002	8760	0.021206
196	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	STRAINER FLANGE	Flange	0.4	1	100	0.000002	8760	0.021206
197	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	STRAINER FLANGE HOV UP STEAM	Flange	2.1	1	100	0.000008	8760	0.068034
198	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	STRAINER FLANGE HOV DOWN STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
199	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	PUMP SEAL	Pump Seal	2.7	1	100	9.21934E-05	8760	0.807614
200	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	NRV UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
201	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	NRV DOWN STEAM	Flange	2.3	1	100	0.000008	8760	0.072527
202	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	DISCHARGE HOV UP STEAM	Flange	2.1	1	100	0.000008	8760	0.068034
203	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	DISCHARGE HOV DOWN STEAM	Flange	3.4	1	100	0.000011	8760	0.095463
204	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	LT FLARE HOV UP STEAM	Flange	1.1	1	100	0.000005	8760	0.043182
205	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	LT FLARE HOV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
206	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	LT FLARE NRV UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
207	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029A	LT FLARE NRV DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
208	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	1 SUCTION HOV-1-UP steam	Flange	0.7	1	100	0.000004	8760	0.031427
209	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	1 SUCTION HOV-1-down steam	Flange	2	1	100	0.000008	8760	0.065740
210	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	STRAINER FLANGE	Flange	3.4	1	100	0.000011	8760	0.095463
211	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	STRAINER FLANGE HOV UP STEAM	Flange	1.8	1	100	0.000007	8760	0.061047
212	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	STRAINER FLANGE HOV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
213	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	PUMP SEAL	Pump Seal	2.8	1	100	9.42615E-05	8760	0.825731
214	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	NRV UP STEAM	Flange	1.9	1	100	0.000007	8760	0.063412
215	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	NRV DOWN STEAM	Flange	1	1	100	0.000005	8760	0.040384
216	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	DISCHARGE HOV UP STEAM	Flange	2.4	1	100	0.000009	8760	0.074730
217	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	DISCHARGE HOV DOWN STEAM	Flange	2.1	1	100	0.000008	8760	0.068034
218	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	LT FLARE HOV UP STEAM	Flange	3.5	1	100	0.000011	8760	0.097428
219	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	LT FLARE HOV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
220	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	LT FLARE NRV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
221	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029B	LT FLARE NRV DOWN STEAM	Flange	2.4	1	100	0.000009	8760	0.074730
222	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	1 SUCTION HOV-1-UP steam	Flange	1.1	1	100	0.000005	8760	0.043182
223	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	1 SUCTION HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
224	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	STRAINER FLANGE	Flange	0.7	1	100	0.000004	8760	0.031427
225	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	STRAINER FLANGE HOV UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
226	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	STRAINER FLANGE HOV DOWN STEAM	Flange	1.6	1	100	0.000006	8760	0.056195
227	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	PUMP SEAL	Pump Seal	4.1	1	100	0.00011895	8760	1.042006
228	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	NRV UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
229	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	NRV DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
230	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	DISCHARGE HOV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
231	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	DISCHARGE HOV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
232	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	LT FLARE HOV UP STEAM	Flange	1.7	1	100	0.000007	8760	0.058642
233	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	LT FLARE HOV DOWN STEAM	Flange	1.4	1	100	0.000006	8760	0.051160
234	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	LT FLARE NRV UP STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
235	05.04.2023	LPG PUMP HOUSE-9 PUMP 205 - P-029C	LT FLARE NRV DOWN STEAM	Flange	2.1	1	100	0.000008	8760	0.068034
236	06.04.2023	LPG PSV PLATFORM MOUND - 1	PSV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
237	06.04.2023	LPG PSV PLATFORM MOUND - 1	PSV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
238	06.04.2023	LPG PSV PLATFORM MOUND - 1	PSV-2-up steam	Flange	0	1	100	0.000000	8760	0.000000
239	06.04.2023	LPG PSV PLATFORM MOUND - 1	PSV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
240	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-1-UP steam	Flange	0.2	1	100	0.000001	8760	0.013027
241	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-1-down steam	Flange	1.1	1	100	0.000005	8760	0.043182
242	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-2-UP steam	Flange	0	1	100	0.000000	8760	0.000000
243	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
244	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-3-UP steam	Flange	0	1	100	0.000000	8760	0.000000
245	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-3-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
246	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-4-UP steam	Flange	0	1	100	0.000000	8760	0.000000
247	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-4-down steam	Flange	0	1	100	0.000000	8760	0.000000
248	06.04.2023	LPG PSV PLATFORM MOUND - 1	PSV-1-up steam	Flange	0.8	1	100	0.000004	8760	0.034521
249	06.04.2023	LPG PSV PLATFORM MOUND - 1	PSV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013027
250	06.04.2023	LPG PSV PLATFORM MOUND - 1	PSV-2-up steam	Flange	0	1	100	0.000000	8760	0.000000
251	06.04.2023	LPG PSV PLATFORM MOUND - 1	PSV-2-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
252	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-1-UP steam	Flange	0	1	100	0.000000	8760	0.000000
253	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
254	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-2-UP steam	Flange	0	1	100	0.000000	8760	0.000000
255	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
256	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-3-UP steam	Flange	0	1	100	0.000000	8760	0.000000
257	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-3-down steam	Flange	0.15	1	100	0.000001	8760	0.010641
258	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-4-UP steam	Flange	0.6	1	100	0.000003	8760	0.028200
259	06.04.2023	LPG PSV PLATFORM MOUND - 1	HOV-4-down steam	Flange	0	1	100	0.000000	8760	0.000000
260	06.04.2023	LPG PSV PLATFORM MOUND - 1	PSV-1-up steam	Flange	0.9	1	100	0.000004	8760	0.037501

613	06.04.2023	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	0	1	100	0.000000	8760	0.000000
614	06.04.2023	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	6.2	1	100	0.000017	8760	0.145632
615	06.04.2023	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	1.5	1	100	0.000006	8760	0.053703
616	06.04.2023	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	1.9	1	100	0.000007	8760	0.063412
617	06.04.2023	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	0	1	100	0.000000	8760	0.000000
618	06.04.2023	LPG PSV PLATFORM MOUND - 3	PSV HOV OTHERS	Flange	3.4	1	100	0.000011	8760	0.095463
619	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
620	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
621	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
622	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
623	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
624	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
625	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
626	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
627	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0.2	1	100	0.000001	8760	0.013027
628	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
629	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
630	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
631	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0.1	1	100	0.000001	8760	0.008002
632	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0.2	1	100	0.000001	8760	0.013027
633	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
634	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
635	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
636	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
637	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV 873117	Flange	0	1	100	0.000000	8760	0.000000
638	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
639	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
640	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0.1	1	100	0.000001	8760	0.008002
641	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
642	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0.3	1	100	0.000002	8760	0.017323
643	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV 873112	Flange	0	1	100	0.000000	8760	0.000000
644	06.04.2023	LPG PSV PLATFORM MOUND - 3	OTHER HOV	Flange	0	1	100	0.000000	8760	0.000000
645	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-1-UPsteam	Flange	2.1	1	100	0.000008	8760	0.068034
646	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-1-down steam	Flange	3.5	1	100	0.000011	8760	0.097428
647	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-2-UPsteam	Flange	12.5	1	100	0.000027	8760	0.238415
648	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-2-down steam	Flange	1.8	1	100	0.000007	8760	0.061047
649	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-3-UPsteam	Flange	2.2	1	100	0.000008	8760	0.070296
650	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-3-down steam	Flange	2.7	1	100	0.000009	8760	0.081181
651	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-4-UPsteam	Flange	3.5	1	100	0.000011	8760	0.097428
652	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-4-down steam	Flange	3.1	1	100	0.000010	8760	0.089461
653	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-5-UPsteam	Flange	1.4	1	100	0.000006	8760	0.051160
654	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-5-down steam	Flange	2.2	1	100	0.000008	8760	0.070296
655	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-6-UPsteam	Flange	1	1	100	0.000005	8760	0.040384
656	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-6-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
657	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-7-UPsteam	Flange	1.1	1	100	0.000005	8760	0.043182
658	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-7-down steam	Flange	2.3	1	100	0.000008	8760	0.072527
659	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-8-UPsteam	Flange	1.4	1	100	0.000006	8760	0.051160
660	05.04.2023	COMPRESSOR HOUSE - SECTION LINE	HOV-8-down steam	Flange	1.2	1	100	0.000005	8760	0.045906
661	05.04.2023	KOD VOLUME BOTTLE	HOV-1-UPsteam	Flange	0.9	1	100	0.000004	8760	0.037501
662	05.04.2023	KOD VOLUME BOTTLE	HOV-1-down steam	Flange	0.7	1	100	0.000004	8760	0.031427
663	05.04.2023	KOD VOLUME BOTTLE	SPOOL PIECE UPsteam	Flange	0.2	1	100	0.000001	8760	0.013027
664	05.04.2023	KOD VOLUME BOTTLE	SPOOL PIECE DOWN steam	Flange	1.4	1	100	0.000006	8760	0.051160
665	05.04.2023	KOD VOLUME BOTTLE	KOD FLANGE UPSTEAM	Flange	1.2	1	100	0.000005	8760	0.045906
666	05.04.2023	KOD VOLUME BOTTLE	KOD FLANGE DOWNSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427
667	05.04.2023	DISCHARGE VOLUME DRUM BODY FLANGES	HOV-1-UPsteam	Flange	0.9	1	100	0.000004	8760	0.037501
668	05.04.2023	DISCHARGE VOLUME DRUM BODY FLANGES	HOV-1-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
669	05.04.2023	DISCHARGE VOLUME DRUM BODY FLANGES	KOD BODY UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
670	05.04.2023	DISCHARGE VOLUME DRUM BODY FLANGES	KOD BODY DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
671	05.04.2023	CTMS PIPELINE LPG	MAIN INLET LINE HOV UPSTEAM	Flange	4.1	1	100	0.000012	8760	0.108891
672	05.04.2023	CTMS PIPELINE LPG	MAIN INLET LINE HOV DOWNSTEAM	Flange	2.3	1	100	0.000008	8760	0.072527
673	05.04.2023	BRANCH LINE - 1	PSV UPSTEAM	Flange	3.6	1	100	0.000011	8760	0.099377
674	05.04.2023	BRANCH LINE - 1	PSV DOWNSTEAM	Flange	1.4	1	100	0.000006	8760	0.051160
675	05.04.2023	BRANCH LINE - 1	HOV-1-UPsteam	Flange	1.8	1	100	0.000007	8760	0.061047
676	05.04.2023	BRANCH LINE - 1	HOV-1-down steam	Flange	2.5	1	100	0.000009	8760	0.076905
677	05.04.2023	BRANCH LINE - 1	HOV-2-UPsteam	Flange	0.6	1	100	0.000003	8760	0.028200
678	05.04.2023	BRANCH LINE - 1	HOV-2-down steam	Flange	0.9	1	100	0.000004	8760	0.037501
679	05.04.2023	BRANCH LINE - 1	MOV - 1 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
680	05.04.2023	BRANCH LINE - 1	MOV - 1 DOWNSTEAM	Flange	3.3	1	100	0.000011	8760	0.093480
681	05.04.2023	BRANCH LINE - 1	BASKET FILTER	Flange	1.8	1	100	0.000007	8760	0.061047
682	05.04.2023	BRANCH LINE - 1	BASKET FILTER OUTLET	Flange	1.3	1	100	0.000006	8760	0.048563
683	05.04.2023	BRANCH LINE - 1	MOV - 2 UPSTEAM	Flange	2.4	1	100	0.000009	8760	0.074730
684	05.04.2023	BRANCH LINE - 1	MOV - 2 DOWNSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
685	05.04.2023	BRANCH LINE - 1	FCV UPSTEAM	Flange	2.1	1	100	0.000008	8760	0.068034
686	05.04.2023	BRANCH LINE - 1	FCV DOWNSTEAM	Flange	1.4	1	100	0.000006	8760	0.051160
687	05.04.2023	BRANCH LINE - 1	MOV - 3 UPSTEAM	Flange	1.2	1	100	0.000005	8760	0.045906
688	05.04.2023	BRANCH LINE - 1	MOV - 3 DOWNSTEAM	Flange	2.7	1	100	0.000009	8760	0.081181
689	05.04.2023	BRANCH LINE - 2	MOV - 1 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
690	05.04.2023	BRANCH LINE - 2	MOV - 1 DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
691	05.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET 1	Flange	1.3	1	100	0.000006	8760	0.048563
692	05.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET 2	Flange	1.1	1	100	0.000005	8760	0.043182
693	05.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET 3	Flange	2.8	1	100	0.000010	8760	0.083283
694	05.04.2023	BRANCH LINE - 2	PSV UPSTEAM	Flange	3.3	1	100	0.000011	8760	0.093480
695	05.04.2023	BRANCH LINE - 2	PSV DOWNSTEAM	Flange	1	1	100	0.000005	8760	0.040384
696	05.04.2023	BRANCH LINE - 2	HOV-1-UPsteam	Flange	1.5	1	100	0.000006	8760	0.053703
697	05.04.2023	BRANCH LINE - 2	HOV-1-down steam	Flange	0.7	1	100	0.000004	8760	0.031427
698	05.04.2023	BRANCH LINE - 2	HOV-2-UPsteam	Flange	1.2	1	100	0.000005	8760	0.045906
699	05.04.2023	BRANCH LINE - 2	HOV-2-down steam	Flange	0.9	1	100	0.000004	8760	0.037501
700	05.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET	Flange	1.6	1	100	0.000006	8760	0.056195

701	05.04.2023	BRANCH LINE - 2	MOV - 2 UPSTEAM	Flange	1.4	1	100	0.000006	8760	0.051160
702	05.04.2023	BRANCH LINE - 2	MOV - 2 DOWNSTEAM	Flange	2.1	1	100	0.000008	8760	0.068034
703	05.04.2023	BRANCH LINE - 2	FCV UPSTEAM	Flange	2.6	1	100	0.000009	8760	0.079055
704	05.04.2023	BRANCH LINE - 2	FCV DOWNSTEAM	Flange	2.1	1	100	0.000008	8760	0.068034
705	05.04.2023	BRANCH LINE - 2	MOV - 3 UPSTEAM	Flange	1.4	1	100	0.000006	8760	0.051160
706	05.04.2023	BRANCH LINE - 2	MOV - 3 DOWNSTEAM	Flange	1	1	100	0.000005	8760	0.040384
707	05.04.2023	BRANCH LINE - 3	MOV - 1 UPSTEAM	Flange	1.8	1	100	0.000007	8760	0.061047
708	05.04.2023	BRANCH LINE - 3	MOV - 1 DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
709	05.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET 1	Flange	0.7	1	100	0.000004	8760	0.031427
710	05.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET 2	Flange	0.4	1	100	0.000002	8760	0.021206
711	05.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET 3	Flange	1.2	1	100	0.000005	8760	0.045906
712	05.04.2023	BRANCH LINE - 3	PSV UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
713	05.04.2023	BRANCH LINE - 3	PSV DOWNSTEAM	Flange	1	1	100	0.000005	8760	0.040384
714	05.04.2023	BRANCH LINE - 3	HOV-1-UPsteam	Flange	0.8	1	100	0.000004	8760	0.034521
715	05.04.2023	BRANCH LINE - 3	HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
716	05.04.2023	BRANCH LINE - 3	HOV-2-UPsteam	Flange	1.3	1	100	0.000006	8760	0.048563
717	05.04.2023	BRANCH LINE - 3	HOV-2-down steam	Flange	0.9	1	100	0.000004	8760	0.037501
718	05.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET	Flange	0.5	1	100	0.000003	8760	0.024807
719	05.04.2023	BRANCH LINE - 3	MOV - 2 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
720	05.04.2023	BRANCH LINE - 3	MOV - 2 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
721	05.04.2023	BRANCH LINE - 3	FCV UPSTEAM	Flange	1.4	1	100	0.000006	8760	0.051160
722	05.04.2023	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
723	05.04.2023	BRANCH LINE - 3	MOV - 3 UPSTEAM	Flange	1.1	1	100	0.000005	8760	0.043182
724	05.04.2023	BRANCH LINE - 3	MOV - 3 DOWNSTEAM	Flange	1.6	1	100	0.000006	8760	0.056195
725	05.04.2023	BRANCH LINE - 3	MOV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
726	05.04.2023	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	2.4	1	100	0.000009	8760	0.074730
727	05.04.2023	BRANCH LINE - 3	PROVER FLANGE UPSTEAM	Flange	2.1	1	100	0.000008	8760	0.068034
728	05.04.2023	BRANCH LINE - 3	PROVER FLANGE DOWNSTEAM	Flange	1.3	1	100	0.000006	8760	0.048563
729	05.04.2023	BRANCH LINE - 3	FCV UPSTEAM	Flange	1.9	1	100	0.000007	8760	0.063412
730	05.04.2023	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	1	1	100	0.000005	8760	0.040384
731	05.04.2023	BRANCH LINE - 3	MOV UPSTEAM	Flange	2.4	1	100	0.000009	8760	0.074730
732	05.04.2023	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
733	05.04.2023	BRANCH LINE - 3	PUMP SEAL	Pump Seal	63.8	1	100	0.000634612	8760	5.559205
734	05.04.2023	BRANCH LINE - 3	BYE PASS MOV UP STEAM	Flange	2	1	100	0.000008	8760	0.065740
735	05.04.2023	BRANCH LINE - 3	BYE PASS MOV DOWN STEAM	Flange	3.5	1	100	0.000011	8760	0.097428
736	05.04.2023	BRANCH LINE - 3	LINE HOV UPSTEAM	Flange	1.6	1	100	0.000006	8760	0.056195
737	05.04.2023	BRANCH LINE - 3	LINE HOV DOWNSTEAM	Flange	4.1	1	100	0.000012	8760	0.108891
738	05.04.2023	BRANCH LINE - 3	FCV UPSTEAM	Flange	2.7	1	100	0.000009	8760	0.081181
739	05.04.2023	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
740	05.04.2023	BRANCH LINE - 3	HOV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
741	05.04.2023	BRANCH LINE - 3	HOV DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
742	05.04.2023	BRANCH LINE - 3	LAST HOV UPSTEAM	Flange	2.2	1	100	0.000008	8760	0.070296
743	05.04.2023	BRANCH LINE - 3	LAST HOV DOWNSTEAM	Flange	1.6	1	100	0.000006	8760	0.056195
744	06.04.2023	CTMS MARKETING LPG -1	MAIN INLET HOV UPSTEAM	Flange	2	1	100	0.000008	8760	0.065740
745	06.04.2023	CTMS MARKETING LPG -1	MAIN INLET HOV DOWNSTEAM	Flange	1.5	1	100	0.000006	8760	0.053703
746	06.04.2023	BRANCH LINE - 1	MOV - 1 UPSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427
747	06.04.2023	BRANCH LINE - 1	MOV - 1 DOWNSTEAM	Flange	1.1	1	100	0.000005	8760	0.043182
748	06.04.2023	BRANCH LINE - 1	BASKET FILTER	Flange	1.4	1	100	0.000006	8760	0.051160
749	06.04.2023	BRANCH LINE - 1	PSV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
750	06.04.2023	BRANCH LINE - 1	PSV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
751	06.04.2023	BRANCH LINE - 1	HOV-1-UPsteam	Flange	1.2	1	100	0.000005	8760	0.045906
752	06.04.2023	BRANCH LINE - 1	HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
753	06.04.2023	BRANCH LINE - 1	HOV-2-UPsteam	Flange	0.5	1	100	0.000003	8760	0.024807
754	06.04.2023	BRANCH LINE - 1	HOV-2-down steam	Flange	0.4	1	100	0.000002	8760	0.021206
755	06.04.2023	BRANCH LINE - 1	BASKET FILTER OUTLET	Flange	0.9	1	100	0.000004	8760	0.037501
756	06.04.2023	BRANCH LINE - 1	MOV - 2 UPSTEAM	Flange	1.3	1	100	0.000006	8760	0.048563
757	06.04.2023	BRANCH LINE - 1	MOV - 2 DOWNSTEAM	Flange	2.6	1	100	0.000009	8760	0.079055
758	06.04.2023	BRANCH LINE - 1	FCV UPSTEAM	Flange	1	1	100	0.000005	8760	0.040384
759	06.04.2023	BRANCH LINE - 1	FCV DOWNSTEAM	Flange	1.5	1	100	0.000006	8760	0.053703
760	06.04.2023	BRANCH LINE - 1	MOV - 3 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
761	06.04.2023	BRANCH LINE - 1	MOV - 3 DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
762	06.04.2023	BRANCH LINE - 2	MOV - 1 UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
763	06.04.2023	BRANCH LINE - 2	MOV - 1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
764	06.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET 1	Flange	0.5	1	100	0.000003	8760	0.024807
765	06.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET 2	Flange	0.9	1	100	0.000004	8760	0.037501
766	06.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET 3	Flange	0.7	1	100	0.000004	8760	0.031427
767	06.04.2023	BRANCH LINE - 2	PSV UPSTEAM	Flange	41.8	1	100	0.000064	8760	0.557047
768	06.04.2023	BRANCH LINE - 2	PSV DOWNSTEAM	Flange	6.3	1	100	0.000017	8760	0.147279
769	06.04.2023	BRANCH LINE - 2	HOV-1-UPsteam	Flange	1.1	1	100	0.000005	8760	0.043182
770	06.04.2023	BRANCH LINE - 2	HOV-1-down steam	Flange	0.7	1	100	0.000004	8760	0.031427
771	06.04.2023	BRANCH LINE - 2	HOV-2-UPsteam	Flange	2.3	1	100	0.000008	8760	0.072527
772	06.04.2023	BRANCH LINE - 2	HOV-2-down steam	Flange	1.2	1	100	0.000005	8760	0.045906
773	06.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET	Flange	0.5	1	100	0.000003	8760	0.024807
774	06.04.2023	BRANCH LINE - 2	MOV - 2 UPSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
775	06.04.2023	BRANCH LINE - 2	MOV - 2 DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
776	06.04.2023	BRANCH LINE - 2	FCV UPSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427
777	06.04.2023	BRANCH LINE - 2	FCV DOWNSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427
778	06.04.2023	BRANCH LINE - 2	MOV - 3 UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
779	06.04.2023	BRANCH LINE - 2	MOV - 3 DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
780	06.04.2023	BRANCH LINE - 3	MOV - 1 UPSTEAM	Flange	1.8	1	100	0.000007	8760	0.061047
781	06.04.2023	BRANCH LINE - 3	MOV - 1 DOWNSTEAM	Flange	1.5	1	100	0.000006	8760	0.053703
782	06.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET 1	Flange	0.8	1	100	0.000004	8760	0.034521
783	06.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET 2	Flange	0.2	1	100	0.000001	8760	0.013027
784	06.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET 3	Flange	0.3	1	100	0.000002	8760	0.017323
785	06.04.2023	BRANCH LINE - 3	PSV UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
786	06.04.2023	BRANCH LINE - 3	PSV DOWNSTEAM	Flange	1.1	1	100	0.000005	8760	0.043182
787	06.04.2023	BRANCH LINE - 3	HOV-1-UPsteam	Flange	1.7	1	100	0.000007	8760	0.058642
788	06.04.2023	BRANCH LINE - 3	HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034521

789	06.04.2023	BRANCH LINE - 3	HOV-2-UPsteam	Flange	0.3	1	100	0.000002	8760	0.017323
790	06.04.2023	BRANCH LINE - 3	HOV-2-down steam	Flange	1.2	1	100	0.000005	8760	0.045906
791	06.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET	Flange	0.9	1	100	0.000004	8760	0.037501
792	06.04.2023	BRANCH LINE - 3	MOV - 2 UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
793	06.04.2023	BRANCH LINE - 3	MOV - 2 DOWNSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
794	06.04.2023	BRANCH LINE - 3	FCV UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
795	06.04.2023	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
796	06.04.2023	BRANCH LINE - 3	MOV - 3 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
797	06.04.2023	BRANCH LINE - 3	MOV - 3 DOWNSTEAM	Flange	1.1	1	100	0.000005	8760	0.043182
798	06.04.2023	BRANCH LINE - 3	MOV UPSTEAM	Flange	2	1	100	0.000008	8760	0.065740
799	06.04.2023	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	1.6	1	100	0.000006	8760	0.056195
800	06.04.2023	BRANCH LINE - 3	PROVER FLANGE UPSTEAM	Flange	1.8	1	100	0.000007	8760	0.061047
801	06.04.2023	BRANCH LINE - 3	PROVER FLANGE DOWNSTEAM	Flange	2.2	1	100	0.000008	8760	0.070296
802	06.04.2023	BRANCH LINE - 3	FCV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
803	06.04.2023	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	2.5	1	100	0.000009	8760	0.076905
804	06.04.2023	BRANCH LINE - 3	MOV UPSTEAM	Flange	1	1	100	0.000005	8760	0.040384
805	06.04.2023	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
806	06.04.2023	BRANCH LINE - 3	PUMP SEAL	Pump Seal	1.1	1	100	5.33111E-05	8760	0.467005
807	06.04.2023	BRANCH LINE - 3	BYE PASS MOV UP STEAM	Flange	1.5	1	100	0.000006	8760	0.053703
808	06.04.2023	BRANCH LINE - 3	BYE PASS MOV DOWN STEAM	Flange	1.9	1	100	0.000007	8760	0.063412
809	06.04.2023	BRANCH LINE - 3	LINE HOV UPSTEAM	Flange	2.8	1	100	0.000010	8760	0.083283
810	06.04.2023	BRANCH LINE - 3	LINE HOV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
811	06.04.2023	BRANCH LINE - 3	FCV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
812	06.04.2023	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	1	1	100	0.000005	8760	0.040384
813	06.04.2023	BRANCH LINE - 3	HOV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
814	06.04.2023	BRANCH LINE - 3	HOV DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
815	06.04.2023	BRANCH LINE - 3	XZV VALVE UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
816	06.04.2023	BRANCH LINE - 3	XZV VALVE DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
817	06.04.2023	BRANCH LINE - 3	LAST HOV UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
818	06.04.2023	BRANCH LINE - 3	LAST HOV DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
819	06.04.2023	CTMS MARKETING LPG -2	MAIN INLET HOV UPSTEAM	Flange	2.1	1	100	0.000008	8760	0.068034
820	06.04.2023	CTMS MARKETING LPG -2	MAIN INLET HOV DOWNSTEAM	Flange	1.8	1	100	0.000007	8760	0.061047
821	06.04.2023	BRANCH LINE - 1	MOV - 1 UPSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427
822	06.04.2023	BRANCH LINE - 1	MOV - 1 DOWNSTEAM	Flange	2.4	1	100	0.000009	8760	0.074730
823	06.04.2023	BRANCH LINE - 1	BASKET FILTER	Flange	1.3	1	100	0.000006	8760	0.048563
824	06.04.2023	BRANCH LINE - 1	PSV UPSTEAM	Flange	1.5	1	100	0.000006	8760	0.053703
825	06.04.2023	BRANCH LINE - 1	PSV DOWNSTEAM	Flange	1	1	100	0.000005	8760	0.040384
826	06.04.2023	BRANCH LINE - 1	HOV-1-UPsteam	Flange	0.4	1	100	0.000002	8760	0.021206
827	06.04.2023	BRANCH LINE - 1	HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
828	06.04.2023	BRANCH LINE - 1	HOV-2-UPsteam	Flange	0.9	1	100	0.000004	8760	0.037501
829	06.04.2023	BRANCH LINE - 1	HOV-2-down steam	Flange	1.2	1	100	0.000005	8760	0.045906
830	06.04.2023	BRANCH LINE - 1	BASKET FILTER OUTLET	Flange	1.7	1	100	0.000007	8760	0.058642
831	06.04.2023	BRANCH LINE - 1	MOV - 2 UPSTEAM	Flange	2.5	1	100	0.000009	8760	0.076905
832	06.04.2023	BRANCH LINE - 1	MOV - 2 DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
833	06.04.2023	BRANCH LINE - 1	FCV UPSTEAM	Flange	1.1	1	100	0.000005	8760	0.043182
834	06.04.2023	BRANCH LINE - 1	FCV DOWNSTEAM	Flange	1.3	1	100	0.000006	8760	0.048563
835	06.04.2023	BRANCH LINE - 1	MOV - 3 UPSTEAM	Flange	97.2	1	100	0.000115	8760	1.008171
836	06.04.2023	BRANCH LINE - 1	MOV - 3 DOWNSTEAM	Flange	10.6	1	100	0.000024	8760	0.212322
837	06.04.2023	BRANCH LINE - 2	MOV - 1 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
838	06.04.2023	BRANCH LINE - 2	MOV - 1 DOWNSTEAM	Flange	1.1	1	100	0.000005	8760	0.043182
839	06.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET 1	Flange	0.6	1	100	0.000003	8760	0.028200
840	06.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET 2	Flange	0.3	1	100	0.000002	8760	0.017323
841	06.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET 3	Flange	0.2	1	100	0.000001	8760	0.013027
842	06.04.2023	BRANCH LINE - 2	PSV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
843	06.04.2023	BRANCH LINE - 2	PSV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
844	06.04.2023	BRANCH LINE - 2	HOV-1-UPsteam	Flange	0.6	1	100	0.000003	8760	0.028200
845	06.04.2023	BRANCH LINE - 2	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013027
846	06.04.2023	BRANCH LINE - 2	HOV-2-UPsteam	Flange	0.2	1	100	0.000001	8760	0.013027
847	06.04.2023	BRANCH LINE - 2	HOV-2-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
848	06.04.2023	BRANCH LINE - 2	BASKET FILTER OUTLET	Flange	0.4	1	100	0.000002	8760	0.021206
849	06.04.2023	BRANCH LINE - 2	MOV - 2 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
850	06.04.2023	BRANCH LINE - 2	MOV - 2 DOWNSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
851	06.04.2023	BRANCH LINE - 2	FCV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
852	06.04.2023	BRANCH LINE - 2	FCV DOWNSTEAM	Flange	1.2	1	100	0.000005	8760	0.045906
853	06.04.2023	BRANCH LINE - 2	MOV - 3 UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
854	06.04.2023	BRANCH LINE - 2	MOV - 3 DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
855	06.04.2023	BRANCH LINE - 3	MOV - 1 UPSTEAM	Flange	2.4	1	100	0.000009	8760	0.074730
856	06.04.2023	BRANCH LINE - 3	MOV - 1 DOWNSTEAM	Flange	1.6	1	100	0.000006	8760	0.056195
857	06.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET 1	Flange	1.8	1	100	0.000007	8760	0.061047
858	06.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET 2	Flange	0.7	1	100	0.000004	8760	0.031427
859	06.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET 3	Flange	1.5	1	100	0.000006	8760	0.053703
860	06.04.2023	BRANCH LINE - 3	PSV UPSTEAM	Flange	10.3	1	100	0.000024	8760	0.208080
861	06.04.2023	BRANCH LINE - 3	PSV DOWNSTEAM	Flange	12.8	1	100	0.000028	8760	0.242423
862	06.04.2023	BRANCH LINE - 3	HOV-1-UPsteam	Flange	0.5	1	100	0.000003	8760	0.024807
863	06.04.2023	BRANCH LINE - 3	HOV-1-down steam	Flange	0.3	1	100	0.000002	8760	0.017323
864	06.04.2023	BRANCH LINE - 3	HOV-2-UPsteam	Flange	0.6	1	100	0.000003	8760	0.028200
865	06.04.2023	BRANCH LINE - 3	HOV-2-down steam	Flange	0.4	1	100	0.000002	8760	0.021206
866	06.04.2023	BRANCH LINE - 3	BASKET FILTER OUTLET	Flange	0.8	1	100	0.000004	8760	0.034521
867	06.04.2023	BRANCH LINE - 3	MOV - 2 UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
868	06.04.2023	BRANCH LINE - 3	MOV - 2 DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
869	06.04.2023	BRANCH LINE - 3	FCV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
870	06.04.2023	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
871	06.04.2023	BRANCH LINE - 3	MOV - 3 UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
872	06.04.2023	BRANCH LINE - 3	MOV - 3 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
873	06.04.2023	BRANCH LINE - 3	MOV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
874	06.04.2023	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
875	06.04.2023	BRANCH LINE - 3	PROVER FLANGE UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
876	06.04.2023	BRANCH LINE - 3	PROVER FLANGE DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521

877	06.04.2023	BRANCH LINE - 3	FCV UPSTEAM	Flange	1.3	1	100	0.000006	8760	0.048563
878	06.04.2023	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
879	06.04.2023	BRANCH LINE - 3	MOV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
880	06.04.2023	BRANCH LINE - 3	MOV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
881	06.04.2023	BRANCH LINE - 3	PUMP SEAL	Pump Seal	0.2	1	100	1.8845E-05	8760	0.165082
882	06.04.2023	BRANCH LINE - 3	BYE PASS MOV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
883	06.04.2023	BRANCH LINE - 3	BYE PASS MOV DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
884	06.04.2023	BRANCH LINE - 3	LINE HOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
885	06.04.2023	BRANCH LINE - 3	LINE HOV DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
886	06.04.2023	BRANCH LINE - 3	FCV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
887	06.04.2023	BRANCH LINE - 3	FCV DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
888	06.04.2023	BRANCH LINE - 3	HOV UPSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427
889	06.04.2023	BRANCH LINE - 3	HOV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
890	06.04.2023	BRANCH LINE - 3	XZV VALVE UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
891	06.04.2023	BRANCH LINE - 3	XZV VALVE DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
892	06.04.2023	BRANCH LINE - 3	LAST HOV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
893	06.04.2023	BRANCH LINE - 3	LAST HOV DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
894	05.04.2023	LPG AREA MOUND I BULLET 205-V-003	BULLET INLET XZV 001 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
895	05.04.2023	VAPOUR BALANCE LINE	HOV-1-UP steam	Flange	0.2	1	100	0.000001	8760	0.013027
896	05.04.2023	VAPOUR BALANCE LINE	HOV-1-down steam	Flange	0.1	1	100	0.000001	8760	0.008002
897	05.04.2023	VAPOUR BALANCE LINE	XZV VALVE UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
898	05.04.2023	VAPOUR BALANCE LINE	XZV VALVE DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
899	05.04.2023	BULLET OUTLET LINE	XZV VALVE UP STEAM 0002	Flange	0.5	1	100	0.000003	8760	0.024807
900	05.04.2023	BULLET OUTLET LINE	XZV VALVE DOWN STEAM 0002	Flange	0.8	1	100	0.000004	8760	0.034521
901	05.04.2023	BULLET OUTLET LINE	HOV-1-UP steam	Flange	0.6	1	100	0.000003	8760	0.028200
902	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	1.3	1	100	0.000006	8760	0.048563
903	05.04.2023	BULLET OUTLET LINE	HOV-2-UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
904	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.4	1	100	0.000002	8760	0.021206
905	05.04.2023	BULLET INLET LINE	BLENDING HEADER TOP OFF HOV	Flange	0.7	1	100	0.000004	8760	0.031427
906	05.04.2023	BULLET INLET LINE	BLENDING HEADER TOP OFF HOV	Flange	2.5	1	100	0.000009	8760	0.076905
907	05.04.2023	BULLET INLET LINE	NRV VALVE UPSTEAM	Flange	1.3	1	100	0.000006	8760	0.048563
908	05.04.2023	BULLET INLET LINE	NRV VALVE DOWNSTEAM	Flange	3.9	1	100	0.000012	8760	0.105129
909	05.04.2023	BULLET INLET LINE	PUMP 28A/B/C PROPYLENE TBT HOV UP STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
910	05.04.2023	BULLET INLET LINE	PUMP 28A/B/C PROPYLENE TBT HOV DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
911	05.04.2023	BULLET INLET LINE	NRV VALVE UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
912	05.04.2023	BULLET INLET LINE	NRV VALVE DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
913	05.04.2023	BULLET INLET LINE	PM 01A/B/C UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
914	05.04.2023	BULLET INLET LINE	PM 01A/B/C DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
915	05.04.2023	BULLET OUTLET LINE	28 A/B/C HOV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
916	05.04.2023	BULLET OUTLET LINE	28 A/B/C HOV DOWNSTEAM	Flange	1.1	1	100	0.000005	8760	0.043182
917	05.04.2023	BULLET INLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
918	05.04.2023	BULLET INLET LINE	IBT DISCHARGE HOV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
919	05.04.2023	BULLET INLET LINE	NRV VALVE UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
920	05.04.2023	BULLET INLET LINE	NRV VALVE DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
921	05.04.2023	BULLET INLET LINE	BLENDING SPILLAGE OF SPEE LPG HOV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
922	05.04.2023	BULLET INLET LINE	BLENDING SPILLAGE OF SPEE LPG HOV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
923	05.04.2023	BULLET INLET LINE	NRV VALVE UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
924	05.04.2023	BULLET INLET LINE	NRV VALVE DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
925	05.04.2023	BULLET INLET LINE	OFF SPEE LPG HOV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
926	05.04.2023	BULLET INLET LINE	OFF SPEE LPG HOV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
927	05.04.2023	BULLET INLET LINE	NRV VALVE UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
928	05.04.2023	BULLET INLET LINE	NRV VALVE DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
929	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	PM 27A/B/C SUCTION HEADER HOV-1-UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
930	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	PM 27A/B/C SUCTION HEADER HOV-1-DOWN steam	Flange	0.9	1	100	0.000004	8760	0.037501
931	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	PM 27A/B/C SUCTION HEADER HOV-2-UP steam	Flange	2.6	1	100	0.000009	8760	0.079055
932	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	PM 27A/B/C SUCTION HEADER HOV-2-DOWN steam	Flange	0.5	1	100	0.000003	8760	0.024807
933	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV 1 UP steam	Flange	3.1	1	100	0.000010	8760	0.089461
934	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV 1 DOWN steam	Flange	0.5	1	100	0.000003	8760	0.024807
935	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV 2 UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
936	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV 2 DOWN steam	Flange	0.6	1	100	0.000003	8760	0.028200
937	05.04.2023	Bullet water Draining line	HOV-1-up steam	Flange	2.2	1	100	0.000008	8760	0.070296
938	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	0.6	1	100	0.000003	8760	0.028200
939	05.04.2023	Bullet water Draining line	HOV-2-up steam	Flange	5.1	1	100	0.000014	8760	0.126948
940	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	2.8	1	100	0.000010	8760	0.083283
941	05.04.2023	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0.000000
942	05.04.2023	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	3.4	1	100	0.000011	8760	0.095463
943	05.04.2023	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0.7	1	100	0.000004	8760	0.031427
944	05.04.2023	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.5	1	100	0.000003	8760	0.024807
945	05.04.2023	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
946	05.04.2023	bullet 202 - v - 0003 BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
947	05.04.2023	BULLET TOP AREA(EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
948	05.04.2023	BULLET TOP AREA(EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
949	05.04.2023	BULLET 205 - V- 004	BULLET INLET XZV 0003 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
950	05.04.2023	BULLET 205 - V- 004	BULLET INLET XZV 0003 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
951	05.04.2023	BULLET 205 - V- 004 VAPOUR BALANCING LINE	HOV-1 UP steam	Flange	0.4	1	100	0.000002	8760	0.021206
952	05.04.2023	BULLET 205 - V- 004 VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0.1	1	100	0.000001	8760	0.008002
953	05.04.2023	BULLET 205 - V- 004 VAPOUR BALANCING LINE	XZV VALVE 0024 UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
954	05.04.2023	BULLET 205 - V- 004 VAPOUR BALANCING LINE	XZV VALVE 0024 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
955	05.04.2023	BULLET OUTLET LINE	XZV 0004 VALVE - 1- UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
956	05.04.2023	BULLET OUTLET LINE	XZV 0004 VALVE - 1- DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
957	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0	1	100	0.000000	8760	0.000000
958	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.7	1	100	0.000004	8760	0.031427
959	05.04.2023	BULLET OUTLET LINE	BLENDING HEADER TOP OFF HOV UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
960	05.04.2023	BULLET OUTLET LINE	BLENDING HEADER TOP OFF HOV DOWN STEAM	Flange	1.2	1	100	0.000005	8760	0.045906
961	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
962	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
963	05.04.2023	BULLET OUTLET LINE	PUMP 29 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
964	05.04.2023	BULLET OUTLET LINE	PUMP 29 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017323

965	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,8	1	100	0.000004	8760	0.034521
966	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,2	1	100	0.000001	8760	0.013027
967	05.04.2023	BULLET OUTLET LINE	PM 01 A/B/C UP STEAM	Flange	0,5	1	100	0.000003	8760	0.024807
968	05.04.2023	BULLET OUTLET LINE	PM 01 A/B/C DOWN STEAM	Flange	1,1	1	100	0.000005	8760	0.043182
969	05.04.2023	BULLET OUTLET LINE	28 A/B/C MINIMUM HOV UP STEAM	Flange	1,4	1	100	0.000006	8760	0.051160
970	05.04.2023	BULLET OUTLET LINE	28 A/B/C MINIMUM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
971	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV UP STEAM	Flange	0,6	1	100	0.000003	8760	0.028200
972	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0,3	1	100	0.000002	8760	0.017323
973	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,5	1	100	0.000003	8760	0.024807
974	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,4	1	100	0.000002	8760	0.021206
975	05.04.2023	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG HOV UPSTEAM	Flange	0,4	1	100	0.000002	8760	0.021206
976	05.04.2023	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG HOV DOWNSTEAM	Flange	0,6	1	100	0.000003	8760	0.028200
977	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP Steam	Flange	0,9	1	100	0.000004	8760	0.037501
978	05.04.2023	BULLET OUTLET LINE	NRV VALVE DOWN Steam	Flange	0,2	1	100	0.000001	8760	0.013027
979	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	3	1	100	0.000010	8760	0.087422
980	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWN steam	Flange	2,6	1	100	0.000009	8760	0.079055
981	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,4	1	100	0.000002	8760	0.021206
982	05.04.2023	BULLET OUTLET LINE	NRV VALVE DOWN steam	Flange	0,3	1	100	0.000002	8760	0.017323
983	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV - 1 DOWNSTEAM	Flange	0,5	1	100	0.000003	8760	0.024807
984	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV - 1 DOWNSTEAM	Flange	0,4	1	100	0.000002	8760	0.021206
985	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,7	1	100	0.000004	8760	0.031427
986	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,6	1	100	0.000003	8760	0.028200
987	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV 1 UPSTEAM	Flange	0,5	1	100	0.000003	8760	0.024807
988	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV 1 DOWNSTEAM	Flange	0,5	1	100	0.000003	8760	0.024807
989	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,9	1	100	0.000004	8760	0.037501
990	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,9	1	100	0.000004	8760	0.037501
991	05.04.2023	Bullet water Draining line	HOV-1-up steam	Flange	1	1	100	0.000005	8760	0.040384
992	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	3,9	1	100	0.000012	8760	0.105129
993	05.04.2023	Bullet water Draining line	HOV-2-up steam	Flange	7,2	1	100	0.000018	8760	0.161774
994	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	0,8	1	100	0.000004	8760	0.034521
995	05.04.2023	bullet top AREA(west SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0.000000
996	05.04.2023	bullet top AREA(west SIDE)	BULLET INLET FLANGE	Flange	0,8	1	100	0.000004	8760	0.034521
997	05.04.2023	bullet top AREA(west SIDE)	BULLET VAPOUR BALANCING	Flange	0,2	1	100	0.000001	8760	0.013027
998	05.04.2023	bullet top AREA(west SIDE)	LT FLARE FLANG	Flange	0	1	100	0.000000	8760	0.000000
999	05.04.2023	bullet top AREA(west SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1000	05.04.2023	bullet top AREA(west SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1001	05.04.2023	BULLET TOP AREA(EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
1002	05.04.2023	BULLET TOP AREA(EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1003	05.04.2023	BULLET 205 - V- 005	BULLET INLET XZV 0005 UPSTEAM	Flange	0,3	1	100	0.000002	8760	0.017323
1004	05.04.2023	BULLET 205 - V- 005	BULLET INLET XZV 0005 DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
1005	05.04.2023	BULLET 205 - V- 005 VAPOUR BALANCING LINE	HOV-1 UP steam	Flange	0,4	1	100	0.000002	8760	0.021206
1006	05.04.2023	BULLET 205 - V- 005 VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0,2	1	100	0.000001	8760	0.013027
1007	05.04.2023	BULLET 205 - V- 005 VAPOUR BALANCING LINE	XZV VALVE 0025 UPSTEAM	Flange	0,6	1	100	0.000003	8760	0.028200
1008	05.04.2023	BULLET 205 - V- 005 VAPOUR BALANCING LINE	XZV VALVE 0025 DOWNSTEAM	Flange	0,9	1	100	0.000004	8760	0.037501
1009	05.04.2023	BULLET OUTLET LINE	XZV 0006 VALVE - 1- UP STEAM	Flange	0,5	1	100	0.000003	8760	0.024807
1010	05.04.2023	BULLET OUTLET LINE	XZV 0006 VALVE - 1- DOWN STEAM	Flange	0,8	1	100	0.000004	8760	0.034521
1011	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0,4	1	100	0.000002	8760	0.021206
1012	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	0,5	1	100	0.000003	8760	0.024807
1013	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0,2	1	100	0.000001	8760	0.013027
1014	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0,6	1	100	0.000003	8760	0.028200
1015	05.04.2023	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002
1016	05.04.2023	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV DOWN STEAM	Flange	0,5	1	100	0.000003	8760	0.024807
1017	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	1,2	1	100	0.000005	8760	0.045906
1018	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0,8	1	100	0.000004	8760	0.034521
1019	05.04.2023	BULLET OUTLET LINE	PUMP 28 A/B/C propylene IOL HOV -1 UP STEAM	Flange	0,5	1	100	0.000003	8760	0.024807
1020	05.04.2023	BULLET OUTLET LINE	PUMP 28 A/B/C propylene IOL HOV -1 DOWN STEAM	Flange	1,7	1	100	0.000007	8760	0.058642
1021	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	2,4	1	100	0.000009	8760	0.074730
1022	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,3	1	100	0.000002	8760	0.017323
1023	05.04.2023	BULLET OUTLET LINE	029 minimum flow HOV UPSTEAM	Flange	0,5	1	100	0.000003	8760	0.024807
1024	05.04.2023	BULLET OUTLET LINE	029 Minimum flow HOV DOWNSTEAM	Flange	0,5	1	100	0.000003	8760	0.024807
1025	05.04.2023	BULLET OUTLET LINE	028 A/B/C minimum flow HOV UPSTEAM	Flange	0,9	1	100	0.000004	8760	0.037501
1026	05.04.2023	BULLET OUTLET LINE	028 A/B/C minimum flow HOV down steam	Flange	0,4	1	100	0.000002	8760	0.021206
1027	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013027
1028	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0,6	1	100	0.000003	8760	0.028200
1029	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,5	1	100	0.000003	8760	0.024807
1030	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,9	1	100	0.000004	8760	0.037501
1031	05.04.2023	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG UPSTEAM	Flange	0,8	1	100	0.000004	8760	0.034521
1032	05.04.2023	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0,9	1	100	0.000004	8760	0.037501
1033	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0,3	1	100	0.000002	8760	0.017323
1034	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,7	1	100	0.000004	8760	0.031427
1035	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0,9	1	100	0.000004	8760	0.037501
1036	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0,4	1	100	0.000002	8760	0.021206
1037	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0,5	1	100	0.000003	8760	0.024807
1038	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,2	1	100	0.000001	8760	0.013027
1039	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
1040	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWNSTEAM	Flange	0,8	1	100	0.000004	8760	0.034521
1041	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0,8	1	100	0.000004	8760	0.034521
1042	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,2	1	100	0.000001	8760	0.013027
1043	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	0,4	1	100	0.000002	8760	0.021206
1044	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWNSTEAM	Flange	0,6	1	100	0.000003	8760	0.028200
1045	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,5	1	100	0.000003	8760	0.024807
1046	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,7	1	100	0.000004	8760	0.031427
1047	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	0,4	1	100	0.000002	8760	0.021206
1048	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	0,8	1	100	0.000004	8760	0.034521
1049	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	0,9	1	100	0.000004	8760	0.037501
1050	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	0,2	1	100	0.000001	8760	0.013027
1051	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0.000000
1052	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0,3	1	100	0.000002	8760	0.017323

1053	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0.000000
1054	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.6	1	100	0.000003	8760	0.028200
1055	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1056	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1057	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
1058	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1059	05.04.2023	BULLET 205 - V-007	BULLET INLET XZV 0188 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
1060	05.04.2023	BULLET 205 - V-007	BULLET INLET XZV 0188 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
1061	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE 0189 UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1062	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE 0189 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
1063	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1064	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1065	05.04.2023	BULLET OUTLET LINE	XZV 0190 VALVE - 1- UP STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1066	05.04.2023	BULLET OUTLET LINE	XZV 0006 VALVE - 1- DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1067	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0.3	1	100	0.000002	8760	0.017323
1068	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
1069	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0.2	1	100	0.000001	8760	0.013027
1070	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
1071	05.04.2023	BULLET OUTLET LINE	BLENDING HEADER TOP OFF HOV UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1072	05.04.2023	BULLET OUTLET LINE	BLENDING HEADER TOP OFF HOV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1073	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1074	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1075	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1076	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 down STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
1077	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.1	1	100	0.000001	8760	0.008002
1078	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.3	1	100	0.000002	8760	0.017323
1079	05.04.2023	BULLET OUTLET LINE	PM 02 A/B/C/ minimum flow HOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1080	05.04.2023	BULLET OUTLET LINE	PM 02 A/B/C/ minimum flow HOV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
1081	05.04.2023	BULLET OUTLET LINE	028 A/B/C minimum flow HOV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1082	05.04.2023	BULLET OUTLET LINE	028 A/B/C minimum flow HOV down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1083	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1084	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0.7	1	100	0.000004	8760	0.031427
1085	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	1.3	1	100	0.000006	8760	0.048563
1086	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.8	1	100	0.000004	8760	0.034521
1087	05.04.2023	BULLET OUTLET LINE	BLENDING SPILAGE OF SPEE LPG UPSTEAM	Flange	1.5	1	100	0.000006	8760	0.053703
1088	05.04.2023	BULLET OUTLET LINE	BLENDING SPILAGE OF SPEE LPG DOWNSTEAM	Flange	2.1	1	100	0.000008	8760	0.068034
1089	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	1.6	1	100	0.000006	8760	0.056195
1090	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.3	1	100	0.000002	8760	0.017323
1091	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1092	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0.6	1	100	0.000003	8760	0.028200
1093	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1094	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.7	1	100	0.000004	8760	0.031427
1095	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1096	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1097	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1098	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.1	1	100	0.000001	8760	0.008002
1099	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1100	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1101	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
1102	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.3	1	100	0.000002	8760	0.017323
1103	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	0.2	1	100	0.000001	8760	0.013027
1104	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	3.9	1	100	0.000012	8760	0.105129
1105	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1106	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	6.4	1	100	0.000017	8760	0.148919
1107	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0.1	1	100	0.000001	8760	0.008002
1108	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0.7	1	100	0.000004	8760	0.031427
1109	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0.000000
1110	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0	1	100	0.000000	8760	0.000000
1111	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1112	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1113	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
1114	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1115	05.04.2023	BULLET 205 - V-008	BULLET INLET XZV 0603 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1116	05.04.2023	BULLET 205 - V-008	BULLET INLET XZV 0603 DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1117	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE 0191 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
1118	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE 0191 DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1119	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	1.4	1	100	0.000006	8760	0.051160
1120	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	1.7	1	100	0.000007	8760	0.058642
1121	05.04.2023	BULLET OUTLET LINE	XZV 0192 VALVE - 1- UP STEAM	Flange	2.2	1	100	0.000008	8760	0.070296
1122	05.04.2023	BULLET OUTLET LINE	XZV 0192 VALVE - 1- DOWN STEAM	Flange	1.3	1	100	0.000006	8760	0.048563
1123	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1124	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	4.1	1	100	0.000012	8760	0.108891
1125	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	3.8	1	100	0.000012	8760	0.103227
1126	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	1.6	1	100	0.000006	8760	0.056195
1127	05.04.2023	BULLET OUTLET LINE	BLENDING HEADER TOP OFF HOV UP STEAM	Flange	2.5	1	100	0.000009	8760	0.076905
1128	05.04.2023	BULLET OUTLET LINE	BLENDING HEADER TOP OFF HOV DOWN STEAM	Flange	2.4	1	100	0.000009	8760	0.074730
1129	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	1.7	1	100	0.000007	8760	0.058642
1130	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1131	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1132	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 down STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1133	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1134	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.9	1	100	0.000004	8760	0.037501
1135	05.04.2023	BULLET OUTLET LINE	029 minimum flow HOV UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1136	05.04.2023	BULLET OUTLET LINE	029 Minimum flow HOV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1137	05.04.2023	BULLET OUTLET LINE	028 A/B/C minimum flow HOV UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1138	05.04.2023	BULLET OUTLET LINE	028 A/B/C minimum flow HOV down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1139	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807

1140	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	2.1	1	100	0.000008	8760	0.068034
1141	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	2.8	1	100	0.000010	8760	0.083283
1142	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	3.5	1	100	0.000011	8760	0.097428
1143	05.04.2023	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG UPSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1144	05.04.2023	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1145	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1146	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.9	1	100	0.000004	8760	0.037501
1147	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1148	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0.6	1	100	0.000003	8760	0.028200
1149	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1150	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1151	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
1152	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1153	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0.3	1	100	0.000002	8760	0.017323
1154	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.1	1	100	0.000001	8760	0.008002
1155	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1156	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1157	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
1158	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.4	1	100	0.000002	8760	0.021206
1159	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	1.5	1	100	0.000006	8760	0.053703
1160	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	0.3	1	100	0.000002	8760	0.017323
1161	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1162	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	3.8	1	100	0.000012	8760	0.103227
1163	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	1.2	1	100	0.000005	8760	0.045906
1164	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0.6	1	100	0.000003	8760	0.028200
1165	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	1.5	1	100	0.000006	8760	0.053703
1166	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.7	1	100	0.000004	8760	0.031427
1167	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0.9	1	100	0.000004	8760	0.037501
1168	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	2.2	1	100	0.000008	8760	0.070296
1169	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0.6	1	100	0.000003	8760	0.028200
1170	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	4.1	1	100	0.000012	8760	0.108891
1171	05.04.2023	BULLET 205 - V- 009	BULLET INLET XZV 0193 UPSTEAM	Flange	3.8	1	100	0.000012	8760	0.103227
1172	05.04.2023	BULLET 205 - V- 009	BULLET INLET XZV 0193 DOWNSTEAM	Flange	1	1	100	0.000005	8760	0.040384
1173	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE 0194 UPSTEAM	Flange	1.8	1	100	0.000007	8760	0.061047
1174	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE 0194 DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1175	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0.2	1	100	0.000001	8760	0.013027
1176	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1177	05.04.2023	BULLET OUTLET LINE	XZV 0195 VALVE - 1- UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1178	05.04.2023	BULLET OUTLET LINE	XZV 0195 VALVE - 1- DOWN STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1179	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
1180	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	0.4	1	100	0.000002	8760	0.021206
1181	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0.3	1	100	0.000002	8760	0.017323
1182	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	2.1	1	100	0.000008	8760	0.068034
1183	05.04.2023	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG UPSTEAM	Flange	1.2	1	100	0.000005	8760	0.045906
1184	05.04.2023	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1185	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1186	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1187	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C propylene Ibt HOV -1 UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1188	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C propylene Ibt HOV -1 DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1189	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.4	1	100	0.000002	8760	0.021206
1190	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	2.1	1	100	0.000008	8760	0.068034
1191	05.04.2023	BULLET OUTLET LINE	029 minimum flow HOV UPSTEAM	Flange	2.5	1	100	0.000009	8760	0.076905
1192	05.04.2023	BULLET OUTLET LINE	029 Minimum flow HOV DOWNSTEAM	Flange	1.6	1	100	0.000006	8760	0.056195
1193	05.04.2023	BULLET OUTLET LINE	028 A/B/C minimum flow HOV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1194	05.04.2023	BULLET OUTLET LINE	028 A/B/C minimum flow HOV down steam	Flange	1.3	1	100	0.000006	8760	0.048563
1195	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	1	1	100	0.000005	8760	0.040384
1196	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	2.3	1	100	0.000008	8760	0.072527
1197	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1198	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.6	1	100	0.000003	8760	0.028200
1199	05.04.2023	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG UPSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1200	05.04.2023	BULLET OUTLET LINE	BLENDED SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1201	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1202	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1203	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
1204	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0.8	1	100	0.000004	8760	0.034521
1205	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	1.2	1	100	0.000005	8760	0.045906
1206	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	1	1	100	0.000005	8760	0.040384
1207	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1208	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1209	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1210	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1211	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	1.1	1	100	0.000005	8760	0.043182
1212	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1213	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1214	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.9	1	100	0.000004	8760	0.037501
1215	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	1.7	1	100	0.000007	8760	0.058642
1216	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1217	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1218	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	0.9	1	100	0.000004	8760	0.037501
1219	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0.000000
1220	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	2.8	1	100	0.000010	8760	0.083283
1221	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	1.1	1	100	0.000005	8760	0.043182
1222	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0	1	100	0.000000	8760	0.000000
1223	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1224	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1225	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
1226	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1227	05.04.2023	LPG AREA MOUND II BULLET 205-V-012	BULLET INLET XZV 1188 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000

1228	05.04.2023	LPG AREA MOUND II BULLET 205-V-012	BULLET INLET XZV 1188 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1229	05.04.2023	VAPOUR BALANCE LINE	HOV-1-UP steam	Flange	0.4	1	100	0.000002	8760	0.021206
1230	05.04.2023	VAPOUR BALANCE LINE	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1231	05.04.2023	VAPOUR BALANCE LINE	XZV 1189 VALVE UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1232	05.04.2023	VAPOUR BALANCE LINE	XZV 1189 VALVE DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1233	05.04.2023	BULLET OUTLET LINE	XZV VALVE UP STEAM 1190	Flange	0.7	1	100	0.000004	8760	0.031427
1234	05.04.2023	BULLET OUTLET LINE	XZV VALVE DOWN STEAM 1190	Flange	0.8	1	100	0.000004	8760	0.034521
1235	05.04.2023	BULLET OUTLET LINE	HOV-1 OFF V12-UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
1236	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	1.4	1	100	0.000006	8760	0.051160
1237	05.04.2023	BULLET OUTLET LINE	HOV-2-UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1238	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1239	05.04.2023	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV	Flange	0.6	1	100	0.000003	8760	0.028200
1240	05.04.2023	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV	Flange	0.3	1	100	0.000002	8760	0.017323
1241	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1242	05.04.2023	BULLET OUTLET LINE	NRV VALVE DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1243	05.04.2023	BULLET OUTLET LINE	PM17 28 A/B/C PROPYLENE BT HOV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1244	05.04.2023	BULLET OUTLET LINE	PM17 28 A/B/C PROPYLENE BT HOV DOWN STEAM	Flange	1.5	1	100	0.000006	8760	0.053703
1245	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	1.1	1	100	0.000005	8760	0.043182
1246	05.04.2023	BULLET OUTLET LINE	NRV VALVE DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1247	05.04.2023	BULLET OUTLET LINE	PM 01A/B/C MINIMUM FLOW UPSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1248	05.04.2023	BULLET OUTLET LINE	PM 01A/B/C MINIMUM FLOW DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1249	05.04.2023	BULLET OUTLET LINE	27 A/B/C MINIMUM FLOW HOV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1250	05.04.2023	BULLET OUTLET LINE	27 A/B/C MINIMUM FLOW HOV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1251	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
1252	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1253	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1254	05.04.2023	BULLET OUTLET LINE	NRV VALVE DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1255	05.04.2023	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG HOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1256	05.04.2023	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG HOV DOWNSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1257	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1258	05.04.2023	BULLET OUTLET LINE	NRV VALVE DOWNSTEAM	Flange	1.2	1	100	0.000005	8760	0.045906
1259	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1260	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1261	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1262	05.04.2023	BULLET OUTLET LINE	NRV VALVE DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1263	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	PM 27 A/B/C SUCTION HEADER HOV-1-UP	Flange	0.2	1	100	0.000001	8760	0.013027
1264	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	PM 27 A/B/C SUCTION HEADER HOV-1-DOWN	Flange	0.8	1	100	0.000004	8760	0.034521
1265	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	PM 27 A/B/C SUCTION HEADER HOV-2-UP	Flange	0.8	1	100	0.000004	8760	0.034521
1266	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	PM 27 A/B/C SUCTION HEADER HOV-2-DOWN	Flange	0.7	1	100	0.000004	8760	0.031427
1267	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV 1 UP	Flange	0.3	1	100	0.000002	8760	0.017323
1268	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV 1-DOWN	Flange	0.4	1	100	0.000002	8760	0.021206
1269	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV 2 UP	Flange	0.3	1	100	0.000002	8760	0.017323
1270	05.04.2023	PIPE LINE FROM BULLET OUTLET HEADER	IBT HEEL STRIPING HEADER HOV 2-DOWN	Flange	0.5	1	100	0.000003	8760	0.024807
1271	05.04.2023	Bullet water Draining line	HOV-1-up steam	Flange	0.6	1	100	0.000003	8760	0.028200
1272	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	0.7	1	100	0.000004	8760	0.031427
1273	05.04.2023	Bullet water Draining line	HOV-2-up steam	Flange	0.6	1	100	0.000003	8760	0.028200
1274	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	0.9	1	100	0.000004	8760	0.037501
1275	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0.8	1	100	0.000004	8760	0.034521
1276	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	319.1	1	100	0.000265	8760	2.325228
1277	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0.4	1	100	0.000002	8760	0.021206
1278	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.1	1	100	0.000001	8760	0.008002
1279	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0.3	1	100	0.000002	8760	0.017323
1280	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0.7	1	100	0.000004	8760	0.031427
1281	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0.1	1	100	0.000001	8760	0.008002
1282	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1283	05.04.2023	BULLET 205 - V - 013	BULLET INLET XZV 1003 UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1284	05.04.2023	BULLET 205 - V - 013	BULLET INLET XZV 1003 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
1285	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE 1191 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
1286	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE 1191DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1287	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0.1	1	100	0.000001	8760	0.008002
1288	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0.1	1	100	0.000001	8760	0.008002
1289	05.04.2023	BULLET OUTLET LINE	XZV 1192 VALVE - 1- UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1290	05.04.2023	BULLET OUTLET LINE	XZV 1192 VALVE - 1- DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1291	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0.6	1	100	0.000003	8760	0.028200
1292	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1293	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1294	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
1295	05.04.2023	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1296	05.04.2023	BULLET OUTLET LINE	BLENDED HEADER TOP OFF HOV DOWN STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1297	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1298	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1299	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C PROPYLENE Ibt hov -1 UP STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1300	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C PROPYLENE Ibt hov -1 DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1301	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1302	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1303	05.04.2023	BULLET OUTLET LINE	PM01 D/E/F minimum flow HOV UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1304	05.04.2023	BULLET OUTLET LINE	PM01 D/E/F minimum flow HOV DOWNSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1305	05.04.2023	BULLET OUTLET LINE	027 A/B/C minimum flow HOV UPSTEAM	Flange	2.2	1	100	0.000008	8760	0.070296
1306	05.04.2023	BULLET OUTLET LINE	027 A/B/C minimum flow HOV down steam	Flange	0.6	1	100	0.000003	8760	0.028200
1307	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	1.5	1	100	0.000006	8760	0.053703
1308	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1309	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.4	1	100	0.000002	8760	0.021206
1310	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1311	05.04.2023	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1312	05.04.2023	BULLET OUTLET LINE	BLENDED SPILLAGE OF SPEE LPG DOWNSTEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1313	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1314	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.7	1	100	0.000004	8760	0.031427
1315	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0.8	1	100	0.000004	8760	0.034521

1316	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0.5	1	100	0.000003	8760	0.024807
1317	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1318	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.4	1	100	0.000002	8760	0.021206
1319	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1320	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1321	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0.4	1	100	0.000002	8760	0.021206
1322	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1323	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1324	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWN STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1325	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.6	1	100	0.000003	8760	0.028200
1326	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.7	1	100	0.000004	8760	0.031427
1327	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1328	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	5.1	1	100	0.000014	8760	0.126948
1329	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1330	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	3.6	1	100	0.000011	8760	0.099377
1331	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0.000000
1332	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	21.6	1	100	0.000040	8760	0.350208
1333	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0.000000
1334	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.2	1	100	0.000001	8760	0.013027
1335	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0.1	1	100	0.000001	8760	0.008002
1336	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0.4	1	100	0.000002	8760	0.021206
1337	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
1338	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1339	05.04.2023	BULLET 205 - V- 014	BULLET INLET XZV 1193 UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1340	05.04.2023	BULLET 205 - V- 014	BULLET INLET XZV 1193 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
1341	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE 1194 UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1342	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE 1194 DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1343	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0.4	1	100	0.000002	8760	0.021206
1344	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1345	05.04.2023	BULLET OUTLET LINE	XZV 1195 VALVE - 1- UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
1346	05.04.2023	BULLET OUTLET LINE	XZV 1195 VALVE - 1- DOWN STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1347	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
1348	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	1.5	1	100	0.000006	8760	0.053703
1349	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	1.2	1	100	0.000005	8760	0.045906
1350	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.4	1	100	0.000002	8760	0.021206
1351	05.04.2023	BULLET OUTLET LINE	BLENDING HEADER TOP OFF HOV UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1352	05.04.2023	BULLET OUTLET LINE	BLENDING HEADER TOP OFF HOV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1353	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1354	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1355	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C propylene hot low -1 UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1356	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C propylene hot low -1 down STEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1357	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1358	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	1.1	1	100	0.000005	8760	0.043182
1359	05.04.2023	BULLET OUTLET LINE	PM 01 A/B/C minimum flow HOV UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1360	05.04.2023	BULLET OUTLET LINE	PM 01 A/B/C minimum flow HOV DOWNSTEAM	Flange	1.9	1	100	0.000007	8760	0.063412
1361	05.04.2023	BULLET OUTLET LINE	027 A/B/C minimum flow HOV UPSTEAM	Flange	2.2	1	100	0.000008	8760	0.070296
1362	05.04.2023	BULLET OUTLET LINE	027 A/B/C minimum flow HOV down steam	Flange	0.6	1	100	0.000003	8760	0.028200
1363	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1364	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0.8	1	100	0.000004	8760	0.034521
1365	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
1366	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.9	1	100	0.000004	8760	0.037501
1367	05.04.2023	BULLET OUTLET LINE	BLENDING SPILAGE OF SPEE LPG UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1368	05.04.2023	BULLET OUTLET LINE	BLENDING SPILAGE OF SPEE LPG DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1369	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1370	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.8	1	100	0.000004	8760	0.034521
1371	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1372	05.04.2023	BULLET OUTLET LINE	OFF SPEE LPG HOV DOWNsteam	Flange	0.9	1	100	0.000004	8760	0.037501
1373	05.04.2023	BULLET OUTLET LINE	NRV VALVE UPSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1374	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.1	1	100	0.000001	8760	0.008002
1375	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1376	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 027 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1377	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
1378	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.6	1	100	0.000003	8760	0.028200
1379	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1380	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT REEL STRIPPING HEADER HOV -1 DOWN STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1381	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1382	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1383	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	6.3	1	100	0.000017	8760	0.147279
1384	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	1	1	100	0.000005	8760	0.040384
1385	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	12.5	1	100	0.000027	8760	0.238415
1386	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	8.1	1	100	0.000020	8760	0.175740
1387	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0.1	1	100	0.000001	8760	0.008002
1388	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	208.3	1	100	0.000197	8760	1.722835
1389	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0.000000
1390	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.3	1	100	0.000002	8760	0.017323
1391	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1392	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1393	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
1394	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1395	05.04.2023	BULLET 205 - V- 006	BULLET INLET XZV UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1396	05.04.2023	BULLET 205 - V- 006	BULLET INLET XZV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1397	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1398	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1399	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	1.1	1	100	0.000005	8760	0.043182
1400	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	1.6	1	100	0.000006	8760	0.056195
1401	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	1.2	1	100	0.000005	8760	0.045906
1402	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	3.2	1	100	0.000010	8760	0.091480

1403	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	1.8	1	100	0.000007	8760	0.061047
1404	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	2.4	1	100	0.000009	8760	0.074730
1405	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	2.1	1	100	0.000008	8760	0.068034
1406	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.9	1	100	0.000004	8760	0.037501
1407	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STREAM	Flange	0.5	1	100	0.000003	8760	0.024807
1408	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STREAM	Flange	0.6	1	100	0.000003	8760	0.028200
1409	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	1.4	1	100	0.000006	8760	0.051160
1410	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1411	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV UPSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1412	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HOV down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1413	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	1.4	1	100	0.000006	8760	0.051160
1414	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER DOWN STEAM	Flange	1.1	1	100	0.000005	8760	0.043182
1415	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	1.4	1	100	0.000006	8760	0.051160
1416	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.6	1	100	0.000003	8760	0.028200
1417	05.04.2023	BULLET OUTLET LINE	PM 29 A/B/C minimum flow HOV	Flange	0.2	1	100	0.000001	8760	0.013027
1418	05.04.2023	BULLET OUTLET LINE	PM 29 A/B/C minimum flow HOV DOWNSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1419	05.04.2023	BULLET OUTLET LINE	IBT SUCTION HOV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1420	05.04.2023	BULLET OUTLET LINE	IBT SUCTION HOV down steam	Flange	0.9	1	100	0.000004	8760	0.037501
1421	05.04.2023	BULLET OUTLET LINE	IBT SUCTION HOV 2 UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1422	05.04.2023	BULLET OUTLET LINE	IBT SUCTION HOV2 down steam	Flange	2.4	1	100	0.000009	8760	0.074730
1423	05.04.2023	BULLET OUTLET LINE	PM 029 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1424	05.04.2023	BULLET OUTLET LINE	PM 029 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	1.3	1	100	0.000006	8760	0.048563
1425	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	1.6	1	100	0.000006	8760	0.056195
1426	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1427	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 UP STEAM	Flange	1	1	100	0.000005	8760	0.040384
1428	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C propylene ibt hov -1 down STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1429	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1430	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	1.2	1	100	0.000005	8760	0.045906
1431	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	12.5	1	100	0.000027	8760	0.238415
1432	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	1.9	1	100	0.000007	8760	0.063412
1433	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	3.4	1	100	0.000011	8760	0.095463
1434	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	5.2	1	100	0.000015	8760	0.128693
1435	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0.000000
1436	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0.000000	8760	0.000000
1437	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0.000000
1438	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.2	1	100	0.000001	8760	0.013027
1439	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1440	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1441	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
1442	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1443	05.04.2023	BULLET 205 - V- 010	BULLET INLET XZV UPSTEAM	Flange	1.2	1	100	0.000005	8760	0.045906
1444	05.04.2023	BULLET 205 - V- 010	BULLET INLET XZV DOWNSTEAM	Flange	1.5	1	100	0.000006	8760	0.053703
1445	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1446	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	1.3	1	100	0.000006	8760	0.048563
1447	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0.7	1	100	0.000004	8760	0.031427
1448	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1449	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1450	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1451	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0.6	1	100	0.000003	8760	0.028200
1452	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	1.5	1	100	0.000006	8760	0.053703
1453	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	1.2	1	100	0.000005	8760	0.045906
1454	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	2.6	1	100	0.000009	8760	0.079055
1455	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STREAM	Flange	3.1	1	100	0.000010	8760	0.089461
1456	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STREAM	Flange	2.2	1	100	0.000008	8760	0.070296
1457	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	1.3	1	100	0.000006	8760	0.048563
1458	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1459	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV UPSTEAM	Flange	2.4	1	100	0.000009	8760	0.074730
1460	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV down steam	Flange	2	1	100	0.000008	8760	0.065740
1461	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1462	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER DOWN STEAM	Flange	1.3	1	100	0.000006	8760	0.048563
1463	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.7	1	100	0.000004	8760	0.031427
1464	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	1.5	1	100	0.000006	8760	0.053703
1465	05.04.2023	BULLET OUTLET LINE	PM 29 A/B/C minimum flow HOV	Flange	3.7	1	100	0.000012	8760	0.101310
1466	05.04.2023	BULLET OUTLET LINE	PM 29 A/B/C minimum flow HOV DOWNSTEAM	Flange	2.8	1	100	0.000010	8760	0.083283
1467	05.04.2023	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING UPSTEAM	Flange	3.1	1	100	0.000010	8760	0.089461
1468	05.04.2023	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING DOWNSTEAM	Flange	2.5	1	100	0.000009	8760	0.076905
1469	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	2.2	1	100	0.000008	8760	0.070296
1470	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	3.2	1	100	0.000010	8760	0.091480
1471	05.04.2023	BULLET OUTLET LINE	HOV-1-UP steam	Flange	1.7	1	100	0.000007	8760	0.058642
1472	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	2	1	100	0.000008	8760	0.065740
1473	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1474	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1475	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	1.2	1	100	0.000005	8760	0.045906
1476	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.6	1	100	0.000003	8760	0.028200
1477	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1478	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 DOWN STEAM	Flange	1.1	1	100	0.000005	8760	0.043182
1479	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1480	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.8	1	100	0.000004	8760	0.034521
1481	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	1.5	1	100	0.000006	8760	0.053703
1482	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	6.2	1	100	0.000017	8760	0.145632
1483	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1484	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	4.1	1	100	0.000012	8760	0.108891
1485	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0.000000
1486	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0.4	1	100	0.000002	8760	0.021206
1487	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0.000000
1488	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.2	1	100	0.000001	8760	0.013027

1489	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1490	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1491	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
1492	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1493	05.04.2023	BULLET 205 - V- 011	BULLET INLET XZV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1494	05.04.2023	BULLET 205 - V- 011	BULLET INLET XZV DOWNSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1495	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
1496	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1497	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	2.1	1	100	0.000008	8760	0.068034
1498	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0.6	1	100	0.000003	8760	0.028200
1499	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
1500	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1501	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1502	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1503	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0.6	1	100	0.000003	8760	0.028200
1504	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	1.1	1	100	0.000005	8760	0.043182
1505	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1506	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1507	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1508	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1509	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV UPSTEAM	Flange	0.6	1	100	0.000003	8760	0.028200
1510	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV down steam	Flange	0.7	1	100	0.000004	8760	0.031427
1511	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1512	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER down STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1513	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.8	1	100	0.000004	8760	0.034521
1514	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	1.5	1	100	0.000006	8760	0.053703
1515	05.04.2023	BULLET OUTLET LINE	PM 29 A/B/C MINIMUM FLOW HOV UPSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1516	05.04.2023	BULLET OUTLET LINE	PM 29 A/B/C MINIMUM FLOW HOV DOWNSTEAM	Flange	1.3	1	100	0.000006	8760	0.048563
1517	05.04.2023	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING UPSTEAM	Flange	1.5	1	100	0.000006	8760	0.053703
1518	05.04.2023	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING DOWNSTEAM	Flange	2.1	1	100	0.000008	8760	0.068034
1519	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	1.8	1	100	0.000007	8760	0.061047
1520	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	2.4	1	100	0.000009	8760	0.074730
1521	05.04.2023	BULLET OUTLET LINE	HOV-1-UP steam	Flange	2.1	1	100	0.000008	8760	0.068034
1522	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	2.7	1	100	0.000009	8760	0.081181
1523	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 1 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	1.3	1	100	0.000006	8760	0.048563
1524	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 1 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1525	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0.9	1	100	0.000004	8760	0.037501
1526	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	2.4	1	100	0.000009	8760	0.074730
1527	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 UP STEAM	Flange	2.3	1	100	0.000008	8760	0.072527
1528	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 DOWN STEAM	Flange	1.6	1	100	0.000006	8760	0.056195
1529	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	1.2	1	100	0.000005	8760	0.045906
1530	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0.6	1	100	0.000003	8760	0.028200
1531	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	4.4	1	100	0.000013	8760	0.114433
1532	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	7.6	1	100	0.000019	8760	0.168042
1533	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	5.1	1	100	0.000014	8760	0.126948
1534	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	1.2	1	100	0.000005	8760	0.045906
1535	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0.000000
1536	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	108.5	1	100	0.000124	8760	1.089211
1537	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0.000000
1538	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0.2	1	100	0.000001	8760	0.013027
1539	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1540	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1541	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
1542	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1543	05.04.2023	BULLET 205 - V- 015	BULLET INLET XZV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1544	05.04.2023	BULLET 205 - V- 015	BULLET INLET XZV DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1545	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1546	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
1547	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1548	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0.7	1	100	0.000004	8760	0.031427
1549	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1550	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1551	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0.4	1	100	0.000002	8760	0.021206
1552	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	0.6	1	100	0.000003	8760	0.028200
1553	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0.5	1	100	0.000003	8760	0.024807
1554	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1555	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1556	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STEAM	Flange	1.4	1	100	0.000006	8760	0.051160
1557	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	1.1	1	100	0.000005	8760	0.043182
1558	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1559	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV UPSTEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1560	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV down steam	Flange	0.8	1	100	0.000004	8760	0.034521
1561	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	1.2	1	100	0.000005	8760	0.045906
1562	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER down STEAM	Flange	0.7	1	100	0.000004	8760	0.031427
1563	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0.3	1	100	0.000002	8760	0.017323
1564	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0.5	1	100	0.000003	8760	0.024807
1565	05.04.2023	BULLET OUTLET LINE	PM 29 A/B/C MINIMUM FLOW HOV UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
1566	05.04.2023	BULLET OUTLET LINE	PM 29 A/B/C MINIMUM FLOW HOV DOWNSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
1567	05.04.2023	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING UPSTEAM	Flange	0.5	1	100	0.000003	8760	0.024807
1568	05.04.2023	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING DOWNSTEAM	Flange	1	1	100	0.000005	8760	0.040384
1569	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	1.3	1	100	0.000006	8760	0.048563
1570	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	2.7	1	100	0.000009	8760	0.081181
1571	05.04.2023	BULLET OUTLET LINE	HOV-1-UP steam	Flange	1.5	1	100	0.000006	8760	0.053703
1572	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	1.6	1	100	0.000006	8760	0.056195
1573	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 1 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	0.9	1	100	0.000004	8760	0.037501
1574	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 1 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	0.8	1	100	0.000004	8760	0.034521

1575	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	0,5	1	100	0,000003	8760	0,024807
1576	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,3	1	100	0,000002	8760	0,017323
1577	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 UP STEAM	Flange	0,5	1	100	0,000003	8760	0,024807
1578	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 DOWN STEAM	Flange	0,6	1	100	0,000003	8760	0,028200
1579	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,6	1	100	0,000003	8760	0,028200
1580	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,8	1	100	0,000004	8760	0,034521
1581	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	4,2	1	100	0,000013	8760	0,110751
1582	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	1,1	1	100	0,000005	8760	0,043182
1583	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	0,6	1	100	0,000003	8760	0,028200
1584	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	0,9	1	100	0,000004	8760	0,037501
1585	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0,000000	8760	0,000000
1586	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	958,4	1	100	0,000575	8760	5,037702
1587	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0,000000	8760	0,000000
1588	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0,1	1	100	0,000001	8760	0,008002
1589	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0,000000	8760	0,000000
1590	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0,4	1	100	0,000002	8760	0,021206
1591	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0,000000	8760	0,000000
1592	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0,000000	8760	0,000000
1593	05.04.2023	BULLET 205 - V- 016	BULLET INLET XZV UPSTEAM	Flange	1,3	1	100	0,000006	8760	0,048563
1594	05.04.2023	BULLET 205 - V- 016	BULLET INLET XZV DOWNSTEAM	Flange	0,8	1	100	0,000004	8760	0,034521
1595	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	0,9	1	100	0,000004	8760	0,037501
1596	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	1,1	1	100	0,000005	8760	0,043182
1597	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0,6	1	100	0,000003	8760	0,028200
1598	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0,7	1	100	0,000004	8760	0,031427
1599	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	0,3	1	100	0,000002	8760	0,017323
1600	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	0,5	1	100	0,000003	8760	0,024807
1601	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0,6	1	100	0,000003	8760	0,028200
1602	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	0,6	1	100	0,000003	8760	0,028200
1603	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	0,9	1	100	0,000004	8760	0,037501
1604	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	0,5	1	100	0,000003	8760	0,024807
1605	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STREAM	Flange	0,8	1	100	0,000004	8760	0,034521
1606	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STEAM	Flange	0,9	1	100	0,000004	8760	0,037501
1607	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	0,4	1	100	0,000002	8760	0,021206
1608	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0,3	1	100	0,000002	8760	0,017323
1609	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV UPSTEAM	Flange	0,5	1	100	0,000003	8760	0,024807
1610	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV down steam	Flange	0,4	1	100	0,000002	8760	0,021206
1611	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	0,4	1	100	0,000002	8760	0,021206
1612	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER down STEAM	Flange	1,2	1	100	0,000005	8760	0,045906
1613	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,8	1	100	0,000004	8760	0,034521
1614	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,6	1	100	0,000003	8760	0,028200
1615	05.04.2023	BULLET OUTLET LINE	PM29 A/B/C Minimum flow HOV UPSTEAM	Flange	1	1	100	0,000005	8760	0,040384
1616	05.04.2023	BULLET OUTLET LINE	PM29 A/B/C Minimum flow HOV DOWN STEAM	Flange	0,8	1	100	0,000004	8760	0,034521
1617	05.04.2023	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING DOWNSTEAM	Flange	0,7	1	100	0,000004	8760	0,031427
1618	05.04.2023	BULLET OUTLET LINE	PROPYLENE FROM GANTRY LOADING UPSTEAM	Flange	0,9	1	100	0,000004	8760	0,037501
1619	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	1,5	1	100	0,000006	8760	0,053703
1620	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	1,8	1	100	0,000007	8760	0,061047
1621	05.04.2023	BULLET OUTLET LINE	HOV-1-UP steam	Flange	1	1	100	0,000005	8760	0,040384
1622	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	2,5	1	100	0,000009	8760	0,076905
1623	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 7 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	1,8	1	100	0,000007	8760	0,061047
1624	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 7 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	1,9	1	100	0,000007	8760	0,063412
1625	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2- UP steam	Flange	2,1	1	100	0,000008	8760	0,068034
1626	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	5,7	1	100	0,000016	8760	0,137273
1627	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 UP STEAM	Flange	0,8	1	100	0,000004	8760	0,034521
1628	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	IBT PM SUCTION HEADER HOV -1 DOWN STEAM	Flange	2,4	1	100	0,000009	8760	0,074730
1629	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	4,7	1	100	0,000014	8760	0,119864
1630	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	3,1	1	100	0,000010	8760	0,089461
1631	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	0,5	1	100	0,000003	8760	0,024807
1632	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	0,8	1	100	0,000004	8760	0,034521
1633	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	3,1	1	100	0,000010	8760	0,089461
1634	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	0,6	1	100	0,000003	8760	0,028200
1635	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0	1	100	0,000000	8760	0,000000
1636	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0,5	1	100	0,000003	8760	0,024807
1637	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0,1	1	100	0,000001	8760	0,008002
1638	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	0	1	100	0,000000	8760	0,000000
1639	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0,2	1	100	0,000001	8760	0,013027
1640	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0	1	100	0,000000	8760	0,000000
1641	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0,000000	8760	0,000000
1642	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0,000000	8760	0,000000
1643	05.04.2023	BULLET 205 - V- 017	BULLET INLET XZV UPSTEAM	Flange	0,9	1	100	0,000004	8760	0,037501
1644	05.04.2023	BULLET 205 - V- 017	BULLET INLET XZV DOWNSTEAM	Flange	0,4	1	100	0,000002	8760	0,021206
1645	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE UPSTEAM	Flange	0,6	1	100	0,000003	8760	0,028200
1646	05.04.2023	VAPOUR BALANCING LINE	XZV VALVE DOWNSTEAM	Flange	0,3	1	100	0,000002	8760	0,017323
1647	05.04.2023	VAPOUR BALANCING LINE	HOV-1-UP steam	Flange	0,4	1	100	0,000002	8760	0,021206
1648	05.04.2023	VAPOUR BALANCING LINE	HOV-1-down steam	Flange	0,5	1	100	0,000003	8760	0,024807
1649	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- UP STEAM	Flange	0,9	1	100	0,000004	8760	0,037501
1650	05.04.2023	BULLET OUTLET LINE	XZV VALVE - 1- DOWN STEAM	Flange	5,5	1	100	0,000015	8760	0,133869
1651	05.04.2023	BULLET OUTLET LINE	HOV-1- UP steam	Flange	0,2	1	100	0,000001	8760	0,013027
1652	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	2,4	1	100	0,000009	8760	0,074730
1653	05.04.2023	BULLET OUTLET LINE	HOV-2- UP steam	Flange	3,9	1	100	0,000012	8760	0,105129
1654	05.04.2023	BULLET OUTLET LINE	HOV-2-down steam	Flange	2,1	1	100	0,000008	8760	0,068034
1655	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE UP STREAM	Flange	5,2	1	100	0,000015	8760	0,128693
1656	05.04.2023	BULLET OUTLET LINE	PROPYLENE RUN DOWN LINE DOWN STEAM	Flange	0,8	1	100	0,000004	8760	0,034521
1657	05.04.2023	BULLET OUTLET LINE	NRV UP STEAM	Flange	0,3	1	100	0,000002	8760	0,017323
1658	05.04.2023	BULLET OUTLET LINE	NRV DOWN STEAM	Flange	0,6	1	100	0,000003	8760	0,028200
1659	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV UPSTEAM	Flange	0,2	1	100	0,000001	8760	0,013027
1660	05.04.2023	BULLET OUTLET LINE	IBT DISCHARGE HEADER HOV down steam	Flange	0,2	1	100	0,000001	8760	0,013027
1661	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER UP STEAM	Flange	0,5	1	100	0,000003	8760	0,024807
1662	05.04.2023	BULLET OUTLET LINE	PM 28 A/B/C MINIMUM FLOW HEADER down STEAM	Flange	0,9	1	100	0,000004	8760	0,037501

1663	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	0,9	1	100	0.000004	8760	0.037501
1664	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	0,8	1	100	0.000004	8760	0.034521
1665	05.04.2023	BULLET OUTLET LINE	PM 29 A/B/C minimum flow HOV	Flange	4,7	1	100	0.000014	8760	0.119864
1666	05.04.2023	BULLET OUTLET LINE	PM 29 A/B/C minimum flow HOV	Flange	1,1	1	100	0.000005	8760	0.043182
1667	05.04.2023	BULLET OUTLET LINE	BULLET FROM GANTRY LOADING	Flange	1,4	1	100	0.000006	8760	0.051160
1668	05.04.2023	BULLET OUTLET LINE	PROPTERNE FROM GANTRY LOADING	Flange	2,5	1	100	0.000009	8760	0.076905
1669	05.04.2023	BULLET OUTLET LINE	NRV VALVE UP steam	Flange	6,1	1	100	0.000016	8760	0.143977
1670	05.04.2023	BULLET OUTLET LINE	NRV VALVE down steam	Flange	2,4	1	100	0.000009	8760	0.074730
1671	05.04.2023	BULLET OUTLET LINE	HOV-1-UP steam	Flange	1,2	1	100	0.000005	8760	0.045906
1672	05.04.2023	BULLET OUTLET LINE	HOV-1-down steam	Flange	1,1	1	100	0.000005	8760	0.043182
1673	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 29 A/B/C SUCTION HEADER HOV -1 UP STEAM	Flange	3,4	1	100	0.000011	8760	0.095463
1674	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	PM 29 A/B/C SUCTION HEADER HOV -1 DOWN STEAM	Flange	1,2	1	100	0.000005	8760	0.045906
1675	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	1,5	1	100	0.000006	8760	0.053703
1676	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,7	1	100	0.000004	8760	0.031427
1677	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-1-UP steam	Flange	0,8	1	100	0.000004	8760	0.034521
1678	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-1-UP steam	Flange	0,5	1	100	0.000003	8760	0.024807
1679	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-UP steam	Flange	0,3	1	100	0.000002	8760	0.017323
1680	05.04.2023	PIPELINE FROM BULLET OUTLET HEADER	HOV-2-down steam	Flange	0,8	1	100	0.000004	8760	0.034521
1681	05.04.2023	Bullet water Draining line	HOV-1-UP steam	Flange	1,7	1	100	0.000007	8760	0.058642
1682	05.04.2023	Bullet water Draining line	HOV-1-down steam	Flange	0,5	1	100	0.000003	8760	0.024807
1683	05.04.2023	Bullet water Draining line	HOV-2-UP steam	Flange	1,3	1	100	0.000006	8760	0.048563
1684	05.04.2023	Bullet water Draining line	HOV-2-down steam	Flange	0,8	1	100	0.000004	8760	0.034521
1685	05.04.2023	BULLET TOP AREA (WEST SIDE)	MAN HOLE - 1	Flange	0,2	1	100	0.000001	8760	0.013027
1686	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET INLET FLANGE	Flange	0	1	100	0.000000	8760	0.000000
1687	05.04.2023	BULLET TOP AREA (WEST SIDE)	BULLET VAPOUR BALANCING	Flange	0	1	100	0.000000	8760	0.000000
1688	05.04.2023	BULLET TOP AREA (WEST SIDE)	LT FLARE FLANG	Flange	57,2	1	100	0.000079	8760	0.694472
1689	05.04.2023	BULLET TOP AREA (WEST SIDE)	PRESSURE TRANSMITTER	Flange	0	1	100	0.000000	8760	0.000000
1690	05.04.2023	BULLET TOP AREA (WEST SIDE)	LEVEL TRANSMITTER	Flange	0,2	1	100	0.000001	8760	0.013027
1691	05.04.2023	BULLET TOP AREA (EAST SIDE)	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
1692	05.04.2023	BULLET TOP AREA (EAST SIDE)	OTHER	Flange	0	1	100	0.000000	8760	0.000000
1693	31.03.2023	LPG GANTRY BAY - 1	XZV LPG line up steam	Flange	0,3	1	100	0.000002	8760	0.017323
1694	31.03.2023	LPG GANTRY BAY - 1	XZV LPG line down steam	Flange	0,5	1	100	0.000003	8760	0.024807
1695	31.03.2023	LPG GANTRY BAY - 1	HOV 1 up steam	Flange	0,2	1	100	0.000001	8760	0.013027
1696	31.03.2023	LPG GANTRY BAY - 1	HOV 1 down steam	Flange	1,4	1	100	0.000006	8760	0.051160
1697	31.03.2023	LPG GANTRY BAY - 1	HOV 2 up steam	Flange	0,6	1	100	0.000003	8760	0.028200
1698	31.03.2023	LPG GANTRY BAY - 1	HOV 2 down steam	Flange	0,2	1	100	0.000001	8760	0.013027
1699	31.03.2023	LPG GANTRY BAY - 1	LPG liquid loding arm	Flange	0,4	1	100	0.000002	8760	0.021206
1700	31.03.2023	LPG VAPOR LINE	MOV- 1- 6001 up steam	Flange	0,2	1	100	0.000001	8760	0.013027
1701	31.03.2023	LPG VAPOR LINE	MOV- 1- 6002 down steam	Flange	0,4	1	100	0.000002	8760	0.021206
1702	31.03.2023	LPG VAPOR LINE	HOV-1-up steam	Flange	0,8	1	100	0.000004	8760	0.034521
1703	31.03.2023	LPG VAPOR LINE	HOV-1- down steam	Flange	0,1	1	100	0.000001	8760	0.008002
1704	31.03.2023	LPG VAPOR LINE	Vapor loading arm flange	Flange	0,4	1	100	0.000002	8760	0.021206
1705	31.03.2023	LPG LIQUID RETURN LINE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
1706	31.03.2023	LPG LIQUID RETURN LINE	HOV-1-down steam	Flange	0,2	1	100	0.000001	8760	0.013027
1707	31.03.2023	LPG LIQUID RETURN LINE	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0.000000
1708	31.03.2023	LPG LIQUID RETURN LINE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
1709	31.03.2023	LPG VENTING TO LT FLANGE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
1710	31.03.2023	LPG VENTING TO LT FLANGE	HOV-1-down steam	Flange	0,3	1	100	0.000002	8760	0.017323
1711	31.03.2023	LPG VENTING TO LT FLANGE	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0.000000
1712	31.03.2023	LPG VENTING TO LT FLANGE	HOV-2- down steam	Flange	0,2	1	100	0.000001	8760	0.013027
1713	31.03.2023	LPG VENTING TO LT FLANGE	HOV-3-up steam	Flange	0,5	1	100	0.000003	8760	0.024807
1714	31.03.2023	LPG VENTING TO LT FLANGE	HOV-3-down steam	Flange	0	1	100	0.000000	8760	0.000000
1715	31.03.2023	LPG VENTING TO LT FLANGE	HOV-4-up steam	Flange	0,3	1	100	0.000002	8760	0.017323
1716	31.03.2023	LPG VENTING TO LT FLANGE	HOV-4- down steam	Flange	0,1	1	100	0.000001	8760	0.008002
1717	31.03.2023	LPG GANTRY BAY - 2	XZV LPG liquid line 6002	Flange	0,3	1	100	0.000002	8760	0.017323
1718	31.03.2023	LPG GANTRY BAY - 2	XZV LPG liquid line 6002	Flange	0	1	100	0.000000	8760	0.000000
1719	31.03.2023	LPG GANTRY BAY - 2	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
1720	31.03.2023	LPG GANTRY BAY - 2	HOV-1-down steam	Flange	0,2	1	100	0.000001	8760	0.013027
1721	31.03.2023	LPG GANTRY BAY - 2	HOV-2-up steam	Flange	0,2	1	100	0.000001	8760	0.013027
1722	31.03.2023	LPG GANTRY BAY - 2	HOV-2-down steam	Flange	0,1	1	100	0.000001	8760	0.008002
1723	31.03.2023	LPG GANTRY BAY - 2	LPG liquid loding arm	Flange	0,4	1	100	0.000002	8760	0.021206
1724	31.03.2023	LPG VAPOR LINE	MOV-1-up steam 6001	Flange	0	1	100	0.000000	8760	0.000000
1725	31.03.2023	LPG VAPOR LINE	MOV-1-down steam 6001	Flange	0,2	1	100	0.000001	8760	0.013027
1726	31.03.2023	LPG VAPOR LINE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
1727	31.03.2023	LPG VAPOR LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
1728	31.03.2023	LPG VAPOR LINE	vapour loading arm	Flange	0,1	1	100	0.000001	8760	0.008002
1729	31.03.2023	LPG LIQUID RETURN LINE	HOV-1-up steam	Flange	0,1	1	100	0.000001	8760	0.008002
1730	31.03.2023	LPG LIQUID RETURN LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
1731	31.03.2023	LPG LIQUID RETURN LINE	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0.000000
1732	31.03.2023	LPG LIQUID RETURN LINE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
1733	31.03.2023	LPG VENTING TO LT FLANGE	HOV-1-up steam	Flange	0,3	1	100	0.000002	8760	0.017323
1734	31.03.2023	LPG VENTING TO LT FLANGE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
1735	31.03.2023	LPG VENTING TO LT FLANGE	HOV-2- up steam	Flange	0,1	1	100	0.000001	8760	0.008002
1736	31.03.2023	LPG VENTING TO LT FLANGE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
1737	31.03.2023	LPG VENTING TO LT FLANGE	HOV-3-up steam	Flange	0	1	100	0.000000	8760	0.000000
1738	31.03.2023	LPG VENTING TO LT FLANGE	HOV-3-down steam	Flange	0	1	100	0.000000	8760	0.000000
1739	31.03.2023	LPG VENTING TO LT FLANGE	HOV-4-up steam	Flange	0	1	100	0.000000	8760	0.000000
1740	31.03.2023	LPG VENTING TO LT FLANGE	HOV-4-down steam	Flange	0	1	100	0.000000	8760	0.000000
1741	31.03.2023	LPG GANTRY BAY - 3	XZV LPG liquid line 6003	Flange	1,91	1	100	0.000007	8760	0.063646
1742	31.03.2023	LPG GANTRY BAY - 3	XZV LPG liquid line 6003	Flange	0,6	1	100	0.000003	8760	0.028200
1743	31.03.2023	LPG GANTRY BAY - 3	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
1744	31.03.2023	LPG GANTRY BAY - 3	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
1745	31.03.2023	LPG GANTRY BAY - 3	HOV-2-up steam	Flange	0,2	1	100	0.000001	8760	0.013027
1746	31.03.2023	LPG GANTRY BAY - 3	LPG liquid loding arm	Flange	0,5	1	100	0.000003	8760	0.024807
1747	31.03.2023	LPG VAPOUR LINE	MOV 1 UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
1748	31.03.2023	LPG VAPOUR LINE	MOV 1 DOWNSTEAM	Flange	0,3	1	100	0.000002	8760	0.017323
1749	31.03.2023	LPG VAPOUR LINE	HOV-1-UP STEAM	Flange	0,3	1	100	0.000002	8760	0.017323
1750	31.03.2023	LPG VAPOUR LINE	HOV-1-down steam	Flange	0,2	1	100	0.000001	8760	0.013027

1839	31.03.2023	LPG GANTRY BAY - 7	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
1840	31.03.2023	LPG GANTRY BAY - 7	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0.000000
1841	31.03.2023	LPG GANTRY BAY - 7	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
1842	31.03.2023	LPG GANTRY BAY - 7	LPG liquid loding arm	Flange	0.2	1	100	0.000001	8760	0.013027
1843	31.03.2023	LPG VAPOUR LINE	MOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
1844	31.03.2023	LPG VAPOUR LINE	MOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
1845	31.03.2023	LPG VAPOUR LINE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
1846	31.03.2023	LPG VAPOUR LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
1847	31.03.2023	LPG VAPOUR LINE	vapour loading arm	Flange	0	1	100	0.000000	8760	0.000000
1848	31.03.2023	LPG LIQUID RETURN LINE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
1849	31.03.2023	LPG LIQUID RETURN LINE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
1850	31.03.2023	LPG LIQUID RETURN LINE	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0.000000
1851	31.03.2023	LPG LIQUID RETURN LINE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
1852	31.03.2023	LPG VENTING TO LT FLANGE	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
1853	31.03.2023	LPG VENTING TO LT FLANGE	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
1854	31.03.2023	LPG VENTING TO LT FLANGE	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0.000000
1855	31.03.2023	LPG VENTING TO LT FLANGE	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
1856	31.03.2023	LPG VENTING TO LT FLANGE	HOV-3-up steam	Flange	0	1	100	0.000000	8760	0.000000
1857	31.03.2023	LPG VENTING TO LT FLANGE	HOV-3-down steam	Flange	0	1	100	0.000000	8760	0.000000
1858	31.03.2023	LPG VENTING TO LT FLANGE	HOV-4-up steam	Flange	0	1	100	0.000000	8760	0.000000
1859	31.03.2023	LPG VENTING TO LT FLANGE	HOV-4-down steam	Flange	0	1	100	0.000000	8760	0.000000
1860	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-A1	Flange	0	1	100	0.000000	8760	0.000000
1861	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-A2	Flange	0	1	100	0.000000	8760	0.000000
1862	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-B1	Flange	0	1	100	0.000000	8760	0.000000
1863	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-B2	Flange	0	1	100	0.000000	8760	0.000000
1864	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-C1	Flange	0	1	100	0.000000	8760	0.000000
1865	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-C2	Flange	0	1	100	0.000000	8760	0.000000
1866	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-D1	Flange	0	1	100	0.000000	8760	0.000000
1867	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-D2	Flange	0	1	100	0.000000	8760	0.000000
1868	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-E1	Flange	0	1	100	0.000000	8760	0.000000
1869	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	HOV-E2	Flange	0	1	100	0.000000	8760	0.000000
1870	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	XZV6005	Flange	0	1	100	0.000000	8760	0.000000
1871	31.03.2023	LPG BAY NO 1 NORTH SIDE PIPE LINE VAPOUR FROM TANKER LOADING TO BULLET	XZV6005	Flange	0	1	100	0.000000	8760	0.000000
1872	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	MOV-1-UP steam	Flange	0	1	100	0.000000	8760	0.000000
1873	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
1874	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	STRAINER FLANGE	Flange	0	1	100	0.000000	8760	0.000000
1875	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	STRAINER FLANGE	Flange	0	1	100	0.000000	8760	0.000000
1876	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	STRAINER FLANGE	Flange	0	1	100	0.000000	8760	0.000000
1877	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	PVC HOV TRV B013	Flange	0.3	1	100	0.000002	8760	0.017323
1878	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	PVC HOV TRV B013	Flange	0.1	1	100	0.000001	8760	0.008002
1879	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	PVC HOV TRV B013	Flange	0.1	1	100	0.000001	8760	0.008002
1880	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	PVC HOV TRV B013	Flange	0.4	1	100	0.000002	8760	0.021206
1881	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	FLOW METER FLANGE	Flange	0.1	1	100	0.000001	8760	0.008002
1882	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	FLOW METER FLANGE	Flange	0.8	1	100	0.000004	8760	0.034521
1883	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	MOV-1-FLANGE	Flange	0.2	1	100	0.000001	8760	0.013027
1884	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	MOV-1-FLANGE	Flange	0	1	100	0.000000	8760	0.000000
1885	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	DLV VALVE FLANGE	Flange	0.6	1	100	0.000003	8760	0.028200
1886	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	DLV VALVE FLANGE	Flange	0.1	1	100	0.000001	8760	0.008002
1887	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	MOV FLANGE	Flange	0	1	100	0.000000	8760	0.000000
1888	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	MOV FLANGE	Flange	0	1	100	0.000000	8760	0.000000
1889	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
1890	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	HOV-1-down steam	Flange	0.2	1	100	0.000001	8760	0.013027
1891	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	HOV-2-up steam	Flange	0	1	100	0.000000	8760	0.000000
1892	31.03.2023	LPG GANTRY CTMS LPG EX A/B/C/D/E/F BRANCH LINE 1	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000

2217	31.03.2023	MASTER LINE-2	G03289 downstream	Flange	0	1	100	0.000000	8760	0.000000
2218	31.03.2023	MASTER LINE-2	C85R2 (885263)	Flange	0	1	100	0.000000	8760	0.000000
2219	31.03.2023	MASTER LINE-2	C85R2 (885263)	Flange	0	1	100	0.000000	8760	0.000000
2220	31.03.2023	MASTER LINE-2	C85R2 (885263)	Flange	0	1	100	0.000000	8760	0.000000
2221	31.03.2023	MASTER LINE-2	C85R2 (885263)	Flange	0	1	100	0.000000	8760	0.000000
2222	31.03.2023	MASTER LINE-2	C85R2 (885263)	Flange	0	1	100	0.000000	8760	0.000000
2223	31.03.2023	MASTER LINE-2	TG - B048	Flange	0	1	100	0.000000	8760	0.000000
2224	31.03.2023	MASTER LINE-2	TG - B048	Flange	0	1	100	0.000000	8760	0.000000
2225	31.03.2023	MASTER LINE-2	TE- B047	Flange	0	1	100	0.000000	8760	0.000000
2226	31.03.2023	MASTER LINE-2	PI-B028 upsteam	Flange	0	1	100	0.000000	8760	0.000000
2227	31.03.2023	MASTER LINE-2	PI-B028 downstream	Flange	0	1	100	0.000000	8760	0.000000
2228	31.03.2023	MASTER LINE-2	PT-B027 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2229	31.03.2023	MASTER LINE-2	PT-B027DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2230	31.03.2023	MASTER LINE-2	G03334 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2231	31.03.2023	MASTER LINE-2	G03334 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2232	31.03.2023	MASTER LINE-2	G04653 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2233	31.03.2023	MASTER LINE-2	G04653 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2234	31.03.2023	MASTER LINE-2	G04653 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2235	31.03.2023	MASTER LINE-2	G04653 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2236	31.03.2023	MASTER LINE-2	G04653 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2237	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	RECIRCULATION MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2238	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	RECIRCULATION MOV DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2239	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	INLET XZV 5088 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2240	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	INLET XZV 5088 DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
2241	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	MINIMUM FLOW HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2242	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	MINIMUM FLOW HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2243	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2244	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2245	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2246	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2247	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2248	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2249	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2250	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2251	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
2252	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2253	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2254	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2255	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	PESSURE TRANSMITTER HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2256	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	PESSURE TRANSMITTER HOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2257	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	MAN HOLE - 1	Flange	0.1	1	100	0.000001	8760	0.008002
2258	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	MAN HOLE - 2	Flange	0	1	100	0.000000	8760	0.000000
2259	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	MAN HOLE - 3	Flange	0	1	100	0.000000	8760	0.000000
2260	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	MAN HOLE - 4	Flange	0.3	1	100	0.000002	8760	0.017323
2261	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	HEEL STRIPING MOV UPSTEAM	Flange	0.8	1	100	0.000004	8760	0.034521
2262	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	HEEL STRIPING MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2263	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	OUTLET XZV 5054 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2264	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	OUTLET XZV 5054 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2265	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	CLEAN OUT DOOR	Flange	0.2	1	100	0.000001	8760	0.013027
2266	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	OUTLET BODY FLANGE	Flange	0	1	100	0.000000	8760	0.000000
2267	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SPECTACLE BLIND UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2268	04.04.2023	NAPHTHA TANK NO 7 INSIDE DYKE	SPECTACLE BLIND DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2269	04.04.2023	OUTSIDE DYKE	INLET HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2270	04.04.2023	OUTSIDE DYKE	INLET HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2271	04.04.2023	OUTSIDE DYKE	INLET HEADER PSV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2272	04.04.2023	OUTSIDE DYKE	INLET HEADER PSV DOWNSTEAM	Flange	0.4	1	100	0.000002	8760	0.021206
2273	04.04.2023	OUT SIDE DYKE	STREAM HOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2274	04.04.2023	OUT SIDE DYKE	STREAM HOV - 1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2275	04.04.2023	OUT SIDE DYKE	STREAM HOV - 2 UPSTEAM	Flange	0.3	1	100	0.000002	8760	0.017323
2276	04.04.2023	OUT SIDE DYKE	STREAM HOV - 2 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2277	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM (205-MOV-0030)	Flange	0	1	100	0.000000	8760	0.000000
2278	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM (205-MOV-0030)	Flange	0	1	100	0.000000	8760	0.000000
2279	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM (205-MOV-0025)	Flange	0	1	100	0.000000	8760	0.000000
2280	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM(205-MOV-0025)	Flange	0	1	100	0.000000	8760	0.000000
2281	04.04.2023	MOVS CONNECTED TO INLET	MOV - 3 UPSTEAM(205-MOV-0028)	Flange	0	1	100	0.000000	8760	0.000000
2282	04.04.2023	MOVS CONNECTED TO INLET	MOV - 3 DOWNSTEAM(205-MOV-0028)	Flange	0	1	100	0.000000	8760	0.000000
2283	04.04.2023	MOVS CONNECTED TO INLET	MOV - 4 UPSTEAM(205-MOV-0026)	Flange	0	1	100	0.000000	8760	0.000000
2284	04.04.2023	MOVS CONNECTED TO INLET	MOV - 4 DOWNSTEAM(205-MOV-0026)	Flange	0	1	100	0.000000	8760	0.000000
2285	04.04.2023	MOVS CONNECTED TO INLET	MOV - 5 UPSTEAM(205-MOV-0027)	Flange	0	1	100	0.000000	8760	0.000000
2286	04.04.2023	MOVS CONNECTED TO INLET	MOV - 5 DOWNSTEAM(205-MOV-0027)	Flange	0	1	100	0.000000	8760	0.000000
2287	04.04.2023	MOVS CONNECTED TO INLET	NRV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2288	04.04.2023	MOVS CONNECTED TO INLET	NRV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2289	04.04.2023	MOVS CONNECTED TO INLET	NRV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2290	04.04.2023	MOVS CONNECTED TO INLET	NRV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2291	04.04.2023	MOVS CONNECTED TO INLET	NRV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2292	04.04.2023	MOVS CONNECTED TO INLET	NRV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2293	04.04.2023	MOVS CONNECTED TO INLET	NRV - 4 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2294	04.04.2023	MOVS CONNECTED TO INLET	NRV - 4 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2295	04.04.2023	MOVS CONNECTED TO INLET	NRV - 5 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2296	04.04.2023	MOVS CONNECTED TO INLET	NRV - 5 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2297	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM(205-MOV-0633)	Flange	0.1	1	100	0.000001	8760	0.008002
2298	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM(205-MOV-0633)	Flange	0	1	100	0.000000	8760	0.000000
2299	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM(205-MOV-0636)	Flange	0	1	100	0.000000	8760	0.000000
2300	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM(205-MOV-0636)	Flange	0.1	1	100	0.000001	8760	0.008002
2301	04.04.2023	MOVS CONNECTED TO INLET	ITT HEADER HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2302	04.04.2023	MOVS CONNECTED TO INLET	ITT HEADER HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2303	04.04.2023	MOVS CONNECTED TO INLET	RECIRCULATION MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2304	04.04.2023	MOVS CONNECTED TO INLET	RECIRCULATION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000

2305	04.04.2023	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2306	04.04.2023	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2307	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2308	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2309	04.04.2023	MOVS CONNECTED TO INLET	HEEL STRIPING MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2310	04.04.2023	MOVS CONNECTED TO INLET	HEEL STRIPING MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2311	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER PSV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2312	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER PSV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2313	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 1 UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013027
2314	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2315	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2316	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2317	04.04.2023	NAPHTHA TANK NO 7 TANK TOP	RIM SEAL EAST	Flange	5,1	1	100	0.000014	8760	0.126948
2318	04.04.2023	NAPHTHA TANK NO 7 TANK TOP	RIM SEAL WEST	Flange	0,3	1	100	0.000002	8760	0.017323
2319	04.04.2023	NAPHTHA TANK NO 7 TANK TOP	RIM SEAL NORTH	Flange	0,1	1	100	0.000001	8760	0.008002
2320	04.04.2023	NAPHTHA TANK NO 7 TANK TOP	RIM SEAL SOUTH	Flange	4,6	1	100	0.000013	8760	0.118066
2321	04.04.2023	NAPHTHA TANK NO 7 TANK TOP	DIPHATCH	Flange	2,5	1	100	0.000009	8760	0.076905
2322	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	RECIRCULATION MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2323	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	RECIRCULATION MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2324	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	INLET XZV 5088 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2325	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	INLET XZV 5088 DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
2326	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	MINIMUM FLOW HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2327	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	MINIMUM FLOW HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2328	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2329	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2330	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2331	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 DOWNSTEAM	Flange	0,3	1	100	0.000002	8760	0.017323
2332	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2333	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 DOWNSTEAM	Flange	0,2	1	100	0.000001	8760	0.013027
2334	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013027
2335	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2336	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013027
2337	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2338	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2339	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2340	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	PESSURE TRANSMITTER HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2341	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	PESSURE TRANSMITTER HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
2342	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0.000000
2343	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	MAN HOLE - 2	Flange	0,4	1	100	0.000002	8760	0.021206
2344	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	MAN HOLE - 3	Flange	0	1	100	0.000000	8760	0.000000
2345	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	MAN HOLE - 4	Flange	0	1	100	0.000000	8760	0.000000
2346	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	HEEL STRIPING MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2347	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	HEEL STRIPING MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2348	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	OUTLET XZV 5052 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2349	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	OUTLET XZV 5052 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2350	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0.000000
2351	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	OUTLET BODY FLANGE	Flange	0	1	100	0.000000	8760	0.000000
2352	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SPECTACLE BLIND UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2353	04.04.2023	NAPHTHA TANK NO 6 INSIDE DYKE	SPECTACLE BLIND DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2354	04.04.2023	OUTSIDE DYKE	INLET HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2355	04.04.2023	OUTSIDE DYKE	INLET HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2356	04.04.2023	OUTSIDE DYKE	INLET HEADER PSV UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2357	04.04.2023	OUTSIDE DYKE	INLET HEADER PSV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2358	04.04.2023	OUT SIDE DYKE	STREAM HOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2359	04.04.2023	OUT SIDE DYKE	STREAM HOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2360	04.04.2023	OUT SIDE DYKE	STREAM HOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2361	04.04.2023	OUT SIDE DYKE	STREAM HOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2362	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM(205-MOV-0024)	Flange	0	1	100	0.000000	8760	0.000000
2363	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM(205-MOV-0024)	Flange	0	1	100	0.000000	8760	0.000000
2364	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2365	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2366	04.04.2023	MOVS CONNECTED TO INLET	MOV - 3 UPSTEAM(205-MOV-0022)	Flange	0	1	100	0.000000	8760	0.000000
2367	04.04.2023	MOVS CONNECTED TO INLET	MOV - 3 DOWNSTEAM(205-MOV-0022)	Flange	0	1	100	0.000000	8760	0.000000
2368	04.04.2023	MOVS CONNECTED TO INLET	MOV - 4 UPSTEAM(205-MOV-0020)	Flange	0	1	100	0.000000	8760	0.000000
2369	04.04.2023	MOVS CONNECTED TO INLET	MOV - 4 DOWNSTEAM(205-MOV-0020)	Flange	0	1	100	0.000000	8760	0.000000
2370	04.04.2023	MOVS CONNECTED TO INLET	MOV - 5 UPSTEAM(205-MOV-0021)	Flange	0	1	100	0.000000	8760	0.000000
2371	04.04.2023	MOVS CONNECTED TO INLET	MOV - 5 DOWNSTEAM(205-MOV-0021)	Flange	0	1	100	0.000000	8760	0.000000
2372	04.04.2023	MOVS CONNECTED TO INLET	NRV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2373	04.04.2023	MOVS CONNECTED TO INLET	NRV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2374	04.04.2023	MOVS CONNECTED TO INLET	NRV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2375	04.04.2023	MOVS CONNECTED TO INLET	NRV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2376	04.04.2023	MOVS CONNECTED TO INLET	NRV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2377	04.04.2023	MOVS CONNECTED TO INLET	NRV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2378	04.04.2023	MOVS CONNECTED TO INLET	NRV - 4 UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2379	04.04.2023	MOVS CONNECTED TO INLET	NRV - 4 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2380	04.04.2023	MOVS CONNECTED TO INLET	NRV - 5 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2381	04.04.2023	MOVS CONNECTED TO INLET	NRV - 5 DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2382	04.04.2023	MOVS CONNECTED TO INLET	PUMP DISCHARGE HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2383	04.04.2023	MOVS CONNECTED TO INLET	PUMP DISCHARGE HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2384	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM(205-MOV-0629)	Flange	0	1	100	0.000000	8760	0.000000
2385	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM(205-MOV-0629)	Flange	0	1	100	0.000000	8760	0.000000
2386	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM(205-MOV-0632)	Flange	0,2	1	100	0.000001	8760	0.013027
2387	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM(205-MOV-0632)	Flange	0,1	1	100	0.000001	8760	0.008002
2388	04.04.2023	MOVS CONNECTED TO INLET	ITT HEADER HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2389	04.04.2023	MOVS CONNECTED TO INLET	ITT HEADER HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2390	04.04.2023	MOVS CONNECTED TO INLET	RECIRCULATION MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2391	04.04.2023	MOVS CONNECTED TO INLET	RECIRCULATION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
2392	04.04.2023	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000

2393	04.04.2023	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2394	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER MOV UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2395	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER MOV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2396	04.04.2023	MOVS CONNECTED TO INLET	HEEL STRIPING MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2397	04.04.2023	MOVS CONNECTED TO INLET	HEEL STRIPING MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2398	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER PSV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2399	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER PSV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2400	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2401	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2402	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2403	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2404	04.04.2023	NAPHTHA TANK NO 6 TANK TOP	RIM SEAL EAST	Flange	0.4	1	100	0.000002	8760	0.021206
2405	04.04.2023	NAPHTHA TANK NO 6 TANK TOP	RIM SEAL WEST	Flange	0.2	1	100	0.000001	8760	0.013027
2406	04.04.2023	NAPHTHA TANK NO 6 TANK TOP	RIM SEAL NORTH	Flange	8.3	1	100	0.000020	8760	0.178779
2407	04.04.2023	NAPHTHA TANK NO 6 TANK TOP	RIM SEAL SOUTH	Flange	0.6	1	100	0.000003	8760	0.028200
2408	04.04.2023	NAPHTHA TANK NO 6 TANK TOP	DIPHATCH	Flange	1.2	1	100	0.000005	8760	0.045906
2409	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	RECIRCULATION MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2410	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	RECIRCULATION MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2411	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	INLET XZV 5003 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2412	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	INLET XZV 5003 DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
2413	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	MINIMUM FLOW HEADER MOV UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2414	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	MINIMUM FLOW HEADER MOV DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2415	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2416	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2417	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2418	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2419	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2420	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2421	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2422	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2423	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2424	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2425	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2426	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2427	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	PESSURE TRANSMITTER HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2428	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	PESSURE TRANSMITTER HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
2429	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	MAN HOLE - 1	Flange	0.3	1	100	0.000002	8760	0.017323
2430	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	MAN HOLE - 2	Flange	0.2	1	100	0.000001	8760	0.013027
2431	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	MAN HOLE - 3	Flange	0	1	100	0.000000	8760	0.000000
2432	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	MAN HOLE - 4	Flange	0.4	1	100	0.000002	8760	0.021206
2433	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	HEEL STRIPING MOV UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2434	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	HEEL STRIPING MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2435	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	OUTLET XZV 5004 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2436	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	OUTLET XZV 5004 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2437	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0.000000
2438	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	OUTLET BODY FLANGE	Flange	0	1	100	0.000000	8760	0.000000
2439	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SPECTACLE BLIND UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2440	04.04.2023	NAPHTHA TANK NO 5 INSIDE DYKE	SPECTACLE BLIND DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2441	04.04.2023	OUTSIDE DYKE	INLET HEADER MOV UPSTEAM(205-MOV-0001)	Flange	0	1	100	0.000000	8760	0.000000
2442	04.04.2023	OUTSIDE DYKE	INLET HEADER MOV DOWNSTEAM(205-MOV-0001)	Flange	0	1	100	0.000000	8760	0.000000
2443	04.04.2023	OUTSIDE DYKE	INLET HEADER PSV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2444	04.04.2023	OUTSIDE DYKE	INLET HEADER PSV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2445	04.04.2023	OUT SIDE DYKE	STREAM HOV - 1 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2446	04.04.2023	OUT SIDE DYKE	STREAM HOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2447	04.04.2023	OUT SIDE DYKE	STREAM HOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2448	04.04.2023	OUT SIDE DYKE	STREAM HOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2449	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM(205-MOV-0012)	Flange	0	1	100	0.000000	8760	0.000000
2450	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM(205-MOV-0012)	Flange	0.1	1	100	0.000001	8760	0.008002
2451	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM(205-MOV-0007)	Flange	0.1	1	100	0.000001	8760	0.008002
2452	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM(205-MOV-0007)	Flange	0	1	100	0.000000	8760	0.000000
2453	04.04.2023	MOVS CONNECTED TO INLET	MOV - 3 UPSTEAM(205-MOV-0010)	Flange	0	1	100	0.000000	8760	0.000000
2454	04.04.2023	MOVS CONNECTED TO INLET	MOV - 3 DOWNSTEAM(205-MOV-0010)	Flange	0	1	100	0.000000	8760	0.000000
2455	04.04.2023	MOVS CONNECTED TO INLET	MOV - 4 UPSTEAM(205-MOV-0008)	Flange	0	1	100	0.000000	8760	0.000000
2456	04.04.2023	MOVS CONNECTED TO INLET	MOV - 4 DOWNSTEAM(205-MOV-0008)	Flange	0.4	1	100	0.000002	8760	0.021206
2457	04.04.2023	MOVS CONNECTED TO INLET	MOV - 5 UPSTEAM(205-MOV-0009)	Flange	0.1	1	100	0.000001	8760	0.008002
2458	04.04.2023	MOVS CONNECTED TO INLET	MOV - 5 DOWNSTEAM(205-MOV-0009)	Flange	0.2	1	100	0.000001	8760	0.013027
2459	04.04.2023	MOVS CONNECTED TO INLET	NRV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2460	04.04.2023	MOVS CONNECTED TO INLET	NRV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2461	04.04.2023	MOVS CONNECTED TO INLET	NRV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2462	04.04.2023	MOVS CONNECTED TO INLET	NRV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2463	04.04.2023	MOVS CONNECTED TO INLET	NRV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2464	04.04.2023	MOVS CONNECTED TO INLET	NRV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2465	04.04.2023	MOVS CONNECTED TO INLET	NRV - 4 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2466	04.04.2023	MOVS CONNECTED TO INLET	NRV - 4 DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
2467	04.04.2023	MOVS CONNECTED TO INLET	NRV - 5 UPSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2468	04.04.2023	MOVS CONNECTED TO INLET	NRV - 5 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2469	04.04.2023	MOVS CONNECTED TO INLET	PUMP DISCHARGE HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2470	04.04.2023	MOVS CONNECTED TO INLET	PUMP DISCHARGE HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2471	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2472	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2473	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2474	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
2475	04.04.2023	MOVS CONNECTED TO INLET	ITT HEADER HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2476	04.04.2023	MOVS CONNECTED TO INLET	ITT HEADER HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2477	04.04.2023	MOVS CONNECTED TO INLET	RECIRCULATION MOV UPSTEAM(205-MOV-0241)	Flange	0	1	100	0.000000	8760	0.000000
2478	04.04.2023	MOVS CONNECTED TO INLET	RECIRCULATION MOV DOWNSTEAM(205-MOV-0241)	Flange	0	1	100	0.000000	8760	0.000000
2479	04.04.2023	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2480	04.04.2023	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000

2481	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER MOV UPSTEAM(205-MOV-0246)	Flange	0,1	1	100	0.000001	8760	0.008002
2482	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER MOV DOWNSTEAM(205-MOV-0246)	Flange	0	1	100	0.000000	8760	0.000000
2483	04.04.2023	MOVS CONNECTED TO INLET	HEEL STRIPING MOV UPSTEAM(205-MOV-0247)	Flange	0	1	100	0.000000	8760	0.000000
2484	04.04.2023	MOVS CONNECTED TO INLET	HEEL STRIPING MOV DOWNSTEAM(205-MOV-0247)	Flange	0	1	100	0.000000	8760	0.000000
2485	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER PSV UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2486	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER PSV DOWNSTEAM	Flange	0,2	1	100	0.000001	8760	0.013027
2487	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2488	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2489	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2490	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2491	04.04.2023	NAPHTHA TANK NO 5 TANK TOP	RIM SEAL EAST	Flange	2,8	1	100	0.000010	8760	0.083283
2492	04.04.2023	NAPHTHA TANK NO 5 TANK TOP	RIM SEAL WEST	Flange	7,7	1	100	0.000019	8760	0.169593
2493	04.04.2023	NAPHTHA TANK NO 5 TANK TOP	RIM SEAL NORTH	Flange	0,9	1	100	0.000004	8760	0.037501
2494	04.04.2023	NAPHTHA TANK NO 5 TANK TOP	RIM SEAL SOUTH	Flange	0,4	1	100	0.000002	8760	0.021206
2495	04.04.2023	NAPHTHA TANK NO 5 TANK TOP	DIPHATCH	Flange	3,7	1	100	0.000012	8760	0.101310
2496	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	RECIRCULATION MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2497	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	RECIRCULATION MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2498	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	INLET XZV 5001 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2499	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	INLET XZV 5001 DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
2500	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	MINIMUM FLOW HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2501	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	MINIMUM FLOW HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2502	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2503	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 DOWNSTEAM	Flange	0,2	1	100	0.000001	8760	0.013027
2504	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2505	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2506	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 UPSTEAM	Flange	0,4	1	100	0.000002	8760	0.021206
2507	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2508	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2509	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2510	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2511	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 DOWNSTEAM	Flange	0,8	1	100	0.000004	8760	0.034521
2512	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2513	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2514	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	PESSURE TRANSMITTER HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2515	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	PESSURE TRANSMITTER HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
2516	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	MAN HOLE - 1	Flange	0	1	100	0.000000	8760	0.000000
2517	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	MAN HOLE - 2	Flange	0,2	1	100	0.000001	8760	0.013027
2518	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	MAN HOLE - 3	Flange	0,3	1	100	0.000002	8760	0.017323
2519	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	MAN HOLE - 4	Flange	0,1	1	100	0.000001	8760	0.008002
2520	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	HEEL STRIPING MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2521	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	HEEL STRIPING MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2522	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	OUTLET XZV 5002 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2523	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	OUTLET XZV 5002 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2524	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0.000000
2525	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	OUTLET BODY FLANGE	Flange	0	1	100	0.000000	8760	0.000000
2526	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SPECTACLE BLIND UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2527	04.04.2023	NAPHTHA TANK NO 4 INSIDE DYKE	SPECTACLE BLIND DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2528	04.04.2023	OUTSIDE DYKE	INLET HEADER MOV UPSTEAM(205-MOV-0012)	Flange	0	1	100	0.000000	8760	0.000000
2529	04.04.2023	OUTSIDE DYKE	INLET HEADER MOV DOWNSTEAM(205-MOV-0012)	Flange	0	1	100	0.000000	8760	0.000000
2530	04.04.2023	OUTSIDE DYKE	INLET HEADER PSV UPSTEAM	Flange	0,2	1	100	0.000001	8760	0.013027
2531	04.04.2023	OUTSIDE DYKE	INLET HEADER PSV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2532	04.04.2023	OUT SIDE DYKE	STREAM HOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2533	04.04.2023	OUT SIDE DYKE	STREAM HOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2534	04.04.2023	OUT SIDE DYKE	STREAM HOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2535	04.04.2023	OUT SIDE DYKE	STREAM HOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2536	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM(205-MOV-0006)	Flange	0	1	100	0.000000	8760	0.000000
2537	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM(205-MOV-0006)	Flange	0	1	100	0.000000	8760	0.000000
2538	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2539	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2540	04.04.2023	MOVS CONNECTED TO INLET	MOV - 3 UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2541	04.04.2023	MOVS CONNECTED TO INLET	MOV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2542	04.04.2023	MOVS CONNECTED TO INLET	MOV - 4 UPSTEAM(205-MOV-0002)	Flange	0	1	100	0.000000	8760	0.000000
2543	04.04.2023	MOVS CONNECTED TO INLET	MOV - 4 DOWNSTEAM(205-MOV-0002)	Flange	0	1	100	0.000000	8760	0.000000
2544	04.04.2023	MOVS CONNECTED TO INLET	MOV - 5 UPSTEAM(205-MOV-0003)	Flange	0	1	100	0.000000	8760	0.000000
2545	04.04.2023	MOVS CONNECTED TO INLET	MOV - 5 DOWNSTEAM(205-MOV-0003)	Flange	0	1	100	0.000000	8760	0.000000
2546	04.04.2023	MOVS CONNECTED TO INLET	NRV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2547	04.04.2023	MOVS CONNECTED TO INLET	NRV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2548	04.04.2023	MOVS CONNECTED TO INLET	NRV - 2 UPSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
2549	04.04.2023	MOVS CONNECTED TO INLET	NRV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2550	04.04.2023	MOVS CONNECTED TO INLET	NRV - 3 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2551	04.04.2023	MOVS CONNECTED TO INLET	NRV - 3 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2552	04.04.2023	MOVS CONNECTED TO INLET	NRV - 4 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2553	04.04.2023	MOVS CONNECTED TO INLET	NRV - 4 DOWNSTEAM	Flange	0,2	1	100	0.000001	8760	0.013027
2554	04.04.2023	MOVS CONNECTED TO INLET	NRV - 5 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2555	04.04.2023	MOVS CONNECTED TO INLET	NRV - 5 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2556	04.04.2023	MOVS CONNECTED TO INLET	PUMP DISCHARGE HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2557	04.04.2023	MOVS CONNECTED TO INLET	PUMP DISCHARGE HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2558	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM(205-MOV-0619)	Flange	0	1	100	0.000000	8760	0.000000
2559	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM(205-MOV-0619)	Flange	0	1	100	0.000000	8760	0.000000
2560	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 UPSTEAM(205-MOV-0624)	Flange	0	1	100	0.000000	8760	0.000000
2561	04.04.2023	MOVS CONNECTED TO INLET	MOV - 2 DOWNSTEAM(205-MOV-0624)	Flange	0	1	100	0.000000	8760	0.000000
2562	04.04.2023	MOVS CONNECTED TO INLET	ITT HEADER HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2563	04.04.2023	MOVS CONNECTED TO INLET	ITT HEADER HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2564	04.04.2023	MOVS CONNECTED TO INLET	RECIRCULATION MOV UPSTEAM(205-MOV-0242)	Flange	0	1	100	0.000000	8760	0.000000
2565	04.04.2023	MOVS CONNECTED TO INLET	RECIRCULATION MOV DOWN STEAM(205-MOV-0242)	Flange	0	1	100	0.000000	8760	0.000000
2566	04.04.2023	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2567	04.04.2023	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2568	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000

2569	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2570	04.04.2023	MOVS CONNECTED TO INLET	HEEL STRIPING MOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2571	04.04.2023	MOVS CONNECTED TO INLET	HEEL STRIPING MOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2572	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER PSV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2573	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER PSV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2574	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2575	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2576	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2577	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
2578	04.04.2023	NAPHTHA TANK NO 4 TANK TOP	RIM SEAL EAST	Flange	3.2	1	100	0.000010	8760	0.091480
2579	04.04.2023	NAPHTHA TANK NO 4 TANK TOP	RIM SEAL WEST	Flange	0.1	1	100	0.000001	8760	0.008002
2580	04.04.2023	NAPHTHA TANK NO 4 TANK TOP	RIM SEAL NORTH	Flange	0.7	1	100	0.000004	8760	0.031427
2581	04.04.2023	NAPHTHA TANK NO 4 TANK TOP	RIM SEAL SOUTH	Flange	2	1	100	0.000008	8760	0.065740
2582	04.04.2023	NAPHTHA TANK NO 4 TANK TOP	DIPHATCH	Flange	0.5	1	100	0.000003	8760	0.024807
2583	04.04.2023	MS TANK AREA 11 INSIDE DYKE	RECIRCULATION MOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2584	04.04.2023	MS TANK AREA 11 INSIDE DYKE	RECIRCULATION MOV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2585	04.04.2023	MS TANK AREA 11 INSIDE DYKE	RECIRCULATION BODY	Flange	0	0.8	100	0.000000	8760	0.000000
2586	04.04.2023	MS TANK AREA 11 INSIDE DYKE	INLET XZV 5005 UPSTEAM	Flange	0.2	0.8	100	0.000001	8760	0.010421
2587	04.04.2023	MS TANK AREA 11 INSIDE DYKE	INLET XZV 5005 DOWN STEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2588	04.04.2023	MS TANK AREA 11 INSIDE DYKE	MINIMUM FLOW HEADER MOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2589	04.04.2023	MS TANK AREA 11 INSIDE DYKE	MINIMUM FLOW HEADER MOV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2590	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2591	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 1 HOV 1 DOWNSTEAM	Flange	0.1	0.8	100	0.000001	8760	0.006402
2592	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 UPSTEAM	Flange	0.4	0.8	100	0.000002	8760	0.016965
2593	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 1 HOV 2 DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2594	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 UPSTEAM	Flange	0.2	0.8	100	0.000001	8760	0.010421
2595	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 1 HOV 3 DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2596	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 UPSTEAM	Flange	0.1	0.8	100	0.000001	8760	0.006402
2597	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 2 HOV 1 DOWNSTEAM	Flange	0.1	0.8	100	0.000001	8760	0.006402
2598	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2599	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 2 HOV 2 DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2600	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2601	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 2 HOV 3 DOWNSTEAM	Flange	0.2	0.8	100	0.000001	8760	0.010421
2602	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 3 HOV 1 UPSTEAM	Flange	0.2	0.8	100	0.000001	8760	0.010421
2603	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 3 HOV 1 DOWNSTEAM	Flange	0.5	0.8	100	0.000002	8760	0.019846
2604	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 3 HOV 2 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2605	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 3 HOV 2 DOWNSTEAM	Flange	0.3	0.8	100	0.000002	8760	0.013858
2606	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 3 HOV 3 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2607	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 3 HOV 3 DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2608	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 4 HOV 1 UPSTEAM	Flange	0.4	0.8	100	0.000002	8760	0.016965
2609	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 4 HOV 1 DOWNSTEAM	Flange	0.2	0.8	100	0.000001	8760	0.010421
2610	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 4 HOV 2 UPSTEAM	Flange	0.2	0.8	100	0.000001	8760	0.010421
2611	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 4 HOV 2 DOWNSTEAM	Flange	0.3	0.8	100	0.000002	8760	0.013858
2612	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 4 HOV 3 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2613	04.04.2023	MS TANK AREA 11 INSIDE DYKE	SUMP DRAIN - 4 HOV 3 DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2614	04.04.2023	MS TANK AREA 11 INSIDE DYKE	PESSURE TRANSMITTER HOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2615	04.04.2023	MS TANK AREA 11 INSIDE DYKE	PESSURE TRANSMITTER HOV DOWN TEAM	Flange	0.1	0.8	100	0.000001	8760	0.006402
2616	04.04.2023	MS TANK AREA 11 INSIDE DYKE	MAN HOLE - 1	Flange	0	0.8	100	0.000000	8760	0.000000
2617	04.04.2023	MS TANK AREA 11 INSIDE DYKE	MAN HOLE - 2	Flange	0	0.8	100	0.000000	8760	0.000000
2618	04.04.2023	MS TANK AREA 11 INSIDE DYKE	MAN HOLE - 3	Flange	0.4	0.8	100	0.000002	8760	0.016965
2619	04.04.2023	MS TANK AREA 11 INSIDE DYKE	HEEL STRIPING MOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2620	04.04.2023	MS TANK AREA 11 INSIDE DYKE	HEEL STRIPING MOV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2621	04.04.2023	MS TANK AREA 11 INSIDE DYKE	OUTLET XZV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2622	04.04.2023	MS TANK AREA 11 INSIDE DYKE	OUTLET XZV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2623	04.04.2023	MS TANK AREA 11 INSIDE DYKE	CLEAN OUT DOOR	Flange	0.1	0.8	100	0.000001	8760	0.006402
2624	04.04.2023	OUT SIDE DYKE	INLET HEADER MOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2625	04.04.2023	OUT SIDE DYKE	INLET HEADER MOV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2626	04.04.2023	OUT SIDE DYKE	INLET HEADER PSV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2627	04.04.2023	OUT SIDE DYKE	INLET HEADER PSV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2628	04.04.2023	OUT SIDE DYKE	STREAM HOV - 1 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2629	04.04.2023	OUT SIDE DYKE	STREAM HOV - 1 DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2630	04.04.2023	OUT SIDE DYKE	STREAM HOV - 2 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2631	04.04.2023	OUT SIDE DYKE	STREAM HOV - 2 DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2632	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2633	04.04.2023	MOVS CONNECTED TO INLET	MOV - 1 DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2634	04.04.2023	MOVS CONNECTED TO INLET	MS PREMIUMUM FROM MS BLENDING UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2635	04.04.2023	MOVS CONNECTED TO INLET	MS PREMIUMUM FROM MS BLENDING DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2636	04.04.2023	MOVS CONNECTED TO INLET	MINIMUM FLOW HEADER MOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2637	04.04.2023	MOVS CONNECTED TO INLET	MINIMUM FLOW HEADER MOV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2638	04.04.2023	MOVS CONNECTED TO INLET	ITT HEADER HOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2639	04.04.2023	MOVS CONNECTED TO INLET	ITT HEADER HOV DOWNSTEAM	Flange	0.2	0.8	100	0.000001	8760	0.010421
2640	04.04.2023	MOVS CONNECTED TO INLET	RECIRCULATION MOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2641	04.04.2023	MOVS CONNECTED TO INLET	RECIRCULATION MOV DOWN STEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2642	04.04.2023	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2643	04.04.2023	MOVS CONNECTED TO INLET	MFA FROM DOSING SKIT MOV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2644	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER MOV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2645	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER MOV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2646	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER PSV UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2647	04.04.2023	MOVS CONNECTED TO INLET	OUTLET HEADER PSV DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2648	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 1 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2649	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 1 DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2650	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 2 UPSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2651	04.04.2023	MOVS CONNECTED TO INLET	STREAM HOV - 2 DOWNSTEAM	Flange	0	0.8	100	0.000000	8760	0.000000
2652	04.04.2023	MS TANK NO 11 TANK TOP	RIM SEAL EAST	Flange	0.5	0.8	100	0.000002	8760	0.019846
2653	04.04.2023	MS TANK NO 11 TANK TOP	RIM SEAL WEST	Flange	0.9	0.8	100	0.000003	8760	0.030000
2654	04.04.2023	MS TANK NO 11 TANK TOP	RIM SEAL NORTH	Flange	0.8	0.8	100	0.000003	8760	0.027616
2655	04.04.2023	MS TANK NO 11 TANK TOP	RIM SEAL SOUTH	Flange	5.5	0.8	100	0.000012	8760	0.107095
2656	04.04.2023	MS TANK NO 11 TANK TOP	DIPHATCH	Flange	0.5	0.8	100	0.000002	8760	0.019846

3273	04.04.2023	DOSING SHED BRANCHES 205 PM 041A	DISCHARGE HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3274	04.04.2023	DOSING SHED BRANCHES 205 PM 041A	DISCHARGE HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3275	04.04.2023	DOSING SHED BRANCHES 205 PM 041B	SUCTION HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3276	04.04.2023	DOSING SHED BRANCHES 205 PM 041B	SUCTION HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3277	04.04.2023	DOSING SHED BRANCHES 205 PM 041B	SUCTION HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3278	04.04.2023	DOSING SHED BRANCHES 205 PM 041B	SUCTION HOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3279	04.04.2023	DOSING SHED BRANCHES 205 PM 041B	PUMP SUCTION DISCHARGE UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3280	04.04.2023	DOSING SHED BRANCHES 205 PM 041B	PUMP SUCTION DISCHARGE DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3281	04.04.2023	DOSING SHED BRANCHES 205 PM 041B	DISCHARGE NRV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3282	04.04.2023	DOSING SHED BRANCHES 205 PM 041B	DISCHARGE NRV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3283	04.04.2023	DOSING SHED BRANCHES 205 PM 041B	DISCHARGE HOV UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3284	04.04.2023	DOSING SHED BRANCHES 205 PM 041B	DISCHARGE HOV DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3285	04.04.2023	Flow control valve (South east corner of PH-06)	HOV-1-up steam	Flange	0	1	100	0.000000	8760	0.000000
3286	04.04.2023	Flow control valve (South east corner of PH-06)	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
3287	04.04.2023	Flow control valve (South east corner of PH-06)	FCV-up steam	Flange	0	1	100	0.000000	8760	0.000000
3288	04.04.2023	Flow control valve (South east corner of PH-06)	FCV-down steam	Flange	0	1	100	0.000000	8760	0.000000
3289	04.04.2023	Flow control valve (South east corner of PH-06)	HOV-2-UP steam	Flange	0	1	100	0.000000	8760	0.000000
3290	04.04.2023	Flow control valve (South east corner of PH-06)	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
3291	04.04.2023	Flow control valve (South east corner of PH-06)	HOV-3-UP steam	Flange	0.2	1	100	0.000001	8760	0.013027
3292	04.04.2023	Flow control valve (South east corner of PH-06)	HOV-3-down steam	Flange	0	1	100	0.000000	8760	0.000000
3293	04.04.2023	Flow control valve (South east corner of PH-06)	HOV-4-UP steam	Flange	0	1	100	0.000000	8760	0.000000
3294	04.04.2023	Flow control valve (South east corner of PH-06)	HOV-4-down steam	Flange	0	1	100	0.000000	8760	0.000000
3295	04.04.2023	Flow control valve (South east corner of PH-06)	HOV-5-UP steam	Flange	0	1	100	0.000000	8760	0.000000
3296	04.04.2023	Flow control valve (South east corner of PH-06)	HOV-5-down steam	Flange	0	1	100	0.000000	8760	0.000000
3297	04.04.2023	PIPE LINE END FLANGE	PM-001 A/B/C suction heater	Flange	0	1	100	0.000000	8760	0.000000
3298	04.04.2023	PIPE LINE END FLANGE	LPG inter bullet vapour balancing line	Flange	0	1	100	0.000000	8760	0.000000
3299	04.04.2023	PIPE LINE END FLANGE	OFF spee LPG line	Flange	0	1	100	0.000000	8760	0.000000
3300	04.04.2023	PIPE LINE END FLANGE	IBT/Heel stripping heater	Flange	0	1	100	0.000000	8760	0.000000
3301	04.04.2023	PIPE LINE END FLANGE	Bleeding spillage off spee LPG line	Flange	0	1	100	0.000000	8760	0.000000
3302	04.04.2023	PIPE LINE END FLANGE	PRESSUERIZED LPG	Flange	0	1	100	0.000000	8760	0.000000
3303	04.04.2023	PIPE LINE END FLANGE	IBT DISCHARGE LINE	Flange	0	1	100	0.000000	8760	0.000000
3304	04.04.2023	PIPE LINE END FLANGE	PM 027A/B/C SUCTION HEADER	Flange	0	1	100	0.000000	8760	0.000000
3305	04.04.2023	PIPE LINE END FLANGE	PM 001 A/B/C MINIMUM FLOW LINE	Flange	0.2	1	100	0.000001	8760	0.013027
3306	04.04.2023	PIPE LINE END FLANGE	BULLET OUTLET HEADER	Flange	0	1	100	0.000000	8760	0.000000
3307	04.04.2023	PIPE LINE END FLANGE	LPG PIPELINE TRANSFER	Flange	0.1	1	100	0.000001	8760	0.008002
3308	04.04.2023	PIPE LINE END FLANGE	PUMP 28 A/B/C PROPYLENE IBT LINE	Flange	0.6	1	100	0.000003	8760	0.028200
3309	04.04.2023	PIPE LINE END FLANGE	PM 27 MINIMUM FLOW LINE	Flange	0.3	1	100	0.000002	8760	0.017323
3310	04.04.2023	PIPE LINE END FLANGE	LPG FROM BLENDING HEADER TOP OFF	Flange	0.2	1	100	0.000001	8760	0.013027
3311	04.04.2023	PIPE LINE END FLANGE	OFF SPEE LPG TO ALKYLATION BULLET	Flange	0.4	1	100	0.000002	8760	0.021206
3312	04.04.2023	PIPE LINE END FLANGE	LPG RETURN FROM TT LOADING LINE	Flange	0	1	100	0.000000	8760	0.000000
3313	04.04.2023	PIPE LINE END FLANGE	PM - 001 A/B/C DISCHARGE HEADER LINE	Flange	0	1	100	0.000000	8760	0.000000
3314	04.04.2023	FLOW control valve (NORTH east corner of PH-06)	HOV-1-UP steam	Flange	0	1	100	0.000000	8760	0.000000
3315	04.04.2023	FLOW control valve (NORTH east corner of PH-06)	HOV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
3316	04.04.2023	FLOW control valve (NORTH east corner of PH-06)	FCV-1-UP steam	Flange	0.2	1	100	0.000001	8760	0.013027
3317	04.04.2023	FLOW control valve (NORTH east corner of PH-06)	FCV-1-down steam	Flange	0	1	100	0.000000	8760	0.000000
3318	04.04.2023	FLOW control valve (NORTH east corner of PH-06)	HOV-2-UP steam	Flange	0	1	100	0.000000	8760	0.000000
3319	04.04.2023	FLOW control valve (NORTH east corner of PH-06)	HOV-2-down steam	Flange	0	1	100	0.000000	8760	0.000000
3320	04.04.2023	FLOW control valve (NORTH east corner of PH-06)	HOV-3- BYPASS UP steam	Flange	0	1	100	0.000000	8760	0.000000
3321	04.04.2023	FLOW control valve (NORTH east corner of PH-06)	HOV-3- BYPASS down steam	Flange	0	1	100	0.000000	8760	0.000000
3322	04.04.2023	COMPRESSER HOUSE LBG	HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3323	04.04.2023	COMPRESSER HOUSE LBG	HOV 1 DOWNSTEAM	Flange	0.2	1	100	0.000001	8760	0.013027
3324	04.04.2023	COMPRESSER HOUSE LBG	HOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3325	04.04.2023	COMPRESSER HOUSE LBG	HOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3326	04.04.2023	COMPRESSER HOUSE LBG	MOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3327	04.04.2023	COMPRESSER HOUSE LBG	MOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3328	04.04.2023	COMPRESSER HOUSE LBG	MOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3329	04.04.2023	COMPRESSER HOUSE LBG	MOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3330	04.04.2023	PROTUCT TANK	TK 04 PSV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3331	04.04.2023	PROTUCT TANK	TK 04 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3332	04.04.2023	PROTUCT TANK	TK 07 PSV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3333	04.04.2023	PROTUCT TANK	TK 07 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3334	04.04.2023	PROTUCT TANK	TK 11 PSV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3335	04.04.2023	PROTUCT TANK	TK 11 PSV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
3336	04.04.2023	PROTUCT TANK	TK 14 PSV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3337	04.04.2023	PROTUCT TANK	TK 14 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3338	04.04.2023	PROTUCT TANK	TK 08 PSV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3339	04.04.2023	PROTUCT TANK	TK 08 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3340	04.04.2023	PROTUCT TANK	STREAM HOV UP STEAM	Flange	0.4	1	100	0.000002	8760	0.021206
3341	04.04.2023	PUMP HOUSE 2	MOV 1 UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
3342	04.04.2023	PUMP HOUSE 2	MOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3343	04.04.2023	PUMP HOUSE 2	MOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3344	04.04.2023	PUMP HOUSE 2	MOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3345	04.04.2023	PUMP HOUSE 2	HOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3346	04.04.2023	PUMP HOUSE 2	HOV 1 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3347	04.04.2023	OTHER FLANGES	HOV	Flange	0	1	100	0.000000	8760	0.000000
3348	04.04.2023	OTHER FLANGES	HOV	Flange	0	1	100	0.000000	8760	0.000000
3349	04.04.2023	OTHER FLANGES	HOV	Flange	0	1	100	0.000000	8760	0.000000

3350	04.04.2023	OTHER FLANGES	HOV	Flange	0,2	1	100	0.000001	8760	0.013027
3351	04.04.2023	OTHER FLANGES	HOV	Flange	0	1	100	0.000000	8760	0.000000
3352	04.04.2023	OTHER FLANGES	HOV	Flange	0	1	100	0.000000	8760	0.000000
3353	07.04.2023	crude tank area crude receipt live from south jetty at battery limit	200-xzv-0011 up steam	Flange	0	1	100	0.000000	8760	0.000000
3354	07.04.2023	crude tank area crude receipt live from south jetty at battery limit	200-xzv-0011 down steam	Flange	0	1	100	0.000000	8760	0.000000
3355	07.04.2023	crude tank area crude receipt live from south jetty at battery limit	MOV-3 UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3356	07.04.2023	crude tank area crude receipt live from south jetty at battery limit	MOV-3 DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3357	07.04.2023	crude tank area crude receipt live from south jetty at battery limit	200-MOV-003 UP steam	Flange	0	1	100	0.000000	8760	0.000000
3358	07.04.2023	crude tank area crude receipt live from south jetty at battery limit	200-MOV-003 DOWN steam	Flange	0	1	100	0.000000	8760	0.000000
3359	07.04.2023	crude tank area crude receipt live from south jetty at battery limit	200-MOV-016 UP steam	Flange	0	1	100	0.000000	8760	0.000000
3360	07.04.2023	crude tank area crude receipt live from south jetty at battery limit	200-MOV-016 DOWN steam	Flange	0	1	100	0.000000	8760	0.000000
3361	07.04.2023	crude tank area crude receipt live from south jetty at battery limit	200-MOV-015 UP steam	Flange	0	1	100	0.000000	8760	0.000000
3362	07.04.2023	crude tank area crude receipt live from south jetty at battery limit	200-MOV-015 DOWN steam	Flange	0	1	100	0.000000	8760	0.000000
3363	07.04.2023	crude tank area crude receipt From SPM/Pipe Line	200-MOV-01 BATTERY LIMIT	Flange	0	1	100	0.000000	8760	0.000000
3364	07.04.2023	crude tank area crude receipt From SPM/Pipe Line	FLANGE NO 2 CONNECTING TO ONLINE SAMPLER	Flange	0	1	100	0.000000	8760	0.000000
3365	07.04.2023	crude tank area crude receipt From SPM/Pipe Line	INLET FLANGE TO PUMP NO 2	Flange	0	1	100	0.000000	8760	0.000000
3366	07.04.2023	crude tank area crude receipt From SPM/Pipe Line	INLET FLANGE TO PUMP NO 1	Flange	0	1	100	0.000000	8760	0.000000
3367	07.04.2023	crude tank area crude receipt From SPM/Pipe Line	FLANGE NO 2 CONNECTING TO SAMPLER	Flange	0	1	100	0.000000	8760	0.000000
3368	07.04.2023	crude tank area crude receipt From SPM/Pipe Line	FLANGE NO 2 CONNECTING TO SAMPLER	Flange	0	1	100	0.000000	8760	0.000000
3369	07.04.2023	CRude tank NO -1	OUTLET XZV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3370	07.04.2023	CRude tank NO -1	OUTLET XZV down steam	Flange	0	1	100	0.000000	8760	0.000000
3371	07.04.2023	CRude tank NO -1	MANWAY A	Flange	0,1	1	100	0.000001	8760	0.008002
3372	07.04.2023	CRude tank NO -1	MANWAY B	Flange	0	1	100	0.000000	8760	0.000000
3373	07.04.2023	CRude tank NO -1	MANWAY C	Flange	0,5	1	100	0.000003	8760	0.024807
3374	07.04.2023	CRude tank NO -1	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3375	07.04.2023	CRude tank NO -1	WD/A down steam	Flange	0	1	100	0.000000	8760	0.000000
3376	07.04.2023	CRude tank NO -1	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3377	07.04.2023	CRude tank NO -1	WD/B down steam	Flange	0	1	100	0.000000	8760	0.000000
3378	07.04.2023	CRude tank NO -1	WD/C UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3379	07.04.2023	CRude tank NO -1	WD/C down steam	Flange	0	1	100	0.000000	8760	0.000000
3380	07.04.2023	CRude tank NO -1	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3381	07.04.2023	CRude tank NO -1	WD/D down steam	Flange	0	1	100	0.000000	8760	0.000000
3382	07.04.2023	CRude tank NO -1	CLEAN OUT DOOR	Flange	0,2	1	100	0.000001	8760	0.013027
3383	07.04.2023	CRude tank NO -1	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0.000000
3384	07.04.2023	CRude tank NO -1	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0.000000
3385	07.04.2023	CRude tank NO -1	INLET XZV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3386	07.04.2023	CRude tank NO -1	INLET XZV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3387	07.04.2023	OUTSIDE DYKE	INLET MOV	Flange	0	1	100	0.000000	8760	0.000000
3388	07.04.2023	OUTSIDE DYKE	INLET MOV	Flange	0	1	100	0.000000	8760	0.000000
3389	07.04.2023	OUTSIDE DYKE	OUTLET MOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3390	07.04.2023	OUTSIDE DYKE	OUTLET MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3391	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3392	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3393	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3394	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3395	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3396	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3397	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002
3398	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3399	07.04.2023	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0.000000
3400	07.04.2023	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0.000000
3401	07.04.2023	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0.000000
3402	07.04.2023	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0.000000
3403	07.04.2023	END FLANGES	TSV INLET LINE	Flange	0,2	1	100	0.000001	8760	0.013027
3404	07.04.2023	END FLANGES	TSV INLET LINE	Flange	0,4	1	100	0.000002	8760	0.021206
3405	07.04.2023	END FLANGES	TSV INLET LINE	Flange	0,1	1	100	0.000001	8760	0.008002
3406	07.04.2023	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0.000000
3407	07.04.2023	END FLANGES	TSV INLET LINE	Flange	0,3	1	100	0.000002	8760	0.017323
3408	07.04.2023	END FLANGES	TSV INLET LINE	Flange	0	1	100	0.000000	8760	0.000000
3409	07.04.2023	END FLANGES	MOV-0002	Flange	0	1	100	0.000000	8760	0.000000
3410	07.04.2023	END FLANGES	MOV-0002	Flange	0	1	100	0.000000	8760	0.000000
3411	07.04.2023	END FLANGES	MOV-0002	Flange	0	1	100	0.000000	8760	0.000000
3412	07.04.2023	END FLANGES	MOV-0002	Flange	0	1	100	0.000000	8760	0.000000
3413	07.04.2023	CRude tank NO -1 Tank Top	RIM SEAL EAST	Flange	0,2	1	100	0.000001	8760	0.013027
3414	07.04.2023	CRude tank NO -1 Tank Top	RIM SEAL WEST	Flange	0,1	1	100	0.000001	8760	0.008002
3415	07.04.2023	CRude tank NO -1 Tank Top	RIM SEAL NORTH	Flange	0,1	1	100	0.000001	8760	0.008002
3416	07.04.2023	CRude tank NO -1 Tank Top	RIM SEAL SOUTH	Flange	0,8	1	100	0.000004	8760	0.034521
3417	07.04.2023	CRude tank NO -1 Tank Top	DIPHATCH	Flange	0,5	1	100	0.000003	8760	0.024807
3418	07.04.2023	CRude tank NO -2	OUTLET XZV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3419	07.04.2023	CRude tank NO -2	OUTLET XZV down steam	Flange	0,2	1	100	0.000001	8760	0.013027
3420	07.04.2023	CRude tank NO -2	MANWAY A	Flange	0	1	100	0.000000	8760	0.000000
3421	07.04.2023	CRude tank NO -2	MANWAY B	Flange	0,1	1	100	0.000001	8760	0.008002
3422	07.04.2023	CRude tank NO -2	MANWAY C	Flange	0,3	1	100	0.000002	8760	0.017323
3423	07.04.2023	CRude tank NO -2	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3424	07.04.2023	CRude tank NO -2	WD/A down steam	Flange	0	1	100	0.000000	8760	0.000000
3425	07.04.2023	CRude tank NO -2	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3426	07.04.2023	CRude tank NO -2	WD/B down steam	Flange	0	1	100	0.000000	8760	0.000000
3427	07.04.2023	CRude tank NO -2	WD/C UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3428	07.04.2023	CRude tank NO -2	WD/C down steam	Flange	0	1	100	0.000000	8760	0.000000
3429	07.04.2023	CRude tank NO -2	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3430	07.04.2023	CRude tank NO -2	WD/D down steam	Flange	0	1	100	0.000000	8760	0.000000
3431	07.04.2023	CRude tank NO -2	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0.000000
3432	07.04.2023	CRude tank NO -2	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0.000000
3433	07.04.2023	CRude tank NO -2	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0.000000
3434	07.04.2023	CRude tank NO -2	INLET XZV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002
3435	07.04.2023	CRude tank NO -2	INLET XZV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3436	07.04.2023	OUTSIDE DYKE	INLET MOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002
3437	07.04.2023	OUTSIDE DYKE	INLET MOV DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002

3702	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0,1	1	100	0.000001	8760	0.008002
3703	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0068	Flange	0	1	100	0.000000	8760	0.000000
3704	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3705	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0066	Flange	0	1	100	0.000000	8760	0.000000
3706	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3707	07.04.2023	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0.000000
3708	07.04.2023	CRude tank NO -9 Tank Top	RIM SEAL EAST	Flange	0,5	1	100	0.000003	8760	0.024807
3709	07.04.2023	CRude tank NO -9 Tank Top	RIM SEAL WEST	Flange	0,2	1	100	0.000001	8760	0.013027
3710	07.04.2023	CRude tank NO -9 Tank Top	RIM SEAL NORTH	Flange	2,2	1	100	0.000008	8760	0.070296
3711	07.04.2023	CRude tank NO -9 Tank Top	RIM SEAL SOUTH	Flange	0	1	100	0.000000	8760	0.000000
3712	07.04.2023	CRude tank NO -9 Tank Top	DIPHATCH	Flange	0,7	1	100	0.000004	8760	0.031427
3713	07.04.2023	CRude tank NO -10 INSIDE DYKE	OUTLET XZV UP STEAM 5020	Flange	0	1	100	0.000000	8760	0.000000
3714	07.04.2023	CRude tank NO -10 INSIDE DYKE	OUTLET XZV down steam 5020	Flange	0,1	1	100	0.000001	8760	0.008002
3715	07.04.2023	CRude tank NO -10 INSIDE DYKE	MANWAY A	Flange	0	1	100	0.000000	8760	0.000000
3716	07.04.2023	CRude tank NO -10 INSIDE DYKE	MANWAY B	Flange	0	1	100	0.000000	8760	0.000000
3717	07.04.2023	CRude tank NO -10 INSIDE DYKE	MANWAY C	Flange	0	1	100	0.000000	8760	0.000000
3718	07.04.2023	CRude tank NO -10 INSIDE DYKE	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3719	07.04.2023	CRude tank NO -10 INSIDE DYKE	WD/A down steam	Flange	0	1	100	0.000000	8760	0.000000
3720	07.04.2023	CRude tank NO -10 INSIDE DYKE	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3721	07.04.2023	CRude tank NO -10 INSIDE DYKE	WD/B down steam	Flange	0,2	1	100	0.000001	8760	0.013027
3722	07.04.2023	CRude tank NO -10 INSIDE DYKE	WD/C UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3723	07.04.2023	CRude tank NO -10 INSIDE DYKE	WD/C down steam	Flange	0,2	1	100	0.000001	8760	0.013027
3724	07.04.2023	CRude tank NO -10 INSIDE DYKE	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3725	07.04.2023	CRude tank NO -10 INSIDE DYKE	WD/D down steam	Flange	0	1	100	0.000000	8760	0.000000
3726	07.04.2023	CRude tank NO -10 INSIDE DYKE	CLEAN OUT DOOR	Flange	0	1	100	0.000000	8760	0.000000
3727	07.04.2023	CRude tank NO -10 INSIDE DYKE	JET MIXTURE MOV 0085	Flange	0	1	100	0.000000	8760	0.000000
3728	07.04.2023	CRude tank NO -10 INSIDE DYKE	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0.000000
3729	07.04.2023	CRude tank NO -10 INSIDE DYKE	INLET XZV UP STEAM 5019	Flange	0,1	1	100	0.000001	8760	0.008002
3730	07.04.2023	CRude tank NO -10 INSIDE DYKE	INLET XZV DOWN STEAM 5019	Flange	0,4	1	100	0.000002	8760	0.021206
3731	07.04.2023	OUTSIDE DYKE	INLET MOV UPSTEAM 0053	Flange	0,1	1	100	0.000001	8760	0.008002
3732	07.04.2023	OUTSIDE DYKE	INLET MOV DOWNSTEAM 0053	Flange	0	1	100	0.000000	8760	0.000000
3733	07.04.2023	OUTSIDE DYKE	HEEL STRIPPING MOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3734	07.04.2023	OUTSIDE DYKE	HEEL STRIPPING MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3735	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM 0089	Flange	0	1	100	0.000000	8760	0.000000
3736	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3737	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3738	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3739	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0086	Flange	0	1	100	0.000000	8760	0.000000
3740	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3741	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0084	Flange	0	1	100	0.000000	8760	0.000000
3742	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3743	07.04.2023	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0.000000
3744	07.04.2023	CRude tank NO -10 Tank Top	RIM SEAL EAST	Flange	0,2	1	100	0.000001	8760	0.013027
3745	07.04.2023	CRude tank NO -10 Tank Top	RIM SEAL WEST	Flange	0,1	1	100	0.000001	8760	0.008002
3746	07.04.2023	CRude tank NO -10 Tank Top	RIM SEAL NORTH	Flange	0,1	1	100	0.000001	8760	0.008002
3747	07.04.2023	CRude tank NO -10 Tank Top	RIM SEAL SOUTH	Flange	0,8	1	100	0.000004	8760	0.034521
3748	07.04.2023	CRude tank NO -10 Tank Top	DIPHATCH	Flange	0,1	1	100	0.000001	8760	0.008002
3749	07.04.2023	CRude tank NO -11 INSIDE DYKE	OUTLET XZV UP STEAM 5022	Flange	0	1	100	0.000000	8760	0.000000
3750	07.04.2023	CRude tank NO -11 INSIDE DYKE	OUTLET XZV down steam 5022	Flange	0	1	100	0.000000	8760	0.000000
3751	07.04.2023	CRude tank NO -11 INSIDE DYKE	MANWAY A	Flange	0,2	1	100	0.000001	8760	0.013027
3752	07.04.2023	CRude tank NO -11 INSIDE DYKE	MANWAY B	Flange	0	1	100	0.000000	8760	0.000000
3753	07.04.2023	CRude tank NO -11 INSIDE DYKE	MANWAY C	Flange	0,4	1	100	0.000002	8760	0.021206
3754	07.04.2023	CRude tank NO -11 INSIDE DYKE	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3755	07.04.2023	CRude tank NO -11 INSIDE DYKE	WD/A down steam	Flange	0	1	100	0.000000	8760	0.000000
3756	07.04.2023	CRude tank NO -11 INSIDE DYKE	WD/B UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3757	07.04.2023	CRude tank NO -11 INSIDE DYKE	WD/B down steam	Flange	0	1	100	0.000000	8760	0.000000
3758	07.04.2023	CRude tank NO -11 INSIDE DYKE	WD/C UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3759	07.04.2023	CRude tank NO -11 INSIDE DYKE	WD/C down steam	Flange	0	1	100	0.000000	8760	0.000000
3760	07.04.2023	CRude tank NO -11 INSIDE DYKE	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
3761	07.04.2023	CRude tank NO -11 INSIDE DYKE	WD/D down steam	Flange	0	1	100	0.000000	8760	0.000000
3762	07.04.2023	CRude tank NO -11 INSIDE DYKE	CLEAN OUT DOOR	Flange	0,1	1	100	0.000001	8760	0.008002
3763	07.04.2023	CRude tank NO -11 INSIDE DYKE	JET MIXTURE MOV 0094	Flange	0	1	100	0.000000	8760	0.000000
3764	07.04.2023	CRude tank NO -11 INSIDE DYKE	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0.000000
3765	07.04.2023	CRude tank NO -11 INSIDE DYKE	INLET XZV UP STEAM 5021	Flange	0	1	100	0.000000	8760	0.000000
3766	07.04.2023	CRude tank NO -11 INSIDE DYKE	INLET XZV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3767	07.04.2023	OUTSIDE DYKE	INLET MOV UPSTEAM 0091	Flange	0	1	100	0.000000	8760	0.000000
3768	07.04.2023	OUTSIDE DYKE	INLET MOV DOWNSTEAM 0091	Flange	0,2	1	100	0.000001	8760	0.013027
3769	07.04.2023	OUTSIDE DYKE	HEEL STRIPPING MOV UP STEAM	Flange	0,1	1	100	0.000001	8760	0.008002
3770	07.04.2023	OUTSIDE DYKE	HEEL STRIPPING MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3771	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM	Flange	0,2	1	100	0.000001	8760	0.013027
3772	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3773	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM 0092	Flange	0	1	100	0.000000	8760	0.000000
3774	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3775	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0095	Flange	0	1	100	0.000000	8760	0.000000
3776	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3777	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0093	Flange	0	1	100	0.000000	8760	0.000000
3778	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
3779	07.04.2023	END FLANGES	CRUDE OUTLET LAST	Flange	0,1	1	100	0.000001	8760	0.008002
3780	07.04.2023	END FLANGES	CRUDE RECEIPT HEADER MOV	Flange	0,1	1	100	0.000001	8760	0.008002
3781	07.04.2023	END FLANGES	CRUDE RECEIPT HEADER MOV	Flange	0	1	100	0.000000	8760	0.000000
3782	07.04.2023	END FLANGES	CRUDE RECEIPT HEADER MOV	Flange	0	1	100	0.000000	8760	0.000000
3783	07.04.2023	END FLANGES	ITT PUMP SUCTION HEADER	Flange	0	1	100	0.000000	8760	0.000000
3784	07.04.2023	END FLANGES	ITT PUMP SUCTION HEADER	Flange	0	1	100	0.000000	8760	0.000000
3785	07.04.2023	END FLANGES	PUMP SUCTION MOV 2 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3786	07.04.2023	END FLANGES	PUMP SUCTION MOV 2 DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3787	07.04.2023	END FLANGES	PUMP SUCTION MOV 1 UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
3788	07.04.2023	END FLANGES	PUMP SUCTION MOV 1 DOWNSTEAM	Flange	0,1	1	100	0.000001	8760	0.008002
3789	07.04.2023	END FLANGES	ITT MAIN DELIVERY HEADER MOV	Flange	0	1	100	0.000000	8760	0.000000

4055	08.04.2023	TPI FLANGE	HOV - 2 OILY WATER TO TPI DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4056	08.04.2023	TPI FLANGE	SKIMMED OIL LINE TK 1101A	Flange	0	1	100	0.000000	8760	0.000000
4057	08.04.2023	TPI FLANGE	SKIMMED OIL LINE TK 1102A	Flange	0	1	100	0.000000	8760	0.000000
4058	08.04.2023	TPI FLANGE	SKIMMED OIL LINE TK 1102C	Flange	0	1	100	0.000000	8760	0.000000
4059	08.04.2023	TPI FLANGE	TPI INLET TK-1101A UPSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
4060	08.04.2023	TPI FLANGE	TPI INLET TK-1101A DOWNSTEAM	Flange	0.1	1	100	0.000001	8760	0.008002
4061	08.04.2023	TPI FLANGE	TPI INLET TK-1101C UPSTEAM	Flange	0	1	100	0.000000	8760	0.000000
4062	08.04.2023	TPI FLANGE	TPI INLET TK-1101C DOWNSTEAM	Flange	0	1	100	0.000000	8760	0.000000
4063	08.04.2023	TPI FLANGE	FLANGE SUCTION BLOWER OF VOC ABSORBER	Flange	0.2	1	100	0.000001	8760	0.013027
4064	08.04.2023	CRUDE TANK	TK 01 PSVUP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
4065	08.04.2023	CRUDE TANK	TK 01 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4066	08.04.2023	CRUDE TANK	STREAM HOV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
4067	08.04.2023	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4068	08.04.2023	CRUDE TANK	TK 02 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4069	08.04.2023	CRUDE TANK	TK 02 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4070	08.04.2023	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4071	08.04.2023	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4072	08.04.2023	CRUDE TANK	TK 03 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4073	08.04.2023	CRUDE TANK	TK 03PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4074	08.04.2023	CRUDE TANK	STREAM HOV UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
4075	08.04.2023	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4076	08.04.2023	CRUDE TANK	TK 04 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4077	08.04.2023	CRUDE TANK	TK 04PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4078	08.04.2023	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4079	08.04.2023	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4080	08.04.2023	CRUDE TANK	TK 05 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4081	08.04.2023	CRUDE TANK	TK 05PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4082	08.04.2023	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4083	08.04.2023	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4084	08.04.2023	CRUDE TANK	TK 06 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4085	08.04.2023	CRUDE TANK	TK 06 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4086	08.04.2023	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4087	08.04.2023	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4088	08.04.2023	CRUDE TANK	TK 07 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4089	08.04.2023	CRUDE TANK	TK 07 PSV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
4090	08.04.2023	CRUDE TANK	STREAM HOV UP STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
4091	08.04.2023	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
4092	08.04.2023	CRUDE TANK	TK 08 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4093	08.04.2023	CRUDE TANK	TK 08 PSV DOWN STEAM	Flange	0.3	1	100	0.000002	8760	0.017323
4094	08.04.2023	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4095	08.04.2023	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4096	08.04.2023	CRUDE TANK	TK 09 PSVUP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4097	08.04.2023	CRUDE TANK	TK 09 PSV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4098	08.04.2023	CRUDE TANK	STREAM HOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4099	08.04.2023	CRUDE TANK	STREAM HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4100	08.04.2023	CRUDE TANK	LAST HOV	Flange	0	1	100	0.000000	8760	0.000000
4101	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	OUTLET XZV UP STEAM 5024	Flange	0.1	1	100	0.000001	8760	0.008002
4102	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	OUTLET XZV down steam 5024	Flange	0	1	100	0.000000	8760	0.000000
4103	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	MANWAY A	Flange	0.3	1	100	0.000002	8760	0.017323
4104	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	MANWAY B	Flange	0.1	1	100	0.000001	8760	0.008002
4105	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	MANWAY C	Flange	0.8	1	100	0.000004	8760	0.034521
4106	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	WD/A UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4107	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	WD/A down steam	Flange	0	1	100	0.000000	8760	0.000000
4108	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	WD/B UP STEAM	Flange	0.2	1	100	0.000001	8760	0.013027
4109	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	WD/B down steam	Flange	0	1	100	0.000000	8760	0.000000
4110	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	WD/C UP STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
4111	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	WD/C down steam	Flange	0.1	1	100	0.000001	8760	0.008002
4112	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	WD/D UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4113	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	WD/D down steam	Flange	0	1	100	0.000000	8760	0.000000
4114	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	CLEAN OUT DOOR	Flange	0.5	1	100	0.000003	8760	0.024807
4115	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	JET MIXTURE MOV 0103	Flange	0	1	100	0.000000	8760	0.000000
4116	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	JET MIXTURE MOV	Flange	0	1	100	0.000000	8760	0.000000
4117	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	INLET XZV UP STEAM 5023	Flange	0	1	100	0.000000	8760	0.000000
4118	07.04.2023	CRUDE tank NO -12 INSIDE DYKE	INLET XZV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4119	07.04.2023	OUTSIDE DYKE	INLET MOV 0100	Flange	0	1	100	0.000000	8760	0.000000
4120	07.04.2023	OUTSIDE DYKE	INLET MOV 0101	Flange	0	1	100	0.000000	8760	0.000000
4121	07.04.2023	OUTSIDE DYKE	HEEL STRIPPING HOV UP STEAM	Flange	0	1	100	0.000000	8760	0.000000
4122	07.04.2023	OUTSIDE DYKE	HEEL STRIPPING HOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4123	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM 0106	Flange	0	1	100	0.000000	8760	0.000000
4124	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0.1	1	100	0.000001	8760	0.008002
4125	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV UP STEAM 0107	Flange	0	1	100	0.000000	8760	0.000000
4126	07.04.2023	OUTSIDE DYKE	PUMP SUCTION HEADER MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4127	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV UP STEAM 0104	Flange	0	1	100	0.000000	8760	0.000000
4128	07.04.2023	OUTSIDE DYKE	ITT SUCTION MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4129	07.04.2023	OUTSIDE DYKE	ITT DISCHARGE MOV UP STEAM 0102	Flange	0	1	100	0.000000	8760	0.000000
4130	07.04.2023	OUTSIDE DYKE	ITT DISCHARGE MOV DOWN STEAM	Flange	0	1	100	0.000000	8760	0.000000
4131	07.04.2023	END FLANGES	CRUDE OUTLET LAST	Flange	0	1	100	0.000000	8760	0.000000
4132	07.04.2023	CRUDE tank NO -12 Tank Top	RIM SEAL EAST	Flange	0	1	100	0.000000	8760	0.000000
4133	07.04.2023	CRUDE tank NO -12 Tank Top	RIM SEAL WEST	Flange	0	1	100	0.000000	8760	0.000000
4134	07.04.2023	CRUDE tank NO -12 Tank Top	RIM SEAL NORTH	Flange	0.1	1	100	0.000001	8760	0.008002
4135	07.04.2023	CRUDE tank NO -12 Tank Top	RIM SEAL SOUTH	Flange	0.3	1	100	0.000002	8760	0.017323
4136	07.04.2023	CRUDE tank NO -12 Tank Top	DIPHATCH	Flange	0.3	1	100	0.000002	8760	0.017323
4137	08.04.2023	CRUDE tank NO -13 INSIDE DYKE	OUTLET XZV UP STEAM 5026	Flange	0	1	100	0.000000	8760	0.000000
4138	08.04.2023	CRUDE tank NO -13 INSIDE DYKE	OUTLET XZV down steam 5026	Flange	0	1	100	0.000000	8760	0.000000
4139	08.04.2023	CRUDE tank NO -13 INSIDE DYKE	MANWAY A	Flange	0	1	100	0.000000	8760	0.000000
4140	08.04.2023	CRUDE tank NO -13 INSIDE DYKE	MANWAY B	Flange	0	1	100	0.000000	8760	0.000000
4141	08.04.2023	CRUDE tank NO -13 INSIDE DYKE	MANWAY C	Flange	0	1	100	0.000000	8760	0.000000



REPORT ON
LDAR MONITORING AT
INDIAN OIL TANKING LIMITED,
SOJ IOCL PARADIP, DEC 2022

PREPARED BY:

SGS India Private Limited

CS Plot-512 (P), Mouza, Hanspukuria,

Diamond Harbour Road,

PO-Joka,

South 24Parganas

Kolkata - 700104

Contents

1	Introduction	3
1.1	About Industry.....	3
2	Objective.....	Error! Bookmark not defined.
3	Present study.....	4
4	Scope of Work	4
5	About LDAR.....	4
6	Methodology of the study	5
6.1	Sampling Methodology.....	Error! Bookmark not defined.
6.2	Individual Source Surveys.....	5
7	Calculation	6
8	Results.....	8

1 Introduction

SGS India Private Limited has been contracted to conduct LDAR monitoring at BOOT # 3 & SOJ of IOCL Paradip for 2021-2022 period. Accordingly the measurement of the identified fugitive emission sources within the study area to detect leaking components as per USEPA 21 Guideline were conducted during November-December 2021. Although the leak definition as per CPCB guideline is 3000 ppmv and 5000 ppmv, M/s IOT wanted SGS to report any source emission above 300 ppmv.

2 About Industry

Oiltanking has been active in tank storage logistics since 1972, and is one of the largest independent operators of tank terminals for oils, gases and chemicals worldwide. The company owns and operates 45 terminals in 20 countries with a total storage capacity of more than 18.5 million cbm, on five continents – in Europe, North America, Latin America, the Middle East, Africa, India, and the Asia-Pacific region.

At the tank terminals, Oiltanking stores and handles nearly 500 different products including crude oil, petroleum products, biofuels, gases and chemicals. The total throughput of all terminals in 2019 was around 155 million tons.

Oiltanking is not the owner of the goods stored, but merely provides its services in the field of tank storage logistics. Our clients include private and state oil companies, refiners, petrochemical companies, and traders in petroleum products and chemicals.

Often we develop and operate our business with reputable local, private and state-owned companies, whereby Oiltanking acts as operating partner in the joint venture. In developing capital-intensive terminal facilities alone – or with substantial local business partners – the financial strength of parent company Marquard & Bahls AG is a valuable resource.

To further improve our shareholders value we continue to employ a strategy of controlled growth of our tank terminal-based service network through acquisitions, new buildings and upgrading of existing facilities.

Oiltanking has a strong customer orientation and provides tailor-made infrastructure. Its focus is on safe, efficient and reliable services in constructing and operating its facilities.

Besides tank storage, Oiltanking is active in the engineering, procurement and construction (EPC) of tank terminals.

In 2020, about 2,600 employees worked for Oiltanking.

PARADIP TERMINAL FACTS

Tank Capacity 1,513,968 cbm

Tanks 51

Tank Types Mild steel, pressure vessel steel

Access Types - Vessels, Tank Trucks, Pipeline, Berth

No. of Berths - 1

Products - Clean Petroleum Products, Crude Oil, Gases

Services - Pipeline connections to refineries, Tank-to-tank transfer, Vessel loading and unloading, Truck loading, Blending services, Homogenizing

2 Sampling Schedule

From 07.12.2022 to 14.12.2022

3 Objective

The objective of the studies to Identifying potential fugitive emission sources and quantification of the fugitive emission during oil production in terminals.

A typical industry can emit tons per year of VOCs from leaking equipment, such as valves, connectors, pumps, sampling connections, compressors, pressure relief devices and open-ended lines etc. Process components covering all joints as mentioned above are monitored under “fugitive emission monitoring” program covering all the components in Boot # 3 & SOJ.

4 Present study

- a) Carry out onsite detection through physical scanning for leaks and vented emissions (if any) in the operating assets using portable analyzer according USEPA Method 21 (sniffing method).
- b) Monitoring and measurement of the identified fugitive emission sources within the study area and tagging the detected leaking components.
- c) The outcome of the study shall focus on the details the programme undertaken, methodology, findings, monitored fugitive emissions rates, conclusion and recommendations for improvement.

5 Scope of Work

- Fugitive emission monitoring at IOCL Paradip (Boot # 3 & SOJ) terminal.
- Monitoring and measurement of the identified fugitive emission sources (supplied by IOT) within the study area and tagging the detected leaking components as per USEPA method 21.

About LDAR:

Leak Detection and Repair (LDAR) is a program implemented to comply with environmental regulations for reducing the fugitive emissions of targeted chemicals into the environment. Several standards such as *Maximum Achievable Control Technology* (MACT) standards, *New Source Performance Standards* (NSPS), *National Emissions Standards for Hazardous Air Pollutants* (NESHAP) and Central Pollution Control Board (CPCB) require the monitoring and reporting of these fugitive emissions from process equipment.

Process components covering Boot # 3 and SOJ were monitored as LDAR and covered all the components in the process plant. The environmental regulations are prescribed LDAR programs as a means of reducing emissions have very specific standards and applied to a monitoring and repair program. The LDAR study included the following protocols:

- **Types of components (pumps, valves, connectors, Flanges etc.) to be monitored** – All the sources assumed to be leaking source are monitored as per the USEPA Method 21 Protocol.
- **Measured concentration in PPM that indicates a leak** – Emission source is measured at PPM (parts per million) level.
- **Frequency of monitoring** – As per EPA act 1986 page 409, Fugitive emission monitoring program is undertaken every year (including Heat Exchangers and Pump seal as a part of Quarterly Monitoring).
- Method of monitoring
- **Actions to be taken if a leak is discovered** – A leak source above the limit as per EPA act should be reported and repaired immediately and the sources emitting the leak under the limit should be reported and an appropriate action should be undertaken.
- **Length of time in which an initial attempt to repair the leak must be performed** – Depending upon the nature of leak source, a leak source above the limits as per EPA guidelines should be reported and repaired immediately.
- **Actions that must be taken if a leak cannot be repaired within guidelines** – A proper action should be undertaken as a leaking source contributes in air pollution.
- **Record-keeping and reporting requirements** – A proper record should be maintained so that the leak source can be monitored again to see discrepancies if any.

Affected Sources: Each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, flange and connector that contains or contacts a fluid or gas, that is exceeding more than 5000ppm of pump and compressor seals and 3000 ppm other components is an affected source.

Equipment Leak: A leak is defined as greater than or equal to 3,000 & 5000 ppmv as methane, for organic compounds, as determined by EPA Reference Method 21. Most of the emissions are from valves and connectors because these are most prevalent components and can number in the thousands. The major cause of emissions from valves and connectors is seal or gasket failure due to normal wear or improper maintenance. More than 90% of emissions from the leaking equipment with valves are being the most significant source. The open-ended lines and sampling connections account for as much as 5 – 10% of total VOC emissions from equipment leaks.

Minimum Requirements for an Acceptable Organic LDAR Program:

- Each affected source is screened initially using USEPA Method 21.
- Monthly visual inspections must be performed by industry on each affected source for signs of leakage (e.g. dripping liquid, spraying, misting, clouding, ice formation, distinctive odors, etc.).
- Monitoring of each affected source is to be conducting quarterly using Method 21.

All potential leak points associated with a component must be identified and screened for leaks. The detected leaks by Method 21 test was tagged and repaired. The leak sources are measured after repair and the same is recorded.

6 Methodology of the study:

USEPA Method – 21 was followed to monitor source emissions at IOT/IOCL Paradip.

6.1 Individual Source Surveys.

Leak Definition Based on Concentration. Place the probe inlet at the surface of the component interface where leakage could occur. Move the probe along the interface periphery while

observing the instrument readout. If an increased meter reading is observed, slowly sample the interface where leakage is indicated until the maximum meter reading is obtained. Leave the probe inlet at this maximum reading location for approximately two times the instrument response time. If the maximum observed meter reading is greater than the leak definition in the applicable regulation, record and report the results as specified in the regulation reporting requirements. Examples of the application of this general technique to specific equipment types are:

- **Valves** - The most common source of leaks from valves is the seal between the stem and housing. Place the probe at the interface where the stem exits the packing gland and sample the stem circumference. Also, place the probe at the interface of the packing gland take-up flange seat and sample the periphery. In addition, survey valve housings of multipart assembly at the surface of all interfaces where a leak could occur.
- **Flanges and Other Connections** - For welded flanges, place the probe at the outer edge of the flange-gasket interface and sample the circumference of the flange. Sample other types of nonpermanent joints (such as threaded connections) with a similar traverse.
- **Pumps and Compressors** - Conduct a circumferential traverse at the outer surface of the pump or compressor shaft and seal interface. If the source is a rotating shaft, position the probe inlet within 1 cm of the shaft-seal interface for the survey. If the housing configuration prevents a complete traverse of the shaft periphery, sample all accessible portions. Sample all other joints on the pump or compressor housing where leakage could occur.
- **Pressure Relief Devices** - The configuration of most pressure relief devices prevents sampling at the sealing seat interface. For those devices equipped with an enclosed extension, or horn, place the probe inlet at approximately the center of the exhaust area to the atmosphere.
- **Process Drains** - For open drains, place the probe inlet at approximately the center of the area open to the atmosphere. For covered drains, place the probe at the surface of the cover interface and conduct a peripheral traverse.
- **Access door seals**. Place the probe inlet at the surface of the door seal interface and conduct a peripheral traverse.

Calculation:

(Reference – EPA 1995 Protocol for Equipment Leak Emission Estimation Table 2-10)

Component Type	Default Zero Factor [Kg/hr]	Correlation Equation [Kg/hr]
Valves	[7.8E-06]	$[2.29E-06(SV)^{0.746}]$
Pump Seals	[1.9E-05]	$[5.03E-05(SV)^{0.610}]$
Others	[4.0E-06]	$[1.36E-05(SV)^{0.589}]$
Connectors	[7.5E-06]	$[1.53E-06(SV)^{0.735}]$
Flanges	[3.1E-07]	$[4.61E-06(SV)^{0.703}]$
Open-ended Lines	[2.0E-06]	$[2.20E-06(SV)^{0.704}]$

The default zero factors apply only when the screening value(SV) corrected for background equals 0 ppmv.

The correlation equations apply for actual screening values, corrected for background.

The “other” component type includes instruments, loading arms, pressure relief valves, vents, compressors, dump lever arms, diaphragms, drains, hatches, meters and polished rods stuffing boxes. This “other” component type should be applied for any component type other than connectors, flanges, open-ended lines, pumps or valves.

For example,

Reference USEPA-Method-21)

The screening value (SV) concentration in Valves is 2600 ppm

$$= \text{RF (\% of VOC Flow/100)} * 0.0000023 * \text{SV}^{0.746}$$

$$\text{RF} = \text{Response Factor} = 1$$

Response Factors of Different Volatiles (USEPA Method-21):	
Gasoline Vapors	1.05
Naphtha	1.0
Heavy Oil	1.1
Petrol & Diesel	0.8
Gasoline Vapors 2	0.7
Light Oil	1.0

% of VOC Flow = material passing on that particular pipe line.

$$0.00000227 = \text{Correlation factor}$$

$$\text{SV} = \text{Screening Value in ppm}$$

If we will apply all the values in the below formula

$$= \text{RF (\% of VOC Flow/100)} * 0.0000023 * \text{SV}^{0.746}$$

$$= 1 (100/100) * 0.0000023 * 2600^{0.746}$$

$$= 0.000815 \text{ kg/hr}$$

Total hours of operation per year are 8760 (24 hours x 365 days)

$$\text{The volatile emission} = 7.109 \text{ Kgs/year.}$$

SUMMARY OF THE STUDY

SGS has monitored more than four thousand points in study area selected by IOT at IOCL Paradip Boot # 3 area and more than one thousand points at the Berth at Paradip Port.

TEST RESULTS

SUMMARY SHEET OF TVOC EMISSION MEASUREMENT			
UNIT	NO. OF POINT MEASURE	TOTAL VOC EMISSION IN kg/Hr.	TOTAL VOC EMISSION IN kg/Year
Boot # 3	4222	0.015047	131.81561
SOJ	1417	0.001978	17.32832
TOTAL POINTS	5639	0.017025	149.14393

CONCLUSION:

The results are submitted component wise in the enclosed Annexure-1 As per CPCB guidelines no components detected with more than the standard values of 3000ppmv and 5000ppmv. Hence no recommendations are given for repairing of any leakage sources. However M/s IOT wanted SGS to report any source emission above 300 ppmv and accordingly SGS has tagged and reported for the points with emission of 300 ppmv and above. Total 14 points with emission of 300 ppmv and above were detected at BOOT # 3 and no such point was detected at SOJ area.

Maximum Screening Value at Boot # 3 was 2661 ppmv and that at SOJ(Dock Yard at Paradip Port) was 281.5 ppmv.

Based on the calculation and concentrations of VOC in the equipment, we took default value 1 for Response Factor (RF).

Results

www.sgs.com

LDAR points SOJ

S.NO	Date	Unit	Component ID & Location	Type	SCREENING VALUE OF VOC (ppm)	RF	% of VOC FLOW	Kg/Hrs.	HOURS OF OPERATION	Kg/Year
1	12.12.2022	Jetty - Pig Reciver Area Naptha	Battery Limit XZV Up Stream	Flange	0.4	1	100	0.000002	8760	0.021206
2	12.12.2022	Jetty - Pig Reciver Area Naptha	Battery Limit XZV Down Strem	Flange	0.1	1	100	0.000001	8760	0.008002
3	12.12.2022	Jetty - Pig Reciver Area Naptha	Isolation MOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
4	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel	Flange	0.3	1	100	0.000002	8760	0.017323
5	12.12.2022	Jetty - Pig Reciver Area Naptha	Kicker Line	Flange	0	1	100	0.000000	8760	0
6	12.12.2022	Jetty - Pig Reciver Area Naptha	Kicker Line Drain HOV Up Stream	Flange	0	1	100	0.000000	8760	0
7	12.12.2022	Jetty - Pig Reciver Area Naptha	Kicker Line Drain HOV Down Stream	Flange	0	1	100	0.000000	8760	0
8	12.12.2022	Jetty - Pig Reciver Area Naptha	Kicker Line HPV	Flange	0	1	100	0.000000	8760	0
9	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel Drain HOV -1 Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
10	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel Drain HOV -1 Down Stream	Flange	0.5	1	100	0.000003	8760	0.024807
11	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel Drain HOV -2 Up Stream	Flange	0	1	100	0.000000	8760	0
12	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel Drain HOV -2 Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
13	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel PG Up Stream	Flange	0	1	100	0.000000	8760	0
14	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel PG Down Stream	Flange	0	1	100	0.000000	8760	0
15	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel PSV HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
16	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel PSV HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
17	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel PSV HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
18	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel PSV HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
19	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel Venting Line HOV Up Stream	Flange	0	1	100	0.000000	8760	0
20	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel Venting Line HOV Down Stream	Flange	0	1	100	0.000000	8760	0
21	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel Venting Line HPV	Flange	0	1	100	0.000000	8760	0
22	12.12.2022	Jetty - Pig Reciver Area Naptha	Nitrogen Pushing Point Up Stream	Flange	0	1	100	0.000000	8760	0
23	12.12.2022	Jetty - Pig Reciver Area Naptha	Nitrogen Pushing Point Down Stream	Flange	0	1	100	0.000000	8760	0
24	12.12.2022	Jetty - Pig Reciver Area Naptha	Main Line PSV	Flange	0	1	100	0.000000	8760	0
25	12.12.2022	Jetty - Pig Reciver Area Naptha	Main Line PSV HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
26	12.12.2022	Jetty - Pig Reciver Area Naptha	Main Line PSV HOV - 1 Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
27	12.12.2022	Jetty - Pig Reciver Area Naptha	Main Line PSV HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
28	12.12.2022	Jetty - Pig Reciver Area Naptha	Main Line PSV HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
29	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
30	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
31	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
32	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
33	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line LPD	Flange	0	1	100	0.000000	8760	0
34	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line Vent Point Up Stream	Flange	0	1	100	0.000000	8760	0
35	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line Vent Point Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
36	12.12.2022	Jetty - Pig Reciver Area Naptha	Isolation MOV & Pressure Balancing LineHOV -1 Up Stream	Flange	0.5	1	100	0.000003	8760	0.024807
37	12.12.2022	Jetty - Pig Reciver Area Naptha	Isolation MOV & Pressure Balancing LineHOV -1 Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002

38	12.12.2022	Jetty - Pig Reciver Area Naptha	Isolation MOV & Pressure Balancing LineHOV -2 Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
39	12.12.2022	Jetty - Pig Reciver Area Naptha	Isolation MOV & Pressure Balancing LineHOV -2 Down Stream	Flange	0	1	100	0.000000	8760	0
40	12.12.2022	Jetty - Pig Reciver Area Naptha	Isolation MOV - Pressure Balancing Line HPV UP Stream	Flange	0	1	100	0.000000	8760	0
41	12.12.2022	Jetty - Pig Reciver Area Naptha	Isolation MOV - Pressure Balancing Line HPV Down Stream	Flange	0	1	100	0.000000	8760	0
42	12.12.2022	Jetty - Pig Reciver Area Naptha	Isolation MOV - Pressure Balancing Line LPD	Flange	0.2	1	100	0.000001	8760	0.013027
43	12.12.2022	Jetty - Pig Reciver Area Naptha	Battery Limit Main Line PG HOV	Flange	0	1	100	0.000000	8760	0
44	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Indigator -1	Flange	0	1	100	0.000000	8760	0
45	12.12.2022	Jetty - Pig Reciver Area Naptha	PIG Indigator -2	Flange	0	1	100	0.000000	8760	0
46	12.12.2022	Jetty - Pig Reciver Area Naptha	CBD Line End Flange Up Stream	Flange	0	1	100	0.000000	8760	0
47	12.12.2022	Jetty - Pig Reciver Area Naptha	CBD Line NRV UpStream	Flange	0	1	100	0.000000	8760	0
48	12.12.2022	Jetty - Pig Reciver Area Naptha	CBD Line NRV Down stream	Flange	0	1	100	0.000000	8760	0
49	12.12.2022	Jetty - Pig Reciver Area MS R	Battery Limit XZV Up Stream	Flange	0	0.8	100	0.000000	8760	0
50	12.12.2022	Jetty - Pig Reciver Area MS R	Battery Limit XZV Down Strem	Flange	0	0.8	100	0.000000	8760	0
51	12.12.2022	Jetty - Pig Reciver Area MS R	Isolation MOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
52	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel	Flange	0	0.8	100	0.000000	8760	0
53	12.12.2022	Jetty - Pig Reciver Area MS R	Kicker Line	Flange	0	0.8	100	0.000000	8760	0
54	12.12.2022	Jetty - Pig Reciver Area MS R	Kicker Line Drain HOV Up Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
55	12.12.2022	Jetty - Pig Reciver Area MS R	Kicker Line Drain HOV Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
56	12.12.2022	Jetty - Pig Reciver Area MS R	Kicker Line HPV	Flange	0	0.8	100	0.000000	8760	0
57	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel Drain HOV -1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
58	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel Drain HOV -1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
59	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel Drain HOV -2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
60	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel Drain HOV -2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
61	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel PG Up Stream	Flange	0	0.8	100	0.000000	8760	0
62	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel PG Down Stream	Flange	0	0.8	100	0.000000	8760	0
63	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel PSV HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
64	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel PSV HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
65	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel PSV HOV - 2 Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
66	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel PSV HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
67	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel Venting Line HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
68	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel Venting Line HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
69	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel Venting Line HPV	Flange	0	0.8	100	0.000000	8760	0
70	12.12.2022	Jetty - Pig Reciver Area MS R	Nitrogen Pushing Point Up Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
71	12.12.2022	Jetty - Pig Reciver Area MS R	Nitrogen Pushing Point Down Stream	Flange	0	0.8	100	0.000000	8760	0
72	12.12.2022	Jetty - Pig Reciver Area MS R	Main Line PSV	Flange	0	0.8	100	0.000000	8760	0
73	12.12.2022	Jetty - Pig Reciver Area MS R	Main Line PSV HOV - 1 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
74	12.12.2022	Jetty - Pig Reciver Area MS R	Main Line PSV HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
75	12.12.2022	Jetty - Pig Reciver Area MS R	Main Line PSV HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
76	12.12.2022	Jetty - Pig Reciver Area MS R	Main Line PSV HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
77	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel to Kicker Line HOV - 1 UpStream	Flange	0	0.8	100	0.000000	8760	0

78	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel to Kicker Line HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
79	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel to Kicker Line LPD	Flange	0.4	0.8	100	0.000002	8760	0.016965
80	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel to Kicker Line Vent Point Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
81	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Barrel to Kicker Line Vent Point Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
82	12.12.2022	Jetty - Pig Reciver Area MS R	Isolation MOV & Pressure Balancing LineHOV -1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
83	12.12.2022	Jetty - Pig Reciver Area MS R	Isolation MOV & Pressure Balancing LineHOV -1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
84	12.12.2022	Jetty - Pig Reciver Area MS R	Isolation MOV & Pressure Balancing LineHOV -2Up Stream	Flange	0	0.8	100	0.000000	8760	0
85	12.12.2022	Jetty - Pig Reciver Area MS R	Isolation MOV & Pressure Balancing LineHOV -2Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
86	12.12.2022	Jetty - Pig Reciver Area MS R	Isolation MOV - Pressure Balancing Line HPV UP Stream	Flange	0	0.8	100	0.000000	8760	0
87	12.12.2022	Jetty - Pig Reciver Area MS R	Isolation MOV - Pressure Balancing Line HPV Down Stream	Flange	0	0.8	100	0.000000	8760	0
88	12.12.2022	Jetty - Pig Reciver Area MS R	Isolation MOV - Pressure Balancing Line LPD	Flange	0	0.8	100	0.000000	8760	0
89	12.12.2022	Jetty - Pig Reciver Area MS R	Battery Limit Main Line PG HOV	Flange	0	0.8	100	0.000000	8760	0
90	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Indigator -1	Flange	0	0.8	100	0.000000	8760	0
91	12.12.2022	Jetty - Pig Reciver Area MS R	PIG Indigator -2	Flange	0	0.8	100	0.000000	8760	0
92	12.12.2022	Jetty - Pig Reciver Area MS R	CBD Line End Flange Up Stream	Flange	0	0.8	100	0.000000	8760	0
93	12.12.2022	Jetty - Pig Reciver Area MS R	CBD Line NRV UpStream	Flange	0	0.8	100	0.000000	8760	0
94	12.12.2022	Jetty - Pig Reciver Area MS R	CBD Line NRV Down stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
95	12.12.2022	Jetty - Pig Reciver Area MS P	Battery Limit XZV Up Stream	Flange	81.4	0.8	100	0.000081	8760	0.711974
96	12.12.2022	Jetty - Pig Reciver Area MS P	Battery Limit XZV Down Strem	Flange	37.2	0.8	100	0.000047	8760	0.41057
97	12.12.2022	Jetty - Pig Reciver Area MS P	Isolation MOV - 2 Up Stream	Flange	1.4	0.8	100	0.000005	8760	0.040928
98	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel	Flange	0	0.8	100	0.000000	8760	0
99	12.12.2022	Jetty - Pig Reciver Area MS P	Kicker Line	Flange	0.6	0.8	100	0.000003	8760	0.02256
100	12.12.2022	Jetty - Pig Reciver Area MS P	Kicker Line Drain HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
101	12.12.2022	Jetty - Pig Reciver Area MS P	Kicker Line Drain HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
102	12.12.2022	Jetty - Pig Reciver Area MS P	Kicker Line HPV	Flange	0	0.8	100	0.000000	8760	0
103	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel Drain HOV -1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
104	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel Drain HOV -1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
105	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel Drain HOV -2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
106	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel Drain HOV -2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
107	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel PG Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
108	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel PG Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
109	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel PSV HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
110	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel PSV HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
111	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel PSV HOV - 2 Up Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
112	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel PSV HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
113	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel Venting Line HOV Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
114	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel Venting Line HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
115	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel Venting Line HPV	Flange	0	0.8	100	0.000000	8760	0
116	12.12.2022	Jetty - Pig Reciver Area MS P	Nitrogen Pushing Point Up Stream	Flange	0	0.8	100	0.000000	8760	0

117	12.12.2022	Jetty - Pig Reciver Area MS P	Nitrogen Pushing Point Down Stream	Flange	0	0.8	100	0.000000	8760	0
118	12.12.2022	Jetty - Pig Reciver Area MS P	Main Line PSV	Flange	0	0.8	100	0.000000	8760	0
119	12.12.2022	Jetty - Pig Reciver Area MS P	Main Line PSV HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
120	12.12.2022	Jetty - Pig Reciver Area MS P	Main Line PSV HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
121	12.12.2022	Jetty - Pig Reciver Area MS P	Main Line PSV HOV - 2 Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
122	12.12.2022	Jetty - Pig Reciver Area MS P	Main Line PSV HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
123	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel to Kicker Line HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
124	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel to Kicker Line HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
125	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel to Kicker Line HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
126	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel to Kicker Line HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
127	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel to Kicker Line LPD	Flange	0	0.8	100	0.000000	8760	0
128	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel to Kicker Line Vent Point Up Stream	Flange	0	0.8	100	0.000000	8760	0
129	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Barrel to Kicker Line Vent Point Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
130	12.12.2022	Jetty - Pig Reciver Area MS P	Isolation MOV & Pressure Balancing LineHOV -1 Up Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
131	12.12.2022	Jetty - Pig Reciver Area MS P	Isolation MOV & Pressure Balancing LineHOV -1 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
132	12.12.2022	Jetty - Pig Reciver Area MS P	Isolation MOV & Pressure Balancing LineHOV -2Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
133	12.12.2022	Jetty - Pig Reciver Area MS P	Isolation MOV & Pressure Balancing LineHOV -2Down Stream	Flange	0	0.8	100	0.000000	8760	0
134	12.12.2022	Jetty - Pig Reciver Area MS P	Isolation MOV - Pressure Balancing Line HPV UP Stream	Flange	0	0.8	100	0.000000	8760	0
135	12.12.2022	Jetty - Pig Reciver Area MS P	Isolation MOV - Pressure Balancing Line HPV Down Stream	Flange	0	0.8	100	0.000000	8760	0
136	12.12.2022	Jetty - Pig Reciver Area MS P	Isolation MOV - Pressure Balancing Line LPD	Flange	0	0.8	100	0.000000	8760	0
137	12.12.2022	Jetty - Pig Reciver Area MS P	Battery Limit Main Line PG HOV	Flange	0	0.8	100	0.000000	8760	0
138	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Indigator -1	Flange	0	0.8	100	0.000000	8760	0
139	12.12.2022	Jetty - Pig Reciver Area MS P	PIG Indigator -2	Flange	0	0.8	100	0.000000	8760	0
140	12.12.2022	Jetty - Pig Reciver Area MS P	CBD Line End Flange Up Stream	Flange	0	0.8	100	0.000000	8760	0
141	12.12.2022	Jetty - Pig Reciver Area MS P	CBD Line NRV UpStream	Flange	0	0.8	100	0.000000	8760	0
142	12.12.2022	Jetty - Pig Reciver Area MS P	CBD Line NRV Down stream	Flange	0	0.8	100	0.000000	8760	0
143	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Battery Limit XZV Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
144	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Battery Limit XZV Down Strem	Flange	0	1	100	0.000000	8760	0
145	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV - 2 Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
146	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel	Flange	0	1	100	0.000000	8760	0
147	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Kicker Line	Flange	0	1	100	0.000000	8760	0
148	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Kicker Line Drain HOV Up Stream	Flange	0	1	100	0.000000	8760	0
149	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Kicker Line Drain HOV Down Stream	Flange	0	1	100	0.000000	8760	0
150	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Kicker Line HPV	Flange	0.1	1	100	0.000001	8760	0.008002
151	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Drain HOV -1 Up Stream	Flange	0.1	1	100	0.000001	8760	0.008002
152	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Drain HOV -1 Down Stream	Flange	0	1	100	0.000000	8760	0
153	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Drain HOV -2 Up Stream	Flange	0	1	100	0.000000	8760	0
154	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Drain HOV -2 Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
155	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PG Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027

156	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PG Down Stream	Flange	0	1	100	0.000000	8760	0
157	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PSV HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
158	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PSV HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
159	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PSV HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
160	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PSV HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
161	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Venting Line HOV Up Stream	Flange	0	1	100	0.000000	8760	0
162	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Venting Line HOV Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
163	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Venting Line HPV	Flange	0	1	100	0.000000	8760	0
164	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Nitrogen Pushing Point Up Stream	Flange	0.1	1	100	0.000001	8760	0.008002
165	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Nitrogen Pushing Point Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
166	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Main Line PSV	Flange	0	1	100	0.000000	8760	0
167	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Main Line PSV HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
168	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Main Line PSV HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
169	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Main Line PSV HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
170	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Main Line PSV HOV - 2 Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
171	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
172	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
173	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
174	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
175	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line LPD-1	Flange	0	1	100	0.000000	8760	0
176	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line LPD-2	Flange	0	1	100	0.000000	8760	0
177	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line Vent Point Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
178	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line Vent Point Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
179	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV & Pressure Balancing LineHOV -1 Up Stream	Flange	0.1	1	100	0.000001	8760	0.008002
180	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV & Pressure Balancing LineHOV -1 Down Stream	Flange	0	1	100	0.000000	8760	0
181	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV & Pressure Balancing LineHOV -2Up Stream	Flange	0	1	100	0.000000	8760	0
182	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV & Pressure Balancing LineHOV -2Down Stream	Flange	0	1	100	0.000000	8760	0
183	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV - Pressure Balancing Line HPV UP Stream	Flange	0	1	100	0.000000	8760	0
184	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV - Pressure Balancing Line HPV Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
185	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV - Pressure Balancing Line LPD	Flange	0	1	100	0.000000	8760	0
186	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	Battery Limit Main Line PG HOV	Flange	0	1	100	0.000000	8760	0
187	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Indigator -1	Flange	0	1	100	0.000000	8760	0
188	12.12.2022	Jetty - Pig Reciver Area Propylene-(L)	PIG Indigator -2	Flange	0	1	100	0.000000	8760	0
189	12.12.2022	Jetty Top Area - Naptha	Jetty Top MOV Up Stream	Flange	0.3	1	100	0.000002	8760	0.017323
190	12.12.2022	Jetty Top Area - Naptha	Jetty Top MOV Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
191	12.12.2022	Jetty Top Area - Naptha	Jetty Top NRV Up Stream	Flange	0.7	1	100	0.000004	8760	0.031427
192	12.12.2022	Jetty Top Area - Naptha	Jetty Top NRV Down Stream	Flange	0.4	1	100	0.000002	8760	0.021206
193	12.12.2022	Jetty Top Area - Naptha	Jetty Top NRV Up Stream	Flange	0.6	1	100	0.000003	8760	0.0282
194	12.12.2022	Jetty Top Area - Naptha	Jetty Top NRV Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
195	12.12.2022	Jetty Top Area - Naptha	HPV Up Stream	Flange	0.8	1	100	0.000004	8760	0.034521
196	12.12.2022	Jetty Top Area - Naptha	HPV Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
197	12.12.2022	Jetty Top Area - Naptha	Heater End Flange	Flange	0.4	1	100	0.000002	8760	0.021206
198	12.12.2022	Jetty Top Area - MS-R	Jetty Top MOV Up Stream	Flange	0.9	0.8	100	0.000003	8760	0.03
199	12.12.2022	Jetty Top Area - MS-R	Jetty Top MOV Down Stream	Flange	0.7	0.8	100	0.000003	8760	0.025142
200	12.12.2022	Jetty Top Area - MS-R	Jetty Top NRV Up Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965

201	12.12.2022	Jetty Top Area - MS-R	Jetty Top NRV Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
202	12.12.2022	Jetty Top Area - MS-R	Jetty Top NRV Up Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846
203	12.12.2022	Jetty Top Area - MS-R	Jetty Top NRV Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
204	12.12.2022	Jetty Top Area - MS-R	HPV Up Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
205	12.12.2022	Jetty Top Area - MS-R	HPV Down Stream	Flange	0.8	0.8	100	0.000003	8760	0.027616
206	12.12.2022	Jetty Top Area - MS-R	Heater End Flange	Flange	0.2	0.8	100	0.000001	8760	0.010421
207	12.12.2022	Jetty Top Area - MS-P	Jetty Top MOV Up Stream	Flange	0.8	0.8	100	0.000003	8760	0.027616
208	12.12.2022	Jetty Top Area - MS-P	Jetty Top MOV Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
209	12.12.2022	Jetty Top Area - MS-P	Jetty Top NRV Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
210	12.12.2022	Jetty Top Area - MS-P	Jetty Top NRV Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
211	12.12.2022	Jetty Top Area - MS-P	Jetty Top NRV Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
212	12.12.2022	Jetty Top Area - MS-P	Jetty Top NRV Down Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846
213	12.12.2022	Jetty Top Area - MS-P	HPV Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
214	12.12.2022	Jetty Top Area - MS-P	HPV Down Stream	Flange	0.7	0.8	100	0.000003	8760	0.025142
215	12.12.2022	Jetty Top Area - MS-P	Heater End Flange	Flange	0.6	0.8	100	0.000003	8760	0.02256
216	12.12.2022	Jetty Top Area - MLA - 04 A	XZV Up Stream	Flange	19.2	0.8	100	0.000029	8760	0.257903
217	12.12.2022	Jetty Top Area - MLA - 04 A	XZVDown Stream	Flange	4.7	0.8	100	0.000011	8760	0.095891
218	12.12.2022	Jetty Top Area - MLA - 04 A	Riser Flanges Up Stream	Flange	1.1	0.8	100	0.000004	8760	0.034546
219	12.12.2022	Jetty Top Area - MLA - 04 A	Riser Flanges Down Stream	Flange	3.5	0.8	100	0.000009	8760	0.077943
220	12.12.2022	Jetty Top Area - MLA - 04 A	Swivel Joint Up Stream	Flange	4.1	0.8	100	0.000010	8760	0.087113
221	12.12.2022	Jetty Top Area - MLA - 04 A	Swivel Joint Down Stream	Flange	2.6	0.8	100	0.000007	8760	0.063244
222	12.12.2022	Jetty Top Area - MLA - 04 A	Swivel Joint Up Stream	Flange	3.3	0.8	100	0.000009	8760	0.074784
223	12.12.2022	Jetty Top Area - MLA - 04 A	Swivel Joint Down Stream	Flange	5.3	0.8	100	0.000012	8760	0.104342
224	12.12.2022	Jetty Top Area - MLA - 04 A	Swivel Joint Up Stream	Flange	1.8	0.8	100	0.000006	8760	0.048837
225	12.12.2022	Jetty Top Area - MLA - 04 A	Swivel Joint Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
226	12.12.2022	Jetty Top Area - MLA - 04 A	Swivel Joint Up Stream	Flange	2	0.8	100	0.000006	8760	0.052592
227	12.12.2022	Jetty Top Area - MLA - 04 A	Swivel Joint Down Stream	Flange	1.4	0.8	100	0.000005	8760	0.040928
228	12.12.2022	Jetty Top Area - MLA - 04 A	ERC Doble Ball valve Up Stream	Flange	0.9	0.8	100	0.000003	8760	0.03
229	12.12.2022	Jetty Top Area - MLA - 04 A	ERC Doble Ball valve Down Stream	Flange	2.4	0.8	100	0.000007	8760	0.059784
230	12.12.2022	Jetty Top Area - MLA - 04 A	MLA Drain Point	Flange	0.6	0.8	100	0.000003	8760	0.02256
231	12.12.2022	Jetty Top Area - MLA - 04 A	MLA Drain Hov-1 UP Stream	Flange	0.8	0.8	100	0.000003	8760	0.027616
232	12.12.2022	Jetty Top Area - MLA - 04 A	MLA Drain Hov-1 Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
233	12.12.2022	Jetty Top Area - MLA - 04 A	MLA Drain Hov-2 UP Stream	Flange	0.9	0.8	100	0.000003	8760	0.03
234	12.12.2022	Jetty Top Area - MLA - 04 A	MLA Drain Hov-2 Down Stream	Flange	3.2	0.8	100	0.000008	8760	0.073184
235	12.12.2022	Jetty Top Area - MLA - 04 A	MLA Drain Hov-3 UP Stream	Flange	1.7	0.8	100	0.000005	8760	0.046914
236	12.12.2022	Jetty Top Area - MLA - 04 A	MLA Drain Hov-3 Down Stream	Flange	4.2	0.8	100	0.000010	8760	0.088601
237	12.12.2022	Jetty Top Area - MLA - 04 A	MLA Drain NRV	Flange	1.3	0.8	100	0.000004	8760	0.038851
238	12.12.2022	Jetty Top Area - MLA - 04 A	Nitrogen Pushing Line HPV	Flange	0.8	0.8	100	0.000003	8760	0.027616
239	12.12.2022	Jetty Top Area - MLA - 04 A	Nitrogen Pushing Line HOV Down Stream Flanges	Flange	0.9	0.8	100	0.000003	8760	0.03
240	12.12.2022	Jetty Top Area - MLA - 04 A	CBD Line End Flanges	Flange	0.4	0.8	100	0.000002	8760	0.016965
241	12.12.2022	Jetty Top Area - MLA - 04 B	XZV Up Stream	Flange	10.4	0.8	100	0.000019	8760	0.167598
242	12.12.2022	Jetty Top Area - MLA - 04 B	XZVDown Stream	Flange	13.8	0.8	100	0.000023	8760	0.20447
243	12.12.2022	Jetty Top Area - MLA - 04 B	Riser Flanges Up Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
244	12.12.2022	Jetty Top Area - MLA - 04 B	Riser Flanges Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
245	12.12.2022	Jetty Top Area - MLA - 04 B	Swivel Joint Up Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
246	12.12.2022	Jetty Top Area - MLA - 04 B	Swivel Joint Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
247	12.12.2022	Jetty Top Area - MLA - 04 B	Swivel Joint Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
248	12.12.2022	Jetty Top Area - MLA - 04 B	Swivel Joint Down Stream	Flange	1.7	0.8	100	0.000005	8760	0.046914
249	12.12.2022	Jetty Top Area - MLA - 04 B	Swivel Joint Up Stream	Flange	0.8	0.8	100	0.000003	8760	0.027616

250	12.12.2022	Jetty Top Area - MLA - 04 B	Swivel Joint Down Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
251	12.12.2022	Jetty Top Area - MLA - 04 B	Swivel Joint Up Stream	Flange	0.9	0.8	100	0.000003	8760	0.03
252	12.12.2022	Jetty Top Area - MLA - 04 B	Swivel Joint Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
253	12.12.2022	Jetty Top Area - MLA - 04 B	ERC Doble Ball valve Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
254	12.12.2022	Jetty Top Area - MLA - 04 B	ERC Doble Ball valve Down Stream	Flange	0.9	0.8	100	0.000003	8760	0.03
255	12.12.2022	Jetty Top Area - MLA - 04 B	MLA Drain Point	Flange	0.7	0.8	100	0.000003	8760	0.025142
256	12.12.2022	Jetty Top Area - MLA - 04 B	MLA Drain Hov-1 UP Stream	Flange	1.2	0.8	100	0.000004	8760	0.036725
257	12.12.2022	Jetty Top Area - MLA - 04 B	MLA Drain Hov-1 Down Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
258	12.12.2022	Jetty Top Area - MLA - 04 B	MLA Drain Hov-2 UP Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
259	12.12.2022	Jetty Top Area - MLA - 04 B	MLA Drain Hov-2 Down Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846
260	12.12.2022	Jetty Top Area - MLA - 04 B	MLA Drain Hov-3 UP Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
261	12.12.2022	Jetty Top Area - MLA - 04 B	MLA Drain Hov-3 Down Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
262	12.12.2022	Jetty Top Area - MLA - 04 B	MLA Drain NRV	Flange	0.4	0.8	100	0.000002	8760	0.016965
263	12.12.2022	Jetty Top Area - MLA - 04 B	Nitrogen Pushing Line HPV	Flange	0.6	0.8	100	0.000003	8760	0.02256
264	12.12.2022	Jetty Top Area - MLA - 04 B	Nitrogen Pushing Line HOV Down Stream Flanges	Flange	0.3	0.8	100	0.000002	8760	0.013858
265	12.12.2022	Jetty Top Area - MLA - 04 B	CBD Line End Flanges	Flange	0.2	0.8	100	0.000001	8760	0.010421
266	12.12.2022	Jetty Top Area - Propylene (L)	Jetty Top MOV Up Stream	Flange	0.4	1	100	0.000002	8760	0.021206
267	12.12.2022	Jetty Top Area - Propylene (L)	Jetty Top MOV Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
268	12.12.2022	Jetty Top Area - Propylene (L)	Jetty Top LPD UP Flange	Flange	0.6	1	100	0.000003	8760	0.0282
269	12.12.2022	Jetty Top Area - Propylene (L)	Jetty Top LPD END Flange	Flange	0.5	1	100	0.000003	8760	0.024807
270	12.12.2022	Jetty Top Area - MLA - 26	XZV Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
271	12.12.2022	Jetty Top Area - MLA - 26	XZV Down Stream	Flange	0.4	1	100	0.000002	8760	0.021206
272	12.12.2022	Jetty Top Area - MLA - 26	Riser Flanges Up Stream	Flange	0.1	1	100	0.000001	8760	0.008002
273	12.12.2022	Jetty Top Area - MLA - 26	Riser Flanges Down Stream	Flange	0.6	1	100	0.000003	8760	0.0282
274	12.12.2022	Jetty Top Area - MLA - 26	Swivel Joint Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
275	12.12.2022	Jetty Top Area - MLA - 26	Swivel Joint Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
276	12.12.2022	Jetty Top Area - MLA - 26	Swivel Joint Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
277	12.12.2022	Jetty Top Area - MLA - 26	Swivel Joint Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
278	12.12.2022	Jetty Top Area - MLA - 26	Swivel Joint Up Stream	Flange	0.1	1	100	0.000001	8760	0.008002
279	12.12.2022	Jetty Top Area - MLA - 26	Swivel Joint Down Stream	Flange	0.8	1	100	0.000004	8760	0.034521
280	12.12.2022	Jetty Top Area - MLA - 26	Swivel Joint Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
281	12.12.2022	Jetty Top Area - MLA - 26	Swivel Joint Down Stream	Flange	0.5	1	100	0.000003	8760	0.024807
282	12.12.2022	Jetty Top Area - MLA - 26	ERC Doble Ball valve Up Stream	Flange	0.4	1	100	0.000002	8760	0.021206
283	12.12.2022	Jetty Top Area - MLA - 26	ERC Doble Ball valve Down Stream	Flange	0.6	1	100	0.000003	8760	0.0282
284	12.12.2022	Jetty Top Area - MLA - 26	MLA Drain Hov-1 UP Stream	Flange	0.3	1	100	0.000002	8760	0.017323
285	12.12.2022	Jetty Top Area - MLA - 26	MLA Drain Hov-1 Down Stream	Flange	0.9	1	100	0.000004	8760	0.037501
286	12.12.2022	Jetty Top Area - MLA - 26	MLA Drain Hov-2 UP Stream	Flange	0.3	1	100	0.000002	8760	0.017323
287	12.12.2022	Jetty Top Area - MLA - 26	MLA Drain Hov-2 Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
288	12.12.2022	Jetty Top Area - MLA - 26	MLA Drain Hov-3 UP Stream	Flange	0.2	1	100	0.000001	8760	0.013027
289	12.12.2022	Jetty Top Area - MLA - 26	MLA Drain Hov-3 Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
290	12.12.2022	Jetty Top Area - MLA - 26	MLA Drain Hov-4 UP Stream	Flange	0.4	1	100	0.000002	8760	0.021206
291	12.12.2022	Jetty Top Area - MLA - 26	MLA Drain Hov-4 Down Stream	Flange	0.4	1	100	0.000002	8760	0.021206
292	12.12.2022	Jetty Top Area - MLA - 26	MLA Drain Hov-5 UP Stream	Flange	0.2	1	100	0.000001	8760	0.013027
293	12.12.2022	Jetty Top Area - MLA - 26	MLA Drain Hov-5 Down Stream	Flange	0.5	1	100	0.000003	8760	0.024807
294	12.12.2022	Jetty Top Area - MLA - 26	Nitrogen Pushing Line HPV	Flange	0.4	1	100	0.000002	8760	0.021206
295	12.12.2022	Jetty Top Area - MLA - 26	Nitrogen Pushing Line HOV Down Stream Flanges	Flange	0.1	1	100	0.000001	8760	0.008002
296	12.12.2022	Jetty Top Area - MLA - 26	PT Point A UP Stream	Flange	0.1	1	100	0.000001	8760	0.008002
297	12.12.2022	Jetty Top Area - MLA - 26	PT Point A Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
298	12.12.2022	Jetty Top Area - MLA - 26	PT Point B UP Stream	Flange	0.5	1	100	0.000003	8760	0.024807
299	12.12.2022	Jetty Top Area - MLA - 26	PT Point B Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
300	12.12.2022	Jetty Top Area - MLA - 26	PT Point C UP Stream	Flange	0.1	1	100	0.000001	8760	0.008002
301	12.12.2022	Jetty Top Area - MLA - 26	PT Point C Down Stream	Flange	0.4	1	100	0.000002	8760	0.021206
302	12.12.2022	Jetty CTMS Naptha	Vapour Eliminator HPV Up Stream	Flange	0	1	100	0.000000	8760	0
303	12.12.2022	Jetty CTMS Naptha	Vapour Eliminator HPV Down Stream	Flange	0	1	100	0.000000	8760	0
304	12.12.2022	Jetty CTMS Naptha	Main Line PSV	Flange	0	1	100	0.000000	8760	0
305	12.12.2022	Jetty CTMS Naptha	Main Line PSV U/S Up Stream	Flange	0	1	100	0.000000	8760	0
306	12.12.2022	Jetty CTMS Naptha	Main Line PSV U/S Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323

307	12.12.2022	Jetty CTMS Naptha	Main Line PSV D/S Up Stream	Flange	0.6	1	100	0.000003	8760	0.0282
308	12.12.2022	Jetty CTMS Naptha	Main Line PSV D/S Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
309	12.12.2022	Jetty CTMS Naptha	Main Line PSV U/S Drain Point	Flange	0.5	1	100	0.000003	8760	0.024807
310	12.12.2022	Jetty CTMS Naptha	Main Line PSV D/S Drain Point	Flange	0.1	1	100	0.000001	8760	0.008002
311	12.12.2022	Jetty CTMS Naptha	Vapour Elminator Inlet	Flange	0	1	100	0.000000	8760	0
312	12.12.2022	Jetty CTMS Naptha	Vapour Elminator Outlet	Flange	0	1	100	0.000000	8760	0
313	12.12.2022	Jetty CTMS Naptha	Vapour Elminator Manhole	Flange	0	1	100	0.000000	8760	0
314	12.12.2022	Jetty CTMS Naptha	Vapour Elminator Drain Point HOV	Flange	0	1	100	0.000000	8760	0
315	12.12.2022	Jetty CTMS Naptha	Vapour Elminator PSV	Flange	0	1	100	0.000000	8760	0
316	12.12.2022	Jetty CTMS Naptha	Vapour Elminator PSV U/S HOV Up Stream	Flange	0	1	100	0.000000	8760	0
317	12.12.2022	Jetty CTMS Naptha	Vapour Elminator PSV U/S HOVDown Stream	Flange	0	1	100	0.000000	8760	0
318	12.12.2022	Jetty CTMS Naptha	Vapour Elminator PSV D/S HOV Up Stream	Flange	0	1	100	0.000000	8760	0
319	12.12.2022	Jetty CTMS Naptha	Vapour Elminator PSV D/S HOVDown Stream	Flange	0	1	100	0.000000	8760	0
320	12.12.2022	Jetty CTMS Naptha	Vapour Elminator PSV U/S Drain Point	Flange	0	1	100	0.000000	8760	0
321	12.12.2022	Jetty CTMS Naptha	Vapour Elminator PSV D/S Drain Point	Flange	0.2	1	100	0.000001	8760	0.013027
322	12.12.2022	Jetty CTMS Naptha	Vapour Elminator Vent Point	Flange	0	1	100	0.000000	8760	0
323	12.12.2022	Jetty CTMS Naptha	Vapour Elminator HOV -1 Up Stream	Flange	0	1	100	0.000000	8760	0
324	12.12.2022	Jetty CTMS Naptha	Vapour Elminator HOV -1 down Stream	Flange	0	1	100	0.000000	8760	0
325	12.12.2022	Jetty CTMS Naptha	Vapour Elminator HOV -2 Up Stream	Flange	0	1	100	0.000000	8760	0
326	12.12.2022	Jetty CTMS Naptha	Vapour Elminator HOV -2 down Stream	Flange	0	1	100	0.000000	8760	0
327	12.12.2022	Jetty CTMS Naptha	CTMS U/S Ringspacer	Flange	0	1	100	0.000000	8760	0
328	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump U/S HOV Up Stream	Flange	0	1	100	0.000000	8760	0
329	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump U/S HOV Down Stream	Flange	0	1	100	0.000000	8760	0
330	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump U/S Drain Point HOV Up Stream	Flange	0.7	1	100	0.000004	8760	0.031427
331	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump U/S Drain Point HOV Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
332	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump Up Stream	Flange	0	1	100	0.000000	8760	0
333	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump Down Stream	Flange	0	1	100	0.000000	8760	0
334	12.12.2022	Jetty CTMS Naptha	Flowmeter Up Stream	Flange	0	1	100	0.000000	8760	0
335	12.12.2022	Jetty CTMS Naptha	Flowmeter Down Stream	Flange	0	1	100	0.000000	8760	0
336	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump Discharge PT HOV Up Stream	Flange	0	1	100	0.000000	8760	0
337	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump Discharge PT HOV Down Stream	Flange	0	1	100	0.000000	8760	0
338	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump Discharge TT HOV	Flange	0	1	100	0.000000	8760	0
339	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump D/S Drain Point HOV Up Stream	Flange	0.4	1	100	0.000002	8760	0.021206
340	12.12.2022	Jetty CTMS Naptha	Firest Loop Pump D/S Drain Point HOV Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
341	12.12.2022	Jetty CTMS Naptha	Densitometer - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
342	12.12.2022	Jetty CTMS Naptha	Densitometer - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
343	12.12.2022	Jetty CTMS Naptha	Densitometer - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
344	12.12.2022	Jetty CTMS Naptha	Densitometer - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
345	12.12.2022	Jetty CTMS Naptha	Densitometer U/S HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
346	12.12.2022	Jetty CTMS Naptha	Densitometer U/S HOV - 1 Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
347	12.12.2022	Jetty CTMS Naptha	Densitometer U/S HOV - 2 Up Stream	Flange	0.1	1	100	0.000001	8760	0.008002
348	12.12.2022	Jetty CTMS Naptha	Densitometer U/S HOV - 2 Down Stream	Flange	0.8	1	100	0.000004	8760	0.034521
349	12.12.2022	Jetty CTMS Naptha	Densitometer D/S HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
350	12.12.2022	Jetty CTMS Naptha	Densitometer D/S HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
351	12.12.2022	Jetty CTMS Naptha	Densitometer D/S HOV - 2 Up Stream	Flange	0.6	1	100	0.000003	8760	0.0282
352	12.12.2022	Jetty CTMS Naptha	Densitometer D/S HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
353	12.12.2022	Jetty CTMS Naptha	Densitometer D/S HPV	Flange	0.6	1	100	0.000003	8760	0.0282
354	12.12.2022	Jetty CTMS Naptha	Sampler HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
355	12.12.2022	Jetty CTMS Naptha	Sampler HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
356	12.12.2022	Jetty CTMS Naptha	Sampler HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
357	12.12.2022	Jetty CTMS Naptha	Sampler HOV - 2 Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
358	12.12.2022	Jetty CTMS Naptha	Globe Valve Up Stream	Flange	0	1	100	0.000000	8760	0
359	12.12.2022	Jetty CTMS Naptha	Globe Valve Down Stream	Flange	0	1	100	0.000000	8760	0

497	12.12.2022	Jetty CTMS Naptha	Stream 2 Flowmeter - 6	Flange	0	1	100	0.000000	8760	0
498	12.12.2022	Jetty CTMS Naptha	Stream 2 Flowmeter - 7	Flange	0.4	1	100	0.000002	8760	0.021206
499	12.12.2022	Jetty CTMS Naptha	Stream 2 Flowmeter - 8	Flange	0	1	100	0.000000	8760	0
500	12.12.2022	Jetty CTMS Naptha	Stream 2 Flowmeter - 9	Flange	0	1	100	0.000000	8760	0
501	12.12.2022	Jetty CTMS Naptha	Stream 2 Flowmeter - 10	Flange	0	1	100	0.000000	8760	0
502	12.12.2022	Jetty CTMS Naptha	Stream 3 Flowmeter - 1	Flange	0.1	1	100	0.000001	8760	0.008002
503	12.12.2022	Jetty CTMS Naptha	Stream 3 Flowmeter - 2	Flange	0.6	1	100	0.000003	8760	0.0282
504	12.12.2022	Jetty CTMS Naptha	Stream 3 Flowmeter - 3	Flange	0.5	1	100	0.000003	8760	0.024807
505	12.12.2022	Jetty CTMS Naptha	Stream 3 Flowmeter - 4	Flange	0	1	100	0.000000	8760	0
506	12.12.2022	Jetty CTMS Naptha	Stream 3 Flowmeter - 5	Flange	0	1	100	0.000000	8760	0
507	12.12.2022	Jetty CTMS Naptha	Stream 3 Flowmeter - 6	Flange	0	1	100	0.000000	8760	0
508	12.12.2022	Jetty CTMS Naptha	Stream 3 Flowmeter - 7	Flange	0	1	100	0.000000	8760	0
509	12.12.2022	Jetty CTMS Naptha	Stream 3 Flowmeter - 8	Flange	0	1	100	0.000000	8760	0
510	12.12.2022	Jetty CTMS Naptha	Stream 3 Flowmeter - 9	Flange	0	1	100	0.000000	8760	0
511	12.12.2022	Jetty CTMS Naptha	Stream 3 Flowmeter - 10	Flange	0	1	100	0.000000	8760	0
512	12.12.2022	Jetty CTMS Naptha	Stream 4 Flowmeter - 1	Flange	0	1	100	0.000000	8760	0
513	12.12.2022	Jetty CTMS Naptha	Stream 4 Flowmeter - 2	Flange	0	1	100	0.000000	8760	0
514	12.12.2022	Jetty CTMS Naptha	Stream 4 Flowmeter - 3	Flange	0	1	100	0.000000	8760	0
515	12.12.2022	Jetty CTMS Naptha	Stream 4 Flowmeter - 4	Flange	0	1	100	0.000000	8760	0
516	12.12.2022	Jetty CTMS Naptha	Stream 4 Flowmeter - 5	Flange	0.2	1	100	0.000001	8760	0.013027
517	12.12.2022	Jetty CTMS Naptha	Stream 4 Flowmeter - 6	Flange	0	1	100	0.000000	8760	0
518	12.12.2022	Jetty CTMS Naptha	Stream 4 Flowmeter - 7	Flange	0	1	100	0.000000	8760	0
519	12.12.2022	Jetty CTMS Naptha	Stream 4 Flowmeter - 8	Flange	0	1	100	0.000000	8760	0
520	12.12.2022	Jetty CTMS Naptha	Stream 4 Flowmeter - 9	Flange	0	1	100	0.000000	8760	0
521	12.12.2022	Jetty CTMS Naptha	Stream 4 Flowmeter - 10	Flange	0.1	1	100	0.000001	8760	0.008002
522	12.12.2022	Jetty CTMS Naptha	CTMS U/S Ringspacer	Flange	0	1	100	0.000000	8760	0
523	12.12.2022	Jetty CTMS Naptha	PCV U/S HOV Up Stream	Flange	0	1	100	0.000000	8760	0
524	12.12.2022	Jetty CTMS Naptha	PCV U/S HOV Down Stream	Flange	0	1	100	0.000000	8760	0
525	12.12.2022	Jetty CTMS Naptha	PCV D/S HOV Up Stream	Flange	0.5	1	100	0.000003	8760	0.024807
526	12.12.2022	Jetty CTMS Naptha	PCV D/S HOV Down Stream	Flange	0	1	100	0.000000	8760	0
527	12.12.2022	Jetty CTMS Naptha	PCV Up Stream	Flange	0	1	100	0.000000	8760	0
528	12.12.2022	Jetty CTMS Naptha	PCV Down Stream	Flange	0	1	100	0.000000	8760	0
529	12.12.2022	Jetty CTMS Naptha	PCV U/S LPD	Flange	0	1	100	0.000000	8760	0
530	12.12.2022	Jetty CTMS Naptha	PCV D/S LPD	Flange	0	1	100	0.000000	8760	0
531	12.12.2022	Jetty CTMS Naptha	PCV U/S PT	Flange	0	1	100	0.000000	8760	0
532	12.12.2022	Jetty CTMS Naptha	PCV D/S PT	Flange	0	1	100	0.000000	8760	0
533	12.12.2022	Jetty CTMS Naptha	PCV D/S PSV	Flange	0	1	100	0.000000	8760	0
534	12.12.2022	Jetty CTMS Naptha	PSV U/S & D/S HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
535	12.12.2022	Jetty CTMS Naptha	PSV U/S & D/S HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
536	12.12.2022	Jetty CTMS Naptha	PSV U/S & D/S HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
537	12.12.2022	Jetty CTMS Naptha	PSV U/S & D/S HOV - 2 Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
538	12.12.2022	Jetty CTMS Naptha	PSV U/S & D/S LPD Up Stream	Flange	0.8	1	100	0.000004	8760	0.034521
539	12.12.2022	Jetty CTMS Naptha	PSV U/S & D/S LPD Down Stream	Flange	0	1	100	0.000000	8760	0
540	12.12.2022	Jetty CTMS Naptha	CTMS D/S HPV	Flange	0.6	1	100	0.000003	8760	0.0282
541	12.12.2022	Jetty CTMS Naptha	Prover U/S & D/S Spool Up Stream	Flange	0	1	100	0.000000	8760	0
542	12.12.2022	Jetty CTMS Naptha	Prover U/S & D/S Spool Down Stream	Flange	0	1	100	0.000000	8760	0
543	12.12.2022	Jetty CTMS Naptha	Prover Inlet & Outlet Hov -1 Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
544	12.12.2022	Jetty CTMS Naptha	Prover Inlet & Outlet Hov -1 Down Stream	Flange	0	1	100	0.000000	8760	0
545	12.12.2022	Jetty CTMS Naptha	Prover Inlet & Outlet Hov -2 Up Stream	Flange	0	1	100	0.000000	8760	0
546	12.12.2022	Jetty CTMS Naptha	Prover Inlet & Outlet Hov -2 Down Stream	Flange	0	1	100	0.000000	8760	0
547	12.12.2022	Jetty CTMS Naptha	Prover Spool Up Stream	Flange	0	1	100	0.000000	8760	0
548	12.12.2022	Jetty CTMS Naptha	Prover Spool Down Stream	Flange	0	1	100	0.000000	8760	0
549	12.12.2022	Jetty CTMS Naptha	Prover PT HOV Up Stream	Flange	0	1	100	0.000000	8760	0
550	12.12.2022	Jetty CTMS Naptha	Prover PT HOV Down Stream	Flange	0	1	100	0.000000	8760	0
551	12.12.2022	Jetty CTMS Naptha	Prover Spare Connection Up Stream	Flange	0	1	100	0.000000	8760	0
552	12.12.2022	Jetty CTMS Naptha	Prover Spare Connection Down Stream	Flange	0	1	100	0.000000	8760	0
553	12.12.2022	Jetty CTMS Naptha	Prover PSV	Flange	0	1	100	0.000000	8760	0
554	12.12.2022	Jetty CTMS Naptha	Prover Vent Hov - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
555	12.12.2022	Jetty CTMS Naptha	Prover Vent Hov - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
556	12.12.2022	Jetty CTMS Naptha	Prover Vent Hov - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
557	12.12.2022	Jetty CTMS Naptha	Prover Vent Hov - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
558	12.12.2022	Jetty CTMS Naptha	Prover LPD	Flange	0	1	100	0.000000	8760	0
559	12.12.2022	Jetty CTMS Naptha	Prover LPD Up Stream	Flange	0	1	100	0.000000	8760	0
560	12.12.2022	Jetty CTMS Naptha	Prover LPD Down Stream	Flange	0	1	100	0.000000	8760	0
561	12.12.2022	Jetty CTMS Naptha	Drain Hov -1 UP Stream	Flange	0	1	100	0.000000	8760	0
562	12.12.2022	Jetty CTMS Naptha	Drain Hov -1 Down Stream	Flange	0	1	100	0.000000	8760	0
563	12.12.2022	Jetty CTMS Naptha	Drain Hov -2 UP Stream	Flange	0	1	100	0.000000	8760	0
564	12.12.2022	Jetty CTMS Naptha	Drain Hov -2 Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027

565	12.12.2022	Jetty CTMS Naptha	Drain Hov -3 UP Stream	Flange	0	1	100	0.000000	8760	0
566	12.12.2022	Jetty CTMS Naptha	Drain Hov -3 Down Stream	Flange	0	1	100	0.000000	8760	0
567	12.12.2022	Jetty CTMS Naptha	Drain Hov -4 UP Stream	Flange	0	1	100	0.000000	8760	0
568	12.12.2022	Jetty CTMS Naptha	Drain Hov -4 Down Stream	Flange	0	1	100	0.000000	8760	0
569	12.12.2022	Jetty CTMS Naptha	Drain Hov -5 UP Stream	Flange	0.1	1	100	0.000001	8760	0.008002
570	12.12.2022	Jetty CTMS Naptha	Drain Hov -5 Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
571	12.12.2022	Jetty CTMS Naptha	Drain Hov -6 UP Stream	Flange	0.1	1	100	0.000001	8760	0.008002
572	12.12.2022	Jetty CTMS Naptha	Drain Hov -6 Down Stream	Flange	0	1	100	0.000000	8760	0
573	12.12.2022	Jetty CTMS Naptha	CBD Line HOV Up Stream	Flange	0	1	100	0.000000	8760	0
574	12.12.2022	Jetty CTMS Naptha	CBD Line HOV Down Stream	Flange	0	1	100	0.000000	8760	0
575	12.12.2022	Jetty CTMS Naptha	CBD Line End Flange	Flange	0	1	100	0.000000	8760	0
576	12.12.2022	Jetty CTMS Naptha	CBD Line NRV Up Stream	Flange	0	1	100	0.000000	8760	0
577	12.12.2022	Jetty CTMS Naptha	CBD Line NRV Down Stream	Flange	0	1	100	0.000000	8760	0
578	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator HPV Up Stream	Flange	0	0.8	100	0.000000	8760	0
579	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator HPV Down Stream	Flange	0	0.8	100	0.000000	8760	0
580	12.12.2022	Jetty CTMS MS - R	Main Line PSV	Flange	0	0.8	100	0.000000	8760	0
581	12.12.2022	Jetty CTMS MS - R	Main Line PSV U/S Up Stream	Flange	0	0.8	100	0.000000	8760	0
582	12.12.2022	Jetty CTMS MS - R	Main Line PSV U/S Down Stream	Flange	0	0.8	100	0.000000	8760	0
583	12.12.2022	Jetty CTMS MS - R	Main Line PSV D/S Up Stream	Flange	0	0.8	100	0.000000	8760	0
584	12.12.2022	Jetty CTMS MS - R	Main Line PSV D/S Down Stream	Flange	0	0.8	100	0.000000	8760	0
585	12.12.2022	Jetty CTMS MS - R	Main Line PSV U/S Drain Point	Flange	0.4	0.8	100	0.000002	8760	0.016965
586	12.12.2022	Jetty CTMS MS - R	Main Line PSV D/S Drain Point	Flange	0.2	0.8	100	0.000001	8760	0.010421
587	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator Inlet	Flange	0	0.8	100	0.000000	8760	0
588	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator Outlet	Flange	0	0.8	100	0.000000	8760	0
589	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator Manhole	Flange	0	0.8	100	0.000000	8760	0
590	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator Drain Point HOV	Flange	0	0.8	100	0.000000	8760	0
591	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator PSV	Flange	0	0.8	100	0.000000	8760	0
592	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator PSV U/S HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
593	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator PSV U/S HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
594	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator PSV D/S HOV Up Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
595	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator PSV D/S HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
596	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator PSV U/S Drain Point	Flange	0.3	0.8	100	0.000002	8760	0.013858
597	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator PSV D/S Drain Point	Flange	0.8	0.8	100	0.000003	8760	0.027616
598	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator Vent Point	Flange	0	0.8	100	0.000000	8760	0
599	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator HOV -1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
600	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator HOV -1 down Stream	Flange	0	0.8	100	0.000000	8760	0
601	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator HOV -2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
602	12.12.2022	Jetty CTMS MS - R	Vapour Eliminator HOV -2 down Stream	Flange	0	0.8	100	0.000000	8760	0
603	12.12.2022	Jetty CTMS MS - R	CTMS U/S Ringspacer	Flange	0	0.8	100	0.000000	8760	0
604	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump U/S HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
605	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump U/S HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
606	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump U/S Drain Point HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
607	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump U/S Drain Point HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
608	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump Up Stream	Flange	0	0.8	100	0.000000	8760	0
609	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump Down Stream	Flange	0	0.8	100	0.000000	8760	0
610	12.12.2022	Jetty CTMS MS - R	Flowmeter Up Stream	Flange	0	0.8	100	0.000000	8760	0
611	12.12.2022	Jetty CTMS MS - R	Flowmeter Down Stream	Flange	0	0.8	100	0.000000	8760	0
612	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump Discharge PT HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
613	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump Discharge PT HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
614	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump Discharge TT HOV	Flange	0	0.8	100	0.000000	8760	0
615	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump D/S Drain Point HOV Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
616	12.12.2022	Jetty CTMS MS - R	Firest Loop Pump D/S Drain Point HOV Down Stream	Flange	0.7	0.8	100	0.000003	8760	0.025142
617	12.12.2022	Jetty CTMS MS - R	Densitometer - 1 Up Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
618	12.12.2022	Jetty CTMS MS - R	Densitometer - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
619	12.12.2022	Jetty CTMS MS - R	Densitometer - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
620	12.12.2022	Jetty CTMS MS - R	Densitometer - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
621	12.12.2022	Jetty CTMS MS - R	Densitometer U/S HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0

824	12.12.2022	Jetty CTMS MS - R	Prover Spool Down Stream	Flange	0	0.8	100	0.000000	8760	0
825	12.12.2022	Jetty CTMS MS - R	Prover PT HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
826	12.12.2022	Jetty CTMS MS - R	Prover PT HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
827	12.12.2022	Jetty CTMS MS - R	Prover Spare Connection Up Stream	Flange	0	0.8	100	0.000000	8760	0
828	12.12.2022	Jetty CTMS MS - R	Prover Spare Connection Down Stream	Flange	0	0.8	100	0.000000	8760	0
829	12.12.2022	Jetty CTMS MS - R	Prover PSV	Flange	0	0.8	100	0.000000	8760	0
830	12.12.2022	Jetty CTMS MS - R	Prover Vent Hov - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
831	12.12.2022	Jetty CTMS MS - R	Prover Vent Hov - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
832	12.12.2022	Jetty CTMS MS - R	Prover Vent Hov - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
833	12.12.2022	Jetty CTMS MS - R	Prover Vent Hov - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
834	12.12.2022	Jetty CTMS MS - R	Prover LPD	Flange	0.5	0.8	100	0.000002	8760	0.019846
835	12.12.2022	Jetty CTMS MS - R	Prover LPD UP Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
836	12.12.2022	Jetty CTMS MS - R	Prover LPD Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
837	12.12.2022	Jetty CTMS MS - R	Drain Hov -1 UP Stream	Flange	0	0.8	100	0.000000	8760	0
838	12.12.2022	Jetty CTMS MS - R	Drain Hov -1 Down Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
839	12.12.2022	Jetty CTMS MS - R	Drain Hov -2 UP Stream	Flange	0	0.8	100	0.000000	8760	0
840	12.12.2022	Jetty CTMS MS - R	Drain Hov -2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
841	12.12.2022	Jetty CTMS MS - R	Drain Hov -3 UP Stream	Flange	0	0.8	100	0.000000	8760	0
842	12.12.2022	Jetty CTMS MS - R	Drain Hov -3 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
843	12.12.2022	Jetty CTMS MS - R	Drain Hov -4 UP Stream	Flange	0	0.8	100	0.000000	8760	0
844	12.12.2022	Jetty CTMS MS - R	Drain Hov -4 Down Stream	Flange	0	0.8	100	0.000000	8760	0
845	12.12.2022	Jetty CTMS MS - R	Drain Hov -5 UP Stream	Flange	0	0.8	100	0.000000	8760	0
846	12.12.2022	Jetty CTMS MS - R	Drain Hov -5 Down Stream	Flange	0	0.8	100	0.000000	8760	0
847	12.12.2022	Jetty CTMS MS - R	Drain Hov -6 UP Stream	Flange	0	0.8	100	0.000000	8760	0
848	12.12.2022	Jetty CTMS MS - R	Drain Hov -6 Down Stream	Flange	0	0.8	100	0.000000	8760	0
849	12.12.2022	Jetty CTMS MS - R	CBD Line HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
850	12.12.2022	Jetty CTMS MS - R	CBD Line HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
851	12.12.2022	Jetty CTMS MS - R	CBD Line End Flange	Flange	0	0.8	100	0.000000	8760	0
852	12.12.2022	Jetty CTMS MS - R	CBD Line NRV Up Stream	Flange	0	0.8	100	0.000000	8760	0
853	12.12.2022	Jetty CTMS MS - R	CBD Line NRV Down Stream	Flange	0	0.8	100	0.000000	8760	0
854	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator HPV Up Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
855	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator HPV Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
856	12.12.2022	Jetty CTMS MS - P	Main Line PSV	Flange	0.2	0.8	100	0.000001	8760	0.010421
857	12.12.2022	Jetty CTMS MS - P	Main Line PSV U/S Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
858	12.12.2022	Jetty CTMS MS - P	Main Line PSV U/S Down Stream	Flange	0	0.8	100	0.000000	8760	0
859	12.12.2022	Jetty CTMS MS - P	Main Line PSV D/S Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
860	12.12.2022	Jetty CTMS MS - P	Main Line PSV D/S Down Stream	Flange	0	0.8	100	0.000000	8760	0
861	12.12.2022	Jetty CTMS MS - P	Main Line PSV U/S Drain Point	Flange	0	0.8	100	0.000000	8760	0
862	12.12.2022	Jetty CTMS MS - P	Main Line PSV D/S Drain Point	Flange	0	0.8	100	0.000000	8760	0
863	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator Inlet	Flange	0	0.8	100	0.000000	8760	0
864	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator Outlet	Flange	0	0.8	100	0.000000	8760	0
865	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator Manhole	Flange	0	0.8	100	0.000000	8760	0
866	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator Drain Point HOV	Flange	0	0.8	100	0.000000	8760	0
867	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator PSV	Flange	0.3	0.8	100	0.000002	8760	0.013858
868	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator PSV U/S HOV Up Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
869	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator PSV U/S HOV Down Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
870	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator PSV D/S HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
871	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator PSV D/S HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
872	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator PSV U/S Drain Point	Flange	0	0.8	100	0.000000	8760	0
873	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator PSV D/S Drain Point	Flange	0	0.8	100	0.000000	8760	0
874	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator Vent Point	Flange	0	0.8	100	0.000000	8760	0
875	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator HOV -1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
876	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator HOV -1 down Stream	Flange	0	0.8	100	0.000000	8760	0
877	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator HOV -2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
878	12.12.2022	Jetty CTMS MS - P	Vapour Eliminator HOV -2 down Stream	Flange	0	0.8	100	0.000000	8760	0
879	12.12.2022	Jetty CTMS MS - P	CTMS U/S Ringspacer	Flange	0.2	0.8	100	0.000001	8760	0.010421
880	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump U/S HOV Up Stream	Flange	1	0.8	100	0.000004	8760	0.032307
881	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump U/S HOV Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
882	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump U/S Drain Point HOV Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
883	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump U/S Drain Point HOV Down Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846

884	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump Up Stream	Flange	0	0.8	100	0.000000	8760	0
885	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump Down Stream	Flange	0	0.8	100	0.000000	8760	0
886	12.12.2022	Jetty CTMS MS - P	Flowmeter Up Stream	Flange	0	0.8	100	0.000000	8760	0
887	12.12.2022	Jetty CTMS MS - P	Flowmeter Down Stream	Flange	0	0.8	100	0.000000	8760	0
888	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump Discharge PT HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
889	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump Discharge PT HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
890	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump Discharge TT HOV	Flange	0	0.8	100	0.000000	8760	0
891	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump D/S Drain Point HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
892	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump D/S Drain Point HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
893	12.12.2022	Jetty CTMS MS - P	Densitometer - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
894	12.12.2022	Jetty CTMS MS - P	Densitometer - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
895	12.12.2022	Jetty CTMS MS - P	Densitometer - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
896	12.12.2022	Jetty CTMS MS - P	Densitometer - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
897	12.12.2022	Jetty CTMS MS - P	Densitometer U/S HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
898	12.12.2022	Jetty CTMS MS - P	Densitometer U/S HOV - 1 Down Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
899	12.12.2022	Jetty CTMS MS - P	Densitometer U/S HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
900	12.12.2022	Jetty CTMS MS - P	Densitometer U/S HOV - 2 Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
901	12.12.2022	Jetty CTMS MS - P	Densitometer D/S HOV - 1 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
902	12.12.2022	Jetty CTMS MS - P	Densitometer D/S HOV - 1 Down Stream	Flange	0.8	0.8	100	0.000003	8760	0.027616
903	12.12.2022	Jetty CTMS MS - P	Densitometer D/S HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
904	12.12.2022	Jetty CTMS MS - P	Densitometer D/S HOV - 2 Down Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846
905	12.12.2022	Jetty CTMS MS - P	Densitometer D/S HPV	Flange	0	0.8	100	0.000000	8760	0
906	12.12.2022	Jetty CTMS MS - P	Sampler HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
907	12.12.2022	Jetty CTMS MS - P	Sampler HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
908	12.12.2022	Jetty CTMS MS - P	Sampler HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
909	12.12.2022	Jetty CTMS MS - P	Sampler HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
910	12.12.2022	Jetty CTMS MS - P	Globe Valve Up Stream	Flange	0	0.8	100	0.000000	8760	0
911	12.12.2022	Jetty CTMS MS - P	Globe Valve Down Stream	Flange	0	0.8	100	0.000000	8760	0
912	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump D/S HOV Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
913	12.12.2022	Jetty CTMS MS - P	Firest Loop Pump D/S HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
914	12.12.2022	Jetty CTMS MS - P	Header Drain HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
915	12.12.2022	Jetty CTMS MS - P	Header Drain HOV - 1 Down Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
916	12.12.2022	Jetty CTMS MS - P	Header Drain HOV - 2 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
917	12.12.2022	Jetty CTMS MS - P	Header Drain HOV - 2 Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
918	12.12.2022	Jetty CTMS MS - P	Stream 1 HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
919	12.12.2022	Jetty CTMS MS - P	Stream 1 HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
920	12.12.2022	Jetty CTMS MS - P	Stream 1 HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
921	12.12.2022	Jetty CTMS MS - P	Stream 1 HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
922	12.12.2022	Jetty CTMS MS - P	Stream 1 HOV - 3 Up Stream	Flange	0	0.8	100	0.000000	8760	0
923	12.12.2022	Jetty CTMS MS - P	Stream 1 HOV - 3 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
924	12.12.2022	Jetty CTMS MS - P	Stream 2 HOV - 1 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
925	12.12.2022	Jetty CTMS MS - P	Stream 2 HOV - 1 Down Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
926	12.12.2022	Jetty CTMS MS - P	Stream 2 HOV - 2 Up Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
927	12.12.2022	Jetty CTMS MS - P	Stream 2 HOV - 2 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
928	12.12.2022	Jetty CTMS MS - P	Stream 2 HOV - 3 Up Stream	Flange	0	0.8	100	0.000000	8760	0
929	12.12.2022	Jetty CTMS MS - P	Stream 2 HOV - 3 Down Stream	Flange	0	0.8	100	0.000000	8760	0
930	12.12.2022	Jetty CTMS MS - P	Stream 3 HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
931	12.12.2022	Jetty CTMS MS - P	Stream 3 HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
932	12.12.2022	Jetty CTMS MS - P	Stream 3 HOV - 2 Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
933	12.12.2022	Jetty CTMS MS - P	Stream 3 HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
934	12.12.2022	Jetty CTMS MS - P	Stream 3 HOV - 3 Up Stream	Flange	0	0.8	100	0.000000	8760	0
935	12.12.2022	Jetty CTMS MS - P	Stream 3 HOV - 3 Down Stream	Flange	0	0.8	100	0.000000	8760	0
936	12.12.2022	Jetty CTMS MS - P	Stream 4 HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
937	12.12.2022	Jetty CTMS MS - P	Stream 4 HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
938	12.12.2022	Jetty CTMS MS - P	Stream 4 HOV - 3 Up Stream	Flange	0	0.8	100	0.000000	8760	0
939	12.12.2022	Jetty CTMS MS - P	Stream 4 HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
940	12.12.2022	Jetty CTMS MS - P	Stream 4 HOV - 3 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
941	12.12.2022	Jetty CTMS MS - P	Stream 4 HOV - 3 Down Stream	Flange	0	0.8	100	0.000000	8760	0
942	12.12.2022	Jetty CTMS MS - P	Back Filter - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
943	12.12.2022	Jetty CTMS MS - P	Back Filter - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
944	12.12.2022	Jetty CTMS MS - P	Back Filter - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
945	12.12.2022	Jetty CTMS MS - P	Back Filter - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
946	12.12.2022	Jetty CTMS MS - P	Back Filter - 3 Up Stream	Flange	0	0.8	100	0.000000	8760	0

1007	12.12.2022	Jetty CTMS MS - P	DGP HOV - 7 Down Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
1008	12.12.2022	Jetty CTMS MS - P	DGP HOV - 8 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1009	12.12.2022	Jetty CTMS MS - P	DGP HOV - 8 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1010	12.12.2022	Jetty CTMS MS - P	PSV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1011	12.12.2022	Jetty CTMS MS - P	PSV - 1 Down Stream	Flange	0.7	0.8	100	0.000003	8760	0.025142
1012	12.12.2022	Jetty CTMS MS - P	PSV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1013	12.12.2022	Jetty CTMS MS - P	PSV - 2 Down Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
1014	12.12.2022	Jetty CTMS MS - P	PSV - 3 Up Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
1015	12.12.2022	Jetty CTMS MS - P	PSV - 3 Down Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
1016	12.12.2022	Jetty CTMS MS - P	PSV - 4 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1017	12.12.2022	Jetty CTMS MS - P	PSV - 4 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1018	12.12.2022	Jetty CTMS MS - P	PSV U/S HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1019	12.12.2022	Jetty CTMS MS - P	PSV U/S HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1020	12.12.2022	Jetty CTMS MS - P	PSV U/S HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1021	12.12.2022	Jetty CTMS MS - P	PSV U/S HOV - 2 Down Stream	Flange	0.8	0.8	100	0.000003	8760	0.027616
1022	12.12.2022	Jetty CTMS MS - P	PSV U/S HOV - 3 Up Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846
1023	12.12.2022	Jetty CTMS MS - P	PSV U/S HOV - 3 Down Stream	Flange	1.4	0.8	100	0.000005	8760	0.040928
1024	12.12.2022	Jetty CTMS MS - P	PSV U/S HOV - 4 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1025	12.12.2022	Jetty CTMS MS - P	PSV U/S HOV - 4 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1026	12.12.2022	Jetty CTMS MS - P	PSV D/S HOV - 1 Up Stream	Flange	1.1	0.8	100	0.000004	8760	0.034546
1027	12.12.2022	Jetty CTMS MS - P	PSV D/S HOV - 1 Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
1028	12.12.2022	Jetty CTMS MS - P	PSV D/S HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1029	12.12.2022	Jetty CTMS MS - P	PSV D/S HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1030	12.12.2022	Jetty CTMS MS - P	PSV D/S HOV - 3 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1031	12.12.2022	Jetty CTMS MS - P	PSV D/S HOV - 3 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1032	12.12.2022	Jetty CTMS MS - P	PSV D/S HOV - 4 Up Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
1033	12.12.2022	Jetty CTMS MS - P	PSV D/S HOV - 4 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1034	12.12.2022	Jetty CTMS MS - P	Stream 1 Flowmeter - 1	Flange	0	0.8	100	0.000000	8760	0
1035	12.12.2022	Jetty CTMS MS - P	Stream 1 Flowmeter - 2	Flange	0	0.8	100	0.000000	8760	0
1036	12.12.2022	Jetty CTMS MS - P	Stream 1 Flowmeter - 3	Flange	0	0.8	100	0.000000	8760	0
1037	12.12.2022	Jetty CTMS MS - P	Stream 1 Flowmeter - 4	Flange	0	0.8	100	0.000000	8760	0
1038	12.12.2022	Jetty CTMS MS - P	Stream 1 Flowmeter - 5	Flange	0	0.8	100	0.000000	8760	0
1039	12.12.2022	Jetty CTMS MS - P	Stream 1 Flowmeter - 6	Flange	0	0.8	100	0.000000	8760	0



REPORT ON
LDAR MONITORING AT
INDIAN OIL TANKING LIMITED,
SOJ IOCL PARADIP, MAR 2023

PREPARED BY:

SGS India Private Limited

CS Plot-512 (P), Mouza, Hanspukuria,

Diamond Harbour Road,

PO-Joka,

South 24Parganas

Kolkata - 700104

Contents

1	Introduction	3
1.1	About Industry	3
2	Objective	Error! Bookmark not defined.
3	Present study.....	4
4	Scope of Work.....	4
5	About LDAR:.....	4
6	Methodology of the study:	5
6.1	Sampling Methodology:.....	Error! Bookmark not defined.
6.2	Individual Source Surveys.....	5
7	Calculation:.....	6
8	Results	8

1 Introduction

SGS India Private Limited has been contracted to conduct LDAR monitoring at BOOT # 3 & SOJ of IOCL Paradip for 2021-2022 period. Accordingly the measurement of the identified fugitive emission sources within the study area to detect leaking components as per USEPA 21 Guideline were conducted during November-December 2021. Although the leak definition as per CPCB guideline is 3000 ppmv and 5000 ppmv, M/s IOT wanted SGS to report any source emission above 300 ppmv.

2 About Industry

Oiltanking has been active in tank storage logistics since 1972, and is one of the largest independent operators of tank terminals for oils, gases and chemicals worldwide. The company owns and operates 45 terminals in 20 countries with a total storage capacity of more than 18.5 million cbm, on five continents – in Europe, North America, Latin America, the Middle East, Africa, India, and the Asia-Pacific region.

At the tank terminals, Oiltanking stores and handles nearly 500 different products including crude oil, petroleum products, biofuels, gases and chemicals. The total throughput of all terminals in 2019 was around 155 million tons.

Oiltanking is not the owner of the goods stored, but merely provides its services in the field of tank storage logistics. Our clients include private and state oil companies, refiners, petrochemical companies, and traders in petroleum products and chemicals.

Often we develop and operate our business with reputable local, private and state-owned companies, whereby Oiltanking acts as operating partner in the joint venture. In developing capital-intensive terminal facilities alone – or with substantial local business partners – the financial strength of parent company Marquard & Bahls AG is a valuable resource.

To further improve our shareholders value we continue to employ a strategy of controlled growth of our tank terminal-based service network through acquisitions, new buildings and upgrading of existing facilities.

Oiltanking has a strong customer orientation and provides tailor-made infrastructure. Its focus is on safe, efficient and reliable services in constructing and operating its facilities.

Besides tank storage, Oiltanking is active in the engineering, procurement and construction (EPC) of tank terminals.

In 2020, about 2,600 employees worked for Oiltanking.

PARADIP TERMINAL FACTS

Tank Capacity 1,513,968 cbm

Tanks 51

Tank Types Mild steel, pressure vessel steel

Access Types - Vessels, Tank Trucks, Pipeline, Berth

No. of Berths - 1

Products - Clean Petroleum Products, Crude Oil, Gases

Services - Pipeline connections to refineries, Tank-to-tank transfer, Vessel loading and unloading, Truck loading, Blending services, Homogenizing

2 Sampling Schedule

From 31.03.2023 to 08.04.2023

3 Objective

The objective of the studies to Identifying potential fugitive emission sources and quantification of the fugitive emission during oil production in terminals.

A typical industry can emit tons per year of VOCs from leaking equipment, such as valves, connectors, pumps, sampling connections, compressors, pressure relief devices and open-ended lines etc. Process components covering all joints as mentioned above are monitored under “fugitive emission monitoring” program covering all the components in Boot # 3 & SOJ.

4 Present study

- a) Carry out onsite detection through physical scanning for leaks and vented emissions (if any) in the operating assets using portable analyzer according USEPA Method 21 (sniffing method).
- b) Monitoring and measurement of the identified fugitive emission sources within the study area and tagging the detected leaking components.
- c) The outcome of the study shall focus on the details the programme undertaken, methodology, findings, monitored fugitive emissions rates, conclusion and recommendations for improvement.

5 Scope of Work

- Fugitive emission monitoring at IOCL Paradip (Boot # 3 & SOJ) terminal.
- Monitoring and measurement of the identified fugitive emission sources (supplied by IOT) within the study area and tagging the detected leaking components as per USEPA method 21.

About LDAR:

Leak Detection and Repair (LDAR) is a program implemented to comply with environmental regulations for reducing the fugitive emissions of targeted chemicals into the environment. Several standards such as *Maximum Achievable Control Technology* (MACT) standards, *New Source Performance Standards* (NSPS), *National Emissions Standards for Hazardous Air Pollutants* (NESHAP) and Central Pollution Control Board (CPCB) require the monitoring and reporting of these fugitive emissions from process equipment.

Process components covering Boot # 3 and SOJ were monitored as LDAR and covered all the components in the process plant. The environmental regulations are prescribed LDAR programs as a means of reducing emissions have very specific standards and applied to a monitoring and repair program. The LDAR study included the following protocols:

- **Types of components (pumps, valves, connectors, Flanges etc.) to be monitored** – All the sources assumed to be leaking source are monitored as per the USEPA Method 21 Protocol.
- **Measured concentration in PPM that indicates a leak** – Emission source is measured at PPM (parts per million) level.
- **Frequency of monitoring** – As per EPA act 1986 page 409, Fugitive emission monitoring program is undertaken every year (including Heat Exchangers and Pump seal as a part of Quarterly Monitoring).
- Method of monitoring
- **Actions to be taken if a leak is discovered** – A leak source above the limit as per EPA act should be reported and repaired immediately and the sources emitting the leak under the limit should be reported and an appropriate action should be undertaken.
- **Length of time in which an initial attempt to repair the leak must be performed** – Depending upon the nature of leak source, a leak source above the limits as per EPA guidelines should be reported and repaired immediately.
- **Actions that must be taken if a leak cannot be repaired within guidelines** – A proper action should be undertaken as a leaking source contributes in air pollution.
- **Record-keeping and reporting requirements** – A proper record should be maintained so that the leak source can be monitored again to see discrepancies if any.

Affected Sources: Each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, flange and connector that contains or contacts a fluid or gas, that is exceeding more than 5000ppm of pump and compressor seals and 3000 ppm other components is an affected source.

Equipment Leak: A leak is defined as greater than or equal to 3,000 & 5000 ppmv as methane, for organic compounds, as determined by EPA Reference Method 21. Most of the emissions are from valves and connectors because these are most prevalent components and can number in the thousands. The major cause of emissions from valves and connectors is seal or gasket failure due to normal wear or improper maintenance. More than 90% of emissions from the leaking equipment with valves are being the most significant source. The open-ended lines and sampling connections account for as much as 5 – 10% of total VOC emissions from equipment leaks.

Minimum Requirements for an Acceptable Organic LDAR Program:

- Each affected source is screened initially using USEPA Method 21.
- Monthly visual inspections must be performed by industry on each affected source for signs of leakage (e.g. dripping liquid, spraying, misting, clouding, ice formation, distinctive odors, etc.).
- Monitoring of each affected source is to be conducting quarterly using Method 21.

All potential leak points associated with a component must be identified and screened for leaks. The detected leaks by Method 21 test was tagged and repaired. The leak sources are measured after repair and the same is recorded.

6 Methodology of the study:

USEPA Method – 21 was followed to monitor source emissions at IOT/IOCL Paradip.

6.1 Individual Source Surveys.

Leak Definition Based on Concentration. Place the probe inlet at the surface of the component interface where leakage could occur. Move the probe along the interface periphery while

observing the instrument readout. If an increased meter reading is observed, slowly sample the interface where leakage is indicated until the maximum meter reading is obtained. Leave the probe inlet at this maximum reading location for approximately two times the instrument response time. If the maximum observed meter reading is greater than the leak definition in the applicable regulation, record and report the results as specified in the regulation reporting requirements. Examples of the application of this general technique to specific equipment types are:

- **Valves** - The most common source of leaks from valves is the seal between the stem and housing. Place the probe at the interface where the stem exits the packing gland and sample the stem circumference. Also, place the probe at the interface of the packing gland take-up flange seat and sample the periphery. In addition, survey valve housings of multipart assembly at the surface of all interfaces where a leak could occur.
- **Flanges and Other Connections** - For welded flanges, place the probe at the outer edge of the flange-gasket interface and sample the circumference of the flange. Sample other types of nonpermanent joints (such as threaded connections) with a similar traverse.
- **Pumps and Compressors** - Conduct a circumferential traverse at the outer surface of the pump or compressor shaft and seal interface. If the source is a rotating shaft, position the probe inlet within 1 cm of the shaft-seal interface for the survey. If the housing configuration prevents a complete traverse of the shaft periphery, sample all accessible portions. Sample all other joints on the pump or compressor housing where leakage could occur.
- **Pressure Relief Devices** - The configuration of most pressure relief devices prevents sampling at the sealing seat interface. For those devices equipped with an enclosed extension, or horn, place the probe inlet at approximately the center of the exhaust area to the atmosphere.
- **Process Drains** - For open drains, place the probe inlet at approximately the center of the area open to the atmosphere. For covered drains, place the probe at the surface of the cover interface and conduct a peripheral traverse.
- **Access door seals**. Place the probe inlet at the surface of the door seal interface and conduct a peripheral traverse.

Calculation:

(Reference – EPA 1995 Protocol for Equipment Leak Emission Estimation Table 2-10)

Component Type	Default Zero Factor [Kg/hr]	Correlation Equation [Kg/hr]
Valves	[7.8E-06]	[2.29E-06(SV)^0.746]
Pump Seals	[1.9E-05]	[5.03E-05(SV)^0.610]
Others	[4.0E-06]	[1.36E-05(SV)^0.589]
Connectors	[7.5E-06]	[1.53E-06(SV)^0.735]
Flanges	[3.1E-07]	[4.61E-06(SV)^0.703]
Open-ended Lines	[2.0E-06]	[2.20E-06(SV)^0.704]

The default zero factors apply only when the screening value(SV) corrected for background equals 0 ppmv.

The correlation equations apply for actual screening values, corrected for background.

The “other” component type includes instruments, loading arms, pressure relief valves, vents, compressors, dump lever arms, diaphragms, drains, hatches, meters and polished rods stuffing boxes. This “other” component type should be applied for any component type other than connectors, flanges, open-ended lines, pumps or valves.

For example,

Reference USEPA-Method-21)

The screening value (SV) concentration in Valves is 2600 ppm

$$= \text{RF (\% of VOC Flow/100)} * 0.0000023 * \text{SV}^{0.746}$$

RF = Response Factor = 1

Response Factors of Different Volatiles (USEPA Method-21):	
Gasoline Vapors	1.05
Naphtha	1.0
Heavy Oil	1.1
Petrol & Diesel	0.8
Gasoline Vapors 2	0.7
Light Oil	1.0

% of VOC Flow = material passing on that particular pipe line.

0.00000227 = Correlation factor

SV = Screening Value in ppm

If we will apply all the values in the below formula

$$= \text{RF (\% of VOC Flow/100)} * 0.0000023 * \text{SV}^{0.746}$$

$$= 1 (100/100) * 0.0000023 * 2600^{0.746}$$

$$= 0.000815 \text{ kg/hr}$$

Total hours of operation per year are 8760 (24 hours x 365 days)

The volatile emission = 7.109 Kgs/year.

SUMMARY OF THE STUDY

SGS has monitored more than four thousand points in study area selected by IOT at IOCL Paradip Boot # 3 area and more than one thousand points at the Berth at Paradip Port.

TEST RESULTS

SUMMARY SHEET OF TVOC EMISSION MEASUREMENT			
UNIT	NO. OF POINT MEASURE	TOTAL VOC EMISSION IN kg/Hr.	TOTAL VOC EMISSION IN kg/Year
Boot # 3	4357	0.024607	215.55707
SOJ	1417	0.0009042	7.920635
TOTAL POINTS	5774	0.0255112	223.47771

CONCLUSION:

The results are submitted component wise in the enclosed Annexure-1 As per CPCB guidelines no components detected with more than the standard values of 3000ppmv and 5000ppmv. Hence no recommendations are given for repairing of any leakage sources. However M/s IOT wanted SGS to report any source emission above 300 ppmv and accordingly SGS has tagged and reported for the points with emission of 300 ppmv and above. Total 14 points with emission of 300 ppmv and above were detected at BOOT # 3 and no such point was detected at SOJ area.

Maximum Screening Value at Boot # 3 was 9024 ppmv and that at SOJ(Dock Yard at Paradip Port) was 164.7 ppmv.

Based on the calculation and concentrations of VOC in the equipment, we took default value 1 for Response Factor (RF).

Results

www.sgs.com

LDAR points SOJ

S.NO	Date	Unit	Component ID & Location	Type	SCREENING VALUE OF VOC (ppm)	RF	% of VOC FLOW	Kg/Hrs.	HOURS OF OPERATION	Kg/Year
1	03.04.2023	Jetty - Pig Reciver Area Naptha	Battery Limit XZV Up Stream	Flange	0	1	100	0.000000	8760	0
2	03.04.2023	Jetty - Pig Reciver Area Naptha	Battery Limit XZV Down Strem	Flange	0	1	100	0.000000	8760	0
3	03.04.2023	Jetty - Pig Reciver Area Naptha	Isolation MOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
4	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel	Flange	0	1	100	0.000000	8760	0
5	03.04.2023	Jetty - Pig Reciver Area Naptha	Kicker Line	Flange	0	1	100	0.000000	8760	0
6	03.04.2023	Jetty - Pig Reciver Area Naptha	Kicker Line Drain HOV Up Stream	Flange	0	1	100	0.000000	8760	0
7	03.04.2023	Jetty - Pig Reciver Area Naptha	Kicker Line Drain HOV Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
8	03.04.2023	Jetty - Pig Reciver Area Naptha	Kicker Line HPV	Flange	0	1	100	0.000000	8760	0
9	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel Drain HOV -1 Up Stream	Flange	0	1	100	0.000000	8760	0
10	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel Drain HOV -1 Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
11	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel Drain HOV -2 Up Stream	Flange	0.1	1	100	0.000001	8760	0.008002
12	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel Drain HOV -2 Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
13	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel PG Up Stream	Flange	0	1	100	0.000000	8760	0
14	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel PG Down Stream	Flange	0	1	100	0.000000	8760	0
15	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel PSV HOV - 1 Up Stream	Flange	0.1	1	100	0.000001	8760	0.008002
16	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel PSV HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
17	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel PSV HOV - 2 Up Stream	Flange	0.4	1	100	0.000002	8760	0.021206
18	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel PSV HOV - 2 Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
19	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel Venting Line HOV Up Stream	Flange	0	1	100	0.000000	8760	0
20	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel Venting Line HOV Down Stream	Flange	0	1	100	0.000000	8760	0
21	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel Venting Line HPV	Flange	0	1	100	0.000000	8760	0
22	03.04.2023	Jetty - Pig Reciver Area Naptha	Nitrogen Pushing Point Up Stream	Flange	0	1	100	0.000000	8760	0
23	03.04.2023	Jetty - Pig Reciver Area Naptha	Nitrogen Pushing Point Down Stream	Flange	0	1	100	0.000000	8760	0
24	03.04.2023	Jetty - Pig Reciver Area Naptha	Main Line PSV	Flange	0	1	100	0.000000	8760	0
25	03.04.2023	Jetty - Pig Reciver Area Naptha	Main Line PSV HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
26	03.04.2023	Jetty - Pig Reciver Area Naptha	Main Line PSV HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
27	03.04.2023	Jetty - Pig Reciver Area Naptha	Main Line PSV HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
28	03.04.2023	Jetty - Pig Reciver Area Naptha	Main Line PSV HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
29	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
30	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
31	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
32	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line HOV - 2 Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
33	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line LPD	Flange	0	1	100	0.000000	8760	0
34	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line Vent Point Up Stream	Flange	0	1	100	0.000000	8760	0
35	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Barrel to Kicker Line Vent Point Down Stream	Flange	0	1	100	0.000000	8760	0
36	03.04.2023	Jetty - Pig Reciver Area Naptha	Isolation MOV & Pressure Balancing LineHOV -1 Up Stream	Flange	0	1	100	0.000000	8760	0
37	03.04.2023	Jetty - Pig Reciver Area Naptha	Isolation MOV & Pressure Balancing LineHOV -1 Down Stream	Flange	0	1	100	0.000000	8760	0

38	03.04.2023	Jetty - Pig Reciver Area Naptha	Isolation MOV & Pressure Balancing LineHOV -2 Up Stream	Flange	0	1	100	0.000000	8760	0
39	03.04.2023	Jetty - Pig Reciver Area Naptha	Isolation MOV & Pressure Balancing LineHOV -2 Down Stream	Flange	0	1	100	0.000000	8760	0
40	03.04.2023	Jetty - Pig Reciver Area Naptha	Isolation MOV - Pressure Balancing Line HPV UP Stream	Flange	0	1	100	0.000000	8760	0
41	03.04.2023	Jetty - Pig Reciver Area Naptha	Isolation MOV - Pressure Balancing Line HPV Down Stream	Flange	0	1	100	0.000000	8760	0
42	03.04.2023	Jetty - Pig Reciver Area Naptha	Isolation MOV - Pressure Balancing Line LPD	Flange	0	1	100	0.000000	8760	0
43	03.04.2023	Jetty - Pig Reciver Area Naptha	Battery Limit Main Line PG HOV	Flange	0	1	100	0.000000	8760	0
44	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Indigator -1	Flange	0.1	1	100	0.000001	8760	0.008002
45	03.04.2023	Jetty - Pig Reciver Area Naptha	PIG Indigator -2	Flange	0	1	100	0.000000	8760	0
46	03.04.2023	Jetty - Pig Reciver Area Naptha	CBD Line End Flange Up Stream	Flange	0	1	100	0.000000	8760	0
47	03.04.2023	Jetty - Pig Reciver Area Naptha	CBD Line NRV Upstream	Flange	0	1	100	0.000000	8760	0
48	03.04.2023	Jetty - Pig Reciver Area Naptha	CBD Line NRV Down stream	Flange	0	1	100	0.000000	8760	0
49	03.04.2023	Jetty - Pig Reciver Area MS-R	Battery Limit XZV Up Stream	Flange	0	0.8	100	0.000000	8760	0
50	03.04.2023	Jetty - Pig Reciver Area MS-R	Battery Limit XZV Down Strem	Flange	0	0.8	100	0.000000	8760	0
51	03.04.2023	Jetty - Pig Reciver Area MS-R	Isolation MOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
52	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel	Flange	0	0.8	100	0.000000	8760	0
53	03.04.2023	Jetty - Pig Reciver Area MS-R	Kicker Line	Flange	0	0.8	100	0.000000	8760	0
54	03.04.2023	Jetty - Pig Reciver Area MS-R	Kicker Line Drain HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
55	03.04.2023	Jetty - Pig Reciver Area MS-R	Kicker Line Drain HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
56	03.04.2023	Jetty - Pig Reciver Area MS-R	Kicker Line HPV	Flange	0.1	0.8	100	0.000001	8760	0.006402
57	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel Drain HOV -1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
58	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel Drain HOV -1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
59	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel Drain HOV -2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
60	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel Drain HOV -2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
61	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel PG Up Stream	Flange	0	0.8	100	0.000000	8760	0
62	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel PG Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
63	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel PSV HOV - 1 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
64	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel PSV HOV - 1 Down Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
65	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel PSV HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
66	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel PSV HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
67	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel Venting Line HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
68	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel Venting Line HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
69	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel Venting Line HPV	Flange	0	0.8	100	0.000000	8760	0
70	03.04.2023	Jetty - Pig Reciver Area MS-R	Nitrogen Pushing Point Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
71	03.04.2023	Jetty - Pig Reciver Area MS-R	Nitrogen Pushing Point Down Stream	Flange	0	0.8	100	0.000000	8760	0
72	03.04.2023	Jetty - Pig Reciver Area MS-R	Main Line PSV	Flange	0	0.8	100	0.000000	8760	0
73	03.04.2023	Jetty - Pig Reciver Area MS-R	Main Line PSV HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
74	03.04.2023	Jetty - Pig Reciver Area MS-R	Main Line PSV HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
75	03.04.2023	Jetty - Pig Reciver Area MS-R	Main Line PSV HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
76	03.04.2023	Jetty - Pig Reciver Area MS-R	Main Line PSV HOV - 2 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
77	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel to Kicker Line HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0

78	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel to Kicker Line HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
79	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel to Kicker Line LPD	Flange	0	0.8	100	0.000000	8760	0
80	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel to Kicker Line Vent Point Up Stream	Flange	0	0.8	100	0.000000	8760	0
81	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Barrel to Kicker Line Vent Point Down Stream	Flange	0	0.8	100	0.000000	8760	0
82	03.04.2023	Jetty - Pig Reciver Area MS-R	Isolation MOV & Pressure Balancing LineHOV -1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
83	03.04.2023	Jetty - Pig Reciver Area MS-R	Isolation MOV & Pressure Balancing LineHOV -1 Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
84	03.04.2023	Jetty - Pig Reciver Area MS-R	Isolation MOV & Pressure Balancing LineHOV -2Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
85	03.04.2023	Jetty - Pig Reciver Area MS-R	Isolation MOV & Pressure Balancing LineHOV -2Down Stream	Flange	0	0.8	100	0.000000	8760	0
86	03.04.2023	Jetty - Pig Reciver Area MS-R	Isolation MOV - Pressure Balancing Line HPV UP Stream	Flange	0	0.8	100	0.000000	8760	0
87	03.04.2023	Jetty - Pig Reciver Area MS-R	Isolation MOV - Pressure Balancing Line HPV Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
88	03.04.2023	Jetty - Pig Reciver Area MS-R	Isolation MOV - Pressure Balancing Line LPD	Flange	0.3	0.8	100	0.000002	8760	0.013858
89	03.04.2023	Jetty - Pig Reciver Area MS-R	Battery Limit Main Line PG HOV	Flange	0.1	0.8	100	0.000001	8760	0.006402
90	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Indigator -1	Flange	0.1	0.8	100	0.000001	8760	0.006402
91	03.04.2023	Jetty - Pig Reciver Area MS-R	PIG Indigator -2	Flange	0	0.8	100	0.000000	8760	0
92	03.04.2023	Jetty - Pig Reciver Area MS-R	CBD Line End Flange Up Stream	Flange	0	0.8	100	0.000000	8760	0
93	03.04.2023	Jetty - Pig Reciver Area MS-R	CBD Line NRV UpStream	Flange	0	0.8	100	0.000000	8760	0
94	03.04.2023	Jetty - Pig Reciver Area MS-R	CBD Line NRV Down stream	Flange	0	0.8	100	0.000000	8760	0
95	03.04.2023	Jetty - Pig Reciver Area MS-P	Battery Limit XZV Up Stream	Flange	0	0.8	100	0.000000	8760	0
96	03.04.2023	Jetty - Pig Reciver Area MS-P	Battery Limit XZV Down Strem	Flange	0	0.8	100	0.000000	8760	0
97	03.04.2023	Jetty - Pig Reciver Area MS-P	Isolation MOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
98	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel	Flange	0	0.8	100	0.000000	8760	0
99	03.04.2023	Jetty - Pig Reciver Area MS-P	Kicker Line	Flange	0.2	0.8	100	0.000001	8760	0.010421
100	03.04.2023	Jetty - Pig Reciver Area MS-P	Kicker Line Drain HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
101	03.04.2023	Jetty - Pig Reciver Area MS-P	Kicker Line Drain HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
102	03.04.2023	Jetty - Pig Reciver Area MS-P	Kicker Line HPV	Flange	0	0.8	100	0.000000	8760	0
103	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel Drain HOV -1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
104	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel Drain HOV -1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
105	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel Drain HOV -2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
106	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel Drain HOV -2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
107	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel PG Up Stream	Flange	0	0.8	100	0.000000	8760	0
108	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel PG Down Stream	Flange	0	0.8	100	0.000000	8760	0
109	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel PSV HOV - 1 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
110	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel PSV HOV - 1 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
111	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel PSV HOV - 2 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
112	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel PSV HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
113	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel Venting Line HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
114	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel Venting Line HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
115	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel Venting Line HPV	Flange	0	0.8	100	0.000000	8760	0
116	03.04.2023	Jetty - Pig Reciver Area MS-P	Nitrogen Pushing Point Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421

117	03.04.2023	Jetty - Pig Reciver Area MS-P	Nitrogen Pushing Point Down Stream	Flange	0	0.8	100	0.000000	8760	0
118	03.04.2023	Jetty - Pig Reciver Area MS-P	Main Line PSV	Flange	0	0.8	100	0.000000	8760	0
119	03.04.2023	Jetty - Pig Reciver Area MS-P	Main Line PSV HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
120	03.04.2023	Jetty - Pig Reciver Area MS-P	Main Line PSV HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
121	03.04.2023	Jetty - Pig Reciver Area MS-P	Main Line PSV HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
122	03.04.2023	Jetty - Pig Reciver Area MS-P	Main Line PSV HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
123	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel to Kicker Line HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
124	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel to Kicker Line HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
125	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel to Kicker Line HOV - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
126	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel to Kicker Line HOV - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
127	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel to Kicker Line LPD	Flange	0	0.8	100	0.000000	8760	0
128	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel to Kicker Line Vent Point Up Stream	Flange	0	0.8	100	0.000000	8760	0
129	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Barrel to Kicker Line Vent Point Down Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
130	03.04.2023	Jetty - Pig Reciver Area MS-P	Isolation MOV & Pressure Balancing LineHOV -1 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
131	03.04.2023	Jetty - Pig Reciver Area MS-P	Isolation MOV & Pressure Balancing LineHOV -1 Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
132	03.04.2023	Jetty - Pig Reciver Area MS-P	Isolation MOV & Pressure Balancing LineHOV -2Up Stream	Flange	0	0.8	100	0.000000	8760	0
133	03.04.2023	Jetty - Pig Reciver Area MS-P	Isolation MOV & Pressure Balancing LineHOV -2Down Stream	Flange	0	0.8	100	0.000000	8760	0
134	03.04.2023	Jetty - Pig Reciver Area MS-P	Isolation MOV - Pressure Balancing Line HPV UP Stream	Flange	0	0.8	100	0.000000	8760	0
135	03.04.2023	Jetty - Pig Reciver Area MS-P	Isolation MOV - Pressure Balancing Line HPV Down Stream	Flange	0	0.8	100	0.000000	8760	0
136	03.04.2023	Jetty - Pig Reciver Area MS-P	Isolation MOV - Pressure Balancing Line LPD	Flange	0	0.8	100	0.000000	8760	0
137	03.04.2023	Jetty - Pig Reciver Area MS-P	Battery Limit Main Line PG HOV	Flange	0	0.8	100	0.000000	8760	0
138	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Indigator -1	Flange	0	0.8	100	0.000000	8760	0
139	03.04.2023	Jetty - Pig Reciver Area MS-P	PIG Indigator -2	Flange	0	0.8	100	0.000000	8760	0
140	03.04.2023	Jetty - Pig Reciver Area MS-P	CBD Line End Flange Up Stream	Flange	0	0.8	100	0.000000	8760	0
141	03.04.2023	Jetty - Pig Reciver Area MS-P	CBD Line NRV UpStream	Flange	0	0.8	100	0.000000	8760	0
142	03.04.2023	Jetty - Pig Reciver Area MS-P	CBD Line NRV Down stream	Flange	0	0.8	100	0.000000	8760	0
143	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Battery Limit XZV Up Stream	Flange	0	1	100	0.000000	8760	0
144	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Battery Limit XZV Down Strem	Flange	0	1	100	0.000000	8760	0
145	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
146	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel	Flange	0	1	100	0.000000	8760	0
147	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Kicker Line	Flange	0	1	100	0.000000	8760	0
148	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Kicker Line Drain HOV Up Stream	Flange	0	1	100	0.000000	8760	0
149	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Kicker Line Drain HOV Down Stream	Flange	0	1	100	0.000000	8760	0
150	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Kicker Line HPV	Flange	0	1	100	0.000000	8760	0
151	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Drain HOV -1 Up Stream	Flange	0	1	100	0.000000	8760	0
152	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Drain HOV -1 Down Stream	Flange	0	1	100	0.000000	8760	0
153	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Drain HOV -2 Up Stream	Flange	0	1	100	0.000000	8760	0
154	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Drain HOV -2 Down Stream	Flange	0	1	100	0.000000	8760	0
155	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PG Up Stream	Flange	0	1	100	0.000000	8760	0

156	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PG Down Stream	Flange	0	1	100	0.000000	8760	0
157	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PSV HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
158	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PSV HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
159	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PSV HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
160	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel PSV HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
161	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Venting Line HOV Up Stream	Flange	0	1	100	0.000000	8760	0
162	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Venting Line HOV Down Stream	Flange	0	1	100	0.000000	8760	0
163	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel Venting Line HPV	Flange	0	1	100	0.000000	8760	0
164	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Nitrogen Pushing Point Up Stream	Flange	0	1	100	0.000000	8760	0
165	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Nitrogen Pushing Point Down Stream	Flange	0	1	100	0.000000	8760	0
166	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Main Line PSV	Flange	0	1	100	0.000000	8760	0
167	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Main Line PSV HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
168	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Main Line PSV HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
169	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Main Line PSV HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
170	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Main Line PSV HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
171	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
172	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
173	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
174	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
175	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line LPD-1	Flange	0	1	100	0.000000	8760	0
176	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line LPD-2	Flange	0	1	100	0.000000	8760	0
177	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line Vent Point Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
178	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Barrel to Kicker Line Vent Point Down Stream	Flange	0	1	100	0.000000	8760	0
179	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV & Pressure Balancing LineHOV -1 Up Stream	Flange	0	1	100	0.000000	8760	0
180	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV & Pressure Balancing LineHOV -1 Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
181	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV & Pressure Balancing LineHOV -2Up Stream	Flange	0.1	1	100	0.000001	8760	0.008002
182	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV & Pressure Balancing LineHOV -2Down Stream	Flange	0	1	100	0.000000	8760	0
183	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV - Pressure Balancing Line HPV UP Stream	Flange	0	1	100	0.000000	8760	0
184	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV - Pressure Balancing Line HPV Down Stream	Flange	0	1	100	0.000000	8760	0
185	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Isolation MOV - Pressure Balancing Line LPD	Flange	0	1	100	0.000000	8760	0
186	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	Battery Limit Main Line PG HOV	Flange	0.1	1	100	0.000001	8760	0.008002
187	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Indigator -1	Flange	0	1	100	0.000000	8760	0
188	03.04.2023	Jetty - Pig Reciver Area Propylene-(L)	PIG Indigator -2	Flange	0	1	100	0.000000	8760	0
189	03.04.2023	Jetty Top Area - Naptha	Jetty Top MOV Up Stream	Flange	0	1	100	0.000000	8760	0
190	03.04.2023	Jetty Top Area - Naptha	Jetty Top MOV Down Stream	Flange	0	1	100	0.000000	8760	0
191	03.04.2023	Jetty Top Area - Naptha	Jetty Top NRV Up Stream	Flange	0	1	100	0.000000	8760	0
192	03.04.2023	Jetty Top Area - Naptha	Jetty Top NRV Down Stream	Flange	0	1	100	0.000000	8760	0
193	03.04.2023	Jetty Top Area - Naptha	Jetty Top NRV Up Stream	Flange	0	1	100	0.000000	8760	0
194	03.04.2023	Jetty Top Area - Naptha	Jetty Top NRV Down Stream	Flange	0	1	100	0.000000	8760	0
195	03.04.2023	Jetty Top Area - Naptha	HPV Up Stream	Flange	0	1	100	0.000000	8760	0
196	03.04.2023	Jetty Top Area - Naptha	HPV Down Stream	Flange	0	1	100	0.000000	8760	0
197	03.04.2023	Jetty Top Area - Naptha	Heater End Flange	Flange	0	1	100	0.000000	8760	0
198	03.04.2023	Jetty Top Area - MS-R	Jetty Top MOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
199	03.04.2023	Jetty Top Area - MS-R	Jetty Top MOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
200	03.04.2023	Jetty Top Area - MS-R	Jetty Top NRV Up Stream	Flange	0	0.8	100	0.000000	8760	0

201	03.04.2023	Jetty Top Area - MS-R	Jetty Top NRV Down Stream	Flange	0	0.8	100	0.000000	8760	0
202	03.04.2023	Jetty Top Area - MS-R	Jetty Top NRV Up Stream	Flange	0	0.8	100	0.000000	8760	0
203	03.04.2023	Jetty Top Area - MS-R	Jetty Top NRV Down Stream	Flange	0	0.8	100	0.000000	8760	0
204	03.04.2023	Jetty Top Area - MS-R	HPV Up Stream	Flange	0	0.8	100	0.000000	8760	0
205	03.04.2023	Jetty Top Area - MS-R	HPV Down Stream	Flange	0	0.8	100	0.000000	8760	0
206	03.04.2023	Jetty Top Area - MS-R	Heater End Flange	Flange	0	0.8	100	0.000000	8760	0
207	03.04.2023	Jetty Top Area - MS-P	Jetty Top MOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
208	03.04.2023	Jetty Top Area - MS-P	Jetty Top MOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
209	03.04.2023	Jetty Top Area - MS-P	Jetty Top NRV Up Stream	Flange	0	0.8	100	0.000000	8760	0
210	03.04.2023	Jetty Top Area - MS-P	Jetty Top NRV Down Stream	Flange	0	0.8	100	0.000000	8760	0
211	03.04.2023	Jetty Top Area - MS-P	Jetty Top NRV Up Stream	Flange	0	0.8	100	0.000000	8760	0
212	03.04.2023	Jetty Top Area - MS-P	Jetty Top NRV Down Stream	Flange	0	0.8	100	0.000000	8760	0
213	03.04.2023	Jetty Top Area - MS-P	HPV Up Stream	Flange	0	0.8	100	0.000000	8760	0
214	03.04.2023	Jetty Top Area - MS-P	HPV Down Stream	Flange	0	0.8	100	0.000000	8760	0
215	03.04.2023	Jetty Top Area - MS-P	Heater End Flange	Flange	0	0.8	100	0.000000	8760	0
216	03.04.2023	Jetty Top Area - MLA - 04 A	XZV Up Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
217	03.04.2023	Jetty Top Area - MLA - 04 A	XZVDown Stream	Flange	0	0.8	100	0.000000	8760	0
218	03.04.2023	Jetty Top Area - MLA - 04 A	Riser Flanges Up Stream	Flange	0	0.8	100	0.000000	8760	0
219	03.04.2023	Jetty Top Area - MLA - 04 A	Riser Flanges Down Stream	Flange	0	0.8	100	0.000000	8760	0
220	03.04.2023	Jetty Top Area - MLA - 04 A	Swivel Joint Up Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846
221	03.04.2023	Jetty Top Area - MLA - 04 A	Swivel Joint Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
222	03.04.2023	Jetty Top Area - MLA - 04 A	Swivel Joint Up Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
223	03.04.2023	Jetty Top Area - MLA - 04 A	Swivel Joint Down Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
224	03.04.2023	Jetty Top Area - MLA - 04 A	Swivel Joint Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
225	03.04.2023	Jetty Top Area - MLA - 04 A	Swivel Joint Down Stream	Flange	0	0.8	100	0.000000	8760	0
226	03.04.2023	Jetty Top Area - MLA - 04 A	Swivel Joint Up Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
227	03.04.2023	Jetty Top Area - MLA - 04 A	Swivel Joint Down Stream	Flange	0	0.8	100	0.000000	8760	0
228	03.04.2023	Jetty Top Area - MLA - 04 A	ERC Doble Ball valve Up Stream	Flange	0	0.8	100	0.000000	8760	0
229	03.04.2023	Jetty Top Area - MLA - 04 A	ERC Doble Ball valve Down Stream	Flange	0	0.8	100	0.000000	8760	0
230	03.04.2023	Jetty Top Area - MLA - 04 A	MLA Drain Point	Flange	0	0.8	100	0.000000	8760	0
231	03.04.2023	Jetty Top Area - MLA - 04 A	MLA Drain Hov-1 UP Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
232	03.04.2023	Jetty Top Area - MLA - 04 A	MLA Drain Hov-1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
233	03.04.2023	Jetty Top Area - MLA - 04 A	MLA Drain Hov-2 UP Stream	Flange	0	0.8	100	0.000000	8760	0
234	03.04.2023	Jetty Top Area - MLA - 04 A	MLA Drain Hov-2 Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
235	03.04.2023	Jetty Top Area - MLA - 04 A	MLA Drain Hov-3 UP Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
236	03.04.2023	Jetty Top Area - MLA - 04 A	MLA Drain Hov-3 Down Stream	Flange	0	0.8	100	0.000000	8760	0
237	03.04.2023	Jetty Top Area - MLA - 04 A	MLA Drain NRV	Flange	0.1	0.8	100	0.000001	8760	0.006402
238	03.04.2023	Jetty Top Area - MLA - 04 A	Nitrogen Pushing Line HPV	Flange	0	0.8	100	0.000000	8760	0
239	03.04.2023	Jetty Top Area - MLA - 04 A	Nitrogen Pushing Line HOV Down Stream Flanges	Flange	0	0.8	100	0.000000	8760	0
240	03.04.2023	Jetty Top Area - MLA - 04 A	CBD Line End Flanges	Flange	0	0.8	100	0.000000	8760	0
241	03.04.2023	Jetty Top Area - MLA - 04 B	XZV Up Stream	Flange	0	0.8	100	0.000000	8760	0
242	03.04.2023	Jetty Top Area - MLA - 04 B	XZVDown Stream	Flange	0	0.8	100	0.000000	8760	0
243	03.04.2023	Jetty Top Area - MLA - 04 B	Riser Flanges Up Stream	Flange	0	0.8	100	0.000000	8760	0
244	03.04.2023	Jetty Top Area - MLA - 04 B	Riser Flanges Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
245	03.04.2023	Jetty Top Area - MLA - 04 B	Swivel Joint Up Stream	Flange	0	0.8	100	0.000000	8760	0
246	03.04.2023	Jetty Top Area - MLA - 04 B	Swivel Joint Down Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
247	03.04.2023	Jetty Top Area - MLA - 04 B	Swivel Joint Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
248	03.04.2023	Jetty Top Area - MLA - 04 B	Swivel Joint Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
249	03.04.2023	Jetty Top Area - MLA - 04 B	Swivel Joint Up Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965

250	03.04.2023	Jetty Top Area - MLA - 04 B	Swivel Joint Down Stream	Flange	0	0.8	100	0.000000	8760	0
251	03.04.2023	Jetty Top Area - MLA - 04 B	Swivel Joint Up Stream	Flange	0	0.8	100	0.000000	8760	0
252	03.04.2023	Jetty Top Area - MLA - 04 B	Swivel Joint Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
253	03.04.2023	Jetty Top Area - MLA - 04 B	ERC Doble Ball valve Up Stream	Flange	0	0.8	100	0.000000	8760	0
254	03.04.2023	Jetty Top Area - MLA - 04 B	ERC Doble Ball valve Down Stream	Flange	0	0.8	100	0.000000	8760	0
255	03.04.2023	Jetty Top Area - MLA - 04 B	MLA Drain Point	Flange	0	0.8	100	0.000000	8760	0
256	03.04.2023	Jetty Top Area - MLA - 04 B	MLA Drain Hov-1 UP Stream	Flange	0	0.8	100	0.000000	8760	0
257	03.04.2023	Jetty Top Area - MLA - 04 B	MLA Drain Hov-1 Down Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
258	03.04.2023	Jetty Top Area - MLA - 04 B	MLA Drain Hov-2 UP Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
259	03.04.2023	Jetty Top Area - MLA - 04 B	MLA Drain Hov-2 Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
260	03.04.2023	Jetty Top Area - MLA - 04 B	MLA Drain Hov-3 UP Stream	Flange	0	0.8	100	0.000000	8760	0
261	03.04.2023	Jetty Top Area - MLA - 04 B	MLA Drain Hov-3 Down Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
262	03.04.2023	Jetty Top Area - MLA - 04 B	MLA Drain NRV	Flange	0.4	0.8	100	0.000002	8760	0.016965
263	03.04.2023	Jetty Top Area - MLA - 04 B	Nitrogen Pushing Line HPV	Flange	0	0.8	100	0.000000	8760	0
264	03.04.2023	Jetty Top Area - MLA - 04 B	Nitrogen Pushing Line HOV Down Stream Flanges	Flange	0	0.8	100	0.000000	8760	0
265	03.04.2023	Jetty Top Area - MLA - 04 B	CBD Line End Flanges	Flange	0	0.8	100	0.000000	8760	0
266	03.04.2023	Jetty Top Area - Propylene (L)	Jetty Top MOV Up Stream	Flange	0	1	100	0.000000	8760	0
267	03.04.2023	Jetty Top Area - Propylene (L)	Jetty Top MOV Down Stream	Flange	0	1	100	0.000000	8760	0
268	03.04.2023	Jetty Top Area - Propylene (L)	Jetty Top LPD UP Flange	Flange	0	1	100	0.000000	8760	0
269	03.04.2023	Jetty Top Area - Propylene (L)	Jetty Top LPD END Flange	Flange	0	1	100	0.000000	8760	0
270	03.04.2023	Jetty Top Area - MLA - 26	XZV Up Stream	Flange	0	1	100	0.000000	8760	0
271	03.04.2023	Jetty Top Area - MLA - 26	XZV Down Stream	Flange	0	1	100	0.000000	8760	0
272	03.04.2023	Jetty Top Area - MLA - 26	Riser Flanges Up Stream	Flange	0	1	100	0.000000	8760	0
273	03.04.2023	Jetty Top Area - MLA - 26	Riser Flanges Down Stream	Flange	0	1	100	0.000000	8760	0
274	03.04.2023	Jetty Top Area - MLA - 26	Swivel Joint Up Stream	Flange	0	1	100	0.000000	8760	0
275	03.04.2023	Jetty Top Area - MLA - 26	Swivel Joint Down Stream	Flange	0	1	100	0.000000	8760	0
276	03.04.2023	Jetty Top Area - MLA - 26	Swivel Joint Up Stream	Flange	0	1	100	0.000000	8760	0
277	03.04.2023	Jetty Top Area - MLA - 26	Swivel Joint Down Stream	Flange	0	1	100	0.000000	8760	0
278	03.04.2023	Jetty Top Area - MLA - 26	Swivel Joint Up Stream	Flange	0	1	100	0.000000	8760	0
279	03.04.2023	Jetty Top Area - MLA - 26	Swivel Joint Down Stream	Flange	0	1	100	0.000000	8760	0
280	03.04.2023	Jetty Top Area - MLA - 26	Swivel Joint Up Stream	Flange	0	1	100	0.000000	8760	0
281	03.04.2023	Jetty Top Area - MLA - 26	Swivel Joint Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
282	03.04.2023	Jetty Top Area - MLA - 26	ERC Doble Ball valve Up Stream	Flange	0	1	100	0.000000	8760	0
283	03.04.2023	Jetty Top Area - MLA - 26	ERC Doble Ball valve Down Stream	Flange	0	1	100	0.000000	8760	0
284	03.04.2023	Jetty Top Area - MLA - 26	MLA Drain Hov-1 UP Stream	Flange	0	1	100	0.000000	8760	0
285	03.04.2023	Jetty Top Area - MLA - 26	MLA Drain Hov-1 Down Stream	Flange	0	1	100	0.000000	8760	0
286	03.04.2023	Jetty Top Area - MLA - 26	MLA Drain Hov-2 UP Stream	Flange	0	1	100	0.000000	8760	0
287	03.04.2023	Jetty Top Area - MLA - 26	MLA Drain Hov-2 Down Stream	Flange	0	1	100	0.000000	8760	0
288	03.04.2023	Jetty Top Area - MLA - 26	MLA Drain Hov-3 UP Stream	Flange	0	1	100	0.000000	8760	0
289	03.04.2023	Jetty Top Area - MLA - 26	MLA Drain Hov-3 Down Stream	Flange	0	1	100	0.000000	8760	0
290	03.04.2023	Jetty Top Area - MLA - 26	MLA Drain Hov-4 UP Stream	Flange	0	1	100	0.000000	8760	0
291	03.04.2023	Jetty Top Area - MLA - 26	MLA Drain Hov-4 Down Stream	Flange	0	1	100	0.000000	8760	0
292	03.04.2023	Jetty Top Area - MLA - 26	MLA Drain Hov-5 UP Stream	Flange	0	1	100	0.000000	8760	0
293	03.04.2023	Jetty Top Area - MLA - 26	MLA Drain Hov-5 Down Stream	Flange	0	1	100	0.000000	8760	0
294	03.04.2023	Jetty Top Area - MLA - 26	Nitrogen Pushing Line HPV	Flange	0	1	100	0.000000	8760	0
295	03.04.2023	Jetty Top Area - MLA - 26	Nitrogen Pushing Line HOV Down Stream Flanges	Flange	0	1	100	0.000000	8760	0
296	03.04.2023	Jetty Top Area - MLA - 26	PT Point A UP Stream	Flange	0	1	100	0.000000	8760	0
297	03.04.2023	Jetty Top Area - MLA - 26	PT Point A Down Stream	Flange	0	1	100	0.000000	8760	0
298	03.04.2023	Jetty Top Area - MLA - 26	PT Point B UP Stream	Flange	0	1	100	0.000000	8760	0
299	03.04.2023	Jetty Top Area - MLA - 26	PT Point B Down Stream	Flange	0	1	100	0.000000	8760	0
300	03.04.2023	Jetty Top Area - MLA - 26	PT Point C UP Stream	Flange	0	1	100	0.000000	8760	0
301	03.04.2023	Jetty Top Area - MLA - 26	PT Point C Down Stream	Flange	0	1	100	0.000000	8760	0
302	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator HPV Up Stream	Flange	0	1	100	0.000000	8760	0
303	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator HPV Down Stream	Flange	0	1	100	0.000000	8760	0
304	03.04.2023	Jetty CTMS Naptha	Main Line PSV	Flange	0.2	1	100	0.000001	8760	0.013027
305	03.04.2023	Jetty CTMS Naptha	Main Line PSV U/S Up Stream	Flange	0	1	100	0.000000	8760	0
306	03.04.2023	Jetty CTMS Naptha	Main Line PSV U/S Down Stream	Flange	0	1	100	0.000000	8760	0

307	03.04.2023	Jetty CTMS Naptha	Main Line PSV D/S Up Stream	Flange	0.4	1	100	0.000002	8760	0.021206
308	03.04.2023	Jetty CTMS Naptha	Main Line PSV D/S Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
309	03.04.2023	Jetty CTMS Naptha	Main Line PSV U/S Drain Point	Flange	0	1	100	0.000000	8760	0
310	03.04.2023	Jetty CTMS Naptha	Main Line PSV D/S Drain Point	Flange	0.2	1	100	0.000001	8760	0.013027
311	03.04.2023	Jetty CTMS Naptha	Vapour Elminator Inlet	Flange	0	1	100	0.000000	8760	0
312	03.04.2023	Jetty CTMS Naptha	Vapour Elminator Outlet	Flange	0	1	100	0.000000	8760	0
313	03.04.2023	Jetty CTMS Naptha	Vapour Elminator Manhole	Flange	0	1	100	0.000000	8760	0
314	03.04.2023	Jetty CTMS Naptha	Vapour Elminator Drain Point HOV	Flange	0	1	100	0.000000	8760	0
315	03.04.2023	Jetty CTMS Naptha	Vapour Elminator PSV	Flange	0	1	100	0.000000	8760	0
316	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator PSV U/S HOV Up Stream	Flange	0	1	100	0.000000	8760	0
317	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator PSV U/S HOVDown Stream	Flange	0.1	1	100	0.000001	8760	0.008002
318	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator PSV D/S HOV Up Stream	Flange	0	1	100	0.000000	8760	0
319	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator PSV D/S HOVDown Stream	Flange	0	1	100	0.000000	8760	0
320	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator PSV U/S Drain Point	Flange	0	1	100	0.000000	8760	0
321	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator PSV D/S Drain Point	Flange	0	1	100	0.000000	8760	0
322	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator Vent Point	Flange	0	1	100	0.000000	8760	0
323	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator HOV -1 Up Stream	Flange	0	1	100	0.000000	8760	0
324	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator HOV -1 down Stream	Flange	0	1	100	0.000000	8760	0
325	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator HOV -2 Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
326	03.04.2023	Jetty CTMS Naptha	Vapour Eliminator HOV -2 down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
327	03.04.2023	Jetty CTMS Naptha	CTMS U/S Ringspacer	Flange	0.2	1	100	0.000001	8760	0.013027
328	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump U/S HOV Up Stream	Flange	0.6	1	100	0.000003	8760	0.0282
329	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump U/S HOV Down Stream	Flange	0	1	100	0.000000	8760	0
330	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump U/S Drain Point HOV Up Stream	Flange	0	1	100	0.000000	8760	0
331	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump U/S Drain Point HOV Down Stream	Flange	0	1	100	0.000000	8760	0
332	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump Up Stream	Flange	0	1	100	0.000000	8760	0
333	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump Down Stream	Flange	0	1	100	0.000000	8760	0
334	03.04.2023	Jetty CTMS Naptha	Flowmeter Up Stream	Flange	0.2	1	100	0.000001	8760	0.013027
335	03.04.2023	Jetty CTMS Naptha	Flowmeter Down Stream	Flange	0	1	100	0.000000	8760	0
336	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump Discharge PT HOV Up Stream	Flange	0	1	100	0.000000	8760	0
337	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump Discharge PT HOV Down Stream	Flange	0.1	1	100	0.000001	8760	0.008002
338	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump Discharge TT HOV	Flange	0	1	100	0.000000	8760	0
339	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump D/S Drain Point HOV Up Stream	Flange	0	1	100	0.000000	8760	0
340	03.04.2023	Jetty CTMS Naptha	Firest Loop Pump D/S Drain Point HOV Down Stream	Flange	0	1	100	0.000000	8760	0
341	03.04.2023	Jetty CTMS Naptha	Densitometer - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
342	03.04.2023	Jetty CTMS Naptha	Densitometer - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
343	03.04.2023	Jetty CTMS Naptha	Densitometer - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
344	03.04.2023	Jetty CTMS Naptha	Densitometer - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
345	03.04.2023	Jetty CTMS Naptha	Densitometer U/S HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
346	03.04.2023	Jetty CTMS Naptha	Densitometer U/S HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
347	03.04.2023	Jetty CTMS Naptha	Densitometer U/S HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
348	03.04.2023	Jetty CTMS Naptha	Densitometer U/S HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
349	03.04.2023	Jetty CTMS Naptha	Densitometer D/S HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
350	03.04.2023	Jetty CTMS Naptha	Densitometer D/S HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
351	03.04.2023	Jetty CTMS Naptha	Densitometer D/S HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
352	03.04.2023	Jetty CTMS Naptha	Densitometer D/S HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
353	03.04.2023	Jetty CTMS Naptha	Densitometer D/S HPV	Flange	0	1	100	0.000000	8760	0
354	03.04.2023	Jetty CTMS Naptha	Sampler HOV - 1 Up Stream	Flange	0	1	100	0.000000	8760	0
355	03.04.2023	Jetty CTMS Naptha	Sampler HOV - 1 Down Stream	Flange	0	1	100	0.000000	8760	0
356	03.04.2023	Jetty CTMS Naptha	Sampler HOV - 2 Up Stream	Flange	0	1	100	0.000000	8760	0
357	03.04.2023	Jetty CTMS Naptha	Sampler HOV - 2 Down Stream	Flange	0	1	100	0.000000	8760	0
358	03.04.2023	Jetty CTMS Naptha	Globe Valve Up Stream	Flange	0	1	100	0.000000	8760	0
359	03.04.2023	Jetty CTMS Naptha	Globe Valve Down Stream	Flange	0	1	100	0.000000	8760	0

565	03.04.2023	Jetty CTMS Naptha	Drain Hov -3 UP Stream	Flange	0	1	100	0.000000	8760	0
566	03.04.2023	Jetty CTMS Naptha	Drain Hov -3 Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
567	03.04.2023	Jetty CTMS Naptha	Drain Hov -4 UP Stream	Flange	0.3	1	100	0.000002	8760	0.017323
568	03.04.2023	Jetty CTMS Naptha	Drain Hov -4 Down Stream	Flange	0	1	100	0.000000	8760	0
569	03.04.2023	Jetty CTMS Naptha	Drain Hov -5 UP Stream	Flange	0	1	100	0.000000	8760	0
570	03.04.2023	Jetty CTMS Naptha	Drain Hov -5 Down Stream	Flange	0.2	1	100	0.000001	8760	0.013027
571	03.04.2023	Jetty CTMS Naptha	Drain Hov -6 UP Stream	Flange	0	1	100	0.000000	8760	0
572	03.04.2023	Jetty CTMS Naptha	Drain Hov -6 Down Stream	Flange	0	1	100	0.000000	8760	0
573	03.04.2023	Jetty CTMS Naptha	CBD Line HOV Up Stream	Flange	0	1	100	0.000000	8760	0
574	03.04.2023	Jetty CTMS Naptha	CBD Line HOV Down Stream	Flange	0.3	1	100	0.000002	8760	0.017323
575	03.04.2023	Jetty CTMS Naptha	CBD Line End Flange	Flange	0	1	100	0.000000	8760	0
576	03.04.2023	Jetty CTMS Naptha	CBD Line NRV Up Stream	Flange	0	1	100	0.000000	8760	0
577	03.04.2023	Jetty CTMS Naptha	CBD Line NRV Down Stream	Flange	0	1	100	0.000000	8760	0
578	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator HPV Up Stream	Flange	0	0.8	100	0.000000	8760	0
579	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator HPV Down Stream	Flange	0	0.8	100	0.000000	8760	0
580	03.04.2023	Jetty CTMS MS - R	Main Line PSV	Flange	0	0.8	100	0.000000	8760	0
581	03.04.2023	Jetty CTMS MS - R	Main Line PSV U/S Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
582	03.04.2023	Jetty CTMS MS - R	Main Line PSV U/S Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
583	03.04.2023	Jetty CTMS MS - R	Main Line PSV D/S Up Stream	Flange	0	0.8	100	0.000000	8760	0
584	03.04.2023	Jetty CTMS MS - R	Main Line PSV D/S Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
585	03.04.2023	Jetty CTMS MS - R	Main Line PSV U/S Drain Point	Flange	0.5	0.8	100	0.000002	8760	0.019846
586	03.04.2023	Jetty CTMS MS - R	Main Line PSV D/S Drain Point	Flange	0.1	0.8	100	0.000001	8760	0.006402
587	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator Inlet	Flange	0	0.8	100	0.000000	8760	0
588	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator Outlet	Flange	0	0.8	100	0.000000	8760	0
589	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator Manhole	Flange	0	0.8	100	0.000000	8760	0
590	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator Drain Point HOV	Flange	0	0.8	100	0.000000	8760	0
591	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator PSV	Flange	0	0.8	100	0.000000	8760	0
592	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator PSV U/S HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
593	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator PSV U/S HOVDown Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
594	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator PSV D/S HOV Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
595	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator PSV D/S HOVDown Stream	Flange	0.6	0.8	100	0.000003	8760	0.02256
596	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator PSV U/S Drain Point	Flange	0	0.8	100	0.000000	8760	0
597	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator PSV D/S Drain Point	Flange	0	0.8	100	0.000000	8760	0
598	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator Vent Point	Flange	0	0.8	100	0.000000	8760	0
599	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator HOV -1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
600	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator HOV -1 down Stream	Flange	0	0.8	100	0.000000	8760	0
601	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator HOV -2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
602	03.04.2023	Jetty CTMS MS - R	Vapour Eliminator HOV -2 down Stream	Flange	0	0.8	100	0.000000	8760	0
603	03.04.2023	Jetty CTMS MS - R	CTMS U/S Ringspacer	Flange	0	0.8	100	0.000000	8760	0
604	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump U/S HOV Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
605	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump U/S HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
606	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump U/S Drain Point HOV Up Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
607	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump U/S Drain Point HOV Down Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846
608	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump Up Stream	Flange	0	0.8	100	0.000000	8760	0
609	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
610	03.04.2023	Jetty CTMS MS - R	Flowmeter Up Stream	Flange	0	0.8	100	0.000000	8760	0
611	03.04.2023	Jetty CTMS MS - R	Flowmeter Down Stream	Flange	0	0.8	100	0.000000	8760	0
612	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump Discharge PT HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
613	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump Discharge PT HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
614	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump Discharge TT HOV	Flange	0	0.8	100	0.000000	8760	0
615	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump D/S Drain Point HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
616	03.04.2023	Jetty CTMS MS - R	Firest Loop Pump D/S Drain Point HOV Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
617	03.04.2023	Jetty CTMS MS - R	Densitometer - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
618	03.04.2023	Jetty CTMS MS - R	Densitometer - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
619	03.04.2023	Jetty CTMS MS - R	Densitometer - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
620	03.04.2023	Jetty CTMS MS - R	Densitometer - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
621	03.04.2023	Jetty CTMS MS - R	Densitometer U/S HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0

824	03.04.2023	Jetty CTMS MS - R	Prover Spool Down Stream	Flange	0	0.8	100	0.000000	8760	0
825	03.04.2023	Jetty CTMS MS - R	Prover PT HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
826	03.04.2023	Jetty CTMS MS - R	Prover PT HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
827	03.04.2023	Jetty CTMS MS - R	Prover Spare Connection Up Stream	Flange	0	0.8	100	0.000000	8760	0
828	03.04.2023	Jetty CTMS MS - R	Prover Spare Connection Down Stream	Flange	0	0.8	100	0.000000	8760	0
829	03.04.2023	Jetty CTMS MS - R	Prover PSV	Flange	0	0.8	100	0.000000	8760	0
830	03.04.2023	Jetty CTMS MS - R	Prover Vent Hov - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
831	03.04.2023	Jetty CTMS MS - R	Prover Vent Hov - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
832	03.04.2023	Jetty CTMS MS - R	Prover Vent Hov - 2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
833	03.04.2023	Jetty CTMS MS - R	Prover Vent Hov - 2 Down Stream	Flange	0	0.8	100	0.000000	8760	0
834	03.04.2023	Jetty CTMS MS - R	Prover LPD	Flange	0	0.8	100	0.000000	8760	0
835	03.04.2023	Jetty CTMS MS - R	Prover LPD UP Stream	Flange	0	0.8	100	0.000000	8760	0
836	03.04.2023	Jetty CTMS MS - R	Prover LPD Down Stream	Flange	0	0.8	100	0.000000	8760	0
837	03.04.2023	Jetty CTMS MS - R	Drain Hov -1 UP Stream	Flange	0	0.8	100	0.000000	8760	0
838	03.04.2023	Jetty CTMS MS - R	Drain Hov -1 Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
839	03.04.2023	Jetty CTMS MS - R	Drain Hov -2 UP Stream	Flange	0	0.8	100	0.000000	8760	0
840	03.04.2023	Jetty CTMS MS - R	Drain Hov -2 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
841	03.04.2023	Jetty CTMS MS - R	Drain Hov -3 UP Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
842	03.04.2023	Jetty CTMS MS - R	Drain Hov -3 Down Stream	Flange	0	0.8	100	0.000000	8760	0
843	03.04.2023	Jetty CTMS MS - R	Drain Hov -4 UP Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
844	03.04.2023	Jetty CTMS MS - R	Drain Hov -4 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
845	03.04.2023	Jetty CTMS MS - R	Drain Hov -5 UP Stream	Flange	0	0.8	100	0.000000	8760	0
846	03.04.2023	Jetty CTMS MS - R	Drain Hov -5 Down Stream	Flange	0	0.8	100	0.000000	8760	0
847	03.04.2023	Jetty CTMS MS - R	Drain Hov -6 UP Stream	Flange	0	0.8	100	0.000000	8760	0
848	03.04.2023	Jetty CTMS MS - R	Drain Hov -6 Down Stream	Flange	0	0.8	100	0.000000	8760	0
849	03.04.2023	Jetty CTMS MS - R	CBD Line HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
850	03.04.2023	Jetty CTMS MS - R	CBD Line HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
851	03.04.2023	Jetty CTMS MS - R	CBD Line End Flange	Flange	0.2	0.8	100	0.000001	8760	0.010421
852	03.04.2023	Jetty CTMS MS - R	CBD Line NRV Up Stream	Flange	0	0.8	100	0.000000	8760	0
853	03.04.2023	Jetty CTMS MS - R	CBD Line NRV Down Stream	Flange	0	0.8	100	0.000000	8760	0
854	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator HPV Up Stream	Flange	0	0.8	100	0.000000	8760	0
855	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator HPV Down Stream	Flange	0	0.8	100	0.000000	8760	0
856	03.04.2023	Jetty CTMS MS - P	Main Line PSV	Flange	0	0.8	100	0.000000	8760	0
857	03.04.2023	Jetty CTMS MS - P	Main Line PSV U/S Up Stream	Flange	0	0.8	100	0.000000	8760	0
858	03.04.2023	Jetty CTMS MS - P	Main Line PSV U/S Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
859	03.04.2023	Jetty CTMS MS - P	Main Line PSV D/S Up Stream	Flange	0	0.8	100	0.000000	8760	0
860	03.04.2023	Jetty CTMS MS - P	Main Line PSV D/S Down Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846
861	03.04.2023	Jetty CTMS MS - P	Main Line PSV U/S Drain Point	Flange	0.2	0.8	100	0.000001	8760	0.010421
862	03.04.2023	Jetty CTMS MS - P	Main Line PSV D/S Drain Point	Flange	0.2	0.8	100	0.000001	8760	0.010421
863	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator Inlet	Flange	0	0.8	100	0.000000	8760	0
864	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator Outlet	Flange	0	0.8	100	0.000000	8760	0
865	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator Manhole	Flange	0	0.8	100	0.000000	8760	0
866	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator Drain Point HOV	Flange	0	0.8	100	0.000000	8760	0
867	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator PSV	Flange	0	0.8	100	0.000000	8760	0
868	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator PSV U/S HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
869	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator PSV U/S HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
870	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator PSV D/S HOV Up Stream	Flange	0	0.8	100	0.000000	8760	0
871	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator PSV D/S HOV Down Stream	Flange	0	0.8	100	0.000000	8760	0
872	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator PSV U/S Drain Point	Flange	0	0.8	100	0.000000	8760	0
873	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator PSV D/S Drain Point	Flange	0	0.8	100	0.000000	8760	0
874	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator Vent Point	Flange	0	0.8	100	0.000000	8760	0
875	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator HOV -1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
876	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator HOV -1 down Stream	Flange	0	0.8	100	0.000000	8760	0
877	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator HOV -2 Up Stream	Flange	0	0.8	100	0.000000	8760	0
878	03.04.2023	Jetty CTMS MS - P	Vapour Eliminator HOV -2 down Stream	Flange	0	0.8	100	0.000000	8760	0
879	03.04.2023	Jetty CTMS MS - P	CTMS U/S Ringspacer	Flange	0	0.8	100	0.000000	8760	0
880	03.04.2023	Jetty CTMS MS - P	Firest Loop Pump U/S HOV Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
881	03.04.2023	Jetty CTMS MS - P	Firest Loop Pump U/S HOV Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
882	03.04.2023	Jetty CTMS MS - P	Firest Loop Pump U/S Drain Point HOV Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
883	03.04.2023	Jetty CTMS MS - P	Firest Loop Pump U/S Drain Point HOV Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402

1007	03.04.2023	Jetty CTMS MS - P	DGP HOV - 7 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1008	03.04.2023	Jetty CTMS MS - P	DGP HOV - 8 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1009	03.04.2023	Jetty CTMS MS - P	DGP HOV - 8 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1010	03.04.2023	Jetty CTMS MS - P	PSV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1011	03.04.2023	Jetty CTMS MS - P	PSV - 1 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
1012	03.04.2023	Jetty CTMS MS - P	PSV - 2 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
1013	03.04.2023	Jetty CTMS MS - P	PSV - 2 Down Stream	Flange	0.8	0.8	100	0.000003	8760	0.027616
1014	03.04.2023	Jetty CTMS MS - P	PSV - 3 Up Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846
1015	03.04.2023	Jetty CTMS MS - P	PSV - 3 Down Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
1016	03.04.2023	Jetty CTMS MS - P	PSV - 4 Up Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
1017	03.04.2023	Jetty CTMS MS - P	PSV - 4 Down Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
1018	03.04.2023	Jetty CTMS MS - P	PSV U/S HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1019	03.04.2023	Jetty CTMS MS - P	PSV U/S HOV - 1 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1020	03.04.2023	Jetty CTMS MS - P	PSV U/S HOV - 2 Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
1021	03.04.2023	Jetty CTMS MS - P	PSV U/S HOV - 2 Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
1022	03.04.2023	Jetty CTMS MS - P	PSV U/S HOV - 3 Up Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
1023	03.04.2023	Jetty CTMS MS - P	PSV U/S HOV - 3 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
1024	03.04.2023	Jetty CTMS MS - P	PSV U/S HOV - 4 Up Stream	Flange	0.5	0.8	100	0.000002	8760	0.019846
1025	03.04.2023	Jetty CTMS MS - P	PSV U/S HOV - 4 Down Stream	Flange	0.4	0.8	100	0.000002	8760	0.016965
1026	03.04.2023	Jetty CTMS MS - P	PSV D/S HOV - 1 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1027	03.04.2023	Jetty CTMS MS - P	PSV D/S HOV - 1 Down Stream	Flange	0.1	0.8	100	0.000001	8760	0.006402
1028	03.04.2023	Jetty CTMS MS - P	PSV D/S HOV - 2 Up Stream	Flange	0.3	0.8	100	0.000002	8760	0.013858
1029	03.04.2023	Jetty CTMS MS - P	PSV D/S HOV - 2 Down Stream	Flange	0.2	0.8	100	0.000001	8760	0.010421
1030	03.04.2023	Jetty CTMS MS - P	PSV D/S HOV - 3 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1031	03.04.2023	Jetty CTMS MS - P	PSV D/S HOV - 3 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1032	03.04.2023	Jetty CTMS MS - P	PSV D/S HOV - 4 Up Stream	Flange	0	0.8	100	0.000000	8760	0
1033	03.04.2023	Jetty CTMS MS - P	PSV D/S HOV - 4 Down Stream	Flange	0	0.8	100	0.000000	8760	0
1034	03.04.2023	Jetty CTMS MS - P	Stream 1 Flowmeter - 1	Flange	0	0.8	100	0.000000	8760	0
1035	03.04.2023	Jetty CTMS MS - P	Stream 1 Flowmeter - 2	Flange	0	0.8	100	0.000000	8760	0
1036	03.04.2023	Jetty CTMS MS - P	Stream 1 Flowmeter - 3	Flange	0	0.8	100	0.000000	8760	0
1037	03.04.2023	Jetty CTMS MS - P	Stream 1 Flowmeter - 4	Flange	0	0.8	100	0.000000	8760	0
1038	03.04.2023	Jetty CTMS MS - P	Stream 1 Flowmeter - 5	Flange	0	0.8	100	0.000000	8760	0
1039	03.04.2023	Jetty CTMS MS - P	Stream 1 Flowmeter - 6	Flange	0	0.8	100	0.000000	8760	0

Annexure-8

Treated Effluent Water Quality Report



INDIAN OIL CORPORATION LIMITED
PARADIP REFINERY
QUALITY CONTROL LABORATORY



Source of sample: ETP to Sea Discharge (HCOD) Outlet					Method of collection: IS 3025 P:1					
Sample drawn by: Production					Report No: PDR/QC/MINAS/2022/Q3-Q4					
Date of Sample:					23.10.2022	25.11.2022	01.01.2023	29.01.2023	28.02.2023	25.03.2023
SI No	Parameters	Test Method	UoM	Limits : MINAS	Sea Discharge (HCOD Outlet)					
1	pH	APHA 4500 H ⁺ B	...	6.0 -8.5	7.2	7.9	6.9	7.9	7.1	7.3
2	Oil & Grease	APHA 5520 D	mg/l	Max 5	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
3	BOD, 3days @ 27°C	IS 3025 (P:44)	mg/l	Max 15	11	13	8	7	9	12
4	COD	APHA 5220 B	mg/l	Max 125	105	116	70	55	81	100
5	Total Suspended Solid	APHA 2540 D	mg/l	Max 20	8.0	<2.5	15.0	4.0	4.0	<2.5
6	Phenols	APHA 5530 B&D	mg/l	Max 0.35	0.09	0.12	0.09	0.07	0.10	0.07
7	Sulphides	APHA 4500 S ²⁻ F	mg/l	Max 0.5	<0.1	<0.10	<0.1	<0.1	<0.1	<0.1
8	CN	APHA 4500 CN ⁻ C&D	mg/l	Max 0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9	Ammonia as N	APHA 4500 NH ₃ B&F	mg/l	Max 15	14.4	10.5	8.4	14.5	12.5	10.8
10	TKN	APHA 4500 N org B	mg/l	Max 40	35.2	30.0	22.4	31.9	31.5	35.3
11	Phosphorus as P	APHA 4500 P D	mg/l	Max 3	0.39	1.80	0.22	0.08	1.90	0.41
12	Cr (Hexavalent)	APHA3500 Cr B	mg/l	Max 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
13	Cr (Total)	APHA3030E &3111 B	mg/l	Max 2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
14	Pb	APHA3030E &3111 B	mg/l	Max 0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
15	Hg	APHA3030E &3112 B/ APHA 3125	mg/l	Max 0.01	0.002	0.008	0.002	0.003	0.003	0.001
16	Zn	APHA 3030E &3111 B	mg/l	Max 5	0.051	0.027	0.011	0.017	0.006	0.009
17	Ni	APHA 3030E &3111 B	mg/l	Max 1	0.017	0.006	0.004	0.002	0.004	0.006
18	Cu	APHA 3030E &3111 B	mg/l	Max 1	0.006	0.003	0.003	0.003	0.005	0.008
19	V	APHA3030E &3111 B&D	mg/l	Max 0.2	0.005	0.005	0.003	0.007	0.008	0.001
20	Benzene	APHA 6200	mg/l	Max 0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
21	Benzo(a)-pyrene	APHA 6440	mg/l	Max 0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

- Note: 1. Customer Information: Indian Oil Corporation Limited, Paradip Refinery, Production/HSE Department.
2. Sample details: Sample submitted by customer and received as such. Information provided with the sample may affect validity of results.
3. The results relate only to the samples submitted/ as received unless otherwise stated.
4. All tests/analyses performed at PDR Quality Control Laboratory as per applicable test methods, unless otherwise stated without any deviations to test method.
5. Customer confidential information shall be maintained as per customer agreement, if any.
6. This report shall not be produced except in full, without the written approval of Quality Control Laboratory, Paradip Refinery.
7. All test methods referred to in this certificate include a precision statement. The interpretation of results based on test method/ precision shall be used whenever applicable.
8. Laboratory Environmental Condition: 23±2 °C and 65 ± 10 %RH.

Dr. N Sahu

Dr. N Sahu (QCM)

Annexure-9

Ground Water Quality Report



Indian Oil Corporation Limited
Paradip Refinery
Quality Control Laboratory



Source of sample: Ground water: Secure Landfill (SLF), ETP Method of collection: IS 3025 P:1

Sample drawn by: Production/HSE Report No: PDR/QC/Ground Water/2022/Q3-Q4

Date of Sample: **01.10.2022** **08.10.2022** **05.12.2022**

S N	Parameters	Method	UOM	01.10.2022		08.10.2022		05.12.2022	
				ETP Area	SLF-1	SLF-2	SLF-1	SLF-2	
1	pH (at 25°C)	APHA 4500 H ⁺ B	NA	7.8	6.9	7.3	7.7	7.6	
2	Oil and Grease	APHA 5520 D	mg/L	<4.0	<4.0	<4.0	<4.0	<4.0	
3	BOD 3 Days	IS 3025 (P:44)	mg/L	5.0	3.0	2.0	2.0	1.0	
4	COD	APHA 5220 B	mg/L	42	24	21	22	5	
5	Phenol	APHA 5530 B&D	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
6	Sulphide	APHA 4500 S ⁻² F	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	
7	Cyanide(CN ⁻)	APHA 4500 CN ⁻ C&D	mg/L	<0.001	<0.1	<0.001	<0.001	<0.001	
8	Ammonical Nitrogen	APHA 4500 NH ₃	mg/L	0.3	0.2	0.2	0.6	0.4	
9	Amonia(NH3)	B&F	mg/L	0.4	0.2	0.2	0.8	0.5	
10	TKN	APHA4500 Norg B	mg/L	2.6	0.56	0.8	1.4	1.12	
11	Phosphate	APHA 4500 P D	mg/L	0.118	0.13	0.036	2.6	0.157	
12	Cr (VI)	APHA3500 Cr B	mg/L	<0.1	<0.1	<0.1	<0.10	<0.1	
13	Chromium (Cr)	APHA3030E & 3111B/ APHA 3125	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
14	Lead(Pb)		mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
15	Mercury(Hg)	APHA3112B/3125	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
16	Znic(Zn)		mg/L	0.025	0.061	0.018	0.014	0.053	
17	Nickel(Ni)	APHA 3030E & 3111B/ APHA 3125	mg/L	0.002	0.004	0.003	0.003	0.004	
18	Copper(Cu)		mg/L	0.006	0.007	0.005	0.002	0.002	
19	Vanadium(V)		mg/L	<0.001	0.003	<0.001	0.001	<0.001	
20	Benzene in Water	APHA 6200	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	
21	Benzo Pyrene	APHA 6440	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	
22	Conductivity (at 25°C)	APHA 2510	µS/cm	580	525	186	1761	262	
23	Total Hardness	APHA 2340	mg/L	146.0	63.4	83.2	185.0	82.1	
24	Turbidity	APHA 2130	NTU	1.9	1.8	1.9	<0.1	<0.1	
25	Alkalinity	APHA 2310	mg/L	193	20.2	62.6	56.3	48.2	

1. Customer Information: Indian Oil Corporation Limited, Paradip Refinery, Production/HSE Department.
2. Sample details: Sample submitted by customer and received as such. Information provided with the sample may affect validity of results.
3. The results relate only to the samples submitted/ as received unless otherwise stated.
4. All tests/analyses performed at PDR Quality Control Laboratory as per applicable test methods, unless otherwise stated without any deviations to test method.
5. Customer confidential information shall be maintained as per customer agreement, if any.
6. This report shall not be produced except in full, without the written approval of Quality Control Laboratory, Paradip Refinery.
7. All test methods referred to in this certificate include a precision statement. The interpretation of results based on test method/ precision shall be used whenever applicable.
8. Laboratory Environmental Condition: 23±2 °C and 65 ± 10 %RH.

Dr. N Sahu

Dr. N Sahu (Quality Control Manager)

Annexure-10

Occupational Health Report

Occupational Health

a) Number of workers exposed beyond permissible limits of exposure of chemical and toxic substances specified in section 41-E (Second Schedule) of Factories Act 1948.

Unit/Installations with Location	Substance	Permissible limits of exposure as per Second Schedule (section 41-E) of Factories Act 1948		Number of workers exposed beyond permissible limit
		TWA (ppm, mg/m3)	STEL (ppm, mg/m3)	
-	H2S	10	15	NIL
	CO	35	400	NIL

Status of Periodic Medical Examination for workers exposed beyond permissible limits of chemical and toxic substances as mentioned above.

Number of workers for whom periodic medical examination planned during the year	Number of workers for whom periodic medical examination done during the quarter	% Overall Compliance
Units (Target annual)388	3 rd &4 th Qtr.	
Production (249)	63	49.74%
P & U (75)	71	
Mech. Maintenance (37)	37	
Instrumentation (27)	22	

b) Number of workers exposed to sound levels beyond maximum exposure levels stipulated in the Factory Rules.

Unit/Installation with Location	Maximum exposure level stipulated in the Factory Rule	Number of workers exposed to sound levels beyond maximum exposure levels stipulated in Factory Rules.
Production (249) P & U (75) Mech. Maintenance (37) Instrumentation (27)	TWA-90dbA STEL-115dbA	NIL

c) Status of Auditory Examination of the workers as identified above.

Number of workers for whom Auditory Examination planned during the year 2018-19 (3 rd &4 th Quarter)	Number of workers for whom Auditory Examination done during the quarter	% Overall Compliance
P & U (73) Mech. Maintenance (37)	71 37	98.18%

d) Notified disease as per Section 89 of Factories Act, 1948

Unit/Installation with location	Name of disease as per "Third Schedule" of Factories Act.	Number of workers identified	Date of intimation to the Factory Inspectorate
-	NIL	-	-

डॉ अशोक कुमार / Dr. Ashok Kumar

जे सी एम ओ
JCMO

पारादीप रिफाइनरी (इंडियन ऑयल)

Paradip Refinery (Indian Oil)

पारादीप / Paradip - 754141 (Odisha)

11/5/23
OH Physicist

Annexure-11

Marine Water Quality Report

BUILDING & ROAD, MATERIAL, SOIL, ENVIRONMENTAL & CALIBRATION TESTING LAB

Test Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202203300131-132
Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW1-Surface	SW2-Bottom	
1	pH	-	7.24	7.58	IS:3025 (P-11)
2	Temperature	°C	24.6	24.8	IS:3025 (P-9)
3	Total Suspended Solids	mg/L	124	142	IS:3025 (P-17)
4	Sulphide as S	mg/L	1.0	1.4	IS:3025 (P-29)
5	Nitrate as NO ₃	mg/L	12.8	22.4	IS:3025 (P-34)
6	Ammonia as NH ₄	mg/L	2.64	5.12	IS:3025 (P-34)
7	Fluoride as F	mg/L	0.48	1.2	IS:3025 (P-60)
8	Iron as Fe	mg/L	1.14	1.44	APHA 23 rd Ed.
9	Dissolved Oxygen (DO)	mg/L	6.2	3.8	IS:3025 (P-38)
10	Chemical Oxygen Demand	mg/L	58	76	IS:3025 (P-58)
11	Bio-Chemical Oxygen Demand (3 days at 27°C) (BOD)	mg/L	5.4	10.0	IS:3025 (P-44)
12	Manganese as Mn	mg/L	0.22	0.58	IS:3025 (P-59)
13	Chromium as Cr ⁺⁶	mg/L	ND [DL- 0.05]	ND [DL- 0.05]	APHA 23 rd Ed.
14	Lead as Pb	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	APHA 23 rd Ed.
15	Zinc as Zn	mg/L	0.18	0.34	APHA 23 rd Ed.

(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection, testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

Plot No. 118, Church Road, Behind Kausik Vatika, Bhagat Singh Colony, Ballabgarh, Faridabad - 121004, Haryana, India

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202203300131-132
Test Report Date: 13/04/2022

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW1-Surface	SW2-Bottom	
16	Cadmium as Cd	mg/L	ND [DL- 0.003]	ND [DL- 0.003]	APHA 23 rd Ed.
17	Copper as Cu	mg/L	ND [DL- 0.25]	ND [DL- 0.25]	APHA 23 rd Ed.
18	Nickel as Ni	mg/L	ND [DL- 0.02]	ND [DL- 0.02]	APHA 23 rd Ed.
19	Arsenic as As	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	APHA 23 rd Ed.
20	Selenium as Se	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	IS:3025 (P-56)
21	Oil & Grease	mg/L	ND [DL- 2]	ND [DL- 2]	IS:3025 (P-39)
22	Phenolic Compound as C ₆ H ₅ OH	mg/L	ND [DL- 0.1]	ND [DL- 0.1]	IS:3025 (P-43)

Remark:

ND-Below Detection Limit, DL-Limit of Quantification, the lowest concentration of a substance that can be accurately measured under specified experimental conditions.


(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202203300131-132

Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW1-Surface	SW2-Bottom	
1	Faecal Coliform	MPN/100 ml	8	12	IS 1622


(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202203300131-132
Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW1-Surface	SW2-Bottom
1	Salinity	-	45282	47566
2	P- Alkalinity as CaCO ₃	mg/L	1.4	4.0
3	Phosphates as PO ₄	mg/L	2.8	3.4
4	Nitrite as NO ₂	mg/L	ND [DL- 0.5]	ND [DL- 0.5]
5	Silica as SiO ₂	mg/L	14.6	28.14
6	TOC	mg/L	5.2	6.4
7	Conductivity	µS/cm	56591	59458
8	Total Dissolved Solids	mg/L	36780	38650
9	Total Alkalinity as CaCO ₃	mg/L	3382	3946
10	Chloride as Cl	mg/L	19216	21428
11	Sulphate as SO ₄	mg/L	1124	1290
12	Total Hardness as CaCO ₃	mg/L	6238	6816
13	Calcium as Ca	mg/L	1040	1208
14	Magnesium as Mg	mg/L	884.4	928
15	Sodium as Na	mg/L	8208	8742
16	Potassium as K	mg/L	1816	2128
17	Gross Alpha	Bq/l	<0.1	<0.1
18	Gross Beta	Bq/l	<0.1	<0.1

(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202203300131-132

Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples

Sample Quantity & Packaging

Test Started on

Test Completed

Method of Sampling

Date of Sampling

Sampling Conducted By

Place of Sampling

Marine Water & Two Nos

: 5 Litre, Pet Bottle & 500 ml in Glass Bottle

: 05/04/2022

: 12/04/2022

: SOP/B/D-3

: 30/03/2022

: Mr. Praveen Parmanik

: Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)

: Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW1-Surface	SW2-Bottom
1	Sand	%	48	74
2	Silt	%	38	14
3	Clay	%	14	12


(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202203300131-132

Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW1-Surface	SW2-Bottom
1	Copepoda	Nos/Litre	60216	72818
2	Decapoda	Nos/Litre		
	Brachyuran larvae	Nos/Litre	1162	672
	Zoea larvae	Nos/Litre	3088	11724
	Schizopod larvae	Nos/Litre	0	0
	Protozoa of <i>A.indicus</i>	Nos/Litre	114	382
	Post larva of <i>P.indicus</i>	Nos/Litre	0	0
	<i>A caridean</i>	Nos/Litre	0	84
3	Cumaceae	Nos/Litre	74	796
4	Sergestidae	Nos/Litre		
	<i>Lucifer sp.</i>	Nos/Litre	0	1776
5	Isopoda	Nos/Litre	0	80

(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202203300131-132
Test Report Date: 13/04/2022

Test Report

Sr. No.	Parameter	Unit	Result	
			SW1-Surface	SW2-Bottom
6	Euphausiadae (furcilla)	Nos/Litre	0	0
7	Nematoda	Nos/Litre	114	625
8	Fish egg/larvae	Nos/Litre	492	1378
9	Phyllosoma larvae	Nos/Litre	0	1286
10	Bippinaria larvae	Nos/Litre	0	104
11	Actinotrocha larvae	Nos/Litre	0	0
12	Polychaetes	Nos/Litre	1174	0
13	Echinoderm larvae	Nos/Litre	7922	10020
14	Mysids	Nos/Litre	2983	1182
15	Gastropod larvae	Nos/Litre	0	84


(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report pertain only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202203300131-132

Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW1-Surface	SW2-Bottom
1	Chlorophyll 'a	mg/l	0.82	0.68
2	Phaeophytin	mg/l	0.74	0.36



(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Issued To **M/s Indian Oil Corporation Limited**
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202212230110-111
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW1-Surface	SW2-Bottom	
1	pH	-	7.50	7.65	IS:3025 (P-11)
2	Temperature	°C	26	25	IS:3025 (P-9)
3	Total Suspended Solids	mg/L	130	158	IS:3025 (P-17)
4	Sulphide as S	mg/L	0.7	1.1	IS:3025 (P-29)
5	Nitrate as NO ₃	mg/L	14.2	17.28	IS:3025 (P-34)
6	Ammonia as NH ₄	mg/L	2.50	3.82	IS:3025 (P-34)
7	Fluoride as F	mg/L	0.65	1.2	IS:3025 (P-60)
8	Iron as Fe	mg/L	1.20	1.50	APHA 23 rd Ed.
9	Dissolved Oxygen (DO)	mg/L	6.3	4.1	IS:3025 (P-38)
10	Chemical Oxygen Demand	mg/L	72	84	IS:3025 (P-58)
11	Bio-Chemical Oxygen Demand (3 days at 27°C) (BOD)	mg/L	14	13	IS:3025 (P-44)
12	Manganese as Mn	mg/L	0.45	0.69	IS:3025 (P-59)
13	Chromium as Cr ⁺⁶	mg/L	ND [DL- 0.05]	ND [DL- 0.05]	APHA 23 rd Ed.
14	Lead as Pb	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	APHA 23 rd Ed.
15	Zinc as Zn	mg/L	0.52	0.62	APHA 23 rd Ed.



AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of the organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited to invoiced amount only. * not in NABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2865597, +91-9873924093

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202212230110-111
Test Report Date: 02/01/2023

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW1-Surface	SW2-Bottom	
16	Cadmium as Cd	mg/L	ND [DL- 0.003]	ND [DL- 0.003]	APHA 23 rd Ed.
17	Copper as Cu	mg/L	ND [DL- 0.25]	ND [DL- 0.25]	APHA 23 rd Ed.
18	Nickel as Ni	mg/L	ND [DL- 0.02]	ND [DL- 0.02]	APHA 23 rd Ed.
19	Arsenic as As	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	APHA 23 rd Ed.
20	Selenium as Se	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	IS:3025 (P-56)
21	Oil & Grease	mg/L	ND [DL- 2]	ND [DL- 2]	IS:3025 (P-39)
22	Phenolic Compound as C ₆ H ₅ OH	mg/L	ND [DL- 0.1]	ND [DL- 0.1]	IS:3025 (P-43)

Remark:

ND-Below Detection Limit, DL-Limit of Quantification, the lowest concentration of a substance that can be accurately measured under specified experimental conditions.


NITYA LABORATORIES
Authorised
AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. * not in NABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2465597, +91-9873924093

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202212230110-111
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW1-Surface	SW2-Bottom	
1	Faecal Coliform	MPN/100 ml	250	289	IS 1622


AUTHORISED SIGNATORY
★ RAVINDER MITTAL ★

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited to the amount only. * not in F&B Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924693

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202212230112-113
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW1-Surface	SW2-Bottom
1	Salinity	-	45398	47941
2	P- Alkalinity as CaCO ₃	mg/L	2.5	4.8
3	Phosphates as PO ₄	mg/L	2.2	3.1
4	Nitrite as NO ₂	mg/L	ND [DL- 0.5]	ND [DL- 0.5]
5	Silica as SiO ₂	mg/L	13.4	25.81
6	TOC	mg/L	4	5.0
7	Conductivity	µS/cm	57821	60285
8	Total Dissolved Solids	mg/L	37900	39432
9	Total Alkalinity as CaCO ₃	mg/L	3892	4126
10	Chloride as Cl	mg/L	20431	23131
11	Sulphate as SO ₄	mg/L	1360	1420
12	Total Hardness as CaCO ₃	mg/L	6722	6798
13	Calcium as Ca	mg/L	1042	1190
14	Magnesium as Mg	mg/L	830	960
15	Sodium as Na	mg/L	8420	8950
16	Potassium as K	mg/L	1820	2190
17	Gross Alpha	Bq/l	<0.1	<0.1
18	Gross Beta	Bq/l	<0.1	<0.1


AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. * not in INABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-193-2465597, +91-9873924093

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202212230112-113
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW1-Surface	SW2-Bottom
1	Sand	%	48	75
2	Silt	%	41	17
3	Clay	%	17	14


AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. * not in NABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-991-2465597, +91-9873924093

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202212230112-113
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW1-Surface	SW2-Bottom
1	Copepoda	Nos/Litre	57843	72383
2	Decapoda	Nos/Litre		
	Brachyuran larvaee	Nos/Litre	1627	827
	Zoea larvae	Nos/Litre	3029	10101
	Schizopod larvae	Nos/Litre	0	0
	Protozoea of <i>A.indicus</i>	Nos/Litre	118	382
	Post larva of <i>P.indicus</i>	Nos/Litre	0	0
	<i>A caridean</i>	Nos/Litre	0	78
3	Cumaceae	Nos/Litre	69	592
4	Sergestidae	Nos/Litre		
	<i>Lucifer sp.</i>	Nos/Litre	0	1827
5	Isopoda	Nos/Litre	0	79



Authorised
AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. * not in NASL Scope.
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Dist. Jagatsinghpur
Odisha, India

Test Report No. : 202212230112-113
Test Report Date: 02/01/2023

Test Report

Sr. No.	Parameter	Unit	Result	
			SW1-Surface	SW2-Bottom
6	Euphausiadae (furcilla)	Nos/Litre	0	0
7	Nematoda	Nos/Litre	127	602
8	Fish egg/larvae	Nos/Litre	289	1038
9	Phyllosoma larvae	Nos/Litre	0	1128
10	Bippinaria larvae	Nos/Litre	0	110
11	Actinotrocha larvae	Nos/Litre	0	0
12	Polychaetes	Nos/Litre	1128	0
13	Echinoderm larvae	Nos/Litre	7026	11827
14	Mysids	Nos/Litre	2983	1425
15	Gastropod larvae	Nos/Litre	0	82


AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited involved amount only. * not in NABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2465597, +91-0673524093

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No. : 202212230112-113
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW1-Surface)
Final effluent discharge from Refinery (3 Km inside the sea from the LTL) (SW2-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW1-Surface	SW2-Bottom
1	Chlorophyll 'a	mg/l	0.89	0.43
2	Phaeophytin	mg/l	0.87	0.16



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of the organization. Sample will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. * not in NABL Scope.
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

Test Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202203300133-134
Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW3-Surface	SW4-Bottom	
1	pH	...	7.46	8.42	IS:3025 (P-11)
2	Temperature (°C)	mg/L	30.4	31.2	IS:3025 (P-9)
3	Total Suspended Solids	mg/L	70	90	IS:3025 (P-17)
4	Sulphide as S	mg/L	0.6	1.4	IS:3025 (P-29)
5	Nitrate as NO ₃	mg/L	12.2	16.0	IS:3025 (P-34)
6	Ammonia as NH ₄	mg/L	2.4	4.8	IS:3025 (P-34)
7	Fluoride as F	mg/L	0.48	1.6	IS:3025 (P-60)
8	Iron as Fe	mg/L	1.62	2.40	APHA 23 rd Ed.
9	Dissolved Oxygen (DO)	mg/L	6.2	4.0	IS:3025 (P-38)
10	Chemical Oxygen Demand	mg/L	70	90	IS:3025 (P-58)
11	BOD.(3 days at 270 C)	mg/L	5.2	14.0	IS:3025 (P-44)
12	Manganese as Mn	mg/L	0.20	0.46	IS:3025 (P-59)
13	Chromium as Cr ⁺⁶	mg/L	ND [DL- 0.05]	ND [DL- 0.05]	APHA 23 rd Ed.
14	Lead as Pb	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	APHA 23 rd Ed.
15	Zinc as Zn	mg/L	0.34	0.44	APHA 23 rd Ed.

(AUTHORISED SIGNATORY)

(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202203300133-134
Test Report Date: 13/04/2022

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW3-Surface	SW4-Bottom	
16	Cadmium as Cd	mg/L	ND [DL- 0.003]	ND [DL- 0.003]	APHA 23 rd Ed.
17	Copper as Cu	mg/L	ND [DL- 0.25]	ND [DL- 0.25]	APHA 23 rd Ed.
18	Nickel as Ni	mg/L	ND [DL- 0.02]	ND [DL- 0.02]	APHA 23 rd Ed.
19	Arsenic as As	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	APHA 23 rd Ed.
20	Selenium as Se	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	IS:3025 (P-56)
21	Oil & Grease	mg/L	ND [DL- 2]	ND [DL- 2]	S:3025 (P-39)
22	Phenolic Compound as C ₆ H ₅ OH	mg/L	ND [DL- 0.1]	ND [DL- 0.1]	IS:3025 (P-43)

Remark:

ND-Below Detection Limit, DL-Limit of Quantification, the lowest concentration of a substance that can be accurately measured under specified experimental conditions.


(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202203300133-134

Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Surface Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW3-Surface	SW4-Bottom	
1	Total Coliform	MPN	12	18	IS 1622
2	Standard Plate Count	CFU/ml	760	980	IS 1622


(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To **Indian Oil Corporation Limited**
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202203300133-134

Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Surface Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW3-Surface	SW4-Bottom
1	Salinity	-	44945	47396
2	P- Alkalinity as CaCO ₃	mg/L	3.4	4.6
3	Phosphates as PO ₄	mg/L	1.8	2.4
4	Nitrite as NO ₂	mg/L	BDL (LOD-0.5)	BDL (LOD-0.5)
5	Silica as SiO ₂	mg/L	36	38
6	TOC	mg/L	4.8	6.2
7	Conductivity (µS/cm)	mg/L	56128	59246
8	Total Dissolved Solids	mg/L	36520	38509
9	Total Alkalinity as CaCO ₃	mg/L	1816	2124
10	Chloride as Cl	mg/L	19128	22860
11	Sulphate as SO ₄	mg/L	1116	1284
12	Total Hardness as CaCO ₃	mg/L	5794	6418
13	Calcium as Ca	mg/L	1280	1484
14	Magnesium as Mg	mg/L	660	658
15	Sodium as Na	mg/L	9182	9748
16	Potassium as K	mg/L	1692	2082


(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

43, Sector-A1 Ext., Bhalla Enclave, Channi Himmat, Jammu-180 015, J&K (UT), India

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

BUILDING & ROAD, MATERIAL, SOIL, ENVIRONMENTAL & CALIBRATION TESTING LAB

Test Report

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202203300133-134

Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Surface Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW3-Surface	SW4-Bottom
1	Sand	%	56	76
2	Silt	%	24	13
3	Clay	%	20	11


(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202203300133-134

Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Surface Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW3-Surface	SW4-Bottom
1	Copepoda	Nos/Litre	18748	50914
2	Decapoda			
	Brachyuran larvae	Nos/Litre	664	1526
	Zoea larvae	Nos/Litre	332	8004
	Schizopod larvae	Nos/Litre	0	0
	Protozoa of <i>A.indicus</i>	Nos/Litre	154	252
	Post larva of <i>P.indicus</i>	Nos/Litre	0	0
	<i>A caridean</i>	Nos/Litre	0	0
3	Cumaceae	Nos/Litre	26	90
4	Sergestidae			
	<i>Lucifer sp.</i>	Nos/Litre	0	314
5	Isopoda	Nos/Litre	0	32


(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

43, Sector-A1 Ext., Bhalla Enclave, Channi Himmat, Jammu-180 015, J&K (UT), India

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Test Report

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202203300133-134

Test Report Date: 13/04/2022

Test Report

Sr. No.	Parameter	Unit	Result	
			SW3-Surface	SW4-Bottom
6	Euphausidaceae (furcilla)	Nos/Litre	0	0
7	Nematoda	Nos/Litre	82	240
8	Fish egg/larvae	Nos/Litre	1114	2156
9	Phyllosoma larvae	Nos/Litre	0	534
10	Bippinaria larvae	Nos/Litre	0	0
11	Actinotrocha larvae	Nos/Litre	0	0
12	Polychaetes	Nos/Litre	302	0
13	Echinoderm larvae	Nos/Litre	1326	9254
14	Mysids	Nos/Litre	264	2232
15	Gastropod larvae	Nos/Litre	24	356



(AUTHORISED SIGNATORY)

(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

43, PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

BUILDING & ROAD, MATERIAL, SOIL, ENVIRONMENTAL & CALIBRATION TESTING LAB**Test Report**

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202203300133-134
Test Report Date: 13/04/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Surface Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 05/04/2022
Test Completed : 12/04/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/03/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW3-Surface	SW4-Bottom
1	Chlorophyll 'a	mg/l	1.26	0.94
2	Phaeophytin	mg/l	0.82	0.36



(AUTHORISED SIGNATORY)
(RAVINDER MITTAL)

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. Results subject to the movement of vehicles at that time. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

CORPORATE OFFICE & CENTRAL LABORATORIES :-

PLOT NO. 118, CHURCH ROAD, BEHIND KAUSIK VATIKA, BHAGAT SINGH COLONY, BALLABHGARH, FARIDABAD - 121004, HARYANA, INDIA

+91-129-2241021

+91-9013591021, +91-9013552273

labsnitya@gmail.com

www.nityalab.com

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202212230114-115
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Marine Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW3-Surface	SW4-Bottom	
1	pH	...	7.80	8.25	IS:3025 (P-11)
2	Temperature (°C)	mg/L	27.8	30	IS:3025 (P-9)
3	Total Suspended Solids	mg/L	75	90	IS:3025 (P-17)
4	Sulphide as S	mg/L	0.80	1.2	IS:3025 (P-29)
5	Nitrate as NO ₃	mg/L	12	16	IS:3025 (P-34)
6	Ammonia as NH ₄	mg/L	2.95	4.90	IS:3025 (P-34)
7	Fluoride as F	mg/L	0.50	1.1	IS:3025 (P-60)
8	Iron as Fe	mg/L	1.6	2.40	APHA 23 rd Ed.
9	Dissolved Oxygen (DO)	mg/L	6.2	3.4	IS:3025 (P-38)
10	Chemical Oxygen Demand	mg/L	75	95	IS:3025 (P-58)
11	BOD,(3 days at 270 C)	mg/L	11	18	IS:3025 (P-44)
12	Manganese as Mn	mg/L	0.32	0.65	IS:3025 (P-59)
13	Chromium as Cr ⁺⁶	mg/L	ND [DL- 0.05]	ND [DL- 0.05]	APHA 23 rd Ed.
14	Lead as Pb	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	APHA 23 rd Ed.
15	Zinc as Zn	mg/L	0.50	0.60	APHA 23 rd Ed.



AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the samples tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of the organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. * not in PARL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-101-2465597, +91-9873024093

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202212230114-115
Test Report Date: 02/01/2023

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW3-Surface	SW4-Bottom	
16	Cadmium as Cd	mg/L	ND [DL- 0.003]	ND [DL- 0.003]	APHA 23 rd Ed.
17	Copper as Cu	mg/L	ND [DL- 0.25]	ND [DL- 0.25]	APHA 23 rd Ed.
18	Nickel as Ni	mg/L	ND [DL- 0.02]	ND [DL- 0.02]	APHA 23 rd Ed.
19	Arsenic as As	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	APHA 23 rd Ed.
20	Selenium as Se	mg/L	ND [DL- 0.01]	ND [DL- 0.01]	IS:3025 (P-56)
21	Oil & Grease	mg/L	ND [DL- 2]	ND [DL- 2]	S:3025 (P-39)
22	Phenolic Compound as C ₆ H ₅ OH	mg/L	ND [DL- 0.1]	ND [DL- 0.1]	IS:3025 (P-43)

Remark: ND-Below Detection Limit, DL-Limit of Quantification, the lowest concentration of a substance that can be accurately measured under specified experimental conditions.


AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. * not in NABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202212230114-115
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Surface Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result		Protocol
			SW3-Surface	SW4-Bottom	
1	Total Coliform	MPN	18	27	IS 1622
2	Standard Plate Count	CFU/ml	771	992	IS 1622


NITYA LABORATORIES
AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report, the results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoice amount only. * not in NABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2465597, +91-9873924093

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202212230116-117
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Surface Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW3-Surface	SW4-Bottom
1	Salinity	-	46024	48250
2	P- Alkalinity as CaCO ₃	mg/L	3.9	4.8
3	Phosphates as PO ₄	mg/L	2.1	2.4
4	Nitrite as NO ₂	mg/L	BDL (LOD-0.5)	BDL (LOD-0.5)
5	Silica as SiO ₂	mg/L	35	40
6	TOC	mg/L	5.0	6.4
7	Conductivity (µS/cm)	mg/L	56425	58222
8	Total Dissolved Solids	mg/L	36842	38101
9	Total Alkalinity as CaCO ₃	mg/L	1824	2140
10	Chloride as Cl	mg/L	18439	22990
11	Sulphate as SO ₄	mg/L	1086	1232
12	Total Hardness as CaCO ₃	mg/L	5629	6449
13	Calcium as Ca	mg/L	1420	1490
14	Magnesium as Mg	mg/L	600	620
15	Sodium as Na	mg/L	9332	9541
16	Potassium as K	mg/L	1640	2050



AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoice amount only. *not in HSEI Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2465597, +91-9873924093

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202212230116-117
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Surface Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW3-Surface	SW4-Bottom
1	Sand	%	49	68
2	Silt	%	19	10
3	Clay	%	23	9

NITYA LABORATORIES
Authorised
AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited to actual amount only. * not in NABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873624093

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202212230116-117
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Surface Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW3-Surface	SW4-Bottom
1	Copepoda	Nos/Litre	17352	38272
2	Decapoda			
	Brachyuran larvae	Nos/Litre	503	1282
	Zoea larvae	Nos/Litre	301	6847
	Schizopod larvae	Nos/Litre	0	0
	Protozoa of <i>A.indicus</i>	Nos/Litre	152	212
	Post larva of <i>P.indicus</i>	Nos/Litre	0	0
	<i>A caridean</i>	Nos/Litre	0	0
3	Cumaceae	Nos/Litre	26	84
4	Sergestidae			
	<i>Lucifer</i> sp.	Nos/Litre	0	302
5	Isopoda	Nos/Litre	0	24



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. * not in NAAB Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalab.com and call at +91-191-2465597, +91-9873924093

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202212230116-117
Test Report Date: 02/01/2023

Test Report

Sr. No.	Parameter	Unit	Result	
			SW3-Surface	SW4-Bottom
6	Euphausiadae (furcilla)	Nos/Litre	0	0
7	Nematoda	Nos/Litre	82	178
8	Fish egg/larvae	Nos/Litre	1094	1564
9	Phyllosoma larvae	Nos/Litre	0	365
10	Bippinaria larvae	Nos/Litre	0	0
11	Actinotrocha larvae	Nos/Litre	0	0
12	Polychaetes	Nos/Litre	321	0
13	Echinoderm larvae	Nos/Litre	1356	8362
14	Mysids	Nos/Litre	241	2047
15	Gastropod larvae	Nos/Litre	26	287


AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited insured amount only. * not in NABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2465597, +91-9873924093

Issued To Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang
Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202212230116-117
Test Report Date: 02/01/2023

Sample Particulars

Nature of the Sample & No. of Samples : **Surface Water & Two Nos**
Sample Quantity & Packaging : 5 Litre, Pet Bottle & 500 ml in Glass Bottle
Test Started on : 27/12/2022
Test Completed : 31/12/2022
Method of Sampling : SOP/B/D-3
Date of Sampling : 23/12/2022
Sampling Conducted By : Mr. Praveen Parmanik
Place of Sampling : South Oil Jetty, Paradip Port (SW3-Surface)
South Oil Jetty, Paradip Port (SW4-Bottom)

Test Report

Sr. No.	Parameter	Unit	Result	
			SW3-Surface	SW4-Bottom
1	Chlorophyll 'a	mg/l	1.27	0.48
2	Phaeophytin	mg/l	0.92	0.38

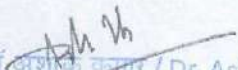
NITYA LABORATORIES
AUTHORISED SIGNATORY
RAVINDER MITTAL

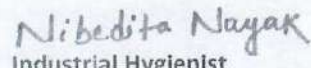
NOTE: The laboratory accepts the responsibility for content of reports. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited to the amount only. *Not in NABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-193-2965592, +91-9873924093

Annexure-12

Noise Survey Report

Oct 2022		NOISE MONITORING DATA			
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
1	South Side	Raw Water End Point	15	75	56.3
		Raw Water Watch Tower	15	75	59.6
		Near Fire Pump House	15	75	62.2
		203-TK-0101	15	75	61.2
		Air Station 481/7	15	75	51.2
		Road 225/2006 Watch Tower	15	75	50.1
		Road 225/262 Watch Tower	15	75	55.2
2	IOTL	Watch tower road 1008-1009	15	75	60.2
		NC 39	15	75	61.9
		NC 38 NEAR TANK 4 /16	15	75	60.2
		NEAR SRR 819	15	75	65.2
		Watch tower NC 34	15	75	59.3
		Road No.1006 NC 32	15	75	65.2
		Watch Tower NC 30	15	75	56.9
		NC 28	15	75	55.9
		Watch Tower NC 24	15	75	63.2
		Road No.1004 NC 21	15	75	62.2


 डॉ. अशोक कुमार / Dr. Ashok Kumar
 Occupational Physician / एमओ
 Physician / CMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)


 Nibedita Nayak
 Industrial Hygienist

Nov 2022		NOISE MONITORING DATA			
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
1	South Side	Raw Water End Point	15	75	51.6
		Raw Water Watch Tower	15	75	53.6
		Near Fire Pump House	15	75	62.2
		203-TK-0101	15	75	60.1
		Air Station 481/7	15	75	55.6
		Road 225/2006 Watch Tower	15	75	52.9
		Road 225/262 Watch Tower	15	75	63.9
2	IOTL	Watch tower road 1008-1009	15	75	66.5
		NC 39	15	75	66.9
		NC 38 NEAR TANK 4 /16	15	75	59.9
		NEAR SRR 819	15	75	55.9
		Watch tower NC 34	15	75	68.5
		Road No.1006 NC 32	15	75	55.9
		Watch Tower NC 30	15	75	66.2
		NC 28	15	75	65.3
		Watch Tower NC 24	15	75	62.9
		Road No.1004 NC 21	15	75	65.3

डॉ अशोक कुमार / Dr. Ashok Kumar
 Occupational Physician
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)

Nibedita Nayak
 Industrial Hygienist

Dec 2022		NOISE MONITORING DATA			
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
1	South Side	Raw Water End Point	15	75	51.4
		Raw Water Watch Tower	15	75	52.7
		Near Fire Pump House	15	75	63.4
		203-TK-0101	15	75	62.1
		Air Station 481/7	15	75	56.8
		Road 225/2006 Watch Tower	15	75	53.6
		Road 225/262 Watch Tower	15	75	64.8
2	IOTL	Watch tower road 1008-1009	15	75	67.2
		NC 39	15	75	65.8
		NC 38 NEAR TANK 4 /16	15	75	64.9
		NEAR SRR 819	15	75	56.7
		Watch tower NC 34	15	75	68.2
		Road No.1006 NC 32	15	75	55.9
		Watch Tower NC 30	15	75	67.2
		NC 28	15	75	66.3
		Watch Tower NC 24	15	75	63.4
		Road No.1004 NC 21	15	75	66.1

डॉ अशोक कुमार / Dr. Ashok Kumar
 जे.सी.एम.ओ.
 JCMO
 पारदीप / Paradip (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारदीप / Paradip - 754141 (Odisha)
 Occupational Physician

Nibedita Nayak
 Industrial Hygienist

Jan 2023 NOISE MONITORING DATA					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
1	South Side	Raw Water End Point	15	75	52.6
		Raw Water Watch Tower	15	75	61.1
		Near Fire Pump House	15	75	69.3
		203-TK-0101	15	75	62.1
		Air Station 481/7	15	75	68.9
		Road 225/2006 Watch Tower	15	75	53.6
		Road 225/262 Watch Tower	15	75	51.5
2	IOTL	Watch tower road 1008-1009	15	75	55.2
		NC 39	15	75	61.5
		NC 38 NEAR TANK 4 /16	15	75	65.2
		NEAR SRR 819	15	75	62.6
		Watch tower NC 34	15	75	69.2
		Road No.1006 NC 32	15	75	63.7
		Watch Tower NC 30	15	75	63.4
		NC 28	15	75	66.9
		Watch Tower NC 24	15	75	69.2
		Road No.1004 NC 21	15	75	51.2

डॉ अशोक कुमार / Dr. Ashok Kumar

जे सी एच ओ
 JCMO
 पारदीप रिफाइनरी (इंडियन ऑयल)
 Occupational Physician (Indian Oil)
 पारदीप / Paradip 754141 (Odisha)

Nibedita Nayak
 Industrial Hygienist

March 2023 NOISE MONITORING DATA					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
1	South Side	Raw Water End Point	15	75	56.3
		Raw Water Watch Tower	15	75	59.6
		Near Fire Pump House	15	75	62.2
		203-TK-0101	15	75	61.2
		Air Station 481/7	15	75	51.2
		Road 225/2006 Watch Tower	15	75	50.1
		Road 225/262 Watch Tower	15	75	55.2
2	IOTL	Watch tower road 1008-1009	15	75	60.2
		NC 39	15	75	61.9
		NC 38 NEAR TANK 4 /16	15	75	60.2
		NEAR SRR 819	15	75	65.2
		Watch tower NC 34	15	75	59.3
		Road No.1006 NC 32	15	75	65.2
		Watch Tower NC 30	15	75	56.9
		NC 28	15	75	55.9
		Watch Tower NC 24	15	75	63.2
		Road No.1004 NC 21	15	75	62.2

डॉ अशोक कुमार Dr. Ashok Kumar
 Occupational
 Physician
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)

Nibedita Nayak.
 Industrial Hygienist

NOISE MONITORING DATA October 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
1	AVU	P3 A/B	15	115	109.2
		P22 A/B	15	115	92.4
		P25 A/B	15	115	108.6
		KM 04 A/B	15	115	99.9
		P7 A/B	15	115	95.4
		P2 A/B	15	115	105.7
		Compressor House	15	115	101.5
		P13 A/B	15	115	100.1
		P10 A/B	15	115	102.8
		P30 A/B	15	115	91.4
		F 101	15	115	95.7

NOISE MONITORING DATA October 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
2	SRU	089 KM 1	15	115	99.8
		089 PM 003 B	15	115	98.4
		088 K 001	15	115	111.5
		087 V 001	15	115	112.8
		087 WHB 001	15	115	100.1
		087 Sulphur Pit	15	115	99.5
		087 E 003	15	115	102.5
		086 E 003	15	115	108.5
		086 K 001	15	115	99.8
		085 Pump	15	115	113.1

NOISE MONITORING DATA October 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
3	ETP	Aeration Blower	15	115	108.2
		230 Air Compressor	15	115	98.1
		231 Air Compressor	15	115	99.9

Ashok Kumar
Dr. Ashok Kumar
Occupational Health Physician

JCMO
पारादीप रिफाइनरी (इंडियन ऑयल)
Paradip Refinery (Indian Oil)
पारादीप / Paradip - 754141 (Odisha)

Nibedita Nayak
Nibedita Nayak
Industrial Hygienist

NOISE MONITORING DATA October 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
4	DCU	30 P45 B	15	115	99.4
		30 P7 A	15	115	105.3
		30 P13 A/B	15	115	101.9
		30 P1 A/B	15	115	109.9
		30 P11 A	15	115	105.1
		Compressor House GF	15	115	114.4
		30 C 008	15	115	111.1

NOISE MONITORING DATA October 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
5	DHDT	RGC AREA	15	115	101.3
		HCDS 1B	15	115	102.3
		HCDS 1 A/B	15	115	105.9


NOISE MONITORING DATA October 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
6	VGO-HDT	RGC AREA	15	115	101.6
		P12 RESIDUE	15	115	102.5
		P1 A/B	15	115	100.9
		P2 A/B	15	115	86.9
		P3 A/B	15	115	91.7
		P16 A/B	15	115	102.1
		KM 2A	15	115	111.1
		P19 B	15	115	99.2
		F 001	15	115	98.4


 डॉ. अशोक कुमार Ashok Kumar
 Occupational Health Physician
 ज.सो.एन.जी.
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)


 Nibedita Nayak
 Industrial Hygienist

NOISE MONITORING DATA October 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
7	Alkylation_Butamer	24K001	15	115	106.2
		24/P15/PV200	15	115	95.3
		P109 B	15	115	95.8

NOISE MONITORING DATA October 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
8	FCCU	Reactor Resior	15	115	97.2
		Near J-Bend & CKN CV (Coke Naptha)	15	115	93.4
		Bottom Pump P 10A/B/C (A,C - Run)	15	115	90.3
		Furnace Area (Inline)	15	115	87.2
		ID Fan Area (Run)	15	115	86.7
		FD Fan Area (Run)	15	115	93.7
		023 P 14 (Run)	15	115	86.7
		023 P 18 (Run)	15	115	90.5
		023 P 02 Back of P18	15	115	108.1
		023 P 001 A (Run)	15	115	94.1
		023 P 28A (Run)	15	115	90.7
		V 10,11,13	15	115	88.1
		WGC KOD V12 Vessel GF	15	115	96.1
		WGC Compressor PF	15	115	96.1
		WGC Near Surface Condensor	15	115	95.6
		MAB GF NEAR Turbine Valve	15	115	95.7
		MAB PF (Compressor) Turning Gear	15	115	97.8
		PRT Turbine LO Pump	15	115	103.7
		PRT Expander Area	15	115	106.6
		Seal Air Blower 23-KM-2131A (Run)	15	115	97


 Occupational Health Physician Anil Kumar
 ज.सी.एम.ओ.
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)

Nibedita Nayak
 Industrial Hygienist

NOISE MONITORING DATA October 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
9	NHT-CCR	RU Compressor	15	115	105.9
		42 K4 Compressor	15	115	112.2
		42 K2 Compressor	15	115	106.5
		42 K3 Compressor	15	115	96.2
		42 K1 Compressor	15	115	101.9
		42 K2 Discharge	15	115	109.3
		42 AC 4C	15	115	99.9
		42 AC 4B	15	115	92.9
		42 AC 3A	15	115	93.2
		42 AC 1H	15	115	110.1
		42 AC 1A	15	115	101.5
		42 AC 7	15	115	113.9

NOISE MONITORING DATA October 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
10	CPP	STG 2	15	115	109.8
		GT 3	15	115	105.8
		Boiler 2	15	115	109.9
		Pump House	15	115	98.2
		BFP Building	15	115	100.6


 Occupational Health Physician
 ज.स.एम.ओ.
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)

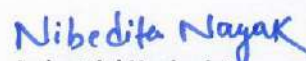
Nibedita Nayak
 Industrial Hygienist

NOISE MONITORING DATA November 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
1	AVU	P3 A/B	15	115	95.3
		P22 A/B	15	115	98.5
		P25 A/B	15	115	92.1
		KM 04 A/B	15	115	103.2
		P7 A/B	15	115	97.9
		P2 A/B	15	115	102.1
		Compressor House	15	115	99.5
		P13 A/B	15	115	102.1
		P10 A/B	15	115	96.6
		P30 A/B	15	115	101.5
		F 101	15	115	99.8

NOISE MONITORING DATA November 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
2	SRU	089 KM 1	15	115	95.2
		089 PM 003 B	15	115	101.3
		088 K 001	15	115	112.7
		087 V 001	15	115	111.7
		087 WHB 001	15	115	110.9
		087 SulphurPit	15	115	106.4
		087 E 003	15	115	101.2
		086 E 003	15	115	92.6
		086 K 001	15	115	107.5
		085 Pump	15	115	98.7

NOISE MONITORING DATA November 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
3	ETP	Aeration Blower	15	115	113.3
		230 Air Compressor	15	115	102
		231 Air Compressor	15	115	89.6


 Dr. Ashok Kumar
 Occupational Health Physician
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप/Paradip - 754111 (Odisha)


 Nibedita Nayak
 Industrial Hygienist

NOISE MONITORING DATA November 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
4	DCU	30 P45 B	15	115	95.6
		30 P7 A	15	115	105.7
		30 P13 A/B	15	115	103.3
		30 P1 A/B	15	115	96.3
		30 P11 A	15	115	111.2
		Compressor House GF	15	115	109.4
		30 C 008	15	115	101.7

NOISE MONITORING DATA November 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
5	DHDT	RGC AREA	15	115	102.3
		HCDS 1B	15	115	109.2
		HCDS 1 A/B	15	115	103.1

NOISE MONITORING DATA November 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
6	VGO-HDT	RGC AREA	15	115	101
		P12 RESIDUE	15	115	99.5
		P1 A/B	15	115	104
		P2 A/B	15	115	97.6
		P3 A/B	15	115	95.4
		P16 A/B	15	115	105.2
		KM 2A	15	115	102.4
		P19 B	15	115	99.8
		F 001	15	115	91.9


 डॉ. अशोक कुमार Ashok Kumar
 Occupational Health Physician
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754111 (Odisha)


 Nibedita Nayak
 Industrial Hygienist

NOISE MONITORING DATA November 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
7	Alkylation_Butamer	24K001	15	115	109.6
		24/P15/PV200	15	115	99.5
		P109 B	15	115	102.6

NOISE MONITORING DATA November 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
8	FCCU	Reactor Resior	15	115	92.7
		Near J-Bend & CKN CV (Coke Naptha)	15	115	94.6
		Bottom Pump P 10A/B/C (A,C - Run)	15	115	93.5
		Furnace Area (Inline)	15	115	82.7
		ID Fan Area (Run)	15	115	91.1
		FD Fan Area (Run)	15	115	98.5
		023 P 14 (Run)	15	115	87.9
		023 P 18 (Run)	15	115	95.5
		023 P 02 Back of P18	15	115	101.8
		023 P 001 A (Run)	15	115	91.4
		023 P 28A (Run)	15	115	97.2
		V 10,11,13	15	115	91.5
		WGC KOD V12 Vessel GF	15	115	92.5
		WGC Compressor PF	15	115	91.1
		WGC Near Surface Condenser	15	115	96.5
		MAB GF NEAR Turbine Valve	15	115	97.8
		MAB PF (Compressor) Turning Gear	15	115	98.9
		PRT Turbine LO Pump	15	115	107.6
		PRT Expander Area	15	115	100.5
		Seal Air Blower 23-KM-2131A (Run)	15	115	91.2



Anshok Kumar
Occupational Health Physician
JCMO

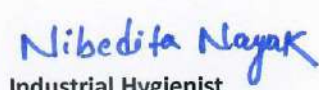
पारादीप रिफाइनरी (इंडियन ऑयल)
Paradip Refinery (Indian Oil)
पारादीप / Paradip - 754141 (Odisha)


Nibedita Nayak
Industrial Hygienist

NOISE MONITORING DATA November 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
9	NHT-CCR	RU Compressor	15	115	101.3
		42 K4 Compressor	15	115	112.1
		42 K2 Compressor	15	115	106.5
		42 K3 Compressor	15	115	93.6
		42 K1 Compressor	15	115	101.9
		42 K2 Discharge	15	115	105.6
		42 AC 4C	15	115	101.2
		42 AC 4B	15	115	99.5
		42 AC 3A	15	115	93.8
		42 AC 1H	15	115	101.5
		42 AC 1A	15	115	109.6
		42 AC 7	15	115	112.1

NOISE MONITORING DATA November 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
10	CPP	STG 2	15	115	102.2
		GT 3	15	115	108.7
		Boiler 2	15	115	106.9
		Pump House	15	115	98.9
		BFP Building	15	115	106.2

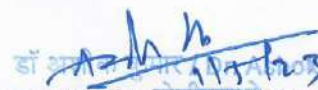

 Dr. Ashok Kumar
 Occupational Health Physician
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)


 Nibedita Nayak
 Industrial Hygienist

NOISE MONITORING DATA December 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
1	AVU	P3 A/B	15	115	96.2
		P22 A/B	15	115	99.3
		P25 A/B	15	115	91.1
		KM 04 A/B	15	115	101.1
		P7 A/B	15	115	96.9
		P2 A/B	15	115	102.1
		Compressor House	15	115	96.8
		P13 A/B	15	115	101.1
		P10 A/B	15	115	99.6
		P30 A/B	15	115	101.5
		F 101	15	115	99.8

NOISE MONITORING DATA December 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
2	SRU	089 KM 1	15	115	91.1
		089 PM 003 B	15	115	99.8
		088 K 001	15	115	112.3
		087 V 001	15	115	110
		087 WHB 001	15	115	103.1
		087 SulphurPit	15	115	99.1
		087 E 003	15	115	105.2
		086 E 003	15	115	101.1
		086 K 001	15	115	103.5
		085 Pump	15	115	112.3

NOISE MONITORING DATA December 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
3	ETP	Aeration Blower	15	115	98.9
		230 Air Compressor	15	115	103.1
		231 Air Compressor	15	115	101.2


 डॉ. अणु कुमार Anand Kumar
 Occupational Health Physician
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754111 (Odisha)


 Nibedita Nagak
 Industrial Hygienist

NOISE MONITORING DATA December 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
4	DCU	30 P45 B	15	115	93.6
		30 P7 A	15	115	109.5
		30 P13 A/B	15	115	102.5
		30 P1 A/B	15	115	102.1
		30 P11 A	15	115	111.2
		Compressor House GF	15	115	112.5
		30 C 008	15	115	101.7

NOISE MONITORING DATA December 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
5	DHDT	RGC AREA	15	115	101.3
		HCDS 1B	15	115	109.2
		HCDS 1 A/B	15	115	106.1

NOISE MONITORING DATA December 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
6	VGO-HDT	RGC AREA	15	115	103.9
		P12 RESIDUE	15	115	98.6
		P1 A/B	15	115	101.1
		P2 A/B	15	115	96.2
		P3 A/B	15	115	91.8
		P16 A/B	15	115	105.2
		KM 2A	15	115	109.8
		P19 B	15	115	99.8
		F 001	15	115	91.9

Dr. Ashok Kumar
Occupational Health Physician
JCMO

पारादीप रिफाइनरी (इंडियन ऑयल)
Paradip Refinery (Indian Oil)
पारादीप / Paradip - 754141 (Odisha)

Nibedita Nayak
Industrial Hygienist

NOISE MONITORING DATA December 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
7	Alkylation_Butamer	24K001	15	115	106.2
		24/P15/PV200	15	115	99.5
		P109 B	15	115	102.6

NOISE MONITORING DATA December 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
8	FCCU	Reactor Resior	15	115	92.7
		Near J-Bend & CKN CV (Coke Naptha)	15	115	94.6
		Bottom Pump P 10A/B/C (A,C - Run)	15	115	93.5
		Furnace Area (Inline)	15	115	82.7
		ID Fan Area (Run)	15	115	91.1
		FD Fan Area (Run)	15	115	98.5
		023 P 14 (Run)	15	115	87.9
		023 P 18 (Run)	15	115	95.5
		023 P 02 Back of P18	15	115	101.8
		023 P 001 A (Run)	15	115	91.4
		023 P 28A (Run)	15	115	97.2
		V 10,11,13	15	115	91.5
		WGC KOD V12 Vessel GF	15	115	92.5
		WGC Compressor PF	15	115	91.1
		WGC Near Surface Condensor	15	115	96.5
		MAB GF NEAR Turbine Valve	15	115	97.8
		MAB PF (Compressor) Turning Gear	15	115	98.9
		PRT Turbine LO Pump	15	115	107.6
PRT Expander Area	15	115	100.5		
Seal Air Blower 23-KM-2131A (Run)	15	115	91.2		


 डॉ. अशोक कुमार / Ashok Kumar
 Occupational Health Physician


 Nibedita Nayak
 Industrial Hygienist

JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)

NOISE MONITORING DATA December 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
9	NHT-CCR	RU Compressor	15	115	101.3
		42 K4 Compressor	15	115	112.1
		42 K2 Compressor	15	115	106.5
		42 K3 Compressor	15	115	93.6
		42 K1 Compressor	15	115	101.9
		42 K2 Discharge	15	115	105.6
		42 AC 4C	15	115	101.2
		42 AC 4B	15	115	99.5
		42 AC 3A	15	115	93.8
		42 AC 1H	15	115	101.5
		42 AC 1A	15	115	109.6
42 AC 7	15	115	112.1		

NOISE MONITORING DATA December 2022					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
10	CPP	STG 2	15	115	101.2
		GT 3	15	115	105.6
		Boiler 2	15	115	105.2
		Pump House	15	115	99.9
		BFP Building	15	115	105.1


 Occupational Health Physician
 जेसीएमओ / Dr. Ashok Kumar
 जेसीएमओ
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)


 Industrial Hygienist

NOISE MONITORING DATA January 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
1	AVU	P3 A/B	15	115	93.6
		P22 A/B	15	115	92.9
		P25 A/B	15	115	99.1
		KM 04 A/B	15	115	100.1
		P7 A/B	15	115	99.6
		P2 A/B	15	115	101.1
		Compressor House	15	115	99.8
		P13 A/B	15	115	102.2
		P10 A/B	15	115	93.6
		P30 A/B	15	115	105.2
		F 101	15	115	98.5

NOISE MONITORING DATA January 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
2	SRU	089 KM 1	15	115	91.1
		089 PM 003 B	15	115	99.8
		088 K 001	15	115	112.3
		087 V 001	15	115	110
		087 WHB 001	15	115	103.1
		087 SulphurPit	15	115	99.1
		087 E 003	15	115	105.2
		086 E 003	15	115	101.1
		086 K 001	15	115	103.5
		085 Pump	15	115	112.3

NOISE MONITORING DATA January 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
3	ETP	Aeration Blower	15	115	103.2
		230 Air Compressor	15	115	98.3
		231 Air Compressor	15	115	109.9

Dr. Anshu Kumar
Occupational Health Physician
JCMO
पारादीप रिफाइनरी (इंडियन ऑयल)
Paradip Refinery (Indian Oil)
पारादीप / Paradip - 754141 (Odisha)

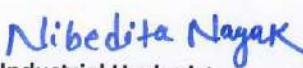
Nibedita Nayak
Industrial Hygienist

NOISE MONITORING DATA January 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
4	DCU	30 P45 B	15	115	93.6
		30 P7 A	15	115	105.6
		30 P13 A/B	15	115	105.2
		30 P1 A/B	15	115	100.2
		30 P11 A	15	115	112.8
		Compressor House GF	15	115	111.5
		30 C 008	15	115	106.9

NOISE MONITORING DATA January 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
5	DHDT	RGC AREA	15	115	103.6
		HCDS 1B	15	115	105.6
		HCDS 1 A/B	15	115	101.5

NOISE MONITORING DATA January 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
6	VGO-HDT	RGC AREA	15	115	103.6
		P12 RESIDUE	15	115	101.5
		P1 A/B	15	115	97.9
		P2 A/B	15	115	92.4
		P3 A/B	15	115	93.7
		P16 A/B	15	115	100.1
		KM 2A	15	115	105.6
		P19 B	15	115	96.2
		F 001	15	115	91.8


 Dr. Ashok Kumar
 Occupational Health Physician
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)


 Nibedita Nayak
 Industrial Hygienist

NOISE MONITORING DATA January 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
7	Alkylation_Butamer	24K001	15	115	102.6
		24/P15/PV200	15	115	95.6
		P109 B	15	115	99.1

NOISE MONITORING DATA January 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
8	FCCU	Reactor Resior	15	115	92.7
		Near J-Bend & CKN CV (Coke Naptha)	15	115	94.3
		Bottom Pump P 10A/B/C (A,C - Run)	15	115	93.5
		Furnace Area (Inline)	15	115	82.7
		ID Fan Area (Run)	15	115	87.6
		FD Fan Area (Run)	15	115	97.3
		023 P 14 (Run)	15	115	87.6
		023 P 18 (Run)	15	115	95.2
		023 P 02 Back of P18	15	115	101.8
		023 P 001 A (Run)	15	115	91.5
		023 P 28A (Run)	15	115	97.9
		V 10,11,13	15	115	81.5
		WGC KOD V12 Vessel GF	15	115	92.5
		WGC Compressor PF	15	115	92.5
		WGC Near Surface Condensor	15	115	96.9
		MAB GF NEAR Turbine Valve	15	115	97.8
		MAB PF (Compressor) Turning Gear	15	115	98.9
		PRT Turbine LO Pump	15	115	109.5
PRT Expander Area	15	115	105.2		
Seal Air Blower 23-KM-2131A (Run)	15	115	99.2		


Dr. Ashok Kumar
Occupational Health Physician

JCMO
पारादीप रिफाइनरी (इंडियन ऑयल)
Paradip Refinery (Indian Oil)
पारादीप / Paradip - 754141 (Odisha)


Nibedita Nayak
Industrial Hygienist

NOISE MONITORING DATA January 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
9	NHT-CCR	RU Compressor	15	115	104.6
		42 K4 Compressor	15	115	105.6
		42 K2 Compressor	15	115	106.5
		42 K3 Compressor	15	115	92.5
		42 K1 Compressor	15	115	99.5
		42 K2 Discharge	15	115	103.9
		42 AC 4C	15	115	95.6
		42 AC 4B	15	115	99.2
		42 AC 3A	15	115	92.9
		42 AC 1H	15	115	102.6
		42 AC 1A	15	115	105.6
		42 AC 7	15	115	100.9

NOISE MONITORING DATA January 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
10	CPP	STG 2	15	115	109.2
		GT 3	15	115	106.5
		Boiler 2	15	115	103.2
		Pump House	15	115	96.3
		BFP Building	15	115	96.9


 Occupational Health Physician
 जेसीएमओ
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप / Paradip - 754141 (Odisha)

Nibedita Nayak
 Industrial Hygienist

NOISE MONITORING DATA March 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
1	AVU	P3 A/B	15	115	96.2
		P22 A/B	15	115	99.3
		P25 A/B	15	115	91.1
		KM 04 A/B	15	115	101.1
		P7 A/B	15	115	96.9
		P2 A/B	15	115	100.1
		Compressor House	15	115	96.8
		P13 A/B	15	115	101.1
		P10 A/B	15	115	99.6
		P30 A/B	15	115	100.5
		F 101	15	115	99.8

NOISE MONITORING DATA March 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
2	SRU	089 KM 1	15	115	91.1
		089 PM 003 B	15	115	99.8
		088 K 001	15	115	112.3
		087 V 001	15	115	110
		087 WHB 001	15	115	103.1
		087 SulphurPit	15	115	99.1
		087 E 003	15	115	105.2
		086 E 003	15	115	101.1
		086 K 001	15	115	100
		085 Pump	15	115	112.3

NOISE MONITORING DATA March 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
3	ETP	Aeration Blower	15	115	91.9
		230 Air Compressor	15	115	93.6
		231 Air Compressor	15	115	91.3

डॉ. आशोक कुमार / Ashok Kumar
Occupational Health Physician

Nibedita Nayak
Industrial Hygienist

JCMO
पारादीप रिफाइनरी (इंडियन ऑयल)
Paradip Refinery (Indian Oil)
पारादीप / Paradip - 754141 (Odisha)

NOISE MONITORING DATA March 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
4	DCU	30 P45 B	15	115	93.6
		30 P7 A	15	115	109.5
		30 P13 A/B	15	115	102.5
		30 P1 A/B	15	115	102.1
		30 P11 A	15	115	113
		Compressor House GF	15	115	112.5
		30 C 008	15	115	111.3

NOISE MONITORING DATA March 2023					
Sl. No.	Area	Location	Avg. Time of Reading (min)	Standard for 15 min duration as per OISD	Readings in dBA
5	VGO-HDT	RGC AREA	15	115	106.3
		P12 RESIDUE	15	115	102.6
		P1 A/B	15	115	99.6
		P2 A/B	15	115	89.6
		P3 A/B	15	115	95.9
		P16 A/B	15	115	101.2
		KM 2A	15	115	109.6
		P19 B	15	115	93.6
		F 001	15	115	94.6


 Occupational Health Physician
 जे.सी.एम.ओ.
 JCMO
 पारादीप रिफाइनरी (इंडियन ऑयल)
 Paradip Refinery (Indian Oil)
 पारादीप/Paradip - 754141 (Odisha)

Nibedita Nayak
 Industrial Hygienist

Annexure-13

Soil Analysis Report

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

ULR No.: TC636621000002869-2872
Test Report Date: 05/01/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Soil& Three Nos**
Sample Quantity & Packaging : 1.0 Kg Each in Poly Pack
Sample Received at Lab : 04/01/2023
Test Started On : 04/01/2023
Test Completed On : 07/01/2023
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/12/2022
Monitoring Conducted By : Mr. Jatin
Sampling Location : S1-ETP
S2-Crude Pipelines
S3-Secured Land Fill Area

Analysis Report

Sr. No.	Parameters	Unit	Test Results			Protocol
			S1	S2	S3	
1	pH (at 25 °C) (1:5)	-	7.50	7.62	7.82	IS:2720 (P-26)
2	Electrical Conductivity	ms/cm	1779	1850	1670	IS:2720 (P-21)
3	Available Potassium as K	mg/kg	50	42	43	NL/SOP/Soil/17
4	Organic Matter	%	0.50	0.41	0.62	IS:2720 (P-22)
5	Total Phosphorous	mg/kg	ND (DL-5)	ND (DL-5)	ND (DL-5)	NL/SOP/Soil/12
6	Available Sodium	mg/kg	150	162	156	APHA 23 rd Ed.
7	Cation Exchange Capacity (CEC)	Meq/100 gm	13.10	13.82	13.65	IS 2720 (P-24)



NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. * not in NABL Scope. If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2468897, +91-9673924093

Issued To M/s Indian Oil Corporation Limited
Paradip Refinery
PO Jhimani, Via: Kujang, Distt. Jagatsinghpur
Odisha, India

Test Report No.: 202112240110-113
Test Report Date: 05/01/2022

Sample Particulars

Nature of the Sample & No. of Samples : **Soil & Three Nos**
Sample Quantity & Packaging : 1.0 Kg Each in Poly Pack
Sample Received at Lab : 04/01/2023
Test Started On : 04/01/2023
Test Completed On : 07/01/2023
Method of Sampling : SOP/B/D-3
Date of Sampling : 30/12/2022
Monitoring Conducted By : Mr. Jatin
Sampling Location : S1-ETP
S2-Crude Pipelines
S3-Secured Land Fill Area

Analysis Report

Sr. No.	Parameters	Unit	Test Results		
			S1	S2	S3
1	Available Nitrogen as N	mg/kg	73.2	71	77.3
2	Available Calcium as Ca	mg/kg	350	270	301
3	Available Magnesium as Mg	mg/kg	194	170	210
4	Oil & Grease	mg/kg	ND (DL-5)	8.0	ND (DL-5)
5	Phenolic Compound	mg/kg	ND (DL-5)	1.30	ND (DL-5)
6	Sulphur as S	mg/kg	ND (DL-5)	7.30	ND (DL-5)



Authorised
AUTHORISED SIGNATORY
RAVINDER MITTAL

NOTE: The laboratory accepts the responsibility for content of report. The results contained in this test report related only to the sample tested. Test report shall not be reproduced except in full, without written approval of the laboratory. This report is intended only for your guidance and not for legal purpose or for advertisement. This report shall not be reproduced except in full without the written approval of this organization. Samples will be destroyed after 30 days from the date of issue of test certificate unless otherwise specified. Any complaints about this report should be communicated in writing within 7 days of issue of this report. Total liability of Nitya Laboratories is limited invoiced amount only. * not in NABL Scope
If you have any complaint/feedback regarding the sample collection/testing/test report, please send an email at info@nityalabs.com and call at +91-191-2465597, +91-9873924093

Annexure-14

Forest Clearance

→ MAD, IDCO

26-5-2000

SRI A. K. MAHARAJA

DGM (EIA)
CAMP: BBSR

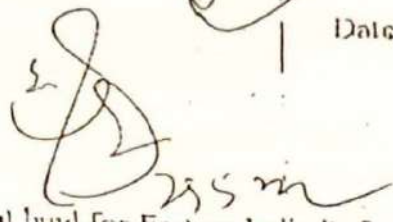
90

No. 8-64798 - FC
Government of India
Ministry of Environment and Forests
(F.C. Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003.

Dated: the 23rd May, 2000

Stage II (Final)



Am (Env)

To
The Secretary (Forests)
Government of Orissa,
Bhubaneswar.

Subject: Diversion of 36.5 ha of forest land for Eastern India Refinery project at
Paradeep under Mangrove Forest Division, Rajnagar in Jagatsingpur of Orissa

Sir,

I am directed to refer to the State Government, Forest and Environment Department's letters no.10F(Cons)13/97.14241/F&E dated 18.7.98, no.10F(Cons.)-3/99(PL)5405/F&E dtd. 1/4/2000 and 10F(Cons.)-3/99 (PL).7463 dt. 16.5.2000 on the above mentioned subject seeking prior approval of the Central Government in accordance with Section-2 of the Forest (Conservation) Act, 1980 and to say that the proposal has been examined by the Advisory Committee constituted by the Central Government under Section-3 of the aforesaid Act.

and in accordance with the provisions of the said Act and on the basis of the recommendations of the above mentioned Advisory Committee, the Central Government hereby conveys its approval under Section-2 of the Forest (Conservation) Act, 1980 for diversion of 36.5 ha of forest land for Eastern India Refinery project at Paradeep under Mangrove forest division, Rajnagar in Jagatsingpur of Orissa subject to the following conditions -

- i. Legal status of forest land shall remain unchanged.
- ii. Compensatory afforestation will be carried out over 183 ha. of degraded forest land at the project cost.
- iii. While carrying out afforestation for creation of green belt, efforts should be made to plant local floral species and also the species yielding more of non wood timber products. Such plantation should be carried out in consultation with the concerned Division Forest Officer.
- iv. No forest land shall be used for rehabilitation of rustees.

- v. The user agency will make arrangements for free supply of fuelwood preferably alternate energy source to labourers and staff working on the project site so as to avoid any pressure on the adjacent forest areas.
- vi. The scheme submitted by the State Govt. for studies on the "Population dynamics of the nesting Olive Ridley Turtles" at Gahirmatha coast of Orissa shall be finalised by the State Govt. in consultation with Wildlife Institute of India and shall be sent to this Ministry for approval.
- vii. The approval under the Forest (Conservation) Act, 1980 is subject to the clearance under Environmental Protection Act, 1986.
- viii. Any other condition that the State Govt. or the Chief Conservator of Forests (Central), Regional Office, Bhubaneswar may impose from time to time in the interest of afforestation and protection & improvement of the flora and fauna in the area.

Yours faithfully,

(J.P. Misra)

Assistant Inspector General of Forests

Copy to:

1. The Principal Chief Conservator of Forests, Government of Orissa, Bhubaneswar.
2. The Nodal Officer, Office of the PCCF, Government of Orissa, Bhubaneswar.
3. The Chief Conservator of Forests (Central), Regional Office, Bhubaneswar.
4. Regional Office (HQ), New Delhi.
5. The Managing Director, Eastern India Refinery Projects, IDCU, IDCO Towers, Jampalli, Bhubaneswar, ORISSA.
6. Guard File

(J. P. Misra) ^{23/5/2000} / *low*

Assistant Inspector General of Forests