

**ANNUAL ENVIRONMENTAL
MONITORING 2019-2020**

**TALCHER
M/s MAHANADI
COALFIELDS LTD**

A Subsidiary of Coal India Limited
Jagruti Vihar, Burla, Sambalpur-768020

A Mini Ratna Company

**CENTRAL MINE PLANNING
& DESIGN ISTITUTE LTD
RI VII, BHUBANESWAR
ODISHA- 751013**

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1. INTRODUCTION

1.1 TALCHER COALFIELD

The state of Odisha is one of the top mineral rich states of the country where development of mining industry holds great promise for the growth of the state, country and its people. The state is endowed with a variety of mineral resources, coal being a major one. It has two important coalfields of the country, namely Talcher and Ib-valley coalfield.

According to Geological Survey of India, the Talcher Coalfield in Odisha has reserves of 51 billion tonnes, the highest in India. [1] It represents the southeastern end member of the Gondwana litho-units of Mahanadi Valley Master Basin and occurs as a detached basin surrounded by Precambrian rocks. It occupies an area of about 1800 sq. km. having an elliptical outline with its longer axis trending in WNW-ESE direction and maximum width of about 26 km as observed in the west central part. It is bounded by Lat. 20°45' to 21°20'N and Long. 84°20' to 85°32' E, falling mostly in Angul and partly in Dhenkanal, Deogarh and Sambalpur districts. Almost the entire northern and a major part of the southern boundary are faulted against the metamorphic Precambrian basement. Coal occurrence in the Talcher area is known from the first half of the 19th century and presently coal is being exploited from a large number of open cast and underground mines, located in the eastern and central parts of the basin. Talcher Coalfield plays an important role in the socio economic development of Odisha as well as the southern states of India. [2]

1.2 HISTORY OF EXPLORATION IN TALCHER COALFIELD

The occurrence of coal in the coalfield was known as early as 1837, when first systematic search for coal was done by Blandford Brothers. The public works department of the Govt. had dug out 80 tonnes of coal from six shafts sunk in the year 1875 from Gopalprasad area.

L.L Firmer examined Gopalprasad area in 1918. M/s Villiers Ltd. took up drilling in the eastern part of the basin in early twenties, as a result of which coal seams (seam-D), in working thickness range, were discovered in Karharbari formations and underground mines in Deulbera, Talcher and Handidua were started.

Indian Bureau of Mines (IBM) and erstwhile National Coal Development Corporation (NCDC) undertook detailed exploration by drilling in the eastern part of the coalfield in late fifties. Geological survey of India carried out regional exploration in the central part of the coalfield in 1963-65. Around this time Gopalprasad and its adjoining blocks received attention. During the period 1971-75, northern and western areas of Nandira i.e. Bharatpur and Kalinga blocks were explored.

The regional exploration brought to the light occurrence of many thick younger coal seams in Barakar formations. These seams were of power grade coal, quality varying from grade E to G.

To develop the area for supplying power grade coal to east coast and southern power houses, Ministry of Energy decided to intensify prospecting of the area in 1980. To speed up exploration, external Govt. agencies like MECL (Mineral Exploration Corporation) and Directorate of Mining and Geology, Govt. of Odisha, were also engaged.

1.3 MINING AREA

List of approved projects with sanctioned Environmental Clearance of Talcher Coalfield is as follows:

Table 01

S.No.	Name of the Project	Approved MP (MTY) and date	Approved EC (MTY) and date
1	Jagannath OCP	7.50 (16-05-17)	7.5 (06-09-18)
2	Bhubaneswari OCP	28.00 (20-11-17)	28 (Nov-17)
3	Bharatpur OCP	20.00 (10-06-18)	20 (31-10-08)
4	Ananta OCP	20.00 (30-03-09)	20 (10-12-14 & amended on 16-02-18)
5	Lingaraj OCP	20.00 (1.7.2011)	20 (27-11-15)
6	Kaniha OCP	14.00 (08-02-17)	14 (17-07-17)
7	Hingula - II OCP	20.00 (30-03-09)	15 (28-10-15)
8	Balram OCP	8	8.00 (24-10-90)
9	Nandira UG	0.33	0.33 (18-06-07)
10	Natraj UG	0.64	0.64 (14-07-06)
11	Talcher (W) UG	0.52	0.52 (08-11-07)
12	Jagannath UG	0.67	0.67 (08-11-07)

1.4 COMMUNICATION

The southeastern part of the coalfield where all the coal mining activities are taking place at present, is connected by rail to Bhubaneswar (150 Km.) - the capital city of Odisha and located on Howrah-Chennai main railway line. It is also connected by rail and road to Paradeep port. National Highway No.42 connecting Cuttack Angul- Sambalpur passes more or less parallel to the southern fringe of the coalfield at about 5 to 7 Km. NH-23 connecting Talcher-Samal-Pallahara passes through the eastern part of the coalfield. Another prominent district road is Angul- Chhendipada Deogarh road passing through the central part of the coalfield. NH-200 originating from Chandikhol, also passes through north eastern part of the coalfield and joins with NH-23.

The coalfield is also suitably connected by railway network. Sambalpur Talcher rail link, the connector to Howrah-Mumbai and Howrah-Chennai main railway lines, runs almost parallel to NH-42 and passes across the study area in east-west direction. The rail link carries heavy goods traffic of the industrial and mining activities of the region to the main network lines which are accessible at about 100-150 km distance from Talcher.

1.5 TOPOGRAPHY AND DRAINAGE

Topographically the coalfield can be divided in two parts - eastern part and the western part. The eastern part largely covered by Barakar Formation (or Lower Kamthi Formation), is slightly undulating with an average elevation of around 150m above MSL. The western part comprises largely of steeply sloping Kamthi hillocks. Minimum and maximum elevation from MSL is 60m and 567m respectively for the coalfield. The terrain is undulating and accommodates large number of villages and fertile lands. The soil in this area varies from rich loams to the gravelly detritus of the hill slopes.

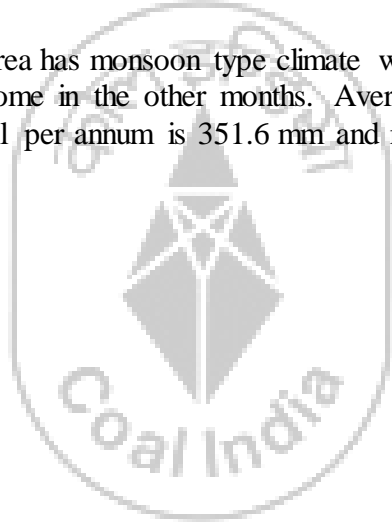
The coalfield is drained by the Brahmani River flowing along eastern fringe of the coalfield. Singhadajhor, Nandira and Tikra, Aunli are some of the important tributaries of the Brahmani River.

1.6 CLIMATE AND RAINFALL

The climate of the area is generally dry and arid except in monsoon season. It is influenced by prevalence of dry air of the continental type. It is characterized by extreme conditions, summers being intensely warm and winters rather cold. The summer is severe during May-June when temperature rises as high as 49°C accompanied by high humidity. Winter is pleasant, prevails during December-January. The area experiences warm to hot climate with temperature varying from 7.6°C to 41.9°C [4]. Average humidity varies from 26% to 83%. Generally the humidity is highest in August and least in March. The climate of this region resembles with that of Deccan plateau.

Annual mean wind velocity is around 2 Km/hr.[4] It is generally observed that the wind speed in the area is light to moderate except in the early monsoon period when it is generally strong. Higher speed wind blows during latter part of summer or rainy season in the direction of mostly South-West or North-East. Winds blow with slow or moderate speed in rest part of the year. In winter the winds blow either from West or North.

The area has monsoon type climate with rain fall predominantly in the months of June to September and some in the other months. Average rainfall per annum of the area is 1361.8 mm. Maximum rainfall per annum is 351.6 mm and minimum is 197.5 mm as per records available [3]



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1.7 LIST OF ENVIRONMENTAL QUALITY MONITORING STATIONS

Table 02
List of Air Quality Monitoring Stations

SNo.	Area	Project	Name of the Station	Location
1.	Jagannath	Jagannath OCP	Near MDTP	20.946350 N, 85.155350 E
2.			Near NBVL Park	20.936550 N, 85.145083 E
3.			NW Point of Mine	20.976533 N, 85.124883 E
4.			Office Club JNC	20.924367 N, 85.145350 E
5.		Ananta OCP	Near Biswal Chowk	20.949735 N, 85.162083 E
6.			Near West Sump, JNC	20.946363 N, 85.155348 E
7.			BCML Workshop	20.984910 N, 85.150873 E
8.			Ananta Vihar Colony	20.985275 N, 85.174236 E
9.	Bharatpur	Bharatpur OCP	Near ETP	20.944253 N, 85.107819 E
10.			N-W of the Mine	20.965408 N, 85.097906 E
11.			Near Civil Maintenance Office of Hingula Area	20.916447 N, 85.113683 E
12.			Near view point (A4) (Reported Only)	20.976533 N, 85.124883 E
13.		Chhendipada OCP	Project Office, Balaram OCP (Reported Only)	20.948144 N, 85.102217 E
14.			Regional Store	20.964811 N, 85.131083 E
15.			Near Site Office	21.082474 N, 84.880219 E
16.			Near Fire Station	21.077432 N, 84.874569 E
17.	Mamuraia Sahi	21.094714 N, 84.863862 E		
18.	Dolamandap Chhak	21.085759 N, 84.873128 E		
19.	Lingaraj	Lingaraj OCP	Lingaraj GM Office	20.957957 N, 85.212194 E
20.			Near South Side of the Mine	20.948635 N, 85.189204 E
21.			Near C.T. Road (Lingaraj to Dera)	20.949060 N, 85.177543 E
22.			Near North Side of Mine	20.968183 N, 85.101694 E
23.	Kaniha	Kaniha OCP	Project Office	20.143536 N, 85.101694 E
24.			Old Site Office	21.153517 N, 85.086122 E
25.			New time office-Near Z-patch	21.139436 N, 85.043997 E
26.			Jarada Village	21.143125 N, 85.091828 E
27.			Jamania Village	21.125461 N, 85.075461 E
28.			South of Proposed Quarry Limit of KOCP	21.111667 N, 85.087567 E
29.			West of Mine Quarry	21.142897 N, 85.091828 E
30.			North East Side of Project Office	21.156750 N, 85.104906 E

S No.	Area	Project	Name of the Station	Location
31.	Hingula	Hingula	Time office	20.963039 N, 85.045714 E
32.			Near Project Office, Hingula OCP	20.957828 N, 85.025319 E
33.			South West Side of the Mine	20.965553 N, 85.015183 E
34.			Hingula Temple premises	20.972383 N, 85.039933 E
35.		Baram OCP	On Backfilled Area Near Dozer Shed	20.947939 N, 85.079819 E
36.			Pump House near Outsourcing Working Patch & Coal Transport Road	20.958425 N, 85.089222 E
37.			South West of the Mine	20.950525 N, 85.069286 E
38.			Project Office, Baram OCP	20.948144 N, 85.102217 E
39.	Talcher	Talcher Colliery	GM Office	20.947087 N, 85.174619 E
40.			Near Canteen, Talcher Colliery	20.944818 N, 85.174619 E
41.		Mandapal Sand Mine	Near Mandapal Hospital	21.580000 N, 85.404444 E
42.		Nandira Colliery	Project Office	20.927950 N, 85.122780 E
43.			Sub Station	20.927890 N, 85.122640 E
44.		Deulbera Colliery	Manager's Office	21.587222 N, 85.346944 E
45.		Kakudi & Kishoripal Sand Mine	Near Kishoripal Village	21.617500 N, 85.402778 E



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Table 03
List of Noise Level Monitoring Stations

S.No	Area	Project	Name of the Station
1.	Jagannath	Jagannath OCP	Near MDTP
2.			Near NBVL Park
3.			NW Point of Mine
4.			Office Club JNC
5.		Ananta OCP	Near Biswal Chowk
6.			Near West Sump, JNC
7.			BCML Workshop
8.			Ananta Vihar Colony
9.	Bharatpur	Bharatpur OCP	North West Point of Mine
10.			Near View point (A4) Jagannath OCP
11.			Near Regional Store
12.			Near Civil Maintenance Office of Hungula Area
13.			Project Office, Balaram OCP (Reported only)
14.	Lingaraj	Lingaraj OCP	Lingaraj GM Office
15.			Near South Side of the Mine
16.			Near C.T. Road (Lingaraj to Dera)
17.			Near North Side of Mine
18.	Kaniha	Kaniha OCP	Site Office
19.			Telisingha Village
20.			Patharmunda Village
21.	Hingula	Hingula OCP	Near Jarda Village
22.			Village-Time Office
23.			Near Project Office
24.			South West Side of the Mine
25.			Hingula Temple Premises
26.	Balaram	Balaram OCP	South West of the Mine
27.			On backfilled Area Near Dozer Shed
28.			Project Office, Balaram OCP
29.			Pump House Near Outsourcing Working Patch & Coal Transport Road
30.	Talcher	Talcher Colliery	GM Office
31.			Canteen, Talcher Colliery
32.		Mandapal sand mine	Near Gopinathpur Village
33.		Nandira Colliery	Project Office
34.			Sub- Station, Nandira Colliery
35.		Deulbera Colliery	Manager's Office
36.		Kakudi & Kishoripal Sand mine	Near Kishoripal Village

Table 04
List of Effluent (22 Parameter) Quality Monitoring Stations

S.No	Area	OCP/Colliery	Name of Station
1.	Jagannath	Jagannath	O & G Trap Outlet
2.			DETP/STP Outlet
3.	Bharatpur	Bharatpur	Workshop ETP Clear Water Tank Outlet
4.			DETP/STP Outlet
5.			Water Loading Point at South Quarry Sump
6.		Chhendipada	Mine discharge Water
7.		Lingaraj	Lingaraj
8.	Clear Water Reservoir of Workshop ETP		
9.	Inlet of MDTP Near Stock No. 17		
10.	Clear Water Tank of MDTP near Stock No. 17		
11.	Inlet of Sedimentation Pond Complex near Lingraj Siding		
12.	Clear Water Tank of Sedimentation Pond Complex Near Lingraj Siding		
13.	Inlet of Sedimentaion Pond Complex near Deulbera Siding		
14.	Clear Water Tank of Sedimentation Pond Complex Near Deulbera Siding		
15.	Talcher	Talcher	Talcher Colliery Sedimentation Tank Discharge
16.		Nandira	Nandira Colliery Sedimentation Tank Discharge
17.		Deulbera colliery	Deulbera Colliery Mine discharge
18.			Rani Park Submersible Pump
19.		Handhidhua Colliery	Handhidhua Colliery Mine Discharge
20.		Mandpal Sand mine	Up stream -At 200 m Before Leasehold Area
21.			Down stream -At 200 m Before Leasehold Area
22.		Kakudi & Kishoripal Sand mine	Up stream -At 200 m Before Leasehold Area
23.			Down stream -At 200 m Before Leasehold Area

Table 05
List of Effluent (4 Parameter) Quality Monitoring Stations

S.NO	Area	OCP/Colliery	Name of Station
1.	Jagannath	Jagannath	O & G Trap Inlet
2.			O & G Trap Outlet
3.		Ananta	O & G Trap Outlet
4.			O & G Trap Inlet
5.	Bharatpur	Bharatpur	O & G Trap Outlet
6.			STP Outlet (pH, TSS, Faecal Coliform, BOD)
7.			STP Inlet (pH, TSS, BOD & COD)
8.			O&G trap Inlet
9.	Lingaraj	Lingaraj	Inlet of Workshop ETP
10.			Clear Water Reservoir of Workshop ETP
11.			Inlet of MDTP Near Stock No. 17
12.			Clear Water Tank of MDTP Near Stock No. 17
13.			Inlet of Sedimentation Pond Complex near Lingraj Siding
14.			Clear Water Tank of Sedimentation Pond Complex Near Lingraj Siding
15.			Inlet of Sedimentation Pond Complex near Deulbera Siding
16.			Clear Water Tank of Sedimentation Pond Complex Near Deulbera
17.	Kaniha	Kaniha	Pre-Sedimentation Pond-I
18.			Clear Water Pond
19.	Hingula	Hingula	Inlet of O & G Trap
20.			Outlet of O & G Trap
21.		Balram	Outlet of O & G trap
22.			Inlet of O&G Trap
23.	Talcher	Talcher	Talcher Colliery Sedimentation Tank Discharge
24.		Nandira	Nandira Colliery Sedimentation Tank Discharge
25.		Duelbera colliery	Ranipark Dubmersible Pump

S.No	Area	OCP/Colliery	NAME OF STATION
26.	Talcher	Handhidhua Colliery	Handhidhua Colliery Mine Discharge
27.		Mandalpal sand Mine	Upstream -At 200 m Before Leasehold Area
28.			Downstream -At 200 m Before Leasehold Area
29.		Kakudi & Kishoripal Sand mine	Upstream -At 200 m Before Leasehold Area
30.			Downstream -At 200 m Before Leasehold Area



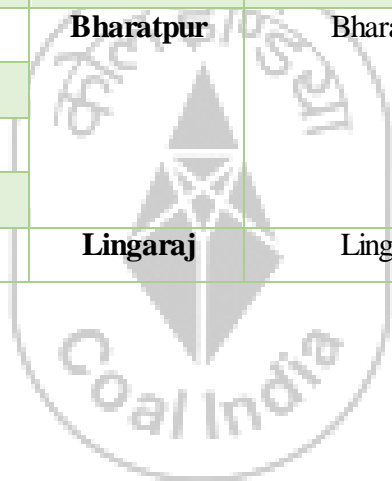
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Table 06
List of Effluent (3 Parameter) Quality Monitoring Stations

S.No	Area	OCP	Name Of Station
1.	Jagannath	Jagannath	STP Inlet
2.			STP Outlet
3.		Ananta	STP Inlet
4.			STP Outlet
5.	Hingula	Balram	STP Outlet of Balram Colony

Table 07
List of Effluent (1 Parameter) Quality Monitoring Stations

S.No.	Area	OCP	Name Of Station
1.	Jagannath	Ananta	Mine Sump Water
2.	Bharatpur	Bharatpur	Mine Sump Water-South Quarry Sump
3.			Mine Sump Water-Main Sump
4.			Mine Sump Water-North Quarry Sump
5.			Mine Sump Water-Old Quarry Sump
6.	Lingaraj	Lingaraj	Mine Sump Water



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Table 08
List of Drinking Water Quality Monitoring Stations

S.No	Area	OCP/UG Mine	Name of OCP/UG Mine		
1.	Jagannath	Jagannath	Balanda Colony Tap Water (Qtrly)		
2.			Jagannath Colony Tap Water (Monthly)		
3.		Ananta	Ananta Colony Tap Water		
4.			Hensmul village Well Water (Yearly Once)		
5.			Dera village Tube well Water (Yearly Once)		
6.	Bharatpur	Bharatpur	Tap Water in Nehru Shatabdi Nagar A Type Quarters (April/July/Oct/Jan) Qtrly		
7.			Tap Water in Nehru Shatabdi Nagar B Type Quarters (April/July/Oct/Jan) Qtrly		
8.			Tap Water in Nehru Shatabdi Nagar C Type Quarters (April/July/Oct/Jan) Qtrly		
9.			Tap Water in Nehru Shatabdi Nagar Transit House (April/July/Oct/Jan) Qtrly		
10.			Tube Well Water at Nehru Shatabdi Nagar Colony (April/July/Oct/Jan) Qtrly		
11.			Tube Well Water at Project Office. Bharatpur OCP (April/July/Oct/Jan) Qtrly		
12.			Singhada Pump House (April/July/Oct/Jan) Qtrly		
13.			Time Office, BOCP (Monthly)		
14.			Badasinga Village Open Well (Monthly)		
15.			Taleipasi Village Open Well (Monthly)		
16.			Sand Bed Filter Unit at Old Quarry (Monthly)		
17.			Chhendipada	Bore Well Water at Site office (Monthly)	
18.			Kaniha	Kaniha	Project Office Tube Well Water, (Yearly Once) (April)
19.					Jarda Village, (Yearly Once (April)
20.			Lingraj	Lingraj	GM Office, Lingraj Area Tap Water (Monthly)
21.			Hingula	Balram	Danara Village Borewell Water (Monthly)
22.					Balaram Colony Tap Water (Monthly)
23.	Nakeipasi Village Bore Well Water (Monthly)				
24.	Hingula	Time Office Water (Monthly)			
25.		Gopalprasad Village Bore Well Water (Monthly)			
26.		Kumunda Village Bore Well Water (Monthly)			
27.		Talcher		Talcher Colliery	Canteen Tap-Water, GM Office (Monthly)
28.					Canteen Tap-Water, Talcher Colliery (Monthly)
29.		Nandira Colliery	Canteen Tap-Water (Monthly)		
30.			Pit Top Tap Water (Monthly)		
31.		Deulbera Colliery	Deulbera Manager Office Tap Water (Monthly)		
32.		Handhidhua Colliery	Pit Top Tap Water (Monthly)		

Table 09
List of Well Water Level Stations

S.No	Area	OCP/UG Mine	Name of OCP/UG Mine
1.	Jagannath	Jagannath	Rakas Village Well
2.		Ananta	Hensmul Village Well Water
3.			Dera Village Well Water
4.	Bharatpur	Bharatpur	Badasinghada Village Open Well
5.			Taleipasi Village Open Well
6.	Lingraj	Lingraj	Balunga Khamar Village well
7.			Deulbera Village Well
8.			Talabera Village Well
9.	Hingula	Balram	Danara Village Well Water
10.			Nakeipasi Village Well Water
11.		Hingula	Gopal Prasad Village
12.			Kusumpal Village
13.	Talcher	Talcher Colliery	Narharipur Village Well
14.		Nandira Colliery	Natedi Village
15.		Deulbera Colliery	Deulbera Village Well



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Table 10
List of Surface Water Monitoring Stations

S.No.	Area	Project/OCP	Name of station
1	Jagannath	Jagannath	West Sump Water
2			Central Sump Water
3		Ananta	Dera Village Well
4			Hensmul Village Well
5	Bharatpur	Bharatpur	Bangaru Jhor river near Joragarhia/Banapali (Reported)
6			Jambubahali Village Pond
7	Kaniha	Kaniha	Singada jhor stream nearer to Village Khairnali as u/s Water for Kaniha OCP
8			Before Junction Point of Singadajhor & Brahmani River at Balangi Village as d/s for Kaniha OCP
9			Tikra Nadi Near Kaniah Village as u/s Water for Kaniah OCP
10			Tikra Nadi Near Shagarhi Pala Village as d/s Water for Kaniah OCP
11	Hingula	Hingula	Singadhajhor Stream Near HOCP
12			Pond Water of Kankarei Village
13		Balaram	Derjenga reservoir as a part of Impact Study
14			Pond water of Ambapal village
15	Talcher	Talcher	Pond Water of Dera Village
16		Nandira	Nandira Jhor Near <u>Karnapur</u> Village
17			Nandira Jhor Near <u>Sakasingha</u> Village
18			Nandira Jhor Near <u>Tentolei</u> Village Mine
19			Nandira Jhor Near <u>Pengua</u> village Mine
20		Deulbera	Pond Water of Gopinathpur Village

Table 11
List of Piezometer Monitoring Stations

S. No.	Area	OCP/UG Mine	Name of OCP/UG Mine
1	Jagannath	Bhubaneswari	Piezometer no MTP 07
2			Piezometer no MTP 08
3		Jagannath	Piezometer no MTP 04 (Reported Only)
4		Ananta	Piezometer no MTP 04
5			Piezometer no MTP 05
6	Bharatpur	Bharatpur	Piezometer no MTP 09
7		Chhendipada	Piezometer no MTP 21
8			Piezometer no MTP 22
9			Piezometer no MTP 23
10	Hingula	Balram	Piezometer no MTP 10
11			Piezometer no MTP 12
12			Piezometer no MTP 13
13		Hingula	Piezometer no MTP 17
14			Piezometer no MTP 14
15			Piezometer no MTP 15
16			Piezometer no MTP 16
17	Kaniha	Kaniha	Piezometer no MTP 18
18			Piezometer no MTP 19
19			Piezometer no MTP 20
20	Lingraj	Lingraj	Piezometer no MTP 01
21			Piezometer no MTP 02
22			Piezometer no MTP 06
23	Talcher	Nandira Colliery	Piezometer no MTP 11
24		Handhidhua Colliery	Piezometer no MTP 03

2. FREQUENCY OF MONITORING

Table 12: Frequency of Monitoring

S. No.	Parameters	Sampling Frequency
1.	Air (5 Parameter) Quality Monitoring	Fortnightly/Weekly Twice
2.	Noise level (Day & Night) Monitoring	Fortnightly
3.	Effluent (1 Parameter) Quality Monitoring	Quarterly/Yearly
4.	Effluent (4 & 3 Parameter) Quality Monitoring	Fortnightly/Monthly/Quarterly
5.	Effluent (22 Parameter) Quality Monitoring	Yearly
6.	Drinking Water (26 Parameter) Quality Monitoring	Monthly/Quarterly/Halfyearly/Yearly
7.	Piezometer & Ground Water Level Monitoring	Quarterly
8.	Surface Water (21 Parameter) Quality Monitoring	Quarterly



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3. METHODOLOGY AND INSTRUMENTS USED

Table 13: Methodology & Instruments used for Air Quality Analysis

S No	Parameters	Method	Instruments
1.	SPM and PM ₁₀	IS:5182 (Part-23):2006 Cyclonic Flow Technique, Gravimetric Method	Respirable Dust Sampler, Electronic Balance
2.	PM _{2.5}	Guideline for the measurement of Ambient Air Pollutants, Volume –I, May 2011	PM 2.5 Sampler, Micro Balance
3.	SO ₂	IS:5182 (Part-2):2001, Improved West and Gaeke Method	Spectrophotometer, Respirable Dust Sampler with Impinger Box
4.	NO _x	IS:5182 (Part-6):2006, Jacob &Hoccheiser Modified Method	Spectrophotometer, Respirable Dust Sampler with Impinger Box

Table 14: Methodology & Instruments used for Noise level Monitoring

S.No.	Parameters	Method	Instruments
1.	Ambient Noise Level dB (Leq)	Protocol for Ambient Level Noise Monitoring, July 2015, CPCB	Weighted sound level i.e. dB(A) Meter

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Table 15: Methodology & Instruments used for Drinking/Surface/Effluent Water Quality Analysis

Sl. No.	Parameters	Method	Instruments
Physical Parameter			
1.	PH	IS 3025 (PART 11) : 1983 ,	pH meter
2.	Turbidity	IS 3025 (PART10) : 1984, Nephelometric	Nepheloturbidity meter
3.	Temperature	IS 3025 (PART 09) : 1984,	Temperature Probe
4.	Taste	IS 3025 (PART 07) : 1984, Physical	-
5.	Odour	IS 3025 (PART 05) : 1983 , Physical	-
6.	Colour	IS: 3025 (Part - 4): 1983, Visual	-
7.	Total suspended solids	IS 3025 (PART 17) : 1984, Gravimetric	Hot Air Oven, Electronic balance
8.	Total dissolved solids	IS 3025 (PART 16) : 1984, Gravimetric	Hot Air Oven, Electronic balance
In organic Parameters			
9.	Nitrate	APHA 22nd Edition	Microprocessor based spectrophotometer- DR
10.	Nitrate nitrogen	APHA 22nd Edition	Microprocessor based spectrophotometer- DR
11.	Ammonical Nitrogen	IS 3025 (PART 34) : 1988,	Microprocessor based spectrophotometer- DR
12.	Total kjeldhal Nitrogen	IS 3025 (PART 34) : 1988	Microprocessor based spectrophotometer- DR
13.	Total residual chlorine	IS 3025 (PART 26) : 1986	Microprocessor based spectrophotometer- DR
14.	Calcium	IS 3025 (PART 40) : 1991,EDTA	Burette, Pipette
15.	Chloride	IS 3025 (PART 32) : 1988,	Microprocessor based spectrophotometer- DR
16.	Fluoride	APHA 22nd Edition , IS 3025(Pat	Microprocessor based spectrophotometer- DR
17.	Total Alkalinity	IS 3025 (PART 23) : 1986, Titration	Burette, Pipette
18.	Total hardness	IS 3025 (PART 21) : 1983, EDTA	Burette, Pipette
19.	Dissolved phosphate	APHA 22nd Edition , IS 3025 (Pat 31):	Microprocessor based spectrophotometer- DR
20.	DO	IS 3025 (PART 38) : 1989, Winkler	Burette, Pipette
21.	Sulfate	APHA 22nd Edition , IS 3025(Part 24):	Microprocessor based spectrophotometer- DR
22.	Sulfide	APHA 22nd Edition , IS 3025(Part	Microprocessor based spectrophotometer- DR
Trace Metals			
23.	Arsenic	APHA 22nd Edition , AAS-GTA Method	Atomic Absorption Spectrophotometer(AAS)
24.	Lead	APHA 22nd Edition , AAS-GTA Method	Atomic Absorption Spectrophotometer(AAS)
25.	Hexavalent chromium	APHA 22nd Edition	DR 2800
26.	Total Chromium	IS 3025 (PART 52) : 2003,AAS-Flame	Atomic Absorption Spectrophotometer(AAS)
27.	Copper	IS 3025 (PART 42) : 1992, AAS-Flame	Atomic Absorption Spectrophotometer(AAS)
28.	Zinc	IS 3025 (PART 49) : 1994, AAS-Flame	Atomic Absorption Spectrophotometer(AAS)
29.	Selenium	IS 3025 (PART 56) : 2003,AAS-VGA	Atomic Absorption Spectrophotometer(AAS)
30.	Cadmium	APHA 22nd Edition ,AAS-GTA Method	Atomic Absorption Spectrophotometer(AAS)
31.	Nickel	IS 3025 (PART 54) : 2003,AAS-Flame	Atomic Absorption Spectrophotometer(AAS)
32.	Manganese	APHA 22nd Edition ,AAS-Flame	Atomic Absorption Spectrophotometer(AAS)
33.	Iron	IS 3025 (PART 53) : 2003,AAS-Flame	Atomic Absorption Spectrophotometer(AAS)
34.	Boron	APHA 22nd Edition , Carmine Method	DR 2800
General Organics & Trace Organics			
35.	COD	APHA 22nd Edition ,Titration Method	COD Digester
36.	O&G	IS 3025 (PART 39) : 1991, Partition	Hot Air Oven, Electronic Balance
37.	BOD	IS 3025 (PART 44) : 1993.3 day	BOD Incubator
38.	Phenolics	APHA 22nd Edition ,4- Amino	-
Microbiological Tests			
39.	Total coliform	MPN Test	LTEK MPN Kit

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AIR QUALITY

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4. TABLES FOR AIR QUALITY DATA

Table:16

Area: Jagannath

Project: Jagannath OCP

Monitoring Station: Near MDTP

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
05-Apr-19	50	221	12.06	13.96	399
18-Apr-19	59	136	10.9	20.2	168
03-May-19	33	146	13.81	26.65	183
17-May-19	57	383	13.3	26.15	433
05-Jun-19	42	115	11.66	24	151
19-Jun-19	31	127	18.57	27.73	159
02-Jul-19	20	43	8.61	11.84	105
16-Jul-19	84	401	7.01	20.56	423
02-Aug-19	STRIKE				
19-Aug-19	42	59	6.75	11.09	85
03-Sep-19	23	65	8.73	14.07	79
18-Sep-19	48	110	11.03	27.91	191
03-Oct-19	42	247	8.08	12.62	286
21-Oct-19	11	124	6.31	8.84	156
08-Nov-19	20	229	8.41	11.01	390
22-Nov-19	76	125	14	18.13	172
10-Dec-19	21	234	11.23	12.01	383
24-Dec-19	75	245	7.01	12.41	308
10-Jan-20	88	227	15.35	17.9	297
25-Jan-20	59	181	9.41	16.1	215
07-Feb-20	22	67	8.39	18.53	101
24-Feb-20	68	119	9.24	23.05	174
12-Mar-20	23	87	11.62	17.39	150
24-Mar-20	20	80	11.27	23.56	124
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	88	401	18.57	27.91	433
Minimum	11	43	6	9	79
Average	44.09	163.96	10.55	18.07	223.13
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

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Table:17
Area: Jagannath
Project: Jagannath OCP
Monitoring Station: Near NBVL Park

Date of Sampling	PM2 5	PM10	SO2	NOx	SPM
05-Apr-19	45	196	10.23	11.25	261
18-Apr-19	76	201	13.51	16.51	231
03-May-19	31	412	11.27	22.56	496
17-May-19	24	296	14.1	26.51	424
05-Jun-19	53	107	13.15	25.14	133
19-Jun-19	42	105	16.63	23.96	225
02-Jul-19	16	108	10.96	16.47	168
16-Jul-19	132	465	10.21	13.17	560
02-Aug-19	-	-	-	-	-
19-Aug-19	56	233	12.78	16.86	309
03-Sep-19	48	208	16.65	21.06	233
18-Sep-19	32	110	9.04	16.51	176
03-Oct-19	30	125	10.73	14.21	165
21-Oct-19	95	288	10.04	11.18	360
07-Nov-19	48	228	12.3	15.3	491
22-Nov-19	99	171	10.96	20.13	218
10-Dec-19	26	244	12	12.48	402
24-Dec-19	15	147	9	9.82	180
10-Jan-20	35	89	14.99	25.26	140
25-Jan-20	91	236	11.83	24.35	297
07-Feb-20	65	95	9.19	13.78	148
24-Feb-20	94	193	11.16	24.58	255
12-Mar-20	30	119	8.67	26.49	171
24-Mar-20	22	91	13.89	26.24	138
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	132	465	16.65	26.51	560
Minimum	15	89	9	10	133
Average	52.39	194.22	11.88	18.86	268.74
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:18
Area: Jagannath
Project: Jagannath OCP
Monitoring Station: NW Point of Mine

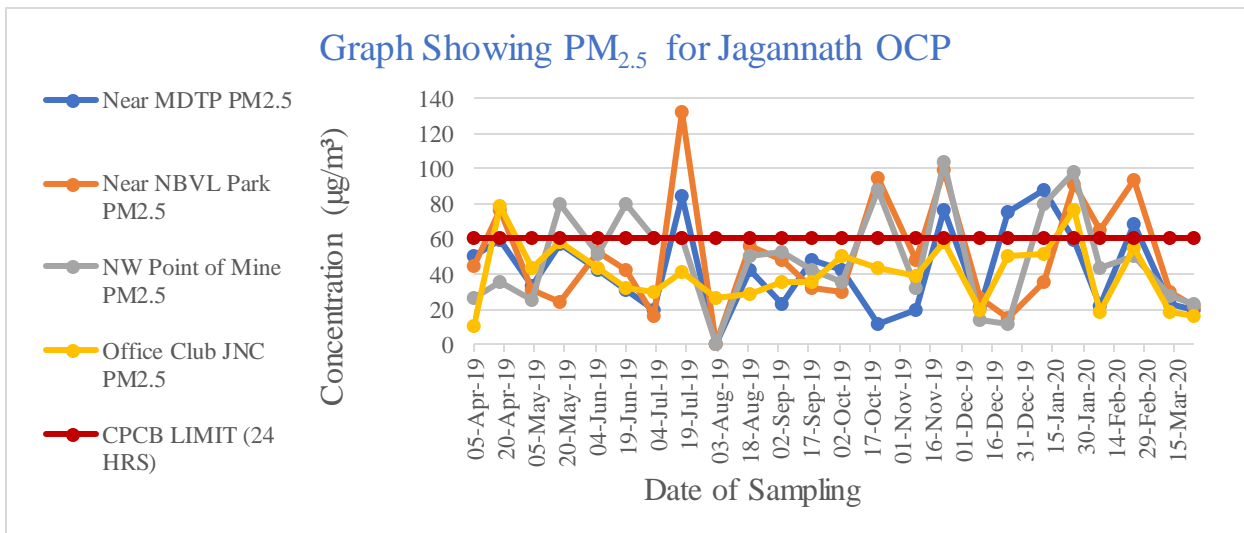
Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
05-Apr-19	26	190	10.68	12.79	593
18-Apr-19	36	156	13.01	20.03	239
03-May-19	25	296	11.17	27.79	353
17-May-19	80	362	11.78	15.75	410
05-Jun-19	51	471	12.28	31.16	504
19-Jun-19	80	200	10.73	21.21	236
02-Jul-19	60	77	6.15	13.6	133
16-Jul-19	61	290	10.22	21.57	318
02-Aug-19	STRIKE				
19-Aug-19	50	235	9.09	14.31	294
03-Sep-19	53	261	14.13	17.6	277
18-Sep-19	42	127	6.92	9.67	186
03-Oct-19	36	209	15.47	21.14	265
21-Oct-19	88	271	9.43	13.14	374
08-Nov-19	32	88	15.04	18.08	212
22-Nov-19	104	POWER FAILURE			
06-Dec-19	14	229	15.36	15.65	327
24-Dec-19	12	213	8.94	10.56	254
10-Jan-20	80	157	18.4	18.6	205
25-Jan-20	98	214	15.05	16.58	262
07-Feb-20	43	166	6.46	9.57	217
24-Feb-20	50	232	11.86	19.07	352
12-Mar-20	28	98	9.63	16.82	214
24-Mar-20	23	84	10.86	19.78	136
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	104	471	18.4	31.16	593
Minimum	12	77	6	10	133
Average	50.96	210.27	11.48	17.48	289.14
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

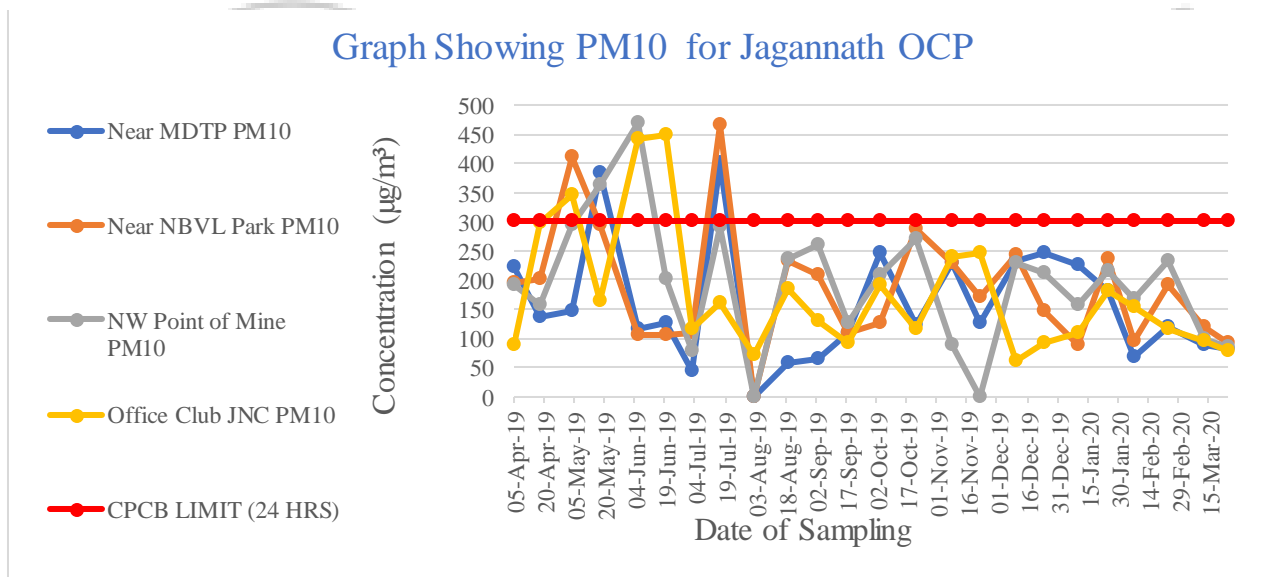
Table:19
Area: Jagannath
Project: Jagannath OCP
Monitoring Station: Office Club JNC

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
05-Apr-19	10	87	12.42	17.19	109
18-Apr-19	79	299	10.45	30.11	347
03-May-19	44	347	13.79	28.92	399
17-May-19	58	165	15.06	25.43	193
05-Jun-19	43	441	14.58	35.61	476
19-Jun-19	32	448	13.05	21.89	648
02-Jul-19	30	114	9.93	14.47	213
16-Jul-19	41	161	9.16	11.72	260
02-Aug-19	26	72	11.9	23.17	103
19-Aug-19	29	186	12.07	18.34	261
03-Sep-19	36	129	10.8	11.28	148
18-Sep-19	35	93	8.13	8.17	191
03-Oct-19	50	191	9.32	16.99	223
21-Oct-19	44	117	13.01	17.78	248
07-Nov-19	39	239	9.84	16.56	486
22-Nov-19	58	246	12.17	13.4	318
10-Dec-19	20	61	11.21	15.34	97
24-Dec-19	50	92	10.64	15.64	118
10-Jan-20	52	110	16.86	17.59	191
25-Jan-20	76	182	13.16	17.45	212
07-Feb-20	18	154	9.38	15.27	196
24-Feb-20	55	116	11.18	21.62	190
12-Mar-20	18	95	7.9	18.63	132
24-Mar-20	16	78	12.85	31.73	110
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	79	448	16.86	35.61	648
Minimum	10	61	8	8	97
Average	39.96	175.96	11.62	19.35	244.54
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

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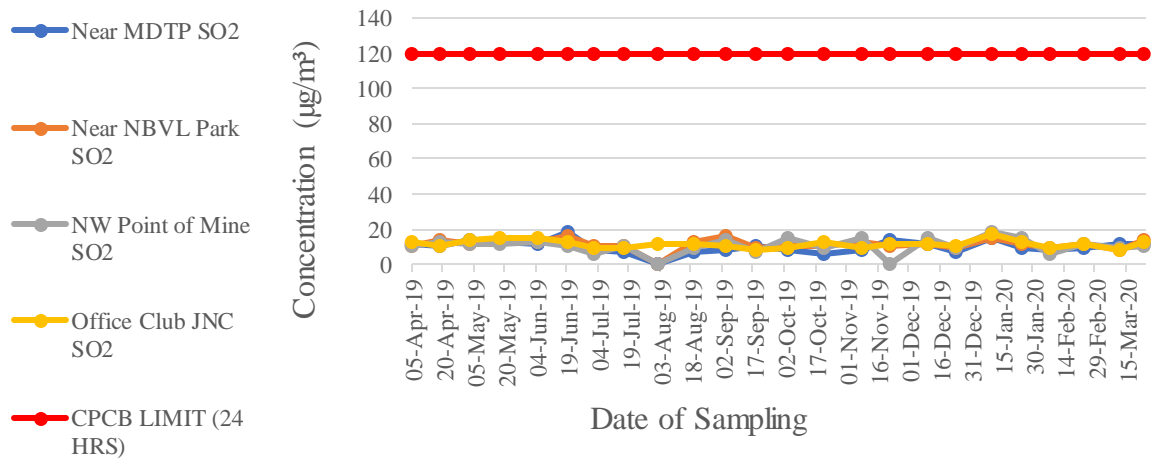


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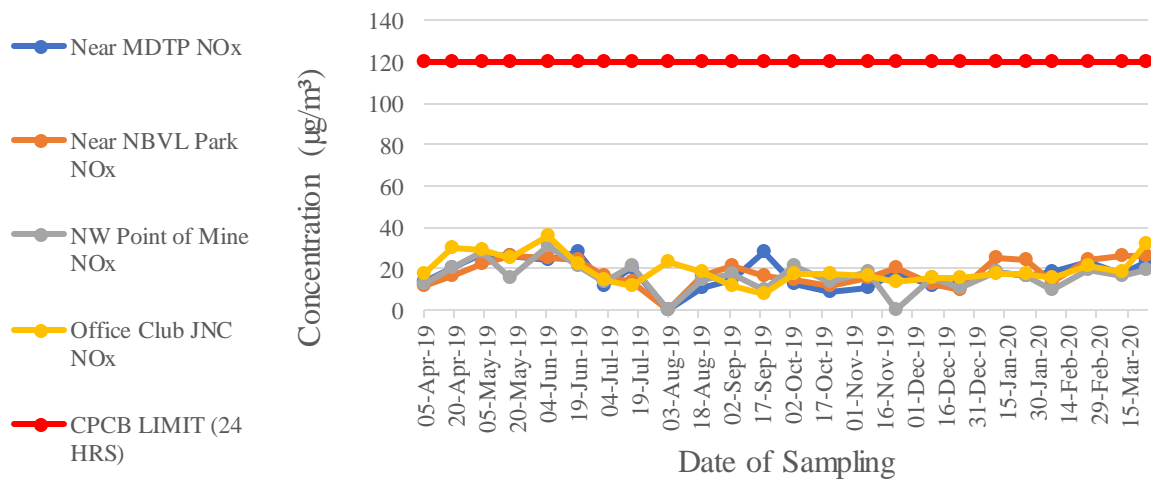


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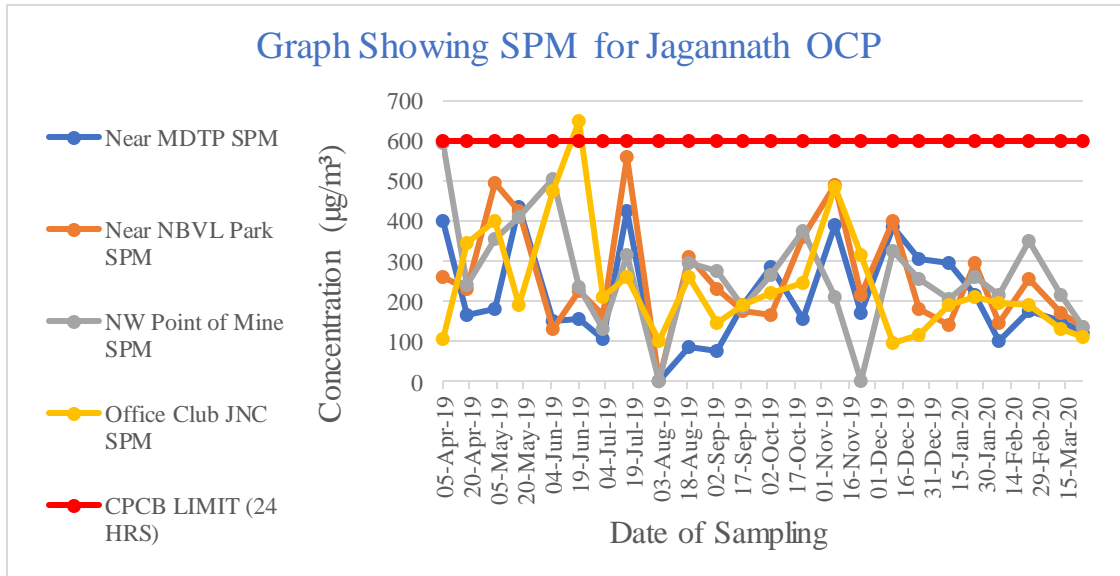
Graph Showing SOX for Jagannath OCP



Graph Showing NOX for Jagannath OCP



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Table:20
Area: Jagannath
Project: Ananta OCP
Monitoring Station: Ananta Vihar Colony

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
11-Apr-19	37	213	12.86	15.46	266
24-Apr-19	30	197	11.42	14.15	306
09-May-19	51	124	13.92	16.58	181
23-May-19	48	127	13.63	13.6	160
10-Jun-19	34	107	13.13	16.03	252
24-Jun-19	59	164	15.86	17.03	195
09-Jul-19	33	151	10.42	13.58	295
23-Jul-19	19	93	11.3	14.46	127
08-Aug-19	25	91	10.24	15.39	172
23-Aug-19	48	197	11.38	23.66	245
09-Sep-19	32	90	8.28	12.96	132
24-Sep-19	STRIKE				
15-Oct-19	69	157	13.35	11.75	297
25-Oct-19	21	97	12.47	19.22	143
09-Nov-19	77	282	15.17	17.55	596
26-Nov-19	107	295	9.35	11.01	332
12-Dec-19	42	265	17.41	17.22	362
25-Dec-19	15	181	12.97	16.02	265
11-Jan-20	106	383	19.61	24.22	437
27-Jan-20	60	230	16.22	18.06	277
11-Feb-20	35	365	11.54	11.64	445
25-Feb-20	50	102	12.58	20.43	181
12-Mar-20	26	172	9.95	18.17	262
25-Mar-20	20	118	10.76	16.72	174
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	107	383	19.61	24.22	596
Minimum	15	90	8	11	127
Average	45.39	182.65	12.77	16.30	265.30
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:21
Area: Jagannath
Project: Ananta OCP
Monitoring Station: BCML Workshop

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
11-Apr-19	46	168	11.98	12.65	215
24-Apr-19	30	185	12.87	11.65	254
09-May-19	57	295	11.64	17.49	497
23-May-19	40	290	12.74	14.56	411
10-Jun-19	79	375	13.84	28.09	623
24-Jun-19	13	112	10.69	14.93	239
09-Jul-19	25	118	12.96	12.5	304
23-Jul-19	35	79	12.21	13.53	92
08-Aug-19	26	88	6.7	13.66	99
23-Aug-19	30	188	15.43	27.15	216
09-Sep-19	20	35	9.65	13.23	131
24-Sep-19	STRIKE				
15-Oct-19	66	127	9.7	15.91	198
25-Oct-19	32	92	14.28	23.85	166
09-Nov-19	19	102	7.08	17.87	139
26-Nov-19	84	244	10.83	13.32	297
11-Dec-19	29	287	7.68	15.41	347
25-Dec-19	15	57	7.13	11.55	84
11-Jan-20	87	275	10.49	22.95	328
27-Jan-20	22	439	10.12	16.34	498
11-Feb-20	42	330	11.81	22.28	404
25-Feb-20	64	513	7.96	18.76	594
12-Mar-20	33	95	7.5	13.78	135
25-Mar-20	24	81	11.8	22.28	114
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	87	513	15.43	28.09	623
Minimum	13	35	7	12	84
Average	39.91	198.91	10.74	17.12	277.61
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

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Table:22
Area: Jagannath
Project: Ananta OCP
Monitoring Station: Near Biswal Chowk

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
11-Apr-19	14	108	12.08	23.93	257
24-Apr-19	32	406	12.27	15.27	473
09-May-19	54	338	13.35	24.77	460
23-May-19	51	124	11.45	13.05	173
10-Jun-19	21	200	12.63	17.94	299
24-Jun-19	19	109	13.78	23.83	138
09-Jul-19	48	140	7.7	11.67	272
23-Jul-19	31	118	8.93	31.43	152
08-Aug-19	25	144	11.6	17.59	155
23-Aug-19	51	250	10.63	17.46	274
09-Sep-19	26	87	9.48	15.29	125
24-Sep-19	STRIKE				
15-Oct-19	46	156	12.6	14.21	234
25-Oct-19	10	118	6.32	8.86	190
09-Nov-19	49	453	11.81	19.87	577
26-Nov-19	11	413	9.77	22.42	441
11-Dec-19	19	86	10.86	15.21	148
25-Dec-19	29	343	8.24	8.4	414
11-Jan-20	103	354	13.2	21.82	431
27-Jan-20	61	432	10.6	26.19	466
11-Feb-20	131	392	12.25	20.13	489
25-Feb-20	33	61	9.11	32.82	86
13-Mar-20	30	86	6.64	11.59	136
25-Mar-20	25	71	13.19	27.25	102
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	131	453	13.78	32.82	577
Minimum	10	61	6	8	86
Average	39.96	216.91	10.80	19.17	282.26
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

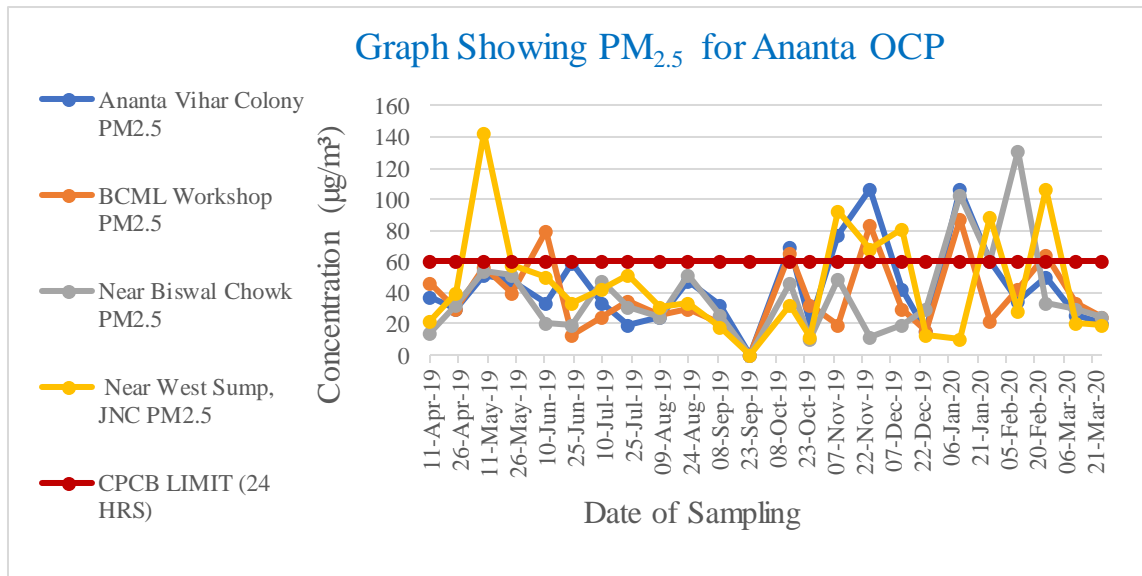
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Table:23
Area: Jagannath
Project: Ananta OCP
Monitoring Station: Near West Sump, JNC

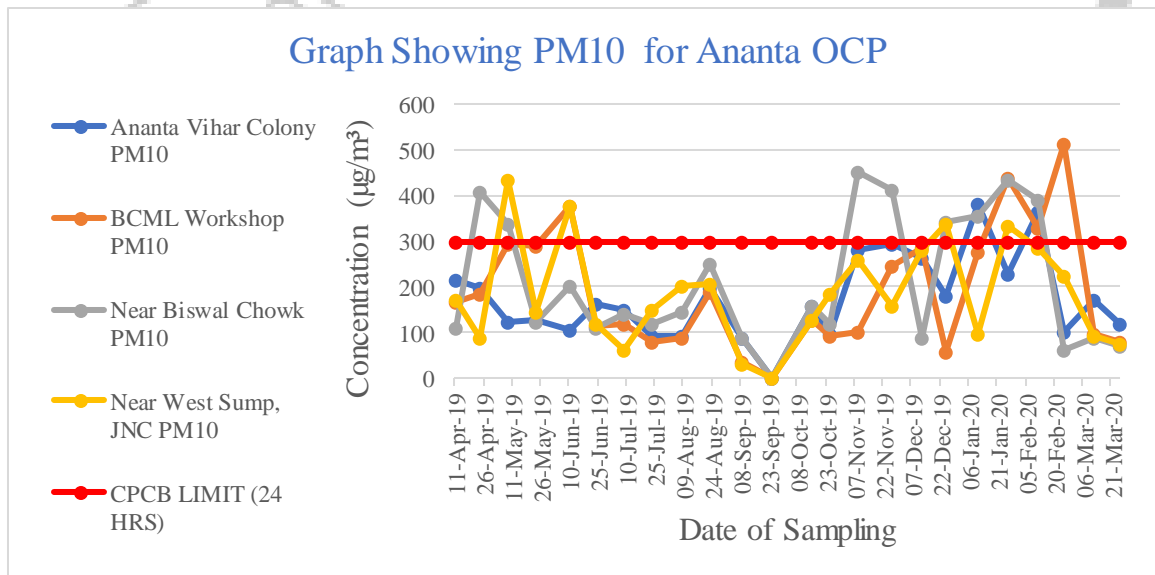
Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
11-Apr-19	22	172	11.89	13.56	338
24-Apr-19	40	87	10.23	26.6	133
09-May-19	143	433	13.23	24.32	574
23-May-19	58	145	14.16	20.79	188
10-Jun-19	50	376	11.54	25.66	550
24-Jun-19	34	120	11.26	23.36	161
09-Jul-19	43	63	9.14	17.87	181
23-Jul-19	52	151	7.07	9.33	179
08-Aug-19	31	203	7.55	13.48	254
23-Aug-19	34	206	15.48	24.97	266
09-Sep-19	18	30	8.81	11.06	83
24-Sep-19	STRIKE				
15-Oct-19	32	127	13.28	25.2	214
25-Oct-19	11	183	12.37	18.44	287
09-Nov-19	92	260	10.05	16.91	382
26-Nov-19	68	156	10.78	17.36	195
11-Dec-19	81	279	10.6	14.4	361
25-Dec-19	13	337	14.13	19.8	393
11-Jan-20	10	97	12.47	17.77	113
27-Jan-20	89	334	13.12	16.83	377
11-Feb-20	28	283	6.97	15.75	343
25-Feb-20	107	224	11.52	21.56	294
13-Mar-20	21	94	9.48	16.55	169
25-Mar-20	19	76	12.15	19.29	128
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	143	433	15.48	26.6	574
Minimum	10	30	7	9	83
Average	47.65	192.87	11.19	18.73	267.96
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

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Graph Showing PM_{2.5} for Ananta OCP

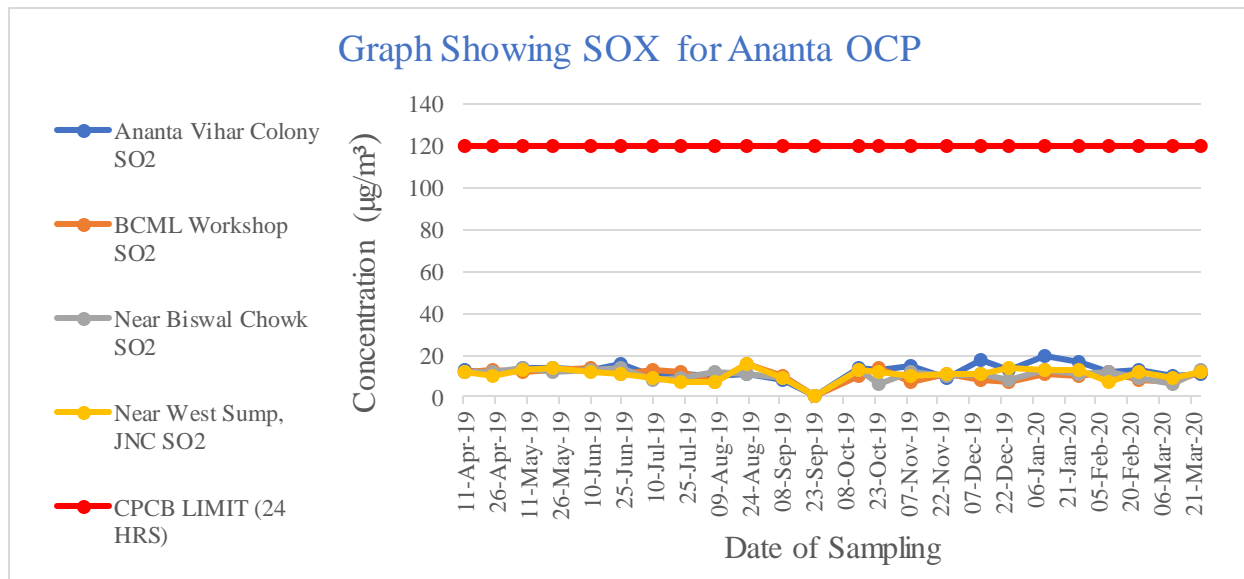


Graph Showing PM₁₀ for Ananta OCP

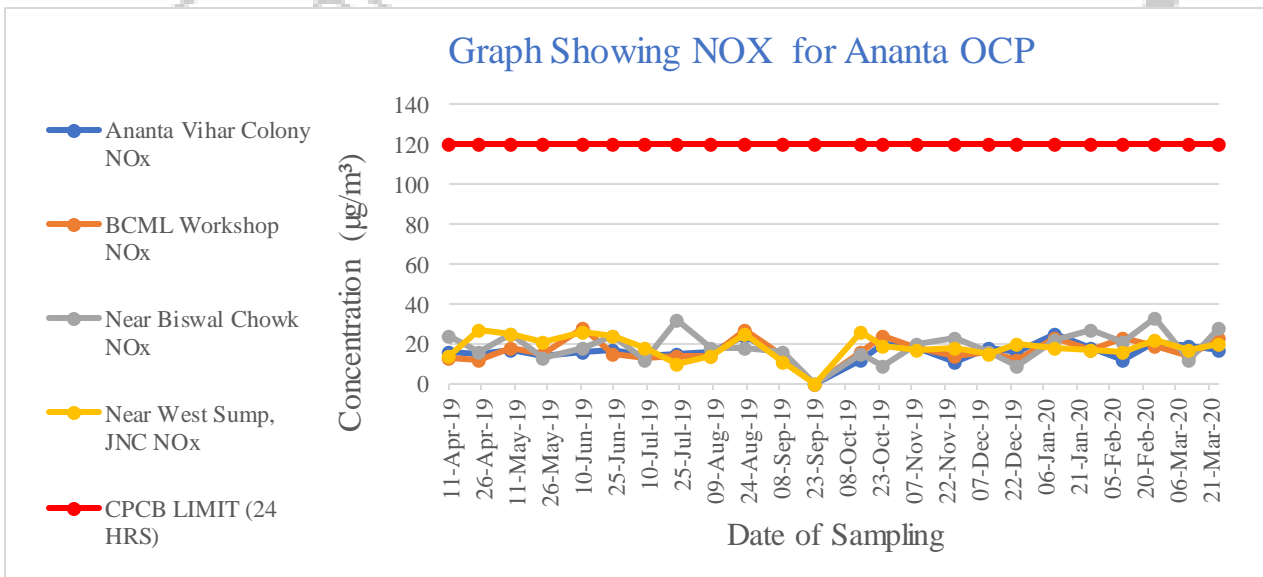


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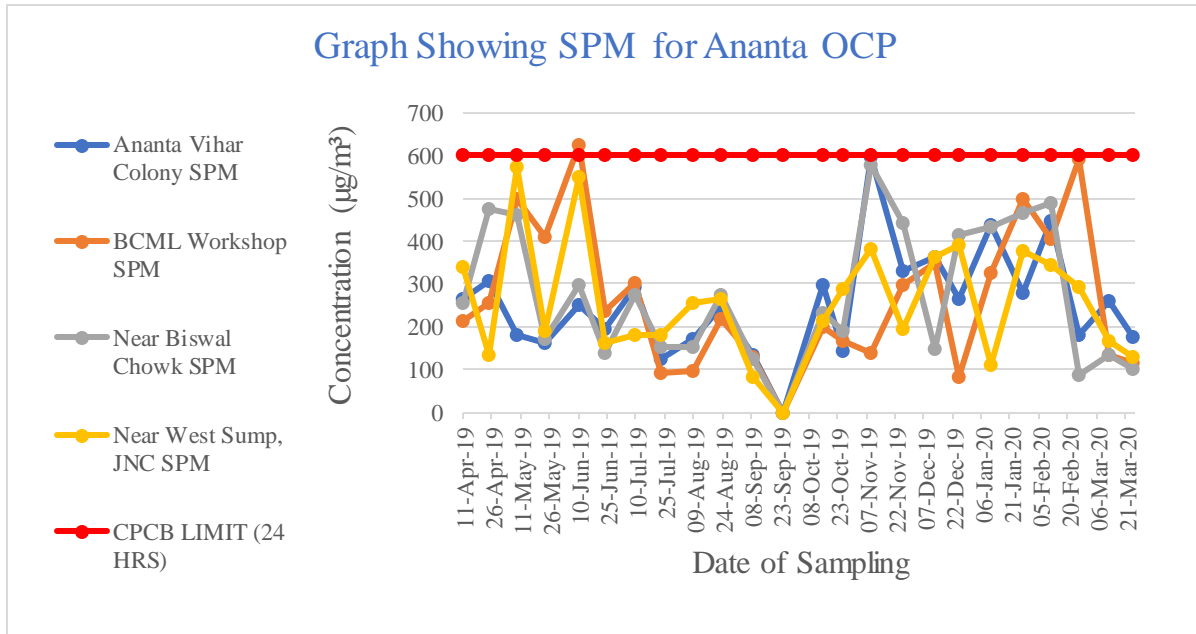
Graph Showing SOX for Ananta OCP



Graph Showing NOX for Ananta OCP



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Table:24

Area: Bharatpur

Project: Bharatpur OCP

Monitoring Station: Near Civil Maintenance Office of Hingula Area

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
10-Apr-19	10	98	12.66	15.22	153
23-Apr-19	46	193	11.31	11.44	260
08-May-19	79	174	12.49	16.83	295
22-May-19	31	174	11.33	18.59	254
08-Jun-19	69	163	10.75	17.26	192
22-Jun-19	18	101	10.23	18.19	128
08-Jul-19	56	84	13.11	10.54	235
22-Jul-19	32	453	11.1	19.53	485
07-Aug-19	22	456	13.2	12.34	538
22-Aug-19	34	181	9.39	13.61	199
07-Sep-19	41	119	12.33	11.26	193
23-Sep-19					
11-Oct-19	36	196	7.75	14.13	286
24-Oct-19	30	157	9.71	8.85	245
06-Nov-19	56	291	8.02	15.29	442
21-Nov-19	109	259	7.99	10.46	298
06-Dec-19	79	281	11.9	18.19	415
20-Dec-19	37	221	8.87	9.04	265
07-Jan-20	13	213	8.95	17.8	267
22-Jan-20	44	364	13.84	25.82	444
06-Feb-20	46	140	8.19	23.6	198
20-Feb-20	51	287	9.06	24.68	354
06-Mar-20	25	87	9.81	11.85	134
20-Mar-20	19	68	8.98	25.93	104
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	109	456	13.84	25.93	538
Minimum	10	68	8	9	104
Average	42.74	206.96	10.48	16.11	277.57
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:25
 Area: Bharatpur
 Project: Bharatpur OCP
 Monitoring Station: Near ETP/Workshop

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
10-Apr-19	59	285	14.65	19.1	435
23-Apr-19	72	181	12.63	15.03	279
08-May-19	101	158	10.73	16.47	203
22-May-19	69	151	11.56	11.73	182
08-Jun-19	110	217	13.55	17.73	295
22-Jun-19	29	105	10.93	16.2	134
08-Jul-19	36	54	11.42	13.17	173
22-Jul-19	37	88	8.34	14.67	139
07-Aug-19	STRIKE				
22-Aug-19	30	212	15.56	43.81	311
07-Sep-19	40	125	13.84	22.99	226
23-Sep-19	STRIKE				
11-Oct-19	48	253	10.75	23.94	301
24-Oct-19	14	87	11.94	10.87	224
06-Nov-19	19	164	8.42	14.18	320
21-Nov-19	92	262	8.43	13.4	301
06-Dec-19	72	295	9.63	13.24	351
20-Dec-19	58	105	13.44	13.95	166
07-Jan-20	65	222	10.83	20.22	279
22-Jan-20	94	240	16.65	15.37	290
06-Feb-20	47	95	12.4	14.85	135
20-Feb-20	102	207	10.94	14.74	255
06-Mar-20	29	70	10.71	15.71	156
20-Mar-20	22	61	13.43	25.43	104
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	110	295	16.65	43.81	435
Minimum	14	54	8	11	104
Average	56.59	165.32	11.85	17.58	239.05
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:26

Area: Bharatpur

Project: Bharatpur OCP

Monitoring Station: Near View Point, Jagannath OCP

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
05-Apr-19	26	190	10.68	12.79	593
18-Apr-19	36	156	13.01	20.03	239
03-May-19	25	296	11.17	27.79	353
17-May-19	80	362	11.78	15.75	410
05-Jun-19	51	471	12.28	31.16	504
19-Jun-19	80	200	10.73	21.21	236
02-Jul-19	60	77	6.15	13.6	133
16-Jul-19	61	290	10.22	21.57	318
02-Aug-19	STRIKE				
19-Aug-19	50	235	9.09	14.31	294
03-Sep-19	53	261	13.48	17.6	277
18-Sep-19	42	127	6.92	9.67	186
03-Oct-19	36	209	15.47	28.19	265
21-Oct-19	88	271	9.43	13.14	374
08-Nov-19	32	88	15.04	18.08	212
22-Nov-19	104	POWER CUT			
06-Dec-19	14	229	15.36	15.65	327
24-Dec-19	12	213	8.94	10.56	254
10-Jan-20	80	157	18.4	18.6	205
25-Jan-20	98	214	15.05	16.58	262
07-Feb-20	43	166	6.46	9.57	217
24-Feb-20	50	232	11.86	19.07	352
12-Mar-20	28	98	9.63	16.82	214
24-Mar-20	23	84	10.86	19.78	136
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	104	471	18.4	31.16	593
Minimum	12	77	6	10	133
Average	50.96	210.27	11.46	17.80	289.14
Standard (24Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:27
 Area: Bharatpur
 Project: Bharatpur OCP
 Monitoring Station: North West point of mine

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
10-Apr-19	21	154	12.53	15.31	341
23-Apr-19	71	201	12.12	20.74	309
08-May-19	37	298	10.64	16.08	452
22-May-19	18	295	13.36	18.5	355
08-Jun-19	91	143	12.67	30.68	186
22-Jun-19	39	115	16.5	27.43	156
08-Jul-19	10	58	12.31	12.7	156
22-Jul-19	19	382	12.63	12.8	448
07-Aug-19	26	57	9.28	14.5	90
22-Aug-19	41	170	15.48	19.81	248
07-Sep-19	23	47	12.31	13.93	104
23-Sep-19	STRIKE				
11-Oct-19	25	61	8.86	19.18	127
24-Oct-19	55	133	9.98	12.12	289
06-Nov-19	17	342	7.48	13.38	452
21-Nov-19	32	376	10.66	21.53	477
06-Dec-19	15	251	9.59	13.85	419
20-Dec-19	104	326	11.69	15.49	486
07-Jan-20	40	212	9.82	13.36	264
22-Jan-20	35	101	27.29	31.32	109
06-Feb-20	39	186	12.25	22.24	237
20-Feb-20	97	205	14.88	25.33	309
06-Mar-20	43	92	9.54	19.44	134
20-Mar-20	29	76	12.44	17.88	106
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	104	382	27.29	31.32	486
Minimum	10	47	7	12	90
Average	40.30	186.13	12.36	18.59	271.91
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:28
Area: Bharatpur
Project: Bharatpur OCP
Monitoring Station: Project Office, Balaram OCP

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
09-Apr-19	14	254	13.14	12.15	446
22-Apr-19	59	346	13.96	25.43	372
07-May-19	168	408	11.17	29	547
21-May-19	19	207	12.39	14.75	341
07-Jun-19					
21-Jun-19	47	113	11.42	16.09	150
05-Jul-19	19	39	8.17	11.04	167
19-Jul-19	46	72	8.82	13.44	135
06-Aug-19	STRIKE				
22-Aug-19	22	34	10.01	15.54	60
06-Sep-19	24	60	11.28	16.26	109
23-Sep-19	59	369	11.01	18.65	432
10-Oct-19	32	113	7.28	15.04	184
23-Oct-19	40	281	11.89	11.92	374
05-Nov-19	104	461	8.49	10.08	699
20-Nov-19	25	404	6.84	19.17	464
05-Dec-19	15	103	10.4	12.55	145
19-Dec-19	34	356	17.49	22.73	614
06-Jan-20	102	182	14.79	13.62	224
21-Jan-20	77	271	12.45	15.43	327
05-Feb-20	45	133	7.35	9.88	168
19-Feb-20	63	446	7.55	13.66	547
05-Mar-20	76	159	12.21	17.37	203
19-Mar-20	36	106	12.98	11.1	151
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	168	461	17.49	29	699
Minimum	14	34	7	10	60
Average	51.18	223.50	10.96	15.68	311.77
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

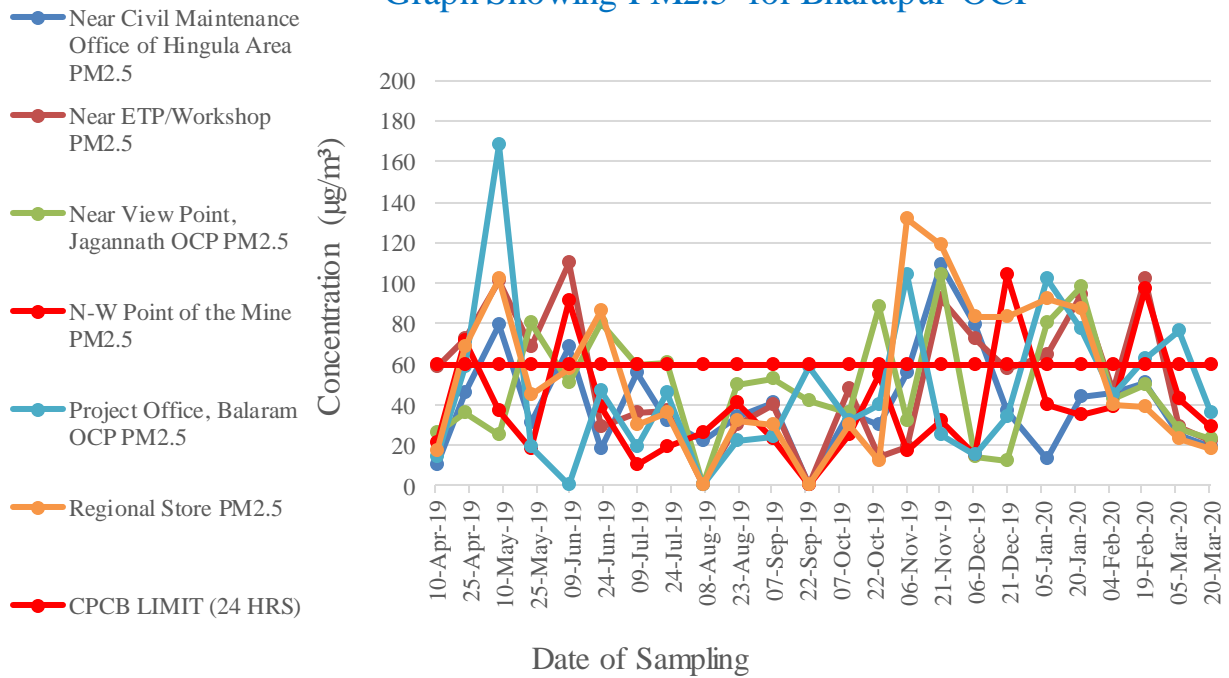
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:29
 Area: Bharatpur
 Project: Bharatpur OCP
 Monitoring Station: Regional Store

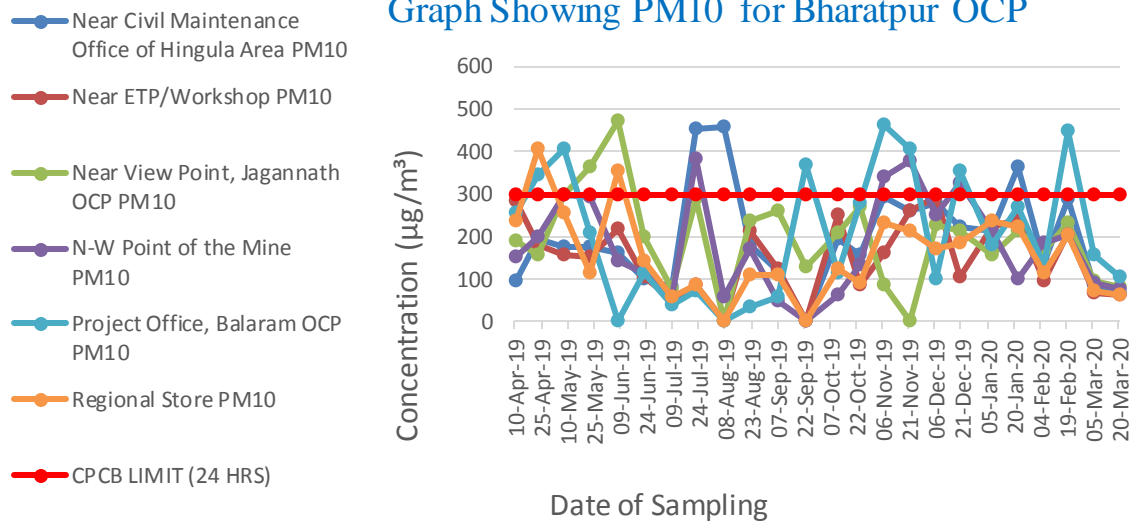
Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
10-Apr-19	17	236	12.36	18.12	439
23-Apr-19	69	404	14.31	17.89	439
08-May-19	102	256	12.83	17.72	288
22-May-19	45	115	10.5	18.5	217
08-Jun-19	58	356	12.53	13.98	488
22-Jun-19	86	141	13.59	19.83	191
08-Jul-19	30	60	14.26	11.64	127
22-Jul-19	36	86	13.13	20.22	168
07-Aug-19	STRIKE				
22-Aug-19	32	110	10.11	18.84	129
07-Sep-19	30	111	12.13	12.09	181
23-Sep-19	STRIKE				
11-Oct-19	30	122	6.81	10.64	161
24-Oct-19	12	93	8.36	14.21	174
06-Nov-19	132	234	8.54	14.37	446
21-Nov-19	119	212	7.48	13.38	254
06-Dec-19	83	169	8.08	11.06	246
20-Dec-19	83	185	8.43	11.72	252
07-Jan-20	92	235	10.32	20.27	283
22-Jan-20	87	225	11.61	15.04	267
06-Feb-20	40	113	10.7	27.75	172
20-Feb-20	39	206	8.95	16.92	272
06-Mar-20	23	72	12.92	17.73	123
20-Mar-20	18	63	13.96	24.63	95
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	132	404	14.31	27.75	488
Minimum	12	60	7	11	95
Average	57.41	172.91	11.00	16.66	246.00
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

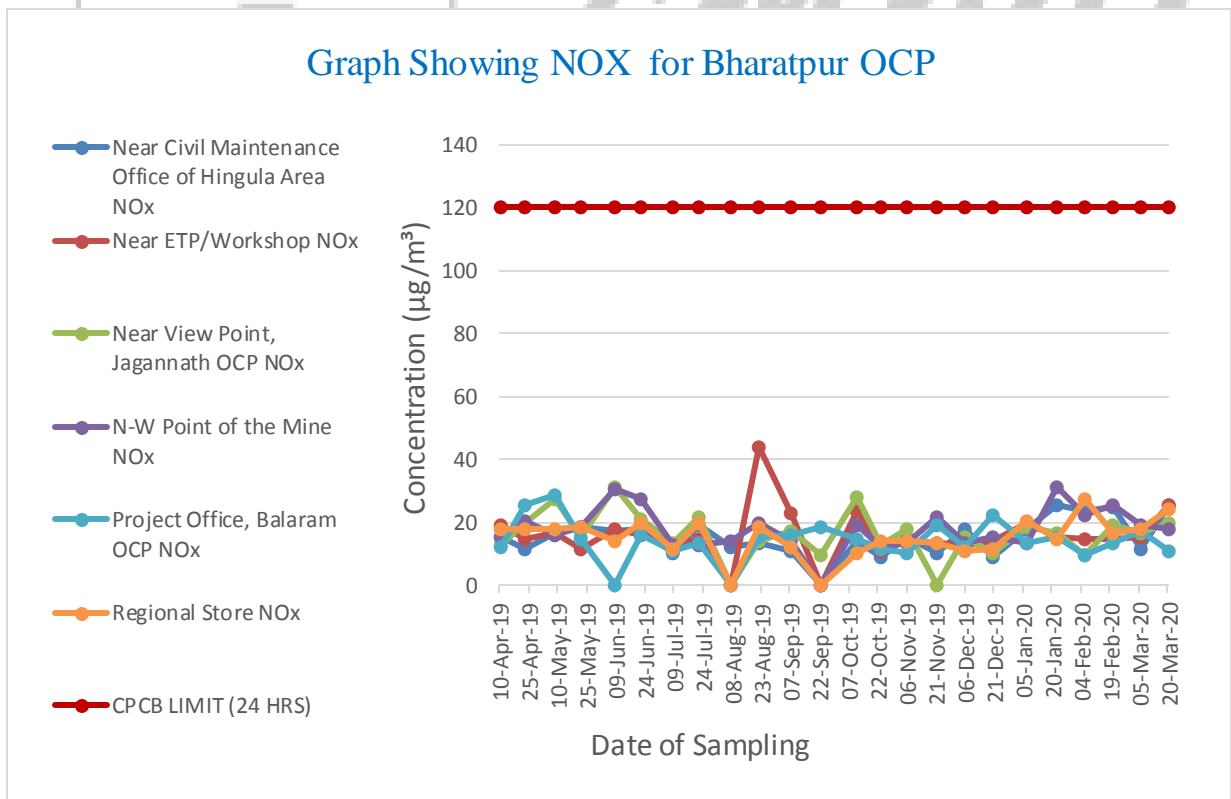
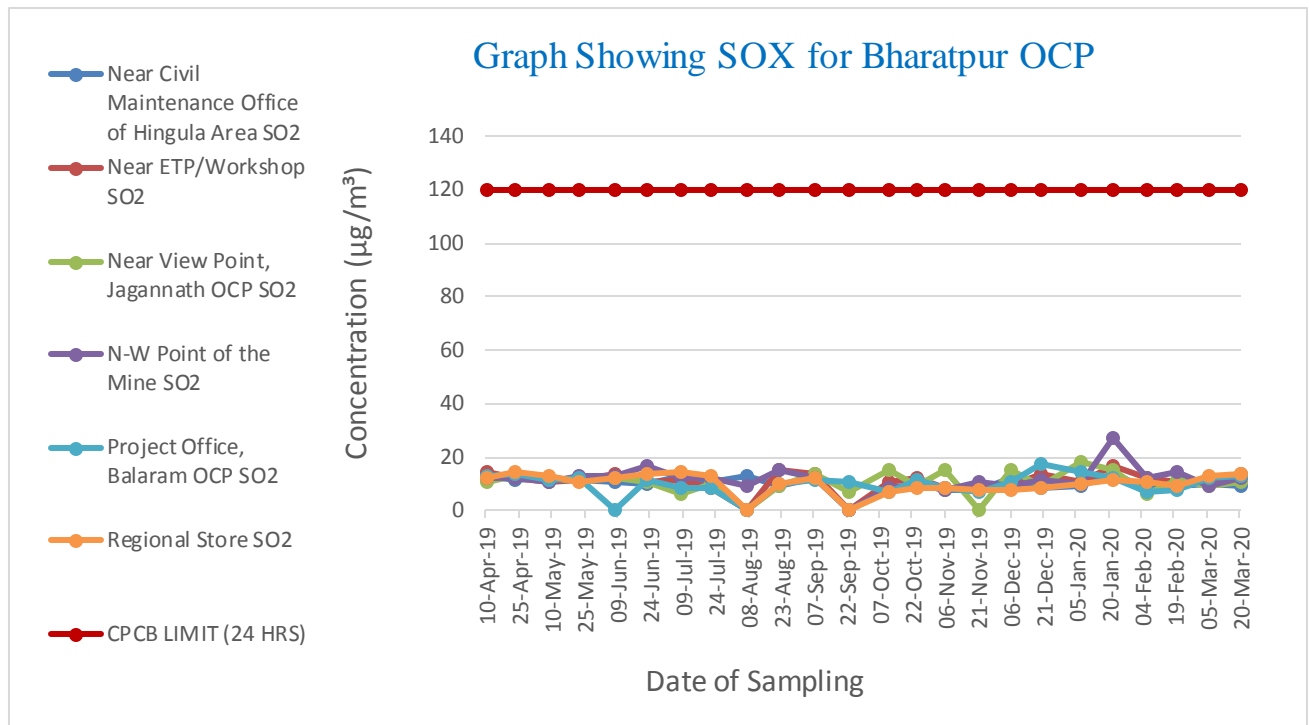
Graph Showing PM2.5 for Bharatpur OCP



Graph Showing PM10 for Bharatpur OCP

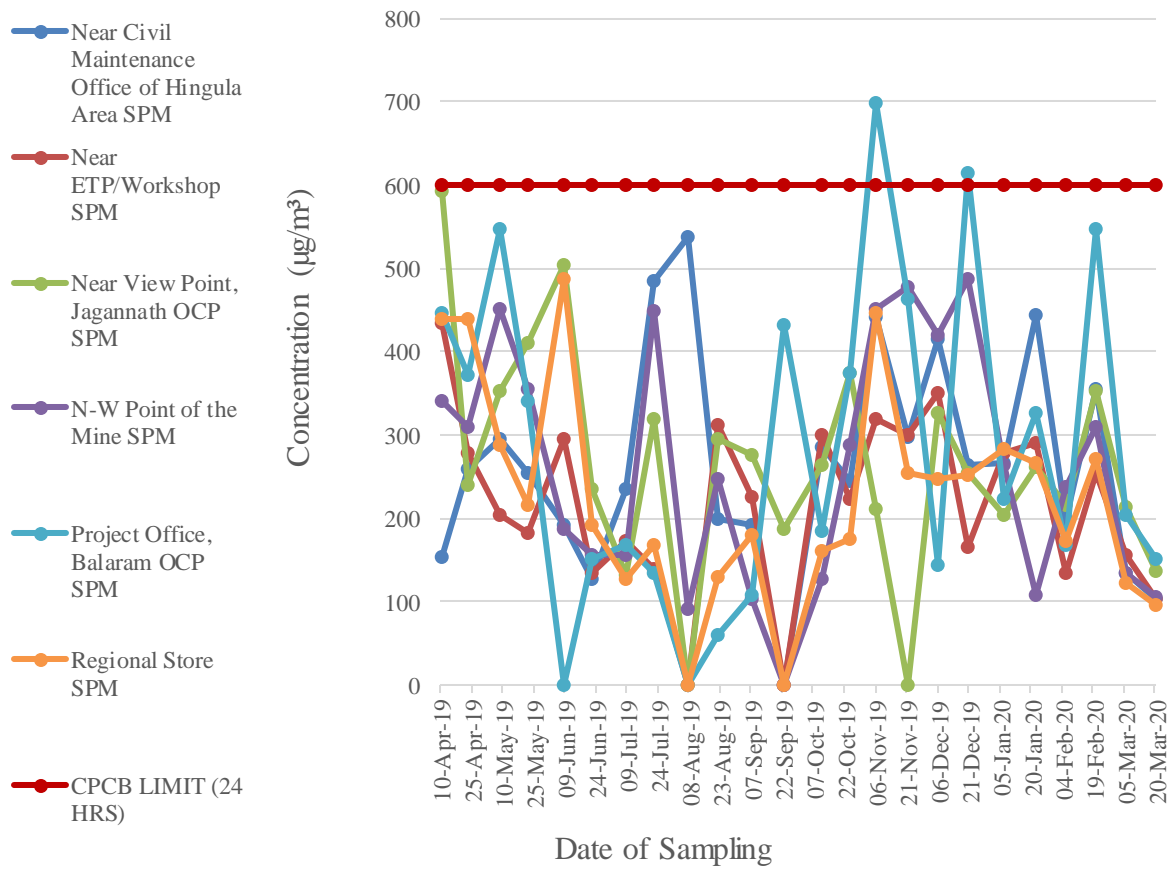


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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Graph Showing SPM for Bharatpur OCP



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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:30
Area: Bharatpur
Project: Chhendipada OCP
Monitoring Station: Dolamandap Chhak

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
06-Apr-19	92	177	13.58	18.87	424
20-Apr-19	49	282	11.3	13.18	325
04-May-19	58	121	10.17	30.24	171
18-May-19	45	104	12.67	28.27	198
03-Jun-19	36	143	11.75	13.76	273
18-Jun-19	52	121	10.58	31.52	159
03-Jul-19	19	49	8.76	14.53	126
17-Jul-19	82	103	10.65	16.4	150
03-Aug-19	20	148	14.05	17.35	295
17-Aug-19	42	224	16.67	21.5	266
04-Sep-19	22	45	9.92	14.1	71
25-Sep-19	20	52	10.99	14.05	109
04-Oct-19	32	87	13.36	16.23	178
19-Oct-19	38	149	12.8	16.79	215
02-Nov-19	78	98	9.62	12.59	133
18-Nov-19	POWER CUT	459	8.05	11.61	507
03-Dec-19	43	187	10.24	10.96	263
17-Dec-19	13	211	14.13	18	248
04-Jan-20	25	173	13.69	28.75	227
18-Jan-20	80	123	22.47	26.2	165
03-Feb-20	49	224	13.97	24.16	281
15-Feb-20	52	112	10.52	17.91	156
03-Mar-20	50	206	10.11	22.84	298
17-Mar-20	33	146	11.08	22.8	210
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	92	459	22.47	31.52	507
Minimum	13	45	8	11	71
Average	44.78	156.00	12.13	19.28	227.00
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:31
Area: Bharatpur
Project: Chhendipada OCP
Monitoring Station: Mamuria Sahi

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
06-Apr-19	56	292	13.92	28.82	437
20-Apr-19	59	377	12.51	11.21	423
04-May-19	70	151	11.29	16.69	178
18-May-19	37	270	12.58	24.5	312
03-Jun-19	29	156	11.61	29.11	218
18-Jun-19	39	110	15.68	32.28	189
03-Jul-19	25	44	18.33	17.78	157
17-Jul-19	27	135	7.69	10.35	242
03-Aug-19	18	108	14.53	12.44	195
17-Aug-19	17	101	17.55	21.73	117
04-Sep-19	52	286	21.17	19.93	343
21-Sep-19	62	232	13.19	10.04	280
04-Oct-19	24	66	11.4	32.64	126
19-Oct-19	45	162	18.67	28.35	222
02-Nov-19	52	358	18.73	26.79	380
18-Nov-19	48	117	13.47	16.32	146
03-Dec-19	56	138	14.34	16.94	210
17-Dec-19	94	322	19.15	49.31	412
04-Jan-20	76	173	14.52	20.01	242
18-Jan-20	74	98	15.49	21	170
03-Feb-20	68	185	23.25	30.16	377
15-Feb-20	48	136	7.16	14.62	179
03-Mar-20	23	196	12.15	32.77	254
17-Mar-20	18	114	10.86	31.03	178
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	94	377	23.25	49.31	437
Minimum	17	44	7	10	117
Average	46.54	180.29	14.55	23.12	249.46
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table: 32
 Area: Bharatpur
 Project: Chhendipada OCP
 Monitoring Station: Near Fire Station

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
06-Apr-19	26	144	13.86	10.08	228
20-Apr-19	30	120	12.98	11.1	210
04-May-19	78	231	10.21	19.8	341
18-May-19	21	298	11.21	28.07	422
03-Jun-19	25	106	11.5	20.76	161
18-Jun-19	57	296	12.76	23.83	341
03-Jul-19	40	213	11.53	15.53	312
17-Jul-19	44	61	10.1	20.31	139
03-Aug-19	18	152	11.06	11.28	160
17-Aug-19	46	117	11.78	15.55	292
04-Sep-19	28	53	12.69	24.19	158
25-Sep-19	31	72	10.61	13.22	132
04-Oct-19	52	367	9.7	18.56	410
19-Oct-19	14	107	9.73	9.75	190
02-Nov-19	13	143	7.94	9.14	159
18-Nov-19	98	255	9.68	13.58	304
03-Dec-19	51	210	12.5	11.83	334
17-Dec-19	32	181	16.1	41.44	346
03-Jan-20	13	52	23.65	34.15	159
18-Jan-20	156	517	13.01	20.23	595
03-Feb-20	52	288	10.66	24.58	342
15-Feb-20	49	102	8.59	19.5	158
03-Mar-20	28	141	10.31	30.6	194
17-Mar-20	24	103	12.91	22.11	144
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	156	517	23.65	41.44	595
Minimum	13	52	8	9	132
Average	42.75	180.38	11.88	19.55	259.63
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

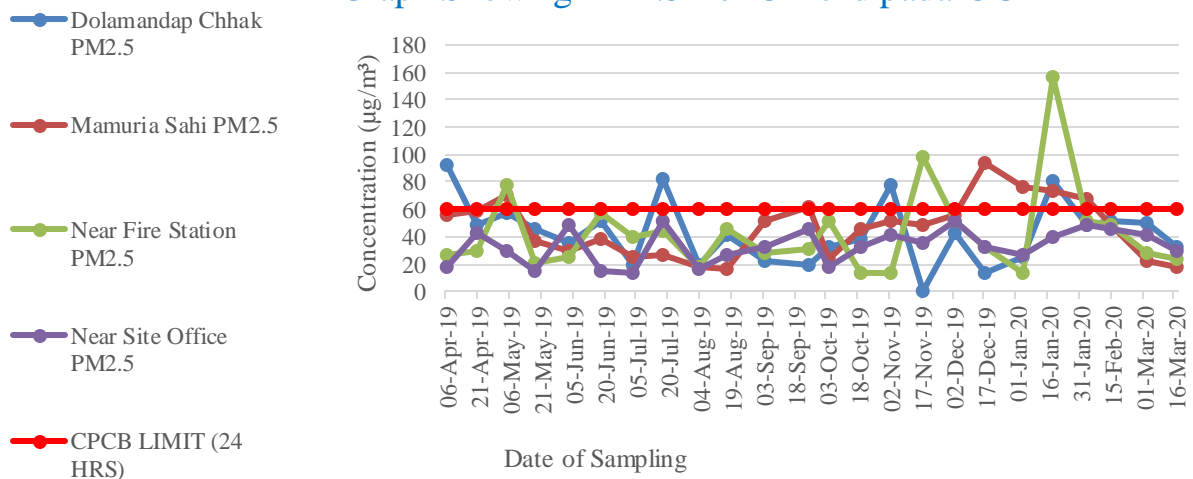
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:33
Area: Bharatpur
Project: Chhendipada OCP
Monitoring Station: Near Site Office

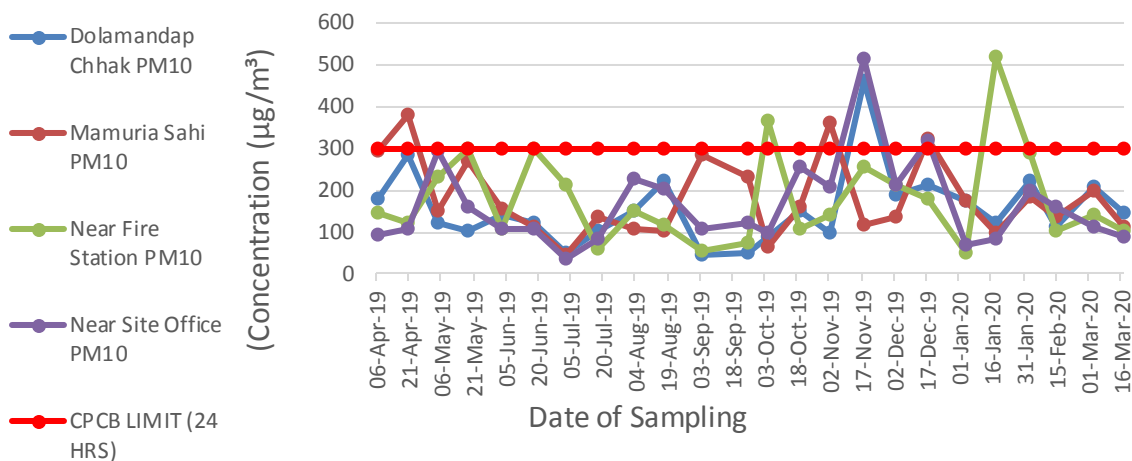
Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
06-Apr-19	18	92	10.62	18.16	244
20-Apr-19	43	105	13.42	24.05	160
04-May-19	29	295	12.73	15.63	374
18-May-19	15	159	13.5	20.99	214
03-Jun-19	49	107	10.85	14.88	133
18-Jun-19	15	106	13.89	25.67	173
03-Jul-19	14	35	15.38	21.75	95
17-Jul-19	52	82	7.79	10.96	110
03-Aug-19	16	229	15.13	17.99	314
17-Aug-19	27	204	14.31	24.03	233
04-Sep-19	32	105	17.65	18.14	139
21-Sep-19	45	123	7.69	15.12	165
04-Oct-19	18	99	14	24.01	262
19-Oct-19	32	253	8.32	17.18	332
02-Nov-19	41	208	7.89	13.27	276
18-Nov-19	35	515	16.05	23.15	563
03-Dec-19	52	213	11.09	15.17	387
17-Dec-19	32	315	14.77	21.64	386
03-Jan-20	26	68	11.38	16.07	139
18-Jan-20	40	82	15.57	20.88	115
03-Feb-20	48	199	12.74	26.44	483
15-Feb-20	45	160	10.18	19.93	233
03-Mar-20	42	111	14.07	27.92	170
17-Mar-20	30	89	13.48	29.52	124
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	52	515	17.65	29.52	563
Minimum	14	35	8	11	95
Average	33.17	164.75	12.60	20.11	242.67
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing PM2.5 for Chhendipada OCP

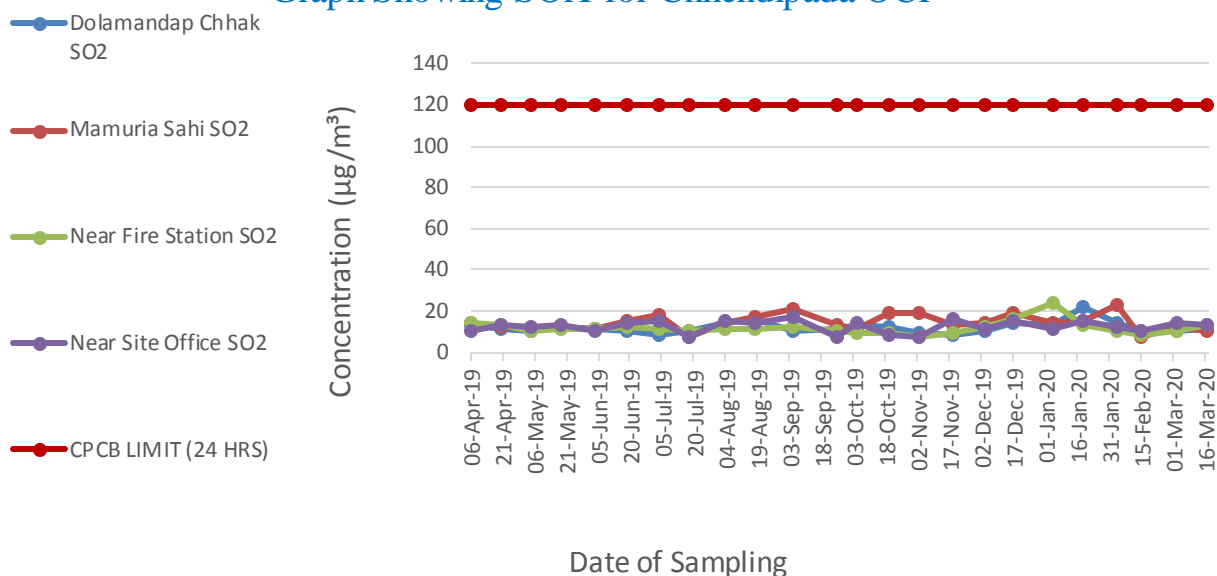


Graph Showing PM10 for Chhendipada OCP

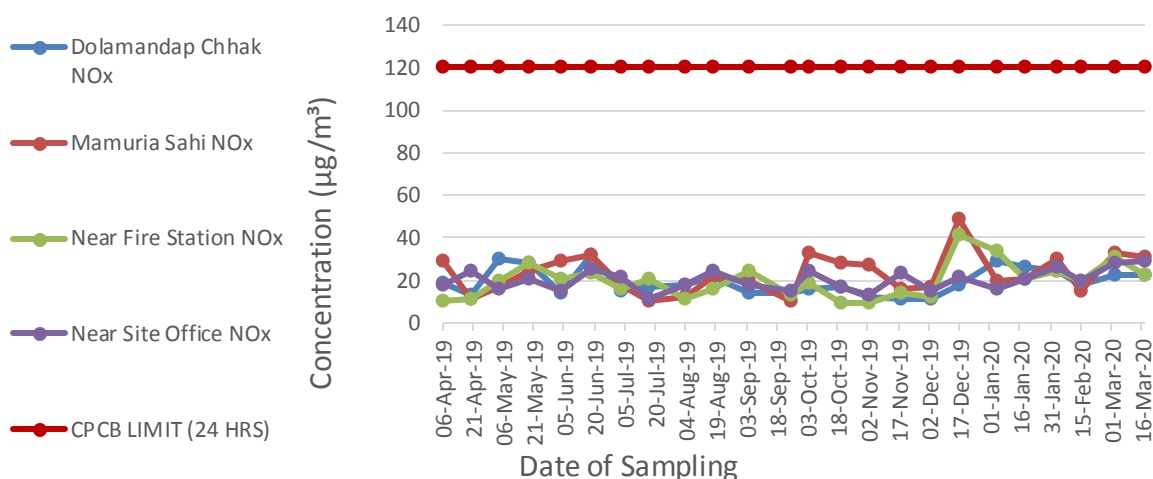


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing SOX for Chhendipada OCP

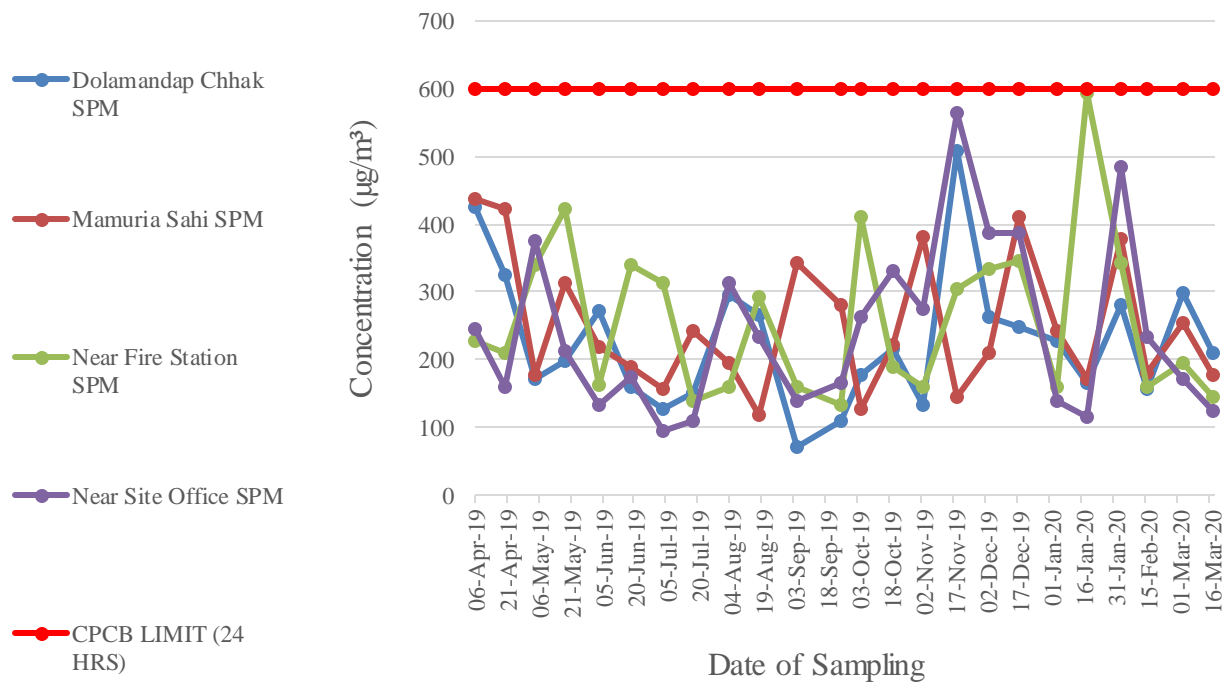


Graph Showing NOX for Chhendipada OCP



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing SPM for Chhendipada OCP



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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:34
Area: Lingaraj
Project: Lingaraj OCP
Monitoring Station: Lingraj GM Office

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
04-Apr-19	59	249	13.06	12.03	497
17-Apr-19	21	195	10.75	12.68	292
02-May-19	19	107	11.26	26.15	138
16-May-19	71	235	11.58	13.81	335
04-Jun-19	10	106	11.91	15.44	210
17-Jun-19	31	102	10.74	17.37	231
01-Jul-19	46	202	12.08	17.49	254
15-Jul-19	36	79	10.97	18.34	111
01-Aug-19	STRIKE				
16-Aug-19	52	254	12.99	14.54	329
02-Sep-19	39	156	14.21	15.15	179
16-Sep-19	38	159	6.71	8.18	247
01-Oct-19	20	68	12.05	25.83	149
18-Oct-19	24	79	16.66	10.84	174
01-Nov-19	20	319	7.6	15.64	437
16-Nov-19	119	417	7.88	9.64	489
02-Dec-19	54	91	9.43	15.86	152
16-Dec-19	102	313	9.6	14.68	388
02-Jan-20	23	347	13.12	18.37	410
17-Jan-20	75	137	14.93	21.29	174
01-Feb-20	33	262	11.65	17.72	302
14-Feb-20	56	122	9.1	18.93	162
02-Mar-20	62	294	12.37	15.24	390
16-Mar-20	41	217	10.44	32.8	298
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	119	417	16.66	32.8	497
Minimum	10	68	7	8	111
Average	45.70	196.09	11.35	16.87	276.00
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:35
Area: Lingaraj
Project: Lingaraj OCP
Monitoring Station: Near C.T. Road (Lingaraj to Dera)

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
04-Apr-19	36	114	13.36	14	226
17-Apr-19	44	119	14.81	13.82	156
02-May-19	17	122	12.26	27	166
16-May-19	30	348	13.2	25.7	546
04-Jun-19	65	112	11.57	16.67	175
17-Jun-19	15	134	10.96	17.73	160
01-Jul-19	28	90	14.18	14.63	167
15-Jul-19	71	127	9.88	15.45	191
01-Aug-19	29	204	19.17	20.77	261
16-Aug-19	20	209	8.76	17.35	249
02-Sep-19	42	151	12.55	14.11	164
16-Sep-19	25	56	9.02	12.09	132
01-Oct-19	30	131	7.44	13.56	163
18-Oct-19	43	86	11.86	13.75	120
01-Nov-19	108	352	7.36	10.2	473
16-Nov-19	37	116	8.42	12.59	183
02-Dec-19	13	106	9.12	10.28	198
16-Dec-19	53	157	15.28	21.24	221
02-Jan-20	11	47	13.16	16.16	80
17-Jan-20	85	119	12.53	16.24	165
01-Feb-20	53	355	16.44	24.17	452
14-Feb-20	101	239	9.62	18.19	374
02-Mar-20	43	276	11.48	13.78	419
16-Mar-20	27	187	10.22	17.64	254
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	108	355	19.17	27	546
Minimum	11	47	7	10	80
Average	42.75	164.88	11.78	16.55	237.29
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:36
Area: Lingaraj
Project: Lingaraj OCP
Monitoring Station: Near North Side of Mine

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
04-Apr-19	POWER CUT				
17-Apr-19	33	136	10.08	13.56	200
02-May-19	11	282	10.08	15.86	319
16-May-19	45	431	12.31	19.59	505
04-Jun-19	35	379	11.23	32.86	635
17-Jun-19	30	132	11.21	23.55	201
01-Jul-19	38	80	12.76	11.29	201
15-Jul-19	81	149	12.37	23.84	217
01-Aug-19	19	40	16.13	11.7	65
16-Aug-19	55	181	11.13	23.49	220
02-Sep-19	25	214	12.13	22.16	236
16-Sep-19	42	136	8.87	15.12	230
01-Oct-19	24	104	5.58	12.78	138
18-Oct-19	39	61	16.14	23.53	184
01-Nov-19	31	290	6.5	10.21	369
16-Nov-19	27	245	10.93	14.71	276
02-Dec-19	37	158	9.33	11.74	236
16-Dec-19	94	231	11.63	17.78	294
02-Jan-20	10	53	13.21	23.56	66
17-Jan-20	19	188	11.34	15.88	230
01-Feb-20	49	346	11.51	16.29	421
14-Feb-20	53	245	10.6	21.66	311
02-Mar-20	83	207	27	36.67	300
16-Mar-20	49	143	12.29	20.5	198
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	94	431	27	36.67	635
Minimum	10	40	6	10	65
Average	40.39	192.65	11.93	19.06	263.13
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

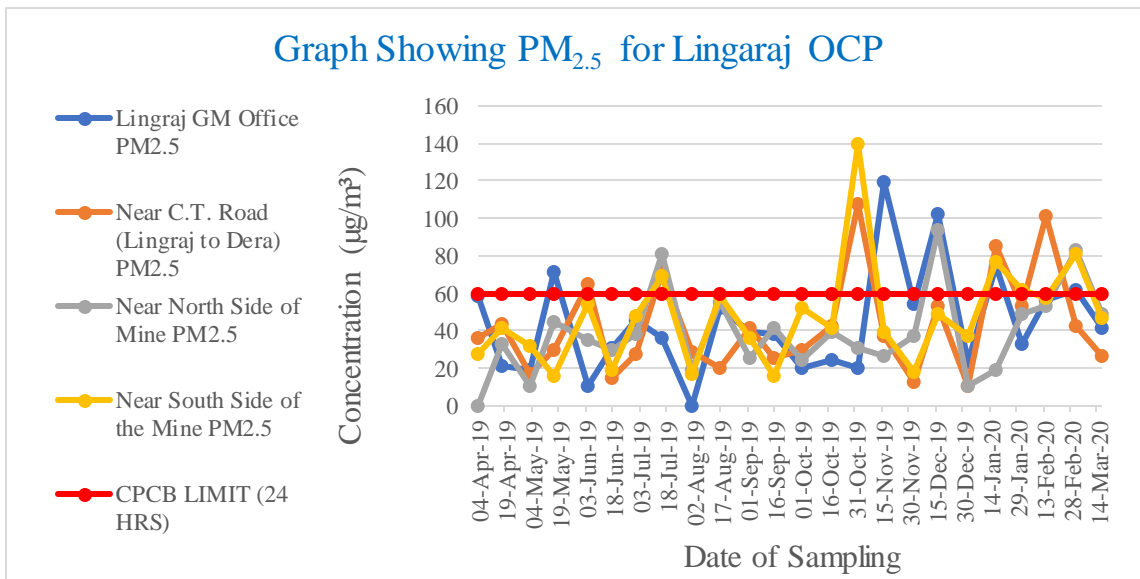
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table: 37
Area: Lingaraj
Project: Lingaraj OCP
Monitoring Station: Near South Side of the Mine

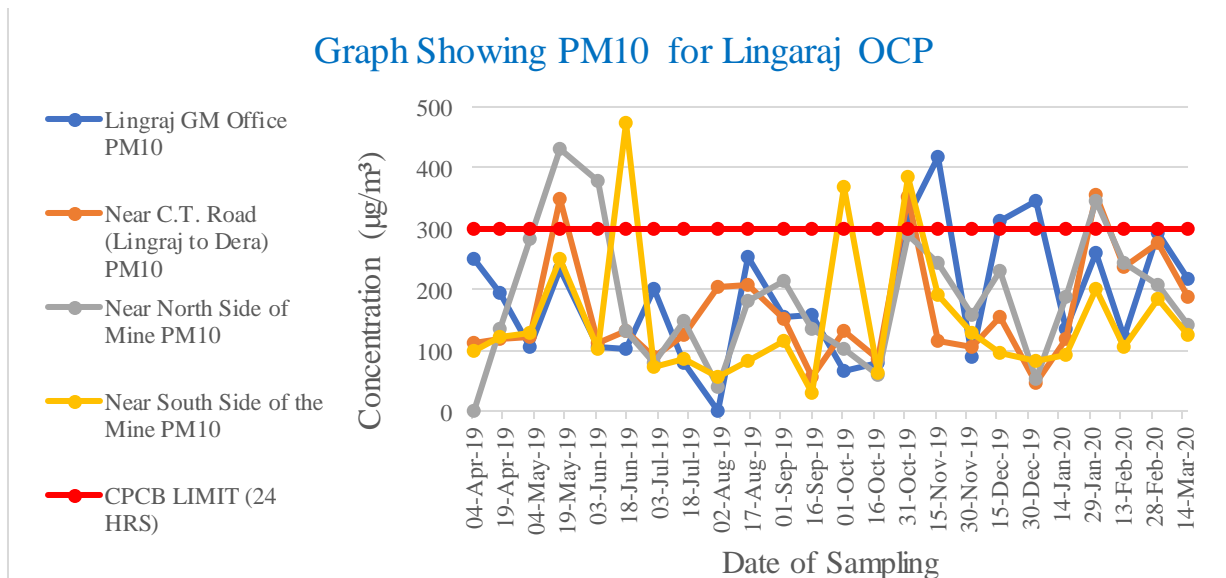
Date of Sampling	PM2.5	PM10	SO ₂	NO _x	SPM
04-Apr-19	28	101	11.43	15.4	263
17-Apr-19	42	122	12.11	12.88	236
02-May-19	32	129	10.08	23.69	161
16-May-19	16	250	10.9	13.97	283
04-Jun-19	54	103	12.55	14.68	148
17-Jun-19	19	474	16.4	34.97	511
01-Jul-19	48	73	12.42	12.55	139
15-Jul-19	69	87	15.35	24.3	135
01-Aug-19	17	56	18.04	26.82	140
16-Aug-19	59	82	14.13	16.57	168
02-Sep-19	36	116	12.66	16.09	164
16-Sep-19	16	31	9.65	21.16	59
01-Oct-19	52	368	8.27	15.06	397
18-Oct-19	42	65	15.41	16.85	140
01-Nov-19	140	385	9.53	10.94	402
16-Nov-19	39	192	8.61	12.67	306
02-Dec-19	18	130	10.28	9.82	209
16-Dec-19	49	97	15.92	14.27	199
02-Jan-20	37	82	19.87	21.24	126
17-Jan-20	77	94	25.81	20.47	138
01-Feb-20	62	202	7.86	11.33	337
14-Feb-20	58	108	11.73	13.58	187
02-Mar-20	81	184	9.81	11.63	253
16-Mar-20	47	127	12.3	21.03	185
Brief Statistics	PM2.5	PM10	SO₂	NO_x	SPM
Maximum	140	474	25.81	34.97	511
Minimum	16	31	8	10	59
Average	47.42	152.42	12.96	17.17	220.25
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing PM_{2.5} for Lingraj OCP

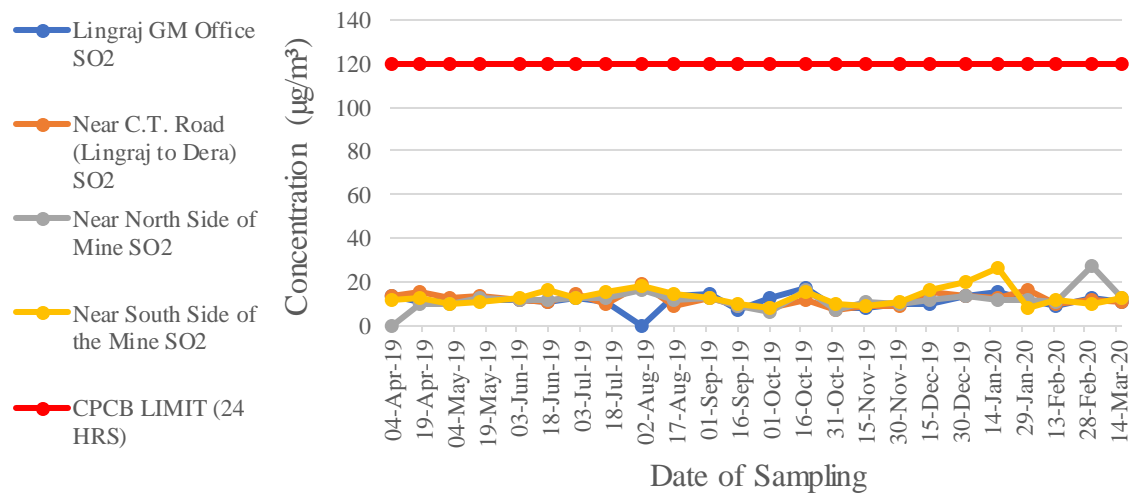


Graph Showing PM₁₀ for Lingraj OCP

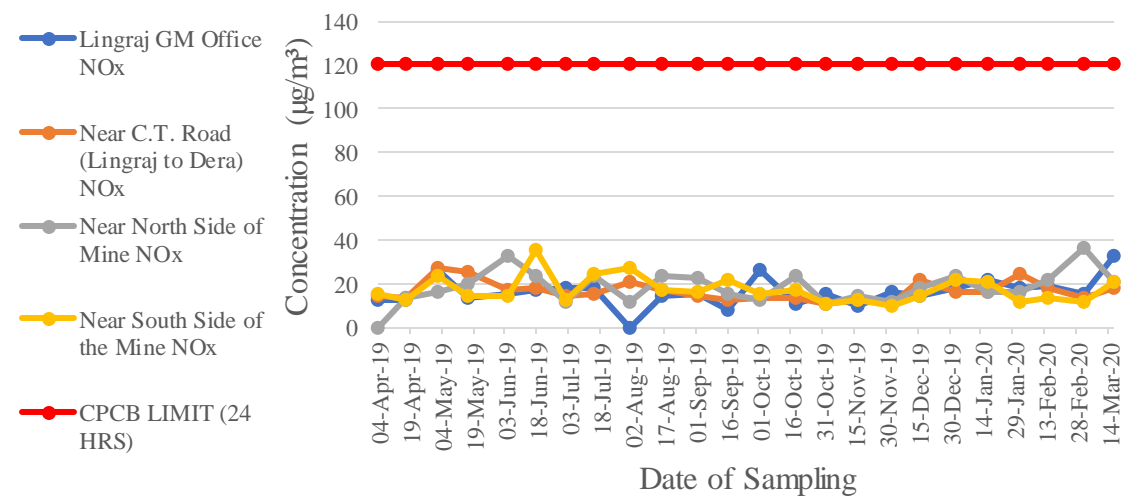


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

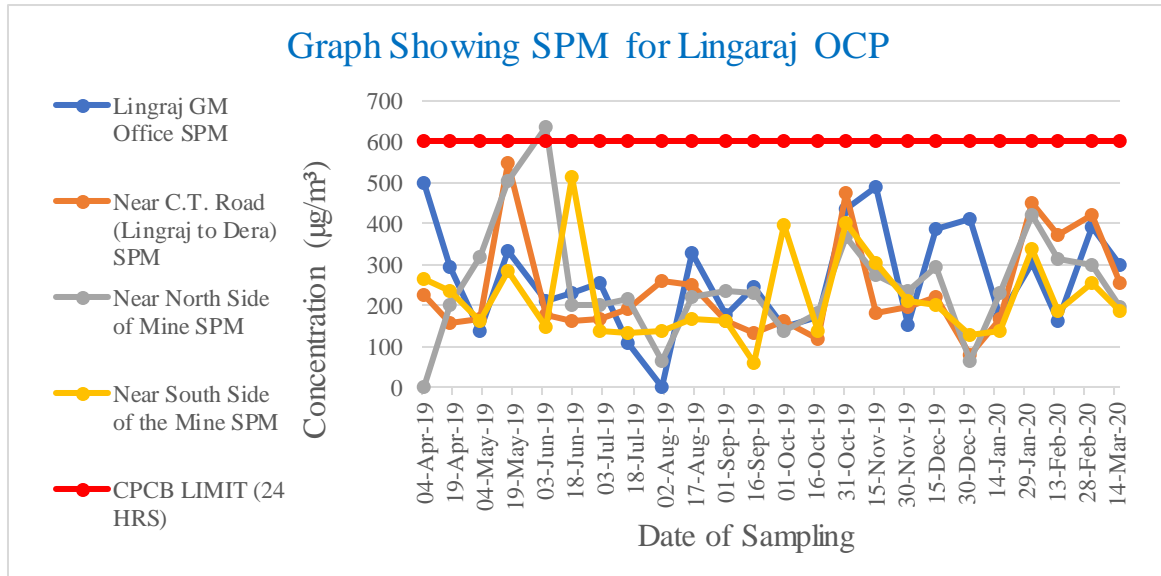
Graph Showing SOX for Lingaraj OCP



Graph Showing NOX for Lingaraj OCP



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table: 38
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: Near External OB Dump Jamania

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
13-Apr-19	22	186	14.75	10.7	543
26-Apr-19	66	207	13.42	26.24	234
11-May-19	44	281	16.84	29.67	438
25-May-19	31	96	13.1	19.9	218
12-Jun-19	20	261	12.13	32.27	294
26-Jun-19	32	230	19.38	21.55	308
11-Jul-19	40	344	11.85	14.97	386
24-Jul-19	64	97	11.86	11.83	132
10-Aug-19	35	238	11.11	13.51	265
24-Aug-19	49	104	11.6	21.78	152
11-Sep-19	24	43	9.99	17.23	73
27-Sep-19	24	40	7.72	13.09	78
12-Oct-19	22	55	9.7	13.26	147
26-Oct-19	23	290	13.9	16.88	409
09-Nov-19	10	95	13.72	20.53	247
23-Nov-19	47	53	10.98	16.81	80
07-Dec-19	13	112	14.85	18.78	170
21-Dec-19	30	354	10.08	12.33	427
09-Jan-20	STRIKE				
23-Jan-20	25	287	23.28	25.06	328
08-Feb-20	50	199	5.62	8.42	211
22-Feb-20	44	173	12.4	19.48	215
07-Mar-20	40	134	14.2	20.36	279
21-Mar-20	26	98	10.23	26.6	157
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	66	354	23.28	32.27	543
Minimum	10	40	6	8	73
Average	33.96	172.91	12.73	18.75	251.78
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:39
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: Near Jatra Padia, Jarda

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
13-Apr-19	19	177	13.76	10.34	391
26-Apr-19	41	229	11.27	23.66	255
11-May-19	104	262	11.93	21.03	285
25-May-19	36	138	10.77	16.61	200
12-Jun-19	17	240	12.17	23.67	279
26-Jun-19	14	148	13.36	25.3	235
11-Jul-19	56	121	11.19	19.79	209
24-Jul-19	20	109	14.8	22.1	141
10-Aug-19	36	72	14.44	17.92	149
24-Aug-19	35	94	21.66	25.91	114
11-Sep-19	32	75	17.32	21.1	102
26-Sep-19	34	90	11.07	13.15	185
12-Oct-19	26	68	10.71	15.18	166
28-Oct-19	42	179	12.51	12.35	243
08-Nov-19	26	133	10.44	17.56	262
23-Nov-19	104	294	8.98	19.31	330
07-Dec-19	78	202	9.86	15.07	289
21-Dec-19	21	213	6.41	9.8	266
09-Jan-20	STRIKE				
23-Jan-20	126	427	15.52	38.62	458
08-Feb-20	46	249	15.4	20.49	316
22-Feb-20	75	185	8.98	32.61	252
07-Mar-20	21	103	7.11	14.49	177
21-Mar-20	17	78	10.45	30.11	107
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	126	427	21.66	38.62	458
Minimum	14	68	6	10	102
Average	44.61	168.96	12.18	20.27	235.26
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:40
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: New Time Office-Near Z-Patch

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
24-May-19	59	299	11.5	13.11	346
12-Apr-19	46	213	9.76	20.88	352
25-Apr-19	79	116	12.42	12.14	155
10-May-19	109	374	11.04	27.47	425
11-Jun-19	17	178	11.09	16.23	214
25-Jun-19	16	117	11.21	19.38	242
10-Jul-19	37	272	8.79	15.54	498
25-Jul-19	18	90	8.24	12.68	109
09-Aug-19	123	140	12.56	9.51	201
26-Aug-19	49	79	7.7	14.51	122
10-Sep-19	33	91	12.63	11.04	118
25-Sep-19	23	48	9.89	12.04	134
14-Oct-19	20	48	14.49	26.4	53
28-Oct-19	56	293	9.2	9.22	398
07-Nov-19	23	232	12.96	21.81	547
25-Nov-19	65	316	11.53	14.93	338
09-Dec-19	29	107	13.46	19.11	153
23-Dec-19	119	361	13.92	13.95	469
09-Jan-20	67	289	23.79	25.76	345
24-Jan-20	58	153	19.42	17.22	183
10-Feb-20	55	269	8.27	14.3	327
21-Feb-20	23	69	11.95	15.45	132
11-Mar-20	27	89	9.43	15.71	156
21-Mar-20	22	81	11.98	15.26	116
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	123	374	23.79	27.47	547
Minimum	16	48	8	9	53
Average	48.88	180.17	11.97	16.40	255.54
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table: 41
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: North East Side of Project Office

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
12-Apr-19	18	417	8.88	11.62	549
25-Apr-19	97	130	13.89	17.08	188
10-May-19	22	152	10.03	27.03	196
24-May-19	84	329	12.84	18.85	393
11-Jun-19	109	412	10.58	36.6	459
26-Jun-19	17	212	14.85	28.99	239
10-Jul-19	45	266	8.18	11.91	420
25-Jul-19	26	72	12.23	24.11	105
09-Aug-19	21	122	13.98	20.79	145
26-Aug-19	48	106	10.63	16.62	164
10-Sep-19	19	69	13.01	17.28	117
26-Sep-19	39	119	18.13	15.38	207
14-Oct-19	38	154	8.33	17.2	270
28-Oct-19	52	99	12.15	12.07	175
08-Nov-19	15	144	8.97	13.42	294
25-Nov-19	37	384	8.62	12.57	561
09-Dec-19	19	260	9.6	11.74	331
23-Dec-19	51	217	8.42	13.4	268
09-Jan-20	88	150	13.09	24.43	177
23-Jan-20	65	77	13.87	20.22	113
10-Feb-20	45	105	11.13	21	147
22-Feb-20	58	96	9.06	19.26	146
11-Mar-20	23	88	11.77	20.55	164
21-Mar-20	19	74	8.69	20.03	112
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	109	417	18.13	36.6	561
Minimum	15	69	8	12	105
Average	43.96	177.25	11.29	18.84	247.50
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:42
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: Old Site Office

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
12-Apr-19	13	103	12.79	18.6	270
25-Apr-19	43	105	14.89	17.57	186
10-May-19	49	129	10.14	16.55	169
24-May-19	98	185	12.76	20.3	237
11-Jun-19	34	223	12.45	17.36	287
25-Jun-19	40	104	15.64	31.33	210
10-Jul-19	31	44	13.99	11.92	173
25-Jul-19	45	65	7.73	17.48	122
09-Aug-19	38	113	12.32	23.21	223
26-Aug-19	52	132	10.27	11.75	168
10-Sep-19	24	72	15.37	24.84	169
27-Sep-19	30	64	12.95	15.15	95
14-Oct-19	59	132	11.19	11.52	218
28-Oct-19	12	148	6.79	8.56	228
07-Nov-19	68	145	10.75	14.94	466
25-Nov-19	11	133	9.16	13.6	154
09-Dec-19	16	169	11.39	13.24	237
23-Dec-19	110	349	12.28	17.88	433
09-Jan-20	80	151	17.4	21.92	206
24-Jan-20	39	220	12.54	17.21	248
10-Feb-20	32	237	8.91	11.56	287
21-Feb-20	50	233	7.8	15.61	309
11-Mar-20	28	139	11.53	18.46	231
21-Mar-20	24	97	11.52	20.2	158
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	110	349	17.4	31.33	466
Minimum	11	44	7	9	95
Average	42.75	145.50	11.77	17.12	228.50
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:43
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: Project Office

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
12-Apr-19	37	228	13.28	14.34	260
25-Apr-19	59	143	11.56	10.72	188
10-May-19	21	292	13.73	17.19	373
24-May-19	31	155	12.52	15.5	221
11-Jun-19	30	210	11.26	18.78	275
25-Jun-19	23	109	11.75	24.74	299
10-Jul-19	30	136	18.28	11.91	315
25-Jul-19	49	68	14.77	24.99	96
09-Aug-19	23	150	11.61	9.01	216
26-Aug-19	45	164	19.12	22.42	184
10-Sep-19	20	44	8.69	12.35	111
25-Sep-19	38	93	11.82	16.2	211
14-Oct-19	34	59	10.72	13.02	113
26-Oct-19	54	107	8.31	14.26	177
08-Nov-19	65	161	9.71	14.85	355
25-Nov-19	105	145	10.34	12.57	181
09-Dec-19	18	245	11.52	14.68	354
23-Dec-19	13	74	11.2	11.19	111
09-Jan-20	54	121	19.79	19.17	143
24-Jan-20	31	223	14.45	13.02	251
10-Feb-20	74	125	9.13	14.53	157
21-Feb-20	74	126	9.52	12.53	167
11-Mar-20	39	115	9.73	16.14	186
21-Mar-20	30	89	13.61	21.98	129
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	105	292	19.79	24.99	373
Minimum	13	44	8	9	96
Average	41.54	140.92	12.35	15.67	211.38
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:44
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: South of Proposed Quarry Limit of KOCP

Date of Sampling	PM2 5	PM10	SO2	NOx	SPM
13-Apr-19	15	120	16.63	13.13	177
26-Apr-19	67	386	10.86	26.24	432
11-May-19	53	172	11.77	20.74	263
25-May-19	48	102	11.11	18.27	143
12-Jun-19	86	153	10.13	30.65	184
26-Jun-19	46	106	12.58	26.49	185
11-Jul-19	59	241	8.84	21.88	333
24-Jul-19	32	65	16.35	24.41	99
10-Aug-19	25	51	14.05	17.35	135
24-Aug-19	18	74	8.39	13.62	119
11-Sep-19	16	29	12.9	23.58	55
26-Sep-19	32	94	13.01	23.76	262
12-Oct-19	30	79	11.1	20.23	141
26-Oct-19	11	77	9.15	6.67	113
09-Nov-19	62	86	11.08	17.67	509
23-Nov-19	32	77	7.48	10.79	113
07-Dec-19	11	50	15.59	20.43	145
21-Dec-19	57	99	9.13	12.49	143
09-Jan-20	STRIKE				
23-Jan-20	97	111	11.76	15.54	151
08-Feb-20	48	76	7.15	10.72	120
22-Feb-20	38	397	8.46	16.31	494
07-Mar-20	77	146	12.13	18.29	205
21-Mar-20	38	104	12.27	15.27	147
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	97	397	16.63	30.65	509
Minimum	11	29	7	7	55
Average	43.39	125.87	11.39	18.46	202.96
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

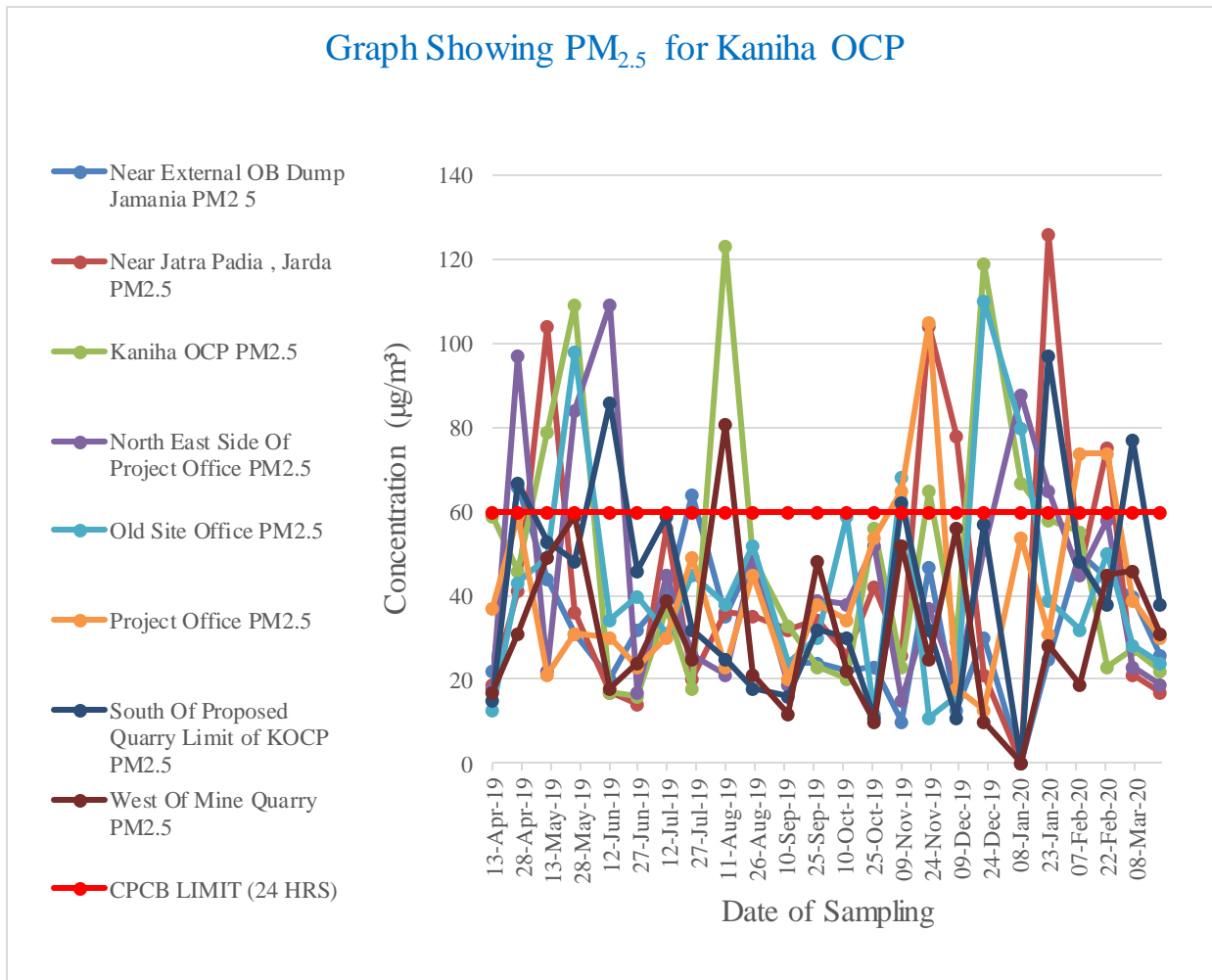
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:45
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: West of Mine Quarry

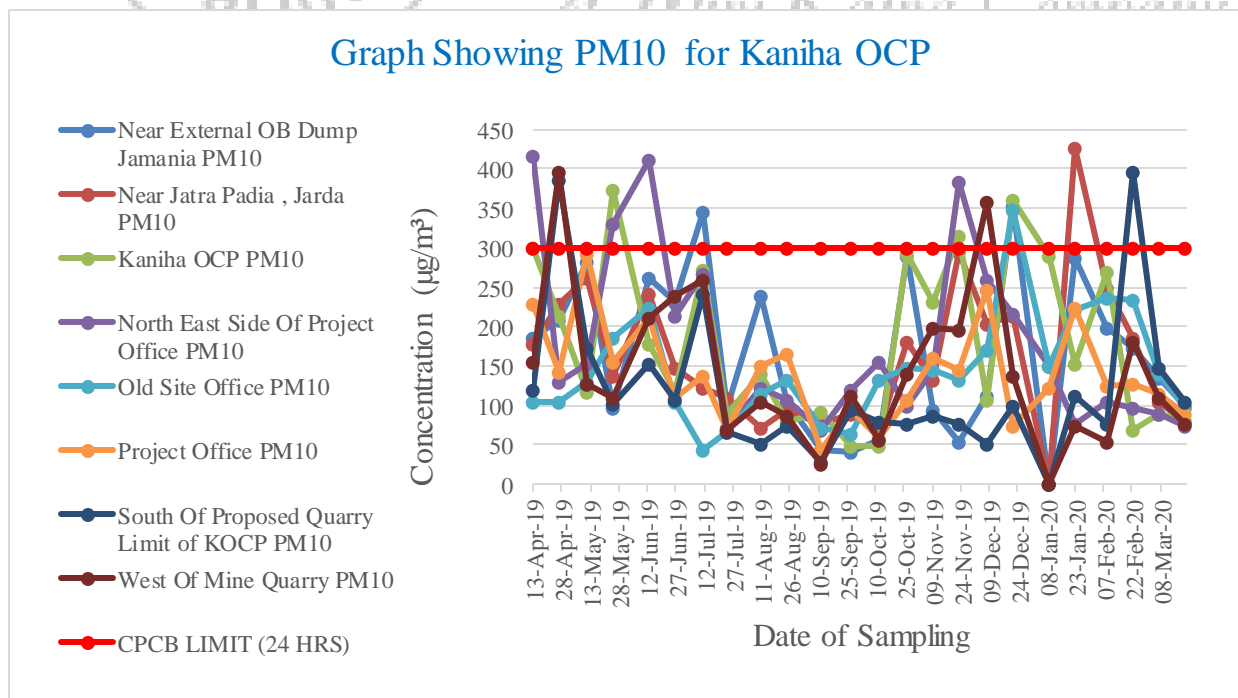
Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
13-Apr-19	17	154	12.32	15.81	461
26-Apr-19	31	395	12.85	19.78	409
11-May-19	49	128	10.31	21.95	154
25-May-19	59	109	13.02	16.12	166
12-Jun-19	18	211	11.11	12.36	232
26-Jun-19	24	238	15.84	29.28	284
11-Jul-19	39	259	8.15	11.02	303
24-Jul-19	25	69	7.29	18.1	126
10-Aug-19	81	104	23.3	10.39	166
24-Aug-19	21	87	17.1	21.06	146
11-Sep-19	12	26	10.97	15.33	40
26-Sep-19	48	111	10.63	14.03	188
12-Oct-19	22	55	8.27	16.01	155
26-Oct-19	10	140	11.16	10.16	326
09-Nov-19	52	198	11.55	19.44	220
23-Nov-19	25	196	8.48	13.44	212
07-Dec-19	56	359	8.68	11.74	449
21-Dec-19	10	137	12.49	15.42	173
09-Jan-20	STRIKE				
24-Jan-20	28	73	16.22	18.06	107
08-Feb-20	19	53	12.42	14.04	82
21-Feb-20	45	181	10.07	16.36	209
07-Mar-20	46	109	10.11	14.44	149
21-Mar-20	31	76	12.87	11.65	103
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	81	395	23.3	29.28	461
Minimum	10	26	7	10	40
Average	33.39	150.78	11.97	15.91	211.30
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing PM_{2.5} for Kaniha OCP

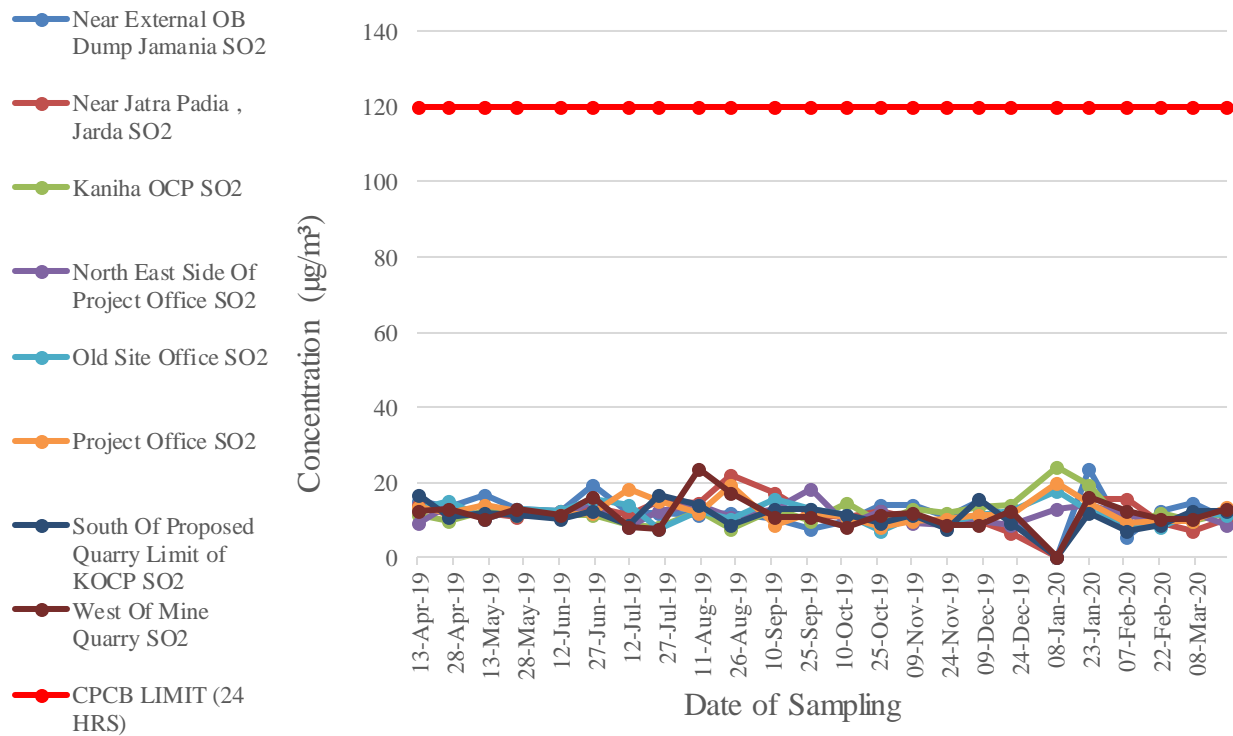


Graph Showing PM₁₀ for Kaniha OCP



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

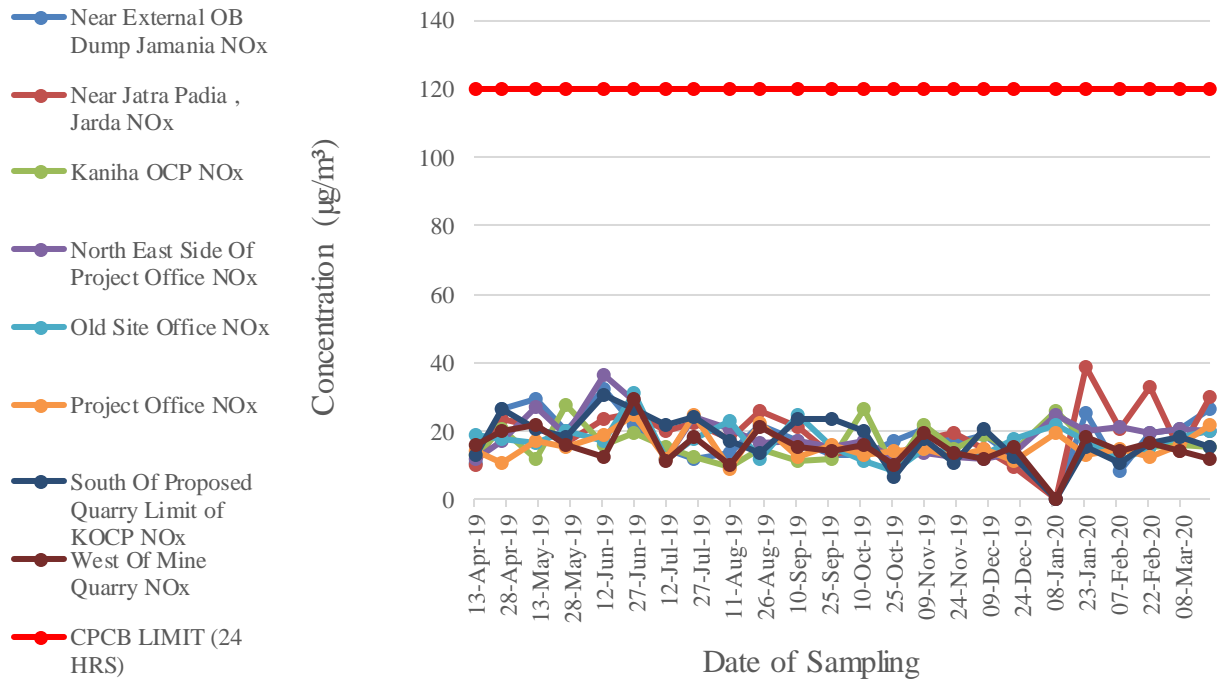
Graph Showing SOX for Kaniha OCP



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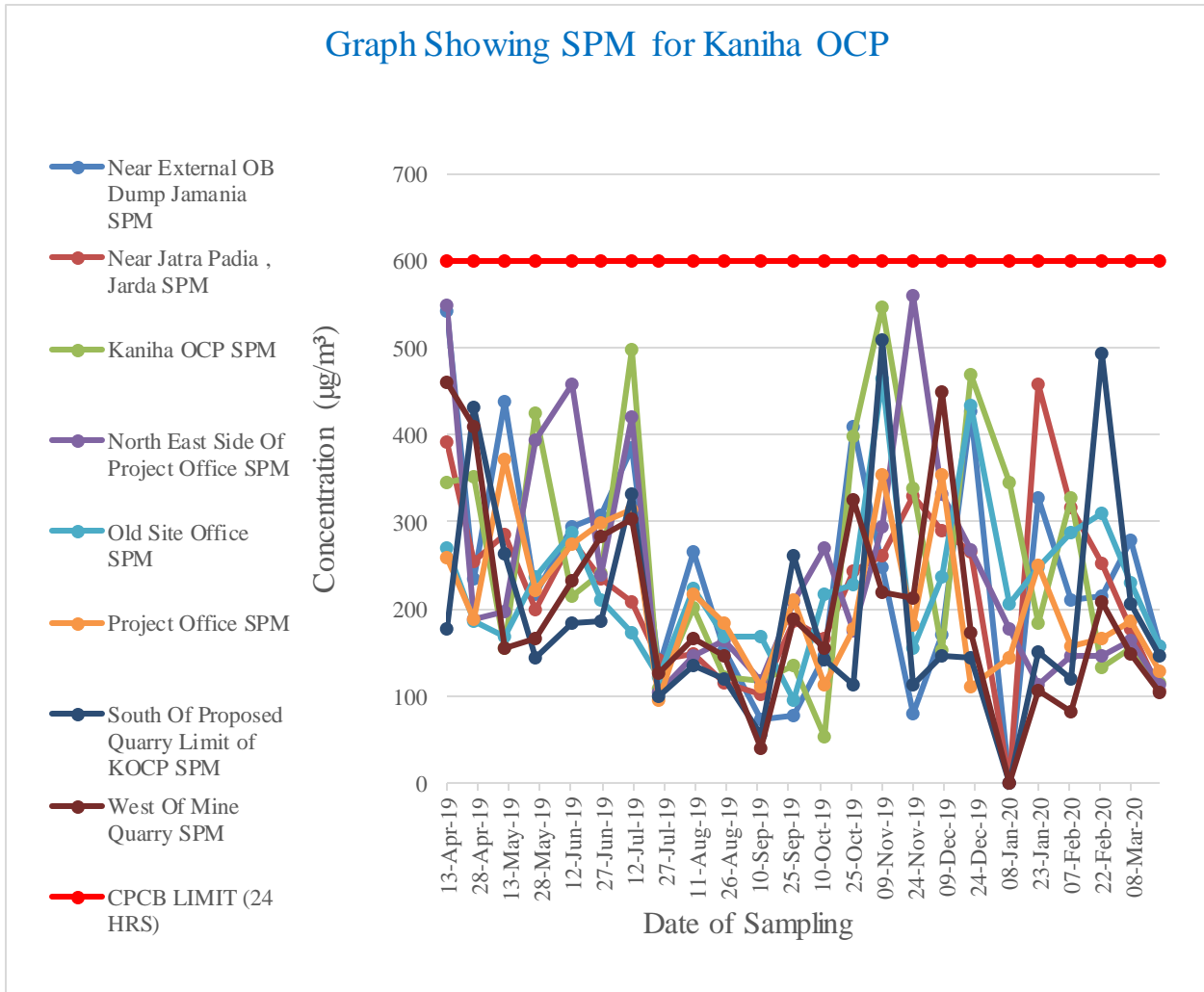
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing NOx for Kaniha OCP



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing SPM for Kaniha OCP



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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:46
 Area: Hingula
 Project: Hingula OCP
 Monitoring Station: Hingula Temle Premises

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
08-Apr-19	52	368	17.16	23.48	634
19-Apr-19	32	112	10.76	19.29	149
06-May-19	120	350	10.23	22.54	454
20-May-19	21	289	10.72	20.7	357
06-Jun-19	11	104	11.42	19.75	164
20-Jun-19	38	109	12.56	23.89	155
04-Jul-19	20	52	9.76	12.08	176
18-Jul-19	94	211	13.59	21.93	282
05-Aug-19	31	75	9.83	11.08	90
20-Aug-19	24	63	12.07	16.41	107
05-Sep-19	15	28	10.25	23.41	53
19-Sep-19	32	88	5.41	9.12	116
09-Oct-19	42	147	7.74	22.16	187
22-Oct-19	13	135	11.61	15.28	245
04-Nov-19	45	285	6.98	11.74	327
19-Nov-19	166	274	11.96	11.74	301
04-Dec-19	17	296	8.64	11.56	362
18-Dec-19	58	134	15.44	17.16	182
03-Jan-20	38	59	9.55	16.71	134
20-Jan-20	130	249	18.58	19.26	304
04-Feb-20	40	264	14.88	18.02	414
17-Feb-20	32	104	7.39	11.18	128
04-Mar-20	63	174	7.85	15.98	224
18-Mar-20	34	114	11.31	11.44	154
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	166	368	18.58	23.89	634
Minimum	11	28	5	9	53
Average	48.67	170.17	11.07	16.91	237.46
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:47
Area: Hingula
Project: Hingula OCP
Monitoring Station: Near Project Office Hingula OCP

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
08-Apr-19	16	286	11.01	16.85	492
19-Apr-19	47	151	12.15	31.73	235
06-May-19	77	456	10.72	22.05	577
20-May-19	79	270	12.2	12.2	351
06-Jun-19	50	105	13.96	26.16	157
20-Jun-19	24	119	19.1	28.72	187
04-Jul-19	23	49	8.86	8.36	273
18-Jul-19	85	189	7.84	22.67	270
05-Aug-19	STRIKE				
20-Aug-19	57	212	8.83	13.46	316
05-Sep-19	12	21	10.46	14.08	97
19-Sep-19	62	267	13.71	22.11	389
09-Oct-19	36	98	8.32	16.17	170
22-Oct-19	26	71	8.92	9.76	108
04-Nov-19	11	166	13.14	27.64	397
19-Nov-19	115	POWER CUT			
04-Dec-19	68	279	8.56	14.87	356
18-Dec-19	16	290	16.48	15.96	348
03-Jan-20	15	50	13.13	20.89	75
20-Jan-20	34	283	20.2	17.22	363
04-Feb-20	36	297	16.56	27.4	368
17-Feb-20	32	91	10.04	12.49	119
04-Mar-20	53	237	12.99	28.87	305
18-Mar-20	28	148	12.63	15.03	204
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	115	456	20.2	31.73	577
Minimum	11	21	8	8	75
Average	43.57	187.95	12.26	19.30	279.86
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:48
Area: Hingula
Project: Hingula OCP
Monitoring Station: South-West Side of Mine

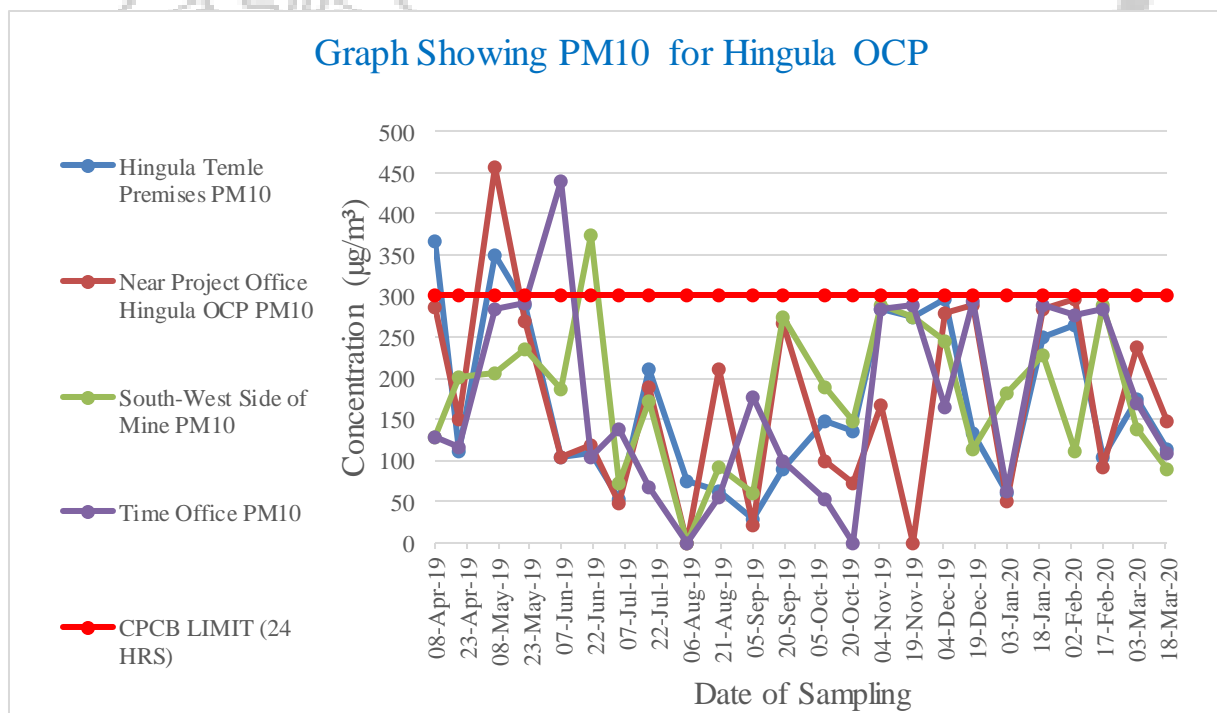
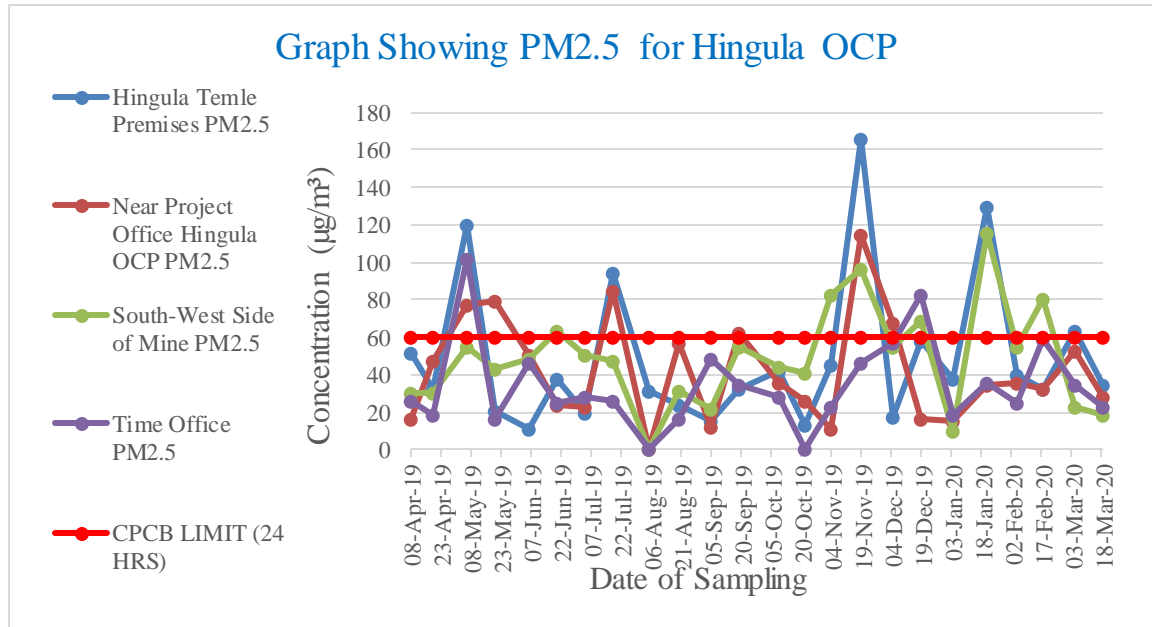
Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
08-Apr-19	30	127	12.54	13.65	556
19-Apr-19	30	202	11.8	27.25	254
06-May-19	55	207	10.79	28.52	537
20-May-19	43	235	12.75	11.89	357
06-Jun-19	48	187	11.4	31.31	390
20-Jun-19	63	374	13.43	17.41	408
04-Jul-19	51	71	12.05	11.62	262
18-Jul-19	47	171	8.14	15.13	298
05-Aug-19	STRIKE				
20-Aug-19	31	92	9.62	13.54	126
05-Sep-19	22	61	11.32	17.86	138
19-Sep-19	55	274	11.03	17.12	376
09-Oct-19	44	188	10.35	19.79	266
22-Oct-19	41	147	10.41	11.38	279
05-Nov-19	83	290	9.64	18.26	407
19-Nov-19	96	275	10.31	18.94	301
04-Dec-19	55	246	10.17	15.55	352
18-Dec-19	69	114	10.87	18.01	189
04-Jan-20	10	181	10.56	15.05	208
20-Jan-20	116	228	16.57	25.12	276
04-Feb-20	55	111	10.77	13.62	155
17-Feb-20	80	290	7.42	16.42	369
04-Mar-20	23	139	7.55	11.86	230
18-Mar-20	19	89	12.12	20.74	142
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	116	374	16.57	31.31	556
Minimum	10	61	7	11	126
Average	50.70	186.91	10.94	17.83	298.96
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:49
 Area: Hingula
 Project: Hingula OCP
 Monitoring Station: Time Office

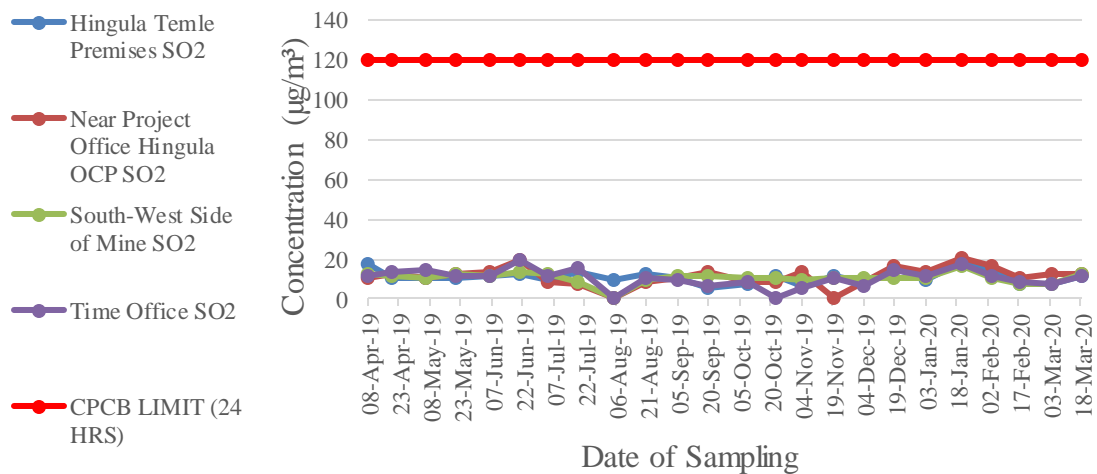
Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
08-Apr-19	26	127	11.9	13.79	412
19-Apr-19	18	117	13.19	16.92	254
06-May-19	102	285	14.56	25.66	413
20-May-19	16	291	11.18	18.85	345
06-Jun-19	46	441	11.75	21.2	462
20-Jun-19	25	104	19.73	27.52	161
04-Jul-19	28	139	11.82	10	354
18-Jul-19	26	67	15.56	18.82	244
05-Aug-19	STRIKE				
20-Aug-19	16	56	10.23	23.4	89
05-Sep-19	48	177	9.46	10.8	306
19-Sep-19	34	98	6.69	11.28	135
09-Oct-19	28	53	8.33	23.85	166
22-Oct-19	STRIKE				
04-Nov-19	23	285	5.7	8.91	380
19-Nov-19	46	288	10.76	17.2	571
04-Dec-19	57	164	6	7.45	198
18-Dec-19	83	293	14.95	13.54	352
04-Jan-20	19	62	11.08	17.76	114
20-Jan-20	36	288	17.84	14.47	372
04-Feb-20	25	277	11.44	26.98	357
17-Feb-20	59	285	8.66	10.25	365
04-Mar-20	35	170	7.89	14.47	224
18-Mar-20	23	109	11.42	14.15	152
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	102	441	19.73	27.52	571
Minimum	16	53	6	7	89
Average	37.23	189.82	11.37	16.69	292.09
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

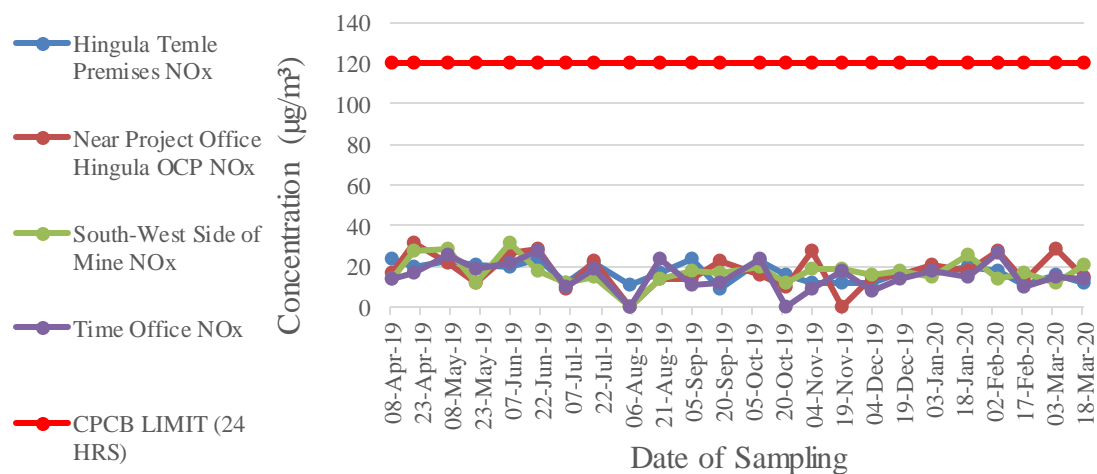


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

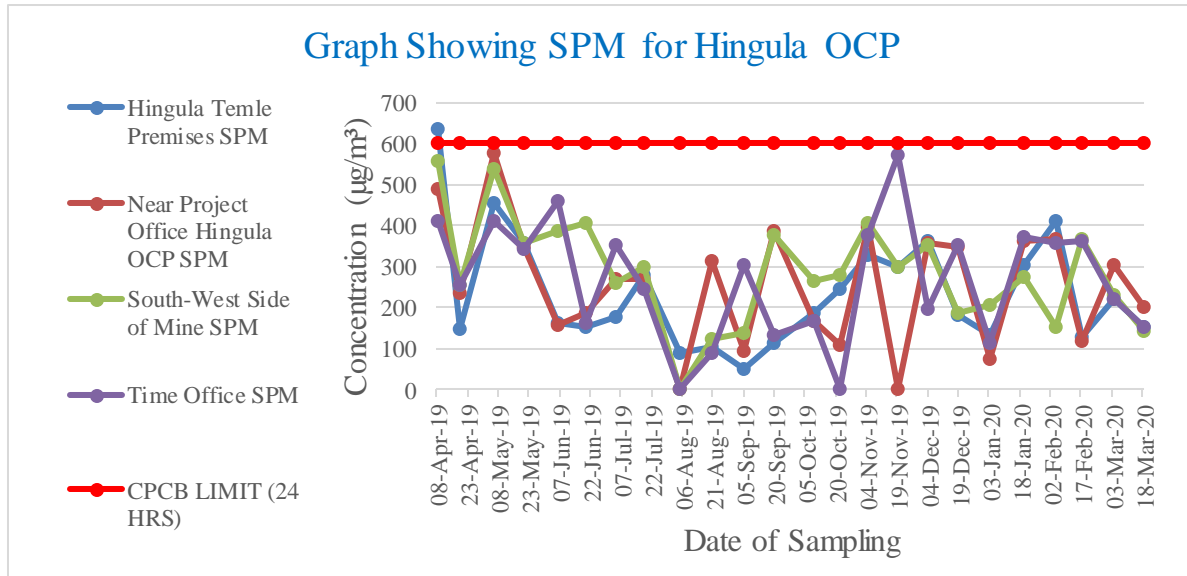
Graph Showing SOX for Hingula OCP



Graph Showing NOX for Hingula OCP



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:50
Area: Hingula
Project: Balram OCP
Monitoring Station: On Backfilled Area near Dozer Shed

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
09-Apr-19	36	229	12.17	14.27	570
22-Apr-19	72	237	12.44	16.72	255
07-May-19	46	214	11.51	25.11	307
21-May-19	45	291	12.03	24.89	468
07-Jun-19	MACHINE BREAKDOWN				
21-Jun-19	14	104	10.09	16.11	199
05-Jul-19	30	45	10.85	13.71	248
19-Jul-19	38	221	10.61	17.12	255
06-Aug-19					
21-Aug-19	21	184	13.49	20.35	327
06-Sep-19	28	100	9.77	16.92	186
20-Sep-19	64	373	15.37	28.09	477
10-Oct-19	43	180	11.64	15.03	261
23-Oct-19	55	321	16.66	15.18	420
05-Nov-19	109	378	8.31	11.07	486
20-Nov-19	71	155	8.82	15.59	190
05-Dec-19	57	370	10.29	11.49	555
19-Dec-19	52	80	10.57	19.1	143
06-Jan-20	50	245	21.25	24.78	291
21-Jan-20	135	240	15.99	26.94	280
05-Feb-20	64	241	15.7	32.59	321
19-Feb-20	36	97	9.47	23.28	144
05-Mar-20	58	128	9.62	15.96	180
19-Mar-20	30	84	13.42	24.05	120
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	135	378	21.25	32.59	570
Minimum	14	45	8	11	120
Average	52.45	205.32	12.28	19.47	303.77
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:51
 Area: Hingula
 Project: Balram OCP
 Monitoring Station: Project Office, Balaram OCP

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
09-Apr-19	14	254	13.14	12.15	446
22-Apr-19	59	346	13.96	25.43	372
07-May-19	168	408	11.17	29	547
21-May-19	19	207	12.39	14.75	341
07-Jun-19	POWER CUT				
21-Jun-19	47	113	11.42	16.09	150
05-Jul-19	19	39	8.17	11.04	167
19-Jul-19	46	72	8.82	13.44	135
06-Aug-19	STRIKE				
21-Aug-19	22	34	10.01	15.54	60
06-Sep-19	24	60	11.28	16.26	109
20-Sep-19	59	369	11.01	24.14	432
10-Oct-19	32	113	7.28	15.04	184
23-Oct-19	40	281	11.89	11.92	374
05-Nov-19	104	461	8.49	12.6	699
20-Nov-19	25	404	6.84	19.17	464
05-Dec-19	15	103	10.4	12.55	145
19-Dec-19	34	356	17.49	22.73	614
06-Jan-20	102	182	14.79	13.62	224
21-Jan-20	77	271	12.45	15.43	327
05-Feb-20	45	133	7.35	9.88	168
19-Feb-20	63	446	7.55	13.66	547
05-Mar-20	76	159	12.21	17.37	203
19-Mar-20	36	106	12.98	11.1	151
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	168	461	17.49	29	699
Minimum	14	34	7	10	60
Average	51.18	223.50	10.96	16.04	311.77
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:52

Area: Hingula

Project: Balram OCP

Monitoring Station: Pump House near Outsourcing Working Pach & Coal TR

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
09-Apr-19	19	108	10.27	11.62	209
22-Apr-19	38	159	13.48	25.93	189
07-May-19	48	272	14.66	16.76	354
21-May-19	81	205	10.22	13.36	242
07-Jun-19	45	176	11.86	12.67	283
21-Jun-19	13	128	10.65	30.06	162
05-Jul-19	15	29	9.88	11.65	140
19-Jul-19	40	65	14.22	24.09	108
06-Aug-19	11	17	16.83	18.64	35
21-Aug-19	44	190	24.9	32.86	219
06-Sep-19	18	70	10.07	17.31	136
20-Sep-19	66	220	15.31	15.17	312
10-Oct-19	40	151	10.53	17.16	188
23-Oct-19	47	116	7.64	19.89	254
05-Nov-19	26	230	8.77	12.43	429
20-Nov-19	15	272	6.98	14.1	314
05-Dec-19	33	135	10.08	11.74	338
17-Dec-19	72	360	8.65	8.41	464
06-Jan-20	32	197	16.33	29.02	230
21-Jan-20	49	402	11.83	31.43	459
05-Feb-20	15	155	10.96	16.24	191
19-Feb-20	86	413	8.08	10.69	491
05-Mar-20	26	84	8.62	12.54	141
19-Mar-20	17	68	11.3	13.18	102
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	86	413	24.9	32.86	491
Minimum	11	17	7	8	35
Average	37.33	175.92	11.76	17.79	249.58
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

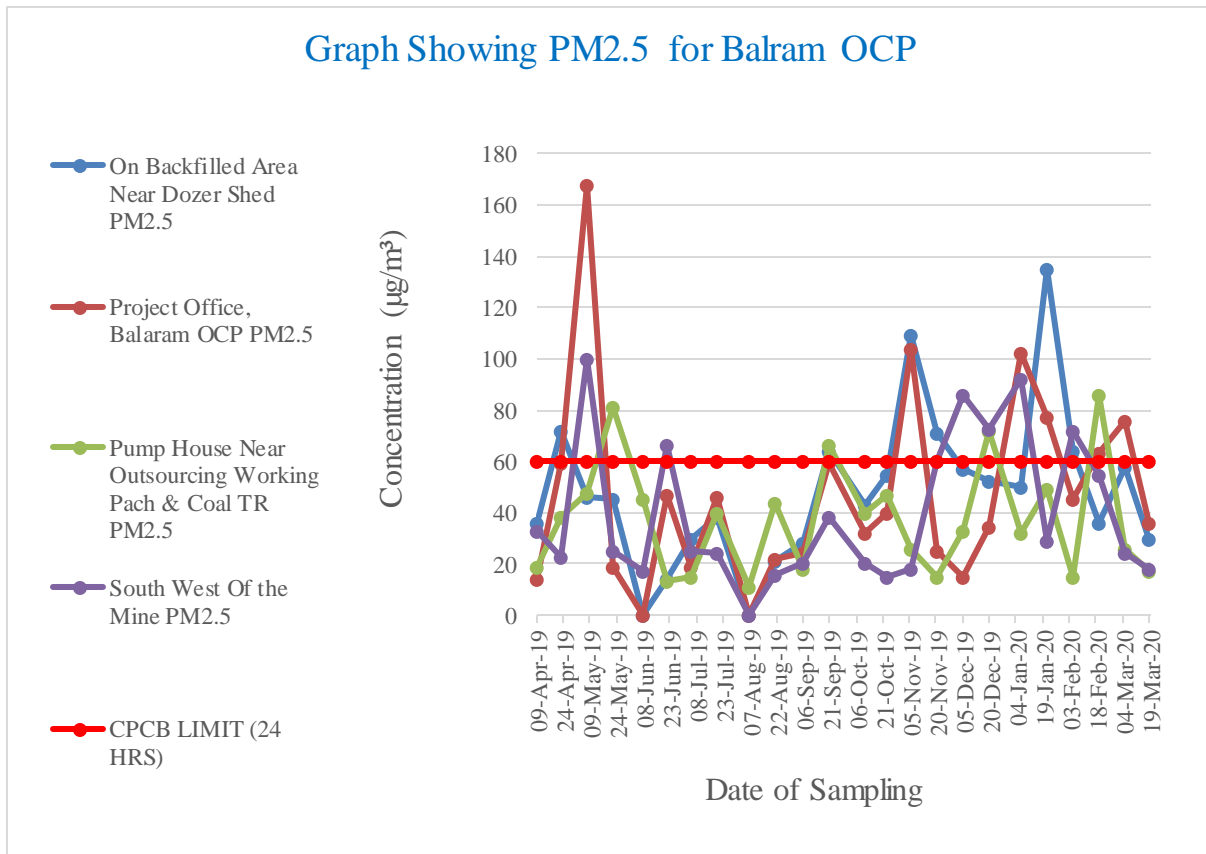
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:53
 Area: Hingula
 Project: Balram OCP
 Monitoring Station: South West of the Mine

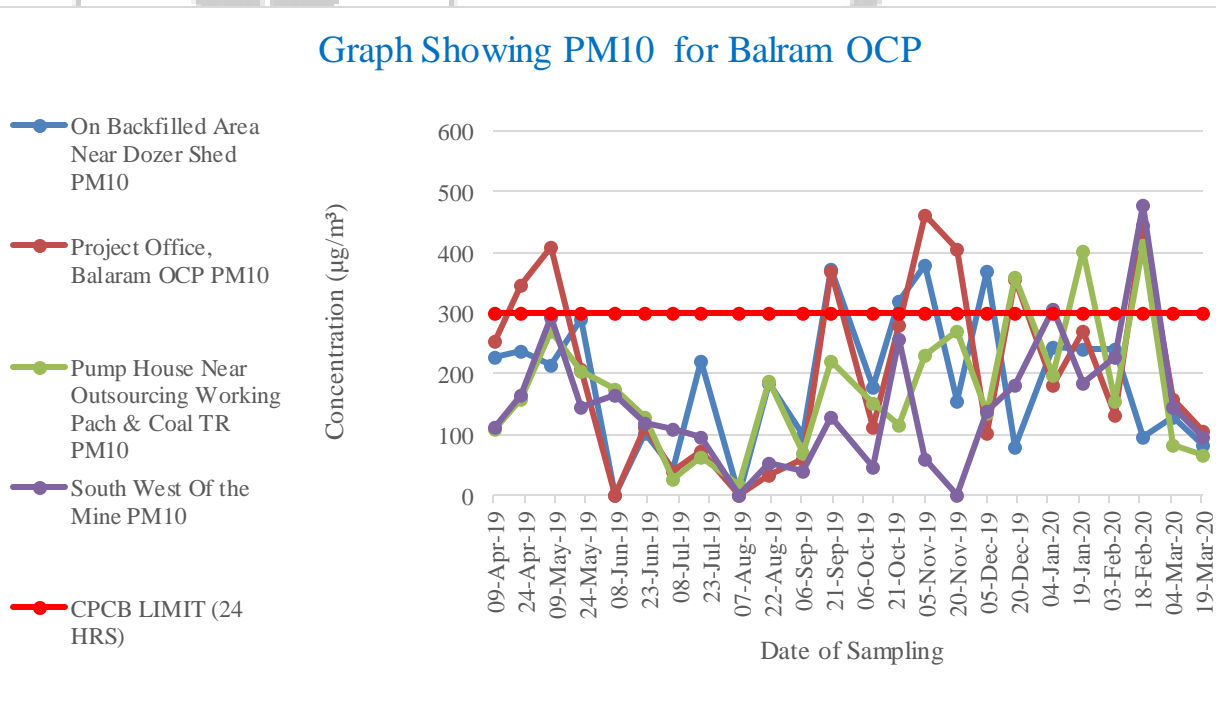
Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
09-Apr-19	33	114	12.01	12.69	190
22-Apr-19	23	164	13.43	22.28	187
07-May-19	100	295	12.07	17.52	337
20-May-19	25	146	14.84	22.54	180
07-Jun-19	17	167	10.46	15.51	241
21-Jun-19	66	121	12.48	27.47	222
05-Jul-19	25	108	14.87	12.63	224
19-Jul-19	24	95	7.36	10.67	129
06-Aug-19	STRIKE				
21-Aug-19	16	53	9.74	12.63	107
06-Sep-19	20	40	17.65	17.79	86
20-Sep-19	38	128	12.03	19.99	179
09-Oct-19	20	48	20.85	25.32	192
23-Oct-19	15	258	12.93	9.42	354
05-Nov-19	18	61	13.1	17.33	364
20-Nov-19	60	MACHINE BREAKDOWN			
05-Dec-19	86	140	15.34	17.2	223
19-Dec-19	73	181	8.67	10.49	386
06-Jan-20	92	308	25.49	21.8	384
21-Jan-20	29	186	14.75	16.34	227
05-Feb-20	72	227	9.36	15.29	294
19-Feb-20	55	479	10.74	17.36	569
05-Mar-20	24	146	13.08	21.31	192
19-Mar-20	18	97	14.31	17.89	136
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	100	479	25.49	27.47	569
Minimum	15	40	7	9	86
Average	41.26	161.91	13.43	17.34	245.59
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing PM2.5 for Balram OCP

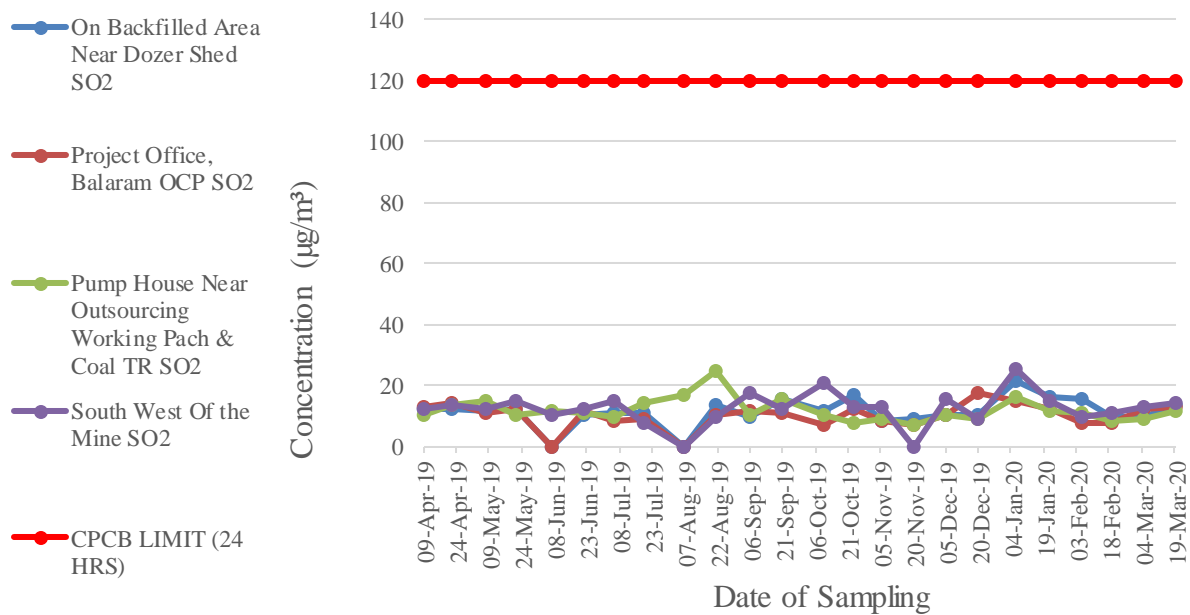


Graph Showing PM10 for Balram OCP

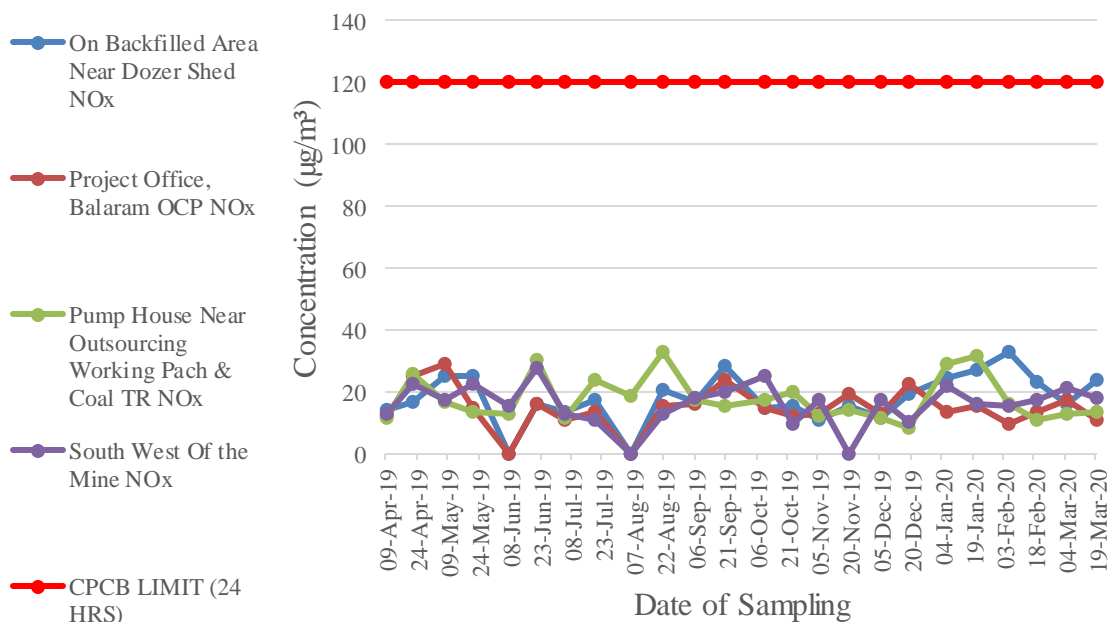


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing SOX for Balram OCP

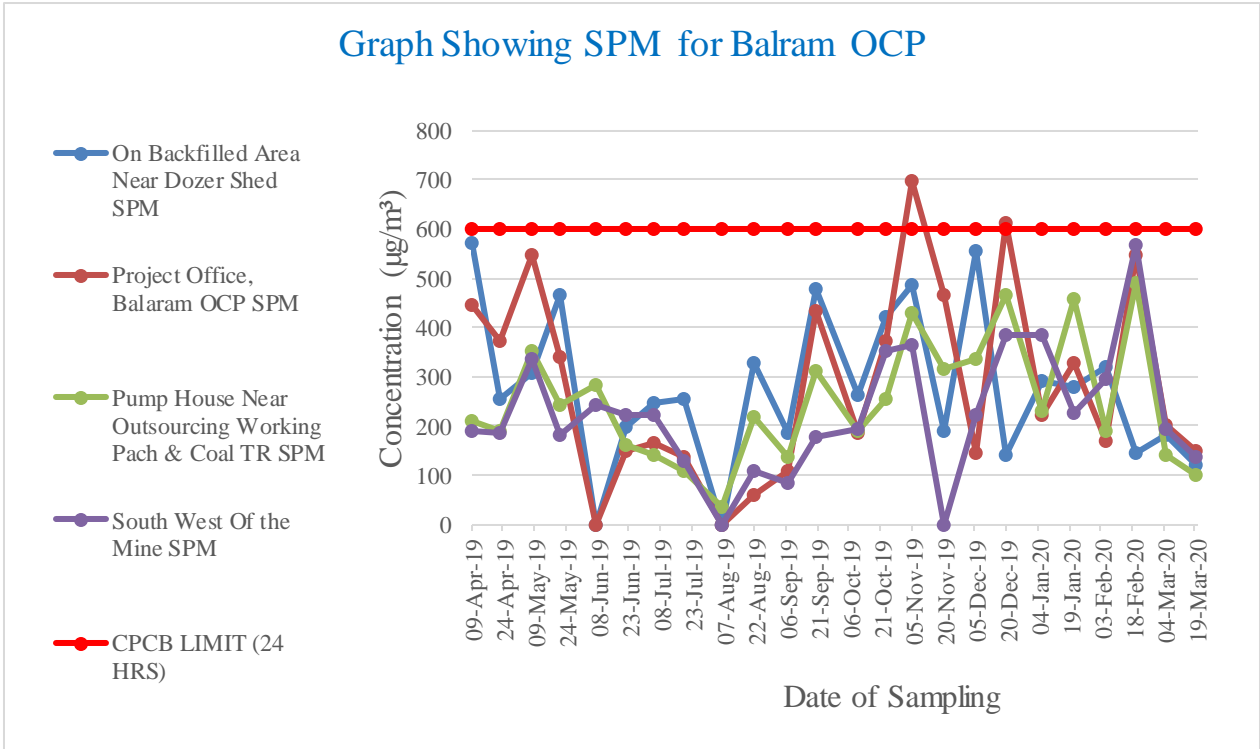


Graph Showing NOX for Balram OCP



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing SPM for Balaram OCP



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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:54
 Area: Talcher
 Project: Talcher Colliery U/G
 Monitoring Station: GM Office

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
15-Apr-19	12	406	10.96	20.53	511
27-Apr-19	52	107	12.91	24.63	155
13-May-19	31	244	11.03	17.26	290
27-May-19	59	180	10.52	22.96	248
13-Jun-19	39	165	11.42	16.46	191
27-Jun-19	49	469	16.41	21.29	574
12-Jul-19	19	36	6.65	17.19	142
26-Jul-19	STRIKE				
12-Aug-19	13	50	9.57	13.49	127
27-Aug-19	33	47	9.44	14.65	102
12-Sep-19	14	32	17.73	19.9	46
27-Sep-19	22	57	11.86	13.09	141
17-Oct-19	21	168	9.69	12.09	209
31-Oct-19	72	329	7.25	10.37	425
12-Nov-19	25	505	11.03	17.72	593
27-Nov-19	116	547	7.37	16.55	584
12-Dec-19	15	50	13.18	17.63	114
26-Dec-19	57	311	14.67	13.92	406
15-Jan-20	60	257	16.61	16.95	343
28-Jan-20	58	264	16.85	14.15	310
12-Feb-20	30	378	8.52	12.28	472
26-Feb-20	40	222	13.15	16.11	284
14-Mar-20	71	285	8.29	14.47	361
26-Mar-20	43	207	10.75	12.68	279
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	116	547	17.73	24.63	593
Minimum	12	32	7	10	46
Average	41.35	231.13	11.56	16.36	300.30
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:55
 Area: Talcher
 Project: Talcher Colliery U/G
 Monitoring Station: Near Canteen Talcher Colliery

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
15-Apr-19	105	446	13.46	15.05	481
27-Apr-19	26	290	10.86	29.52	315
13-May-19	75	203	12.27	18.35	269
27-May-19	74	260	14.99	21.13	313
13-Jun-19	32	254	11.38	18.22	406
27-Jun-19	33	171	12.07	25.28	327
12-Jul-19	86	150	14.13	23.94	197
26-Jul-19	STRIKE				
12-Aug-19	14	60	13.23	17.99	89
27-Aug-19	12	30	7.37	14.49	91
12-Sep-19	32	127	11.45	16.51	141
27-Sep-19	20	37	8.96	13.33	101
17-Oct-19	26	86	8.92	18.43	160
31-Oct-19	35	107	13.87	22.24	166
12-Nov-19	78	511	12.91	19.91	595
27-Nov-19	142	279	9.35	11.8	320
12-Dec-19	46	207	15.34	19.85	286
26-Dec-19	65	247	8.49	11.53	321
15-Jan-20	108	241	14.84	14.65	287
28-Jan-20	46	407	11	14.66	478
12-Feb-20	46	293	12.84	15.99	373
26-Feb-20	38	293	7.08	13.77	355
14-Mar-20	74	126	9.62	16.8	182
26-Mar-20	32	89	12.11	12.88	129
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	142	511	15.34	29.52	595
Minimum	12	30	7	12	89
Average	54.13	213.65	11.59	17.67	277.48
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:56
 Area: Talcher
 Project: Nandira Colliery U/G
 Monitoring Station: Nandira Colony

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
16-Apr-19	89	219	14.28	14.66	322
29-Apr-19	40	347	12.29	21.03	375
14-May-19	86	294	12.36	23.86	330
28-May-19	78	127	15.38	18.89	162
14-Jun-19	17	116	12.33	22.14	141
28-Jun-19	18	120	15.86	28.45	159
13-Jul-19	37	60	5.28	8.49	235
29-Jul-19	STRIKE				
13-Aug-19	48	62	9.21	11.59	158
28-Aug-19	26	47	7.69	12.63	86
13-Sep-19	36	126	16.98	18.33	149
30-Sep-19	24	56	15.45	10.57	139
16-Oct-19	29	106	9.23	12.39	155
30-Oct-19	STRIKE				
13-Nov-19	57	76	6.29	10.03	164
28-Nov-19	70	147	10.28	14.16	178
13-Dec-19	14	46	11.53	15.11	67
27-Dec-19	16	246	9.4	13.06	328
13-Jan-20	45	194	12.49	23.58	240
29-Jan-20	19	152	11.62	15.06	174
13-Feb-20	39	118	8.88	12.29	145
27-Feb-20	41	78	8.6	16.26	102
13-Mar-20	30	175	12.37	19.8	233
26-Mar-20	22	103	14.89	17.57	148
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	89	347	16.98	28.45	375
Minimum	14	46	5	8	67
Average	40.05	137.05	11.49	16.36	190.45
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:57
 Area: Talcher
 Project: Nandira Colliery U/G
 Monitoring Station: Project Office

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
15-Apr-19	52	126	12.27	10.49	251
27-Apr-19	59	225	10.44	31.03	267
13-May-19	39	249	10.41	23.18	297
27-May-19	108	193	13.3	23.44	260
13-Jun-19	19	102	11.11	19.21	162
27-Jun-19	27	160	13.73	25.69	246
12-Jul-19	27	144	12.11	22.54	286
26-Jul-19	STRIKE				
12-Aug-19	22	167	12.43	14.46	274
27-Aug-19	52	239	9.15	14.31	291
12-Sep-19	25	55	10.99	17.71	107
28-Sep-19	36	84	8.59	8.02	145
16-Oct-19	28	168	7.78	17.31	213
30-Oct-19	STRIKE				
12-Nov-19	MACHINE BREAKDOWN	184	9.04	16.9	207
27-Nov-19	12	258	14.33	21.22	294
12-Dec-19	58	235	9.43	14.41	274
26-Dec-19	20	346	9.43	12.97	412
13-Jan-20	67	232	13.12	15.3	286
29-Jan-20	87	416	10.94	14.36	474
12-Feb-20	67	256	12.59	15.83	352
26-Feb-20	21	88	8.58	16.42	111
13-Mar-20	21	83	11.26	18.93	136
26-Mar-20	17	65	10.08	13.56	98
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	108	416	14.33	31.03	474
Minimum	12	55	8	8	98
Average	41.14	185.23	10.96	17.60	247.41
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:58
 Area: Talcher
 Project: Nandira Colliery U/G
 Monitoring Station: Transit Camp

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
16-Apr-19	40	178	12.88	11.91	308
29-Apr-19	39	289	10.22	32.8	348
14-May-19	40	244	12.45	25.6	288
28-May-19	52	377	10.85	23.68	485
14-Jun-19	20	108	11.07	13.34	137
28-Jun-19	33	117	15.84	29.28	173
13-Jul-19	41	74	10.23	10.86	129
29-Jul-19	STRIKE				
13-Aug-19	27	76	12.62	13.51	138
28-Aug-19	32	259	16.9	19.44	342
12-Sep-19	MACHINE BREAKDOWN				
30-Sep-19	32	64	9.22	20.16	134
16-Oct-19	36	211	8.64	11.02	298
30-Oct-19	STRIKE				
13-Nov-19	31	315	9.92	12.89	377
28-Nov-19	13	503	9.36	13.39	545
13-Dec-19	52	312	15.31	16.58	394
27-Dec-19	129	354	9.73	11.77	422
13-Jan-20	65	113	13.64	18.56	148
28-Jan-20	84	243	17.77	19.69	310
13-Feb-20	73	130	10.67	16.4	252
27-Feb-20	46	281	9.16	14.8	332
13-Mar-20	22	121	9.58	15.97	158
26-Mar-20	19	92	12.42	12.14	118
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	129	503	17.77	32.8	545
Minimum	13	64	9	11	118
Average	44.10	212.43	11.83	17.32	277.90
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:59
 Area: Talcher
 Project: Deulbera Colliery U/G
 Monitoring Station: Deulbera Manager Office

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
16-Apr-19	20	140	13.37	11.07	192
30-Apr-19	21	106	13.61	17.64	156
15-May-19	56	291	10.11	26.21	336
29-May-19	103	141	13.97	16.7	207
14-Jun-19	MACHINE BREAKDOWN				
29-Jun-19	15	136	12.49	19.79	212
15-Jul-19	STRIKE				
30-Jul-19					
14-Aug-19					
29-Aug-19	20	62	6.43	17.92	75
13-Sep-19	40	169	11.65	17.74	211
30-Sep-19	42	157	9.64	9.43	206
14-Oct-19	18	88	10.77	17.84	161
31-Oct-19	101	338	8.75	21.27	428
13-Nov-19	31	167	9.36	11.03	213
29-Nov-19	155	290	11.02	17.06	336
14-Dec-19	18	253	14.16	13.78	334
27-Dec-19	27	225	14.42	18.37	304
14-Jan-20	91	335	14.28	24.98	402
30-Jan-20	98	472	19.44	21.45	559
13-Feb-20	19	207	9.66	12.07	247
28-Feb-20	27	273	10.66	17.45	326
14-Mar-20	75	167	13.14	22.95	236
26-Mar-20	33	108	10.23	17.08	159
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	155	472	19.44	26.21	559
Minimum	15	62	6	9	75
Average	50.50	206.25	11.86	17.59	265.00
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:60
Area: Talcher
Project: Mandapal Sand Mine
Monitoring Station: Near Mandapal Hospital

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
16-Apr-19	10	101	15.97	17.25	253
29-Apr-19	32	106	11.08	22.11	203
14-May-19	43	285	13.45	20.06	334
28-May-19	103	143	12.83	20.72	223
14-Jun-19	42	387	12.08	30.8	517
28-Jun-19	51	182	13.35	20.88	233
13-Jul-19	55	114	12.5	12.76	346
30-Jul-19	27	55	13.55	21.53	79
13-Aug-19	29	76	10.16	12.8	148
28-Aug-19	29	85	9.17	17.38	121
13-Sep-19	40	180	16.18	13.01	216
28-Sep-19	30	80	6.84	14.92	160
15-Oct-19	40	243	8.33	15.18	354
29-Oct-19	68	188	10.35	16.02	261
13-Nov-19	24	345	6.66	14.41	485
28-Nov-19	23	50	8.96	15.08	71
13-Dec-19	52	243	8.79	15.11	291
27-Dec-19	27	136	12.24	12.95	169
14-Jan-20	57	101	13.26	17.39	167
29-Jan-20	41	224	15.93	15.2	277
13-Feb-20	84	201	6.05	8.97	335
27-Feb-20	101	357	10.98	15.29	431
14-Mar-20	41	132	12.1	19.2	161
26-Mar-20	26	98	14.81	13.82	129
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	103	387	16.18	30.8	517
Minimum	10	50	6	9	71
Average	44.79	171.33	11.48	16.79	248.50
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:61
 Area: Talcher
 Project: Handidhua Colliery
 Monitoring Station: Handidhua Project Office

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
16-Apr-19	25	102	10.14	13.01	142
30-Apr-19	28	149	11.52	21.98	169
15-May-19	70	136	14.43	20.2	179
29-May-19	91	167	12.84	25.72	205
14-Jun-19	POWER CUT				
29-Jun-19	17	108	14.2	22.67	154
15-Jul-19	STRIKE				
30-Jul-19					
14-Aug-19					
29-Aug-19	20	62	8.78	13.72	75
13-Sep-19	38	161	10.17	15.3	230
30-Sep-19	38	117	9.92	16.12	146
17-Oct-19	30	190	17.9	20.66	282
31-Oct-19	14	108	13.24	15.35	190
14-Nov-19	85	359	8.36	10.75	423
29-Nov-19	81	394	8.75	11.05	434
14-Dec-19	20	73	11.19	11.7	102
27-Dec-19	22	77	10.9	11.8	103
14-Jan-20	109	269	14	20.63	320
30-Jan-20	43	489	15.51	15.13	564
13-Feb-20	31	281	6.69	10.21	467
28-Feb-20	59	117	8.89	12.86	181
14-Mar-20	57	294	12.97	19.56	447
26-Mar-20	34	219	11.54	14.89	276
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	109	489	17.9	25.72	564
Minimum	14	62	7	10	75
Average	45.60	193.60	11.60	16.17	254.45
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:62

Area: Talcher

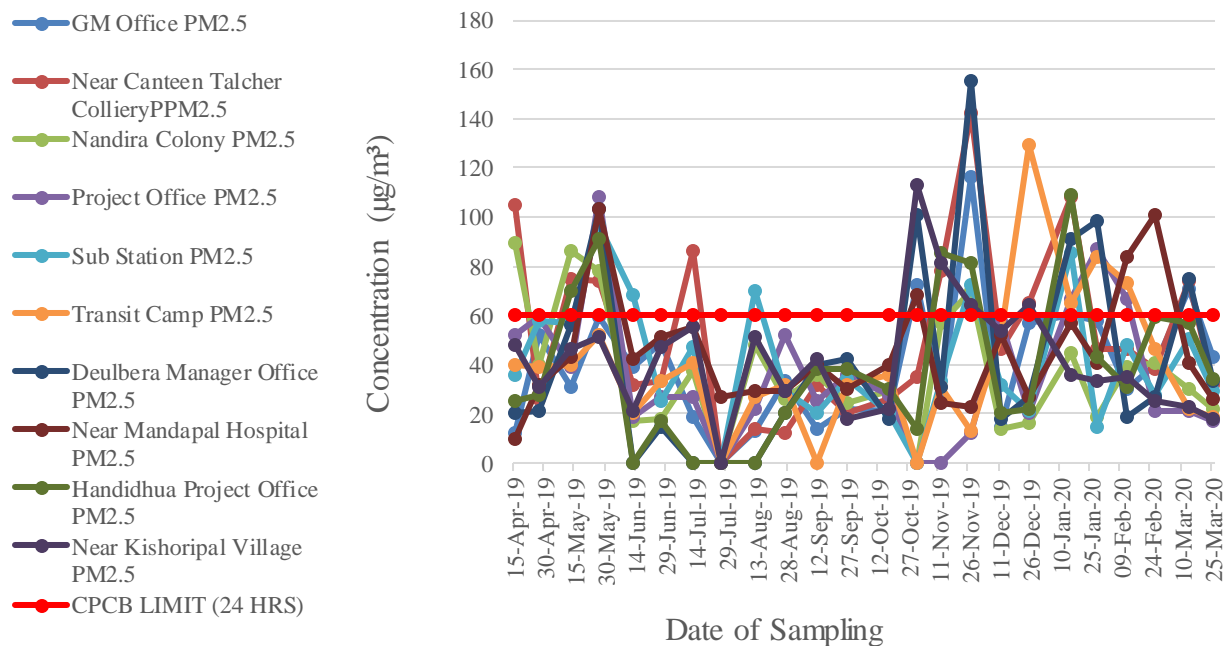
Project: Kakudi & Kishoripal Sand Mine

Monitoring Station: Near Kishoripal Village

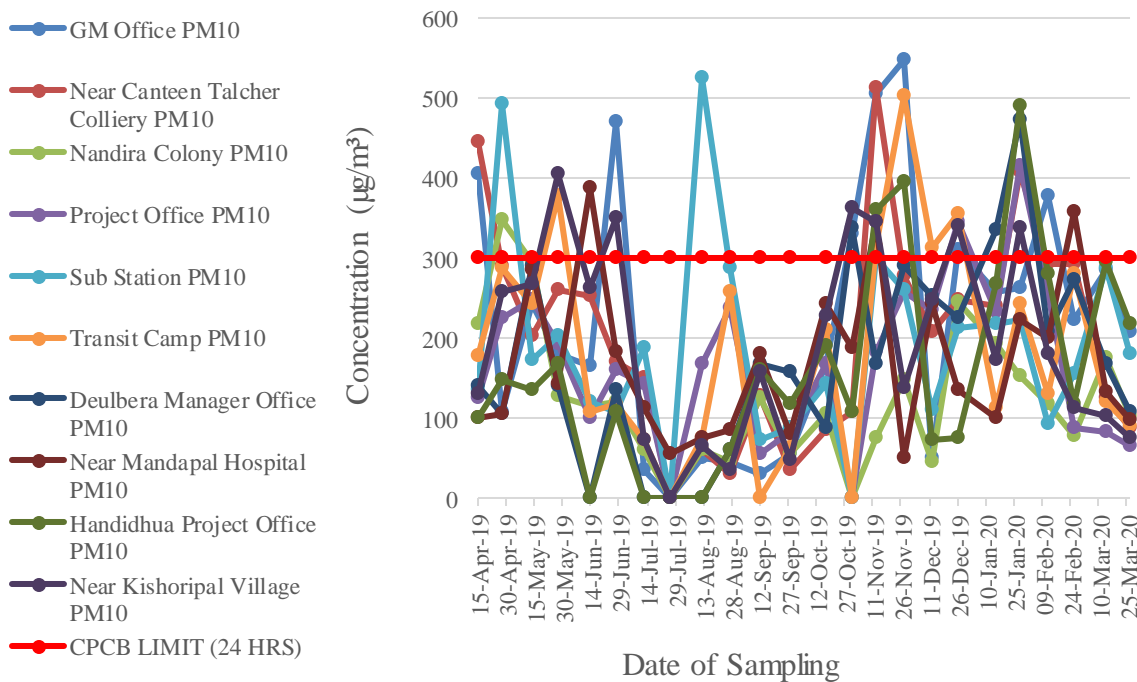
Date of Sampling	PM2.5	PM10	SO2	NOx	SPM
17-Apr-19	48	130	12.47	19.69	184
24-Apr-19	31	257	11.98	20.5	277
14-May-19	46	267	12.36	18.66	357
28-May-19	51	405	11.09	19.55	471
14-Jun-19	21	263	11.48	23.16	303
28-Jun-19	47	350	15.53	21.7	415
13-Jul-19	55	73	9.87	11.64	220
29-Jul-19	STRIKE				
13-Aug-19	51	66	13.98	13.51	105
28-Aug-19	29	37	6.32	17.11	71
13-Sep-19	42	157	12.29	28.06	218
28-Sep-19	18	49	8.11	16.12	190
15-Oct-19	22	228	9.71	23	284
29-Oct-19	113	363	9.72	17.71	447
13-Nov-19	81	345	10.43	13.56	388
28-Nov-19	64	139	8.98	15.12	164
13-Dec-19	54	248	11.52	12.48	343
27-Dec-19	64	339	9.96	13.78	405
14-Jan-20	36	173	15.91	17.01	222
29-Jan-20	33	338	11.74	15.31	409
13-Feb-20	35	180	13.22	17.59	270
27-Feb-20	25	112	7.57	14.39	160
14-Mar-20	23	104	9.81	18.93	187
26-Mar-20	18	77	7.69	23.66	108
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM
Maximum	113	405	15.91	28.06	471
Minimum	18	37	6	12	71
Average	43.78	204.35	10.95	17.92	269.48
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing PM_{2.5} for Talcher Area

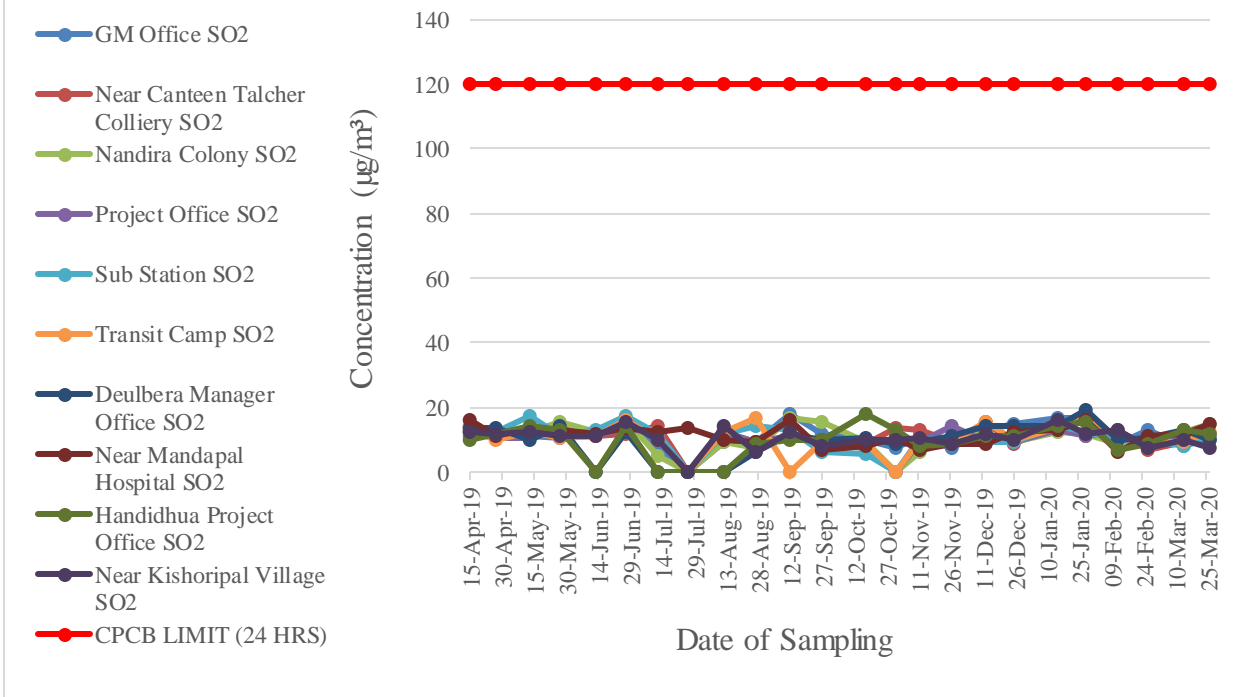


Graph Showing PM₁₀ for Talcher Area

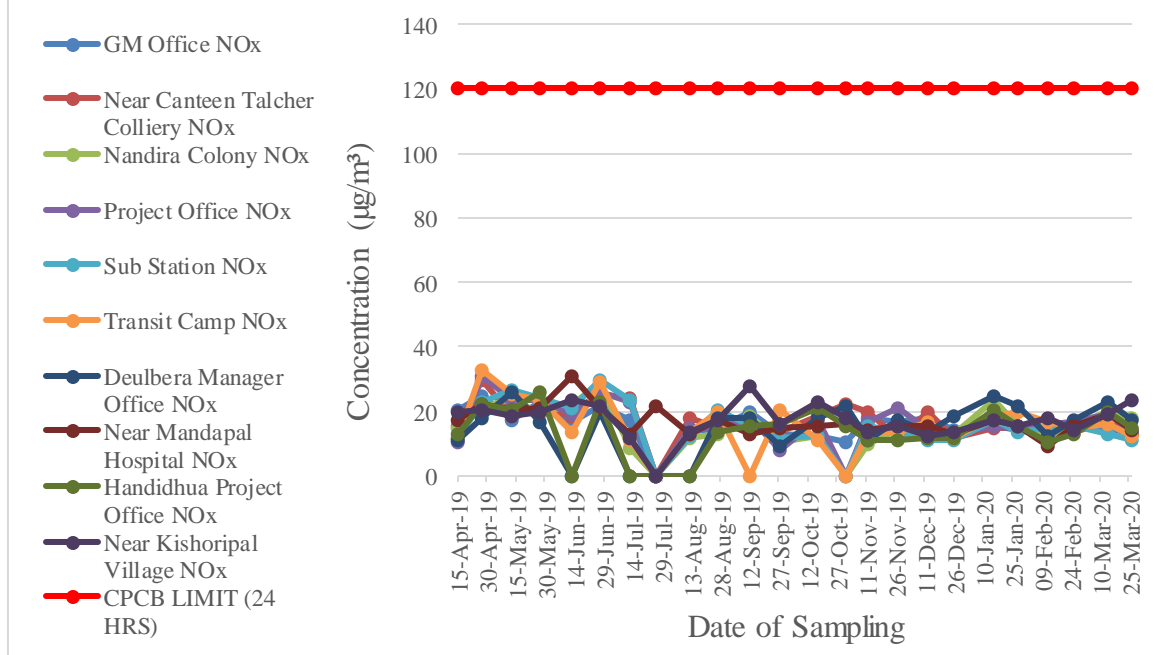


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing SOX for Talcher Area

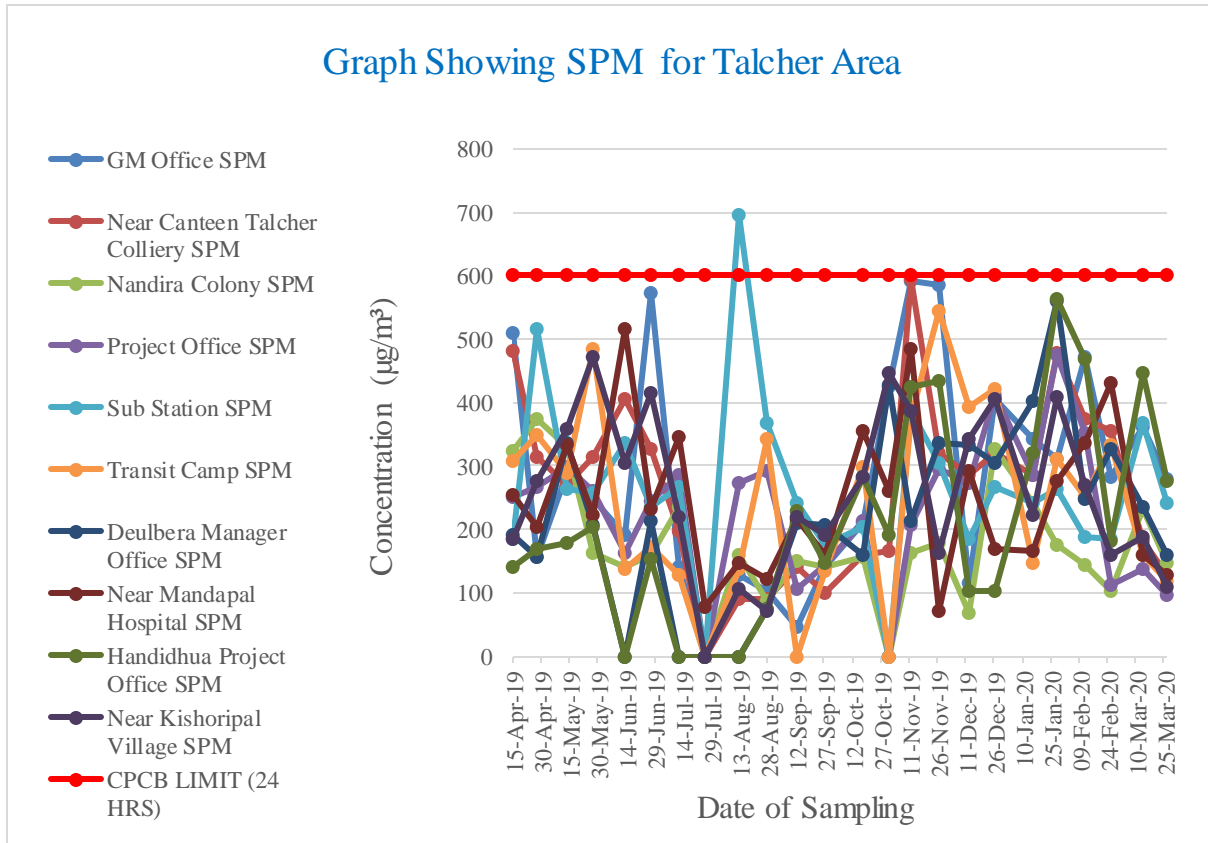


Graph Showing NOX for Talcher Area

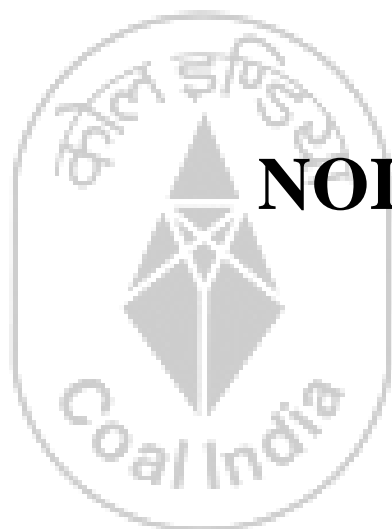


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph Showing SPM for Talcher Area



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NOISE QUALITY

empdi

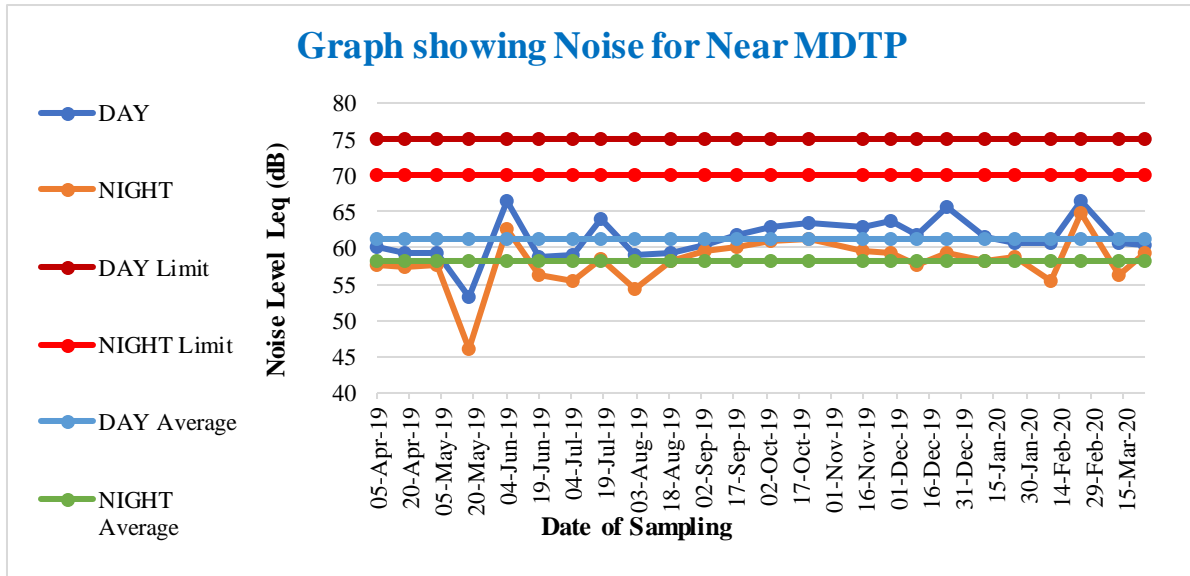
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5. TABLES FOR NOISE LEVEL MONITORING DATA

Table:63
 Area: Jagannath
 Project: Jagannath OCP
 Monitoring Station: Near MDTP

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	60.1	57.5
18-Apr-19	59.2	57.3
03-May-19	59.3	57.7
17-May-19	53.2	45.9
04-Jun-19	66.5	62.6
19-Jun-19	58.7	56.3
04-Jul-19	58.9	55.3
17-Jul-19	63.9	58.4
02-Aug-19	58.9	54.3
19-Aug-19	59.2	58.2
03-Sep-19	60.4	59.6
18-Sep-19	61.8	60.2
04-Oct-19	62.9	60.9
21-Oct-19	63.3	61.1
15-Nov-19	62.9	59.6
28-Nov-19	63.6	59.3
10-Dec-19	61.9	57.7
24-Dec-19	65.5	59.2
10-Jan-20	61.4	58.3
24-Jan-20	60.8	58.7
10-Feb-20	60.8	55.3
24-Feb-20	66.5	64.9
12-Mar-20	60.7	56.3
24-Mar-20	60.4	59.3
MIN	53.2	45.9
MAX	66.5	64.9
MEAN	61.28	58.08
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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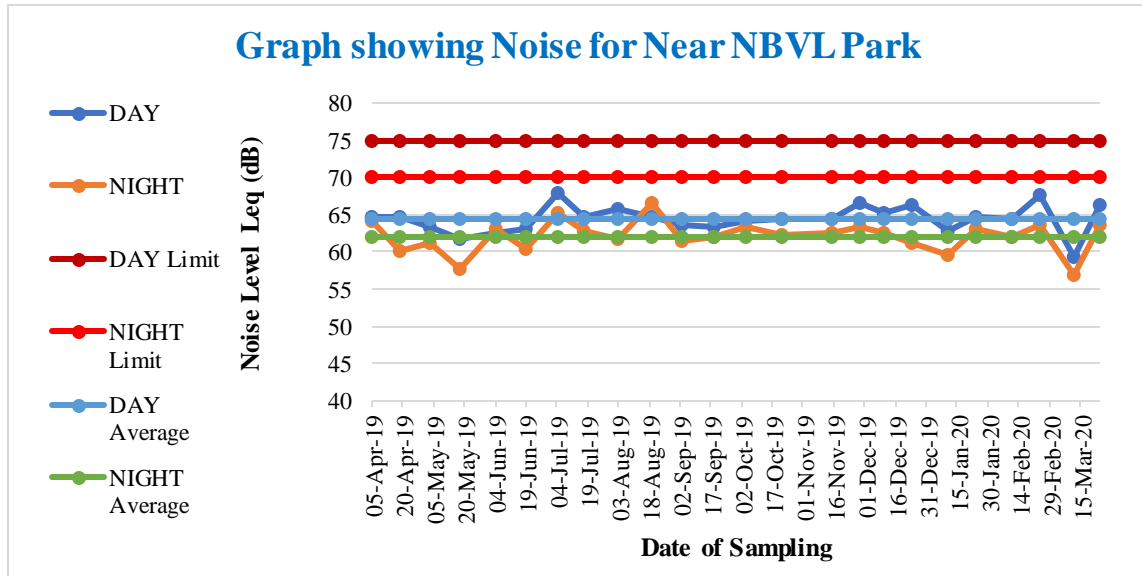
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:64
 Area: Jagannath
 Project: Jagannath OCP
 Monitoring Station: Near NBVL Park

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	64.6	64.2
18-Apr-19	64.8	60.2
03-May-19	63.4	61.1
17-May-19	61.7	57.6
04-Jun-19	62.5	63.1
19-Jun-19	63.1	60.3
04-Jul-19	67.8	65.2
17-Jul-19	64.8	62.9
02-Aug-19	65.8	61.7
19-Aug-19	64.8	66.5
03-Sep-19	63.6	61.5
18-Sep-19	63.4	62.1
04-Oct-19	64.01	63.3
21-Oct-19	64.3	62.2
15-Nov-19	64.3	62.4
28-Nov-19	66.5	63.2
10-Dec-19	65.3	62.4
24-Dec-19	66.3	61.1
10-Jan-20	62.8	59.7
24-Jan-20	64.7	63
10-Feb-20	64.4	62.1
24-Feb-20	67.5	63.7
12-Mar-20	59.2	56.8
24-Mar-20	66.4	63.6
MIN	59.2	56.8
MAX	67.8	66.5
MEAN	64.42	62.08
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



cmpdi

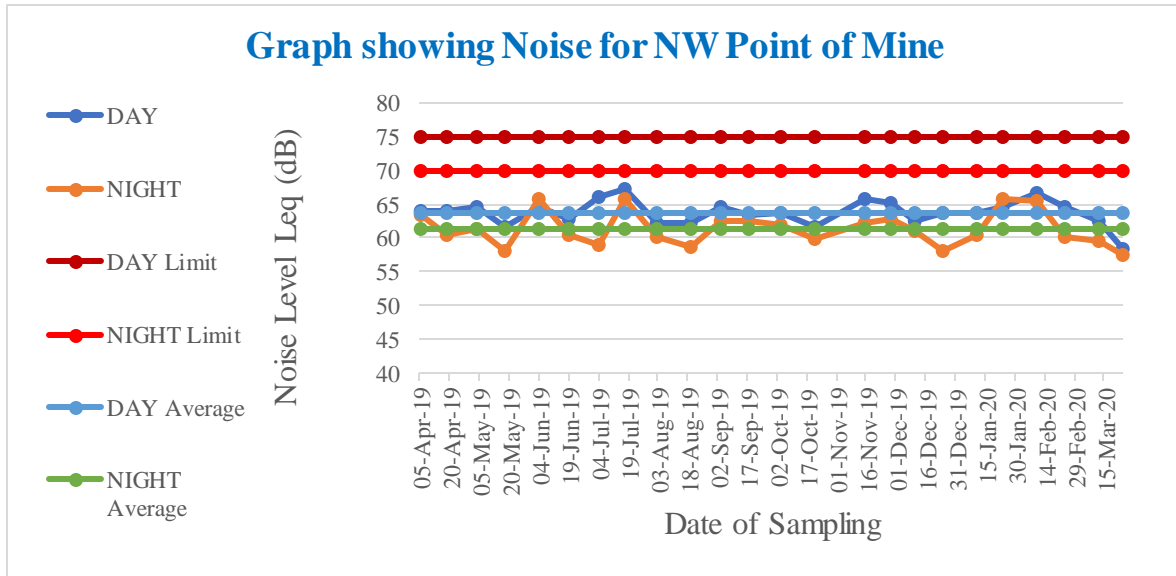
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:65
Area: Jagannath
Project: Jagannath OCP
Monitoring Station: NW Point of Mine

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	63.9	63.5
18-Apr-19	63.9	60.5
03-May-19	64.5	61.4
17-May-19	61.7	58.2
04-Jun-19	64.6	65.7
19-Jun-19	62.9	60.5
04-Jul-19	66.2	59
17-Jul-19	67.3	65.8
02-Aug-19	62.3	60.1
19-Aug-19	62.1	58.6
03-Sep-19	64.7	62.4
18-Sep-19	63.3	62.5
04-Oct-19	63.7	61.8
21-Oct-19	61.6	59.9
15-Nov-19	65.8	62.3
28-Nov-19	65.3	62.9
10-Dec-19	62.6	60.9
24-Dec-19	63.6	58.1
10-Jan-20	63.7	60.4
24-Jan-20	64.7	65.8
10-Feb-20	66.6	65.4
24-Feb-20	64.6	60.2
12-Mar-20	62.4	59.6
24-Mar-20	58.4	57.4
MIN	58.4	57.4
MAX	67.3	65.8
MEAN	63.77	61.37
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

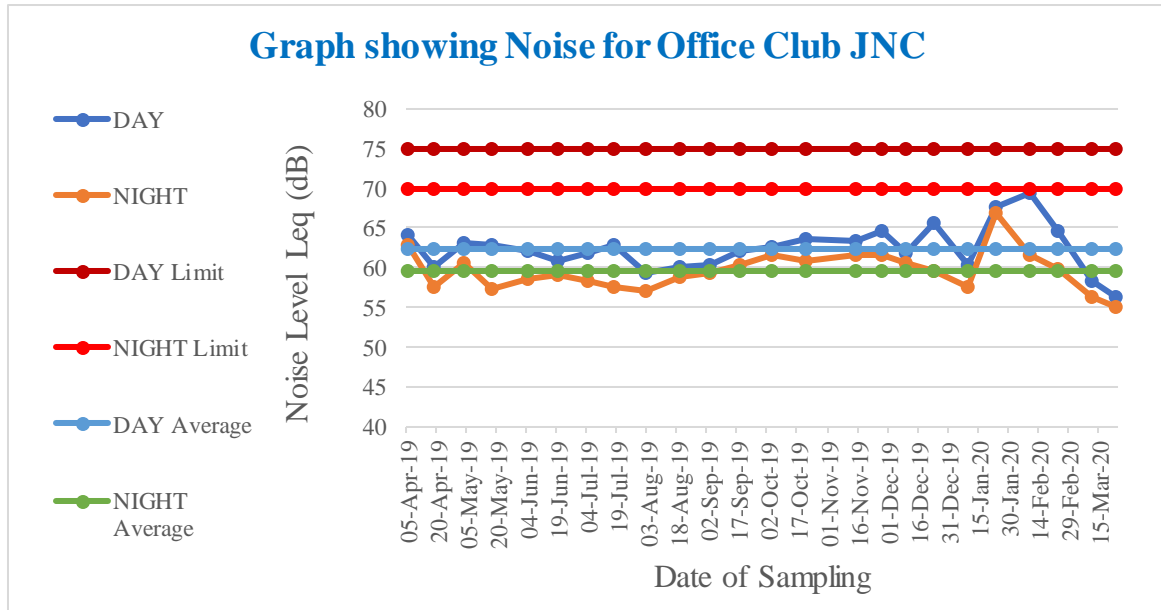


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:66
Area: Jagannath
Project: Jagannath OCP
Monitoring Station: Office Club JNC

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	64.1	62.8
18-Apr-19	60.1	57.5
03-May-19	63	60.5
17-May-19	62.9	57.3
04-Jun-19	62.2	58.5
19-Jun-19	60.8	59.1
04-Jul-19	61.8	58.3
17-Jul-19	62.8	57.6
02-Aug-19	59.4	57.1
19-Aug-19	60	58.8
03-Sep-19	60.4	59.4
18-Sep-19	62.2	60.2
04-Oct-19	62.7	61.7
21-Oct-19	63.7	60.8
15-Nov-19	63.3	61.5
28-Nov-19	64.7	61.6
10-Dec-19	61.8	60.7
24-Dec-19	65.5	59.5
10-Jan-20	60.4	57.6
24-Jan-20	67.5	66.9
10-Feb-20	69.3	61.7
24-Feb-20	64.5	59.7
12-Mar-20	58.4	56.3
24-Mar-20	56.4	55
MIN	56.4	55
MAX	69.3	66.9
MEAN	62.41	59.59
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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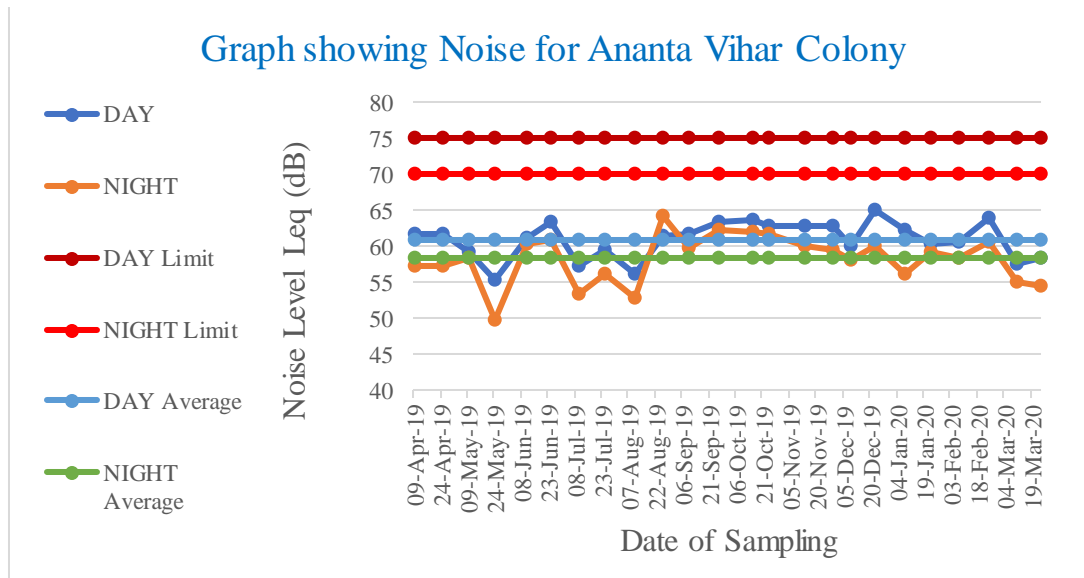
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:67
Area: Jagannath
Project: Ananta OCP
Monitoring Station: Ananta Vihar Colony

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	61.8	57.2
25-Apr-19	61.8	57.2
10-May-19	59.2	58.5
24-May-19	55.4	49.8
11-Jun-19	61.3	60.4
25-Jun-19	63.5	60.8
10-Jul-19	57.2	53.4
25-Jul-19	59.4	56.3
10-Aug-19	56.3	52.7
26-Aug-19	61.5	64.2
10-Sep-19	61.6	59.8
26-Sep-19	63.5	62.3
15-Oct-19	63.8	62.1
25-Oct-19	62.9	61.6
14-Nov-19	62.9	60.2
29-Nov-19	62.9	59.6
09-Dec-19	60.1	58.2
23-Dec-19	65.2	60.2
09-Jan-20	62.4	56.3
23-Jan-20	60.4	59.1
08-Feb-20	60.5	58.3
25-Feb-20	63.9	60.6
11-Mar-20	57.6	55
24-Mar-20	58.4	54.6
MIN	55.4	49.8
MAX	65.2	64.2
MEAN	60.98	58.27
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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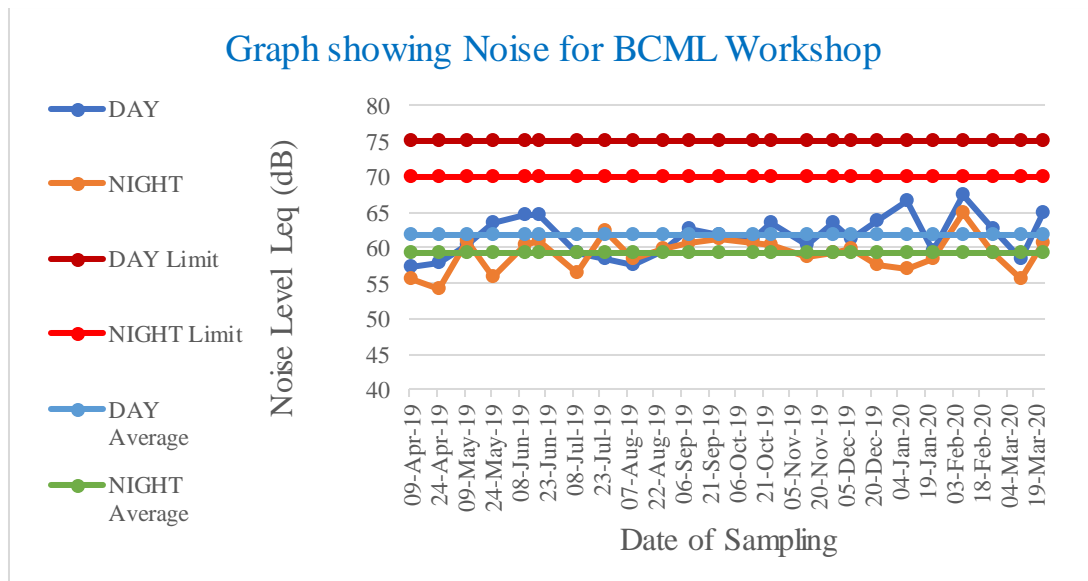
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:68
Area: Jagannath
Project: Ananta OCP
Monitoring Station: BCML Workshop

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	57.2	55.6
25-Apr-19	57.8	54.2
10-May-19	60.5	60.9
24-May-19	63.5	55.8
11-Jun-19	64.6	60.5
19-Jun-19	64.7	60.9
10-Jul-19	59.3	56.3
25-Jul-19	58.4	62.4
10-Aug-19	57.6	58.4
26-Aug-19	59.4	59.7
10-Sep-19	62.6	60.8
26-Sep-19	61.9	61.2
15-Oct-19	61.3	60.7
25-Oct-19	63.4	60.3
14-Nov-19	60.3	58.6
29-Nov-19	63.6	59.3
09-Dec-19	61.3	59.9
23-Dec-19	63.9	57.6
09-Jan-20	66.5	57.1
23-Jan-20	59.4	58.4
08-Feb-20	67.3	64.8
25-Feb-20	62.6	59.3
11-Mar-20	58.4	55.6
24-Mar-20	64.8	60.7
MIN	57.2	54.2
MAX	67.3	64.8
MEAN	61.68	59.13
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for BCML Workshop



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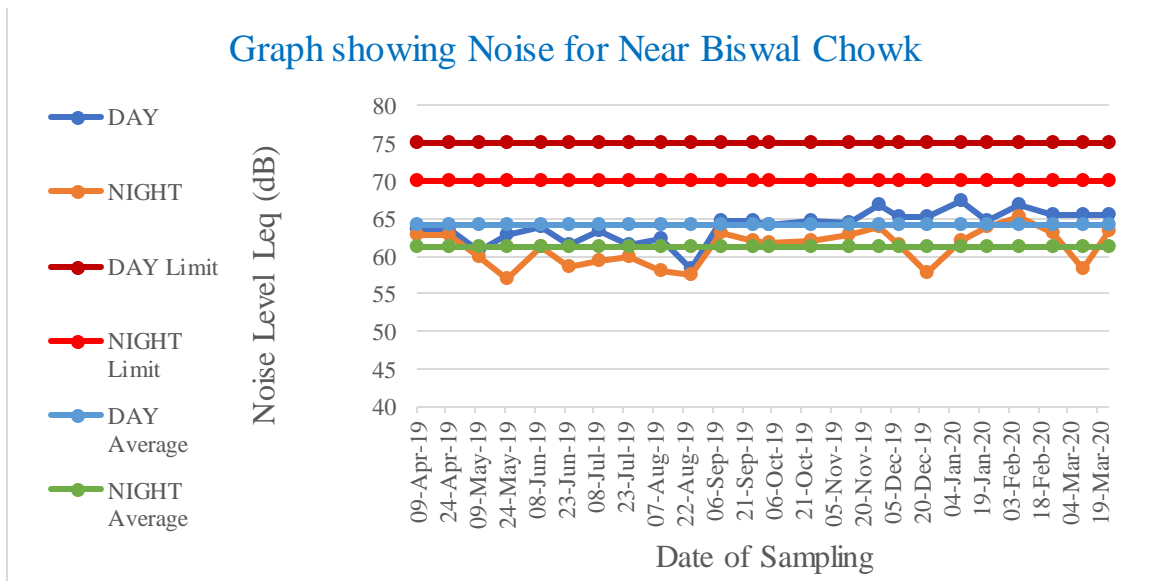
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:69
Area: Jagannath
Project: Ananta OCP
Monitoring Station: Near Biswal Chowk

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	63.5	62.9
25-Apr-19	63.5	62.9
10-May-19	60.6	59.9
24-May-19	62.7	56.9
11-Jun-19	64	61.2
25-Jun-19	61.4	58.6
10-Jul-19	63.4	59.3
25-Jul-19	61.4	59.8
10-Aug-19	62.4	58
26-Aug-19	58.2	57.4
10-Sep-19	64.6	63.02
26-Sep-19	64.8	62.1
04-Oct-19	64.2	61.8
25-Oct-19	64.8	61.9
14-Nov-19	64.5	62.8
29-Nov-19	66.8	63.9
09-Dec-19	65.3	61.6
23-Dec-19	65.3	57.8
09-Jan-20	67.4	62
23-Jan-20	64.6	63.9
08-Feb-20	66.8	65.2
25-Feb-20	65.5	63.1
11-Mar-20	65.4	58.3
24-Mar-20	65.6	63.4
MIN	58.2	56.9
MAX	67.4	65.2
MEAN	64.03	61.16
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Near Biswal Chowk



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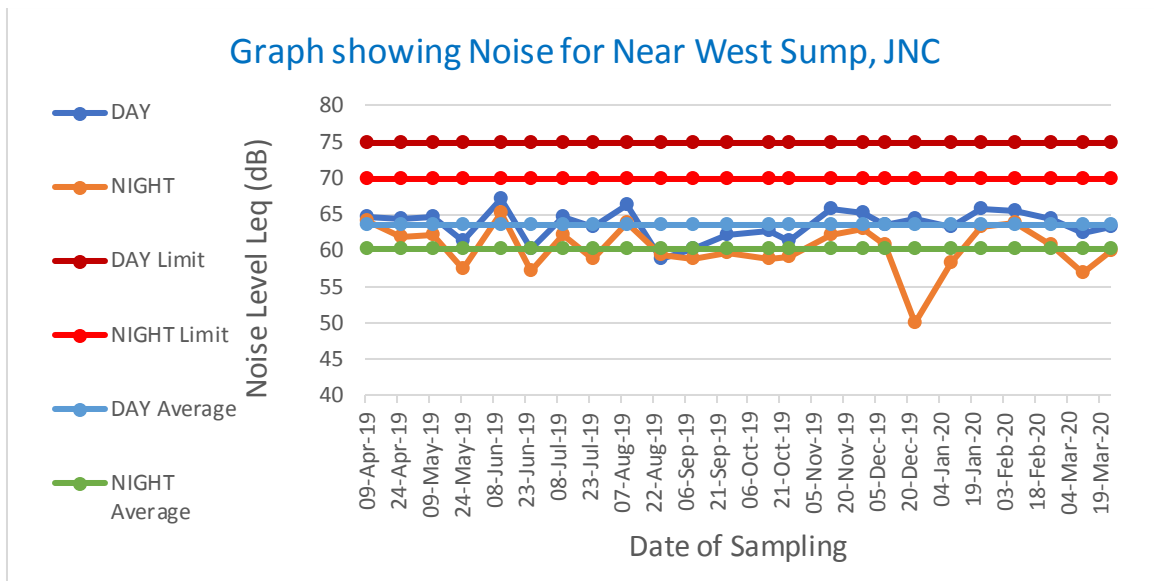
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:70
Area: Jagannath
Project: Ananta OCP
Monitoring Station: Near West Sump, JNC

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	64.6	64.1
25-Apr-19	64.4	61.8
10-May-19	64.6	62.1
24-May-19	61.3	57.6
11-Jun-19	67.2	65.3
25-Jun-19	60.3	57.1
10-Jul-19	64.7	62.1
25-Jul-19	63.4	58.9
10-Aug-19	66.3	63.8
26-Aug-19	58.8	59.5
10-Sep-19	60.3	59.01
26-Sep-19	62.1	59.8
15-Oct-19	62.7	58.9
25-Oct-19	61.4	59.2
14-Nov-19	65.8	62.3
29-Nov-19	65.3	62.9
09-Dec-19	63.7	60.8
23-Dec-19	64.5	50.1
09-Jan-20	63.4	58.4
23-Jan-20	65.7	63.4
08-Feb-20	65.4	63.9
25-Feb-20	64.5	60.9
11-Mar-20	62.6	57
24-Mar-20	63.2	60.1
MIN	58.8	50.1
MAX	67.2	65.3
MEAN	63.59	60.38
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Near West Sump, JNC



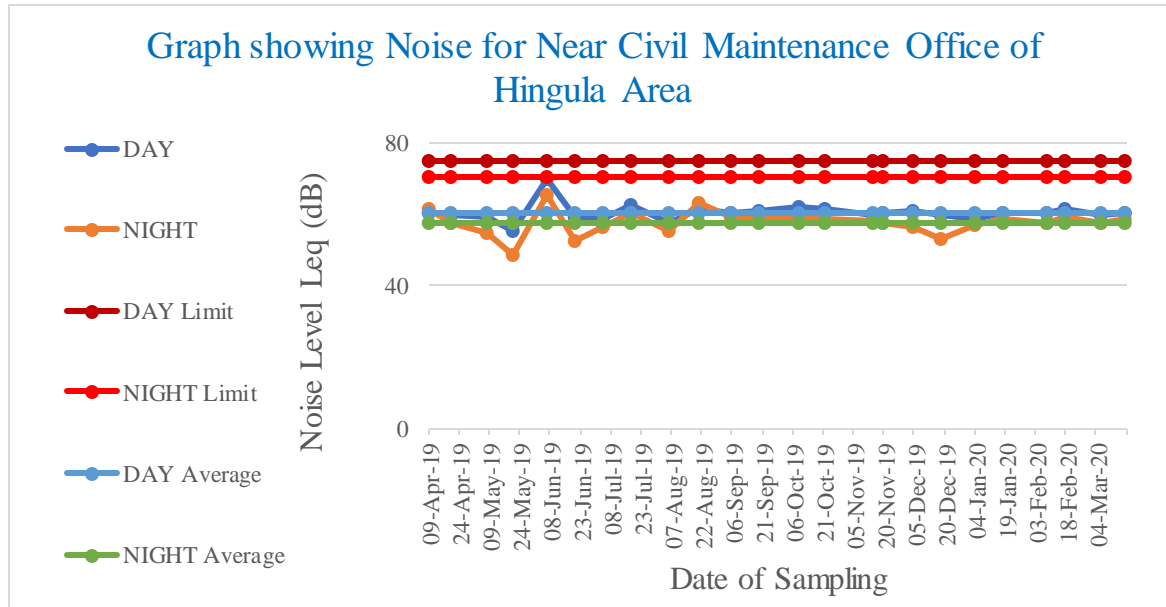
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:71
Area: Bharatpur
Project: Bharatpur OCP
Monitoring Station: Near Civil Maintenance Office of Hingula Area

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	60.2	61.2
20-Apr-19	59.8	57.4
07-May-19	59.2	54.6
20-May-19	55.4	48.5
06-Jun-19	69.9	65.5
20-Jun-19	59.1	52.6
04-Jul-19	58.4	56.3
18-Jul-19	62.2	60.4
05-Aug-19	57.3	54.9
20-Aug-19	61.5	63.2
05-Sep-19	60.3	59.3
19-Sep-19	60.6	58.9
09-Oct-19	61.8	58.7
22-Oct-19	61.4	58.5
14-Nov-19	59.5	57.9
19-Nov-19	60.3	57.6
04-Dec-19	60.8	56.3
18-Dec-19	59.9	52.8
04-Jan-20	58.4	56.7
18-Jan-20	60.4	58.4
08-Feb-20	60.3	57.6
17-Feb-20	61.4	59.1
06-Mar-20	59.6	57.2
18-Mar-20	60.4	58.3
MIN	55.4	48.5
MAX	69.9	65.5
MEAN	60.34	57.58
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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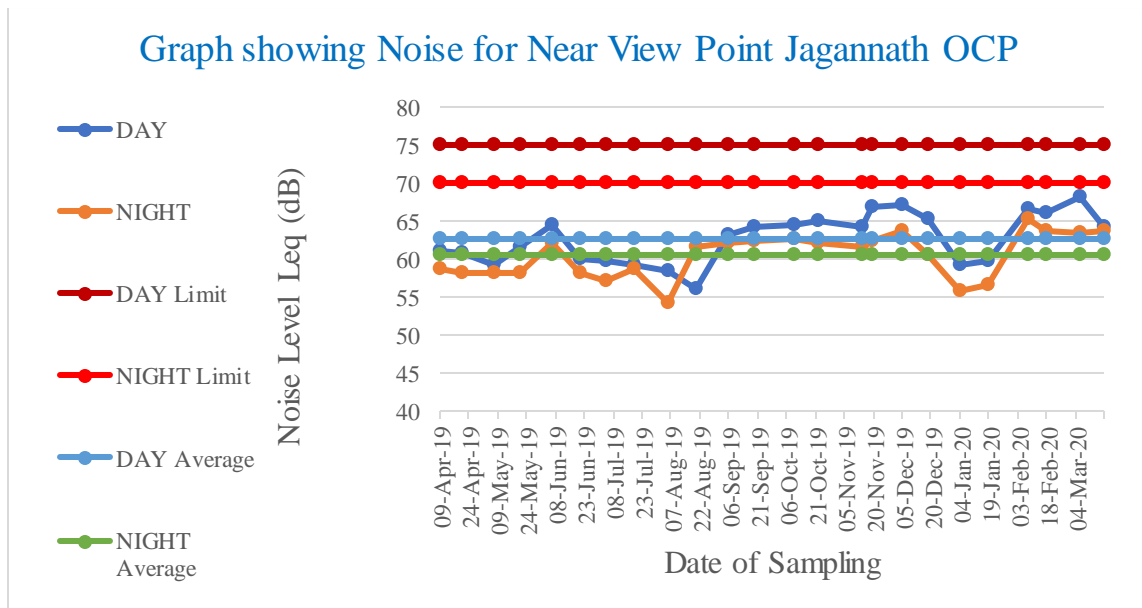
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:72
 Area: Bharatpur
 Project: Bharatpur OCP
 Monitoring Station: Near View Point Jagannath OCP

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	61.2	58.7
20-Apr-19	61	58.4
07-May-19	59.4	58.4
20-May-19	61.7	58.2
06-Jun-19	64.5	62.2
20-Jun-19	60.1	58.3
04-Jul-19	59.8	57.3
18-Jul-19	59.4	58.9
05-Aug-19	58.5	54.3
20-Aug-19	56.2	61.8
05-Sep-19	63.3	62.2
19-Sep-19	64.2	62.4
09-Oct-19	64.7	62.8
22-Oct-19	65.1	62.3
14-Nov-19	64.2	61.6
19-Nov-19	66.9	62.6
04-Dec-19	67.2	63.8
18-Dec-19	65.3	60.6
04-Jan-20	59.4	56
18-Jan-20	59.8	56.7
08-Feb-20	66.6	65.4
17-Feb-20	66.3	63.9
06-Mar-20	68.4	63.6
18-Mar-20	64.3	63.9
MIN	56.2	54.3
MAX	68.4	65.4
MEAN	62.81	60.60
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Near View Point Jagannath OCP



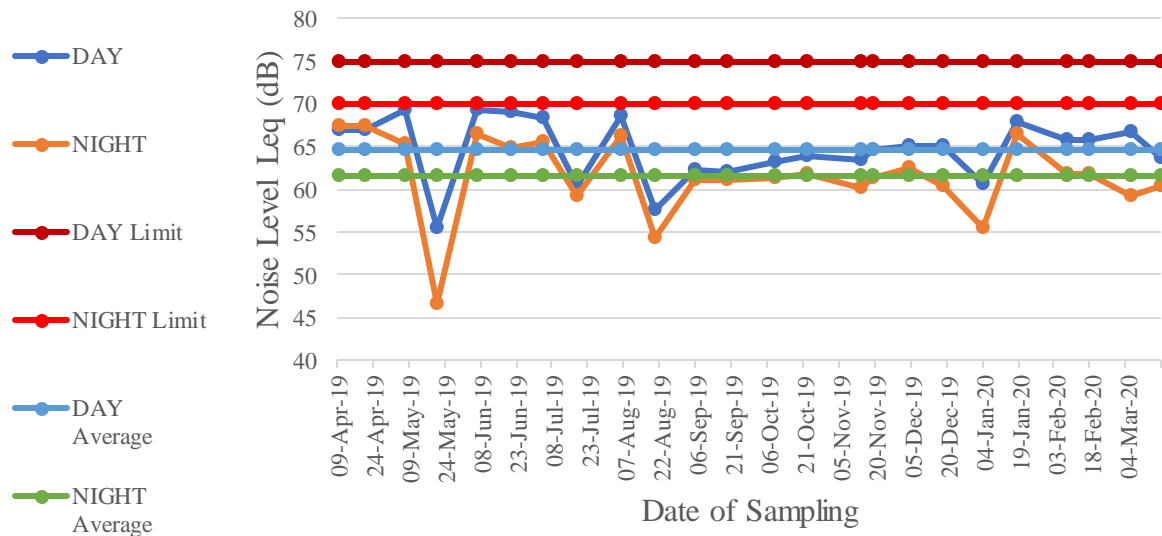
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:73
 Area: Bharatpur
 Project: Bharatpur OCP
 Monitoring Station: North West Point of Mine

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	66.9	67.5
20-Apr-19	66.9	67.5
07-May-19	69.3	65.3
20-May-19	55.4	46.5
06-Jun-19	69.4	66.6
20-Jun-19	69.1	64.8
04-Jul-19	68.4	65.6
18-Jul-19	60.4	59.3
05-Aug-19	68.6	66.3
20-Aug-19	57.5	54.2
05-Sep-19	62.3	61.2
19-Sep-19	62.1	61.2
09-Oct-19	63.1	61.3
22-Oct-19	63.8	61.7
14-Nov-19	63.4	60.2
19-Nov-19	64.6	61.3
04-Dec-19	65.1	62.5
18-Dec-19	65.1	60.5
04-Jan-20	60.7	55.6
18-Jan-20	67.9	66.4
08-Feb-20	65.7	61.8
17-Feb-20	65.7	61.7
06-Mar-20	66.8	59.3
18-Mar-20	63.6	60.4
MIN	55.4	46.5
MAX	69.4	67.5
MEAN	64.66	61.61
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for North West Point of Mine



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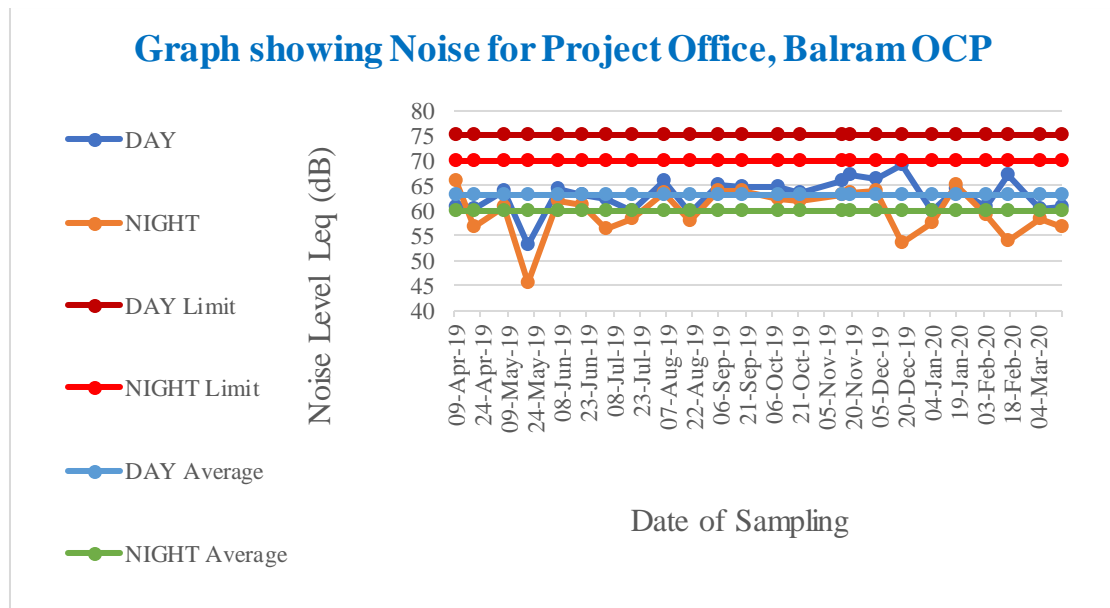
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:74
Area: Bharatpur
Project: Bharatpur OCP
Monitoring Station: Project Office, Balram OCP

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	60.8	65.9
20-Apr-19	60.3	56.7
07-May-19	63.8	60.5
20-May-19	53.1	45.3
06-Jun-19	64.2	61.7
20-Jun-19	63.2	61.2
04-Jul-19	62.3	56.4
18-Jul-19	59.7	58.3
05-Aug-19	65.8	63.4
20-Aug-19	59.3	57.7
05-Sep-19	65.2	64.1
19-Sep-19	64.7	63.9
09-Oct-19	64.8	62.3
22-Oct-19	63.4	61.8
14-Nov-19	65.8	63.2
19-Nov-19	67.3	63.7
04-Dec-19	66.4	63.8
18-Dec-19	69.2	53.6
04-Jan-20	59.8	57.4
18-Jan-20	64.3	65.2
04-Feb-20	60.8	59
17-Feb-20	67.2	53.8
06-Mar-20	60.4	58.3
18-Mar-20	60.8	56.7
MIN	53.1	45.3
MAX	69.2	65.9
MEAN	63.03	59.75
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Project Office, Balram OCP



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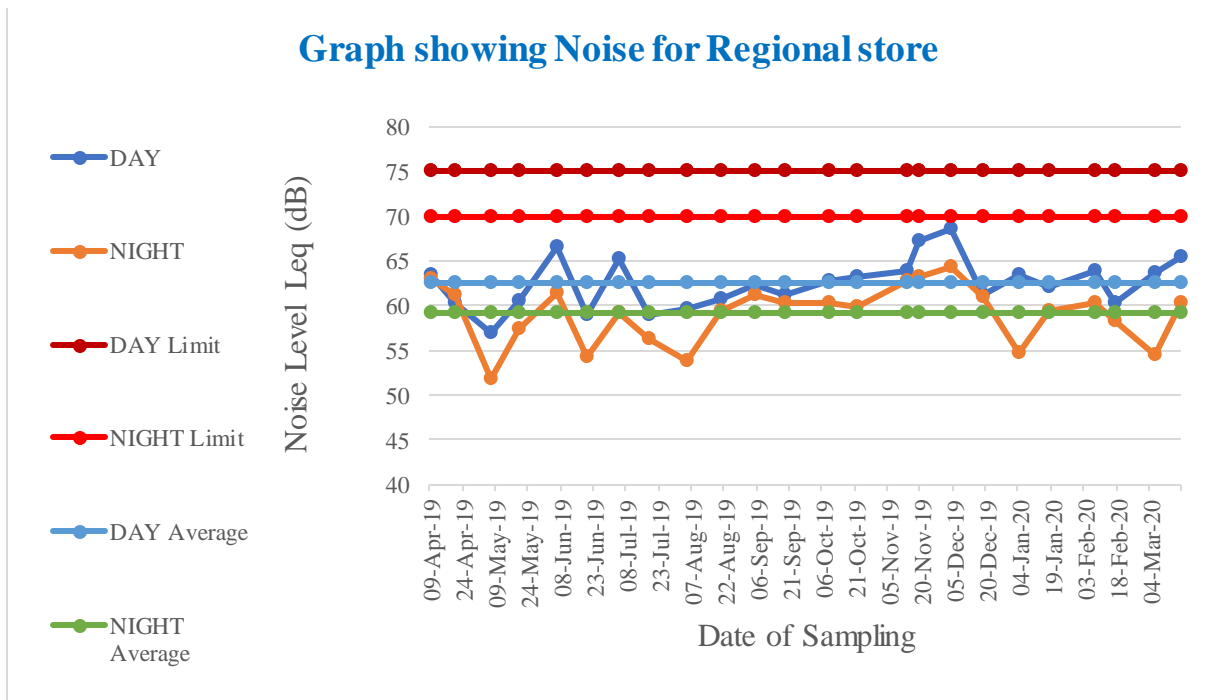
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:75
 Area: Bharatpur
 Project: Bharatpur OCP
 Monitoring Station: Regional store

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	63.5	62.9
20-Apr-19	60.4	61.2
07-May-19	56.9	51.8
20-May-19	60.5	57.4
06-Jun-19	66.5	61.4
20-Jun-19	58.9	54.2
04-Jul-19	65.3	59.2
18-Jul-19	59	56.3
05-Aug-19	59.6	53.9
20-Aug-19	60.8	59.3
05-Sep-19	62.3	61.2
19-Sep-19	61.2	60.3
09-Oct-19	62.7	60.4
22-Oct-19	63.2	59.9
14-Nov-19	63.9	62.8
19-Nov-19	67.3	63.1
04-Dec-19	68.5	64.4
18-Dec-19	61.1	60.9
04-Jan-20	63.4	54.8
18-Jan-20	62.2	59.4
08-Feb-20	63.8	60.3
17-Feb-20	60.2	58.3
06-Mar-20	63.6	54.5
18-Mar-20	65.4	60.2
MIN	56.9	51.8
MAX	68.5	64.4
MEAN	62.51	59.09
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Regional store



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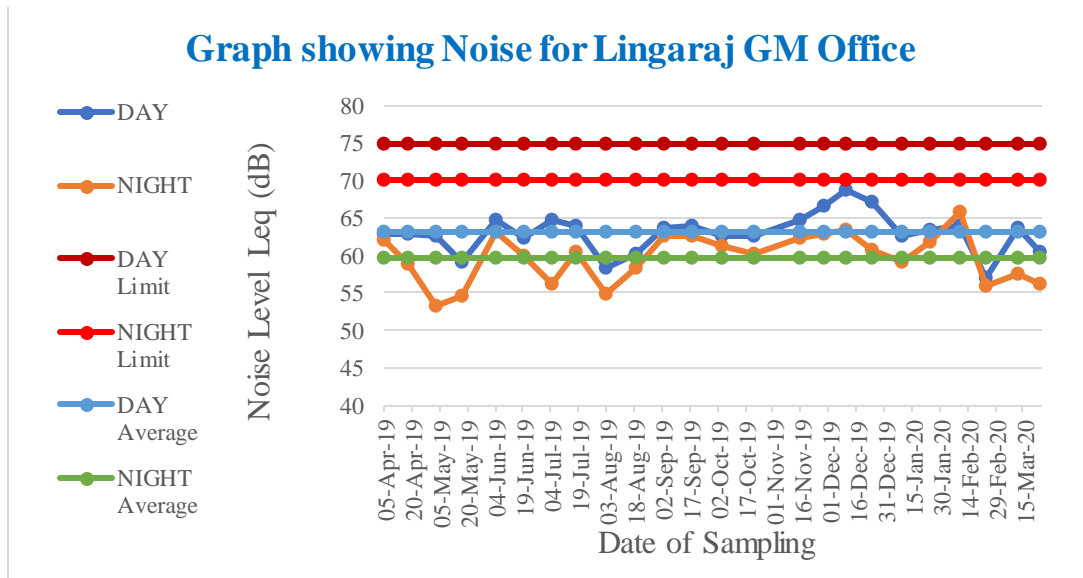
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:76
Area: Lingraj
Project: Lingraj OCP
Monitoring Station: Lingaraj GM Office

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	62.9	62
18-Apr-19	62.9	58.9
03-May-19	62.5	53.3
17-May-19	59.1	54.6
04-Jun-19	64.7	63.2
19-Jun-19	62.3	59.8
04-Jul-19	64.8	56.3
17-Jul-19	63.9	60.4
02-Aug-19	58.3	54.8
19-Aug-19	60.2	58.2
03-Sep-19	63.7	62.6
18-Sep-19	63.9	62.7
04-Oct-19	62.7	61.2
21-Oct-19	62.7	60.2
15-Nov-19	64.6	62.3
28-Nov-19	66.6	62.9
10-Dec-19	68.7	63.3
24-Dec-19	67.1	60.8
09-Jan-20	62.7	59.1
24-Jan-20	63.4	61.8
10-Feb-20	63.9	65.8
24-Feb-20	57.1	55.8
12-Mar-20	63.6	57.4
24-Mar-20	60.4	56.3
MIN	57.1	53.3
MAX	68.7	65.8
MEAN	63.03	59.74
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Lingaraj GM Office



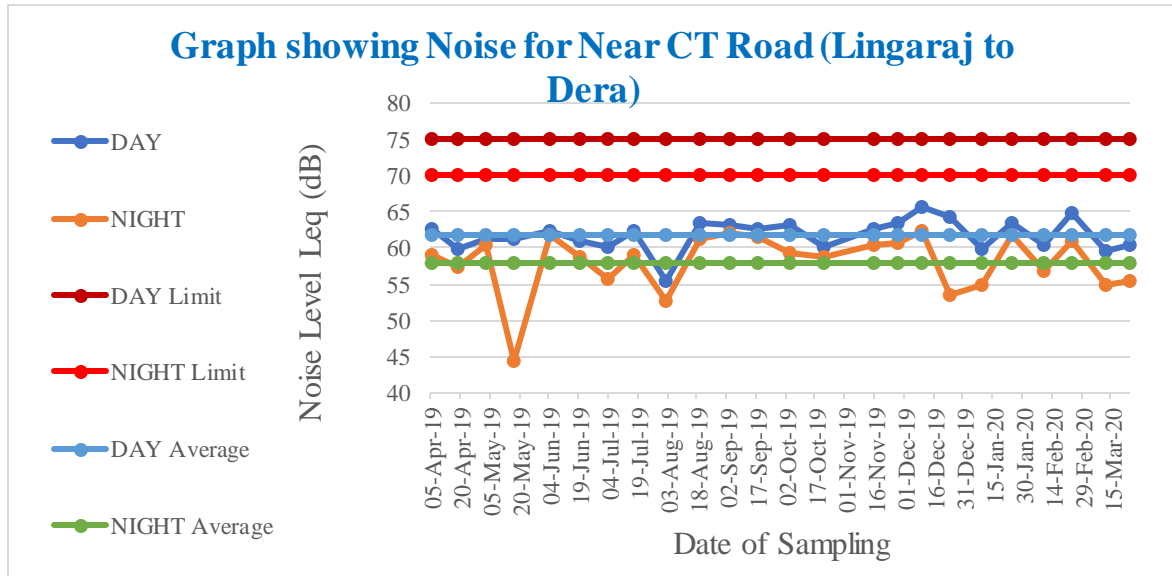
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:77
Area: Lingraj
Project: Lingraj OCP
Monitoring Station: Near CT Road (Lingaraj to Dera)

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	62.5	59.1
18-Apr-19	59.8	57.3
03-May-19	61.1	60.3
17-May-19	61.2	44.4
04-Jun-19	62.2	61.7
19-Jun-19	61.02	58.7
04-Jul-19	60.2	55.8
17-Jul-19	62.4	58.9
02-Aug-19	55.3	52.6
19-Aug-19	63.4	61.1
03-Sep-19	63.2	62.1
18-Sep-19	62.6	61.5
04-Oct-19	63.1	59.3
21-Oct-19	60.1	58.6
15-Nov-19	62.6	60.5
28-Nov-19	63.3	60.7
10-Dec-19	65.5	62.3
24-Dec-19	64.3	53.4
09-Jan-20	59.7	54.8
24-Jan-20	63.5	61.9
10-Feb-20	60.4	56.8
24-Feb-20	64.9	60.9
12-Mar-20	59.6	54.8
24-Mar-20	60.4	55.3
MIN	55.3	44.4
MAX	65.5	62.3
MEAN	61.76	58.03
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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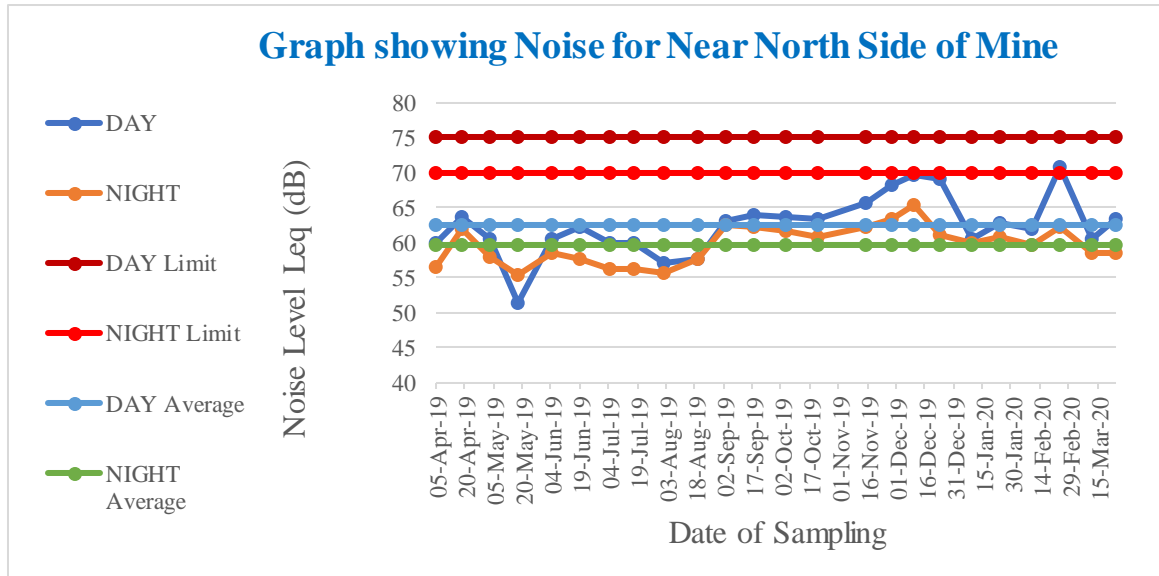
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:78
Area: Lingraj
Project: Lingraj OCP
Monitoring Station: Near North Side of Mine

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	59.8	56.4
18-Apr-19	63.7	62
03-May-19	60.4	57.9
17-May-19	51.3	55.3
04-Jun-19	60.6	58.5
19-Jun-19	62.1	57.5
04-Jul-19	59.8	56.3
17-Jul-19	59.8	56.3
02-Aug-19	57	55.5
19-Aug-19	57.5	57.7
03-Sep-19	63.1	62.4
18-Sep-19	63.8	62.3
04-Oct-19	63.7	61.7
21-Oct-19	63.4	60.7
15-Nov-19	65.8	62.2
28-Nov-19	68.1	63.4
10-Dec-19	69.7	65.3
24-Dec-19	69.1	61.2
09-Jan-20	60.4	59.9
24-Jan-20	62.7	60.7
10-Feb-20	61.9	59.7
24-Feb-20	70.8	62.1
12-Mar-20	60.6	58.4
24-Mar-20	63.4	58.4
MIN	51.3	55.3
MAX	70.8	65.3
MEAN	62.44	59.66
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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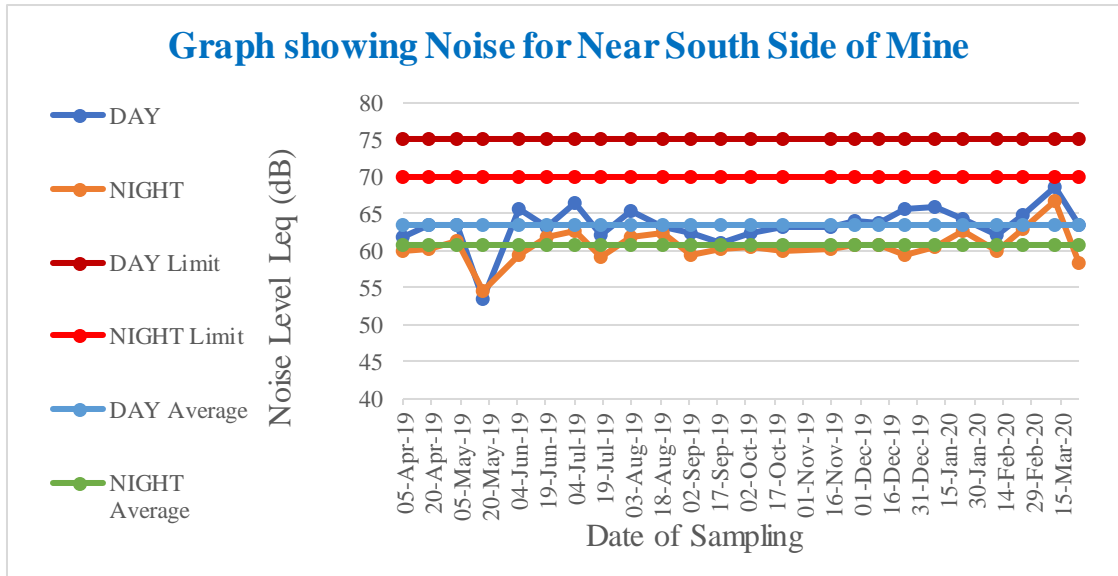
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:79
 Area: Lingraj
 Project: Lingraj OCP
 Monitoring Station: Near South Side of Mine

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	61.7	59.8
18-Apr-19	63.4	60.3
03-May-19	63.5	61.4
17-May-19	53.5	54.6
04-Jun-19	65.5	59.3
19-Jun-19	63.1	61.8
04-Jul-19	66.3	62.6
17-Jul-19	62	59.1
02-Aug-19	65.4	61.7
19-Aug-19	63.2	62.4
03-Sep-19	62.4	59.3
18-Sep-19	61.09	60.1
04-Oct-19	62.3	60.6
21-Oct-19	63.2	59.8
15-Nov-19	63.1	60.2
28-Nov-19	64.1	60.8
10-Dec-19	63.6	60.8
24-Dec-19	65.5	59.5
09-Jan-20	65.8	60.6
24-Jan-20	64.4	62.7
10-Feb-20	62	59.8
24-Feb-20	64.7	62.8
12-Mar-20	68.6	66.8
24-Mar-20	63.4	58.4
MIN	53.5	54.6
MAX	68.6	66.8
MEAN	63.41	60.63
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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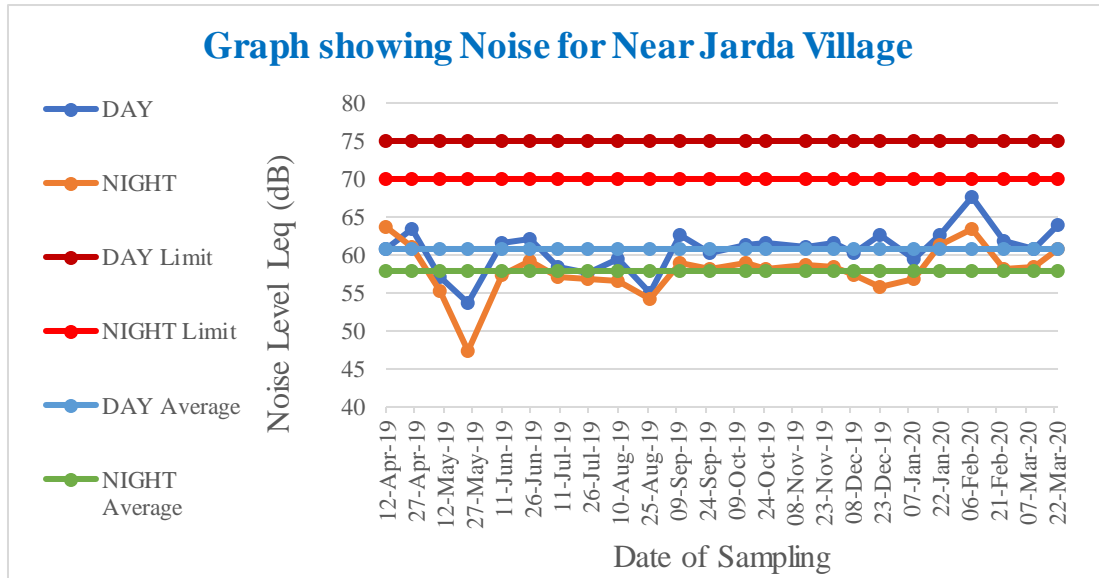
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:80
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: Near Jarida Village

DATE OF SAMPLING	DAY	NIGHT
12-Apr-19	60.8	63.5
25-Apr-19	63.4	60.9
10-May-19	57	55.2
24-May-19	53.5	47.3
11-Jun-19	61.6	57.2
25-Jun-19	62.1	59.1
10-Jul-19	58.4	56.9
25-Jul-19	57.6	56.8
10-Aug-19	59.4	56.4
26-Aug-19	55	54.2
10-Sep-19	62.6	58.9
26-Sep-19	60.1	58.2
15-Oct-19	61.2	58.9
25-Oct-19	61.4	58.2
14-Nov-19	61.1	58.7
29-Nov-19	61.6	58.4
09-Dec-19	60.3	57.2
23-Dec-19	62.7	55.6
09-Jan-20	59.4	56.8
23-Jan-20	62.6	61.2
08-Feb-20	67.7	63.4
25-Feb-20	61.7	58.2
11-Mar-20	60.6	58.3
23-Mar-20	63.9	60.6
MIN	53.5	47.3
MAX	67.7	63.5
MEAN	60.65	57.92
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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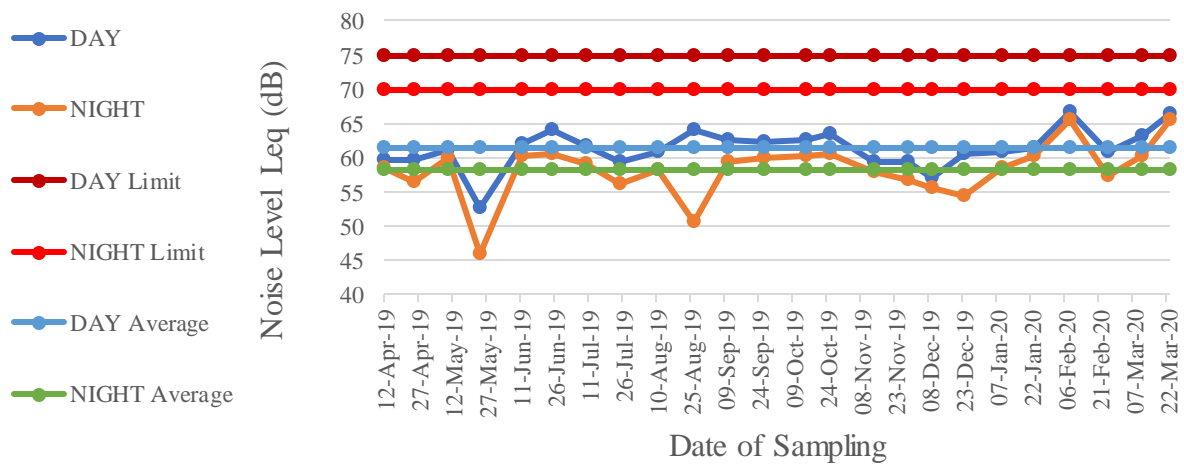
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:81
 Area: Kaniha
 Project: Kaniha OCP
 Monitoring Station: Patharmunda Village

DATE OF SAMPLING	DAY	NIGHT
12-Apr-19	59.8	58.5
25-Apr-19	59.8	56.4
10-May-19	61.2	59.9
24-May-19	52.7	46.1
11-Jun-19	62.1	60.2
25-Jun-19	64.2	60.5
10-Jul-19	61.7	59
25-Jul-19	59.4	56.3
10-Aug-19	60.8	58.2
26-Aug-19	64.2	50.6
10-Sep-19	62.5	59.4
26-Sep-19	62.2	60.1
15-Oct-19	62.7	60.2
25-Oct-19	63.5	60.7
14-Nov-19	59.4	57.8
29-Nov-19	59.4	56.7
09-Dec-19	57.2	55.6
23-Dec-19	60.5	54.5
09-Jan-20	60.8	58.4
23-Jan-20	61.5	60.2
08-Feb-20	66.7	65.4
25-Feb-20	60.9	57.3
11-Mar-20	63.2	60.4
23-Mar-20	66.3	65.6
MIN	52.7	46.1
MAX	66.7	65.6
MEAN	61.36	58.25
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Patharmunda Village



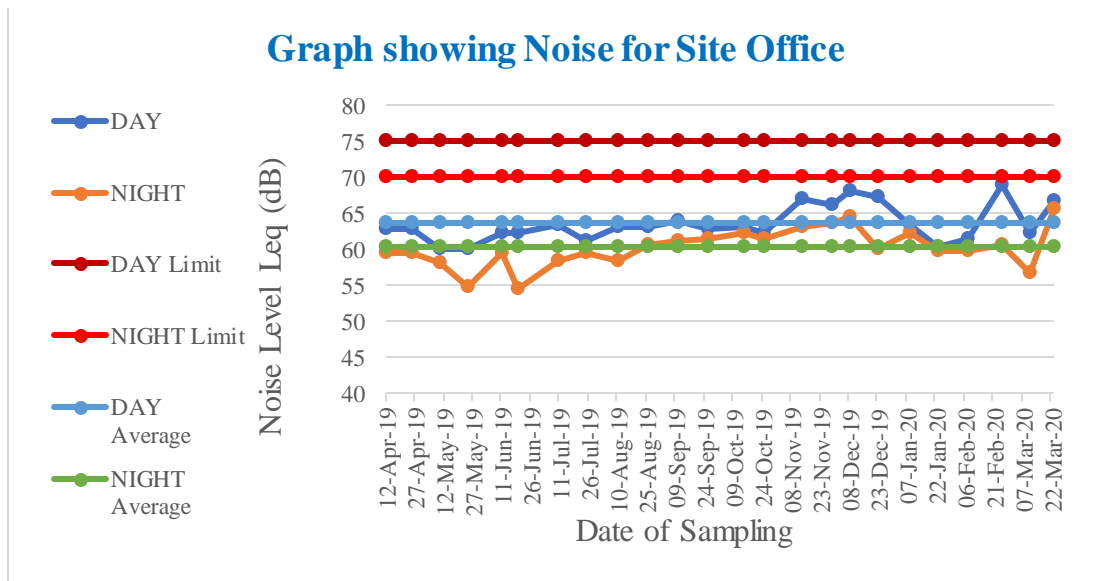
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Table:82
 Area: Kaniha
 Project: Kaniha OCP
 Monitoring Station: Site Office

DATE OF SAMPLING	DAY	NIGHT
12-Apr-19	62.9	59.6
25-Apr-19	62.9	59.4
10-May-19	60.2	58.2
24-May-19	60.1	54.8
11-Jun-19	62.2	59.5
19-Jun-19	62.2	54.4
10-Jul-19	63.4	58.4
25-Jul-19	61.1	59.4
10-Aug-19	63.2	58.4
26-Aug-19	63	60.5
10-Sep-19	64.1	61.2
26-Sep-19	62.8	61.4
15-Oct-19	63.1	62.3
25-Oct-19	62.3	61.4
14-Nov-19	66.9	63.1
29-Nov-19	66.3	63.8
09-Dec-19	68.2	64.4
23-Dec-19	67.3	60.1
09-Jan-20	63.4	62.4
23-Jan-20	60.4	59.8
08-Feb-20	61.6	59.8
25-Feb-20	68.9	60.7
11-Mar-20	62.3	56.7
23-Mar-20	66.8	65.6
MIN	60.1	54.4
MAX	68.9	65.6
MEAN	63.57	60.22
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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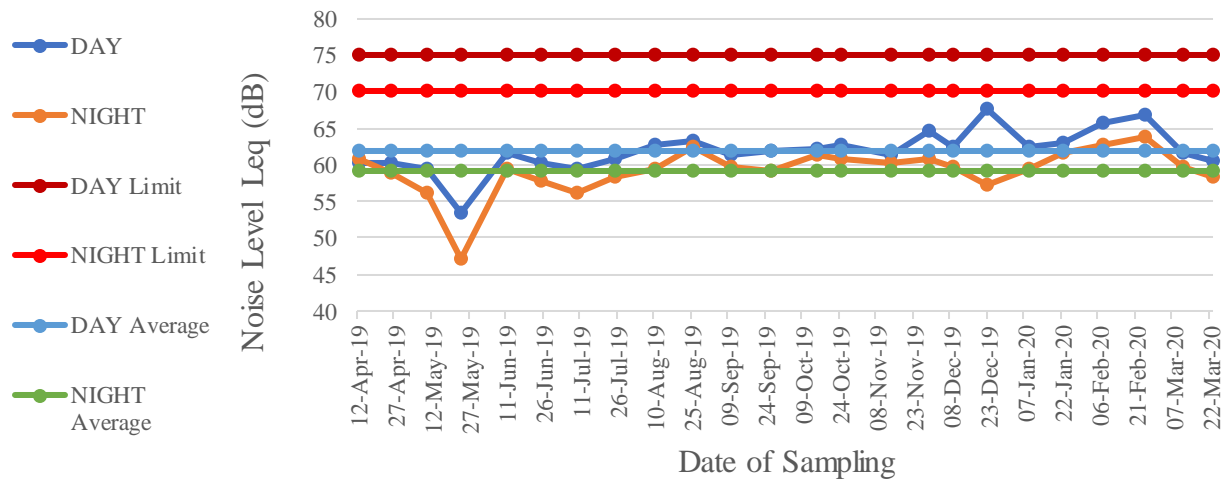
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:83
 Area: Kaniha
 Project: Kaniha OCP
 Monitoring Station: Telisingha Village

DATE OF SAMPLING	DAY	NIGHT
12-Apr-19	60.3	60.9
25-Apr-19	60.3	59
10-May-19	59.3	56
24-May-19	53.4	47.2
11-Jun-19	61.5	59.4
25-Jun-19	60.3	57.8
10-Jul-19	59.3	56.2
25-Jul-19	60.8	58.3
10-Aug-19	62.6	59.3
26-Aug-19	63.2	62.4
10-Sep-19	61.3	59.6
26-Sep-19	61.9	59.2
15-Oct-19	62.2	61.4
25-Oct-19	62.8	60.8
14-Nov-19	61.2	60.3
29-Nov-19	64.6	60.9
09-Dec-19	62.3	59.8
23-Dec-19	67.5	57.1
09-Jan-20	62.4	59.3
23-Jan-20	63.1	61.7
08-Feb-20	65.8	62.7
25-Feb-20	66.7	63.8
11-Mar-20	61.7	59.6
23-Mar-20	60.6	58.4
MIN	53.4	47.2
MAX	67.5	63.8
MEAN	61.88	59.21
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Telisingha Village



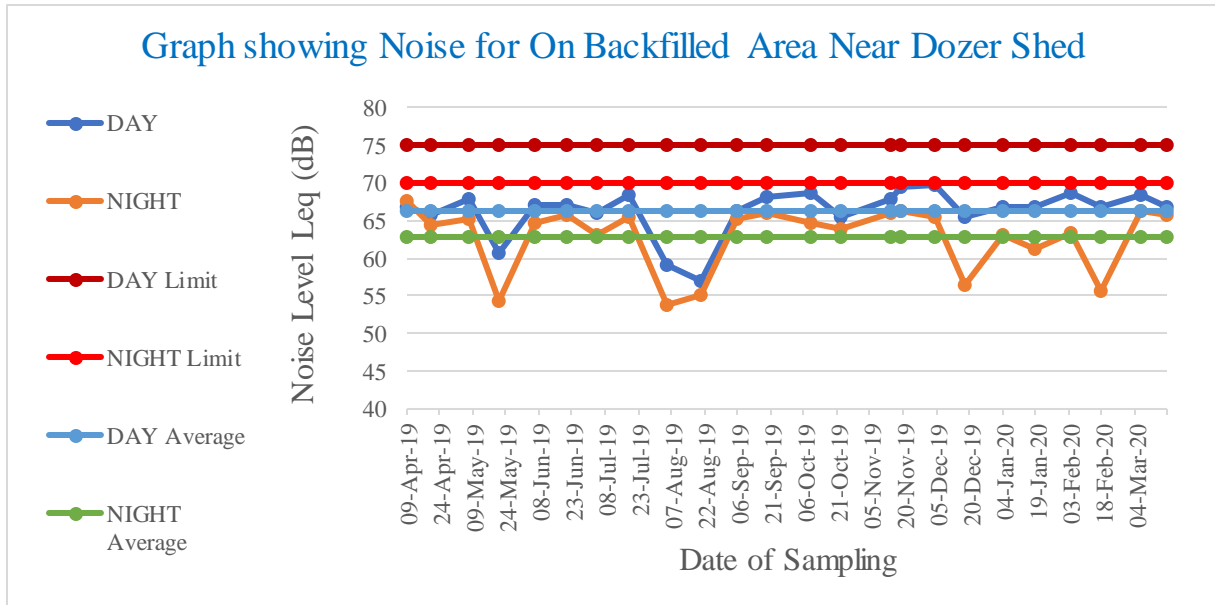
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Table:84
Area: Hingula
Project: Balram OCP
Monitoring Station: On Backfilled Area near Dozer shed

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	66.9	67.5
20-Apr-19	65.8	64.3
07-May-19	68	65.2
20-May-19	60.6	54.2
06-Jun-19	67.1	64.7
20-Jun-19	67.1	65.7
04-Jul-19	65.9	63.2
18-Jul-19	68.4	65.6
05-Aug-19	59.1	53.7
20-Aug-19	57	55.2
05-Sep-19	66.3	65.1
19-Sep-19	68.2	66.1
09-Oct-19	68.6	64.8
22-Oct-19	65.6	63.9
14-Nov-19	67.8	65.9
19-Nov-19	69.4	66.2
04-Dec-19	69.8	65.5
18-Dec-19	65.5	56.5
04-Jan-20	66.8	63.1
18-Jan-20	66.7	61.3
04-Feb-20	68.7	63.4
17-Feb-20	66.8	55.7
06-Mar-20	68.4	66.3
18-Mar-20	66.9	65.8
MIN	57	53.7
MAX	69.8	67.5
MEAN	66.31	62.87
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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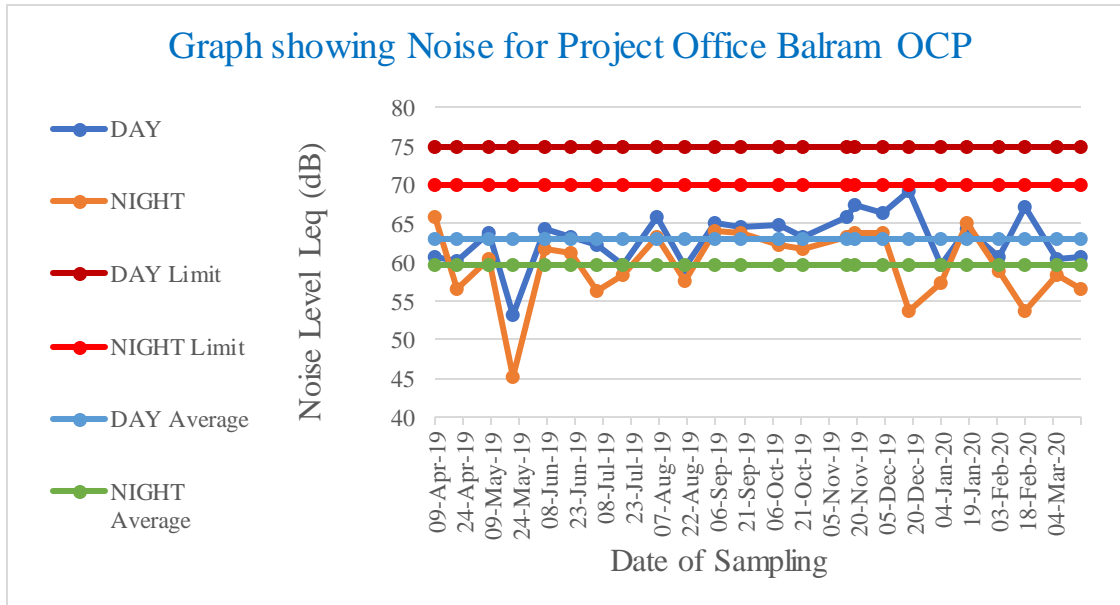
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Table:85
Area: Hingula
Project: Balram OCP
Monitoring Station: Project Office Balram OCP

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	60.8	65.9
20-Apr-19	60.3	56.7
07-May-19	63.8	60.5
20-May-19	53.1	45.3
06-Jun-19	64.2	61.7
20-Jun-19	63.2	61.2
04-Jul-19	62.3	56.4
18-Jul-19	59.7	58.3
05-Aug-19	65.8	63.4
20-Aug-19	59.3	57.7
05-Sep-19	65.2	64.1
19-Sep-19	64.7	63.9
09-Oct-19	64.8	62.3
22-Oct-19	63.4	61.8
14-Nov-19	65.8	63.2
19-Nov-19	67.3	63.7
04-Dec-19	66.4	63.8
18-Dec-19	69.2	53.6
04-Jan-20	59.8	57.4
18-Jan-20	64.3	65.2
04-Feb-20	60.8	59
17-Feb-20	67.2	53.8
06-Mar-20	60.4	58.3
18-Mar-20	60.8	56.7
MIN	53.1	45.3
MAX	69.2	65.9
MEAN	63.03	59.75
Noise Standard	75	70

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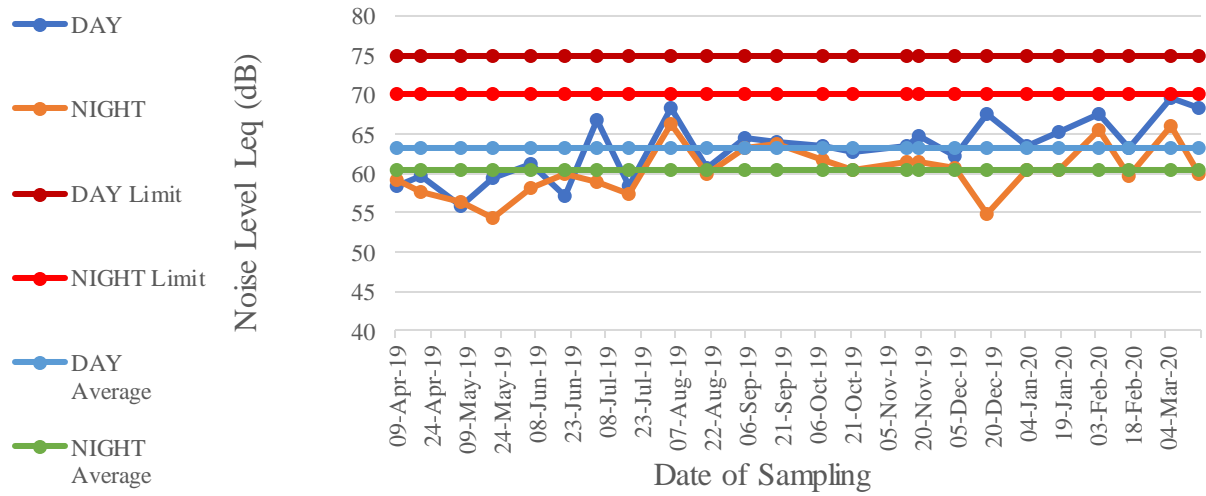
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:86
Area: Hingula
Project: Balram OCP
Monitoring Station: Pump House near Outsoureing Working

DATE OF SAMPLING	DAY	NIGHT
09-Apr-19	58.4	59.1
20-Apr-19	59.8	57.6
07-May-19	55.8	56.5
20-May-19	59.4	54.3
06-Jun-19	61.3	58.2
20-Jun-19	57.1	59.9
04-Jul-19	66.8	59
18-Jul-19	58.4	57.4
05-Aug-19	68.4	66.3
20-Aug-19	60.6	59.9
05-Sep-19	64.5	63.3
19-Sep-19	64.1	63.8
09-Oct-19	63.4	61.7
22-Oct-19	62.7	60.4
14-Nov-19	63.6	61.4
19-Nov-19	64.7	61.4
04-Dec-19	62.3	60.7
18-Dec-19	67.5	54.9
04-Jan-20	63.4	60.4
18-Jan-20	65.3	60.4
04-Feb-20	67.6	65.4
17-Feb-20	63.3	59.7
06-Mar-20	69.7	66
18-Mar-20	68.4	59.9
MIN	55.8	54.3
MAX	69.7	66.3
MEAN	63.19	60.32
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Pump House Near Outsoureing Working



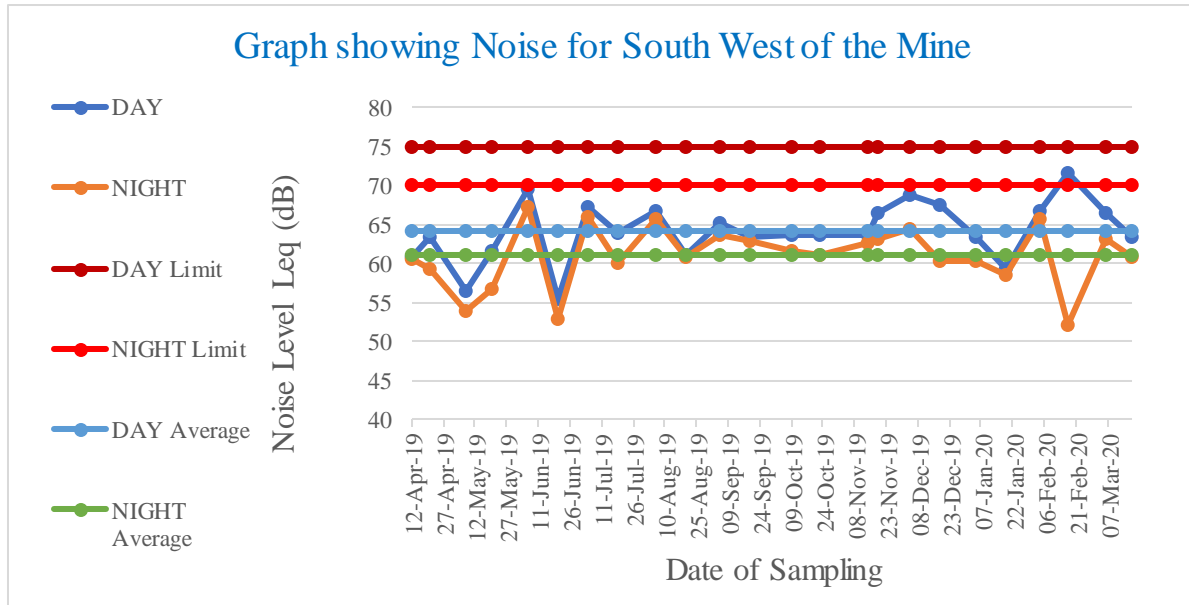
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:87
Area: Hingula
Project: Balram OCP
Monitoring Station: South West of the Mine

DATE OF SAMPLING	DAY	NIGHT
12-Apr-19	60.8	60.5
20-Apr-19	63.4	59.3
07-May-19	56.4	53.8
20-May-19	61.6	56.8
06-Jun-19	69.5	67.2
20-Jun-19	55.4	52.9
04-Jul-19	67.3	66
18-Jul-19	63.9	60.1
05-Aug-19	66.7	65.8
20-Aug-19	61.1	60.9
05-Sep-19	65.3	63.7
19-Sep-19	63.3	62.9
09-Oct-19	63.7	61.6
22-Oct-19	63.6	61.2
14-Nov-19	63.6	62.6
19-Nov-19	66.5	63.2
04-Dec-19	68.7	64.3
18-Dec-19	67.4	60.2
04-Jan-20	63.4	60.2
18-Jan-20	59.2	58.4
04-Feb-20	66.8	65.6
17-Feb-20	71.7	52.1
06-Mar-20	66.4	63
18-Mar-20	63.4	60.8
MIN	55.4	52.1
MAX	71.7	67.2
MEAN	64.13	60.96
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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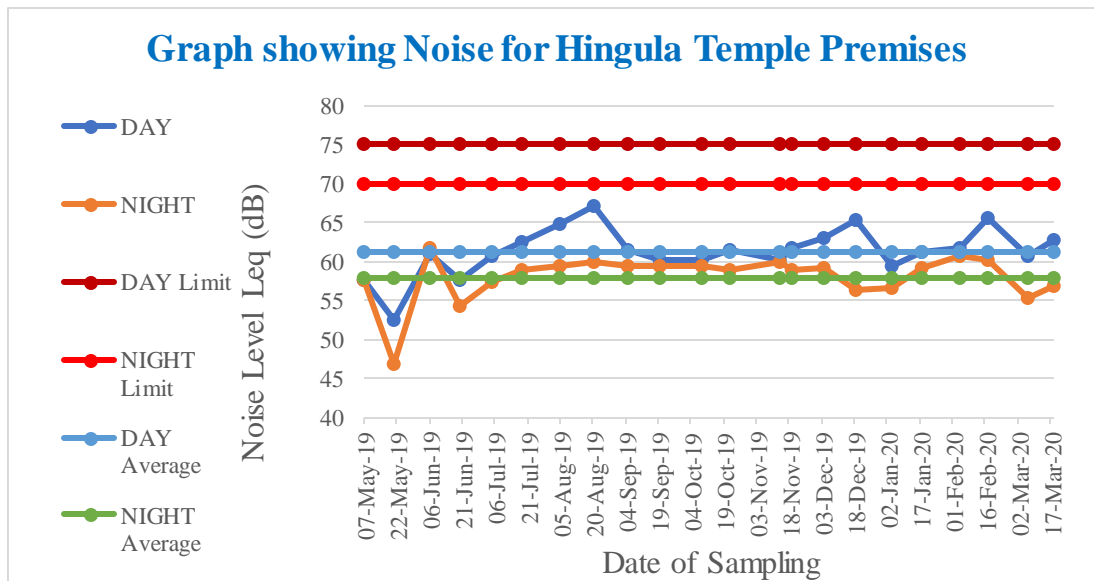
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Table:88
Area: Hingula
Project: Hingula OCP
Monitoring Station: Hingula Temple Premises

DATE OF SAMPLING	DAY	NIGHT
07-May-19	57.5	57.7
20-May-19	52.4	46.8
06-Jun-19	61	61.8
20-Jun-19	57.5	54.2
04-Jul-19	60.6	57.4
18-Jul-19	62.4	58.9
05-Aug-19	64.8	59.3
20-Aug-19	67.2	60
05-Sep-19	61.4	59.4
19-Sep-19	60.3	59.4
09-Oct-19	60.2	59.3
22-Oct-19	61.4	58.8
14-Nov-19	60.3	59.9
19-Nov-19	61.7	58.8
04-Dec-19	62.9	59.1
18-Dec-19	65.3	56.3
04-Jan-20	59.4	56.7
18-Jan-20	61.3	59.2
04-Feb-20	61.8	60.7
17-Feb-20	65.5	60.3
06-Mar-20	60.6	55.3
18-Mar-20	62.8	56.8
MIN	52.4	46.8
MAX	67.2	61.8
MEAN	61.29	58.00
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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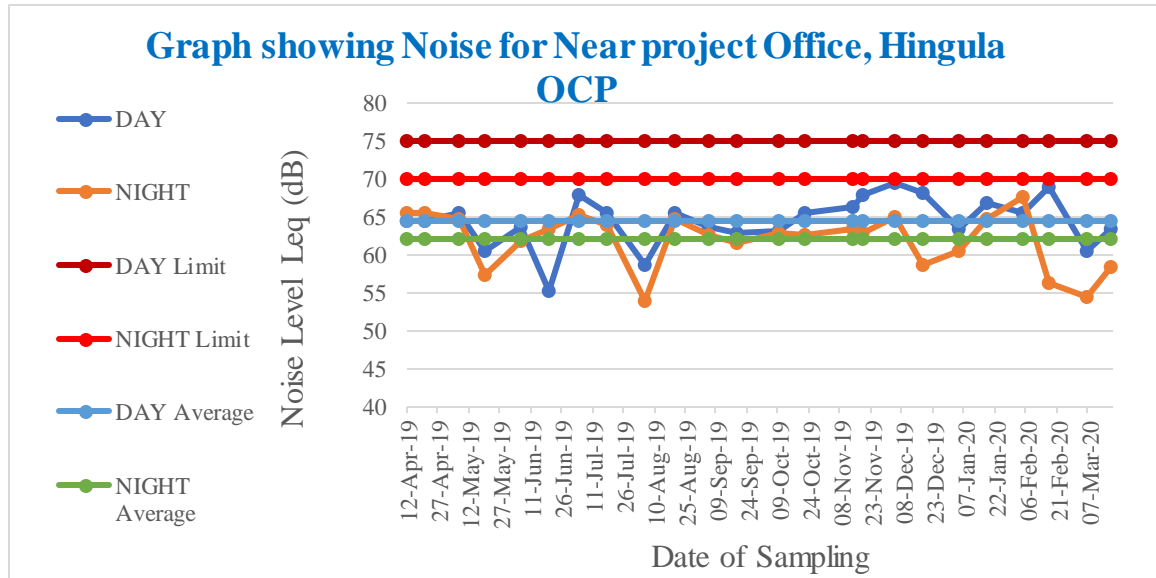
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:89
Area: Hingula
Project: Hingula OCP
Monitoring Station: Near Project Office, Hingula OCP

DATE OF SAMPLING	DAY	NIGHT
12-Apr-19	64.3	65.6
20-Apr-19	64.3	65.6
07-May-19	65.4	64.7
20-May-19	60.4	57.4
06-Jun-19	63.5	61.7
20-Jun-19	55.1	63.3
04-Jul-19	67.8	65.3
18-Jul-19	65.4	63.8
05-Aug-19	58.7	53.9
20-Aug-19	65.4	64.7
05-Sep-19	63.6	62.7
19-Sep-19	62.9	61.4
09-Oct-19	63.1	62.8
22-Oct-19	65.6	62.7
14-Nov-19	66.3	63.4
19-Nov-19	67.8	62.8
04-Dec-19	69.4	64.9
18-Dec-19	68.1	58.5
04-Jan-20	63.4	60.4
18-Jan-20	66.8	64.8
04-Feb-20	65.4	67.6
17-Feb-20	68.9	56.3
06-Mar-20	60.4	54.3
18-Mar-20	63.4	58.3
MIN	55.1	53.9
MAX	69.4	67.6
MEAN	64.39	61.95
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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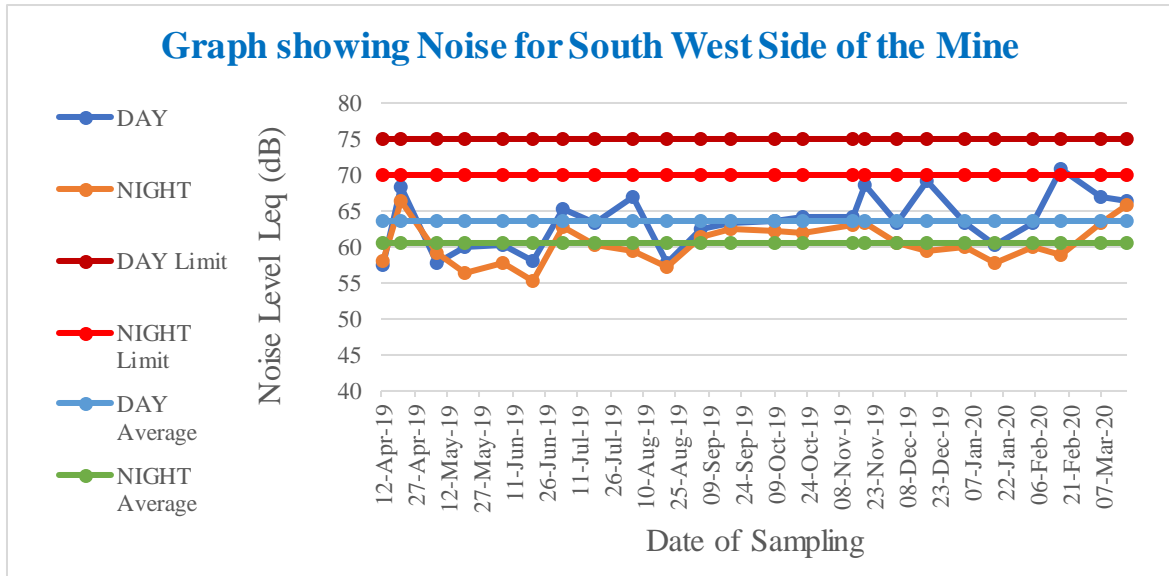
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:90
Area: Hingula
Project: Hingula OCP
Monitoring Station: South West Side of the Mine

DATE OF SAMPLING	DAY	NIGHT
12-Apr-19	57.5	57.9
20-Apr-19	68.4	66.3
07-May-19	57.7	59.1
20-May-19	59.8	56.3
06-Jun-19	60.3	57.8
20-Jun-19	57.9	55.1
04-Jul-19	65.3	62.8
18-Jul-19	63.4	60.1
05-Aug-19	66.8	59.4
20-Aug-19	57.7	57.2
05-Sep-19	62.3	61.2
19-Sep-19	63.4	62.3
09-Oct-19	63.6	62.1
22-Oct-19	64.2	61.9
14-Nov-19	64.2	62.9
19-Nov-19	68.5	63.4
04-Dec-19	63.2	60.6
18-Dec-19	69.2	59.3
04-Jan-20	63.4	59.8
18-Jan-20	60.3	57.6
04-Feb-20	63.4	59.8
17-Feb-20	70.7	58.8
06-Mar-20	66.8	63.4
18-Mar-20	66.3	65.8
MIN	57.5	55.1
MAX	70.7	66.3
MEAN	63.51	60.45
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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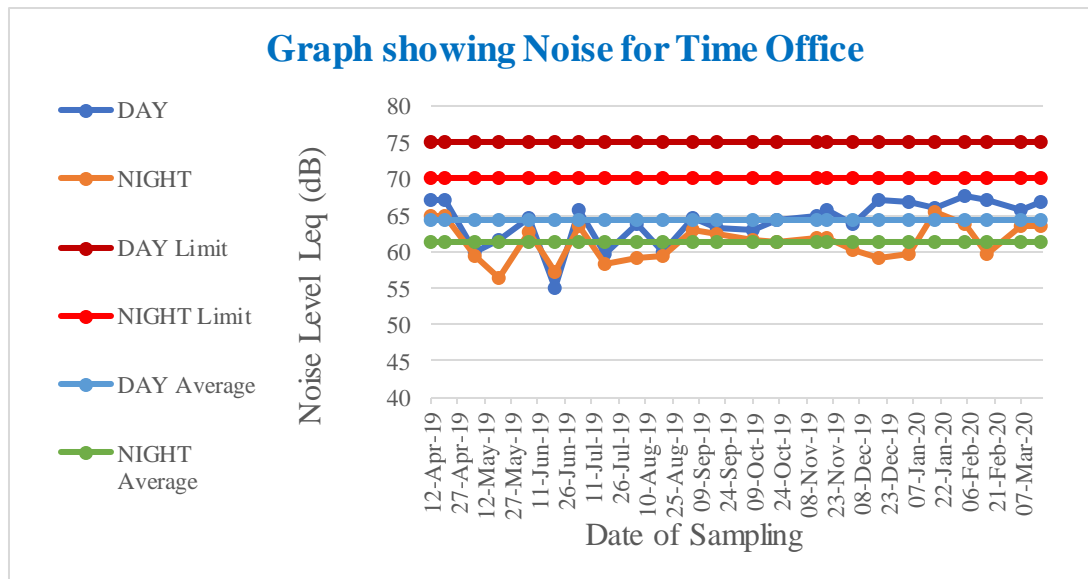
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Table: 91
Area: Hingula
Project: Hingula OCP
Monitoring Station: Time Office

DATE OF SAMPLING	DAY	NIGHT
12-Apr-19	67.2	64.9
20-Apr-19	67.2	64.9
07-May-19	60	59.5
20-May-19	61.6	56.5
06-Jun-19	64.7	62.6
20-Jun-19	54.9	57.2
04-Jul-19	65.6	63.4
18-Jul-19	59.6	58.4
05-Aug-19	63.8	59.2
20-Aug-19	60	59.5
05-Sep-19	64.6	63.01
19-Sep-19	63.3	62.4
09-Oct-19	62.9	61.6
22-Oct-19	64.3	61.3
14-Nov-19	64.8	61.8
19-Nov-19	65.6	61.9
04-Dec-19	63.9	60.3
18-Dec-19	67.1	59.2
04-Jan-20	66.7	59.8
18-Jan-20	65.9	65.5
04-Feb-20	67.7	63.8
17-Feb-20	67.2	59.6
06-Mar-20	65.6	63.4
18-Mar-20	66.9	63.4
MIN	54.9	56.5
MAX	67.7	65.5
MEAN	64.21	61.38
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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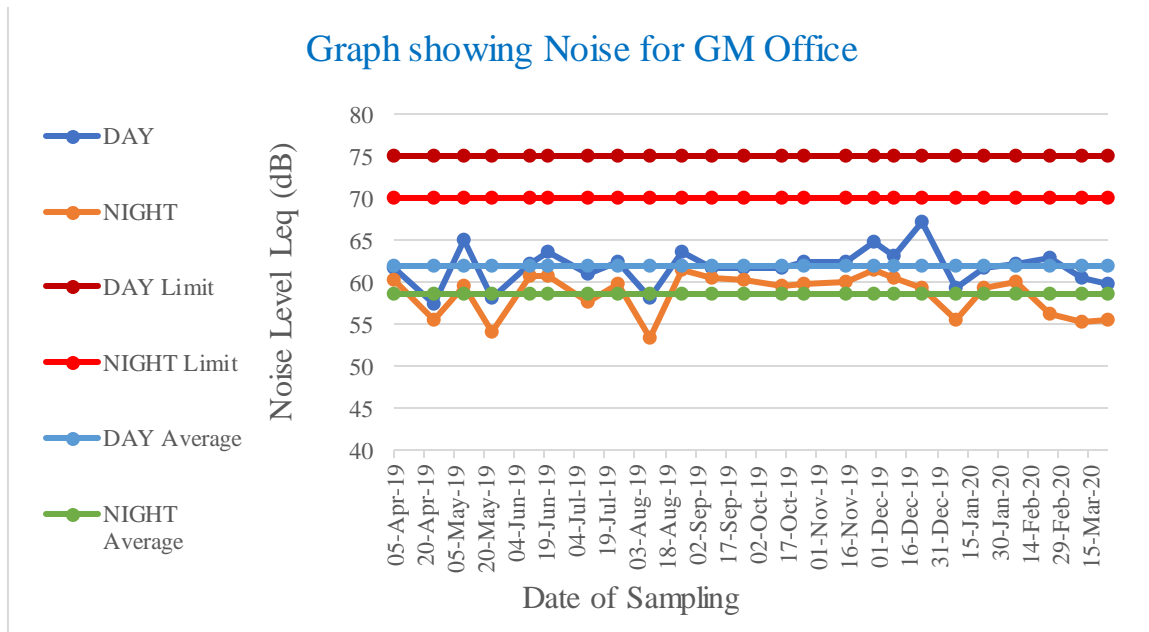
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:92
Area: Talcher
Project: Talcher OCP
Monitoring Station: GM Office

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	61.7	60.2
25-Apr-19	57.4	55.4
10-May-19	65	59.6
24-May-19	58.1	54.1
11-Jun-19	62.2	60.8
20-Jun-19	63.7	60.8
10-Jul-19	60.9	57.6
25-Jul-19	62.4	59.7
10-Aug-19	58.1	53.4
26-Aug-19	63.5	61.4
10-Sep-19	61.6	60.4
26-Sep-19	61.6	60.3
15-Oct-19	61.7	59.6
25-Oct-19	62.3	59.7
15-Nov-19	62.4	60.1
29-Nov-19	64.7	61.4
09-Dec-19	63.1	60.4
23-Dec-19	67.1	59.4
09-Jan-20	59.4	55.4
23-Jan-20	61.7	59.4
08-Feb-20	62.1	60
25-Feb-20	62.9	56.1
11-Mar-20	60.4	55.3
24-Mar-20	59.8	55.6
MIN	57.4	53.4
MAX	67.1	61.4
MEAN	61.83	58.59
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for GM Office



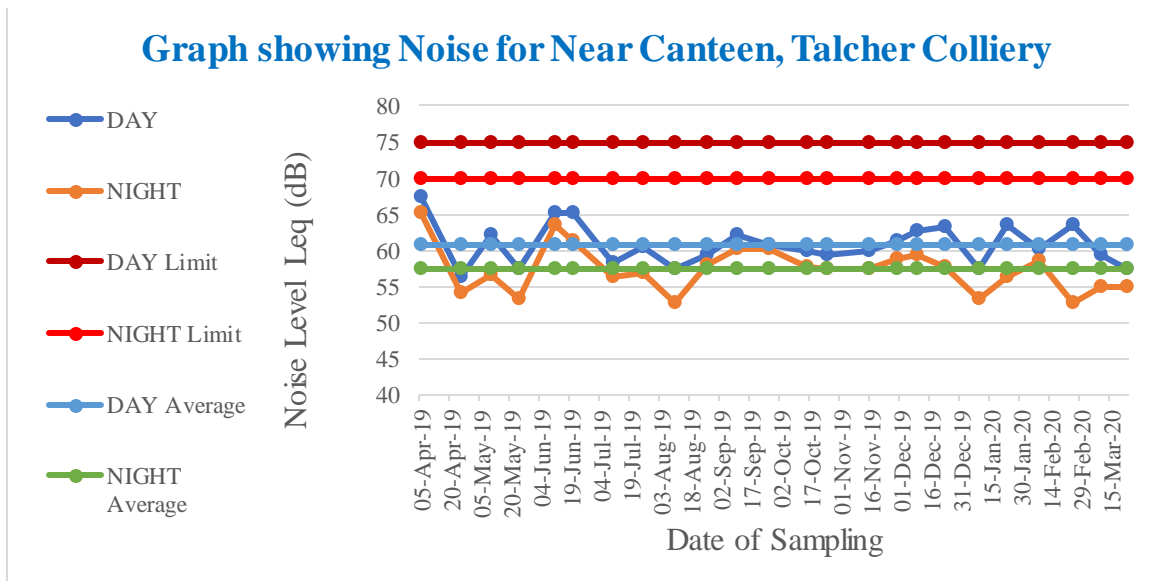
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:93
Area: Talcher
Project: Talcher OCP
Monitoring Station: Near Canteen, Talcher Colliery

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	67.3	65.3
25-Apr-19	56.3	54
10-May-19	62.2	56.7
24-May-19	57.3	53.4
11-Jun-19	65.1	63.6
20-Jun-19	65.1	61.4
10-Jul-19	58.2	56.3
25-Jul-19	60.4	56.8
10-Aug-19	57.3	52.8
26-Aug-19	59.3	57.9
10-Sep-19	62.1	60.2
26-Sep-19	60.7	60.2
15-Oct-19	60	57.8
25-Oct-19	59.4	57.5
15-Nov-19	59.9	57.3
29-Nov-19	61.3	58.7
09-Dec-19	62.7	59.3
23-Dec-19	63.3	57.6
09-Jan-20	57.4	53.4
23-Jan-20	63.4	56.3
08-Feb-20	60.2	58.4
25-Feb-20	63.5	52.8
11-Mar-20	59.4	54.8
24-Mar-20	57.4	54.8
MIN	56.3	52.8
MAX	67.3	65.3
MEAN	60.80	57.39
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Near Canteen, Talcher Colliery



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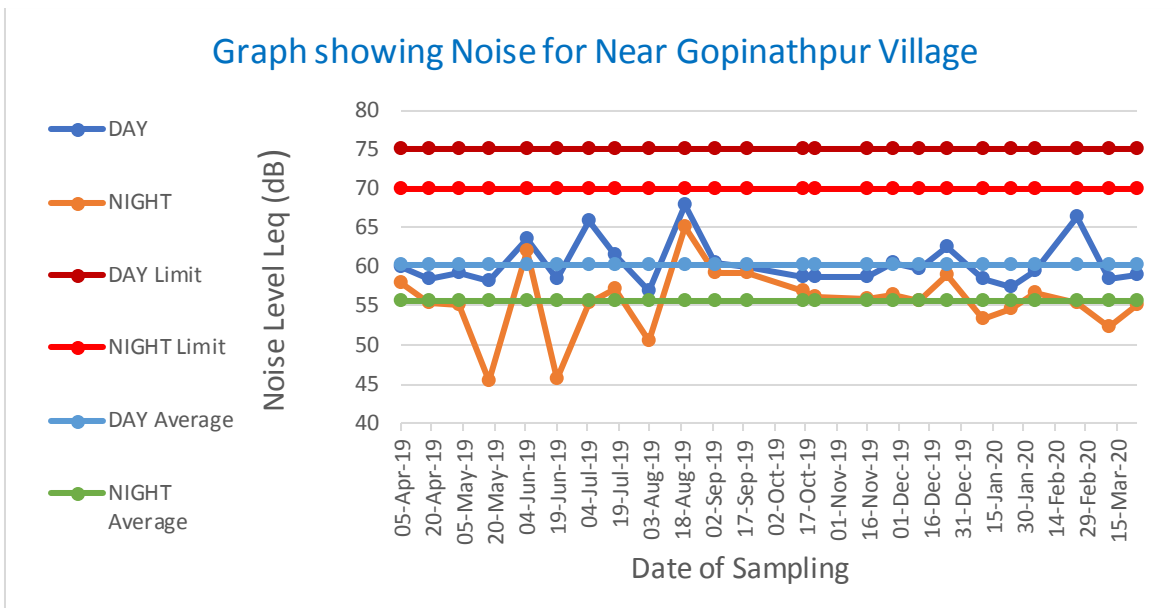
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:94
 Area: Talcher
 Project: Mandpal OCP
 Monitoring Station: Near Gopinathpur Village

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	60.1	57.9
18-Apr-19	58.4	55.3
03-May-19	59.2	55.2
17-May-19	58.3	45.4
04-Jun-19	63.5	62
19-Jun-19	58.5	45.7
04-Jul-19	65.8	55.3
17-Jul-19	61.5	57.2
02-Aug-19	56.9	50.4
19-Aug-19	68	65.2
03-Sep-19	60.4	59.1
18-Sep-19	60.1	59.1
15-Oct-19	58.7	56.8
21-Oct-19	58.6	56.2
15-Nov-19	58.6	55.8
28-Nov-19	60.6	56.3
10-Dec-19	59.8	55.6
24-Dec-19	62.6	58.9
10-Jan-20	58.4	53.4
24-Jan-20	57.4	54.7
04-Feb-20	59.6	56.6
24-Feb-20	66.5	55.3
11-Mar-20	58.4	52.3
24-Mar-20	58.9	55
MIN	56.9	45.4
MAX	68	65.2
MEAN	60.37	55.61
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Near Gopinathpur Village



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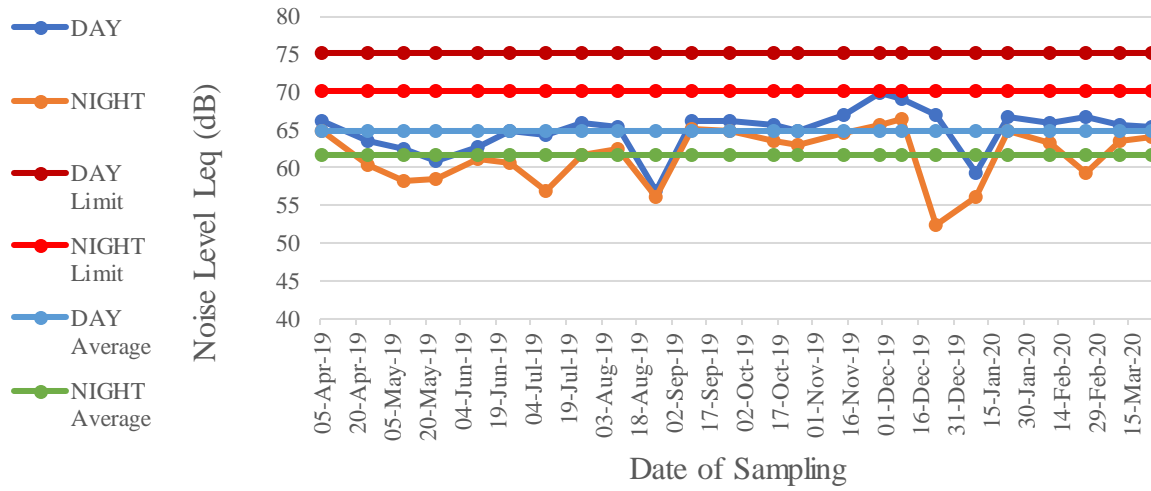
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:95
 Area: Talcher
 Project: Nandira Colliery
 Monitoring Station: Sub Station

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	66.2	64.7
25-Apr-19	63.4	60.4
10-May-19	62.3	58.2
24-May-19	60.9	58.4
11-Jun-19	62.6	61
25-Jun-19	64.9	60.6
10-Jul-19	64.3	56.8
25-Jul-19	65.8	61.7
10-Aug-19	65.3	62.4
26-Aug-19	56.8	56
10-Sep-19	66.1	65.02
26-Sep-19	66.2	64.8
15-Oct-19	65.7	63.4
25-Oct-19	64.8	62.8
14-Nov-19	66.8	64.6
29-Nov-19	69.9	65.6
09-Dec-19	69.1	66.5
23-Dec-19	66.8	52.3
09-Jan-20	59.3	56.1
23-Jan-20	66.7	64.8
10-Feb-20	65.8	63.3
25-Feb-20	66.7	59.3
11-Mar-20	65.5	63.4
24-Mar-20	65.3	63.9
MIN	56.8	52.3
MAX	69.9	66.5
MEAN	64.88	61.50
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Sub Station, Nandira Colliery



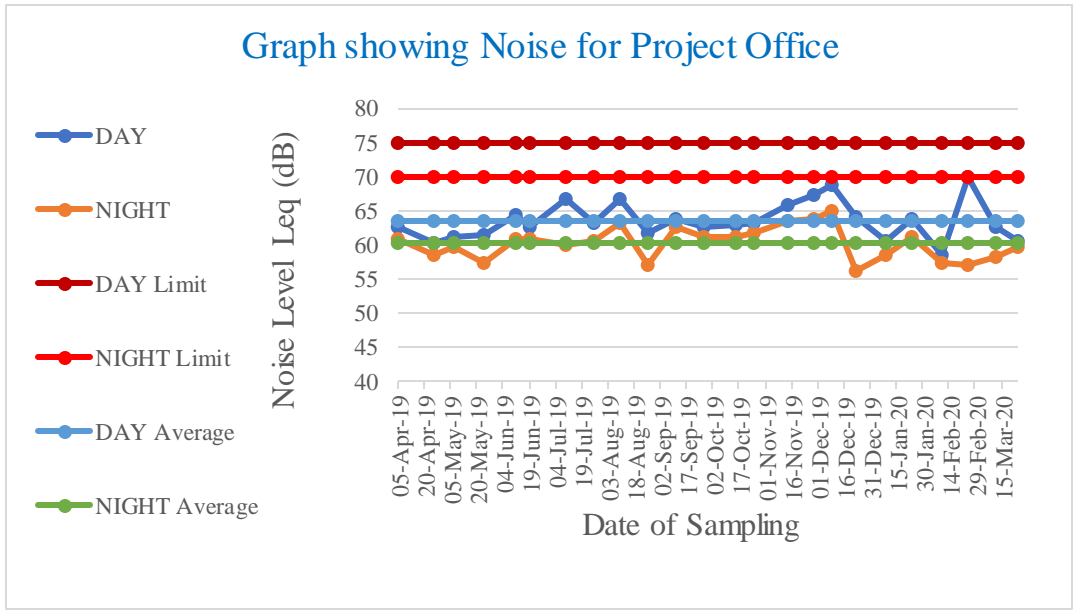
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:96
Area: Talcher
Project: Nandira OCP
Monitoring Station: Project Office

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	62.5	60.7
25-Apr-19	60.3	58.4
06-May-19	61	59.5
24-May-19	61.3	57.4
11-Jun-19	64.2	60.9
19-Jun-19	62.5	60.8
10-Jul-19	66.8	59.9
25-Jul-19	63.2	60.4
10-Aug-19	66.7	63.2
26-Aug-19	61.7	57
10-Sep-19	63.7	62.6
26-Sep-19	62.7	61.1
15-Oct-19	62.9	61.2
25-Oct-19	63.2	61.6
14-Nov-19	65.7	63.4
29-Nov-19	67.3	63.6
09-Dec-19	68.6	64.9
23-Dec-19	63.9	56.2
09-Jan-20	60.4	58.4
23-Jan-20	63.8	61.2
10-Feb-20	58.4	57.4
25-Feb-20	69.8	57.1
11-Mar-20	62.6	58.3
24-Mar-20	60.6	59.6
MIN	58.4	56.2
MAX	69.8	64.9
MEAN	63.49	60.20
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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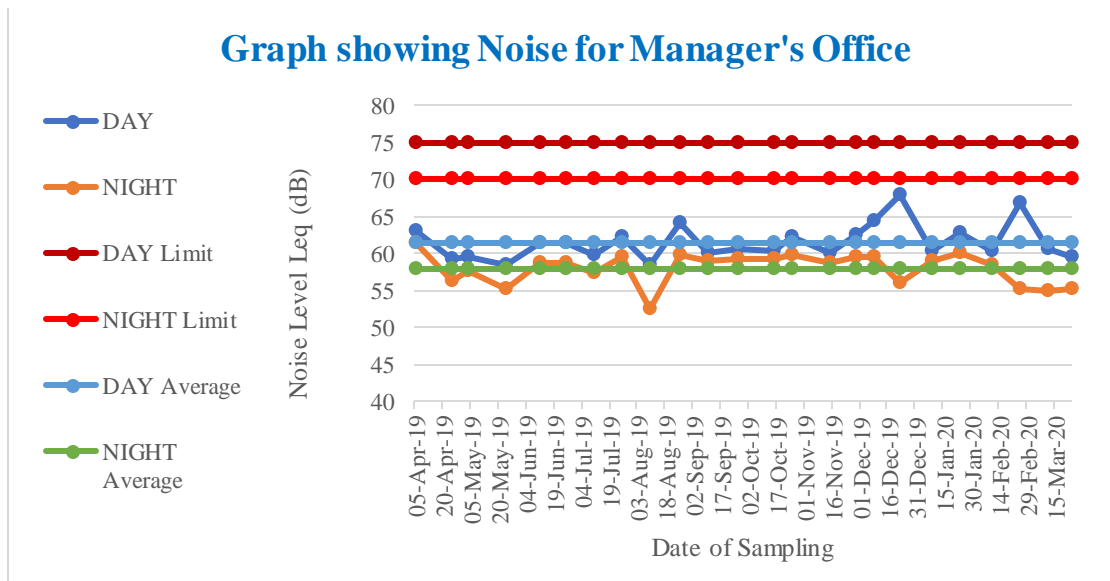
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:97
Area: Talcher
Project: Deulbara OCP
Monitoring Station: Manager's Office

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	63.1	61.4
25-Apr-19	59.3	56.3
03-May-19	59.5	57.5
24-May-19	58.4	55.3
11-Jun-19	61.4	58.6
25-Jun-19	61.4	58.7
10-Jul-19	59.8	57.4
25-Jul-19	62.3	59.4
10-Aug-19	58.4	52.4
26-Aug-19	64.2	59.9
10-Sep-19	60.2	59.03
26-Sep-19	60.5	59.2
15-Oct-19	60.4	59.2
25-Oct-19	62.3	59.7
15-Nov-19	60.2	58.6
29-Nov-19	62.4	59.4
09-Dec-19	64.4	59.6
23-Dec-19	67.8	55.9
09-Jan-20	60.4	59
24-Jan-20	62.7	60.2
10-Feb-20	60.3	58.4
25-Feb-20	66.8	55.2
11-Mar-20	60.6	54.8
24-Mar-20	59.6	55.3
MIN	58.4	52.4
MAX	67.8	61.4
MEAN	61.52	57.93
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Manager's Office



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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:98

Area: Talcher

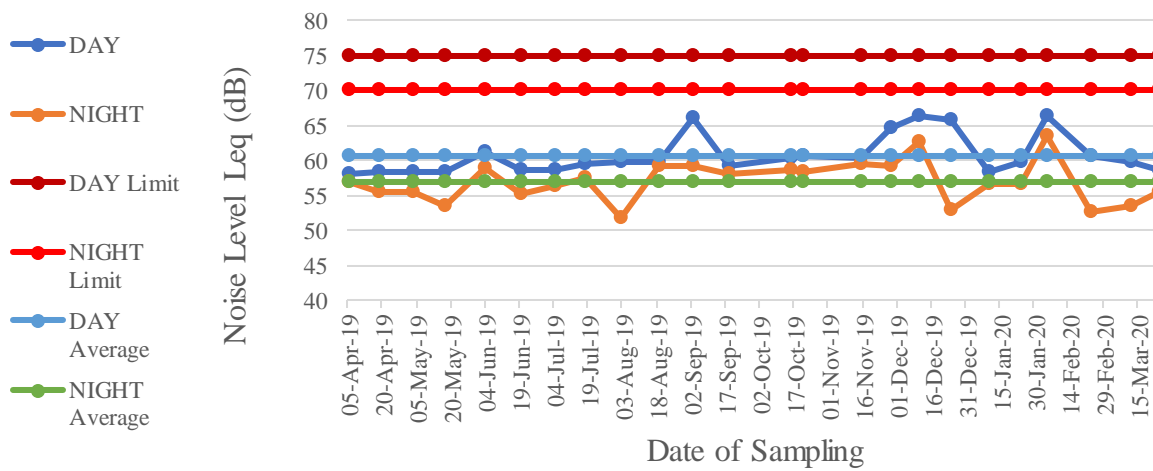
Project: Kakudi & Kishoripal Sand Mine

Monitoring Station: Near Kishoripal Village

DATE OF SAMPLING	DAY	NIGHT
05-Apr-19	58.2	56.8
18-Apr-19	58.4	55.4
03-May-19	58.4	55.6
17-May-19	58.3	53.4
04-Jun-19	61.3	58.9
19-Jun-19	58.7	55.2
04-Jul-19	58.7	56.3
17-Jul-19	59.5	57.4
02-Aug-19	59.8	51.7
19-Aug-19	59.9	59.3
03-Sep-19	66.1	59.2
18-Sep-19	59.2	58.1
15-Oct-19	60.3	58.6
21-Oct-19	60.6	58.3
15-Nov-19	60.4	59.4
28-Nov-19	64.7	59.2
10-Dec-19	66.3	62.6
24-Dec-19	65.9	52.8
10-Jan-20	58.4	56.7
24-Jan-20	59.8	56.7
04-Feb-20	66.4	63.4
24-Feb-20	60.6	52.5
12-Mar-20	59.8	53.4
24-Mar-20	58.6	55.6
MIN	58.2	51.7
MAX	66.4	63.4
MEAN	60.76	56.94
Noise Standard	75	70

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Graph showing Noise for Near Kishoripal Village



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EFFLUENT QUALITY

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6 TABLES FOR EFFLUENT QUALITY DATA

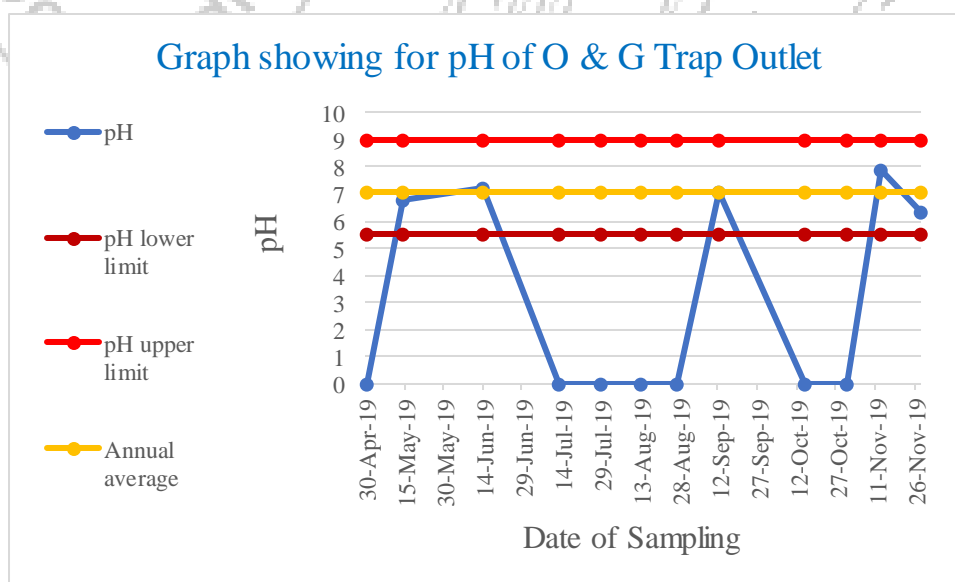
Table:99

Area: Jagannath

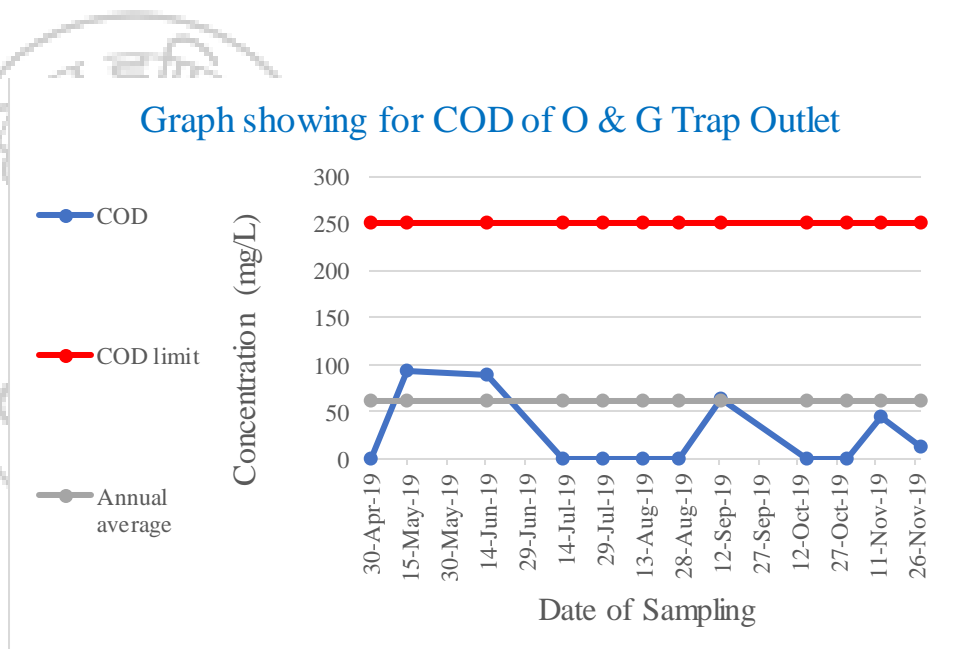
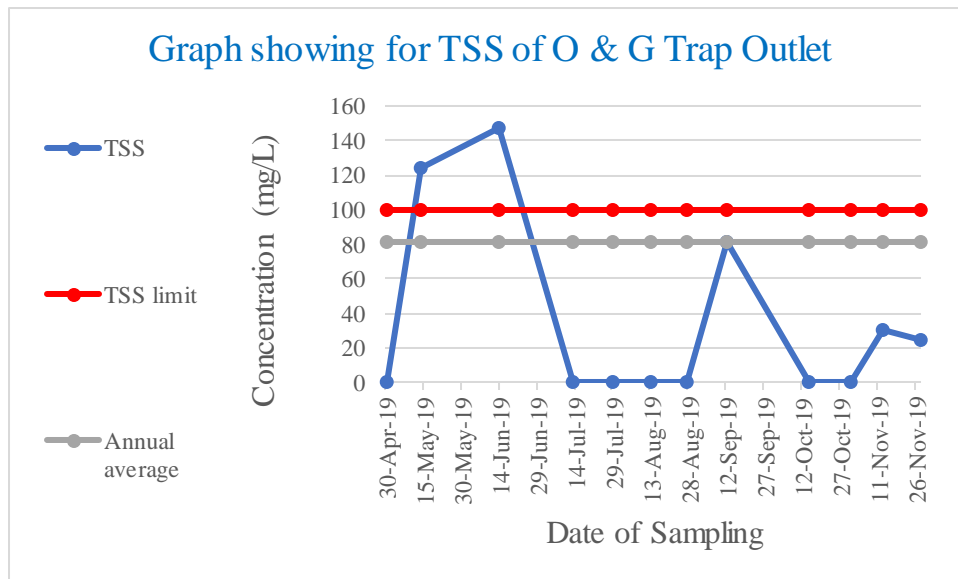
Project: Jagannath OCP

Monitoring Station: O & G Trap Inlet

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-19	Not working			
14-May-19	6.81	<4.0	124	92
14-Jun-19	7.19	<4.0	147	88
13-Jul-19	Not Working			
29-Jul-19	Not Working			
13-Aug-19	Not Working			
27-Aug-19	Maintenance			
12-Sep-19	7.09	4.4	81	64
15-Oct-19	Maintenance			
31-Oct-19	Maintenance			
13-Nov-19	7.9	<4.0	30	44
28-Nov-19	6.3	<4.0	24	12
13-Dec-19	Maintenance			



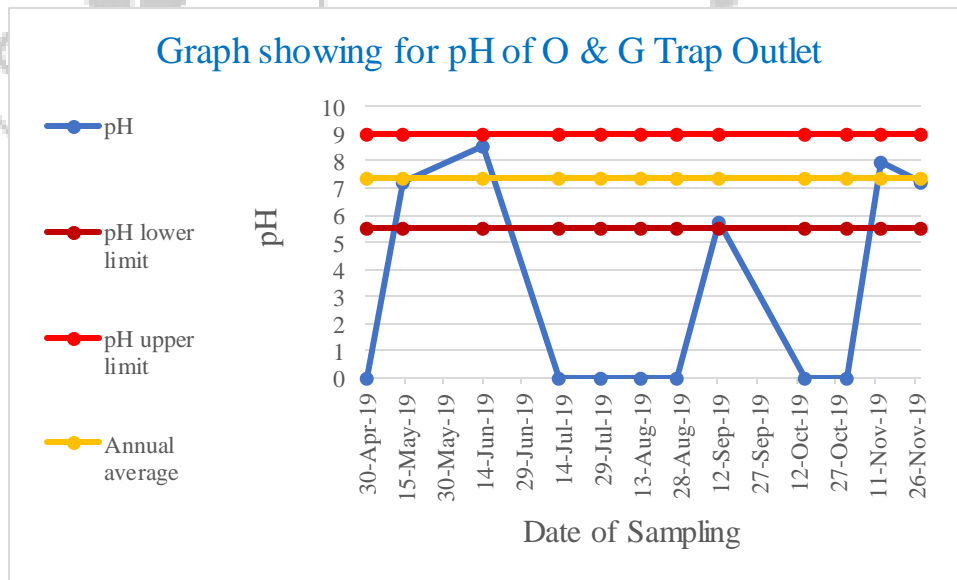
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



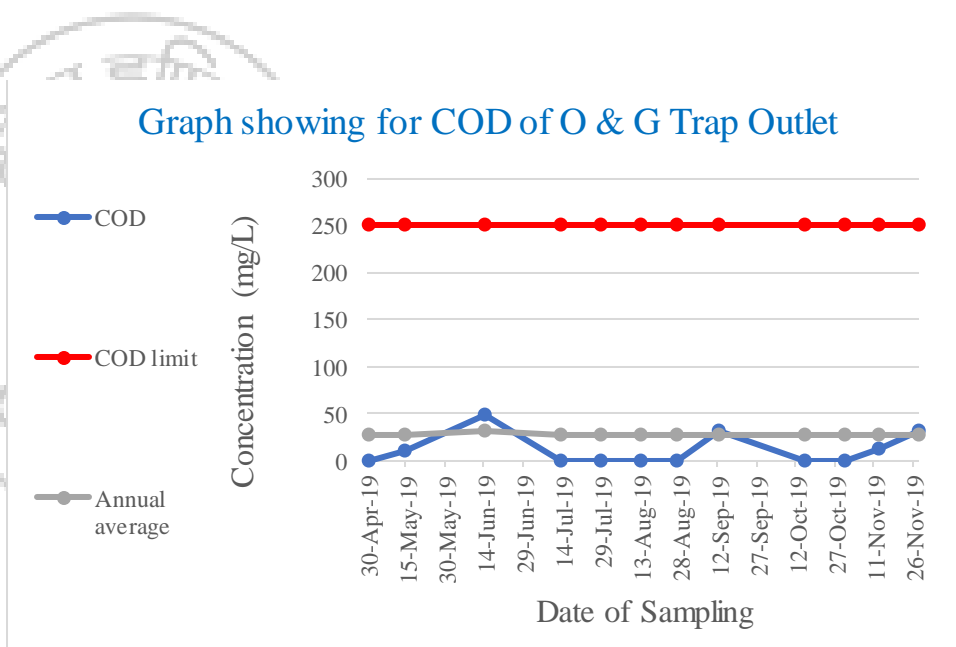
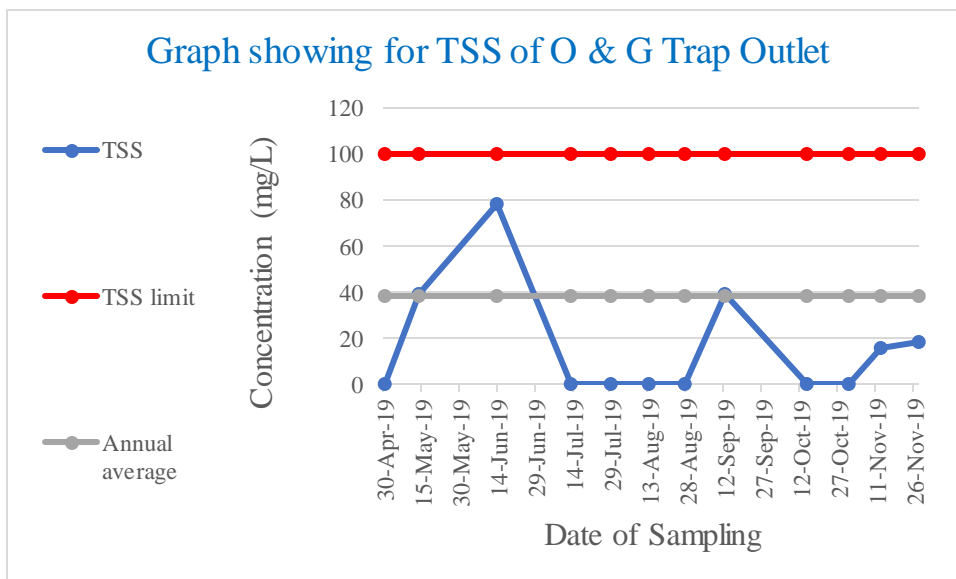
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:100
 Area: Jagannath
 Project: Jagannath OCP
 Monitoring Station: O & G Trap Outlet

pH	Oil & Grease	TSS	COD
Not working			
7.24	<4.0	39	10
8.58	<4.0	78	48
Not Working			
Maintenance			
5.76	<4.0	39	32
Maintenance			
7.96	<4.0	16	12
7.22	<4.0	18	32



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

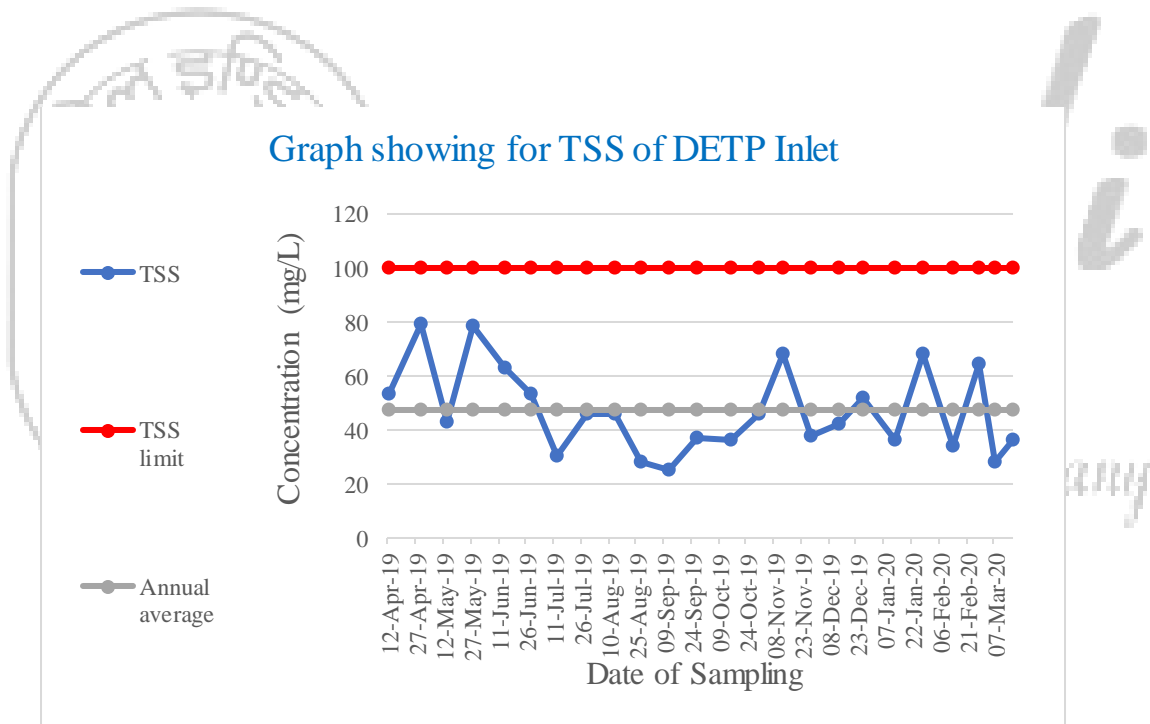
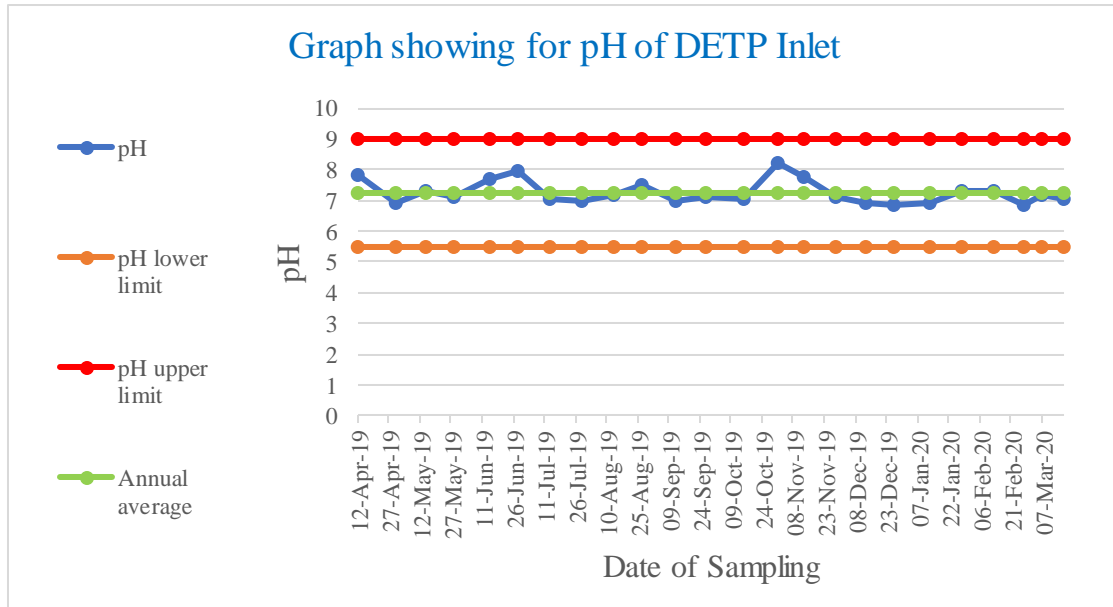


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

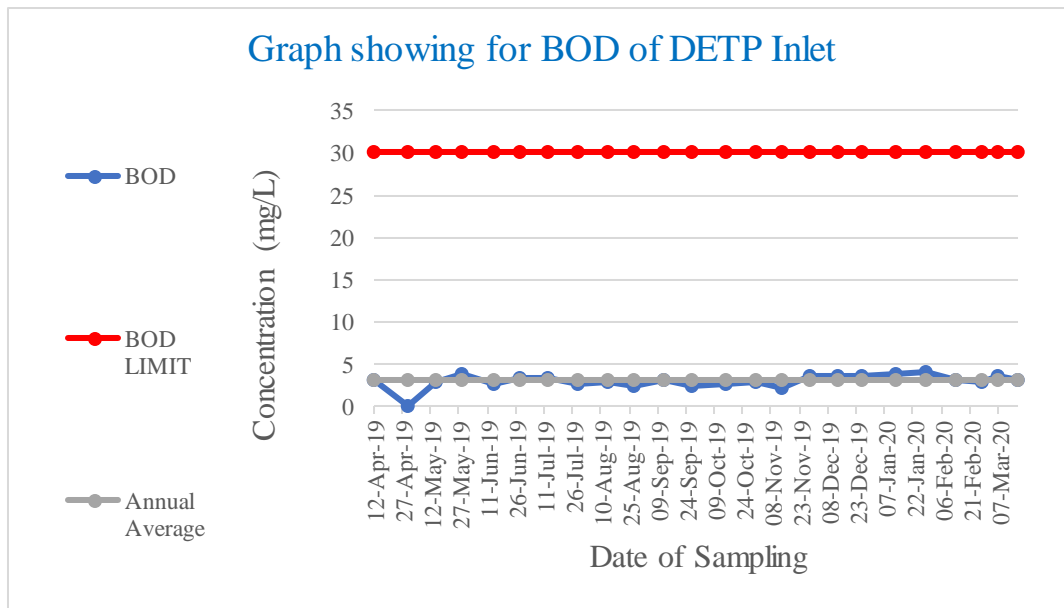
Table:101
Area: Jagannath
Project: Jagannath OCP
Monitoring Station: DETP Inlet

Date of Sampling	pH	TSS	BOD
12-Apr-19	7.8	53	3.1
30-Apr-19	6.91	79	NOT WORKING
14-May-19	7.31	43	2.8
28-May-19	7.08	78	3.8
14-Jun-19	7.68	63	2.7
28-Jun-19	7.93	53	3.4
13-Jul-19	7.05	30	3.4
29-Jul-19	7	46	2.6
13-Aug-19	7.18	46	2.8
27-Aug-19	7.47	28	2.3
12-Sep-19	6.97	25	3.2
27-Sep-19	7.1	37	2.3
15-Oct-19	7.04	36	2.7
31-Oct-19	8.2	46	2.8
13-Nov-19	7.75	68	2.1
28-Nov-19	7.1	38	3.6
13-Dec-19	6.93	42	3.6
26-Dec-19	6.88	52	3.5
13-Jan-20	6.89	36	3.9
28-Jan-20	7.3	68	4
13-Feb-20	7.3	34	3.2
27-Feb-20	6.84	64	2.9
07-Mar-20	7.19	28	3.6
17-Mar-20	7.02	36	3.2

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



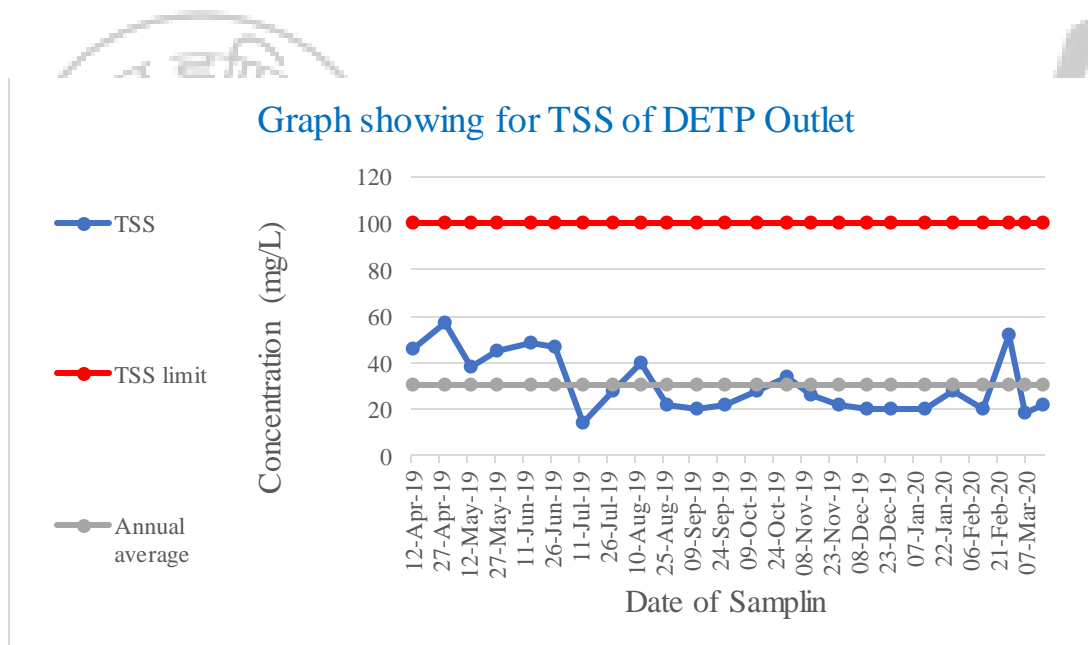
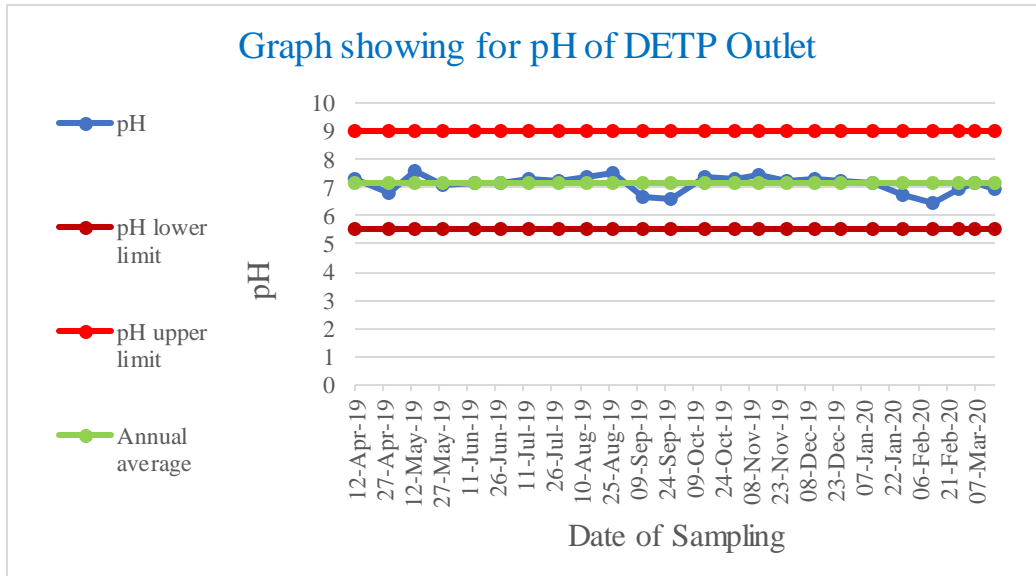
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

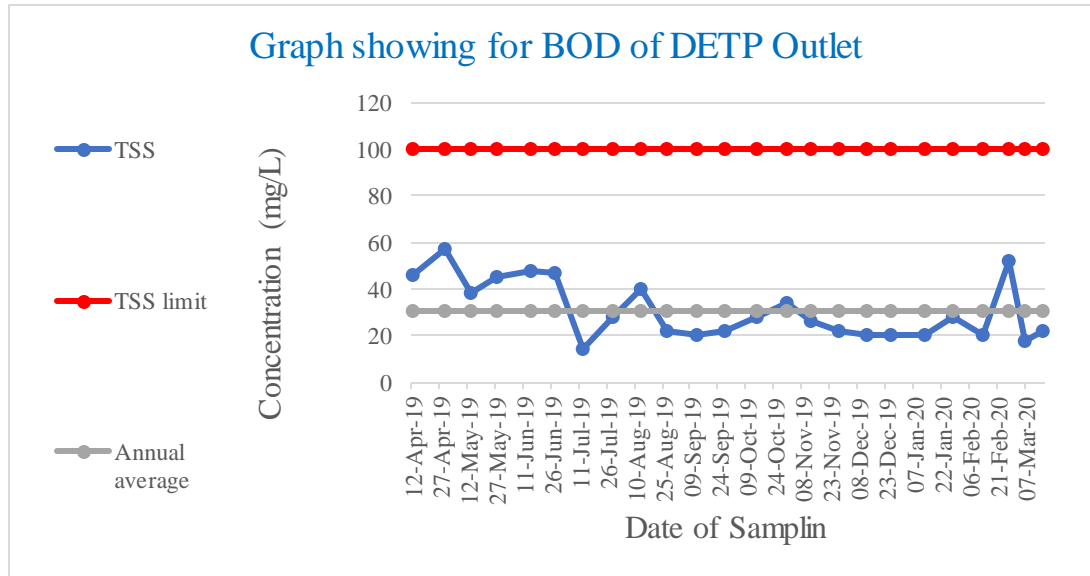
Table:102
Area: Jagannath
Project: Jagannath OCP
Monitoring Station: DETP Outlet

Date of Sampling	pH	TSS	BOD
12-Apr-19	7.32	46	2.6
30-Apr-19	6.82	57	
14-May-19	7.59	38	2.4
28-May-19	7.12	45	2.6
15-Jun-19	7.14	48	1.3
28-Jun-19	7.14	47	2.9
13-Jul-19	7.32	14	2.1
29-Jul-19	7.21	28	<2.0
13-Aug-19	7.36	40	2.1
27-Aug-19	7.51	22	<2.0
12-Sep-19	6.65	20	1.4
27-Sep-19	6.56	22	1.2
15-Oct-19	7.39	28	1.1
31-Oct-19	7.27	34	1.4
13-Nov-19	7.46	26	1.3
28-Nov-19	7.24	22	2.1
13-Dec-19	7.32	20	2.1
26-Dec-19	7.2	20	1.6
13-Jan-20	7.16	20	2.1
28-Jan-20	6.75	28	2.4
13-Feb-20	6.42	20	<2.0
27-Feb-20	6.91	52	<2.0
07-Mar-20	7.14	18	<2.0
17-Mar-20	6.96	22	<2.0

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

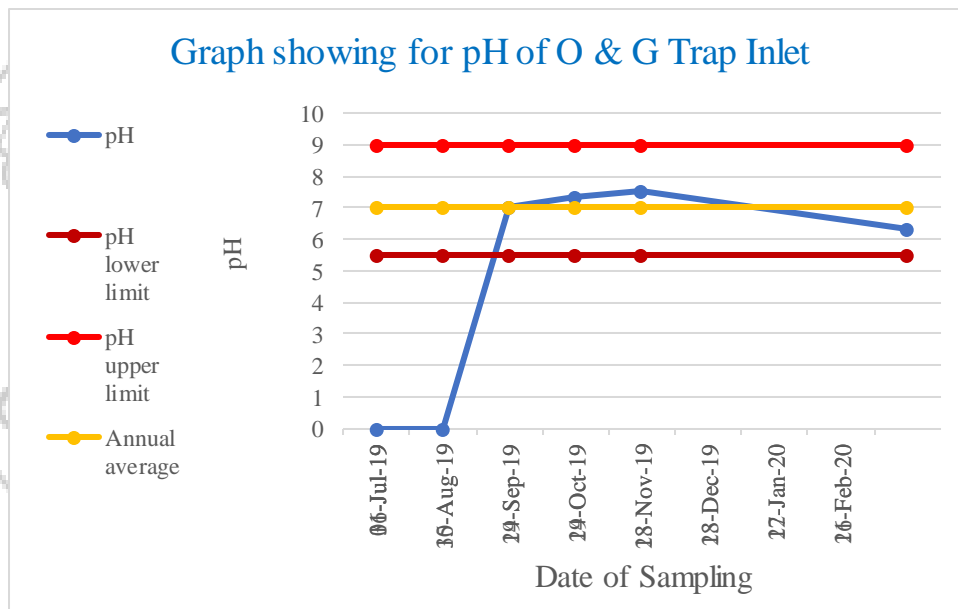


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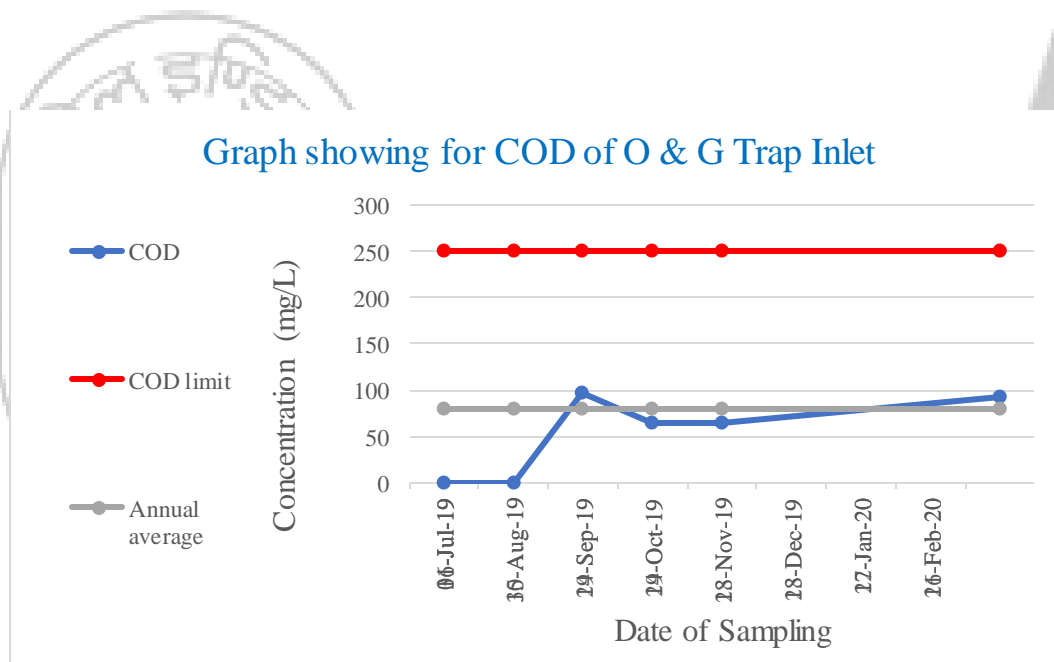
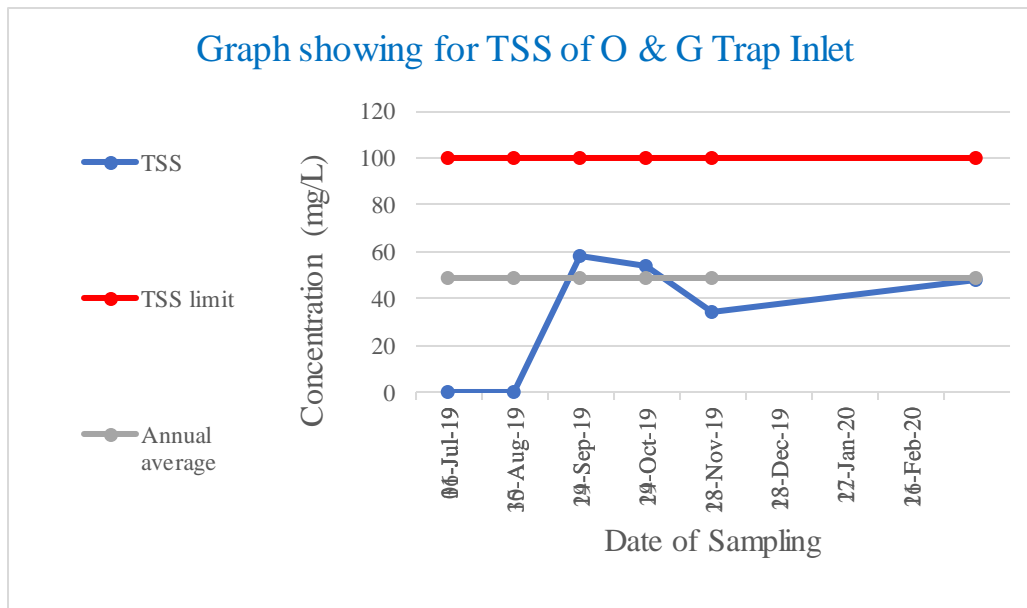
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:103
Area: Jagannath
Project: Ananta OCP
Monitoring Station: O & G Trap Inlet

Date of Sampling	pH	Oil & Grease	TSS	COD
14-Jul-19	NOT WORKING			
13-Aug-19	NOT WORKING			
12-Sep-19	7	4.8	58	96
15-Oct-19	7.31	<4.0	54	64
13-Nov-19	7.54	<4.0	34	64
07-Mar-20	6.35	<4.0	48	92



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:104

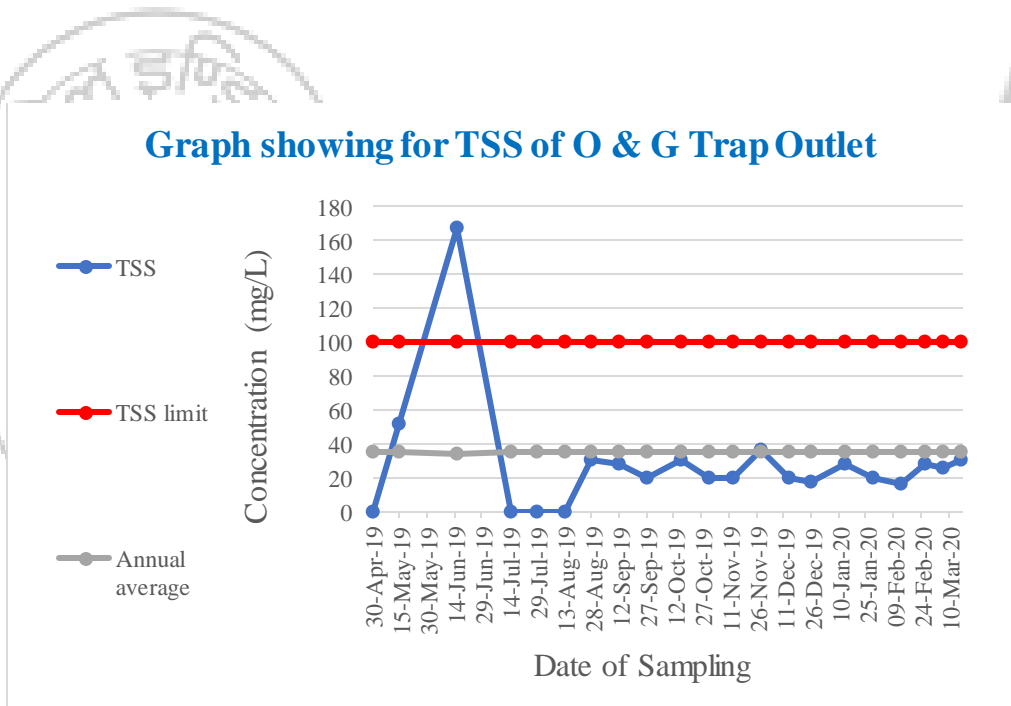
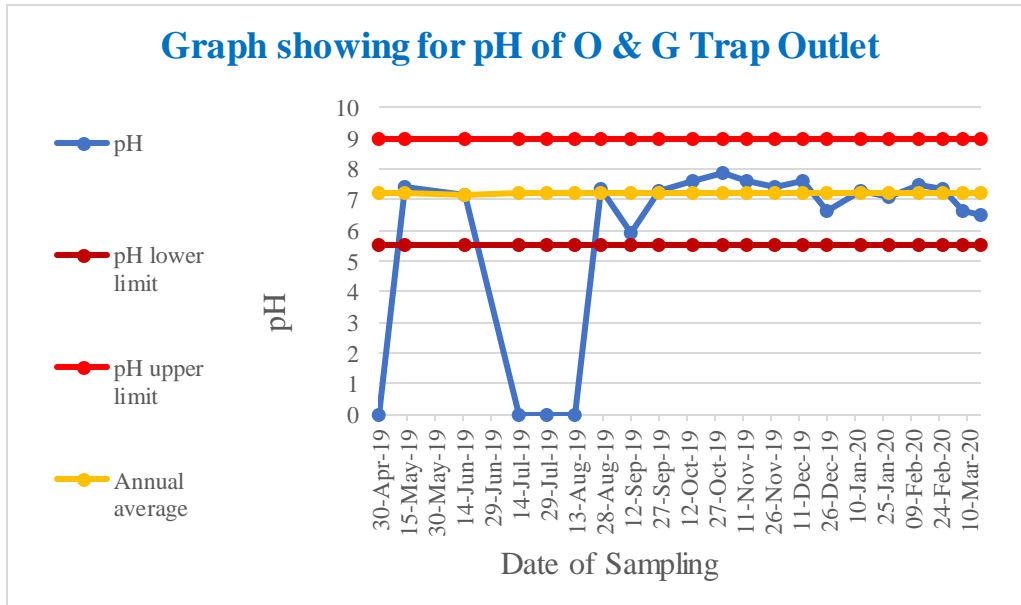
Area: Jagannath

Project: Ananta OCP

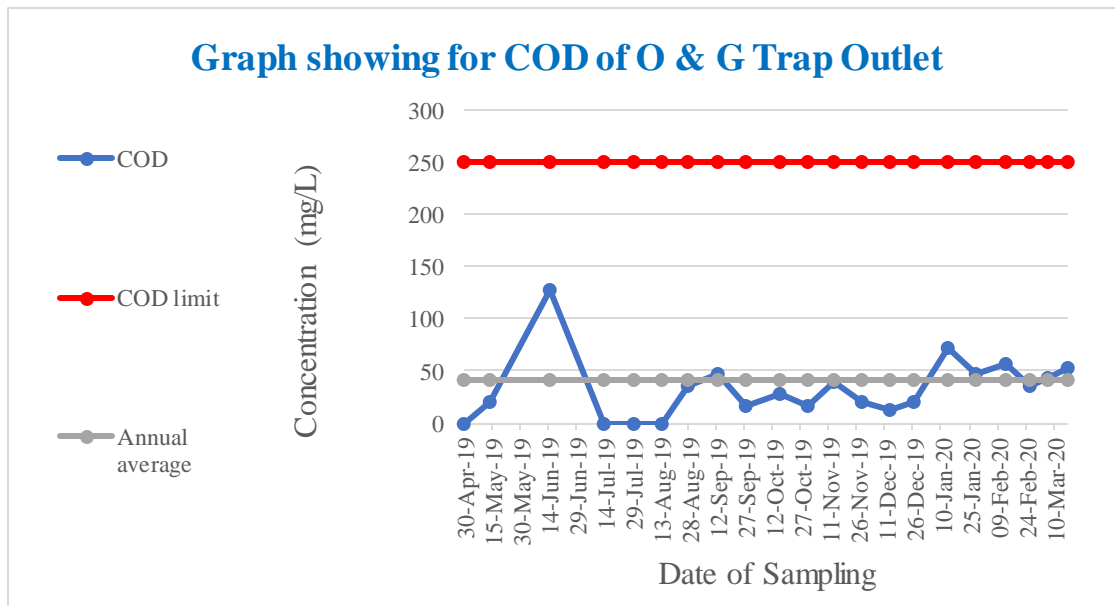
Monitoring Station: O & G Trap Outlet

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-19	Not Working			
14-May-19	7.43	<4.0	52	19.6
15-Jun-19	7.17	<4.0	167	128
14-Jul-19	Not working			
29-Jul-19				
13-Aug-19				
27-Aug-19	7.34	<4.0	30	36
12-Sep-19	5.94	<4.0	28	48
27-Sep-19	7.3	<4.0	20	16
15-Oct-19	7.6	<4.0	30	28
31-Oct-19	7.88	<4.0	20	16
13-Nov-19	7.59	<4.0	20	40
28-Nov-19	7.42	<4.0	36	20
13-Dec-19	7.59	<4.0	20	12
26-Dec-19	6.63	<4.0	18	20
13-Jan-20	7.3	<4.0	28	72
28-Jan-20	7.06	<4.0	20	48
13-Feb-20	7.47	<4.0	16	56
26-Feb-20	7.32	<4.0	28	36
07-Mar-20	6.66	<4.0	26	44
17-Mar-20	6.51	<4.0	30	52

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

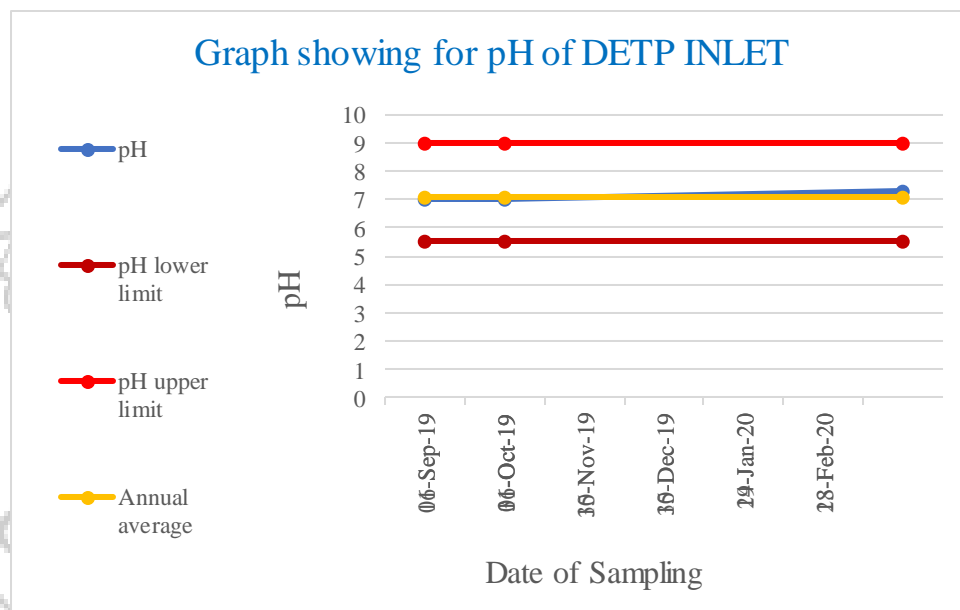


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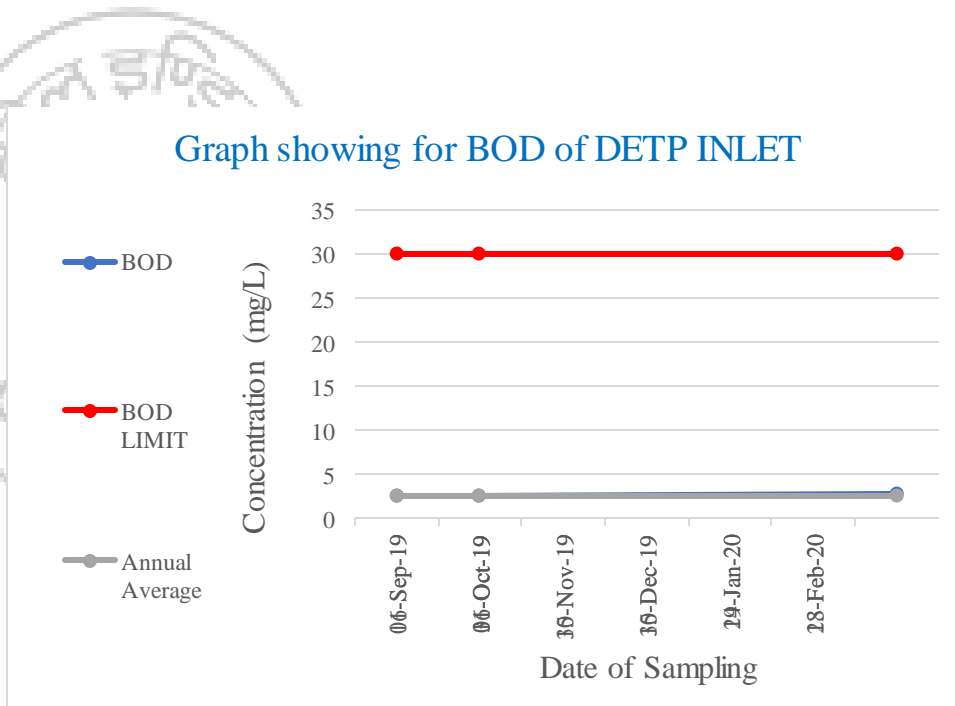
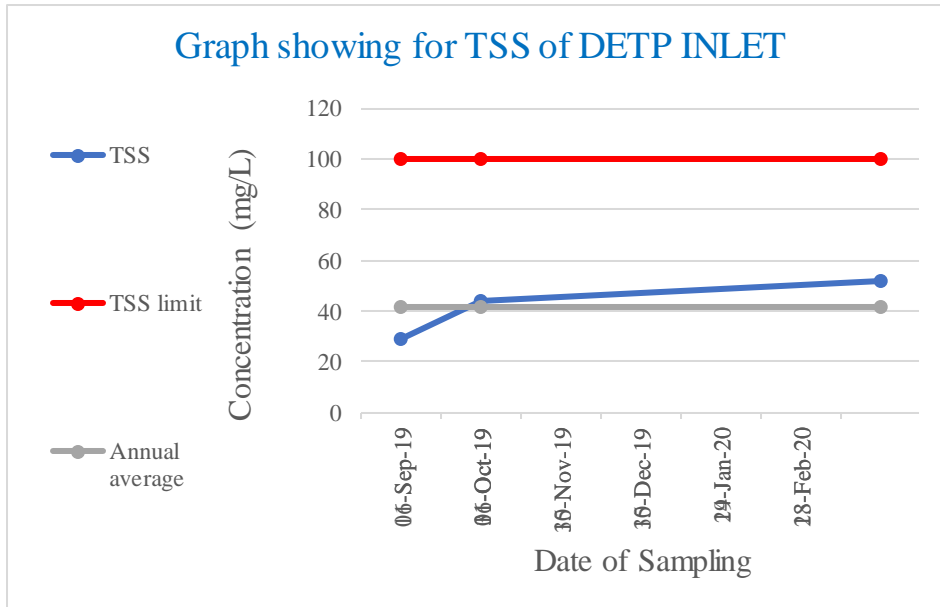
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:105
Area: Jagannath
Project: Ananta OCP
Monitoring Station: DETP Inlet

Date of Sampling	pH	TSS	BOD
12-Sep-19	7.01	29	2.6
15-Oct-19	6.99	44	2.5
07-Mar-20	7.29	52	2.8



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

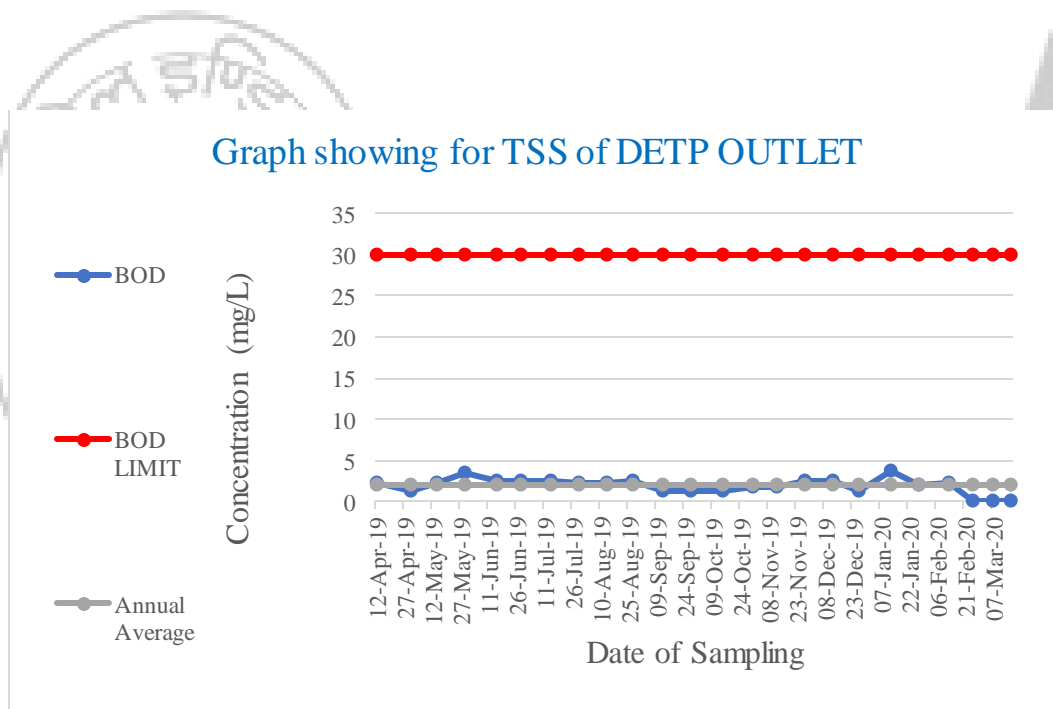
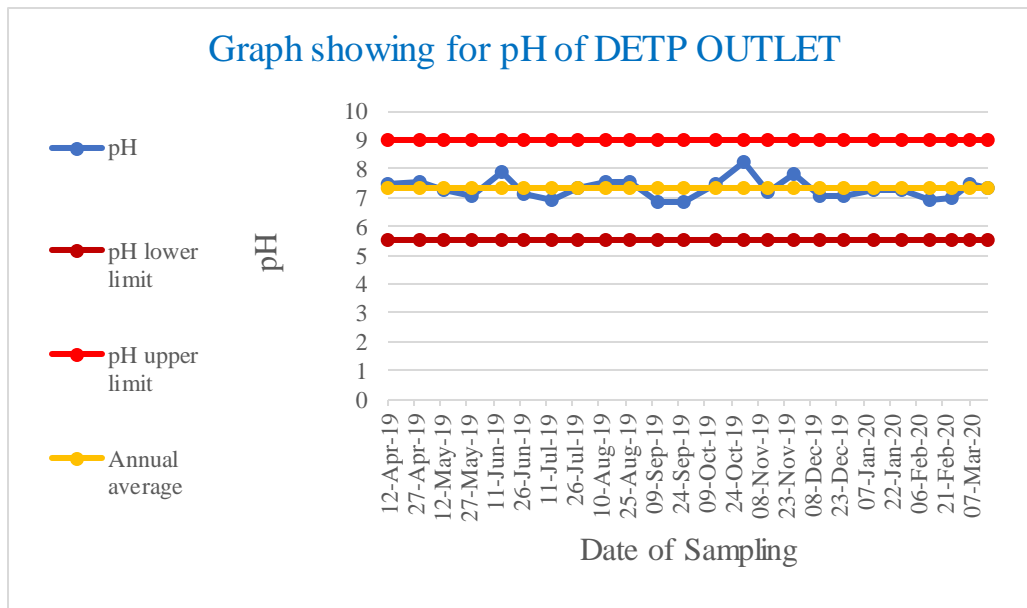


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

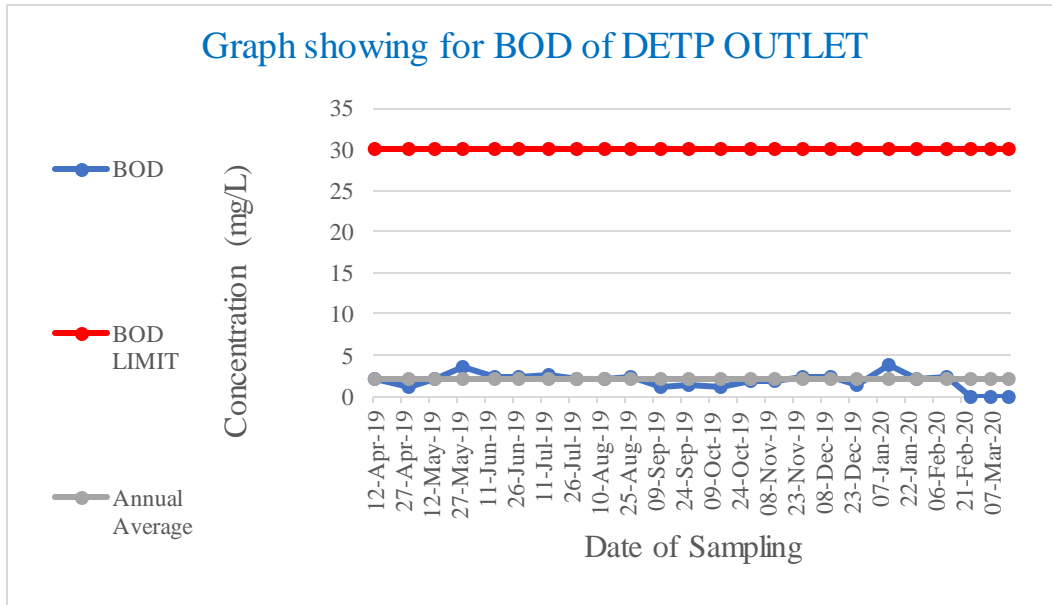
Table:106
Area: Jagannath
Project: Ananta OCP
Monitoring Station: DETP Outlet

Date of Sampling	pH	TSS	BOD
12-Apr-19	7.49	39	2.2
30-Apr-19	7.55	34	1.2
14-May-19	7.27	36	2.2
29-May-19	7.04	69	3.5
15-Jun-19	7.85	38	2.4
28-Jun-19	7.15	43	2.4
14-Jul-19	6.89	12	2.5
29-Jul-19	7.35	38	2.2
13-Aug-19	7.57	27	2.2
27-Aug-19	7.52	26	2.4
12-Sep-19	6.83	22	1.2
27-Sep-19	6.86	24	1.4
15-Oct-19	7.5	26	1.2
31-Oct-19	8.26	18	1.8
13-Nov-19	7.16	20	1.8
28-Nov-19	7.82	34	2.4
13-Dec-19	7.07	24	2.4
26-Dec-19	7.06	24	1.3
13-Jan-20	7.25	32	3.8
28-Jan-20	7.29	26	2.1
13-Feb-20	6.89	18	2.3
26-Feb-20	6.95	46	<2.0
07-Mar-20	7.46	24	<2.0
17-Mar-20	7.32	20	<2.0

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

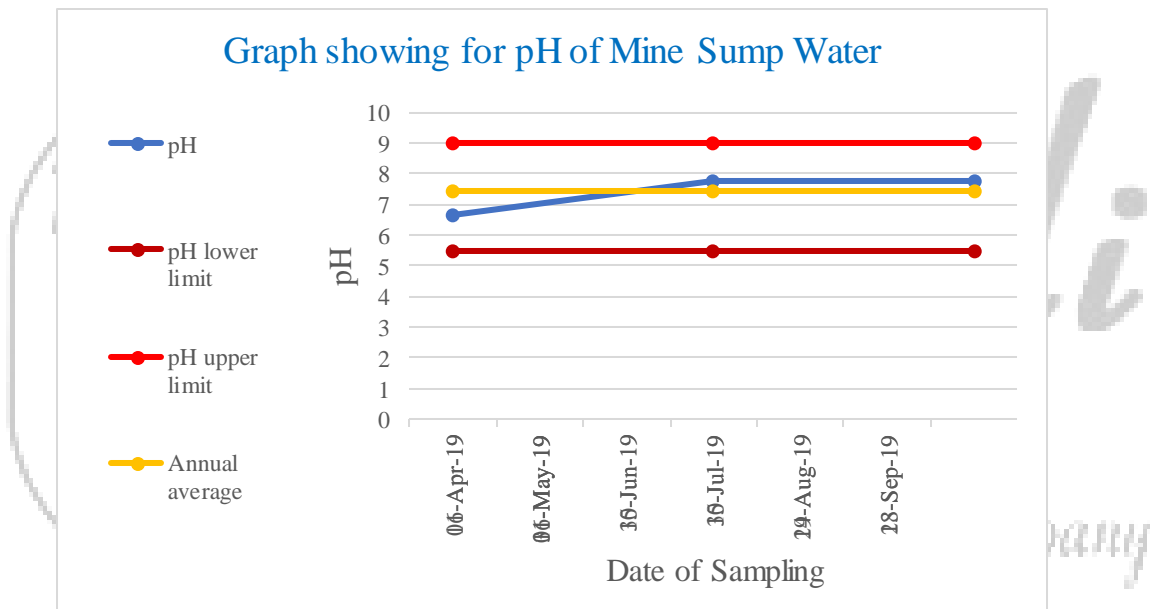


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Table:107
Area: Jagannath
Project: Ananta OCP
Monitoring Station: Mine Sump

Date of Sampling	pH
12-Apr-19	6.66
19-Jul-19	7.78
31-Oct-19	7.76

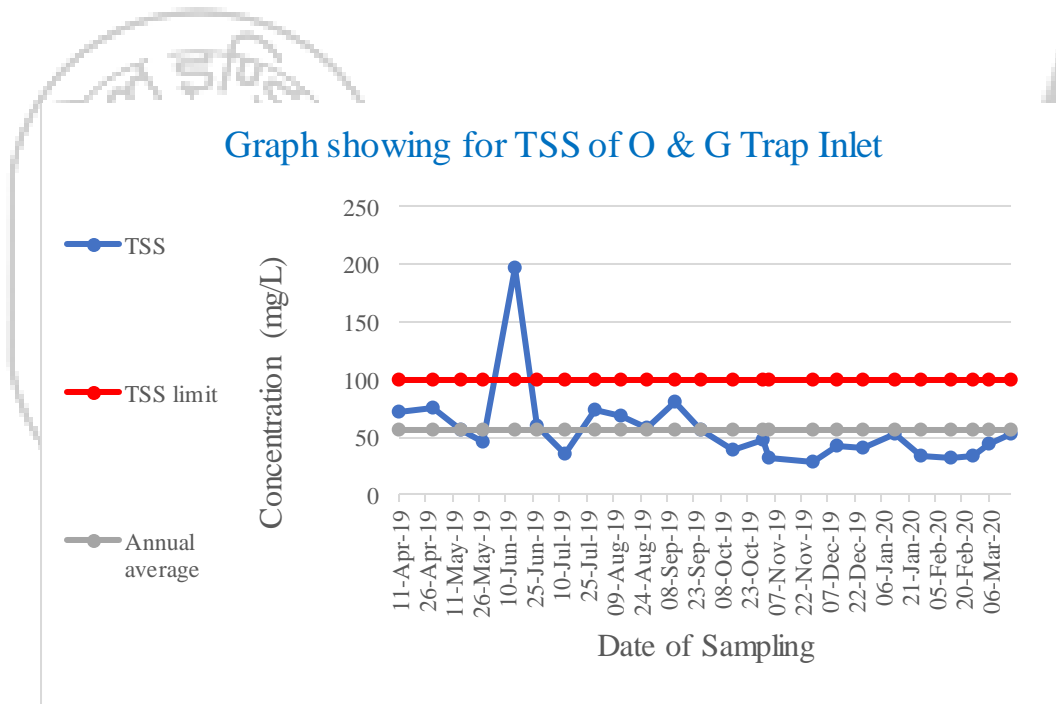
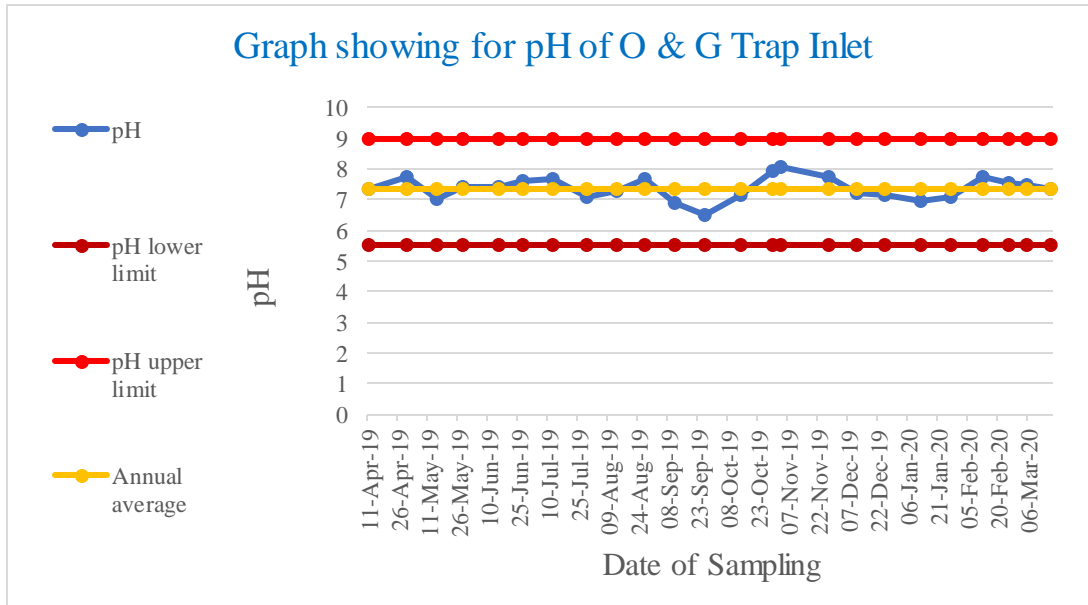


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

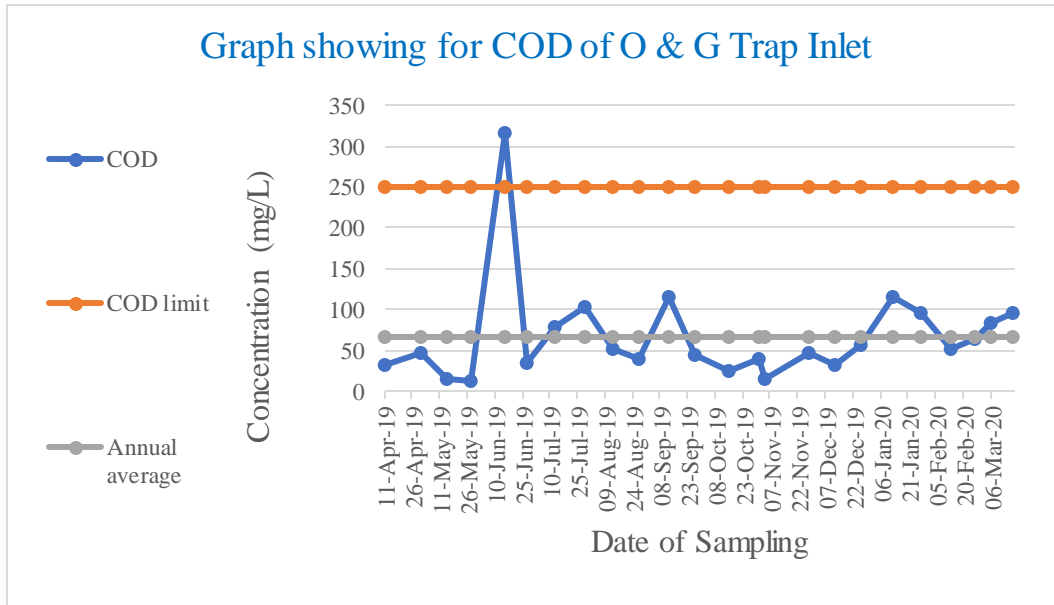
Table:108
Area: Bharatpur
Project: Bharatpur OCP
Monitoring Station: O & G Trap Inlet

pH	Oil & Grease	TSS	COD
7.34	<4.0	72	32
7.71	4.8	75	48
7.05	<4.0	56	15.2
7.42	<4.0	46	13.6
7.44	<4.0	197	316
7.64	<4.0	59	36
7.69	<4.0	36	80
7.08	4.4	73	104
7.27	4.8	68	52
7.69	<4.0	58	40
6.88	5.2	81	116
6.51	<4.0	56	44
7.13	<4.0	38	24
7.92	<4.0	48	40
8.04	<4.0	32	16
7.75	<4.0	28	48
7.22	<4.0	42	32
7.16	<4.0	40	56
6.98	4.8	52	116
7.07	<4.0	34	96
7.71	<4.0	32	52
7.52	<4.0	34	64
7.51	<4.0	44	84
7.37	<4.0	52	96

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:109

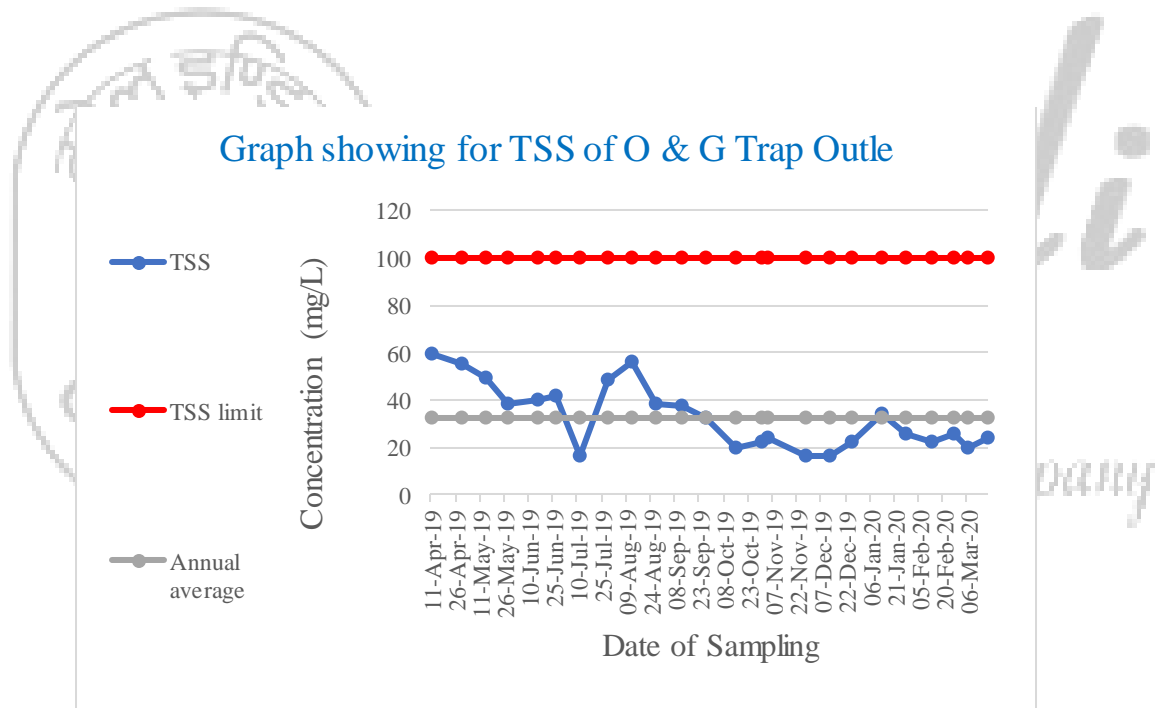
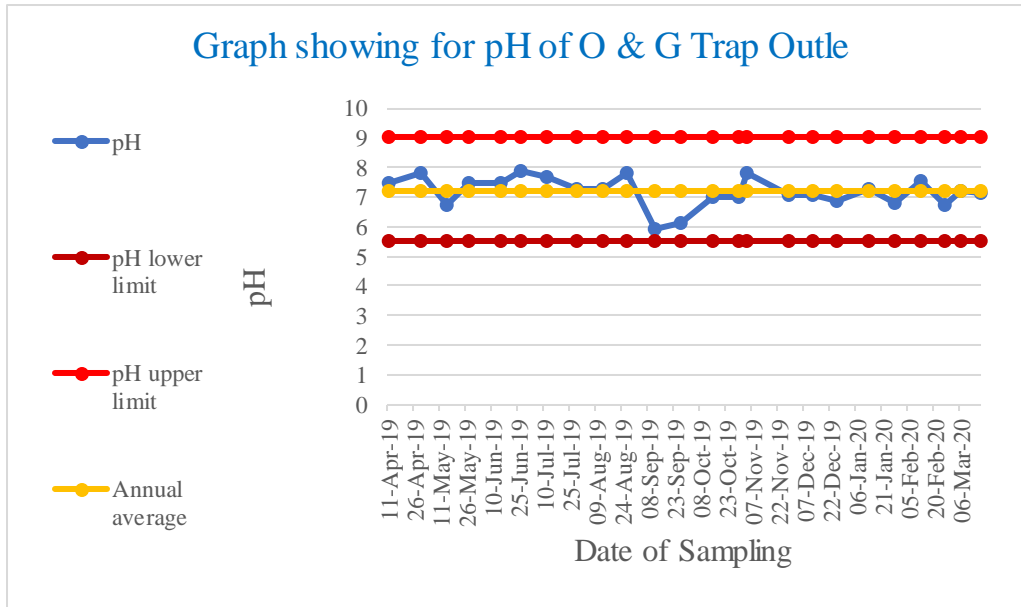
Area: Bharatpur

Project: Bharatpur OCP

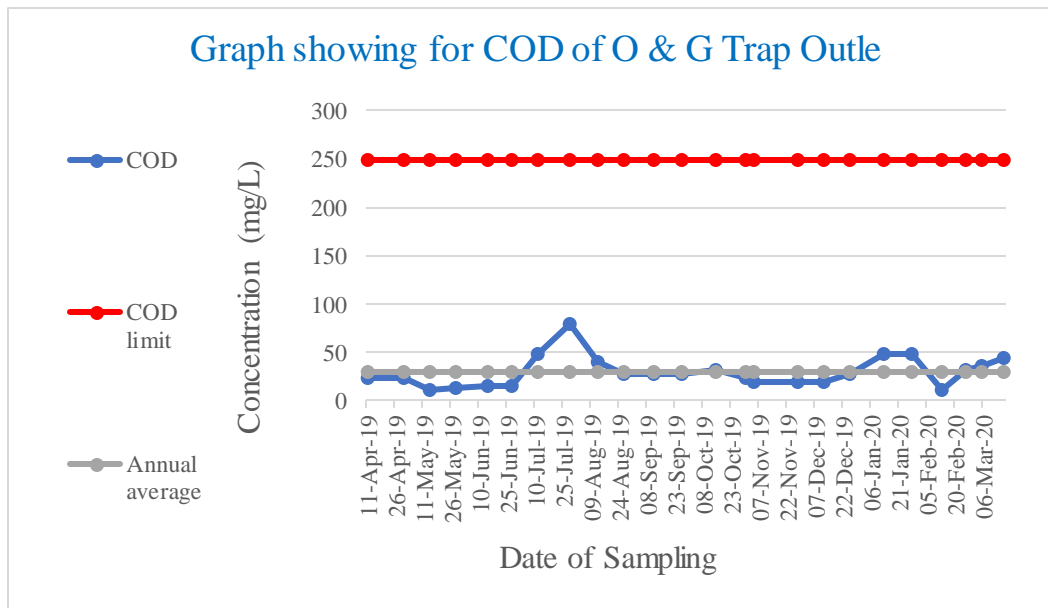
Monitoring Station: O & G Trap Outlet

Date of Sampling	pH	Oil & Grease	TSS	COD
11-Apr-19	7.48	<4.0	59	24
30-Apr-19	7.83	<4.0	55	24
15-May-19	6.74	<4.0	49	10.4
28-May-19	7.45	<4.0	38	12.8
15-Jun-19	7.48	<4.0	40	16
27-Jun-19	7.87	<4.0	42	16
12-Jul-19	7.66	<4.0	16	48
29-Jul-19	7.3	<4.0	48	80
13-Aug-19	7.26	<4.0	56	40
27-Aug-19	7.79	<4.0	38	28
12-Sep-19	5.93	<4.0	37	28
27-Sep-19	6.09	<4.0	32	28
15-Oct-19	7.02	<4.0	20	32
31-Oct-19	6.98	<4.0	22	24
04-Nov-19	7.84	<4.0	24	20
28-Nov-19	7.06	<4.0	16	20
12-Dec-19	7.05	<4.0	16	20
26-Dec-19	6.85	<4.0	22	28
13-Jan-20	7.28	<4.0	34	48
28-Jan-20	6.81	<4.0	26	48
13-Feb-20	7.56	<4.0	22	12
26-Feb-20	6.73	<4.0	26	32
06-Mar-20	7.2	<4.0	20	36
18-Mar-20	7.11	<4.0	24	44

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



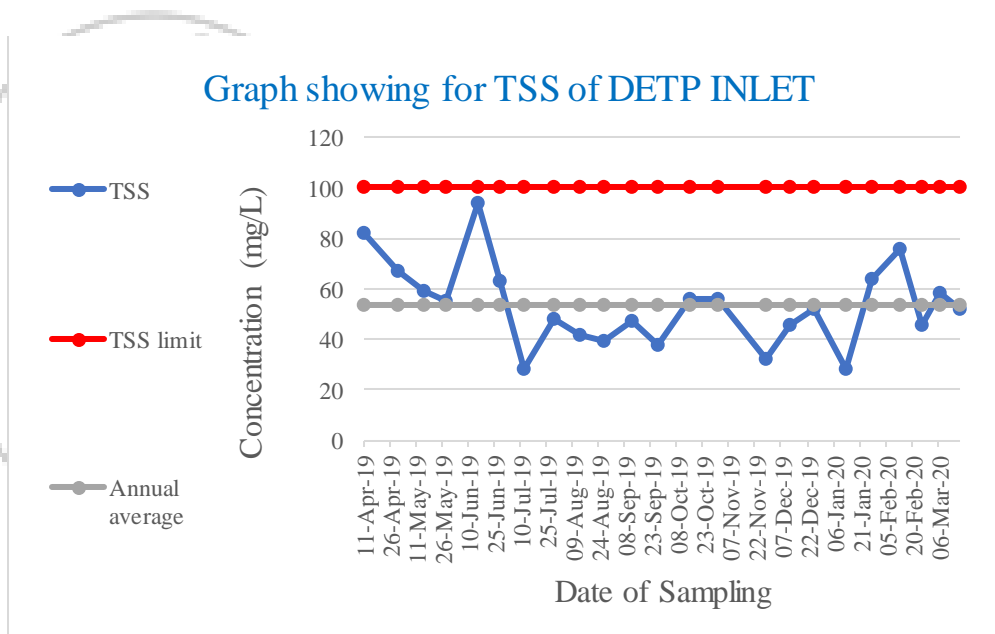
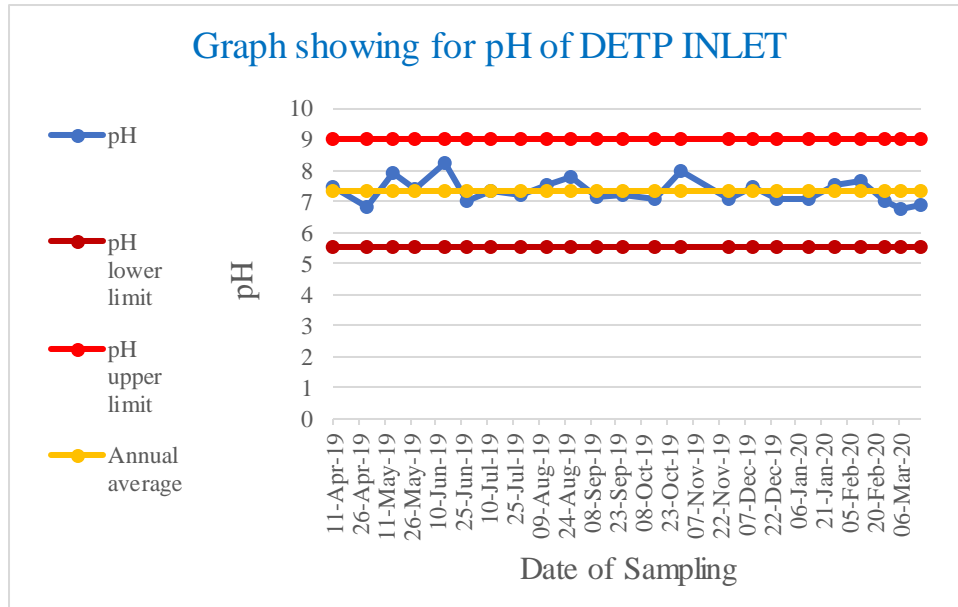
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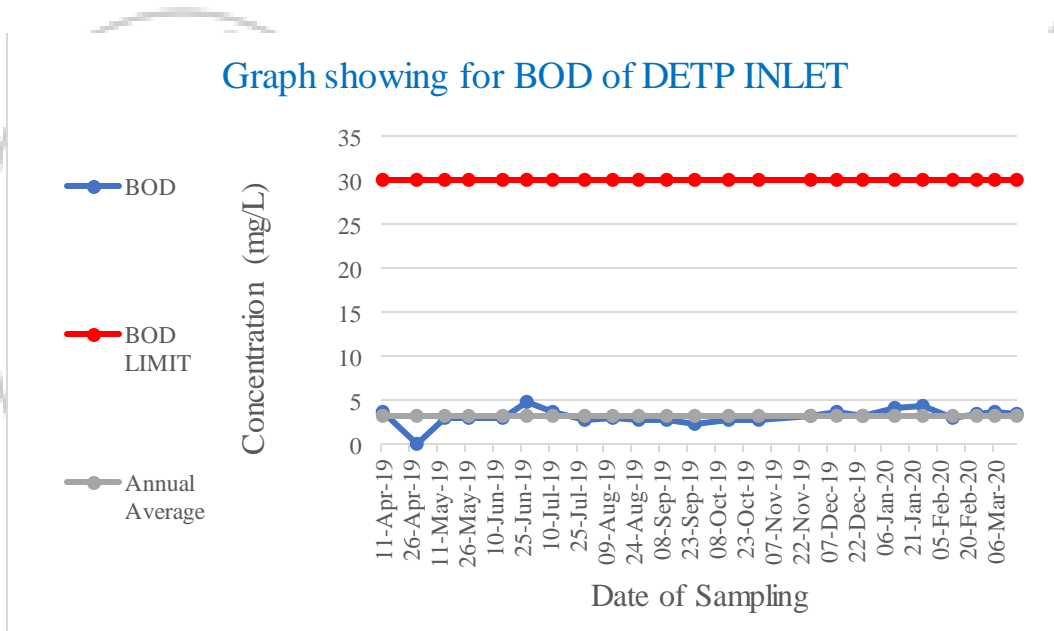
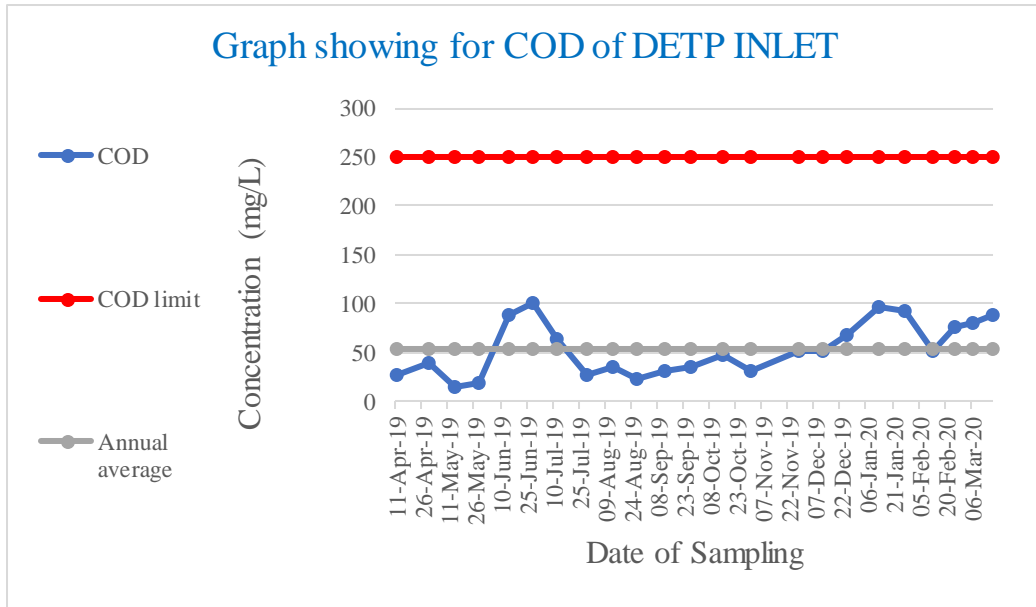
Table:110
Area: Bharatpur
Project: Bharatpur OCP
Monitoring Station: DETP Inlet

Date of Sampling	pH	TSS	COD	BOD
11-Apr-19	7.45	82	28	3.6
30-Apr-19	6.79	67	40	
15-May-19	7.93	59	16	3.1
28-May-19	7.4	55	20	3.1
15-Jun-19	8.26	94	88	3
28-Jun-19	7.01	63	100	4.8
12-Jul-19	7.35	28	64	3.6
29-Jul-19	7.19	48	28	2.8
13-Aug-19	7.55	42	36	3
27-Aug-19	7.78	39	24	2.8
12-Sep-19	7.14	47	32	2.8
27-Sep-19	7.23	38	36	2.3
15-Oct-19	7.04	56	48	2.8
31-Oct-19	7.96	56	32	2.7
28-Nov-19	7.06	32	52	3.2
12-Dec-19	7.46	46	52	3.8
26-Dec-19	7.04	52	68	3.2
13-Jan-20	7.09	28	96	4.2
28-Jan-20	7.51	64	92	4.3
13-Feb-20	7.67	76	52	3.1
26-Feb-20	6.98	46	76	3.5
07-Mar-20	6.77	58	80	3.8
18-Mar-20	6.89	52	88	3.4

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

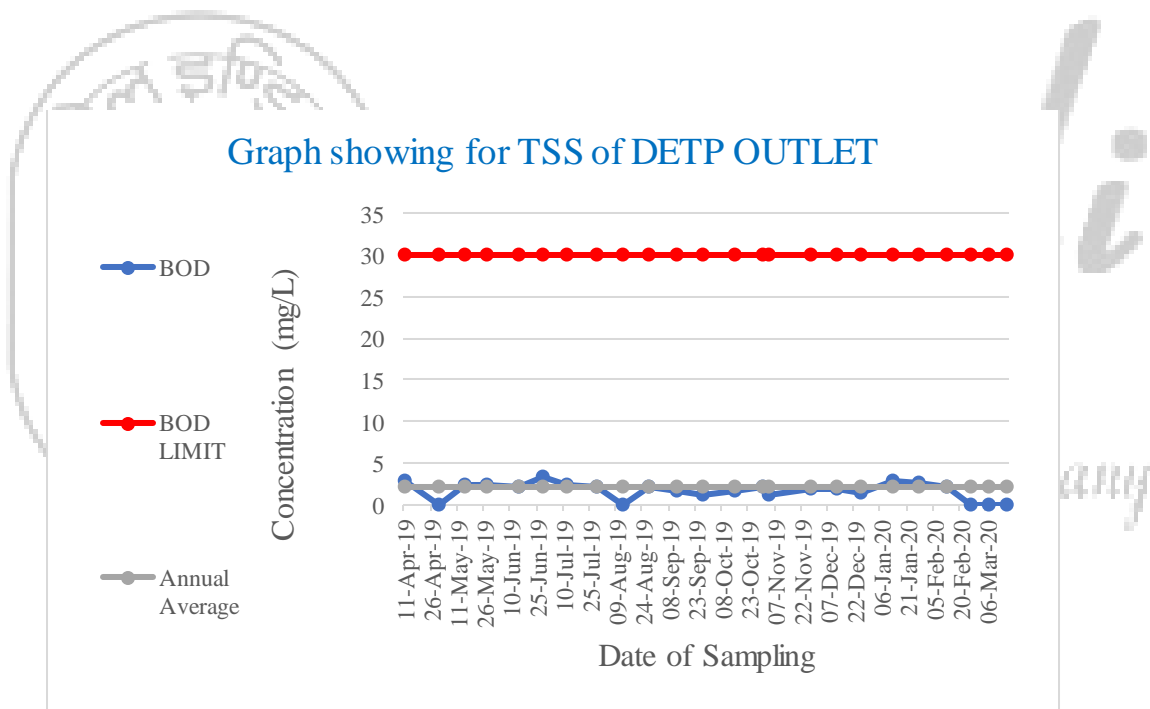
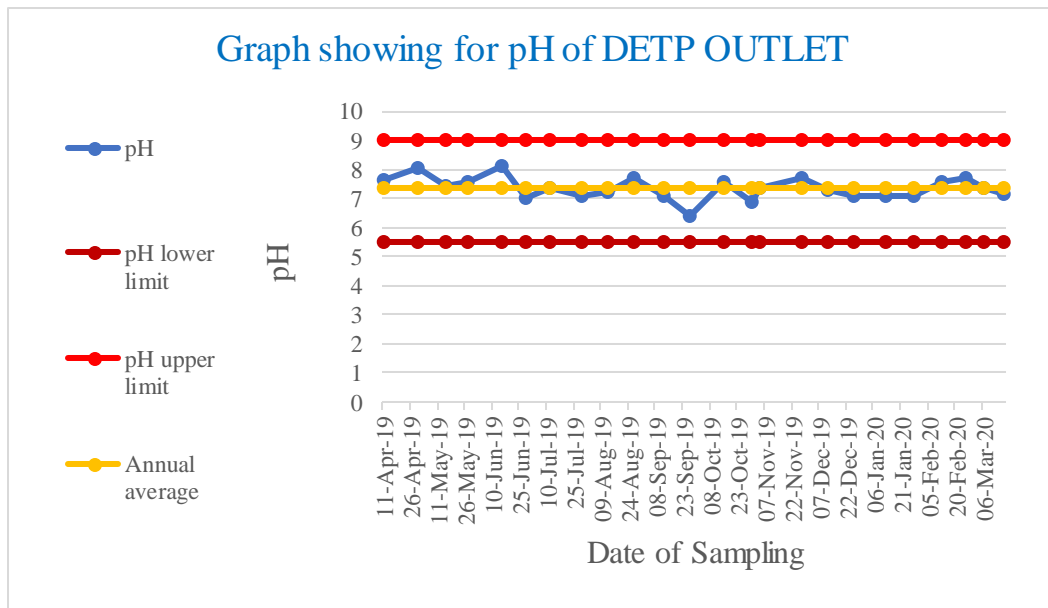


ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

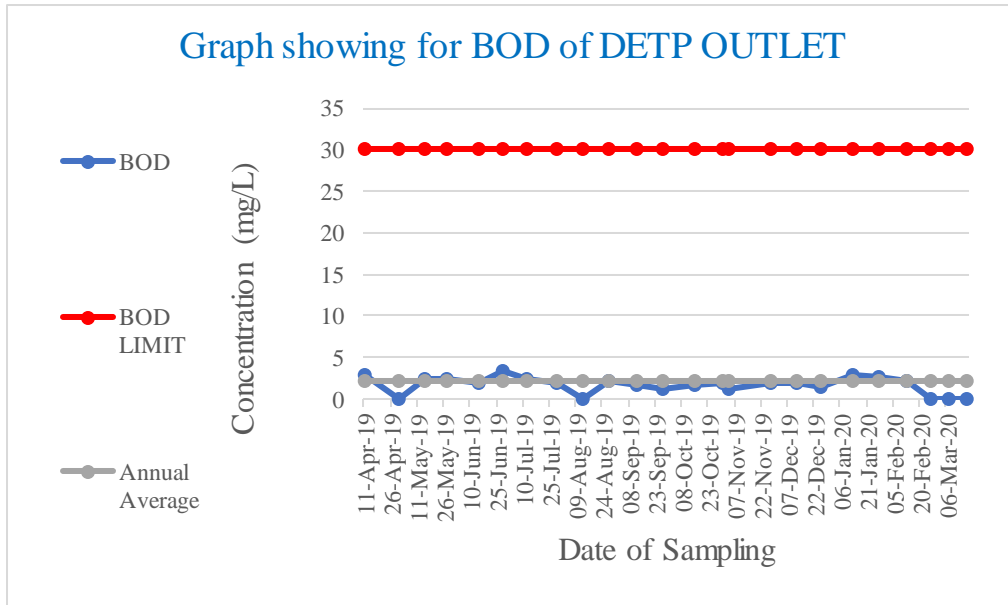
Table:111
Area: Bharatpur
Project: Bharatpur OCP
Monitoring Station: DETP Outlet

Date of Sampling	pH	TSS	BOD
11-Apr-19	7.63	73	2.9
30-Apr-19	8.04	58	
15-May-19	7.45	38	2.3
28-May-19	7.53	37	2.3
15-Jun-19	8.1	88	2
28-Jun-19	7.02	45	3.4
12-Jul-19	7.38	22	2.3
29-Jul-19	7.05	36	2
13-Aug-19	7.24	34	<2.0
27-Aug-19	7.71	30	2.1
12-Sep-19	7.09	35	1.6
27-Sep-19	6.42	18	1.1
15-Oct-19	7.53	24	1.7
31-Oct-19	6.84	32	2
04-Nov-19	7.34	18	1.2
28-Nov-19	7.7	18	1.8
12-Dec-19	7.29	32	1.9
26-Dec-19	7.1	24	1.4
13-Jan-20	7.05	16	2.9
28-Jan-20	7.06	74	2.6
13-Feb-20	7.56	48	2.2
26-Feb-20	7.71	30	<2.0
07-Mar-20	7.38	32	<2.0
18-Mar-20	7.18	28	<2.0

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

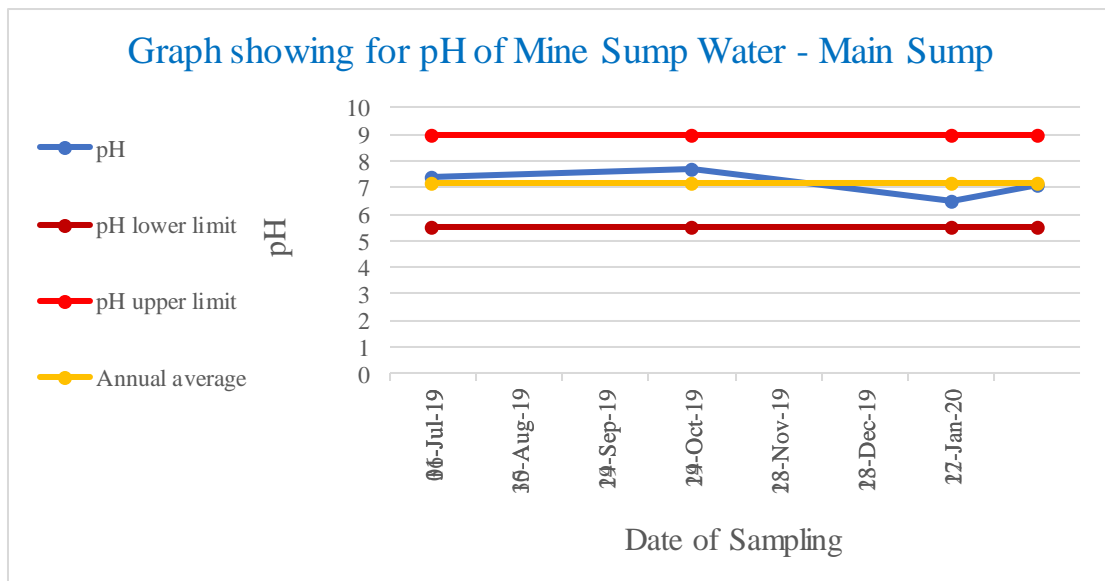


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Table:112
Area: Bharatpur
Project: Bharatpur OCP
Monitoring Station: Mine Sump Water -Main Sump

Date of Sampling	pH
19-Jul-19	7.38
31-Oct-19	7.68
13-Jan-20	6.47
13-Feb-20	7.1

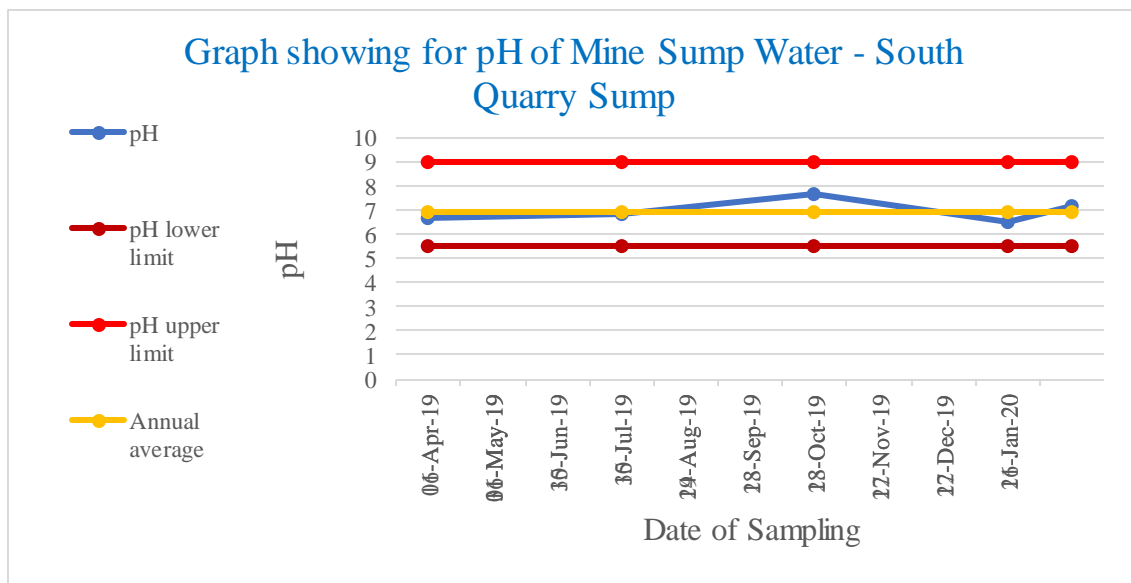


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Table:113
Area: Bharatpur
Project: Bharatpur OCP
Monitoring Station: Mine Sump Water-South Quarry Sump

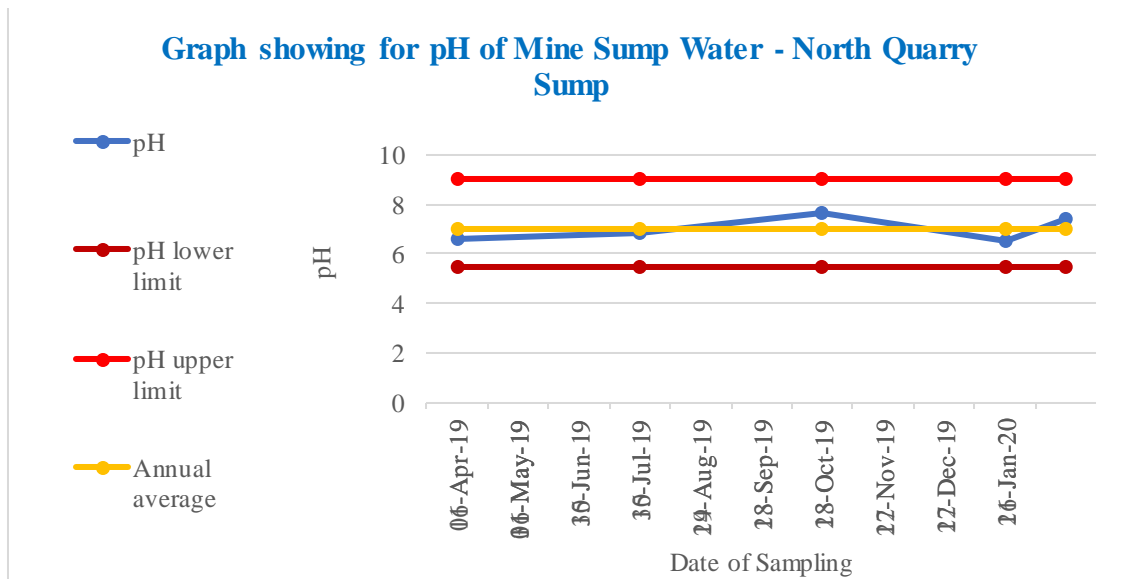
Date of Sampling	pH
11-Apr-19	6.63
19-Jul-19	6.79
31-Oct-19	7.65
13-Jan-20	6.51
13-Feb-20	7.12



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Table:114
Area: Bharatpur
Project: Bharatpur OCP
Monitoring Station: Mine Sump Water-North Quarry Sump

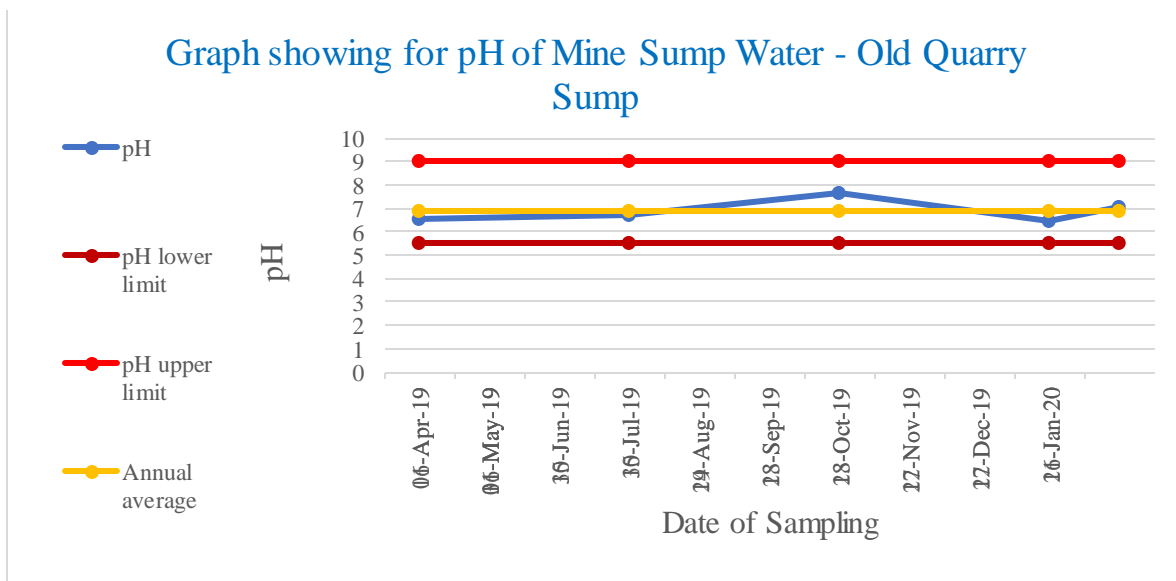
Date of Sampling	pH
11-Apr-19	6.6
19-Jul-19	6.85
31-Oct-19	7.66
13-Jan-20	6.5
13-Feb-20	7.4



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Table:115
Area: Bharatpur
Project: Bharatpur OCP
Monitoring Station: Mine Sump Water-Old Quarry Sump

Date of Sampling	pH
11-Apr-19	6.52
19-Jul-19	6.75
31-Oct-19	7.64
13-Jan-20	6.47
13-Feb-20	7.06



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Table:116
Area: Lingraj
Project: Lingraj OCP

Sampling Station	Date of Sampling	pH	Oil & Grease	TSS	COD
Clear Water Reservoir of Workshop ETP (4P)	25-Aug-19	7.56	<4.0	20	64
Clear Water Tank of MDTP near Stock no.17	28-Aug-19	7.38	<4.0	26	16
Clear Water Tank of Sedimentation Pond Complex near Deulbera (4P)	28-Aug-19	7.01	<4.0	33	36
Clear Water Tank of Sedimentation Pond Complex near Lingarj Siding (4P)	28-Aug-19	7.04	<4.0	20	28
Inlet of MDTP near Stock no.17 (4P)	28-Aug-19	7.25	<4.0	82	24
Inlet of Workshop ETP (4P)	28-Aug-19	6.94	<4.0	22	36
Mine Sump Water	19-Jul-19	7.78	N/A	N/A	N/A



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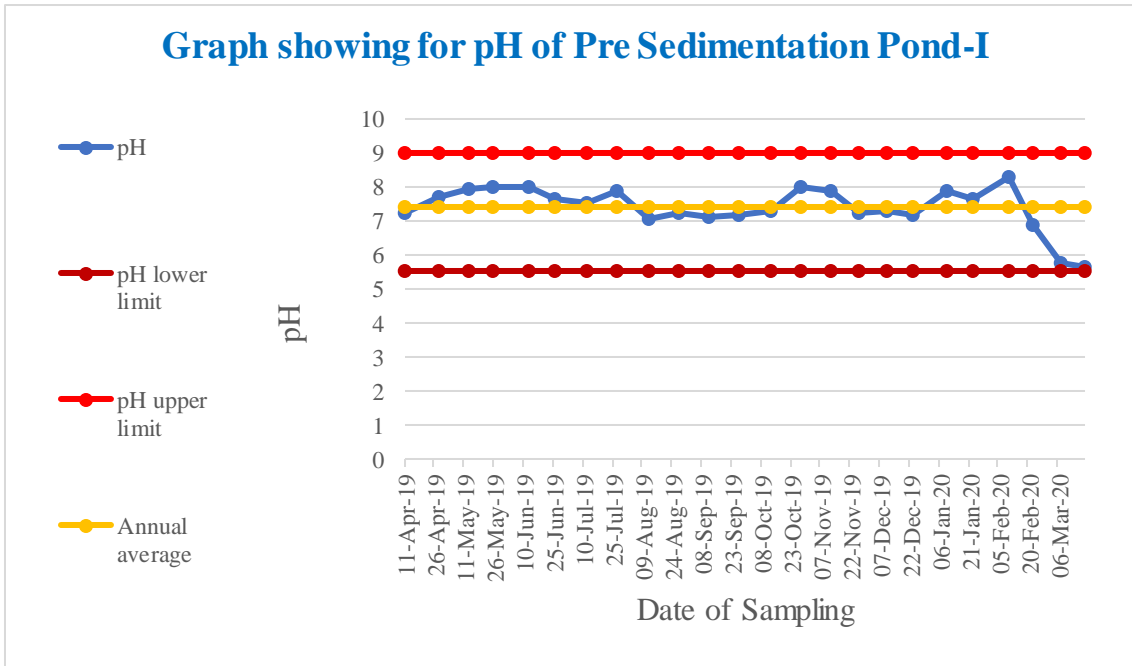
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Table:117
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: Pre Sedimentation Pond-I

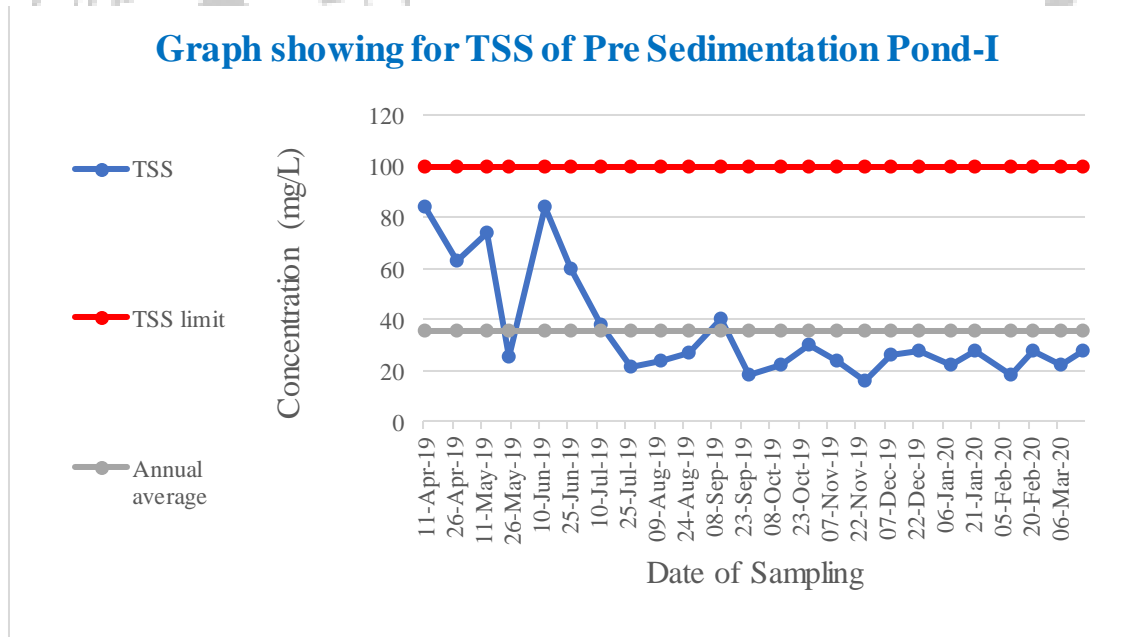
Date of Sampling	pH	Oil & Grease	TSS	COD
11-Apr-19	7.25	<4.0	84	20
28-Apr-19	7.67	<4.0	63	24
13-May-19	7.95	<4.0	74	36.8
25-May-19	7.96	<4.0	25	18.8
13-Jun-19	7.96	<4.0	84	28
26-Jun-19	7.61	<4.0	60	28
12-Jul-19	7.52	<4.0	38	92
27-Jul-19	7.89	<4.0	21	28
12-Aug-19	7.03	<4.0	24	56
27-Aug-19	7.24	<4.0	27	40
12-Sep-19	7.09	<4.0	40	48
27-Sep-19	7.14	<4.0	18	12
13-Oct-19	7.3	<4.0	22	32
28-Oct-19	7.96	<4.0	30	44
12-Nov-19	7.88	<4.0	24	12
26-Nov-19	7.2	<4.0	16	16
10-Dec-19	7.27	<4.0	26	56
24-Dec-19	7.17	<4.0	28	52
10-Jan-20	7.85	<4.0	22	48
23-Jan-20	7.65	<4.0	28	36
10-Feb-20	8.3	<4.0	18	20
22-Feb-20	6.87	<4.0	28	36
07-Mar-20	5.77	<4.0	22	48
19-Mar-20	5.62	<4.0	28	56

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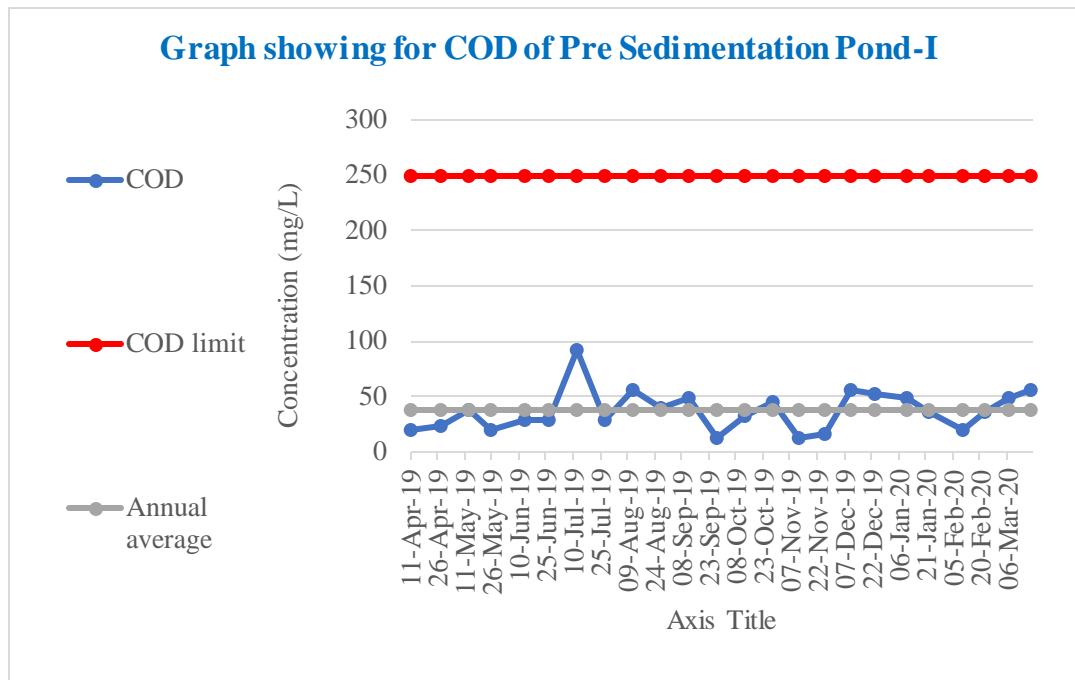
Graph showing for pH of Pre Sedimentation Pond-I



Graph showing for TSS of Pre Sedimentation Pond-I



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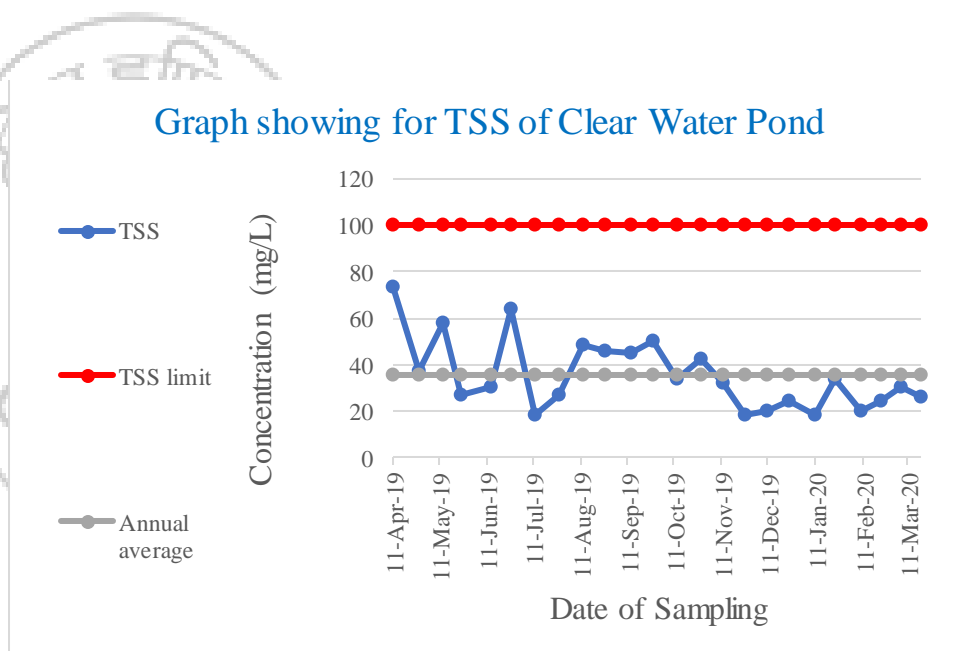
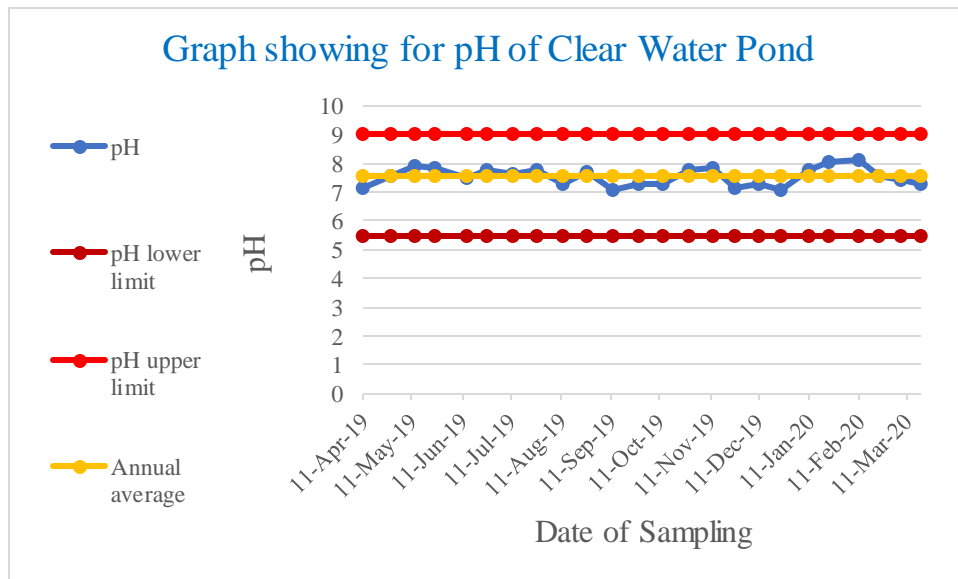
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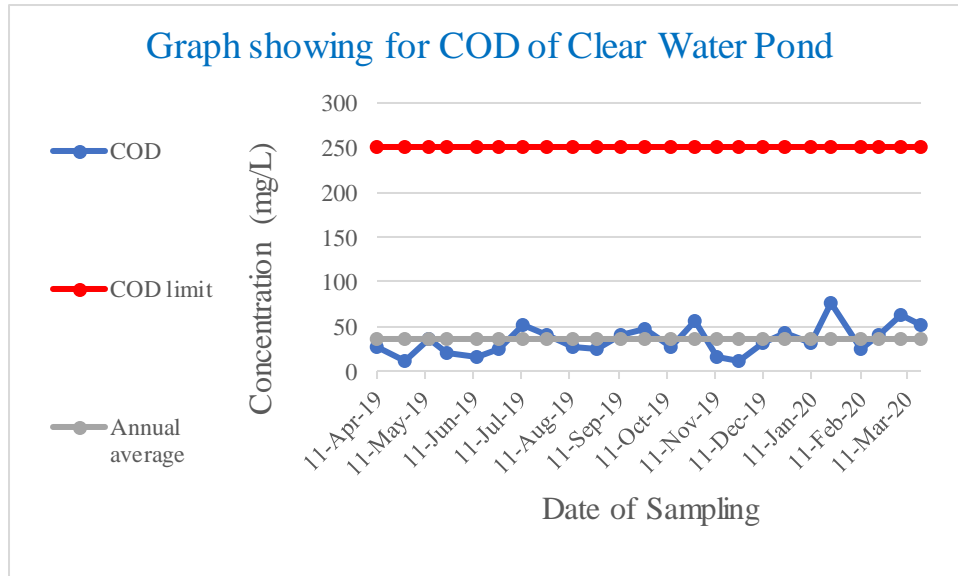
Table:118
Area: Kaniha
Project: Kaniha OCP
Monitoring Station: Clear Water Pond

Date of Sampling	pH	Oil & Grease	TSS	COD
11-Apr-19	7.18	<4.0	73	28
28-Apr-19	7.54	<4.0	37	12
13-May-19	7.91	<4.0	58	35.2
25-May-19	7.81	<4.0	27	20.8
13-Jun-19	7.51	<4.0	30	16
26-Jun-19	7.8	<4.0	64	24
12-Jul-19	7.62	<4.0	18	52
27-Jul-19	7.75	<4.0	27	40
12-Aug-19	7.31	<4.0	48	28
27-Aug-19	7.67	<4.0	46	24
12-Sep-19	7.1	<4.0	45	40
27-Sep-19	7.27	<4.0	50	48
13-Oct-19	7.32	<4.0	34	28
28-Oct-19	7.74	<4.0	42	56
12-Nov-19	7.82	<4.0	32	16
26-Nov-19	7.18	<4.0	18	12
10-Dec-19	7.32	<4.0	20	32
24-Dec-19	7.05	<4.0	24	44
10-Jan-20	7.77	<4.0	18	32
23-Jan-20	8.05	<4.0	34	76
10-Feb-20	8.13	<4.0	20	24
22-Feb-20	7.59	<4.0	24	40
07-Mar-20	7.41	<4.0	30	64
19-Mar-20	7.26	<4.0	26	52

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



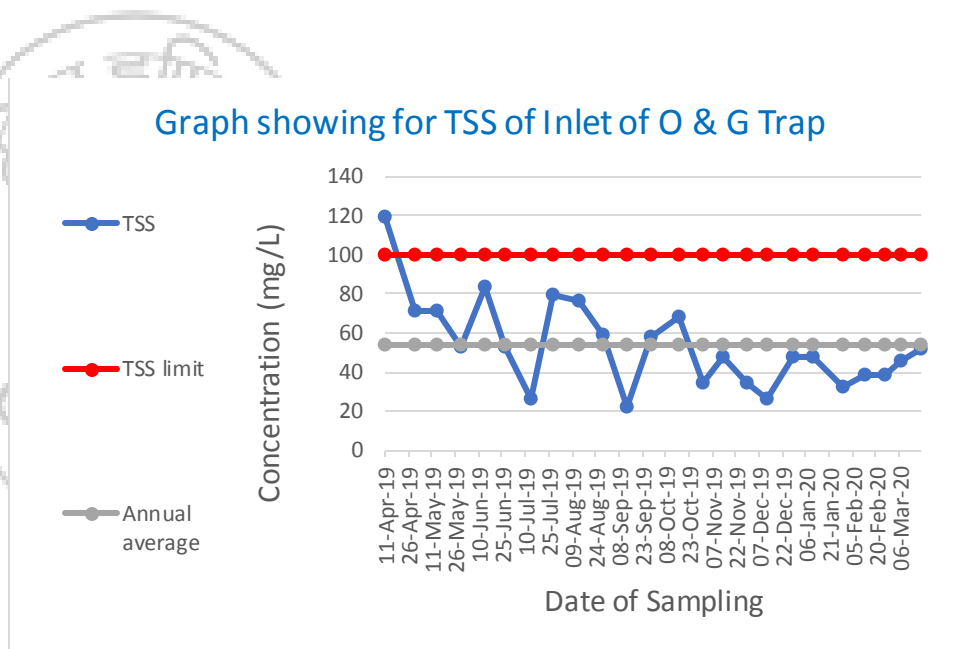
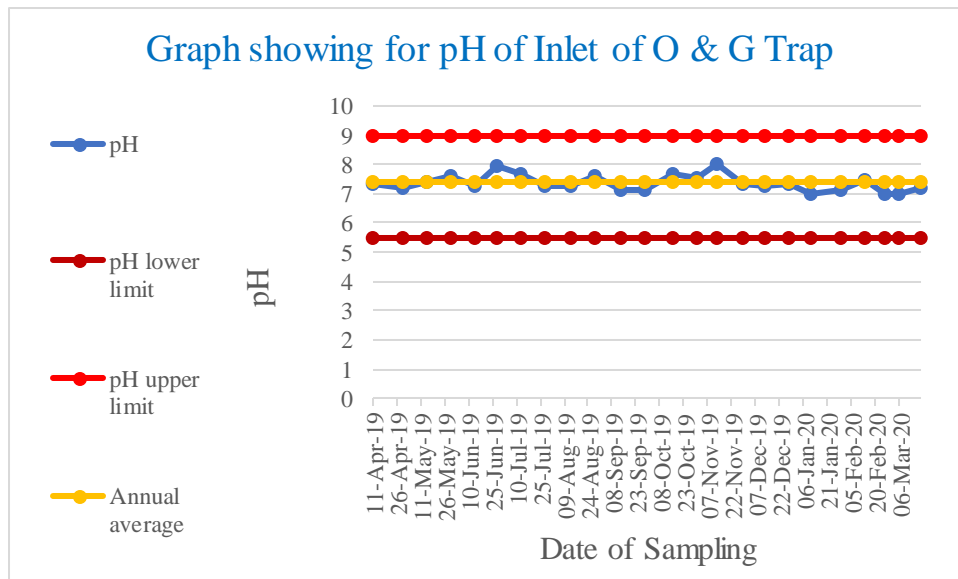
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

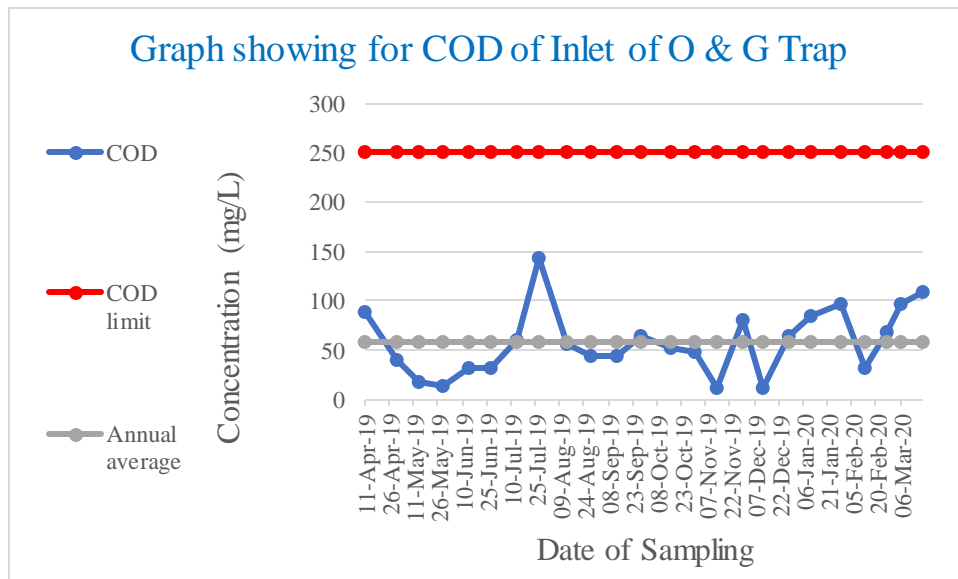
Table:119
Area: Hingula
Project: Balram OCP
Monitoring Station: Inlet of O & G Trap

Date of Sampling	pH	Oil & Grease	TSS	COD
11-Apr-19	7.36	<4.0	119	88
30-Apr-19	7.22	<4.0	71	40
14-May-19	7.43	<4.0	71	16.8
29-May-19	7.57	<4.0	53	12.8
14-Jun-19	7.27	<4.0	84	32
27-Jun-19	7.94	<4.0	53	32
13-Jul-19	7.68	<4.0	26	60
27-Jul-19	7.27	4.6	79	144
13-Aug-19	7.25	4.8	76	56
28-Aug-19	7.61	<4.0	59	44
13-Sep-19	7.12	<4.0	22	44
28-Sep-19	7.14	<4.0	58	64
16-Oct-19	7.67	4.6	68	52
31-Oct-19	7.52	<4.0	34	48
13-Nov-19	8.01	<4.0	48	12
29-Nov-19	7.31	<4.0	34	80
12-Dec-19	7.29	<4.0	26	12
28-Dec-19	7.33	<4.0	48	64
10-Jan-20	7.01	4.4	48	84
29-Jan-20	7.1	<4.0	32	96
13-Feb-20	7.5	<4.0	38	32
26-Feb-20	7.01	<4.0	38	68
06-Mar-20	7.01	<4.0	46	96
19-Mar-20	7.16	<4.0	52	108

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



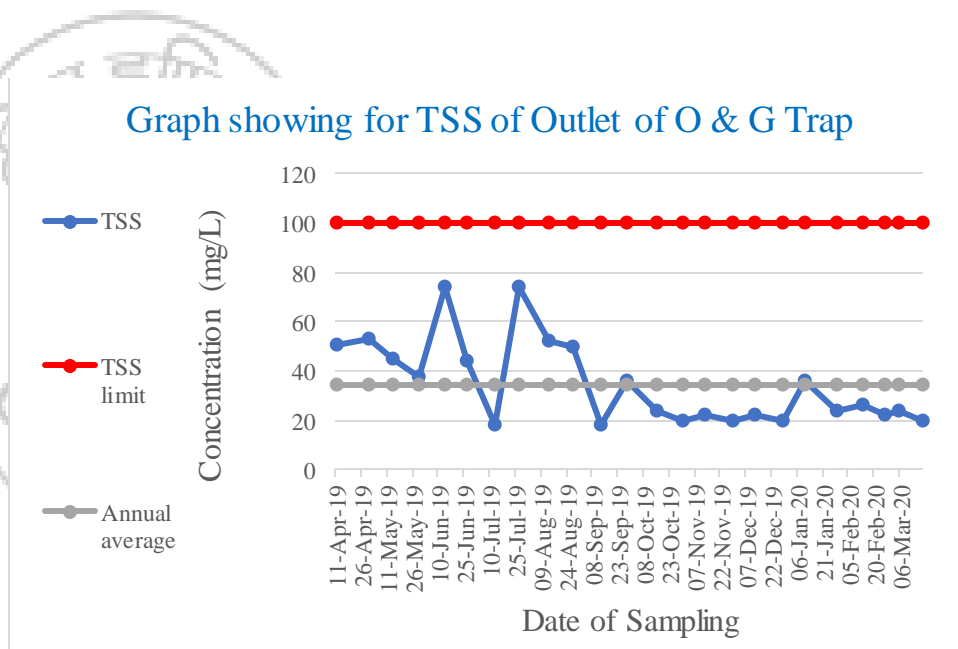
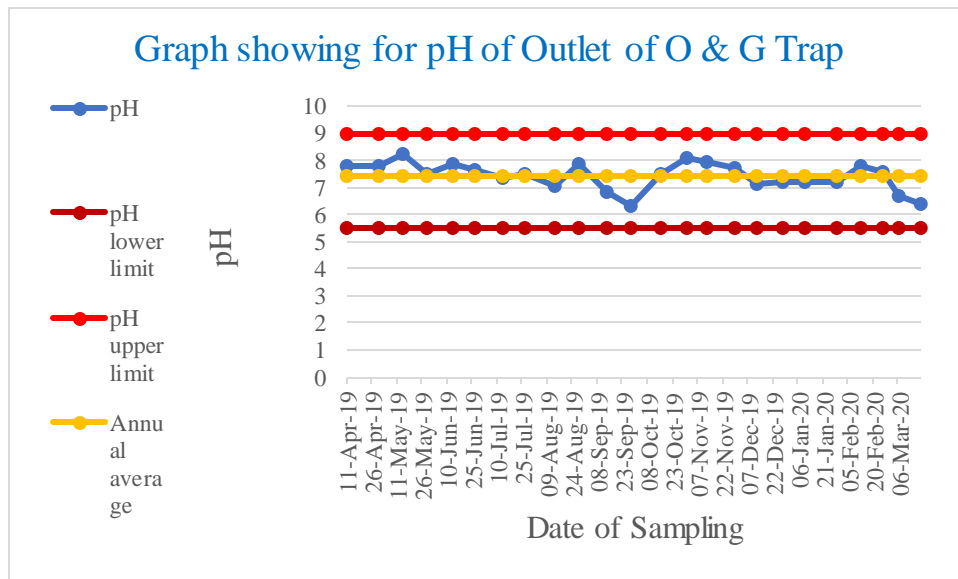
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

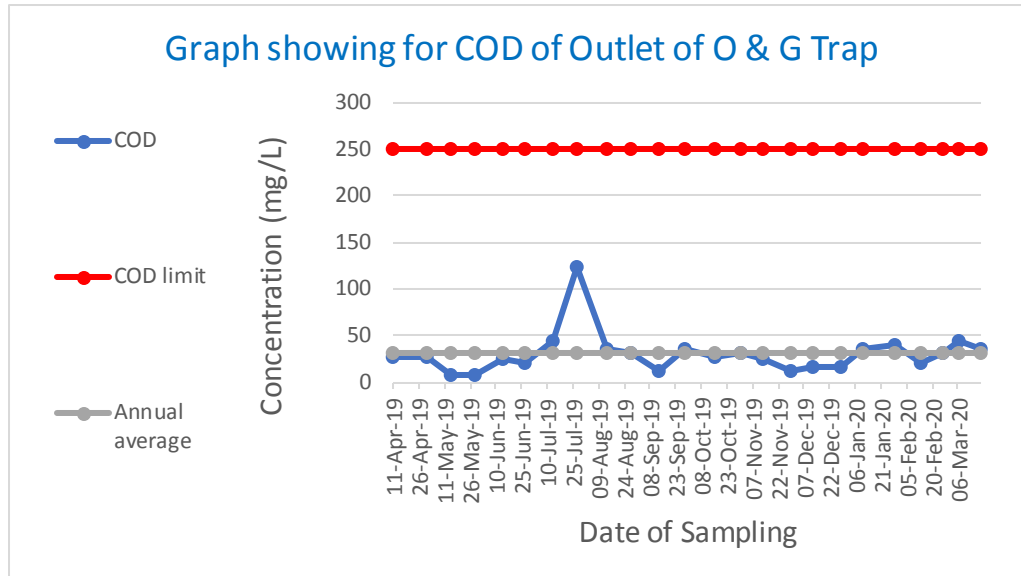
Table:120
Area: Hingula
Project: Balram OCP
Monitoring Station: Outlet of O & G Trap

Date of Sampling	pH	Oil & Grease	TSS	COD
11-Apr-19	7.8	<4.0	51	28
30-Apr-19	7.8	<4.0	53	28
14-May-19	8.23	<4.0	45	8.4
29-May-19	7.48	<4.0	38	7.6
27-Jun-19	7.65	<4.0	44	20
27-Jul-19	7.46	<4.0	74	124
13-Aug-19	7.08	<4.0	52	36
28-Aug-19	7.83	<4.0	50	32
13-Sep-19	6.83	<4.0	18	12
28-Sep-19	6.29	<4.0	36	36
16-Oct-19	7.47	<4.0	24	28
31-Oct-19	8.08	<4.0	20	32
13-Nov-19	7.91	<4.0	22	24
29-Nov-19	7.68	<4.0	20	12
12-Dec-19	7.1	<4.0	22	16
28-Dec-19	7.23	<4.0	20	16
10-Jan-20	7.21	<4.0	36	36
29-Jan-20	7.17	<4.0	24	40
13-Feb-20	7.79	<4.0	26	20
26-Feb-20	7.55	<4.0	22	32
06-Mar-20	6.65	<4.0	24	44
19-Mar-20	6.41	<4.0	20	36
14-Jun-19	7.86	<4.0	74	24
13-Jul-19	7.32	<4.0	18	44

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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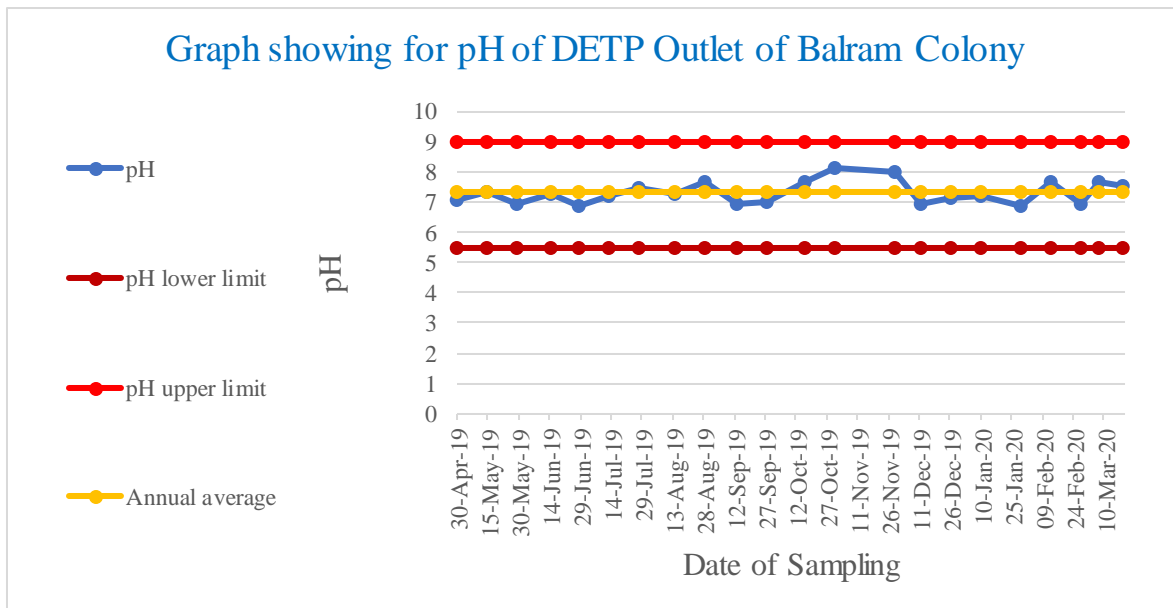
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Table:121
Area: Hingula
Project: Balram OCP
Monitoring Station: DETP Outlet of Balram Colony

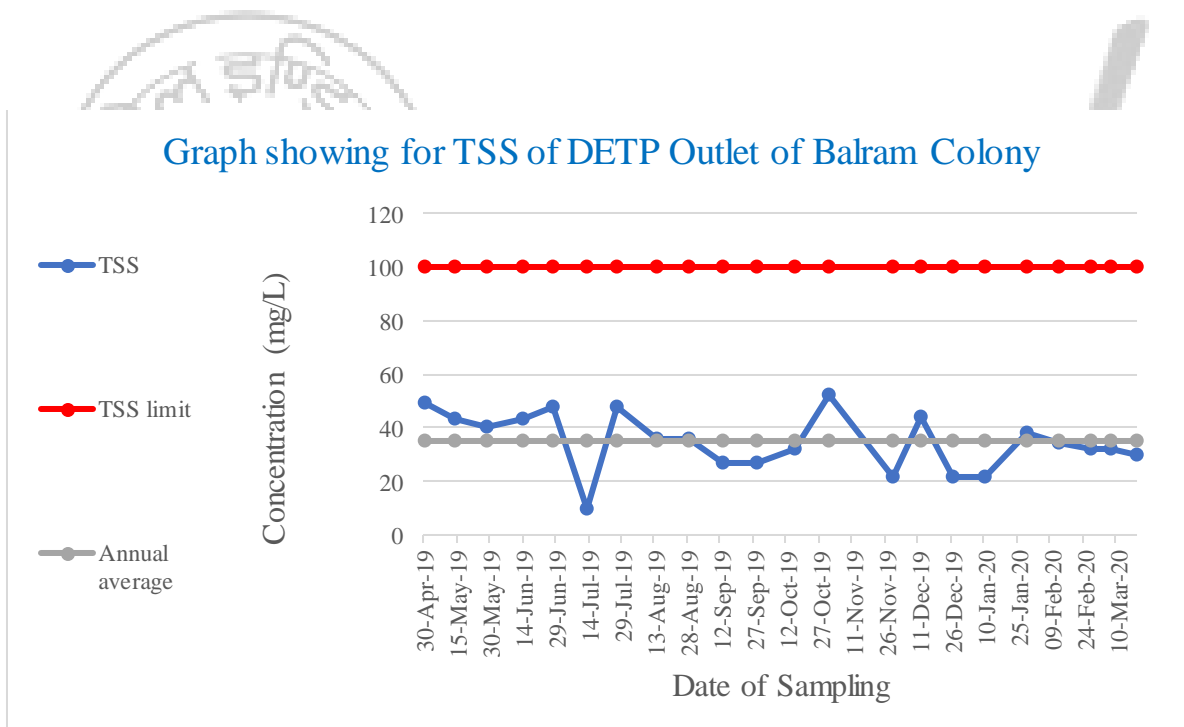
Date of Sampling	pH	TSS	BOD
30-Apr-19	7.04	49	
14-May-19	7.31	43	2.8
29-May-19	6.92	40	3
14-Jun-19	7.24	43	1.5
28-Jun-19	6.87	48	2.7
13-Jul-19	7.19	10	2.8
27-Jul-19	7.45	48	2.4
14-Aug-19	7.23	36	2.7
28-Aug-19	7.67	36	2.7
13-Sep-19	6.94	27	2.2
28-Sep-19	6.98	27	1
16-Oct-19	7.64	32	1.3
31-Oct-19	8.15	52	1.2
29-Nov-19	7.97	22	1.4
12-Dec-19	6.95	44	2.1
26-Dec-19	7.12	22	2.1
10-Jan-20	7.2	22	3.4
29-Jan-20	6.88	38	2.3
13-Feb-20	7.63	34	2.6
27-Feb-20	6.95	32	<2.0
07-Mar-20	7.67	32	<2.0
19-Mar-20	7.52	30	<2.0

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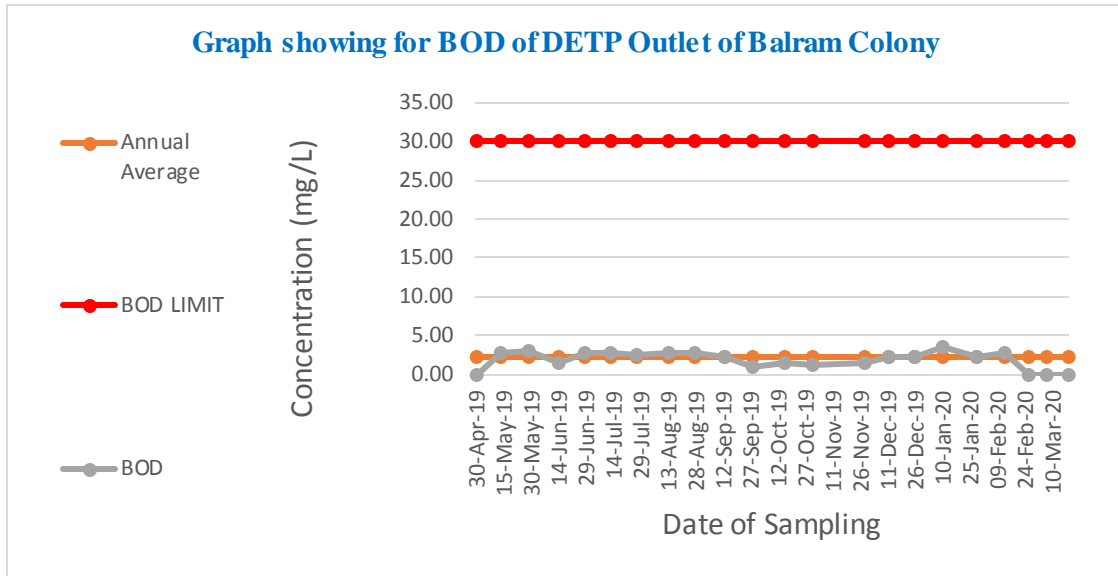
Graph showing for pH of DETP Outlet of Balram Colony



Graph showing for TSS of DETP Outlet of Balram Colony



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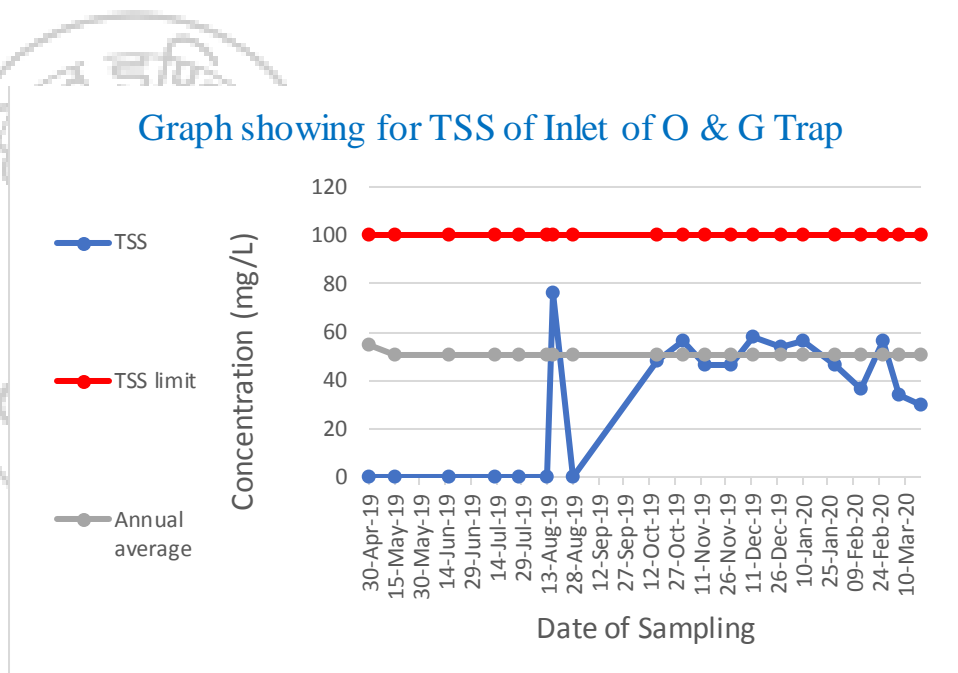
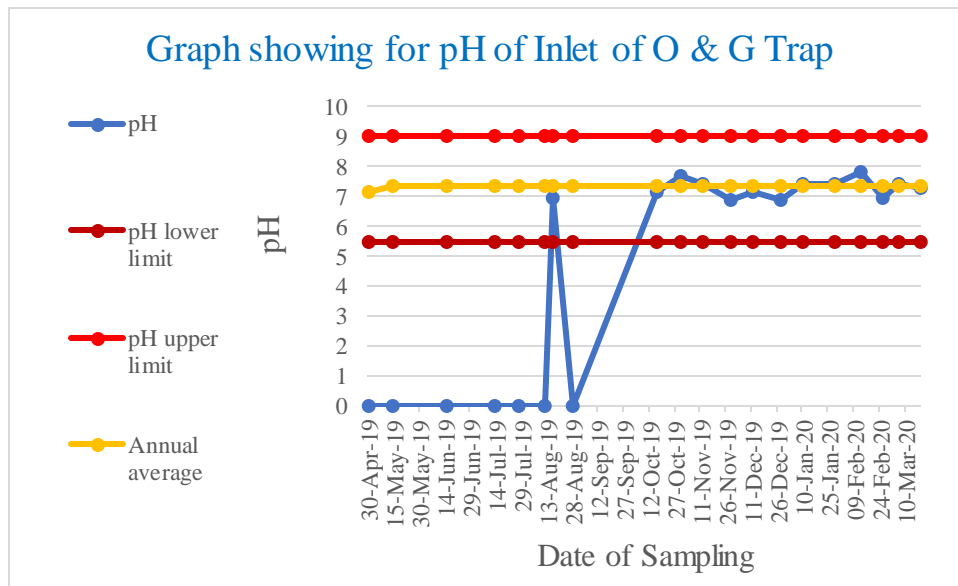
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

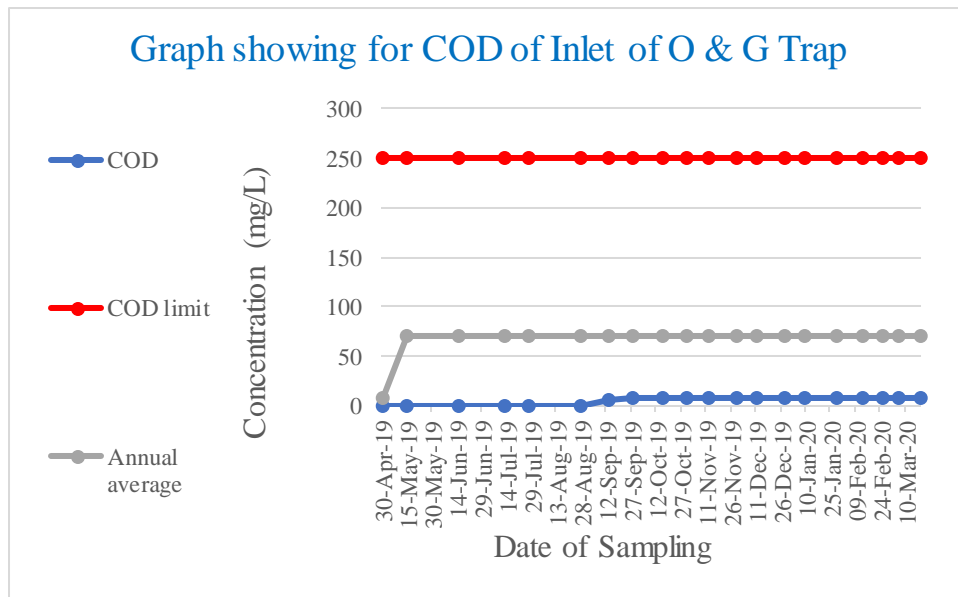
Table:122
 Area: Hingula
 Project: Hingula OCP
 Monitoring Station: O&G Inlet

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-19	NOT WORKING			
15-May-19	DRY			
15-Jun-19				
13-Jul-19	NOT WORKING			
27-Jul-19				
12-Aug-19	UNDER MAINTANENCE			
16-Aug-19	6.92	4.8	76	108
28-Aug-19	UNDER MAINTANENCE			
13-Sep-19	6.25	<4.0	64	96
28-Sep-19	7.03	<4.0	64	72
16-Oct-19	7.18	<4.0	48	64
31-Oct-19	7.7	4.2	56	84
13-Nov-19	7.44	<4.0	46	48
29-Nov-19	6.86	<4.0	46	60
12-Dec-19	7.13	<4.0	58	24
28-Dec-19	6.89	<4.0	54	92
10-Jan-20	7.39	5.2	56	132
29-Jan-20	7.4	<4.0	46	104
13-Feb-20	7.82	<4.0	36	44
26-Feb-20	6.92	<4.0	56	84
06-Mar-20	7.44	<4.0	34	72
19-Mar-20	7.31	<4.0	30	84

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



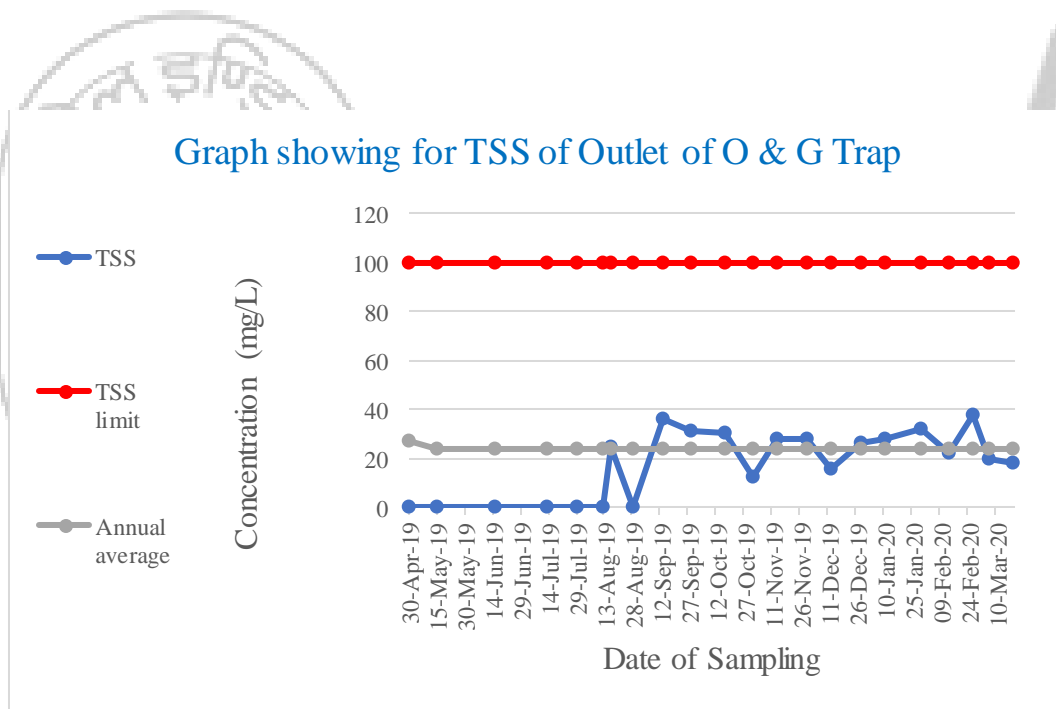
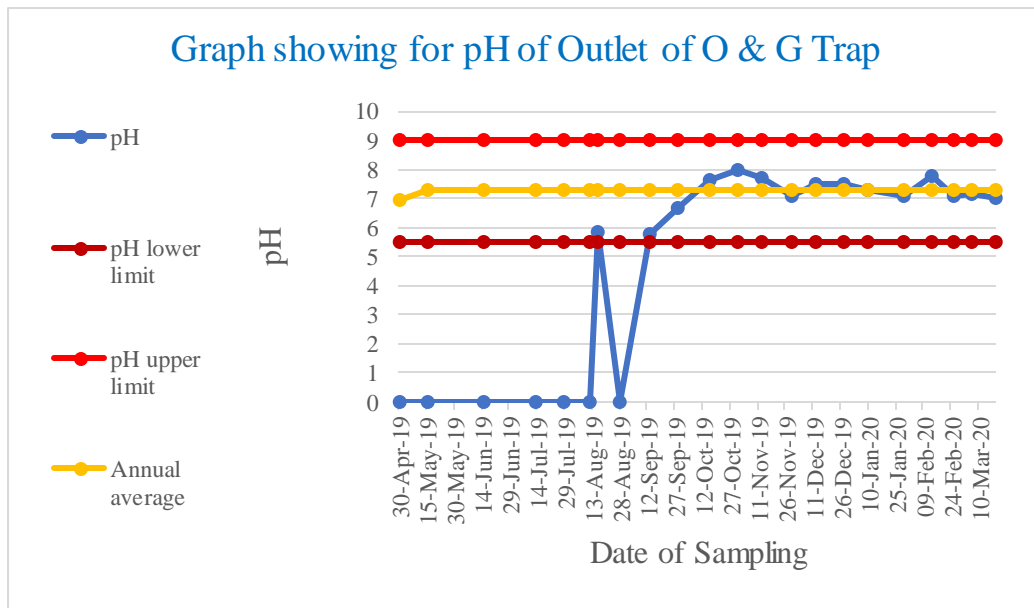
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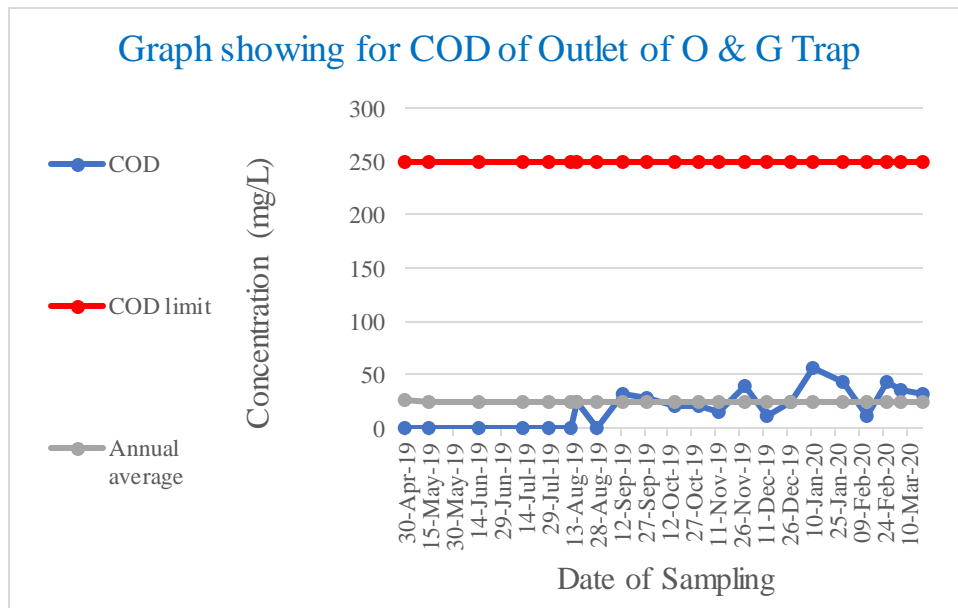
Table:123
Area: Hingula
Project: Hingula OCP
Monitoring Station: O&G Outlet

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-19	Not working			
15-May-19	DRY			
15-Jun-19	DRY			
13-Jul-19	Not Working			
29-Jul-19				
12-Aug-19	Under Maintenance			
16-Aug-19	5.87	<4.0	25	24
28-Aug-19	Under Maintenance			
13-Sep-19	5.74	<4.0	36	32
28-Sep-19	6.65	<4.0	31	28
16-Oct-19	7.64	<4.0	30	20
31-Oct-19	7.96	<4.0	12	20
13-Nov-19	7.72	<4.0	28	16
29-Nov-19	7.06	<4.0	28	40
12-Dec-19	7.5	<4.0	16	12
28-Dec-19	7.52	<4.0	26	24
10-Jan-20	7.29	<4.0	28	56
29-Jan-20	7.07	<4.0	32	44
13-Feb-20	7.8	<4.0	22	12
26-Feb-20	7.08	<4.0	38	44
06-Mar-20	7.16	<4.0	20	36
19-Mar-20	7.02	<4.0	18	32

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:124

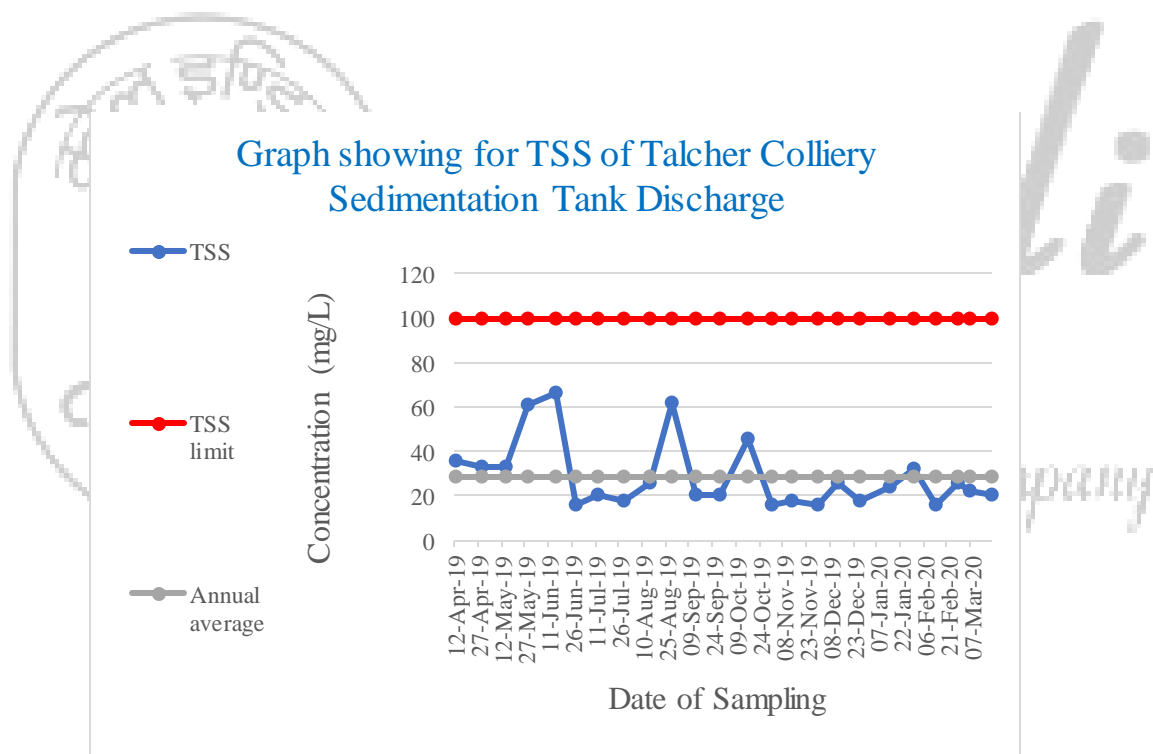
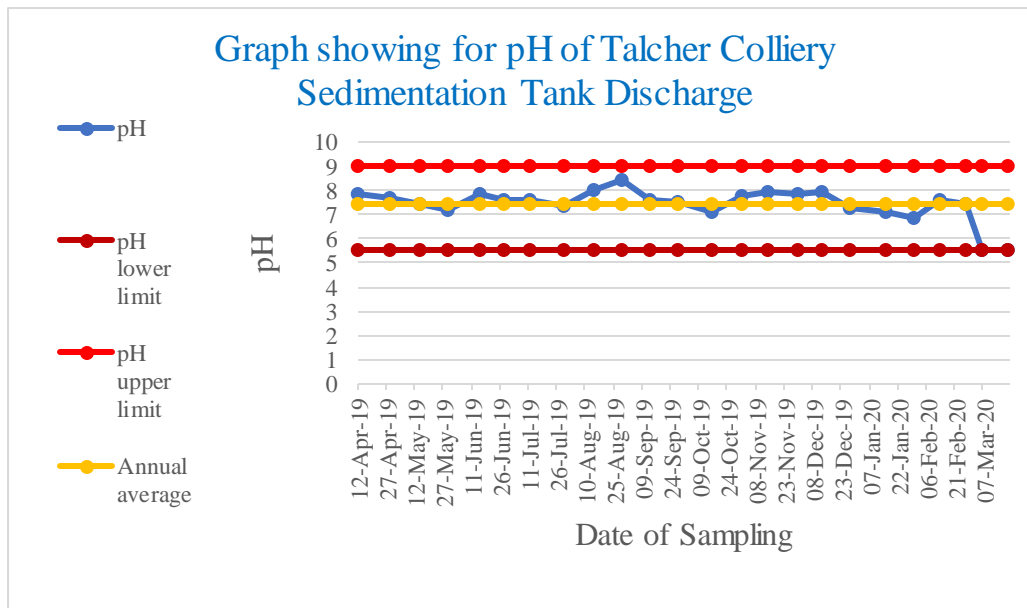
Area: Talcher

Project: Talcher

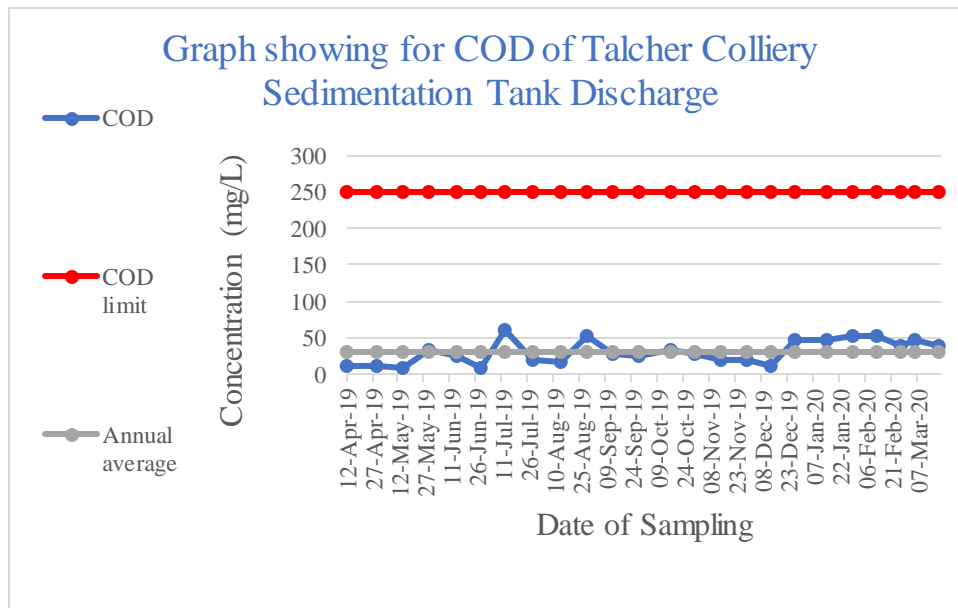
Monitoring Station: Talcher Colliery Sedimentation Tank Discharge

Date of Sampling	pH	Oil & Grease	TSS	COD
12-Apr-19	7.82	<4.0	36	12
29-Apr-19	7.69	<4.0	33	12
14-May-19	7.44	<4.0	33	9.6
29-May-19	7.19	<4.0	61	33.6
15-Jun-19	7.81	<4.0	66	24
28-Jun-19	7.64	<4.0	16	8
12-Jul-19	7.64	<4.0	20	60
29-Jul-19	7.33	<4.0	18	20
14-Aug-19	8.01	<4.0	26	16
29-Aug-19	8.39	<4.0	62	52
13-Sep-19	7.62	<4.0	20	28
28-Sep-19	7.48	<4.0	20	24
16-Oct-19	7.11	<4.0	46	32
31-Oct-19	7.77	<4.0	16	28
14-Nov-19	7.96	<4.0	18	20
30-Nov-19	7.81	<4.0	16	20
13-Dec-19	7.91	<4.0	26	12
27-Dec-19	7.29	<4.0	18	48
15-Jan-20	7.14	<4.0	24	48
30-Jan-20	6.89	<4.0	32	52
13-Feb-20	7.64	<4.0	16	52
27-Feb-20	7.45	<4.0	26	40
06-Mar-20	5.51	<4.0	22	48
20-Mar-20	5.57	<4.0	20	40

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:125

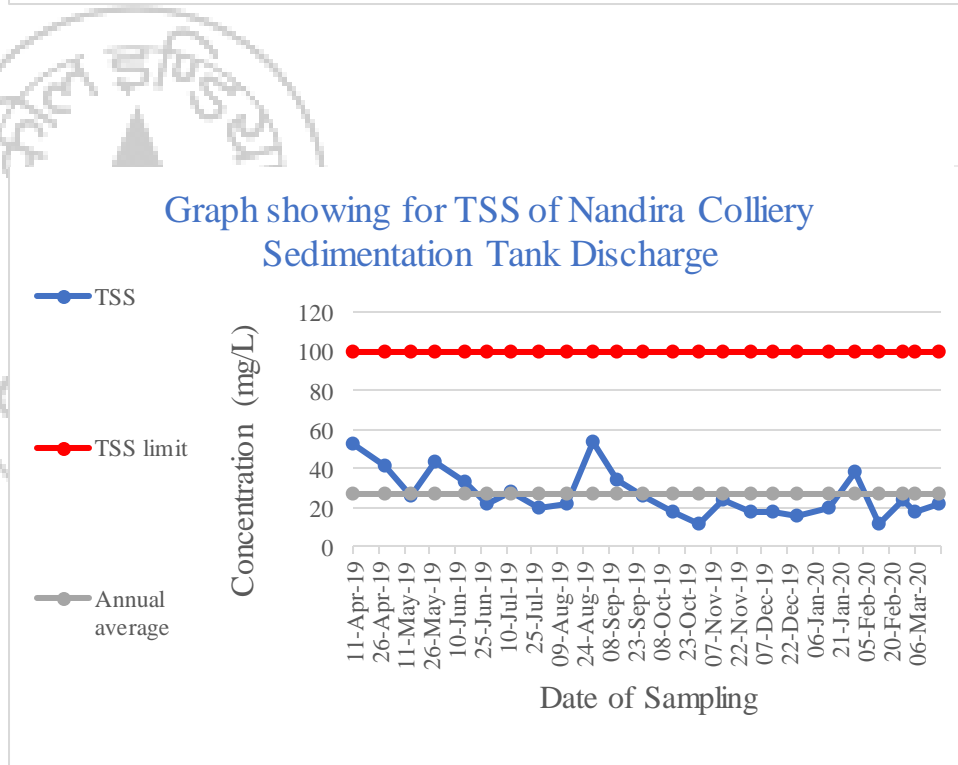
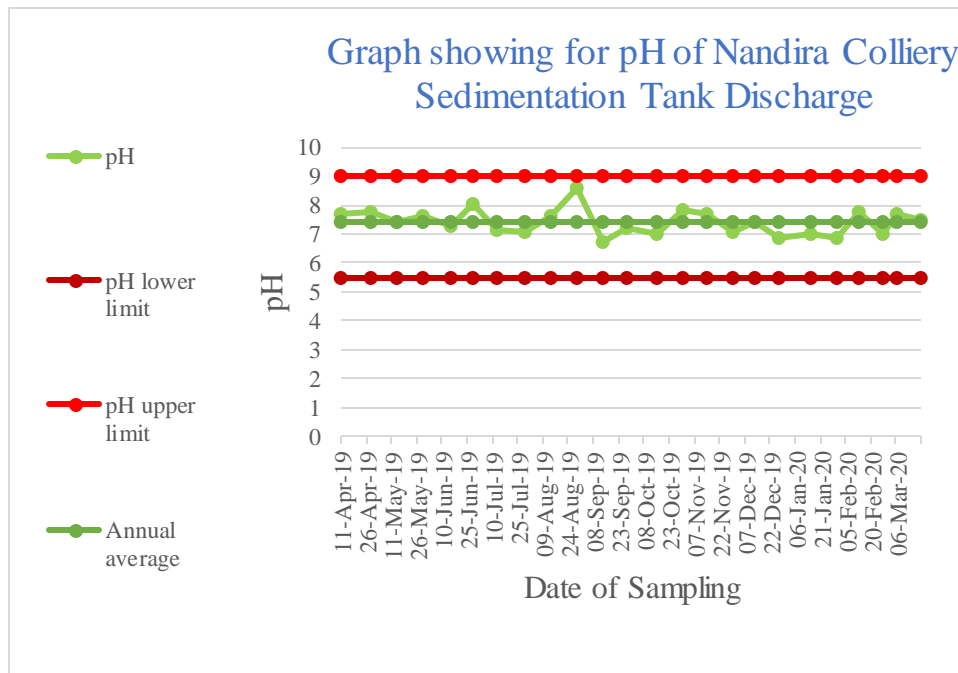
Area: Talcher

Project: Nandira

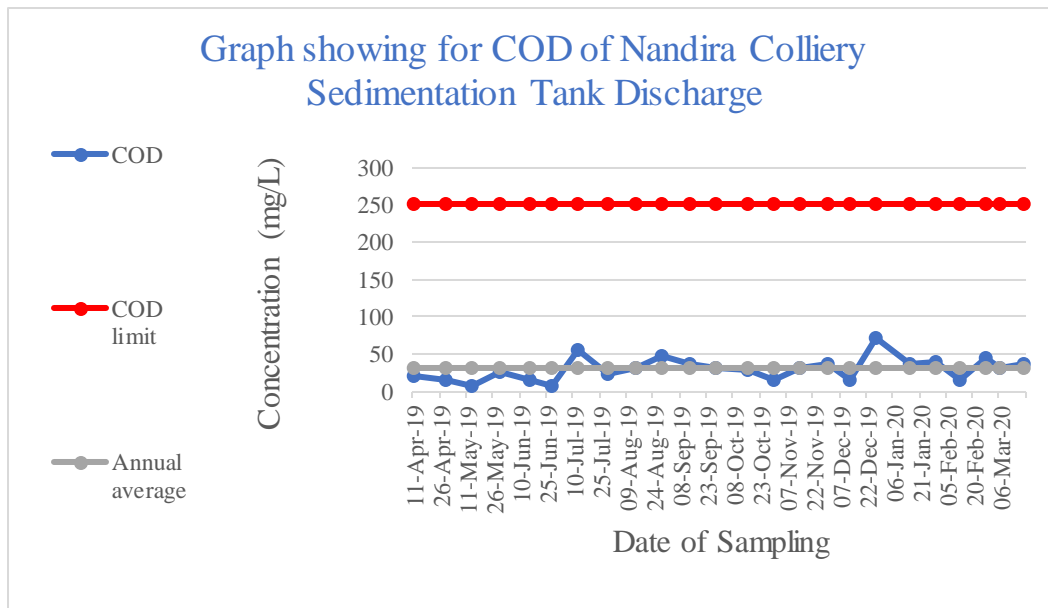
Monitoring Station: Nandira Colliery Sedimentation Tank Discharge

Date of Sampling	pH	Oil & Grease	TSS	COD
11-Apr-19	7.72	<4.0	53	20
29-Apr-19	7.78	<4.0	41	16
14-May-19	7.4	<4.0	26	7.2
29-May-19	7.65	<4.0	43	24.8
15-Jun-19	7.28	<4.0	33	16
28-Jun-19	8.01	<4.0	22	8
12-Jul-19	7.13	<4.0	28	56
29-Jul-19	7.08	<4.0	20	24
14-Aug-19	7.6	<4.0	22	32
29-Aug-19	8.56	<4.0	54	48
13-Sep-19	6.69	<4.0	34	36
28-Sep-19	7.2	<4.0	26	32
16-Oct-19	6.97	<4.0	18	28
31-Oct-19	7.8	<4.0	12	16
14-Nov-19	7.66	<4.0	24	32
30-Nov-19	7.1	<4.0	18	36
13-Dec-19	7.4	<4.0	18	16
27-Dec-19	6.89	<4.0	16	72
15-Jan-20	7.01	<4.0	20	36
30-Jan-20	6.89	<4.0	38	40
13-Feb-20	7.79	<4.0	12	16
27-Feb-20	7.02	<4.0	24	44
06-Mar-20	7.72	<4.0	18	32
20-Mar-20	7.51	<4.0	22	36

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



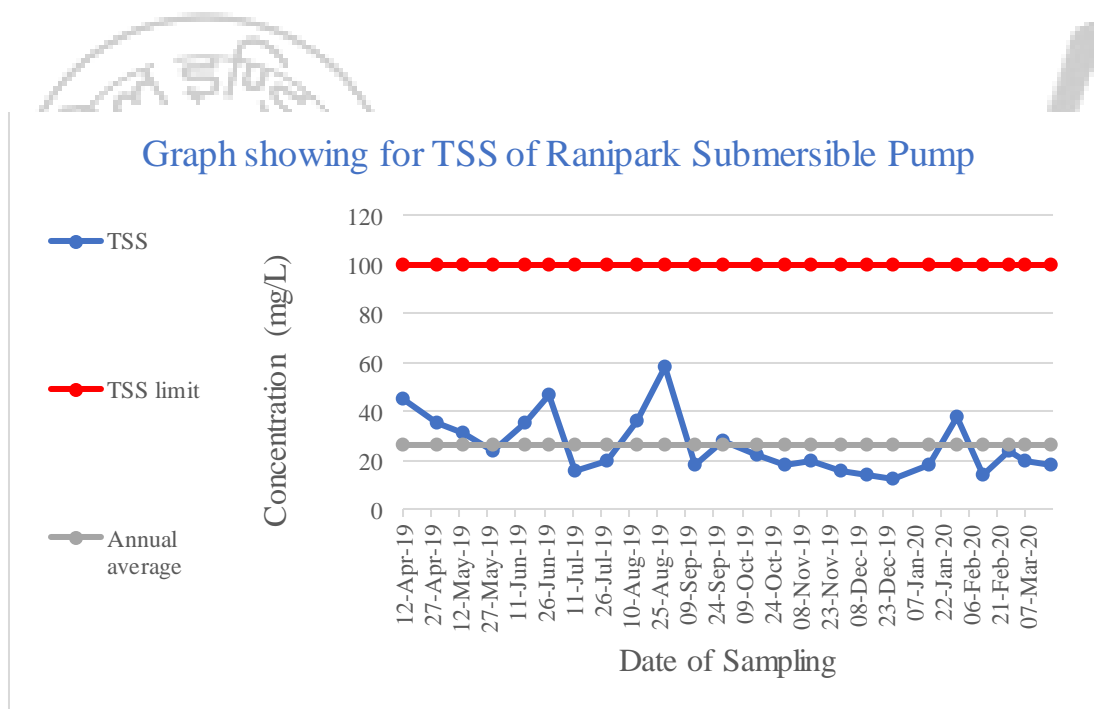
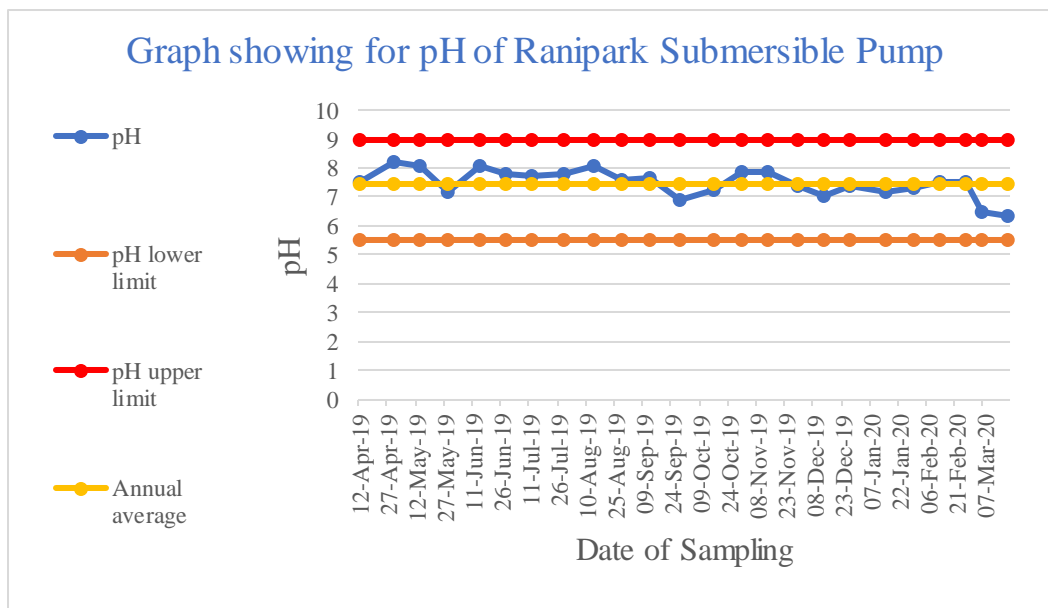
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

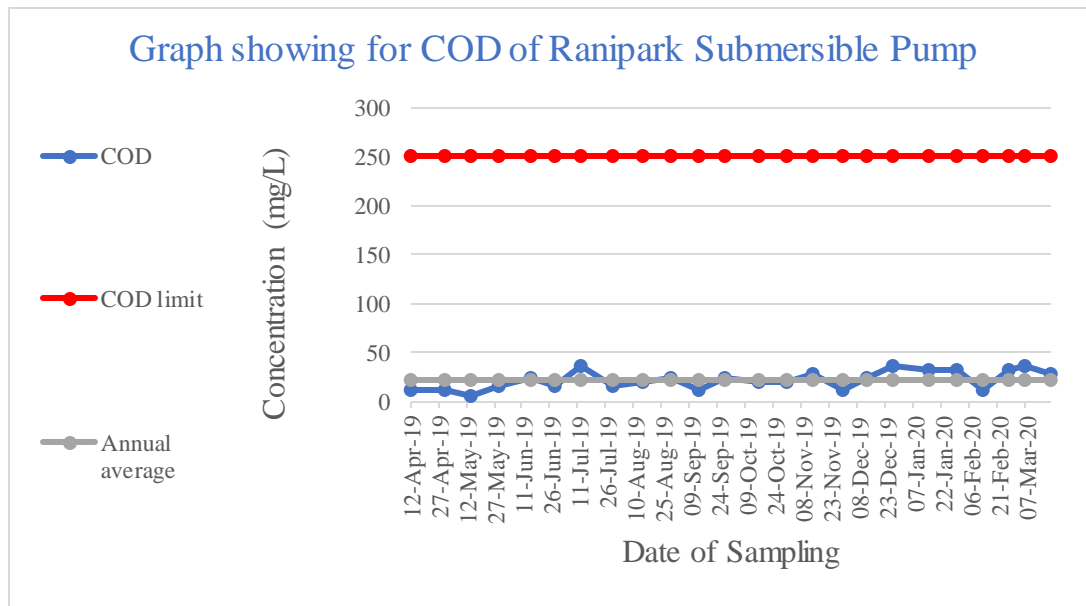
Table:126
Area: Talcher
Project: Duelbera colliery
Monitoring Station: Ranipark Dubmersible Pump

Date of Sampling	pH	Oil & Grease	TSS	COD
12-Apr-19	7.51	<4.0	45	12
30-Apr-19	8.24	<4.0	35	12
14-May-19	8.05	<4.0	31	5.2
29-May-19	7.2	<4.0	24	15.2
15-Jun-19	8.04	<4.0	35	24
28-Jun-19	7.8	<4.0	47	16
12-Jul-19	7.75	<4.0	16	36
29-Jul-19	7.78	<4.0	20	16
14-Aug-19	8.07	<4.0	36	20
29-Aug-19	7.57	<4.0	58	24
13-Sep-19	7.64	<4.0	18	12
28-Sep-19	6.88	<4.0	28	24
16-Oct-19	7.21	<4.0	22	20
31-Oct-19	7.86	<4.0	18	20
14-Nov-19	7.83	<4.0	20	28
30-Nov-19	7.41	<4.0	16	12
13-Dec-19	7.01	<4.0	14	24
27-Dec-19	7.35	<4.0	12	36
15-Jan-20	7.16	<4.0	18	32
30-Jan-20	7.28	<4.0	38	32
13-Feb-20	7.51	<4.0	14	12
27-Feb-20	7.54	<4.0	24	32
06-Mar-20	6.47	<4.0	20	36
20-Mar-20	6.34	<4.0	18	28

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



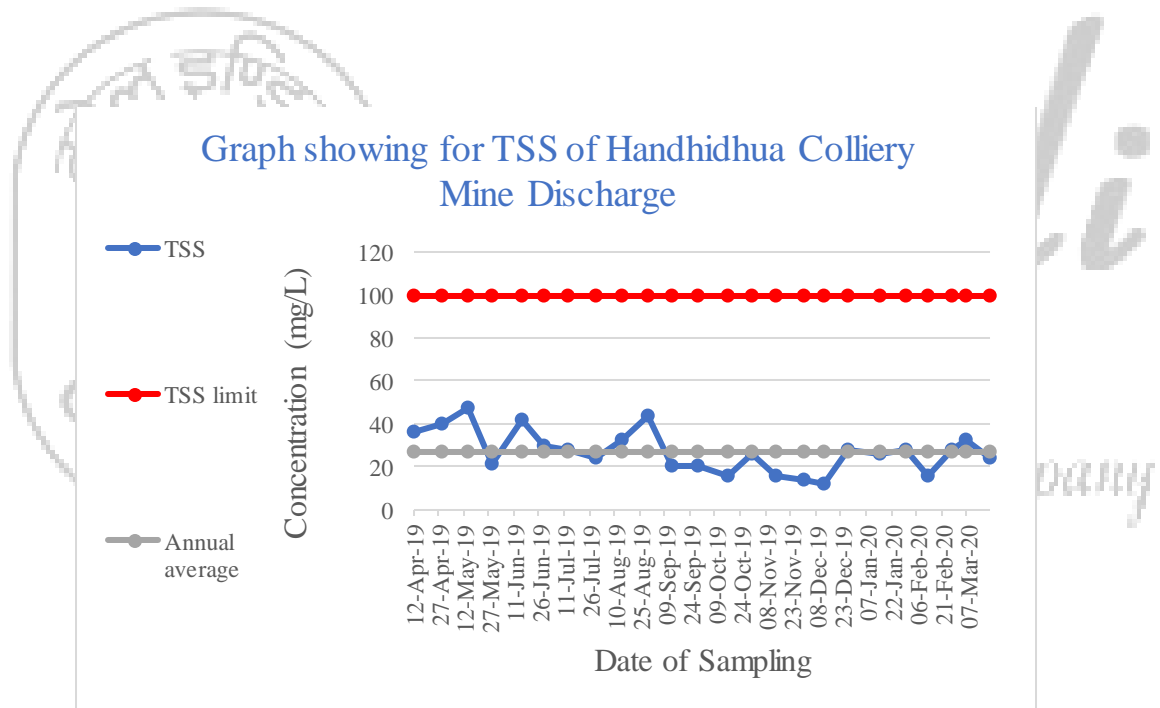
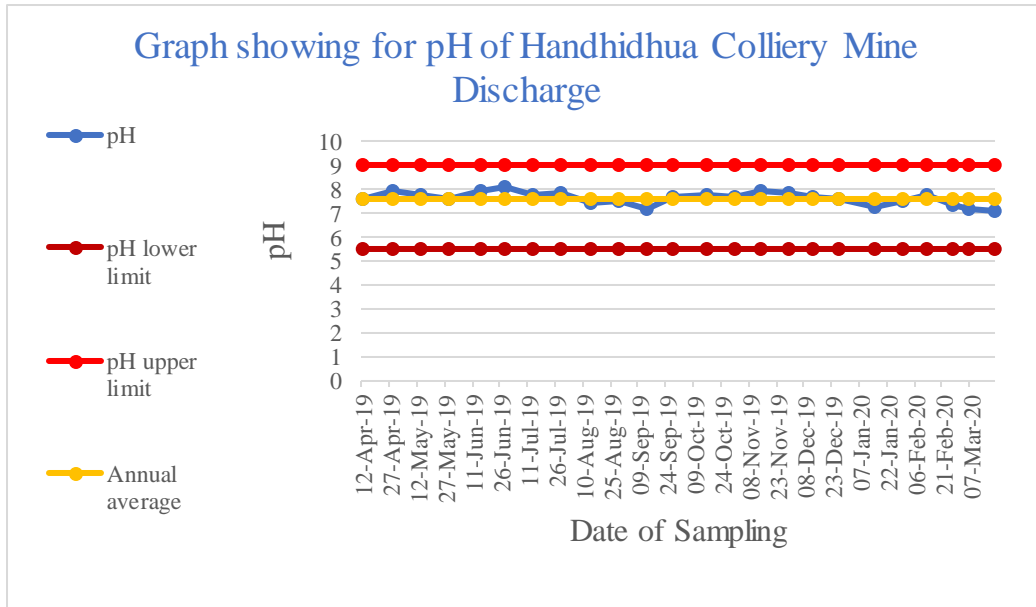
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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

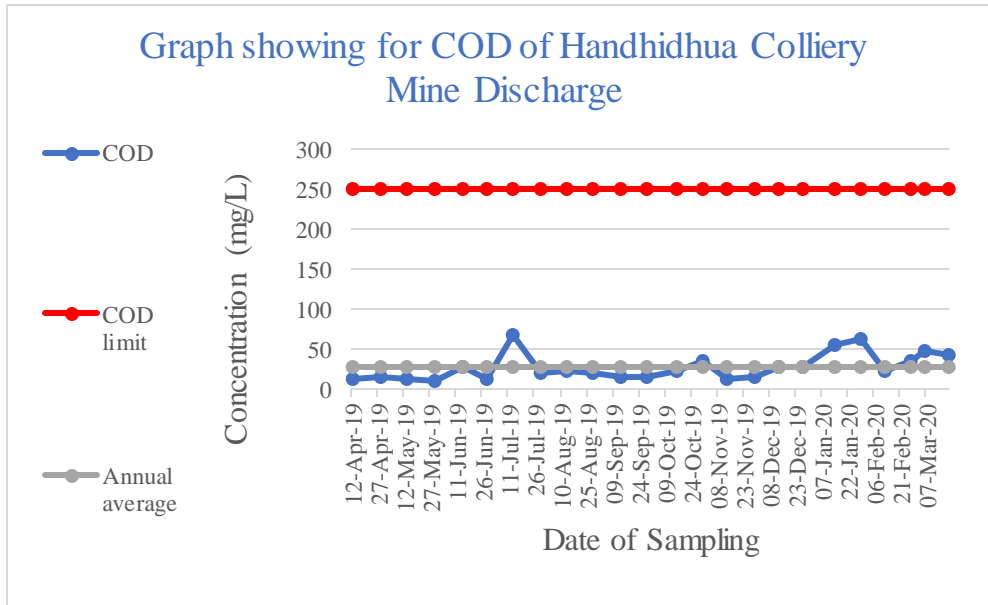
Table:127
Area: Talcher
Project: Handhidhua Colliery
Monitoring Station: Handhidhua Colliery Mine Discharge

Date of Sampling	pH	Oil & Grease	TSS	COD
12-Apr-19	7.62	<4.0	36	12
29-Apr-19	7.92	<4.0	40	16
14-May-19	7.77	<4.0	47	12
29-May-19	7.64	<4.0	21	9.6
15-Jun-19	7.9	<4.0	42	28
28-Jun-19	8.12	<4.0	30	12
13-Jul-19	7.78	<4.0	28	68
29-Jul-19	7.86	<4.0	24	20
14-Aug-19	7.45	<4.0	32	24
29-Aug-19	7.52	<4.0	44	20
13-Sep-19	7.22	<4.0	20	16
28-Sep-19	7.71	<4.0	20	16
16-Oct-19	7.76	<4.0	16	24
31-Oct-19	7.67	<4.0	26	36
14-Nov-19	7.97	<4.0	16	12
30-Nov-19	7.86	<4.0	14	16
13-Dec-19	7.69	<4.0	12	28
27-Dec-19	7.58	<4.0	28	28
15-Jan-20	7.26	<4.0	26	56
30-Jan-20	7.49	<4.0	28	64
13-Feb-20	7.73	<4.0	16	24
27-Feb-20	7.38	<4.0	28	36
06-Mar-20	7.2	<4.0	32	48
20-Mar-20	7.06	<4.0	24	44

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:128

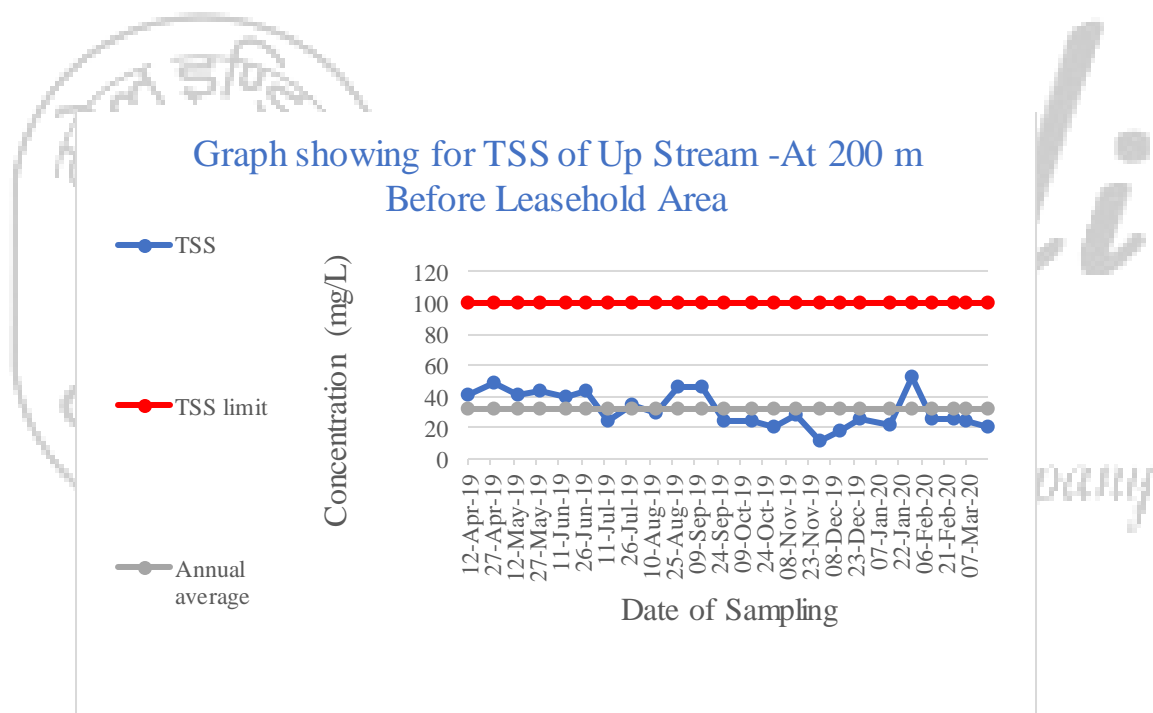
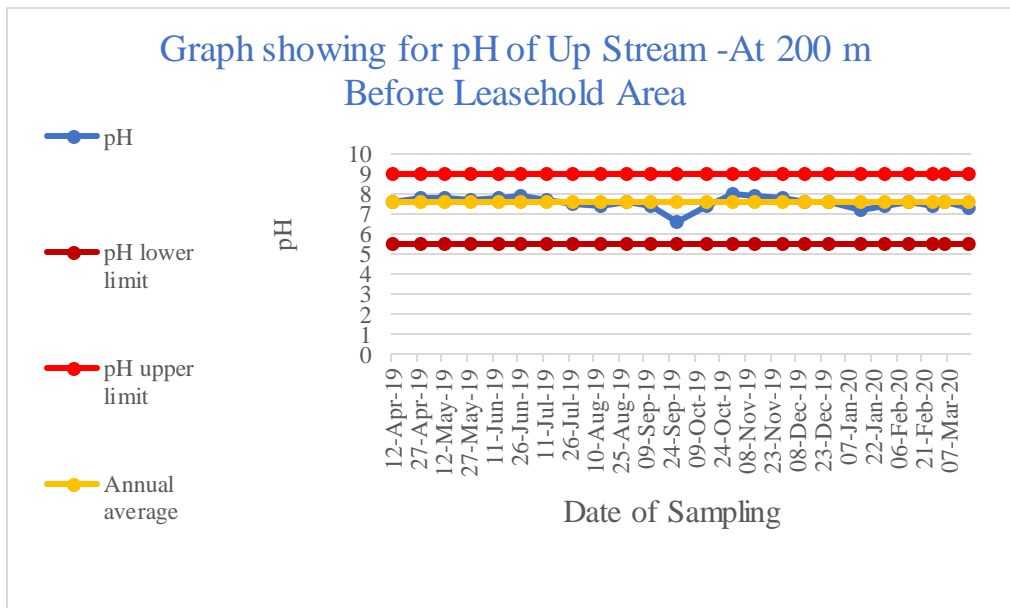
Area: Talcher

Project: Mandalpal Sand Mine

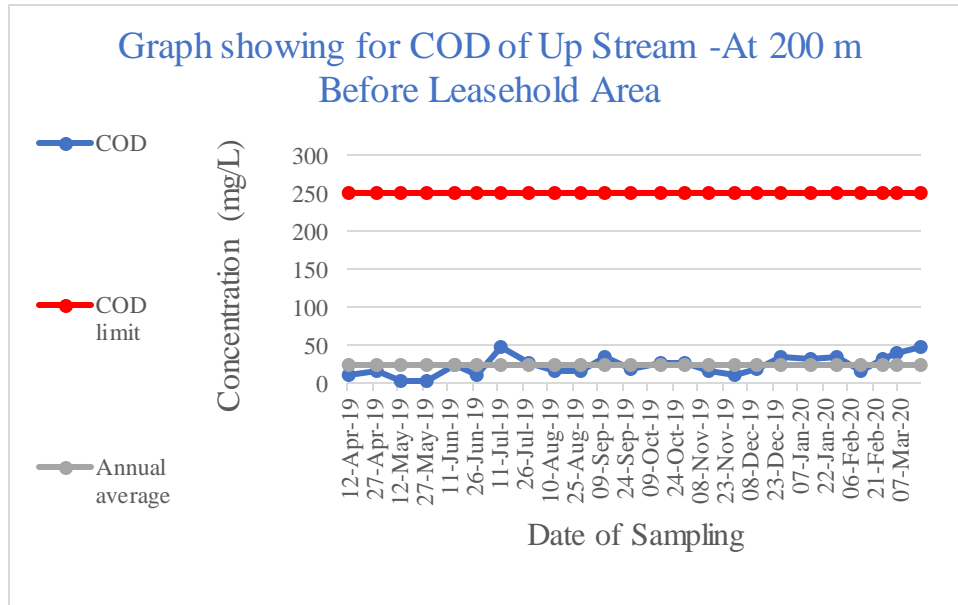
Monitoring Station: Upstream - At 200 m before Leasehold Area

Date of Sampling	pH	Oil & Grease	TSS	COD
12-Apr-19	7.56	<4.0	41	12
29-Apr-19	7.77	<4.0	49	16
14-May-19	7.81	<4.0	41	4.8
29-May-19	7.67	<4.0	43	4.4
15-Jun-19	7.79	<4.0	40	24
28-Jun-19	7.9	<4.0	43	12
13-Jul-19	7.63	<4.0	24	48
29-Jul-19	7.49	<4.0	34	28
14-Aug-19	7.38	<4.0	30	16
29-Aug-19	7.61	<4.0	46	16
13-Sep-19	7.36	<4.0	46	36
28-Sep-19	6.55	<4.0	24	20
16-Oct-19	7.39	<4.0	24	28
31-Oct-19	7.96	<4.0	20	28
14-Nov-19	7.86	<4.0	28	16
30-Nov-19	7.73	<4.0	12	12
13-Dec-19	7.61	<4.0	18	20
27-Dec-19	7.55	<4.0	26	36
15-Jan-20	7.15	<4.0	22	32
30-Jan-20	7.34	<4.0	52	36
13-Feb-20	7.61	<4.0	26	16
27-Feb-20	7.35	<4.0	26	32
06-Mar-20	7.55	<4.0	24	40
20-Mar-20	7.31	<4.0	20	48

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:129

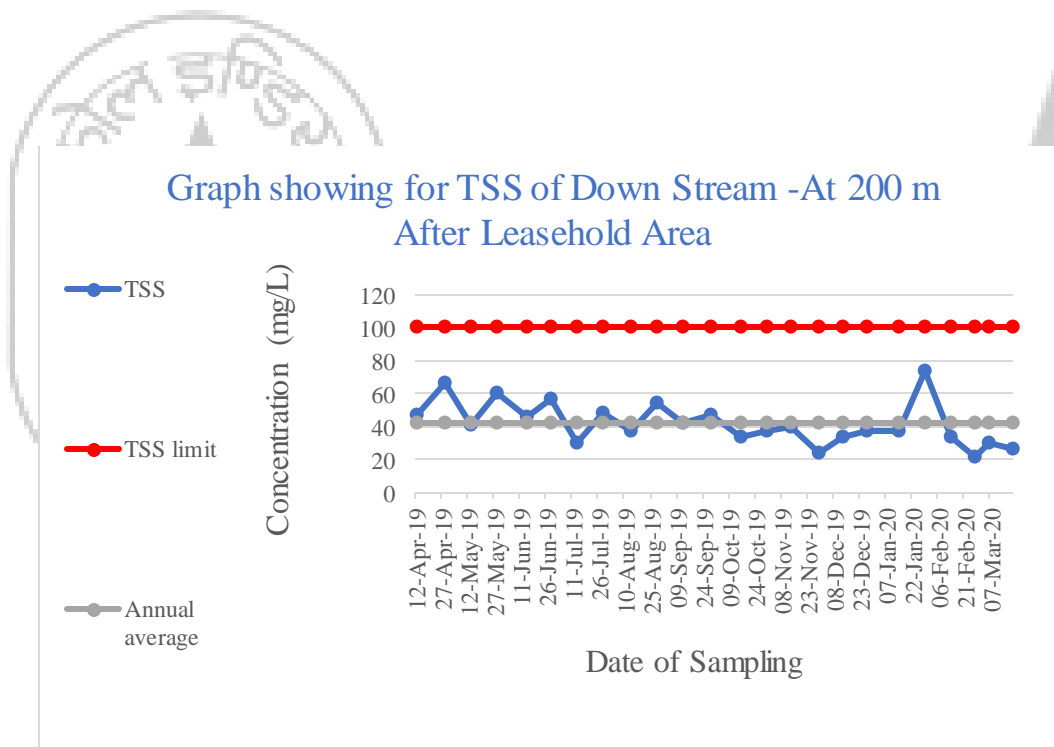
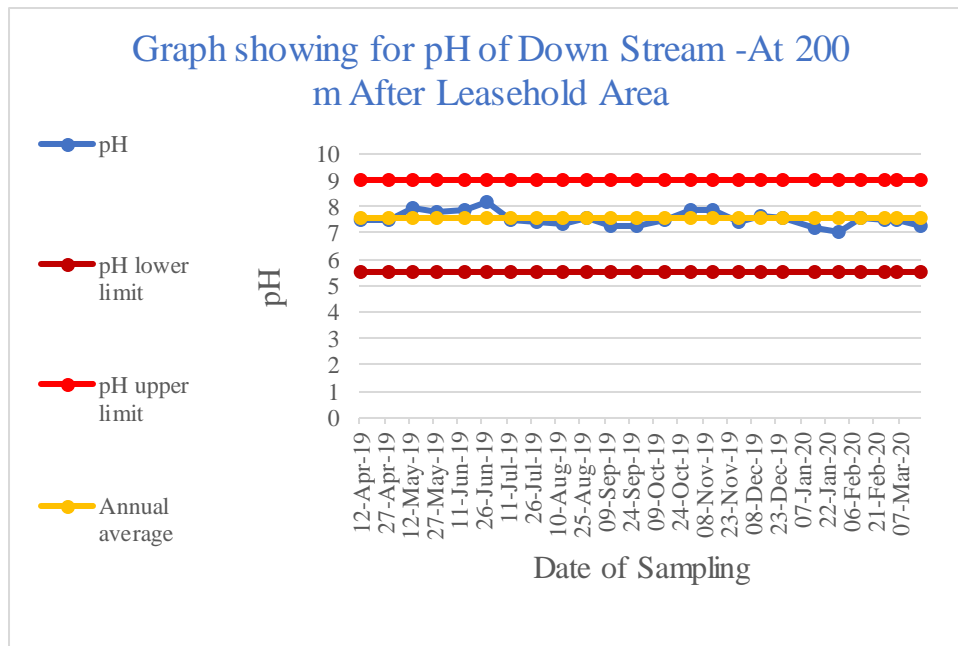
Area: Talcher

Project: Mandalpal Sand Mine

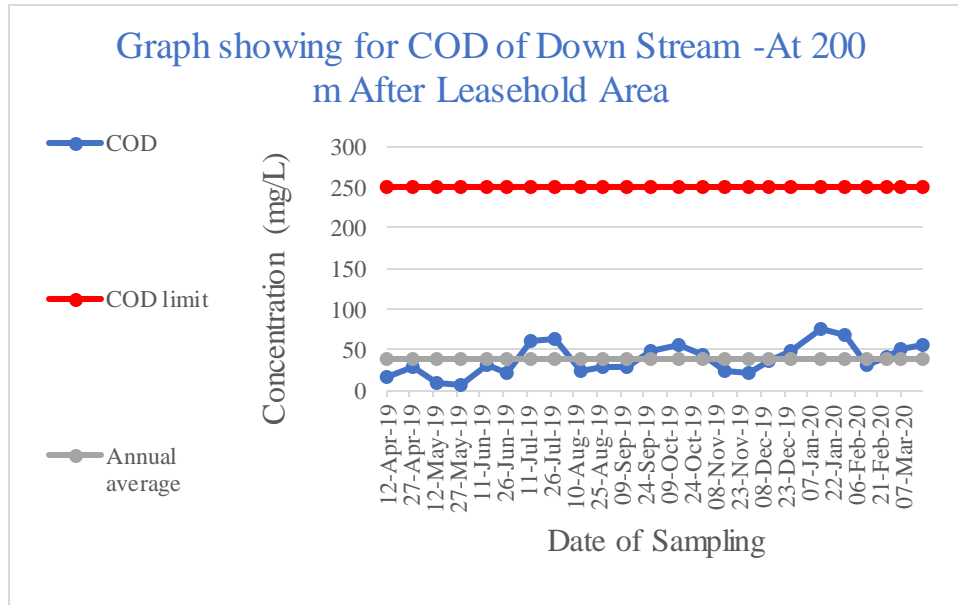
Monitoring Station: Downstream -At 200 m after Leasehold Area

Date of Sampling	pH	Oil & Grease	TSS	COD
12-Apr-19	7.5	<4.0	47	16
29-Apr-19	7.46	<4.0	67	28
14-May-19	7.97	<4.0	41	10
29-May-19	7.79	<4.0	60	5.6
15-Jun-19	7.84	<4.0	46	32
28-Jun-19	8.18	<4.0	57	20
13-Jul-19	7.51	<4.0	30	60
29-Jul-19	7.43	<4.0	48	64
14-Aug-19	7.35	<4.0	38	24
29-Aug-19	7.59	<4.0	54	28
13-Sep-19	7.28	<4.0	42	28
28-Sep-19	7.26	<4.0	47	48
16-Oct-19	7.5	<4.0	34	56
31-Oct-19	7.83	<4.0	38	44
14-Nov-19	7.83	<4.0	40	24
30-Nov-19	7.41	<4.0	24	20
13-Dec-19	7.63	<4.0	34	36
27-Dec-19	7.56	<4.0	38	48
15-Jan-20	7.2	<4.0	38	76
30-Jan-20	7.02	<4.0	74	68
13-Feb-20	7.59	<4.0	34	32
27-Feb-20	7.5	<4.0	22	40
06-Mar-20	7.46	<4.0	30	52
20-Mar-20	7.25	<4.0	26	56

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Table:130

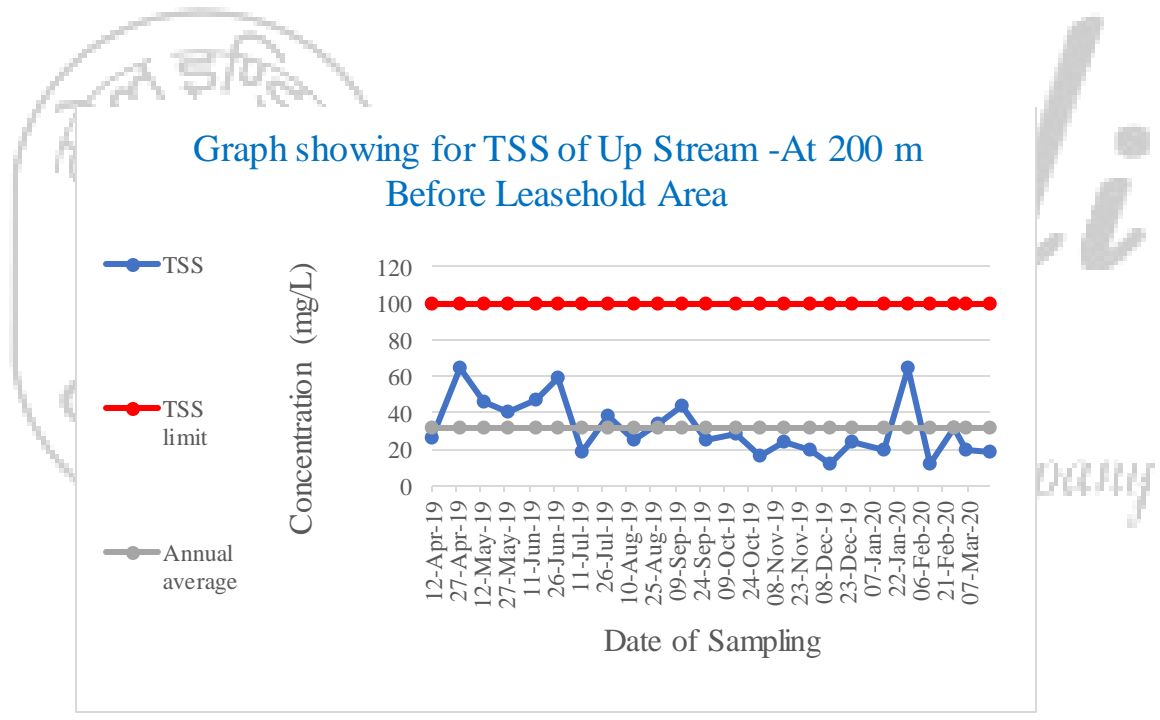
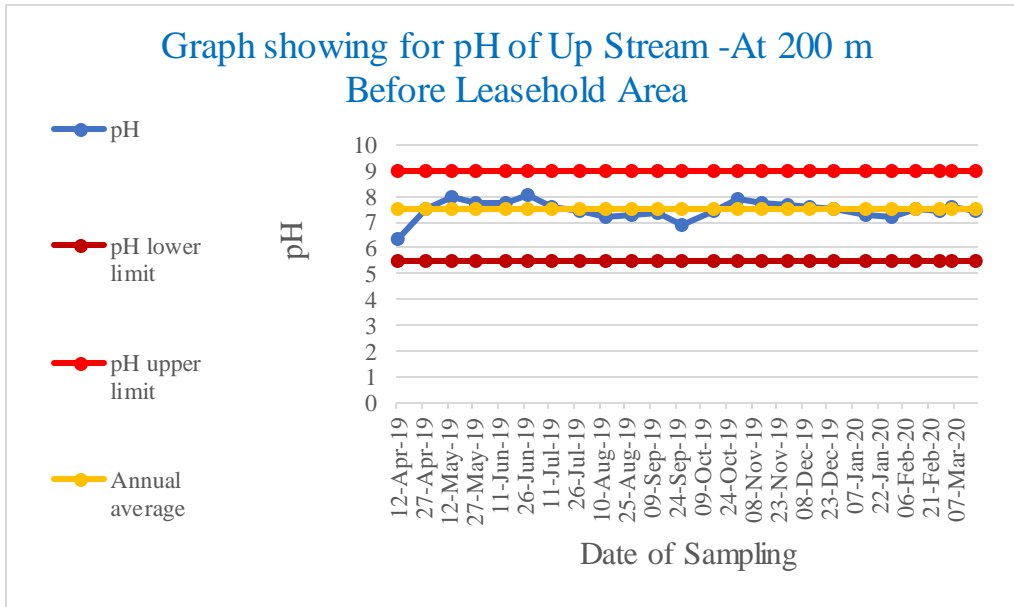
Area: Talcher

Project: Kakudi & Kishoripal Sand mine

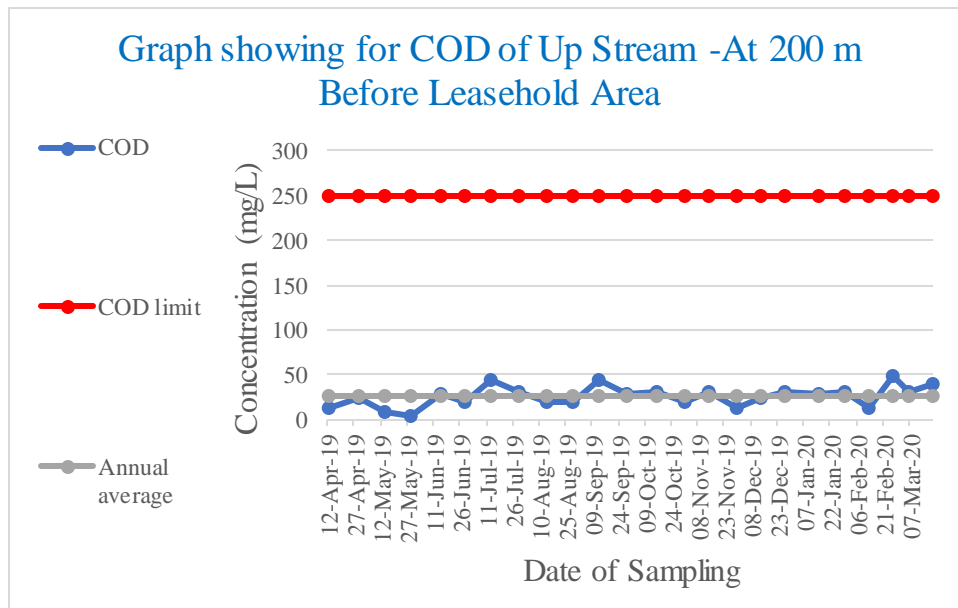
Monitoring Station: Upstream - At 200 m before Leasehold Area

Date of Sampling	pH	Oil & Grease	TSS	COD
12-Apr-19	6.33	<4.0	26	12
29-Apr-19	7.5	<4.0	64	24
14-May-19	7.95	<4.0	46	8
29-May-19	7.76	<4.0	40	3.8
15-Jun-19	7.73	<4.0	47	28
28-Jun-19	8.07	<4.0	59	20
13-Jul-19	7.56	<4.0	18	44
29-Jul-19	7.41	<4.0	38	32
14-Aug-19	7.18	<4.0	25	20
29-Aug-19	7.28	<4.0	34	20
13-Sep-19	7.38	<4.0	44	44
28-Sep-19	6.88	<4.0	25	28
16-Oct-19	7.43	<4.0	28	32
31-Oct-19	7.89	<4.0	16	20
14-Nov-19	7.7	<4.0	24	32
30-Nov-19	7.66	<4.0	20	12
13-Dec-19	7.59	<4.0	12	24
27-Dec-19	7.49	<4.0	24	32
15-Jan-20	7.29	<4.0	20	28
30-Jan-20	7.2	<4.0	64	32
13-Feb-20	7.52	<4.0	12	12
27-Feb-20	7.41	<4.0	32	48
06-Mar-20	7.59	<4.0	20	32
20-Mar-20	7.42	<4.0	18	40

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:131

Area: Talcher

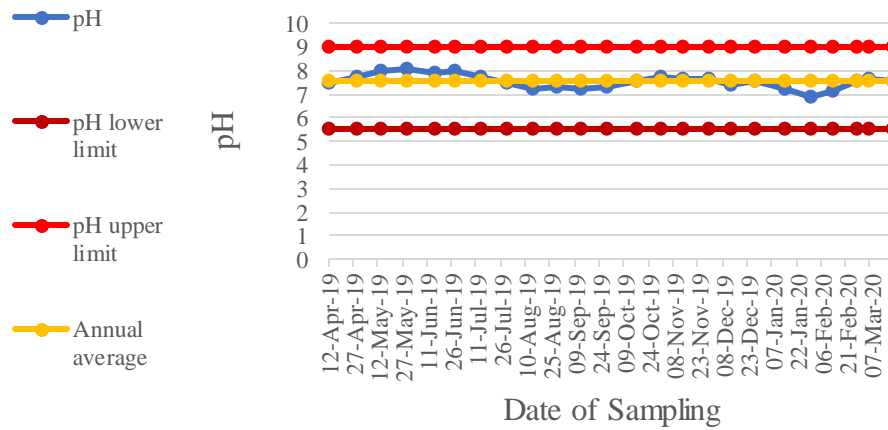
Project: Kakudi & Kishoripal Sand mine

Monitoring Station: Downstream - At 200 m after Leasehold Area

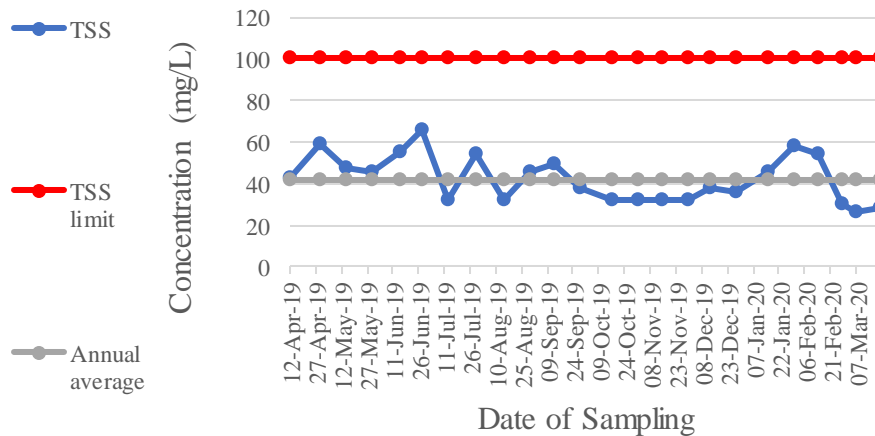
Date of Sampling	pH	Oil & Grease	TSS	COD
12-Apr-19	7.48	<4.0	43	16
29-Apr-19	7.71	<4.0	59	20
14-May-19	7.97	<4.0	48	10
29-May-19	8.04	<4.0	46	16
28-Jun-19	7.96	<4.0	66	24
29-Jul-19	7.5	<4.0	54	72
14-Aug-19	7.2	<4.0	32	36
29-Aug-19	7.3	<4.0	46	32
13-Sep-19	7.26	<4.0	49	52
28-Sep-19	7.29	<4.0	38	44
16-Oct-19	7.54	<4.0	32	76
31-Oct-19	7.69	<4.0	32	48
14-Nov-19	7.67	<4.0	32	28
30-Nov-19	7.68	<4.0	32	28
13-Dec-19	7.39	<4.0	38	52
27-Dec-19	7.56	<4.0	36	52
15-Jan-20	7.26	<4.0	46	84
30-Jan-20	6.85	<4.0	58	60
13-Feb-20	7.14	<4.0	54	36
27-Feb-20	7.57	<4.0	30	56
06-Mar-20	7.63	<4.0	26	48
20-Mar-20	7.56	<4.0	28	60
15-Jun-19	7.91	<4.0	55	32
13-Jul-19	7.7	<4.0	32	80

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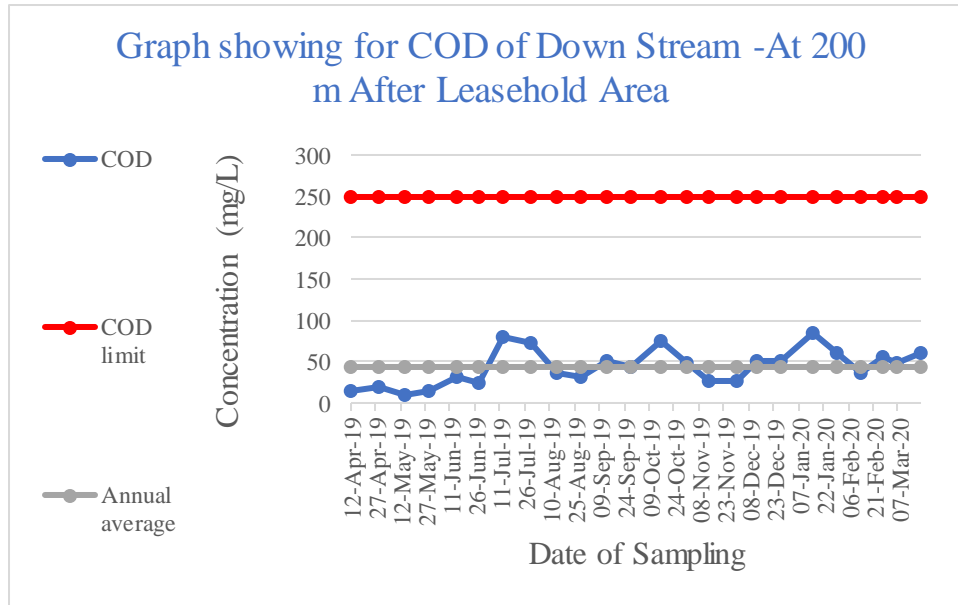
Graph showing for pH of Down Stream -At 200 m After Leasehold Area



Graph showing for TSS of Down Stream -At 200 m After Leasehold Area



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EFFLUENT (22 PARAMETER) QUALITY MONITORING

Table:132
Area: Jagannath

NAME OF THE STATION	O&G Trap Outlet	STP Outlet	MoEF-Sch-VI Standards
Date	13-Nov-2019	13-Nov-2019	
Colour(Hazen)	7	8	–
Odour	Unobjectionable	Unobjectionable	–
Temperature(°C)	24.4	24.9	Shall not exceed 5 °C above the receiving temperature
Nitrate Nitrogen(mg/L)(As N)	<5.0	<5.0	10
Ammonical Nitrogen , mg/l (As N)	0.89	2.59	50
Total Kjeldhal Nitrogen, mg/l (As N)	1.77	4.10	100
BOD [3 days at 27oC] (mg/L)	2.2	1.3	30
Arsenic, mg/l	<0.005	<0.005	0.2
Lead, mg/l	<0.005	<0.005	0.1
Hexavalent Chromium(mg/L)	<0.05	<0.05	0.1
Total Chromium(mg/L)	<0.01	<0.01	2
Copper(mg/L)	<0.03	<0.03	3
Zinc(mg/L)	<0.04	<0.04	5
Cadmium, mg/l	<0.001	<0.001	2
Nickel(mg/L)	<0.1	<0.1	3
Fluoride(mg/L)	0.49	0.37	2
Manganese(mg/L)	<0.04	<0.04	2
Iron(mg/L)	<0.10	<0.10	3
Disolved Phosphate(mg/L)	<1.0	1.47	5

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Table:133
Area: Bharatpur

NAME OF THE STATION	Workshop ETP Clear Water Tank Outlet	STP Outlet	Water Loading Point at South Quarry Sump	MoEF-Sch-VI Standards
Date	30-Nov-19	04-Nov-19	30-Nov-19	
Colour(Hazen)	4	7	3	–
Odour	Unobjectionable	Unobjectionable	Unobjectionable	–
Temperature(° C)	24.6	25.0	24.1	Shall not exceed 5 ° C above the receiving temperature
Nitrate Nitrogen(mg/L)(As N)	<5.0	<5.0	<5.0	10
Ammonical Nitrogen , mg/l (As N)	<0.50	<0.50	0.56	50
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0	<1.0	1.88	100
BOD [3 days at 27°C] (mg/L)	2.4	1.2	2.1	30
Arsenic, mg/l	<0.005	<0.005	<0.005	0.2
Lead, mg/l	<0.005	<0.005	<0.005	0.1
Hexavalent Chromium(mg/L)	<0.05	<0.05	<0.05	0.1
Total Chromium(mg/L)	<0.01	<0.01	<0.01	2
Copper(mg/L)	<0.03	<0.03	<0.03	3
Zinc(mg/L)	<0.04	<0.04	<0.04	5
Cadmium, mg/l	<0.001	<0.001	<0.001	2
Nickel(mg/L)	<0.10	<0.10	<0.10	3
Fluoride(mg/L)	0.43	<0.30	0.40	2
Manganese(mg/L)	<0.04	<0.04	<0.04	2
Iron(mg/L)	<0.10	<0.10	<0.10	3
Disolved Phosphate(mg/L)	<1.0	<1.0	<1.0	5

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:134
Area: Lingraj

NAME OF THE STATION	Inlet of Workshop ETP	Clear Water Reservoir of Workshop ETP	Inlet of MDTP Near Stock No. 17	Clear Water Tank of MDTP Near Stock No. 17	MoEF-Sch-VI Standards
Date	29-Nov-19	29-Nov-19	29-Nov-19	29-Nov-19	
Colour(Hazen)	3	3	4	6	–
Odour	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	–
Temperature(° C)	24.1	24.6	24.2	24.3	Shall not exceed 5 ° C above the receiving temperature
Nitrate Nitrogen(mg/L)(As N)	<5.0	<5.0	<5.0	<5.0	10
Ammonical Nitrogen , mg/l (As N)	<0.50	<0.50	<0.50	<0.50	50
Total Kjeldhal Nitrogen, mg/l (As N)	1.11	<1.0	<1.0	<1.0	100
BOD [3 days at 27°C] (mg/L)	3.1	2.6	2.9	3.1	30
Arsenic, mg/l	<0.005	<0.005	<0.005	<0.005	0.2
Lead, mg/l	<0.005	<0.005	<0.005	<0.005	0.1
Hexavalent Chromium(mg/L)	<0.05	<0.05	<0.05	<0.05	0.1
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	2
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	3
Zinc(mg/L)	0.20	0.23	<0.04	<0.04	5
Cadmium, mg/l	<0.001	<0.001	<0.001	<0.001	2
Nickel(mg/L)	<0.10	<0.10	<0.10	<0.10	3
Fluoride(mg/L)	0.50	0.53	0.41	<0.30	2
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	2
Iron(mg/L)	<0.10	<0.10	<0.10	<0.10	3
Disolved Phosphate(mg/L)	<1.0	<1.0	<1.0	<1.0	5

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BHUBANESWAR
JOB NO.750001**

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:135
Area: Lingraj

NAME OF THE STATION	Inlet of Sedimentation Pond Complex near Lingraj Siding	Clear Water Tank of Sedimentation Pond Complex Near Lingraj Siding	Inlet of Sedimentaion Pond Complex near Deulbera Siding	Clear Water Tank of Sedimentation Pond Complex Near Deulbera	MoEF-Sch-VI Standards
Date	29-Nov-19	29-Nov-19	29-Nov-19	29-Nov-19	
Colour (Hazen)	9	7	5	5	–
Odour	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	–
Temperature (° C)	24.5	24.6	24.3	24.4	Shall not exceed 5 ° C above the receiving temperature
Nitrate Nitrogen (mg/L)(As N)	<5.0	<5.0	<5.0	<5.0	10
Ammonical Nitrogen , mg/l (As N)	2.02	<0.50	<0.50	<0.50	50
Total Kjeldhal Nitrogen, mg/l (As N)	4.10	<1.0	1.11	<1.0	100
BOD [3 days at 27oC] (mg/L)	3.4	3.5	3.1	2.6	30
Arsenic, mg/l	<0.005	<0.005	<0.005	<0.005	0.2
Lead, mg/l	<0.005	<0.005	<0.005	<0.005	0.1
Hexavalent Chromium (mg/L)	<0.05	<0.05	<0.05	<0.05	0.1
Total Chromium (mg/L)	<0.01	<0.01	<0.01	<0.01	2
Copper (mg/L)	<0.03	<0.03	<0.03	<0.03	3
Zinc(mg/L)	0.04	<0.04	<0.04	<0.04	5
Cadmium, (mg/L)	<0.001	<0.001	<0.001	<0.001	2
Nickel (mg/L)	<0.10	<0.10	<0.10	<0.10	3
Fluoride (mg/L)	0.41	<0.30	<0.30	0.48	2
Manganese (mg/L)	<0.04	<0.04	<0.04	<0.04	2
Iron(mg/L)	<0.10	<0.10	<0.10	<0.10	3
Disolved Phosphate (mg/L)	<1.0	<1.0	<1.0	<1.0	5

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:136
Area: Kaniha

NAME OF THE STATION	Z Patch Outlet	Kansamunda Patch	MoEF-Sch-VI Standards
Date	10-Dec-2019	10-Dec-2019	
Colour(Hazen)	6	1	–
Odour	Unobjectionable	Unobjectionable	–
Nitrate Nitrogen(mg/L)(As N)	<5.0	<5.0	10
Ammonical Nitrogen , mg/l (As N)	<0.5	<0.5	50
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0	<1.0	100
BOD [3 days at 27oC] (mg/L)	1.9	3.1	30
Arsenic, mg/l	<0.005	<0.005	0.2
Lead, mg/l	<0.005	<0.005	0.1
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.1
Total Chromium(mg/L)	<0.01	<0.01	2
Copper(mg/L)	<0.03	<0.03	3
Zinc(mg/L)	<0.04	<0.04	5
Cadmium, mg/l	<0.001	<0.001	2
Nickel(mg/L)	<0.1	<0.1	3
Fluoride(mg/L)	<0.30	<0.30	2
Manganese(mg/L)	<0.04	0.375	2
Iron(mg/L)	<0.1	<0.1	3
Disolved Phosphate(mg/L)	<1.0	<1.0	5

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Table:137
Area: Kaniha

NAME OF THE STATION	Clear Water Pond Outlet	Clear Water Pond Inlet	MoEF-Sch-VI Standards
Date	10-Dec-2019	10-Dec-2019	
Colour(Hazen)	2	1	–
Odour	Unobjectionable	Unobjectionable	–
Nitrate Nitrogen(mg/L)(As N)	<5.0	<5.0	10
Ammonical Nitrogen , mg/l (As N)	<0.5	<0.5	50
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0	<1.0	100
BOD [3 days at 27oC] (mg/L)	1.6	2.8	30
Arsenic, mg/l	<0.005	<0.005	0.2
Lead, mg/l	<0.005	<0.005	0.1
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.1
Total Chromium(mg/L)	<0.01	<0.01	2
Copper(mg/L)	<0.03	<0.03	3
Zinc(mg/L)	<0.04	<0.04	5
Cadmium, mg/l	<0.001	<0.001	2
Nickel (mg/L)	<0.1	<0.1	3
Fluoride (mg/L)	<0.30	<0.30	2
Manganese(mg/L)	<0.04	<0.04	2
Iron(mg/L)	0.165	0.13	3
Dissolved Phosphate (mg/L)	<1.0	<1.0	5

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:138
 Area: Talcher
 Project: Talcher colliery

NAME OF THE STATION	Talcher colliery Sedimentation Tank discharge	MoEF-Sch-VI Standards
Date	14-Nov-2019	
Colour(Hazen)	4	–
Odour	Unobjectionable	–
Temperature(° C)	24.7	Shall not exceed 5 ° C above the receiving temperature
Nitrate Nitrogen(mg/L)(As N)	<5.0	10
Ammonical Nitrogen , mg/l (As N)	<0.50	50
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0	100
BOD [3 days at 27°C] (mg/L)	2.4	30
Arsenic, mg/l	<0.005	0.2
Lead, mg/l	<0.005	0.1
Hexavalent Chromium(mg/L)	<0.05	0.1
Total Chromium(mg/L)	<0.01	2
Copper(mg/L)	<0.03	3
Zinc(mg/L)	<0.04	5
Cadmium, mg/l	<0.001	2
Nickel(mg/L)	<0.10	3
Fluoride(mg/L)	0.53	2
Manganese(mg/L)	<0.04	2
Iron(mg/L)	<0.10	3
Disolved Phosphate(mg/L)	<1.0	5

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:139
Area: Talcher
Project: Nandira colliery

NAME OF THE STATION	Nandira colliery Sedimentation Tank discharge	MoEF-Sch-VI Standards
Date	14-Nov-2019	
Colour(Hazen)	9	–
Odour	Unobjectionable	–
Temperature(° C)	24.4	Shall not exceed 5 ° C above the receiving temperature
Nitrate Nitrogen(mg/L)(As N)	<5.0	10
Ammonical Nitrogen , mg/l (As N)	0.52	50
Total Kjeldhal Nitrogen, mg/l (As N)	1.44	100
BOD [3 days at 27oC] (mg/L)	2.6	30
Arsenic, mg/l	<0.005	0.2
Lead, mg/l	<0.005	0.1
Hexavalent Chromium(mg/L)	<0.05	0.1
Total Chromium(mg/L)	<0.01	2
Copper(mg/L)	< 0.03	3
Zinc(mg/L)	< 0.04	5
Cadmium, mg/l	<0.001	2
Nickel(mg/L)	<0.10	3
Fluoride(mg/L)	0.31	2
Manganese(mg/L)	<0.04	2
Iron(mg/L)	<0.10	3
Disolved Phosphate(mg/L)	<1.0	5

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Table:140
 Area: Talcher
 Project: Handhidhua Colliery

NAME OF THE STATION	Handhidhua Colliery Mine Discharge	MoEF-Sch-VI Standards
Date	14-Nov-2019	
Colour(Hazen)	3	–
Odour	Unobjectionable	–
Temperature(° C)	24.3	Shall not exceed 5 ° C above the receiving temperature
Nitrate Nitrogen(mg/L)(As N)	<5.0	10
Ammonical Nitrogen , mg/l (As N)	<0.5	50
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0	100
BOD [3 days at 27°C] (mg/L)	2.3	30
Arsenic, mg/l	<0.005	0.2
Lead, mg/l	<0.005	0.1
Hexavalent Chromium(mg/L)	<0.05	0.1
Total Chromium(mg/L)	<0.01	2
Copper(mg/L)	<0.03	3
Zinc(mg/L)	<0.04	5
Cadmium, mg/l	<0.001	2
Nickel(mg/L)	<0.10	3
Fluoride(mg/L)	0.57	2
Manganese(mg/L)	<0.04	2
Iron(mg/L)	<0.10	3
Dissolved Phosphate(mg/L)	<1.0	5

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Table:141
Area: Talcher
Project: Mandpal Sand Mine

NAME OF THE STATION	Up Stream -At 200 m Before Leasehold Area	Down Stream -At 200 m Before Leasehold Area	MoEF-Sch-VI Standards
Date	14-Nov-2019	14-Nov-2019	
Colour(Hazen)	8	9	–
Odour	Unobjectionable	Unobjectionable	–
Temperature(° C)	25.0	24.5	Shall not exceed 5 ° C above the receiving temperature
Nitrate Nitrogen(mg/L)(As N)	<5.0	<5.0	10
Ammonical Nitrogen , mg/l (As N)	<0.50	<0.50	50
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0	<1.0	100
BOD [3 days at 27°C] (mg/L)	2.8	2.1	30
Arsenic, mg/l	<0.005	<0.005	0.2
Lead, mg/l	<0.005	<0.005	0.1
Hexavalent Chromium(mg/L)	<0.05	<0.05	0.1
Total Chromium(mg/L)	<0.01	<0.01	2
Copper(mg/L)	<0.03	<0.03	3
Zinc(mg/L)	<0.4	<0.04	5
Cadmium, mg/l	<0.001	<0.001	2
Nickel(mg/L)	<0.10	<0.10	3
Fluoride(mg/L)	0.47	0.36	2
Manganese(mg/L)	<0.04	<0.04	2
Iron(mg/L)	<0.10	<0.10	3
Disolved Phosphate(mg/L)	<1.0	<1.0	5

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Table:142
Area: Talcher
Project: Kakudi & Kishoripal Sand mine.

NAME OF THE STATION	Up Stream -At 200 m Before Leasehold Area	Down Stream -At 200 m Before Leasehold Area	MoEF-Sch-VI Standards
Date	14-Nov-2019	14-Nov-2019	
Colour(Hazen)	7	8	–
Odour	Unobjectionable	Unobjectionable	–
Temperature(° C)	24.6	24.3	Shall not exceed 5 ° C above the receiving temperature
Nitrate Nitrogen(mg/L)(As N)	<5.0	<5.0	10
Ammonical Nitrogen , mg/l (As N)	<0.50	2.02	50
Total Kjeldhal Nitrogen, mg/l (As N)	2.23	4.05	100
BOD [3 days at 27oC] (mg/L)	2.3	3.8	30
Arsenic, mg/l	<0.005	<0.005	0.2
Lead, mg/l	<0.005	<0.005	0.1
Hexavalent Chromium(mg/L)	<0.05	<0.05	0.1
Total Chromium(mg/L)	<0.01	<0.01	2
Copper(mg/L)	<0.03	<0.03	3
Zinc(mg/L)	<0.04	<0.04	5
Cadmium, mg/l	<0.001	<0.001	2
Nickel(mg/L)	<0.10	<0.10	3
Fluoride(mg/L)	0.37	0.41	2
Manganese(mg/L)	<0.04	<0.04	2
Iron(mg/L)	<0.10	<0.10	3
Disolved Phosphate(mg/L)	<1.0	<1.0	5



SURFACE WATER QUALITY

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7 TABLES FOR SURFACEWATER QUALITY DATA

Table:143

Area: Jagannath

Project: Jagannath OCP

NAME OF STATIONS	West sump water	West sump water	West Sump Water	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	30-Apr-2019	14-Jun-2019	29-Jul-2019	
pH	5.62	7.25	STRIKE	6.5-8.5
Dissolved Oxygen(mg/L)	6.3	7.8		4
BOD (3 days 27°C)(mg/L)	2.7	<2		3
Color (Hazen unit)	6	4		300
Total dissolved solids (mg/L)	1136	760		1500
TSS(mg/L)	41	28		-
Total Hardness(mg/L)	548	412		-
Copper(mg/L)	<0.03	<0.03		1.5
Iron(mg/L)	<0.06	<0.10		50
Chlorides(mg/L)	26	20		600
Sulphate(mg/L)	378.87	218.26		400
Nitrate(mg/L)	<0.5	<0.5		50
Fluoride(mg/L)	0.31	1.15		1.5
Cadmium(mg/L)	<0.0005	<0.001		0.01
Selenium(mg/L)				0.05
Arsenic(mg/L)	<0.002	<0.005		0.2
Lead(mg/L)	<0.005	<0.005		0.1
Zinc(mg/L)	<0.02	<0.04		15
Chromium(as Cr ⁶⁺)(mg/L)	<0.01	<0.01		0.05
Oil & Grease	<4.0	<4.0		0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:144
Area: Jagannath
Project: Jagannath OCP

NAME OF STATIONS	West Sump Water	West Sump Water	West sump water	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	28-Aug-2019	12-Sep-2019	31-Oct-2019	
pH	7.92	6.9	7.65	6.5-8.5
Dissolved Oxygen(mg/L)	5.80	6.0	4.6	4
BOD (3 days 27°c(mg/L)	2.40	3.0	3.2	3
Color (Hazen unit)	8	2	3	300
Total dissolved solids (mg/L)	266	744	422	1500
TSS(mg/L)	24	20	24	-
Total Hardness(mg/L)	120	384	120	-
Copper(mg/L)	<0.03	0.03	<0.03	1.5
Iron(mg/L)	<0.10	<0.1	<0.10	50
Chlorides(mg/L)	14	20	62	600
Sulphate(mg/L)	18	284	38.59	400
Nitrate(mg/L)	<0.05	<0.5	<0.5	50
Fluoride(mg/L)	<0.30	<.3	0.50	1.5
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)				0.05
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<0.04	<0.04	<0.04	15
Chromium(as Cr⁶⁺)(mg/L)	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:145
Area: Jagannath
Project: Jagannath OCP

NAME OF STATIONS	West sump water	West sump water	West sump water	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	28-Jan-2020	7-Feb-2020	17-Mar-2020	
pH	7.36	5.62	7.15	6.5-8.5
Dissolved Oxygen(mg/L)	4.8	4.9	3.4	4
BOD (3 days 27°C)(mg/L)	<2.0	<2.0	<2.0	3
Color (Hazen unit)	7.0	3	5.0	300
Total dissolved solids (mg/L)	578	126	588	1500
TSS(mg/L)	54	46	48	-
Total Hardness(mg/L)	455.6	84.7	472	-
Copper(mg/L)	<0.3	<0.3	<0.3	1.5
Iron(mg/L)	<0.1	<0.1	<0.1	50
Chlorides(mg/L)	14	18	10	600
Sulphate(mg/L)	280.31	28.18	262.34	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	50
Fluoride(mg/L)	0.52	<0.3	<0.30	1.5
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)				0.05
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<0.04	0.14	<0.04	15
Chromium(as Cr ⁶)(mg/L)	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:146
Area: Jagannath
Project: Jagannath OCP

NAME OF STATIONS	Central sump water	Central sump water	Central Sump Water	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	30-Apr-19	14-Jun-19	29-Jul-2019	
pH	7.32	7.51	Strike	6.5-8.5
Dissolved Oxygen(mg/L)	6.0	7.0		4
BOD (3 days 27°C)(mg/L)	3.3	<2		3
Color (Hazen unit)	8	5		300
Total dissolved solids (mg/L)	828	772		1500
TSS(mg/L)	61	35		-
Total Hardness(mg/L)	544	416		-
Copper(mg/L)	<0.03	<0.03		1.5
Iron(mg/L)	<0.06	<0.10		50
Chlorides(mg/L)	24	22		600
Sulphate(mg/L)	251.14	274.17		400
Nitrate(mg/L)	<0.5	<0.5		50
Fluoride(mg/L)	0.29	1.25		1.5
Cadmium(mg/L)	<0.0005	<0.001		0.01
Selenium(mg/L)				0.05
Arsenic(mg/L)	<0.002	<0.005		0.2
Lead(mg/L)	<0.005	<0.005		0.1
Zinc(mg/L)	0.03	0.13		15
Chromium(as Cr ⁶⁺)(mg/L)	<0.01	<0.01		0.05
Oil & Grease	<4.0	<4.0		0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:147
Area: Jagannath
Project: Jagannath OCP

NAME OF STATIONS	Central Sump Water	Central Sump Water	Central sump water	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	28-Aug-2019	12-Sep-2019	31-Oct-2019	
pH	7.63	6.98	8.10	6.5-8.5
Dissolved Oxygen(mg/L)	5.60	5.6	4.9	4
BOD (3 days 27°C)(mg/L)	2.70	3.4	3.6	3
Color (Hazen unit)	10	3	4	300
Total dissolved solids (mg/L)	492	768	394	1500
TSS(mg/L)	28	24	22	-
Total Hardness(mg/L)	224	376	184	-
Copper(mg/L)	<0.03	0.03	<0.03	1.5
Iron(mg/L)	<0.10	<0.1	<0.10	50
Chlorides(mg/L)	28	22	32	600
Sulphate(mg/L)	115	296	35.31	400
Nitrate(mg/L)	7.26	<0.5	1.31	50
Fluoride(mg/L)	1.16	<0.3	1.08	1.5
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)				0.05
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	0.008	0.1
Zinc(mg/L)	0.13	0.73	<0.04	15
Chromium(as Cr⁶⁺)(mg/L)	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:148
Area: Jagannath
Project: Jagannath OCP

NAME OF STATIONS	Central sump water	Central sump water	Central sump water	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	28-Jan-2019	7-Feb-2020	17-Mar-2020	
pH	7.43	7.30	7.52	6.5-8.5
Dissolved Oxygen(mg/L)	5.4	4.1	3.2	4
BOD (3 days 27°C)(mg/L)	<2.0	<2.0	<2.0	3
Color (Hazen unit)	9.0	10.0	6.0	300
Total dissolved solids (mg/L)	586	96	596	1500
TSS(mg/L)	62	54	54	-
Total Hardness(mg/L)	427.4	76.6	436	-
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	<0.1	<0.1	<0.1	50
Chlorides(mg/L)	12	18	14	600
Sulphate(mg/L)	275.63	28.18	257.28	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	50
Fluoride(mg/L)	0.55	<0.30	<0.30	1.5
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)				0.05
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<0.04	<0.04	<0.04	15
Chromium(as Cr⁶⁺)(mg/L)	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	0.1
Manganese (mg/L)		5.05		
Calcium (mg/L)		25.65		

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:149
Area: Jagannath
Project: Ananta OCP

NAME OF STATIONS	Dera Village Well	Dera Village Well	Dera Village Well	Dera Village Well	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	29-Apr-19	29-Jul-19	31-Oct-2019	28-Jan-2020	
pH	6.48	7.28	6.81	7.62	6.5-8.5
Dissolved Oxygen(mg/L)	6.8	6.2	4.3	5.0	4
BOD (3 days 27°C(mg/L)	2.2	2.6	3.1	<2.0	3
Color (Hazen unit)	5	2	4	1.0	300
Total dissolved solids (mg/L)	378	512	428	338	1500
TSS(mg/L)	27	28	32	36	-
Total Hardness(mg/L)	188	208	144	161.3	-
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	50
Chlorides(mg/L)	78	72	50	46	600
Sulphate(mg/L)	36.57	46.00	48.59	56.56	400
Nitrate(mg/L)	49.8	50.3	36.18	35.95	50
Fluoride(mg/L)	0.33	<0.30	<0.30	<0.30	1.5
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)	<0.002		<0.002		0.05
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.34	0.12	0.14	0.06	15
Chromium(as Cr ⁶⁺)(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:150
 Area: Jagannath
 Project: Ananta OCP

NAME OF STATIONS	Hensmul Village Well	Hensmul Village Well	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	29-Apr-19	31-Oct-19	
pH	6.90	6.86	6.5-8.5
Dissolved Oxygen(mg/L)	6.4	5.6	4
BOD (3 days 27°C)(mg/L)	2.6	2.8	3
Color (Hazen unit)	9	3	300
Total dissolved solids (mg/L)	296	440	1500
TSS(mg/L)	32	38	-
Total Hardness(mg/L)	220	152	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	<0.10	50
Chlorides(mg/L)	28	50	600
Sulphate(mg/L)	18.29	49.53	400
Nitrate(mg/L)	15.47	35.56	50
Fluoride(mg/L)	0.40	<0.30	1.5
Cadmium(mg/L)	<0.0005	<0.001	0.01
Selenium(mg/L)			0.05
Arsenic(mg/L)	<0.002	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	0.1
Zinc(mg/L)	0.11	<0.04	15
Chromium(as Cr ⁶⁺)(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:151
 Area: Bharatpur
 Project: BharatpurOCP

NAME OF STATIONS	Jambubahali Village Pond	Jambubahali Village Pond	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	30-Apr-19	29-Jul-2019	
pH	7.51	7.77	6.5-8.5
Dissolved Oxygen(mg/L)	6.3	6.8	4
BOD (3 days 27°C)(mg/L)	2.4	2.9	3
Color (Hazen unit)	10	3	300
Total dissolved solids (mg/L)	628	328	1500
TSS(mg/L)	38	26	-
Total Hardness(mg/L)	520	156	-
Copper(mg/L)	0.48	<0.03	1.5
Iron(mg/L)	<0.06	<0.1	50
Chlorides(mg/L)	16	16	600
Sulphate(mg/L)	38.86	30	400
Nitrate(mg/L)	<0.5	<0.5	50
Fluoride(mg/L)	0.38	0.40	1.5
Cadmium(mg/L)	<0.0005	<0.001	0.01
Selenium(mg/L)			0.05
Arsenic(mg/L)	<0.002	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	0.1
Zinc(mg/L)	0.7	<0.04	15
Chromium(as Cr ⁶⁺)(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:152
 Area: Bharatpur
 Project: BharatpurOCP

NAME OF STATIONS	Jambubahali Village Pond	Jambubahali Village Pond	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	31-Oct-2019	28-Jan-2020	
pH	7.47	7.46	6.5-8.5
Dissolved Oxygen(mg/L)	6.4	4.3	4
BOD (3 days 27°C)(mg/L)	3.3	<2.0	3
Color (Hazen unit)	4	8.0	300
Total dissolved solids (mg/L)	358	208	1500
TSS(mg/L)	46	62	-
Total Hardness(mg/L)	132	141.1	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	<0.10	<0.1	50
Chlorides(mg/L)	16	12	600
Sulphate(mg/L)	32.50	43.91	400
Nitrate(mg/L)	<0.5	<0.5	50
Fluoride(mg/L)	0.30	<0.30	1.5
Cadmium(mg/L)	<0.001	<0.001	0.01
Selenium(mg/L)			0.05
Arsenic(mg/L)	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	0.1
Zinc(mg/L)	<0.04	<0.04	15
Chromium(as Cr ⁶⁺)(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:153
Area: Kaniha
Project: Kaniha OCP

NAME OF STATIONS	Singada jhor Stream Nearer to Village Khairnali as u/s Water for Kaniha OCP	Before Junction Point of Singadajhor & Brahmani River at Balangi Village as d/s for Kaniha OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	27-Jul-2019	27-Jul-2019	
pH	7.80	7.64	6.5-8.5
Dissolved Oxygen(mg/L)	5.1	6.4	4
BOD (3 days 27°c)(mg/L)	2.7	2.5	3
Color (Hazen unit)	1	2	300
Total dissolved solids (mg/L)	332	428	1500
TSS(mg/L)	36	22	-
Total Hardness(mg/L)	160	196	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	<0.1	<0.1	50
Chlorides(mg/L)	18	22	600
Sulphate(mg/L)	31	31	400
Nitrate(mg/L)	<0.5	<0.5	50
Fluoride(mg/L)	1.24	0.44	1.5
Cadmium(mg/L)	<0.001	<0.001	0.01
Selenium(mg/L)		<0.002	0.05
Arsenic(mg/L)	0.009	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	0.1
Zinc(mg/L)	<0.04	<0.04	15
Chromium(as Cr⁶⁺)(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:154
Area: Kaniha
Project: Kaniha OCP

NAME OF STATIONS	Tikra nadi Near Kaniah Village as u/s water for Kaniah OCP	Tikra nadi Near Shagarhi Pala Village as d/s Water for Kaniah OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	27-Jul-2019	27-Jul-2019	
pH	8.00	7.87	6.5-8.5
Dissolved Oxygen(mg/L)	4.5	6.1	4
BOD (3 days 27°C)(mg/L)	3.2	2.3	3
Color (Hazen unit)	3	5	300
Total dissolved solids (mg/L)	440	348	1500
TSS(mg/L)	40	36	-
Total Hardness(mg/L)	196	160	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	<0.1	<0.1	50
Chlorides(mg/L)	20	18	600
Sulphate(mg/L)	39	38	400
Nitrate(mg/L)	<0.5	<0.05	50
Fluoride(mg/L)	0.49	1.33	1.5
Cadmium(mg/L)	<0.001	<0.001	0.01
Selenium(mg/L)	<0.002	<0.002	0.05
Arsenic(mg/L)	<0.005	0.008	0.2
Lead(mg/L)	<0.005	<0.005	0.1
Zinc(mg/L)	<0.04	<0.04	15
Chromium(as Cr ⁶⁺)(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:155
Area: Hingula
Project: Balram OCP

NAME OF STATIONS	Derjenga reservoir as a part of impact study	Derjenga Reservoir as a Part of Impact Study	Derjenga reservoir as a part of impact study	Derjenga reservoir as a part of impact study	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	2-Apr-19	27-Jul-2019	28-Oct-2019	29-Jan-2020	
pH	7.41	7.79	7.39	7.99	6.5-8.5
Dissolved Oxygen(mg/L)	6.2	5.8	5.5	7.7	4
BOD (3 days 27°c)(mg/L)	2.5	3.0	3.4	3.8	3
Color (Hazen unit)	10	2	4	2.0	300
Total dissolved solids (mg/L)	438	522	406	374	1500
TSS(mg/L)	53	48	28	40	-
Total Hardness(mg/L)	256	256	176	258	-
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	50
Chlorides(mg/L)	38	42	18	16	600
Sulphate(mg/L)	98.43	68	108.59	106.25	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	50
Fluoride(mg/L)	0.41	0.61	0.80	0.38	1.5
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.02	0.04	0.25	0.16	15
Chromium(as Cr⁶)(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:156
Area: Hingula
Project: Balram OCP

NAME OF STATIONS	Pond water of Ambapal village	Pond Water of Ambapal Village	Pond water of Ambapal village	Pond water of Ambapal village	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	30-Apr-19	27-Jul-2019	30-Oct-2019	29-Jan-2020	
pH	7.59	7.72	8.02	7.85	6.5-8.5
Dissolved Oxygen(mg/L)	5.9	5.2	4.3	5.3	4
BOD (3 days 27°C)(mg/L)	3.4	2.8	2.7	2.0	3
Color (Hazen unit)	14	1	5	6.0	300
Total Dissolved Solids (mg/L)	366	336	430	208	1500
TSS (mg/L)	65	26	22	42	-
Total Hardness (mg/L)	200	152	184	141.1	-
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	50
Chlorides(mg/L)	26	14	16	6	600
Sulphate(mg/L)	52.43	35	118.44	44.53	400
Nitrate(mg/L)	<0.05	<0.05	<0.5	<0.5	50
Fluoride(mg/L)	0.18	0.36	0.79	<0.30	1.5
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)	<0.002	<0.002	<0.002		0.05
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<0.02	<0.04	0.26	<0.04	15
Chromium(as Cr⁶⁺)(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:157
Area: Hingula
Project: OCP

NAME OF STATIONS	Singadhajhor stream near Hingula HOCP	Singadhajhor Stream Near Hingula HOCP	Singadhajhor stream near Hingula HOCP	Singadhajhor stream near Hingula HOCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	30-Apr-19	27-Jul-2019	31-Oct-2019	29-Jan-2020	
pH	7.56	8.08	8.09	8.02	6.5-8.5
Dissolved Oxygen(mg/L)	6.5	5.4	5.9	6.2	4
BOD (3 days 27°c(mg/L)	2.1	2.1	2.9	<2.0	3
Color (Hazen unit)	8	4	5	3.0	300
Total dissolved solids (mg/L)	856	468	548	344	1500
TSS(mg/L)	33	34	30	72	-
Total Hardness(mg/L)	524	224	200	229.8	-
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	50
Chlorides(mg/L)	34	22	34	16	600
Sulphate(mg/L)	288.42	52	37.34	95.47	400
Nitrate(mg/L)	1.35	<0.5	1.22	<0.5	50
Fluoride(mg/L)	0.44	0.43	1.09	0.44	1.5
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)	<0.002	<0.002	<0.002		0.05
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.07	<0.04	<0.04	<0.04	15
Chromium(as Cr ⁶⁺)(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:158
Area: Hingula
Project: Hingula OCP

NAME OF STATIONS	Pond water of Kankarei village	Pond Water of Kankarei Village	Pond water of Kankarei village	Pond water of Kankarei village	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	30-Apr-19	27-Jul-2019	31-Oct-2019	29-Jan-2020	
pH	7.37	8.10	7.90	7.72	6.5-8.5
Dissolved Oxygen(mg/L)	6.0	4.3	6.1	4.5	4
BOD (3 days 27°C)(mg/L)	2.8	2.4	3.1	<2.0	3
Color (Hazen unit)	12	3	4	4.0	300
Total dissolved solids (mg/L)	282	474	184	168	1500
TSS(mg/L)	58	42	24	44	-
Total Hardness(mg/L)	156	220	64	108.9	-
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	50
Chlorides(mg/L)	26	22	12	10	600
Sulphate(mg/L)	50.29	53	20	39.69	400
Nitrate(mg/L)	2.24	<0.5	<0.5	<0.5	50
Fluoride(mg/L)	0.15	0.42	<0.30	0.50	1.5
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<0.02	<0.04	<0.04	<0.04	15
Chromium(as Cr⁶⁺)(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:159
Area: Talcher
Project: Talcher

NAME OF STATIONS	Pond water of Dera village	Pond Water of Dera Village	Pond water of Dera village	Pond water of Dera village	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	30-Apr-2019	29-Jul-2019	30-Oct-2019	30-Jan-2020	
pH	7.51	7.36	7.46	7.59	6.5-8.5
Dissolved Oxygen(mg/L)	6.5	6.2	6.2	4.9	4
BOD (3 days 27°c(mg/L)	3.2	2.2	2.9	2.9	3
Color (Hazen unit)	9	2	4	4.0	300
Total dissolved solids (mg/L)	256	324	328	258	1500
TSS(mg/L)	58	46	54	52	-
Total Hardness(mg/L)	96	128	104	145.1	-
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	50
Chlorides(mg/L)	50	58	30	28	600
Sulphate(mg/L)	53.0	68	34.84	56.25	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	50
Fluoride(mg/L)	0.17	0.68	0.31	<0.30	1.5
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<0.02	<0.04	<0.04	<0.04	15
Chromium(as Cr⁶)(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:160
Area: Talcher
Project: Deulbera

NAME OF STATIONS	Pond water of Gopinathpur village	Pond Water of Gopinathpur Village	Pond water of Gopinathpur village	Pond water of Gopinathpur village	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	29-Apr-2019	29-Jul-2019	30-Oct-2019	30-Jan-2020	
pH	7.51	7.71	7.70	7.52	6.5-8.5
Dissolved Oxygen(mg/L)	5.7	6.0	4.6	5.4	4
BOD (3 days 27°c(mg/L)	3.7	2.5	2.8	3.5	3
Color (Hazen unit)	17	2	3	3.0	300
Total dissolved solids (mg/L)	382	374	522	274	1500
TSS(mg/L)	73	38	30	24	-
Total Hardness(mg/L)	220	160	140	141.1	-
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	0.14	30.10	<0.1	50
Chlorides(mg/L)	38	42	18	28	600
Sulphate(mg/L)	71.86	34	19.22	54.06	400
Nitrate(mg/L)	1.32	1.82	<0.5	<0.5	50
Fluoride(mg/L)	0.28	0.71	0.37	<0.30	1.5
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.01
Selenium(mg/L)					0.05
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<0.02	<0.04	<0.04	<0.04	15
Chromium(as Cr⁶⁺)(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:161
Area: Talcher
Project: Nandira

NAME OF STATIONS	Nandira Jhor Near Karnapur Village	Nandira Jhor Near Karnapur Village	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	30-Apr-2019	30-Oct-2019	
pH	7.92	7.67	6.5-8.5
Dissolved Oxygen(mg/L)	6.0	5.4	4
BOD (3 days 27°c)(mg/L)	3.7	3.2	3
Color (Hazen unit)	12	3	300
Total dissolved solids (mg/L)	372	292	1500
TSS(mg/L)	67	34	-
Total Hardness(mg/L)	204	104	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	<0.10	50
Chlorides(mg/L)	80	16	600
Sulphate(mg/L)	69.72	13.75	400
Nitrate(mg/L)	4.31	<0.5	50
Fluoride(mg/L)	0.21	0.30	1.5
Cadmium(mg/L)	<0.0005	<0.001	0.01
Selenium(mg/L)		<0.002	0.05
Arsenic(mg/L)	<0.002	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	0.1
Zinc(mg/L)	<0.02	<0.04	15
Chromium(as Cr⁶⁺)(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:162
Area: Talcher
Project: Nandira

NAME OF STATIONS	Nandira Jhor Near Tentolei Village Mine	Nandira Jhor Near Tentolei Village Mine	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	30-Apr-2019	30-Oct-2019	
pH	7.90	8.14	6.5-8.5
Dissolved Oxygen(mg/L)	6.4	4.2	4
BOD (3 days 27°c)(mg/L)	3.1	3.0	3
Color (Hazen unit)	5	4	300
Total dissolved solids (mg/L)	404	316	1500
TSS(mg/L)	56	26	-
Total Hardness(mg/L)	200	172	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	<0.10	50
Chlorides(mg/L)	80	20	600
Sulphate(mg/L)	61.57	11.88	400
Nitrate(mg/L)	7.47	<0.5	50
Fluoride(mg/L)	0.43	<0.30	1.5
Cadmium(mg/L)	<0.0005	<0.001	0.01
Selenium(mg/L)			0.05
Arsenic(mg/L)	<0.002	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	0.1
Zinc(mg/L)	<0.02	<0.04	15
Chromium(as Cr⁶⁺)(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:163
Area: Talcher
Project: Nandira

NAME OF STATIONS	Nandira Jhor Near Sakasingha Village	Nandira Jhor Near Sakasingha Village	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	29-Jul-2019	30-Jan-2020	
pH	7.88	7.78	6.5-8.5
Dissolved Oxygen(mg/L)	4.8	5.6	4
BOD (3 days 27°c)(mg/L)	2.6	<2.0	3
Color (Hazen unit)	4	4.0	300
Total dissolved solids (mg/L)	468	304	1500
TSS(mg/L)	52	42	-
Total Hardness(mg/L)	200	209.7	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	<0.1	<0.1	50
Chlorides(mg/L)	42	12	600
Sulphate(mg/L)	39	44.38	400
Nitrate(mg/L)	9.95	<0.5	50
Fluoride(mg/L)	1.41	<0.30	1.5
Cadmium(mg/L)	<0.001	<0.001	0.01
Selenium(mg/L)			0.05
Arsenic(mg/L)	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	0.1
Zinc(mg/L)	<0.04	<0.04	15
Chromium(as Cr ⁶⁺)(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:164
Area: Talcher
Project: Nandira

NAME OF STATIONS	Nandira Jhor Near Pengua Village Mine	Nandira Jhor Near Pengua Village Mine	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	29-Jul-2019	30-Jan-2020	
pH	7.92	7.84	6.5-8.5
Dissolved Oxygen(mg/L)	5.6	6.7	4
BOD (3 days 27°C)(mg/L)	2.3	<2.0	3
Color (Hazen unit)	3	5.0	300
Total dissolved solids (mg/L)	460	308	1500
TSS(mg/L)	56	48	-
Total Hardness(mg/L)	196	197.6	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	0.29	<0.1	50
Chlorides(mg/L)	44	14	600
Sulphate(mg/L)	35	47.34	400
Nitrate(mg/L)	10.42	<0.5	50
Fluoride(mg/L)	0.96	0.30	1.5
Cadmium(mg/L)	<0.001	<0.001	0.01
Selenium(mg/L)			0.05
Arsenic(mg/L)	<0.005	<0.005	0.2
Lead(mg/L)	<0.005	<0.005	0.1
Zinc(mg/L)	<0.04	<0.04	15
Chromium(as Cr ⁶⁺)(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1



WELL WATER QUALITY

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8 TABLES FOR WELL WATER QUALITY DATA

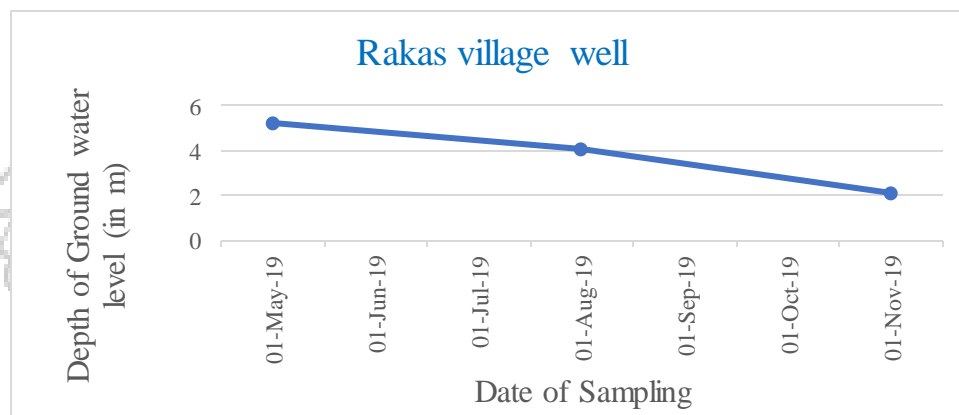
Table:165

Area: Jagannath

Project: Jagannath OCP

Monitoring Station: Rakas village well

Date of sampling	Water level
28-May-19	5.27
27-Aug-19	4.08
26-Nov-19	2.1



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

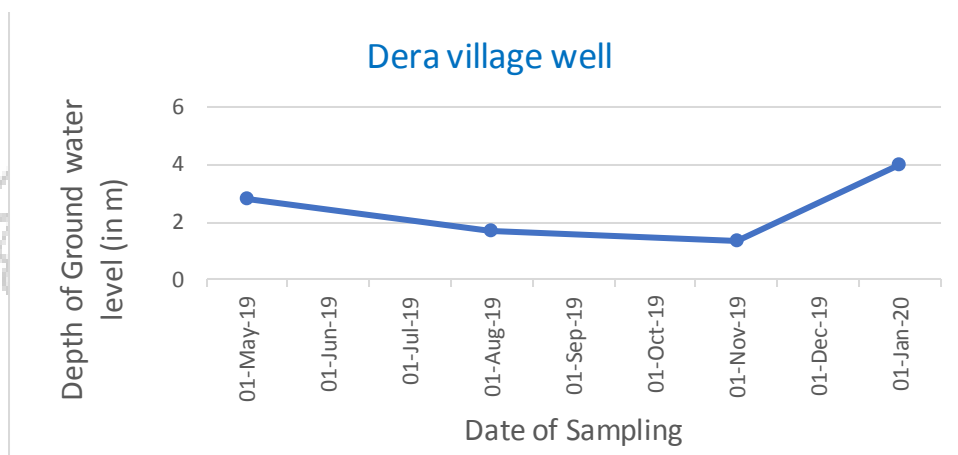
Table:166

Area: Jagannath

Project: Ananta OCP

Monitoring Station: Dera village well

Date of sampling	Water level
28-May-19	2.79
27-Aug-19	1.71
24-Nov-19	1.36
28-Jan-20	4



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

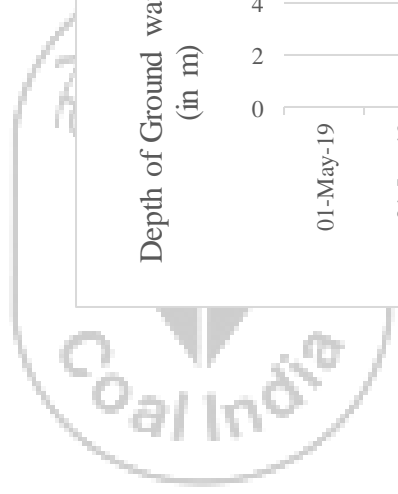
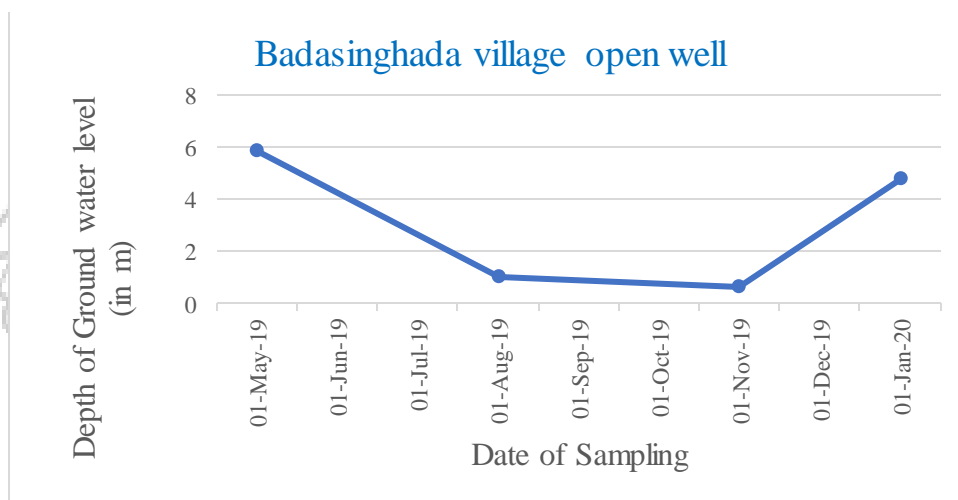
Table:167

Area: Bhaartpur

Project: Bhaartpur OCP

Monitoring Station: Badasinghada village open well

Date of sampling	Water level
27-May-19	5.87
27-Aug-19	0.99
22-Nov-19	0.6
28-Jan-20	4.8



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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:168

Area: Bhaartpur

Project: Bhaartpur OCP

Monitoring Station: Teleipasi village open well

Date of sampling	Water level
27-May-19	4.43
27-Aug-19	0.51
22-Nov-19	0.8
28-Jan-20	3.5

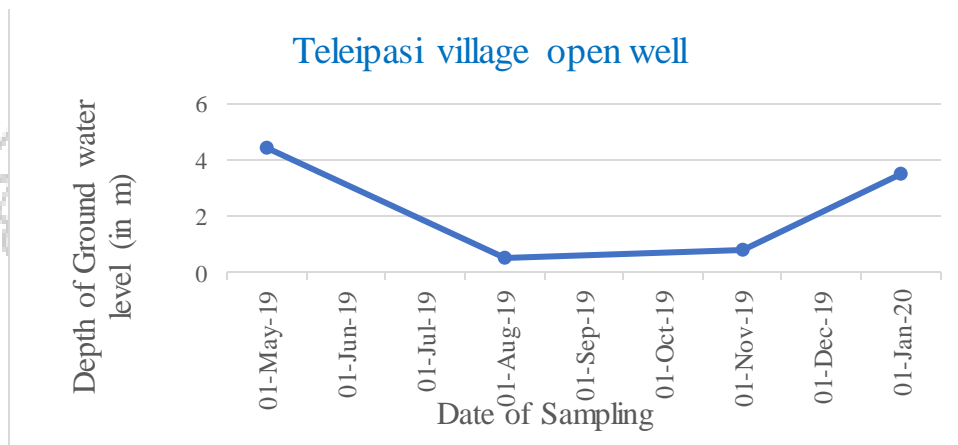
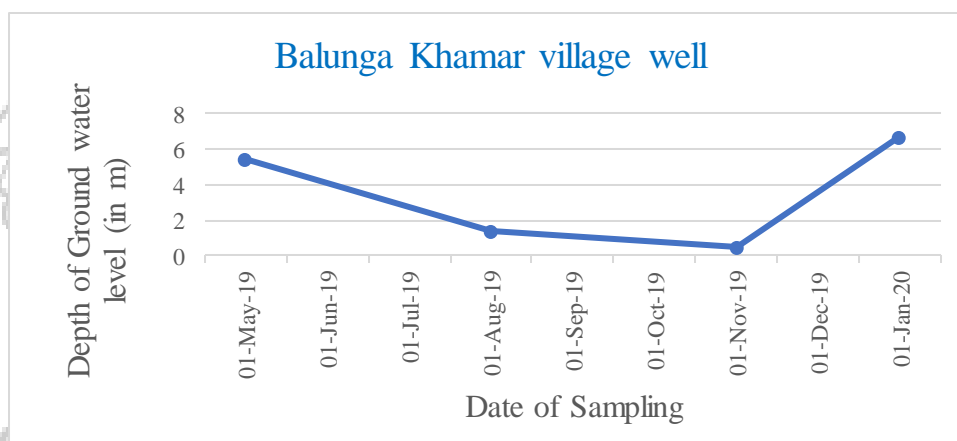


Table:169
Area Lingaraj
Project Lingaraj OCP OCP
Monitoring Station: Balunga Khamar village well

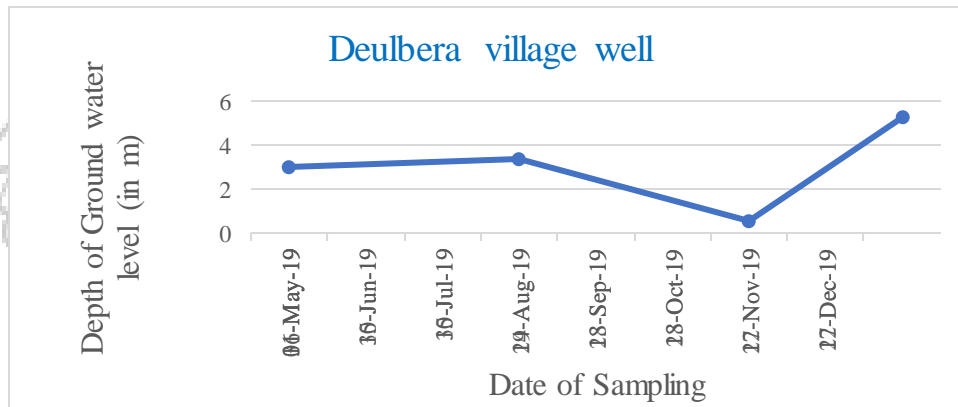
Date of sampling	Water level
29-May-19	5.46
29-Aug-19	1.35
23-Nov-19	0.53
30-Jan-20	6.7



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:170
Area Lingaraj
Project Lingaraj OCP OCP
Monitoring Station: Deulbera village well

Date of sampling	Water level
29-May-19	2.97
29-Aug-19	3.42
26-Nov-19	0.6
30-Jan-20	5.3



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:171
Area Lingaraj
Project Lingaraj OCP OCP
Monitoring Station: Talabera village well

Date of sampling	Water level
29-May-19	5.61
29-Aug-19	2.34
23-Nov-19	0.75
30-Jan-20	6

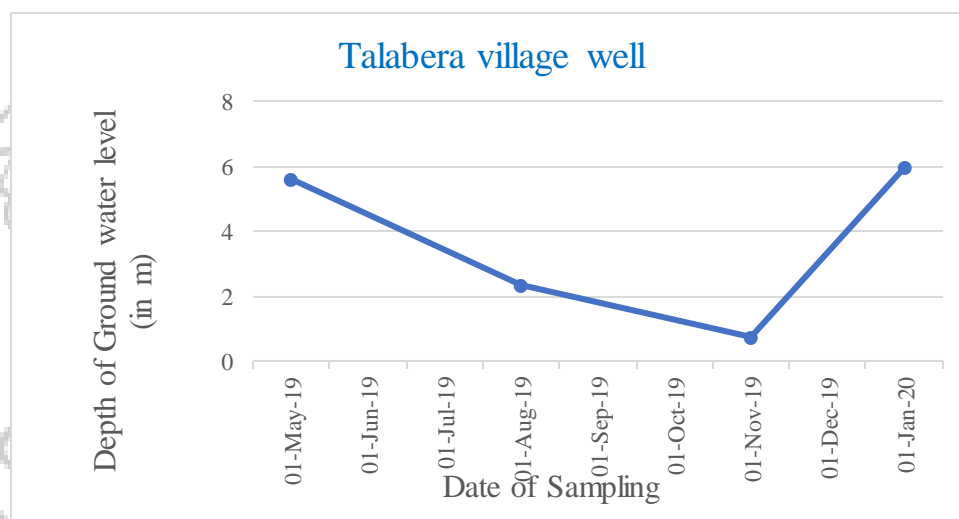


Table:172
Area Hingula
Project Balaram OCP
Monitoring Station: Nakeiposi village well

Date of sampling	Water level
27-May-19	6.6
28-Aug-19	2.01
26-Nov-19	2.34
28-Jan-20	3.5

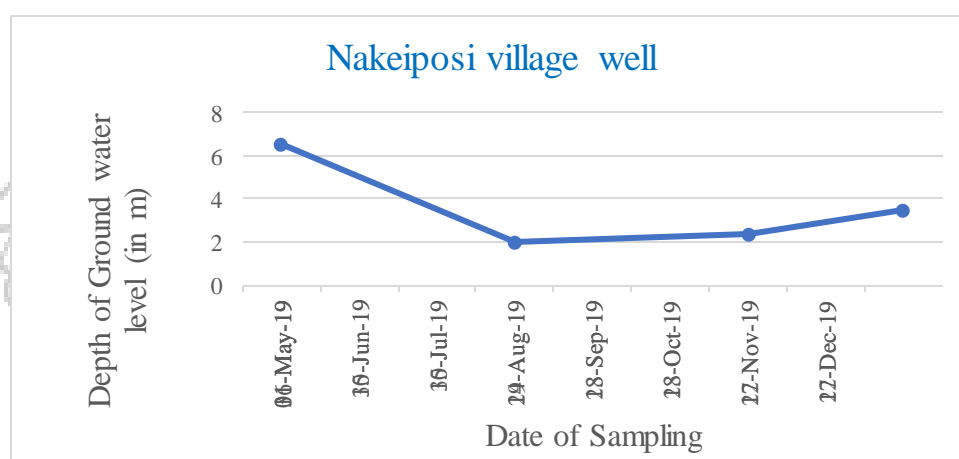


Table:173
Area Hingula
Project Balaram OCP
Monitoring Station: Danara village well

Date of sampling	Water level
27-May-19	6
28-Aug-19	3.72
22-Nov-19	1.17
28-Jan-20	5.8

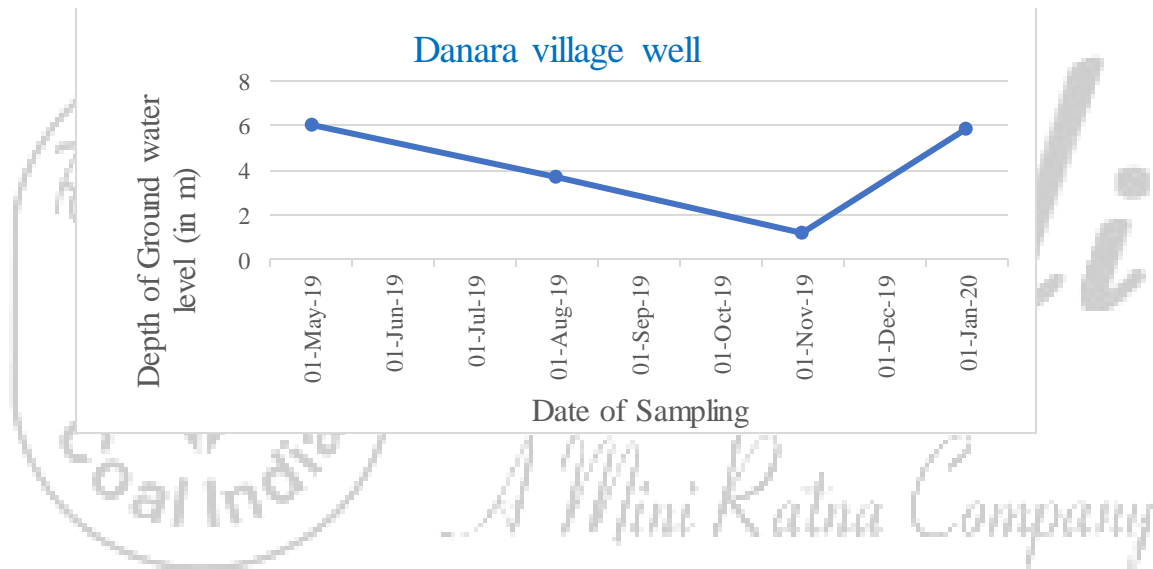


Table:174
Area Hingula
Project Hingula OCP
Monitoring Station: Gopalprasad village well water

Date of sampling	Water level
27-May-19	4.2
28-Aug-19	4.77
26-Nov-19	1.02
28-Jan-20	4

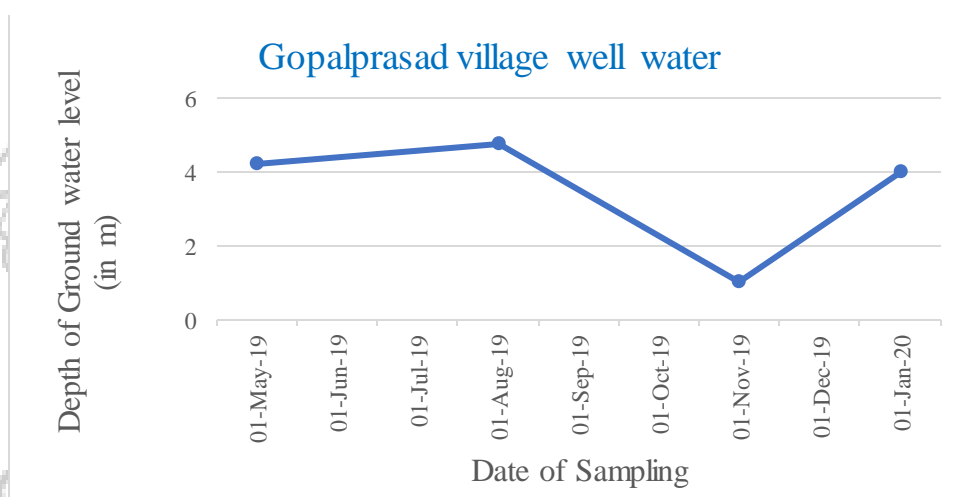
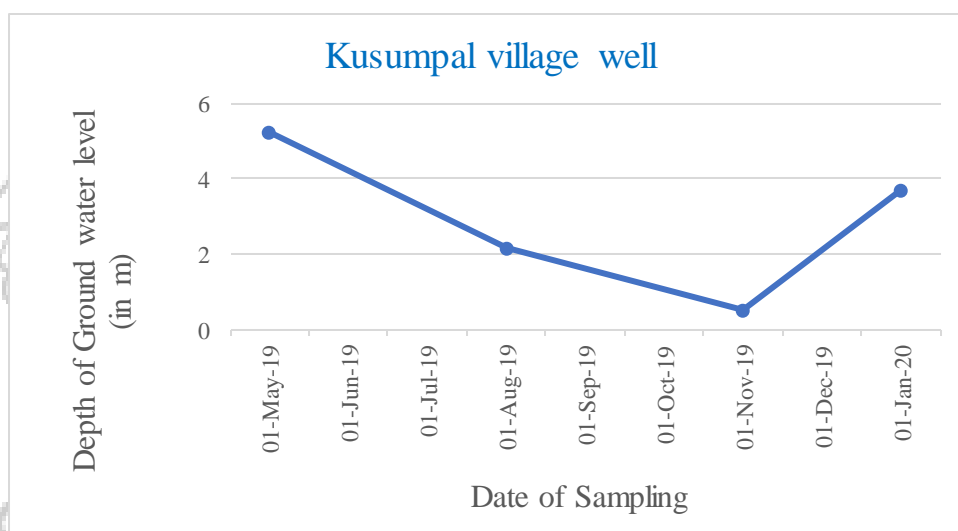


Table:175
Area Hingula
Project Hingula OCP
Monitoring Station: Kusumpal village well

Date of sampling	Water level
27-May-19	5.27
28-Aug-19	2.19
26-Nov-19	0.53
28-Jan-20	3.7



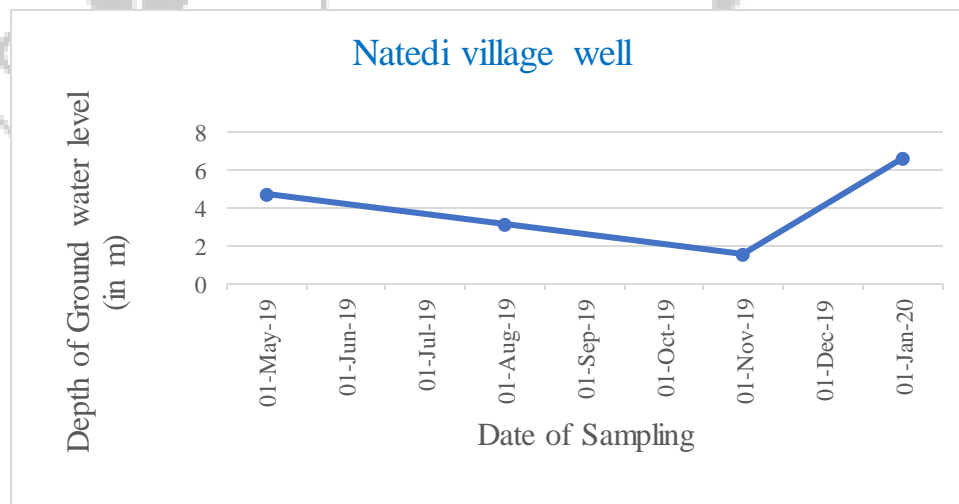
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:176
Area Talcher
Project Talcher colliery
Monitoring Station: Narharipur vilge well

Date of sampling	Water level
29-May-19	5.13
29-Aug-19	1.86

Table:177
Area Talcher
Project Nandira Colliery
Monitoring Station: Natedi village well

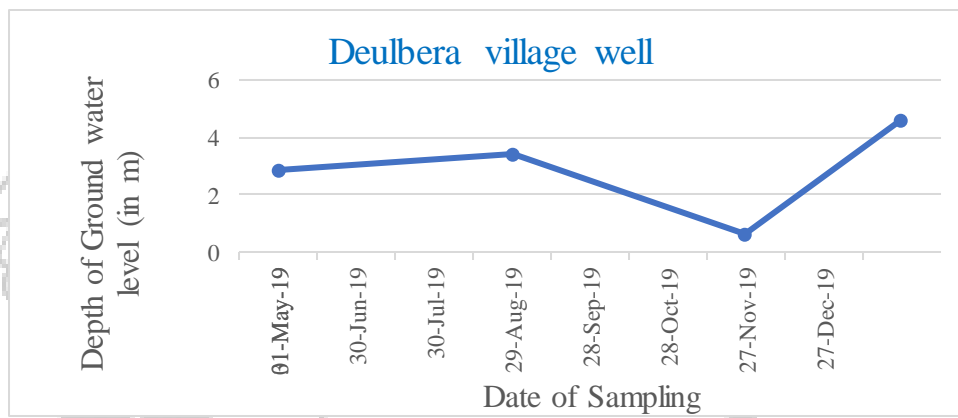
Date of sampling	Water level
29-May-19	4.67
29-Aug-19	3.09
25-Nov-19	1.5
28-Jan-20	6.6



ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:178
Area Talcher
Project Deulbera Colliery
Monitoring Station: Deulbera village well

Date of sampling	Water level
29-May-19	2.84
29-Aug-19	3.42
26-Nov-19	0.6
28-Jan-20	4.6



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DRINKING WATER QUALITY

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9 TABLES FOR DRINKING WATER QUALITY DATA

Table:179
Area: Jagannath
Project: Jagannath OCP

Monitoring Station	Jagannath Colony Tap Water				Indian Drinking Standards (IS-10500):2012	
	13 April 2019	14 May 2019	14 June 2019	13-Jul-2019	Acceptable	Permissible
Colour(Hazen)	7	6	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	2	5	1	5
pH	7.13	7.91	7.78	7.63	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	56	36	60	200	600
Chloride(mg/L)	22	12	14	14	250	1000
Total Hardness(mg/L)	424	76	268	152	200	600
Calcium(mg/L)	107.2	19.2	72	40.08	75	200
Sulphate(mg/L)	265.72	22.75	155.86	106	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	1.24	45	No relaxation
Fluoride(mg/L)	0.17	0.35	1.10	0.80	1	1.5
Total Dissolve Solid (mg/L)	766	184	546	364	500	2000
Boron(mg/L)	<0.2	0.10	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.94	<0.04	0.08	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:180
Area: Jagannath
Project: Jagannath OCP

Monitoring Station	Jagannath Colony Tap Water				Indian Drinking Standards (IS-10500):2012	
	14-Aug-2019	12-Sep-2019	15-Oct-2019	14-Nov-2019	Acceptable	Permissible
Dt. of sampling						
Colour(Hazen)	1	1	4	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	2	2	4	1	5
pH	7.16	7.31	7.16	7.36	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	36	32	72	200	600
Chloride(mg/L)	14	16	12	12	250	1000
Total Hardness(mg/L)	304	256	156	330.6	200	600
Calcium(mg/L)	64.12	73.74	43.2	90.8	75	200
Sulphate(mg/L)	192	184	112.03	294.1	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	24.43	45	No relaxation
Fluoride(mg/L)	1.08	0.91	0.65	1.20	1	1.5
Total Dissolve Solid(mg/L)	576	514	334	598	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.20	0.1	0.3
Zinc(mg/L)	0.36	0.55	0.07	0.55	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:181
Area: Jagannath
Project: Jagannath OCP

Monitoring Station	Jagannath Colony Tap Water				Indian Drinking Standards (IS-10500):2012	
	13-Dec-2019	13-Jan-2020	13-Feb-2020	7-Mar-2020	Acceptable	Permissible
Dt. of sampling						
Colour(Hazen)	5	9.0	5	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	4	2	1	1	5
pH	7.12	7.52	7.29	7.08	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	96	48	64	200	600
Chloride(mg/L)	8	12	10	10	250	1000
Total Hardness(mg/L)	166.6	245.9	174	216	200	600
Calcium(mg/L)	45.78	71.24	46.95	59.2	75	200
Sulphate(mg/L)	108.06	11.25	57.07	142.61	200	400
Nitrate(mg/L)	<0.5	<0.5	1.79	<0.5	45	No relaxation
Fluoride(mg/L)	0.48	0.36	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	288	368	264	242	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.01	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:182
Area: Jagannath
Project: Jagannath OCP

Monitoring Station	Balanda Colony Tap Water				Indian Drinking Standards (IS-10500):2012	
	13 April 2019	14 May 2019	14 June 2019	13-Jul-2019	Acceptable	Permissible
Colour(Hazen)	6	14	1	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	2	4	1	5
pH	7.00	7.97	7.76	7.72	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	76	32	64	200	600
Chloride(mg/L)	20	14	16	16	250	1000
Total Hardness(mg/L)	424	76	284	88	200	600
Calcium(mg/L)	108.8	19.2	75.2	24.05	75	200
Sulphate(mg/L)	250	10.77	188.90	38	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	0.80	45	No relaxation
Fluoride(mg/L)	0.23	<0.30	1.19	0.39	1	1.5
Total Dissolve Solid(mg/L)	814	102	544	238	500	2000
Boron(mg/L)	<0.2	<0.10	0.104	<0.1	0.5	1.0
Iron(mg/L)	<0.06	0.18	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.11	0.06	0.13	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:183
Area: Jagannath
Project: Jagannath OCP

Monitoring Station	Balanda Colony Tap Water				Indian Drinking Standards (IS-10500):2012	
	14-Aug-2019	12-Sep-2019	15-Oct-2019	14-Nov-2019	Acceptable	Permissible
Dt. of sampling	14-Aug-2019	12-Sep-2019	15-Oct-2019	14-Nov-2019	Acceptable	Permissible
Colour(Hazen)	3	3	3	13	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	3	3	5	1	5
pH	7.25	7.05	7.20	7.48	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	32	44	84	200	600
Chloride(mg/L)	14	16	22	14	250	1000
Total Hardness(mg/L)	272	272	264	210.7	200	600
Calcium(mg/L)	59.3	70.53	91.2	41.3	75	200
Sulphate(mg/L)	183	194	173.13	165.43	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	13.56	45	No relaxation
Fluoride(mg/L)	1.02	0.88	1.13	1.06	1	1.5
Total Dissolve Solid(mg/L)	532	528	534	362	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.06	0.08	0.17	0.29	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:184
Area: Jagannath
Project: Jagannath OCP

Monitoring Station	Balanda Colony Tap Water				Indian Drinking Standards (IS-10500):2012	
	13-Dec-2019	13-Jan-2020	13-Feb-2020	7-Mar-2020	Acceptable	Permissible
Dt. of sampling						
Colour(Hazen)	4	4	4	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	2	1	1	5
pH	6.78	7.38	7.57	6.92	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	72	68	56	56	200	600
Chloride(mg/L)	10	14	12	12	250	1000
Total Hardness(mg/L)	191	193.5	178.1	284	200	600
Calcium(mg/L)	52.32	56.66	50.19	76.8	75	200
Sulphate(mg/L)	111.49	167.34	87.12	182.22	200	400
Nitrate(mg/L)	<0.5	<0.5	1.93	1.72	45	No relaxation
Fluoride(mg/L)	0.41	0.48	0.31	<0.3	1	1.5
Total Dissolve Solid(mg/L)	324	304	272	410	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	0.22	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:185
Area: Jagannath
Project: Ananta OCP

Monitoring Station	Ananta Colony Tap Water				Indian Drinking Standards (IS-10500):2012	
	14 May 2019	14-Aug-2019	14-Nov-2019	13-Feb-2020	Acceptable	Permissible
Dt. of sampling	14 May 2019	14-Aug-2019	14-Nov-2019	13-Feb-2020	Acceptable	Permissible
Colour(Hazen)	4	10	14	7	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	4	3	1	5
pH	8.14	7.45	7.94	7.88	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	60	36	112	64	200	600
Chloride(mg/L)	8	18	10	12	250	1000
Total Hardness(mg/L)	68	100	78.5	101.2	200	600
Calcium(mg/L)	17.6	16.03	23.1	27.52	75	200
Sulphate(mg/L)	6.87	10	13.53	16.04	200	400
Nitrate(mg/L)	<0.5	<0.5	1.35	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	156	192	142	146	500	2000
Boron(mg/L)	0.15	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	0.15	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	0.17	0.06	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:186
Area: Jagannath
Project: Ananta OCP

Monitoring Station	Hensmul village well water		Dera village tube well water		Indian Drinking Standards (IS-10500):2012	
	13 April 2019	14-Nov-2019	13 April 2019	14-Nov-2019	Acceptable	Permissible
Dt. of Sampling	13 April 2019	14-Nov-2019	13 April 2019	14-Nov-2019	Acceptable	Permissible
Colour(Hazen)	5	3	6	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	3	2	1	5
pH	7.52	7.45	7.42	7.32	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	52	160	52	296	200	600
Chloride(mg/L)	12	32	14	305	250	1000
Total Hardness(mg/L)	68	202.5	64	673.5	200	600
Calcium(mg/L)	16	51.2	16	184.9	75	200
Sulphate(mg/L)	11.86	59.7	11.0	186.02	200	400
Nitrate(mg/L)	<0.5	6.58	<0.5	16.57	45	No relaxation
Fluoride(mg/L)	0.18	<0.30	0.16	0.92	1	1.5
Total Dissolve Solid(mg/L)	160	354	158	1442	500	2000
Boron(mg/L)	<0.2	<0.1	<0.2	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.06	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.02	<0.04	0.1	0.3
Zinc(mg/L)	0.06	0.08	0.07	<0.04	5	15
Lead(mg/L)	0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.0005	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.01	<0.05	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.002	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:187
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Tap water in Nehru Satabdi Nagar A type Quarters				Indian Drinking Standards (IS-10500):2012	
	12 Apr 2019	14-Jul-2019	15-Oct-2019	13-Jan-2020	Acceptable	Permissible
Dt. of sampling	12 Apr 2019	14-Jul-2019	15-Oct-2019	13-Jan-2020	Acceptable	Permissible
Colour(Hazen)	5	2	2	1.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	3	1	1	5
pH	7.11	7.38	6.97	7.16	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	28	164	176	168	200	600
Chloride(mg/L)	22	16	18	12	250	1000
Total Hardness(mg/L)	440	144	144	149.2	200	600
Calcium(mg/L)	110.4	30.46	35.2	35.62	75	200
Sulphate(mg/L)	282.58	14	8.44	13.59	200	400
Nitrate(mg/L)	<0.5	1.19	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.27	<0.30	<0.30	0.48	1	1.5
Total Dissolve Solid(mg/L)	812	378	410	242	500	2000
Boron(mg/L)	<0.2	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.13	0.05	0.05	<0.04	5	15
Lead(mg/L)	<0.005	0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:188
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Tap water in Nehru Satabdi Nagar B type Quarters				Indian Drinking Standards (IS-10500):2012	
	12 April 2019	14-Jul-2019	15-Oct-2019	13-Jan-2020	Acceptable	Permissible
Dt. of sampling	12 April 2019	14-Jul-2019	15-Oct-2019	13-Jan-2020	Acceptable	Permissible
Colour(Hazen)	4	5	2	2.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	3	1	2	1	5
pH	7.06	7.03	7.23	7.40	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	168	172	172	200	600
Chloride(mg/L)	20	16	18	10	250	1000
Total Hardness(mg/L)	420	140	148	145.1	200	600
Calcium(mg/L)	113.6	32.06	33.6	37.24	75	200
Sulphate(mg/L)	281.72	12	7.97	13.44	200	400
Nitrate(mg/L)	<0.5	0.70	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.24	0.36	<0.30	0.46	1	1.5
Total Dissolve Solid(mg/L)	784	386	402	238	500	2000
Boron(mg/L)	<0.2	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	0.04	0.1	0.3
Zinc(mg/L)	0.16	<0.04	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:189
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Tap water in Nehru Satabdi Nagar C type Quarters				Indian Drinking Standards (IS-10500):2012	
	12 April 2019	14-Jul-2019	15-Oct-2019	13-Jan-2020	Acceptable	Permissible
Dt. of sampling	12 April 2019	14-Jul-2019	15-Oct-2019	13-Jan-2020	Acceptable	Permissible
Colour(Hazen)	8	4	1	1.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	1	2	1	1	5
pH	7.15	6.99	7.13	6.61	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	28	176	180	168	200	600
Chloride(mg/L)	20	16	16	12	250	1000
Total Hardness(mg/L)	412	148	148	153.2	200	600
Calcium(mg/L)	105.6	33.67	35.2	37.24	75	200
Sulphate(mg/L)	272.86	13	7.19	15.47	200	400
Nitrate(mg/L)	0.52	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.29	<0.30	<0.30	0.40	1	1.5
Total Dissolve Solid(mg/L)	802	398	412	244	500	2000
Boron(mg/L)	<0.2	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.62	<0.04	0.10	0.49	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:190
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Tap water in Nehru Satabdi Nagar Transit House				Indian Drinking Standards (IS-10500):2012	
	12 Apr 2019	14-Jul-2019	15-Oct-2019	13-Jan-2020	Acceptable	Permissible
Dt. of sampling	12 Apr 2019	14-Jul-2019	15-Oct-2019	13-Jan-2020	Acceptable	Permissible
Colour(Hazen)	5	3	1	1.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	3	1	1	5
pH	7.80	7.14	7.05	7.09	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	436	220	168	172	200	600
Chloride(mg/L)	52	18	18	12	250	1000
Total Hardness(mg/L)	248	184	148	157.2	200	600
Calcium(mg/L)	36.8	48.10	33.6	38.86	75	200
Sulphate(mg/L)	53.57	14	6.41	11.88	200	400
Nitrate(mg/L)	0.8	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.23	0.37	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	802	472	398	242	500	2000
Boron(mg/L)	<0.2	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.07	<0.04	0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:191
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Tube well water at Nehru Satabdi Nagar Colony				Indian Drinking Standards (IS-10500):2012	
	Dt. of sampling	12 April 2019	14-Jul-2019	15-Oct-2019	13-Jan-2020	Acceptable
Colour(Hazen)	5	10	3	6.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	5	4	3	1	5
pH	7.85	6.92	7.38	7.13	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	424	216	232	72	200	600
Chloride(mg/L)	50	52	226	8	250	1000
Total Hardness(mg/L)	252	220	592	137.1	200	600
Calcium(mg/L)	35.2	76.95	182.4	35.62	75	200
Sulphate(mg/L)	53.29	18	193.59	86.41	200	400
Nitrate(mg/L)	<0.5	<0.5	19.75	<0.5	45	No relaxation
Fluoride(mg/L)	0.21	<0.30	0.87	<0.30	1	1.5
Total Dissolve Solid(mg/L)	788	548	1298	226	500	2000
Boron(mg/L)	<0.2	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.05	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.06	0.83	0.04	0.20	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:192
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Tube well water at Project office, Bharatpur OCP			Indian Drinking Standards (IS-10500):2012	
	12 Apr 2019	14-Jul-2019	13-Jan-2020	Acceptable	Permissible
Dt. of sampling	12 Apr 2019	14-Jul-2019	13-Jan-2020	Acceptable	Permissible
Colour(Hazen)	4	6	5.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	3	2	1	5
pH	7.91	7.38	6.63	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	432	92	48	200	600
Chloride(mg/L)	52	18	32	250	1000
Total Hardness(mg/L)	264	144	108.9	200	600
Calcium(mg/L)	57.6	35.27	30.76	75	200
Sulphate(mg/L)	52.29	71	37.81	200	400
Nitrate(mg/L)	0.5	0.72	36.09	45	No relaxation
Fluoride(mg/L)	0.46	0.50	<0.30	1	1.5
Total Dissolve Solid(mg/L)	806	348	238	500	2000
Boron(mg/L)	<0.2	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.07	0.71	0.49	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:193
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Singhada Pump House			Indian Drinking Standards (IS-10500):2012	
	12 April 2019	14-Jul-2019	15-Oct-2019	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	8	7	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	5	3	1	5
pH	7.18	7.51	7.09	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	84	92	200	600
Chloride(mg/L)	22	16	108	250	1000
Total Hardness(mg/L)	420	96	100	200	600
Calcium(mg/L)	112	25.65	25.6	75	200
Sulphate(mg/L)	264	41	3.13	200	400
Nitrate(mg/L)	<0.5	7.11	<0.5	45	No relaxation
Fluoride(mg/L)	0.28	0.50	<0.30	1	1.5
Total Dissolve Solid(mg/L)	752	284	344	500	2000
Boron(mg/L)	<0.2	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.10	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	0.07	0.1	0.3
Zinc(mg/L)	0.9	0.54	1.61	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:194
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Singhada Pump House		Indian Drinking Standards (IS-10500):2012	
	13-Nov-2019	13-Jan-2020	Acceptable	Permissible
Dt. of sampling	13-Nov-2019	13-Jan-2020	Acceptable	Permissible
Colour(Hazen)	3	4.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	1	5
pH	7.36	6.68	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	360	72	200	600
Chloride(mg/L)	309	18	250	1000
Total Hardness(mg/L)	673.5	548.3	200	600
Calcium(mg/L)	176.6	123.0	75	200
Sulphate(mg/L)	189.69	318.75	200	400
Nitrate(mg/L)	<0.5	0.83	45	No relaxation
Fluoride(mg/L)	1.13	<0.30	1	1.5
Total Dissolve Solid(mg/L)	1454	722	500	2000
Boron(mg/L)	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.79	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:195
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Time office, BOCP			Indian Drinking Standards (IS-10500):2012	
	Dt. of sampling	12 April 2019	14 May 2019	14 June 2019	Acceptable
Colour(Hazen)	3	1	7	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	5	4	1	5
pH	7.96	7.58	7.85	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	408	212	64	200	600
Chloride(mg/L)	52	32	16	250	1000
Total Hardness(mg/L)	252	212	136	200	600
Calcium(mg/L)	43.2	62.4	32	75	200
Sulphate(mg/L)	50.14	14.0	56.47	200	400
Nitrate(mg/L)	<0.5	1.39	<0.5	45	No relaxation
Fluoride(mg/L)	0.47	0.52	0.36	1	1.5
Total Dissolve Solid(mg/L)	770	482	296	500	2000
Boron(mg/L)	<0.2	<0.10	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.06	<0.04	0.16	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:196
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Time Office, BOCP			Indian Drinking Standards (IS-10500):2012	
	13-Jul-2019	13-Aug-2019	12-Sep-2019	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	4	7	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	1	1	5
pH	7.87	6.54	7.39	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	72	48	16	200	600
Chloride(mg/L)	30	10	10	250	1000
Total Hardness(mg/L)	408	92	68	200	600
Calcium(mg/L)	81.76	9.62	17.63	75	200
Sulphate(mg/L)	196	7	41	200	400
Nitrate(mg/L)	2.47	2.31	<0.5	45	No relaxation
Fluoride(mg/L)	0.64	<0.30	0.55	1	1.5
Total Dissolve Solid(mg/L)	748	198	158	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.12	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:197
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Time Office, BOCP			Indian Drinking Standards (IS-10500):2012	
	15-Oct-2019	13-Nov-2019	12-Dec-2019	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	1	11	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	–	1	1	5
pH	6.70	7.34	6.79	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	96	220	60	200	600
Chloride(mg/L)	26	40	16	250	1000
Total Hardness(mg/L)	108	239.6	186.9	200	600
Calcium(mg/L)	25.6	80.9	52.32	75	200
Sulphate(mg/L)	2.97	6.76	128.5	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	0.36	1	1.5
Total Dissolve Solid(mg/L)	278	364	310	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	0.35	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.34	0.05	0.1	0.3
Zinc(mg/L)	2.63	2.07	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:198
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Time Office, BOCP			Indian Drinking Standards (IS-10500):2012	
	13-Jan-2020	13-Feb-2020	7-Mar-2020	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	12.0	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	2	1	5
pH	7.74	7.58	7.31	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	268	148	80	200	600
Chloride(mg/L)	28	14	18	250	1000
Total Hardness(mg/L)	217.7	157.9	88	200	600
Calcium(mg/L)	76.09	37.24	27.2	75	200
Sulphate(mg/L)	22.97	7.66	24.38	200	400
Nitrate(mg/L)	1.33	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	334	234	178	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.08	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:199
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Badasinga Village Open well			Indian Drinking Standards (IS-10500):2012	
	12 April 2019	14 May 2019	14 June 2019	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	5	15	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	70	3	1	5
pH	7.91	8.25	7.30	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	416	104	224	200	600
Chloride(mg/L)	52	18	170	250	1000
Total Hardness(mg/L)	248	100	268	200	600
Calcium(mg/L)	51.2	24	80	75	200
Sulphate(mg/L)	50.86	10.10	89.93	200	400
Nitrate(mg/L)	<0.5	<0.5	17.0	45	No relaxation
Fluoride(mg/L)	0.42	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	776	262	844	500	2000
Boron(mg/L)	<0.2	<0.10	<0.1	0.5	1.0
Iron(mg/L)	<0.06	0.36	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.07	<0.04	0.09	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:200
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Badasinga Village Open Well			Indian Drinking Standards (IS-10500):2012	
	13-Jul-2019	13-Aug-2019	12-Sep-2019	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	2	9	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	4	3	1	5
pH	7.49	7.57	7.66	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	256	160	256	200	600
Chloride(mg/L)	140	22	116	250	1000
Total Hardness(mg/L)	224	188	228	200	600
Calcium(mg/L)	68.94	36.87	64.12	75	200
Sulphate(mg/L)	110	12	85	200	400
Nitrate(mg/L)	39.0	42.35	38.84	45	No relaxation
Fluoride(mg/L)	<0.30	0.57	0.93	1	1.5
Total Dissolve Solid(mg/L)	814	486	748	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	0.1	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:201
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Badasinga Village Open Well			Indian Drinking Standards (IS-10500):2012	
	15-Oct-2019	13-Nov-2019	12-Dec-2019	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	2	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	3	1	5
pH	7.48	7.51	6.70	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	260	276	272	200	600
Chloride(mg/L)	182	167	189	250	1000
Total Hardness(mg/L)	276	264.4	272.3	200	600
Calcium(mg/L)	84.8	67.7	63.76	75	200
Sulphate(mg/L)	103.28	89.26	96.42	200	400
Nitrate(mg/L)	40.88	29.1	38.88	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	926	818	644	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.05	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:202
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Badasinga Village Open Well			Indian Drinking Standards (IS-10500):2012	
	13-Jan-2020	13-Feb-2020	7-Mar-2020	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	3.0	3	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	3	1	5
pH	7.93	6.98	7.33	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	164	264	220	200	600
Chloride(mg/L)	195	199	40	250	1000
Total Hardness(mg/L)	278.2	242.9	220	200	600
Calcium(mg/L)	63.14	85.81	62.4	75	200
Sulphate(mg/L)	106.56	111.25	8.23	200	400
Nitrate(mg/L)	39.91	35.65	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	982	1024	338	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.04	0.12	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:203
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Telepasi village Open well			Indian Drinking Standards (IS-10500):2012	
	12 April 2019	14 May 2019	14 June 2019	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	9	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	1	2	1	5
pH	8.08	7.77	7.15	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	28	40	216	200	600
Chloride(mg/L)	24	14	36	250	1000
Total Hardness(mg/L)	440	216	376	200	600
Calcium(mg/L)	113.6	56	158.4	75	200
Sulphate(mg/L)	276.58	103.66	133.84	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.29	0.93	<0.30	1	1.5
Total Dissolve Solid(mg/L)	776	384	788	500	2000
Boron(mg/L)	<0.2	0.125	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.03	0.05	0.06	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:204
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Telepasi Village Open Well			Indian Drinking Standards (IS-10500):2012	
	13-Jul-2019	13-Aug-2019	12-Sep-2019	Acceptable	Permissible
Dt. of sampling	13-Jul-2019	13-Aug-2019	12-Sep-2019	Acceptable	Permissible
Colour(Hazen)	2	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	<1	4	1	5
pH	7.95	7.63	7.31	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	232	76	16	200	600
Chloride(mg/L)	46	30	32	250	1000
Total Hardness(mg/L)	208	180	72	200	600
Calcium(mg/L)	44.89	35.27	17.63	75	200
Sulphate(mg/L)	21	71	30	200	400
Nitrate(mg/L)	<0.5	<0.5	26.67	45	No relaxation
Fluoride(mg/L)	0.40	<0.30	0.31	1	1.5
Total Dissolve Solid(mg/L)	552	396	184	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.05	<0.04	0.1	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:205
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Telepasi Village Open Well			Indian Drinking Standards (IS-10500):2012	
	15-Oct-2019	13-Nov-2019	12-Dec-2019	Acceptable	Permissible
Dt. of sampling	15-Oct-2019	13-Nov-2019	12-Dec-2019	Acceptable	Permissible
Colour(Hazen)	3	14	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	–	1	1	5
pH	6.69	6.52	6.83	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	96	104	104	200	600
Chloride(mg/L)	28	52	40	250	1000
Total Hardness(mg/L)	108	161.1	142.2	200	600
Calcium(mg/L)	25.6	39.6	55.59	75	200
Sulphate(mg/L)	3.13	47.64	5.22	200	400
Nitrate(mg/L)	<0.5	30.09	9.16	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	274	402	218	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.17	<0.04	0.1	0.3
Zinc(mg/L)	2.58	10.41	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:206
Area: Bharatpur
Project: Bharatpur OCP

Monitoring Station	Telepasi Village Open Well		Indian Drinking Standards (IS-10500):2012	
	13-Jan-2020	6-Mar-2020	Acceptable	Permissible
Colour(Hazen)	5.0	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	1	5
pH	6.55	7.58	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	72	24	200	600
Chloride(mg/L)	64	18	250	1000
Total Hardness(mg/L)	245.9	556	200	600
Calcium(mg/L)	90.66	132.8	75	200
Sulphate(mg/L)	15.78	298.17	200	400
Nitrate(mg/L)	<0.5	1.13	45	No relaxation
Fluoride(mg/L)	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	370	738	500	2000
Boron(mg/L)	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	1.01	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:207
Area: Bharatpur
Project: Chhendipada

Monitoring Station	Bore well water at site office			Indian Drinking Standards (IS-10500):2012	
	6 April 2019	14 May 2019	12-Jul-2019	Acceptable	Permissible
Colour(Hazen)	5	5	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	<1	3	1	5
pH	6.68	7.95	7.66	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	128	52	60	200	600
Chloride(mg/L)	52	10	18	250	1000
Total Hardness(mg/L)	188	56	212	200	600
Calcium(mg/L)	62.4	12.8	72.14	75	200
Sulphate(mg/L)	2.14	6.06	186	200	400
Nitrate(mg/L)	<0.05	<0.5	0.84	45	No relaxation
Fluoride(mg/L)	0.33	<0.30	1.06	1	1.5
Total Dissolve Solid(mg/L)	378	156	508	500	2000
Boron(mg/L)	<0.2	0.10	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	0.28	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	0.04	0.05	1.5
Manganese(mg/L)	0.3	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.03	0.61	0.23	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:208
Area: Bharatpur
Project: Chhendipada

Monitoring Station	Bore Well Water at Site Office			Indian Drinking Standards (IS-10500):2012	
	14-Aug-2019	5-Sep-2019	12-Oct-2019	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	2	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	2	5	1	5
pH	7.89	7.53	6.89	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	72	152	220	200	600
Chloride(mg/L)	32	74	50	250	1000
Total Hardness(mg/L)	176	212	244	200	600
Calcium(mg/L)	32.06	75.34	84.8	75	200
Sulphate(mg/L)	71	12	8.75	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	0.59	<0.30	1	1.5
Total Dissolve Solid(mg/L)	390	474	568	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	0.16	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.06	2.01	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:209
Area: Bharatpur
Project: Chhendipada

Monitoring Station	Bore Well Water at Site Office			Indian Drinking Standards (IS-10500):2012	
	4-Nov-2019	31-Dec-2019	3-Jan-2020	Acceptable	Permissible
Dt. of sampling					
Colour(Hazen)	1	6	2.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	–	4	1	1	5
pH	6.22	6.37	6.73	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	112	32	200	600
Chloride(mg/L)	119	14	10	250	1000
Total Hardness(mg/L)	219	97.5	52.4	200	600
Calcium(mg/L)	77.6	27.79	19.43	75	200
Sulphate(mg/L)	36.62	4.33	1.41	200	400
Nitrate(mg/L)	22.02	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	0.45	<0.30	1	1.5
Total Dissolve Solid(mg/L)	608	178	102	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.56	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.06	1.49	0.05	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:210
Area: Bharatpur
Project: Chhendipada

Monitoring Station	Bore Well Water at Site Office		Indian Drinking Standards (IS-10500):2012	
	4-Feb-2020	4-Mar-2020	Acceptable	Permissible
Dt. of sampling				
Colour(Hazen)	5	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	1	5
pH	6.84	7.61	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	136	80	200	600
Chloride(mg/L)	56	16	250	1000
Total Hardness(mg/L)	202.4	296	200	600
Calcium(mg/L)	77.71	67.2	75	200
Sulphate(mg/L)	2.46	176.28	200	400
Nitrate(mg/L)	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.34	20.3	1	1.5
Total Dissolve Solid(mg/L)	302	452	500	2000
Boron(mg/L)	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.50	<0.04	0.1	0.3
Zinc(mg/L)	0.05	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:211
Area: Lingraj
Project: Lingraj OCP

Monitoring Station	GM Office, Lingraj Area Tap water				Indian Drinking Standards (IS-10500):2012	
	Dt. of Sampling	06 Apr 2019	14 May 2019	14 Jun 2019	12-Jul-2019	Acceptable
Colour(Hazen)	7	14	8	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	<1	4	4	1	5
pH	7.07	7.63	7.69	7.51	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	52	88	100	200	600
Chloride(mg/L)	14	12	22	24	250	1000
Total Hardness(mg/L)	68	64	132	124	200	600
Calcium(mg/L)	17.6	16	30.4	30.46	75	200
Sulphate(mg/L)	12.71	10.50	32.05	47	200	400
Nitrate(mg/L)	0.52	<0.5	1.19	1.44	45	No relaxation
Fluoride(mg/L)	0.12	0.32	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	164	168	302	328	500	2000
Boron(mg/L)	<0.2	<0.10	0.104	<0.1	0.5	1.0
Iron(mg/L)	<0.06	0.10	<0.1	0.18	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.09	<0.04	0.07	0.18	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:212
Area: Lingraj
Project: Lingraj OCP

Monitoring Station	GM Office, Lingraj Area Tap Water				Indian Drinking Standards (IS-10500):2012	
	12-Aug-2019	13-Sep-2019	15-Oct-2019	13-Nov-2019	Acceptable	Permissible
Dt. of sampling						
Colour(Hazen)	4	1	4	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	1	4	—	1	5
pH	7.89	7.40	7.43	7.94	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	24	68	172	200	600
Chloride(mg/L)	24	10	22	30	250	1000
Total Hardness(mg/L)	156	72	108	198.3	200	600
Calcium(mg/L)	27.25	16.03	27.2	52.8	75	200
Sulphate(mg/L)	44	40	2.50	55.73	200	400
Nitrate(mg/L)	1.3	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.31	0.58	<0.30	0.39	1	1.5
Total Dissolve Solid(mg/L)	344	162	240	332	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.05	0.1	0.3
Zinc(mg/L)	0.07	0.32	1.02	0.33	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:213
Area: Lingraj
Project: Lingraj OCP

Monitoring Station	GM Office, Lingraj Area Tap Water				Indian Drinking Standards (IS-10500):2012	
	13-Dec-2019	13-Jan-2020	13-Feb-2020	7-Mar-2020	Acceptable	Permissible
Dt. of Sampling	13-Dec-2019	13-Jan-2020	13-Feb-2020	7-Mar-2020	Acceptable	Permissible
Colour(Hazen)	7	1	6	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	3	2	1	5
pH	7.21	7.53	7.65	7.66	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	72	84	80	76	200	600
Chloride(mg/L)	6	16	18	18	250	1000
Total Hardness(mg/L)	81.3	116.9	129.5	292	200	600
Calcium(mg/L)	21.25	29.14	30.76	65.6	75	200
Sulphate(mg/L)	22.24	11.72	40.45	183.44	200	400
Nitrate(mg/L)	<0.5	<0.5	1.02	<0.5	45	No relaxation
Fluoride(mg/L)	0.39	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	162	196	208	456	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.07	0.05	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:214
Area: Kaniha
Project: Kaniha OCP

Monitoring Station	Project office tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	12-Apr-19	Acceptable	Permissible
Colour(Hazen)	2	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	5
pH	7.26	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	200	600
Chloride(mg/L)	16	250	1000
Total Hardness(mg/L)	212	200	600
Calcium(mg/L)	56	75	200
Sulphate(mg/L)	109.57	200	400
Nitrate(mg/L)	<0.5	45	No relaxation
Fluoride(mg/L)	0.24	1	1.5
Total Dissolve Solid(mg/L)	396	500	2000
Boron(mg/L)	<0.2	0.5	1.0
Iron(mg/L)	<0.06	0.3	No relaxation
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.1	0.3
Zinc(mg/L)	0.07	5	15
Lead(mg/L)	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	0.003	No relaxation
Total Chromium(mg/L)	<0.05	0.05	No relaxation
Arsenic(mg/L)	<0.002	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:215
Area: Kaniha
Project: Kaniha OCP

Monitoring Station	Jarda village				Indian Drinking Standards (IS-10500):2012	
	12-Apr-19	13-May-19	13-Jun-19	12-Jul-19	Acceptable	Permissible
Dt. of sampling	12-Apr-19	13-May-19	13-Jun-19	12-Jul-19	Acceptable	Permissible
Colour(Hazen)	4	6	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	<1	2	1	1	5
pH	7.23	7.76	7.53	8.43	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	56	268	476	200	600
Chloride(mg/L)	16	14	38	42	250	1000
Total Hardness(mg/L)	204	88	244	292	200	600
Calcium(mg/L)	51.2	17.6	54.4	52.91	75	200
Sulphate(mg/L)	104.57	12.52	7.06	31	200	400
Nitrate(mg/L)	<0.05	<0.05	<0.5	3.19	45	No relaxation
Fluoride(mg/L)	0.28	<0.30	0.32	<0.30	1	1.5
Total Dissolve Solid(mg/L)	380	192	584	912	500	2000
Boron(mg/L)	<0.2	0.125	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	0.20	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.08	<0.04	0.18	0.40	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.006	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:216
Area: Kaniha
Project: Kaniha OCP

Monitoring Station	Jarda Village Well Water				Indian Drinking Standards (IS-10500):2012	
	12-Aug-19	12-Sep-19	13-Oct-19	11-Nov-19	Acceptable	Permissible
Dt. of Sampling	12-Aug-19	12-Sep-19	13-Oct-19	11-Nov-19	Acceptable	Permissible
Colour(Hazen)	3	1	1	14	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	4	2	–	1	5
pH	6.57	7.62	8.13	6.90	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	276	452	52	200	600
Chloride(mg/L)	10	48	24	8	250	1000
Total Hardness(mg/L)	92	248	188	41.3	200	600
Calcium(mg/L)	10.82	51.30	44.8	9.9	75	200
Sulphate(mg/L)	14	10	22.97	13.38	200	400
Nitrate(mg/L)	3.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	1.08	1.21	<0.30	1	1.5
Total Dissolve Solid(mg/L)	196	608	772	110	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.05	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	1.03	<0.04	0.07	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:217
Area: Kaniha
Project: Kaniha OCP

Monitoring Station	Jarda Village Well Water				Indian Drinking Standards (IS-10500):2012	
	10-Dec-19	10-Jan-20	10-Feb-20	7-Mar-20	Acceptable	Permissible
Dt. of sampling	10-Dec-19	10-Jan-20	10-Feb-20	7-Mar-20	Acceptable	Permissible
Colour(Hazen)	5	2	8	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	4	2	1	5
pH	7.14	7.59	7.59	7.28	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	200	332	60	60	200	600
Chloride(mg/L)	143	28	12	10	250	1000
Total Hardness(mg/L)	317	322.6	89	216	200	600
Calcium(mg/L)	104.64	61.52	22.66	59.2	75	200
Sulphate(mg/L)	67.91	<1.0	32.65	13.79	200	400
Nitrate(mg/L)	35.53	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.52	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	512	488	150	344	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.10	0.07	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.05	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:218
Area: Kaniha
Project: Kaniha OCP

Monitoring Station	Tube Well at Coal Analysis Lab				Indian Drinking Standards (IS-10500):2012	
	13-May-19	13-Jun-19	12-Jul-19	12-Aug-19	Acceptable	Permissible
Dt. of sampling	13-May-19	13-Jun-19	12-Jul-19	12-Aug-19	Acceptable	Permissible
Colour(Hazen)	3	9	5	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	7	2	<1	1	5
pH	8.13	7.83	7.74	6.55	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	80	60	48	200	600
Chloride(mg/L)	12	42	14	12	250	1000
Total Hardness (Ca CO ₃)(mg/L)	64	300	72	88	200	600
Calcium(mg/L)	12.8	83.2	17.64	14.43	75	200
Sulphate(mg/L)	6.33	100.94	21	7	200	400
Nitrate(mg/L)	<0.5	21	1.30	1.33	45	No relaxation
Fluoride(mg/L)	<0.30	0.49	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	184	736	198	190	500	2000
Boron(mg/L)	<0.10	0.130	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	0.10	<0.10	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.390	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.02	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.005	0.019	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:219
Area: Kaniha
Project: Kaniha OCP

Monitoring Station	Tube Well at Coal Analysis Lab				Indian Drinking Standards (IS-10500):2012	
	12-Sep-19	13-Oct-19	11-Nov-19	10-Dec-19	Acceptable	Permissible
Dt. of sampling	12-Sep-19	13-Oct-19	11-Nov-19	10-Dec-19	Acceptable	Permissible
Colour(Hazen)	4	3	11	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	1	1	2	1	5
pH	8.33	6.69	7.45	7.17	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	412	92	236	268	200	600
Chloride(mg/L)	110	28	100	64	250	1000
Total Hardness (Ca CO3)(mg/L)	348	104	334.5	386.1	200	600
Calcium(mg/L)	49.69	25.6	84.2	68.67	75	200
Sulphate(mg/L)	12	39.69	46.91	76.71	200	400
Nitrate(mg/L)	<0.5	4.41	<0.5	16.74	45	No relaxation
Fluoride(mg/L)	0.92	<0.30	0.74	0.45	1	1.5
Total Dissolve Solid(mg/L)	916	314	572	530	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.10	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.14	<0.04	0.1	0.3
Zinc(mg/L)	0.14	1.87	2.72	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.02	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:220
Area: Kaniha
Project: Kaniha OCP

Monitoring Station	Tube Well at Coal Analysis Lab			Indian Drinking Standards (IS-10500):2012	
	10-Jan-20	10-Feb-20	7-Mar-20	Acceptable	Permissible
Dt. of sampling	10-Jan-20	10-Feb-20	7-Mar-20	Acceptable	Permissible
Colour(Hazen)	3	7	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	1	1	5
pH	7.47	7.32	6.80	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	56	12	200	600
Chloride(mg/L)	14	14	18	250	1000
Total Hardness (Ca CO3)(mg/L)	108.9	198.4	548	200	600
Calcium(mg/L)	32.38	42.09	128	75	200
Sulphate(mg/L)	37.34	122.81	299.84	200	400
Nitrate(mg/L)	2.48	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	186	288	620	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.07	<0.04	0.1	0.3
Zinc(mg/L)	0.15	0.12	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:221
Area: Hingula
Project: Balram OCP

Monitoring Station	Danara village borewell water				Indian Drinking Standards (IS-10500):2012	
	12-04-2019	15-05-2019	15-06-2019	13-Jul-2019	Acceptable	Permissible
Dt. of sampling	12-04-2019	15-05-2019	15-06-2019	13-Jul-2019	Acceptable	Permissible
Colour(Hazen)	5	12	17	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	11	13	5	1	5
pH	7.32	6.64	6.64	7.02	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	60	44	108	40	200	600
Chloride(mg/L)	14	54	12	18	250	1000
Total Hardness(mg/L)	76	124	96	52	200	600
Calcium(mg/L)	17.6	38.4	38.4	11.22	75	200
Sulphate(mg/L)	11.0	26.39	11.86	8	200	400
Nitrate(mg/L)	<0.5	43.3	1.64	3.81	45	No relaxation
Fluoride(mg/L)	0.18	<0.30	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	174	384	282	148	500	2000
Boron(mg/L)	<0.2	0.15	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	0.19	0.26	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.05	0.34	<0.04	0.1	0.3
Zinc(mg/L)	0.03	1.44	3.01	0.07	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:222
Area: Hingula
Project: Balram OCP

Monitoring Station	Danara Village Borewell Water				Indian Drinking Standards (IS-10500):2012	
	13-Aug-2019	13-Sep-2019	16-Oct-2019	14-Nov-2019	Acceptable	Permissible
Dt. of sampling	13-Aug-2019	13-Sep-2019	16-Oct-2019	14-Nov-2019	Acceptable	Permissible
Colour(Hazen)	10	6	3	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	—	1	5
pH	6.67	7.30	6.55	7.59	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	56	88	240	200	600
Chloride(mg/L)	30	12	12	100	250	1000
Total Hardness(mg/L)	140	132	80	326.4	200	600
Calcium(mg/L)	25.65	35.27	20.8	82.5	75	200
Sulphate(mg/L)	45	103	2.81	43.67	200	400
Nitrate(mg/L)	3.74	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	1.01	<0.30	0.68	1	1.5
Total Dissolve Solid(mg/L)	282	322	224	550	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	0.12	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.29	<0.04	0.11	0.1	0.3
Zinc(mg/L)	0.29	3.16	3.74	1.57	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:223
Area: Hingula
Project: Balram OCP

Monitoring Station	Danara Village Borewell Water				Indian Drinking Standards (IS-10500):2012	
	12-Dec-2019	14-Jan-2020	13-Feb-2020	6-Mar-2020	Acceptable	Permissible
Dt. of sampling	12-Dec-2019	14-Jan-2020	13-Feb-2020	6-Mar-2020	Acceptable	Permissible
Colour(Hazen)	2	1	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	2	1	1	5
pH	5.88	7.48	7.37	6.93	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	284	68	220	200	600
Chloride(mg/L)	30	42	20	40	250	1000
Total Hardness(mg/L)	61	298.4	469.6	224	200	600
Calcium(mg/L)	21.25	58.28	98.76	60.8	75	200
Sulphate(mg/L)	3.28	41.88	222.35	8.68	200	400
Nitrate(mg/L)	33.52	<0.5	0.88	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	0.47	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	148	518	604	348	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.1	0.3
Zinc(mg/L)	<0.004	<0.04	<0.04	0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:224
Area: Hingula
Project: Balram OCP

Monitoring Station	Balaram Colony tap water				Indian Drinking Standards (IS-10500):2012	
	12-Apr-2019	15-May-2019	15-Jun-2019	13-Jul-2019	Acceptable	Permissible
Colour(Hazen)	3	6	5	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	4	4	4	1	5
pH	7.16	7.98	7.90	8.01	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	60	60	76	200	600
Chloride(mg/L)	18	32	30	14	250	1000
Total Hardness(mg/L)	208	584	532	80	200	600
Calcium(mg/L)	54.4	112	102.4	24.05	75	200
Sulphate(mg/L)	102.0	371.55	368.48	22	200	400
Nitrate(mg/L)	<0.5	1.43	<0.5	0.52	45	No relaxation
Fluoride(mg/L)	0.24	0.69	0.49	<0.30	1	1.5
Total Dissolve Solid(mg/L)	382	1084	1018	238	500	2000
Boron(mg/L)	<0.2	<0.10	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	0.17	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.1	<0.04	<0.04	0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:225
Area: Hingula
Project: Balram OCP

Monitoring Station	Balaram Colony Tap Water				Indian Drinking Standards (IS-10500):2012	
	Dt. of sampling	13-Aug-2019	13-Sep-2019	16-Oct-2019	14-Nov-2019	Acceptable
Colour(Hazen)	6	2	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	1	3	—	1	5
pH	7.69	7.73	7.19	7.46	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	20	84	296	200	600
Chloride(mg/L)	28	10	26	14	250	1000
Total Hardness(mg/L)	540	76	168	223.1	200	600
Calcium(mg/L)	92.97	14.43	44.8	39.6	75	200
Sulphate(mg/L)	268	42	73.91	48.97	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.96	1.02	0.48	0.40	1	1.5
Total Dissolve Solid(mg/L)	934	172	394	420	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.15	1.93	1.37	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:226
Area: Hingula
Project: Balram OCP

Monitoring Station	Balaram Colony Tap Water				Indian Drinking Standards (IS-10500):2012	
	Dt. of sampling	12-Dec-2019	14-Jan-2020	13-Feb-2020	7-Mar-2020	Acceptable
Colour(Hazen)	8	3	6	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	2	2	1	5
pH	7.16	7.58	7.49	7.17	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	84	76	64	200	600
Chloride(mg/L)	18	20	18	20	250	1000
Total Hardness(mg/L)	402.3	463.7	340	508	200	600
Calcium(mg/L)	91.56	102	69.62	107.2	75	200
Sulphate(mg/L)	240.59	287.19	173.95	253.98	200	400
Nitrate(mg/L)	<0.5	1.47	<0.5	0.93	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	672	640	456	698	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.22	<0.04	0.12	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:227
Area: Hingula
Project: Balram OCP

Monitoring Station	Nakeipasi village bore well water				Indian Drinking Standards (IS-10500):2012	
	12-04-2019	15-05-2019	15-06-2019	13-Jul-2019	Acceptable	Permissible
Dt. of sampling	12-04-2019	15-05-2019	15-06-2019	13-Jul-2019	Acceptable	Permissible
Colour(Hazen)	7	2	13	9	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	10	3	1	5
pH	7.06	8.32	6.69	7.90	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	196	140	236	200	600
Chloride(mg/L)	18	44	50	46	250	1000
Total Hardness(mg/L)	168	176	216	204	200	600
Calcium(mg/L)	30.8	30.4	68.8	40.08	75	200
Sulphate(mg/L)	117.86	17.37	9.46	20	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	0.60	45	No relaxation
Fluoride(mg/L)	0.26	0.57	<0.30	0.50	1	1.5
Total Dissolve Solid(mg/L)	356	450	460	548	500	2000
Boron(mg/L)	<0.2	<0.10	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	0.12	0.13	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	0.38	<0.04	0.1	0.3
Zinc(mg/L)	0.28	<0.04	0.46	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:228
Area: Hingula
Project: Balram OCP

Monitoring Station	Nakeipasi Village Bore Well Water				Indian Drinking Standards (IS-10500):2012	
	Dt. of sampling	13-Aug-2019	13-Sep-2019	16-Oct-2019	14-Nov-2019	Acceptable
Colour(Hazen)	3	1	3	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	2	2	–	1	5
pH	6.62	7.59	7.57	7.40	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	16	64	496	200	600
Chloride(mg/L)	40	8	22	40	250	1000
Total Hardness(mg/L)	236	72	252	355.3	200	600
Calcium(mg/L)	59.31	12.82	68.8	72.6	75	200
Sulphate(mg/L)	127	44	160.63	8.68	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	0.57	0.83	0.66	1	1.5
Total Dissolve Solid(mg/L)	462	168	536	634	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.34	0.07	1.19	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:229
Area: Hingula
Project: Balram OCP

Monitoring Station	Nakeipasi Village Bore Well Water				Indian Drinking Standards (IS-10500):2012	
	12-Dec-2019	14-Jan-2020	13-Feb-2020	6-Mar-2020	Acceptable	Permissible
Dt. of sampling						
Colour(Hazen)	5	4	5	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	1	2	1	5
pH	6.46	7.62	7.76	6.91	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	224	92	96	200	600
Chloride(mg/L)	36	86	22	48	250	1000
Total Hardness(mg/L)	32.5	338.7	153.8	148	200	600
Calcium(mg/L)	8.17	100.38	34	49.6	75	200
Sulphate(mg/L)	1.34	93.59	41.61	13.48	200	400
Nitrate(mg/L)	<0.5	38.67	2.08	7.29	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	98	648	234	264	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	0.15	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.06	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	<0.4	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:230
Area: Hingula
Project: Hingula OCP

Monitoring Station	Time office water monthly				Indian Drinking Standards (IS-10500):2012	
	Dt. of sampling	12-Apr-2019	15-May-2019	15-Jun-2019	13-Jul-2019	Acceptable
Colour(Hazen)	7	12	9	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	7	6	2	1	5
pH	7.48	7.37	6.94	7.63	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	128	116	56	200	600
Chloride(mg/L)	20	34	34	14	250	1000
Total Hardness(mg/L)	104	152	156	56	200	600
Calcium(mg/L)	22.4	36.8	40	17.64	75	200
Sulphate(mg/L)	21.86	23.56	26.40	16	200	400
Nitrate(mg/L)	0.68	<0.5	<0.5	1.49	45	No relaxation
Fluoride(mg/L)	0.46	0.41	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	230	372	366	168	500	2000
Boron(mg/L)	<0.2	<0.10	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	0.13	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.16	0.20	<0.04	0.1	0.3
Zinc(mg/L)	0.13	1.21	0.84	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0001	<0.0001	<0.0001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:231
Area: Hingula
Project: Hingula OCP

Monitoring Station	Time Office Water Monthly				Indian Drinking Standards (IS-10500):2012	
	13-Aug-2019	13-Sep-2019	16-Oct-2019	13-Nov-2019	Acceptable	Permissible
Dt. of sampling						
Colour(Hazen)	2	2	3	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	4	1	2	1	5
pH	6.89	7.71	7.23	7.51	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	48	256	332	200	600
Chloride(mg/L)	10	18	54	90	250	1000
Total Hardness(mg/L)	100	220	212	293.4	200	600
Calcium(mg/L)	11.22	51.30	38.4	59.4	75	200
Sulphate(mg/L)	12	168	3.44	2.21	200	400
Nitrate(mg/L)	1.65	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.44	0.83	0.45	<0.30	1	1.5
Total Dissolve Solid(mg/L)	204	478	594	506	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	1.24	<0.04	1.26	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:232
Area: Hingula
Project: Hingula OCP

Monitoring Station	Time Office Water Monthly				Indian Drinking Standards (IS-10500):2012	
	12-Dec-2019	14-Jan-2020	13-Feb-2020	6-Mar-2020	Acceptable	Permissible
Dt. of sampling						
Colour(Hazen)	5	6	7	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	3	2	1	1	5
pH	7.64	6.59	7.52	6.70	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	140	148	68	152	200	600
Chloride(mg/L)	20	24	20	20	250	1000
Total Hardness(mg/L)	178.8	177.4	400.7	160	200	600
Calcium(mg/L)	50.68	51.81	82.57	49.6	75	200
Sulphate(mg/L)	52.83	59.84	197.36	54.54	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.33	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	324	312	524	308	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.22	0.06	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.64	0.54	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:233
Area: Hingula
Project: Hingula OCP

Monitoring Station	Gopalprasal village bore well water				Indian Drinking Standards (IS-10500):2012	
	12-04-2019	15-05-2019	15-06-2019	13-Jul-2019	Acceptable	Permissible
Dt. of sampling	12-04-2019	15-05-2019	15-06-2019	13-Jul-2019	Acceptable	Permissible
Colour(Hazen)	8	6	6	12	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	<1	7	6	1	5
pH	7.42	8.02	6.60	6.56	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	292	12	124	200	600
Chloride(mg/L)	18	54	32	16	250	1000
Total Hardness(mg/L)	100	260	56	108	200	600
Calcium(mg/L)	22.4	44.8	16.0	28.86	75	200
Sulphate(mg/L)	22.0	13.19	5.79	12	200	400
Nitrate(mg/L)	1.14	2.12	29.75	0.05	45	No relaxation
Fluoride(mg/L)	0.43	0.81	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	224	640	288	298	500	2000
Boron(mg/L)	<0.2	0.10	0.104	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	0.42	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	0.45	0.1	0.3
Zinc(mg/L)	0.13	0.12	0.07	2.60	5	15
Lead(mg/L)	0.008	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:234
Area: Hingula
Project: Hingula OCP

Monitoring Station	Gopalprasad Village Bore Well Water				Indian Drinking Standards (IS-10500):2012	
	13-Aug-2019	13-Sep-2019	16-Oct-2019	12-Dec-2019	Acceptable	Permissible
Dt. of sampling	13-Aug-2019	13-Sep-2019	16-Oct-2019	12-Dec-2019	Acceptable	Permissible
Colour(Hazen)	3	3	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	3	3	1	1	5
pH	7.27	8.12	7.52	6.83	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	292	328	228	324	200	600
Chloride(mg/L)	172	54	66	129	250	1000
Total Hardness(mg/L)	456	232	280	325.1	200	600
Calcium(mg/L)	155.49	33.66	62.4	49.05	75	200
Sulphate(mg/L)	82	16	81.25	12.54	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.47	0.91	0.44	0.36	1	1.5
Total Dissolve Solid(mg/L)	1086	648	728	628	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.09	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.12	1.24	0.52	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:235
Area: Hingula
Project: Hingula OCP

Monitoring Station	Gopalprasad Village Bore Well Water			Indian Drinking Standards (IS-10500):2012	
	14-Jan-2020	13-Feb-2020	6-Mar-2020	Acceptable	Permissible
Dt. of sampling	14-Jan-2020	13-Feb-2020	6-Mar-2020	Acceptable	Permissible
Colour(Hazen)	6	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	1	1	1	5
pH	7.83	6.51	6.80	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	164	48	92	200	600
Chloride(mg/L)	52	12	50	250	1000
Total Hardness(mg/L)	229.8	76.9	144	200	600
Calcium(mg/L)	45.33	16.19	46.4	75	200
Sulphate(mg/L)	60.78	18.06	14.78	200	400
Nitrate(mg/L)	<0.5	<0.5	7.29	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	366	104	264	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	1.72	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:236
Area: Hingula
Project: Hingula OCP

Monitoring Station	Kumunda village bore well water				Indian Drinking Standards (IS-10500):2012	
	12-04-2019	15-05-2019	15-06-2019	13-Jul-2019	Acceptable	Permissible
Dt. of sampling	12-04-2019	15-05-2019	15-06-2019	13-Jul-2019	Acceptable	Permissible
Colour(Hazen)	4	9	7	7	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	8	7	1	5
pH	7.34	8.39	6.89	6.99	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	276	288	112	200	600
Chloride(mg/L)	18	52	54	14	250	1000
Total Hardness(mg/L)	100	232	268	84	200	600
Calcium(mg/L)	22.4	46.4	56	20.84	75	200
Sulphate(mg/L)	21.14	12.52	12.28	8	200	400
Nitrate(mg/L)	<0.5	2.54	1.24	<0.5	45	No relaxation
Fluoride(mg/L)	0.35	0.80	0.54	<0.30	1	1.5
Total Dissolve Solid(mg/L)	202	598	654	244	500	2000
Boron(mg/L)	<0.2	0.15	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	0.34	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	0.46	0.1	0.3
Zinc(mg/L)	0.14	0.05	1.69	2.58	5	15
Lead(mg/L)	<0.005	<0.005	0.015	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:237
Area: Hingula
Project: Hingula OCP

Monitoring Station	Kumunda Village Bore Well Water				Indian Drinking Standards (IS-10500):2012	
	13-Aug-2019	13-Sep-2019	16-Oct-2019	13-Nov-2019	Acceptable	Permissible
Dt. of sampling	13-Aug-2019	13-Sep-2019	16-Oct-2019	13-Nov-2019	Acceptable	Permissible
Colour(Hazen)	5	2	5	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	1	2	2	1	5
pH	7.05	8.18	7.23	7.86	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	296	484	344	108	200	600
Chloride(mg/L)	170	52	100	14	250	1000
Total Hardness(mg/L)	464	248	292	264.4	200	600
Calcium(mg/L)	160.3	32.06	56	56.1	75	200
Sulphate(mg/L)	82	14	1.41	196.31	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.42	0.63	<0.30	0.40	1	1.5
Total Dissolve Solid(mg/L)	1094	826	816	460	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.06	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.21	0.29	1.13	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:238
Area: Hingula
Project: Hingula OCP

Monitoring Station	Kumunda Village Bore Well Water				Indian Drinking Standards (IS-10500):2012	
	12-Dec-2019	14-Jan-2020	13-Feb-2020	6-Mar-2020	Acceptable	Permissible
Dt. of sampling	12-Dec-2019	14-Jan-2020	13-Feb-2020	6-Mar-2020	Acceptable	Permissible
Colour(Hazen)	3	3	5	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	2	2	1	5
pH	6.81	7.61	7.83	6.63	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	296	88	96	152	200	600
Chloride(mg/L)	84	14	18	22	250	1000
Total Hardness(mg/L)	280.4	121	145.7	172	200	600
Calcium(mg/L)	58.86	30.76	35.62	48	75	200
Sulphate(mg/L)	<1.0	41.88	39.59	51.80	200	400
Nitrate(mg/L)	<0.5	<0.5	1.95	<0.5	45	No relaxation
Fluoride(mg/L)	0.31	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	398	202	198	310	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:239
Area: Talcher
Project: Talcher U/G

Monitoring Station	Canteen tap-water, GM office				Indian Drinking Standards (IS-10500):2012	
	13-Apr-19	15-May-18	15-Jun-19	14-Jul-19	Acceptable	Permissible
Dt. of sampling	13-Apr-19	15-May-18	15-Jun-19	14-Jul-19	Acceptable	Permissible
Colour(Hazen)	5	4	3	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	6	2	1	1	5
pH	7.67	7.61	7.78	7.93	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	104	100	48	96	200	600
Chloride(mg/L)	22	22	8	18	250	1000
Total Hardness(mg/L)	132	108	60	100	200	600
Calcium(mg/L)	17.6	25.6	12.8	25.65	75	200
Sulphate(mg/L)	15.71	13.19	8.61	21	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.39	0.40	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	286	270	140	256	500	2000
Boron(mg/L)	<0.2	0.10	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.10	<0.1	0.17	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.02	<0.04	<0.04	<0.04	5	15
Lead(mg/L)	0.008	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:240
Area: Talcher
Project: Talcher U/G

Monitoring Station	Canteen Tap-Water, GM Office				Indian Drinking Standards (IS-10500):2012	
	Dt. of Sampling	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable
Colour(Hazen)	7	1	3	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	4	-	1	5
pH	7.21	7.82	7.79	7.41	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	16	84	180	200	600
Chloride(mg/L)	12	20	18	66	250	1000
Total Hardness (Ca CO ₃)(mg/L)	112	88	100	243.8	200	600
Calcium(mg/L)	17.63	24.05	25.6	84.2	75	200
Sulphate(mg/L)	25	59	27.19	15.15	200	400
Nitrate(mg/L)	<0.5	14.64	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.70	0.69	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	226	224	274	442	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.56	0.1	0.3
Zinc(mg/L)	<0.04	0.31	<0.04	2.35	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.02	<0.02	0.018	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:241
Area: Talcher
Project: Talcher U/G

Monitoring Station	Canteen Tap-Water, GM Office			Indian Drinking Standards (IS-10500):2012	
	13-Dec-19	14-Jan-20	6-Mar-20	Acceptable	Permissible
Dt. of Sampling	13-Dec-19	14-Jan-20	6-Mar-20	Acceptable	Permissible
Colour(Hazen)	8	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	1	1	5
pH	7.58	6.56	7.43	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	60	80	88	200	600
Chloride(mg/L)	6	16	18	250	1000
Total Hardness (Ca CO ₃)(mg/L)	65	100.8	224	200	600
Calcium(mg/L)	19.62	27.52	60.8	75	200
Sulphate(mg/L)	18.81	38.44	105.59	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	140	178	358	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:242
Area: Talcher
Project: Talcher U/G

Monitoring Station	Canteen tap-water, Talcher colliery				Indian Drinking Standards (IS-10500):2012	
	Dt. of sampling	13-Apr-19	15-May-19	15-Jun-19	14-Jul-19	Acceptable
Colour(Hazen)	6	8	7	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	8	5	3	1	5
pH	7.57	7.58	7.62	7.99	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	108	92	64	108	200	600
Chloride(mg/L)	22	16	16	18	250	1000
Total Hardness(mg/L)	120	100	96	108	200	600
Calcium(mg/L)	28.8	24	22.4	27.25	75	200
Sulphate(mg/L)	17.0	12.39	21.18	20	200	400
Nitrate(mg/L)	<0.5	1.78	<0.5	1.7	45	No relaxation
Fluoride(mg/L)	0.48	<0.30	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	270	252	234	278	500	2000
Boron(mg/L)	<0.2	0.15	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.04	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.02	<0.04	<0.04	0.05	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:243
Area: Talcher
Project: Talcher U/G

Monitoring Station	Canteen Tap-Water, Talcher Colliery				Indian Drinking Standards (IS-10500):2012	
	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable	Permissible
Dt. of Sampling	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable	Permissible
Colour(Hazen)	9	2	4	13	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	4	2	2	1	5
pH	7.40	8.03	7.74	7.84	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	76	80	72	200	600
Chloride(mg/L)	10	18	18	6	250	1000
Total Hardness (Ca CO ₃)(mg/L)	96	108	96	66.1	200	600
Calcium(mg/L)	16.03	22.44	22.4	18.2	75	200
Sulphate(mg/L)	8	42	29.84	13.53	200	400
Nitrate(mg/L)	1.05	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	0.66	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	188	286	262	120	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	0.14	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.12	<0.04	0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:244
Area: Talcher
Project: Talcher U/G

Monitoring Station	Canteen Tap-Water, Talcher Colliery				Indian Drinking Standards (IS-10500):2012	
	13-Dec-19	14-Jan-20	13-Feb-20	6-Mar-20	Acceptable	Permissible
Dt. of Sampling						
Colour(Hazen)	7	2	6	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	2	2	1	5
pH	7.35	7.28	7.76	7.74	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	80	80	80	200	600
Chloride(mg/L)	6	12	16	18	250	1000
Total Hardness (Ca CO ₃)(mg/L)	69.1	96.8	125.5	216	200	600
Calcium(mg/L)	19.62	27.52	30.76	59.2	75	200
Sulphate(mg/L)	20.0	37.5	39.15	114.27	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	128	180	182	348	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:245
Area: Talcher
Project: Talcher U/G

Monitoring Station	Deulbera Village Well Water	Talabira Village Well Water	Balunga Village Well Water	Canteen Tap-Water, Talcher Colliery	Indian Drinking Standards (IS-10500):2012	
Dt. of Sampling	1-Jan-20	1-Jan-20	1-Jan-20	13-Feb-20	Acceptable	Permissible
Colour(Hazen)	4	9	4	7	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	1	2	1	5
pH	7.25	7.56	7.30	7.78	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	92	100	72	200	600
Chloride(mg/L)	12	12	18	14	250	1000
Total Hardness (Ca CO3)(mg/L)	233.8	100.8	121	113.3	200	600
Calcium(mg/L)	63.14	25.90	30.76	29.14	75	200
Sulphate(mg/L)	175.78	44.53	49.22	38.72	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	<0.30	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	338	180	216	160	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.05	0.14	0.10	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:246
Area: Talcher
Project: Nandira U/G

Monitoring Station	Canteen tap-water, Nandira colliery				Indian Drinking Standards (IS-10500):2012	
	12-Apr-19	15-May-19	15-Jun-19	14-Jul-19	Acceptable	Permissible
Dt. of sampling	12-Apr-19	15-May-19	15-Jun-19	14-Jul-19	Acceptable	Permissible
Colour(Hazen)	7	13	4	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	7	5	3	2	1	5
pH	7.13	7.63	7.85	7.73	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	36	32	44	200	600
Chloride(mg/L)	18	18	20	18	250	1000
Total Hardness(mg/L)	180	164	172	148	200	600
Calcium(mg/L)	40	38.4	36.8	40.08	75	200
Sulphate(mg/L)	108.29	92.75	85.84	112	200	400
Nitrate(mg/L)	<0.05	<0.5	<0.5	<0.05	45	No relaxation
Fluoride(mg/L)	0.21	<0.30	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	354	394	370	368	500	2000
Boron(mg/L)	<0.2	0.125	<0.1	<0.1	0.5	1.0
Iron(mg/L)	0.13	<0.1	<0.1	0.18	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	0.04	0.1	0.3
Zinc(mg/L)	0.54	0.44	0.11	0.16	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:247
Area: Talcher
Project: Nandira U/G

Monitoring Station	Canteen Tap-Water, Nandira Colliery				Indian Drinking Standards (IS-10500):2012	
	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable	Permissible
Dt. of sampling	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable	Permissible
Colour(Hazen)	1	3	3	11	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	2	3	4	1	5
pH	7.64	7.88	7.58	7.55	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	48	56	68	200	600
Chloride(mg/L)	16	18	18	10	250	1000
Total Hardness(mg/L)	196	180	200	206.6	200	600
Calcium(mg/L)	40.08	41.68	48	54.5	75	200
Sulphate(mg/L)	125	124	150.47	160.28	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.32	<0.3	<0.30	1.02	1	1.5
Total Dissolve Solid(mg/L)	412	388	456	356	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.07	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	<0.04	0.07	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:248
Area: Talcher
Project: Nandira U/G

Monitoring Station	Canteen Tap-Water, Nandira Colliery				Indian Drinking Standards (IS-10500):2012	
	13-Dec-19	14-Jan-20	13-Feb-20	6-Mar-20	Acceptable	Permissible
Dt. of sampling	13-Dec-19	14-Jan-20	13-Feb-20	6-Mar-20	Acceptable	Permissible
Colour(Hazen)	8	9	6	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	4	2	3	1	5
pH	6.98	7.36	7.41	7.29	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	60	56	48	84	200	600
Chloride(mg/L)	12	12	16	12	250	1000
Total Hardness(mg/L)	186.9	185.5	190.2	116	200	600
Calcium(mg/L)	47.41	46.95	43.71	35.2	75	200
Sulphate(mg/L)	136.71	129.84	109.23	49.97	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.03	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	378	304	238	210	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.08	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	<0.04	0.20	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:249
Area: Talcher
Project: Nandira U/G

Monitoring Station	Pit top tap water. Nandira colliery				Indian Drinking Standards (IS-10500):2012	
	12-Apr-19	15-May-19	15-Jun-19	14-Jul-19	Acceptable	Permissible
Dt. of sampling						
Colour(Hazen)	5	8	5	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	4	4	1	5
pH	7.49	7.31	7.16	7.44	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	40	36	48	200	600
Chloride(mg/L)	14	20	14	16	250	1000
Total Hardness(mg/L)	72	164	192	152	200	600
Calcium(mg/L)	17.6	38.4	38.4	36.87	75	200
Sulphate(mg/L)	13.71	83.73	84.0	128	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	0.94	45	No relaxation
Fluoride(mg/L)	0.15	<0.30	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	174	342	374	382	500	2000
Boron(mg/L)	<0.2	<0.10	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.04	0.43	0.47	0.12	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:250
Area: Talcher
Project: Nandira U/G

Monitoring Station	Pit Top Tap Water. Nandira Colliery				Indian Drinking Standards (IS-10500):2012	
	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable	Permissible
Dt. of sampling	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable	Permissible
Colour(Hazen)	2	4	1	12	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	3	2	–	1	5
pH	7.59	7.79	7.43	7.58	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	48	52	60	200	600
Chloride(mg/L)	16	16	18	14	250	1000
Total Hardness(mg/L)	204	184	204	198.3	200	600
Calcium(mg/L)	36.87	36.87	46.4	47.9	75	200
Sulphate(mg/L)	121	130	152.34	168.37	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	<0.3	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	422	396	462	380	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.08	0.16	0.1	0.3
Zinc(mg/L)	<0.04	0.39	0.38	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:251
Area: Talcher
Project: Nandira U/G

Monitoring Station	Pit Top Tap Water. Nandira Colliery				Indian Drinking Standards (IS-10500):2012	
	13-Dec-19	14-Jan-20	13-Feb-20	6-Mar-20	Acceptable	Permissible
Dt. of sampling	13-Dec-19	14-Jan-20	13-Feb-20	6-Mar-20	Acceptable	Permissible
Colour(Hazen)	7	3	5	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	1	2	1	5
pH	7.11	7.34	7.08	7.63	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	64	48	64	200	600
Chloride(mg/L)	14	12	14	6	250	1000
Total Hardness(mg/L)	191	185.5	186.2	84	200	600
Calcium(mg/L)	47.41	43.71	43.71	24	75	200
Sulphate(mg/L)	135.07	120.94	108.07	31.84	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	<0.03	<0.30	<0.30	<03	1	1.5
Total Dissolve Solid(mg/L)	382	302	234	148	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.07	<0.04	0.12	<0.04	0.1	0.3
Zinc(mg/L)	1.54	<0.04	<0.04	0.08	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:252
Area: Talcher
Project: Deulbera U/G

Monitoring Station	Deulbera manager office tap water				Indian Drinking Standards (IS-10500):2012	
	13-Apr-19	15-May-19	15-Jun-19	14-Jul-19	Acceptable	Permissible
Dt. of sampling	13-Apr-19	15-May-19	15-Jun-19	14-Jul-19	Acceptable	Permissible
Colour(Hazen)	6	7	5	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	<1	4	3	1	5
pH	7.51	7.83	7.86	7.98	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	56	72	104	200	600
Chloride(mg/L)	18	12	16	20	250	1000
Total Hardness(mg/L)	96	64	124	116	200	600
Calcium(mg/L)	24	16	24	27.25	75	200
Sulphate(mg/L)	22.71	11.85	19.48	34	200	400
Nitrate(mg/L)	0.55	<0.5	<0.5	1.25	45	No relaxation
Fluoride(mg/L)	0.15	0.34	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	206	208	264	304	500	2000
Boron(mg/L)	<0.2	<0.10	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.07	<0.04	0.05	0.13	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:253
Area: Talcher
Project: Deulbera U/G

Monitoring Station	Deulbera Manager Office Tap Water				Indian Drinking Standards (IS-10500):2012	
	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable	Permissible
Dt. of sampling	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable	Permissible
Colour(Hazen)	2	1	1	14	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	1	1	2	1	5
pH	7.97	7.69	7.15	7.62	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	24	176	76	200	600
Chloride(mg/L)	22	12	38	14	250	1000
Total Hardness(mg/L)	160	72	244	206.6	200	600
Calcium(mg/L)	27.25	16.03	65.6	46.2	75	200
Sulphate(mg/L)	42	37	72.50	169.84	200	400
Nitrate(mg/L)	1.44	<0.5	6.51	<0.5	45	No relaxation
Fluoride(mg/L)	<0.30	<0.3	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	356	186	602	384	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.04	0.10	0.1	0.3
Zinc(mg/L)	0.07	0.36	0.11	1.12	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:254
Area: Talcher
Project: Deulbera U/G

Monitoring Station	Deulbera Manager Office Tap Water				Indian Drinking Standards (IS-10500):2012	
	13-Dec-19	14-Jan-20	13-Feb-20	6-Mar-20	Acceptable	Permissible
Dt. of sampling	13-Dec-19	14-Jan-20	13-Feb-20	6-Mar-20	Acceptable	Permissible
Colour(Hazen)	9	4	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	1	2	1	5
pH	7.59	7.73	7.78	7.70	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	76	92	96	96	200	600
Chloride(mg/L)	8	16	16	16	250	1000
Total Hardness(mg/L)	97.5	112.9	113.3	124	200	600
Calcium(mg/L)	24.52	32.38	27.52	35.2	75	200
Sulphate(mg/L)	27.76	36.56	33.66	43.73	200	400
Nitrate(mg/L)	<0.5	1.04	0.99	0.73	45	No relaxation
Fluoride(mg/L)	0.34	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	168	198	174	222	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.05	0.08	<0.04	5	15
Lead(mg/L)	<0.005	0.006	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:255
Area: Talcher
Project: Handhidhua Colliery

Monitoring Station	Pit top tap water				Indian Drinking Standards (IS-10500):2012	
	13-Apr-19	15-May-19	15-Jun-19	14-Jul-19	Acceptable	Permissible
Dt. of sampling	13-Apr-19	15-May-19	15-Jun-19	14-Jul-19	Acceptable	Permissible
Colour(Hazen)	4	1	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	<1	5	5	1	5
pH	7.73	7.81	8.00	7.82	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	76	68	88	200	600
Chloride(mg/L)	20	34	34	36	250	1000
Total Hardness(mg/L)	104	124	148	120	200	600
Calcium(mg/L)	24	33.6	33.6	35.27	75	200
Sulphate(mg/L)	23.0	38.50	41.79	50	200	400
Nitrate(mg/L)	<0.5	9.88	7.56	9.6	45	No relaxation
Fluoride(mg/L)	0.10	0.33	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	224	352	378	326	500	2000
Boron(mg/L)	<0.2	0.10	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.06	<0.1	0.18	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	0.07	0.61	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.05	<0.02	<0.02	<0.02	0.05	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:256
Area: Talcher
Project: Handhidhua Colliery

Monitoring Station	Pit Top Tap Water				Indian Drinking Standards (IS-10500):2012	
	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable	Permissible
Dt. of sampling	14-Aug-19	13-Sep-19	16-Oct-19	15-Nov-19	Acceptable	Permissible
Colour(Hazen)	3	2	5	9	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	<1	2	4	5	1	5
pH	7.90	8.11	7.74	7.79	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	104	92	112	200	600
Chloride(mg/L)	38	36	36	20	250	1000
Total Hardness(mg/L)	184	140	144	124	200	600
Calcium(mg/L)	36.87	36.87	40	31.4	75	200
Sulphate(mg/L)	53	51	57.03	34.85	200	400
Nitrate(mg/L)	9.94	11.95	14.39	<0.5	45	No relaxation
Fluoride(mg/L)	0.31	0.69	<0.30	<0.30	1	1.5
Total Dissolve Solid(mg/L)	428	356	396	220	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.10	<0.1	<0.10	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	0.05	<0.04	0.13	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.02	<0.02	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05

ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:257
Area: Talcher
Project: Handhidhua Colliery

Monitoring Station	Pit Top Tap Water				Indian Drinking Standards (IS-10500):2012	
	13-Dec-19	14-Jan-20	13-Feb-20	6-Mar-20	Acceptable	Permissible
Dt. of sampling	13-Dec-19	14-Jan-20	13-Feb-20	6-Mar-20	Acceptable	Permissible
Colour(Hazen)	4	1	4	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	1	3	1	5
pH	7.79	7.77	7.64	7.56	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	96	68	100	200	600
Chloride(mg/L)	30	32	28	12	250	1000
Total Hardness(mg/L)	130	145.1	137.6	120	200	600
Calcium(mg/L)	42.51	43.71	21.05	33.6	75	200
Sulphate(mg/L)	51.64	54.84	49.27	44.64	200	400
Nitrate(mg/L)	13.76	13.75	13.52	0.88	45	No relaxation
Fluoride(mg/L)	0.35	<0.30	<0.30	<0.3	1	1.5
Total Dissolve Solid(mg/L)	266	282	198	218	500	2000
Boron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.5	1.0
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1	0.3	No relaxation
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1	0.3
Zinc(mg/L)	<0.04	<0.04	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	0.05



PIEZOMETER WATER QUANTITY

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10 TABLES FOR PIEZOMETER QUANTITY DATA

Table:258

Area	Project	Piezometer No	Date of Activity	Ground Water level
Bharatpur	Bharatpur OCP	MTP 09	22-Nov-19	3.96
		MTP 09	29-May-20	7.45
	Chhendipada OCP	MTP 21	26-Nov-19	3.0
		MTP 21	28-May-20	4.0
		MTP 23	26-Nov-19	3.0
		MTP 23	28-May-20	5.6
Hingula	Balram OCP	MTP 10	23-Nov-19	13.68
		MTP 12	23-Nov-19	3.76
		MTP 13	23-Nov-19	10.88
		MTP 17	23-Nov-19	Could not be accessed because of pump fitted by villagers
	Hingula OCP	MTP 14	23-Nov-19	3.65
		MTP 14	28-May-20	5.05
		MTP 15	23-Nov-19	4.55
		MTP 15	30-May-20	4
		MTP 16	23-Nov-19	3.0
		MTP 16	28-May-20	7.0
Jagannath	Jagannath OCP	MTP 04	22-Nov-19	2.41
		MTP 04	29-May-20	7.35
	Ananta OCP	MTP 05	22-Nov-19	29.95
		MTP 05	29-May-20	33
	Bhubaneswari OCP	MTP 07	23-Nov-19	18.12
MTP 08		23-Nov-19	12.0	
Kaniha	Kaniha OCP	MTP 18	23-Nov-19	6.0
		MTP 18	29-May-20	7.05
		MTP 19	23-Nov-19	3.4
		MTP 19	28-May-20	4.60
		MTP 20	23-Nov-19	5.0
		MTP 20	29-May-20	21.40
Lingaraj	Lingaraj OCP	MTP 01	28-Nov-19	13.0
		MTP 01	30-May-20	8
		MTP 06	23-Nov-19	4.0
Talcher	Handhidhua Colliery	MTP 03	30-May-20	3.50
	Nandira Colliery	MTP 11	22-Nov-19	7.5
		MTP 11	29-May-20	8.30



HEAVY METAL QUANTITY IN AIR

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11 TABLES FOR HEAVY METAL QUANTITY DATA

Table:259

<i>Project</i>		<i>Jagannath OCP</i>			<i>Standard</i>
<i>Monitoring Station</i>	<i>Units</i>	<i>Near NBVL Park</i>	<i>Near MDTP</i>	<i>Officer Club JNC</i>	
<i>Coding no</i>		1025	1026	1028	
<i>Date of sampling</i>		03-Sep-2019	03-Sep-2019	03-Sep-2019	
<i>Arsenic (As)</i>	<i>(ng/m³)</i>	<1.0	4.09	4.62	6.0(Annual)
<i>Nickel (Ni)</i>	<i>(ng/m³)</i>	7.17	<1.0	<1.0	20(Annual)
<i>Chromium (Cr)</i>	<i>(µg/m³)</i>	<0.1	<0.1	<0.1	
<i>Cadmium (Cd)</i>	<i>(µg/m³)</i>	<0.1	<0.1	<0.1	

Table:260

<i>Project</i>		<i>Ananta OCP</i>				<i>Standard</i>
<i>Monitoring Station</i>	<i>Units</i>	<i>Near Biswal Chowk</i>	<i>Near West Sump, JNC</i>	<i>BCML Worksh op</i>	<i>Ananta Vihar Colony</i>	
<i>Coding no</i>		1029	1030	1031	1032	
<i>Date of sampling</i>		09-Sep-2019	09-Sep-2019	09-Sep-2019	09-Sep-2019	
<i>Arsenic (As)</i>	<i>(ng/m³)</i>	3.74	<1.0	<1.0	<1.0	6.0(Annual)
<i>Nickel (Ni)</i>	<i>(ng/m³)</i>	7.12	3.96	<1.0	4.16	20(Annual)
<i>Chromium (Cr)</i>	<i>(µg/m³)</i>	<0.1	<0.1	<0.1	<0.1	
<i>Cadmium (Cd)</i>	<i>(µg/m³)</i>	<0.1	<0.1	<0.1	<0.1	

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:261

Project		Bharatpur OCP P					Standard
Monitoring Station	Units	Near ETP/ Workshop	N-W Point of the Mine	Near Civil Maintenance Office of Hingula Area	Near Regional Store	NW Point of Mine	
Coding no		1033	1034	1035	1036	1027	
Date of sampling		07-Sep-2019	07-Sep-2019	07-Sep-2019	07-Sep-2019	03-Sep-2019	
Lead (Pb)	($\mu\text{g}/\text{m}^3$)	0.10	<0.1	<0.1	<0.1	0.22	1.0(24hours)
Arsenic (As)	(ng/m^3)	<1.0	<1.0	<1.0	<1.0	<1.0	6.0(Annual)
Nickel (Ni)	(ng/m^3)	11.23	1.24	<1.0	3.95	8.86	20(Annual)
Chromium (Cr)	($\mu\text{g}/\text{m}^3$)	<0.1	<0.1	<0.1	<0.1	<0.1	
Cadmium (Cd)	($\mu\text{g}/\text{m}^3$)	<0.1	<0.1	<0.1	<0.1	<0.1	

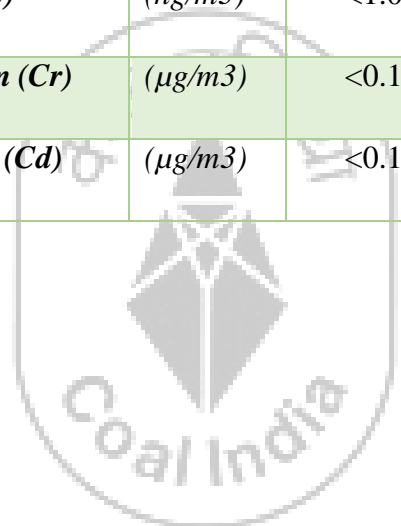
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Table:262

Project		Lingraj OCP				Standard
Monitoring Station	Units	Lingraj GM Office	Near South Side of the Mine	Near C.T. Road (Lingraj to Dera)	Near North Side of Mine	
Coding no		1041	1042	1043	1044	
Date of sampling		02-Sep-2019	02-Sep-2019	02-Sep-2019	02-Sep-2019	
Lead (Pb)	($\mu\text{g}/\text{m}^3$)	<0.1	<0.1	<0.1	<0.1	1.0(24hours)
Arsenic (As)	(ng/m ³)	<1.0	<1.0	<1.0	<1.0	6.0(Annual)
Nickel (Ni)	(ng/m ³)	<1.0	5.20	8.45	2.03	20(Annual)
Chromium (Cr)	($\mu\text{g}/\text{m}^3$)	<0.1	<0.1	<0.1	<0.1	
Cadmium (Cd)	($\mu\text{g}/\text{m}^3$)	<0.1	<0.1	<0.1	<0.1	



Out of NABL

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ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)

Table:263

Project		Kaniha OCP						Standard
Monitoring Station	Units	Project Office	New time office-Near Z-patch	Old Site Office	North East Side of Project Office	Near Jatra Padia, Jarda	South of Proposed Quarry Limit of KOCP	
Coding no		1045	1046	1047	1048	1049	1050	
Date of sampling		10-Sep-2019	10-Sep-2019	10-Sep-2019	10-Sep-2019	10-Sep-2019	10-Sep-2019	
Arsenic (As)	(ng/m ³)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.0(Annual)
Nickel (Ni)	(ng/m ³)	<1.0	<1.0	<1.0	7.74	<1.0	<1.0	20(Annual)
Chromium (Cr)	(µg/m ³)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Cadmium (Cd)	(µg/m ³)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	

Table:264

Project		Kaniha OCP		Standard
Monitoring Station	Units	Near External OB Dump Jamania	West of Mine Quarry	
Coding no		1051	1052	
Date of sampling		11-Sep-2019	11-Sep-2019	
Arsenic (As)	(ng/m ³)	<1.0	<1.0	6.0(Annual)
Nickel (Ni)	(ng/m ³)	<1.0	1.0	20(Annual)
Chromium (Cr)	(µg/m ³)	<0.1	<0.1	
Cadmium (Cd)	(µg/m ³)	<0.1	<0.1	

Out of NABL

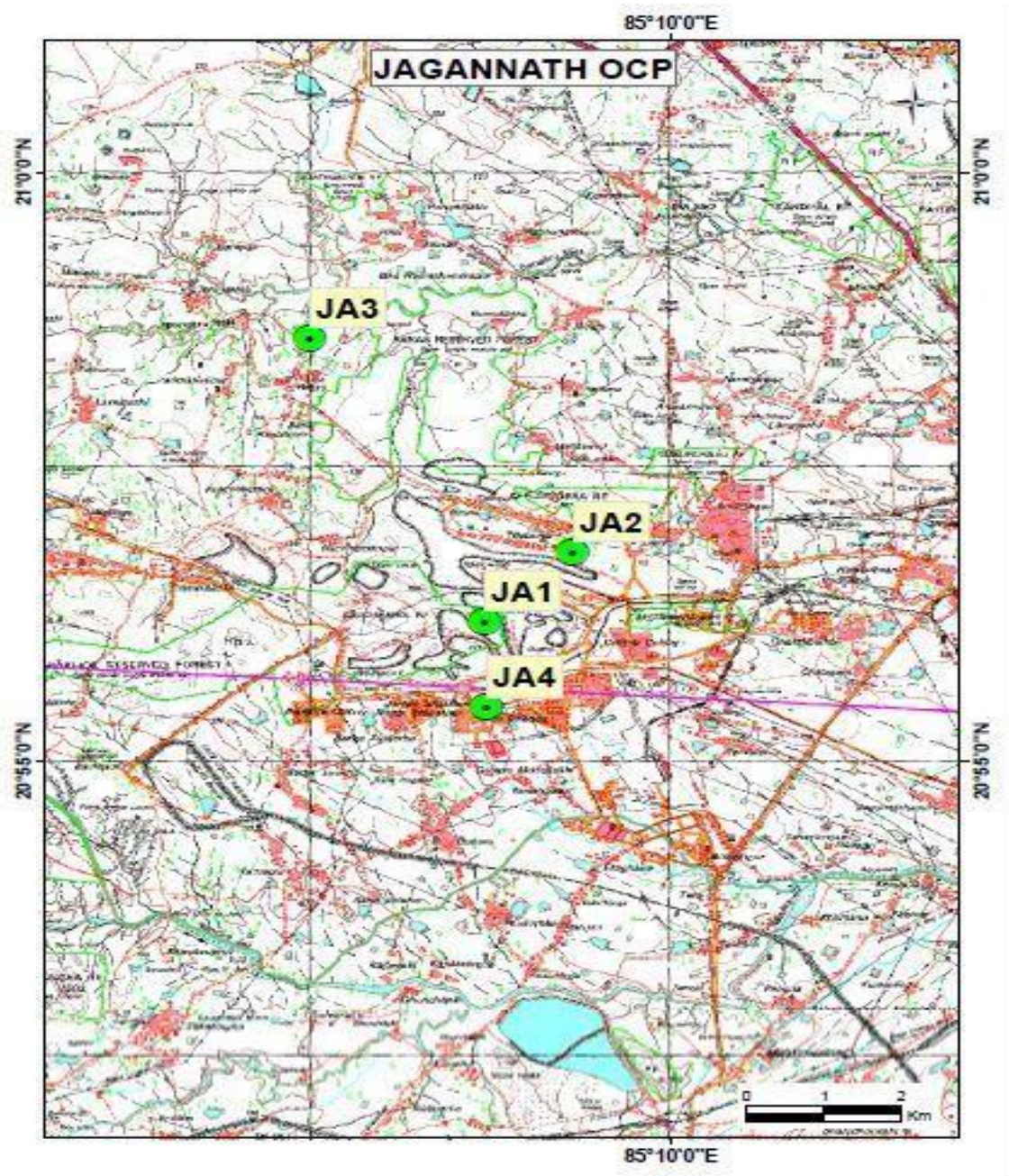
MAPS AND COORDINATES



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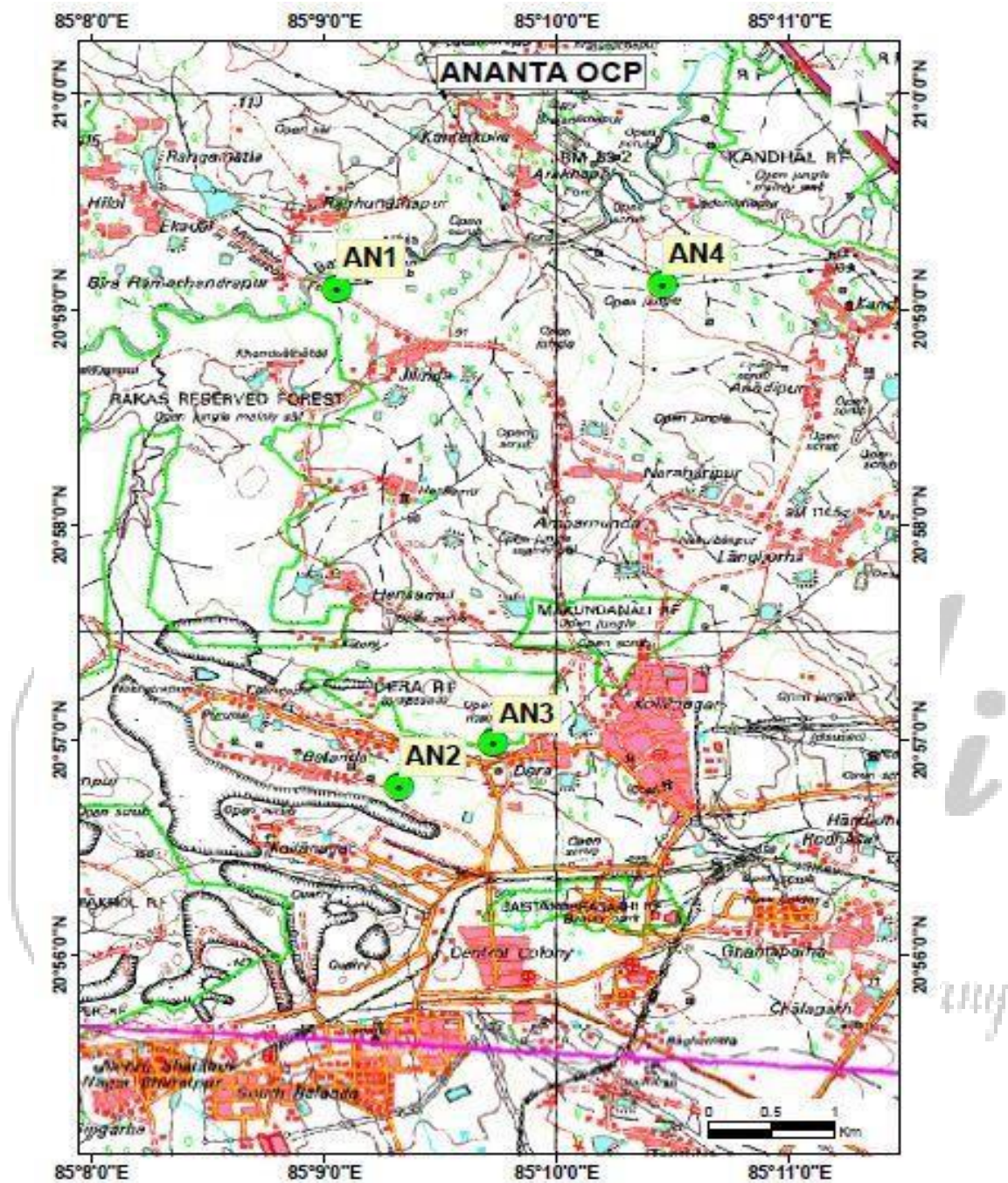
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Name of the Project	Name of the stations	PID	Latitude	Longitude
Jagannath OCP	Near NBVL Park	JA1	20.936550 N	85.145083 E
	Near MDTP	JA2	20.946350 N	85.155350 E
	NW point of Mine	JA3	20.976533 N	85.124883 E
	Officers Club JC	JA4	20.924367 N	85.145350 E

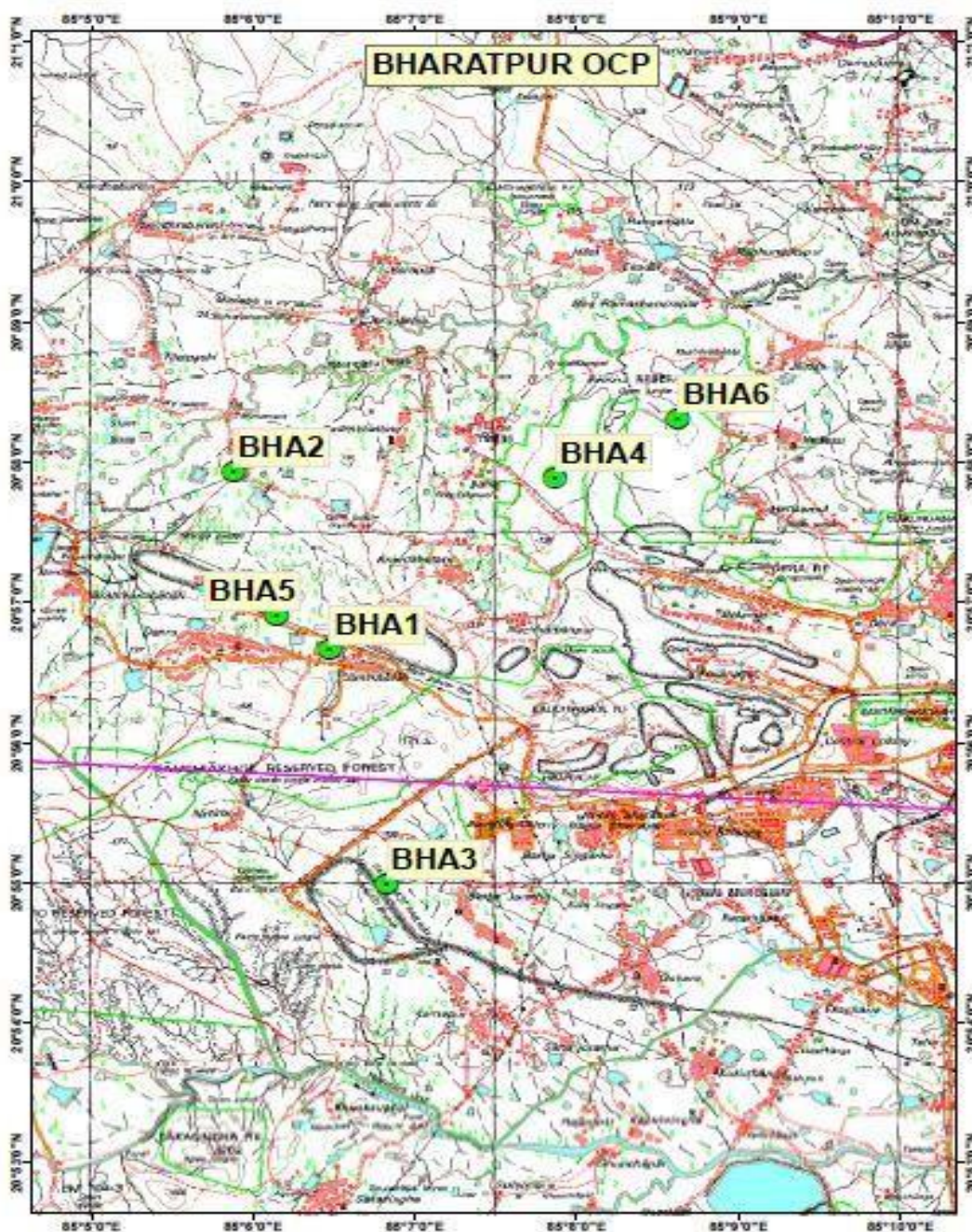
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Name of the Project	Name of the stations	PID	Latitude	Longitude
Ananta OCP	B.C.M.L Work shop	AN1	20.984910 N	85.150873 E
	Near westsump (JNC)	AN2	20.946363 N	85.155348 E
	Near Biswal Chakk	AN3	20.949735 N	85.162083 E
	Ananta Vihar Colony	AN4	20.985275 N	85.174236 E

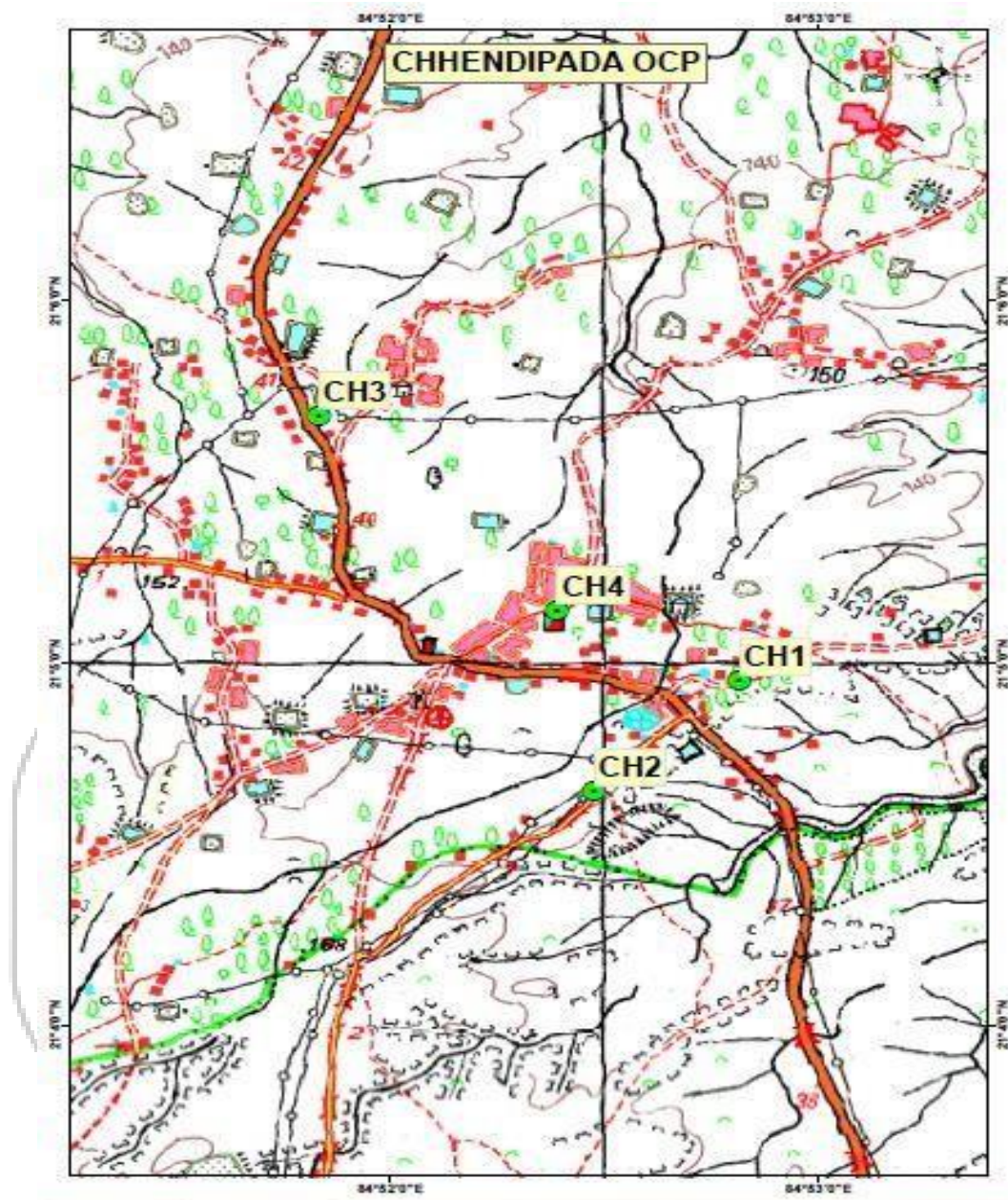
ANNUAL ENVIRONMENTAL MONITORING REPORT, TALCHER C/F (MCL)



Name of the Project	Name of the stations	PID	Latitude	Longitude
Bharatpur OCP	Near ETP/Workshop	BHA1	20.944253 N	85.107819 E
	N-W point of the mine	BHA2	20.965408 N	85.097906 E
	Near Civil maintenance office of Hingula Area	BHA3	20.916447 N	85.113683 E
	Near Regional store	BHA4	20.964811 N	85.131083 E
	Project office Balaram OCP	BHA5	20.948286 N	85.102389 E
	Near View Point, Jagannath OCP	BHA6	20.971825 N	85.143753 E

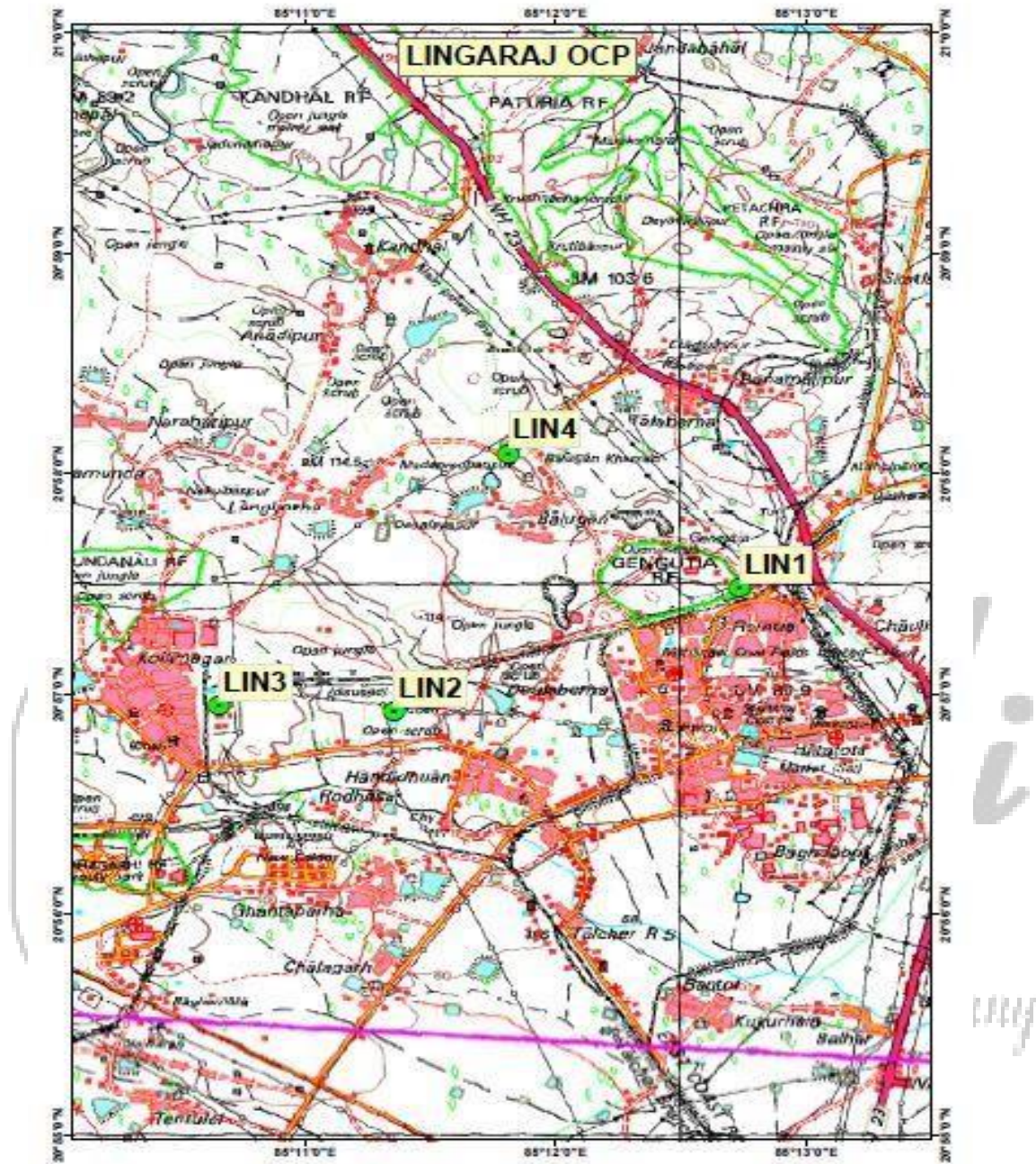
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Name of the Project	Name of the stations	PID	Latitude	Longitude
Chhendipada OCP	Near site office (Chhendipada)	CH1	21.082474 N	84.880219 E
	Near fire station (Chhendipada)	CH2	21.077432 N	84.874569 E
	Mamuraia sahi (Chhendipada)	CH3	21.094714 N	84.863862 E
	Dolamandap chhak (Chhendipada)	CH4	21.085759 N	84.873128 E

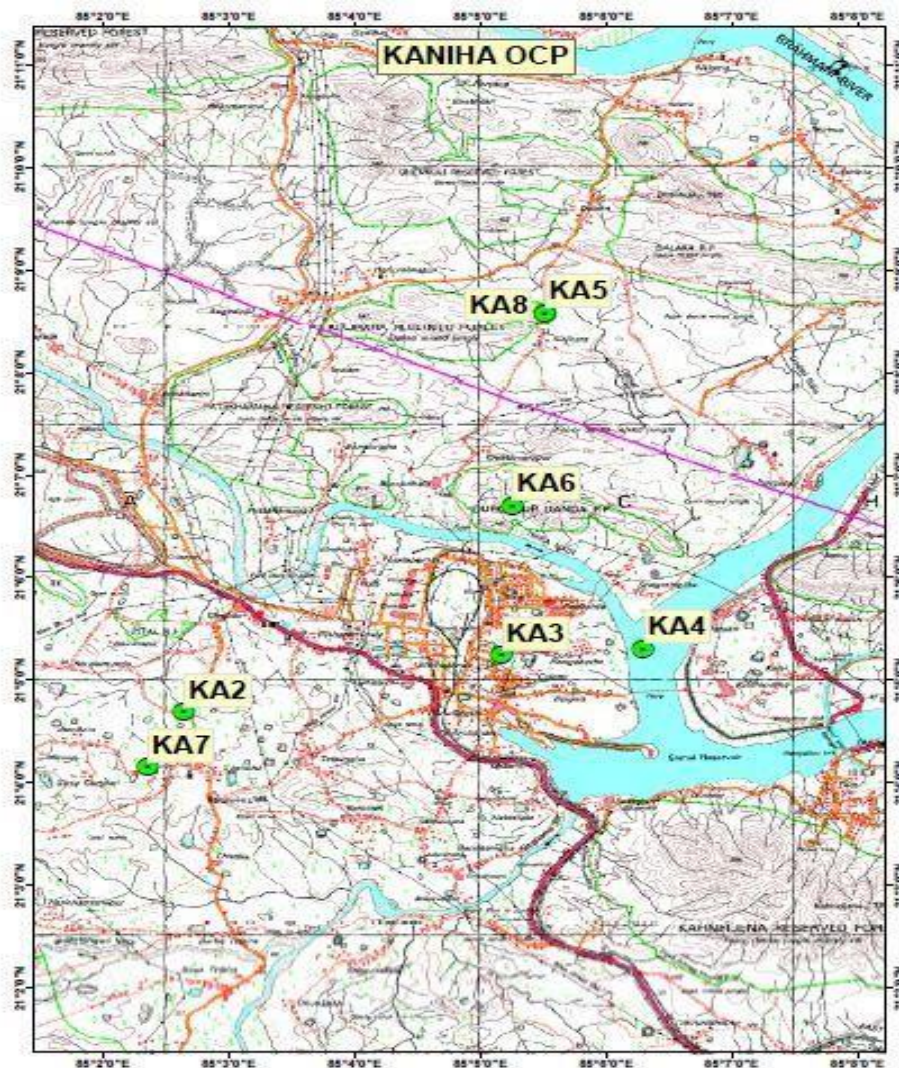
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Name of the Project	Name of the stations	PID	Latitude	Longitude
Lingaraj OCP	Lingraj CGM Office (Lingraj)	LIN1	20.957957 N	85.212194 E
	Near South side of the mine	LIN2	20.948635 N	85.189204 E
	Near C.T.road (Lingaraj to Dera) (Lingraj)	LIN3	20.949060 N	85.177543 E
	Near North Side of mine	LIN4	20.968183 N	85.196815 E

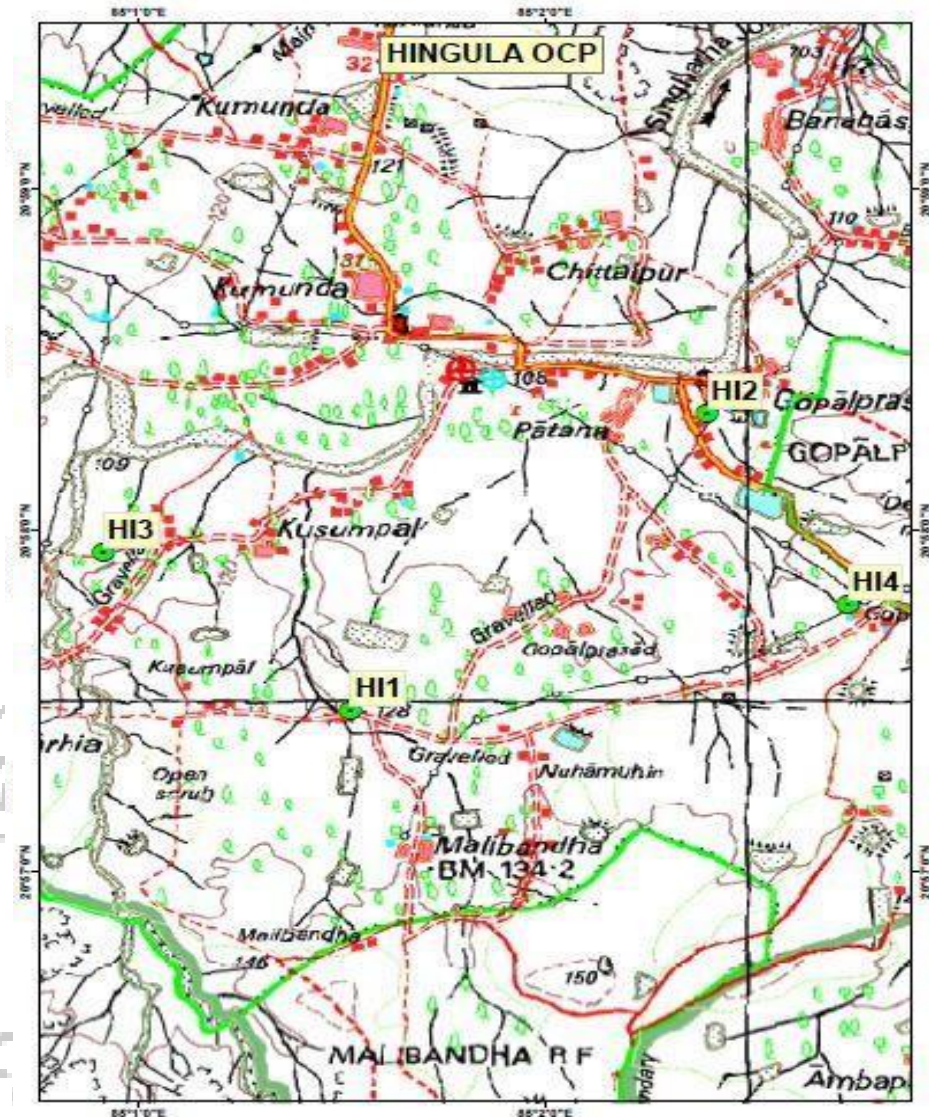
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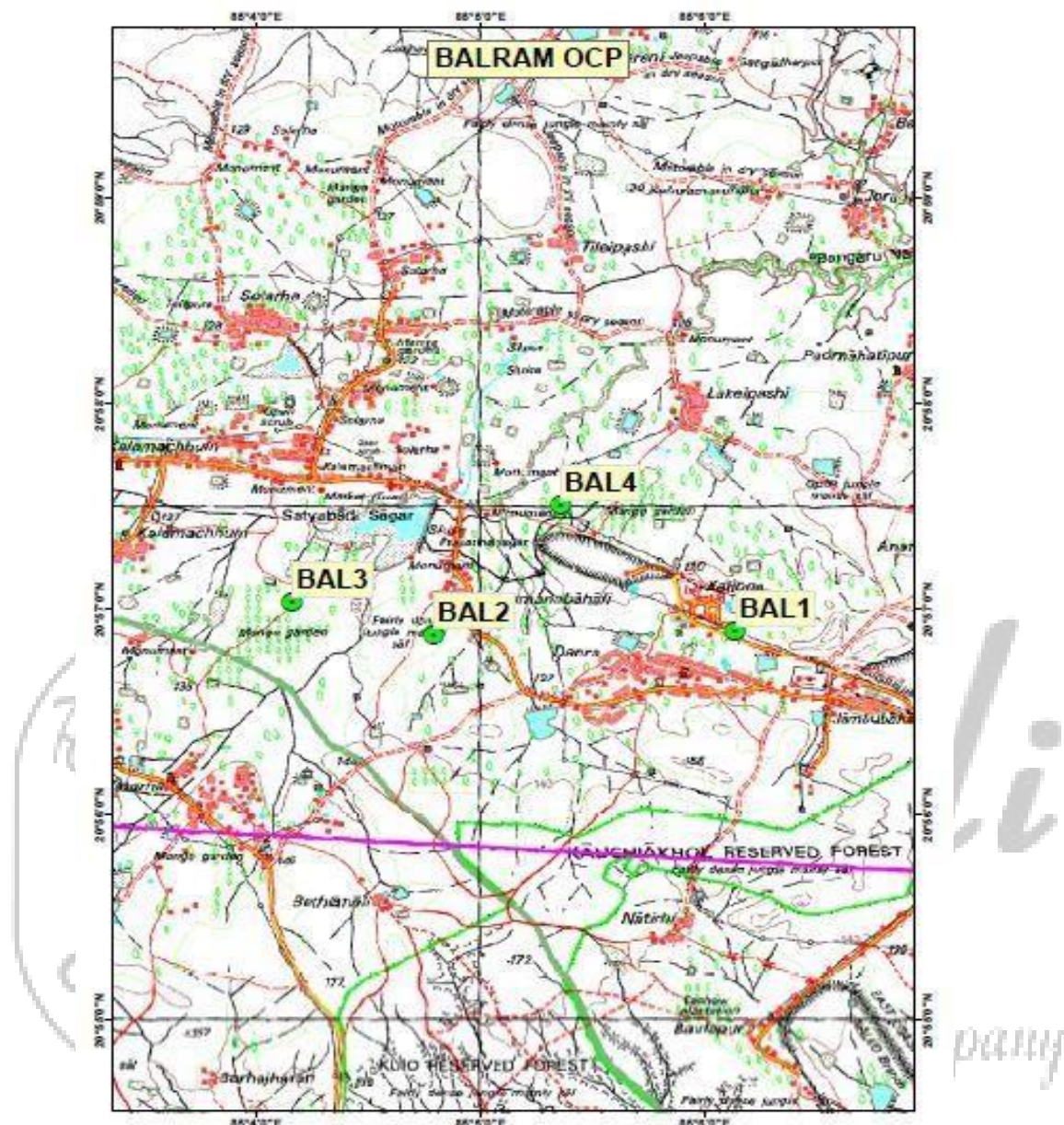
Name of the Project	Name of the stations	PID	Latitude	Longitude
Kaniha OCP	Project office (Kaniha)	KA1	20.143536 N	85.101694 E
	New Time office near Z patch/ Near Z-patch (Kaniha)	KA2	21.139436 N	85.043997 E
	Old Site Office	KA3	21.153517 N	85.086122 E
	North East side of project office	KA4	21.156750 N	85.104906 E
	Near Jatra Padiqa Jarada	KA5	21.143125 N	85.091828 E
	South of proposed quarry limit of KOCP	KA6	21.111667 N	85.087567 E
	Near External OB Dump Jamania	KA7	21.125461 N	85.075461 E
	West of mine quarry	KA8	21.142897 N	85.091828 E

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Name of the Project	Name of the stations	PID	Latitude	Longitude
Hingula OCP	Near Project Office, Hingula OCP	HI1	20.957828 N	85.025319 E
	Hingula Temple premises	HI2	20.972383 N	85.039933 E
	South west side of the mine	HI3	20.965553 N	85.015183 E
	Near Time office	HI4	20.963039 N	85.045714 E

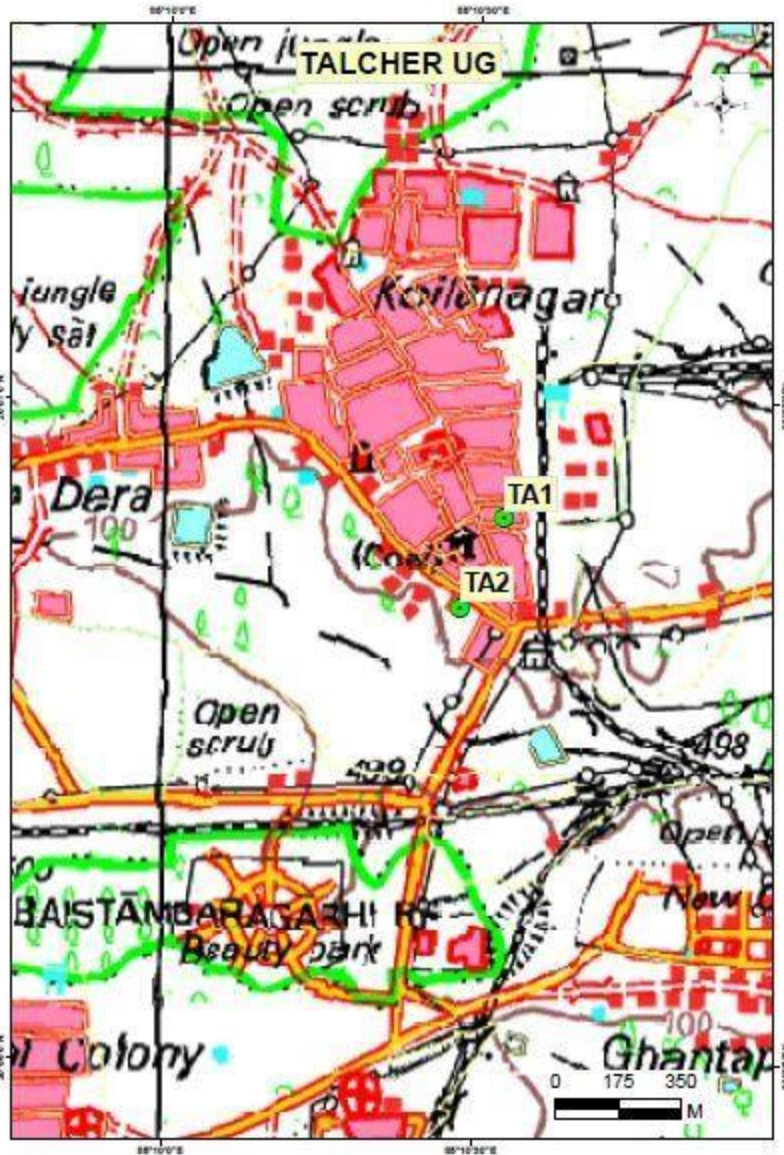
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Name of the Project	Name of the stations	PID	Latitude	Longitude
Balram OCP	Near Project Office, Balram OCP	BAL1	20.948144 N	85.102217 E
	Backfilled area near dozer shed	BAL2	20.947939 N	85.079819 E
	South west of the mine	BAL3	20.950525 N	85.069286 E
	Pump House near Outsourcing Working Patch & Coal Transport Road	BAL4	20.958425 N	85.089222 E

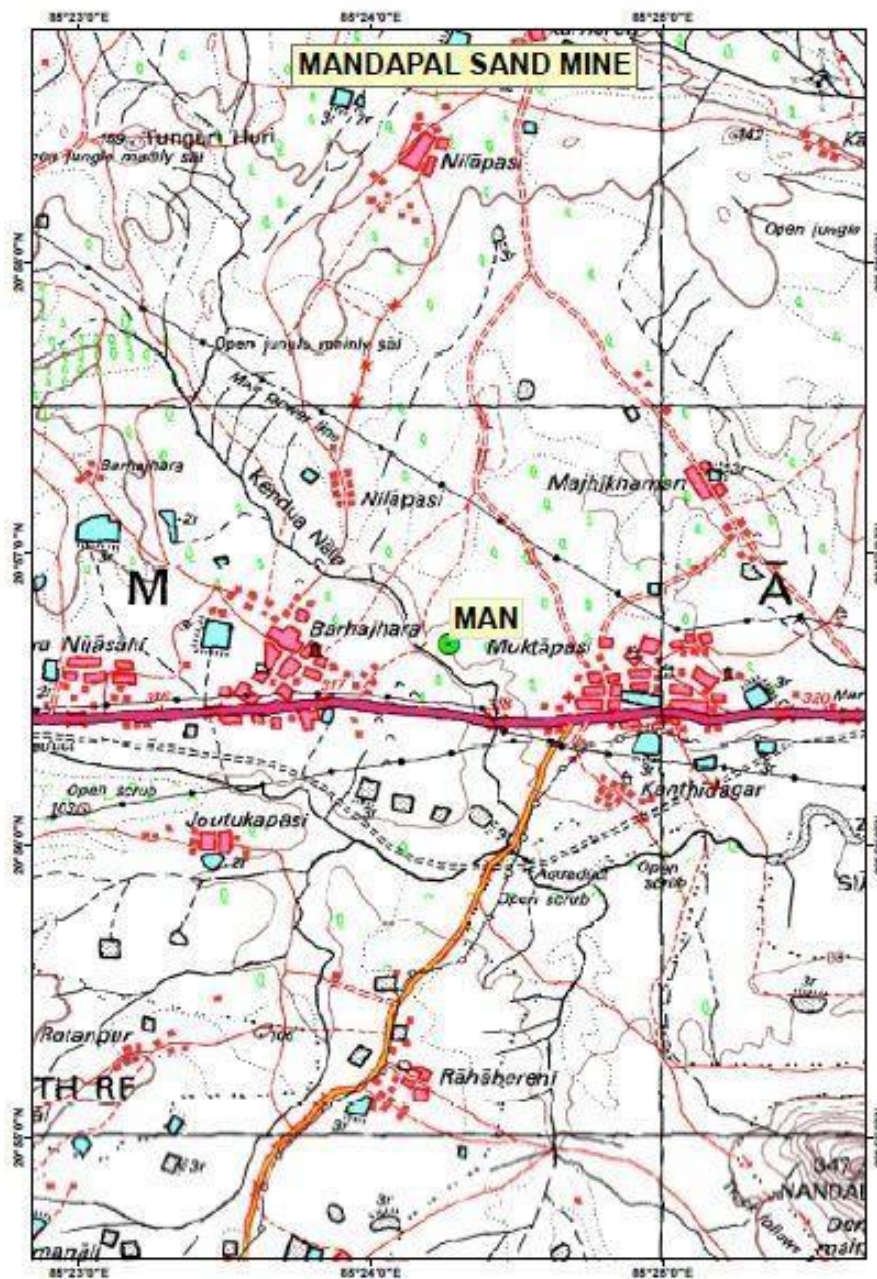
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Name of the Project	Name of the stations	PID	Latitude	Longitude
Talcher UG	GM Office (Talcher)	TA1	20.947087 N	85.175763 E
	Near Canteen Talcher Colliery (Talcher)	TA2	20.944818 N	85.174619 E

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Name of the Project	Name of the stations	PID	Latitude	Longitude
Mandapal Sand Mine	Near Near Mandapal Hospital (Talcher)	MAN	21.580000 N	85.404444 E

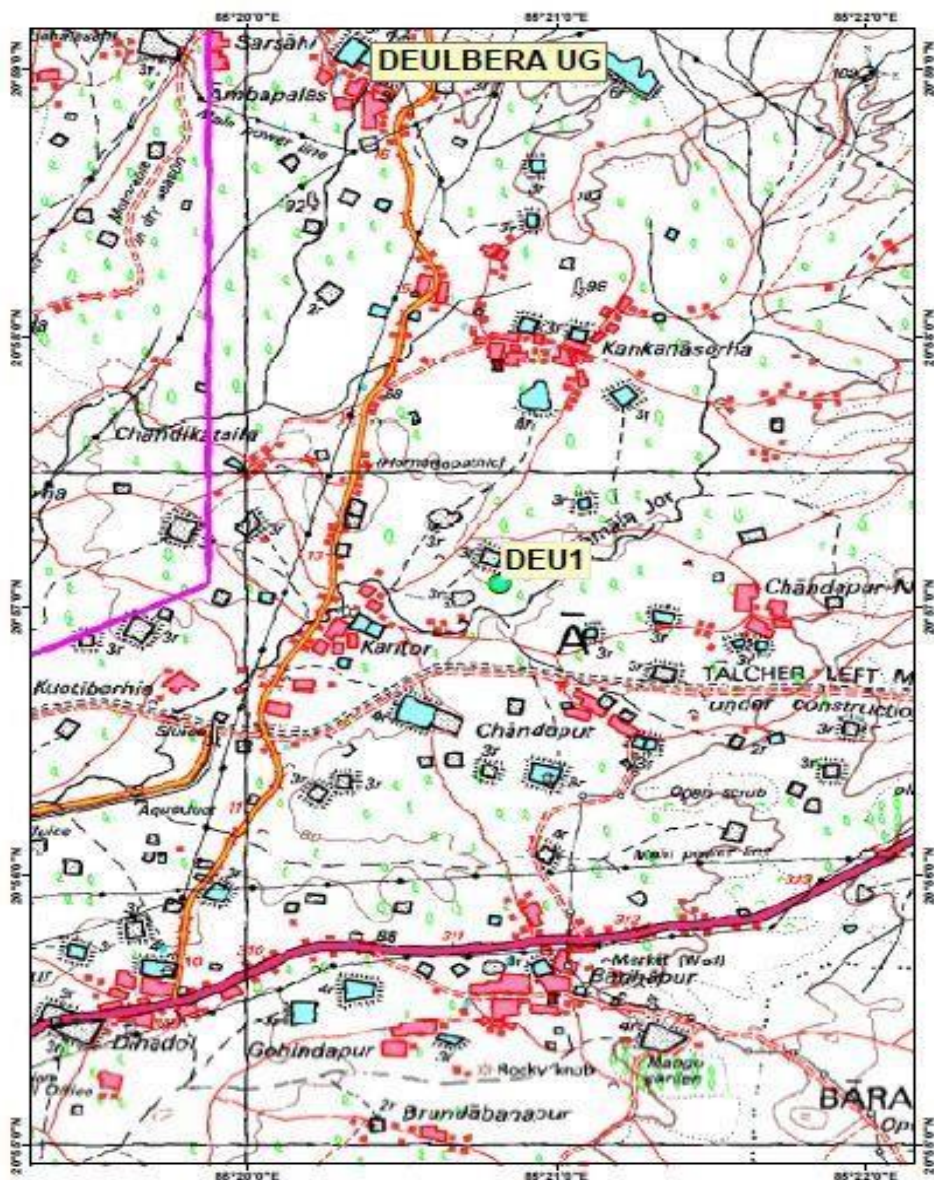
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Name of the Project	Name of the stations	PID	Latitude	Longitude
Nandira UG	Project Office (Nandira)	NAN1	20.927950 N	85.122780 E
	Sub Station (Nandira)	NAN2	20.927890 N	85.122640 E
	Transit Camp	NAN3	21.542222 N	85.218333 E
	Nandira Colony	NAN4	20.923780 N	85.126240 E

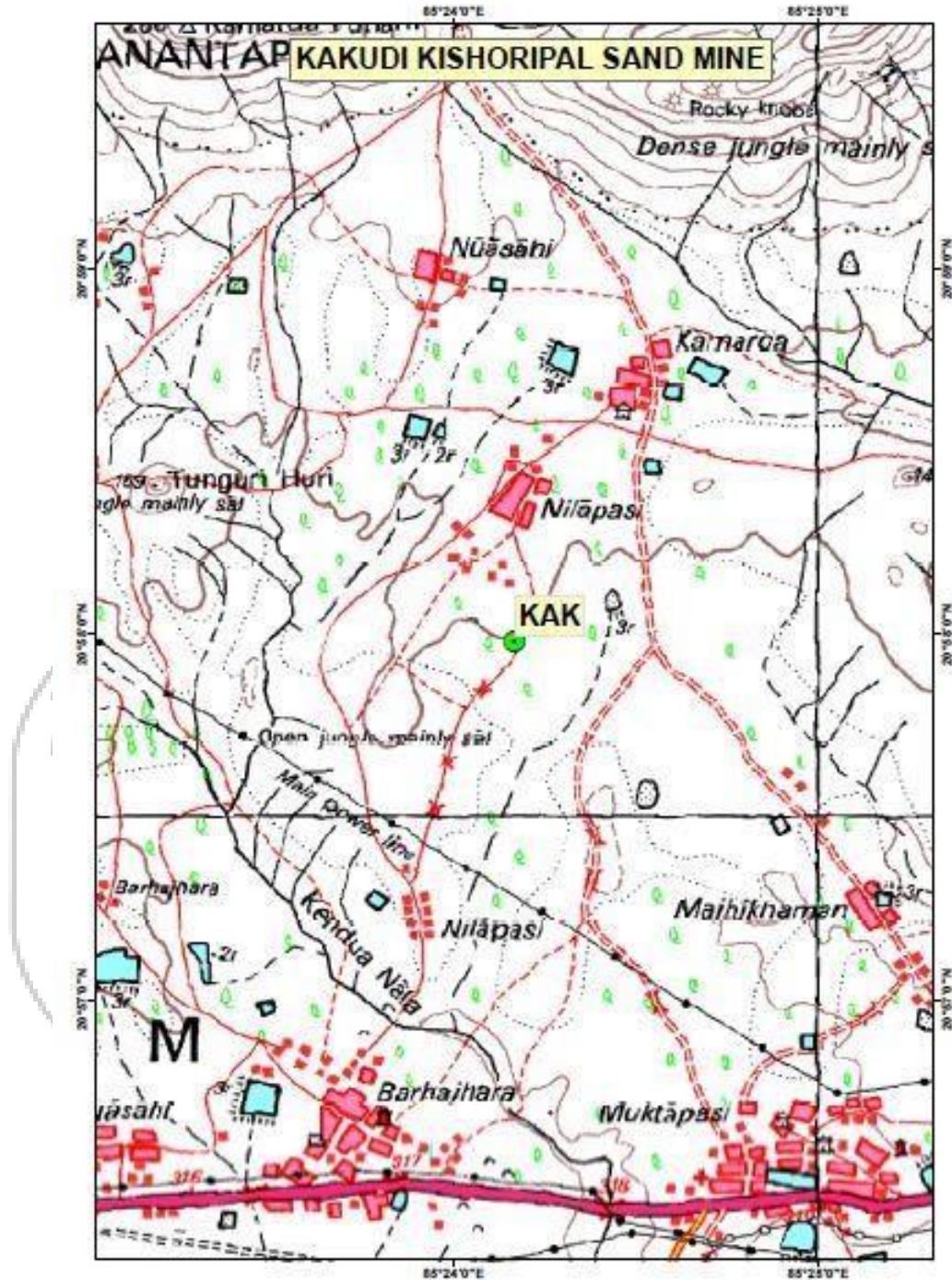
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Name of the Project	Name of the stations	PID	Latitude	Longitude
Deulbera UG	Manager's Office	DEU1	21.587222 N	85.346944 E

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Name of the Project	Name of the stations	PID	Latitude	Longitude
Kakudi Kishoripal Sand Mine	Near Kishoripal Village	KAK	21.617500 N	85.402778 E

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12 REFERENCE

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4. India Meteorological Department, Government of India.



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