

Job No.750001

**Annual Environmental Monitoring Report
of
Ib Valley Coalfields
For
2016-17**



Mahanadi Coalfields Limited

(A Subsidiary of Coal India Ltd.)

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[Assistance from Environment Division, CMPDI (HQs), Ranchi]

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INTRODUCTION

IB VALLEY COALFIELD

Ib-valley coalfield is located between latitudes 21°31' & 22°14'N and longitudes 83°32' & 84°10'E within the districts of Sundergarh, Jharsuguda and Sambalpur of Orissa state and covers an area of about 1460 Sq. Kms.

The coalfield is named after the river Ib, a tributary of river Mahanadi, which passes through the eastern fringe of the coalfield.

The Ib Valley coalfield forms a half elliptical basin. It is closed towards southeast and open towards north-west. The basin has normal contact with the metamorphics in the north-western, northern, north-eastern, eastern and southeastern part. It has a faulted contact with the metamorphics in the south-western boundary where younger formations viz. Raniganj and Barren Measure occur in juxtaposition with the metamorphic. The coalfield is contiguous to Mand-Raigarh coalfield of Chhatisgarh. The boundary between Mand-Raigarh and Ib Valley coalfield is administrative boundary of Orissa and Chhatisgarh states.

Barakar and Karharbari are the two potential coal bearing formations in Ib Valley coalfield, Barakar formation is the store house of majority of coal seams. The potential coal bearing area (excluding Kamthis, non coal bearing Lower Karharbari Formation) of the coalfield is about 300 sq. km stretching along the south, east and northern periphery of the coalfield.

The coal seams have been explored in detail along the southern part of the coalfield as well as the eastern part and to a great extent in the northern periphery of the basin. Thus occurrence of coal seams in this part of the coalfield is well established.

HISTORY OF EXPLORATION

This coalfield was discovered in the latter half of the 19th century and was explored in 1871-75 by V. Baul of Geological Survey of India. Some work was also carried out by W. King during 1884-86.

Systematic geological mapping was carried out during 1954-55 by S/S D.R.S. Mehta & Anandalwar. S/S B. C. Pande and S. N. Chakravorty were involved in 1961-63 for detailed mapping of southern part of the coalfield.

The dip side area in the existing Rampur colliery was undertaken for field exploration to establish various parameters of coal seams/sections by the Dept. of Mining & Geology, Govt. of Orissa at the instance of CMPDI in December, 1977.

While proving Rampur and Ib horizons the overlying Lajkura horizon was intersected in certain boreholes in the Rampur lease hold area. The exploration thereafter was intensified in the south eastern part of the coalfield (i. e Rampur tract).

However, in the west-central & north-western part (i.e Hingir and Gopalpur tract) regional exploration by GSI was started in 1980. Subsequently detailed exploration in Gopalpur tract was commenced in 1984 and is continuing at present.

Geological blocks like Basundhara, Kulda, Garjanbahal, Chaturdhara, Manoharpur, Meenaskhi, Siarmal and Siarmal extension have been explored in detail and geological reports have been formulated. Detailed exploration in Siarmal west extension (Banapatra) has been completed and GR is under preparation. In Rampia geological block, scout drilling has been done to ascertain occurrence of coal and economic viability. Jamkani geological blocks has also been explored by MECL. Now detailed exploration in dip side of Kulda/ Garjanbahal and Prajapada block (dip side of Siarmal and Siarmal west extn. block) is under progress by CMPDI. Similarly, Madhupur block is under exploration by DG (O).

HISTORY OF COAL MINING

The first underground mine (Hingir-Rampur Colliery) was started in 1909 by M/S. Hingir Rampur Coal Co. Ltd. on the southern side of main Howrah-Mumbai railway line. In 1940 M/S. Raisaheb Chandanmull Indra Kumar Pvt. Ltd. opened Ib River Colliery (Orient mine no.1). Subsequently Orient mine no.2 was started in 1954 by M/s. Birla Brothers Ltd. Workings in Ib seam in Orient lease-hold was started in 1962 in the present area of Orient mine no.4 which was discontinued after some time.

Orient mine no.3 in Lajkura coal horizon was started in 1968. Workings in Orient mine no.4 in Rampur horizon was started in 1975. Hirakhand Bundia incline was started in 1980 and commenced coal production from 1982.

Subsequent to detailed exploration by Directorate of Mining & Geology, Govt. of Orissa, Lajkura OC (1.0 Mty) and Belpahar OC (2.0 Mty) were started in 1983. Lajkura OC is working Lajkura seam in the Orient leasehold area. Belpahar OC is working Ib & Rampur horizons in geological blocks Belpahar-I & II.

Lilari OC (0.8 Mty) was planned and sanctioned by SECL to work Lajkura seam in a part of Belpahar geological block-III, to the northern side of Lilari nallah, a tributary of Ib river. Subsequent to exploration on the dip side of Rampur block, Samaleswari OC (3 Mty) was planned which came into operation w.e.f. 1989. Lakhanpur OC (5 Mty) came into operation in 1993 to exploit Lajkura seam to the southern side of Lilari nallah in geological block Belpahar-III.

In the souther part of IB Valley Coalfield five opencast and five underground mines are present out of which Lakhanpur OCP expansion (15 Mty), Belpahar (3.5 Mty), Lilari OCP (0.80 Mty) all are sanctioned phase wise from 1987 to 2008. All the above three mines are producing 28 Mty now. Two mines Lajkura (6 Mty) and Samleswari OCP (12 Mty) sanctioned in between 1983 and 2011 and now producing at together 16.50 Mty. All the above project is under Rampur track Out of five underground mines four mines are in operation and producing all together 0.90 Mty.

Gopalpur Tract was a Greenfield area till 1996. After formation of MCL and on the basis of detailed exploration, different mines were planned in the Gopalpur Tract as under:

1. Basundhara (East) OCP – 0.60 Mty June'89
2. Basundhara (W) OCP-2.40 Mty/ 7.0 Mty Nov.'89
3. Kulda OCP -10.0 Mty March'95
4. Garjanbahal OCP – 10.0 Mty March'98
5. Siarmal OCP-15.0 Mty March2008 (under revision for higher capacity)

Basundhara (E) OCP was opened in 1996-97 and exhausted in 2005-06.

Basundhara (W) OCP, 2.40 Mty was sanctioned in 2003 the mine has been expanded after sanctioned in March 2011.

Kulda OCP (10 Mty) and there after Kulda expansion OCP of (15 mty) was sanctioned in January 2015 and June 2015 respectively Kulda OCP is now producing 8.0 Mty Garjanbahal OCP (10 Mty) has been sanctioned in November 2014 by CIL, which is yet to be in operation. PR of Basundhara west extension OCP (Mty) was formulated and sanctioned in May 2014 in the properties of Chatundhara geological block. All the above project is under Gopalpur track.

LOCATION

Ib-valley coalfield is a part of large synclinal Gondwana basin of Raigarh Himgir and Chhattisgarh coalfields and constitutes the south-eastern extension of the Sone-Mahanadi master basin bounded by latitudes: 21°30'00" to 22°06'00" N and longitudes: 83°32'00" to 84°10'00"E.

It is situated in the districts of Sambalpur, Jharsuguda and Sundargarh within the state of Orissa. Major part of the coalfield, including the present coal mining belt, falls in Jharsuguda district. The almost virgin Gopalpur tract in north and North West lies in Sundargarh district.

The headquarters of Mahanadi Coalfields Limited is located at Burla near Sambalpur town, Orissa.

COMMUNICATION

The south-eastern part of the coalfield (i.e. Rampur tract) where all the present coal mining activities are confined is situated alongside the main Howrah-Mumbai railway line of SEC Railways. The nearest rail head on this railway line is Brajrajnagar, which is situated at the focal point of the operative mines. The district headquarters township of Jharsuguda is about 14 kms away from the coalfield and is also connected by road.

The central and north-western part (i.e. Gopalpur tract) is communicable by all weathered black top road connecting Sundargarh of Orissa with Raigarh in Chhattisgarh. The distance from Sundargarh is about 42 km. The nearest railhead is Himgir, about 30 to 35 km connected by black top road.

A railway line connecting Talcher with Sambalpur/Jharsuguda has been constructed and commissioned in Aug.'1998.

TOPOGRAPHY AND DRAINAGE

The coalfield has been divided in three sectors.

The coalfield area is represented by low irregular upland of undulating topography and broadly can be divided into three different units:

- i) Rugged topography -represented by hard metamorphic rocks all along the boundaries of the coalfield in the north, east and south.
- ii) Low irregular plain country of rolling topography -represented by the rocks of Barakar formations.
- iii) Hilly rough terrain -represented by the rocks of Kamthi formation including Barren measures and Raniganj formations.

The altitude of the coalfield varies widely from less than 200m to more than 600m above MSL (mean sea level). The general altitude however, varies between 200m and 350m. A series of low parallel ridges of sandstone interspaced with valleys of shales & coal seams are the characteristics of coal bearing Barakar formations.

The drainage system of the coalfield is controlled by Ib river, a tributary of river Mahanadi. Ib river flows from north to south and discharges in Hirakud reservoir in the south-eastern fringe of the coalfield beyond the mining areas. The Bhedan river, Lilari, Basundhara, Lamtibahal, Chelduthi and Chaturdhara nallas discharge into the river Ib and provide drainage system within the coalfield.

CLIMATE AND RAINFALL

The area experiences typical warm to hot tropical climate with temperature varying from 9°C to 49°C. Average humidity varies from 26% to 83%. Generally the humidity is highest in August and least in March. Annual mean wind velocity is 7 Km/hr. with maximum speed of more than 20 Km/hr.

Average rainfall per annum is 1200 mm. Maximum rainfall during a year is 2200 mm and minimum is 700 mm as per the records available.

LIST OF ENVIRONMENTAL QUALITY MONITORING STATIONS

Table 1: List of Air Quality Monitoring Stations

Sl.No	Area	OCP/Project	Name of the station
1	ib valley	Samaleswari	Roof of New Project office
2			Kudopali Village
3			Lajkura Village
4			Near Chingriguda Village(13 P,NAAQS)
5			Inside Sainik Mining Camp Premises
6			Near Re-Joice Club in Hilltop Colony
7		Lajkura	Near Project office
8			Madhuban nagar
9			Near Adarsh nagar colony \$
10			Chhualiberna village
11	Lakhanpur	Lilari	Near Magazine house
12			Near Old coal stock yard
13			Near Lilari pump house #(Near OB dump no.1 of Lakhanpur OCP) Only reported
14		Lakhanpur	Near OB Dump no.1 #
15			West side of Quarry no.4
16			East of coal stock no.10
17			Ubuda village(13 P,NAAQS)
18			Tingismal village(13 P,NAAQS)
19			North west of quarry 1
20		Belpahar	Near MDTP
21			Bandbahal township/BITP
22			Near Village Darlipali
23			Near Quarry 2 View Point
24	Basundhara	Kulda	Farakbahal village
25			Balinga Market
26			Near Tumulia
27			Karlikachhar
28			Kushra
29		Basundhara(W)	Khamarpara (13 P,NAAQS)
30			Tiklipara
31			Kanika Railway siding
32			Near CHP
33			Near Embankment
34	Orient	Orient	Orient mine no.2
35			Orient mine no. 3
36			Orient mine no. 4
37			HBI mine
38			HRC mine
39			Rampur colony
40			Near Adarsh nagar colony (only reported of Lajkura Ocp)

Table 2: List of Noise Level Monitoring Stations

Sl.No	Area	OCP/Project	Name of the station	
1	Ib valley	Samaleswari	Roof of New Project office	
2			Kudopali Village	
3			Lajkura Village	
4			Near Chingriguda Village *	
5			Inside Sainik Mining Camp Premises	
6			Near Re-Joice Club in Hilltop Colony	
7		Lajkura	Near Project office	
8			Madhuban nagar	
9			Near Adarsh nagar colony \$	
10			Chhualiberna	
11	Lakhanpur	Lilari	Near Magazine house	
12			Near Old coal stock yard	
13		Lakhanpur	Near OB Dump no.1 #	
14			West side of Quarry no.4	
15			East of coal stock no.10	
16			Ubuda village	
17			Tingismal village	
18			North west of quarry 1	
19		Belpahar	Near MDTP	
20			Bandbahal township/BIT	
21			Near Village Darlipali	
22			Near Quarry-2 View Point	
23		Basundhara	Kulda	Farakbahal village
24				Near Balinga Market
25	Basundhara(W)		Khamarpara	
26			Tiklipara	
27			Near Embankment	
28			Near CHP	
29	Orient	Orient	Orient mine no.2	
30			Orient mine no. 3	
31			Orient mine no. 4	
32			HBI mine	
33			HRC mine	
34			Rampur colony	
35			Near Adarsh nagar colony	

Table 3: List of Effluent (22 Parameter) Quality Monitoring Stations

SI.No	Area	OCP	NAME OF STATIONS
1	IB-valley	Samaleswari	Outlet from Sedimentation pond
2		Lajkura	Mine discharge water
3	Lakhanpur	Liliari	Outlet from O&G trap
4		Lakhanpur	Outlet from Sedimentation pond
5		Belpahar	Outlet from Sedimentation pond
6	Basundhara	Kulda	Final discharge Point of Mine
7		Basundhara	Outlet from settling pond, near Kanika Rly.sdg.
8	Orient	Orient	Mine disch. of Mine no.2
9			Mine disch. of Mine no.3
10			Mine disch. of Mine no.4
11			Mine disch. of HBI mine
12			Mine disch. of HRC mine

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

Sl.No	Area	OCP	NAME OF STATIONS
1	IB-valley	Samaleswari	Outlet from sedimentation tank (MDTP)
2			Oil & Grease trap Outlet
3		Lajkura	Oil & Grease trap Outlet
4			100m u/s of point of confluence of natural mine water drain to Baghmara Nala flowing on north side
5		Central hospital	Outlet of drain(6P)
6	Lakhanpur	Liliari	Oil & Grease trap Outlet
7		Lakhanpur	Outlet of sedimentation Pond
8			Oil & Grease trap no 1 Outlet
9			Oil & Grease trap no 2 outlet
10		Belpahar	Oil & Grease trap Outlet
11			Outlet from sedimentation pond
12	Basundhara	Kulda	Final discharge point of mine
13			Outlet to settling pond
14		Basundhara	Outlet from settling pond near Kanika Rly Siding
15			Settling tank/abandoned quarry of Basundhara E
16			Oil & Grease trap Outlet
17	Orient	Orient	Mine discharge of Mine-2
18			Mine discharge of Mine-3
19			Mine discharge of Mine-4
20			Mine Discharge of HBI
21			Mine discharge of HRC

Table 5: List of Effluent (3 Parameter) Quality Monitoring Stations

Sl.No	Area	OCP	NAME OF STATIONS
1	IB-valley	Samaleswari	DETP/STP outlet

Table 6: List of Effluent (1 Parameter) Quality Monitoring Stations

Sl.No	Area	OCP	NAME OF STATIONS
1	IB-valley	Samaleswari	Mine sump water
2		Lajkura	Mine sump water
3	Lakhanpur	Liliari	Mine sump water
4		Belpahar	Mine sump water

Table 7: List of Drinking Water Quality Monitoring Stations

Sl.No	OCP / UG	NAME OF THE STATION
1	Samaleswari	Water from intake (raw water) at IWSS
2		Treated water from IWSS
3		Chingriguda Village well water
4		Kudopali village well water
5		Lajkura village well water
6		Anapali village well water
7		Samleswari Colony tap water
8	Lajkura	Madhuban nagar well water
9		Treated water at user end(Adarsh nagar colony)
10		Raw water of mine no.2
11		Chauliberna village well water
12	Liliari	Jurabaga village well water
13	Lakhanpur	Ubuda village tubewell
14		khairkuni village tubewell
15		Bandbahal tap water
16		LKP canteen tap water
17	Belpahar	Belpahar Colony tap water
18		Excavation workshop tap water
19		CHP tap water
20		Intake water of IWSS(half yearly)
21		Darlipali village well water
22		Belpahar Integrated township Mausii maa mandir outlet
23		Belpahar Integrated township-Indradhanush club outlet
24	Kulda	Well at Tumulia
25		Filter plant
26	Basundhara	Basundhara colony tap water
27		Water at intake well basundhara nulla(half yearly)
28	Orient	Tap water at Budhijaam colony
29		Tap water at Rampur colony
30		4th Pit Filter Plant (Near Mine No.3)
31		4th Pit Filter Plant (Mine NO-1,2)
32	MCL(HQ)	Inlet to water treatment plant(anand vihar)
33		excavation workshop tap water
34		Tap water DAV school(anand vihar)
35		Tap water at corporate office (jagriti vihar)

Table 8: List of Ground Water Level Stations

Sl.No	Area	OCP	Name of station
1	ib valley	Samleswari	Chingriguda Village Well
2			Anapali Village Well
3			Lajkura Village Well
4			Kudopali Village Well
5		Lajkura	Chhualibera Village Well
6			Madhuban nagar Well
7	Lakhanpur	Lilari	Jurabaga Village well
8		Lakhanpur	Ubuda Village Well
9		Belpahar	Darlipali Village Well
10	Basundhara	Kulda	Well at Tumulia
11			Well at Kulda
12		Basundhara	Tiklipada Village Well
13			Sardega Village Well
14	Orient	Orient	Chingriguda Village Well
15			Anapali Village Well
16			Lajkura Village Well
17			Kudopali Village Well
18			Chhualibera Village Well
19			Madhuban nagar Well
20			Adibasi Basti village well
21			Jhopadi Basti village well

Table 9: List of Surface Water Monitoring Stations

SLNO	Area	OCP / UG	NAME OF THE STATION	
1	Ib-Valley	Samaleswari	Pandren Jhor stream near Muchabahal village u/s of SOCP	
2			Pandren Jhor stream before confluence point with Lilari Nallah	
3		Lajkura	Bagachoppa jhor Bagmara Village as u/s for LOCP	
4			*Bagachoppa jhor Gangapur Village as d/s for LOCP (To be reported in orient also)	
5			Bagachoppa jhor before confluence point with Ib River	
6	Lakhanpur	Lakhanpur	Pulijhor stream near Tingismal Village as u/s for Lakhanpur OCP	
7			Pulijhor stream near Darlipalil Village before confluence to Lilari nallah as d/s water of Lakhanpur OCP	
8			Lilari nallah at bridge point before joining Ib river near Dudolsingha village	
9			Pond water at Samra village	
10		Belpahar	Lilari nallah near Gouraparha village at bridge point of NH200as u/s water for Lakhanpur OCP and Belpahar OCP	
11			Lilari nallah near Kirarama village as d/s of Lakhanpur OCP and Belpahar OCP	
12			Ib river near Dumermunda village as d/s of the coalfield before joining to Hirakud reservoir	
13			Hirakud reservoir for impact assessment of the coalfield	
14		Basundhara	Kulda	Basundhara river near Kulaparha village just after meeting point of Basundhara & Chaturdhara river as u/s of Siarmal OCP
15				Basundhara river near Tiklipara village as d/s water of Siarmal OCP & u/s water of Kulda OCP
16				Basundhara river near Kusura village as d/s water of Kulda OCP
17				Pond water at Gopalpur village
18				Pond water at Gaddwar village
19	Basundhara		Basundhara river near Kulaparha village as u/s water for Basundhara (W) OCP	
20			Chaturdhara river /Barhajharia nala as u/s water for Basundhara Expn OCP	
21	Orient		Orient	Ib river near Charbhati village as u/s water for Ib Valley Coalfield
22		Basundhara river near Degan village before confluence to Ib river		
23		Ib river bridge of NH200 at Gondghora village as u/s of Orient area		
24		Bhedan river before confluence point with Ib river		
25		Ib river near Kotarbaga village at bridge point		
26		*Bagachoppa jhor Gangapur Village as u/s for Rampur colliery (Only reported as per Lajkura Ocp)		
27		Pond water at Burhijam village		

Table 10: List of Tss Water Monitoring Stations

Sl.No	Area	OCP/Project	Name of the station
1	Ib valley	Samaleswari	Mine sump
2			Sedimentation pond
3		Lajkura	Mine sump
4			Sedimentation pond
5	Lakhanpur	Belpahar	100m u/s of point of confluence of mine discharge water with Lilari
6			100m d/s of point of confluence of mine discharge water with Lilari
7	Basundhara	Kulda	100 mtrs. U/S of the point of confluence of mine discharge water with Basundhara nallah.
8			100 mtrs. D/S of the point of confluence of mine discharge water with Basundhara nallah.
9			100 mtrs. U/S of the point of confluence of mine discharge water with external nallah near OB dump.
10			100 mtrs. D/S of the point of confluence of mine discharge water with external nallah near OB dump.
11		Basundhara(W)	100 m u/s of the point of confluence of mine discharge water with Basundhara nallah near Kulaparha village
12			100 m d/s of the point of confluence of mine discharge water with Basundhara nallah near Kulaparha village

FREQUENCY OF MONITORING

Table 10: Frequency of Monitoring

Sl. No.	Parameters	Sampling Frequency
1.	Air (5 Parameter) Quality Monitoring	Fortnightly
2.	Noise level (Day & Night) Monitoring	Fortnightly
3.	Effluent (1 Parameter) Quality Monitoring	Quarterly
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
7.	Ground Water Level Monitoring	Quarterly
8.	Surface Water (21 Parameter) Quality Monitoring	Quarterly

METHODOLOGY AND INSTRUMENTS USED

Table 11: Methodology & Instruments used for Air Quality Analysis

Sl. 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 12: Methodology & Instruments used for Noise level Monitoring

Sl. 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

Table 13: Methodology & Instruments used for Drinking/Surface/Effluent Water Quality Analysis

Sl. No.	Parameters	Method	Instruments
Physical Parameter			
1.	PH	IS 3025 (PART 11) : 1983 , Electrometric	pH meter
2.	Turbidity	IS 3025 (PART10) : 1984, Nephelometric	Nepheloturbidity meter
3.	Temperature	IS 3025 (PART 09) : 1984, Thermometric	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 Comparison	-
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 2800
10.	Nitrate nitrogen	APHA 22nd Edition	Microprocessor based spectrophotometer- DR 2800
11.	Ammonical Nitrogen	IS 3025 (PART 34) : 1988,	Microprocessor based spectrophotometer- DR 2800
12.	Total kjeldhal Nitrogen	IS 3025 (PART 34) : 1988	Microprocessor based spectrophotometer- DR 2800
13.	Total residual chlorine	IS 3025 (PART 26) : 1986	Microprocessor based spectrophotometer- DR 2800
14.	Calcium	IS 3025 (PART 40) : 1991,EDTA Titrimetric Method	Burette, Pipette
15.	Chloride	IS 3025 (PART 32) : 1988,	Microprocessor based spectrophotometer- DR 2800
16.	Fluoride	APHA 22nd Edition , IS 3025(Pat 60):SPANDS	Microprocessor based spectrophotometer- DR 2800
17.	Total Alkalinity	IS 3025 (PART 23) : 1986, Titration Method	Burette, Pipette
18.	Total hardness	IS 3025 (PART 21) : 1983, EDTA Volumetric Method	Burette, Pipette
19.	Dissolved phosphate	APHA 22nd Edition , IS 3025 (Pat 31): 1988	Microprocessor based spectrophotometer- DR 2800
20.	DO	IS 3025 (PART 38) : 1989, Winkler Azide Method	Burette, Pipette
21.	Sulfate	APHA 22nd Edition , IS 3025(Part 24): 1986, Turbidity Method	Microprocessor based spectrophotometer- DR 2800
22.	Sulfide	APHA 22nd Edition , IS 3025(Part 29):1986	Microprocessor based spectrophotometer- DR 2800
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 Method	Atomic Absorption Spectrophotometer(AAS)
27.	Copper	IS 3025 (PART 42) : 1992, AAS-Flame Method	Atomic Absorption Spectrophotometer(AAS)
28.	Zinc	IS 3025 (PART 49) : 1994, AAS-Flame Method	Atomic Absorption Spectrophotometer(AAS)
29.	Selenium	IS 3025 (PART 56) : 2003,AAS-VGA Method	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 Method	Atomic Absorption Spectrophotometer(AAS)
32.	Manganese	APHA 22nd Edition ,AAS-Flame Method	Atomic Absorption Spectrophotometer(AAS)
33.	Iron	IS 3025 (PART 53) : 2003,AAS-Flame Method	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 gravimetric method	Hot Air Oven, Electronic Balance
37.	BOD	IS 3025 (PART 44) : 1993.3 day incubation	BOD Incubator
38.	Phenolics	APHA 22nd Edition ,4- Amino antipyrone Method	-
Microbiological Tests			
39.	Total coliform	MPN Test	LTEK MPN Kit

Table : 01
Project: Lajkura OCP
Monitoring Station: Near Adarsh nagar colony

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
06-06-2016	56	126	<25	<6	215	West to east hot & sunny
21-06-2016	35	88	<25	7	154	West to east hot & sunny, evening rainfall
07-07-2016	32	106	2	<6	240	East to west hot & sunny evening rain fall
21-07-2016	42	90	4	<6	119	South to North cloudy & sunny rain fall
09-08-2016	40	76	4	5	102	West to east cloudy & heavy rainfall
22-08-2016	38	94	7	6	138	South to North cloudy & Heavy rainfall
08-09-2016	40	86	6	<6	144	East to west cloudy & sunny
21-09-2016	32	106	10	15	175	East to west cloudy & sunny evening rain fall
05-10-2016	28	112	6	15	238	East to west cloudy & sunny
21-10-2016	48	178	10	15	274	East to west cloudy & sunny
07-11-2016	34	158	9	<6	252	East to west cloudy & sunny
22-11-2016	26	154	8	<6	242	East to west sunny & cloudy
05-12-2016	63	123	11	19	204	East to West, Sunny
23-12-2016	150	252	10	13	339	West to East, sunny
06-01-2017	181	258	7	14	337	West to East, sunny
20-01-2017	106	164	7	17	254	East to West, Sunny
09-02-2017	163	198	8	16	434	West to East, sunny
18-02-2017	65	77	4	14	122	South to North, Sunny
09-03-2017	126	143	3	21	307	West to East Sunny
24-03-2017	134	293	4.22	11	439	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	181	293	11	21	439	
Minimum	26	76	2.00	5	102	
Average	71.95	144.10	6.68	13.43	236.45	
95 Percentile	163.90	259.75	10.15	19.70	434.25	
98 Percentile	174.16	279.70	10.66	20.48	437.10	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 02
Project: Lajkura OCP
Monitoring Station: Near Madhuban nagar

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
09-08-2016	14	34	18	35	48	West to east cloudy & heavy rainfall
22-08-2016	28	81	49	46	134	South to North cloudy & Heavy rainfall
08-09-2016	16	68	15	13	112	East to west cloudy & sunny
21-09-2016	14	72	14	9	116	East to west cloudy & sunny evening rain fall
06-10-2016	15	74	75	29	112	West to East cloudy & rain fall
24-10-2016	32	118	6	15	212	West to East cloudy & sunny
07-11-2016	40	203	34	19	410	East to west cloudy & sunny
22-11-2016	36	164	11	14	272	East to West sunny & cloudy
05-12-2016	145	224	12	15	392	East to West, Sunny
23-12-2016	81	374	7	<6	459	East to West, Sunny
06-01-2017	186	313	8	23	528	South to North, Sunny
20-01-2017	65	145	7	9	216	North to South, Sunny
09-02-2017	120	151	5	19	226	East to West, Sunny
24-02-2017	44	53	5	16	120	North to South, Sunny
10-03-2017	96	161	2.43	<6	247	East to West Sunny
27-03-2017	89	157	4.05	<6	230	South to North, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	186	374	75	46	528	
Minimum	14	34	2	9	48	
Average	63.81	149.50	17.03	20.15	239.63	
95 Percentile	155.25	328.25	55.50	39.40	476.25	
98 Percentile	173.70	355.70	67.20	43.36	507.30	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

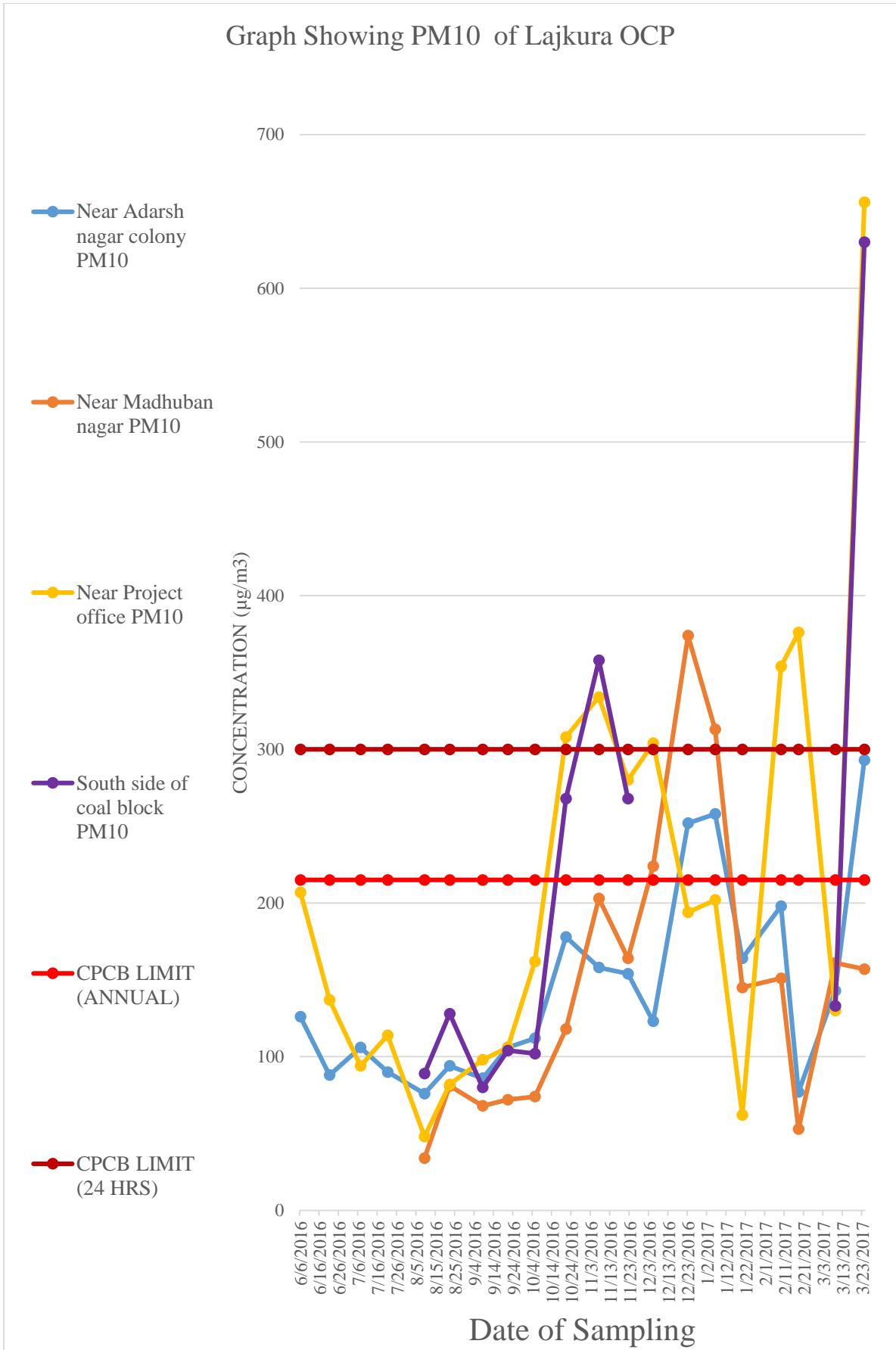
Table:03
Project: Lajkura OCP
Monitoring Station: Near Project office

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
06-06-2016	66	207	<25	<6	313	West to east hot & sunny
21-06-2016	103	137	36	7	426	West to east hot & sunny, evening rainfall
08-07-2016	28	94	2	<6	202	West to east hot & sunny evening rain fall
22-07-2016	54	114	9	7	193	West to east cloudy & rainfall
09-08-2016	14	48	5	8	68	West to east cloudy & heavy rainfall
23-08-2016	48	82	6	7	110	East to West Cloudy & Rainfall
09-09-2016	40	98	8	7	152	West to east cloudy
22-09-2016	34	106	9	12	158	West to east cloudy & rain fall
06-10-2016	48	162	12	6	348	West to east cloudy & rain fall
24-10-2016	86	308	16	28	536	West to East cloudy & sunny
10-11-2016	74	334	30	27	462	West to East cloudy & sunny
25-11-2016	78	280	14	18	398	West to east sunny & cloudy
06-12-2016	104	304	24	32	427	West to East, sunny
24-12-2016	87	194	14	17	548	East to West, Sunny
11-01-2017	140	202	11	15	349	South to North, Sunny
25-01-2017	27	62	17	20	174	East to West, Sunny
10-02-2017	194	354	16	18	956	West to East, sunny
24-02-2017	125	376	7	25	900	West to East, sunny
10-03-2017	85	130	2.69	7	291	North to South Sunny
27-03-2017	196	656	2.65	<6	959	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	196	656	36	32	959	
Minimum	14	48	2.00	6	68	
Average	81.55	212.40	12.70	15.35	398.50	
95 Percentile	194.10	390.00	30.60	28.80	956.15	
98 Percentile	195.24	549.60	33.84	30.72	957.86	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

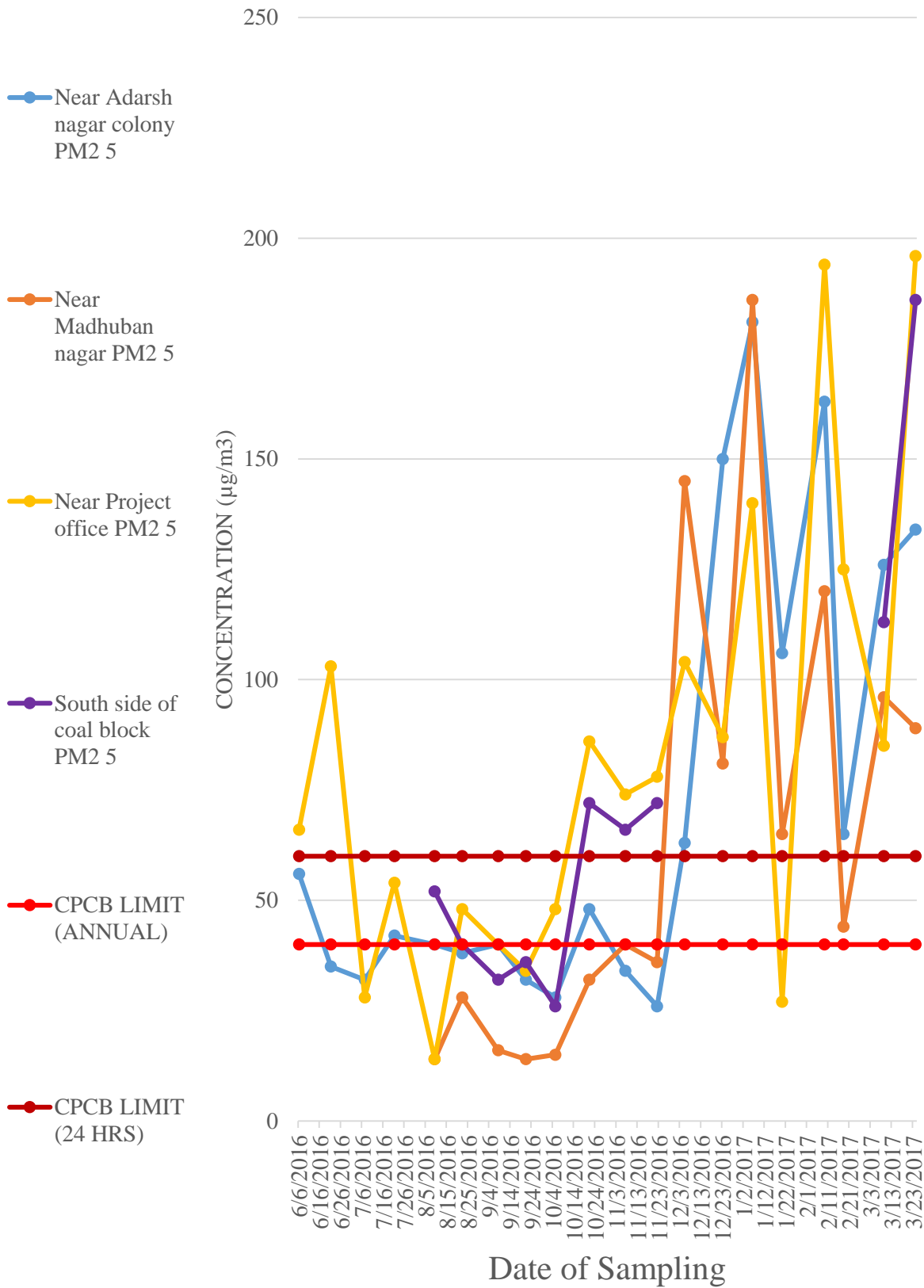
Table : 04
Project: Lajkura OCP
Monitoring Station: South side of coal block

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
10-08-2016	52	89	11	7	110	East to west cloudy & heavy rainfall
23-08-2016	40	128	4	12	202	East to West Cloudy & Rainfall
09-09-2016	32	80	9	12	128	West to east cloudy
22-09-2016	36	104	13	<6	158	West to east cloudy & rain fall
06-10-2016	26	102	10	16	150	West to east cloudy & rain fall
24-10-2016	72	268	12	6	416	West to East cloudy & sunny
10-11-2016	66	358	29	37	642	West to East cloudy & sunny
25-11-2016	72	268	19	26	466	West to east sunny & cloudy
10-03-2017	113	133	2.73	6	212	South to North Sunny
27-03-2017	186	630	22.13	7	998	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	186	630	29	37	998	
Minimum	26	80	3	6	110	
Average	69.50	216.00	13.19	14.33	348.20	
95 Percentile	153.15	507.60	25.91	32.60	837.80	
98 Percentile	172.86	581.04	27.76	35.24	933.92	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

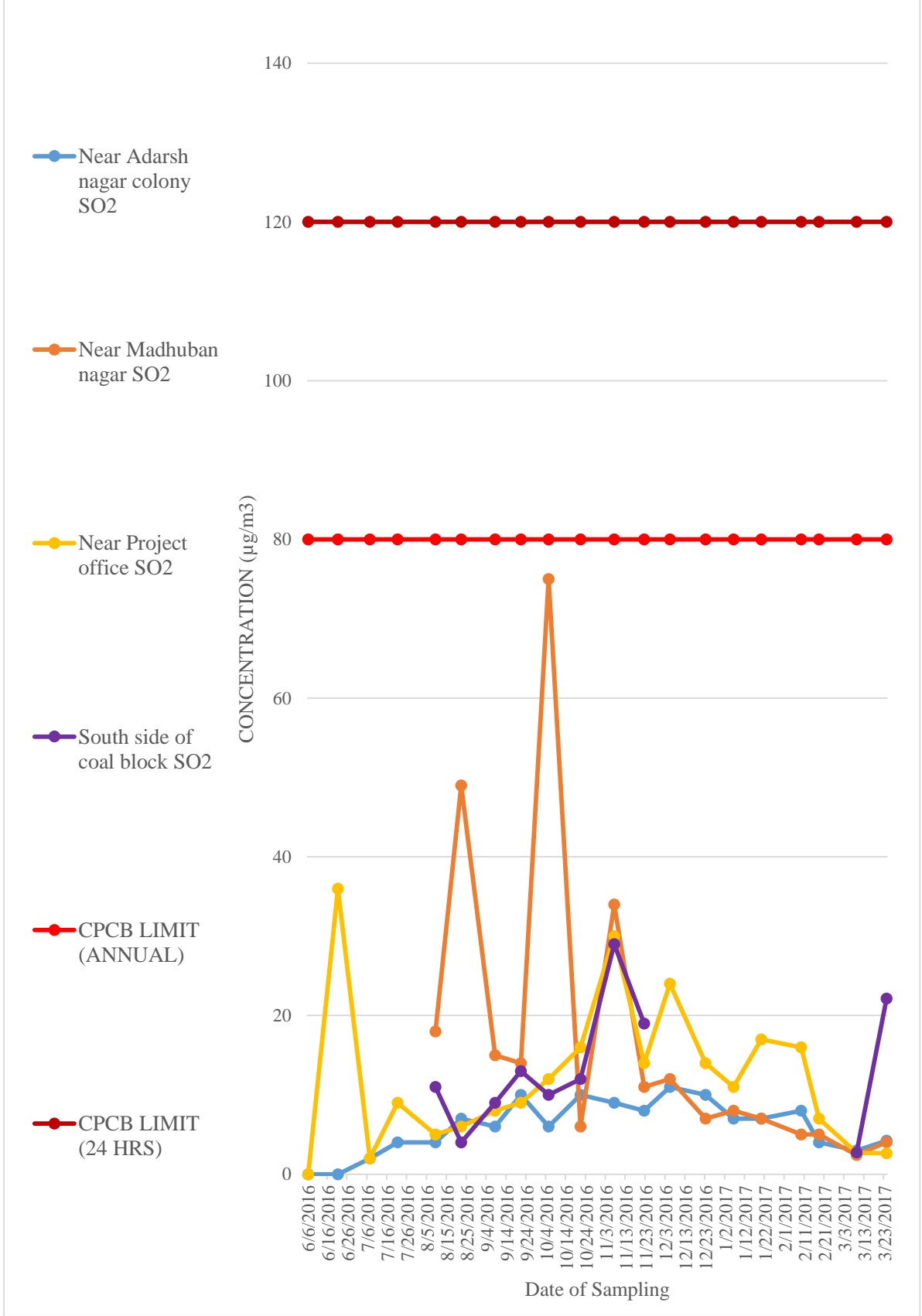
Graph Showing PM10 of Lajkura OCP



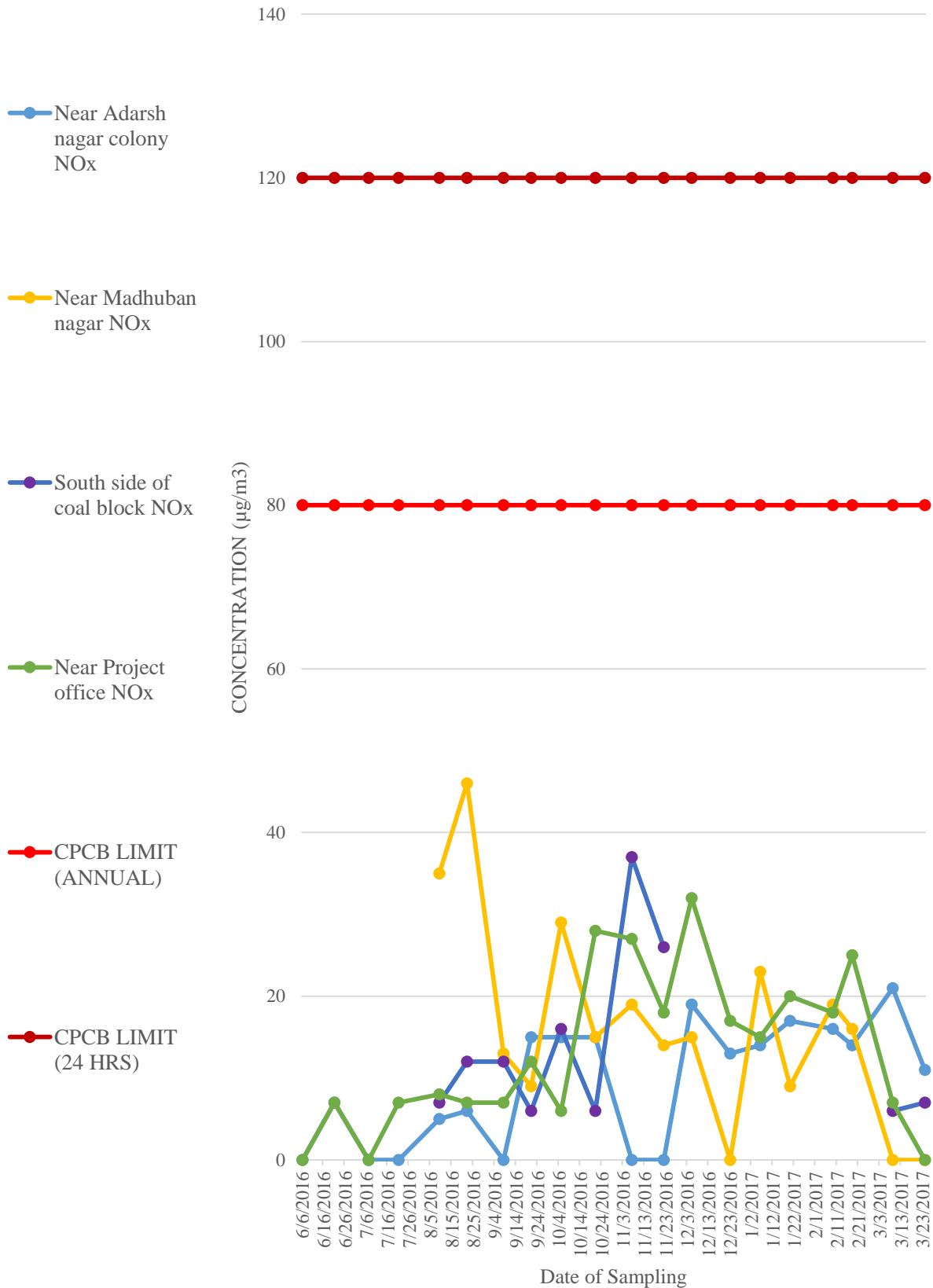
Graph Showing PM2.5 of Lajkura OCP



Graph Showing SO₂ of Lajkura OCP



Graph Showing NOX of Lajkura OCP



Graph Showing SPM of Lajkura OCP

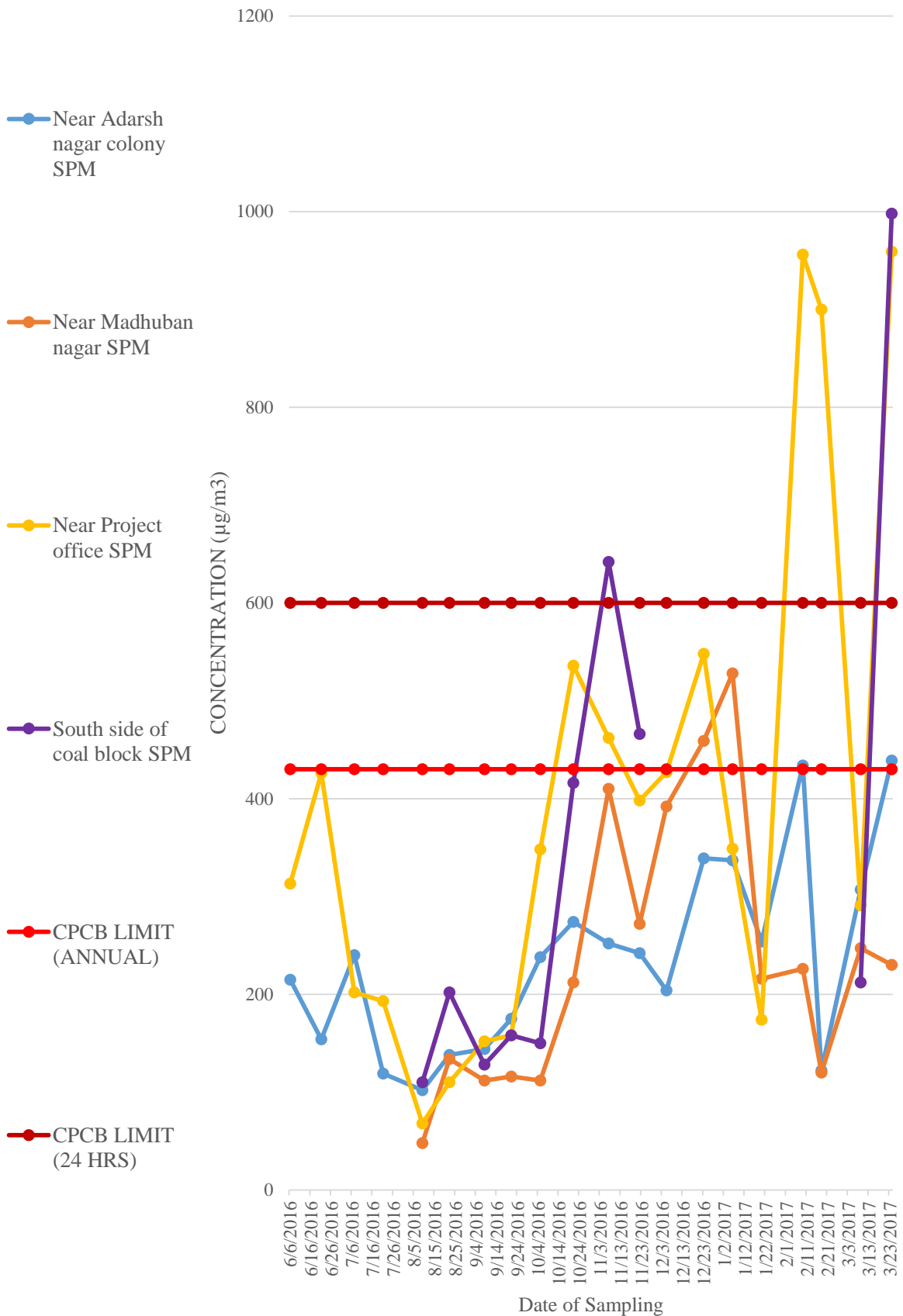


Table : 05
Project: Samleswari OCP
Monitoring Station: Inside Sainik Mining Camp Premises

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
09-06-2016	80	274	<25	12	540	West to east hot & sunny
27-06-2016	76	204	41	29	562	West to east hot & sunny
12-07-2016	22	84	6	6	202	West to east hot & sunny evening rain fall
26-07-2016	48	95	8	10	129	South to North cloudy
11-08-2016	18	38	16	21	78	West to east cloudy & heavy rainfall
24-08-2016	52	167	6	9	239	West to East Sunny & Cloudy Rainfall
12-09-2016	54	148	10	11	216	South to North sunny & Cloudy
23-09-2016	27	118	11	13	178	South to North Cloudy & Sunny
07-10-2016	18	84	17	19	122	East to west cloudy & sunny
25-10-2016	60	224	27	35	418	East to west cloudy & sunny
11-11-2016	62	228	24	30	452	East to west cloudy & sunny
26-11-2016	26	159	29	25	447	East to east sunny & cloudy
07-12-2016	83	163	20	16	235	North to South, Sunny
26-12-2016	131	321	20	25	610	West to East, sunny
12-01-2017	162	357	6	21	604	East to West, Sunny
27-01-2017	121	277	7	8	552	East to West, Sunny
13-02-2017	149	320	8	6	495	East to West, Sunny
25-02-2017	71	172	6	16	344	North to South, Sunny
14-03-2017	25	199	11.16	<6	333	North to South Sunny
28-03-2017	92	776	16.32	<6	1084	North to South, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	162	776	41	35	1084	
Minimum	18	38	6.00	6	78	
Average	68.85	220.40	15.24	17.33	392.00	
95 Percentile	149.65	377.95	30.20	30.75	633.70	
98 Percentile	157.06	616.78	36.68	33.30	903.88	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 06
Project: Samleswari OCP
Monitoring Station: Kudopali village

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
08-06-2016	70	129	30	<6	231	East to west hot & sunny
24-06-2016	67	216	<25	6	491	East to west hot & sunny
12-07-2016	74	143	12	6	311	West to east hot & sunny evening rain fall
26-07-2016	34	70	8	23	109	South to North cloudy
11-08-2016	16	51	14	5	72	West to east cloudy & heavy rainfall
24-08-2016	34	81	8	27	139	West to East Sunny & Cloudy Rainfall
12-09-2016	48	128	11	7	205	South to North sunny & Cloudy
23-09-2016	20	64	9	7	106	South to North Cloudy & Sunny
12-10-2016	20	70	15	11	102	West to east cloudy
26-10-2016	26	134	28	31	292	West to East cloudy & sunny
11-11-2016	34	168	24	19	406	West to East cloudy & sunny
26-11-2016	38	162	12	10	249	East to West sunny & cloudy
07-12-2016	162	431	14	12	692	East to West, Sunny
26-12-2016	82	208	27	19	439	West to East, sunny
12-01-2017	112	321	11	15	746	East to West, Sunny
27-01-2017	88	153	36	9	307	North to South, Sunny
13-02-2017	205	281	9	8	462	North to South, Sunny
25-02-2017	68	40	4	29	105	South to North, Sunny
14-03-2017	129	349	24.06	12	511	South to North Sunny
28-03-2017	38	76	21.42	24	166	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	205	431	36	31	746	
Minimum	16	40	4.00	5	72	
Average	68.25	163.75	16.71	14.74	307.05	
95 Percentile	164.15	353.10	30.60	29.20	694.70	
98 Percentile	188.66	399.84	33.84	30.28	725.48	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 07
Project: Samleswari OCP
Monitoring Station: Lajkura Village

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM	Remarks
08-06-2016	64	156	<25	9	270	East to west hot & sunny
24-06-2016	30	148	<25	10	268	East to west hot & sunny
11-07-2016	50	138	2	14	281	East to west hot & sunny evening rain fall
25-07-2016	45	86	9	18	186	East to west cloudy & rain fall
10-08-2016	30	72	35	18	98	East to west cloudy & heavy rainfall
23-08-2016	17	94	13	30	132	East to West Cloudy & Rainfall
09-09-2016	48	118	6	7	186	West to east cloudy
22-09-2016	14	131	5	<6	189	West to east cloudy & rain fall
07-10-2016	22	90	21	11	136	East to west cloudy & sunny
25-10-2016	39	148	13	16	266	East to west cloudy & sunny
10-11-2016	46	238	15	11	332	East to west cloudy & sunny
25-11-2016	44	242	15	11	379	West to east sunny & cloudy
07-12-2016	106	286	17	20	370	East to West, Sunny
26-12-2016	123	301	13	18	499	East to West, Sunny
11-01-2017	178	350	9	9	485	East to West, Sunny
25-01-2017	88	554	9	22	826	West to East, Sunny
10-02-2017	173	264	9	35	524	South to North, Sunny
24-02-2017	70	73	2	9	155	East to West, Sunny
10-03-2017	99	104	3.18	17	174	East to West Sunny
27-03-2017	106	119	3.13	13	194	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	178	554	35	35	826	
Minimum	14	72	2.00	7	98	
Average	69.60	185.60	11.07	15.68	297.50	
95 Percentile	173.25	360.20	23.10	30.50	539.10	
98 Percentile	176.10	476.48	30.24	33.20	711.24	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 08
Project: Samleswari OCP
Monitoring Station: Near Chingriguda Village

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
09-06-2016	78	127	<25	11	268	West to east hot & sunny
27-06-2016	30	136	33	16	330	West to east hot & sunny
12-07-2016	43	97	17	11	213	West to east hot & sunny evening rain fall
26-07-2016	33	79	7	11	107	South to North cloudy
11-08-2016	25	70	7	13	161	West to east cloudy & heavy rainfall
24-08-2016	64	164	6	27	232	West to East Sunny & Cloudy Rainfall
12-09-2016	47	158	9	<6	254	South to North sunny & Cloudy
23-09-2016	49	78	10	14	118	South to North Cloudy & Sunny
12-10-2016	16	78	16	34	122	West to east cloudy
26-10-2016	32	208	24	27	446	West to East cloudy & sunny
01-11-2016	32	172	11	19	396	West to East cloudy & sunny
02-11-2016	26	134	15	18	230	West to East cloudy & sunny
08-11-2016	24	184	19	13	282	West to East cloudy & sunny
09-11-2016	40	254	14	19	378	West to East cloudy & sunny
16-11-2016	42	274	28	33	422	West to east sunny & cloudy
17-11-2016	38	234	23	18	472	West to east sunny & cloudy
23-11-2016	48	258	25	30	436	West to east sunny & cloudy
24-11-2016	48	238	15	21	426	West to east sunny & cloudy
01-12-2016	96	299	21	24	517	East to West, Sunny
02-12-2016	124	308	10	<6	594	East to West, Sunny
12-12-2016	133	293	9	12	609	East to West, Sunny
13-12-2016	81	250	15	11	345	East to West, Sunny
19-12-2016	86	285	12	16	332	East to West, Sunny
20-12-2016	86	268	18	18	331	West to East, sunny
29-12-2016	127	257	18	21	498	East to West, Sunny
30-12-2016	113	316	12	16	510	West to East, sunny
02-01-2017	53	85	7	7	163	West to East, sunny evening rainfall
03-01-2017	111	163	8	8	223	South to North, Sunny
09-01-2017	128	312	14	14	353	West to East, sunny
10-01-2017	108	150	10	17	306	North to South, Cloudy
16-01-2017		233	21	15	313	East to West, Sunny & PM2.5 Sampler breakdown
17-01-2017	64	345	8	12	546	West to East, Sunny
23-01-2017	136	223	10	25	309	East to West, Sunny
24-01-2017	125	186	8	11	313	South to North, Sunny
01-02-2017	150	261	10	11	406	West to East, sunny
02-02-2017	199	319	5	10	512	North to South, Sunny
07-02-2017	182	189	5	14	309	North to South, Sunny
08-02-2017	182	224	6	12	326	North to South, Sunny
16-02-2017	71	188	4	10	654	East to West, Sunny
17-02-2017	245	666	4	70	1141	West to East, sunny
20-02-2017	176	214	5	12	399	North to South, Sunny
21-02-2017	150	197	20	22	391	East to West, Sunny
01-03-2017	226	323	2.72	<6	577	North to South Sunny
02-03-2017	143	325	3.89	29	632	South to North Sunny
06-03-2017	119	282	3.45	12	328	East to West Sunny
07-03-2017	87	98	5.42	15	162	East to West Sunny
16-03-2017	25	134	3.33	8	274	West to East, Sunny
17-03-2017	52	84	9.34	14	129	West to East, Sunny
21-03-2017	55	81	4.67	14	196	West to East, Sunny
22-03-2017	90	111	5.18	26	158	South to North, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m3
Maximum	245	666	33	70	1141	
Minimum	16	70	3	7	107	
Average	90.57	212.24	11.78	17.89	362.98	
95 Percentile	192.20	324.10	24.60	32.10	621.65	
98 Percentile	226.76	351.42	28.20	36.88	663.74	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

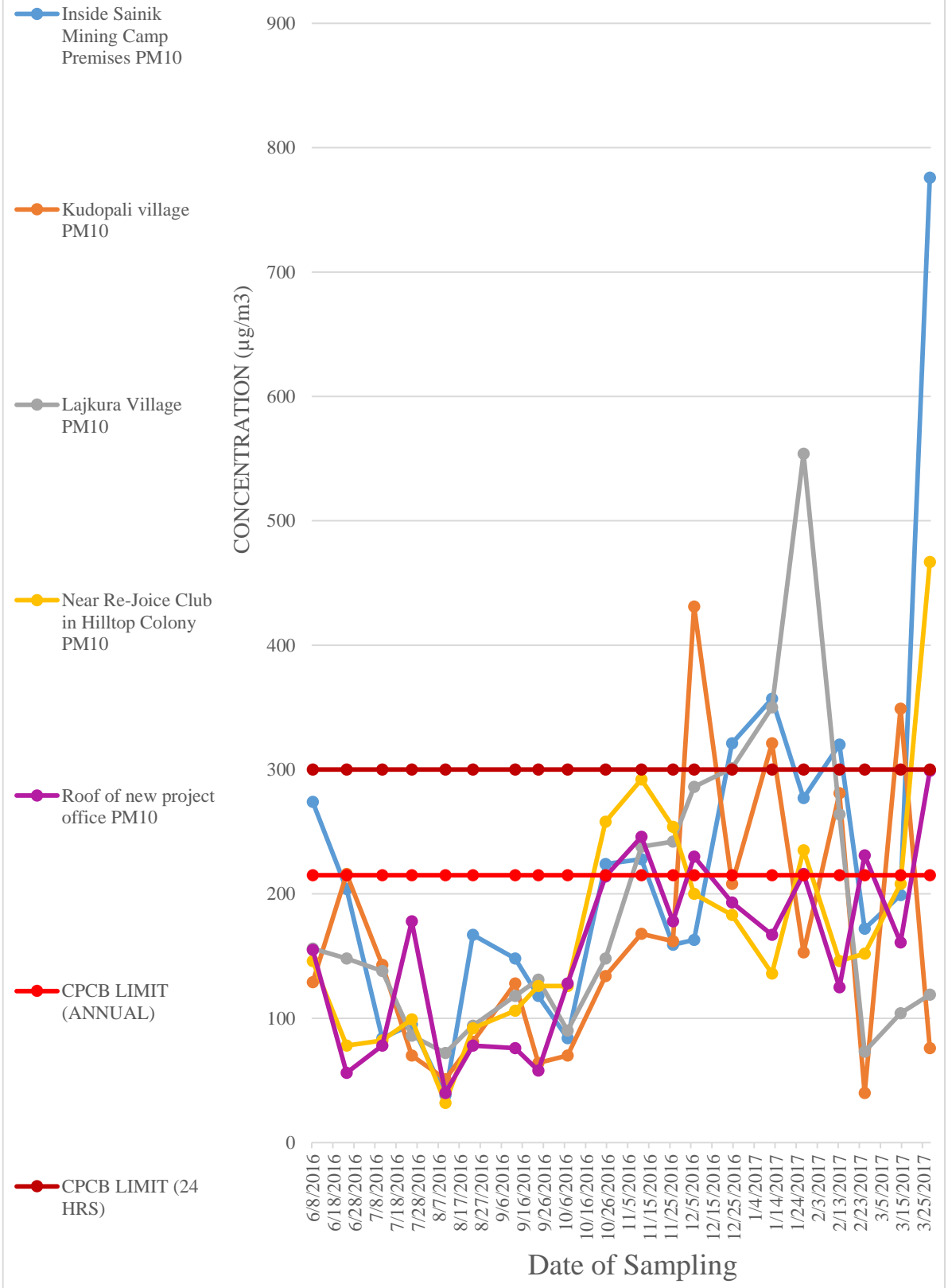
Table : 09
Project: Samleswari OCP
Monitoring Station: Near Re-Joice Club in Hilltop Colony

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
07-06-2016	58	146	<25	<6	364	East to west hot & sunny
23-06-2016	44	78	<25	26	142	East to west hot & sunny, evening rainfall
11-07-2016	20	82	16	7	158	East to west hot & sunny evening rain fall
25-07-2016	48	99	9	9	150	East to west cloudy & rain fall
10-08-2016	12	32	10	10	54	East to west cloudy & heavy rainfall
23-08-2016	22	92	4	7	128	East to West Cloudy & Rainfall
09-09-2016	37	106	3	<6	162	West to east cloudy
22-09-2016	31	126	9	10	184	West to east cloudy & rain fall
07-10-2016	31	126	7	<6	194	East to west cloudy & sunny
25-10-2016	76	258	20	26	472	East to west cloudy & sunny
11-11-2016	54	292	26	35	434	East to west cloudy & sunny
26-11-2016	38	254	17	20	482	East to east sunny & cloudy
06-12-2016	73	200	27	30	304	West to East, sunny
24-12-2016	57	183	10	14	273	South to North, Sunny
12-01-2017	89	136	7	11	201	East to West, Sunny
27-01-2017	48	235	7	8	781	South to North, Sunny
13-02-2017	59	146	6	14	194	East to West, Sunny
25-02-2017	46	152	3	12	275	East to West, Sunny
14-03-2017	100	208	12.76	18	369	West to East Sunny
28-03-2017	112	467	2.24	7	596	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	112	467	27	35	781	
Minimum	12	32	2.24	7	54	
Average	52.75	170.90	10.89	15.53	295.85	
95 Percentile	100.60	300.75	26.15	31.00	605.25	
98 Percentile	107.44	400.50	26.66	33.40	710.70	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

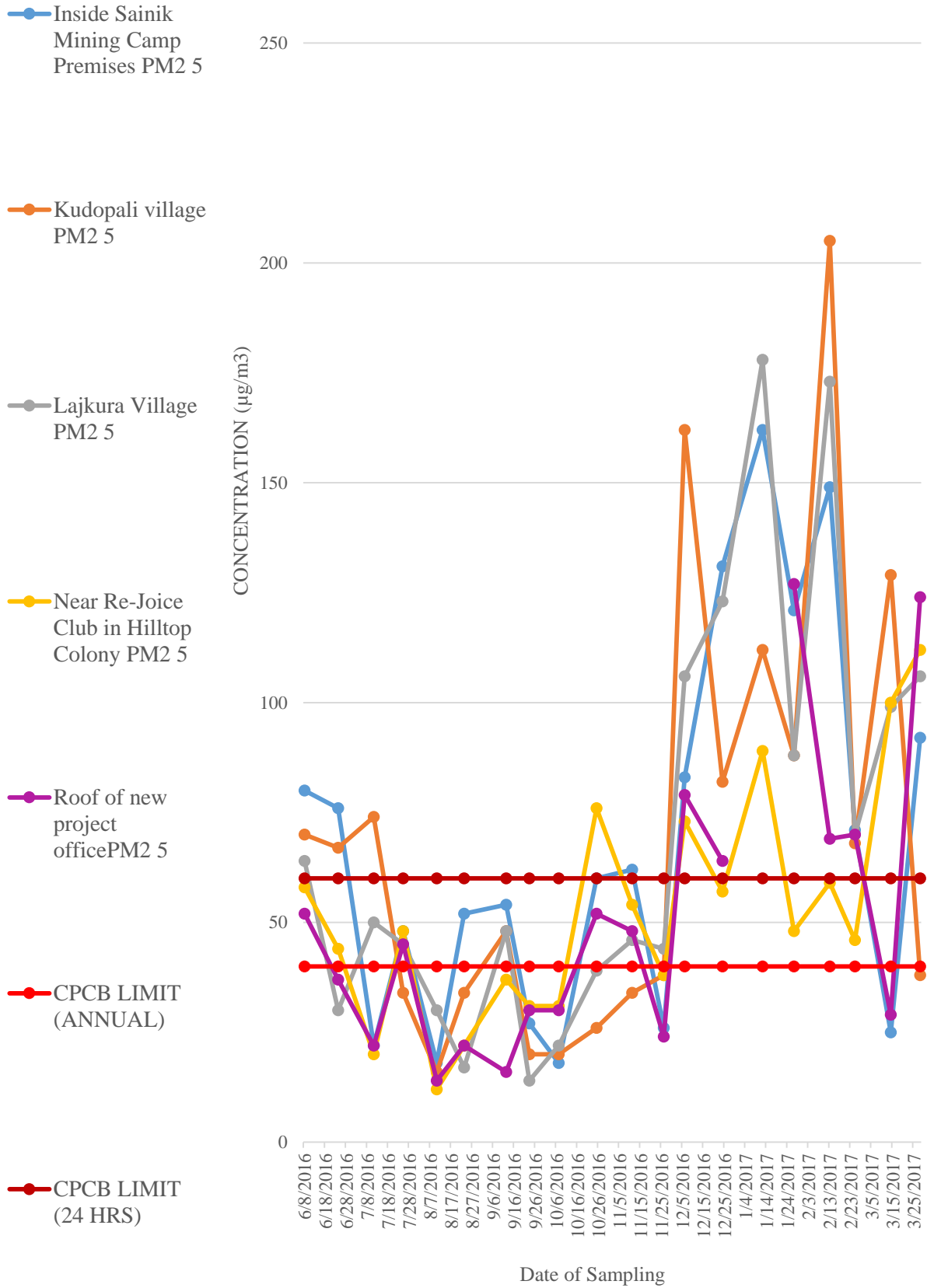
Table : 10
Project: Samleswari OCP
Monitoring Station: Roof of new project office

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
08-06-2016	52	155	<25	<6	283	East to west hot & sunny
24-06-2016	37	56	<25	14	140	East to west hot & sunny
11-07-2016	22	78	10	<6	184	East to west hot & sunny evening rain fall
25-07-2016	45	178	11	<6	282	East to west cloudy & rain fall
10-08-2016	14	40	18	7	53	East to west cloudy & heavy rainfall
23-08-2016	22	78	5	13	119	East to West Cloudy & Rainfall
12-09-2016	16	76	6	<6	112	South to North sunny & Cloudy
23-09-2016	30	58	8	<6	92	South to North Cloudy & Sunny
07-10-2016	30	128	4	<6	196	East to west cloudy & sunny
25-10-2016	52	214	22	24	386	East to west cloudy & sunny
11-11-2016	48	246	8	11	370	East to west cloudy & sunny
26-11-2016	24	178	14	9	316	East to West sunny & cloudy
06-12-2016	79	230	12	15	332	South to North, Sunny
24-12-2016	64	193	8	11	372	South to North, Sunny
12-01-2017		167	8	11	287	South to North, Sunny & PM2.5 Sampler breakdown
27-01-2017	127	216	6	8	385	North to South, Sunny
13-02-2017	69	125	9	7	230	South to North, Sunny
25-02-2017	70	231	4	5	459	West to East, sunny
14-03-2017	29	161	4.68	6	516	West to East Sunny
28-03-2017	124	299	2.05	12	462	North to South, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	127	299	22	24	516	
Minimum	14	40	2.05	5	53	
Average	50.21	155.35	8.87	10.93	278.80	
95 Percentile	124.30	248.65	18.60	18.15	464.70	
98 Percentile	125.92	278.86	20.64	21.66	495.48	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

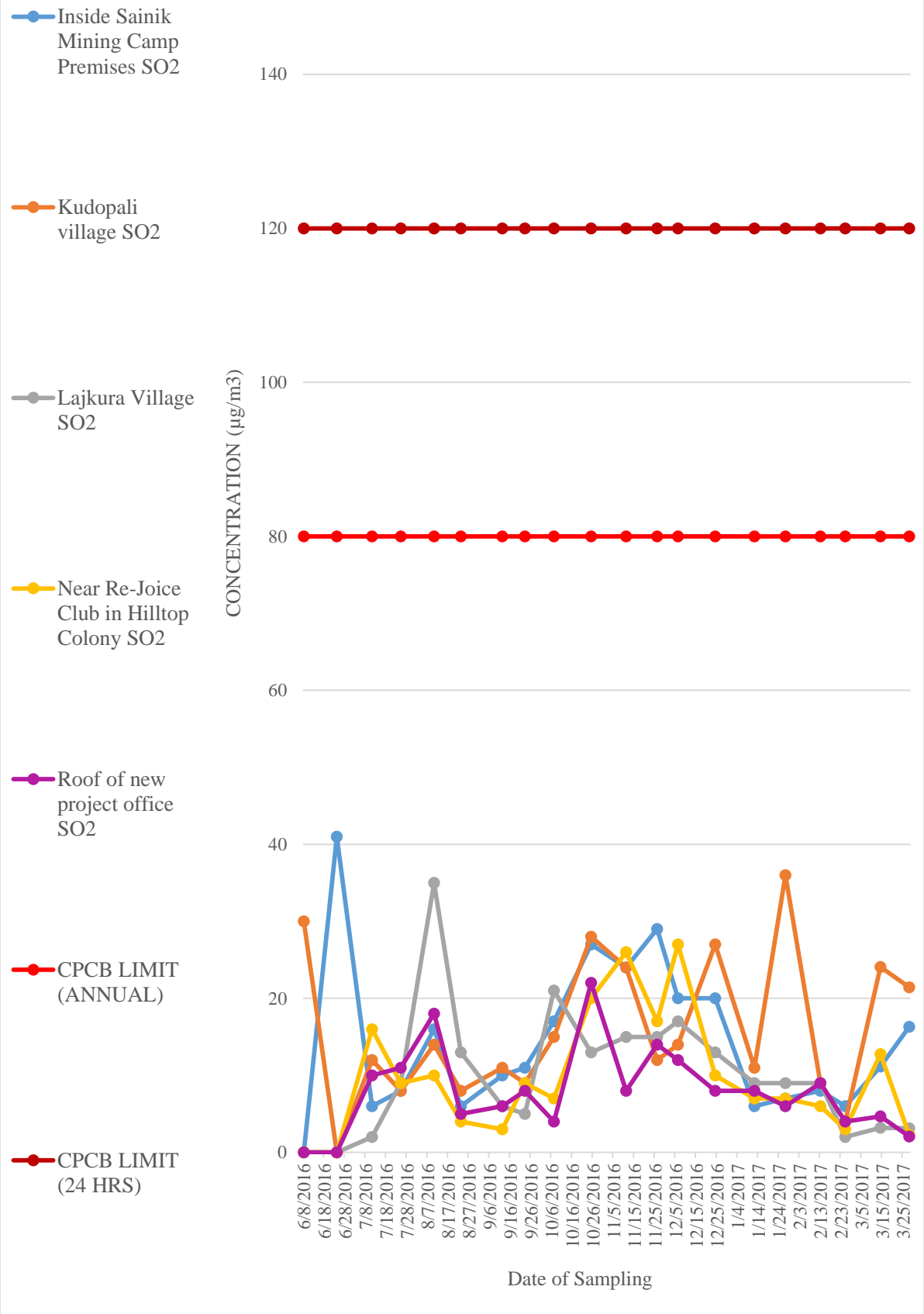
Graph Showing PM₁₀ of Samleswari OCP



Graph Showing PM_{2.5} of Samleswari OCP



Graph Showing SO₂ of Samleswari OCP



Graph Showing NOX of Samleswari OCP



Graph Showing SPM of Samleswari OCP

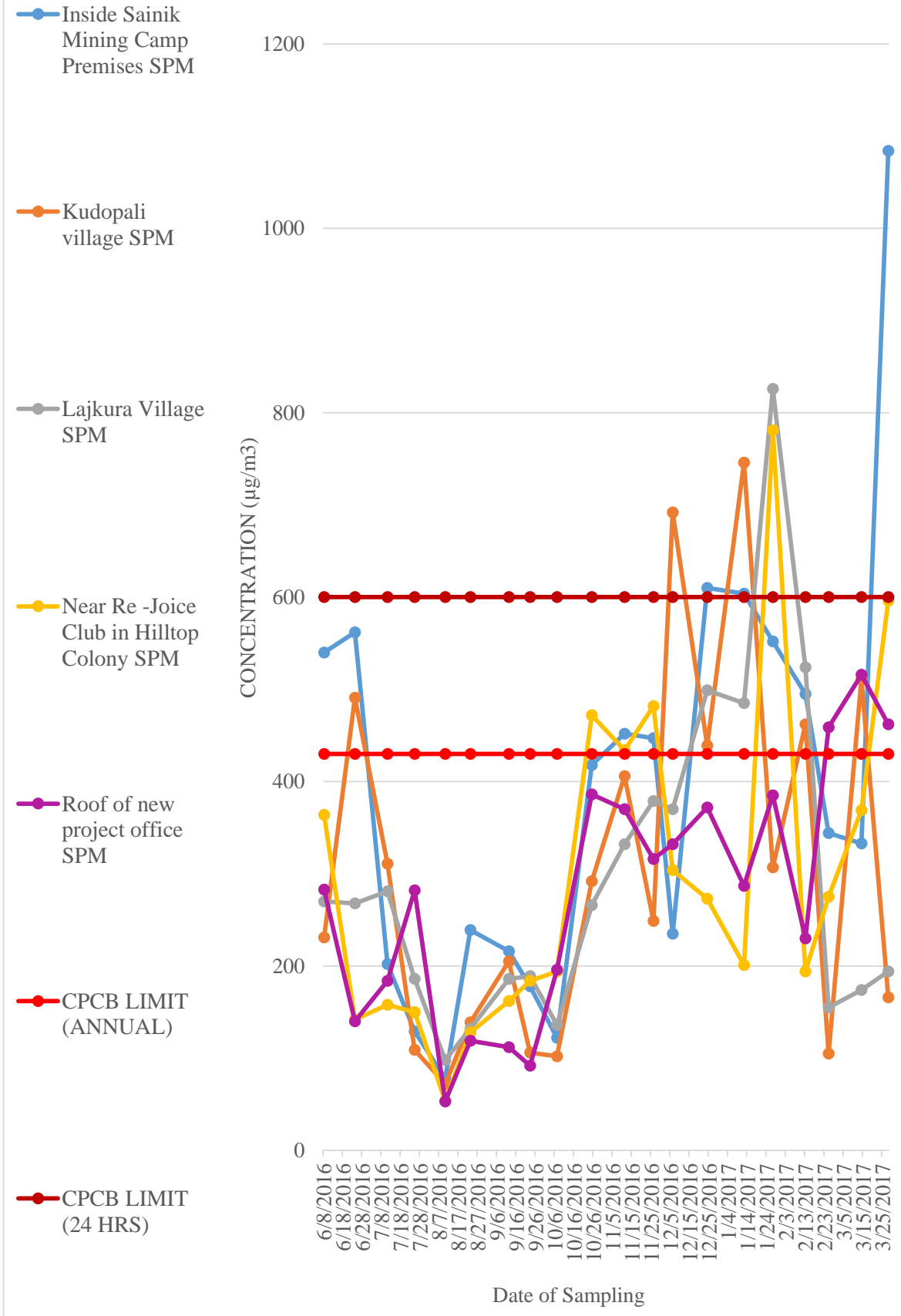


Table : 11
Project: Belpahar OCP
Monitoring Station: Bandhabahal township/BITP

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
14-06-2016	51	120	<25	21	280	East to west hot & sunny
29-06-2016	36	95	<25	<6	166	East to west hot & sunny
15-07-2016	28	94	2	<6	222	East to west hot & sunny evening rain fall
29-07-2016	38	133	12	24	244	West to east cloudy & rainfall
13-08-2016	20	45	23	15	89	West to east cloudy & heavy rainfall
26-08-2016	18	78	20	11	164	West to East Sunny & Cloudy Rainfall
15-09-2016	39	108	9	8	176	East to west cloudy
28-09-2016	29	101	13	11	169	East to west cloudy & Sunny
14-10-2016	36	214	8	7	318	West to east cloudy
28-10-2016	40	168	8	7	274	West to East cloudy & sunny
14-11-2016	42	201	15	19	297	West to East cloudy & sunny
29-11-2016	52	174	10	9	292	East to east sunny & cloudy
15-12-2016	80	234	13	19	328	East to West, Sunny
28-12-2016	88	273	13	10	374	West to East, sunny
14-01-2017		73	7	17	374	West to East, sunny & PM _{2.5} Sampler breakdown
31-01-2017	108	255	7	11	560	West to East, Sunny
15-02-2017	50	181	6	10	504	West to East, sunny
28-02-2017	169	220	3	12	342	East to West, Sunny
08-03-2017	89	148	3.01	11	297	West to East Sunny
30-03-2017	34	150	6.28	17	638	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	169	273	23	24	638	
Minimum	18	45	2.00	7	89	
Average	55.11	153.25	9.91	13.28	305.40	
95 Percentile	114.10	255.90	20.45	21.45	563.90	
98 Percentile	147.04	266.16	21.98	22.98	608.36	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 12
Project: Belpahar OCP
Monitoring Station: Near MDTP

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
13-06-2016	72	227	<25	13	444	East to west hot & sunny
29-06-2016	31	130	36	<6	342	East to west hot & sunny
15-07-2016	24	82	18	13	156	East to west hot & sunny evening rain fall
29-07-2016	16	59	13	24	116	West to east cloudy & rainfall
13-08-2016	34	74	56	21	106	West to east cloudy & heavy rainfall
26-08-2016	26	70	9	6	108	West to East Sunny & Cloudy Rainfall
15-09-2016	35	124	9	9	200	East to west cloudy
28-09-2016	24	96	8	9	148	East to west cloudy & Sunny
14-10-2016	40	196	12	<6	274	West to east cloudy
28-10-2016	30	200	14	19	312	West to East cloudy & sunny
14-11-2016	50	260	23	26	463	West to East cloudy & sunny
29-11-2016	56	214	19	24	368	East to east sunny & cloudy
15-12-2016	60	225	14	18	433	North to South, Sunny
28-12-2016	86	243	12	16	422	West to East, sunny
14-01-2017	88	208	9	13	436	South to North, Sunny
31-01-2017	158	265	36	12	379	South to North, Sunny
15-02-2017	110	193	4	12	674	West to East, sunny
28-02-2017	165	304	5	18	541	West to East, sunny
08-03-2017	133	162	3.96	10	278	West to East Sunny
30-03-2017	91	128	5.37	19	313	North to South, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	165	304	56	26	674	
Minimum	16	59	4.00	6	106	
Average	66.45	173.00	17.47	15.81	325.65	
95 Percentile	158.35	266.95	40.00	24.50	547.65	
98 Percentile	162.34	289.18	49.60	25.40	623.46	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

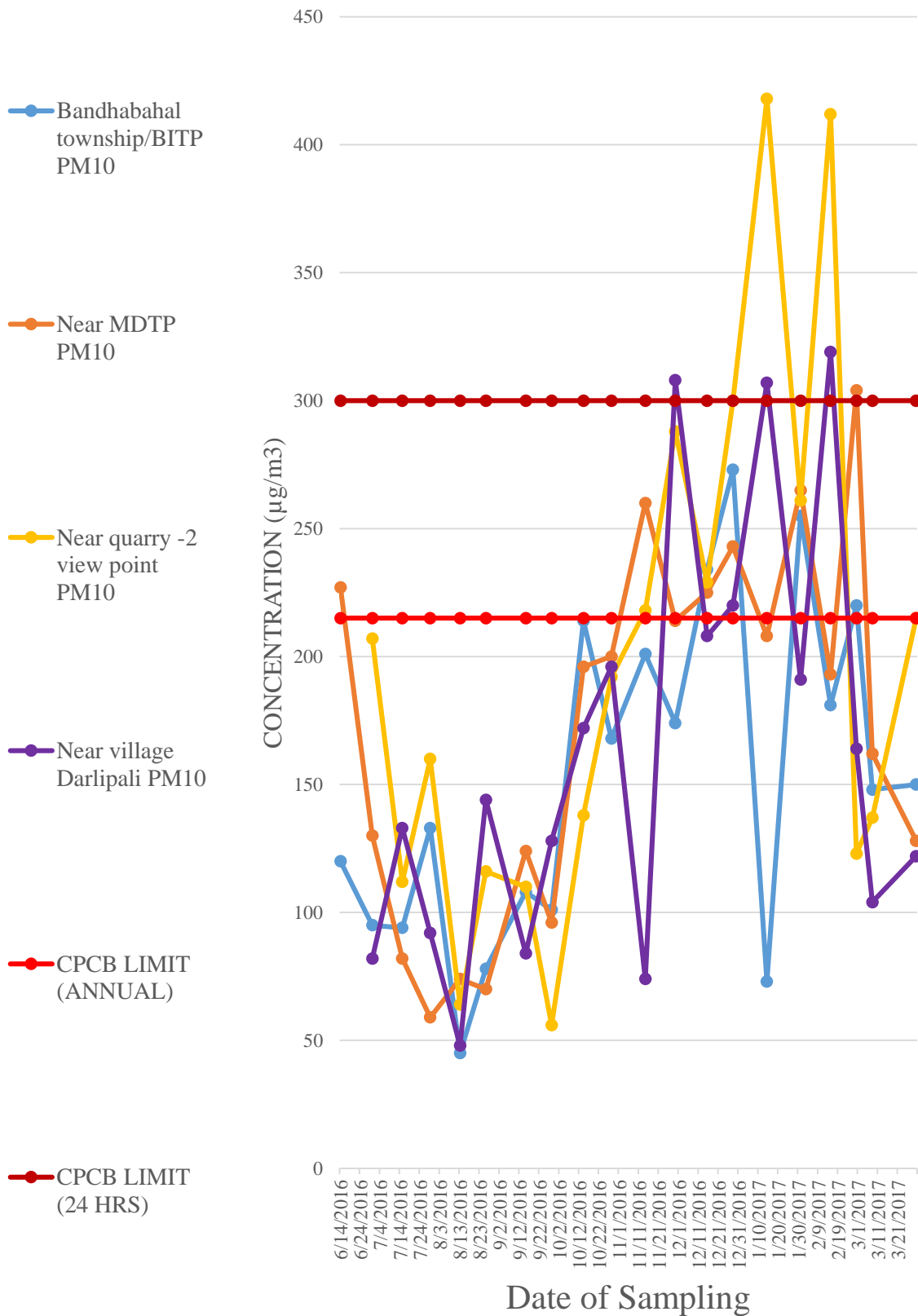
Table : 13
Project: Belpahar OCP
Monitoring Station: Near quarry -2 view point

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
14-06-2016						Monitoring not done due to no power supply
30-06-2016	60	207	<25	<6	409	East to west hot & sunny
15-07-2016	36	112	2	14	221	East to west hot & sunny evening rain fall
29-07-2016	50	160	3	13	391	West to east cloudy & rainfall
13-08-2016	24	64	7	14	98	West to east cloudy & heavy rainfall
26-08-2016	48	116	7	17	174	West to East Sunny & Cloudy Rainfall
15-09-2016	48	110	15	13	174	East to west cloudy
28-09-2016	20	56	25	20	130	East to west cloudy & Sunny
14-10-2016	42	138	6	6	206	West to east cloudy
28-10-2016	47	192	18	21	300	West to East cloudy & sunny
14-11-2016	46	218	21	19	334	West to East cloudy & sunny
29-11-2016	66	288	17	21	466	East to east sunny & cloudy
15-12-2016	86	229	12	17	426	North to South, Sunny
28-12-2016	136	300	17	14	546	East to West, Sunny
14-01-2017	109	418	14	14	652	South to North, Sunny
31-01-2017	168	261	41	16	561	South to North, Sunny
15-02-2017	47	412	10	20	944	West to East, sunny
28-02-2017	148	123	7	28	219	North to South, Sunny
08-03-2017	94	137	2.46	8	222	East to West Sunny
30-03-2017	55	215	6.59	11	332	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	168	418	41	28	944	
Minimum	20	56	2.00	6	98	
Average	70.00	197.68	13.20	16.18	358.16	
95 Percentile	150.00	412.60	28.20	22.40	681.20	
98 Percentile	160.80	415.84	35.88	25.76	838.88	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

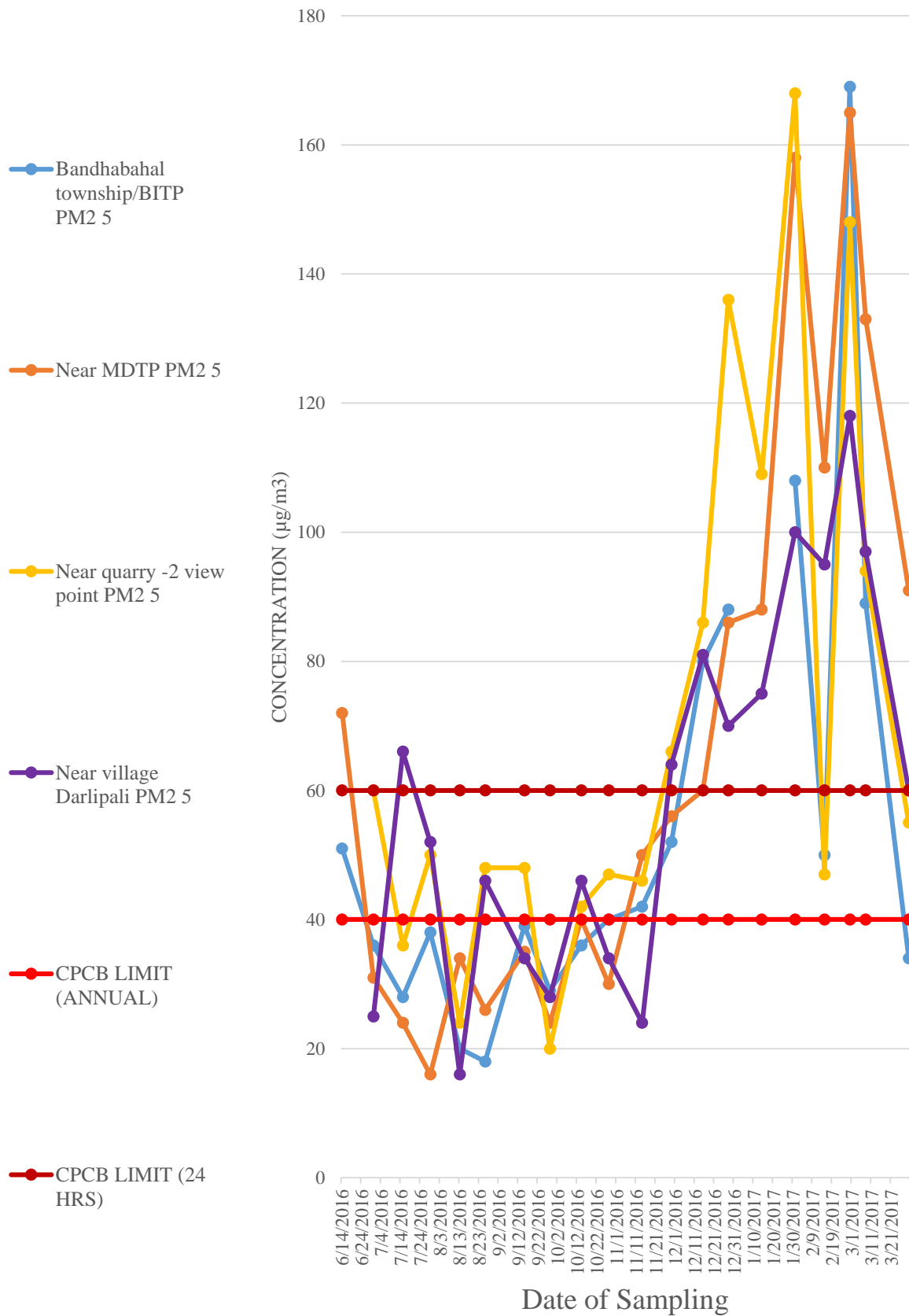
Table : 14
Project: Belpahar OCP
Monitoring Station: Near village Darlipali

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
14-06-2016						Monitoring not done due to no power supply
30-06-2016	25	82	<25	<6	263	East to west hot & sunny
15-07-2016	66	133	8	68	281	East to west hot & sunny evening rain fall
29-07-2016	52	92	4	9	148	West to east cloudy & rainfall
13-08-2016	16	48	8	18	66	West to east cloudy & heavy rainfall
26-08-2016	46	144	5	7	224	West to East Sunny & Cloudy Rainfall
15-09-2016	34	84	5	8	140	East to west cloudy
28-09-2016	28	128	14	10	267	East to west cloudy & Sunny
14-10-2016	46	172	7	8	264	West to east cloudy
28-10-2016	34	196	14	22	344	West to East cloudy & sunny
14-11-2016	24	74	15	14	222	West to East cloudy & sunny
29-11-2016	64	308	27	33	627	East to west cloudy & Sunny
15-12-2016	81	208	10	<6	437	North to South, Sunny
28-12-2016	70	220	16	19	385	North to South, Sunny
14-01-2017	75	307	15	18	778	West to East, sunny
31-01-2017	100	191	15	16	499	East to West, Sunny
15-02-2017	95	319	15	23	632	West to East, sunny
28-02-2017	118	164	3	26	283	West to East, sunny
08-03-2017	97	104	3.82	6	184	North to South Sunny
30-03-2017	60	122	7.16	17	257	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	118	319	27	68	778	
Minimum	16	48	3.00	6	66	
Average	59.53	162.95	10.67	18.94	331.63	
95 Percentile	101.80	309.10	17.65	40.00	646.60	
98 Percentile	111.52	315.04	23.26	56.80	725.44	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

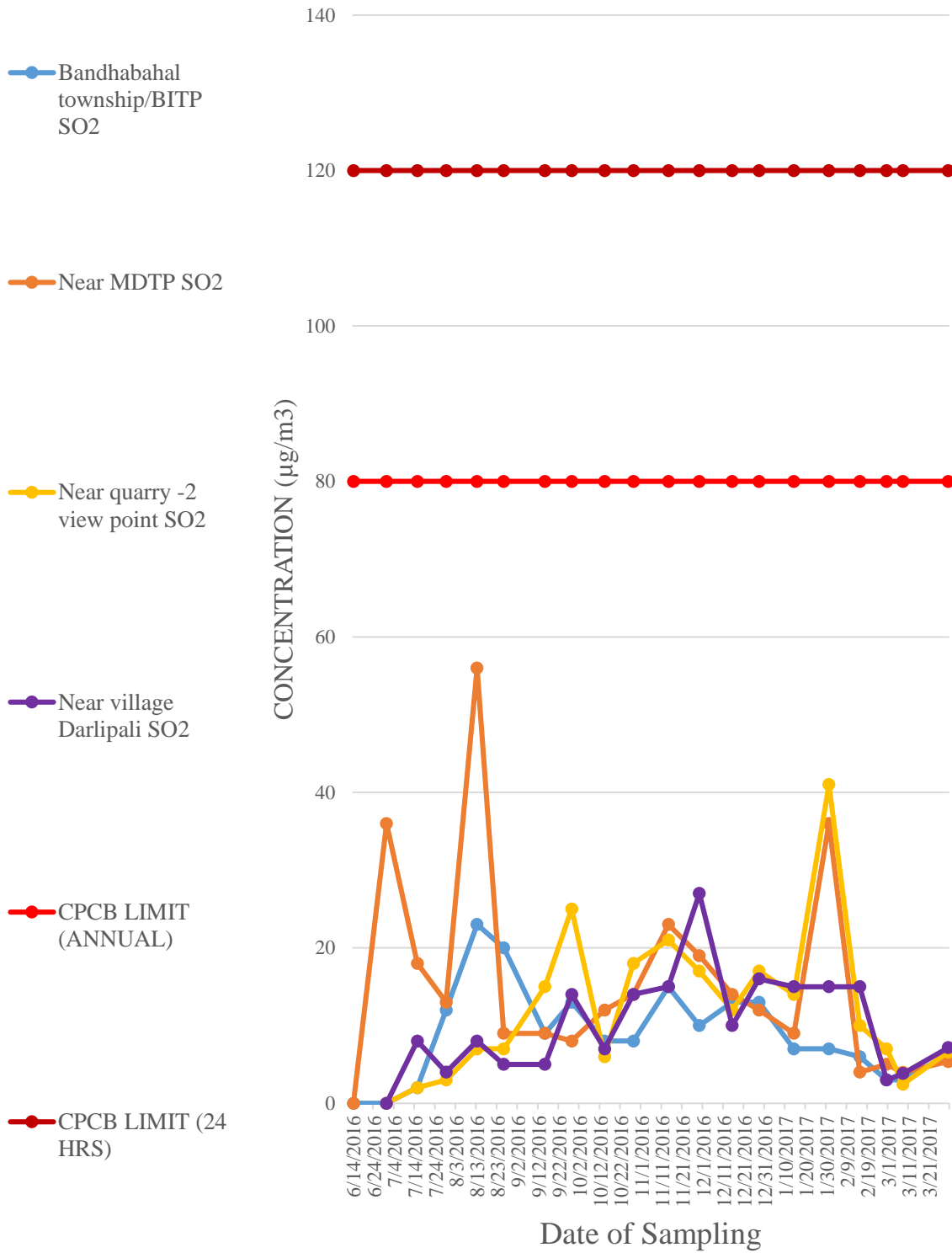
Graph Showing PM10 of Belpahar OCP



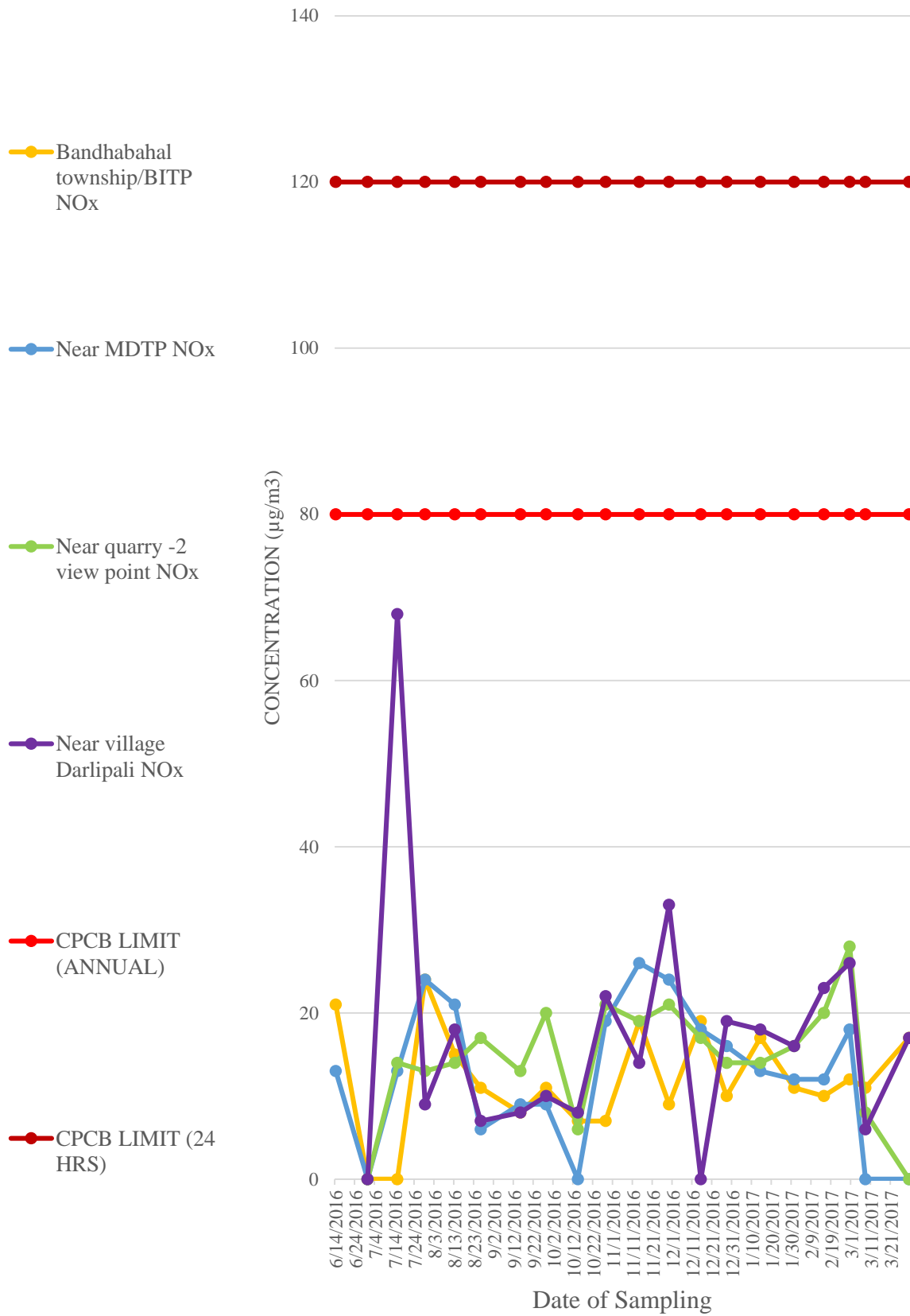
Graph Showing PM2.5 of Belpahar OCP



Graph Showing SO2 of Belpahar OCP



Graph Showing NOx of Belpahar OCP



Graph Showing SPM of Belpahar OCP

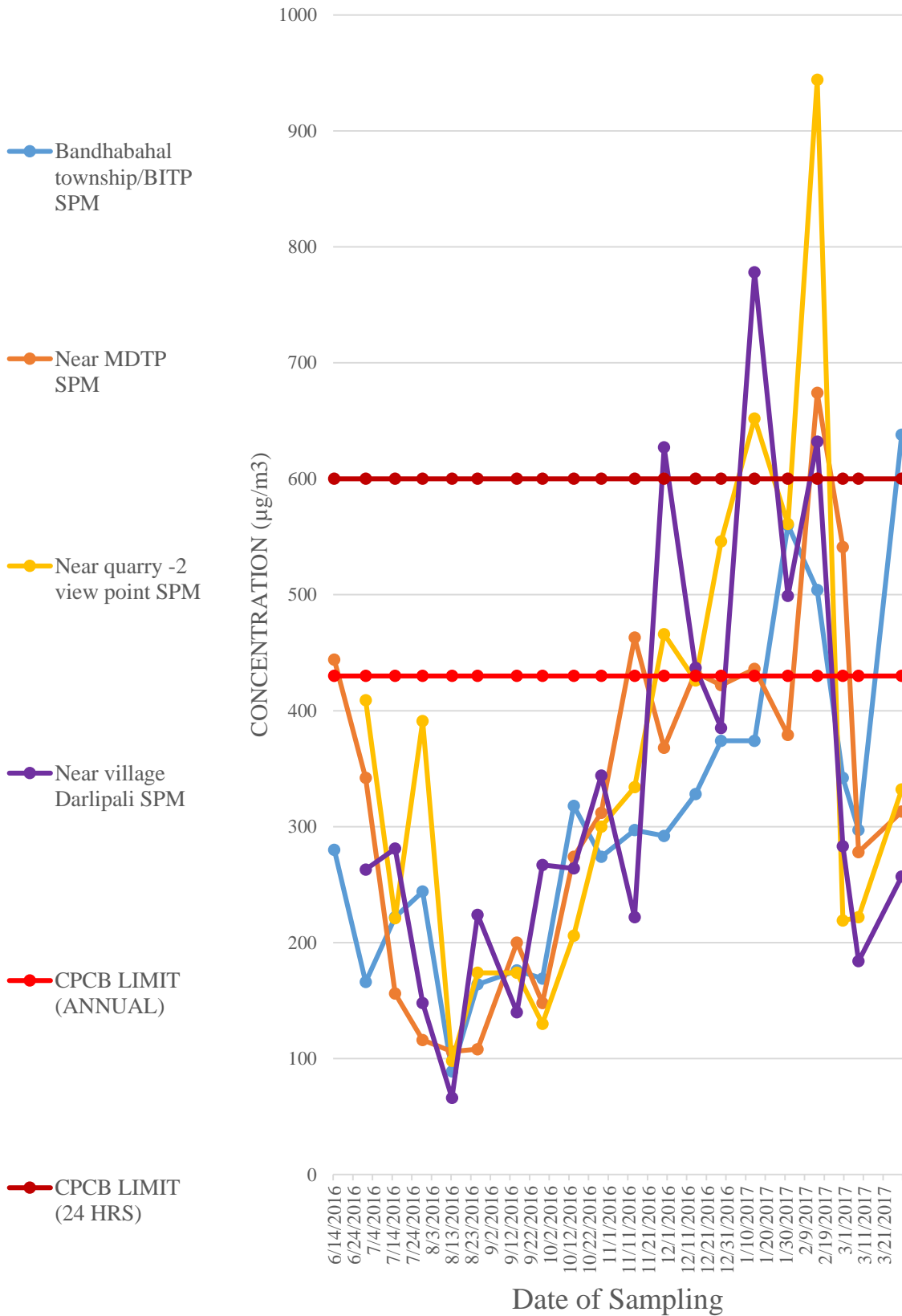


Table : 15
Project: Lakhanpur OCP
Monitoring Station: East of coal stock no 10

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
12-08-2016	14	38	40	21	54	East to west cloudy & heavy rainfall
25-08-2016	12	58	34	54	102	South to North Cloudy & Rainfall
14-09-2016	14	62	5	<6	88	West to east cloudy & sunny
26-09-2016	14	70	11	18	128	East to west cloudy & sunny evening rain fall
13-10-2016	56	196	22	8	294	East to west cloudy & sunny
27-10-2016	30	234	10	13	358	East to west cloudy & sunny
14-11-2016	34	205	14	16	330	East to west cloudy & sunny
29-11-2016	58	269	18	24	450	East to west Sunny & cloudy
14-12-2016	53	220	10	19	451	South to North, Sunny
27-12-2016	84	206	9	15	527	West to East, sunny
13-01-2017	191	436	20	18	794	North to South, Sunny
30-01-2017	125	282	35	7	702	North to South, Sunny
15-02-2017	47	201	4	<6	326	West to East, sunny
28-02-2017	165	228	2	16	539	East to West, Sunny
08-03-2017	62	106	3.02	10	188	West to East Sunny
30-03-2017	31	427	4.5	23	982	South to North, Sunny
10-06-2016	72	197	<25	<6	594	East to west hot & sunny
28-06-2016	21	59	<25	9	116	East to west hot & sunny
14-07-2016	24	96	5	9	204	East to west hot & sunny evening rain fall
28-07-2016	42	108	9	10	158	East to west cloudy & rain fall
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	191	436	40	54	982	
Minimum	12	38	2	7	54	
Average	57.45	184.90	14.20	17.06	369.25	
95 Percentile	166.30	427.45	35.75	30.00	803.40	
98 Percentile	181.12	432.58	38.30	44.40	910.56	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 16
Project: Lakhanpur OCP
Monitoring Station: Near OB dump no – 1

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
10-06-2016	81	163	<25	12	480	East to west hot & sunny
28-06-2016	22	71	<25	6	168	East to west hot & sunny
13-07-2016	34	110	7	22	308	East to west hot & sunny evening rain fall
27-07-2016	28	137	11	13	348	West to east cloudy & rainfall
12-08-2016	24	58	10	7	91	East to west cloudy & heavy rainfall
25-08-2016	20	78	7	6	112	South to North Cloudy & Rainfall
13-09-2016	36	142	5	<6	216	East to west cloudy & rainfall
26-09-2016	38	154	11	18	246	East to west cloudy & sunny evening rain fall
13-10-2016	14	68	26	16	94	East to west cloudy & sunny
27-10-2016	52	178	16	24	276	East to west cloudy & sunny
12-11-2016	22	130	14	17	318	East to west cloudy & sunny
28-11-2016	50	168	14	19	292	East to west Sunny & cloudy
14-12-2016	66	172	15	17	258	East to West, Sunny
27-12-2016	71	168	16	20	254	West to East, sunny
13-01-2017	67	137	9	10	224	West to East, sunny
30-01-2017	99	323	9	6	581	West to East, Sunny
14-02-2017	91	112	9	6	176	East to West, Sunny
27-02-2017	157	210	4	14	324	North to South, Sunny
15-03-2017	100	212	2.99	16	700	South to North Sunny
29-03-2017	31	78	3.85	19	230	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	157	323	26	24	700	
Minimum	14	58	2.99	6	91	
Average	55.15	143.45	10.55	14.11	284.80	
95 Percentile	102.85	217.55	17.50	22.20	586.95	
98 Percentile	135.34	280.82	22.60	23.28	654.78	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 17
Project: Lakhanpur OCP
Monitoring Station: North west of quarry 1

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
13-06-2016	57	228	<25	8	548	West to east hot & sunny
29-06-2016	27	160	<25	8	391	East to west hot & sunny
13-07-2016	33	103	5	6	190	East to west hot & sunny evening rain fall
28-07-2016	44	108	12	29	232	East to west cloudy & rain fall
12-08-2016	14	30	7	8	48	East to west cloudy & heavy rainfall
25-08-2016	30	68	5	8	96	South to North Cloudy & Rainfall
13-09-2016	40	152	4	<6	248	East to west cloudy & rainfall
26-09-2016	28	134	9	7	212	East to west cloudy & sunny evening rain fall
13-10-2016	43	168	9	10	256	East to west cloudy & sunny
27-10-2016	48	198	20	24	326	East to west cloudy & sunny
12-11-2016	26	230	19	24	498	West to East cloudy & sunny
28-11-2016	56	216	15	20	388	West to east Sunny & cloudy
15-12-2016	50	167	17	20	388	East to West, Sunny
28-12-2016	88	284	18	19	526	North to South, Sunny
13-01-2017	79	334	9	19	534	West to East, sunny
30-01-2017	112	376	6	<6	587	North to South, Sunny
14-02-2017	76	224	6	9	528	South to North, Sunny
27-02-2017	95	188	12	6	374	East to West, Sunny
15-03-2017	72	254	23.03	14	340	North to South Sunny
29-03-2017	23	128	4.53	25	236	South to North, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	112	376	23.03	29	587	
Minimum	14	30	4	6	48	
Average	52.05	187.50	11.14	14.67	347.30	
95 Percentile	95.85	336.10	20.45	25.60	549.95	
98 Percentile	105.54	360.04	22.00	27.64	572.18	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 18
Project: Lakhanpur OCP
Monitoring Station: West side of Quarry no.4

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
10-06-2016	58	242	<25	22	528	East to west hot & sunny
28-06-2016	24	77	<25	13	232	East to west hot & sunny
14-07-2016	29	118	10	11	266	East to west hot & sunny evening rain fall
27-07-2016	38	94	9	15	168	West to east cloudy & rainfall
12-08-2016	18	38	21	8	59	East to west cloudy & heavy rainfall
25-08-2016	40	117	6	6	259	South to North Cloudy & Rainfall
14-09-2016	34	138	7	<6	216	West to east cloudy & sunny
27-09-2016	30	78	10	15	122	West to East cloudy & evening rain fall
13-10-2016	46	134	44	14	206	East to west cloudy & sunny
27-10-2016	46	164	8	<6	244	East to west cloudy & sunny
12-11-2016	18	110	9	8	198	East to west cloudy & sunny
28-11-2016	44	248	17	20	379	East to west Sunny & cloudy
14-12-2016	62	236	14	17	438	West to East, sunny
27-12-2016	99	298	11	16	572	West to East, sunny
14-01-2017	89	297	20	13	626	East to West, Sunny
31-01-2017	83	287	18	10	495	South to North, Sunny
14-02-2017	87	385	4	15	914	West to East, sunny
27-02-2017	94	84	3	11	231	East to West, Sunny
15-03-2017	26	336	12.99	15	406	East to West Sunny
29-03-2017	59	103	3.2	10	319	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	99	385	44	22	914	
Minimum	18	38	3	6	59	
Average	51.20	179.20	12.62	13.28	343.90	
95 Percentile	94.25	338.45	24.45	20.30	640.40	
98 Percentile	97.10	366.38	36.18	21.32	804.56	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

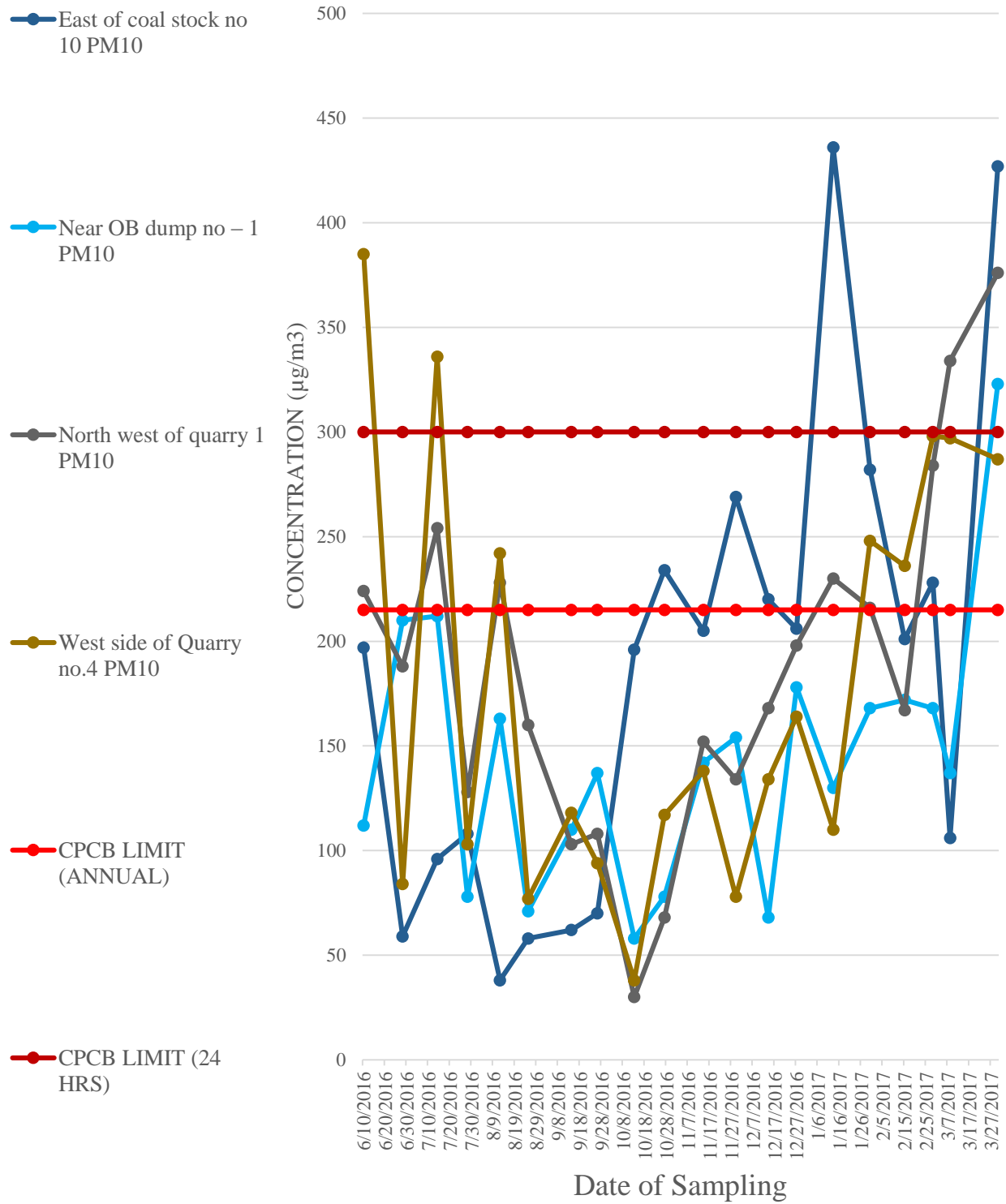
Table : 19
Project: Lakhanpur OCP
Monitoring Station: Tingismal village

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
10-06-2016	62	160	<25	18	550	West to east hot & sunny
28-06-2016	19	56	<25	<6	74	East to west hot & sunny
14-07-2016	41	138	27	9	286	East to west hot & sunny evening rain fall
28-07-2016	50	97	11	76	168	East to west cloudy & rain fall
12-08-2016	30	77	36	12	107	East to west cloudy & heavy rainfall
25-08-2016	10	34	73	89	62	South to North Cloudy & Rainfall
14-09-2016	48	146	11	73	228	West to east cloudy & sunny
27-09-2016	26	78	15	<6	106	West to East cloudy & evening rain fall
13-10-2016	36	108	13	42	178	East to west cloudy & sunny
27-10-2016	56	228	12	16	356	East to west cloudy & sunny
02-01-2017		119	8	12	213	West to East, evening rainfall & PM2.5 sampler breakdown
03-01-2017	56	79	12	11	106	North to South, Sunny
09-01-2017		226	12	18	355	South to North, Sunny & PM2.5 Sampler breakdown
10-01-2017	83	160	11	22	227	East to West, Cloudy
16-01-2017	19	108	9	27	128	South to North, Sunny
17-01-2017	45	274	8	13	529	West to East, Sunny
23-01-2017	91	304	7	19	383	West to East, Sunny
24-01-2017	79	171	7	6	265	West to East, Sunny
01-02-2017	87	139	5	7	389	East to West, Sunny
16-02-2017	77	104	6	27	300	North to South, Sunny
02-11-2016	26	102	9	7	181	East to west cloudy & sunny
17-11-2016	40	140	18	9	228	West to east Sunny & cloudy
02-12-2016	76	188	13	19	254	West to East, sunny
20-12-2016	88	188	16	19	283	West to East, sunny
08-11-2016	24	124	8	<6	222	West to East cloudy & sunny
23-11-2016	44	148	10	<6	216	West to east Sunny & cloudy
12-12-2016	64	118	20	24	187	West to East, sunny
29-12-2016	61	142	11	<6	324	South to North, Sunny
09-11-2016	30	144	10	<6	248	West to East cloudy & sunny
24-11-2016	34	128	9	7	202	West to east Sunny & cloudy
13-12-2016	66	93	18	23	219	East to West, Sunny
30-12-2016	67	154	13	15	391	South to North, Sunny
02-02-2017	109	126	23	18	330	North to South, Sunny
07-02-2017	132	159	8	7	399	South to North, Sunny
08-02-2017	95	171	12	33	325	North to South, Sunny
17-02-2017	80	72	3	15	126	East to West, Sunny
20-02-2017	65	134	9	16	378	West to East, sunny
21-02-2017	52	92	19	19	181	South to North, Sunny
01-03-2017	173	243	5.81	7	513	West to East Sunny
02-03-2017	144	223	18.74	14	687	South to North Sunny
06-03-2017	153	173	5.68	9	387	East to West Sunny
07-03-2017	107	166	6.47	19	250	South to North Sunny
16-03-2017	68	166	4.74	6	413	South to North, Sunny
17-03-2017	49	113	2.98	<6	247	East to West, Sunny
21-03-2017	62	87	5.29	18	97	West to East, Sunny
22-03-2017	87	203	3.42	17	305	East to West, Sunny
01-11-2016	24	93	12	<6	207	East to west cloudy & sunny
16-11-2016	36	184	16	18	402	West to east Sunny & cloudy
01-12-2016	82	187	15	17	309	West to East, sunny
19-12-2016	85	200	14	18	383	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	173	304	73	89	687	
Minimum	10	34	3	6	62	
Average	65.38	145.34	12.96	20.74	278.08	
95 Percentile	139.80	236.25	25.60	71.45	521.80	
98 Percentile	154.20	274.60	38.22	78.34	552.74	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

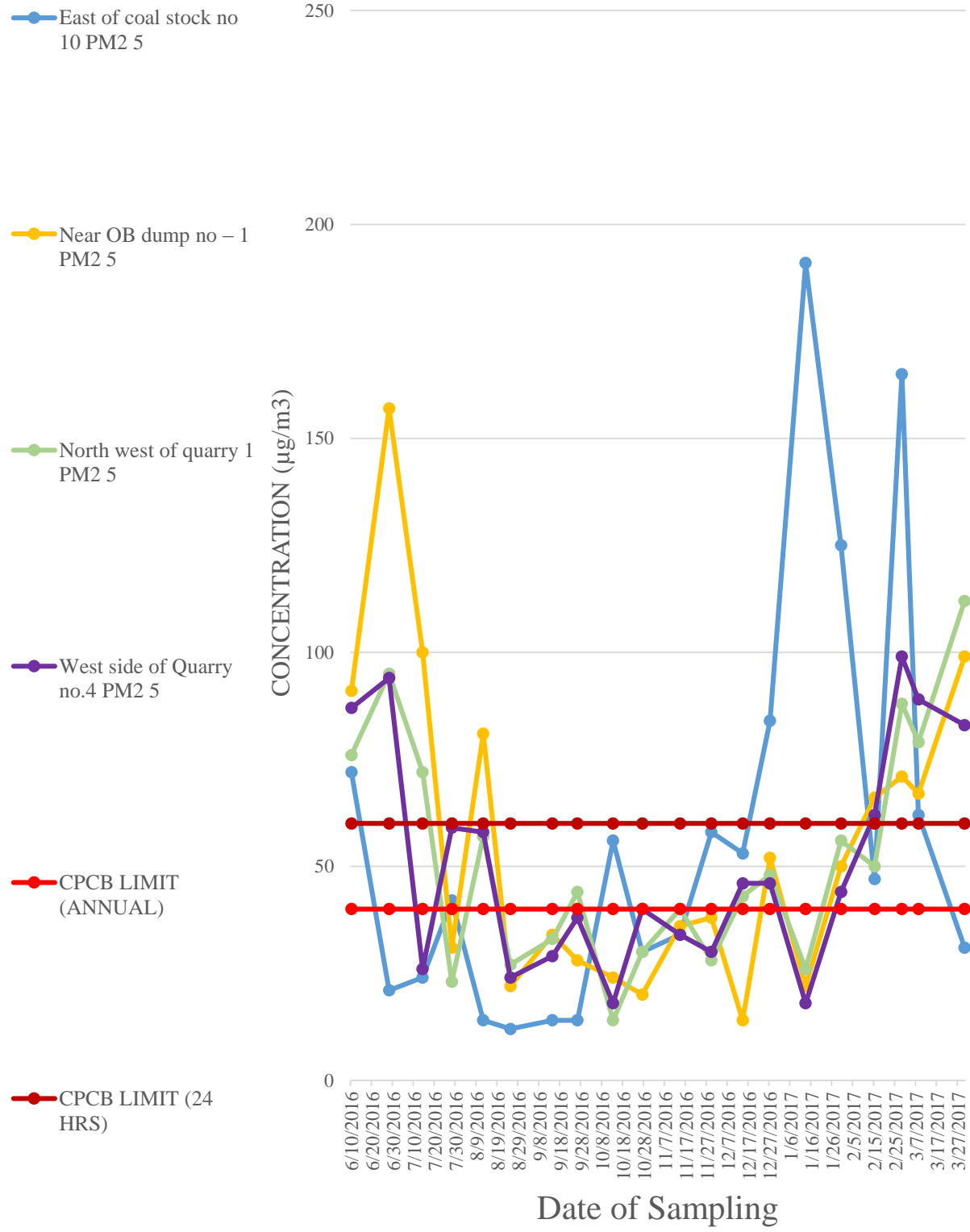
Table : 20
Project: Lakhanpur OCP
Monitoring Station: Ubuda village

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
13-06-2016	84	202	<25	25	333	West to east hot & sunny
29-06-2016	64	133	<25	11	244	West to east hot & sunny
14-07-2016	50	115	1	<6	257	East to west hot & sunny evening rain fall
28-07-2016	27	67	12	13	114	East to west cloudy & rain fall
12-08-2016	27	66	15	10	118	East to west cloudy & heavy rainfall
25-08-2016	16	63	18	21	89	South to North Cloudy & Rainfall
14-09-2016	34	138	23	24	226	West to east cloudy & sunny
27-09-2016	20	66	12	<6	124	West to East cloudy & evening rain fall
13-10-2016	32	218	14	17	308	East to west cloudy & sunny
27-10-2016	28	184	15	20	392	East to west cloudy & sunny
02-01-2017	88	178	32	17	316	West to East, sunny evening rainfall
03-01-2017	56	92	8	20	337	South to North, Sunny
09-01-2017	137	235	12	8	400	West to East, sunny
10-01-2017	134	216	15	7	434	North to South, Cloudy
16-01-2017	34	49	25	32	118	West to East, Sunny
17-01-2017	191	275	7	30	321	North to South, Sunny
23-01-2017	118	224	7	<6	310	North to South, Sunny
24-01-2017	50	178	6	7	384	North to South, Sunny
01-02-2017	147	289	10	7	775	South to North, Sunny
17-02-2017	78	84	4	12	144	South to North, Sunny
01-11-2016	34	160	19	24	378	East to west cloudy & sunny
16-11-2016	56	198	25	18	339	West to east Sunny & cloudy
01-12-2016	134	261	10	<6	592	West to East, sunny
19-12-2016	84	236	6	<6	385	West to East, sunny
08-11-2016	48	338	28	24	516	West to East cloudy & sunny
23-11-2016	52	172	15	20	326	West to east Sunny & cloudy
12-12-2016	87	269	14	11	513	West to East, sunny
20-12-2016	85	354	9	<6	562	West to East, sunny
09-11-2016	56	296	31	35	434	West to East cloudy & sunny
24-11-2016	54	208	14	22	340	West to east Sunny & cloudy
13-12-2016	92	162	16	<6	542	West to East, sunny
29-12-2016	154	247	6	9	562	South to North, Sunny
02-02-2017	113	188	25	20	356	West to East, sunny
07-02-2017	188	211	6	30	524	South to North, Sunny
08-02-2017	305	382	10	24	814	East to West, Sunny
16-02-2017	80	112	7	15	276	West to East, sunny
20-02-2017	121	259	5	22	519	North to South, Sunny
21-02-2017	141	350	5	15	481	East to West, Sunny
01-03-2017	170	225	32.4	23	618	West to East Sunny
02-03-2017	167	214	3.14	6	443	North to South Sunny
06-03-2017	157	336	4.65	8	505	West to East Sunny
07-03-2017	47	318	25.01	32	551	North to South Sunny
16-03-2017	25	109	4.57	26	215	East to West, Sunny
17-03-2017	45	53	2.95	13	91	West to East, Sunny
21-03-2017	64	85	4.07	6	166	South to North, Sunny
22-03-2017	65	90	6.89	11	150	West to East, Sunny
02-11-2016	40	252	21	25	356	East to west cloudy & sunny
17-11-2016	50	184	17	21	322	West to east Sunny & cloudy
02-12-2016	83	127	11	9	218	West to East, sunny
30-12-2016	111	244	12	15	379	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	305	382	32.4	35	814	
Minimum	16	49	1	6	89	
Average	86.46	194.24	13.16	17.79	364.34	
95 Percentile	179.90	344.60	29.95	31.80	606.30	
98 Percentile	193.28	354.56	32.02	32.48	775.78	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Graph Showing PM10 of Lankhanpur OCP



Graph Showing PM2.5 of Lankhanpur OCP



Graph Showing SO₂ of Lankhanpur OCP

East of coal stock no 10
SO₂

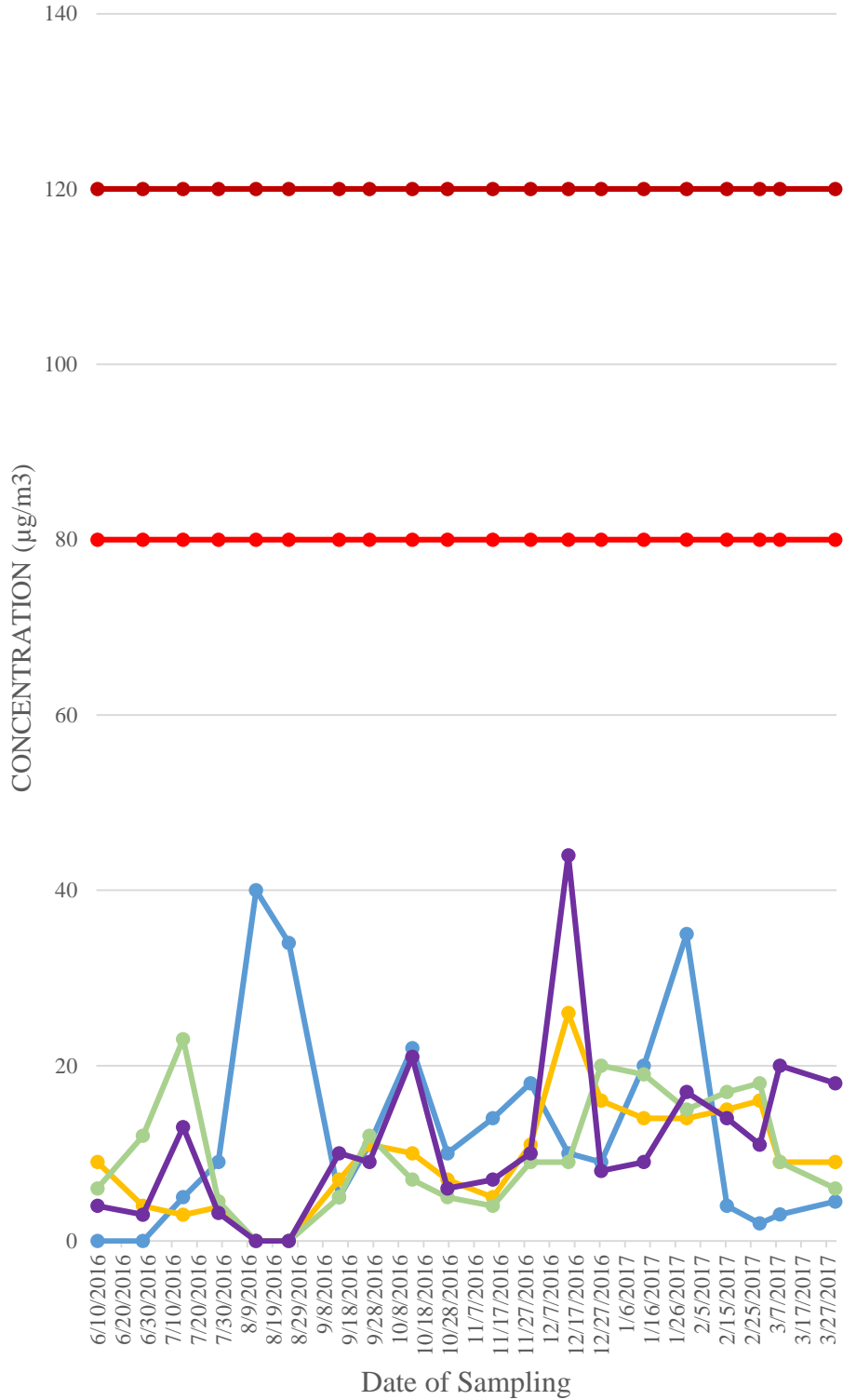
Near OB dump no – 1
SO₂

North west of quarry 1
SO₂

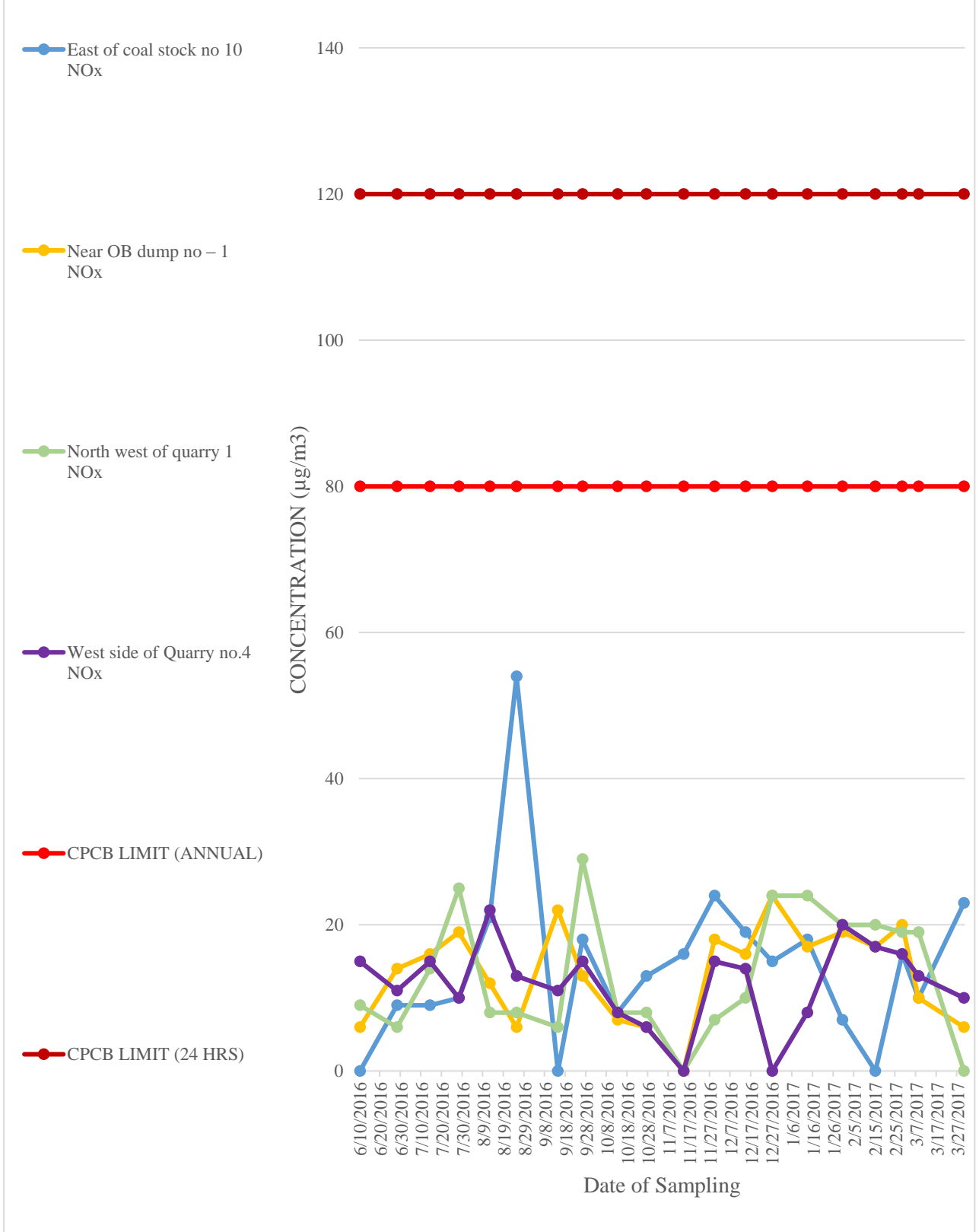
West side of Quarry
no.4 SO₂

CPCB LIMIT
(ANNUAL)

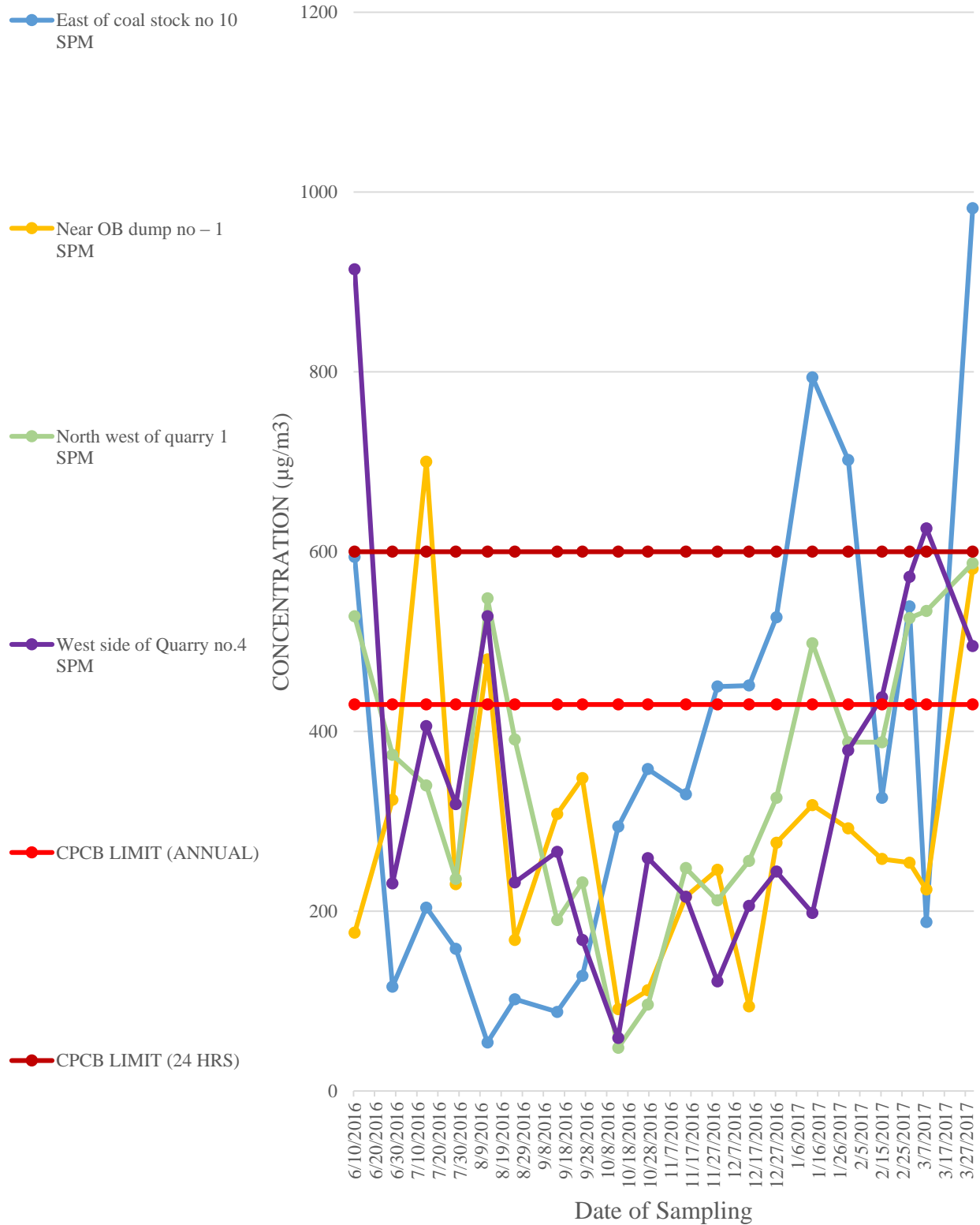
CPCB LIMIT (24 HRS)



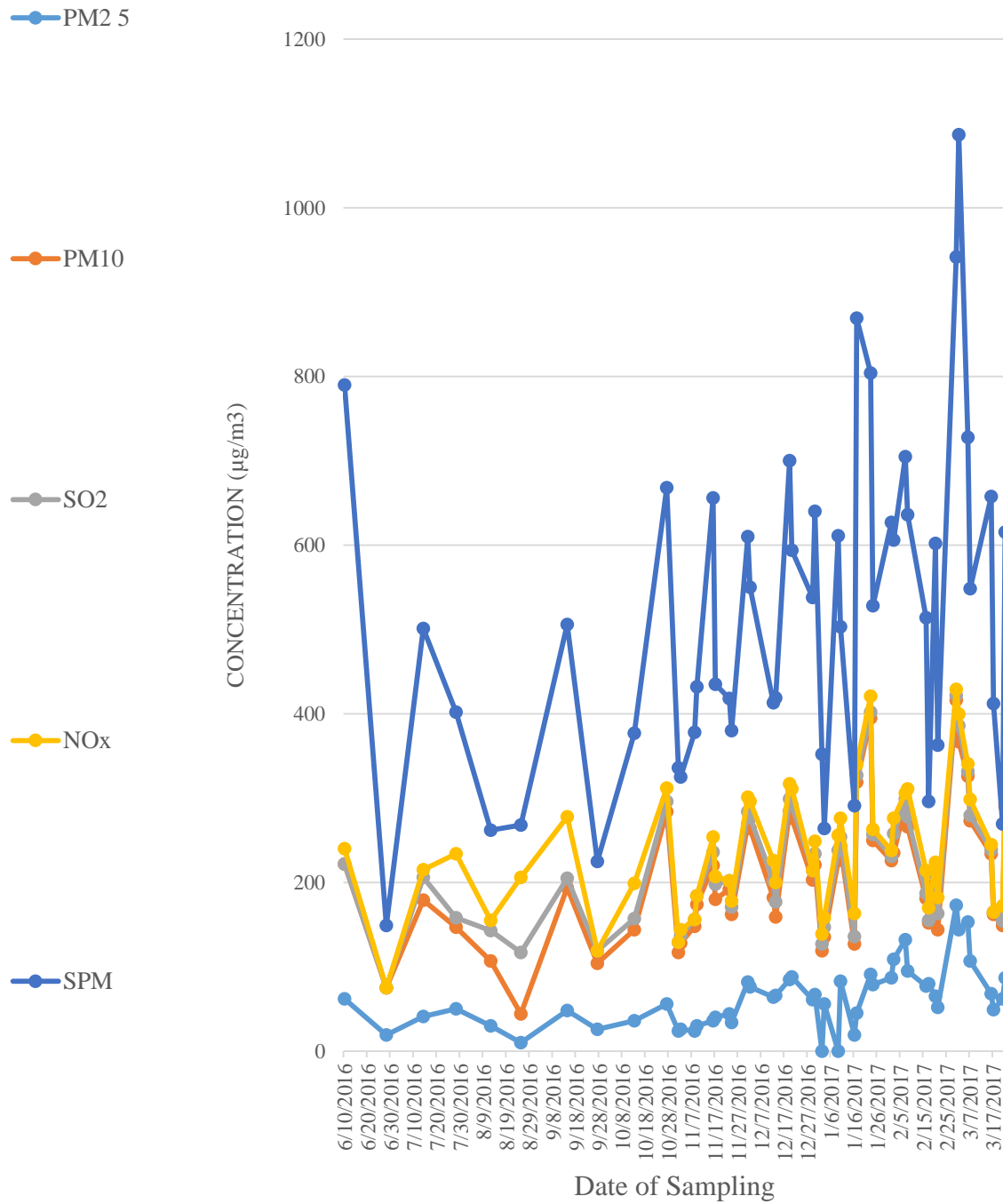
Graph Showing NO_x of Lankhanpur OCP



Graph Showing SPM of Lankhanpur OCP



Graph Showing PM_{2.5}, PM₁₀, SO₂, NO_x, SPM of Tingismal village



Graph Showing PM2.5, PM10, SO2, NOx, SPM of Ubada village

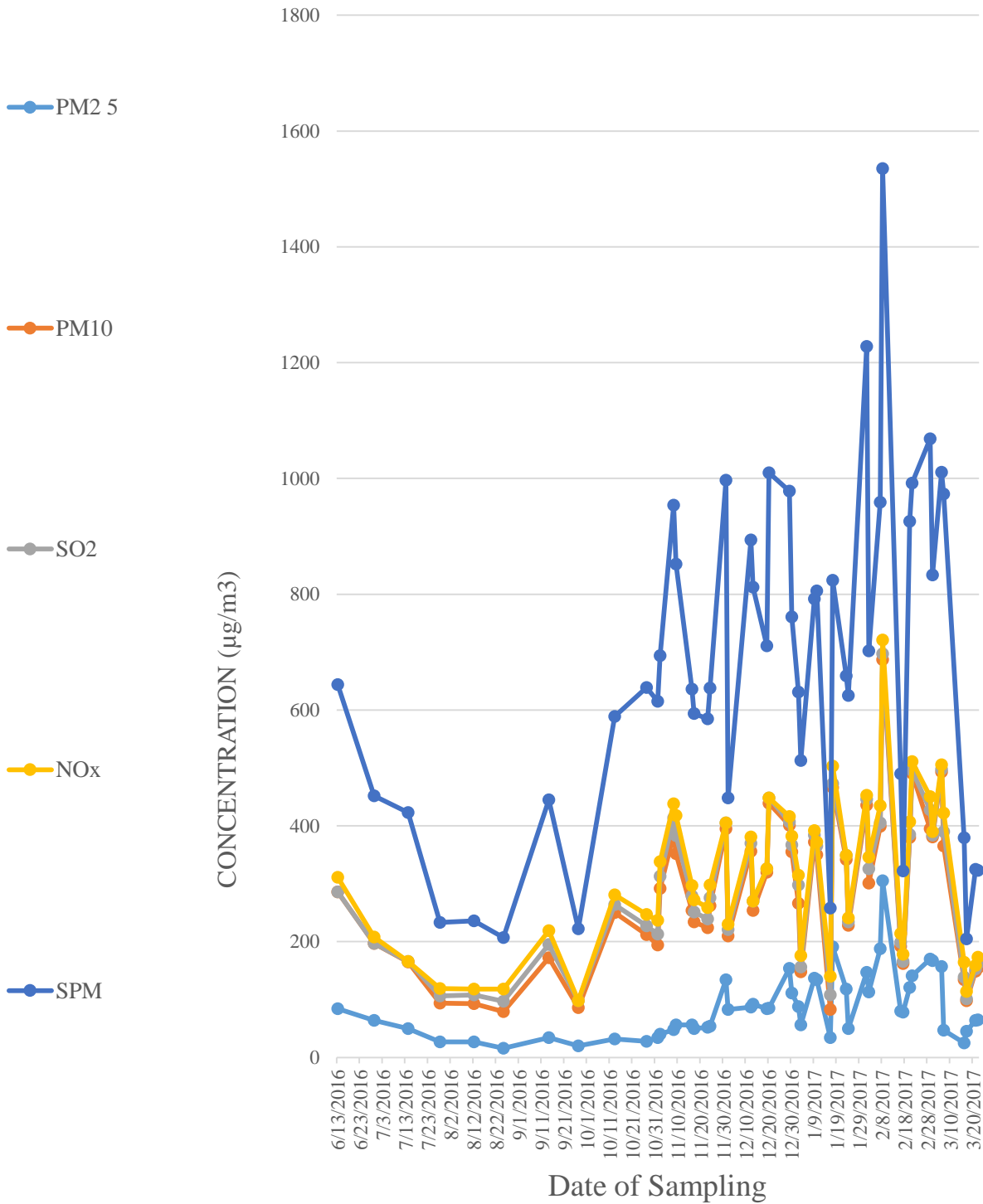


Table : 21
Project: Lilari OCP
Monitoring Station: Near Lilari Pump House

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
10-06-2016	81	163	<25	12	480	East to west hot & sunny
27-06-2016	22	71	<25	6	168	East to west hot & sunny
13-07-2016	34	110	7	22	308	East to west hot & sunny evening rain fall
27-07-2016	28	137	11	13	348	West to east cloudy & rainfall
12-08-2016	24	58	10	7	91	East to west cloudy & heavy rainfall
25-08-2016	12	78	7	6	112	South to North Cloudy & Rainfall
13-09-2016	23	120	9	19	186	East to west cloudy & rainfall
26-09-2016	38	154	11	18	246	East to west cloudy & sunny evening rain fall
13-10-2016	14	68	26	16	94	East to west cloudy & sunny
27-10-2016	52	178	16	24	276	East to west cloudy & sunny
12-11-2016	22	130	14	17	318	East to west cloudy & sunny
28-11-2016	50	168	14	19	292	East to west Sunny & cloudy
14-12-2016	66	172	15	17	258	East to West, Sunny
23-12-2016	150	252	10	13	339	West to East, sunny
13-01-2017	67	137	9	10	224	West to East, sunny
30-01-2017	99	323	9	6	581	West to East, Sunny
14-02-2017	91	112	9	6	176	East to West, Sunny
27-02-2017	157	210	4	14	324	North to South, Sunny
15-03-2017	100	212	2.99	16	700	South to North Sunny
29-03-2017	31	78	3.85	19	230	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	157	323	26	24	700	
Minimum	12	58	2.99	6	91	
Average	58.05	146.55	10.44	14.00	287.55	
95 Percentile	150.35	255.55	17.50	22.10	586.95	
98 Percentile	154.34	296.02	22.60	23.24	654.78	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table 21
Project: Lilari OCP
Monitoring Station: Near magazine house

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
09-06-2016	54	102	<25	<6	274	East to west hot & sunny
27-06-2016	22	103	<25	7	205	West to east hot & sunny
13-07-2016	18	74	13	9	162	East to west hot & sunny evening rain fall
27-07-2016	22	60	6	<6	88	West to east cloudy & rainfall
11-08-2016	21	42	9	19	64	West to east cloudy & heavy rainfall
24-08-2016	20	87	6	12	123	West to East Sunny & Cloudy Rainfall
13-09-2016	40	123	47	67	205	East to west cloudy & rainfall
26-09-2016	32	94	9	8	162	East to west cloudy & sunny evening rain fall
12-10-2016	32	138	11	11	222	West to east cloudy
26-10-2016	38	96	20	17	184	West to East cloudy & sunny
12-11-2016	28	143	15	20	421	West to East cloudy & sunny
28-11-2016	28	104	5	7	168	West to east Sunny & cloudy
14-12-2016	82	127	68	12	240	West to East, sunny
27-12-2016	52	125	15	20	232	West to East, sunny
13-01-2017		218	13	12	334	South to North, Sunny & PM2.5 Sampler breakdown
30-01-2017	93	188	6	23	560	East to West, Sunny
14-02-2017	39	112	8	7	167	East to West, Sunny
27-02-2017	149	152	3	15	572	East to West, Sunny
15-03-2017	91	328	10.58	18	895	North to South Sunny
29-03-2017	75	238	2.06	16	621	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	149	328	68	67	895	
Minimum	18	42	2.06	7	64	
Average	49.26	132.70	14.81	16.67	294.95	
95 Percentile	98.60	242.50	50.15	29.60	634.70	
98 Percentile	128.84	293.80	60.86	52.04	790.88	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 22
Project: Lilari OCP
Monitoring Station: Near old coal stock yard

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
09-06-2016	74	178	<25	<6	586	East to west hot & sunny
27-06-2016	30	67	<25	6	114	West to east hot & sunny
13-07-2016	58	138	4	8	269	East to west hot & sunny evening rain fall
27-07-2016	33	84	8	<6	137	West to east cloudy & rainfall
11-08-2016	16	45	16	25	66	West to east cloudy & heavy rainfall
24-08-2016	29	128	5	8	194	West to East Sunny & Cloudy Rainfall
13-09-2016	23	120	9	19	186	East to west cloudy & rainfall
26-09-2016	36	130	8	13	214	East to west cloudy & sunny evening rain fall
12-10-2016	36	130	26	29	194	West to east cloudy
26-10-2016	28	174	14	22	260	West to East cloudy & sunny
12-11-2016	24	118	17	20	384	West to East cloudy & sunny
28-11-2016	54	194	18	21	302	West to east Sunny & cloudy
14-12-2016	111	226	10	14	561	East to West, Sunny
27-12-2016	80	241	18	22	447	North to South, Sunny
13-01-2017	65	166	17	17	398	West to East, sunny
30-01-2017	79	302	8	8	646	West to East, Sunny
14-02-2017	49	218	4	<6	406	East to West, Sunny
27-02-2017	157	161	3	12	310	West to East, sunny
15-03-2017	101	193	8.17	10	428	West to East Sunny
29-03-2017	71	327	1.96	7	548	North to South, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	157	327	26	29	646	
Minimum	16	45	1.96	6	66	
Average	57.70	167.00	10.84	15.35	332.50	
95 Percentile	113.30	303.25	19.20	25.80	589.00	
98 Percentile	139.52	317.50	23.28	27.72	623.20	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Graph Showing PM10 of Lilari OCP

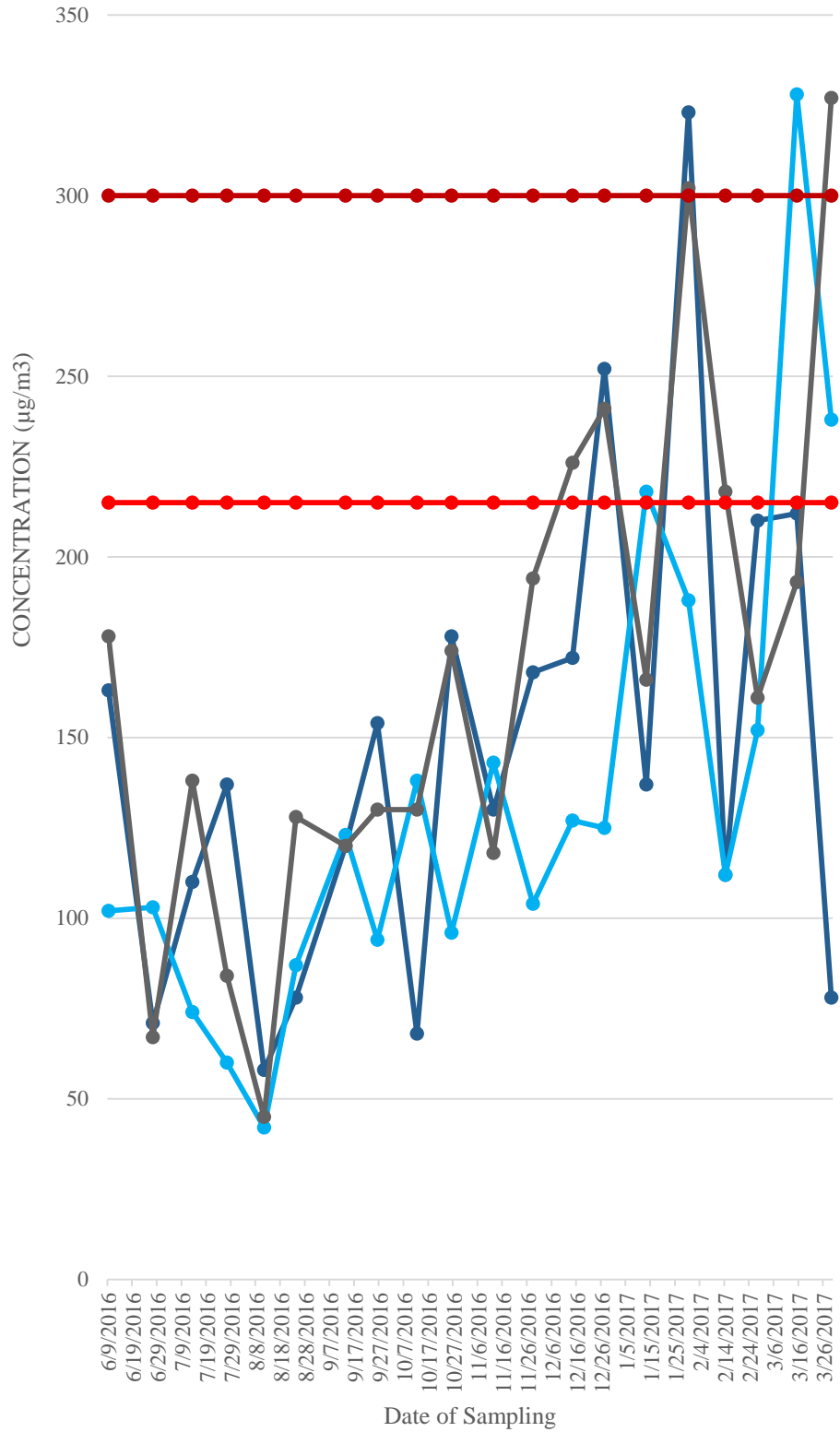
● Near Lilari Pump House PM10

● Near magazine house PM10

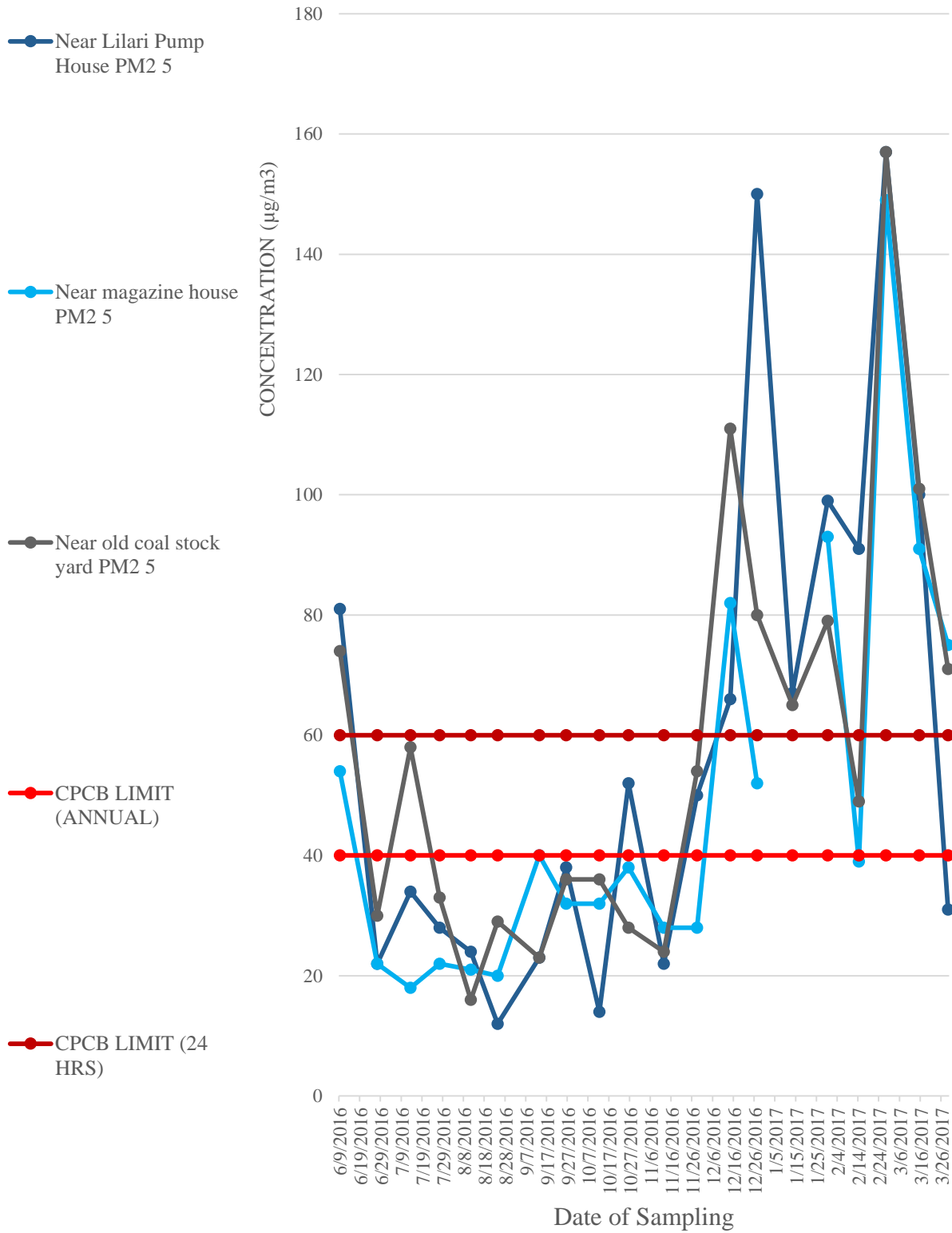
● Near old coal stock yard PM10

● CPCB LIMIT (ANNUAL)

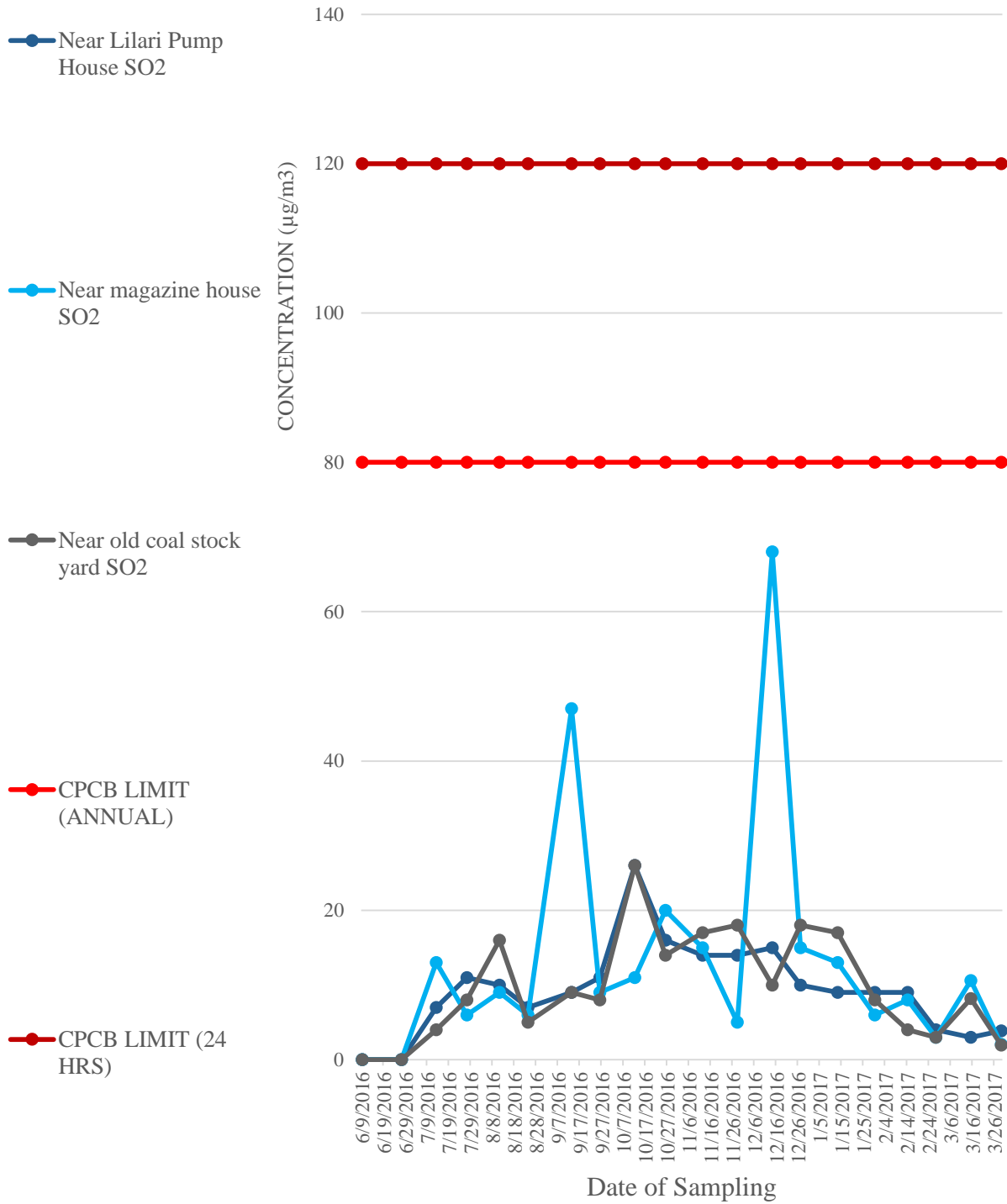
● CPCB LIMIT (24 HRS)



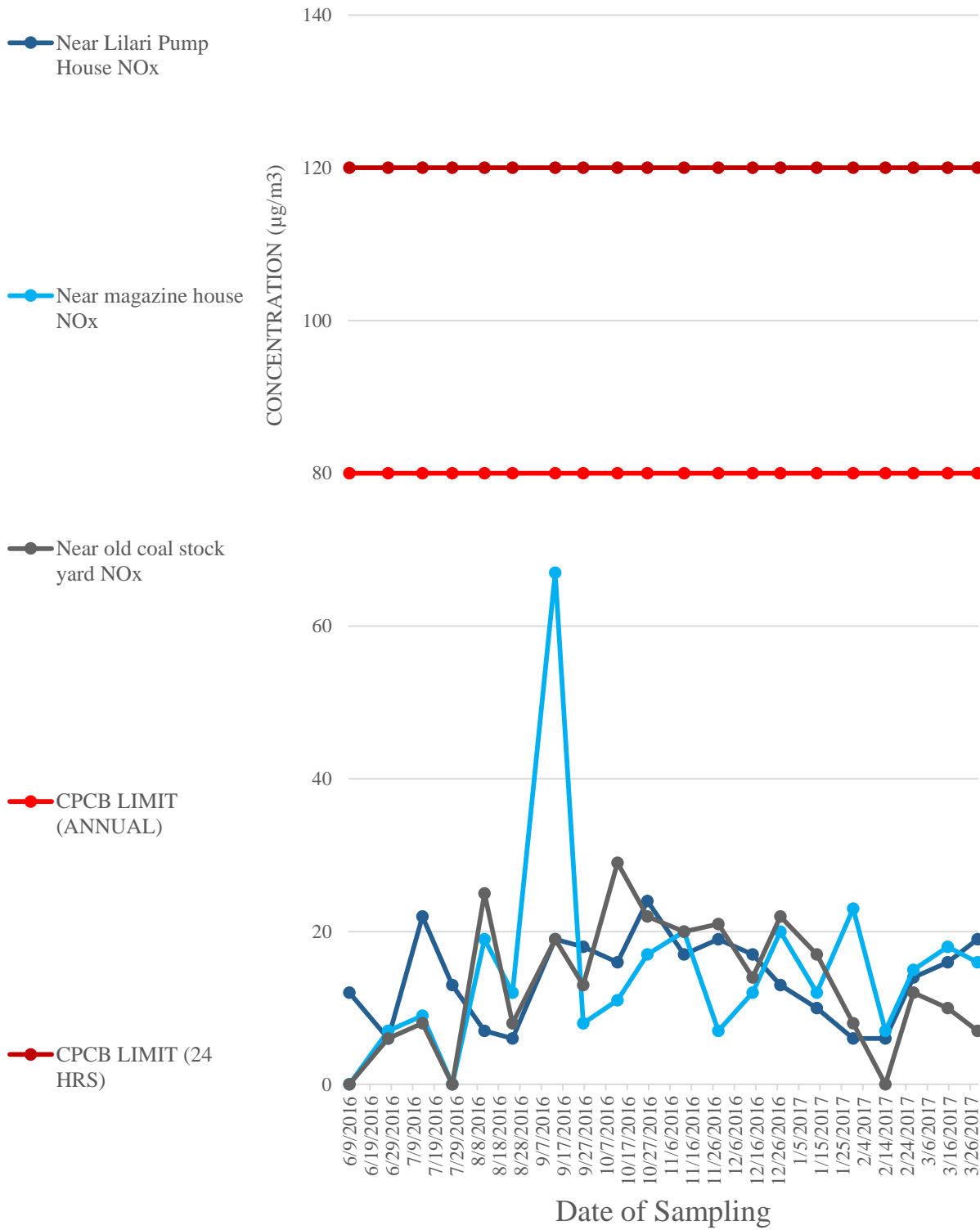
Graph Showing PM2.5 of Lilari OCP



Graph Showing SO2 of Lilari OCP



Graph Showing NO_x of Lilari OCP



Graph Showing SPM of Lilari OCP

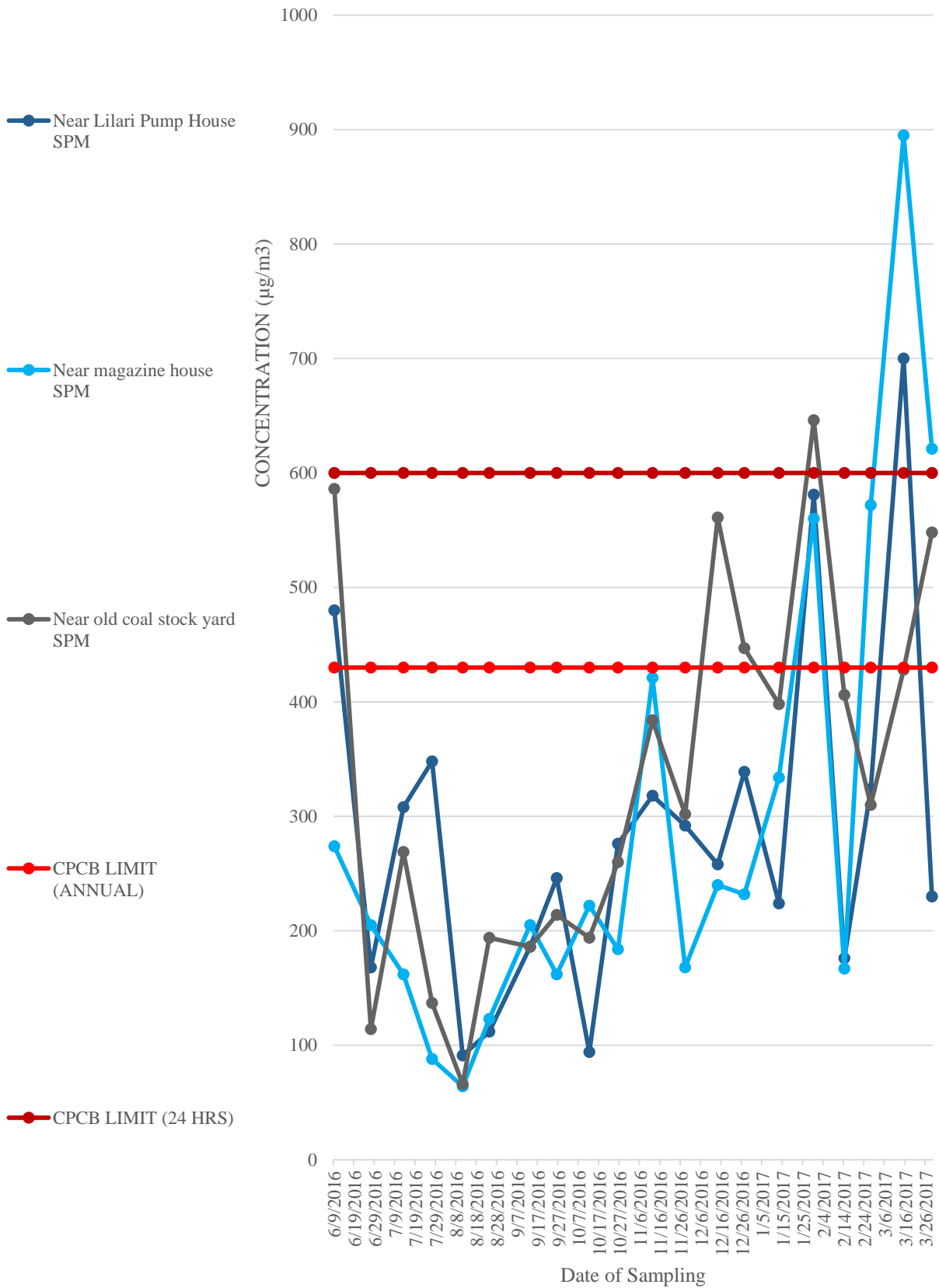


Table :23
Project: Basundhara OCP
Monitoring Station: Kanika Railway siding

Date of Sampling	PM2 5	PM10	SO2	NOx	SPM	Remarks
03-06-2016	44	244	<25	7	415	West to east hot & sunny
20-06-2016	59	111	36	27	232	West to east hot & sunny, evening rainfall
06-07-2016	26	88	4	<6	192	West to east hot & sunny evening rainfall
20-07-2016	56	121	8	15	203	East to west cloudy & rain fall
Brief Statistics	PM2.5	RPM	SO2	NOx	SPM	All values in $\mu\text{g}/\text{m}^3$
Maximum	59	244	36	27	415	
Minimum	26	88	4	7	192	
Average	46.25	141.00	16.00	16.33	260.50	
95 Percentile	58.55	225.55	33.20	25.80	387.55	
98 Percentile	58.82	236.62	34.88	26.52	404.02	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 24
Project: Basundhara OCP
Monitoring Station: Khamarpara

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM	Remarks
02-06-2016	64	231	<25	11	425	West to east hot & sunny
17-06-2016	51	142	<25	14	255	West to east hot & sunny, evening rainfall
05-07-2016	38	117	21	12	215	West to east heavy rainfall & power cut
19-07-2016	40	92	52	46	137	West to east cloudy & rainfall
06-08-2016	38	112	27	22	186	West to east cloudy & heavy rainfall
18-08-2016	14	63	3	7	129	East to West Cloudy & Rainfall
07-09-2016	40	128	10	10	214	West to east cloudy & sunny rainfall
20-09-2016	22	84	17	20	138	West to east cloudy & sunny evening rain fall
04-10-2016	18	54	23	33	97	West to east cloudy
20-10-2016	40	168	20	27	362	West to east cloudy & sunny
01-11-2016	18	116	8	<6	200	West to East cloudy & sunny
02-11-2016	20	94	14	19	265	West to East cloudy & sunny
08-11-2016	24	114	22	17	430	West to East cloudy & sunny
09-11-2016	61	78	5	<6	138	West to East cloudy & sunny
16-11-2016	42	194	17	20	336	West to east sunny & cloudy
17-11-2016	34	208	8	15	316	West to east sunny & cloudy
23-11-2016	26	118	14	13	247	West to east sunny & cloudy
24-11-2016	28	124	10	14	228	West to east sunny & cloudy
01-12-2016	116	442	11	<6	605	West to East, sunny
02-12-2016	53	105	14	17	217	West to East, sunny
12-12-2016	104	122	20	16	258	South to North, Sunny
13-12-2016	129	202	19	22	417	West to East, sunny
19-12-2016	72	258	12	15	442	West to East, sunny
20-12-2016	64	166	13	16	288	West to East, sunny
29-12-2016	95	268	7	10	599	West to East, sunny
30-12-2016	99	191	10	<6	352	West to East, sunny
02-01-2017	85	178	12	21	368	East to West, Sunny & Evening rainfall
03-01-2017	65	118	9	26	162	East to West, Sunny
09-01-2017	94	202	7	9	342	West to East, sunny
10-01-2017	131	154	8	17	182	East to West, Cloudy
16-01-2017	121	170	15	18	265	North to South, Sunny
17-01-2017	84	135	8	22	302	South to North, Sunny
23-01-2017	69	140	9	17	489	South to North, Sunny
24-01-2017	62	132	19	16	181	East to West, Sunny
01-02-2017	96	209	5	8	628	South to North, Sunny
02-02-2017	145	171	6	12	565	East to West, Sunny
07-02-2017	189	255	7	29	417	East to West, Sunny
08-02-2017	83	128	6	31	272	West to East, sunny
16-02-2017	84	406	5	15	683	South to North, Sunny
17-02-2017	49	42	3	7	148	North to South, Sunny
20-02-2017	103	183	5	22	346	West to East, sunny
21-02-2017	182	218	43	22	663	South to North, Sunny
01-03-2017	210	268	3.44	<6	747	East to West Sunny
02-03-2017	118	209	13.64	18	646	West to East Sunny
06-03-2017	158	191	2.7	6	390	North to South Sunny
07-03-2017	142	302	5.71	18	702	North to South Sunny
16-03-2017	30	108	2.72	6	304	South to North, Sunny
17-03-2017	70	117	6.7	21	160	South to North, Sunny
21-03-2017	30	170	3.69	25	287	North to South, Sunny
22-03-2017	90	246	2.42	9	269	East to West, Sunny
Brief Statistics	PM2.5	RPM	SO2	NOx	SPM	All values in µg/m3
Maximum	210	442	52	46	747	
Minimum	14	42	2	6	97	
Average	76.80	168.86	12.19	17.58	340.28	
95 Percentile	171.20	286.70	25.60	30.60	674.00	
98 Percentile	189.42	406.72	43.54	34.56	702.90	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 25
Project: Basundhara OCP
Monitoring Station: NearCHP

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM	Remarks
02-06-2016	63	254	27	20	652	West to east hot & sunny
17-06-2016	59	110	<25	33	186	West to east hot & sunny, evening rainfall
06-07-2016	33	108	36	18	246	West to east hot & sunny evening rainfall
20-07-2016	44	104	4	8	163	East to west cloudy & rain fall
06-08-2016	24	52	10	30	76	West to east cloudy & heavy rainfall
19-08-2016	25	89	8	6	163	West to East Cloudy & Rainfall
07-09-2016	41	114	4	15	128	West to east cloudy & sunny rainfall
20-09-2016	26	92	22	9	140	West to east cloudy & sunny evening rain fall
04-10-2016	24	64	10	11	98	West to east cloudy
20-10-2016	36	168	17	20	284	West to east cloudy & sunny
03-11-2016	38	186	15	20	304	West to East cloudy & sunny
18-11-2016	64	308	21	27	536	West to east sunny & cloudy
08-12-2016	102	217	15	17	338	East to West, Sunny
21-12-2016	55	143	16	16	287	East to West, Sunny
05-01-2017	107	191	7	12	314	North to South, Sunny
19-01-2017	74	204	8	19	271	Calm, Sunny
06-02-2017	86	174	5	19	388	East to West, Sunny
23-02-2017	86	183	3	16	383	East to West, Sunny
04-03-2017	121	167	4.19	9	286	East to West Sunny
23-03-2017	72	196	2.77	9	334	North to South, Sunny
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM	All values in µg/m3
Maximum	121	308	36	33	652	
Minimum	24	52	3	6	76	
Average	59.00	156.20	12.37	16.70	278.85	
95 Percentile	107.70	256.70	27.90	30.15	541.80	
98 Percentile	115.68	287.48	32.76	31.86	607.92	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

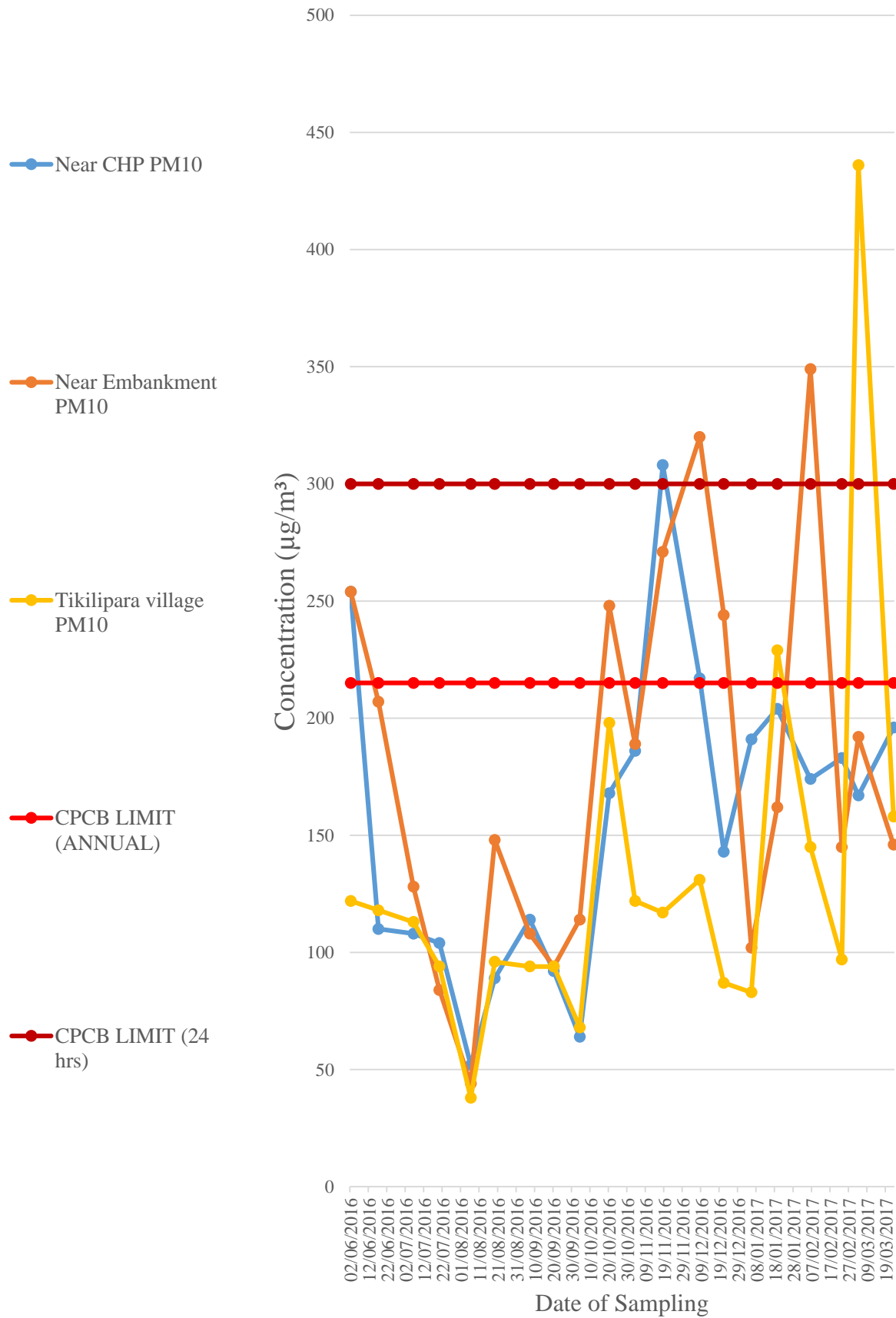
Table : 26
Project: Basundhara OCP
Monitoring Station: Near Embankment

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM	Remarks
03-06-2016	63	254	<25	11	562	West to east hot & sunny
17-06-2016	54	207	<25	8	313	West to east hot & sunny, evening rainfall
05-07-2016	36	128	86	33	244	West to east hot & sunny evening rainfall
19-07-2016	38	84	20	35	137	West to east cloudy & rainfall
06-08-2016	16	44	22	26	95	West to east cloudy & heavy rainfall
19-08-2016	37	148	42	6	262	West to East Cloudy & Rainfall
07-09-2016	28	108	3	11	176	West to east cloudy & sunny rainfall
20-09-2016	28	94	9	<6	145	West to east cloudy & sunny evening rain fall
04-10-2016	28	114	22	18	176	West to east cloudy
20-10-2016	68	248	13	21	386	West to east cloudy & sunny
03-11-2016	36	189	14	19	295	West to east cloudy & sunny
18-11-2016	50	271	17	20	415	West to east sunny & cloudy
08-12-2016	103	320	14	19	596	East to West, Sunny
21-12-2016	82	244	18	19	330	South to North, Sunny
05-01-2017	59	102	8	13	162	West to East, sunny
19-01-2017	125	162	10	13	322	South to North, Sunny
06-02-2017	191	349	28	17	924	South to North, Sunny
23-02-2017	106	145	21	12	393	North to South, Sunny
04-03-2017	105	192	4.94	8	369	East to West Sunny
23-03-2017	120	146	8.41	21	259	West to East, Sunny
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM	All values in µg/m³
Maximum	191	349	86	35	924	
Minimum	16	44	3	6	95	
Average	68.65	177.45	20.02	17.37	328.05	
95 Percentile	128.30	321.45	48.60	33.20	612.40	
98 Percentile	165.92	337.98	71.04	34.28	799.36	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

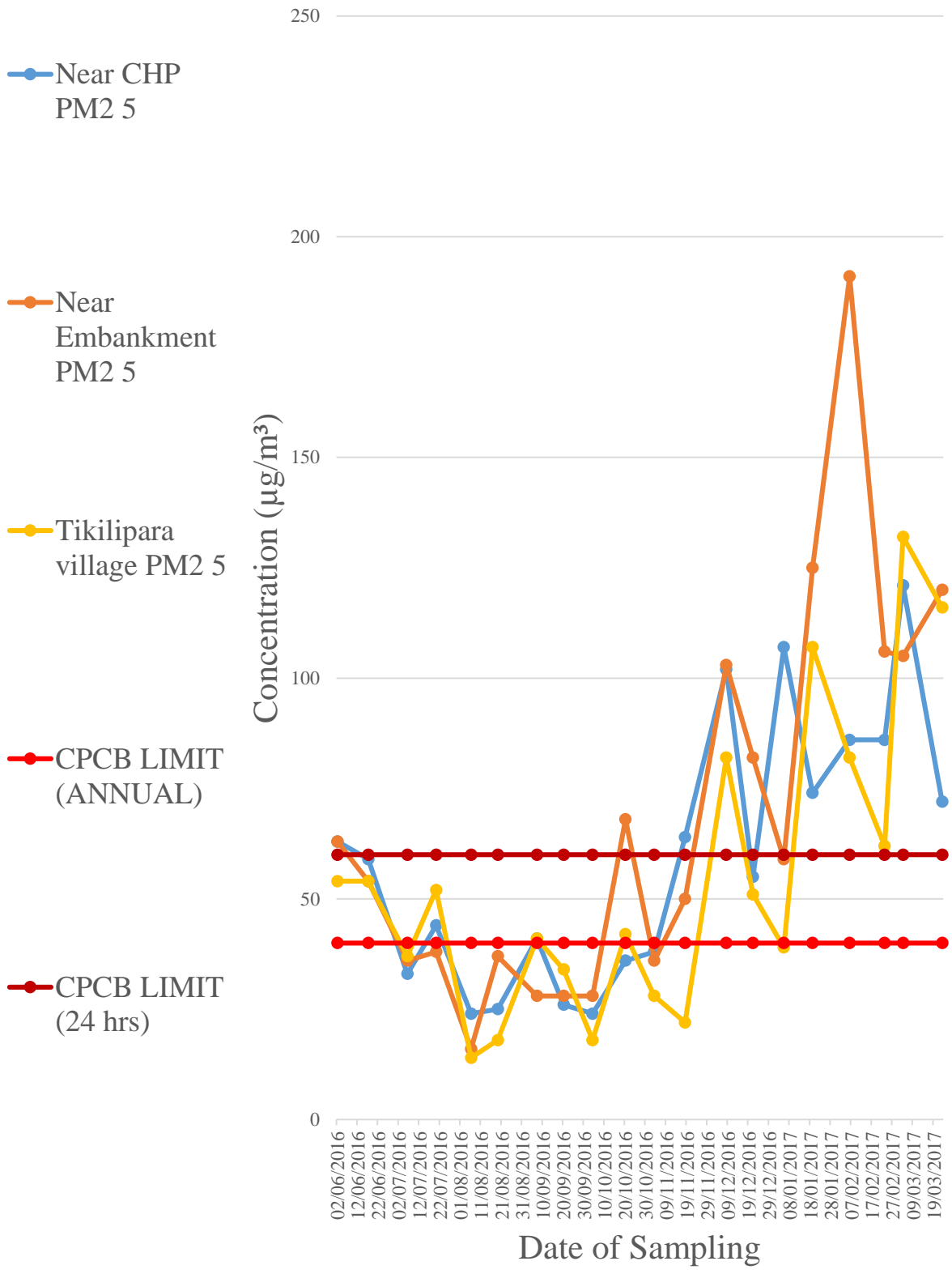
Table : 27
Project: Basundhara OCP
Monitoring Station: Tikilipara village

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM	Remarks
02-06-2016	54	122	<25	23	280	West to east hot & sunny
16-06-2016	54	118	<25	<6	248	West to east hot & sunny, evening rainfall
06-07-2016	37	113	24	14	239	West to east hot & sunny evening rainfall
20-07-2016	52	94	11	17	141	East to west cloudy & rain fall
06-08-2016	14	38	20	27	69	West to east cloudy & heavy rainfall
19-08-2016	18	96	7	10	160	West to East Cloudy & Rainfall
07-09-2016	41	94	5	<6	182	West to east cloudy & sunny rainfall
20-09-2016	34	94	9	8	136	West to east cloudy & sunny evening rain fall
04-10-2016	18	68	17	21	96	West to east cloudy
20-10-2016	42	198	18	24	302	West to east cloudy & sunny
03-11-2016	28	122	7	11	198	West to East cloudy & sunny
18-11-2016	22	117	8	<6	194	West to east sunny & cloudy
08-12-2016	82	131	20	27	301	West to East, sunny
21-12-2016	51	87	15	18	158	North to South, Sunny
05-01-2017	39	83	9	10	203	West to East, sunny
19-01-2017	107	229	7	20	369	West to East, Sunny
06-02-2017	82	145	8	15	477	North to South, Sunny
23-02-2017	62	97	10	5	195	South to North, Sunny
04-03-2017	132	436	1.93	<6	834	North to South Sunny
23-03-2017	116	158	2.69	7	312	East to West, Sunny
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM	All values in µg/m3
Maximum	132	436	24	27	834	
Minimum	14	38	2	5	69	
Average	54.25	132.00	11.09	16.06	254.70	
95 Percentile	116.80	239.35	20.60	27.00	494.85	
98 Percentile	125.92	357.34	22.64	27.00	698.34	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

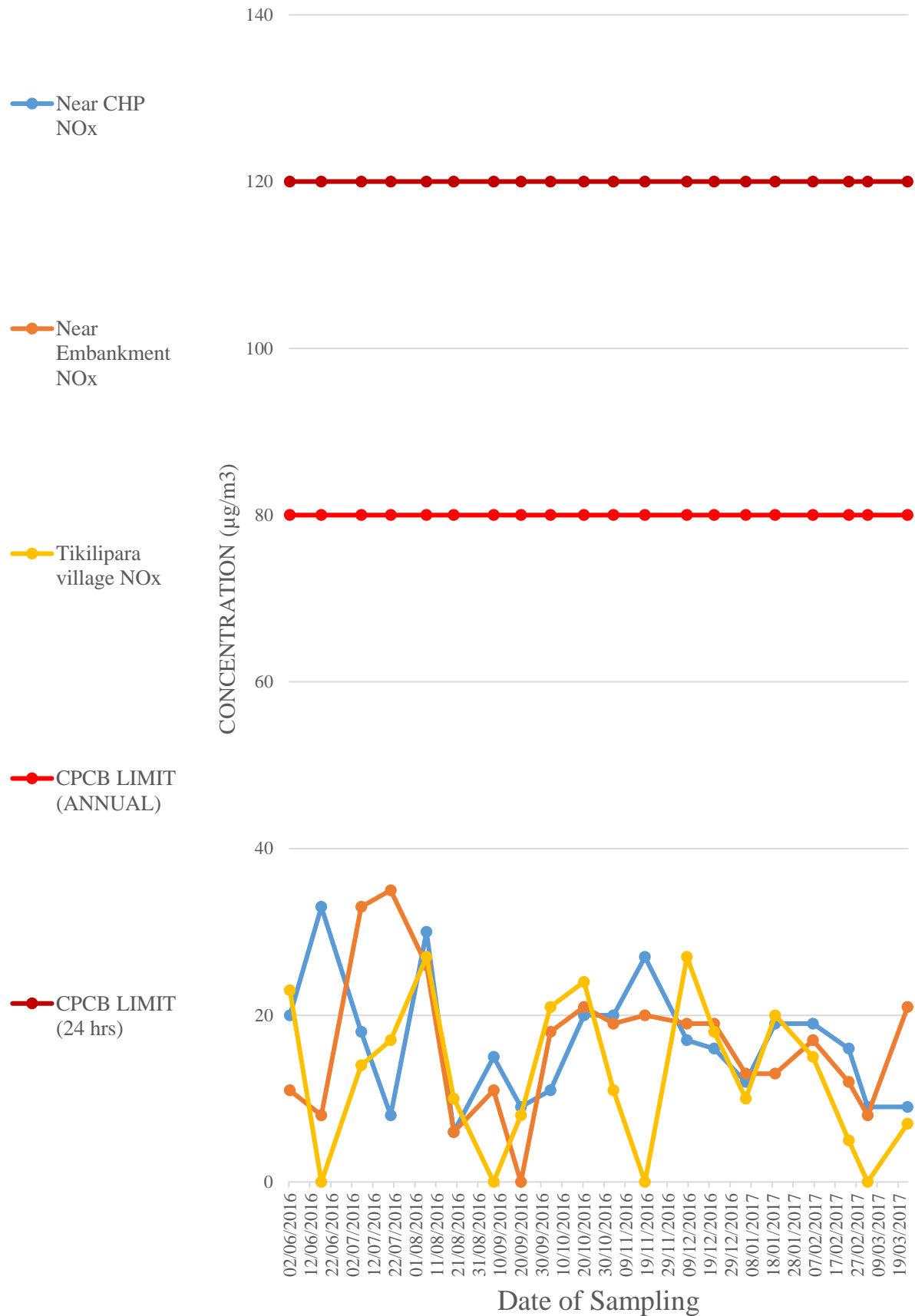
Graph showing PM10 of Basundhara OCP



Graph Showing PM2.5 for Basundhara OCP



Graph Showing NOX of Basundhara OCP



Graph Showing SO₂ of Basundhara OCP

● Near CHP SO₂

140

● Near Embankment SO₂

120

● Tikilipara village SO₂

100

● CPCB LIMIT (ANNUAL)

80

● CPCB LIMIT (24 hrs)

60

40

20

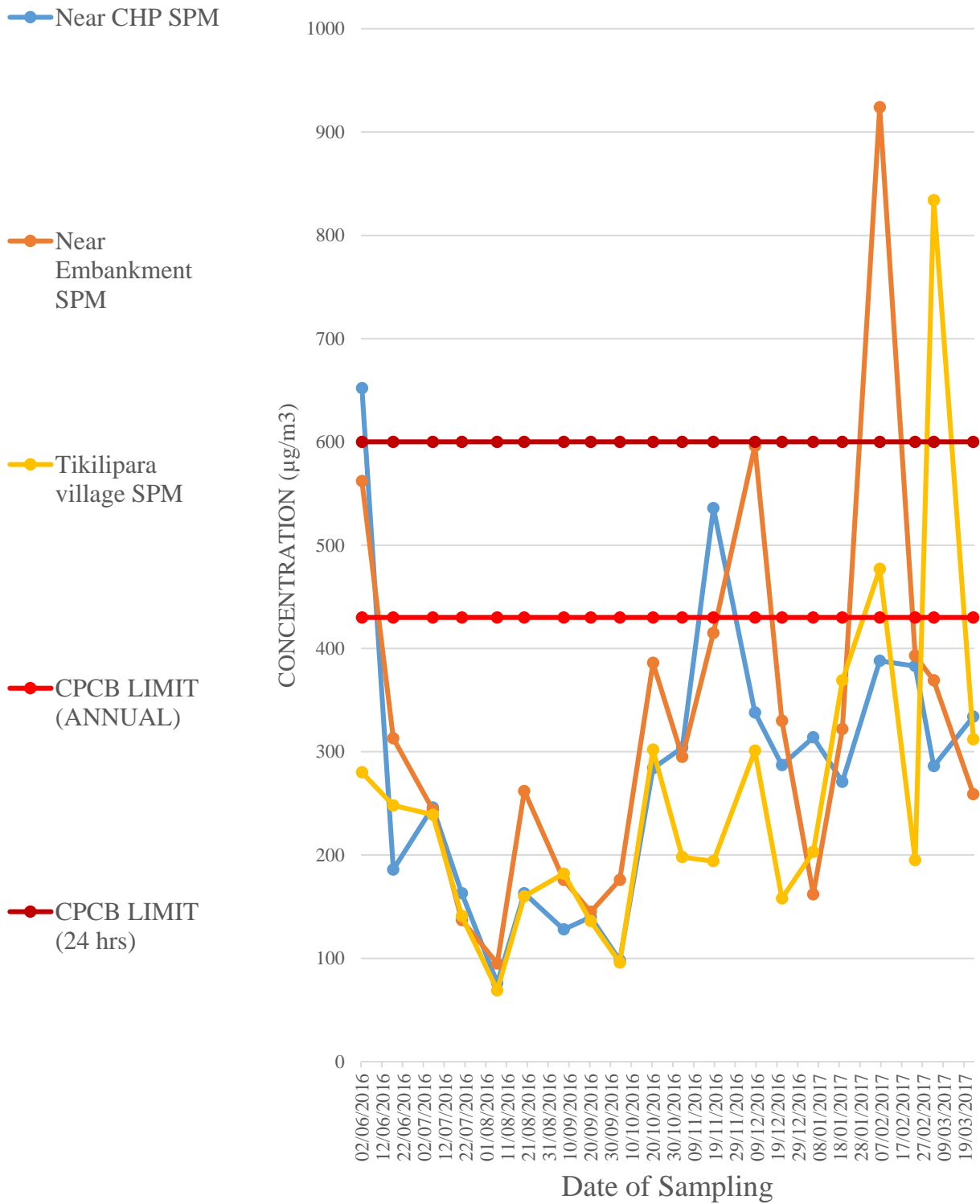
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CONCENTRATION (µg/m³)

02/06/2016 12/06/2016 22/06/2016 02/07/2016 12/07/2016 22/07/2016 01/08/2016 11/08/2016 21/08/2016 31/08/2016 10/09/2016 20/09/2016 30/09/2016 10/10/2016 20/10/2016 30/10/2016 09/11/2016 19/11/2016 29/11/2016 09/12/2016 19/12/2016 29/12/2016 08/01/2017 18/01/2017 28/01/2017 07/02/2017 17/02/2017 27/02/2017 09/03/2017 19/03/2017

Date of Sampling

Graph Showing SPM of Basundhara OCP



Graph Showing PM2.5, PM10, SO2, NOx & SPM of Khamarpara

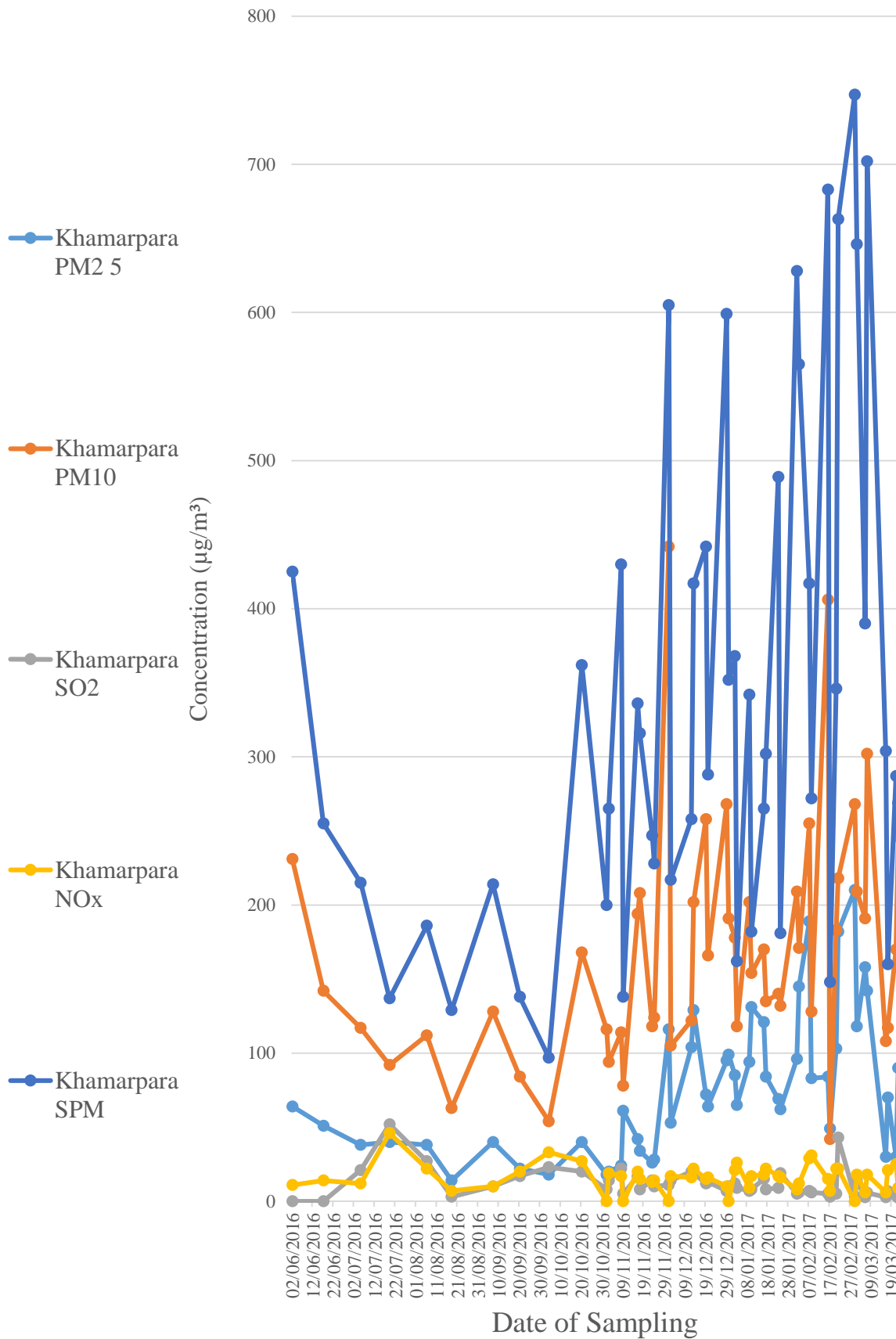


Table : 28
Project: Kulda OCP
Monitoring Station: Balinga Market

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
01-06-2016	70	238	<25	<6	518	West to east hot & sunny
17-06-2016	91	122	56	11	227	West to east hot & sunny, evening rainfall
04-07-2016	26	92	19	6	205	West to east hot & sunny evening rainfall
18-07-2016	34	86	4	6	123	East to west cloudy & rain fall
05-08-2016	24	70	24	50	122	East to west cloudy & heavy rain fall
18-08-2016	16	74	6	6	112	East to West Cloudy & Rainfall
06-09-2016	18	64	8	7	122	East to west cloudy & sunny
29-09-2016	14	60	21	25	89	East to west cloudy & sunny evening rain fall
13-10-2016	24	94	21	57	141	East to west cloudy & sunny
19-10-2016	22	70	5	<6	164	East to west cloudy & sunny
04-11-2016	26	114	7	15	182	West to East cloudy & sunny
21-11-2016	30	134	9	<6	242	West to east sunny & cloudy
09-12-2016	99	287	15	22	424	West to East, sunny
22-12-2016	61	199	11	17	346	East to West, Sunny
04-01-2017	78	146	10	8	220	East to West, Sunny
18-01-2017	85	259	9	14	381	South to North, Sunny
03-02-2017	147	286	11	8	507	East to West, Sunny
22-02-2017	58	119	8	8	369	West to East, sunny
03-03-2017	232	575	8.29	8	928	West to East Sunny
20-03-2017	29	315	4.32	36	677	North to South, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	232	575	56	57	928	
Minimum	14	60	4.00	6	89	
Average	59.20	170.20	13.51	17.88	304.95	
95 Percentile	151.25	328.00	27.20	51.40	689.55	
98 Percentile	199.70	476.20	44.48	54.76	832.62	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :29
Project: Kulda OCP
Monitoring Station: Farakbahal village

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM	Remarks
02-06-2016	54	118	<25	21	227	West to east hot & sunny
16-06-2016	53	169	<25	34	205	West to east hot & sunny, evening rainfall
04-07-2016	44	103	6	9	239	West to east hot & sunny evening rainfall
18-07-2016	27	84	11	15	119	East to west cloudy & rain fall
05-08-2016	16	54	20	13	80	East to west cloudy & heavy rain fall
19-08-2016	74	194	5	8	281	West to East Cloudy & Rainfall
06-09-2016	44	136	2	<6	209	East to west cloudy & sunny
29-09-2016	26	108	18	19	171	East to west cloudy & sunny evening rain fall
03-10-2016	22	68	19	35	102	East to west cloudy & sunny
19-10-2016	68	258	27	31	476	East to west cloudy & sunny
04-11-2016	22	84	9	14	132	West to East cloudy & sunny
21-11-2016	20	117	10	14	217	West to east sunny & cloudy
09-12-2016	55	108	20	23	196	West to East, sunny
22-12-2016	78	223	12	11	433	West to East, sunny
04-01-2017	47	72	11	9	104	North to South, Sunny
18-01-2017	33	28	8	19	68	North to South, Sunny
03-02-2017	110	85	4	10	166	North to South, Sunny
22-02-2017	54	160	6	7	472	West to East, sunny
03-03-2017	75	120	15.78	23	196	North to South Sunny
20-03-2017	11	55	4	6	132	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	110	258	27	35	476	
Minimum	11	28	2.00	6	68	
Average	46.65	117.20	11.54	16.89	211.25	
95 Percentile	79.60	224.75	21.05	34.10	472.20	
98 Percentile	97.84	244.70	24.62	34.64	474.48	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :30
Project: Kulda OCP
Monitoring Station: Kushra village

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM	Remarks
01-06-2016	72	104	<25	<6	302	West to east hot & sunny
16-06-2016	53	128	<25	<6	236	West to east hot & sunny, evening rainfall
04-07-2016	54	121	18	14	229	West to east heavy rainfall & power cut
19-07-2016	64	130	6	9	248	West to east cloudy & rainfall
05-08-2016	18	48	5	26	72	East to west cloudy & heavy rain fall
18-08-2016	13	60	14	10	114	East to West Cloudy & Rainfall
06-09-2016	30	92	8	9	160	East to west cloudy & sunny
29-09-2016	32	98	15	19	157	East to west cloudy & sunny evening rain fall
03-10-2016	14	54	27	23	82	East to west cloudy & sunny
19-10-2016	24	110	5	<6	196	East to west cloudy & sunny
04-11-2016	30	164	19	22	258	West to East cloudy & sunny
21-11-2016	20	108	27	22	255	West to east sunny & cloudy
09-12-2016	102	213	9	10	348	West to East, sunny
22-12-2016	84	147	10	15	279	East to West, Sunny
05-01-2017	87	128	7	12	182	West to East, sunny
19-01-2017	46	38	7	8	51	West to East, Sunny
06-02-2017	143	108	6	8	340	South to North, Sunny
23-02-2017	30	89	6	18	238	North to South, Sunny
03-03-2017	91	378	3.47	7	504	East to West Sunny
23-03-2017	70	115	3.15	16	224	South to North, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	143	378	27	26	504	
Minimum	13	38	3.15	7	51	
Average	53.85	121.65	10.87	14.59	223.75	
95 Percentile	104.05	221.25	27.00	23.60	355.80	
98 Percentile	127.42	315.30	27.00	25.04	444.72	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

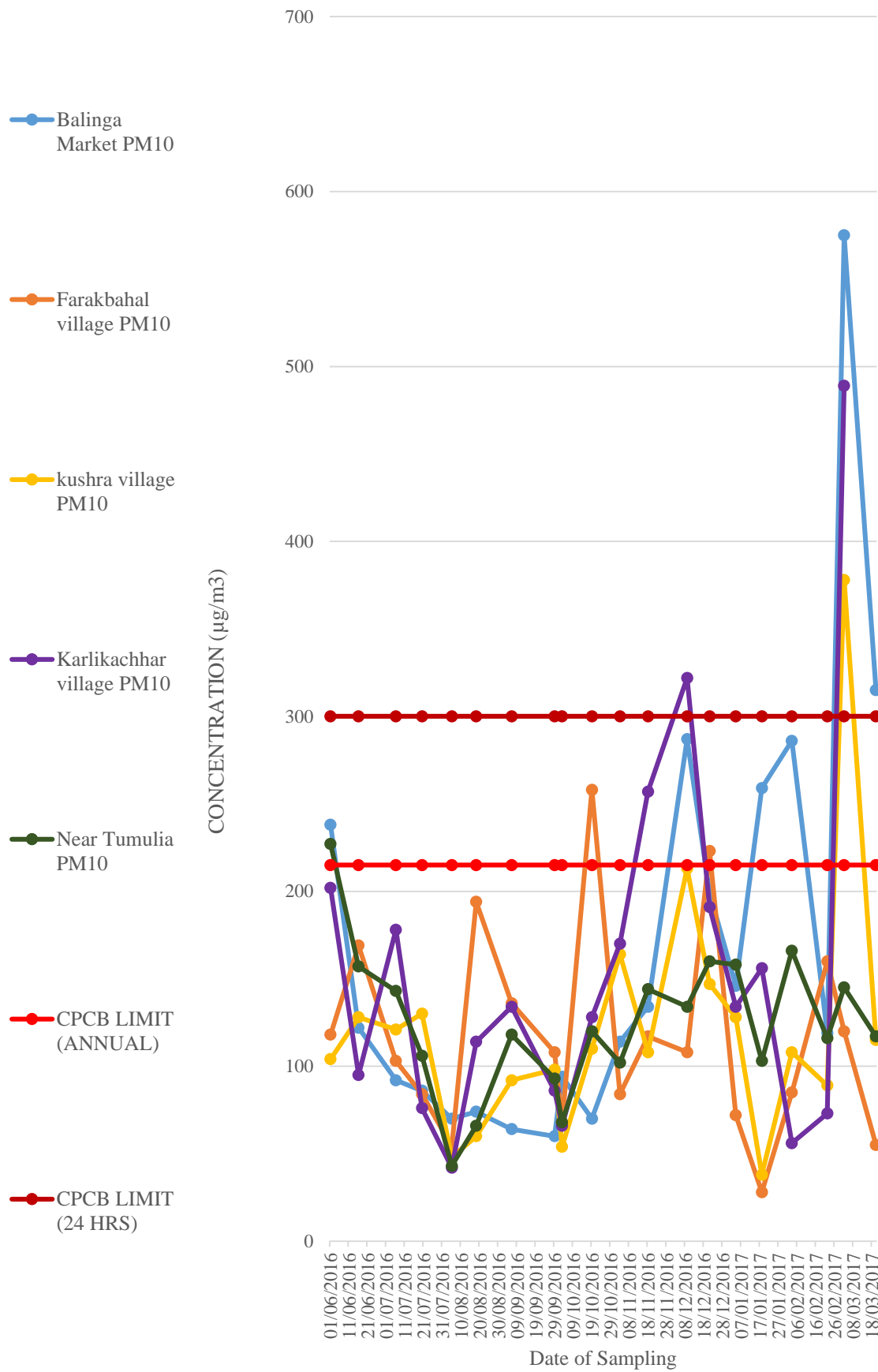
Table :31
Project: Kulda OCP
Monitoring Station: Karlikachhar village

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM	Remarks
01-06-2016	80	202	<25	7	355	West to east hot & sunny
20-06-2016	46	95	<25	8	188	West to east hot & sunny, evening rainfall
05-07-2016	86	178	63	33	332	West to east heavy rainfall & power cut
18-07-2016	29	76	1	<6	113	East to west cloudy & rain fall
05-08-2016	12	42	32	6	64	East to west cloudy & heavy rain fall
18-08-2016	19	114	6	8	170	East to West Cloudy & Rainfall
06-09-2016	28	134	6	9	202	East to west cloudy & sunny
29-09-2016	18	86	11	<6	140	East to west cloudy & sunny evening rain fall
03-10-2016	16	66	18	23	99	East to west cloudy & sunny
19-10-2016	36	128	8	9	214	East to west cloudy & sunny
04-11-2016	26	170	11	<6	308	West to East cloudy & sunny
21-11-2016	34	257	17	25	394	West to east sunny & cloudy
09-12-2016	115	322	15	20	584	Calm, Sunny
22-12-2016	64	191	19	21	363	East to West, Sunny
04-01-2017	76	134	8	14	391	North to South, Sunny
18-01-2017	70	156	7	12	313	East to West, Sunny
03-02-2017	78	56	5	9	213	West to East, sunny
22-02-2017	76	73	6	13	423	East to West, Sunny
03-03-2017	69	489	7.47	17	892	North to South Sunny
22-03-2017						No Electric supply
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	115	489	63	33	892	
Minimum	12	42	1.00	6	64	
Average	51.47	156.26	14.15	14.63	303.05	
95 Percentile	88.90	338.70	38.20	27.00	614.80	
98 Percentile	104.56	428.88	53.08	30.60	781.12	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

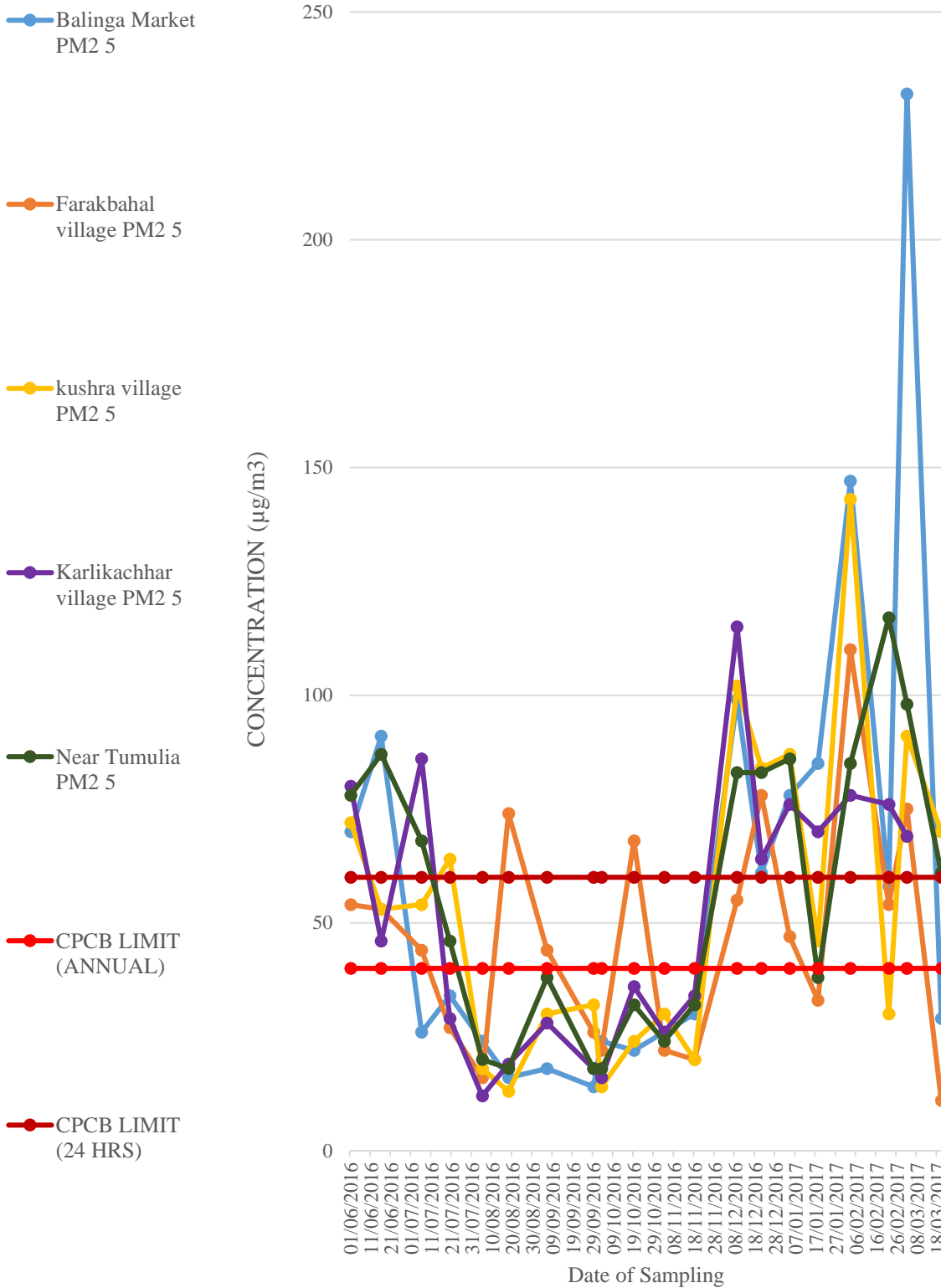
Table :32
Project: Kulda OCP
Monitoring Station: Near Tumulia

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM	Remarks
01-06-2016	78	227	<25	<6	448	West to east hot & sunny
16-06-2016	87	157	<25	13	253	West to east hot & sunny, evening rainfall
06-07-2016	68	143	12	6	311	West to east hot & sunny evening rainfall
20-07-2016	46	106	11	21	163	East to west cloudy & rain fall
05-08-2016	20	43	12	9	56	East to west cloudy & heavy rain fall
18-08-2016	18	66	5	7	126	East to West Cloudy & Rainfall
06-09-2016	38	118	10	<6	176	East to west cloudy & sunny
29-09-2016	18	93	18	23	135	East to west cloudy & sunny evening rain fall
03-10-2016	18	68	21	34	106	East to west cloudy & sunny
19-10-2016	32	120	10	17	232	East to west cloudy & sunny
03-11-2016	24	102	20	16	160	West to East cloudy & sunny
18-11-2016	32	144	7	10	252	West to east sunny & cloudy
09-12-2016	83	134	14	20	330	West to East, sunny
21-12-2016	83	160	15	16	435	East to West, Sunny
04-01-2017	86	158	12	17	259	East to West, Sunny
18-01-2017	38	103	7	24	238	West to East, Sunny
03-02-2017	85	166	11	26	441	West to East, sunny
22-02-2017	117	116	8	28	240	South to North, Sunny
03-03-2017	98	145	4.29	20	229	East to West Sunny
20-03-2017	61	117	4.19	18	595	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	117	227	21	34	595	
Minimum	18	43	4.19	6	56	
Average	56.50	124.30	11.19	18.06	259.25	
95 Percentile	98.95	169.05	20.15	28.90	455.35	
98 Percentile	109.78	203.82	20.66	31.96	539.14	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

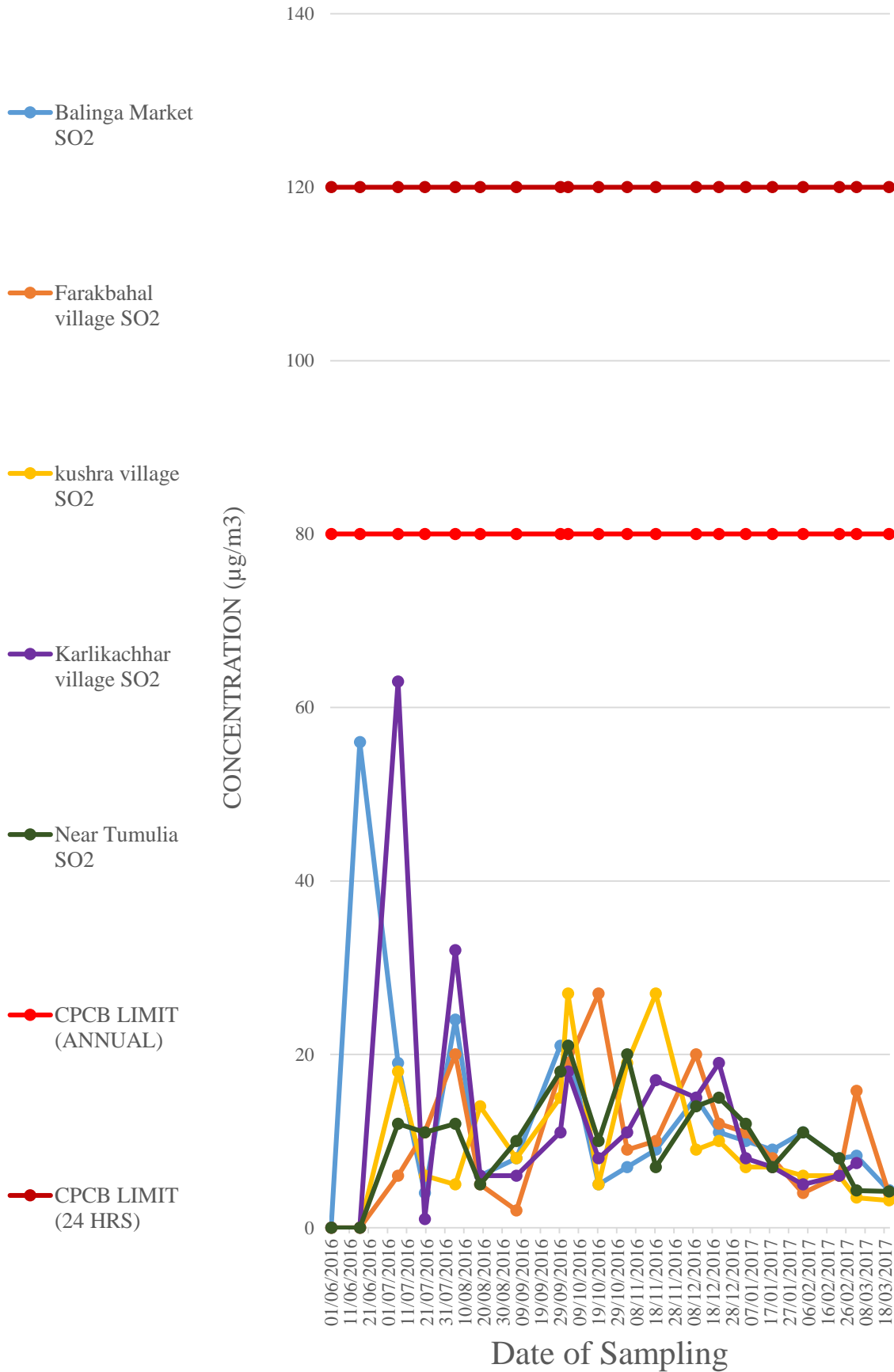
Graph Showing PM10 of Kulda OCP



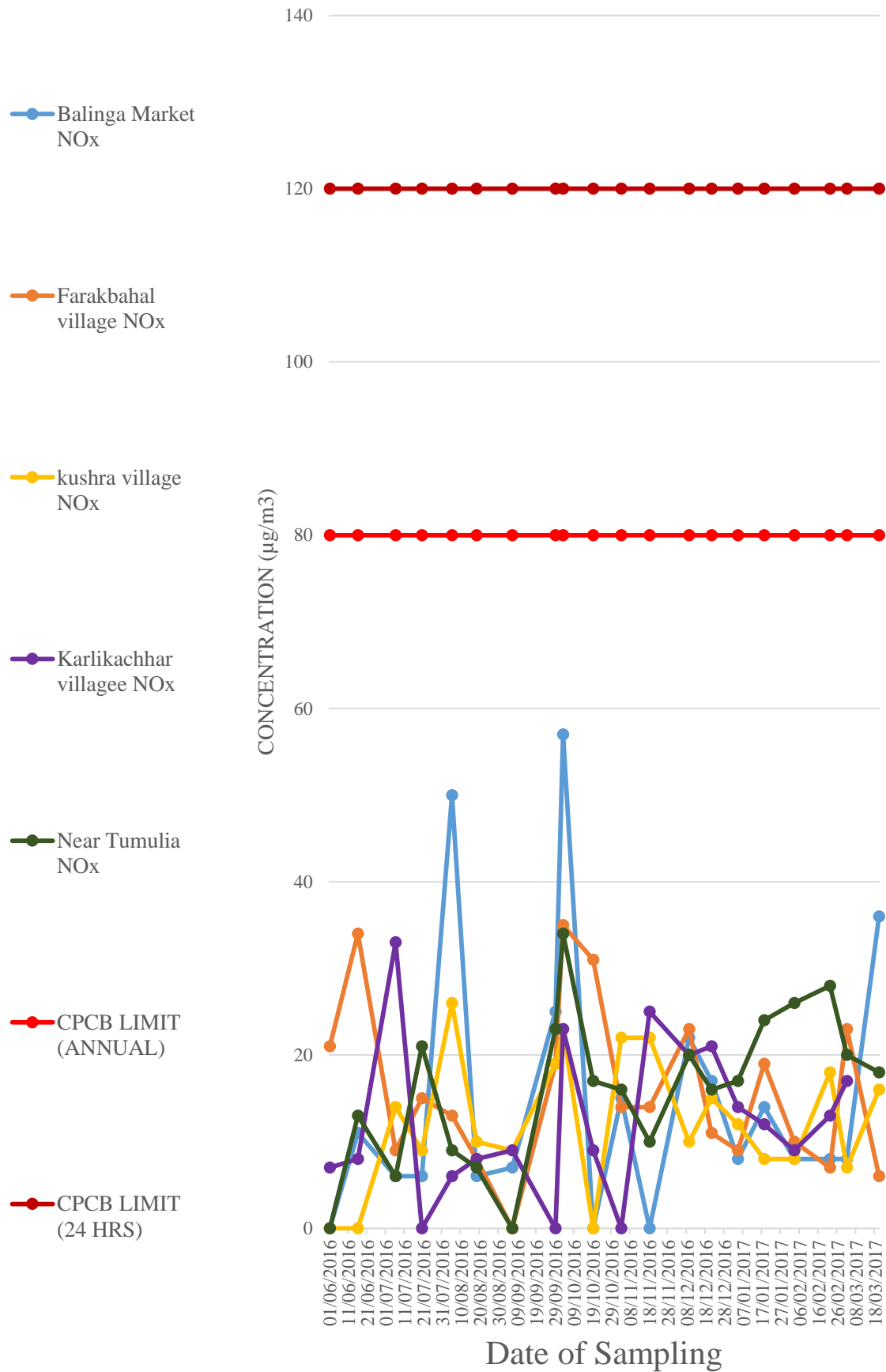
Graph Showing PM2.5 of Kulda OCP



Graph Showing SO2 of Kulda OCP



Graph Showing NOX of Kulda OCP



Graph Showing SPM of Kulda OCP

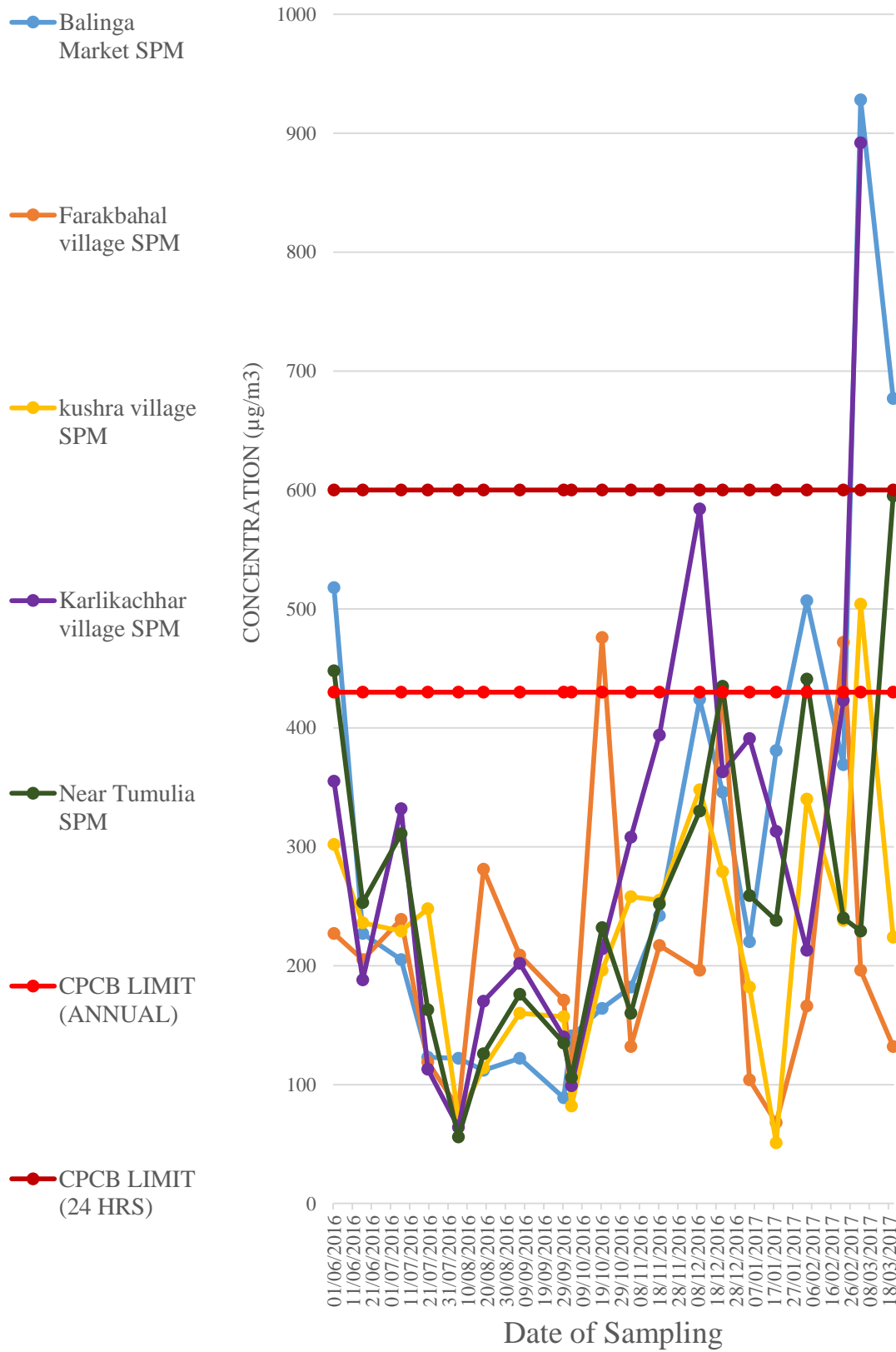


Table : 33
Project: Orient
Monitoring Station: HBI Mine

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
08-06-2016	94	181	<25	<6	598	East to west hot & sunny
24-06-2016	34	61	<25	30	141	East to west hot & sunny
12-07-2016	22	94	25	7	202	West to east hot & sunny evening rain fall
26-07-2016	28	107	8	<6	169	South to North cloudy
11-08-2016	28	72	16	9	118	West to east cloudy & heavy rainfall
24-08-2016	37	89	4	<6	129	West to East Sunny & Cloudy Rainfall
12-09-2016	24	68	4	9	101	South to North sunny & Cloudy
23-09-2016	16	64	7	<6	115	South to North Cloudy & Sunny
12-10-2016	21	64	17	14	94	West to east cloudy
26-10-2016	76	128	14	19	315	West to East cloudy & sunny
11-11-2016	52	274	29	27	402	West to East cloudy & sunny
26-11-2016	55	262	23	20	476	East to east sunny & cloudy
07-12-2016	172	326	17	25	524	West to East, sunny
26-12-2016	113	219	13	16	510	West to East, sunny
12-01-2017	91	140	11	9	287	North to South, Sunny
27-01-2017	80	260	19	7	613	East to West, Sunny
13-02-2017	52	195	4	12	498	West to East, sunny
25-02-2017	81	55	3	9	130	North to South, Sunny
14-03-2017	88	136	4.15	61	269	West to East Sunny
28-03-2017	78	88	5.28	18	187	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	172	326	29	61	613	
Minimum	16	55	3.00	7	94	
Average	62.10	144.15	12.41	18.25	293.90	
95 Percentile	115.95	276.60	25.60	37.75	598.75	
98 Percentile	149.58	306.24	27.64	51.70	607.30	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 34
Project: Orient
Monitoring Station: HRC Mine

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
07-06-2016	53	209	81	<6	359	East to west hot & sunny
23-06-2016	29	115	<25	14	218	East to west hot & sunny, evening rainfall
08-07-2016	65	158	22	7	336	West to east hot & sunny evening rain fall
22-07-2016	32	86	7	<6	119	West to east cloudy & rainfall
10-08-2016	24	68	10	17	106	East to west cloudy & heavy rainfall
22-08-2016	34	89	5	21	129	South to North cloudy & Heavy rainfall
09-09-2016	48	134	4	<6	182	West to east cloudy
22-09-2016	44	133	6	<6	195	West to east cloudy & rain fall
06-10-2016	22	58	13	10	86	West to east cloudy
06-12-2016	84	138	9	16	208	West to East, sunny
24-12-2016	88	269	8	<6	369	North to South, Sunny
11-01-2017	37	404	15	7	622	South to North, Sunny
25-01-2017	96	191	13	15	398	West to East, Sunny
10-02-2017	398	145	17	28	302	West to East, sunny
24-02-2017	123	77	5	25	159	West to East, sunny
09-03-2017	69	105	10.5	7	262	South to North Sunny
24-03-2017	72	124	4.31	16	214	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	398	404	81	28	622	
Minimum	22	58	4.00	7	86	
Average	77.53	147.24	14.36	15.25	250.82	
95 Percentile	178.00	296.00	36.75	26.35	442.80	
98 Percentile	310.00	360.80	63.30	27.34	550.32	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 35
Project: Orient
Monitoring Station: Near Adarsh nagar colony

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
06-06-2016	56	126	<25	<6	215	West to east hot & sunny
21-06-2016	35	88	<25	7	154	West to east hot & sunny, evening rainfall
07-07-2016	32	106	2	<6	240	East to west hot & sunny evening rain fall
21-07-2016	42	90	4	<6	119	South to North cloudy & sunny rain fall
09-08-2016	40	76	4	5	102	West to east cloudy & heavy rainfall
22-08-2016	38	94	7	6	138	South to North cloudy & Heavy rainfall
08-09-2016	40	86	6	<6	144	East to west cloudy & sunny
21-09-2016	32	106	10	15	175	East to west cloudy & sunny evening rain fall
05-10-2016	28	112	6	15	238	East to west cloudy & sunny
21-10-2016	48	178	10	15	274	East to west cloudy & sunny
07-11-2016	34	158	9	<6	252	East to west cloudy & sunny
22-11-2016	26	154	8	<6	242	East to west sunny & cloudy
05-12-2016	63	123	11	19	204	East to West, Sunny
23-12-2016	150	252	10	13	339	West to East, sunny
06-01-2017	181	258	7	14	337	West to East, sunny
20-01-2017	106	164	7	17	254	East to West, Sunny
09-02-2017	163	198	8	16	434	West to East, sunny
18-02-2017	65	77	4	14	122	South to North, Sunny
09-03-2017	126	143	3	21	307	West to East Sunny
24-03-2017	134	293	4.22	11	439	West to East, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	181	293	11	21	439	
Minimum	26	76	2.00	5	102	
Average	71.95	144.10	6.68	13.62	236.45	
95 Percentile	163.90	259.75	10.15	19.80	434.25	
98 Percentile	174.16	279.70	10.66	20.52	437.10	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 36
Project: Orient
Monitoring Station: Orient Mine No-2

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
06-06-2016	89	116	<25	14	244	East to west hot & sunny
21-06-2016	45	113	<25	<6	181	East to west hot & sunny, evening rainfall
07-07-2016	32	98	9	12	234	East to west hot & sunny evening rain fall
21-07-2016	62	134	6	8	223	South to North cloudy & Sunny rainfall
09-08-2016	54	108	8	9	128	South to North cloudy & Heavy rainfall
22-08-2016	20	128	6	<6	186	South to North cloudy & Heavy rainfall
08-09-2016	43	98	4	11	146	East to west cloudy & sunny
21-09-2016	38	120	8	7	188	East to west cloudy & sunny evening rain fall
05-10-2016	26	106	6	<6	164	East to west cloudy & sunny
21-10-2016	74	268	21	24	406	East to west cloudy & sunny
07-11-2016	48	264	24	18	402	East to west cloudy & sunny
22-11-2016	40	218	14	17	356	East to east sunny & cloudy
05-12-2016	79	188	12	20	269	East to West, Sunny
23-12-2016	145	314	16	19	454	South to North, Sunny
06-01-2017	114	218	12	8	425	West to East, sunny
20-01-2017	71	215	6	18	304	East to West, Sunny
09-02-2017	161	247	4	19	567	West to East, sunny
18-02-2017	54	76	3	15	180	East to West, Sunny
09-03-2017	66	168	10.25	<6	454	East to West Sunny
24-03-2017	110	317	3.66	13	590	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	161	317	24	24	590	
Minimum	20	76	3.00	7	128	
Average	68.55	175.70	9.61	14.50	305.05	
95 Percentile	145.80	314.15	21.45	21.00	568.15	
98 Percentile	154.92	315.86	22.98	22.80	581.26	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table : 37
Project: Orient
Monitoring Station: Orient Mine No-3

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	Remarks
03-06-2016	68	122	<25	<6	256	East to west hot & sunny
20-06-2016	26	80	<25	<6	184	East to west hot & sunny, evening rainfall
07-07-2016	54	162	9	16	310	East to west hot & sunny evening rainfall
21-07-2016	40	79	6	7	117	South to North cloudy & Sunny rainfall
09-08-2016	22	62	5	8	84	South to North cloudy & Heavy rainfall
22-08-2016	18	96	6	<6	147	South to North cloudy & Heavy rainfall
08-09-2016	34	86	6	14	143	East to west cloudy & sunny
21-09-2016	20	106	10	14	162	East to west cloudy & sunny evening rain fall
05-10-2016	30	118	8	<6	184	East to west cloudy & sunny
21-10-2016	34	128	6	6	196	East to west cloudy & sunny
07-11-2016	28	143	15	13	211	East to west cloudy & sunny
22-11-2016	50	196	15	16	334	East to east sunny & cloudy
05-12-2016	77	166	14	18	239	West to East, sunny
23-12-2016	83	218	15	<6	321	North to South, Sunny
06-01-2017	99	158	14	14	249	Calm, sunny
20-01-2017	59	108	10	12	232	South to North, Sunny
09-02-2017	172	232	4	8	474	East to West, Sunny
18-02-2017	46	100	2	19	304	North to South, Sunny
09-03-2017	106	184	10.07	9	351	East to West Sunny
24-03-2017	90	289	4.32	23	624	South to North, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	172	289	15	23	624	
Minimum	18	62	2	6	84	
Average	57.80	141.65	8.86	13.13	256.10	
95 Percentile	109.30	234.85	15.00	20.20	481.50	
98 Percentile	146.92	267.34	15.00	21.88	567.00	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

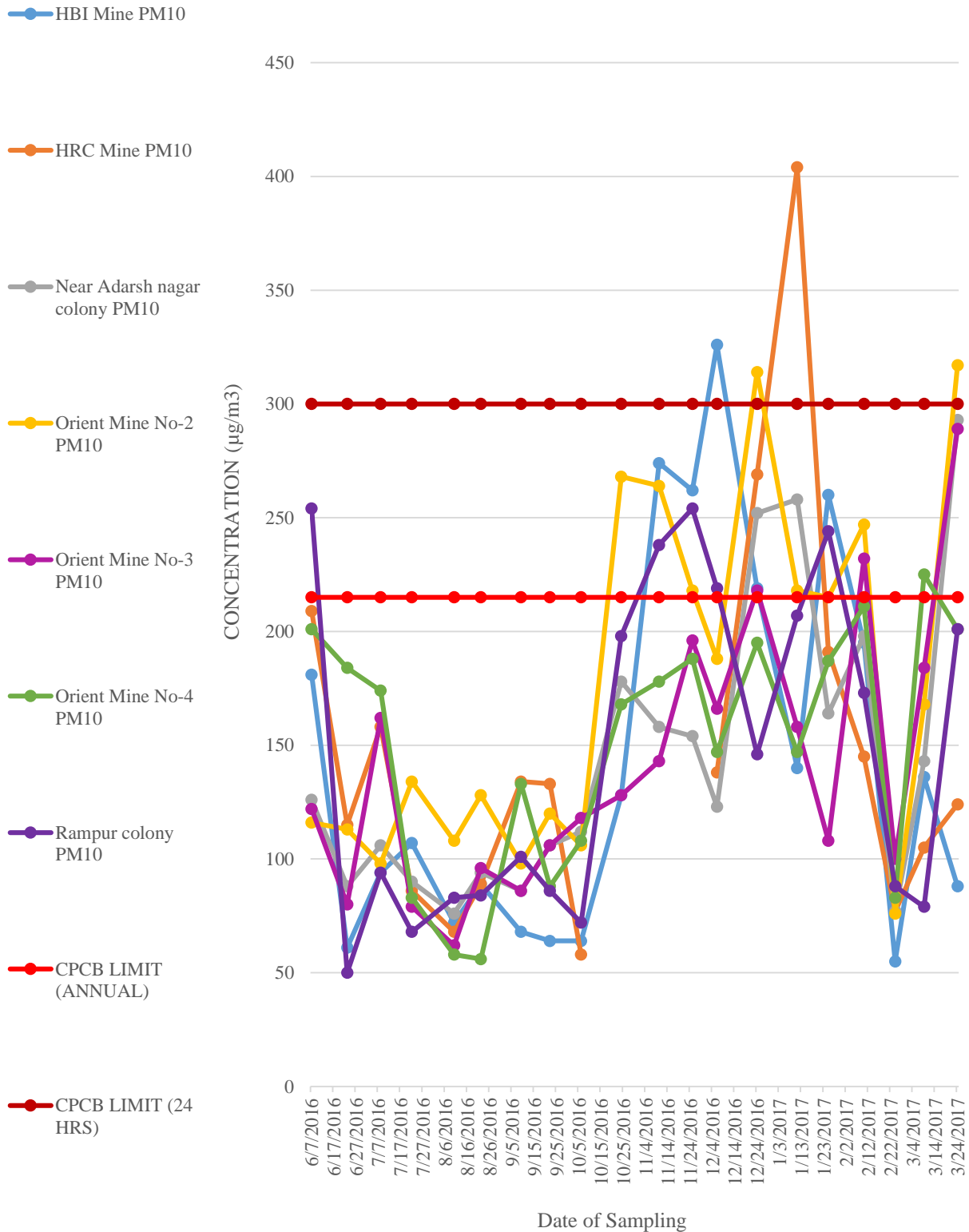
Table : 38
Project: Orient
Monitoring Station: Orient Mine No-4

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
03-06-2016	71	201	35	15	423	East to west hot & sunny
20-06-2016	39	184	48	30	444	East to west hot & sunny, evening rainfall
07-07-2016	84	174	5	13	363	East to west hot & sunny evening rainfall
21-07-2016	29	83	7	29	106	South to North cloudy & Sunny rainfall
09-08-2016	18	58	5	<6	90	South to North cloudy & Heavy rainfall
22-08-2016	16	56	83	67	84	South to North cloudy & Heavy rainfall
08-09-2016	58	133	6	9	206	East to west cloudy & sunny
21-09-2016	24	88	9	16	126	East to west cloudy & sunny evening rain fall
05-10-2016	23	108	7	<6	174	East to west cloudy & sunny
21-10-2016	44	168	15	20	254	East to west cloudy & sunny
07-11-2016	26	178	17	25	426	East to west cloudy & sunny
22-11-2016	46	188	12	15	302	East to east sunny & cloudy
05-12-2016	99	147	10	16	229	East to West, Sunny
23-12-2016	82	195	18	22	302	North to South, Sunny
06-01-2017	91	147	16	7	205	East to West, Sunny
20-01-2017	82	187	11	26	260	South to North, Sunny
09-02-2017	159	211	6	7	284	East to West, Sunny
18-02-2017	58	83	4	16	190	West to East, sunny
09-03-2017	161	225	16.1	7	624	East to West Sunny
24-03-2017	98	201	19.86	7	512	East to West, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	161	225	83	67	624	
Minimum	16	56	4	7	84	
Average	65.40	150.75	17.50	19.28	280.20	
95 Percentile	159.10	211.70	49.75	35.55	517.60	
98 Percentile	160.24	219.68	69.70	54.42	581.44	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

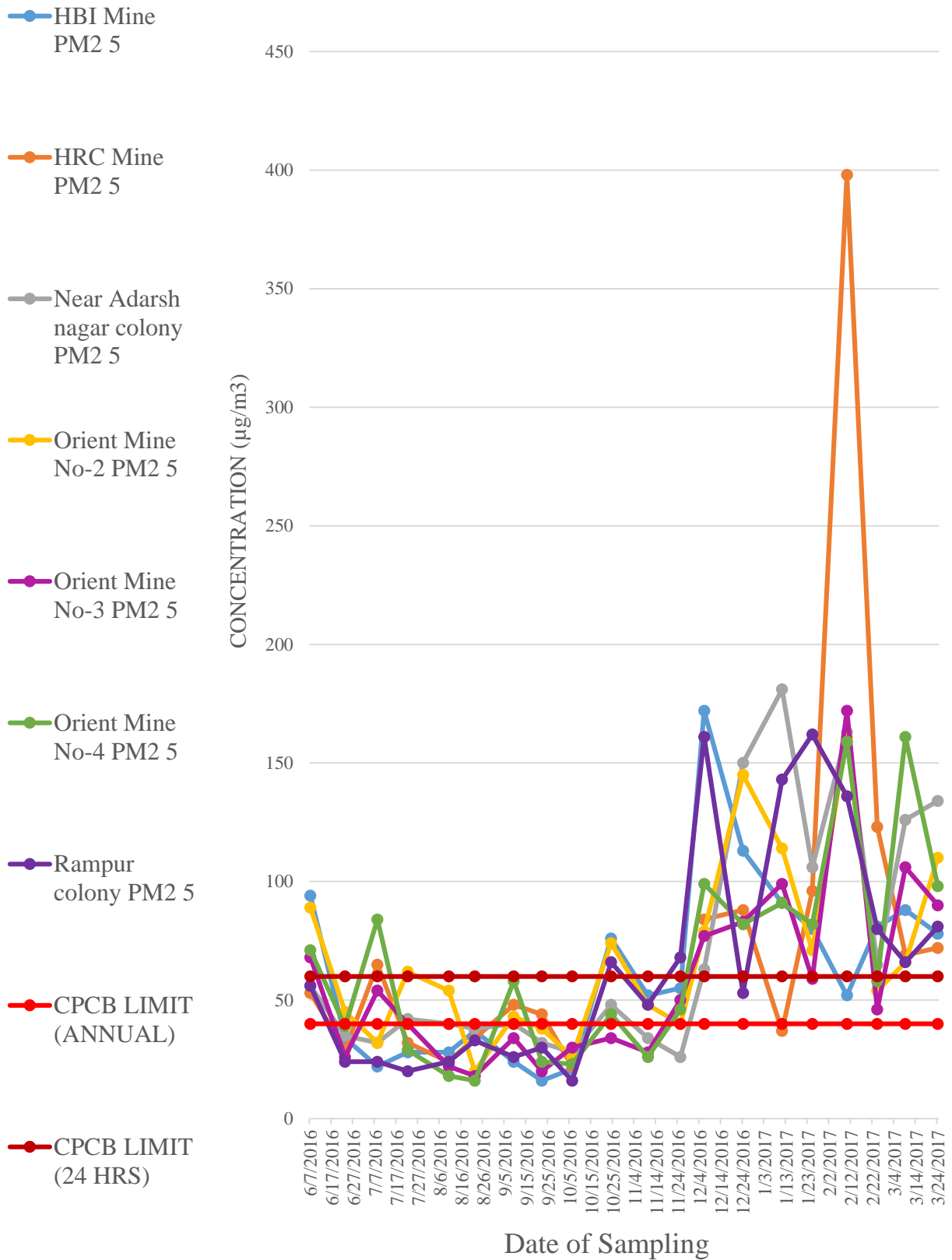
Table : 39
Project: Orient
Monitoring Station: Rampur colony

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	Remarks
07-06-2016	56	254	116	21	516	East to west hot & sunny
23-06-2016	24	50	<25	10	102	East to west hot & sunny, evening rainfall
11-07-2016	24	94	11	6	220	East to west hot & sunny evening rain fall
25-07-2016	20	68	17	<6	96	East to west cloudy & rain fall
10-08-2016	24	83	8	9	142	East to west cloudy & heavy rainfall
23-08-2016	33	84	7	14	122	East to West Cloudy & Rainfall
12-09-2016	26	101	5	<6	163	South to North sunny & Cloudy
23-09-2016	30	86	5	9	130	South to North Cloudy & Sunny
07-10-2016	16	72	30	15	106	East to west cloudy & sunny
25-10-2016	66	198	8	<6	356	East to west cloudy & sunny
10-11-2016	48	238	30	26	332	East to west cloudy & sunny
25-11-2016	68	254	26	22	392	West to east sunny & cloudy
07-12-2016	161	219	12	<6	485	West to East, sunny
26-12-2016	53	146	16	18	289	East to West, Sunny
11-01-2017	143	207	14	13	327	East to West, Sunny
25-01-2017	162	244	6	24	393	West to East, Sunny
10-02-2017	136	173	4	12	310	East to West, Sunny
24-02-2017	80	88	4	18	141	East to West, Sunny
10-03-2017	66	79	5.28	12	114	West to East Sunny
27-03-2017	81	201	3.19	19	397	North to South, Sunny
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	162	254	116	26	516	
Minimum	16	50	3.19	6	96	
Average	65.85	146.95	17.24	15.50	256.65	
95 Percentile	161.05	254.00	38.60	24.50	486.55	
98 Percentile	161.62	254.00	85.04	25.40	504.22	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

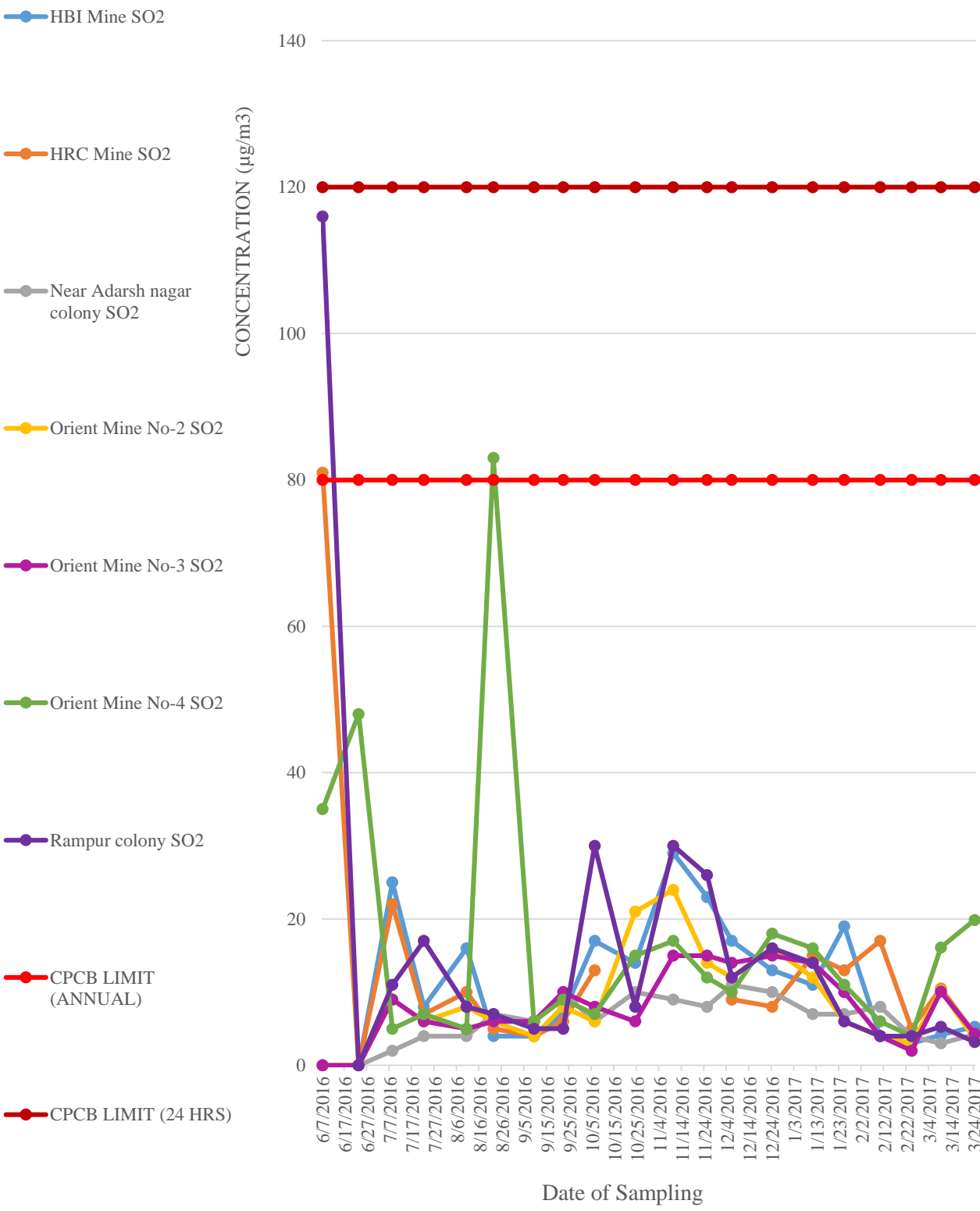
Graph Showing PM₁₀ of Orient OCP



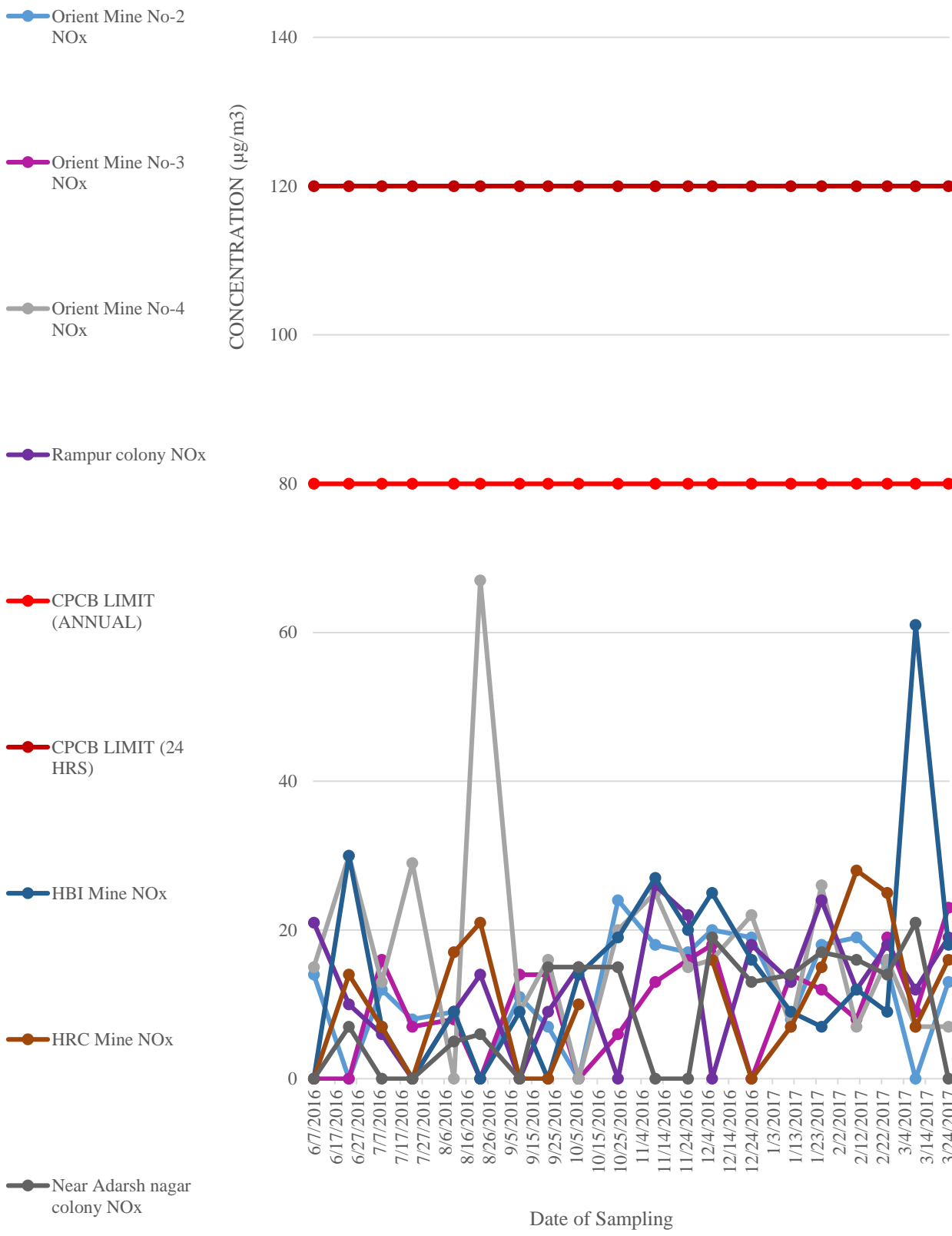
Graph Showing PM_{2.5} of Orient OCP



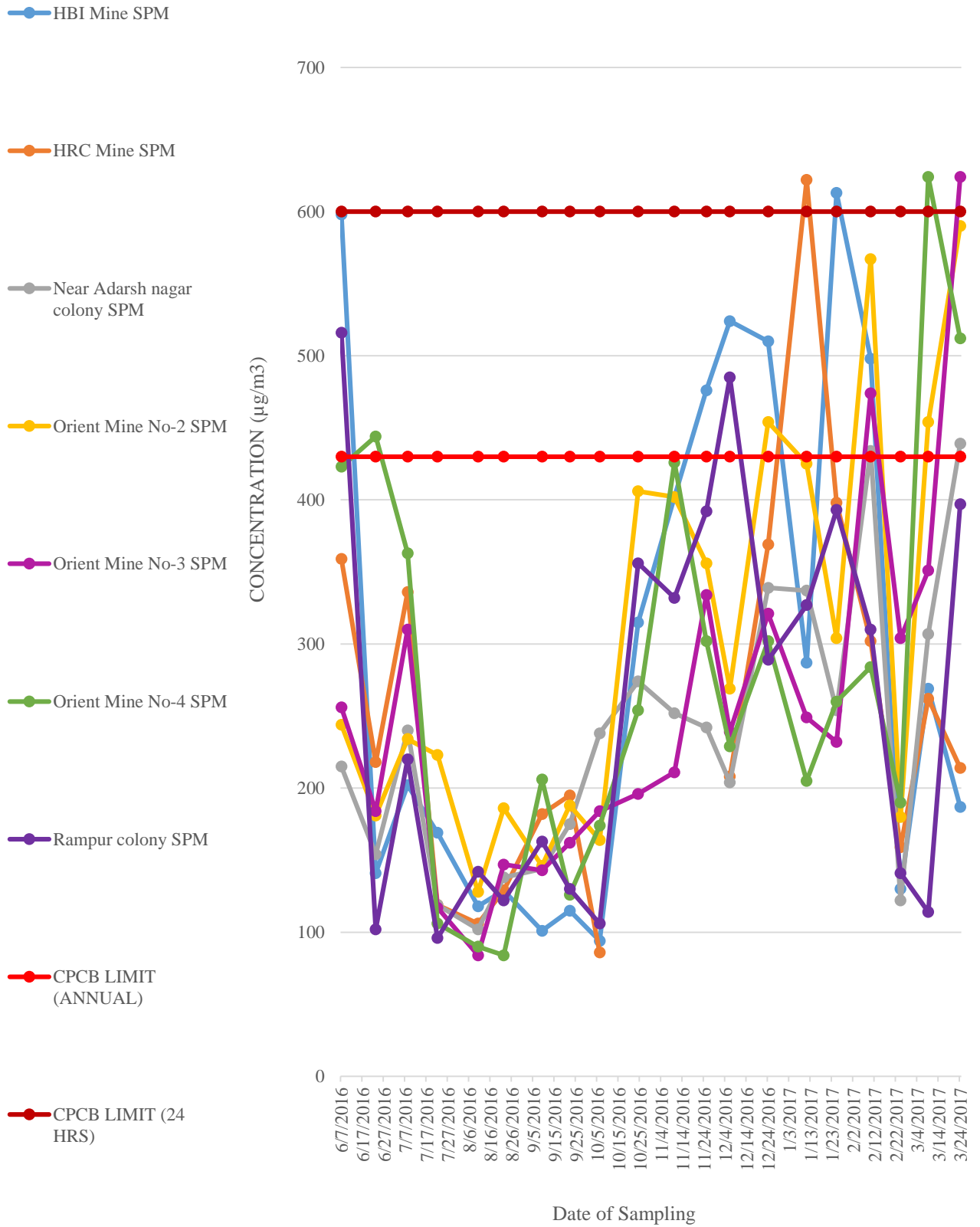
Graph Showing SO₂ of Orient OCP



Graph Showing NO_x of Orient OCP



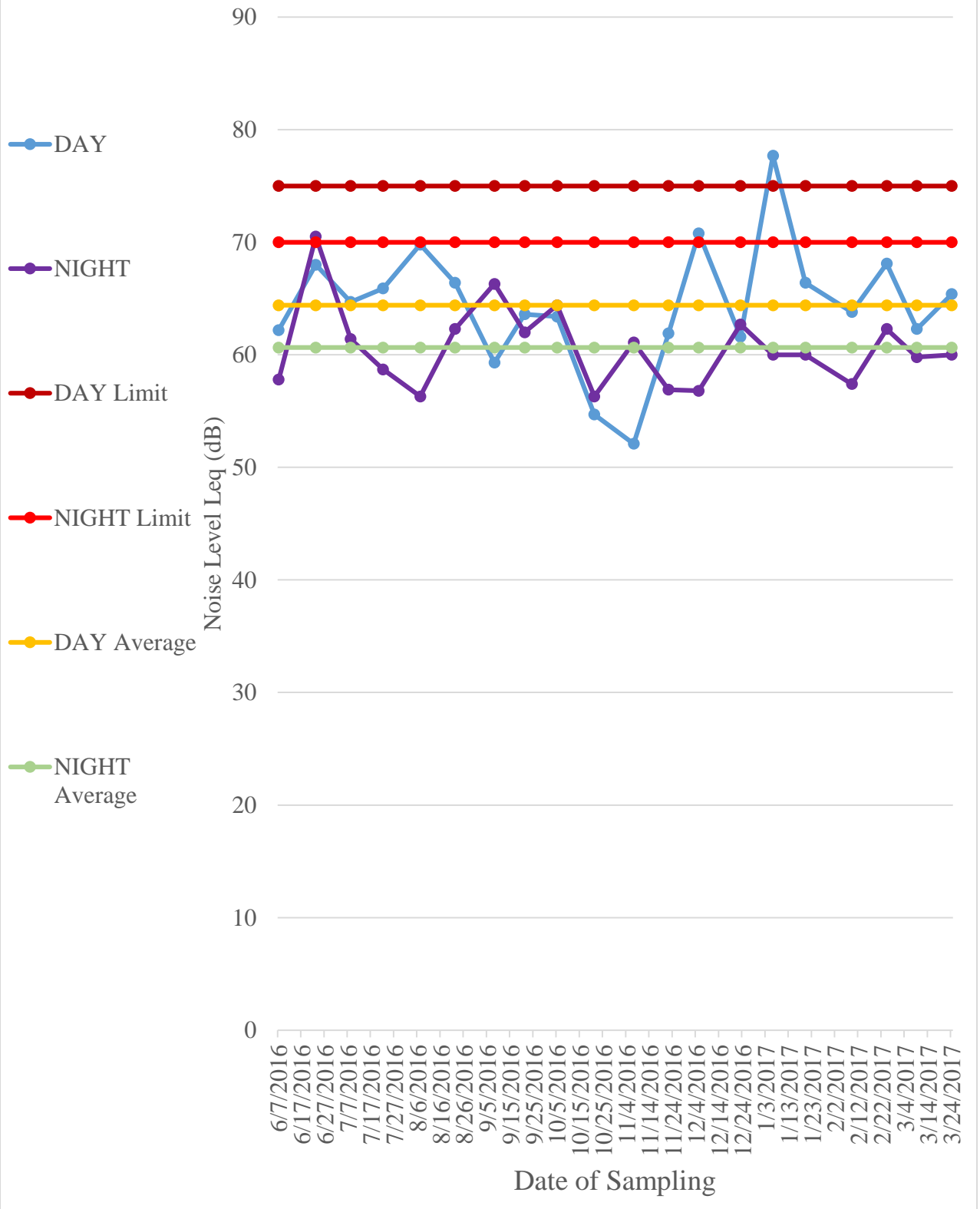
Graph Showing SPM of Orient OCP



Noise Table:40
Project: Lajkura OCP
Monitoring Station: Chhualibern

DATE OF SAMPLING	DAY	NIGHT
07-06-2016	62.2	57.8
23-06-2016	68	70.5
08-07-2016	64.7	61.4
22-07-2016	65.9	58.7
07-08-2016	69.8	56.3
22-08-2016	66.4	62.3
08-09-2016	59.3	66.3
21-09-2016	63.6	62
05-10-2016	63.4	64.4
21-10-2016	54.7	56.3
07-11-2016	52.1	61.1
22-11-2016	61.9	56.9
05-12-2016	70.8	56.8
23-12-2016	61.6	62.7
06-01-2017	77.7	60
20-01-2017	66.4	60
09-02-2017	63.8	57.4
24-02-2017	68.1	62.3
09-03-2017	62.3	59.8
24-03-2017	65.4	60

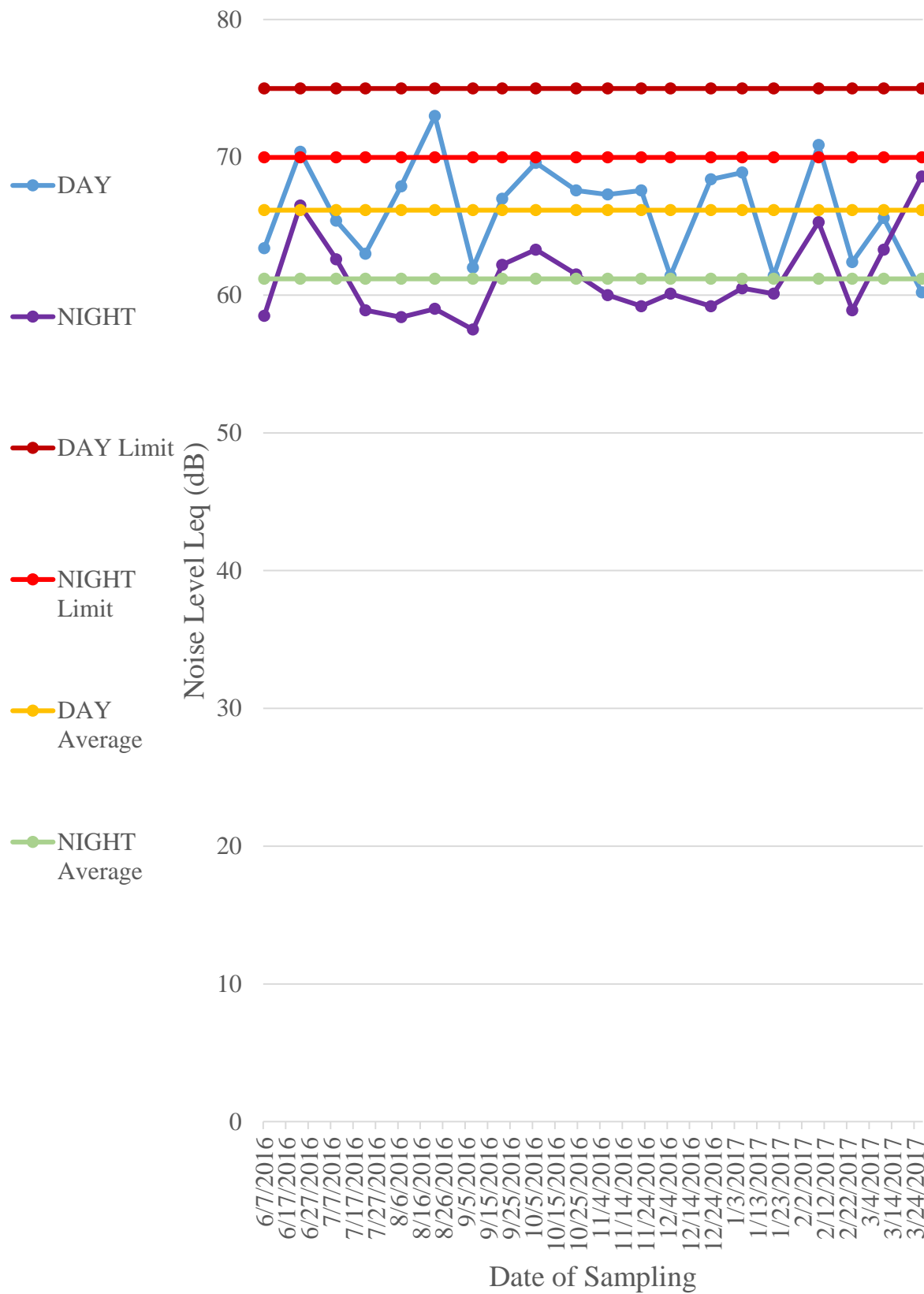
Graph showing Noise in Chhualiberna



Noise Table:41
Project: Lajkura OCP
Monitoring Station: Madhuban Nagar

DATE OF SAMPLING	DAY	NIGHT
07-06-2016	63.4	58.5
23-06-2016	70.4	66.5
09-07-2016	65.4	62.6
22-07-2016	63	58.9
07-08-2016	67.9	58.4
22-08-2016	73	59
08-09-2016	62	57.5
21-09-2016	67	62.2
06-10-2016	69.6	63.3
24-10-2016	67.6	61.5
07-11-2016	67.3	60
22-11-2016	67.6	59.2
05-12-2016	61.4	60.1
23-12-2016	68.4	59.2
06-01-2017	68.9	60.5
20-01-2017	61.4	60.1
09-02-2017	70.9	65.3
24-02-2017	62.4	58.9
10-03-2017	65.6	63.3
27-03-2017	60.2	68.6

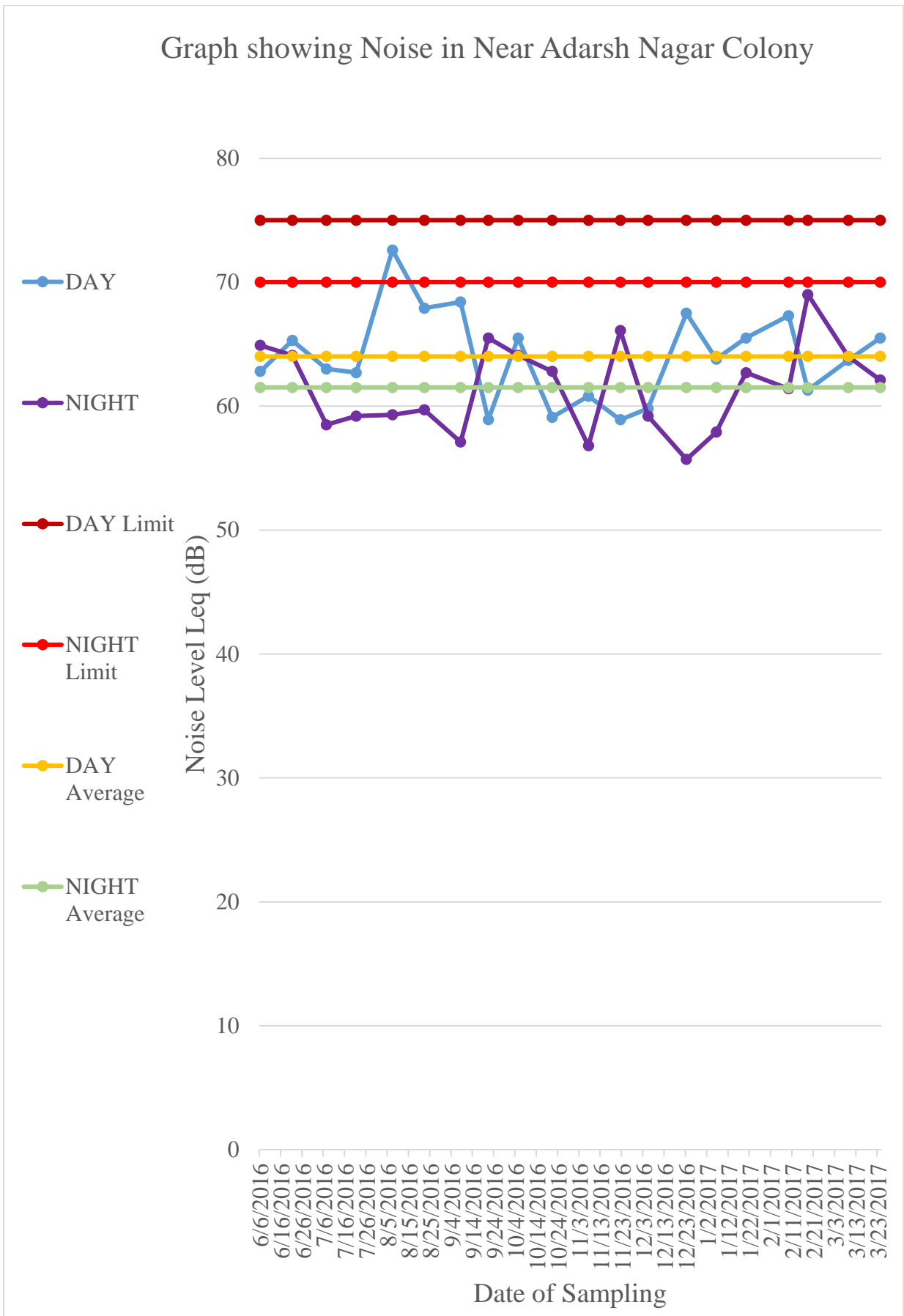
Graph showing Noise in Madhuban Nagar



Noise Table:42
Project: Lajkura OCP
Monitoring Station: Near Adarsh Nagar Colony

DATE OF SAMPLING	DAY	NIGHT
06-06-2016	62.8	64.9
21-06-2016	65.3	64.1
07-07-2016	63	58.5
21-07-2016	62.7	59.2
07-08-2016	72.6	59.3
22-08-2016	67.9	59.7
08-09-2016	68.4	57.1
21-09-2016	58.9	65.5
05-10-2016	65.5	64.1
21-10-2016	59.1	62.8
07-11-2016	60.8	56.8
22-11-2016	58.9	66.1
05-12-2016	59.8	59.2
23-12-2016	67.5	55.7
06-01-2017	63.8	57.9
20-01-2017	65.5	62.7
09-02-2017	67.3	61.4
18-02-2017	61.3	69
09-03-2017	63.7	64
24-03-2017	65.5	62.1

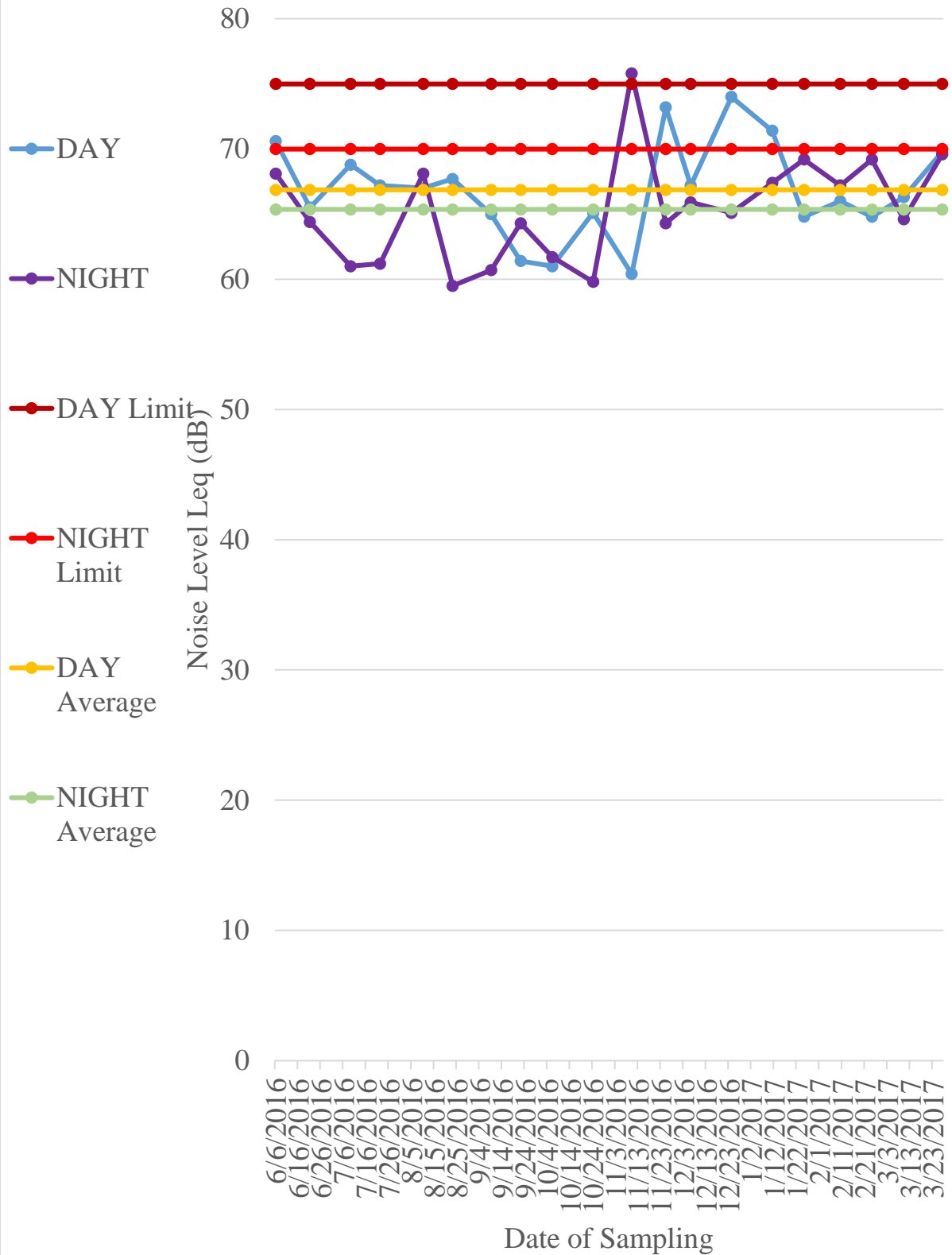
Graph showing Noise in Near Adarsh Nagar Colony



Noise Table:43
Project: Lajkura OCP
Monitoring Station: Near Project Office

DATE OF SAMPLING	DAY	NIGHT
06-06-2016	70.6	68.1
21-06-2016	65.5	64.4
09-07-2016	68.8	61
22-07-2016	67.2	61.2
10-08-2016	67	68.1
23-08-2016	67.7	59.5
09-09-2016	65	60.7
22-09-2016	61.4	64.3
06-10-2016	61	61.7
24-10-2016	65.1	59.8
10-11-2016	60.4	75.8
25-11-2016	73.2	64.3
06-12-2016	67.2	65.9
24-12-2016	74	65.1
11-01-2017	71.4	67.4
25-01-2017	64.8	69.2
10-02-2017	66	67.2
24-02-2017	64.8	69.2
10-03-2017	66.3	64.6
27-03-2017	69.8	69.6

Graph showing Noise in Near Project Office



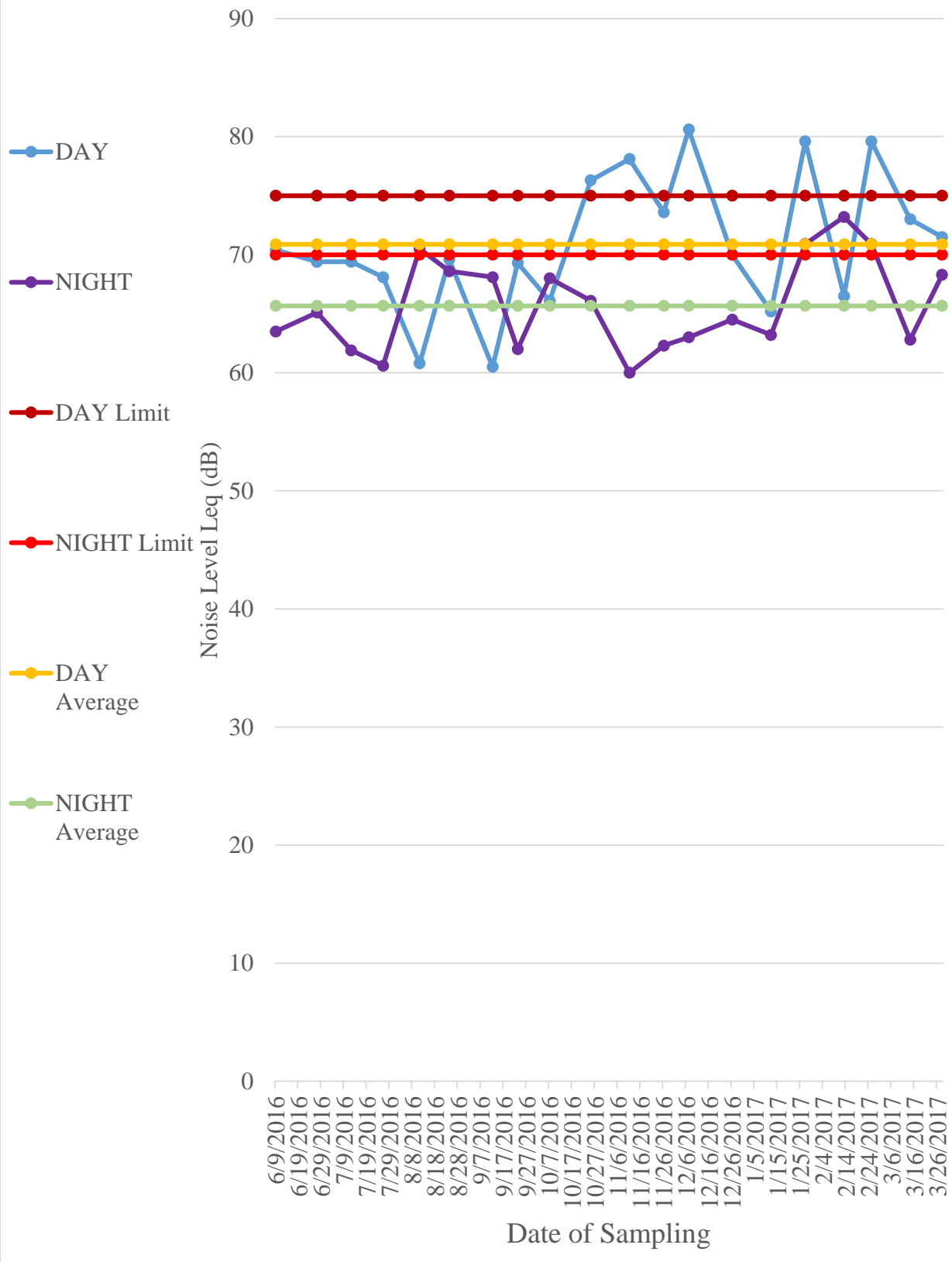
Noise Table:44

Project: Samaleswari OCP

Monitoring Station: Inside Sainik Mining Camp Premises

DATE OF SAMPLING	DAY	NIGHT
09-06-2016	70.4	63.5
27-06-2016	69.4	65.1
12-07-2016	69.4	61.9
26-07-2016	68.1	60.6
11-08-2016	60.8	70.5
24-08-2016	69.6	68.6
12-09-2016	60.5	68.1
23-09-2016	69.3	62
07-10-2016	66.1	68
25-10-2016	76.3	66.1
11-11-2016	78.1	60
26-11-2016	73.6	62.3
07-12-2016	80.6	63
26-12-2016	70	64.5
12-01-2017	65.2	63.2
27-01-2017	79.6	70.9
13-02-2017	66.5	73.2
25-02-2017	79.6	70.9
14-03-2017	73	62.8
28-03-2017	71.5	68.3

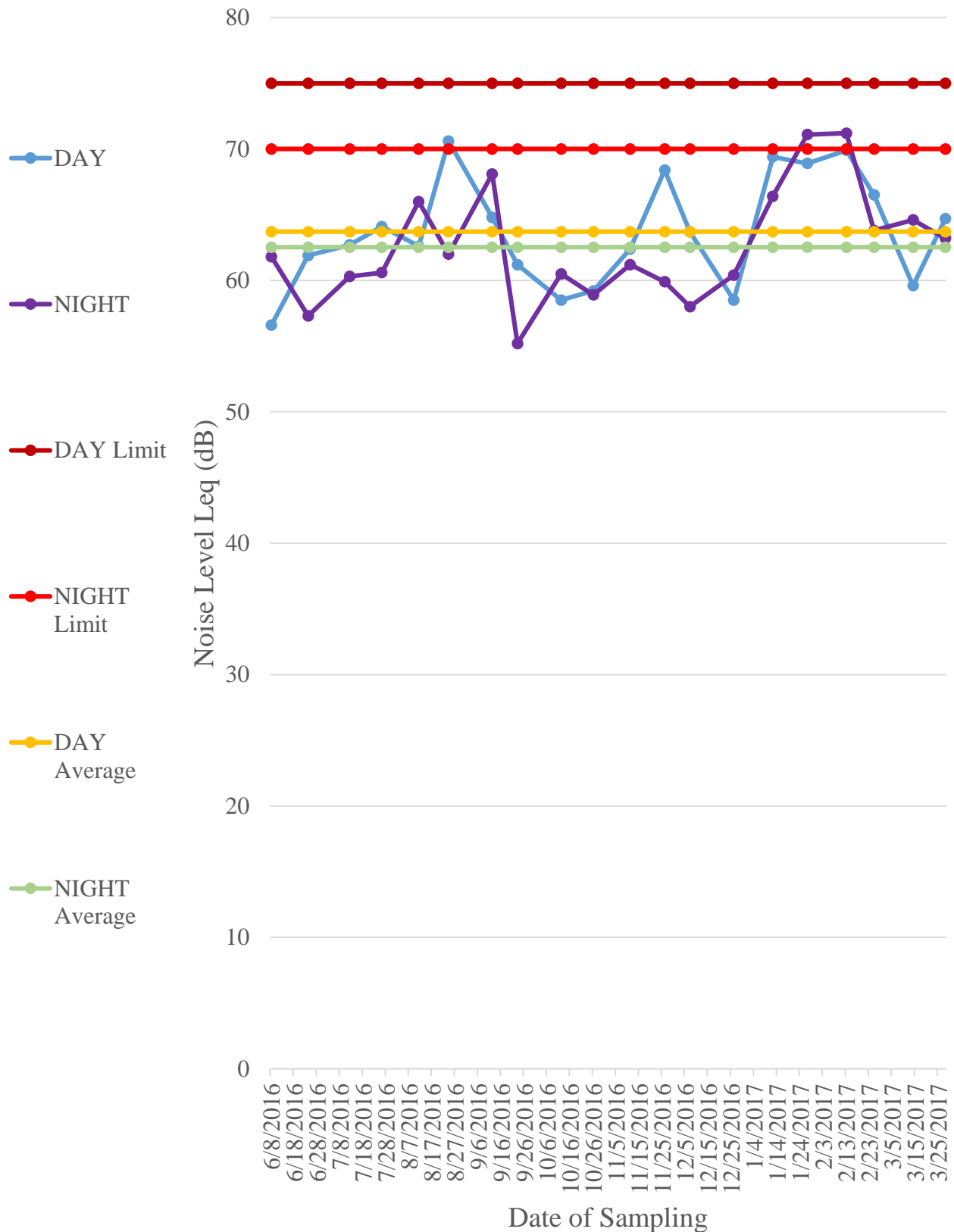
Graph showing Noise in Inside Sainik Mining Camp Premises



Noise Table:45
Project: Samaleswari OCP
Monitoring Station: Kudopali Village

DATE OF SAMPLING	DAY	NIGHT
08-06-2016	56.6	61.8
24-06-2016	61.9	57.3
12-07-2016	62.7	60.3
26-07-2016	64.1	60.6
11-08-2016	62.6	66
24-08-2016	70.6	62
12-09-2016	64.8	68.1
23-09-2016	61.2	55.2
12-10-2016	58.5	60.5
26-10-2016	59.2	58.9
11-11-2016	62.4	61.2
26-11-2016	68.4	59.9
07-12-2016	63.7	58
26-12-2016	58.5	60.4
12-01-2017	69.4	66.4
27-01-2017	68.9	71.1
13-02-2017	69.9	71.2
25-02-2017	66.5	63.8
14-03-2017	59.6	64.6
28-03-2017	64.7	63.2

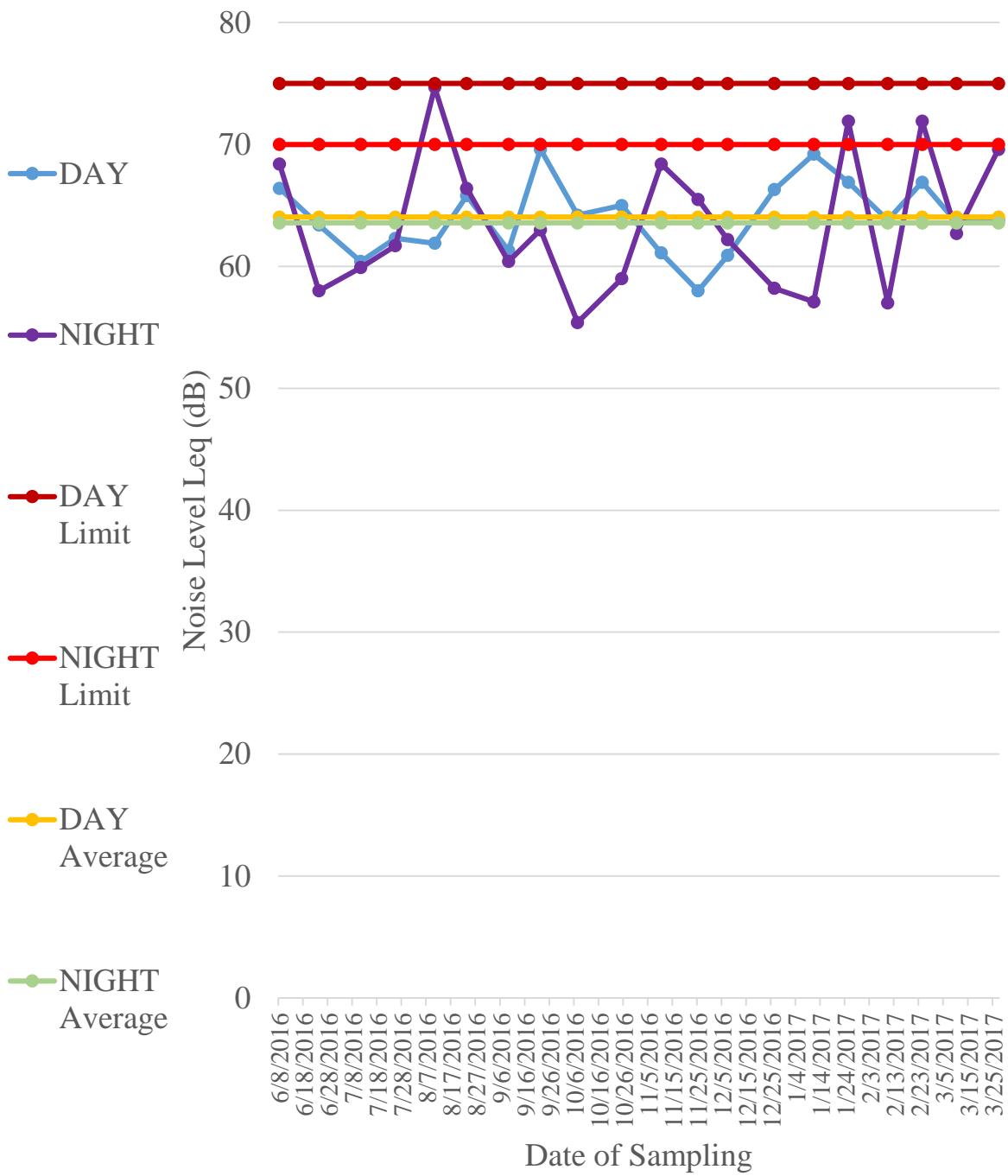
Graph showing Noise in Kudopali Village



Noise Table:46
Project: Samaleswari OCP
Monitoring Station: Lajkura Village

DATE OF SAMPLING	DAY	NIGHT
08-06-2016	66.4	68.4
24-06-2016	63.4	58
11-07-2016	60.4	59.9
25-07-2016	62.3	61.7
10-08-2016	61.9	74.7
23-08-2016	65.8	66.4
09-09-2016	61.3	60.4
22-09-2016	69.6	63
07-10-2016	64.2	55.4
25-10-2016	65	59
10-11-2016	61.1	68.4
25-11-2016	58	65.5
07-12-2016	60.9	62.2
26-12-2016	66.3	58.2
11-01-2017	69.2	57.1
25-01-2017	66.9	71.9
10-02-2017	63.8	57
24-02-2017	66.9	71.9
10-03-2017	63.6	62.7
27-03-2017	63.8	69.6

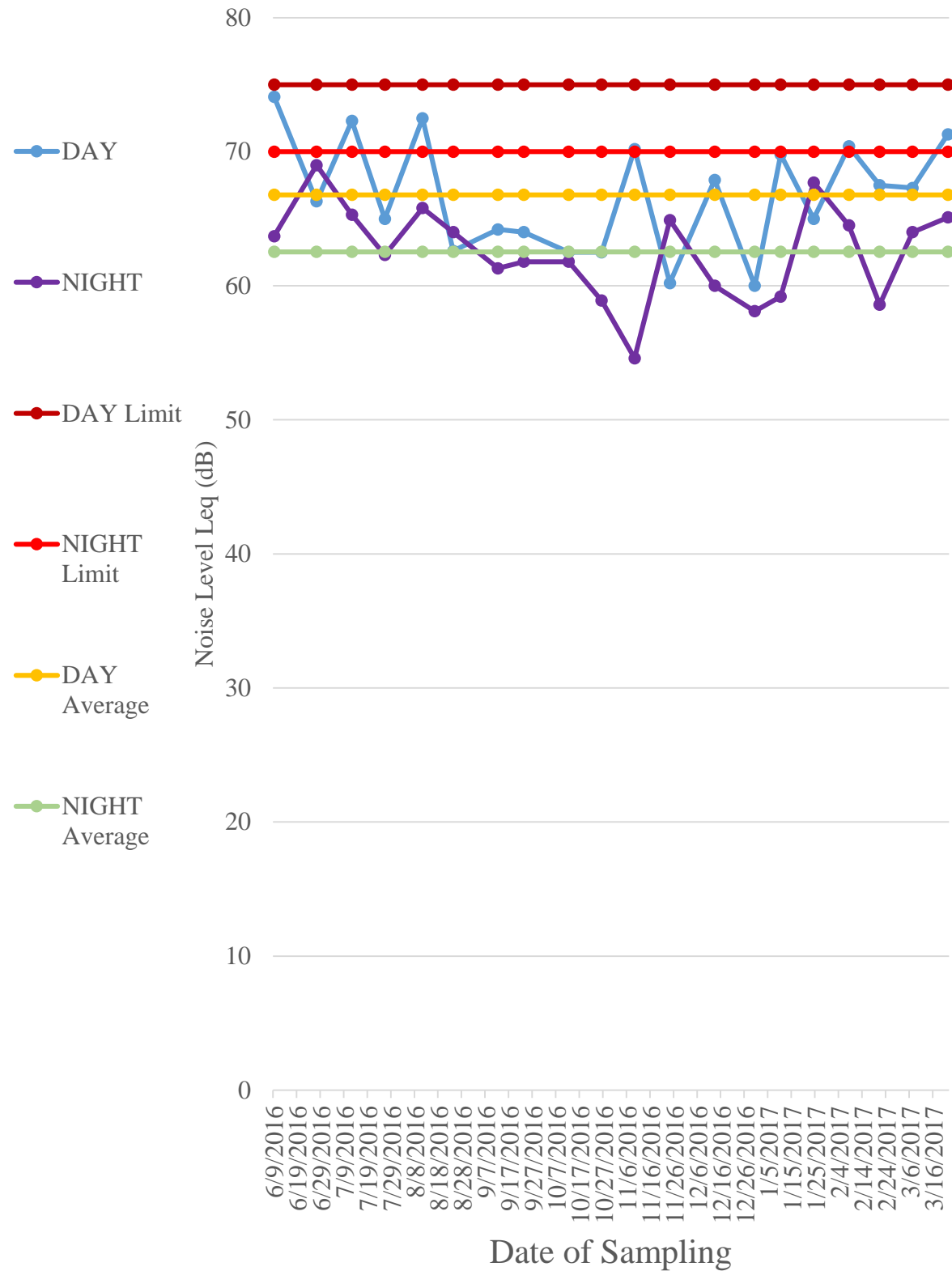
Graph showing Noise in Lajkura Village



Noise Table:47
Project: Samaleswari OCP
Monitoring Station: Near Chingriguda Village

DATE OF SAMPLING	DAY	NIGHT
09-06-2016	74.1	63.7
27-06-2016	66.3	69
12-07-2016	72.3	65.3
26-07-2016	65	62.3
11-08-2016	72.5	65.8
24-08-2016	62.6	64
12-09-2016	64.2	61.3
23-09-2016	64	61.8
12-10-2016	62.5	61.8
26-10-2016	62.5	58.9
09-11-2016	70.2	54.6
24-11-2016	60.2	64.9
13-12-2016	67.9	60
30-12-2016	60	58.1
10-01-2017	69.8	59.2
24-01-2017	65	67.7
08-02-2017	70.4	64.5
21-02-2017	67.5	58.6
07-03-2017	67.3	64
22-03-2017	71.3	65.1

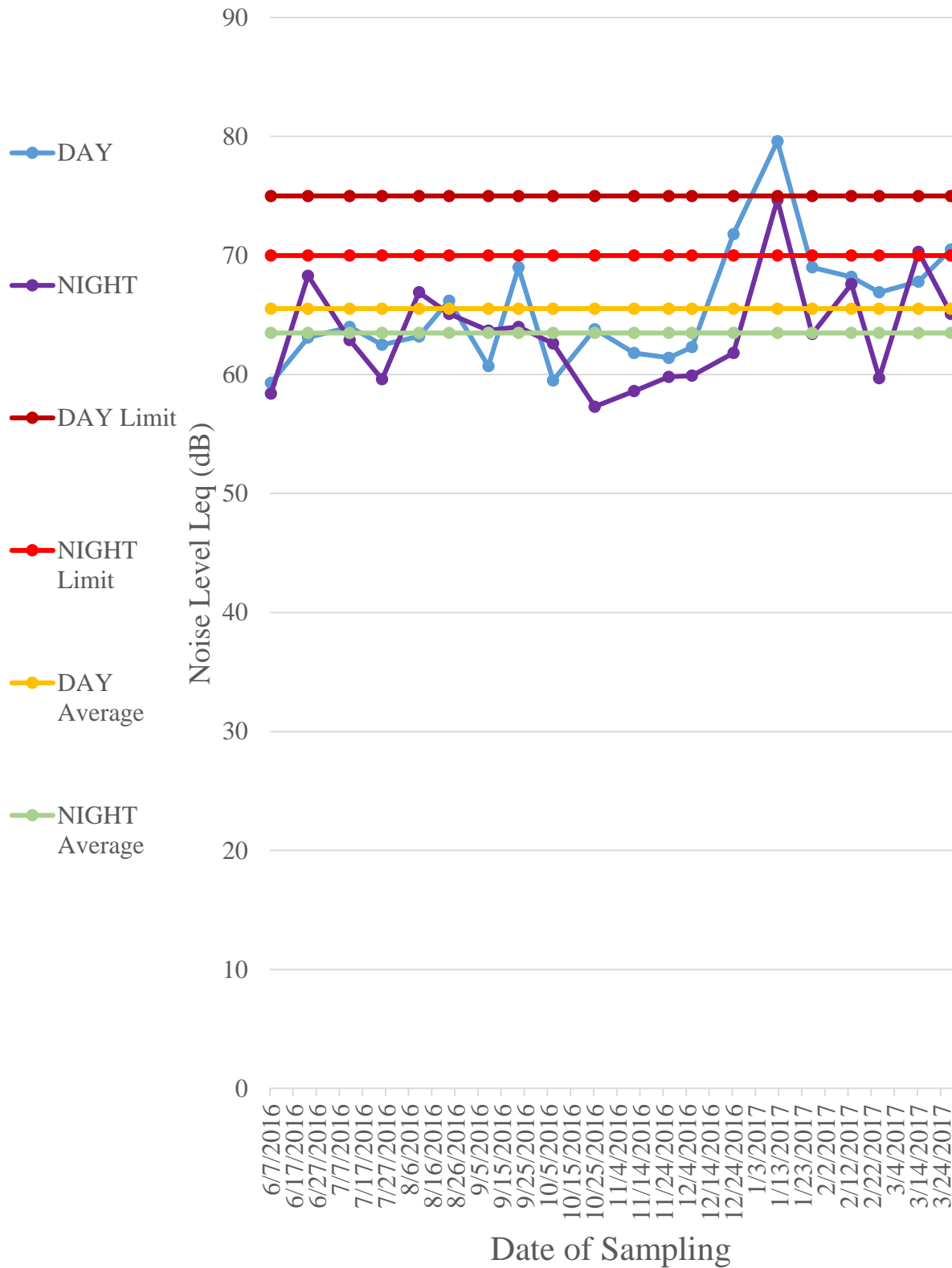
Graph showing Noise in Near Chingriguda Village



Noise Table:48
Project: Samaleswari OCP
Monitoring Station: Near Re-Joice Club in Hiltop Colony

DATE OF SAMPLING	DAY	NIGHT
07-06-2016	59.3	58.4
23-06-2016	63.1	68.3
11-07-2016	64	62.9
25-07-2016	62.5	59.6
10-08-2016	63.2	66.9
23-08-2016	66.2	65.1
09-09-2016	60.7	63.7
22-09-2016	69	64
07-10-2016	59.5	62.6
25-10-2016	63.8	57.3
11-11-2016	61.8	58.6
26-11-2016	61.4	59.8
06-12-2016	62.3	59.9
24-12-2016	71.8	61.8
12-01-2017	79.6	74.7
27-01-2017	69	63.4
13-02-2017	68.2	67.6
25-02-2017	66.9	59.7
14-03-2017	67.8	70.3
28-03-2017	70.5	65.1

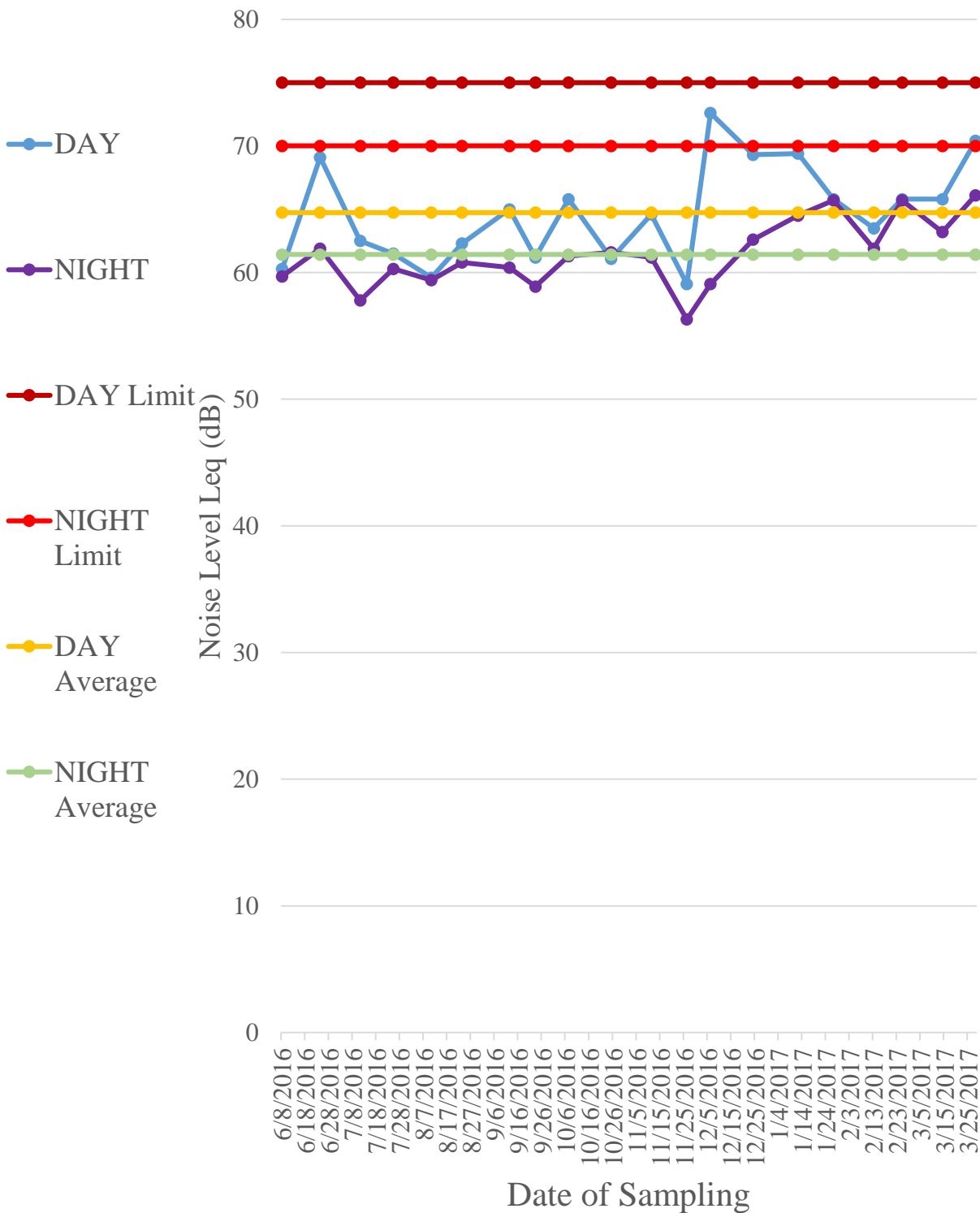
Graph showing Noise in Near Re-Joice Club in Hiltop Colony



Noise Table:49
Project: Samaleswari OCP
Monitoring Station: Roof of New Project office

DATE OF SAMPLING	DAY	NIGHT
08-06-2016	60.3	59.7
24-06-2016	69.1	61.9
11-07-2016	62.5	57.8
25-07-2016	61.5	60.3
10-08-2016	59.6	59.4
23-08-2016	62.3	60.8
12-09-2016	65	60.4
23-09-2016	61.2	58.9
07-10-2016	65.8	61.3
25-10-2016	61.1	61.6
11-11-2016	64.6	61.2
26-11-2016	59.1	56.3
06-12-2016	72.6	59.1
24-12-2016	69.3	62.6
12-01-2017	69.4	64.5
27-01-2017	65.8	65.7
13-02-2017	63.5	61.9
25-02-2017	65.8	65.7
14-03-2017	65.8	63.2
28-03-2017	70.4	66.1

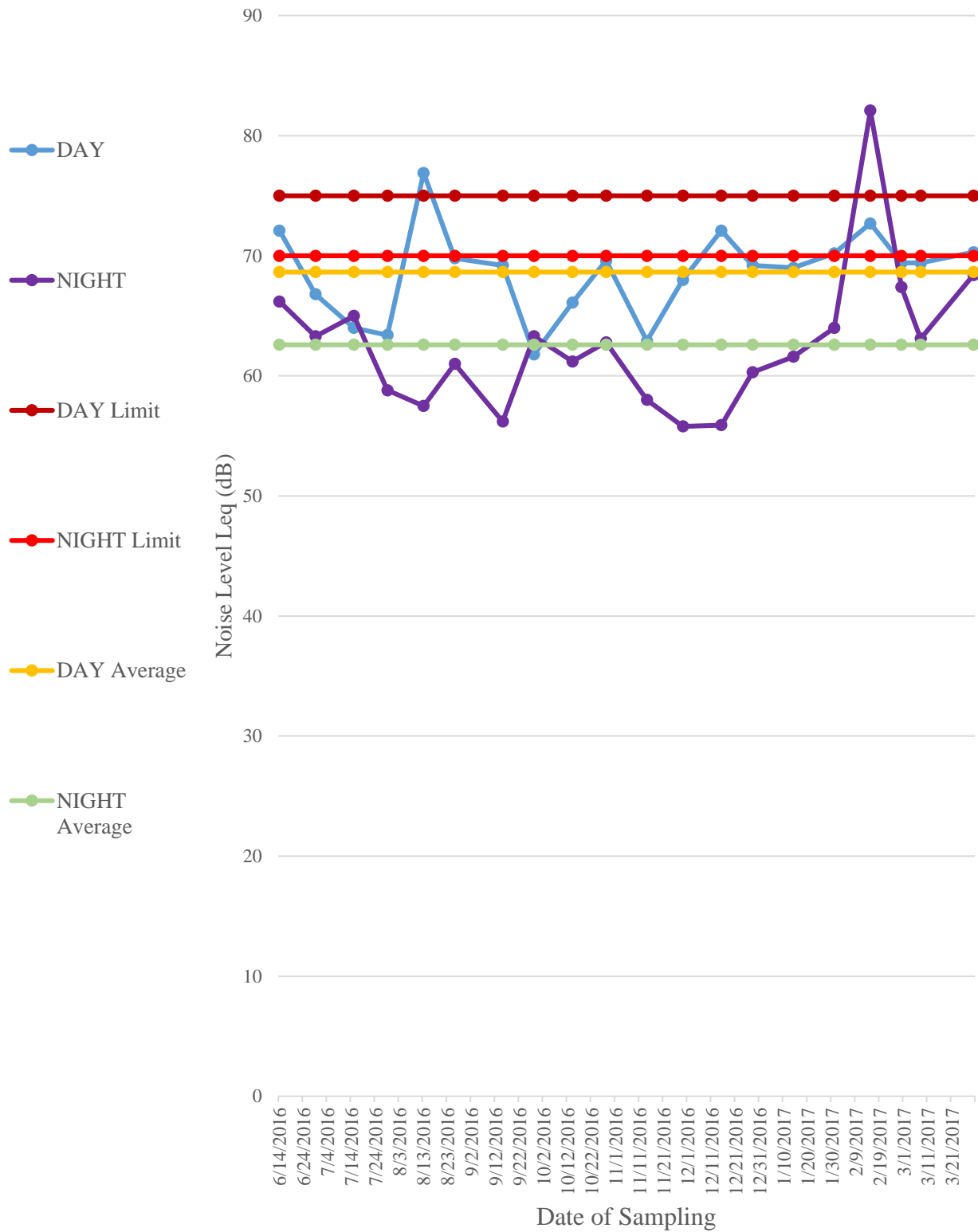
Graph showing Noise in Roof of New Project office



Noise Table:50
Project: Belpahar OCP
Monitoring Station: Bandabahal Township/BIT

DATE OF SAMPLING	DAY	NIGHT
14-06-2016	72.1	66.2
29-06-2016	66.8	63.3
15-07-2016	64	65
29-07-2016	63.4	58.8
13-08-2016	76.9	57.5
26-08-2016	69.8	61
15-09-2016	69.2	56.2
28-09-2016	61.8	63.3
14-10-2016	66.1	61.2
28-10-2016	69.6	62.8
14-11-2016	62.9	58
29-11-2016	68	55.8
15-12-2016	72.1	55.9
28-12-2016	69.2	60.3
14-01-2017	69	61.6
31-01-2017	70.2	64
15-02-2017	72.7	82.1
28-02-2017	69.4	67.4
08-03-2017	69.4	63.1
30-03-2017	70.3	68.4

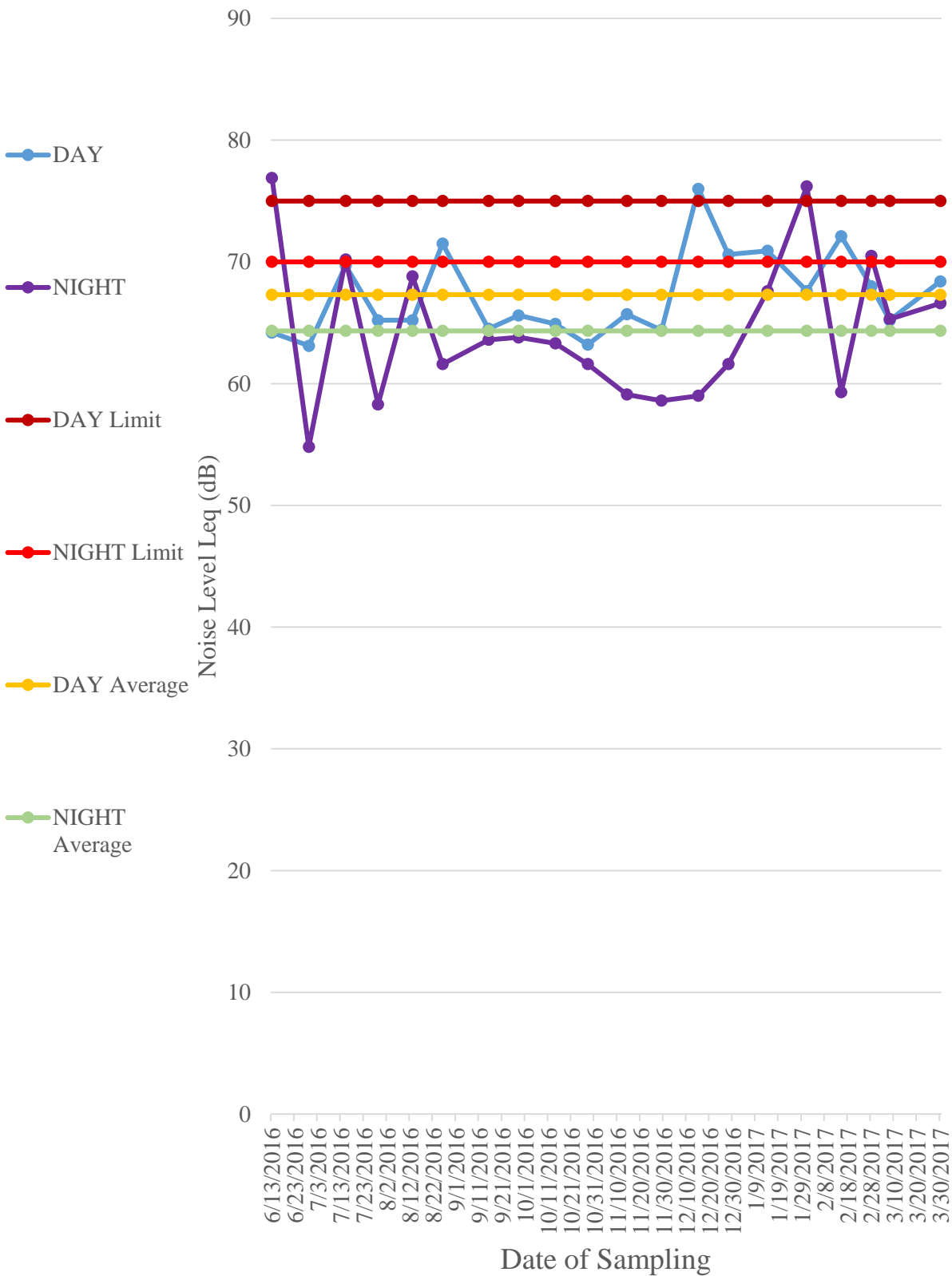
Graph showing Noise in Bandabahal Township/BIT



Noise Table:51
Project: Belpahar OCP
Monitoring Station: Near MDTP

DATE OF SAMPLING	DAY	NIGHT
13-06-2016	64.2	76.9
29-06-2016	63.1	54.8
15-07-2016	69.7	70.2
29-07-2016	65.2	58.3
13-08-2016	65.2	68.8
26-08-2016	71.5	61.6
15-09-2016	64.5	63.6
28-09-2016	65.6	63.8
14-10-2016	64.9	63.3
28-10-2016	63.2	61.6
14-11-2016	65.7	59.1
29-11-2016	64.4	58.6
15-12-2016	76	59
28-12-2016	70.6	61.6
14-01-2017	70.9	67.6
31-01-2017	67.6	76.2
15-02-2017	72.1	59.3
28-02-2017	68	70.5
08-03-2017	65.2	65.3
30-03-2017	68.4	66.6

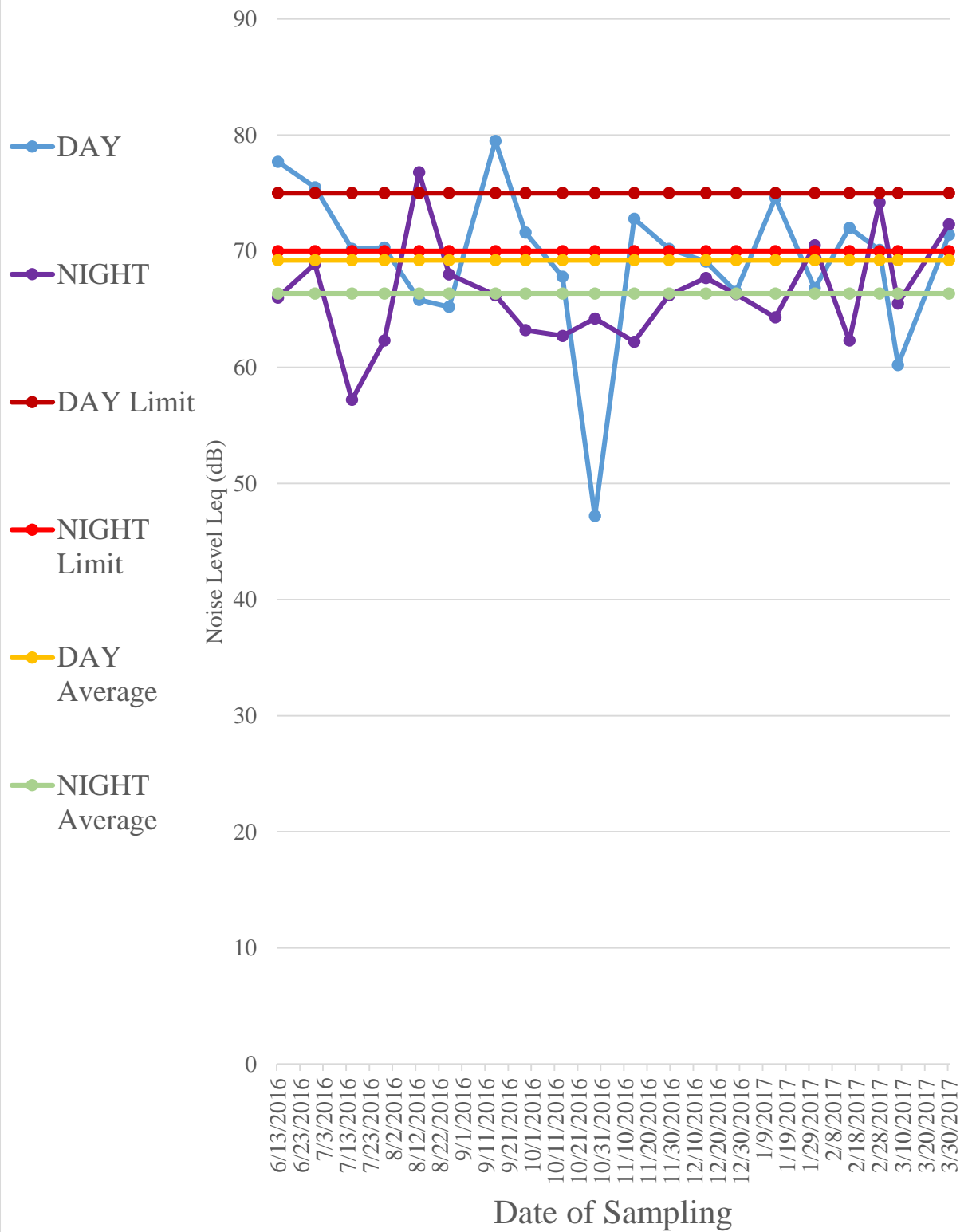
Graph showing Noise in Near MDTP



Noise Table: 52
Project: Belpahar OCP
Monitoring Station: Near Quarry No.2 view point

DATE OF SAMPLING	DAY	NIGHT
13-06-2016	77.7	66.0
29-06-2016	75.5	68.9
15-07-2016	70.2	57.2
29-07-2016	70.3	62.3
13-08-2016	65.8	76.8
26-08-2016	65.2	68
15-09-2016	79.5	66.2
28-09-2016	71.6	63.2
14-10-2016	67.8	62.7
28-10-2016	47.2	64.2
14-11-2016	72.8	62.2
29-11-2016	70.2	66.2
15-12-2016	69.1	67.7
28-12-2016	66.5	66.3
14-01-2017	74.6	64.3
31-01-2017	66.8	70.5
15-02-2017	72	62.3
28-02-2017	70.1	74.2
08-03-2017	60.2	65.5
30-03-2017	71.4	72.3

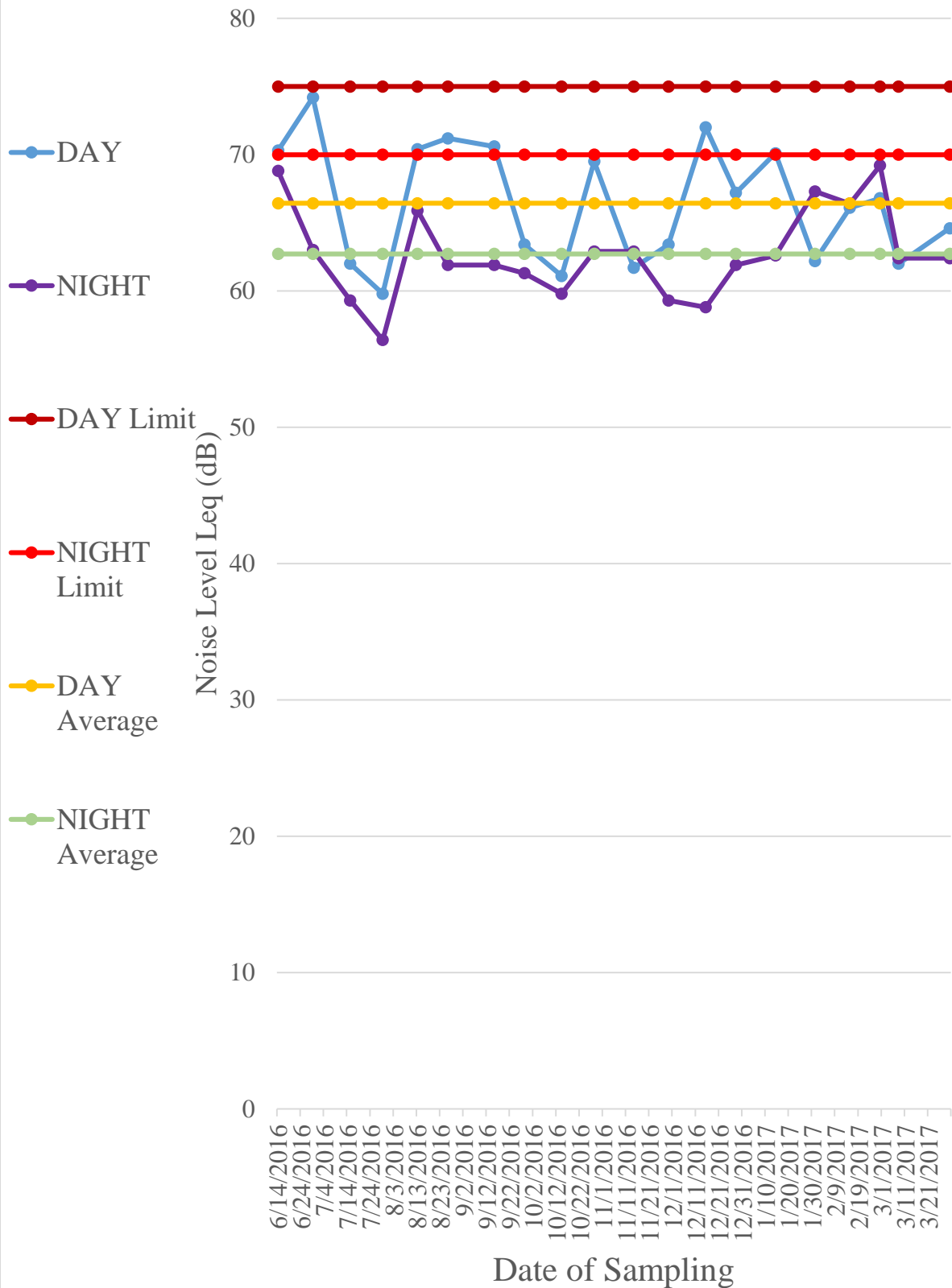
Graph showing Noise in Near Quarry No.2 view point



Noise Table:53
Project: Belpahar OCP
Monitoring Station: Near Village Darlipali

DATE OF SAMPLING	DAY	NIGHT
14-06-2016	70.3	68.8
29-06-2016	74.2	63
15-07-2016	62	59.3
29-07-2016	59.8	56.4
13-08-2016	70.4	65.9
26-08-2016	71.2	61.9
15-09-2016	70.6	61.9
28-09-2016	63.4	61.3
14-10-2016	61.1	59.8
28-10-2016	69.5	62.9
14-11-2016	61.7	62.9
29-11-2016	63.4	59.3
15-12-2016	72	58.8
28-12-2016	67.2	61.9
14-01-2017	70.1	62.6
31-01-2017	62.2	67.3
15-02-2017	66.1	66.4
28-02-2017	66.8	69.2
08-03-2017	62	62.4
30-03-2017	64.6	62.4

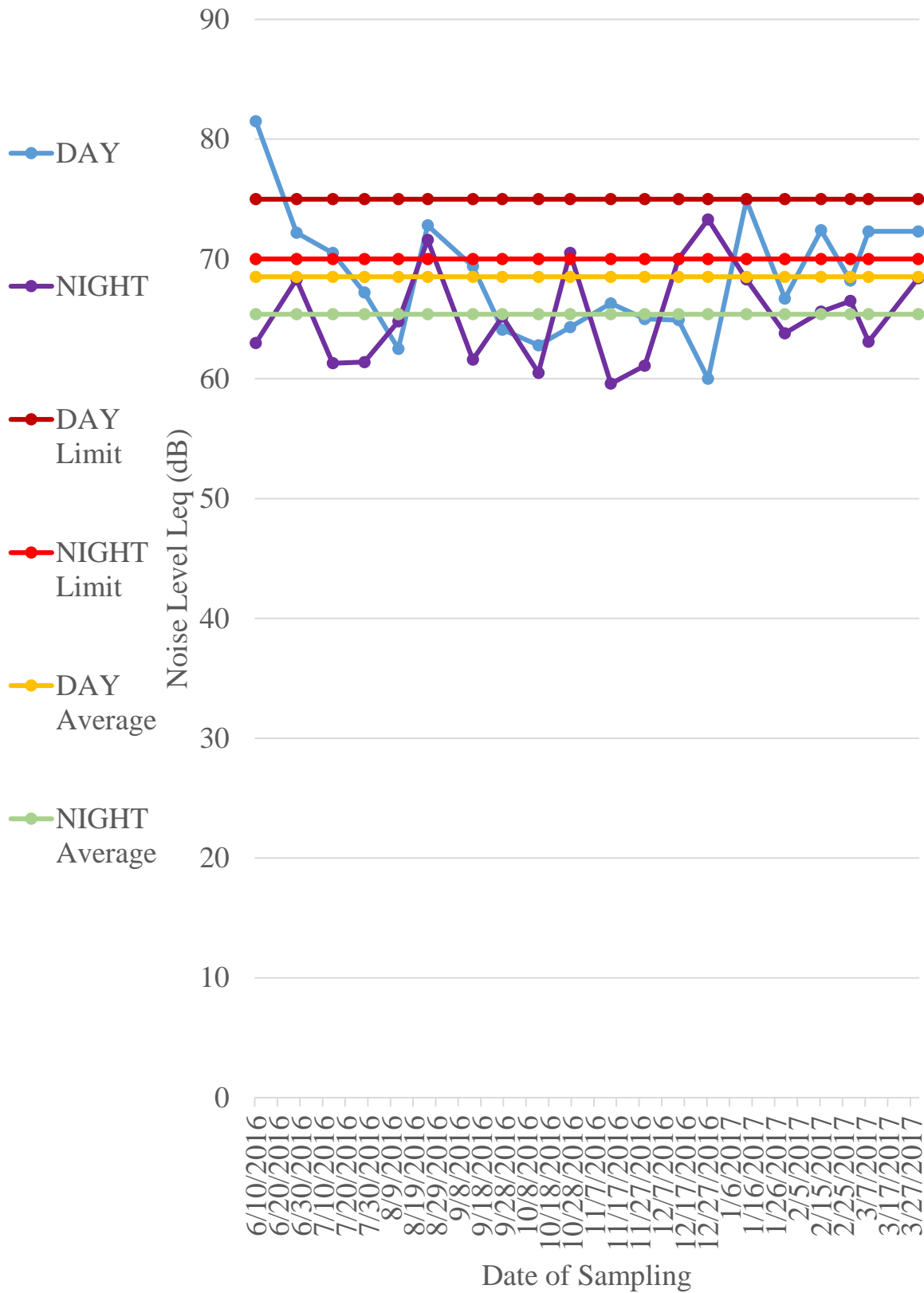
Graph showing Noise in Near Village Darlipali



Noise Table: 54
Project: Lakhanpur OCP
Monitoring Station: East of coal stock no 10

DATE OF SAMPLING	DAY	NIGHT
10-06-2016	81.5	63
28-06-2016	72.2	68.3
14-07-2016	70.5	61.3
28-07-2016	67.2	61.4
12-08-2016	62.5	64.8
25-08-2016	72.8	71.6
14-09-2016	69.4	61.6
27-09-2016	64.1	65.2
13-10-2016	62.8	60.5
27-10-2016	64.3	70.5
14-11-2016	66.3	59.6
29-11-2016	65	61.1
14-12-2016	64.9	70
27-12-2016	60	73.3
13-01-2017	74.9	68.3
30-01-2017	66.7	63.8
15-02-2017	72.4	65.6
28-02-2017	68.2	66.5
08-03-2017	72.3	63.1
30-03-2017	72.3	68.4

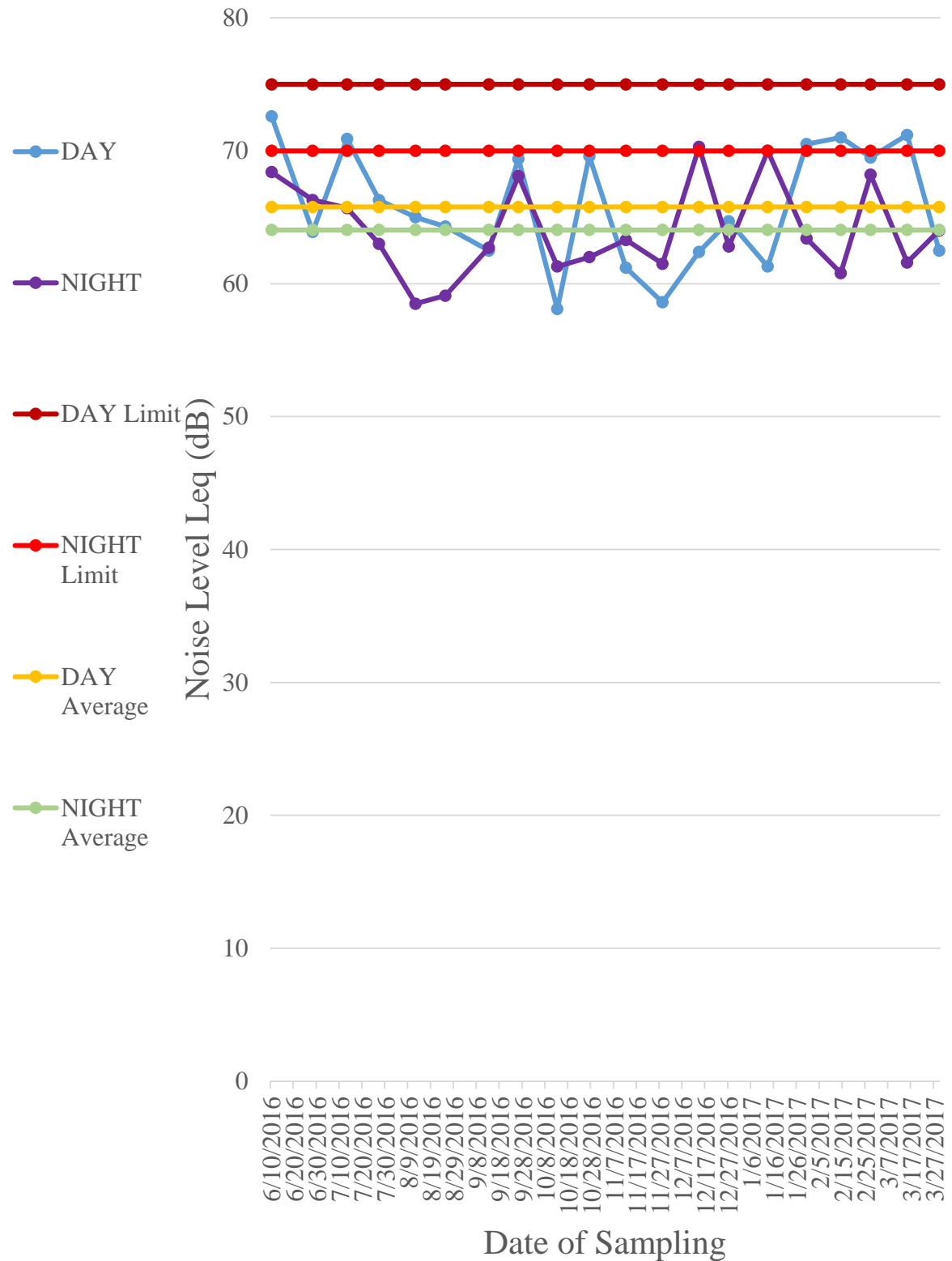
Graph showing Noise in East of coal stock no 10



Noise Table:55
Project: Lakhanpur OCP
Monitoring Station: Near OB dump No.1

DATE OF SAMPLING	DAY	NIGHT
10-06-2016	72.6	68.4
28-06-2016	63.9	66.3
13-07-2016	70.9	65.7
27-07-2016	66.3	63
12-08-2016	65	58.5
25-08-2016	64.3	59.1
13-09-2016	62.5	62.7
26-09-2016	69.4	68.1
13-10-2016	58.1	61.3
27-10-2016	69.6	62
12-11-2016	61.2	63.3
28-11-2016	58.6	61.5
14-12-2016	62.4	70.3
27-12-2016	64.7	62.8
13-01-2017	61.3	70
30-01-2017	70.5	63.4
14-02-2017	71	60.8
27-02-2017	69.5	68.2
15-03-2017	71.2	61.6
29-03-2017	62.5	64

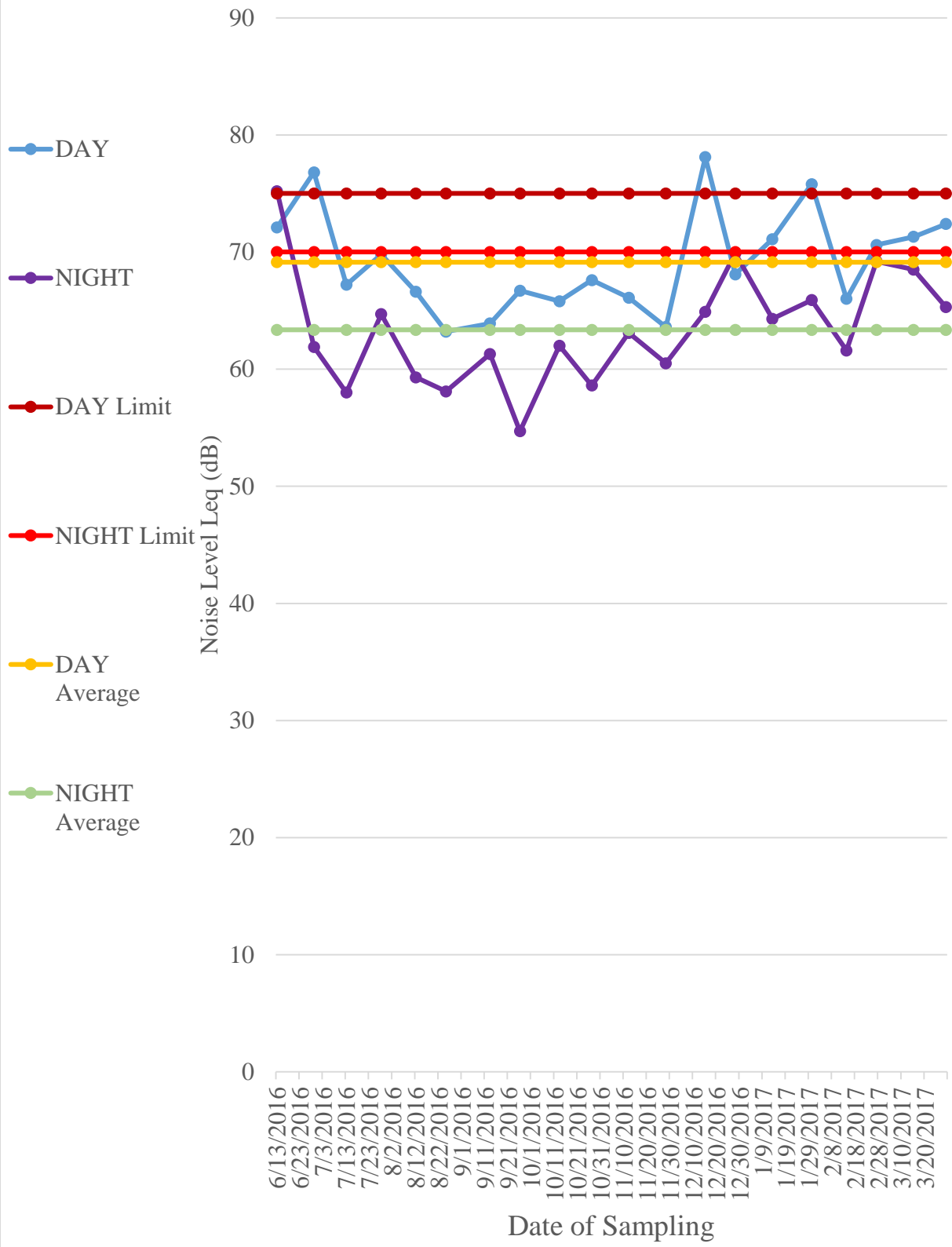
Graph showing Noise in Near OB dump No.1



Noise Table:56
Project: Lakhanpur OCP
Monitoring Station: North west of Quarry No.1

DATE OF SAMPLING	DAY	NIGHT
13-06-2016	72.1	75.2
29-06-2016	76.8	61.9
13-07-2016	67.2	58
28-07-2016	69.8	64.7
12-08-2016	66.6	59.3
25-08-2016	63.2	58.1
13-09-2016	63.9	61.3
26-09-2016	66.7	54.7
13-10-2016	65.8	62
27-10-2016	67.6	58.6
12-11-2016	66.1	63.1
28-11-2016	63.6	60.5
15-12-2016	78.1	64.9
28-12-2016	68.1	69.9
13-01-2017	71.1	64.3
30-01-2017	75.8	65.9
14-02-2017	66	61.6
27-02-2017	70.6	69.2
15-03-2017	71.3	68.5
29-03-2017	72.4	65.3

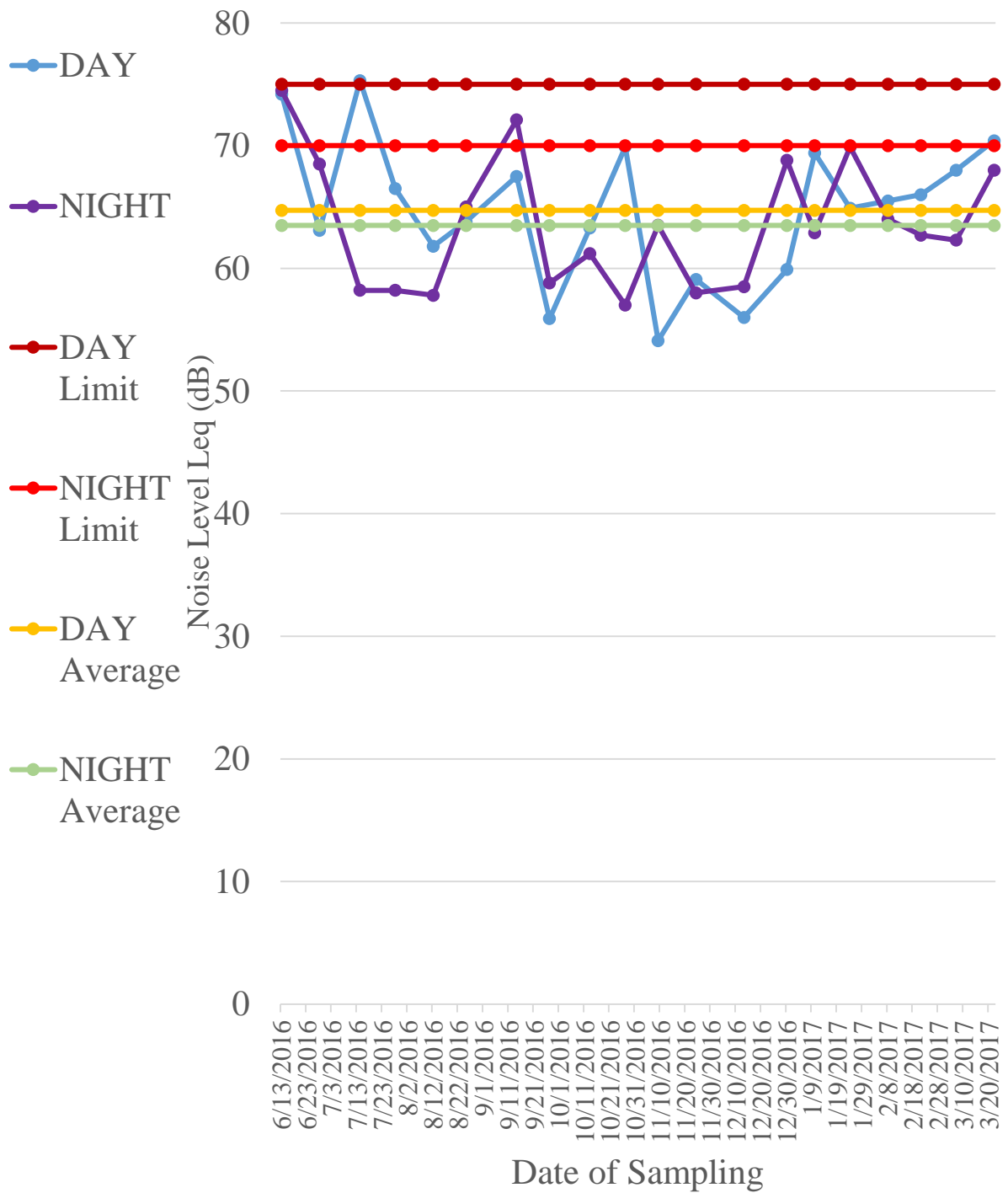
Graph showing Noise in North west of Quarry No.1



Noise Table:57
Project: Lakhanpur OCP
Monitoring Station: Tingismal Village

DATE OF SAMPLING	DAY	NIGHT
13-06-2016	74.2	74.5
28-06-2016	63.1	68.5
14-07-2016	75.3	58.2
28-07-2016	66.5	58.2
12-08-2016	61.8	57.8
25-08-2016	63.8	65
14-09-2016	67.5	72.1
27-09-2016	55.9	58.8
13-10-2016	63.3	61.2
27-10-2016	69.9	57
09-11-2016	54.1	63.5
24-11-2016	59.1	58
13-12-2016	56	58.5
30-12-2016	59.9	68.8
10-01-2017	69.4	62.9
24-01-2017	64.9	69.9
08-02-2017	65.5	64
21-02-2017	66	62.7
07-03-2017	68	62.3
22-03-2017	70.4	68

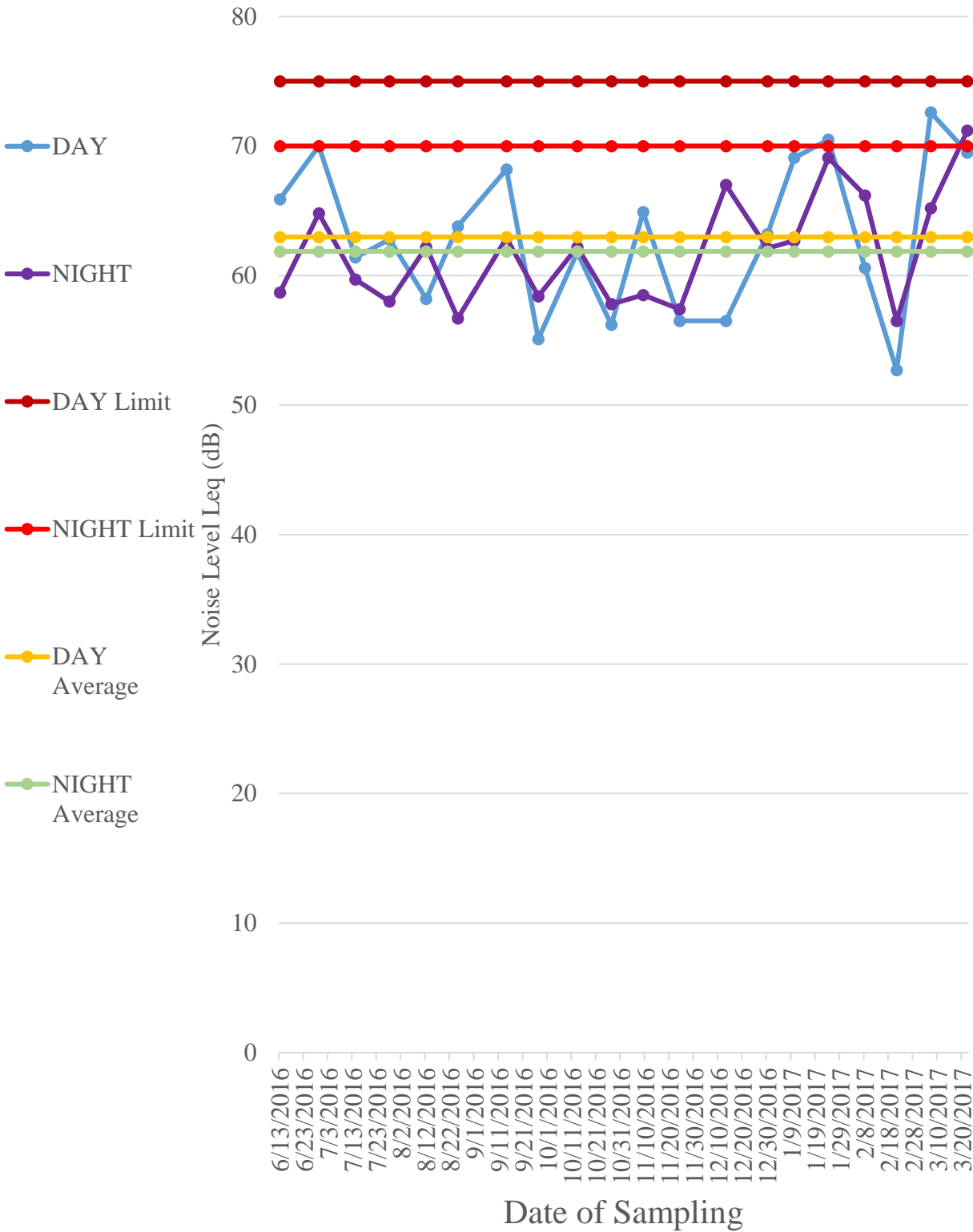
Graph showing Noise in Tingismal Village



Noise Table:58
Project: Lakhanpur OCP
Monitoring Station: Ubuda Village

DATE OF SAMPLING	DAY	NIGHT
13-06-2016	65.9	58.7
29-06-2016	70	64.8
14-07-2016	61.4	59.7
28-07-2016	62.8	58
12-08-2016	58.2	62.2
25-08-2016	63.8	56.7
14-09-2016	68.2	62.9
27-09-2016	55.1	58.4
13-10-2016	61.8	62.2
27-10-2016	56.2	57.8
09-11-2016	64.9	58.5
24-11-2016	56.5	57.4
13-12-2016	56.5	67
30-12-2016	63.2	62.1
10-01-2017	69.1	62.7
24-01-2017	70.5	69.1
08-02-2017	60.6	66.2
21-02-2017	52.7	56.5
07-03-2017	72.6	65.2
22-03-2017	69.5	71.2

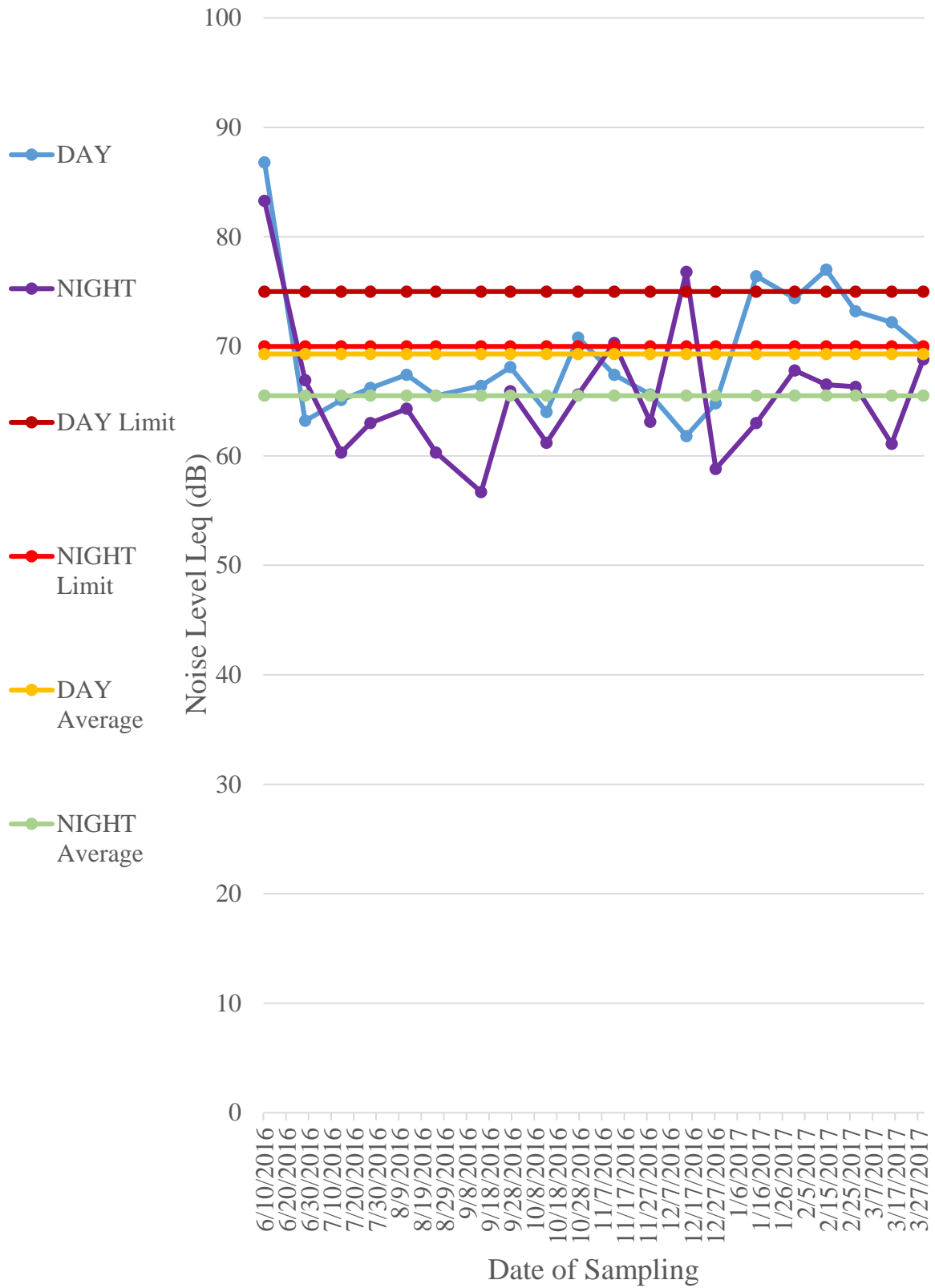
Graph showing Noise in Ubuda Village



Noise Table:59
Project: Lakhanpur OCP
Monitoring Station: West side of quarry no 4

DATE OF SAMPLING	DAY	NIGHT
10-06-2016	86.8	83.3
28-06-2016	63.2	66.9
14-07-2016	65.1	60.3
27-07-2016	66.2	63
12-08-2016	67.4	64.3
25-08-2016	65.5	60.3
14-09-2016	66.4	56.7
27-09-2016	68.1	65.9
13-10-2016	64	61.2
27-10-2016	70.8	65.6
12-11-2016	67.4	70.3
28-11-2016	65.6	63.1
14-12-2016	61.8	76.8
27-12-2016	64.8	58.8
14-01-2017	76.4	63
31-01-2017	74.4	67.8
14-02-2017	77	66.5
27-02-2017	73.2	66.3
15-03-2017	72.2	61.1
29-03-2017	69.8	68.8

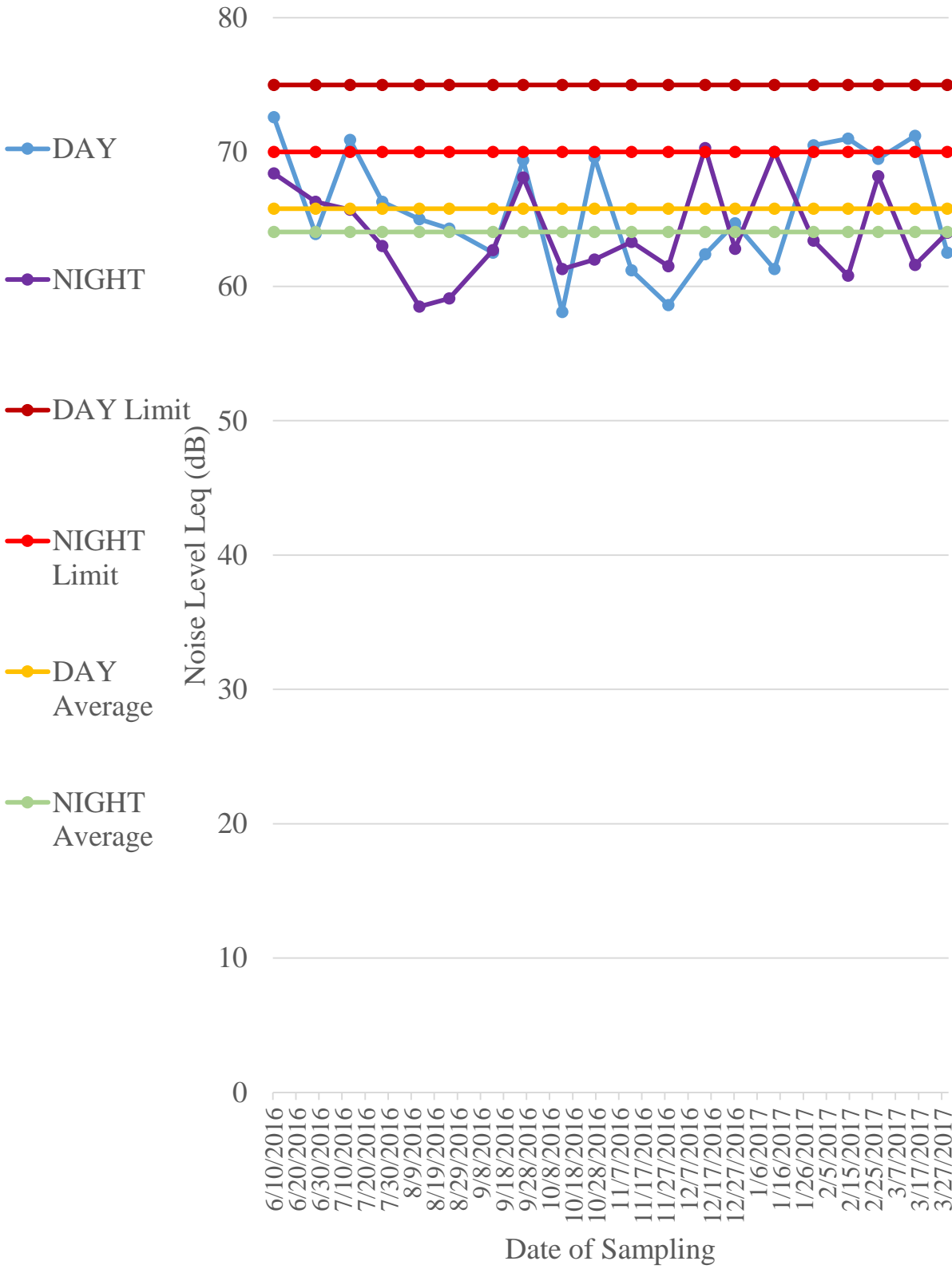
Graph showing Noise in West side of quarry no 4



Noise Table:60
Project: Lilari OCP
Monitoring Station: Near Lilari Pump House

DATE OF SAMPLING	DAY	NIGHT
10-06-2016	72.6	68.4
28-06-2016	63.9	66.3
13-07-2016	70.9	65.7
27-07-2016	66.3	63
12-08-2016	65	58.5
25-08-2016	64.3	59.1
13-09-2016	62.5	62.7
26-09-2016	69.4	68.1
13-10-2016	58.1	61.3
27-10-2016	69.6	62
12-11-2016	61.2	63.3
28-11-2016	58.6	61.5
14-12-2016	62.4	70.3
27-12-2016	64.7	62.8
13-01-2017	61.3	70
30-01-2017	70.5	63.4
14-02-2017	71	60.8
27-02-2017	69.5	68.2
15-03-2017	71.2	61.6
29-03-2017	62.5	64

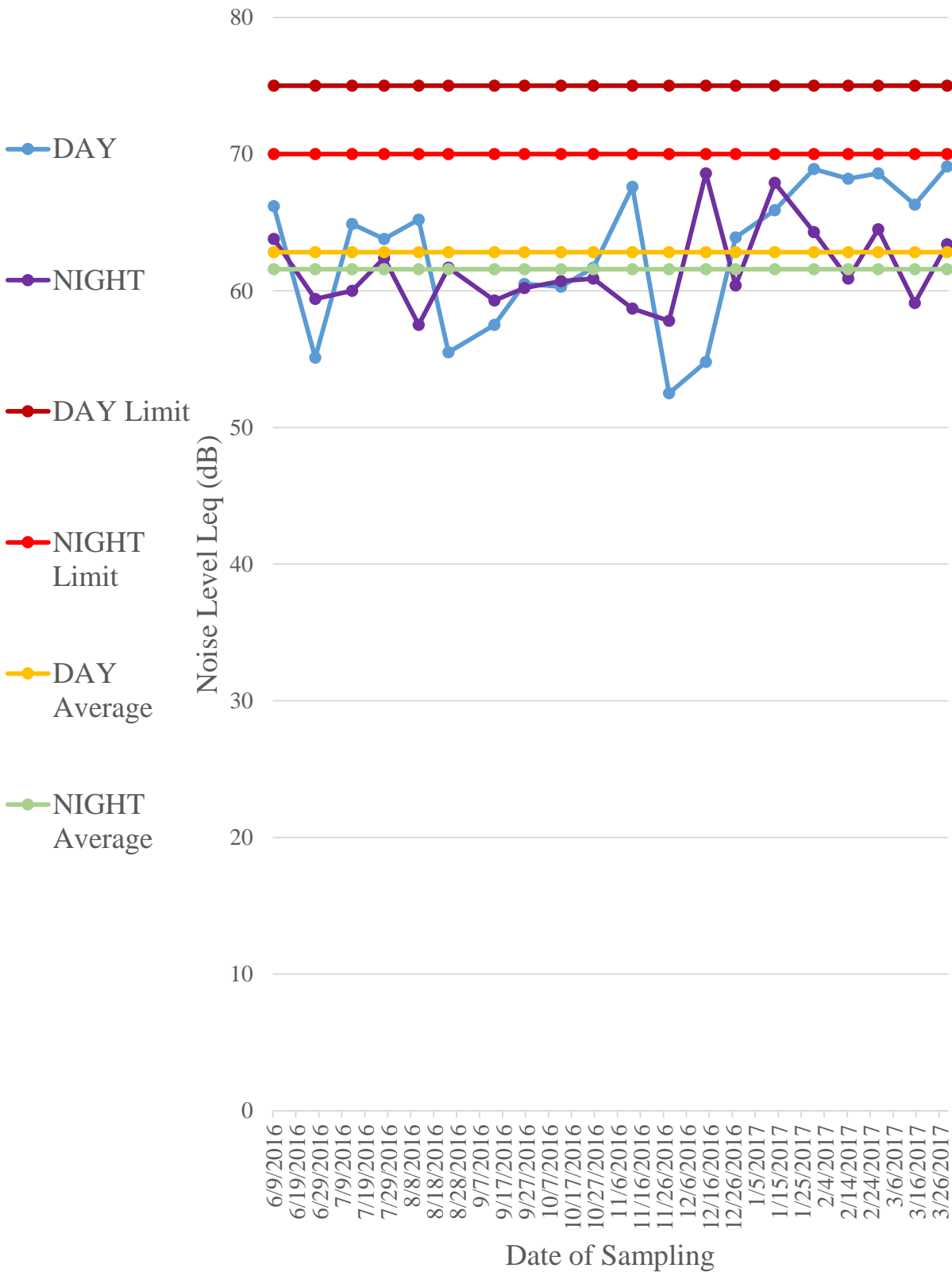
Graph showing Noise in Near Lilari Pump House



Noise Table:61
Project: Lilari OCP
Monitoring Station: Near Magazine House

DATE OF SAMPLING	DAY	NIGHT
09-06-2016	66.2	63.8
27-06-2016	55.1	59.4
13-07-2016	64.9	60
27-07-2016	63.8	62.4
11-08-2016	65.2	57.5
24-08-2016	55.5	61.7
13-09-2016	57.5	59.3
26-09-2016	60.5	60.2
12-10-2016	60.3	60.7
26-10-2016	61.7	60.9
12-11-2016	67.6	58.7
28-11-2016	52.5	57.8
14-12-2016	54.8	68.6
27-12-2016	63.9	60.4
13-01-2017	65.9	67.9
30-01-2017	68.9	64.3
14-02-2017	68.2	60.9
27-02-2017	68.6	64.5
15-03-2017	66.3	59.1
29-03-2017	69.1	63.4

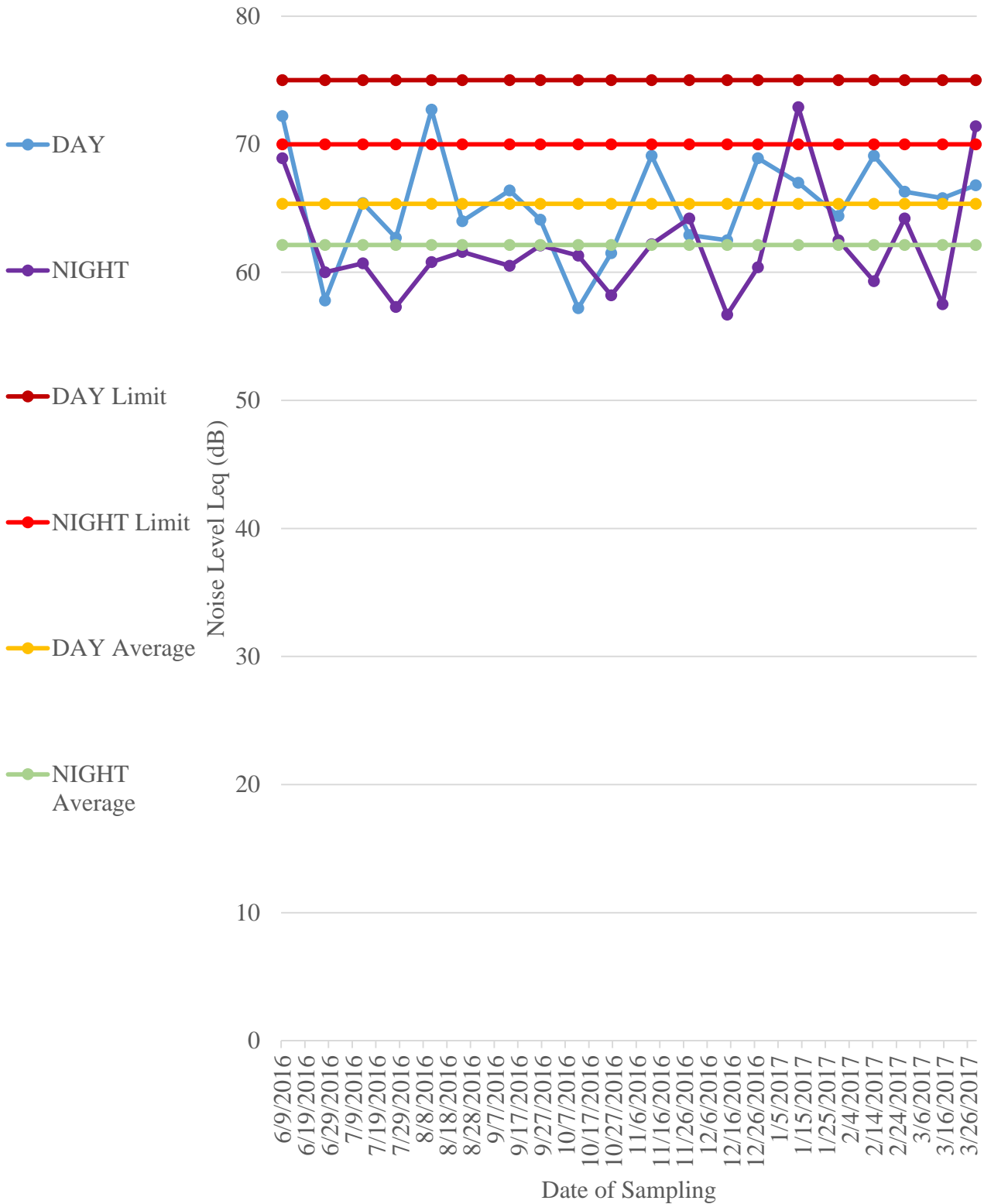
Graph showing Noise in Near Magazine House



Noise Table:62
Project: Lilari OCP
Monitoring Station: Near Old Coal Stock Yard

DATE OF SAMPLING	DAY	NIGHT
09-06-2016	72.2	68.9
27-06-2016	57.8	60
13-07-2016	65.4	60.7
27-07-2016	62.7	57.3
11-08-2016	72.7	60.8
24-08-2016	64	61.6
13-09-2016	66.4	60.5
26-09-2016	64.1	62.1
12-10-2016	57.2	61.3
26-10-2016	61.5	58.2
12-11-2016	69.1	62.2
28-11-2016	62.9	64.2
14-12-2016	62.5	56.7
27-12-2016	68.9	60.4
13-01-2017	67	72.9
30-01-2017	64.4	62.5
14-02-2017	69.1	59.3
27-02-2017	66.3	64.2
15-03-2017	65.8	57.5
29-03-2017	66.8	71.4

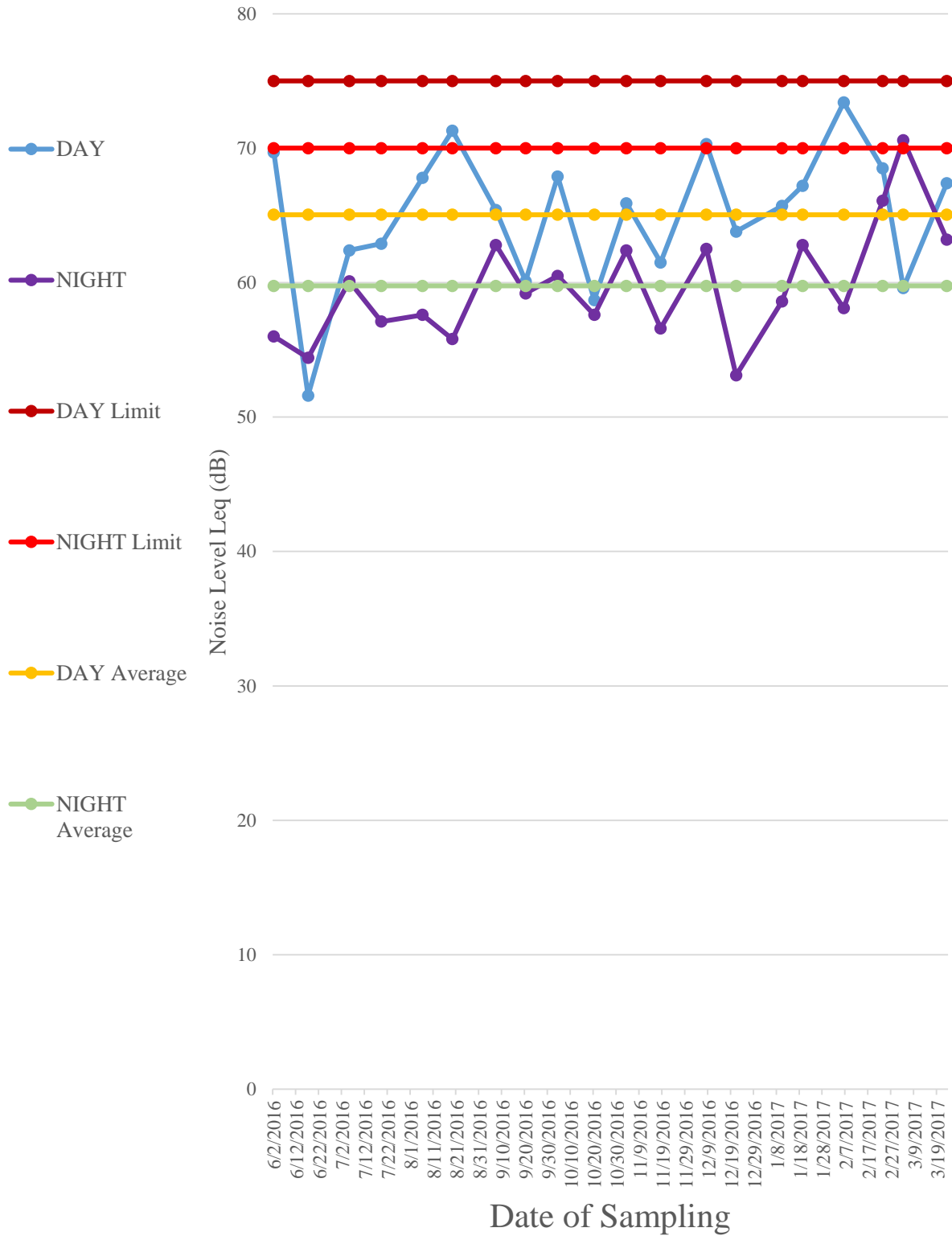
Graph showing Noise in Near Old Coal Stock Yard



Noise Table:63
Project: Basundhara (W) OCP
Monitoring Station: Khamarpara

DATE OF SAMPLING	DAY	NIGHT
02-06-2016	69.7	56
17-06-2016	51.6	54.4
05-07-2016	62.4	60.1
19-07-2016	62.9	57.1
06-08-2016	67.8	57.6
19-08-2016	71.3	55.8
07-09-2016	65.4	62.8
20-09-2016	60.1	59.2
04-10-2016	67.9	60.5
20-10-2016	58.7	57.6
03-11-2016	65.9	62.4
18-11-2016	61.5	56.6
08-12-2016	70.3	62.5
21-12-2016	63.8	53.1
10-01-2017	65.7	58.6
19-01-2017	67.2	62.8
06-02-2017	73.4	58.1
23-02-2017	68.5	66.1
04-03-2017	59.6	70.6
23-03-2017	67.4	63.2

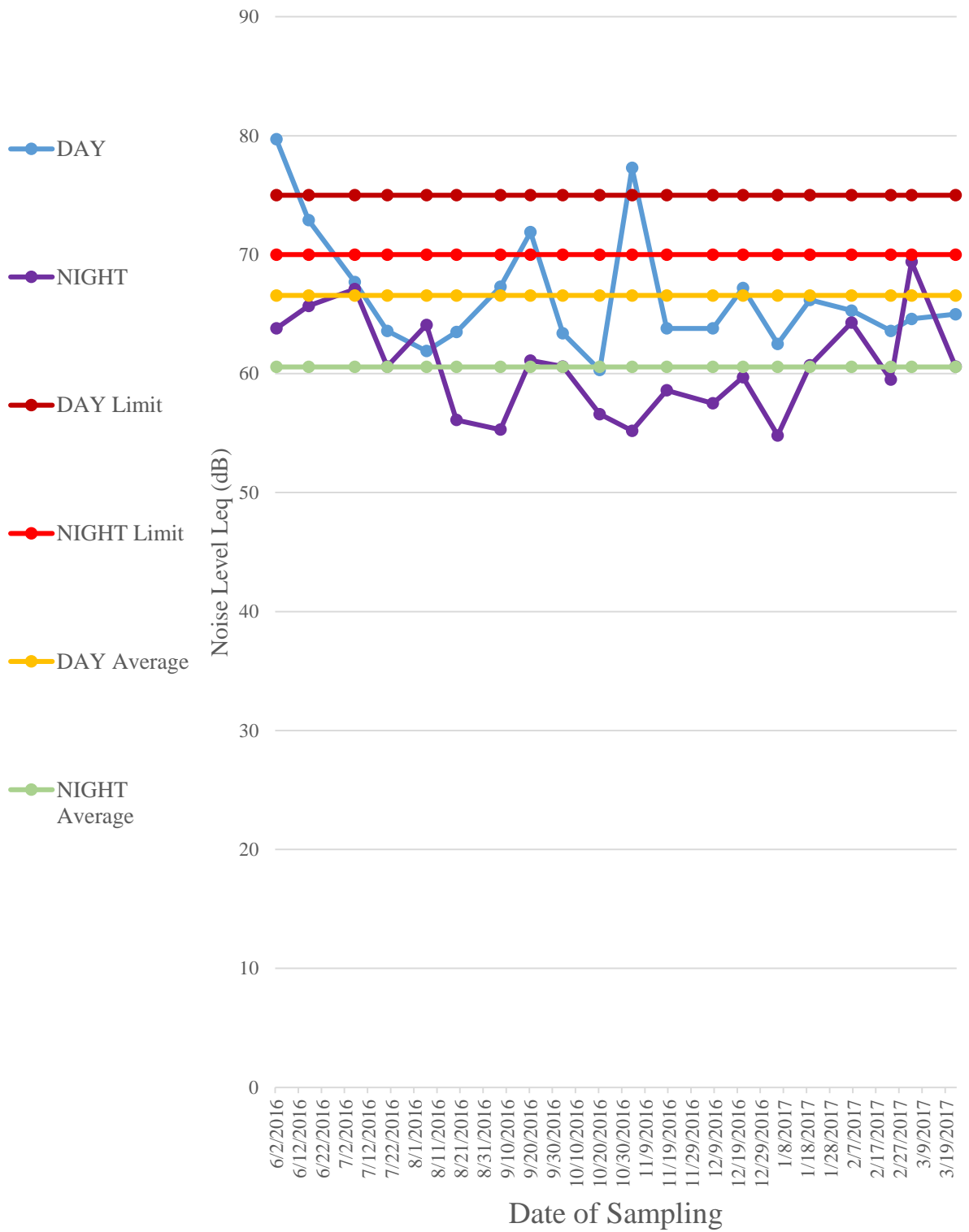
Graph showing Noise in Khamarpara



Noise Table:64
Project: Basundhara (W) OCP
Monitoring Station: Tikilipara

DATE OF SAMPLING	DAY	NIGHT
02-06-2016	79.7	63.8
16-06-2016	72.9	65.7
06-07-2016	67.7	67.1
20-07-2016	63.6	60.6
06-08-2016	61.9	64.1
19-08-2016	63.5	56.1
07-09-2016	67.3	55.3
20-09-2016	71.9	61.1
04-10-2016	63.4	60.6
20-10-2016	60.3	56.6
03-11-2016	77.3	55.2
18-11-2016	63.8	58.6
08-12-2016	63.8	57.5
21-12-2016	67.2	59.7
05-01-2017	62.5	54.8
19-01-2017	66.2	60.7
06-02-2017	65.3	64.3
23-02-2017	63.6	59.5
04-03-2017	64.6	69.4
23-03-2017	65	60.6

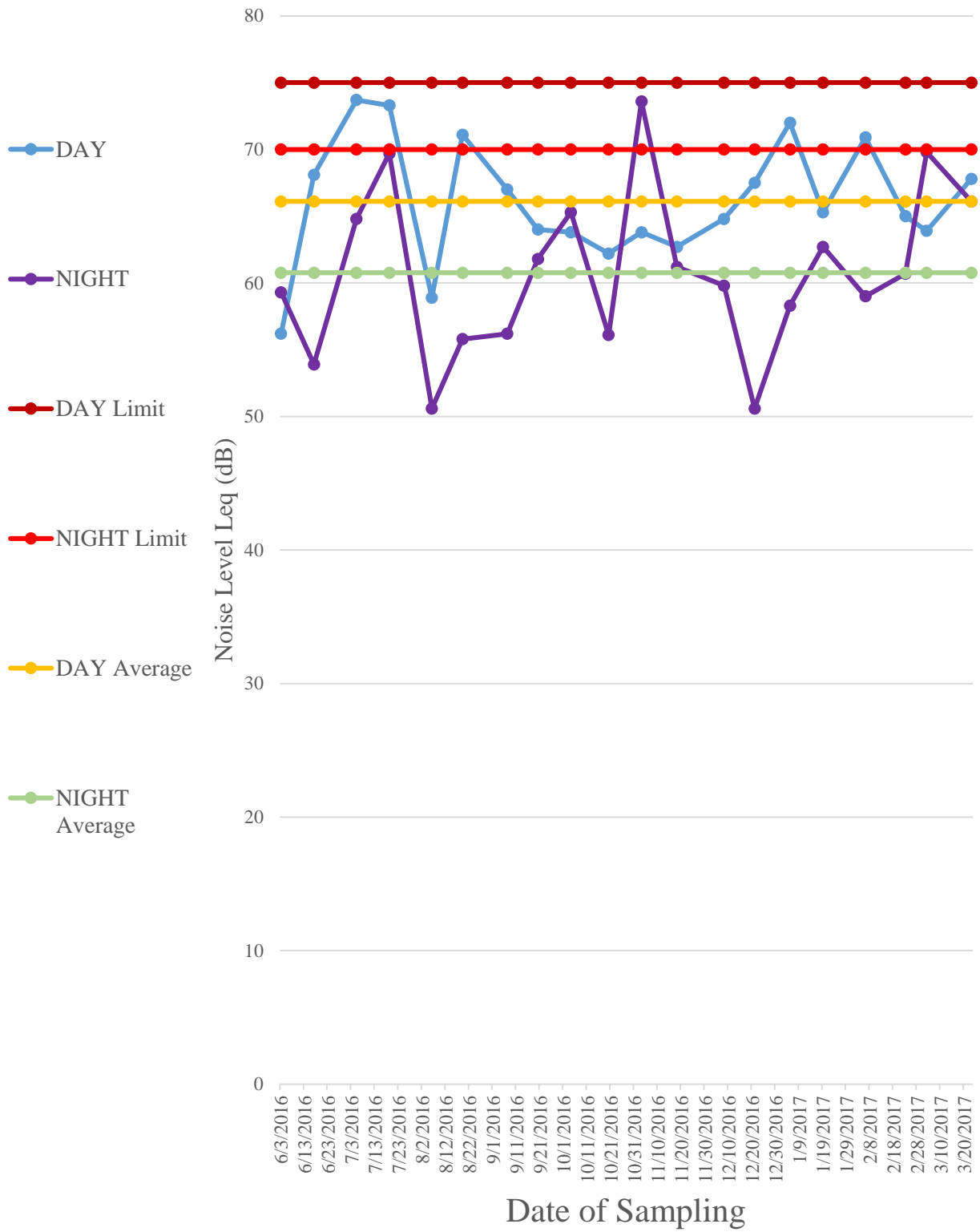
Graph showing Noise in Tikilipara



Noise Table:65
Project: Basundhara (W) OCP
Monitoring Station: Near Embankment

DATE OF SAMPLING	DAY	NIGHT
03-06-2016	56.2	59.3
17-06-2016	68.1	53.9
05-07-2016	73.7	64.8
19-07-2016	73.3	69.7
06-08-2016	58.9	50.6
19-08-2016	71.1	55.8
07-09-2016	67	56.2
20-09-2016	64	61.8
04-10-2016	63.8	65.3
20-10-2016	62.2	56.1
03-11-2016	63.8	73.6
18-11-2016	62.7	61.2
08-12-2016	64.8	59.8
21-12-2016	67.5	50.6
05-01-2017	72	58.3
19-01-2017	65.3	62.7
06-02-2017	70.9	59
23-02-2017	65	60.7
04-03-2017	63.9	69.8
23-03-2017	67.8	66.1

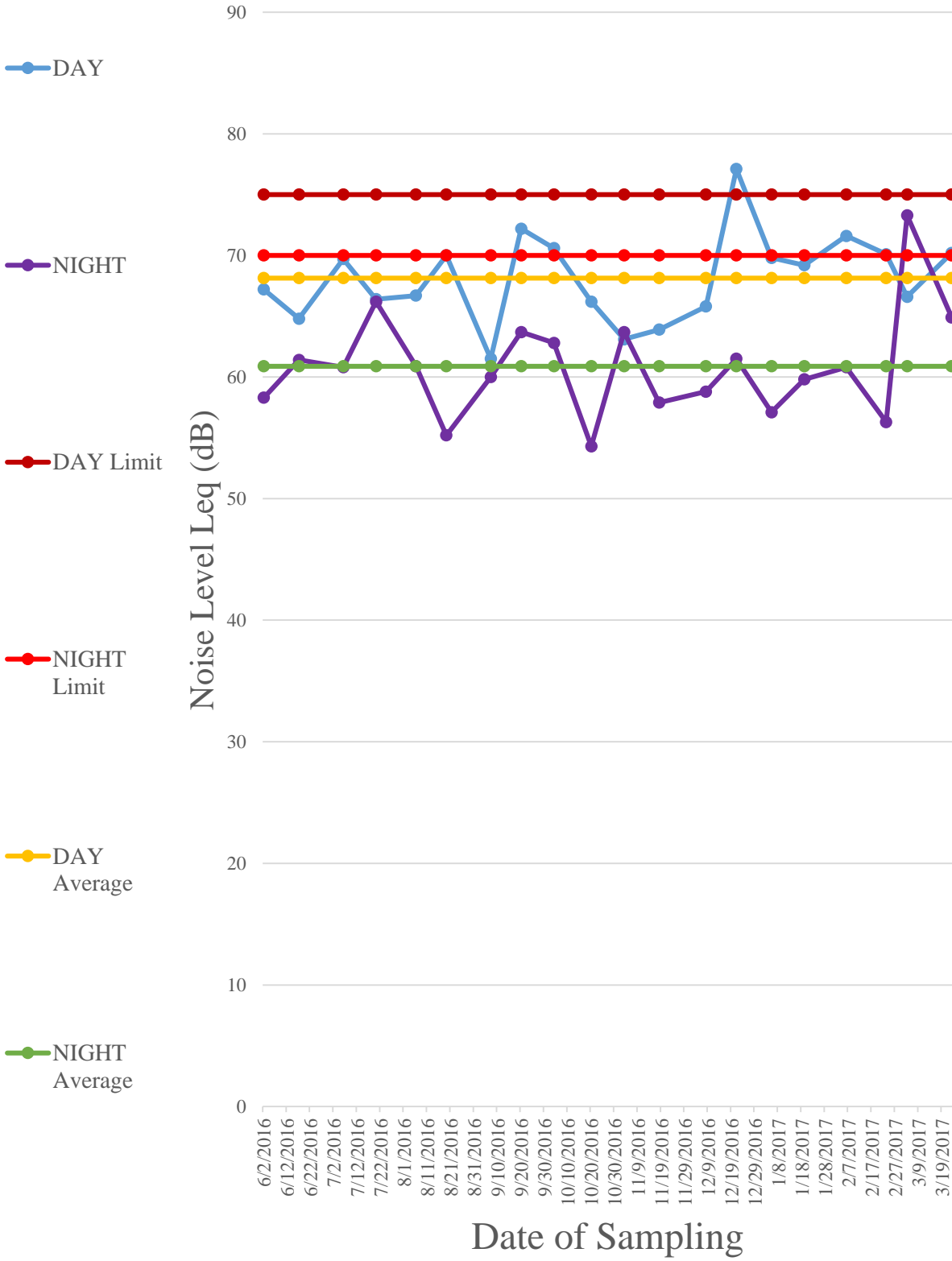
Graph showing Noise in Near Embankment



Noise Table:66
Project: Basundhara (W) OCP
Monitoring Station: Near CHP

DATE OF SAMPLING	DAY	NIGHT
02-06-2016	67.2	58.3
17-06-2016	64.8	61.4
06-07-2016	69.7	60.8
20-07-2016	66.4	66.2
06-08-2016	66.7	60.9
19-08-2016	70	55.2
07-09-2016	61.5	60
20-09-2016	72.2	63.7
04-10-2016	70.6	62.8
20-10-2016	66.2	54.3
03-11-2016	63.1	63.7
18-11-2016	63.9	57.9
08-12-2016	65.8	58.8
21-12-2016	77.1	61.5
05-01-2017	69.8	57.1
19-01-2017	69.2	59.8
06-02-2017	71.6	60.8
23-02-2017	70.1	56.3
04-03-2017	66.6	73.3
23-03-2017	70.2	64.9

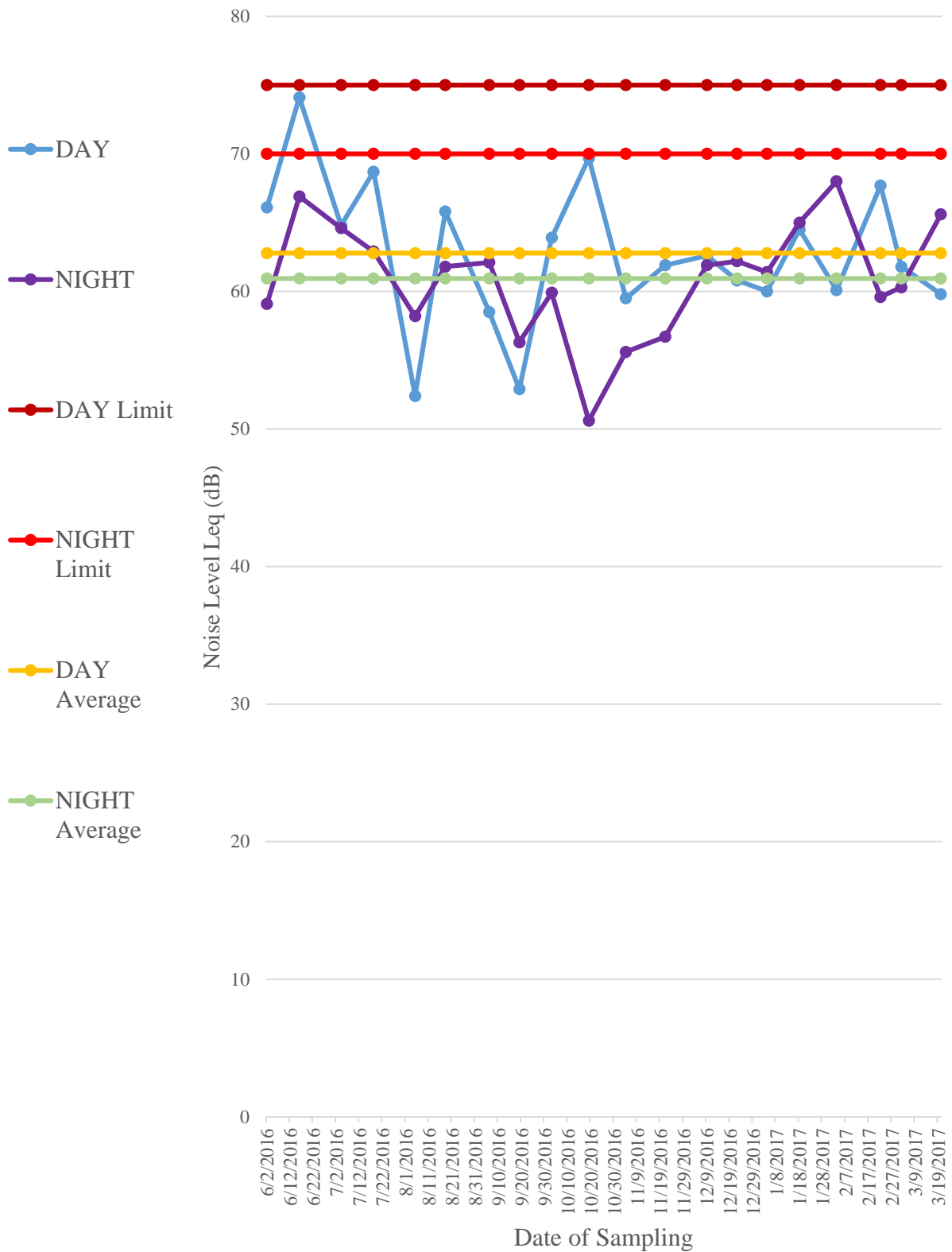
Graph showing Noise in Near CHP



Noise Table:67
Project: Kulda OCP
Monitoring Station: Farakbahal village

DATE OF SAMPLING	DAY	NIGHT
02-06-2016	66.1	59.1
16-06-2016	74.1	66.9
04-07-2016	64.8	64.6
18-07-2016	68.7	62.9
05-08-2016	52.4	58.2
18-08-2016	65.8	61.8
06-09-2016	58.5	62.1
19-09-2016	52.9	56.3
03-10-2016	63.9	59.9
19-10-2016	69.7	50.6
04-11-2016	59.5	55.6
21-11-2016	61.9	56.7
09-12-2016	62.6	61.9
22-12-2016	60.8	62.2
04-01-2017	60	61.4
18-01-2017	64.5	65
03-02-2017	60.1	68
22-02-2017	67.7	59.6
03-03-2017	61.8	60.3
20-03-2017	59.8	65.6

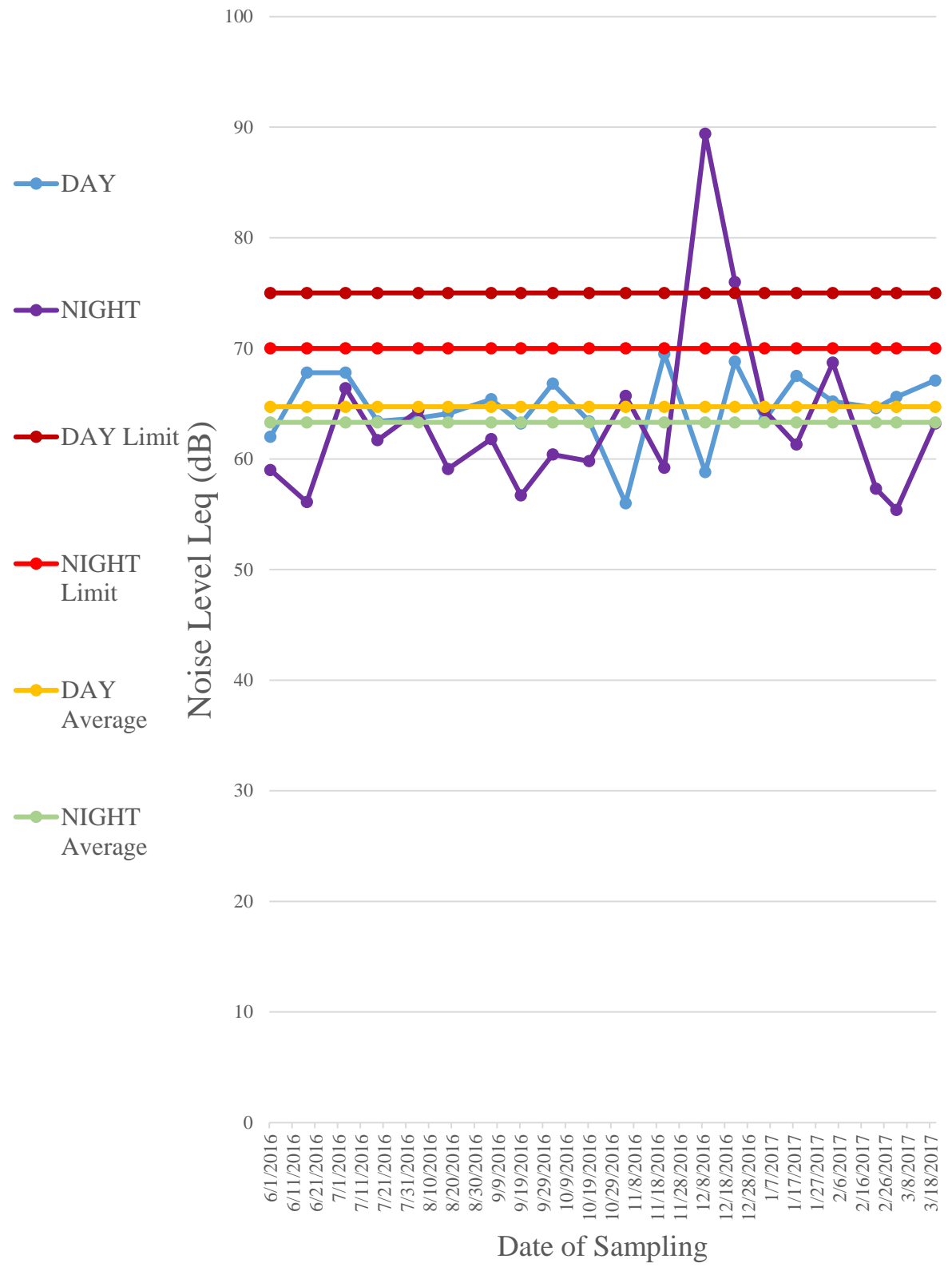
Graph showing Noise in Farakbahal village



Noise Table: 68
Project: Kulda OCP
Monitoring Station: Near Balinga Market

DATE OF SAMPLING	DAY	NIGHT
01-06-2016	62	59
17-06-2016	67.8	56.1
04-07-2016	67.8	66.4
18-07-2016	63.4	61.7
05-08-2016	63.7	64.4
18-08-2016	64.1	59.1
06-09-2016	65.4	61.8
19-09-2016	63.2	56.7
03-10-2016	66.8	60.4
19-10-2016	63.4	59.8
04-11-2016	56	65.7
21-11-2016	69.5	59.2
09-12-2016	58.8	89.4
22-12-2016	68.8	76
04-01-2017	63.5	64.4
18-01-2017	67.5	61.3
03-02-2017	65.2	68.7
22-02-2017	64.6	57.3
03-03-2017	65.6	55.4
20-03-2017	67.1	63.2

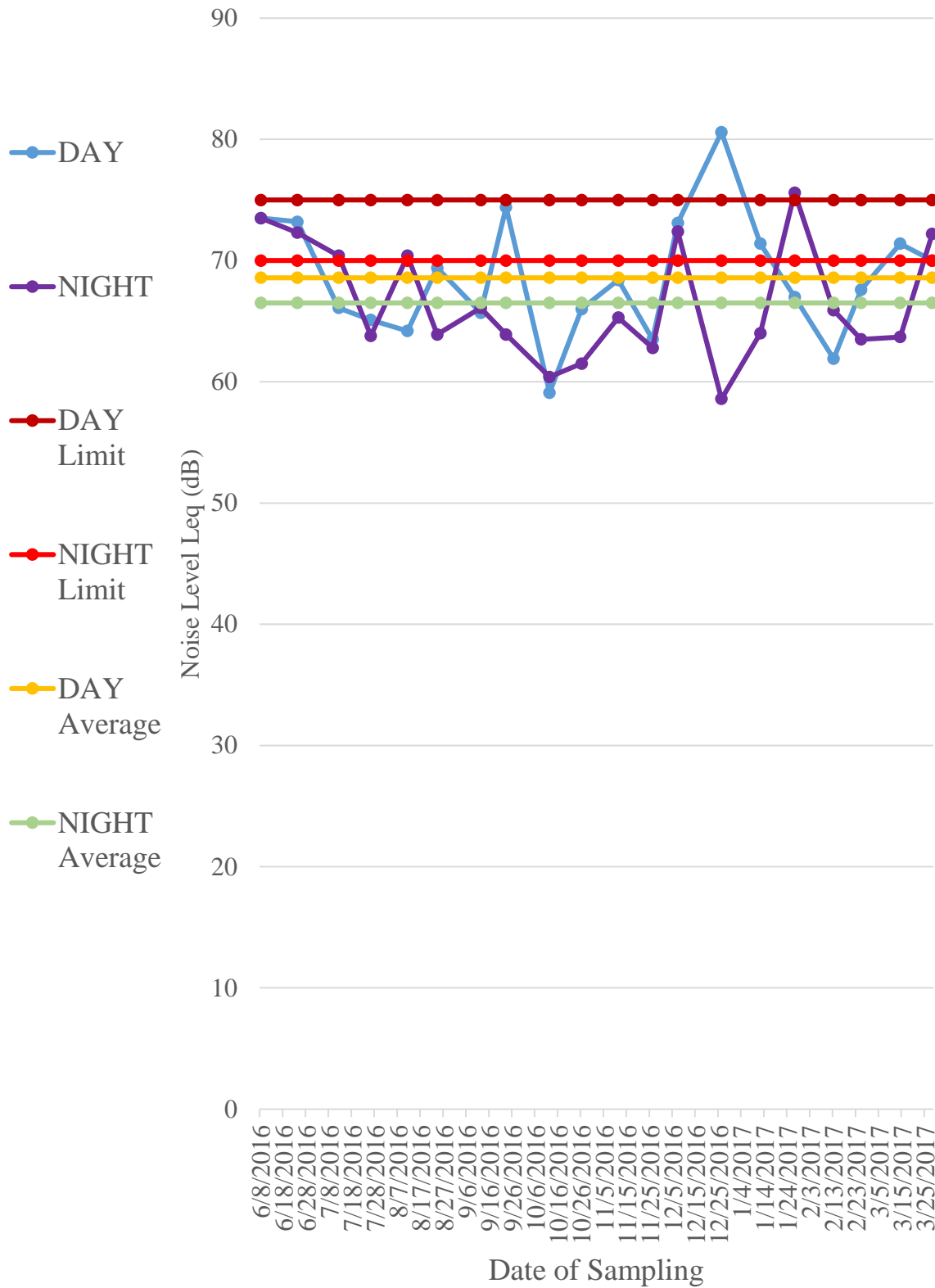
Graph showing Noise in Near Balinga Market



Noise Table:69
Project: Orient
Monitoring Station: HBI Mine

DATE OF SAMPLING	DAY	NIGHT
08-06-2016	73.5	73.5
24-06-2016	73.2	72.3
12-07-2016	66.1	70.4
26-07-2016	65.1	63.8
11-08-2016	64.2	70.4
24-08-2016	69.4	63.9
12-09-2016	65.7	66.1
23-09-2016	74.4	63.9
12-10-2016	59.1	60.4
26-10-2016	66	61.5
11-11-2016	68.4	65.3
26-11-2016	63.5	62.8
07-12-2016	73.1	72.4
26-12-2016	80.6	58.6
12-01-2017	71.4	64
27-01-2017	67	75.6
13-02-2017	61.9	65.9
25-02-2017	67.6	63.5
14-03-2017	71.4	63.7
28-03-2017	70	72.2

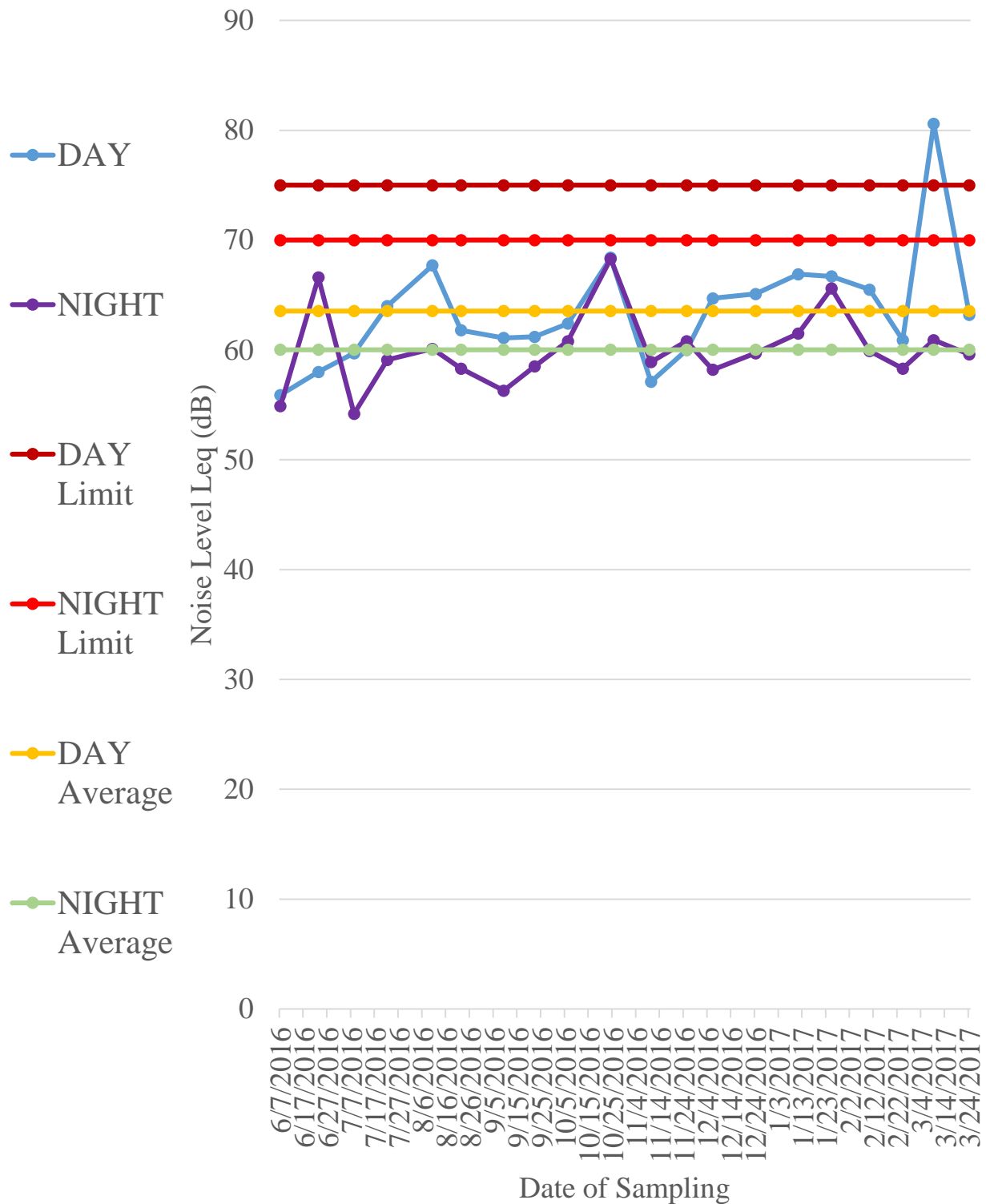
Graph showing Noise in HBI Mine



Noise Table: 70
Project: Orient
Monitoring Station: HRC Mine

DATE OF SAMPLING	DAY	NIGHT
07-06-2016	55.9	54.9
23-06-2016	58	66.6
08-07-2016	59.7	54.2
22-07-2016	64	59.1
10-08-2016	67.7	60.1
22-08-2016	61.8	58.3
09-09-2016	61.1	56.3
22-09-2016	61.2	58.5
06-10-2016	62.4	60.8
24-10-2016	68.4	68.3
10-11-2016	57.1	58.9
25-11-2016	60	60.8
06-12-2016	64.7	58.2
24-12-2016	65.1	59.7
11-01-2017	66.9	61.5
25-01-2017	66.7	65.6
10-02-2017	65.5	59.9
24-02-2017	60.9	58.3
09-03-2017	80.6	60.9
24-03-2017	63.2	59.6

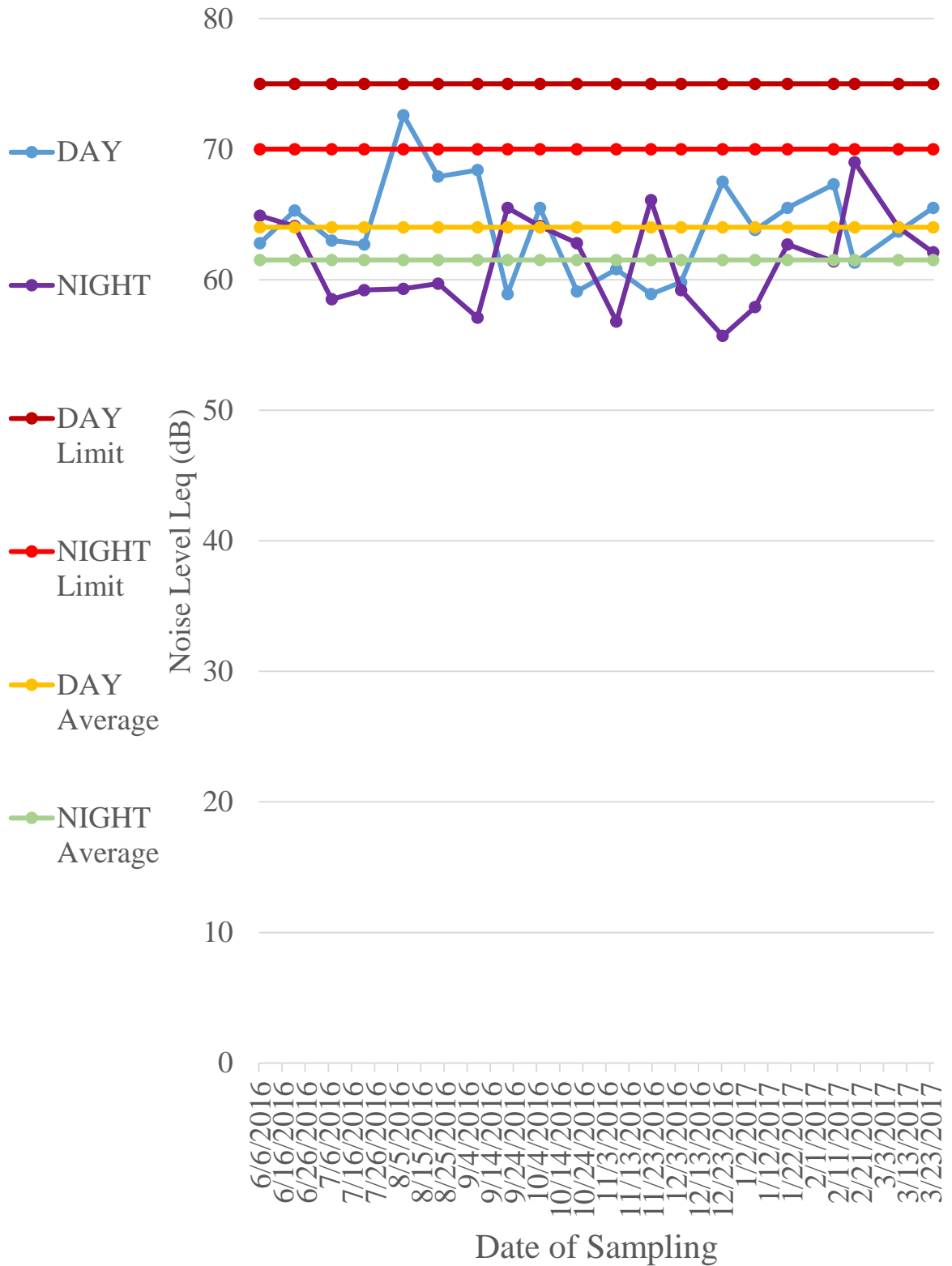
Graph showing Noise in HRC Mine



Noise Table:71
Project: Orient
Monitoring Station: Near Adarsh Nagar Colony

DATE OF SAMPLING	DAY	NIGHT
06-06-2016	62.8	64.9
21-06-2016	65.3	64.1
07-07-2016	63	58.5
21-07-2016	62.7	59.2
07-08-2016	72.6	59.3
22-08-2016	67.9	59.7
08-09-2016	68.4	57.1
21-09-2016	58.9	65.5
05-10-2016	65.5	64.1
21-10-2016	59.1	62.8
07-11-2016	60.8	56.8
22-11-2016	58.9	66.1
05-12-2016	59.8	59.2
23-12-2016	67.5	55.7
06-01-2017	63.8	57.9
20-01-2017	65.5	62.7
09-02-2017	67.3	61.4
18-02-2017	61.3	69
09-03-2017	63.7	64
24-03-2017	65.5	62.1

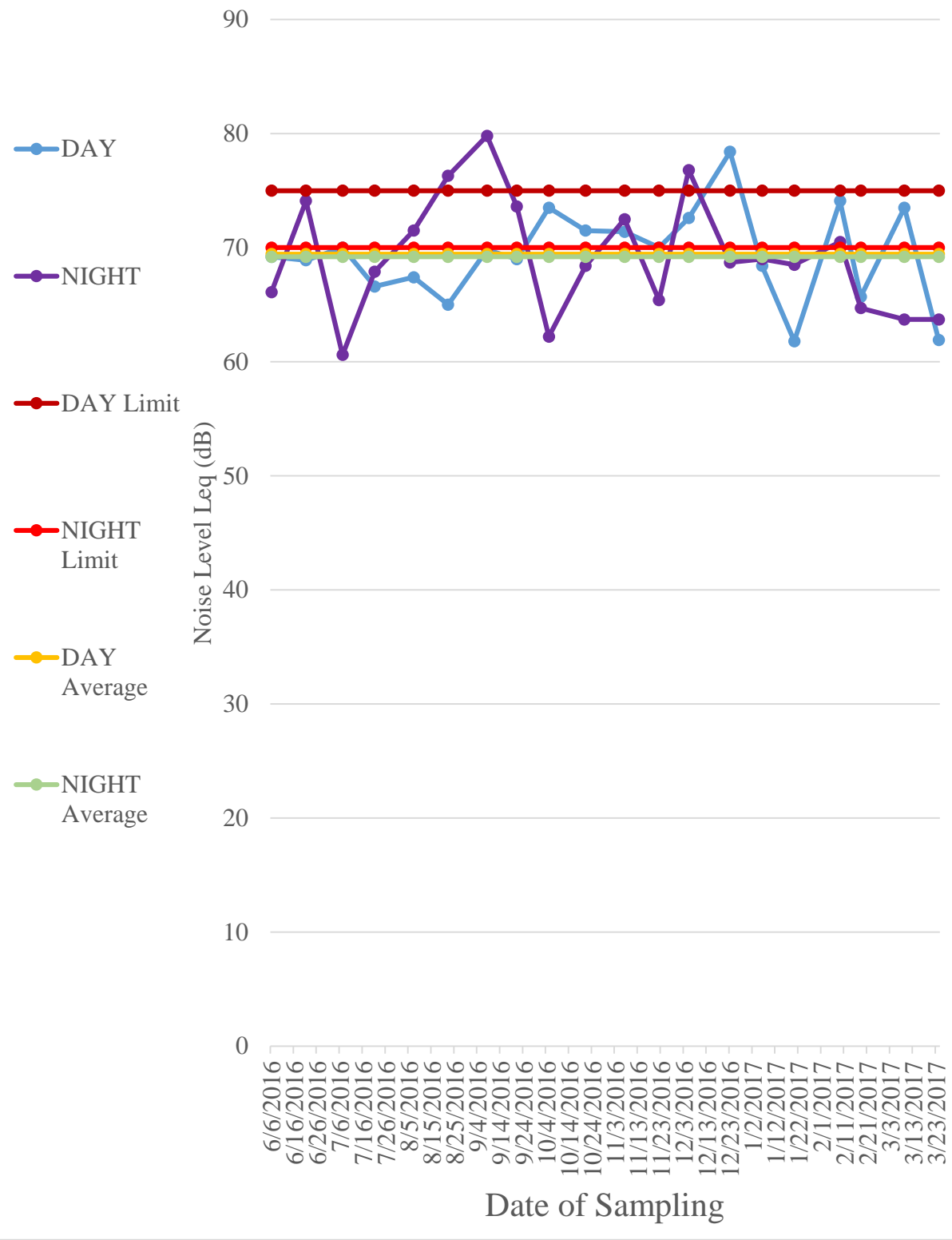
Graph showing Noise in Near Adarsh Nagar Colony



Noise Table: 72
Project: Orient
Monitoring Station: Orient Mine No.2

DATE OF SAMPLING	DAY	NIGHT
06-06-2016	69.2	66.1
21-06-2016	68.9	74.1
07-07-2016	70	60.6
21-07-2016	66.6	67.9
07-08-2016	67.4	71.5
22-08-2016	65	76.3
08-09-2016	69.8	79.8
21-09-2016	69	73.6
05-10-2016	73.5	62.2
21-10-2016	71.5	68.4
07-11-2016	71.4	72.5
22-11-2016	70	65.4
05-12-2016	72.6	76.8
23-12-2016	78.4	68.7
06-01-2017	68.4	69
20-01-2017	61.8	68.5
09-02-2017	74.1	70.5
18-02-2017	65.7	64.7
09-03-2017	73.5	63.7
24-03-2017	61.9	63.7

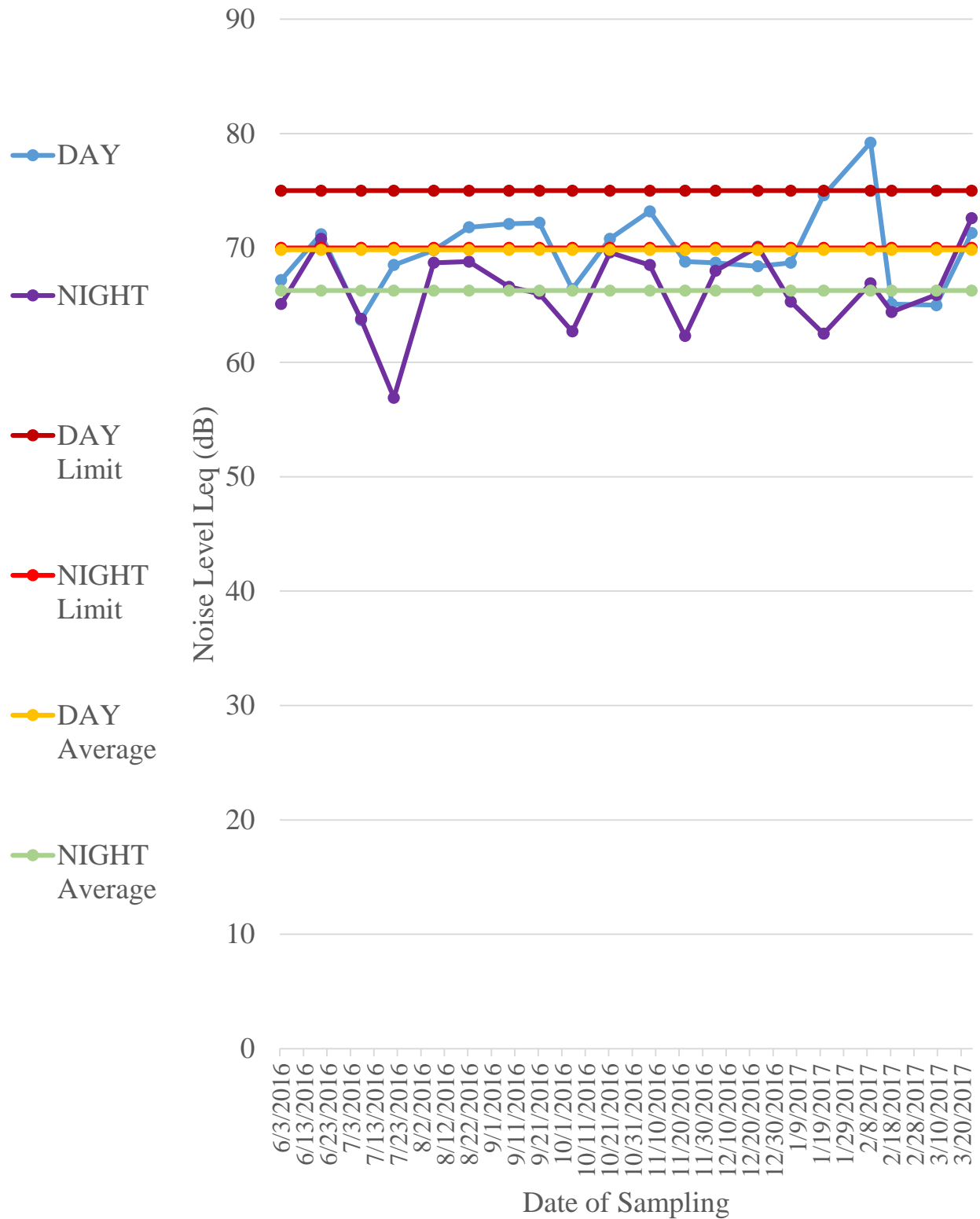
Graph showing Noise in Orient Mine No.2



Noise Table:73
Project: Orient
Monitoring Station: Orient Mine No.3

DATE OF SAMPLING	DAY	NIGHT
03-06-2016	67.2	65.1
20-06-2016	71.2	70.8
07-07-2016	63.7	63.8
21-07-2016	68.5	56.9
07-08-2016	69.8	68.7
22-08-2016	71.8	68.8
08-09-2016	72.1	66.6
21-09-2016	72.2	66
05-10-2016	66.4	62.7
21-10-2016	70.8	69.6
07-11-2016	73.2	68.5
22-11-2016	68.8	62.3
05-12-2016	68.7	68
23-12-2016	68.4	70.1
06-01-2017	68.7	65.3
20-01-2017	74.6	62.5
09-02-2017	79.2	66.9
18-02-2017	65.1	64.4
09-03-2017	65	65.9
24-03-2017	71.3	72.6

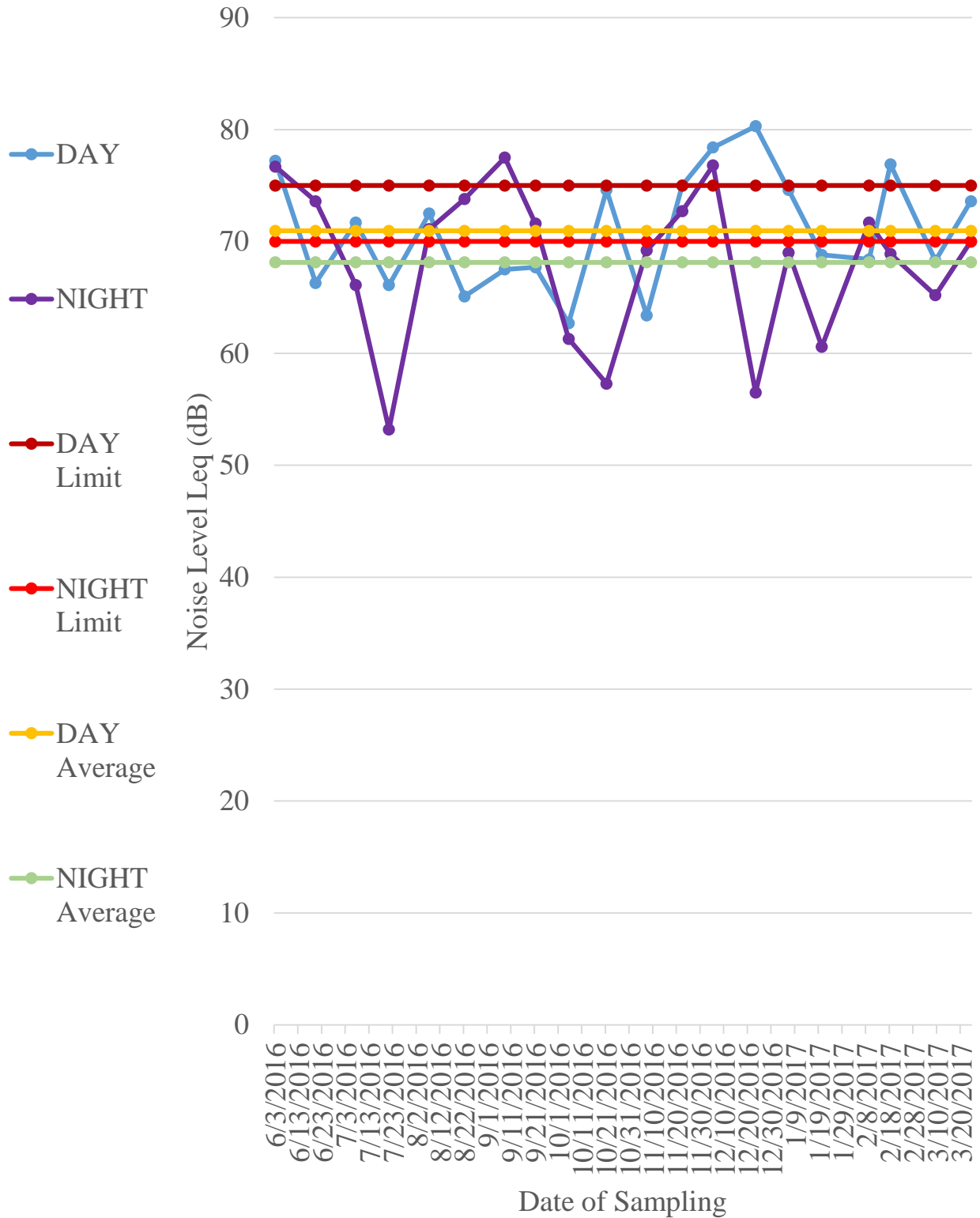
Graph showing Noise in Orient Mine No.3



Noise Table:74
Project: Orient
Monitoring Station: Orient Mine No.4

DATE OF SAMPLING	DAY	NIGHT
03-06-2016	77.2	76.7
20-06-2016	66.3	73.6
07-07-2016	71.7	66.1
21-07-2016	66.1	53.2
07-08-2016	72.5	71.1
22-08-2016	65.1	73.8
08-09-2016	67.5	77.5
21-09-2016	67.7	71.6
05-10-2016	62.7	61.3
21-10-2016	74.6	57.3
07-11-2016	63.4	69.2
22-11-2016	75	72.7
05-12-2016	78.4	76.8
23-12-2016	80.3	56.5
06-01-2017	74.6	69
20-01-2017	68.8	60.6
09-02-2017	68.4	71.7
18-02-2017	76.9	68.9
09-03-2017	68.3	65.2
24-03-2017	73.6	70

Graph showing Noise in Orient Mine No.4



Noise Table:75
Project: Orient
Monitoring Station: Rampur Colony

DATE OF SAMPLING	DAY	NIGHT
07-06-2016	53.5	56.5
23-06-2016	62.7	67.5
11-07-2016	55.5	59.2
25-07-2016	61	63.2
10-08-2016	61.6	61.6
23-08-2016	69.7	69.9
12-09-2016	58.7	62.2
23-09-2016	61.1	57.4
07-10-2016	60.5	57.2
25-10-2016	57.5	57.7
10-11-2016	56.9	56.6
25-11-2016	58.5	61.1
06-12-2016	61.5	64.8
26-12-2016	69.3	59.7
11-01-2017	60.3	66.5
25-01-2017	68.4	72.2
10-02-2017	62.8	61.3
24-02-2017	68.2	64.1
10-03-2017	57.2	64.7
27-03-2017	62.3	69.4

Graph showing Noise in Rampur Colony

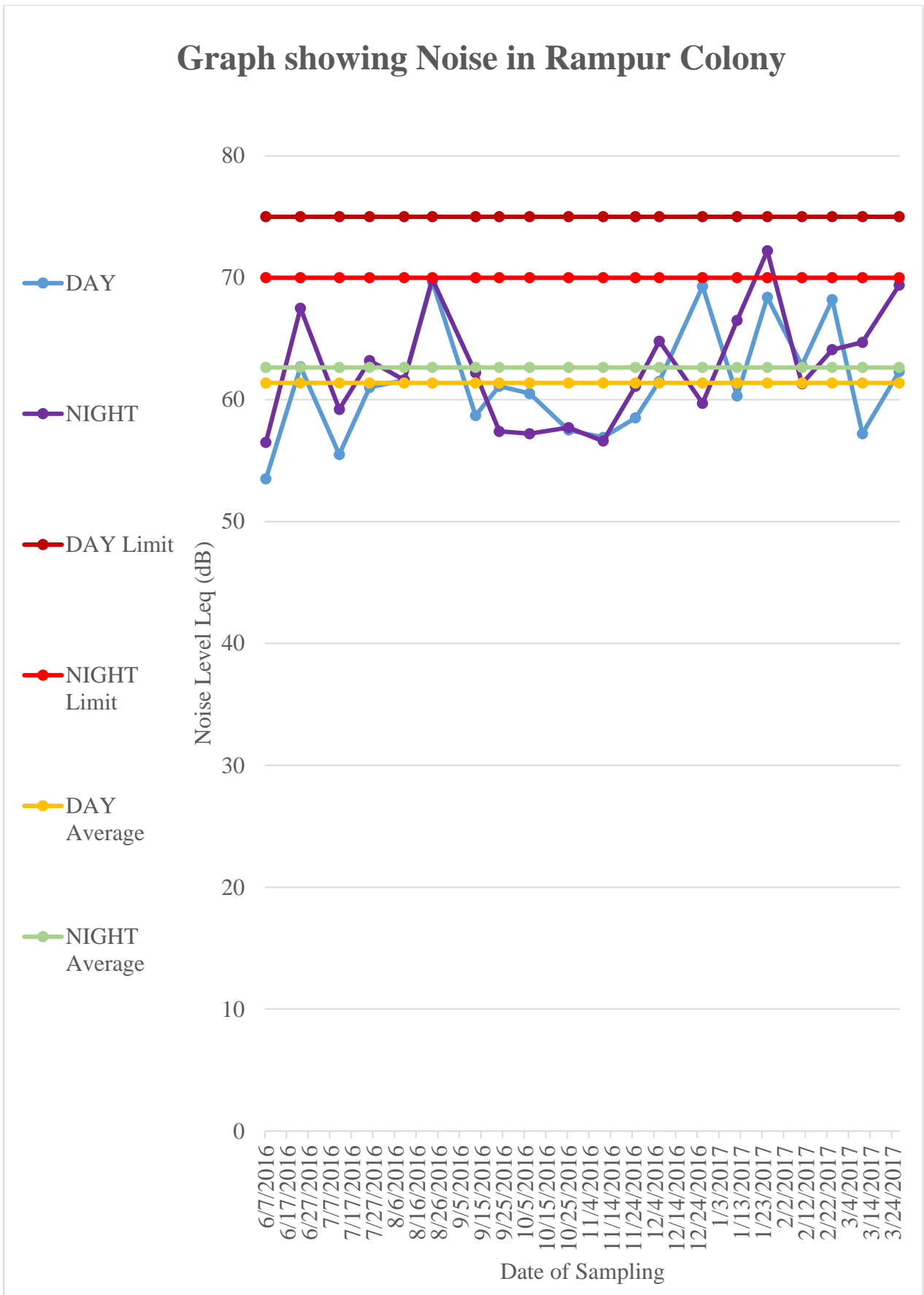


Table: 76
Project: Lajkura OCP
Monitoring Station: O&G Trap outlet

Date of Sampling	pH	Oil & Grease	TSS	COD
13-06-2016	6.65	<4.0	10	96
29-06-2016	7.18	<4.0	102	28
14-07-2016	6.71	<4.0	22	84
29-07-2016	6.83	<4.0	42	152
12-08-2016	6.78	<4.0	44	72
15-08-2016	6.35	<4.0	24	52
23-08-2016	6.35	<4.0	24	52
13-09-2016	6.42	<4.0	26	52
27-09-2016	6.83	<4.0	36	44
12-10-2016	6.87	<4.0	52	64
26-10-2016	7.1	<4.0	76	92
12-11-2016	7.3	<4.0	88	112
26-11-2016	7.67	<4.0	72	56
15-12-2016	6.55	<4.0	90	72
26-12-2016	6.51	<4.0	36	28.4
13-01-2017	7.18	<4.0	72	56
27-01-2017	7.4	<4.0	78	144
15-02-2017	6.97	<4.0	52	36
27-02-2017	6.65	<4.0	32	16
14-03-2017	6.89	<4.0	72	64
31-03-2017	7.23	<4.0	52	48

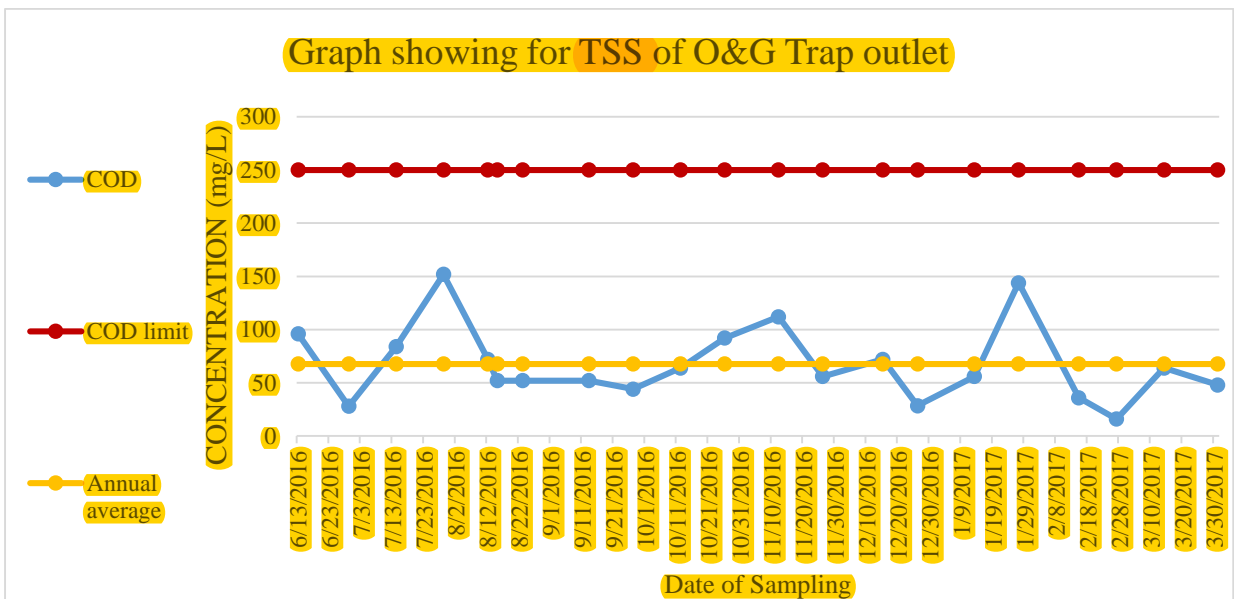
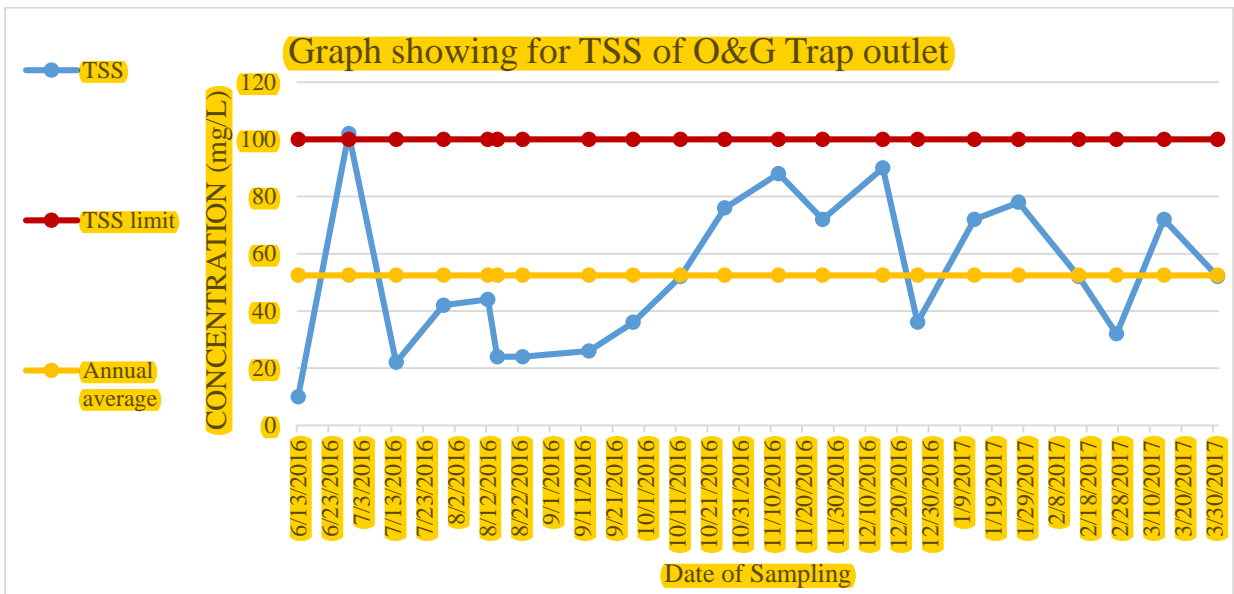
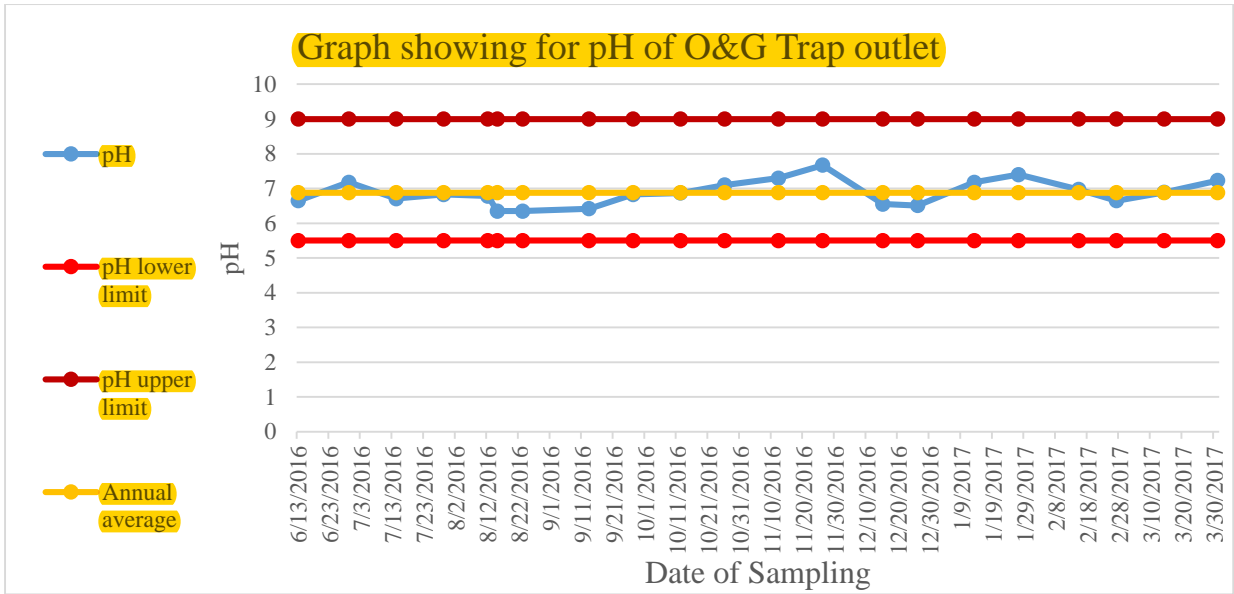
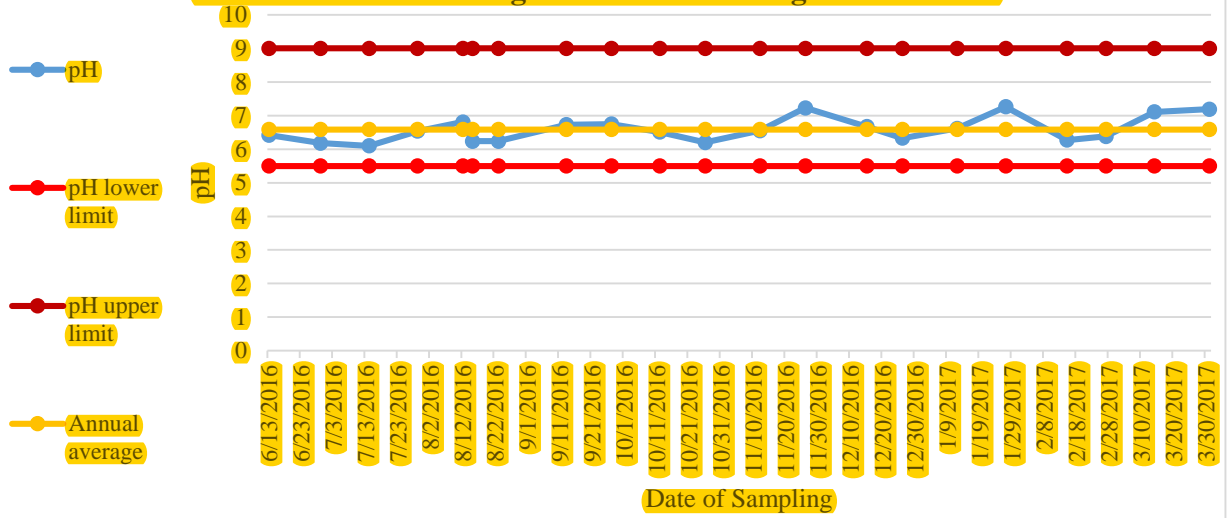


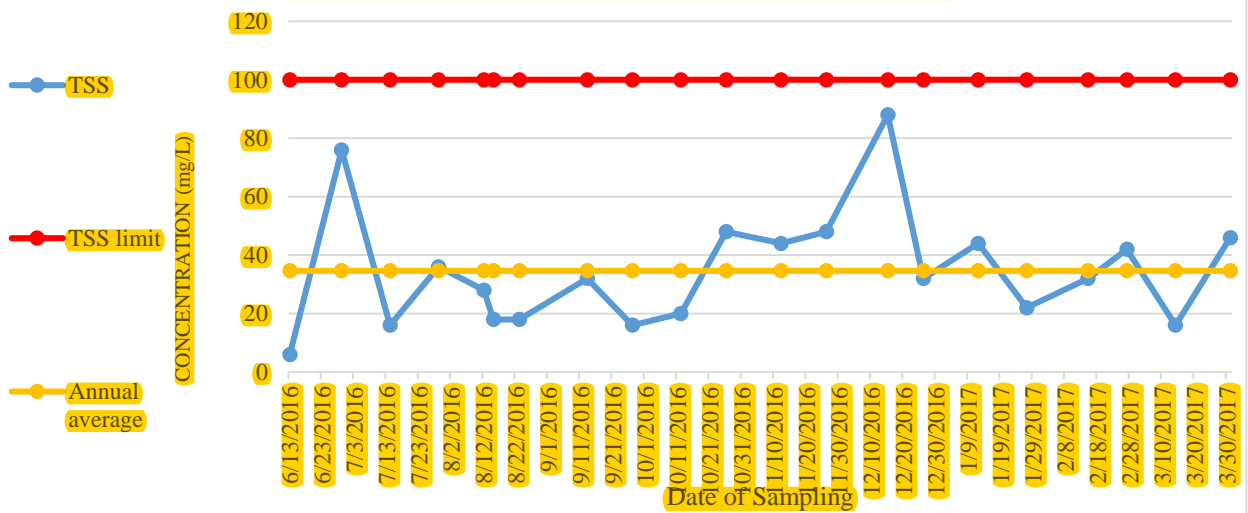
Table:77**Project: Lajkura OCP****Monitoring Station: 100m u/s of point of confluence of natural mine water drain to Baghmara Nala flowing on North side**

Date of Sampling	pH	Oil & Grease	TSS	COD
13-06-2016	6.4	<4.0	6	76
29-06-2016	6.2	<4.0	76	32
14-07-2016	6.1	<4.0	16	36
29-07-2016	6.5	<4.0	36	56
12-08-2016	6.8	<4.0	28	84
15-08-2016	6.2	<4.0	18	44
23-08-2016	6.2	<4.0	18	44
13-09-2016	6.7	<4.0	32	36
27-09-2016	6.8	<4.0	16	20
12-10-2016	6.5	<4.0	20	16
26-10-2016	6.2	<4.0	48	32
12-11-2016	6.6	<4.0	44	32
26-11-2016	7.2	<4.0	48	24
15-12-2016	6.7	<4.0	88	96
26-12-2016	6.3	<4.0	32	23.2
12-01-2017	6.6	<4.0	44	20
27-01-2017	7.3	<4.0	22	16
15-02-2017	6.3	<4.0	32	16
27-02-2017	6.4	<4.0	42	28
14-03-2017	7.1	<4.0	16	8
31-03-2017	7.2	<4.0	46	40

Graph showing for pH of 100m u/s of point of confluence of natural mine water drain to Baghmara Nala flowing on North side



Graph showing for TSS of 100m u/s of point of confluence of natural mine water drain to Baghmara Nala flowing on North side



Graph showing for COD of 100m u/s of point of confluence of natural mine water drain to Baghmara Nala flowing on North side

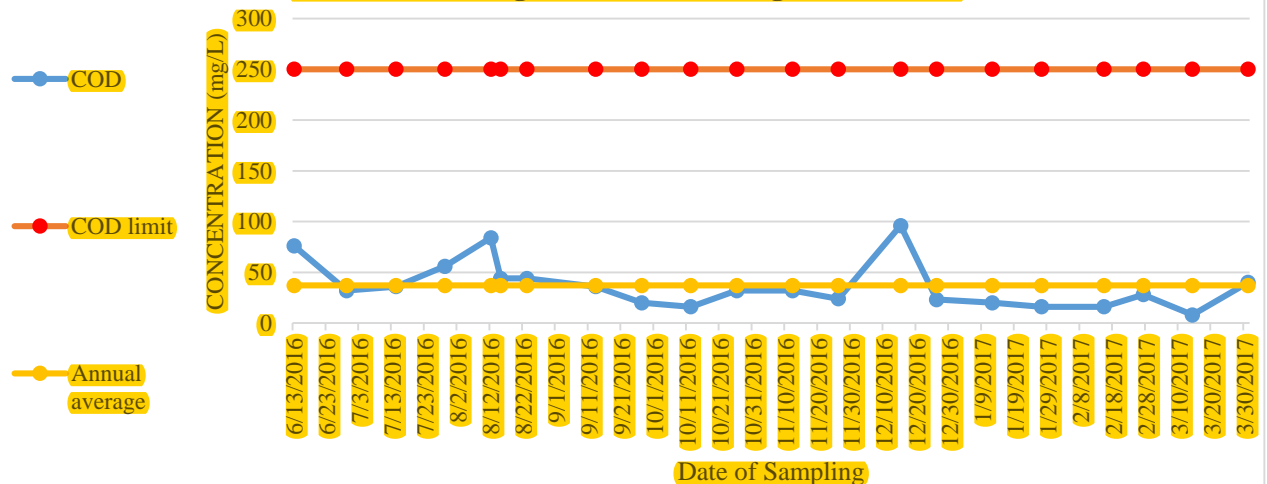


Table:78

Project: Lajkura OCP

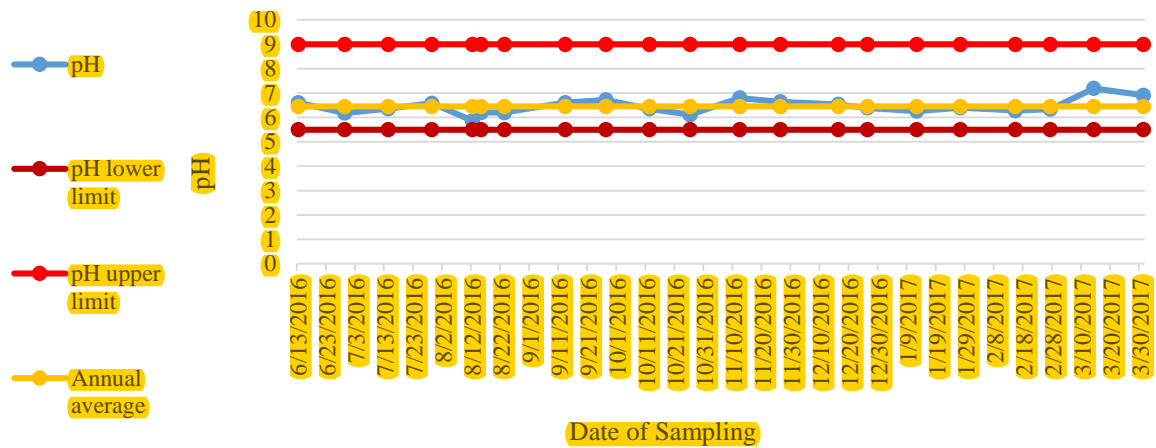
Monitoring Station: Mine Sump Water

Date of Sampling	pH
13-06-2016	3.11
13-09-2016	4.44
15-12-2016	2.72
14-03-2017	6.35

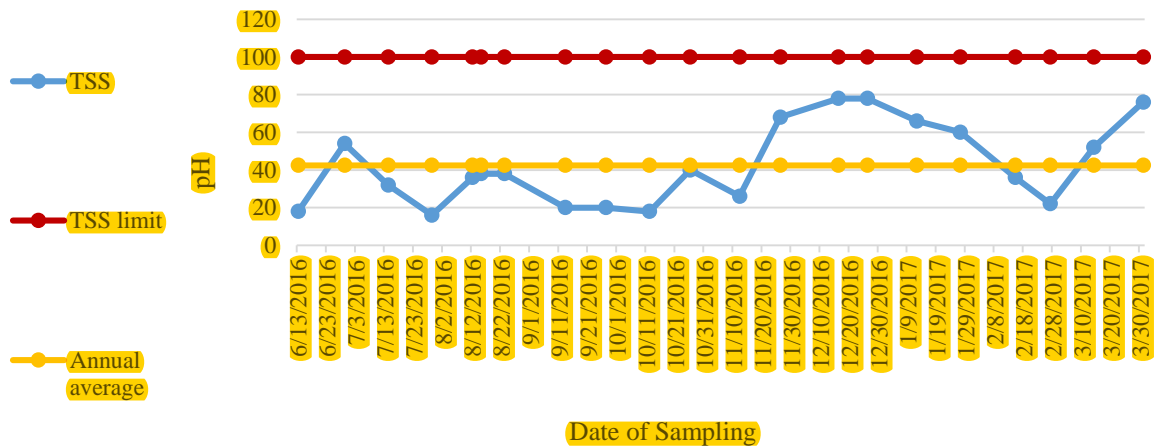
Table:79**Project: Samaleswari OCP****Monitoring Station: O&G Trap outlet**

Date of Sampling	pH	Oil & Grease	TSS	COD
13-06-2016	6.61	<4.0	18	100
29-06-2016	6.18	<4.0	54	52
14-07-2016	6.36	<4.0	32	46
29-07-2016	6.58	<4.0	16	20
12-08-2016	5.86	<4.0	36	152
15-08-2016	6.2	<4.0	38	72
23-08-2016	6.2	<4.0	38	72
13-09-2016	6.61	<4.0	20	72
27-09-2016	6.72	<4.0	20	68
12-10-2016	6.35	<4.0	18	24
26-10-2016	6.11	<4.0	40	32
12-11-2016	6.8	<4.0	26	20
26-11-2016	6.64	<4.0	68	44
16-12-2016	6.54	<4.0	78	64
26-12-2016	6.39	<4.0	78	64
12-01-2017	6.26	<4.0	66	52
27-01-2017	6.4	<4.0	60	52
15-02-2017	6.28	<4.0	36	12
27-02-2017	6.34	<4.0	22	16
14-03-2017	7.19	<4.0	52	36
31-03-2017	6.91	<4.0	76	68

Graph showing for pH of O&G Trap outlet



Graph showing for TSS of O&G Trap outlet



Graph showing for COD of O&G Trap outlet

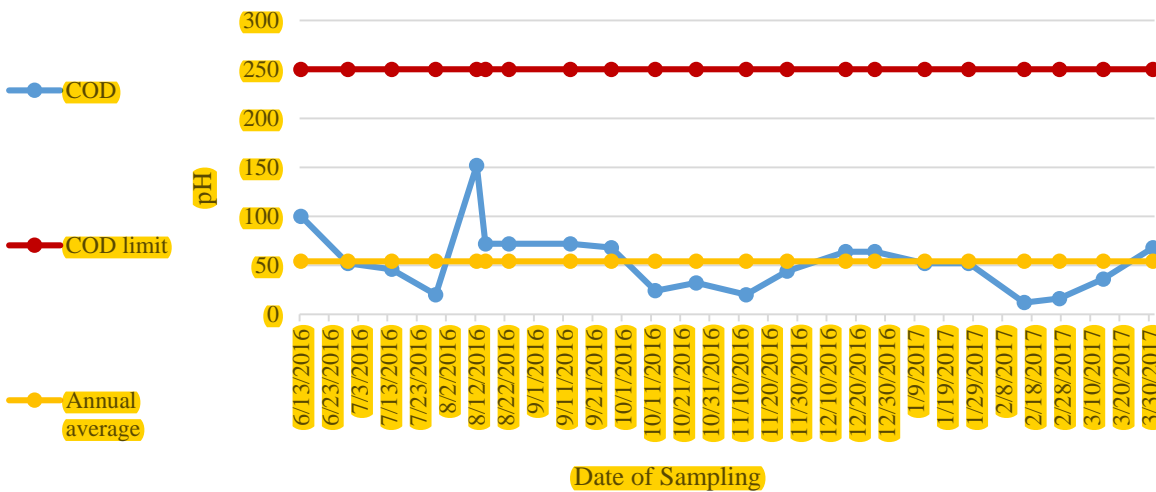
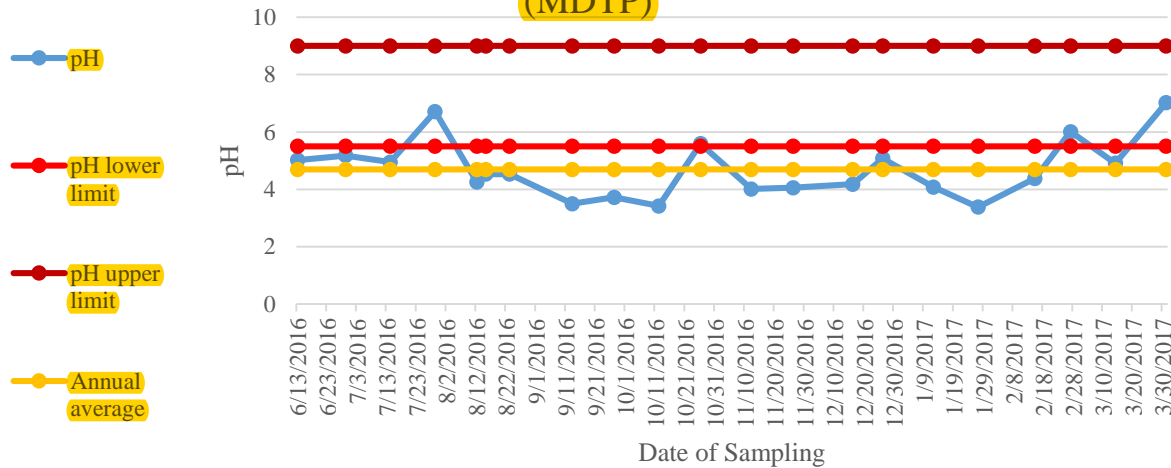


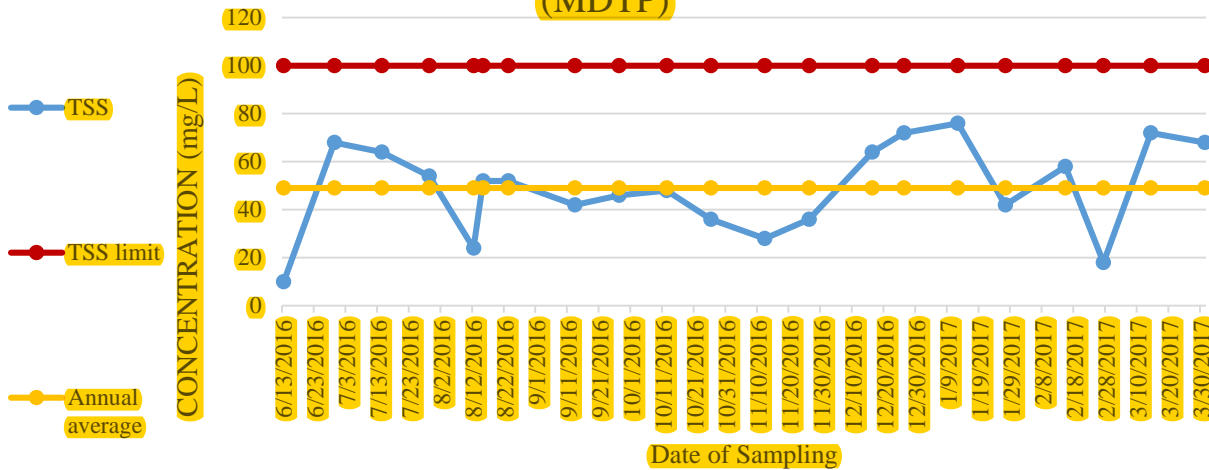
Table: 80**Project: Samaleswari OCP****Monitoring Station: Outlet from Sedimentation Tank
(MDTP)**

Date of Sampling	pH	Oil & Grease	TSS	COD
13-06-2016	5.02	<4.0	10	76
29-06-2016	5.18	<4.0	68	240
14-07-2016	4.95	<4.0	64	280
29-07-2016	6.71	<4.0	54	264
12-08-2016	4.26	<4.0	24	48
15-08-2016	4.53	<4.0	52	148
23-08-2016	4.53	<4.0	52	148
13-09-2016	3.5	<4.0	42	96
27-09-2016	3.72	<4.0	46	72
12-10-2016	3.42	<4.0	48	84
26-10-2016	5.59	<4.0	36	28
12-11-2016	4.01	<4.0	28	16
26-11-2016	4.06	<4.0	36	28
16-12-2016	4.18	<4.0	64	47.2
26-12-2016	5.08	<4.0	72	56
12-01-2017	4.08	<4.0	76	64
27-01-2017	3.38	<4.0	42	36
15-02-2017	4.38	<4.0	58	40
27-02-2017	6.01	<4.0	18	12
14-03-2017	4.91	<4.0	72	88
31-03-2017	7.02	<4.0	68	52

Graph showing for pH of Outlet from Sedimentation Tank (MDTP)



Graph showing for TSS of Outlet from Sedimentation Tank (MDTP)



Graph showing for COD of Outlet from Sedimentation Tank (MDTP)

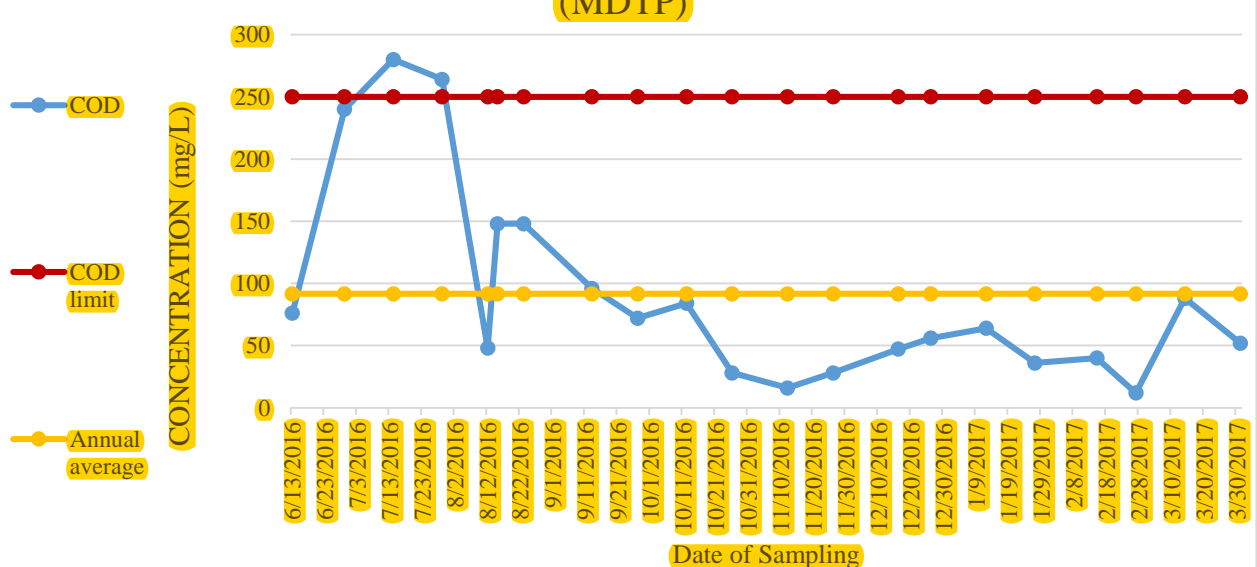


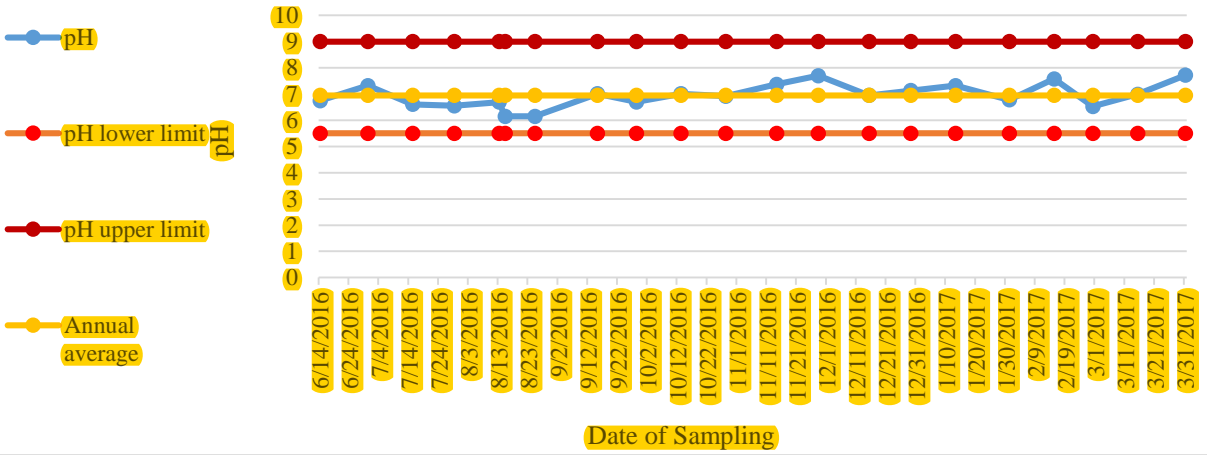
Table:81**Project: Samaleswari OCP****Monitoring Station: Mine Sump Water**

Date of Sampling	pH
13-06-2016	7.3
13-09-2016	3.49
16-12-2016	4.47
14-03-2017	2.66

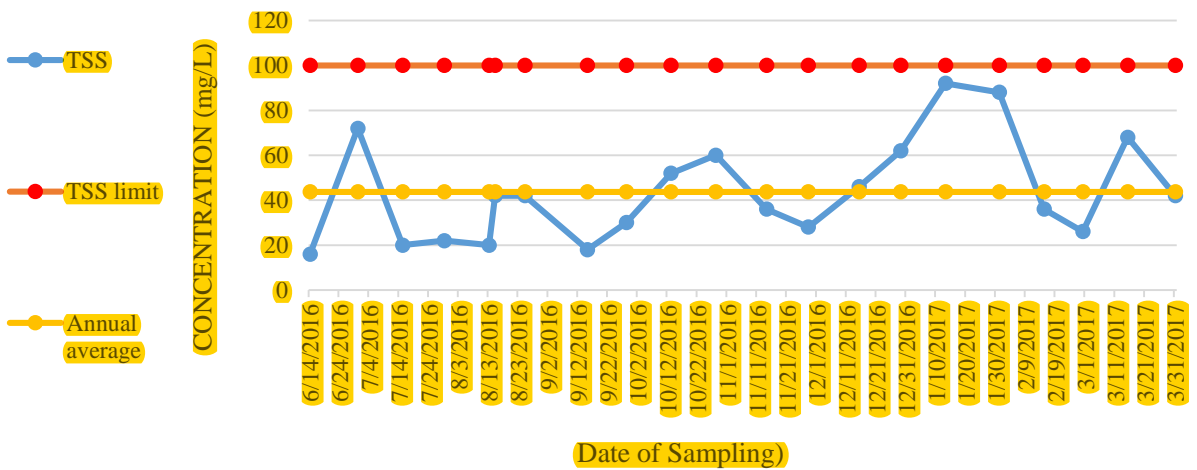
Table: 82**Project: Belpahar OCP****Monitoring Station: O&G Trap outlet**

Date of Sampling	pH	Oil & Grease	TSS	COD
14-06-2016	6.75	<4.0	16	32
30-06-2016	7.32	<4.0	72	28
15-07-2016	6.61	<4.0	20	72
29-07-2016	6.55	<4.0	22	40
13-08-2016	6.69	<4.0	20	240
15-08-2016	6.15	<4.0	42	224
25-08-2016	6.15	<4.0	42	224
15-09-2016	7.01	<4.0	18	280
28-09-2016	6.7	<4.0	30	72
13-10-2016	7.01	<4.0	52	60
28-10-2016	6.92	<4.0	60	52
14-11-2016	7.37	<4.0	36	28
28-11-2016	7.7	<4.0	28	20
15-12-2016	6.95	<4.0	46	36.4
29-12-2016	7.13	<4.0	62	44
13-01-2017	7.32	<4.0	92	84
31-01-2017	6.78	<4.0	88	164
15-02-2017	7.58	<4.0	36	24
28-02-2017	6.53	<4.0	26	16
15-03-2017	6.99	<4.0	68	48
31-03-2017	7.72	<4.0	42	36

Graph showing for pH of O&G Trap outlet



Graph showing for TSS of O&G Trap outlet



Graph showing for COD of O&G Trap outlet

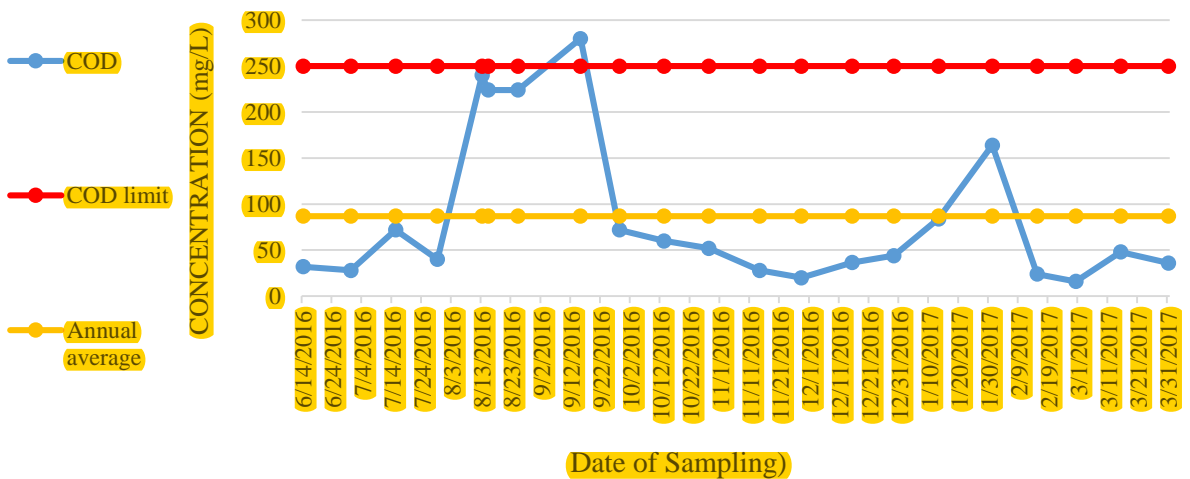
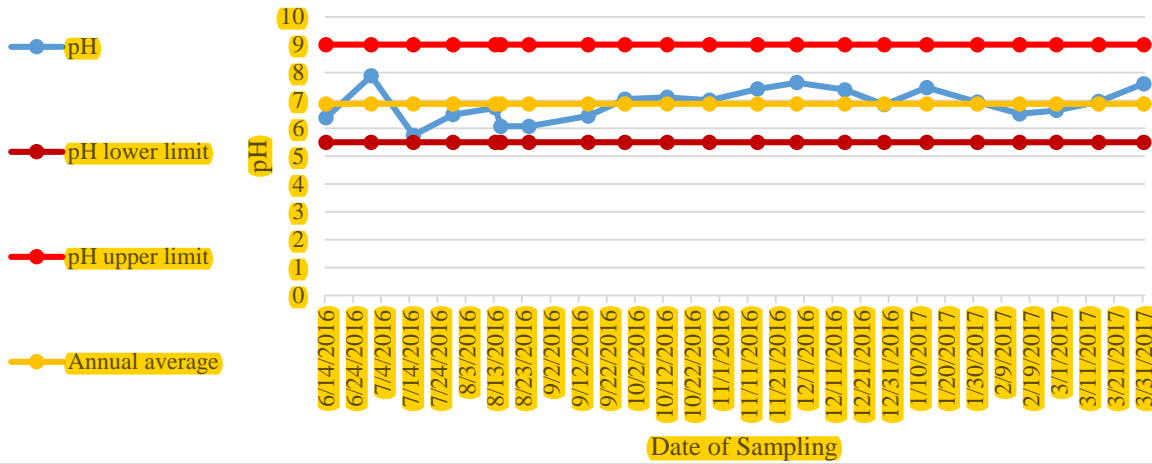


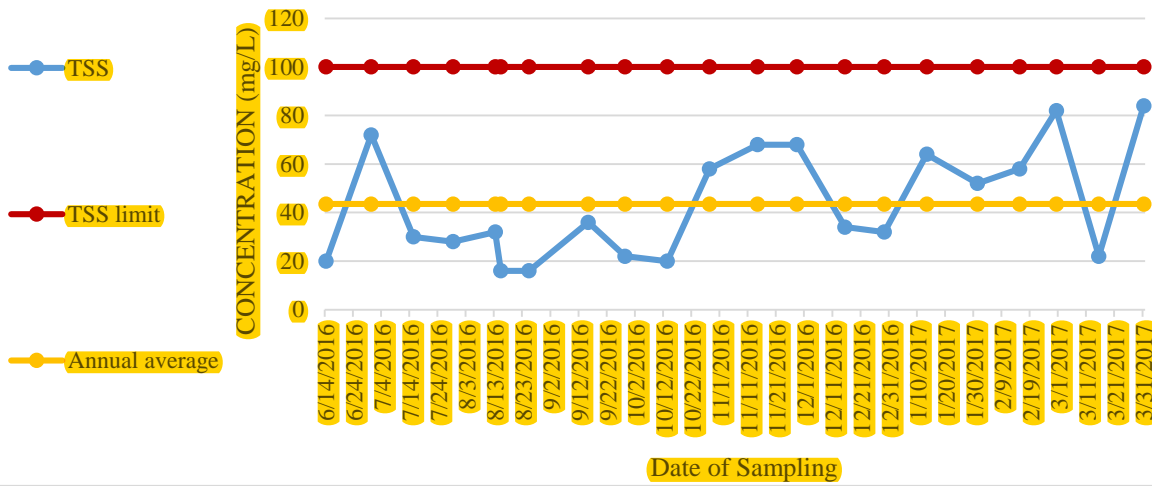
Table:83**Project: Belpahar OCP****Monitoring Station: Outlet from Sedimentation Pond**

Date of Sampling	pH	Oil & Grease	TSS	COD
14-06-2016	6.38	<4.0	20	32
30-06-2016	7.88	<4.0	72	56
15-07-2016	5.75	<4.0	30	64
29-07-2016	6.49	<4.0	28	16
13-08-2016	6.73	<4.0	32	88
15-08-2016	6.07	<4.0	16	76
25-08-2016	6.07	<4.0	16	76
15-09-2016	6.44	<4.0	36	36
28-09-2016	7.05	<4.0	22	88
13-10-2016	7.11	<4.0	20	44
28-10-2016	7.01	<4.0	58	64
14-11-2016	7.41	<4.0	68	52
28-11-2016	7.64	<4.0	68	56
15-12-2016	7.38	<4.0	34	15.2
29-12-2016	6.85	<4.0	32	18.8
13-01-2017	7.46	<4.0	64	52
31-01-2017	6.94	<4.0	52	48
15-02-2017	6.52	<4.0	58	36
28-02-2017	6.64	<4.0	82	68
15-03-2017	6.96	<4.0	22	16
31-03-2017	7.6	<4.0	84	76

Graph showing for pH of Outlet from Sedimentation Pond



Graph showing for TSS of Outlet from Sedimentation Pond



Graph showing for COD of Outlet from Sedimentation Pond

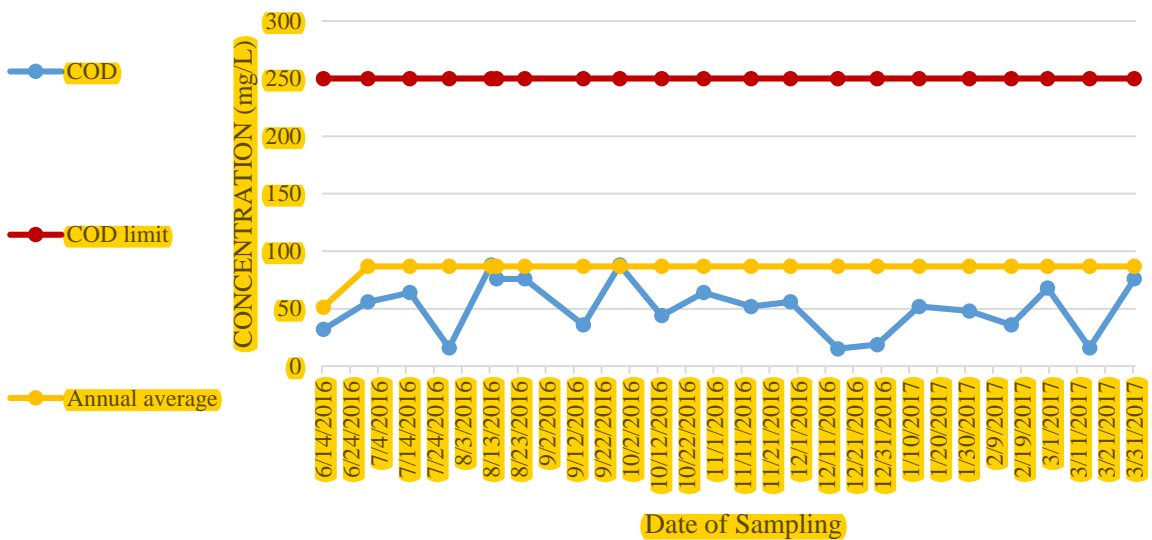


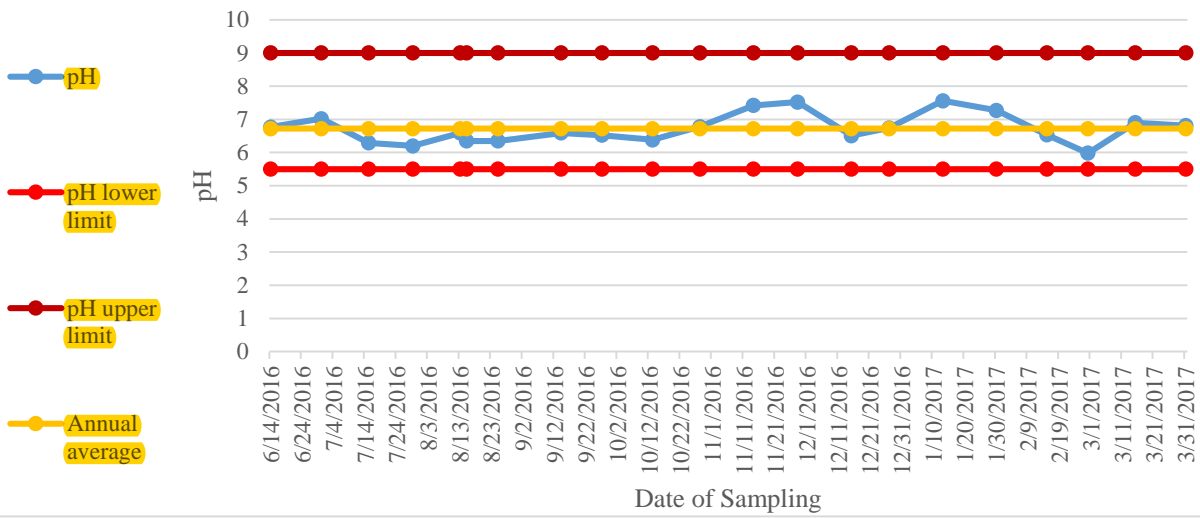
Table: 84
Project: Belpahar OCP
Monitoring Station: Mine Sump Water

Date of Sampling	pH
14-06-2016	6.81
15-09-2016	6.15
15-12-2016	7.4
15-03-2017	6.39

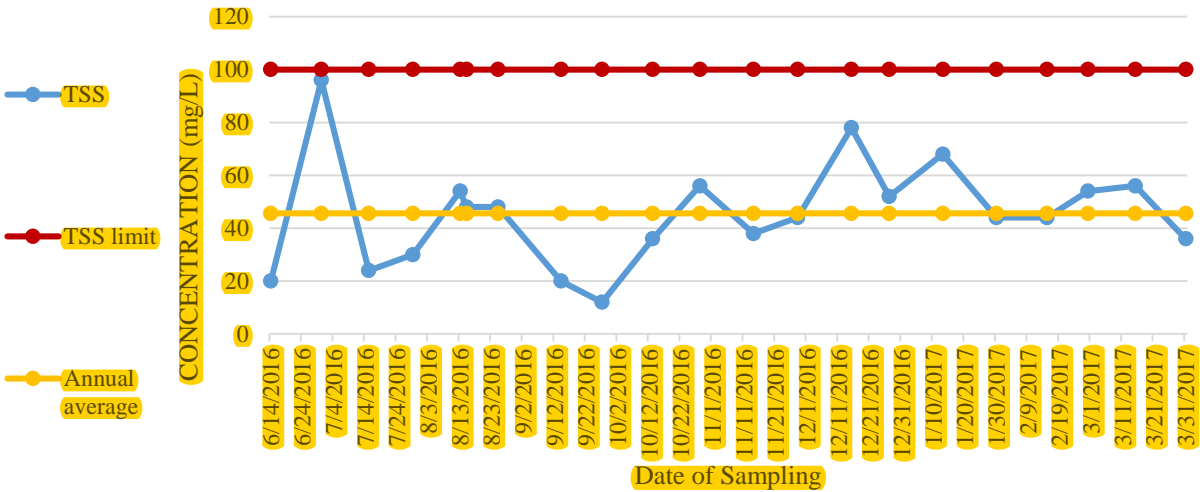
Table:85
Project: Lakhanpur OCP
Monitoring Station: O&G Trap outlet no. 1

Date of Sampling	pH	Oil & Grease	TSS	COD
14-06-2016	6.77	<4.0	20	120
30-06-2016	7.02	<4.0	96	148
15-07-2016	6.29	<4.0	24	104
29-07-2016	6.2	<4.0	30	16
13-08-2016	6.59	<4.0	54	96
15-08-2016	6.35	<4.0	48	84
25-08-2016	6.35	<4.0	48	84
14-09-2016	6.59	<4.0	20	100
27-09-2016	6.52	<4.0	12	36
13-10-2016	6.38	<4.0	36	40
28-10-2016	6.78	<4.0	56	48
14-11-2016	7.42	<4.0	38	16
28-11-2016	7.52	<4.0	44	36
15-12-2016	6.51	<4.0	78	84
27-12-2016	6.74	<4.0	52	36.8
13-01-2017	7.56	<4.0	68	60
30-01-2017	7.27	<4.0	44	36
15-02-2017	6.53	<4.0	44	28
28-02-2017	5.98	<4.0	54	40
15-03-2017	6.9	<4.0	56	48
31-03-2017	6.81	<4.0	36	32

Graph showing for pH of O&G Trap outlet no. 1



Graph showing for TSS of O&G Trap outlet no. 1



Graph showing for COD of O&G Trap outlet no. 1

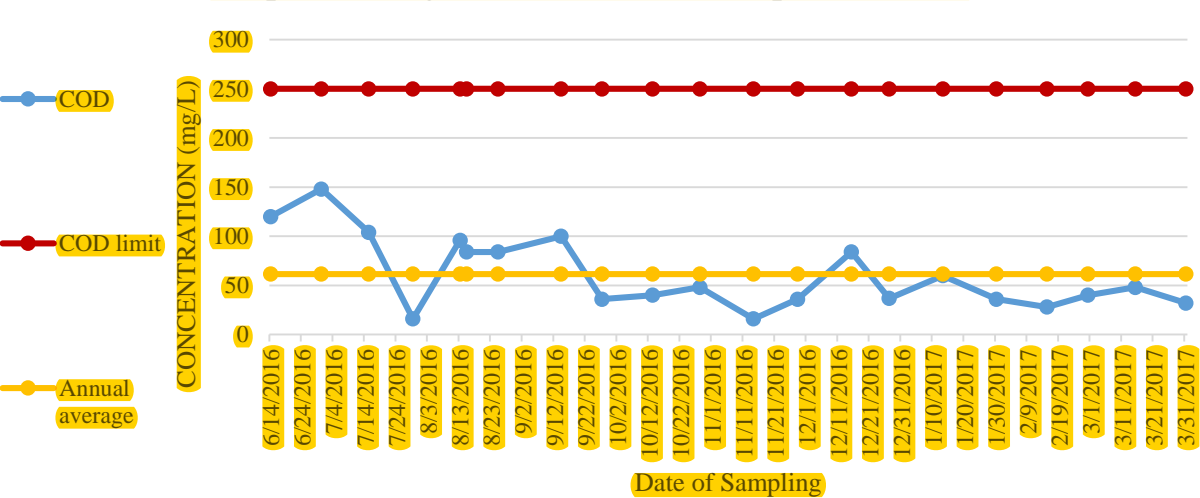
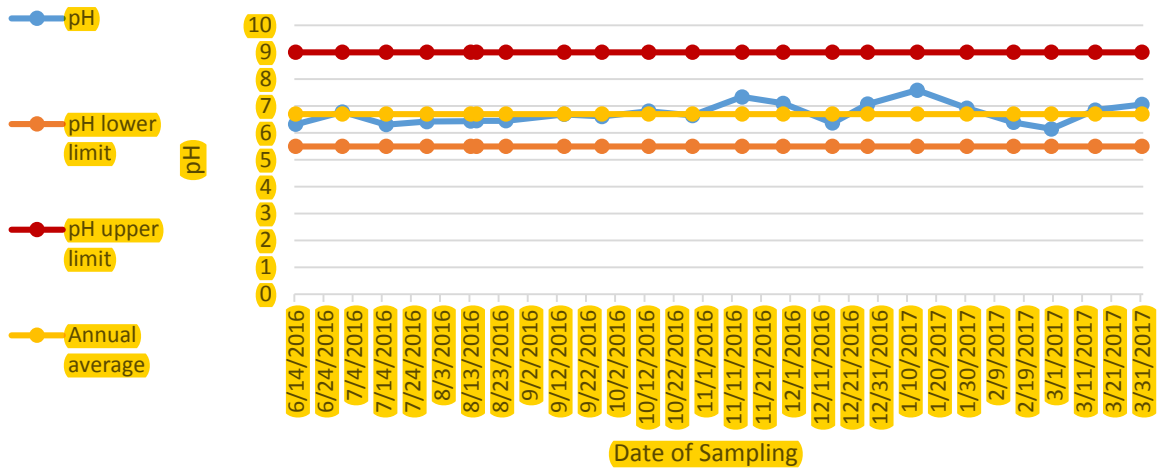


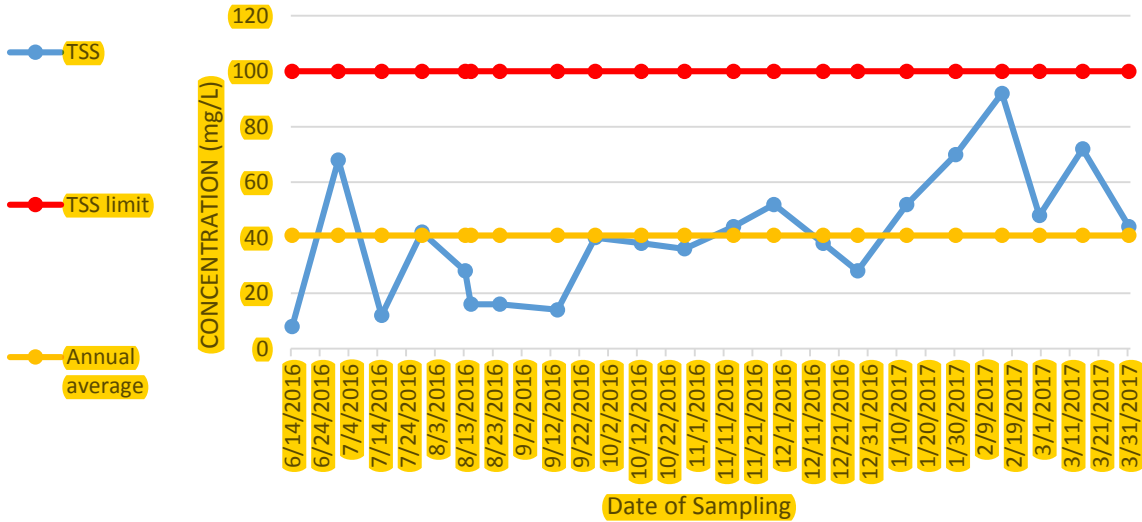
Table:86**Project: Lakhanpur OCP****Monitoring Station: O&G Trap outlet no. 2**

Date of Sampling	pH	Oil & Grease	TSS	COD
14-06-2016	6.32	<4.0	8	136
30-06-2016	6.78	<4.0	68	152
15-07-2016	6.31	<4.0	12	96
29-07-2016	6.42	<4.0	42	68
13-08-2016	6.44	<4.0	28	40
15-08-2016	6.45	<4.0	16	28
25-08-2016	6.45	<4.0	16	28
14-09-2016	6.69	<4.0	14	96
27-09-2016	6.61	<4.0	40	60
13-10-2016	6.81	<4.0	38	28
28-10-2016	6.65	<4.0	36	20
14-11-2016	7.34	<4.0	44	32
28-11-2016	7.1	<4.0	52	44
15-12-2016	6.37	<4.0	38	24
27-12-2016	7.07	<4.0	28	15.6
13-01-2017	7.59	<4.0	52	48
30-01-2017	6.92	<4.0	70	116
15-02-2017	6.39	<4.0	92	80
28-02-2017	6.15	<4.0	48	36
15-03-2017	6.85	<4.0	72	52
31-03-2017	7.06	<4.0	44	52

Graph showing for pH of O&G Trap outlet no. 2



Graph showing for TSS of O&G Trap outlet no. 2



Graph showing for COD of O&G Trap outlet no. 2

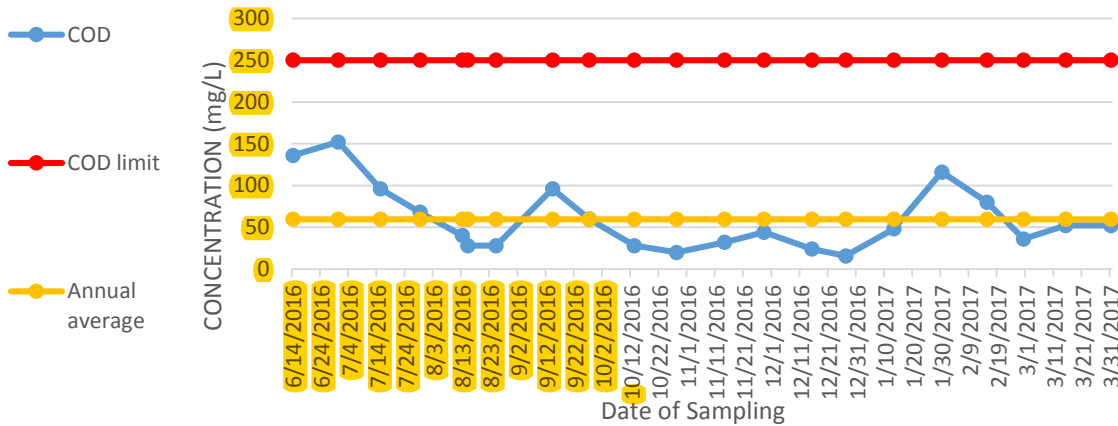


Table:87
Project: Lakhanpur OCP
Monitoring Station: Outlet from Sedimentation Pond
(MDTP)

Date of Sampling	pH	Oil & Grease	TSS	COD
14-06-2016	7.1	<4.0	12	24
30-06-2016	7.65	<4.0	98	44
15-07-2016	6.45	<4.0	18	32
29-07-2016	6.4	<4.0	24	68
13-08-2016	6.54	<4.0	30	64
15-08-2016	6.25	<4.0	34	72
25-08-2016	6.25	<4.0	34	72
14-09-2016	6.75	<4.0	60	44
27-09-2016	7.01	<4.0	32	52
13-10-2016	6.43	<4.0	42	52
28-10-2016	6.96	<4.0	52	36
14-11-2016	7.27	<4.0	62	44
28-11-2016	7.15	<4.0	28	16
15-12-2016	6.1	<4.0	64	43.6
27-12-2016	6.3	<4.0	38	28.4
13-01-2017	6.95	<4.0	78	64
30-01-2017	7.19	<4.0	76	64
15-02-2017	7.32	<4.0	20	12
28-02-2017	6.48	<4.0	60	36
15-03-2017	7.38	<4.0	42	36
31-03-2017	6.68	<4.0	34	28

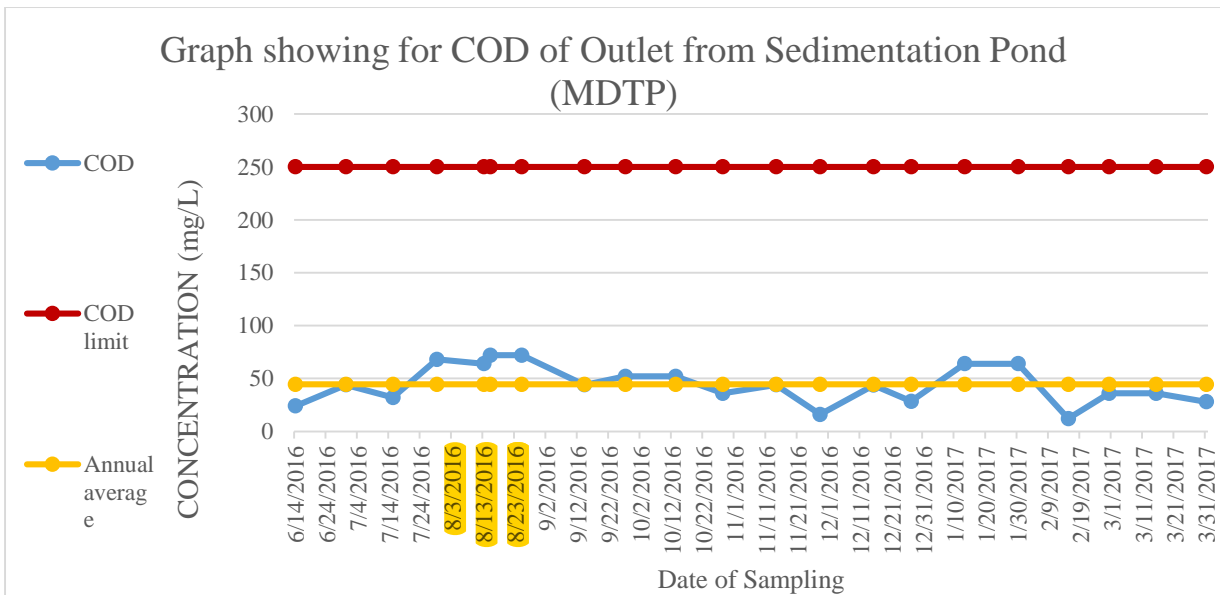
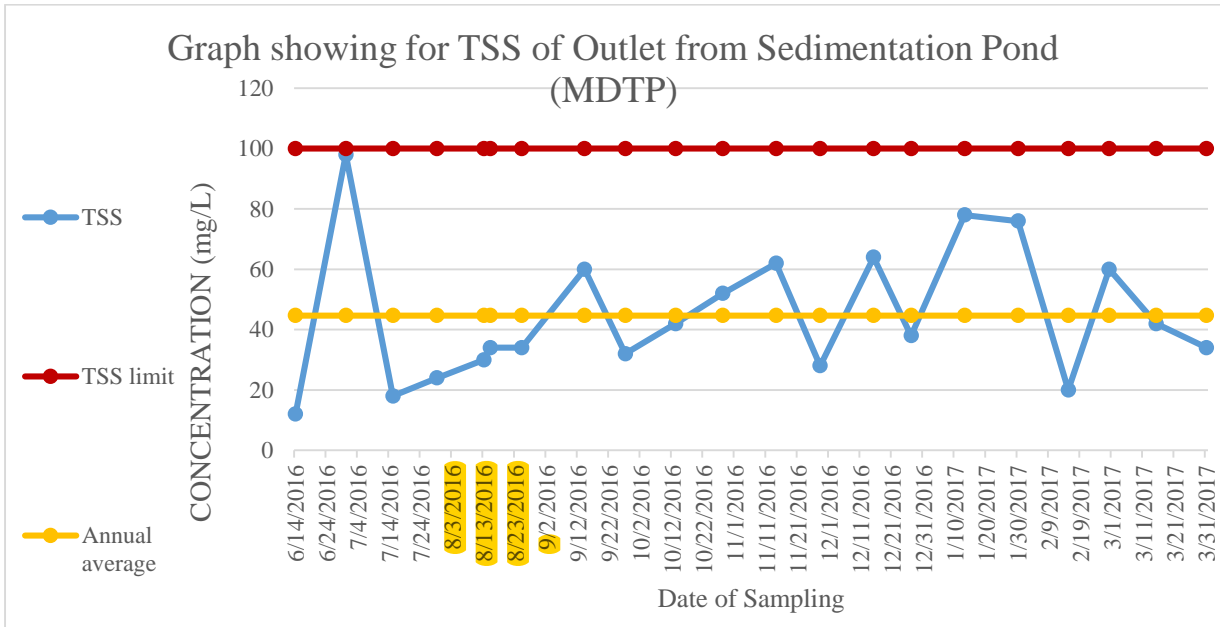
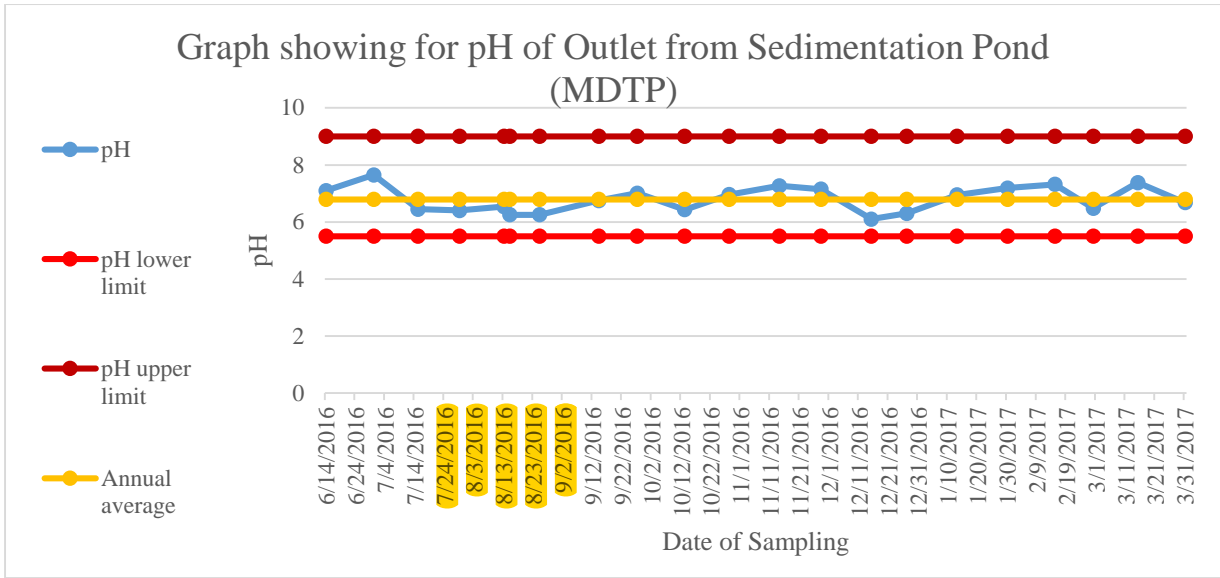


Table:88
Project: Lilari OCP
Monitoring Station: Mine Sump Water

Date of Sampling	pH
14-06-2016	6.89
14-09-2016	5.95
15-12-2016	4.55
15-03-2017	7.61

Table:89
Project: Lilari OCP
Monitoring Station: O&G Trap outlet

Date of Sampling	pH	Oil & Grease	TSS	COD
14-06-2016	6.98	<4.0	6	84
30-06-2016	7.32	<4.0	54	28
15-07-2016	6.25	<4.0	32	44
29-07-2016	6.5	<4.0	52	68
13-08-2016	6.74	<4.0	36	124
15-08-2016	6.02	<4.0	12	24
25-08-2016	6.02	<4.0	12	24
14-09-2016	6.91	<4.0	32	48
27-09-2016	6.86	<4.0	28	16
12-10-2016	6.62	<4.0	28	36
28-10-2016	6.71	<4.0	28	16
14-11-2016	7.32	<4.0	58	44
28-11-2016	7.45	<4.0	42	20

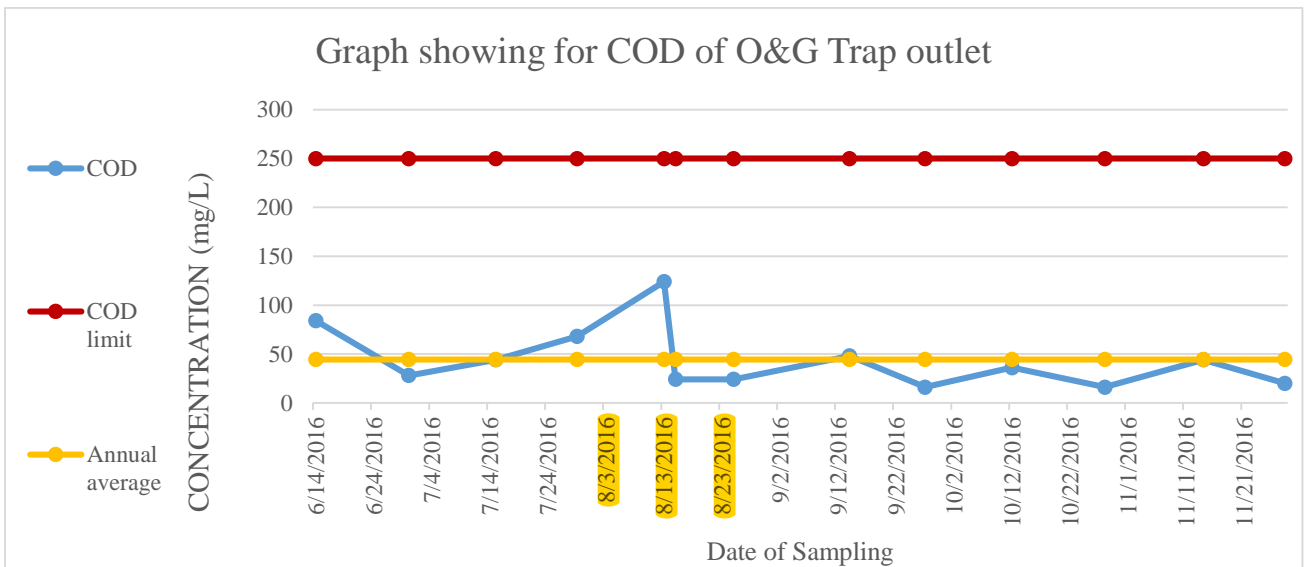
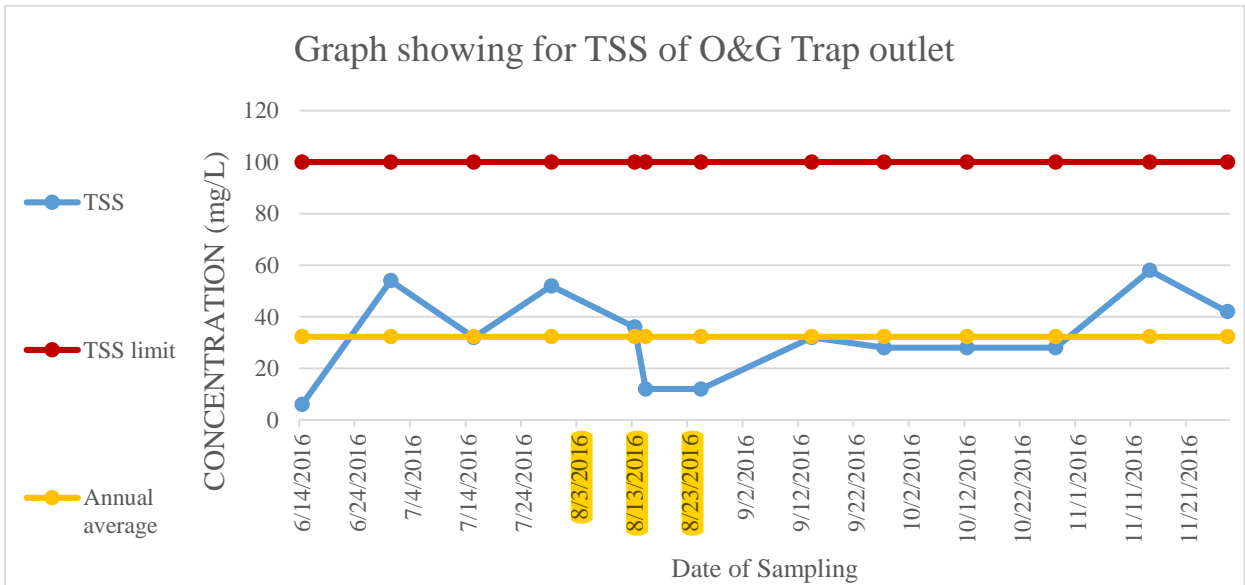
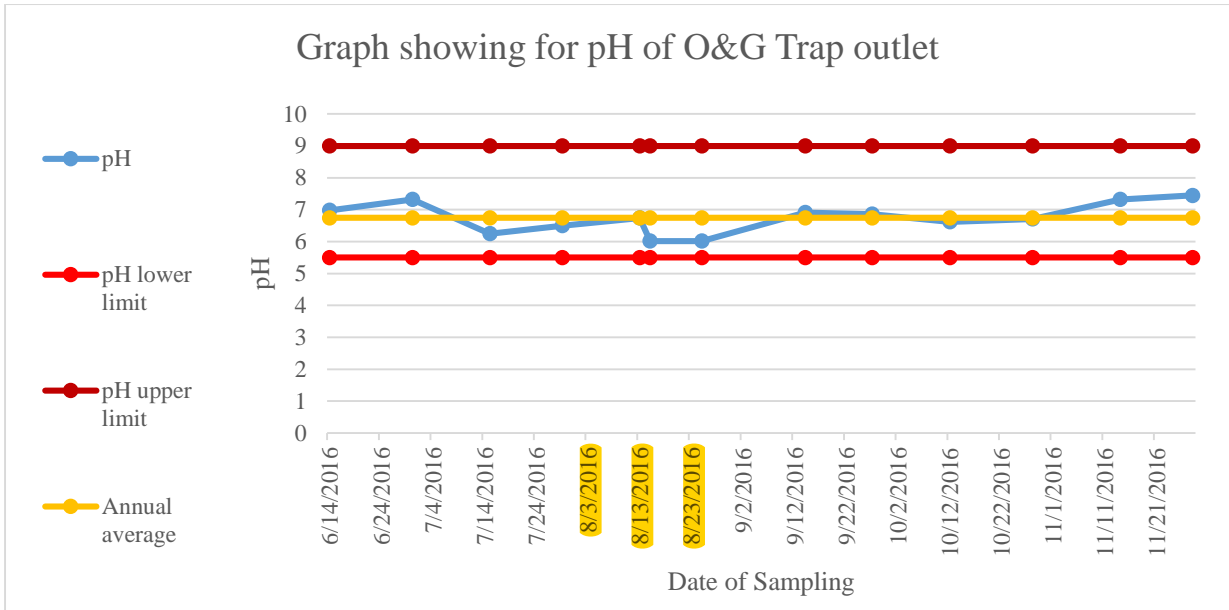


Table:90
Project: Basundhara (W) OCP
Monitoring Station: Outlet of settling pond near Kanika
Railway siding

Date of Sampling	pH	Oil & Grease	TSS	COD
02-06-2016	6.81	<4.0	264	504
17-06-2016	7.05	<4.0	220	440
06-07-2016	7.25	<4.0	56	452
18-07-2016	7.08	<4.0	64	464
06-08-2016	6.25	<4.0	72	44
15-08-2016	6.45	<4.0	72	400
19-08-2016	6.45	<4.0	72	400
07-09-2016	6.84	<4.0	68	440
20-09-2016	7.85	<4.0	26	172
04-10-2016	6.64	<4.0	58	104
20-10-2016	6.93	<4.0	42	96
05-11-2016	7.3	<4.0	162	360
24-11-2016	7.2	<4.0	120	280
13-12-2016	7.55	<4.0	118	284
30-12-2016	6.94	<4.0	112	268
10-01-2017	7.86	<4.0	124	320
25-01-2017	7.37	<4.0	76	152
09-02-2017	6.15	<4.0	98	136
23-02-2017	6.71	<4.0	112	280
07-03-2017	7.22	<4.0	96	240
23-03-2017	7.62	<4.0	120	360

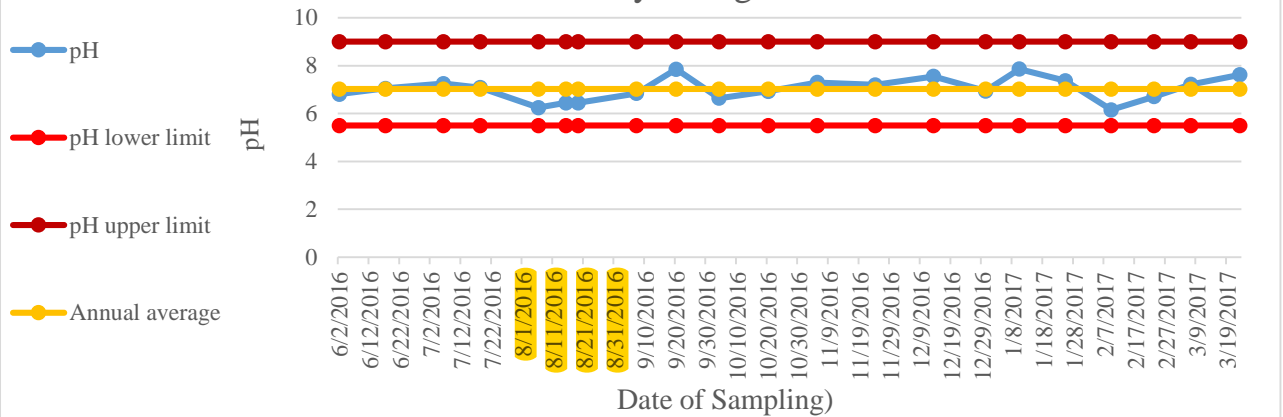
Table:91
Project: Basundhara (W) OCP
Monitoring Station: Settling tank / abandoned quarry of
Basundhara-E

Date of Sampling	pH	Oil & Grease	TSS	COD
02-06-2016	6.7	<4.0	22	44
07-09-2016	6.9	<4.0	32	44
07-03-2017	7.2	<4.0	26	20
13-12-2016	7.4	<4.0	20	8.8

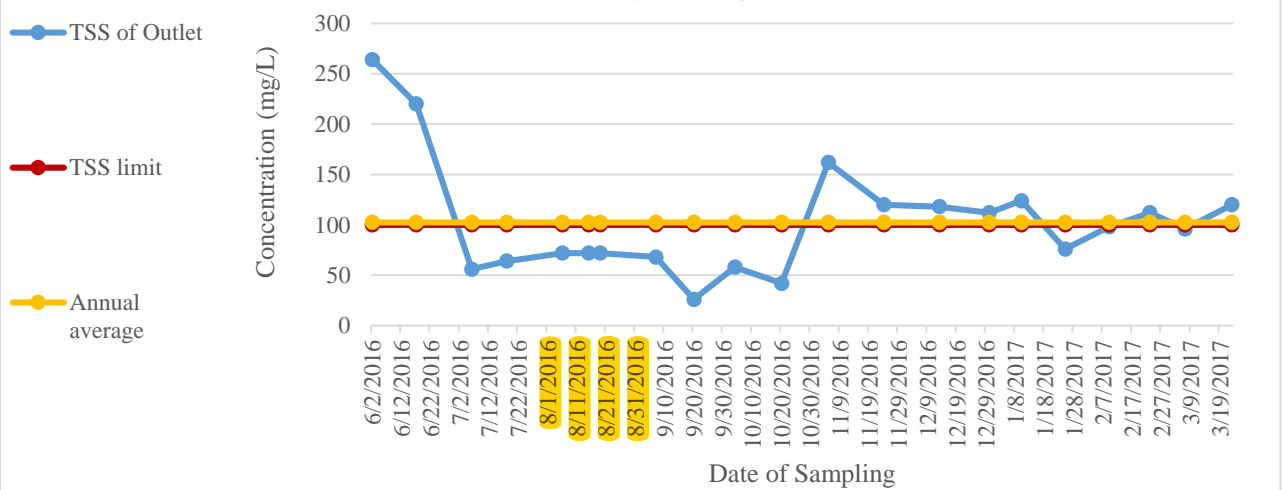
Table: 92
Project: Basundhara (W) OCP
Monitoring Station: Oil & Grease trap Outlet

Date of Sampling	pH	Oil & Grease	TSS	COD
02-06-2016	7.5	<4.0	16	36
13-12-2016	7.4	<4.0	62	48.4
08-03-2017	7	<4.0	22	16

Graph showing for pH of Outlet of settling pond near Kanika Railway siding



Graph showing for TSS of Outlet of settling pond near Kanika Railway siding



Graph showing for COD of Outlet of settling pond near Kanika Railway siding

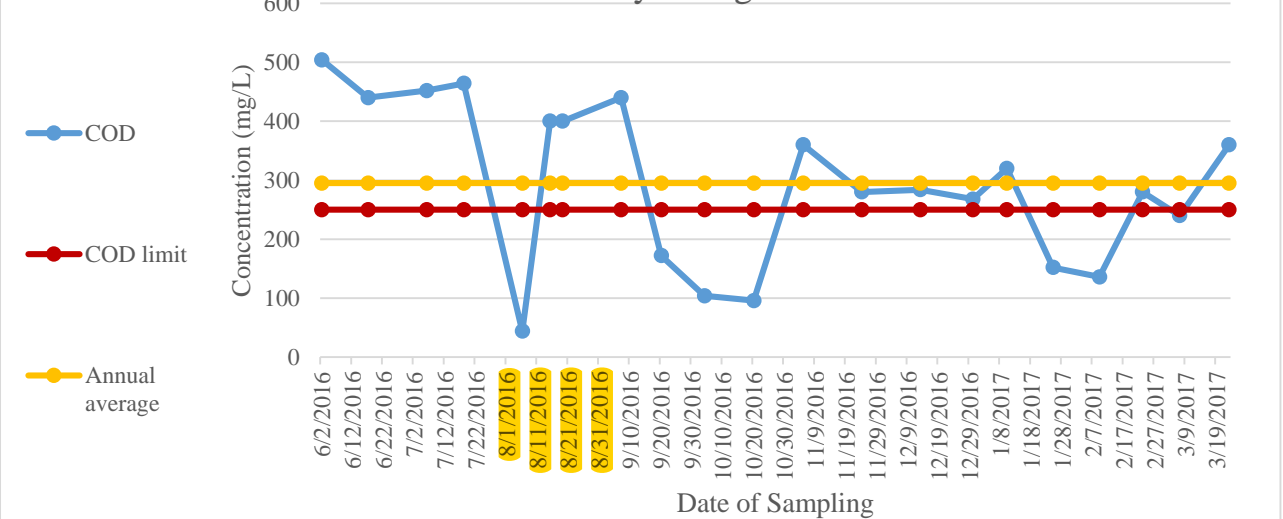
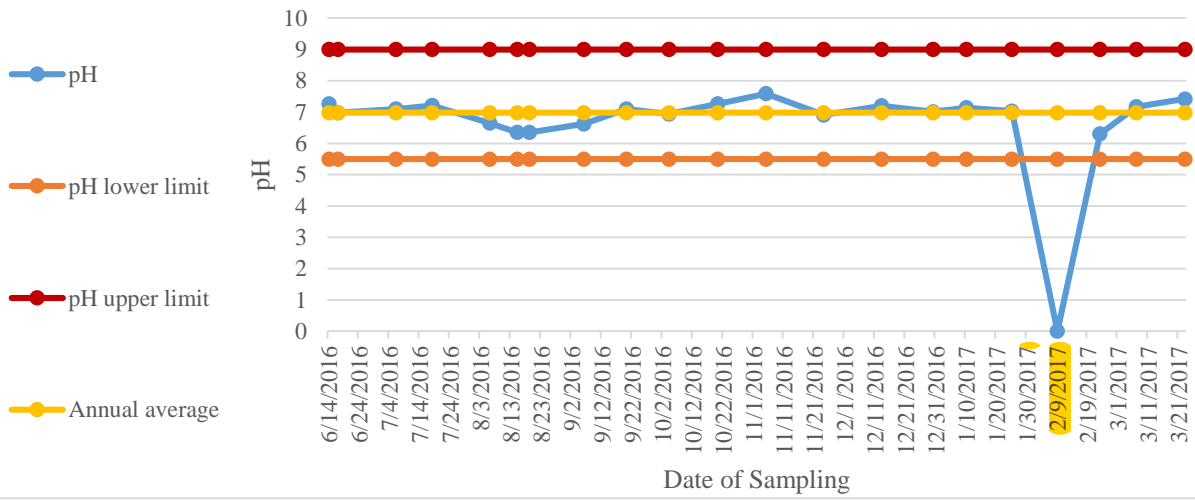


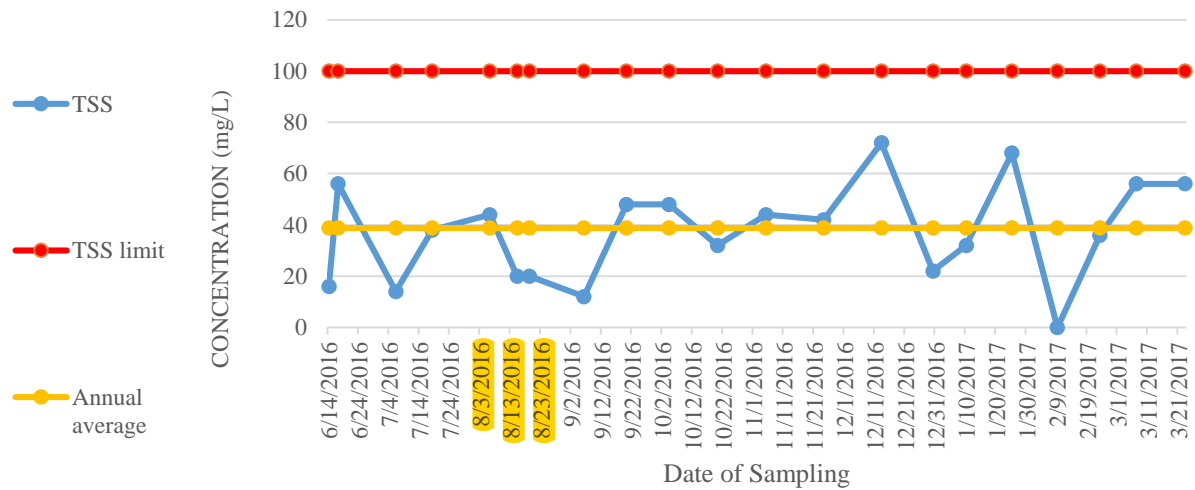
Table:93
Project: Kulda OCP
Monitoring Station: Final Discharge point of mine

Date of Sampling	pH	Oil & Grease	TSS	COD
14-06-2016	7.26	<4.0	16	44
17-06-2016	6.98	<4.0	56	32
06-07-2016	7.1	<4.0	14	36
18-07-2016	7.21	<4.0	38	64
06-08-2016	6.65	<4.0	44	32
15-08-2016	6.35	<4.0	20	44
19-08-2016	6.35	<4.0	20	44
06-09-2016	6.62	<4.0	12	16
20-09-2016	7.1	<4.0	48	16
04-10-2016	6.94	<4.0	48	64
20-10-2016	7.26	<4.0	32	72
05-11-2016	7.59	<4.0	44	32
24-11-2016	6.91	<4.0	42	36
13-12-2016	7.2	<4.0	72	41.6
30-12-2016	7.01	<4.0	22	8.4
10-01-2017	7.14	<4.0	32	20
25-01-2017	7.03	<4.0	68	52
23-02-2017	6.3	<4.0	36	20
07-03-2017	7.17	<4.0	56	44
23-03-2017	7.42	<4.0	56	44

Graph showing for pH of Final Discharge point of mine



Graph showing for TSS of Final Discharge point of mine



Graph showing for COD of Final Discharge point of mine

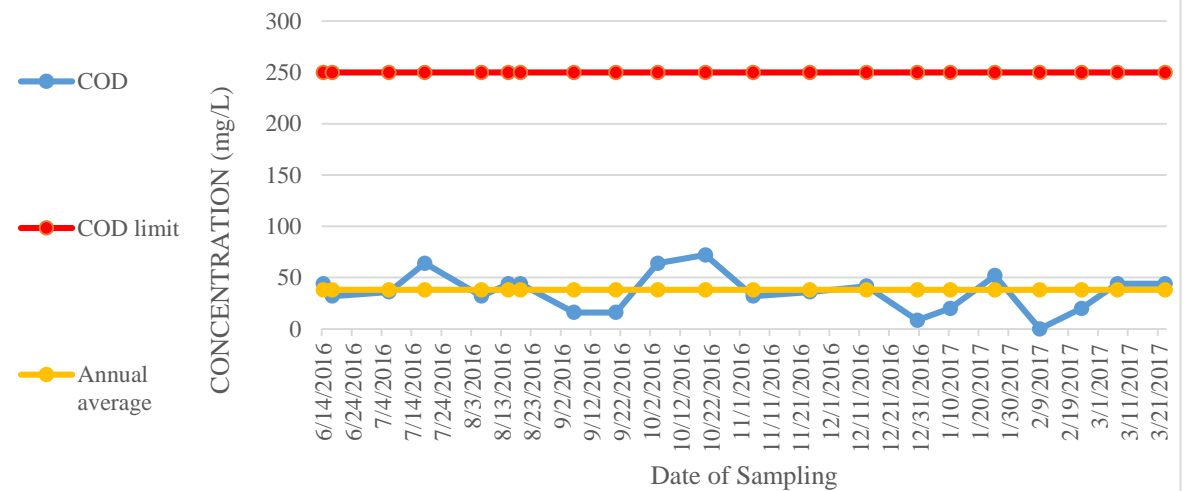
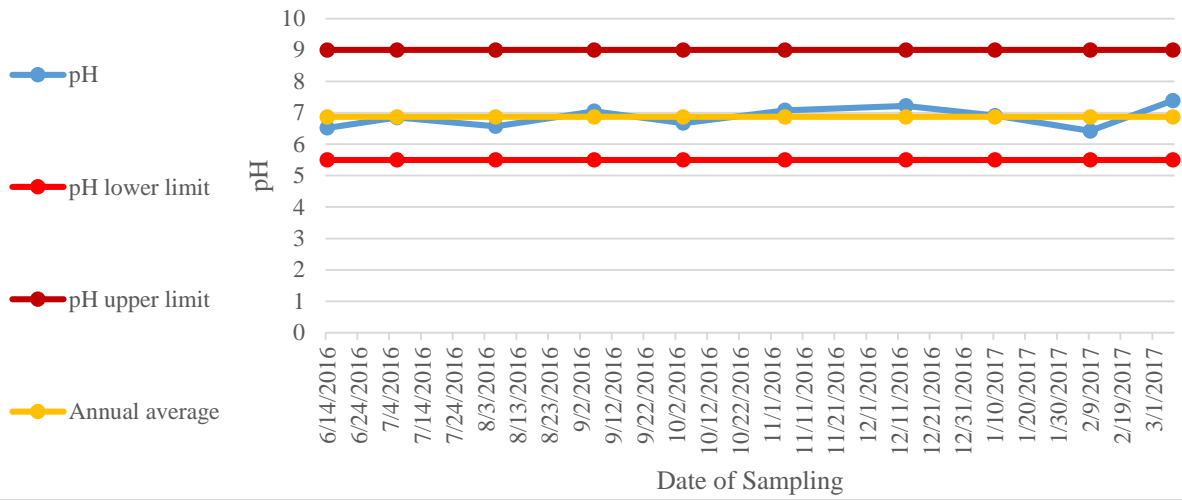


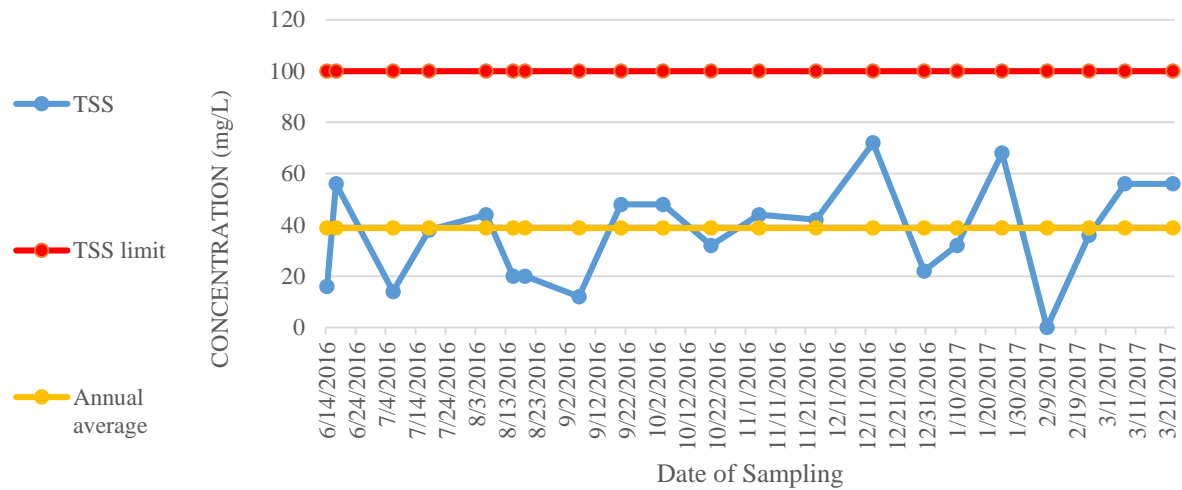
Table:94
Project: Kulda OCP
Monitoring Station: Outlet of settling pond

Date of Sampling	pH	Oil & Grease	TSS	COD
06-09-2016	7.05	<4.0	24	24
04-10-2016	6.67	<4.0	16	28
05-11-2016	7.08	<4.0	32	20
13-12-2016	7.22	<4.0	28	11.6
10-01-2017	6.91	<4.0	98	132
09-02-2017	6.42	<4.0	68	32
07-03-2017	7.39	<4.0	48	32
14-06-2016	6.52	<4.0	20	76
06-07-2016	6.85	<4.0	42	40
06-08-2016	6.57	<4.0	30	24

Graph showing for pH of Outlet to Settling Pond



Graph showing for TSS of Outlet to Settling Pond



Graph showing for COD of Outlet to Settling Pond

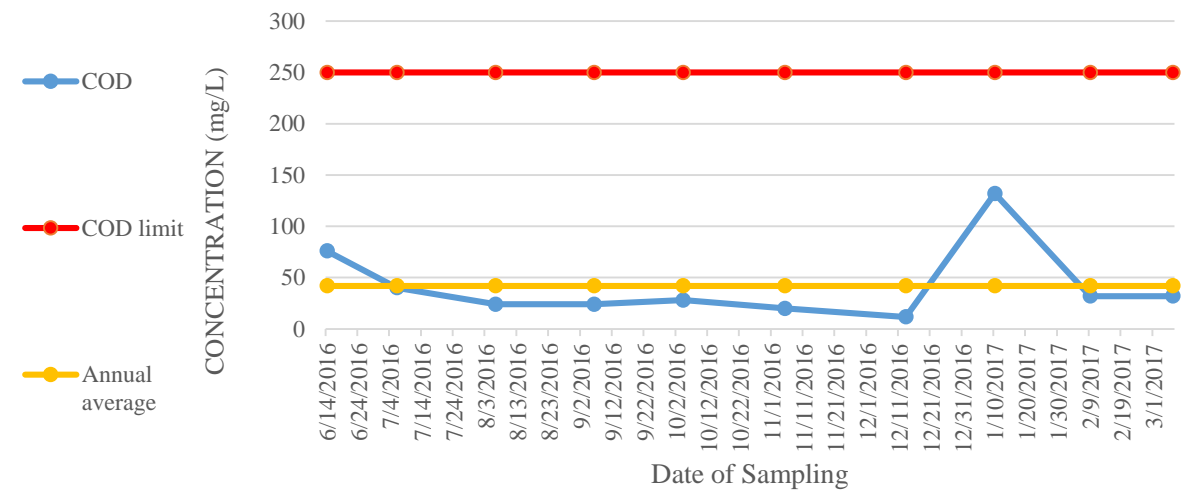
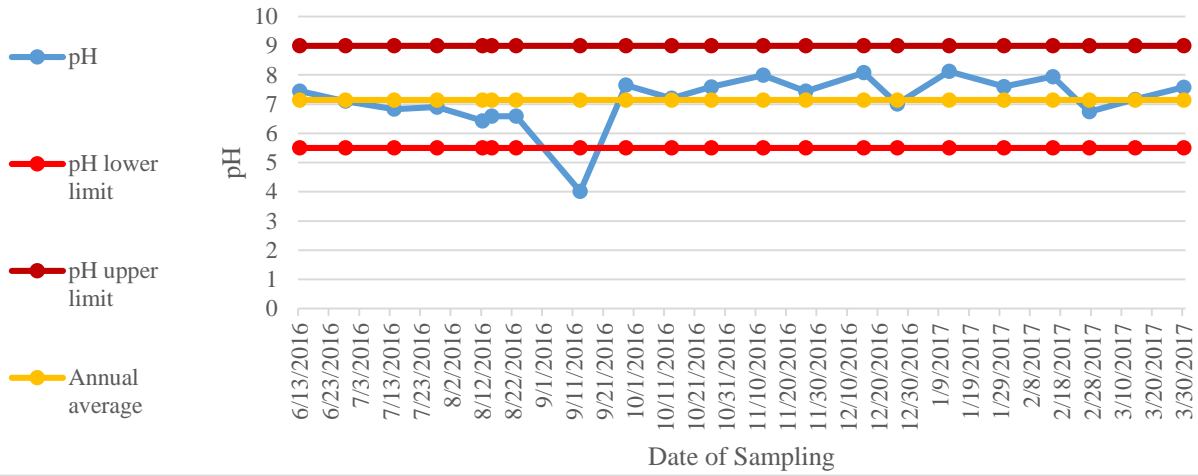


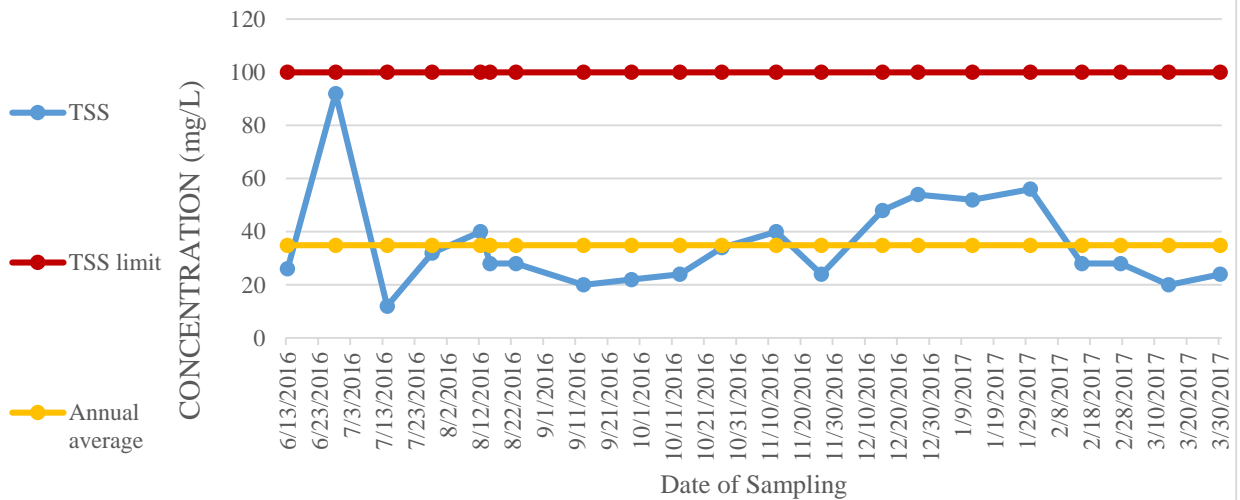
Table:95
Project: Orient
Monitoring Station: Discharge of HBI mine

Date of Sampling	pH	Oil & Grease	TSS	COD
13-06-2016	7.45	<4.0	26	36
28-06-2016	7.1	<4.0	92	24
14-07-2016	6.83	<4.0	12	24
28-07-2016	6.9	<4.0	32	20
12-08-2016	6.43	<4.0	40	56
15-08-2016	6.59	<4.0	28	48
23-08-2016	6.59	<4.0	28	48
13-09-2016	4.01	<4.0	20	64
28-09-2016	7.65	<4.0	22	64
13-10-2016	7.2	<4.0	24	16
26-10-2016	7.59	<4.0	34	20
12-11-2016	7.99	<4.0	40	32
26-11-2016	7.44	<4.0	24	20
15-12-2016	8.08	<4.0	48	23.6
26-12-2016	7.01	<4.0	54	44.4
12-01-2017	8.12	<4.0	52	48
30-01-2017	7.6	<4.0	56	40
15-02-2017	7.94	<4.0	28	12
27-02-2017	6.74	<4.0	28	16
14-03-2017	7.16	<4.0	20	16
30-03-2017	7.58	<4.0	24	16

Graph showing for pH of Discharge of HBI mine



Graph showing for TSS of Discharge of HBI mine



Graph showing for COD of Discharge of HBI mine

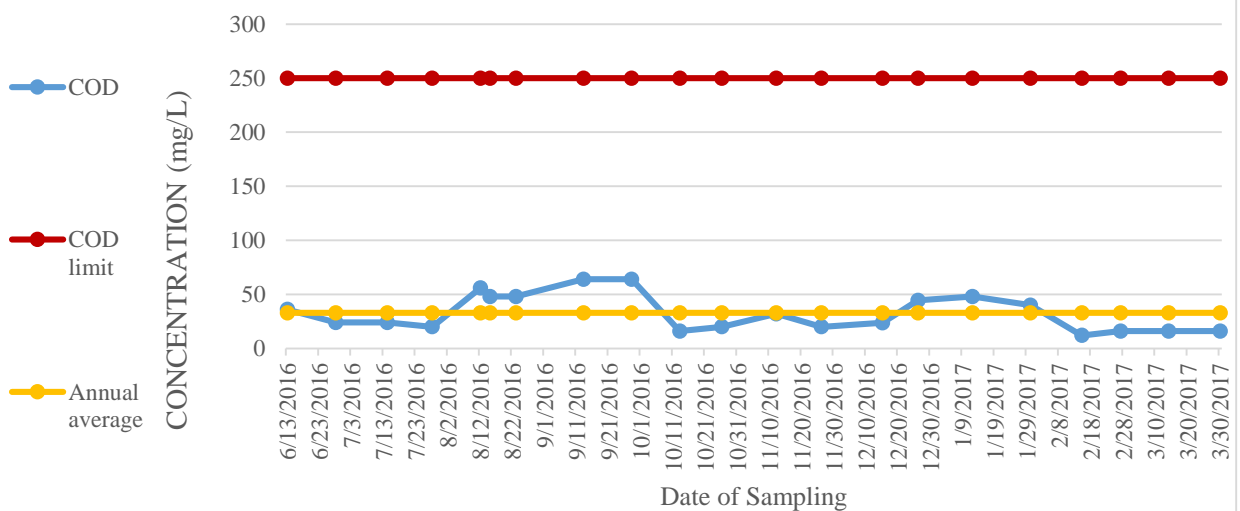
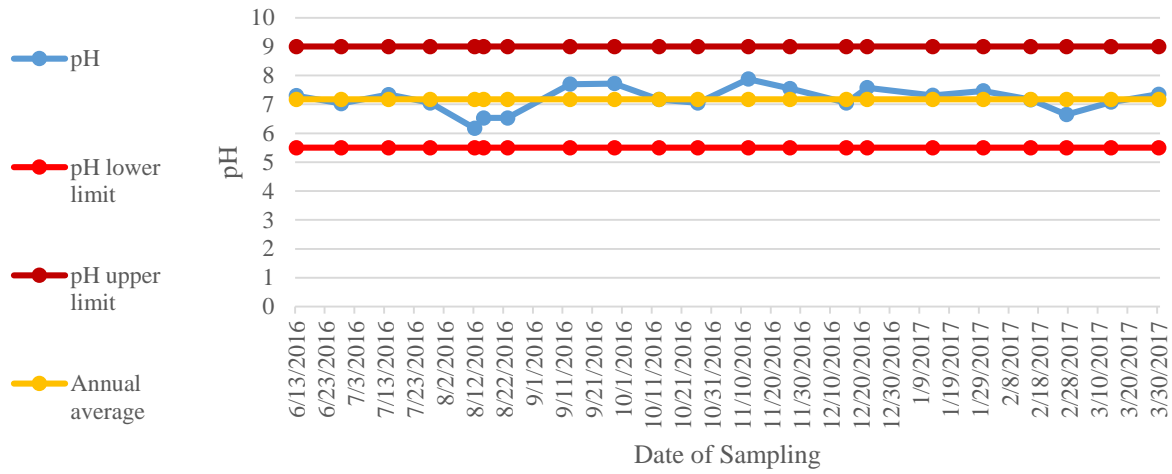


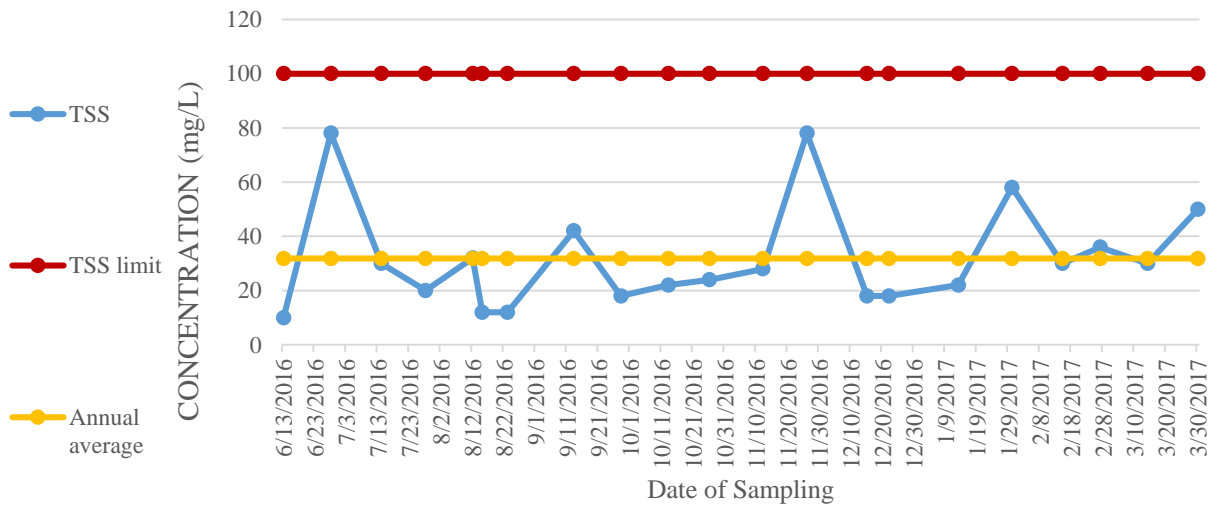
Table:96
Project: Orient
Monitoring Station: Discharge of Mine no. 2

Date of Sampling	pH	Oil & Grease	TSS	COD
13-06-2016	7.3	<4.0	10	44
28-06-2016	7.03	<4.0	78	28
14-07-2016	7.34	<4.0	30	36
28-07-2016	7.05	<4.0	20	16
12-08-2016	6.17	<4.0	32	96
15-08-2016	6.53	<4.0	12	24
23-08-2016	6.53	<4.0	12	24
13-09-2016	7.7	<4.0	42	24
28-09-2016	7.72	<4.0	18	64
13-10-2016	7.17	<4.0	22	44
26-10-2016	7.05	<4.0	24	16
12-11-2016	7.88	<4.0	28	16
26-11-2016	7.55	<4.0	78	64
15-12-2016	7.05	<4.0	18	8
22-12-2016	7.58	<4.0	18	11.6
13-01-2017	7.31	<4.0	22	16
30-01-2017	7.47	<4.0	58	60
15-02-2017	7.16	<4.0	30	24
27-02-2017	6.65	<4.0	36	24
14-03-2017	7.08	<4.0	30	24
30-03-2017	7.35	<4.0	50	40

Graph showing for pH of Discharge of Mine no. 2



Graph showing for TSS of Discharge of Mine no. 2



Graph showing for COD of Discharge of Mine no. 2

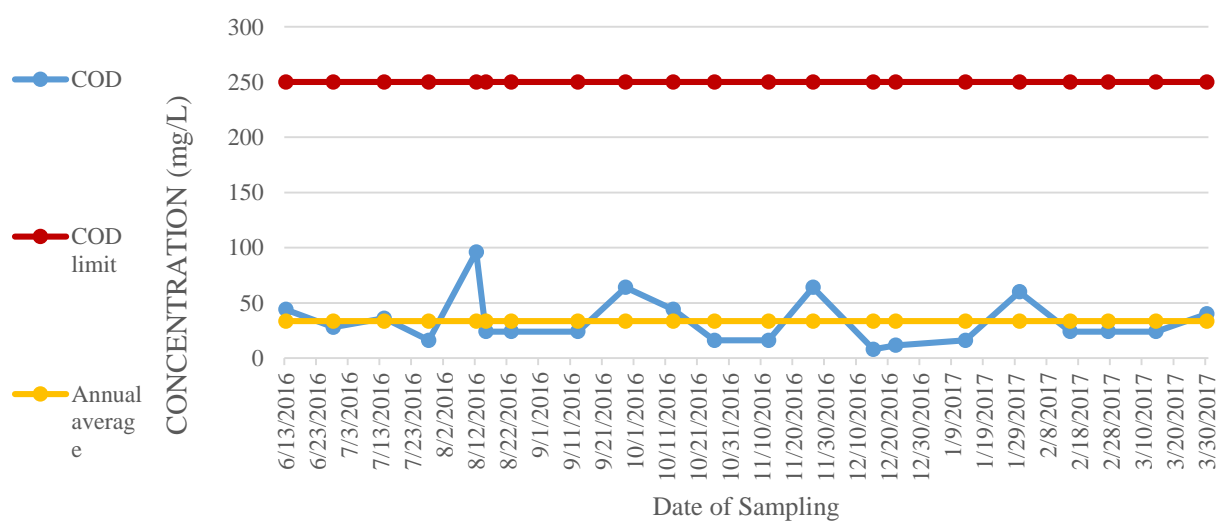
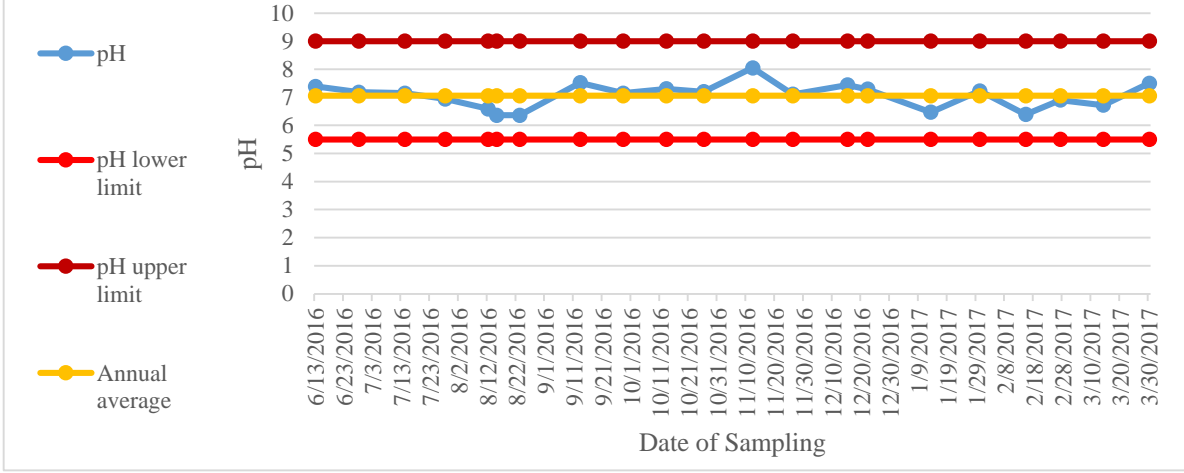


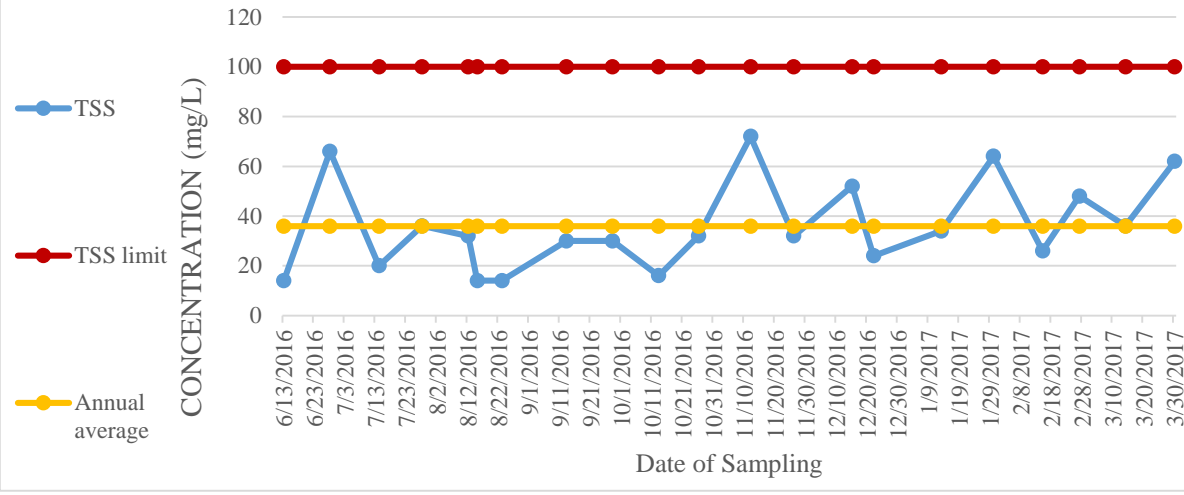
Table: 97
Project: Orient
Monitoring Station: Discharge of Mine no. 3

Date of Sampling	pH	Oil & Grease	TSS	COD
13-06-2016	7.39	<4.0	14	28
28-06-2016	7.18	<4.0	66	20
14-07-2016	7.15	<4.0	20	52
28-07-2016	6.94	<4.0	36	48
12-08-2016	6.59	<4.0	32	36
15-08-2016	6.36	<4.0	14	36
23-08-2016	6.36	<4.0	14	36
13-09-2016	7.52	<4.0	30	32
28-09-2016	7.15	<4.0	30	40
13-10-2016	7.3	<4.0	16	28
26-10-2016	7.2	<4.0	32	24
12-11-2016	8.05	<4.0	72	60
26-11-2016	7.11	<4.0	32	24
15-12-2016	7.44	<4.0	52	36.4
22-12-2016	7.29	<4.0	24	16.4
13-01-2017	6.47	<4.0	34	24
30-01-2017	7.23	<4.0	64	80
15-02-2017	6.39	<4.0	26	12
27-02-2017	6.9	<4.0	48	36
14-03-2017	6.72	<4.0	36	44
30-03-2017	7.5	<4.0	62	56

Graph showing for pH of Discharge of Mine no. 3



Graph showing for TSS of Discharge of Mine no. 3



Graph showing for COD of O&G Trap outlet

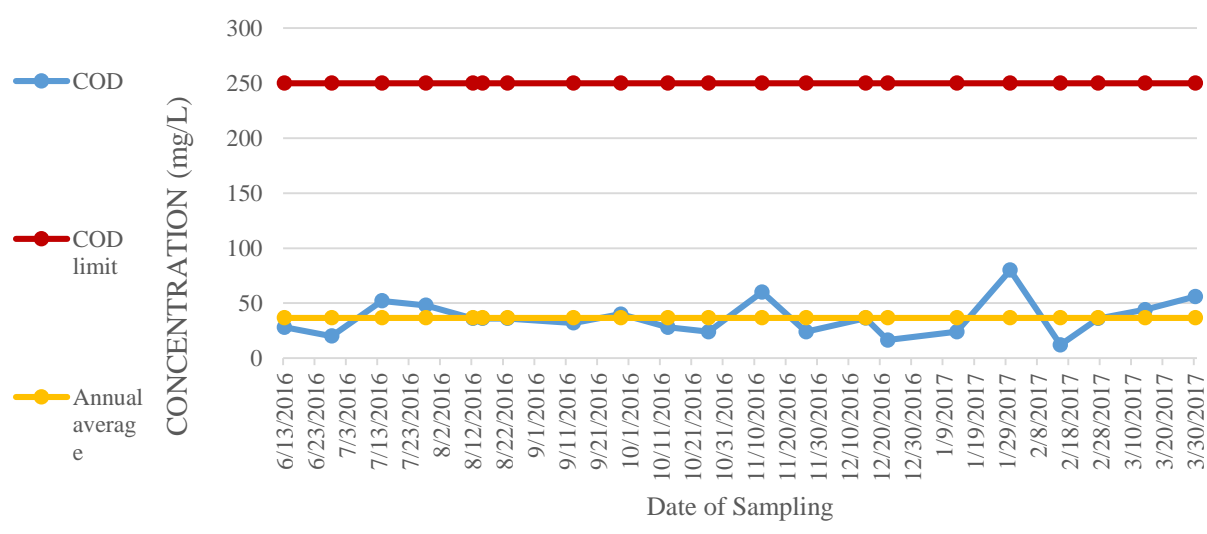
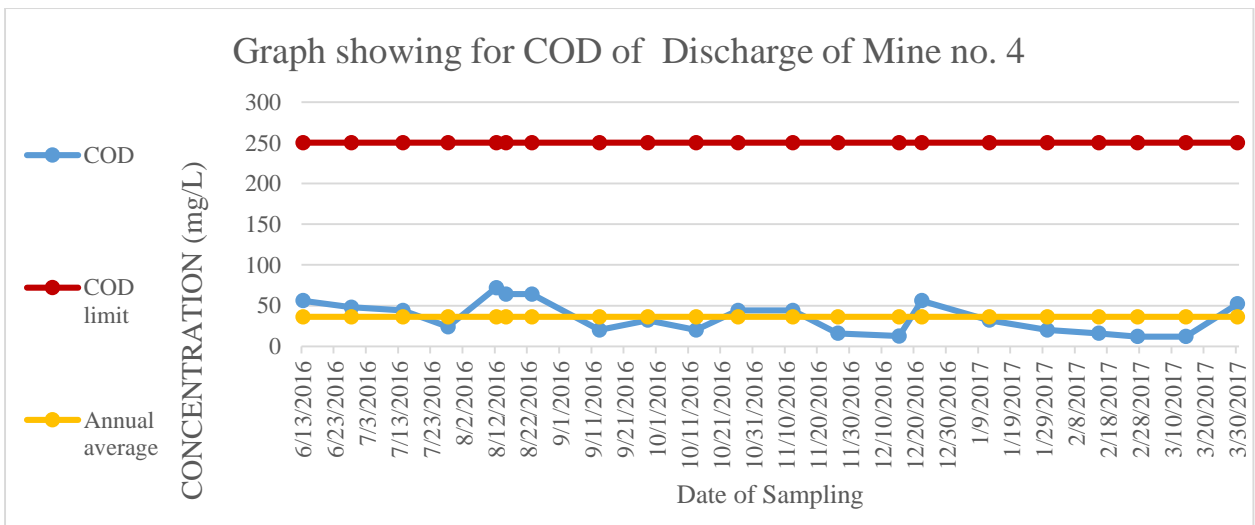
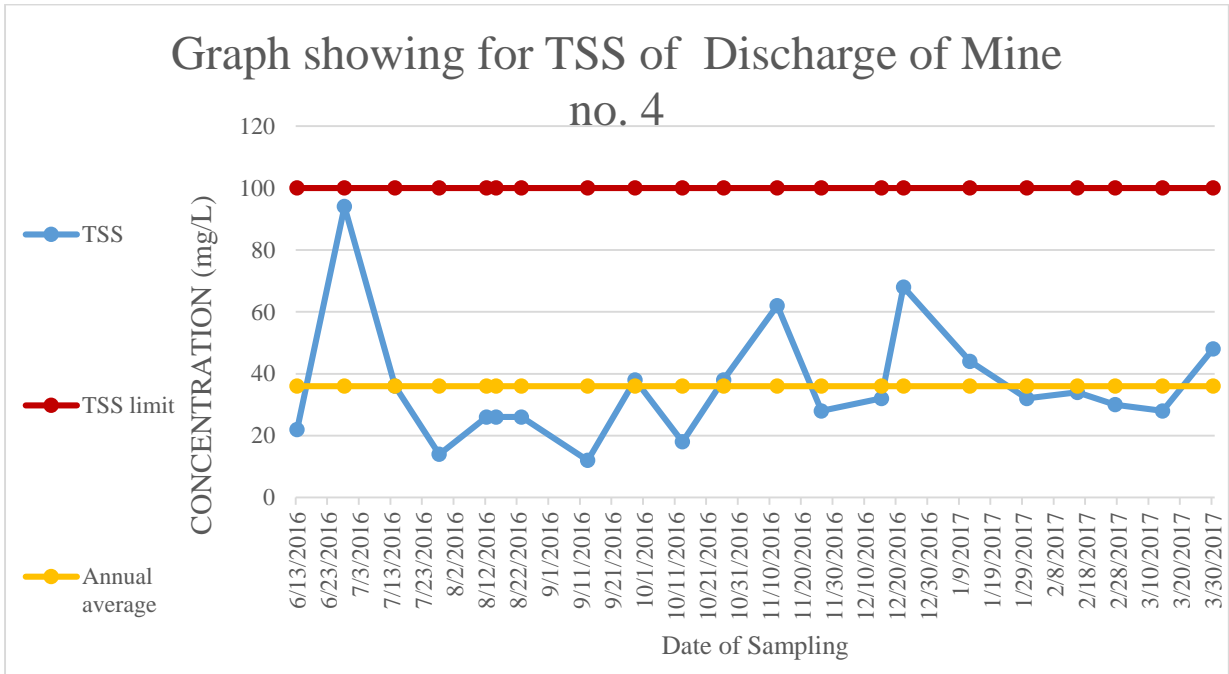
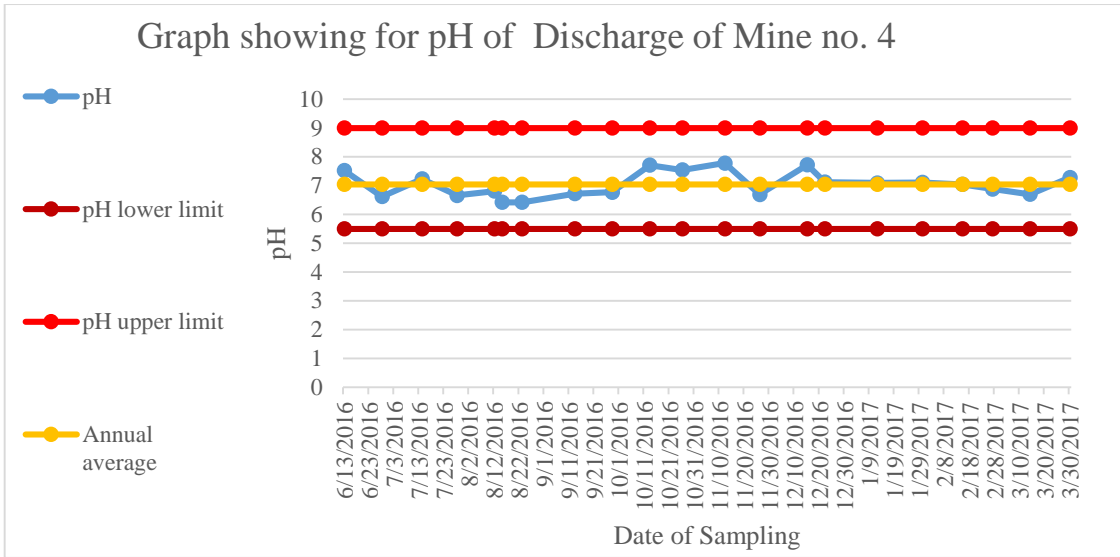


Table: 98
Project: Orient
Monitoring Station: Discharge of Mine no. 4

Date of Sampling	pH	Oil & Grease	TSS	COD
13-06-2016	7.52	<4.0	22	56
28-06-2016	6.62	<4.0	94	48
14-07-2016	7.23	<4.0	36	44
28-07-2016	6.66	<4.0	14	24
12-08-2016	6.81	<4.0	26	72
15-08-2016	6.42	<4.0	26	64
23-08-2016	6.42	<4.0	26	64
13-09-2016	6.72	<4.0	12	20
28-09-2016	6.77	<4.0	38	32
13-10-2016	7.71	<4.0	18	20
26-10-2016	7.54	<4.0	38	44
12-11-2016	7.78	<4.0	62	44
26-11-2016	6.69	<4.0	28	16
15-12-2016	7.72	<4.0	32	12.6
22-12-2016	7.12	<4.0	68	56
12-01-2017	7.09	<4.0	44	32
30-01-2017	7.11	<4.0	32	20
15-02-2017	7.04	<4.0	34	16
27-02-2017	6.88	<4.0	30	12
14-03-2017	6.7	<4.0	28	12
30-03-2017	7.28	<4.0	48	52



22 Parameter Effluent Quality Data Yearly: Ib valley Area

Project (OCP / UG)	Samaleswari OCP	Lajkura OCP	
NAME OF THE STATION	Outlet from Sedimentation pond	Mine discharge water	MoEF-Sch-VI Standards
Date	26.11.16	26.11.16	
Colour(Hazen)	Acceptable	Acceptable	Acceptable
Odour	Unobjectionable	Unobjectionable	Unobjectionable
Temperature(°C)	23.5	23.4	Shall not exceed 5 °C above the receiving temperature
Nitrate Nitrogen(mg/L)	2	2.1	10.0
Ammonical Nitrogen (as N)(mg/L)	0.22	0.33	50.0
Total Kjeldahl Nitrogen (as NH3)(mg/L)	2.36	1.32	100.0
BOD [3 days at 27°C] (mg/L)	8.8	7.7	30.0
Arsenic(mg/L)	<0.01	<0.01	0.2
Lead(mg/L)	<0.05	<0.05	0.1
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.1
Total Chromium(mg/L)	<0.1	<0.1	2.0
Copper(mg/L)	<0.02	<0.02	3.0
Zinc(mg/L)	0.75	2.73	5.0
Selenium(mg/L)	<0.01	<0.01	0.05
Cadmium(mg/L)	<0.0005	<0.0005	2.0
Nickel(mg/L)	0.75	0.94	3.0
Fluoride(mg/L)	1.28	0.95	2.0
Sulphide(mg/L)	0.004	0.003	2.0
Phenolic Compound(mg/L)	<0.001	<0.001	1.0
Manganese(mg/L)	10.12	29.26	2.0
Iron(mg/L)	<0.05	0.17	3.0
Disolved Phosphate(mg/L)	<0.01	<0.01	5.0

TABLE:100

22 Parameter Effluent Quality Data Yearly: Lakhanpur Area

Project (OCP / UG)	Liliari OCP	Lakhanpur OCP	Belpahar OCP	
NAME OF THE STATION	Outlet from O&G trap	Outlet from Sedimentation pond	Outlet from Sedimentation pond	MoEF-Sch-VI Standards
Date	28.11.16	28.11.16	28.11.16	
Colour(Hazen)	Acceptable	Acceptable	Acceptable	Acceptable
Odour	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable
Temperature(°C)	23.3	23.4	23.8	Shall not exceed 5 °C above the receiving temperature
Nitrate Nitrogen(mg/L)	1.8	1.9	1.8	10.0
Ammonical Nitrogen (as N)(mg/L)	0.29	0.36	0.21	50.0
Total Kjeldahl Nitrogen (as NH3)(mg/L)	1.98	2.2	2.4	100.0
BOD [3 days at 27°C] (mg/L)	10	8.8	12	30.0
Arsenic(mg/L)	<0.01	<0.01	<0.01	0.2
Lead(mg/L)	<0.05	<0.05	<0.05	0.1
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.1
Total Chromium(mg/L)	<0.1	<0.1	<0.1	2.0
Copper(mg/L)	<0.02	<0.02	<0.02	3.0
Zinc(mg/L)	<0.02	0.03	<0.02	5.0
Selenium(mg/L)	<0.01	<0.01	<0.01	0.05
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	2.0
Nickel(mg/L)	<0.1	<0.1	<0.1	3.0
Fluoride(mg/L)	0.68	0.55	0.46	2.0
Sulphide(mg/L)	0.003	0.004	0.005	2.0
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	1.0
Manganese(mg/L)	<0.05	<0.05	<0.05	2.0
Iron(mg/L)	<0.05	0.1	<0.05	3.0
Disolved Phosphate(mg/L)	<0.01	2.53	<0.01	5.0

TABLE:101

22 Parameter Effluent Quality Data Yearly: Basundhara Area

Project (OCP / UG)	Kulda OCP	Basundhara OCP	
NAME OF THE STATION	Final discharge Point of Mine	Outlet from settling pond,near Kanika Rly.sdg.	MoEF-Sch-VI Standards
Date	24.11.16	24.11.16	
Colour(Hazen)	Acceptable	Acceptable	Acceptable
Odour	Unobjectionable	Unobjectionable	Unobjectionable
Temperature(°C)	23.5	23.7	Shall not exceed 5 °C above the receiving temperature
Nitrate Nitrogen(mg/L)	2	2.2	10.0
Ammonical Nitrogen (as N)(mg/L)	0.14	0.28	50.0
Total Kjeldahl Nitrogen (as NH3)(mg/L)	1.88	0.88	100.0
BOD [3 days at 27°C] (mg/L)	7.3	8.4	30.0
Arsenic(mg/L)	<0.01	<0.01	0.2
Lead(mg/L)	<0.05	<0.05	0.1
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.1
Total Chromium(mg/L)	<0.1	<0.1	2.0
Copper(mg/L)	<0.02	<0.02	3.0
Zinc(mg/L)	0.16	<0.02	5.0
Selenium(mg/L)	<0.01	<0.01	0.05
Cadmium(mg/L)	0.002	<0.0005	2.0
Nickel(mg/L)	0.17	<0.1	3.0
Fluoride(mg/L)	1.35	0.23	2.0
Sulphide(mg/L)	0.004	0.003	2.0
Phenolic Compound(mg/L)	<0.001	<0.001	1.0
Manganese(mg/L)	1.67	<0.05	2.0
Iron(mg/L)	<0.05	<0.05	3.0
Disolved Phosphate(mg/L)	<0.01	1.07	5.0

TABLE:102

22 Parameter Effluent Quality Data Yearly: Orient Area

Project (OCP / UG)	Orient UG	Orient UG	
NAME OF THE STATION	Mine disch. of Mine no.2	Mine disch. of Mine no.3	MoEF-Sch-VI Standards
Date	26.11.16	26.11.16	
Colour(Hazen)	Acceptable	Acceptable	Acceptable
Odour	Unobjectionable	Unobjectionable	Unobjectionable
Temperature(°C)	23.9	23.6	Shall not exceed 5 °C above the receiving temperature
Nitrate Nitrogen(mg/L)	2	2.3	10.0
Ammonical Nitrogen (as N)(mg/L)	0.37	0.12	50.0
Total Kjeldahl Nitrogen (as NH3)(mg/L)	0.82	1.12	100.0
BOD [3 days at 27°C] (mg/L)	12	6.9	30.0
Arsenic(mg/L)	<0.01	<0.01	0.2
Lead(mg/L)	<0.05	<0.05	0.1
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.1
Total Chromium(mg/L)	<0.1	<0.1	2.0
Copper(mg/L)	<0.02	<0.02	3.0
Zinc(mg/L)	0.03	0.96	5.0
Selenium(mg/L)	<0.01	<0.01	0.05
Cadmium(mg/L)	0.001	<0.0005	2.0
Nickel(mg/L)	<0.1	<0.1	3.0
Fluoride(mg/L)	0.31	1.06	2.0
Sulphide(mg/L)	0.003	0.004	2.0
Phenolic Compound(mg/L)	<0.001	<0.001	1.0
Manganese(mg/L)	<0.05	<0.05	2.0
Iron(mg/L)	<0.05	<0.05	3.0
Disolved Phosphate(mg/L)	<0.01	<0.01	5.0

TABLE:103

22 Parameter Effluent Quality Data Yearly: Orient Area

Project (OCP / UG)	Orient UG	Orient UG	
NAME OF THE STATION	Mine disch. of Mine no.4	Mine disch. of HBI mine	MoEF-Sch-VI Standards
Date	26.11.16	26.11.16	
Colour(Hazen)	Acceptable	Acceptable	Acceptable
Odour	Unobjectionable	Unobjectionable	Unobjectionable
Temperature(°C)	23.6	23.4	Shall not exceed 5 °C above the receiving temperature
Nitrate Nitrogen(mg/L)	2.1	1.9	10.0
Ammonical Nitrogen (as N)(mg/L)	0.72	0.26	50.0
Total Kjeldahl Nitrogen (as NH ₃)(mg/L)	2.38	2.28	100.0
BOD [3 days at 27°C] (mg/L)	8.3	10	30.0
Arsenic(mg/L)	<0.01	<0.01	0.2
Lead(mg/L)	<0.05	<0.05	0.1
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.1
Total Chromium(mg/L)	<0.1	<0.1	2.0
Copper(mg/L)	<0.02	<0.02	3.0
Zinc(mg/L)	0.78	0.02	5.0
Selenium(mg/L)	<0.01	<0.01	0.05
Cadmium(mg/L)	<0.0005	<0.0005	2.0
Nickel(mg/L)	<0.1	<0.1	3.0
Fluoride(mg/L)	0.63	1.26	2.0
Sulphide(mg/L)	0.003	0.005	2.0
Phenolic Compound(mg/L)	<0.001	<0.001	1.0
Manganese(mg/L)	<0.05	<0.05	2.0
Iron(mg/L)	<0.05	<0.05	3.0
Disolved Phosphate(mg/L)	0.23	<0.01	5.0

Table: 104
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Madhuban nagar well water	Madhuban nagar well water	Madhuban nagar well water		
Dt. of sampling	13.06.16	14.07.16	12.08.16	Acceptable	Permissible
Colour(Hazen)	3	4	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	5	1	5
pH	6.88	6.69	7.16	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	144	32	32	200	600
Total Hardness(mg/L)	132	44	30	200	600
Iron(mg/L)	0.03	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	26	30	10	250	1000
Residual Free chlorine(mg/L)	0.1	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	257	126	56	500	2000
Calcium(mg/L)	17.6	8	4.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.16	<0.02	0.1	0.3
Sulphate(mg/L)	24	12	4	200	400
Nitrate(mg/L)	3.99	3.1	1.86	45	No relaxation
Fluoride(mg/L)	0.52	0.53	0.14	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.11	<0.04	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	10	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	3.6	Shall not be detectable in any 100 ml sample	

Table: 105
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Madhuban nagar well water	Madhuban nagar well water	Madhuban nagar well water		
Dt. of sampling	14.09.2016	13.10.16	12.11.16	Acceptable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	3	2	1	5
pH	6.67	6.79	7.11	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	16	12	200	600
Total Hardness(mg/L)	76	52	48	200	600
Iron(mg/L)	<0.06	0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	34	32	34	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	174	124	120	500	2000
Calcium(mg/L)	20.8	11.2	12.8	75	200
Copper(mg/L)	<0.03	0.1	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.1	<0.02	0.1	0.3
Sulphate(mg/L)	10	18	14	200	400
Nitrate(mg/L)	4.37	3.99	4.43	45	No relaxation
Fluoride(mg/L)	0.48	0.61	0.58	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.15	0.16	0.08	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	22	15	6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	1.8	<1.8	2	Shall not be detectable in any 100 ml sample	

Table:106
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Madhuban nagar well water	Madhuban nagar well water	Madhuban nagar well water	Madhubannagar well water		
Dt. of sampling	15.12.16	12.1.17	16.02.2017	14-03-2017	Acceptable	Permissible
Colour(Hazen)	1	2	6	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	4	1	1	5
pH	7.43	6.73	6.9	6.7	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	12	12	16	28	200	600
Total Hardness(mg/L)	32	56	80	44	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	12	30	44	18	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	56	130	194	118	500	2000
Calcium(mg/L)	6.4	14.4	22.4	6.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.03	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	6	14	30	8	200	400
Nitrate(mg/L)	1.78	3.99	5.37	3.99	45	No relaxation
Fluoride(mg/L)	0.69	0.55	0.63	0.34	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	0.003	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.316	0.09	<0.02	0.49	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.23	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	10	6.1	3.7	10	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 107
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Treated water at user end(Adarsh nagar colony)	Treated water at user end(Adarsh nagar colony)	Treated water at user end(Adarsh nagar colony)		
Dt. of sampling	13.06.16	14.07.16	12.08.16	Acceptable	Permissible
Colour(Hazen)	3	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	4	2	1	5
pH	7.12	7.05	7.04	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	108	100	36	200	600
Total Hardness(mg/L)	100	120	56	200	600
Iron(mg/L)	0.14	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	28	26	22	250	1000
Residual Free chlorine(mg/L)	<0.04	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	200	248	116	500	2000
Calcium(mg/L)	19.2	16	12.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.02	<0.02	0.1	0.3
Sulphate(mg/L)	22	31	18	200	400
Nitrate(mg/L)	4.87	4.33	4.87	45	No relaxation
Fluoride(mg/L)	0.47	0.24	0.22	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.29	0.28	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	10	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	4	Shall not be detectable in any 100 ml sample	

Table: 108
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Treated water at user end(Adarsh nagar colony)	Treated water at user end(Adarsh nagar colony)	Treated water at user end(Adarsh nagar colony)		
Dt. of sampling	14.09.2016	13.10.16	12.11.16	Acceptable	Permissible
Colour(Hazen)	2	1	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	1	2	1	5
pH	6.84	6.96	7.78	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	20	16	200	600
Total Hardness(mg/L)	44	48	48	200	600
Iron(mg/L)	<0.06	0.05	<0.06	0.3	No relaxation
Chloride(mg/L)	18	14	16	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	96	92	92	500	2000
Calcium(mg/L)	9.6	14.4	12.8	75	200
Copper(mg/L)	<0.03	0.1	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.1	<0.02	0.1	0.3
Sulphate(mg/L)	8	21	8	200	400
Nitrate(mg/L)	2.19	1.5	4.43	45	No relaxation
Fluoride(mg/L)	0.51	0.58	0.83	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.24	0.35	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	12	12	6.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	2	1.8	Shall not be detectable in any 100 ml sample	

Table: 109
Drinking Water Quality Data
Area: IB Valley

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Treated water at user end(Adarsh nagar colony)	Treated water at user end(Adarsh nagar colony)	Treated water at user end(Adarsh nagar colony)	Treated water at user end(Adarsh nagar colony)		
Dt. of sampling	15.12.16	13.1.17	15.02.2017	14-03-2017	Acceptable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	1	1	1	1	5
pH	7.24	6.66	7.19	7.27	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	8	16	16	16	200	600
Total Hardness(mg/L)	60	56	68	64	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	12	12	18	16	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	100	98	126	136	500	2000
Calcium(mg/L)	14.4	14.4	16	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.03	<0.02	<0.02	0.08	0.1	0.3
Sulphate(mg/L)	14	15	8	8	200	400
Nitrate(mg/L)	3.99	3.68	4.48	4.43	45	No relaxation
Fluoride(mg/L)	0.65	0.67	0.29	0.5	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.09	<0.02	0.05	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.14	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	14	6.1	1.8	6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	<1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 110
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Raw water of mine no.2	Raw water of mine no2	Raw water of mine no.2	Raw water of mine of no.2		
Dt. of sampling	13.06.16	14.09.2016	15.12.16	14.03.2017	Acceptable	Permissible
Colour(Hazen)	2	4	3	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	2	2	1	5
pH	7.16	6.66	7.27	6.96	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	108	108	8	20	200	600
Total Hardness(mg/L)	92	96	96	88	200	600
Iron(mg/L)	0.09	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	26	36	26	24	250	1000
Residual Free chlorine(mg/L)	0.1	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	245	228	194	158	500	2000
Calcium(mg/L)	17.6	19.2	12.8	17.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.04	0.1	0.3
Sulphate(mg/L)	44	10	48	8	200	400
Nitrate(mg/L)	5.37	5.76	5.76	3.99	45	No relaxation
Fluoride(mg/L)	0.67	0.61	0.54	0.26	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.05	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	0.17	<0.02	0.05	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	0.12	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	15	14	4	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	<1.8	<1.8	2	Shall not be detectable in any 100 ml sample	

Table: 111
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Chauliberna village well water	Chauliberna village well water	Chauliberna village well water		
Dt. of sampling	13.06.16	14.07.16	12.08.16	Acceptable	Permissible
Colour(Hazen)	3	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	4	1	5
pH	7.25	6.81	7.71	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	156	68	144	200	600
Total Hardness(mg/L)	124	128	120	200	600
Iron(mg/L)	0.15	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	28	26	16	250	1000
Residual Free chlorine(mg/L)	<0.04	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	247	230	218	500	2000
Calcium(mg/L)	17.6	28.8	17.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.19	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	22	12	14	200	400
Nitrate(mg/L)	4.87	5.37	5.76	45	No relaxation
Fluoride(mg/L)	0.22	0.14	0.26	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.05	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.04	0.06	0.14	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	15	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	4.5	Shall not be detectable in any 100 ml sample	

Table: 112
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Chauliberna village well water	Chauliberna village well water	Chauliberna village well water		
Dt. of sampling	14.09.2016	13.10.16	12.11.16	Acceptable	Permissible
Colour(Hazen)	3	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	2	1	5
pH	6.92	7.12	7.21	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	24	20	200	600
Total Hardness(mg/L)	144	128	120	200	600
Iron(mg/L)	<0.06	0.05	<0.06	0.3	No relaxation
Chloride(mg/L)	40	84	48	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	294	232	228	500	2000
Calcium(mg/L)	44.8	38.4	38.4	75	200
Copper(mg/L)	<0.03	0.1	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.1	<0.02	0.1	0.3
Sulphate(mg/L)	19	10	30	200	400
Nitrate(mg/L)	5.32	4.87	4.76	45	No relaxation
Fluoride(mg/L)	0.39	0.47	0.29	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	0.07	0.03	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	15	12	6.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	3.6	2	1.8	Shall not be detectable in any 100 ml sample	

Table: 113
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Chauliberna village well water	Chauliberna village well water	Chauliberna village well water	Chauliberna village well water		
Dt. of sampling	15.12.16	13.01.2017	16.02.2017	14.03.2017	Acceptable	Permissible
Colour(Hazen)	4	4	2	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	1	3	1	5
pH	6.99	6.94	7.06	6.7	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	12	20	12	24	200	600
Total Hardness(mg/L)	128	132	56	116	200	600
Iron(mg/L)	<0.06	<0.06	0.21	<0.06	0.3	No relaxation
Chloride(mg/L)	54	56	32	18	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	250	252	144	178	500	2000
Calcium(mg/L)	41.6	43.2	11.2	17.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.04	0.06	0.1	0.3
Sulphate(mg/L)	42	28	12	6	200	400
Nitrate(mg/L)	6.13	4.43	5.87	4.43	45	No relaxation
Fluoride(mg/L)	0.35	0.68	0.43	0.46	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.32	0.14	0.13	0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.13	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	11	6	2	4	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	1.8	<1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 114
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Treated water from IWSS	Treated water from IWSS	Treated water from IWSS		
Dt. of sampling	14.06.16	08.07.16	12.08.16	Acceptable	Permissible
Colour(Hazen)	3	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	4	1	5
pH	7.55	7.15	7.21	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	80	20	200	600
Total Hardness(mg/L)	64	88	32	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	16	24	22	250	1000
Residual Free chlorine(mg/L)	0.08	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	138	176	78	500	2000
Calcium(mg/L)	14.4	19.2	8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.02	0.1	0.3
Sulphate(mg/L)	28	12	12	200	400
Nitrate(mg/L)	4.43	5.76	2.16	45	No relaxation
Fluoride(mg/L)	0.34	0.13	0.29	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	0.37	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	22	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	10	Shall not be detectable in any 100 ml sample	

Table: 115
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samleshwari OCP	Samleshwari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Treated water from IWSS	Treated water from IWSS	Treated water from IWSS		
Dt. of sampling	13.09.2016	12.10.16	12.11.16	Acceptable	Permissible
Colour(Hazen)	2	1	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	2	1	5
pH	6.71	6.99	7.45	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	16	12	200	600
Total Hardness(mg/L)	36	52	56	200	600
Iron(mg/L)	<0.06	0.07	<0.06	0.3	No relaxation
Chloride(mg/L)	16	12	14	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	80	92	92	500	2000
Calcium(mg/L)	11.2	16	14.4	75	200
Copper(mg/L)	<0.03	0.1	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.07	<0.02	0.1	0.3
Sulphate(mg/L)	7	14	8	200	400
Nitrate(mg/L)	2.22	1.28	3.99	45	No relaxation
Fluoride(mg/L)	0.42	0.47	0.52	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.17	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	15	12	8.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	10	2	1.8	Shall not be detectable in any 100 ml sample	

Table:116
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Treated water from IWSS	Treated water from IWSS	Treated water from IWSS	Treated water from IWSS		
Dt. of sampling	15.12.16	13.1.17	15.02.2017	14.03.2017	Acceptable	Permissible
Colour(Hazen)	2	2	2	6	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	7.86	8.19	6.68	7.31	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	12	16	16	20	200	600
Total Hardness(mg/L)	56	56	72	72	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	8	16	20	16	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	94	102	124	140	500	2000
Calcium(mg/L)	12.8	14.4	16	14.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.02	0.02	0.1	0.3
Sulphate(mg/L)	14	4	7	8	200	400
Nitrate(mg/L)	4.43	3.99	2.76	4.43	45	No relaxation
Fluoride(mg/L)	0.33	0.55	0.52	0.51	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.08	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	12	3.6	3.7	9.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	<1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 117
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Water from intake at IWSS	Water from intake (Raw water) at IWSS (half yearly)		
Dt. of sampling	13.09.2016	14-03-2017	Acceptable	Permissible
Colour(Hazen)	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	1	5
pH	6.85	7.24	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	16	200	600
Total Hardness(mg/L)	36	60	200	600
Iron(mg/L)	1.8	<0.06	0.3	No relaxation
Chloride(mg/L)	18	14	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	84	114	500	2000
Calcium(mg/L)	11.2	14.4	75	200
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.02	0.1	0.3
Sulphate(mg/L)	9	7	200	400
Nitrate(mg/L)	2.19	4.78	45	No relaxation
Fluoride(mg/L)	0.33	0.46	1	1.5
Selenium(mg/L)	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.15	1.03	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	15	8.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	6.1	1.8	Shall not be detectable in any 100 ml sample	

Table: 118
Drinking Water Quality Data
Area: IB Valley

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Chingriguda Village well water	Chingriguda Village well water	Chingriguda Village well water		
Dt. of sampling	13.06.16	14.07.16	12.08.16	Acceptable	Permissible
Colour(Hazen)	4	3	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	2	1	5
pH	6.55	6.99	7.22	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	148	88	96	200	600
Total Hardness(mg/L)	120	160	188	200	600
Iron(mg/L)	<0.06	0.14	<0.06	0.3	No relaxation
Chloride(mg/L)	48	70	44	250	1000
Residual Free chlorine(mg/L)	0.06	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	253	358	338	500	2000
Calcium(mg/L)	17.6	38.4	59.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.05	0.1	0.3
Sulphate(mg/L)	46	28	28	200	400
Nitrate(mg/L)	5.37	5.87	4.87	45	No relaxation
Fluoride(mg/L)	0.35	0.12	0.17	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	0.25	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	15	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	6.1	Shall not be detectable in any 100 ml sample	

Table: 119
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Chingriguda Village well water	Chingriguda Village well water	Chingriguda Village well water		
Dt. of sampling	13.09.2016	12.10.16	12.11.16	Acceptable	Permissible
Colour(Hazen)	3	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	3	1	5
pH	6.82	6.81	7.89	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	96	20	24	200	600
Total Hardness(mg/L)	184	204	204	200	600
Iron(mg/L)	<0.06	0.09	<0.06	0.3	No relaxation
Chloride(mg/L)	48	52	56	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	362	326	318	500	2000
Calcium(mg/L)	59.2	64	62.4	75	200
Copper(mg/L)	<0.03	0.11	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.1	<0.02	0.1	0.3
Sulphate(mg/L)	16	38	18	200	400
Nitrate(mg/L)	4.76	3.99	7.18	45	No relaxation
Fluoride(mg/L)	0.51	0.73	0.37	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	10	12	6.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	3.6	2	<1.8	Shall not be detectable in any 100 ml sample	

Table: 120
Drinking Water Quality Data
Area: IB Valley

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Chingriguda Village well water	Chingriguda Village well water	Chingriguda Village well water	Chingriguda Village well water		
Dt. of sampling	16.12.16	12.1.17	16.02.2017	14-03-2017	Acceptable	Permissible
Colour(Hazen)	3	3	2	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	1	6	1	5
pH	8.4	6.77	7.38	6.95	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	20	28	24	24	200	600
Total Hardness(mg/L)	200	208	216	240	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	60	60	70	68	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	330	338	374	388	500	2000
Calcium(mg/L)	59.2	72	72	75.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.02	0.1	0.3
Sulphate(mg/L)	24	10	16	20	200	400
Nitrate(mg/L)	7.76	5.37	4.87	5.23	45	No relaxation
Fluoride(mg/L)	2.37	0.41	0.49	0.38	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.06	0.14	0.3	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.09	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	12	5.6	3.6	10	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 121
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Kudopali village well water	Kudopali village well water	Kudopali village well water		
Dt. of sampling	13.06.16	14.07.16	12.08.16	Acceptable	Permissible
Colour(Hazen)	3	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	3	3	1	5
pH	6.8	7.28	7.01	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	80	36	24	200	600
Total Hardness(mg/L)	76	32	36	200	600
Iron(mg/L)	0.27	0.14	<0.06	0.3	No relaxation
Chloride(mg/L)	52	28	18	250	1000
Residual Free chlorine(mg/L)	0.12	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	256	118	90	500	2000
Calcium(mg/L)	19.2	8	11.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.04	<0.02	0.1	0.3
Sulphate(mg/L)	56	10	20	200	400
Nitrate(mg/L)	5.76	4.33	2.16	45	No relaxation
Fluoride(mg/L)	0.1	0.04	0.13	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.03	0.19	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	15	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	6.1	Shall not be detectable in any 100 ml sample	

Table: 122
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samleshwari OCP	Samaleswari	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Kudopali village well water	Kudopali village well water	Kudopali village well water		
Dt. of sampling	13.09.2016	12.10.16	12.11.16	Acceptable	Permissible
Colour(Hazen)	2	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	1	1	5
pH	7.01	6.92	6.58	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	20	16	200	600
Total Hardness(mg/L)	24	108	24	200	600
Iron(mg/L)	<0.06	0.11	<0.06	0.3	No relaxation
Chloride(mg/L)	30	32	12	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	86	244	48	500	2000
Calcium(mg/L)	6.4	32	4.8	75	200
Copper(mg/L)	<0.03	0.11	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.1	<0.02	0.1	0.3
Sulphate(mg/L)	8	66	4	200	400
Nitrate(mg/L)	2.2	3.1	1.08	45	No relaxation
Fluoride(mg/L)	0.2	0.8	0.47	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.04	0.04	0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	10	12	5.6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	3.7	4	1.8	Shall not be detectable in any 100 ml sample	

Table: 123
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Kudopali village well water	Kudopali village well water	Kudopali village well water	Kudopali village well water		
Dt. of sampling	16.12.16	12.1.17	16.02.2017	14.03.2017	Acceptable	Permissible
Colour(Hazen)	1	2	4	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	2	3	1	5
pH	8.15	6.63	7.58	6.92	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	12	12	8	8	200	600
Total Hardness(mg/L)	24	28	28	28	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	12	12	12	22	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	52	62	62	80	500	2000
Calcium(mg/L)	6.4	4.8	8	6.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.02	0.1	0.3
Sulphate(mg/L)	8	3	4	6	200	400
Nitrate(mg/L)	1.76	3.99	1.08	1.78	45	No relaxation
Fluoride(mg/L)	0.29	0.2	0.67	0.4	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.02	0.13	0.11	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.06	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	12	2	2	10	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 124
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Lajkura village well water	Lajkura village well water	Lajkura village well water		
Dt. of sampling	13.06.16	14.07.16	12.08.16	Acceptable	Permissible
Colour(Hazen)	4	5	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	4	1	5
pH	6.95	6.73	6.68	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	100	68	32	200	600
Total Hardness(mg/L)	496	84	56	200	600
Iron(mg/L)	0.08	0.43	<0.06	0.3	No relaxation
Chloride(mg/L)	44	22	30	250	1000
Residual Free chlorine(mg/L)	0.14	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	746	194	110	500	2000
Calcium(mg/L)	131.2	6.4	16	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.02	0.03	0.1	0.3
Sulphate(mg/L)	68	21	8	200	400
Nitrate(mg/L)	9.75	5.37	2.38	45	No relaxation
Fluoride(mg/L)	0.12	0.08	0.16	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.03	0.38	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	10	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	4	Shall not be detectable in any 100 ml sample	

Table: 125
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samleshwari OCP	Samaleswari	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Lajkura village well water	Lajkura village well water	Lajkura village well water		
Dt. of sampling	13.09.2016	12.10.16	12.11.16	Acceptable	Permissible
Colour(Hazen)	4	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	5	1	5
pH	6.92	6.7	7.7	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	104	24	28	200	600
Total Hardness(mg/L)	348	40	524	200	600
Iron(mg/L)	<0.06	0.13	<0.06	0.3	No relaxation
Chloride(mg/L)	62	28	66	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	648	108	776	500	2000
Calcium(mg/L)	102.4	9.6	145.6	75	200
Copper(mg/L)	<0.03	0.1	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.1	<0.02	0.1	0.3
Sulphate(mg/L)	12	22	128	200	400
Nitrate(mg/L)	8.76	2.48	7.76	45	No relaxation
Fluoride(mg/L)	0.46	0.73	0.38	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	6.9	12	5.5	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	1.8	3.6	3.6	Shall not be detectable in any 100 ml sample	

Table: 126
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Lajkura village well water	Lajkura village well water	Lajkura village well water	Lajkura village well water		
Dt. of sampling	16.12.16	12.1.17	16.02.2017	14-03-2017	Acceptable	Permissible
Colour(Hazen)	4	5	2	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	4	1	4	1	5
pH	7.27	6.93	6.89	6.8	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	24	36	12	20	200	600
Total Hardness(mg/L)	656	680	696	32	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	62	48	42	18	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	910	1156	964	102	500	2000
Calcium(mg/L)	176	188.8	192	4.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.227	0.24	0.05	0.02	0.1	0.3
Sulphate(mg/L)	148	298	188	9	200	400
Nitrate(mg/L)	8.78	14.78	4.28	2.92	45	No relaxation
Fluoride(mg/L)	0.35	0.27	0.33	0.47	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.496	0.14	0.14	0.76	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.09	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	10	4	2	9.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	<1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 126
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Anapali village well water	Anapali village well water	Anapali village well water		
Dt. of sampling	13.06.16	14.07.16	12.08.16	Acceptable	Permissible
Colour(Hazen)	3	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	2	1	5
pH	7.2	6.6	7.13	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	48	136	200	600
Total Hardness(mg/L)	144	32	160	200	600
Iron(mg/L)	0.11	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	5.2	34	24	250	1000
Residual Free chlorine(mg/L)	0.11	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	575	128	248	500	2000
Calcium(mg/L)	40	8	32	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.05	<0.02	0.1	0.3
Sulphate(mg/L)	58	10	14	200	400
Nitrate(mg/L)	5.76	4.87	4.76	45	No relaxation
Fluoride(mg/L)	0.34	0.05	0.13	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	1.72	0.11	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	10	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	3.7	Shall not be detectable in any 100 ml sample	

Table: 127
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samleshwari OCP	Samaleswari	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Anapali village well water	Anapali village well water	Anapali village well water		
Dt. of sampling	13.09.2016	12.10.16	12.11.16	Acceptable	Permissible
Colour(Hazen)	1	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	2	1	5
pH	6.65	6.73	6.68	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	20	12	200	600
Total Hardness(mg/L)	124	112	24	200	600
Iron(mg/L)	<0.06	0.1	<0.06	0.3	No relaxation
Chloride(mg/L)	52	66	12	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	254	250	46	500	2000
Calcium(mg/L)	30.4	30.4	4.8	75	200
Copper(mg/L)	<0.03	0.11	<0.03	0.05	1.5
Manganese(mg/L)	0.06	0.1	<0.02	0.1	0.3
Sulphate(mg/L)	10	48	6	200	400
Nitrate(mg/L)	4.87	4.87	1.02	45	No relaxation
Fluoride(mg/L)	0.39	0.28	0.74	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	0.01	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.21	0.03	0.54	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	6.9	10	6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	1.8	3.6	1.8	Shall not be detectable in any 100 ml sample	

Table: 128
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Anapali village well water	Anapali village well water	Anapali village well water	Anapali village well water		
Dt. of sampling	16.12.16	12.1.17	16.02.2017	14-03-2017	Acceptable	Permissible
Colour(Hazen)	1	2	6	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	3	3	1	5
pH	7.5	6.97	7.02	6.73	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	8	16	12	16	200	600
Total Hardness(mg/L)	44	52	156	60	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	28	20	62	26	250	1000
Residual Free chlorine(mg/L)	<1.6	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	90	98	292	138	500	2000
Calcium(mg/L)	12.8	12.8	46.4	11.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.03	<0.02	0.03	<0.02	0.1	0.3
Sulphate(mg/L)	10	10	36	8	200	400
Nitrate(mg/L)	1.16	4.43	3.99	2.87	45	No relaxation
Fluoride(mg/L)	0.73	0.35	0.29	0.53	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	0.03	0.13	0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.17	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	11	2	1.8	10	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	2	1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 129
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Samleswari Colony tap water	Samleswari Colony tap water	Samleswari Colony tap water		
Dt. of sampling	13.06.16	14.07.16	12.08.16	Acceptable	Permissible
Colour(Hazen)	4	5	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	3	1	5
pH	7.4	6.88	7.49	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	152	92	96	200	600
Total Hardness(mg/L)	92	88	88	200	600
Iron(mg/L)	0.17	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	28	28	30	250	1000
Residual Free chlorine(mg/L)	<0.04	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	256	204	196	500	2000
Calcium(mg/L)	20.8	16	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	48	16	12	200	400
Nitrate(mg/L)	4.33	3.99	4.33	45	No relaxation
Fluoride(mg/L)	0.21	0.11	0.17	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.06	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	6.9	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	1.8	Shall not be detectable in any 100 ml sample	

Table: 130
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samleshwari OCP	Samaleswari	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Samleswari Colony tap water	Samleswari Colony tap water	Samleswari Colony tap water		
Dt. of sampling	13.09.2016	12.10.16	12.11.16	Acceptable	Permissible
Colour(Hazen)	1	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	1	1	5
pH	6.75	6.84	7.52	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	20	16	200	600
Total Hardness(mg/L)	68	108	52	200	600
Iron(mg/L)	<0.06	0.08	<0.06	0.3	No relaxation
Chloride(mg/L)	24	44	14	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	140	244	96	500	2000
Calcium(mg/L)	19.2	30.4	16	75	200
Copper(mg/L)	<0.03	0.1	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.1	<0.02	0.1	0.3
Sulphate(mg/L)	8	60	10	200	400
Nitrate(mg/L)	3.99	4.43	3.99	45	No relaxation
Fluoride(mg/L)	0.38	0.4	0.63	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.11	0.03	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	22	10	5.5	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	8.1	<1.8	2	Shall not be detectable in any 100 ml sample	

Table: 131
Drinking Water Quality Data
Area: **IB Valley**

Project / OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Samleswari Colony tap water	Samleswari Colony tap water	Samleswari Colony tap water	Samleswari Colony tap water		
Dt. of sampling	16.12.16	12.1.17	15.02.2017	14-03-2017	Acceptable	Permissible
Colour(Hazen)	2	3	2	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	7.32	7.25	7.15	6.64	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	8	32	12	32	200	600
Total Hardness(mg/L)	84	72	92	104	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	12	12	22	16	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	120	126	168	198	500	2000
Calcium(mg/L)	20.8	19.2	20.8	20.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.02	<0.02	0.1	0.3
Sulphate(mg/L)	14	21	32	18	200	400
Nitrate(mg/L)	3.99	4.76	4.76	4.43	45	No relaxation
Fluoride(mg/L)	0.78	0.32	0.53	0.62	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.05	<0.02	0.06	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.15	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	10	6	4	9.2	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	2	1.8	1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 132
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Belpahar Colony tap water	Belpahar Colony tap water	Belpahar Colony tap water		
Dt. of sampling	14.06.16	15.07.16	13.08.16	Acceptable	Permissible
Colour(Hazen)	2	1	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	3	1	5
pH	7.45	7.05	6.88	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	88	48	200	600
Total Hardness(mg/L)	84	92	68	200	600
Iron(mg/L)	0.09	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	20	20	20	250	1000
Residual Free chlorine(mg/L)	<0.04	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	160	194	124	500	2000
Calcium(mg/L)	19.2	19.2	24	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.09	0.1	0.3
Sulphate(mg/L)	16	16	16	200	400
Nitrate(mg/L)	3.99	4.43	4.43	45	No relaxation
Fluoride(mg/L)	0.21	0.23	0.25	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	0.003	No relaxation
Zinc(mg/L)	0.03	<0.02	0.03	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	12	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	4	Shall not be detectable in any 100 ml sample	

Table: 133
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Belphar Colony tap water	Belphar Colony tap water	Belphar Colony tap water		
Dt. of sampling	15.09.2016	14.10.16	14.11.16	Acceptable	Permissible
Colour(Hazen)	2	1	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	2	1	5
pH	7.03	7.04	6.84	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	96	12	16	200	600
Total Hardness(mg/L)	52	60	64	200	600
Iron(mg/L)	<0.06	0.07	<0.06	0.3	No relaxation
Chloride(mg/L)	16	18	12	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	116	94	102	500	2000
Calcium(mg/L)	17.6	16	17.6	75	200
Copper(mg/L)	<0.03	0.09	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.04	<0.02	0.1	0.3
Sulphate(mg/L)	13	8	8	200	400
Nitrate(mg/L)	3.99	1.12	4.76	45	No relaxation
Fluoride(mg/L)	0.38	0.74	0.43	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.005	<0.005	<0.005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.07	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	10	12	5.6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	3.6	6.1	2	Shall not be detectable in any 100 ml sample	

Table: 134
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Belpahar Colony tap water	Belpahar Colony tap water	Belpahar Colony tap water	Belpahar Colony tap water		
Dt. of sampling	15.12.16	13.1.17	16.02. 17	15.03. 17	Acceptable	Permissible
Colour(Hazen)	3	1	6	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	4	2	1	5
pH	7.62	7.12	7.37	7.58	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	8	16	24	28	200	600
Total Hardness(mg/L)	64	68	80	76	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	12	14	12	14	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	104	106	130	158	500	2000
Calcium(mg/L)	17.6	19.2	22.4	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.04	0.1	0.3
Sulphate(mg/L)	8	6	7	7	200	400
Nitrate(mg/L)	4.43	2.98	4.87	4.47	45	No relaxation
Fluoride(mg/L)	0.44	0.7	0.37	0.48	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.005	<0.005	<0.005	<0.005	0.003	No relaxation
Zinc(mg/L)	0.125	<0.02	0.1	0.05	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.23	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	6.1	3.7	3.7	8.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	3.6	<1.8	1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 135
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	CHP tap water	CHP Tap water	CHP tap water	CHP Tap Water	CHP Tap Water		
Dt. of sampling	15.07.16	15.09.16	14.11.16	13.1.17	15.03.17	Acceptable	Permissible
Colour(Hazen)	3	1	2	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	2	1	2	1	1	5
pH	7.07	6.65	7.05	7.54	7.62	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	16	96	16	12	16	200	600
Total Hardness(mg/L)	92	60	64	72	76	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	16	18	14	16	8	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	148	132	100	108	140	500	2000
Calcium(mg/L)	16	17.6	17.6	20.8	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.04	0.1	0.3
Sulphate(mg/L)	10	13	10	7	8	200	400
Nitrate(mg/L)	4.87	4.37	3.99	3.07	3.99	45	No relaxation
Fluoride(mg/L)	0.19	0.41	0.5	0.54	0.33	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	<0.02	0.05	0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	6.9	8.1	3.6	4	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	1.8	1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 136
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Intake water of IWSS (half yearly)	Intake water of IWSS (half yearly)		
Dt. of sampling	15.09.16	15.09.16	Acceptable	Permissible
Colour(Hazen)	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	1	1	5
pH	6.74	7.48	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	20	200	600
Total Hardness(mg/L)	64	84	200	600
Iron(mg/L)	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	22	22	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	124	156	500	2000
Calcium(mg/L)	19.2	20.8	75	200
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.03	0.1	0.3
Sulphate(mg/L)	12	8	200	400
Nitrate(mg/L)	3.99	4.43	45	No relaxation
Fluoride(mg/L)	0.53	0.27	1	1.5
Selenium(mg/L)	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.08	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	10	6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	3.6	<1.8	Shall not be detectable in any 100 ml sample	

Table: 137
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Excavation workshop tap water	Excavation workshop tap water	Excavation workshop tap water	Excavation workshop tap water	Excavation workshop Tap water		
Dt. of sampling	14.06.16	13.08.16	14.10.16	15.12.16	16.02.17	Acceptable	Permissible
Colour(Hazen)	5	2	1	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	1	2	2	1	5
pH	7.77	7.5	6.98	7.58	7.49	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	44	16	12	20	200	600
Total Hardness(mg/L)	80	64	60	68	84	200	600
Iron(mg/L)	0.01	<0.06	0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	12	14	16	12	16	250	1000
Residual Free chlorine(mg/L)	0.11	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	156	120	98	104	122	500	2000
Calcium(mg/L)	19.2	24	17.6	17.6	22.4	75	200
Copper(mg/L)	<0.03	<0.03	0.09	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.04	<0.02	0.05	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	20	18	10	10	6	200	400
Nitrate(mg/L)	3.99	3.99	1.23	2.99	4.43	45	No relaxation
Fluoride(mg/L)	0.18	0.19	0.43	0.73	0.36	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.15	0.07	0.259	0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.2	<0.20	0.35	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	22	12	8.1	1.8	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	8.2	6	<1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 137
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Darlipali village well water	Darlipali village well water	Darlipali village well water		
Dt. of sampling	14.06.16	15.07.16	13.08.16	Acceptable	Permissible
Colour(Hazen)	3	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	2	1	5
pH	7.42	6.98	7.04	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	152	36	148	200	600
Total Hardness(mg/L)	52	64	68	200	600
Iron(mg/L)	0.06	0.09	<0.06	0.3	No relaxation
Chloride(mg/L)	28	18	22	250	1000
Residual Free chlorine(mg/L)	0.09	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	268	154	214	500	2000
Calcium(mg/L)	14.4	17.6	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.2	0.09	0.1	0.3
Sulphate(mg/L)	68	14	14	200	400
Nitrate(mg/L)	5.76	4.43	5.32	45	No relaxation
Fluoride(mg/L)	0.07	0.13	0.38	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	1.23	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	22	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	8.2	Shall not be detectable in any 100 ml sample	

Table: 138
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Darlipali village well water	Darlipali village well water	Darlipali village well water		
Dt. of sampling	15.09.16	14.10.16	14.11.16	Acceptable	Permissible
Colour(Hazen)	3	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	3	1	5
pH	7.15	6.91	7.26	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	136	20	20	200	600
Total Hardness(mg/L)	140	204	252	200	600
Iron(mg/L)	<0.06	0.07	<0.06	0.3	No relaxation
Chloride(mg/L)	24	50	84	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	294	398	496	500	2000
Calcium(mg/L)	41.6	52.8	62.4	75	200
Copper(mg/L)	<0.03	0.1	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.05	<0.02	0.1	0.3
Sulphate(mg/L)	22	88	98	200	400
Nitrate(mg/L)	5.76	6.56	6.78	45	No relaxation
Fluoride(mg/L)	0.58	0.57	0.24	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	0.49	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	10	10	6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	3.6	3.7	1.8	Shall not be detectable in any 100 ml sample	

Table: 139
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Darlipali village well water	Darlipali village well water	Darlipali village well water	Darlipali village well water		
Dt. of sampling	15.12.16	13.1.17	16.02.17	15.03.17	Acceptable	Permissible
Colour(Hazen)	4	3	2	8	5	15
Odour	unobjection	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	2	6	1	5
pH	7.88	7.07	7.59	7.42	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	28	28	20	24	200	600
Total Hardness(mg/L)	240	232	224	84	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	76	64	58	18	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	510	478	432	172	500	2000
Calcium(mg/L)	59.2	59.2	52.8	20.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.06	0.1	0.3
Sulphate(mg/L)	128	86	86	8	200	400
Nitrate(mg/L)	8.47	7.13	6.76	5.76	45	No relaxation
Fluoride(mg/L)	0.57	0.44	0.52	0.34	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	0.007	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.04	0.02	0.07	0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.08	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	17	3.6	3.6	6.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	3.6	1.8	1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 140
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Belpahar Integrated township Mausii maa mandir outlet	Belpahar Integrated township-Mausii Maa Mandir	Belpahar Integrated township Mausii maa mandir outlet	Belpahar Integrated township Mausii maa mandir outlet	Belpahar Integrated township Mausii maa mandir outlet		
Dt. of sampling	14.06.16	13.08.16	14.10.16	15.12.16	16.02.17	Acceptable	Permissible
Colour(Hazen)	2	5	1	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	4	2	2	1	1	5
pH	7.49	6.82	6.84	7.85	7.26	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	80	44	16	20	16	200	600
Total Hardness(mg/L)	76	60	60	68	76	200	600
Iron(mg/L)	0.04	<0.06	0.08	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	58	16	14	10	12	250	1000
Residual Free chlorine(mg/L)	0.11	<1.0	0.1	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	178	116	90	108	124	500	2000
Calcium(mg/L)	20.8	19.2	16	17.6	22.4	75	200
Copper(mg/L)	<0.03	<0.03	0.09	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.04	<0.02	0.05	0.11	<0.02	0.1	0.3
Sulphate(mg/L)	20	18	8	14	8	200	400
Nitrate(mg/L)	4.43	4.43	1.08	4.43	4.76	45	No relaxation
Fluoride(mg/L)	0.09	0.36	0.57	0.68	0.41	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	0.02	0.06	0.29	0.04	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.2	<0.20	0.04	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	22	12	14	3.7	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	9.2	4	1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 141
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Belpahar Integrated township-Indradhanush club outlet	Belpahar Integrated township-Indranush club outlet	Belpahar Integrated township-Indradhanush club outlet	Belpahar Integrated township-Indradhanush Club outlet	Belpahar Integrated Township-Indradhanush club outlet		
Dt. of sampling	15.07.16	15.09.2016	14.11.16	10.1.17	15-03-2017	Acceptable	Permissible
Colour(Hazen)	2	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	2	3	1	1	5
pH	7.15	6.81	7.82	7.69	7.04	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	16	44	16	16	48	200	600
Total Hardness(mg/L)	88	60	60	72	276	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	22	16	16	14	88	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	168	120	100	114	514	500	2000
Calcium(mg/L)	20.8	17.6	19.2	22.4	67.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.03	0.1	0.3
Sulphate(mg/L)	10	12	12	7	74	200	400
Nitrate(mg/L)	5.37	3.99	3.99	3.99	9.27	45	No relaxation
Fluoride(mg/L)	0.49	0.54	0.38	0.63	0.64	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	<0.02	<0.02	0.09	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	12	6.1	3.6	8.2	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	4	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 142
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Ubuda village tubewell	Ubuda village tubewell	Ubuda village tubewell		
Dt. of sampling	14.06.16	15.07.16	13.08.16	Acceptable	Permissible
Colour(Hazen)	7	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	2	3	1	5
pH	4.87	4.04	4.38	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	24	20	24	200	600
Total Hardness(mg/L)	64	64	72	200	600
Iron(mg/L)	0.14	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	42	22	26	250	1000
Residual Free chlorine(mg/L)	0.06	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	278	288	258	500	2000
Calcium(mg/L)	12.8	19.2	20.8	75	200
Copper(mg/L)	<0.03	0.13	<0.03	0.05	1.5
Manganese(mg/L)	0.2	0.43	<0.02	0.1	0.3
Sulphate(mg/L)	68	48	54	200	400
Nitrate(mg/L)	5.32	5.87	5.37	45	No relaxation
Fluoride(mg/L)	0.19	0.14	0.25	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.99	0.4	0.12	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	10	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	4	Shall not be detectable in any 100 ml sample	

Table: 143
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Ubuda village tubewell	Ubuda village tubewell	Ubuda village tubewell		
Dt. of sampling	15.09.2016	13.10.16	14.11.16	Acceptable	Permissible
Colour(Hazen)	4	5	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	5	5	1	5
pH	4.58	4.42	4.9	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	28	12	200	600
Total Hardness(mg/L)	84	44	60	200	600
Iron(mg/L)	<0.06	0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	56	40	56	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	270	176	170	500	2000
Calcium(mg/L)	19.8	8	9.6	75	200
Copper(mg/L)	<0.03	0.07	0.06	0.05	1.5
Manganese(mg/L)	<0.02	0.94	0.22	0.1	0.3
Sulphate(mg/L)	38	54	24	200	400
Nitrate(mg/L)	5.76	4.43	5.87	45	No relaxation
Fluoride(mg/L)	0.57	0.45	0.43	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.17	3.73	0.9	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	15	12	8.2	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	3.6	6.1	1.8	Shall not be detectable in any 100 ml sample	

Table: 144
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Ubuda village tubewell	Ubuda village tubewell	Ubuda village tubewell	Ubuda village tubewell		
Dt. of sampling	15.12.16	13.1.17	16.02. 17	15.03.17	Acceptable	Permissible
Colour(Hazen)	5	4	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	2	1	1	5
pH	5.22	4.84	6.98	6.64	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	16	16	20	32	200	600
Total Hardness(mg/L)	48	52	180	60	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	42	44	24	48	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	166	168	262	174	500	2000
Calcium(mg/L)	9.6	9.6	36.8	12.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.04	0.08	0.28	0.27	0.1	0.3
Sulphate(mg/L)	38	10	10	13	200	400
Nitrate(mg/L)	6.47	4.76	6.13	5.76	45	No relaxation
Fluoride(mg/L)	0.46	0.33	0.41	0.26	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.787	0.1	0.89	0.25	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.08	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	11	1.8	3.6	6.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 145
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	khairkuni village tubewell	khairkuni village tubewell	khairkuni village tubewell		
Dt. of sampling	14.06.16	15.07.16	13.08.16	Acceptable	Permissible
Colour(Hazen)	2	1	2	5	15
Odour	Agreeable	Agreeable	unobjection	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	4	1	5
pH	7.55	6.81	7.34	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	80	180	176	200	600
Total Hardness(mg/L)	92	244	184	200	600
Iron(mg/L)	0.09	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	66	48	38	250	1000
Residual Free chlorine(mg/L)	0.06	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	264	424	328	500	2000
Calcium(mg/L)	24	17.6	27.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.18	<0.02	0.1	0.3
Sulphate(mg/L)	34	18	10	200	400
Nitrate(mg/L)	4.43	5.76	5.37	45	No relaxation
Fluoride(mg/L)	0.13	0.05	0.2	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.001	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.4	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.0005	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	15	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	6.1	Shall not be detectable in any 100 ml sample	

Table: 146
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	khairkuni village tubewell	khairkuni village tubewell	khairkuni village tubewell		
Dt. of sampling	15.09.2016	13.10.16	14.11.16	Acceptable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	2	1	5
pH	6.84	7.24	6.63	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	172	32	16	200	600
Total Hardness(mg/L)	148	64	44	200	600
Iron(mg/L)	<0.06	0.07	<0.06	0.3	No relaxation
Chloride(mg/L)	36	34	22	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	298	198	92	500	2000
Calcium(mg/L)	22.4	19.2	11.2	75	200
Copper(mg/L)	<0.03	0.07	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.09	<0.02	0.1	0.3
Sulphate(mg/L)	14	38	6	200	400
Nitrate(mg/L)	5.32	5.76	3.99	45	No relaxation
Fluoride(mg/L)	0.51	0.63	0.6	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	0.1	2.1	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	15	12	6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	3.7	6	1.8	Shall not be detectable in any 100 ml sample	

Table: 147
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	khairkuni village tubewell	khairkuni village tubewell	khairkuni village tubewell	khairkuni village tubewell		
Dt. of sampling	15.12.16	13.1.17	16.02.2017	15-03-2017	Acceptable	Permissible
Colour(Hazen)	2	2	4	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	3	1	1	5
pH	6.54	6.85	6.97	7.31	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	8	24	12	24	200	600
Total Hardness(mg/L)	64	64	80	64	200	600
Iron(mg/L)	0.2	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	28	24	30	22	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	124	110	140	138	500	2000
Calcium(mg/L)	17.6	17.6	20.8	16	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.305	0.14	0.5	0.42	0.1	0.3
Sulphate(mg/L)	16	4	8	6	200	400
Nitrate(mg/L)	4.87	3.68	4.13	2.87	45	No relaxation
Fluoride(mg/L)	0.58	0.4	0.51	0.51	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.432	0.13	0.3	0.17	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.07	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	8.2	3.7	4	8.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	1.8	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 148
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Bandbahal tap water	Bandbahal tap water	Bandbahal tap water	Bandbahal tap water	Bandbahal Tap Water		
Dt. of sampling	14.06.16	13.08.16	13.10.16	15.12.16	16.02.17	Acceptable	Permissible
Colour(Hazen)	3	4	1	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	2	2	1	1	5
pH	7.36	7.07	7.17	7.15	7.19	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	76	40	12	16	16	200	600
Total Hardness(mg/L)	88	60	56	76	72	200	600
Iron(mg/L)	0.11	<0.06	0.07	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	18	20	10	10	20	250	1000
Residual Free chlorine(mg/L)	0.08	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	158	118	92	102	124	500	2000
Calcium(mg/L)	20.8	19.2	16	19.2	22.4	75	200
Copper(mg/L)	<0.03	<0.03	0.09	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.04	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	16	19	12	6	9	200	400
Nitrate(mg/L)	3.99	3.99	1.2	3.99	2.74	45	No relaxation
Fluoride(mg/L)	0.16	0.15	0.33	0.31	0.62	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	0.13	0.285	0.03	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.2	<0.20	0.05	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	15	12	8.3	3.6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	6.1	6	1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 149
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur	Lakhanpur OCP	Lakhanpur OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	LKP canteen tap water	LKP canteen tap water	LKP canteen tap water	LKP Canteen Tap Water	LKP Canteen Tap Water		
Dt. of sampling	15.07.16	15.09.16	14.11.16	13.1.17	15.03.17	Acceptable	Permissible
Colour(Hazen)	2	1	2	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	1	2	1	1	5
pH	7.16	6.94	7.44	7.08	7.67	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	52	20	16	12	200	600
Total Hardness(mg/L)	88	64	60	72	80	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	22	14	12	12	16	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	186	122	108	118	130	500	2000
Calcium(mg/L)	20.8	17.6	19.2	22.4	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.04	0.02	0.1	0.3
Sulphate(mg/L)	10	13	18	8	7	200	400
Nitrate(mg/L)	5.37	3.99	4.43	3.99	3.99	45	No relaxation
Fluoride(mg/L)	0.29	0.29	0.31	0.51	0.42	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.05	0.04	0.1	0.09	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	10	6	5.5	8.2	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	3.6	2	1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 150
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Liliari OCP	Liliari OCP	Lilari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Acceptable	Permissible
Dt. of sampling	14.06.16	15.07.16	13.08.16		
Colour(Hazen)	3	2	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	3	1	5
pH	7.47	7.15	7.32	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	172	112	136	200	600
Total Hardness(mg/L)	136	92	108	200	600
Iron(mg/L)	0.12	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	18	62	18	250	1000
Residual Free chlorine(mg/L)	0.08	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	304	254	212	500	2000
Calcium(mg/L)	25.6	17.6	20.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.25	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	46	10	12	200	400
Nitrate(mg/L)	5.76	4.33	4.87	45	No relaxation
Fluoride(mg/L)	0.68	0.31	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.21	<0.02	<0.02	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	15	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	6.1	Shall not be detectable in any 100 ml sample	

Table: 151
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Liliari OCP	Lilari OCP	Liliari	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water		
Dt. of sampling	14.09.16	13.10.16	14.11.16	Acceptable	Permissible
Colour(Hazen)	1	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	1	1	5
pH	7.1	6.79	7.05	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	12	12	200	600
Total Hardness(mg/L)	28	144	40	200	600
Iron(mg/L)	<0.06	0.09	0.06	0.3	No relaxation
Chloride(mg/L)	12	16	18	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	64	232	70	500	2000
Calcium(mg/L)	8	24	8	75	200
Copper(mg/L)	0.08	0.1	<0.03	0.05	1.5
Manganese(mg/L)	0.17	0.09	<0.02	0.1	0.3
Sulphate(mg/L)	4	56	4	200	400
Nitrate(mg/L)	1.51	4.43	1.54	45	No relaxation
Fluoride(mg/L)	0.44	0.52	0.34	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.48	0.03	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	10	10	3.6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	1.8	1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 152
Drinking Water Quality Data
Area: Lakhanpur

Project / OCP	Liliari OCP	Liliari OCP	Liliari OCP	Liliari OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water		
Dt. of sampling	15.12.16	13.1.17	16.02.17	15.03.17	Acceptable	Permissible
Colour(Hazen)	1	1	2	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	1	4	1	5
pH	6.95	7.02	7.15	6.79	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	8	16	20	24	200	600
Total Hardness(mg/L)	52	72	100	120	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	26	22	26	24	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	96	128	170	184	500	2000
Calcium(mg/L)	11.2	17.6	22.4	25.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.11	0.1	0.3
Sulphate(mg/L)	8	12	12	9	200	400
Nitrate(mg/L)	3.99	3.76	4.43	4.87	45	No relaxation
Fluoride(mg/L)	0.26	0.52	0.39	0.3	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.228	0.05	0.04	0.12	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.22	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	11	3.7	5.5	4.5	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	<1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 153
Drinking Water Quality Data
Area: Basundhara

Project / OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Basundhara colony tap water	Basundhara colony tap water	Basundhara colony tap water		
Dt. of sampling	02.06.16	06.07.16	06.08.16	Acceptable	Permissible
Colour(Hazen)	2	5	4	5	15
Odour	Agreeable	Agreeable	unobjection	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	4	2	1	5
pH	7.86	6.7	7.24	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	32	32	200	600
Total Hardness(mg/L)	148	136	112	200	600
Iron(mg/L)	0.12	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	24	12	14	250	1000
Residual Free chlorine(mg/L)	<0.04	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	292	244	198	500	2000
Calcium(mg/L)	32	22.4	27.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	62	46	54	200	400
Nitrate(mg/L)	5.37	3.99	4.43	45	No relaxation
Fluoride(mg/L)	0.26	0.16	0.27	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.03	0.05	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	22	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	9.3	Shall not be detectable in any 100 ml sample	

Table: 154
Drinking Water Quality Data
Area: Basundhara

Project / OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Basundhra colony tap water	Basundhra colony tap water	Basundhra colony tap water		
Dt. of sampling	07.09.2016	04.10.16	05.11.16	Acceptable	Permissible
Colour(Hazen)	3	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	2	1	5
pH	6.73	6.71	7.28	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	52	12	12	200	600
Total Hardness(mg/L)	96	64	100	200	600
Iron(mg/L)	<0.06	0.12	<0.06	0.3	No relaxation
Chloride(mg/L)	10	16	10	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	170	94	162	500	2000
Calcium(mg/L)	22.4	19.2	22.4	75	200
Copper(mg/L)	<0.03	0.1	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.07	<0.02	0.1	0.3
Sulphate(mg/L)	32	8	42	200	400
Nitrate(mg/L)	4.87	1.58	4.43	45	No relaxation
Fluoride(mg/L)	0.41	0.87	0.56	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.12	0.55	0.09	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	6.9	22	8.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	1.8	8.2	2	Shall not be detectable in any 100 ml sample	

Table: 155
Drinking Water Quality Data
Area: **Basundhara**

Project / OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Basundhara colony tap water	Basundhara colony tap water	Basundhara colony tap water	Basundhara colony tap water		
Dt. of sampling	13.12.16	10.1.17	09.02.2017	07-03-2017	Acceptable	Permissible
Colour(Hazen)	2	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	1	1	1	5
pH	7.27	7.13	7.25	7.01	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	16	16	24	20	200	600
Total Hardness(mg/L)	132	124	132	140	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	14	12	16	12	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	192	218	238	292	500	2000
Calcium(mg/L)	25.6	27.2	27.2	28.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.03	<0.02	0.03	0.1	0.3
Sulphate(mg/L)	24	72	64	94	200	400
Nitrate(mg/L)	4.87	3.78	5.76	5.76	45	No relaxation
Fluoride(mg/L)	0.63	0.37	0.26	0.36	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.305	0.02	0.1	0.09	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.16	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	12	1.8	4	2	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	<1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 156
Drinking Water Quality Data
Area: **Basundhara**

Project / OCP	Basundhara OCP	Basundhara OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Water at intake well basundharanulla (half yearly)	Water at intake well basundharanulla (half yearly)		
Dt. of sampling	07.09.2016	07-03-2017	Acceptable	Permissible
Colour(Hazen)	3	6	5	15
Odour	unobjection	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	4	1	5
pH	6.68	7.08	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	12	200	600
Total Hardness(mg/L)	92	140	200	600
Iron(mg/L)	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	12	12	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	174	268	500	2000
Calcium(mg/L)	19.2	28.8	75	200
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.02	0.1	0.3
Sulphate(mg/L)	30	82	200	400
Nitrate(mg/L)	4.43	5.87	45	No relaxation
Fluoride(mg/L)	0.52	0.25	1	1.5
Selenium(mg/L)	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.03	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	6.9	4.2	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 157
Drinking Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda OCP	Kulda OCP	Kulda OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Well at Tumulia	Well at Tumulia	Well at Tumulia		
Dt. of sampling	02.06.16	06.07.16	06.08.16	Acceptable	Permissible
Colour(Hazen)	2	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	3	1	5
pH	7.62	7.07	6.92	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	180	28	172	200	600
Total Hardness(mg/L)	224	200	208	200	600
Iron(mg/L)	0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	48	50	42	250	1000
Residual Free chlorine(mg/L)	0.12	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	528	318	366	500	2000
Calcium(mg/L)	28.8	33.6	44.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	112	14	11	200	400
Nitrate(mg/L)	9.75	6.43	7.53	45	No relaxation
Fluoride(mg/L)	0.17	0.09	0.24	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.05	<0.08	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	12	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	4	Shall not be detectable in any 100 ml sample	

Table: 158
Drinking Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda OCP	Kulda OCP	Kulda	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Well at Tumulia	Well at Tumulia	Well at Tumulia		
Dt. of sampling	06.09.2016	04.10.16	05.11.16	Acceptable	Permissible
Colour(Hazen)	1	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	3	1	5
pH	6.99	6.96	6.88	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	144	24	20	200	600
Total Hardness(mg/L)	92	136	92	200	600
Iron(mg/L)	<0.06	0.11	<0.06	0.3	No relaxation
Chloride(mg/L)	18	26	18	250	1000
Residual Free chlorine(mg/L)	<1.0	0.1	<1.0	0.2	1
Total Dissolve Solid(mg/L)	198	226	150	500	2000
Calcium(mg/L)	19.2	22.4	16	75	200
Copper(mg/L)	<0.03	0.1	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.06	0.14	0.1	0.3
Sulphate(mg/L)	10	34	14	200	400
Nitrate(mg/L)	4.43	4.78	5.87	45	No relaxation
Fluoride(mg/L)	0.71	0.89	0.24	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.3	0.02	0.64	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	12	10	6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	4	4	2	Shall not be detectable in any 100 ml sample	

Table: 159
Drinking Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Well at Tumulia	Well at Tumulia	Well at Tumulia	Well at Tumulia		
Dt. of sampling	13.12.16	10.1.17	09.02.2017	07-03-2017	Acceptable	Permissible
Colour(Hazen)	3	2	4	8	5	15
Odour	unobjection	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	3	4	1	5
pH	7.81	6.82	7.61	7.28	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	12	20	24	200	600
Total Hardness(mg/L)	300	44	104	312	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	52	12	18	58	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	460	72	154	524	500	2000
Calcium(mg/L)	57.6	9.6	16	46.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.11	0.03	0.03	0.1	0.3
Sulphate(mg/L)	42	4	7	96	200	400
Nitrate(mg/L)	9.17	3.68	5.47	6.76	45	No relaxation
Fluoride(mg/L)	0.47	0.55	0.38	0.53	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.07	<0.02	0.03	0.15	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.11	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	12	5.5	1.8	5.5	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	1.8	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 160
Drinking Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda OCP	Kulda OCP	Kulda OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Filter plant	Filter plant	Filter plant		
Dt. of sampling	02.06.16	06.07.16	06.08.16	Acceptable	Permissible
Colour(Hazen)	3	3	2	5	15
Odour	Agreeable	Agreeable	unobjection	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	4	3	1	5
pH	7.89	6.92	7.35	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	24	44	200	600
Total Hardness(mg/L)	156	176	108	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	28	22	16	250	1000
Residual Free chlorine(mg/L)	0.11	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	352	288	192	500	2000
Calcium(mg/L)	33.6	22.4	24	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	68	36	50	200	400
Nitrate(mg/L)	5.76	4.87	3.99	45	No relaxation
Fluoride(mg/L)	0.29	0.07	0.22	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	0.03	0.2	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	12	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	4	Shall not be detectable in any 100 ml sample	

Table: 161
Drinking Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda OCP	Kulda OCP	Kulda OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Filter plant	Filter plant	Filter plant	Acceptable	Permissible
Dt. of sampling	07.09.2016	04.10.16	05.11.16		
Colour(Hazen)	4	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	1	4	1	5
pH	7.22	7.03	7.15	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	112	12	24	200	600
Total Hardness(mg/L)	188	60	212	200	600
Iron(mg/L)	<0.06	0.11	<0.06	0.3	No relaxation
Chloride(mg/L)	22	14	24	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	340	94	358	500	2000
Calcium(mg/L)	35.2	17.6	41.6	75	200
Copper(mg/L)	<0.03	0.11	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.06	<0.02	0.1	0.3
Sulphate(mg/L)	31	10	76	200	400
Nitrate(mg/L)	5.76	1.68	6.76	45	No relaxation
Fluoride(mg/L)	0.39	0.49	0.34	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.07	0.18	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	17	26	8.3	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	6.8	10	1.8	Shall not be detectable in any 100 ml sample	

Table: 162
Drinking Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Filter plant	Filter plant	Filter plant	Filter plant		
Dt. of sampling	13.12.16	10.1.17	09.02.2017	07-03-2017	Acceptable	Permissible
Colour(Hazen)	2	3	2	2	5	15
Odour	unobjection	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	2	1	1	5
pH	7.39	6.97	7.5	6.88	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	28	12	20	20	200	600
Total Hardness(mg/L)	208	120	200	228	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	24	12	24	30	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	384	220	328	338	500	2000
Calcium(mg/L)	44.8	28.8	44.8	46.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.16	<0.02	0.04	0.1	0.3
Sulphate(mg/L)	88	78	86	40	200	400
Nitrate(mg/L)	5.87	3.99	4.76	4.43	45	No relaxation
Fluoride(mg/L)	0.39	0.48	0.27	0.41	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.187	0.02	0.07	0.07	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.12	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	12	1.8	2	6.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 163
Drinking Water Quality Data
Area: Orient

Project / OCP	Orient	Orient	Orient	Orient	Orient	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Tap water at Budhijaam colony	Tap water at Budhijaam colony	Tap water at Budhijaam colony	Tap water at Budhijaam colony	Tap water at Budhijaam colony		
Dt. of sampling	02.06.16	14.07.16	12.08.16	13.09. 16	14.10.16	Acceptable	Permissible
Colour(Hazen)	1	4	3	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	5	2	2	3	1	5
pH	7.97	7.11	6.97	6.64	6.95	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	44	48	32	24	200	600
Total Hardness(mg/L)	80	92	64	40	112	200	600
Iron(mg/L)	0.18	<0.06	<0.06	<0.06	0.07	0.3	No relaxation
Chloride(mg/L)	14	22	14	14	24	250	1000
Residual Free chlorine(mg/L)	<0.04	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	180	184	124	94	194	500	2000
Calcium(mg/L)	22.4	24	17.6	11.2	24	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.1	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.07	0.1	0.3
Sulphate(mg/L)	28	10	18	14	36	200	400
Nitrate(mg/L)	4.43	5.32	4.87	3.99	4.87	45	No relaxation
Fluoride(mg/L)	0.29	0.77	0.18	0.39	0.73	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	0.77	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	0.04	0.44	0.69	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	23	6.8	15	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	11	<1.8	6	Shall not be detectable in any 100 ml sample	

Table: 164
Drinking Water Quality Data
Area: Orient

Project / OCP	Orient	Orient	Orient	Orient	Orient		
Monitoring Station	Tap water at Budhijaam colony	Tap water at Budhijaam colony	Tap water at Budhijaam colony	Tap water at Budhijaam colony	Tap water at Budhijaam colony	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	12.11.16	15.12.16	13.1.17	15.02. 17	15.03.17	Acceptable	Permissible
Colour(Hazen)	3	1	2	2	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	1	1	4	1	5
pH	7.65	7.14	7.52	7.45	7.2	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	16	24	16	16	12	200	600
Total Hardness(mg/L)	108	56	64	108	112	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	24	12	16	32	26	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	196	98	116	188	224	500	2000
Calcium(mg/L)	20.8	14.4	16	22.4	20.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	58	10	6	12	54	200	400
Nitrate(mg/L)	3.99	2.57	4.76	5.37	4.76	45	No relaxation
Fluoride(mg/L)	0.63	0.89	0.29	0.37	0.53	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.39	<0.02	0.07	0.03	0.36	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	0.04	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	6.8	17	3.6	4	3.6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	1.8	3.6	<1.8	1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table:165
Drinking Water Quality Data
Area: Orient

Project / OCP	Orient	Orient	Orient	Orient	Orient	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Tap water at Rampur colony	Tap water at Rampur colony	Tap water at Rampur colony	Tap water at Rampur colony	Tap water at Rampur colony		
Dt. of sampling	02.06.16	14.07.16	12.08.16	13.09.2016	14.10.16	Acceptable	Permissible
Colour(Hazen)	2	5	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	3	3	2	2	1	5
pH	8.05	7.06	6.84	7.1	7.15	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	108	48	116	116	28	200	600
Total Hardness(mg/L)	96	112	96	100	104	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.09	0.3	No relaxation
Chloride(mg/L)	20	28	30	28	26	250	1000
Residual Free chlorine(mg/L)	<0.04	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	232	218	208	218	188	500	2000
Calcium(mg/L)	19.2	16	22.4	24	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.1	0.05	1.5
Manganese(mg/L)	<0.02	0.04	<0.02	<0.02	0.06	0.1	0.3
Sulphate(mg/L)	48	12	10	10	38	200	400
Nitrate(mg/L)	3.99	4.87	5.32	5.32	4.43	45	No relaxation
Fluoride(mg/L)	0.24	0.12	0.26	0.45	0.39	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	0.12	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.26	<0.02	0.34	0.05	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	35	6.8	12	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	13	<1.8	4	Shall not be detectable in any 100 ml sample	

Table: 166
Drinking Water Quality Data
Area: Orient

Project / OCP	Orient	Orient	Orient	Orient	Orient	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Tap water at Rampur colony	Tap water at Rampur colony	Tap water at Rampur colony	Tap water at Rampur colony	Tap water at Rampur colony		
Dt. of sampling	12.11.17	15.12.16	13.1.17	15.02.17	15.03.17	Acceptable	Permissible
Colour(Hazen)	2	3	3	6	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	1	4	5	1	5
pH	8.15	7.52	7.4	7.41	7.14	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	24	20	16	16	20	200	600
Total Hardness(mg/L)	100	88	104	112	104	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	26	28	24	26	30	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	184	190	158	220	204	500	2000
Calcium(mg/L)	20.8	19.2	22.4	20.8	16	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.09	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	14	34	7	53	20	200	400
Nitrate(mg/L)	5.87	5.47	4.43	4.43	4.76	45	No relaxation
Fluoride(mg/L)	0.54	0.63	0.33	0.5	0.28	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.05	<0.02	0.15	0.25	0.05	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	0.09	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	6	21	3.6	3.7	5.5	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	1.8	6.1	<1.8	2	<1.8	Shall not be detectable in any 100 ml sample	

Table: 167
Drinking Water Quality Data
Area: Orient

Project / OCP	Orient	Orient	Orient	Orient	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	4th Pit Filter Plant (Near Mine No.3)	4th Pit Filter Plant (Near Mine No.3)	4th Pit Filter Plant (Near Mine No.3)	4th Pit Filter Plant (Near Mine No.3)		
Dt. of sampling	15.12.16	13.1.17	15.02.2017	14-03-2017	Acceptable	Permissible
Colour(Hazen)	3	1	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	2	1	1	5
pH	7.47	6.75	7.18	7.09	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	16	16	44	20	200	600
Total Hardness(mg/L)	116	124	120	108	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	24	22	24	28	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	200	220	254	202	500	2000
Calcium(mg/L)	22.4	36	24	24	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.193	<0.02	0.15	<0.02	0.1	0.3
Sulphate(mg/L)	26	52	54	6	200	400
Nitrate(mg/L)	5.47	4.43	4.76	4.43	45	No relaxation
Fluoride(mg/L)	0.63	0.52	0.28	0.61	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.22	0.02	0.13	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.12	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	8.3	2	1.8	2	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 168
Drinking Water Quality Data
Area: Orient

Project / OCP	Orient	Orient	Orient	Orient	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	4th Pit Filter Plant (Mine NO-1,2)	4th Pit Filter Plant (Mine NO-1,2)	4th Pit Filter Plant (Mine NO-1,2)	4th Pit Filter Plant (Mine NO-1,2)		
Dt. of sampling	15.12.16	13.1.17	15.02.17	14.03.17	Acceptable	Permissible
Colour(Hazen)	2	3	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	1	2	1	5
pH	7.85	7.02	7.02	7.14	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	16	18	24	16	200	600
Total Hardness(mg/L)	96	96	88	120	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	32	30	32	28	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	190	196	186	240	500	2000
Calcium(mg/L)	14.4	27	19.2	24	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	30	10	24	54	200	400
Nitrate(mg/L)	5.87	3.99	3.99	5.23	45	No relaxation
Fluoride(mg/L)	0.42	0.61	0.48	0.56	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.57	0.02	0.06	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.1	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	12	1.8	3.6	5.6	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 169
Drinking Water Quality Data
Area: MCL HQ

Project / OCP	MCL(HQ)	MCL(HQ)	MCL(HQ)	MCL(HQ)	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Inlet to water treatment plant(anand vihar),qrly	Inlet to water treatment plant anand vihar	Inlet to water treatment plant	Inlet to water treatment plant (anandvihar)		
Dt. of sampling	14.06.16	13.09.2016	15.12.16	14.03.17	Acceptable	Permissible
Colour(Hazen)	6	2	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	8	1	2	1	1	5
pH	8.11	7.01	7.28	7.51	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	132	44	12	20	200	600
Total Hardness(mg/L)	112	28	76	84	200	600
Iron(mg/L)	0.15	1.7	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	24	16	14	212	250	1000
Residual Free chlorine(mg/L)	<0.04	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	254	7.6	110	152	500	2000
Calcium(mg/L)	32	8	20.8	20.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.054	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	36	8	8	9	200	400
Nitrate(mg/L)	5.32	2.87	3.99	4.43	45	No relaxation
Fluoride(mg/L)	0.35	0.38	0.44	0.36	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	0.05	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	0.08	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	10	14	2.4	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	3.6	2	<1.8	Shall not be detectable in any 100 ml sample	

Table: 170
Drinking Water Quality Data
Area: MCL HQ

Project / OCP	MCL(HQ)	MCL(HQ)	MCL(HQ)	MCL(HQ)	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Outlet of water treatment plant(anand vihar),qrly	Outlet of water treatment plant(anand vihar),qrly	Outlet of water treatment plant(anand vihar),qrly	Outlet of water treatment plant(anand vihar),qrly		
Dt. of sampling	14.06.16	13.09.2016	15.12.16	14-03-2017	Acceptable	Permissible
Colour(Hazen)	2	1	1	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	8.11	6.65	7.45	7.45	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	76	64	16	16	200	600
Total Hardness(mg/L)	88	36	72	96	200	600
Iron(mg/L)	0.12	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	26	18	12	18	250	1000
Residual Free chlorine(mg/L)	<0.04	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	206	92	114	164	500	2000
Calcium(mg/L)	25.6	9.6	22.4	25.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	28	14	10	7	200	400
Nitrate(mg/L)	4.43	2.48	4.43	5.37	45	No relaxation
Fluoride(mg/L)	0.15	0.45	0.38	0.27	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.04	<0.02	<0.02	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.03	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	0.07	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	6.9	17	2	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	<1.8	1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 171
Drinking Water Quality Data
Area: MCL HQ

Project / OCP	MCL(HQ)	MCL(HQ)	MCL HQ	MCL(HQ)	MCL HQ	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Tap water DAV school (anand vihar)monthly	Tap water DAV school (anand vihar) monthly	Tap water DAV school (Anand vihar)	Tap water DAV school(Anand vihar)	Tap water DAV school(anand vihar)		
Dt. of sampling	14.06.16	08.07.16	11.08.16	13.09. 16	08.10.16	Acceptable	Permissible
Colour(Hazen)	1	4	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	3	1	1	1	5
pH	8.01	7.32	6.72	6.75	7.07	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	72	32	36	16	12	200	600
Total Hardness(mg/L)	84	92	68	36	56	200	600
Iron(mg/L)	0.1	<0.06	<0.06	<0.06	0.09	0.3	No relaxation
Chloride(mg/L)	18	18	14	10	18	250	1000
Residual Free chlorine(mg/L)	0.11	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	208	174	134	76	94	500	2000
Calcium(mg/L)	22.4	20.8	22.4	9.6	14.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.11	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.07	0.1	0.3
Sulphate(mg/L)	36	12	29	7	8	200	400
Nitrate(mg/L)	4.87	4.43	3.99	2.1	1.28	45	No relaxation
Fluoride(mg/L)	0.17	0.07	0.2	0.61	0.89	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.04	<0.02	0.35	0.24	0.12	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	23	10	12	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	11	4	2	Shall not be detectable in any 100 ml sample	

Table: 172
Drinking Water Quality Data
Area: MCL HQ

Project / OCP	MCL(HQ)	MCL(HQ)	MCL(HQ)	MCL(HQ)	MCL(HQ)	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Tap water DAV school(anand vihar)	Tap water DAV school(anand vihar)	Tap water DAV school(anand vihar)	Tap water DAV school(anand vihar)	Tap water DAV school(anand vihar)		
Dt. of sampling	14.11.16	15.12.16	16.1.17	14.02. 17	14.03.17	Acceptable	Permissible
Colour(Hazen)	2	1	1	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	1	1	2	1	5
pH	7.71	7.85	7.99	7.49	7.42	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	12	12	12	16	16	200	600
Total Hardness(mg/L)	80	76	80	84	96	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	14	10	16	22	22	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	120	110	134	138	168	500	2000
Calcium(mg/L)	22.4	12.8	24	25.6	28.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.03	0.1	0.3
Sulphate(mg/L)	12	9	8	12	10	200	400
Nitrate(mg/L)	4.43	3.99	3.99	3.99	4.78	45	No relaxation
Fluoride(mg/L)	0.43	0.29	0.38	0.19	0.34	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	<0.02	0.07	0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	0.06	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	8.2	10	1.8	3.6	1.8	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	1.8	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 173
Drinking Water Quality Data
Area: MCL HQ

Project / OCP	MCL(HQ)	MCL(HQ)	MCL HQ	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Tap water at corporate office (jagriti vihar)monthly	Tap water at corporate office (jagriti vihar)monthly	Tap water at corporate office(Jagriti vihar)		
Dt. of sampling	14.06.16	08.07.17	11.08.16	Acceptable	Permissible
Colour(Hazen)	2	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	4	1	5
pH	8.09	7.45	6.61	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	124	60	24	200	600
Total Hardness(mg/L)	112	92	72	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	24	18	16	250	1000
Residual Free chlorine(mg/L)	<0.04	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	226	188	140	500	2000
Calcium(mg/L)	32	32	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.05	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	28	16	32	200	400
Nitrate(mg/L)	5.78	3.99	4.43	45	No relaxation
Fluoride(mg/L)	0.21	0.29	0.26	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.05	<0.02	0.02	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	***	***	36	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	***	***	17	Shall not be detectable in any 100 ml sample	

Table: 173
Drinking Water Quality Data
Area: MCL HQ

Project / OCP	MCL(HQ)	MCL HQ	MCL(HQ)	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Tap water at corporate office (Jagruti vihar)	Tap water at corporate office (jagruti vihar)	Tap water at corporate office (jagruti vihar)		
Dt. of sampling	13.09.16	08.10.16	14.11.16	Acceptable	Permissible
Colour(Hazen)	2	1	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	3	1	5
pH	6.8	7.24	7.79	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	28	12	12	200	600
Total Hardness(mg/L)	36	56	84	200	600
Iron(mg/L)	<0.06	0.09	<0.06	0.3	No relaxation
Chloride(mg/L)	18	16	14	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	88	92	128	500	2000
Calcium(mg/L)	9.6	14.4	24	75	200
Copper(mg/L)	<0.03	0.11	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.07	<0.02	0.1	0.3
Sulphate(mg/L)	12	10	10	200	400
Nitrate(mg/L)	2.17	1.18	5.47	45	No relaxation
Fluoride(mg/L)	0.48	0.81	0.44	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.2	0.06	<0.02	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	10	10	6.1	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	6.1	<1.8	1.8	Shall not be detectable in any 100 ml sample	

Table: 174
Drinking Water Quality Data
Area: MCL HQ

Project / OCP	MCL(HQ)	MCL(HQ)	MCL(HQ)	MCL(HQ)	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Tap water at corporate office (jagriti vihar)	Tap water at corporate office (jagriti vihar)	Tap water at corporate office (jagriti vihar)	Tap water at corporate office (jagritivihar)		
Dt. of sampling	15.12.16	16.1.17	14.02.2017	14-03-2017	Acceptable	Permissible
Colour(Hazen)	2	1	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	1	1	1	5
pH	7.79	8.01	7.05	7	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	12	20	20	20	200	600
Total Hardness(mg/L)	76	92	92	96	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	14	14	16	18	250	1000
Residual Free chlorine(mg/L)	<1.0	<1.0	<1.0	<1.0	0.2	1
Total Dissolve Solid(mg/L)	118	142	144	172	500	2000
Calcium(mg/L)	20.8	30.4	24	27.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.02	0.1	0.3
Sulphate(mg/L)	12	8	10	9	200	400
Nitrate(mg/L)	4.43	4.76	4.43	5.37	45	No relaxation
Fluoride(mg/L)	0.34	0.27	0.27	0.43	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.03	0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05 (Indian Drinking Standards (IS-10500):1991)	No relaxation (Indian Drinking Standards (IS-10500):1991)
Boron(mg/L)	0.21	<0.2	<0.2	<0.2	0.5	1
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Total coliform As MPN/100ml	8.2	1.8	3.6	1.8	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	1.8	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 175
 Drinking Water Quality Data
 Area: MCL HQ

Project / OCP	MCL(HQ)	MCL(HQ)	MCL(HQ)	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Under Ground water Golf Course Pump House (Jagritivihar)	Inlet to water treatment plant	Outlet of water treatment plant	Acceptable	Permissible
Dt. of sampling	14-03-2017	16.1.17	16.1.17		
Total coliform As MPN/100ml	2	3.7	5.5	Shall not be detectable in any 100 ml sample	
Fecal Coliform As MPN/100ml	<1.8	<1.8	<1.8	Shall not be detectable in any 100 ml sample	

Table: 176
Surface Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Bagachoppa jhor Bagmara Village as u/s for LOCP	Bagachoppa jhor Bagmara Village as u/s for LOCP	Bagachoppa jhor Bagmara Village as u/s for LOCP	Bagachoppa jhor Bagmara Village as u/s for LOCP	
Date of sampling	29.06.16	13.09.16	26.12.16	31.03.17	
pH Value	6.95	7.08	6.81	7.71	6.5-8.5
Dissolved Oxygen(mg/L)	4.1	4.8	4.3	4.3	4
BOD (3 days 27°c(mg/L)	3.2	3.6	2.9	3	3
Color ,Hazen unit	22	6	3	4	300
Total Disolved Solids (mg/L)	288	58	120	224	1500
Total Suspended Solids (mg/L)	74	44	42	32	-
Total Hardness(mg/L)	128	32	52	88	-
Copper(mg/L)	0.04	0.1	<0.03	<0.03	1.5
Iron(mg/L)	0.25	0.09	<0.06	<0.06	50
Chlorides(mg/L)	28	14	24	28	600
Sulphate(mg/L)	38	6	16	50	400
Nitrate(mg/L)	4.1	1.28	3.99	5.37	50
Fluoride(mg/L)	0.62	0.89	0.33	0.93	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.02	0.036	0.03	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	<0.02	0.06	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 177
Surface Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Bagachoppa jhor Gangapur Village as d/s for LOCP	Bagachoppa jhor Gangapur Village as d/s for LOCP	Bagachoppa jhor Gangapur Village as d/s for LOCP	Bagachoppa jhor Gangapur Village as d/s for LOCP	
Date of sampling	29.06.16	13.09.2016	26.12.16	31.03.17	
pH Value	6.88	6.95	7.03	7.63	6.5-8.5
Dissolved Oxygen(mg/L)	3.2	5.1	3.9	3.9	4
BOD (3 days 27°c(mg/L)	2.8	4.1	2.3	2.6	3
Color ,Hazen unit	18	8	5	2	300
Total Disolved Solids (mg/L)	458	66	2.6	234	1500
Total Suspended Solids (mg/L)	52	40	22	24	-
Total Hardness(mg/L)	216	32	100	124	-
Copper(mg/L)	0.05	0.12	<0.03	<0.03	1.5
Iron(mg/L)	0.11	0.32	<0.06	<0.06	50
Chlorides(mg/L)	90	20	32	42	600
Sulphate(mg/L)	28	8	40	15	400
Nitrate(mg/L)	5.92	1.38	4.76	4.76	50
Fluoride(mg/L)	0.63	0.74	6.28	1.08	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.022	0.041	0.028	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.06	0.09	0.03	0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 178
Surface Water Quality Data
Area: **IB Valley**

Project / OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Bagachoppa jhor before confluence point with Ib River	Bagachoppa jhor before confluence point with Ib River	Bagachoppa jhor before confluence point with Ib River	Bagachoppa jhor before confluence point with Ib River	
Date of sampling	29.06.16	13.09.2016	26.12.16	31.03.17	
pH Value	6.98	7.01	7.3	7.69	6.5-8.5
Dissolved Oxygen(mg/L)	5.2	4.7	5.2	5.2	4
BOD (3 days 27°c(mg/L)	2.4	3.2	3.6	3.4	3
Color ,Hazen unit	16	7	3	2	300
Total Disolved Solids (mg/L)	212	58	106	132	1500
Total Suspended Solids (mg/L)	40	58	12	16	-
Total Hardness(mg/L)	92	28	60	64	-
Copper(mg/L)	0.06	0.08	<0.03	<0.03	1.5
Iron(mg/L)	0.59	0.27	<0.06	<0.06	50
Chlorides(mg/L)	22	16	16	16	600
Sulphate(mg/L)	43	6	12	10	400
Nitrate(mg/L)	2.3	1.2	1.76	3.99	50
Fluoride(mg/L)	0.65	0.72	0.43	0.63	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.024	0.039	0.03	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.02	0.02	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 179
Surface Water Quality Data
Area: IB Valley

Project/OCP	Samaleswari OCP	Samaleswari OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pandren Jhor stream near Muchabahal village u/s of SOCP	Pandren Jhor stream near Muchabahal village u/s of SOCP	
Date of sampling	13.09.2016	26.12.16	
pH	6.93	7.06	6.5-8.5
Dissolved Oxygen(mg/L)	5.1	5.3	4
BOD (3 days 27oc)(mg/L)	4	4.2	3
Color (Hazen unit)	12	3	300
Total dissolved solids (mg/L)	48	150	1500
TSS(mg/L)	66	98	-
Total Hardness(mg/L)	20	96	-
Copper(mg/L)	0.06	<0.03	1.5
Iron(mg/L)	0.27	<0.06	50
Chlorides(mg/L)	10	18	600
Sulphate(mg/L)	7	10	400
Nitrate(mg/L)	1.21	3.99	50
Fluoride(mg/L)	1.1	0.39	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	0.01
Selenium(mg/L)	<0.002	<0.002	0.05
Arsenic(mg/L)	<0.002	<0.002	0.2
Cyanide(mg/L)	0.022	0.03	0.05
Lead(mg/L)	<0.005	<0.005	0.1
Zinc(mg/L)	0.14	0.03	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

Table: 179
Surface Water Quality Data
Area: **IB Valley**

Project/OCP	Samaleswari OCP	Samaleswari OCP	Samaleswari OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pandren Jhor stream before confluence point with Lilari Nallah	Pandren Jhor stream before confluence point with Lilari Nallah	Pandren Jhor stream before confluence point with Lilari Nallah	
Date of sampling	13.09.2016	26.12.16	31.03.17	
pH	7.15	6.8	7.68	6.5-8.5
Dissolved Oxygen(mg/L)	5.2	5.1	4.7	4
BOD (3 days 27°c(mg/L)	3.9	4	3.6	3
Color (Hazen unit)	4	3	2	300
Total disolved solids (mg/L)	160	266	102	1500
TSS(mg/L)	30	38	20	-
Total Hardness(mg/L)	92	176	36	-
Copper(mg/L)	0.04	<0.03	<0.03	1.5
Iron(mg/L)	0.53	<0.06	<0.06	50
Chlorides(mg/L)	18	18	16	600
Sulphate(mg/L)	20	30	12	400
Nitrate(mg/L)	4.87	5.76	2.1	50
Fluoride(mg/L)	0.9	0.23	0.89	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	0.026	0.021	0.021	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.21	0.06	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	0.1

Table:180
Surface Water Quality Data
Area: **Lakhanpur**

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Lilari nallah near Gouraparha village at bridge point of NH200as u/s water for Lakhanpur OCP and Belpahar OCP	Lilari nallah near Gouraparha village at bridge point of NH200as u/s water for Lakhanpur OCP and Belpahar OCP	Lilari nallah near Gouraparha village at bridge point of NH200as u/s water for Lakhanpur OCP and Belpahar OCP	Lilari nallah near Gouraparha village at bridge point of NH200 as u/s water for Lakhanpur OCP and Belpahar OCP	
Date of sampling	30.06.16	15.09.16	29.12.16	31.03.17	
pH Value	7.37	6.98	7.16	6.99	6.5-8.5
Dissolved Oxygen(mg/L)	5.3	5.4	5.7	4.5	4
BOD (3 days 27°c(mg/L)	1.8	3.5	4.3	3.2	3
Color ,Hazen unit	7	16	3	6	300
Total Disolved Solids (mg/L)	118	56	92	848	1500
Total Suspended Solids (mg/L)	54	68	22	40	-
Total Hardness(mg/L)	36	28	48	488	-
Copper(mg/L)	0.06	0.1	<0.03	<0.03	1.5
Iron(mg/L)	0.54	0.55	<0.06	<0.06	50
Chlorides(mg/L)	14	12	12	26	600
Sulphate(mg/L)	19	6	14	210	400
Nitrate(mg/L)	5.26	1.18	1.68	9.23	50
Fluoride(mg/L)	0.39	1.09	0.52	0.93	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.028	0.018	0.02	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.38	<0.02	0.08	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 181
Surface Water Quality Data
Area: **Lakhanpur**

Project / OCP	Belpahar Area	Belpahar OCP	Belpahar OCP	Belpahar OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Lilari nallah near Kirarama village as d/s of Lakhanpur OCP and Belpahar OCP	Lilari nallah near Kirarama village as d/s of Lakhanpur OCP and Belpahar OCP	Lilari nallah near Kirarama village as d/s of Lakhanpur OCP and Belpahar OCP	Lilari nallah near Kirarama village as d/s of Lakhanpur OCP and Belpahar OCP	
Date of sampling	30.06.16	15.09.16	26.12.16	31.03.17	
pH Value	7.28	6.84	6.7	7.1	6.5-8.5
Dissolved Oxygen(mg/L)	5.6	5.1	6.2	4.3	4
BOD (3 days 27°c)(mg/L)	2.8	3.8	5.1	2.7	3
Color ,Hazen unit	10	20	3	2	300
Total Disolved Solids (mg/L)	514	110	278	862	1500
Total Suspended Solids (mg/L)	58	72	36	52	-
Total Hardness(mg/L)	240	56	180	468	-
Copper(mg/L)	0.06	0.04	<0.03	<0.03	1.5
Iron(mg/L)	0.06	<0.06	<0.06	<0.06	50
Chlorides(mg/L)	22	18	16	30	600
Sulphate(mg/L)	112	20	28	218	400
Nitrate(mg/L)	6.1	3.99	4.87	9.76	50
Fluoride(mg/L)	0.7	0.91	0.31	0.89	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.029	0.02	0.018	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.43	0.04	0.09	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 182
Surface Water Quality Data
Area: **Lakhanpur**

Project / OCP	Belpahar Area	Belpahar OCP	Belpahar OCP	Belpahar OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Ib river near Dumermunda village as d/s of the coalfield before joining to Hirakud reservoir	Ib river near Dumermunda village as d/s of the coalfield before joining to Hirakud reservoir	Ib river near Dumermunda village as d/s of the coalfield before joining to Hirakud reservoir	Ib river near Dumermunda village as d/s of the coalfield before joining to Hirakud reservoir	
Date of sampling	30.06.16	15.09.2016	26.12.16	31.03.17	
pH Value	6.92	6.75	7.02	7.64	6.5-8.5
Dissolved Oxygen(mg/L)	4	4.9	5.4	3.9	4
BOD (3 days 27°c)(mg/L)	3.6	2.9	4.8	2.1	3
Color ,Hazen unit	28	18	3	4	300
Total Disolved Solids (mg/L)	404	116	120	148	1500
Total Suspended Solids (mg/L)	96	70	44	28	-
Total Hardness(mg/L)	156	60	68	76	-
Copper(mg/L)	0.06	0.09	<0.03	<0.03	1.5
Iron(mg/L)	<.06	0.07	<0.06	<0.06	50
Chlorides(mg/L)	76	22	12	24	600
Sulphate(mg/L)	41	22	18	12	400
Nitrate(mg/L)	4.9	1.5	3.99	4.43	50
Fluoride(mg/L)	0.79	1.25	0.44	0.66	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.021	0.018	0.019	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.02	0.22	<0.02	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 183
Surface Water Quality Data
Area: **Lakhanpur**

Project / OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Hirakud reservoir for impact assessment of the coalfield	Hirakud reservoir for impact assessment of the coalfield	Hirakud reservoir for impact assessment of the coalfield	Hirakud reservoir for impact assessment of the coalfield	
Date of sampling	30.06.16	15.09.2016	29.12.16	31.03.17	
pH Value	7.98	7.02	7.08	7.53	6.5-8.5
Dissolved Oxygen(mg/L)	5.7	4.4	4.8	4.1	4
BOD (3 days 27°c)(mg/L)	1.8	2.8	3.5	2.2	3
Color ,Hazen unit	4	5	4	2	300
Total Disolved Solids (mg/L)	198	104	104	138	1500
Total Suspended Solids (mg/L)	28	36	18	12	-
Total Hardness(mg/L)	88	60	68	80	-
Copper(mg/L)	0.06	0.06	<0.03	<0.03	1.5
Iron(mg/L)	<.06	0.72	<0.06	<0.06	50
Chlorides(mg/L)	24	12	20	12	600
Sulphate(mg/L)	26	14	8	9	400
Nitrate(mg/L)	3.1	2.87	2.47	3.17	50
Fluoride(mg/L)	0.58	1.23	0.62	0.55	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.025	0.022	0.021	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.02	0.23	<0.02	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 184
Surface Water Quality Data
Area: **Lakhanpur**

Project / OCP	Lakhanpur Area	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pulijhor stream near Tingismal Village as u/s for Lakhanpur OCP	Pulijhor stream near Tingismal Village as u/s for Lakhanpur OCP	Pulijhor stream near Tingismal Village as u/s for Lakhanpur OCP	Pulijhor stream near Tingismal Village as u/s for Lakhanpur OCP	
Date of sampling	30.06.16	14.09.16	29.12.16	31.03.17	
pH Value	6.32	6.84	7.38	7.35	6.5-8.5
Dissolved Oxygen(mg/L)	4.9	5.3	4.8	4.2	4
BOD (3 days 27°c(mg/L)	2.2	4.2	2.8	3.1	3
Color ,Hazen unit	20	8	4	8	300
Total Disolved Solids (mg/L)	172	66	56	756	1500
Total Suspended Solids (mg/L)	46	38	16	34	-
Total Hardness(mg/L)	34	28	24	424	-
Copper(mg/L)	0.07	0.03	<0.03	<0.03	1.5
Iron(mg/L)	0.14	0.58	<0.06	<0.06	50
Chlorides(mg/L)	16	16	12	24	600
Sulphate(mg/L)	48	9	8	218	400
Nitrate(mg/L)	4.46	2.58	1.37	7.18	50
Fluoride(mg/L)	0.58	0.54	0.26	0.59	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	0.016	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.02	0.036	0.032	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.03	0.15	0.02	0.05	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 185
Surface Water Quality Data
Area: **Lakhanpur**

Project / OCP	Lakhanpur Area	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pulijhor stream near Darlipalil Village before confluence to Lilari nallah as d/s water of Lakhanpur OCP	Pulijhor stream near Darlipalil Village before confluence to Lilari nallah as d/s water of Lakhanpur OCP	Pulijhor stream near Darlipalil Village before confluence to Lilari nallah as d/s water of Lakhanpur OCP	Pulijhor stream near Darlipalil Village before confluence to Lilari nallah as d/s water of Lakhanpur OCP	
Date of sampling	30.06.16	14.09.2016	29.12.16	31.03.17	
pH Value	6.92	6.97	6.67	7.48	6.5-8.5
Dissolved Oxygen(mg/L)	5.2	4.6	4.9	4.8	4
BOD (3 days 27°c(mg/L)	2	3.1	2.9	2.8	3
Color ,Hazen unit	8	10	3	4	300
Total Disolved Solids (mg/L)	488	64	376	764	1500
Total Suspended Solids (mg/L)	32	52	76	48	-
Total Hardness(mg/L)	260	32	256	404	-
Copper(mg/L)	0.06	0.05	<0.03	<0.03	1.5
Iron(mg/L)	<.06	0.61	<0.06	<0.06	50
Chlorides(mg/L)	18	18	14	26	600
Sulphate(mg/L)	56	6	54	214	400
Nitrate(mg/L)	2.57	1.4	5.87	6.76	50
Fluoride(mg/L)	0.72	1.1	6.21	0.64	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.013	0.038	0.021	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.04	0.02	0.05	0.04	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 186
Surface Water Quality Data
Area: **Lakhanpur**

Project / OCP	Lakhanpur Area	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Lilari nallah at bridge point before joining Ib river near Dudolsingha village	Lilari nallah at bridge point before joining Ib river near Dudolsingha village	Lilari nallah at bridge point before joining Ib river near Dudolsingha village	Lilari nallah at bridge point before joining Ib river near Dudolsingha village	
Date of sampling	30.06.16	14.09.2016	26.12.16	31.03.17	
pH Value	6.41	6.76	7.05	7.78	6.5-8.5
Dissolved Oxygen(mg/L)	5.6	4.9	5.1	3.8	4
BOD (3 days 27°c(mg/L)	2.4	2.9	3.9	1.9	3
Color ,Hazen unit	12	14	3	4	300
Total Disolved Solids (mg/L)	518	114	128	330	1500
Total Suspended Solids (mg/L)	48	64	18	36	-
Total Hardness(mg/L)	232	60	80	156	-
Copper(mg/L)	0.06	0.07	<0.03	<0.03	1.5
Iron(mg/L)	<.06	0.72	<0.06	<0.06	50
Chlorides(mg/L)	42	14	18	36	600
Sulphate(mg/L)	103	24	14	74	400
Nitrate(mg/L)	6.1	1.98	3.99	5.27	50
Fluoride(mg/L)	0.61	1.3	0.39	0.52	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.018	0.036	0.026	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.29	0.03	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 187
Surface Water Quality Data
Area: **Lakhanpur**

Project / OCP	Lakhanpur Area	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pond water at Samra village	Pond water at Samra village	Pond water at Samra village	Pond water at Samra village	
Date of sampling	30.06.16	14.09.2016	29.12.16	31.03.17	
pH Value	7.18	7.1	7.11	7.59	6.5-8.5
Dissolved Oxygen(mg/L)	3.1	4.8	4.9	4.2	4
BOD (3 days 27°c(mg/L)	2.4	2.8	3.2	2.8	3
Color ,Hazen unit	6	12	2	8	300
Total Disolved Solids (mg/L)	638	248	78	140	1500
Total Suspended Solids (mg/L)	44	66	28	24	-
Total Hardness(mg/L)	248	72	48	56	-
Copper(mg/L)	0.06	0.13	<0.03	<0.03	1.5
Iron(mg/L)	<.06	0.53	0.41	<0.06	50
Chlorides(mg/L)	126	60	10	40	600
Sulphate(mg/L)	78	40	6	8	400
Nitrate(mg/L)	6.8	6.1	1.07	4.43	50
Fluoride(mg/L)	0.77	1.2	0.27	0.46	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)		0.031	0.018	0.022	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.37	0.12	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 188
Surface Water Quality Data
Area: **Basundhara**

Project / OCP	Basundhara Area	Basundhara OCP	Basundhara OCP	Basundhara OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Basundhara river near Kulaparha village as u/s water for Basundhara (W) OCP	Basundhara river near Kulaparha village as u/s water for Basundhara (W) OCP	Basundhara river near Kulaparha village as u/s water for Basundhara (W) OCP	Basundhara river near Kulaparha village as u/s water for Basundhara (W) OCP	
Date of sampling	17.06.16	07.09.16	30.12.16	23.03.17	
pH Value	6.67	6.92	7.03	6.99	6.5-8.5
Dissolved Oxygen(mg/L)	4.9	5.2	4.8	4.3	4
BOD (3 days 27°c)(mg/L)	2.4	4.2	3.1	2.9	3
Color ,Hazen unit	24	10	3	6	300
Total Disolved Solids (mg/L)	254	52	48	118	1500
Total Suspended Solids (mg/L)	82	48	12	16	-
Total Hardness(mg/L)	84	20	24	60	-
Copper(mg/L)	0.05	0.06	<0.03	0.03	1.5
Iron(mg/L)	0.55	0.28	<0.06	<0.06	50
Chlorides(mg/L)	46	16	12	18	600
Sulphate(mg/L)	37	4	6	10	400
Nitrate(mg/L)	5.66	1.2	0.83	3.99	50
Fluoride(mg/L)	0.75	0.74	0.46	0.43	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.031	0.03	0.02	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.11	0.02	0.13	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 189
Surface Water Quality Data
Area: **Basundhara**

Project / OCP	Basundhara Area	
NAME OF STATIONS	Chaturdhara river nala as u/s water for Basundhara Expn OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	17.06.16	
pH Value	6.92	6.5-8.5
Dissolved Oxygen(mg/L)	5.4	4
BOD (3 days 27°c(mg/L)	3.2	3
Color ,Hazen unit	7	300
Total Disolved Solids (mg/L)	328	1500
Total Suspended Solids (mg/L)	54	-
Total Hardness(mg/L)	132	-
Copper(mg/L)	0.05	1.5
Iron(mg/L)	<.06	50
Chlorides(mg/L)	40	600
Sulphate(mg/L)	42	400
Nitrate(mg/L)	4.38	50
Fluoride(mg/L)	0.57	1.5
Phenolic Compound(mg/L)	<0.001	0.005
Cadmium(mg/L)	<0.0005	0.01
Selenium(mg/L)	<.002	0.05
Arsenic(mg/L)	<.002	0.2
Lead(mg/L)	<0.005	0.1
Zinc(mg/L)	<.02	15
Hexavalent Chromium(mg/L)	<0.01	0.05
Oil & Grease(mg/L)	<4.0	0.1

Table: 190
Surface Water Quality Data
Area: **Basundhara**

Project/OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Barhajharia nala as u/s water for Basundhara Expn OCP	Barhajharia nala as u/s water for Basundhara Expn OCP	Barhajharia nala as u/s water for Basundhara Expn OCP	
Date of sampling	07.09.16	30.12.16	23.03.17	
pH	6.82	6.81	6.81	6.5-8.5
Dissolved Oxygen(mg/L)	4.8	4.9	5.3	4
BOD (3 days 27°c)(mg/L)	3.3	3.8	3.2	3
Color (Hazen unit)	8	4	6	300
Total dissolved solids (mg/L)	48	46	106	1500
TSS(mg/L)	44	10	48	-
Total Hardness(mg/L)	20	24	48	-
Copper(mg/L)	0.07	<0.03	0.03	1.5
Iron(mg/L)	0.39	0.07	<0.06	50
Chlorides(mg/L)	10	10	22	600
Sulphate(mg/L)	6	8	8	400
Nitrate(mg/L)	1.08	0.89	2.42	50
Fluoride(mg/L)	1.29	0.67	0.58	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	0.028	0.021	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.15	0.02	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	0.1

Table: 191
Surface Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda Area	Kulda OCP	Kulda OCP	Kulda OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Basundhara river near Kulaparha village just after meeting point of Basundhara & Chaturdhara river as u/s of Siarmal OCP	Basundhara river near Kulaparha village just after meeting point of Basundhara & Chaturdhara river as u/s of Siarmal OCP	Basundhara river near Kulaparha village just after meeting point of Basundhara & Chaturdhara river as u/s of Siarmal OCP	Basundhara river near Kulaparha village just after meeting point of Basundhara & Chaturdhara river as u/s of Siarmal OCP	
Date of sampling	17.06.16	06.09.2016	30.12.16	23.03.17	
pH Value	6.48	7.13	6.9	7.55	6.5-8.5
Dissolved Oxygen(mg/L)	4.5	4.3	5.2	5.4	4
BOD (3 days 27°c(mg/L)	2.4	3.1	3.9	3.5	3
Color ,Hazen unit	9	8	3	2	300
Total Disolved Solids (mg/L)	138	56	46	94	1500
Total Suspended Solids (mg/L)	58	44	12	36	-
Total Hardness(mg/L)	40	24	28	36	-
Copper(mg/L)	0.06	0.06	<0.03	<0.03	1.5
Iron(mg/L)	<0.06	0.52	<0.06	<0.06	50
Chlorides(mg/L)	12	14	4	18	600
Sulphate(mg/L)	31	10	6	10	400
Nitrate(mg/L)	5.26	1.68	0.87	2.02	50
Fluoride(mg/L)	0.56	0.91	0.39	0.49	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.026	0.02	0.022	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.55	<0.02	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 192
Surface Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda Area	Kulda OCP	Kulda OCP	Kulda OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Basundhara river near Tiklipara village as d/s water of Siarmal OCP & u/s water of Kulda OCP	Basundhara river near Tiklipara village as u/s water of Kulda OCP	Basundhara river near Tiklipara village as d/s water of Siarmal OCP & u/s water of Kulda OCP	Basundhara river near Tiklipara village as u/s water of Kulda OCP	
Date of sampling	17.06.16	06.09.2016	30.12.16	23.03.17	
pH Value	6.3	7.25	6.85	7.59	6.5-8.5
Dissolved Oxygen(mg/L)	4.5	4.7	4.3	4.7	4
BOD (3 days 27°c)(mg/L)	2	3.2	3.1	2.2	3
Color ,Hazen unit	6	38	4	4	300
Total Disolved Solids (mg/L)	146	70	124	130	1500
Total Suspended Solids (mg/L)	34	86	32	24	-
Total Hardness(mg/L)	56	36	65	72	-
Copper(mg/L)	0.06	0.05	<0.03	<0.03	1.5
Iron(mg/L)	0.1	0.31	0.58	<0.06	50
Chlorides(mg/L)	18	10	22	20	600
Sulphate(mg/L)	42	7	16	8	400
Nitrate(mg/L)	3.2	2.1	3.99	3.99	50
Fluoride(mg/L)	0.47	1.2	1.52	0.73	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.022	0.016	0.027	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.18	0.03	0.03	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 193
Surface Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda Area	Kulda OCP	Kulda OCP	Kulda OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Basundhara river near Kusura village as d/s water of Kulda OCP	Basundhara river near Kusura village as d/s water of Kulda OCP	Basundhara river near Kusura village as d/s water of Kulda OCP	Basundhara river near Kusura village as d/s water of Kulda OCP	
Date of sampling	17.06.16	06.09.2016	30.12.16	23.03.17	
pH Value	6.81	7.01	6.92	7.27	6.5-8.5
Dissolved Oxygen(mg/L)	4.6	5.1	4.6	4.2	4
BOD (3 days 27°c)(mg/L)	2.2	4.4	2.4	2.9	3
Color ,Hazen unit	8	8	3	4	300
Total Disolved Solids (mg/L)	204	60	130	310	1500
Total Suspended Solids (mg/L)	46	44	14	32	-
Total Hardness(mg/L)	88	28	80	136	-
Copper(mg/L)	0.06	0.06	<0.03	<0.03	1.5
Iron(mg/L)	<.06	0.48	<0.06	<0.06	50
Chlorides(mg/L)	22	12	14	24	600
Sulphate(mg/L)	30	10	12	92	400
Nitrate(mg/L)	4.32	1.2	3.99	5.78	50
Fluoride(mg/L)	0.68	1.07	0.28	0.57	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.024	0.012	0.03	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.05	<0.02	0.06	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 194
Surface Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda Area	Kulda OCP	Kulda OCP	Kulda OCP	
NAME OF STATIONS	Pond water at Gopalpur village	Pond water at Gopalpur village	Pond water at Gopalpur village	Pond water at Gopalpur village	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	17.06.16	06.09.2016	21.12.16	23.03.17	
pH Value	6.44	7.28	7.04	7.2	6.5-8.5
Dissolved Oxygen(mg/L)	2.4	5.3	4.8	5.2	4
BOD (3 days 27°c)(mg/L)	2	4.1	2.9	3.5	3
Color ,Hazen unit	28	14	5	6	300
Total Disolved Solids (mg/L)	308	210	250	254	1500
Total Suspended Solids (mg/L)	88	52	26	18	-
Total Hardness(mg/L)	80	116	144	156	-
Copper(mg/L)	0.06	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	<.06	0.49	<0.06	<0.06	50
Chlorides(mg/L)	16	18	24	38	600
Sulphate(mg/L)	46	46	36	28	400
Nitrate(mg/L)	3.92	4.87	4.43	4.76	50
Fluoride(mg/L)	0.7	0.81	0.49	0.63	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.036	0.03	0.031	
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.03	0.06	0.09	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 195
Surface Water Quality Data
Area: **Basundhara**

Project / OCP	Kulda Area	Kulda OCP	Kulda OCP	Kulda OCP	
NAME OF STATIONS	Pond water at Gaddwar village	Pond water at Gaddwar village	Pond water at Gaddwar village	Pond water at Gaddwar village	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	17.06.16	06.09.2016	21.12.16	23.03.17	
pH Value	6.12	7.06	7.23	7.05	6.5-8.5
Dissolved Oxygen(mg/L)	5.2	4.9	4.4	4.4	4
BOD (3 days 27°c(mg/L)	4.2	3.8	2.8	2.8	3
Color ,Hazen unit	56	14	4	4	300
Total Disolved Solids (mg/L)	208	48	44	84	1500
Total Suspended Solids (mg/L)	94	46	20	12	-
Total Hardness(mg/L)	36	20	20	36	-
Copper(mg/L)	0.05	0.04	<0.03	<0.03	1.5
Iron(mg/L)	0.27	0.21	<0.06	<0.06	50
Chlorides(mg/L)	22	10	12	12	600
Sulphate(mg/L)	44	8	4	9	400
Nitrate(mg/L)	5.22	1.1	0.91	2.17	50
Fluoride(mg/L)	0.43	0.73	0.27	0.81	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.033	0.022	0.032	
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.02	0.12	0.05	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 196
Surface Water Quality Data
Area: **Orient**

Project / OCP	Orient	Orient	Orient	Orient	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Basundhara river near Degan village before confluence to Ib river	Basundhara river near Degan village before confluence to Ib river	Basundhara river near Degan village before confluence to Ib river	Basundhara river near Degan village before confluence to Ib river	
Date of sampling	28.06.16	13.09.2016	29.12.16	30.03.17	
pH Value	6.45	7.12	6.94	6.84	6.5-8.5
Dissolved Oxygen(mg/L)	5	5.1	4.9	5.1	4
BOD (3 days 27°c)(mg/L)	2.4	4.9	3.8	3	3
Color ,Hazen unit	10	18	3	2	300
Total Disolved Solids (mg/L)	136	76	96	144	1500
Total Suspended Solids (mg/L)	74	62	16	18	-
Total Hardness(mg/L)	36	40	52	68	-
Copper(mg/L)	0.06	0.08	<0.03	<0.03	1.5
Iron(mg/L)	0.09	<0.06	<0.06	<0.06	50
Chlorides(mg/L)	18	18	14	18	600
Sulphate(mg/L)	26	9	18	24	400
Nitrate(mg/L)	3.94	1.21	1.48	3.99	50
Fluoride(mg/L)	0.11	0.87	0.28	0.82	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.045	0.029	0.026	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.14	<0.02	0.03	0.25	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 197
Surface Water Quality Data
Area: **Orient**

Project / OCP	Orient	Orient	Orient	Orient	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Ib river bridge of NH200 at Gondghora village as u/s of Orient area	Ib river bridge of NH200 at Gondghora village as u/s of Orient area	Ib river bridge of NH200 at Gondghora village as u/s of Orient area	Ib river bridge of NH200 at Gondghora village as u/s of Orient area	
Date of sampling	28.06.16	13.09.2016	30.12.16	30.03.17	
pH Value	6.92	7.02	7.17	7.02	6.5-8.5
Dissolved Oxygen(mg/L)	4.8	5.3	4.3	4.2	4
BOD (3 days 27°c)(mg/L)	2	4.8	3.2	2.1	3
Color ,Hazen unit	7	16	2	2	300
Total Disolved Solids (mg/L)	212	60	88	128	1500
Total Suspended Solids (mg/L)	42	66	42	20	-
Total Hardness(mg/L)	92	28	52	64	-
Copper(mg/L)	0.05	0.05	<0.03	<0.03	1.5
Iron(mg/L)	0.61	0.07	<0.06	<0.06	50
Chlorides(mg/L)	24	10	12	16	600
Sulphate(mg/L)	27	8	8	8	400
Nitrate(mg/L)	3.94	1.5	1.58	4.43	50
Fluoride(mg/L)	0.64	0.55	0.29	1.09	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.04	0.02	0.018	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.33	0.05	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 198
Surface Water Quality Data
Area: **Orient**

Project / OCP	Orient	Orient	Orient	Orient	
NAME OF STATIONS	Bhedan river before confluence point with Ib river	Bhedan river before confluence point with Ib river	Bhedan river before confluence point with Ib river	Bhedan river before confluence point with Ib river	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	28.06.16	13.09.2016	30.12.16	30.03.17	
pH Value	6.96	7.21	7.15	6.75	6.5-8.5
Dissolved Oxygen(mg/L)	5.1	4.9	4.2	4.3	4
BOD (3 days 27°c(mg/L)	2.2	3.1	3.1	2.2	3
Color ,Hazen unit	9	18	2	4	300
Total Disolved Solids (mg/L)	202	78	90	138	1500
Total Suspended Solids (mg/L)	44	68	36	16	-
Total Hardness(mg/L)	88	40	52	76	-
Copper(mg/L)	0.05	0.08	<0.03	<0.03	1.5
Iron(mg/L)	0.65	0.09	<0.06	<0.06	50
Chlorides(mg/L)	22	20	10	16	600
Sulphate(mg/L)	29	7	16	12	400
Nitrate(mg/L)	4.38	1.16	1.76	3.69	50
Fluoride(mg/L)	0.6	0.65	1.32	0.59	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.038	0.02	0.018	
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.02	0.02	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 199
Surface Water Quality Data
Area: **Orient**

Project / OCP	Orient	Orient	Orient	Orient	
NAME OF STATIONS	Ib river near Kotarbaga village at bridge point	Ib river near Kotarbaga village at bridge point	Ib river near Kotarbaga village at bridge point	Ib river near Kotarbaga village at bridge point	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	28.06.16	13.09.2016	26.12.16	30.03.17	
pH Value	6.88	8.12	7.47	7.3	6.5-8.5
Dissolved Oxygen(mg/L)	4.6	4.8	4.7	4.9	4
BOD (3 days 27°c)(mg/L)	2.6	4.6	3.3	2.3	3
Color ,Hazen unit	10	24	3	4	300
Total Disolved Solids (mg/L)	248	90	106	288	1500
Total Suspended Solids (mg/L)	46	78	14	34	-
Total Hardness(mg/L)	100	52	60	168	-
Copper(mg/L)	0.05	0.05	<0.03	<0.03	1.5
Iron(mg/L)	<.06	0.19	<0.06	<0.06	50
Chlorides(mg/L)	50	12	14	32	600
Sulphate(mg/L)	26	10	20	56	400
Nitrate(mg/L)	5.66	1.5	2.78	4.43	50
Fluoride(mg/L)	0.77	0.08	0.27	0.73	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.041	0.03	0.012	
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.29	0.03	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 200
Surface Water Quality Data
Area: **Orient**

Project / OCP	Orient	Orient	Orient	Orient	
NAME OF STATIONS	Pond water at Burhijam village	Pond water at Burhijam village	Pond water at Burhijam village	Pond Water at Burhijan Village	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	28.06.16	13.09.2016	26.12.16	30.03.17	
pH Value	6.81	7.76	7.26	7.02	6.5-8.5
Dissolved Oxygen(mg/L)	4.1	3.3	4.8	4.5	4
BOD (3 days 27°c(mg/L)	3.6	3.1	3.8	2.8	3
Color ,Hazen unit	16	28	4	10	300
Total Disolved Solids (mg/L)	294	148	156	228	1500
Total Suspended Solids (mg/L)	66	86	18	44	-
Total Hardness(mg/L)	116	80	76	104	-
Copper(mg/L)	0.05	0.07	<0.03	0.03	1.5
Iron(mg/L)	0.06	0.13	<0.06	<0.06	50
Chlorides(mg/L)	34	16	28	36	600
Sulphate(mg/L)	28	20	22	48	400
Nitrate(mg/L)	5.22	3.99	4.43	3.99	50
Fluoride(mg/L)	0.84	0.7	0.46	0.81	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.038	0.032	0.016	
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	<.02	0.37	1.04	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease(mg/L)	<4.0	<4.0	<4.0	<4.0	0.1

Table: 201
Surface Water Quality Data
Area: **Orient**

Project/OCP	Orient	Orient	Orient	Orient	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Ib river near Charbhathi village as u/s water for Ib Valley Coalfield	Ib river near Charbhathi village as u/s water for Ib Valley Coalfield	Ib river near Charbhathi village as u/s water for Ib Valley Coalfield	Ib river near Charbhathi village as u/s water for Ib Valley Coalfield	
Date of sampling	17.06.16	13.09.2016	29.12.16	30.03.17	
pH	6.66	6.97	7.21	6.83	6.5-8.5
Dissolved Oxygen(mg/L)	4.5	4.6	5.1	4.8	4
BOD (3 days 27°c)(mg/L)	2.1	3.2	4	2.7	3
Color (Hazen unit)	12	16	3	4	300
Total dissolved solids (mg/L)	158	78	98	152	1500
TSS(mg/L)	68	58	22	12	-
Total Hardness(mg/L)	32	44	60	64	-
Copper(mg/L)	0.06	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	0.11	<0.06	<0.06	<0.06	50
Chlorides(mg/L)	16	14	14	20	600
Sulphate(mg/L)	30	8	10	28	400
Nitrate(mg/L)	4.38	1.5	1.37	4.43	50
Fluoride(mg/L)	0.2	1.3	0.36	0.46	1.5
Phenolic Compound(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01
Selenium(mg/L)	<.002	<0.002	<0.002	<0.002	0.05
Arsenic(mg/L)	<.002	<0.002	<0.002	<0.002	0.2
Cyanide(mg/L)	***	0.041	0.021	0.022	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Zinc(mg/L)	0.03	0.02	0.03	0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

TABLE 202

Project: Lajkura OCP
Monitoring Station: Chhauliberna Village Well

Date of sampling	Water level
23-06-2016	3.81
22-08-2016	2.92
25-11-2016	6.18
20-01-2017	5.31

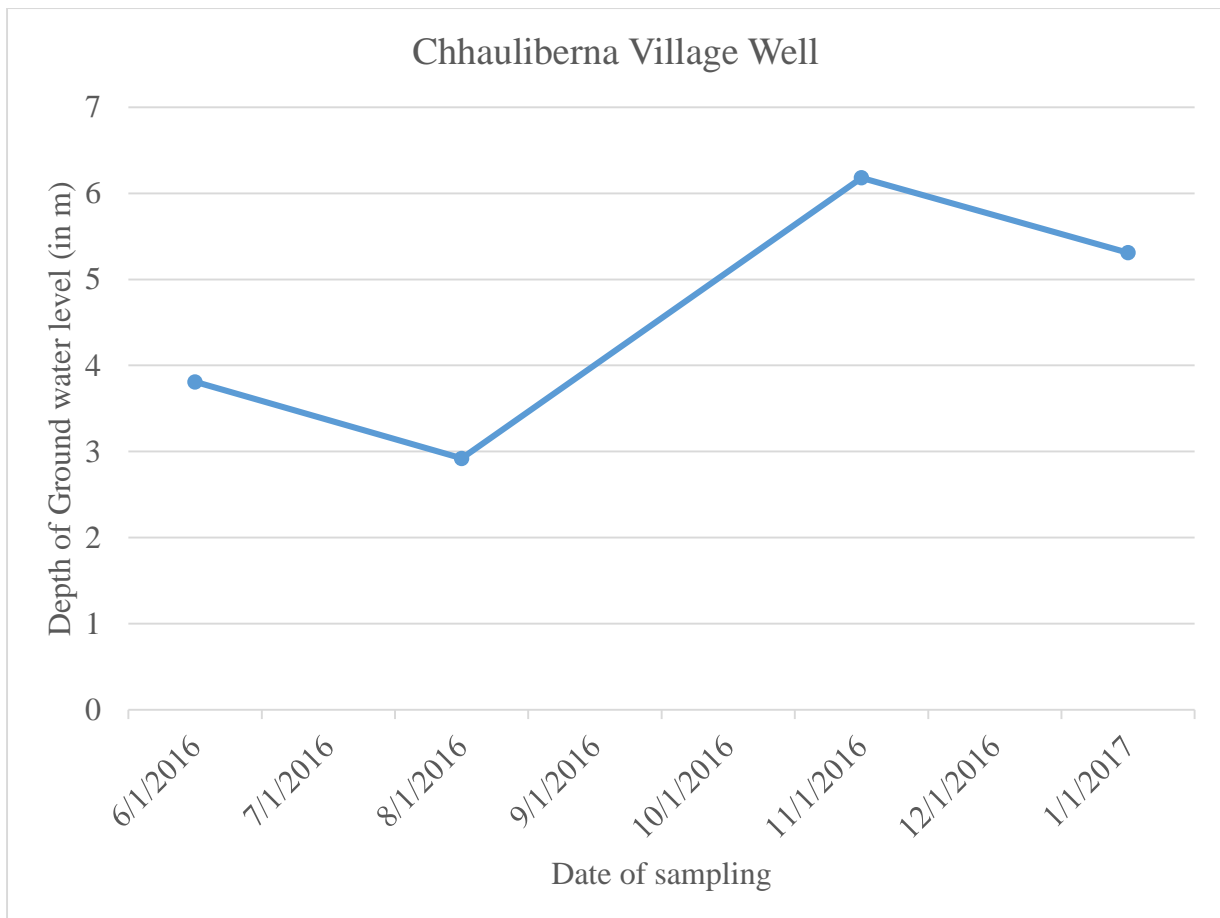
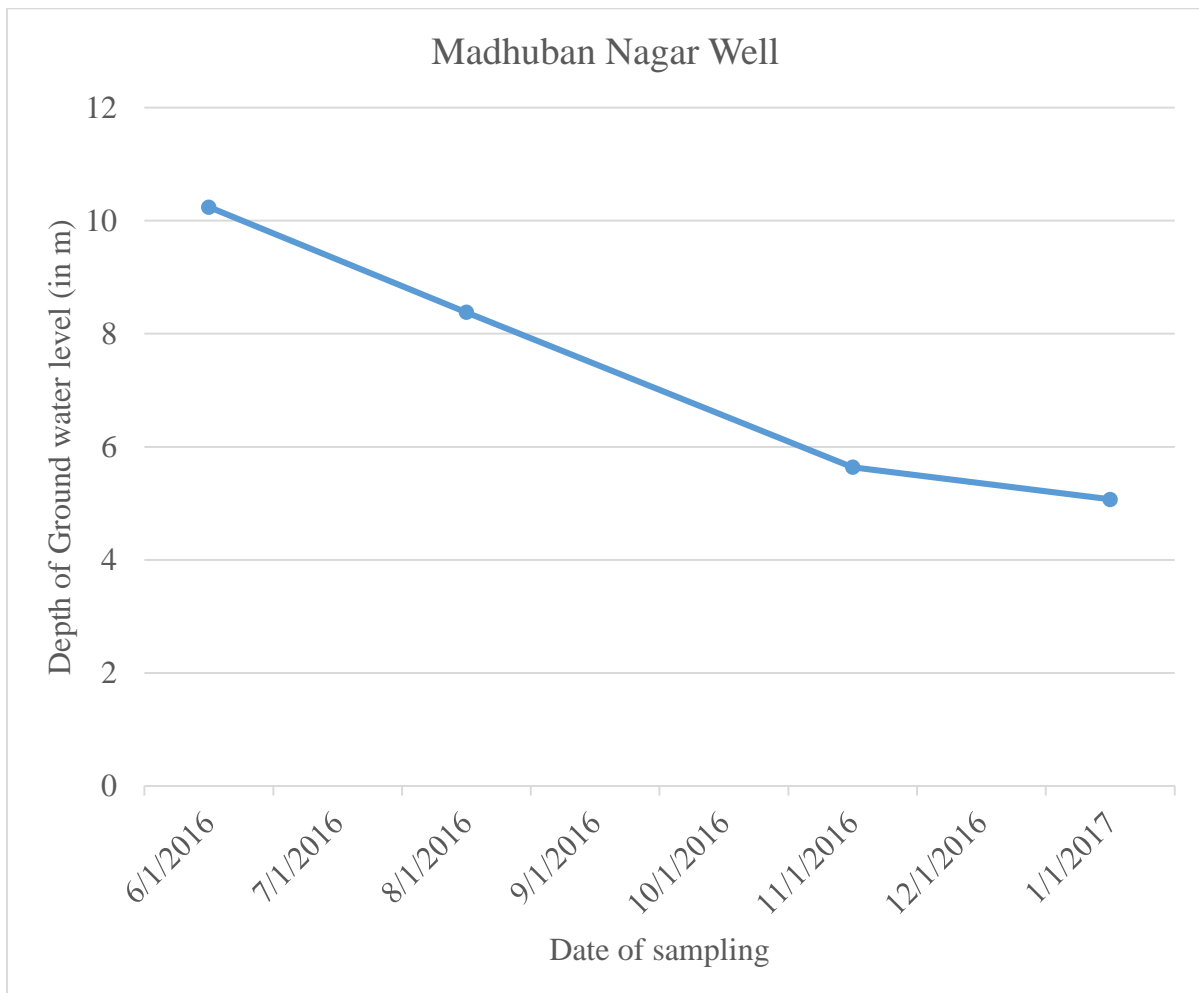


TABLE 203

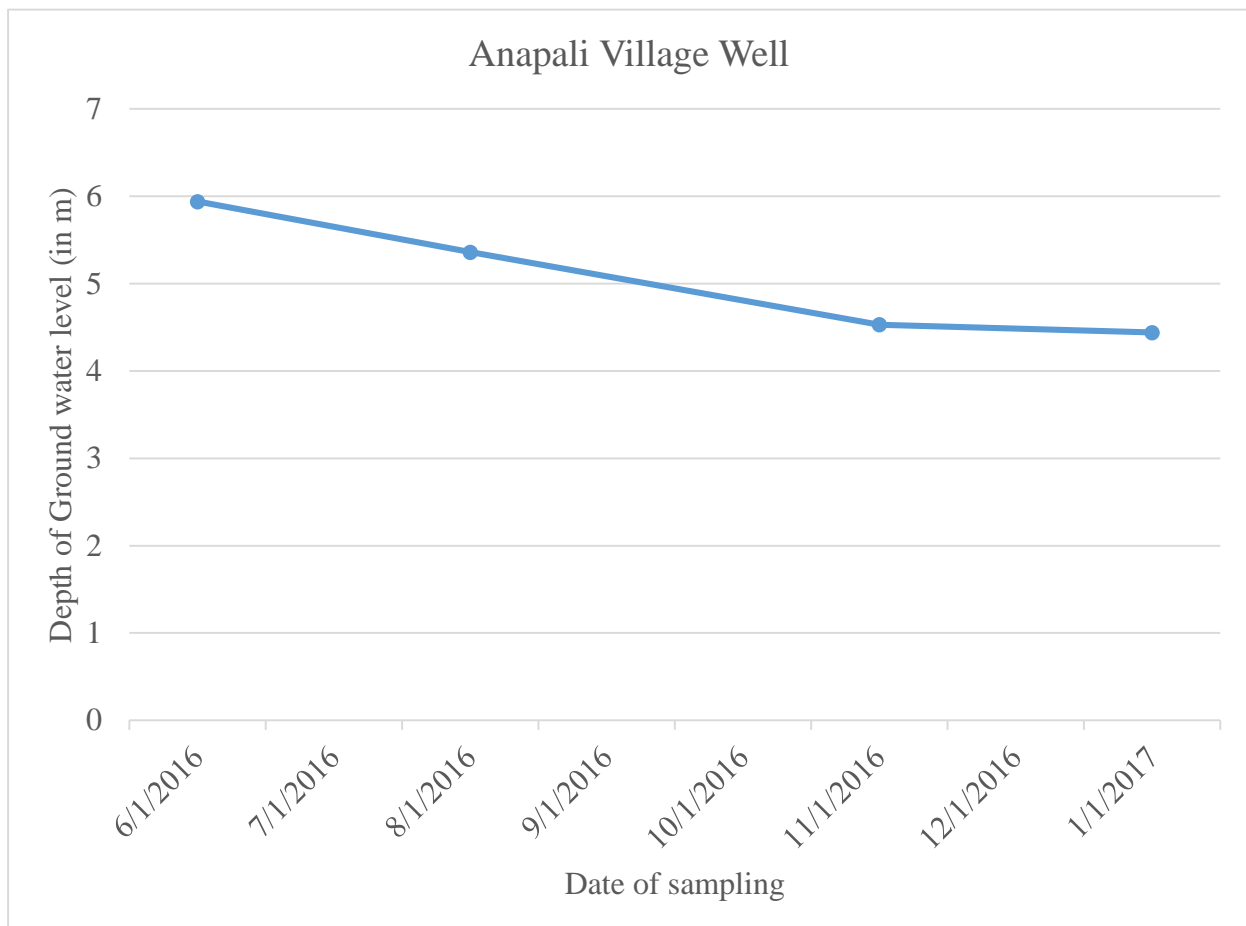
Project: Lajkura OCP
Monitoring Station: Madhuban Nagar Well

Date of sampling	Water level
23-06-2016	10.24
22-08-2016	8.38
25-11-2016	5.64
20-01-2017	5.07



Project: Samaleswari OCP
Monitoring Station: Anapali Village Well

Date of sampling	Water level
27-06-2016	5.94
24-08-2016	5.36
26-11-2016	4.53
20-01-2017	4.44



Project: Samaleswari OCP
Monitoring Station: Chingriguda Village Well

Date of sampling	Water level
27-06-2016	7.19
24-08-2016	6.22
26-11-2016	5.16
20-01-2017	4.71

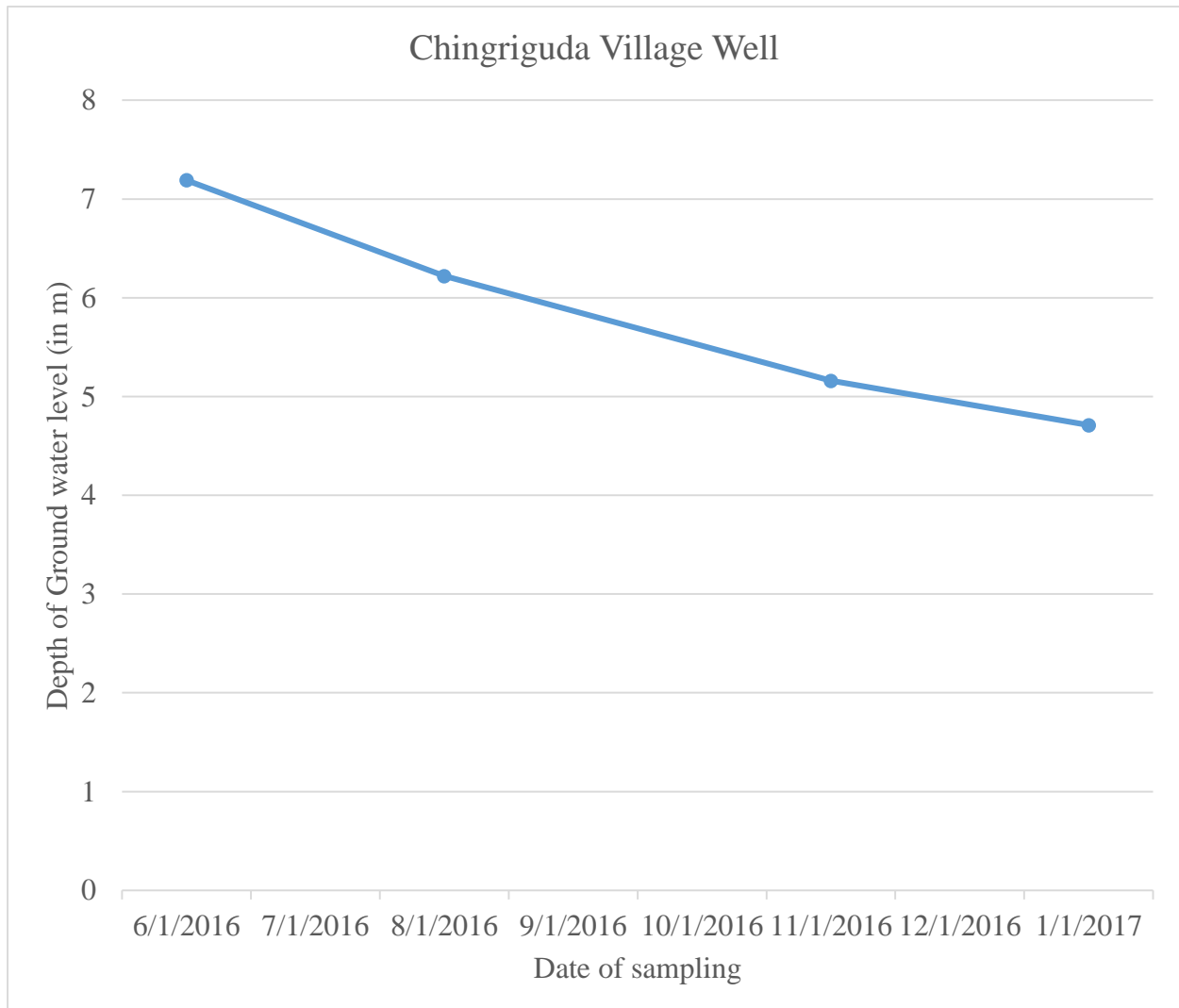
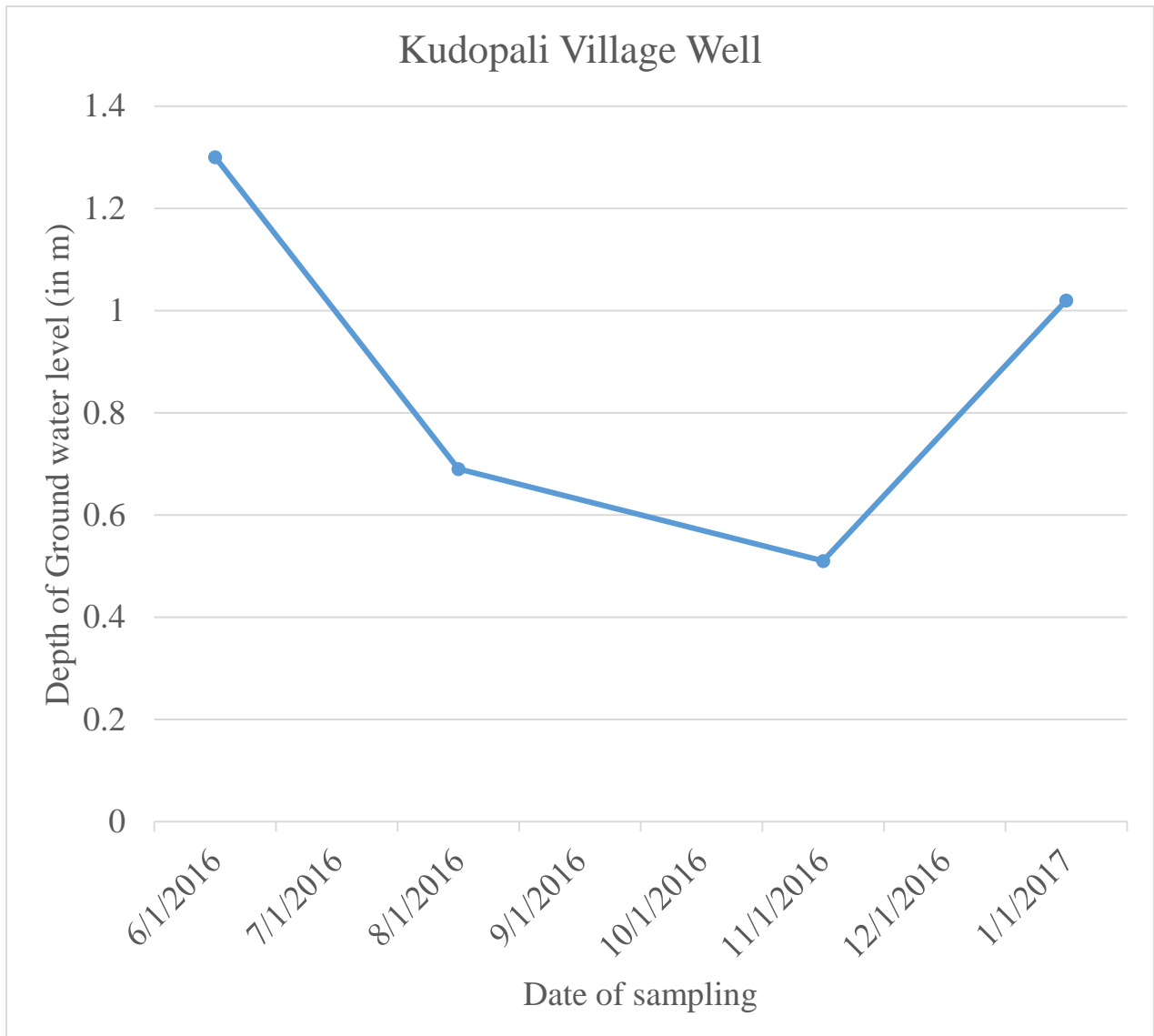


TABLE:206

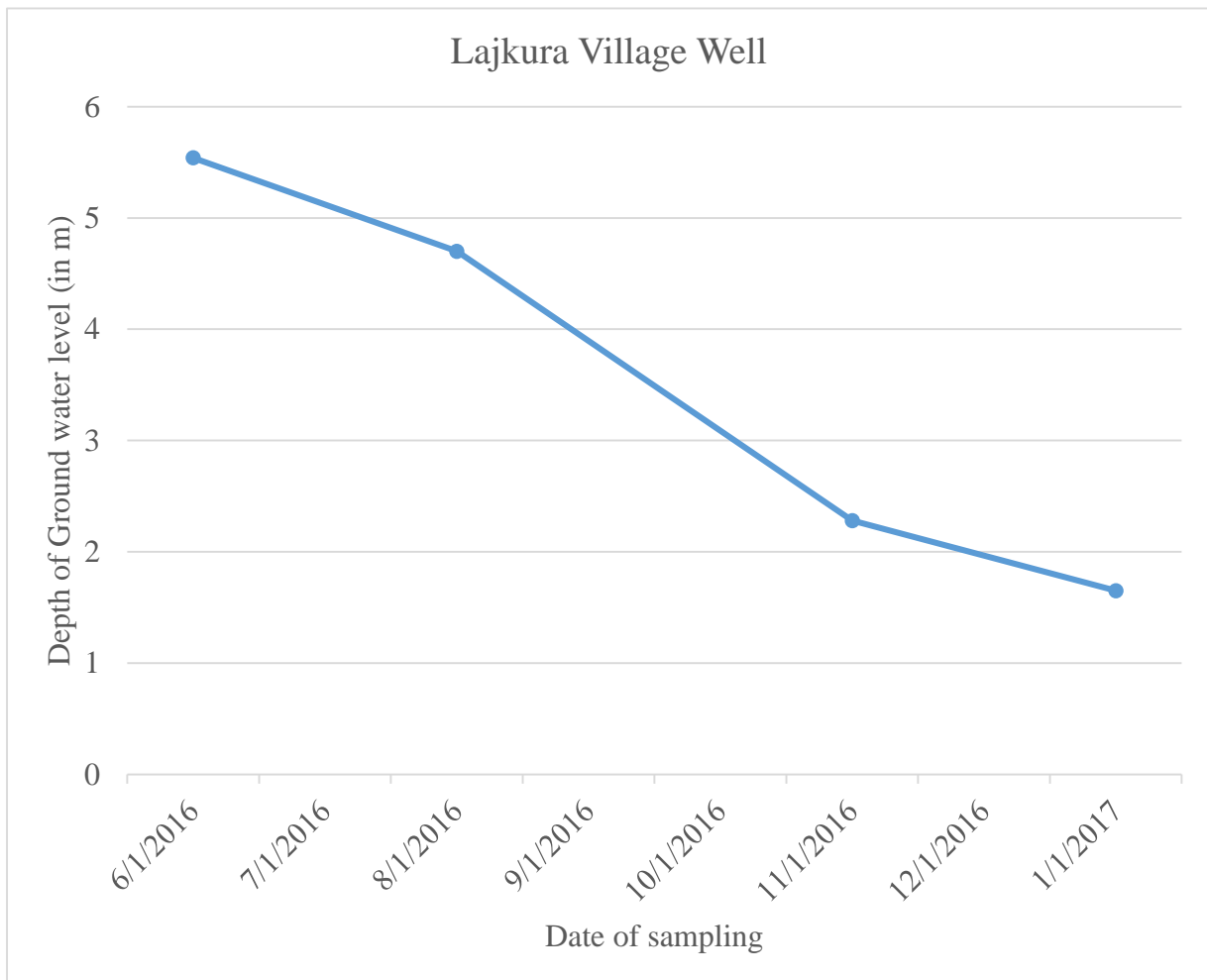
Project: Samaleswari OCP
Monitoring Station: Kudopali Village Well

Date of sampling	Water level
24-06-2016	1.3
24-08-2016	0.69
26-11-2016	0.51
20-01-2017	1.02



Project: Samaleswari OCP
Monitoring Station: Lajkura Village Well

Date of sampling	Water level
24-06-2016	5.54
23-08-2016	4.7
26-11-2016	2.28
20-01-2017	1.65



Project: Belpahar OCP
Monitoring Station: Darlipali Village Well

Date of sampling	Water level
30-06-2016	5.64
25-08-2016	4.17
28-11-2016	3.66
30-01-2017	2.91

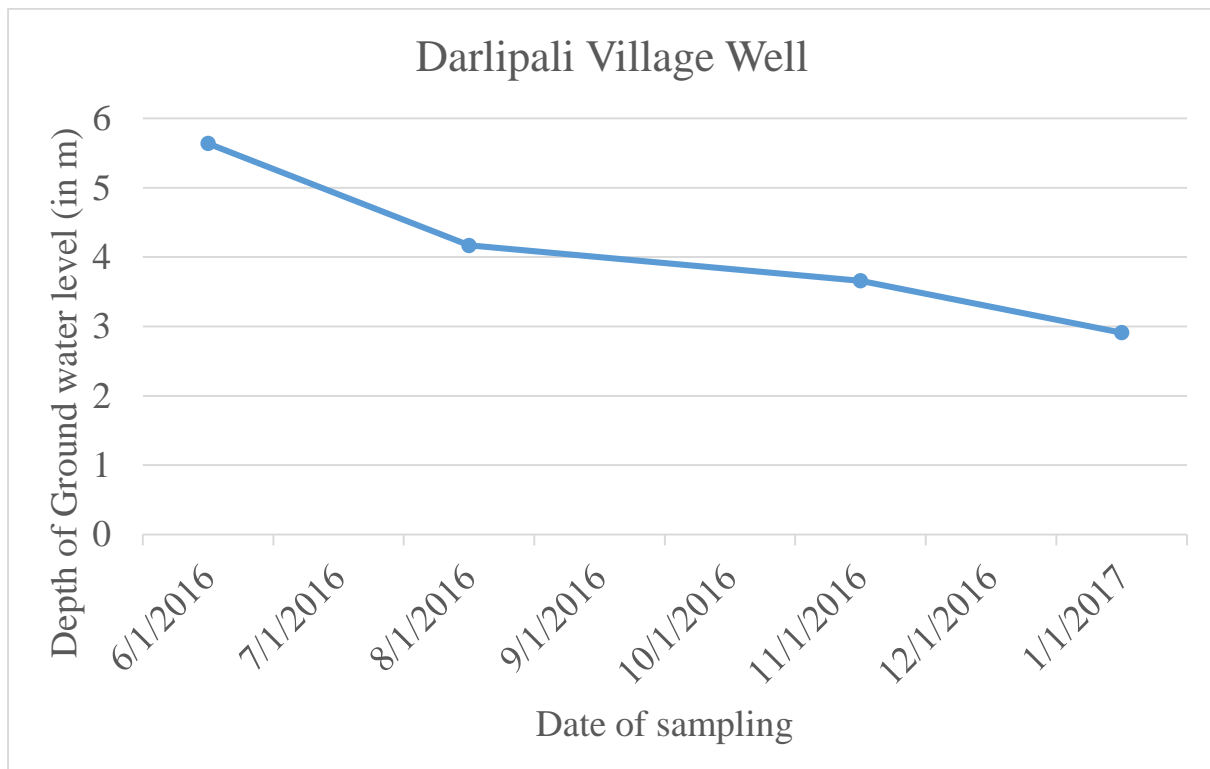


TABLE:209

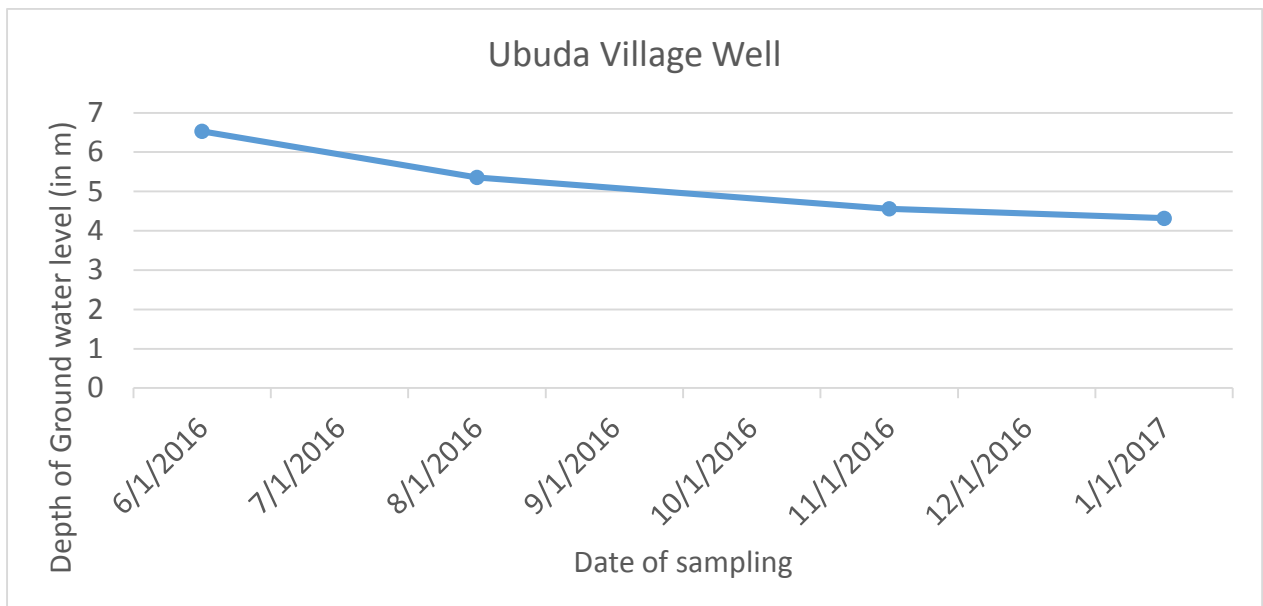
Project: Belpahar OCP
Monitoring Station: Jurabaga Village Well

Date of sampling	Water level
28-11-2016	5.19
30-01-2017	4.59

TABLE:210

Project: Belpahar OCP
Monitoring Station: Ubuda Village Well

Date of sampling	Water level
30-06-2016	6.53
25-08-2016	5.36
28-11-2016	4.56
30-01-2017	4.32



Project: Lakhanpur OCP
Monitoring Station: Ubuda Village Well

Date of sampling	Water level
30-06-2016	6.53
25-08-2016	5.36
28-11-2016	4.56
30-01-2017	4.32

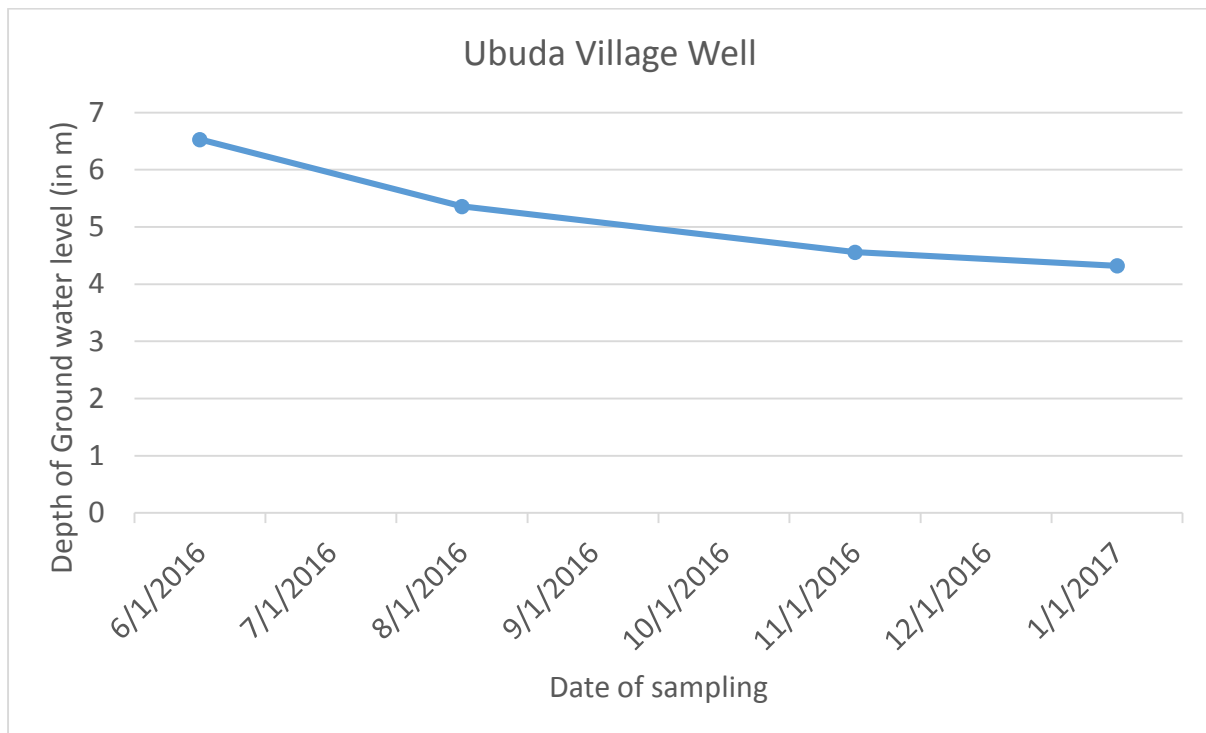


TABLE:211

Project: Lilari OCP
Monitoring Station: Darlipali Village Well

Date of sampling	Water level
28-11-2016	3.66
30-01-2017	2.91

TABLE:212

Project: Lilari OCP
Monitoring Station: Jurabaga Village Well

Date of sampling	Water level
30-06-2016	7.37
25-08-2016	6.53
28-11-2016	5.19
30-01-2017	4.59

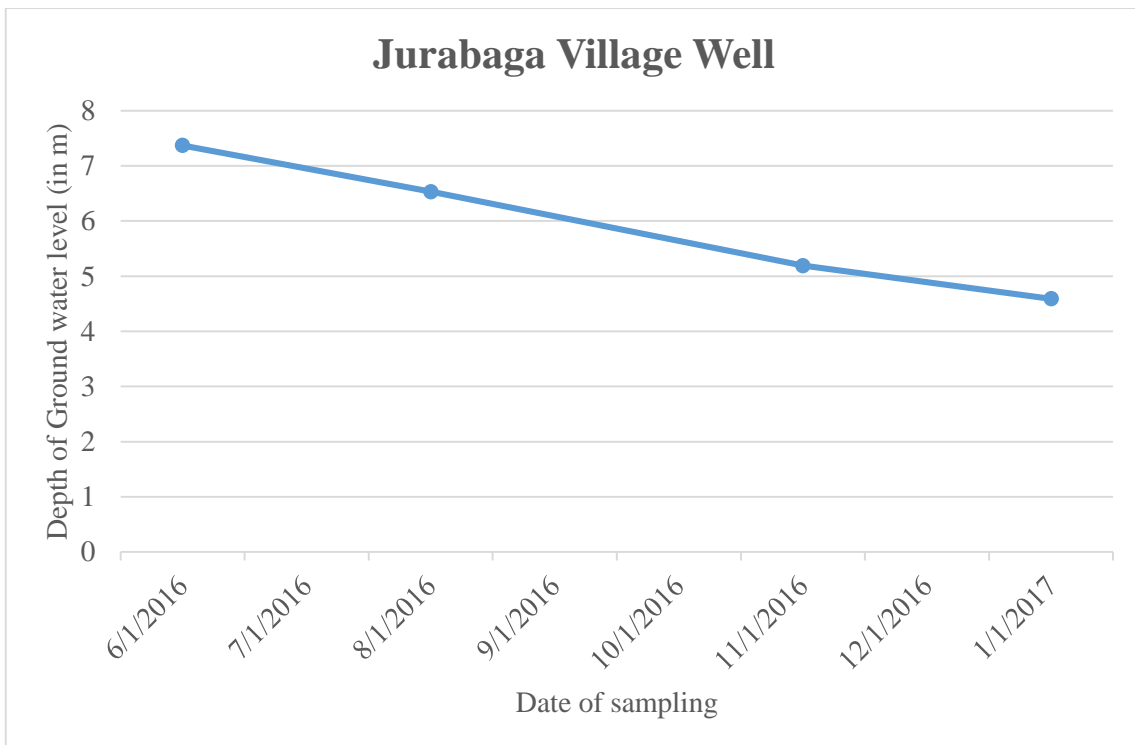


TABLE:213

Project: Basundhara (W) OCP
Monitoring Station: Sardega Village Well

Date of sampling	Water level
18-06-2016	7.19
18-08-2016	6.2
21-11-2016	3.06
18-01-2017	2.31

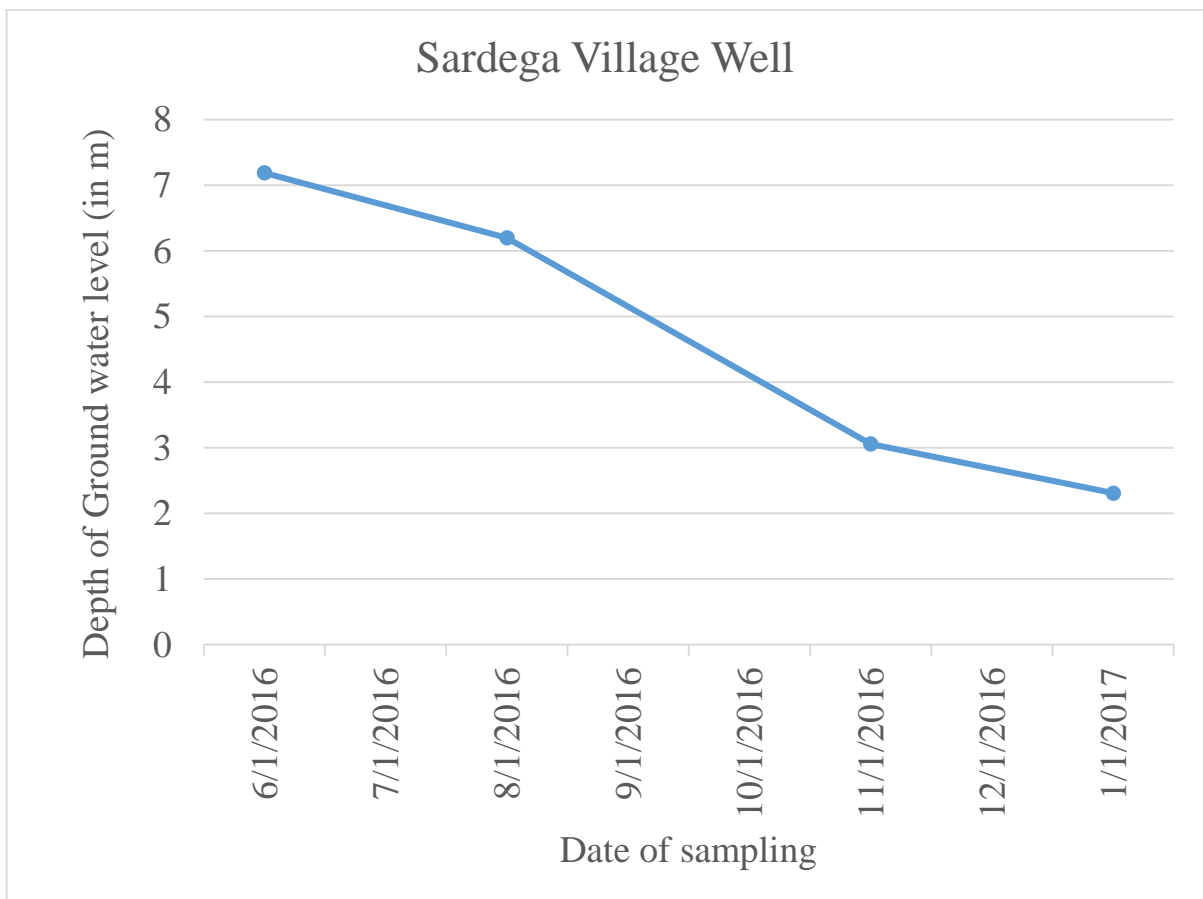


TABLE:214

Project: Basundhara (W) OCP
Monitoring Station: Tikilipara Village Well

Date of sampling	Water level
18-06-2016	3.4
18-08-2016	2.9
21-11-2016	3.96
18-01-2017	3.12

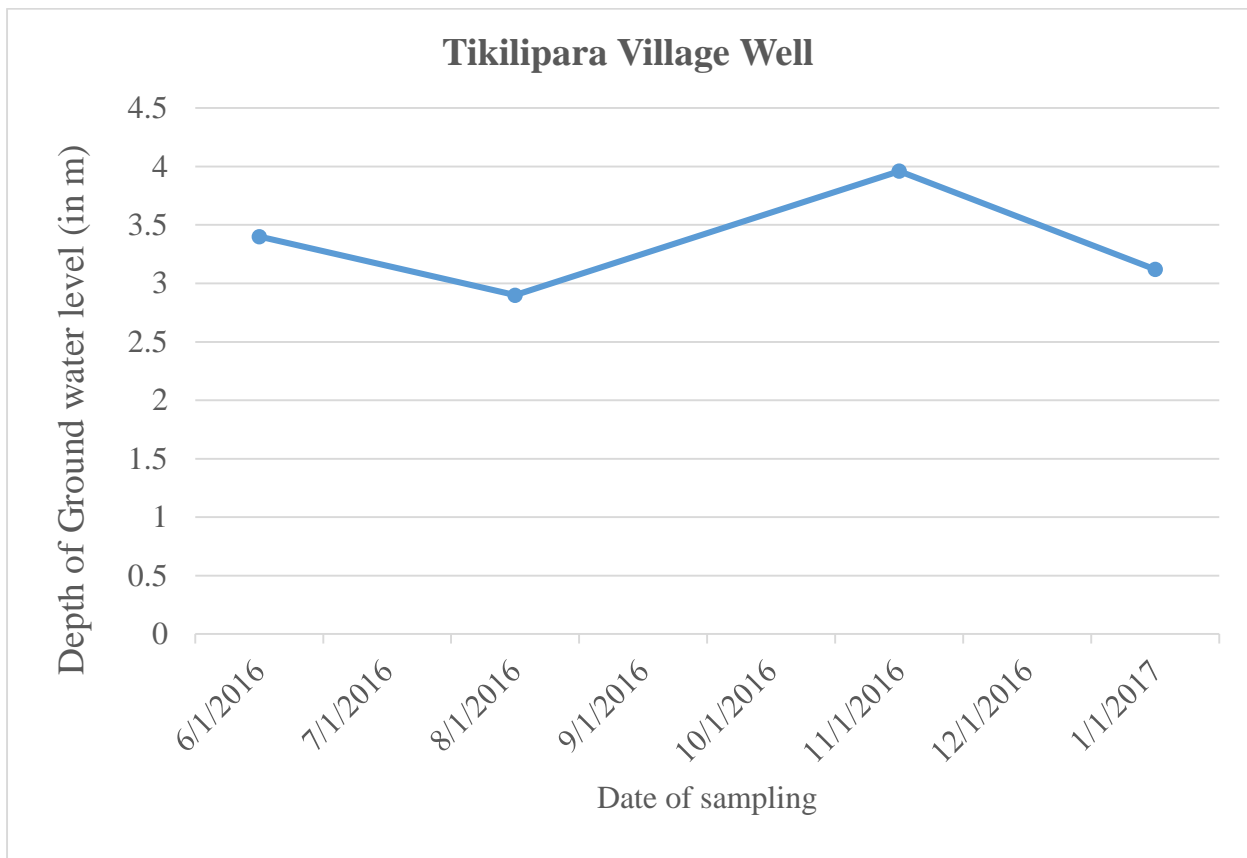


TABLE:215

Project: Kulda OCP
Monitoring Station: Well at Kulda

Date of sampling	Water level
18-06-2016	3.43
18-08-2016	2.57
21-11-2016	1.6
18-01-2017	0.96

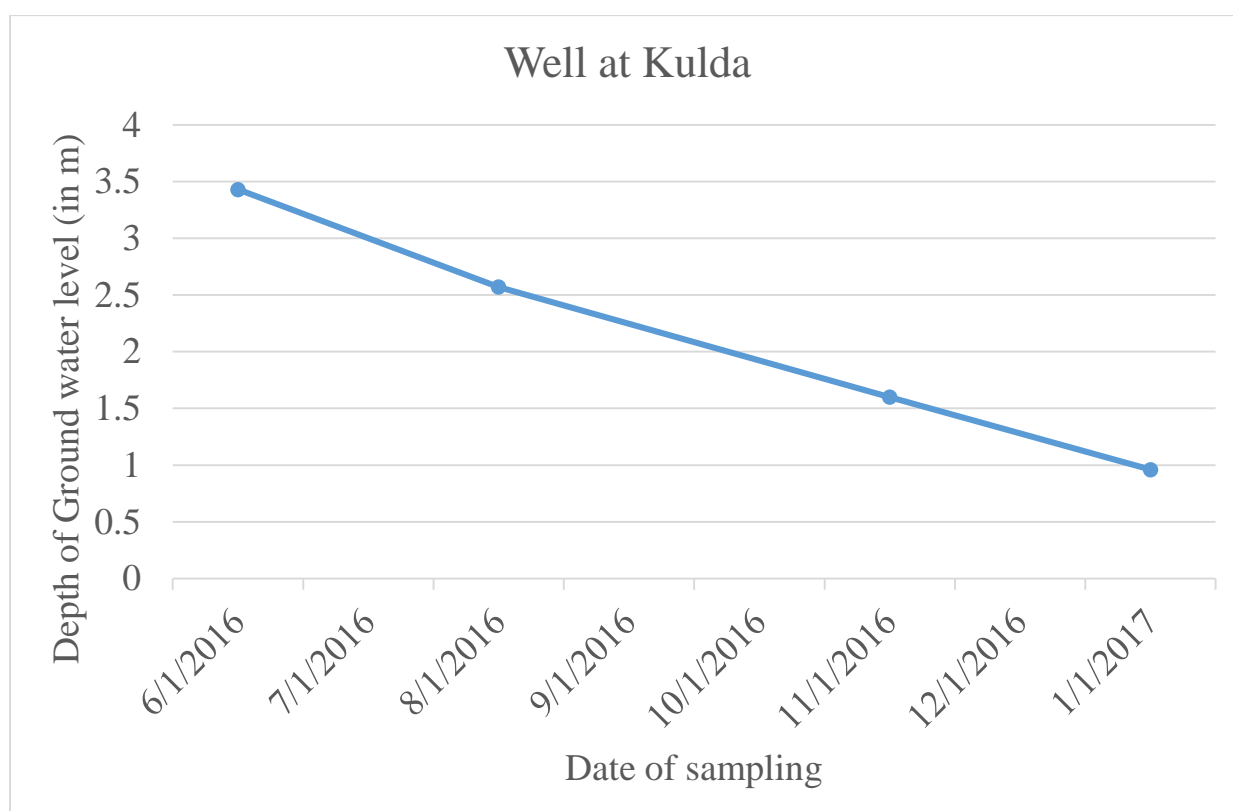


TABLE:216

Project: Kulda OCP
Monitoring Station: Well at Tumulia

Date of sampling	Water level
18-06-2016	5.61
18-08-2016	4.14
21-11-2016	3.78
18-01-2017	2.91

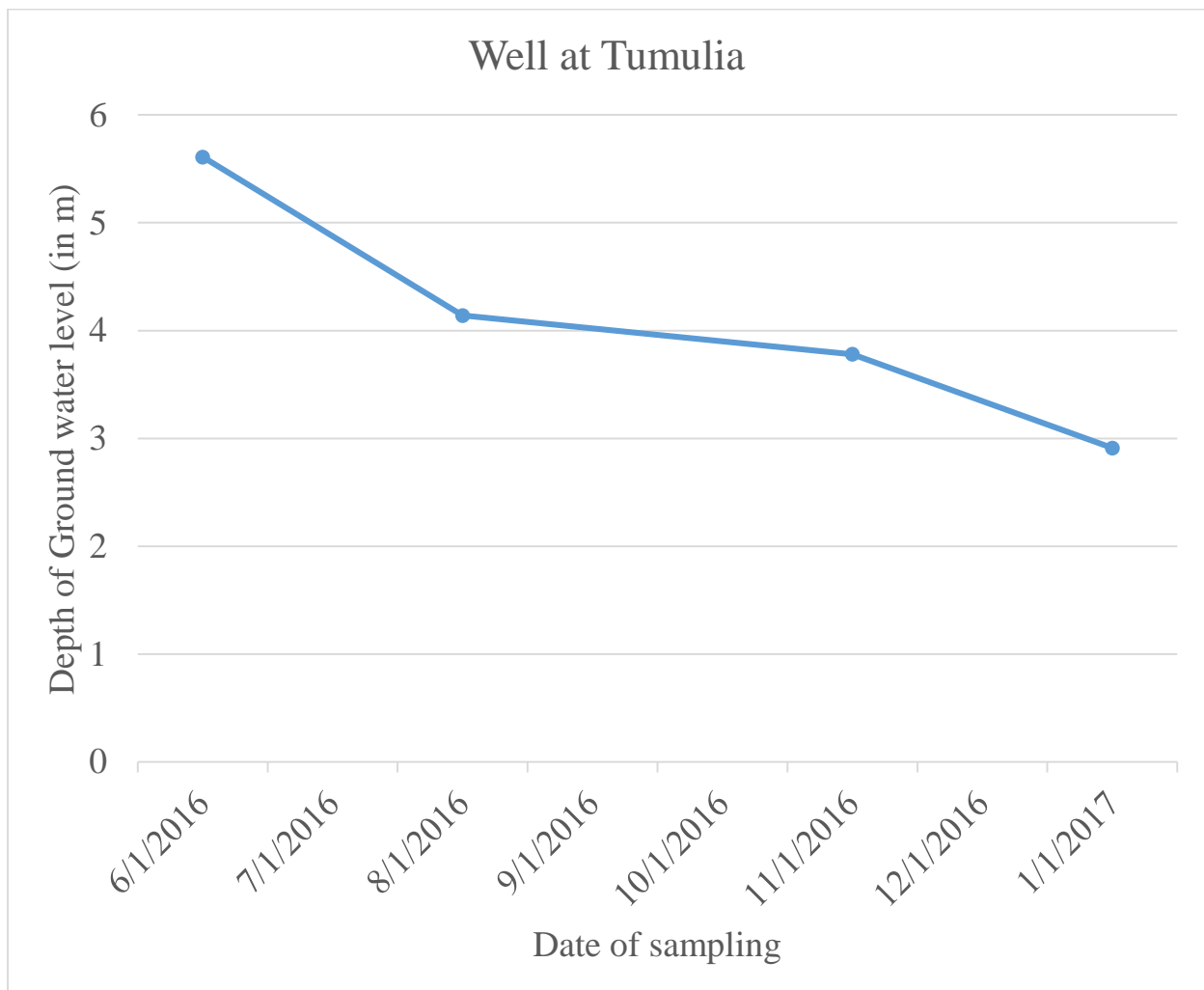


TABLE:217

Project: Orient
Monitoring Station: Adibasi Basti Village Well

Date of sampling	Water level
20-06-2016	6.45
22-08-2016	5.61
22-11-2016	4.56
27-01-2017	4.17



TABLE:218

Project: Orient
Monitoring Station: Anapali Village Well

Date of sampling	Water level
27-06-2016	5.94
24-08-2016	5.36
26-11-2016	4.53
20-01-2017	4.44

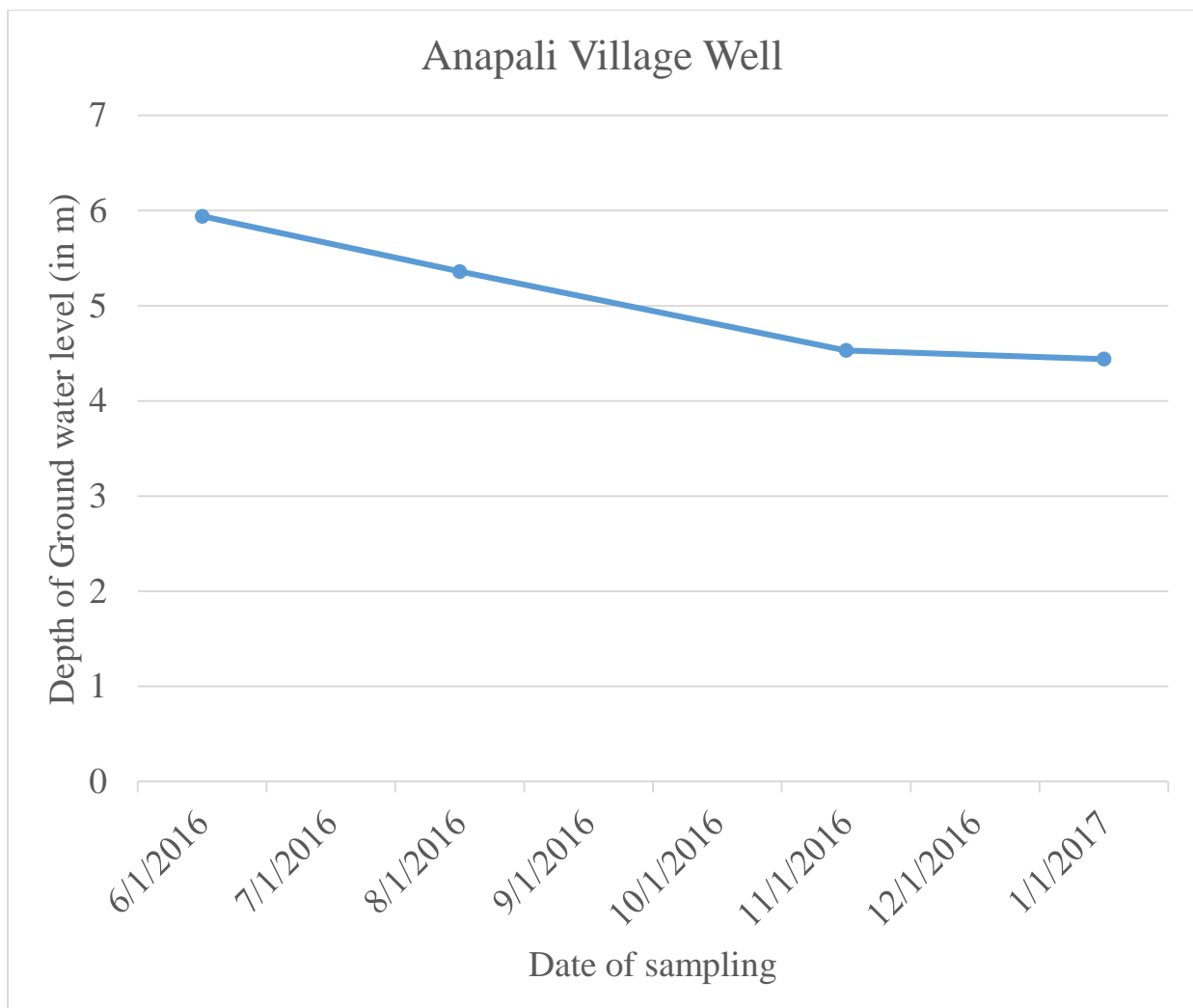


TABLE:219

Project: Orient
Monitoring Station: Chhauliberna Village Well

Date of sampling	Water level
23-06-2016	3.81
22-08-2016	2.92
25-11-2016	6.18
20-01-2017	5.31

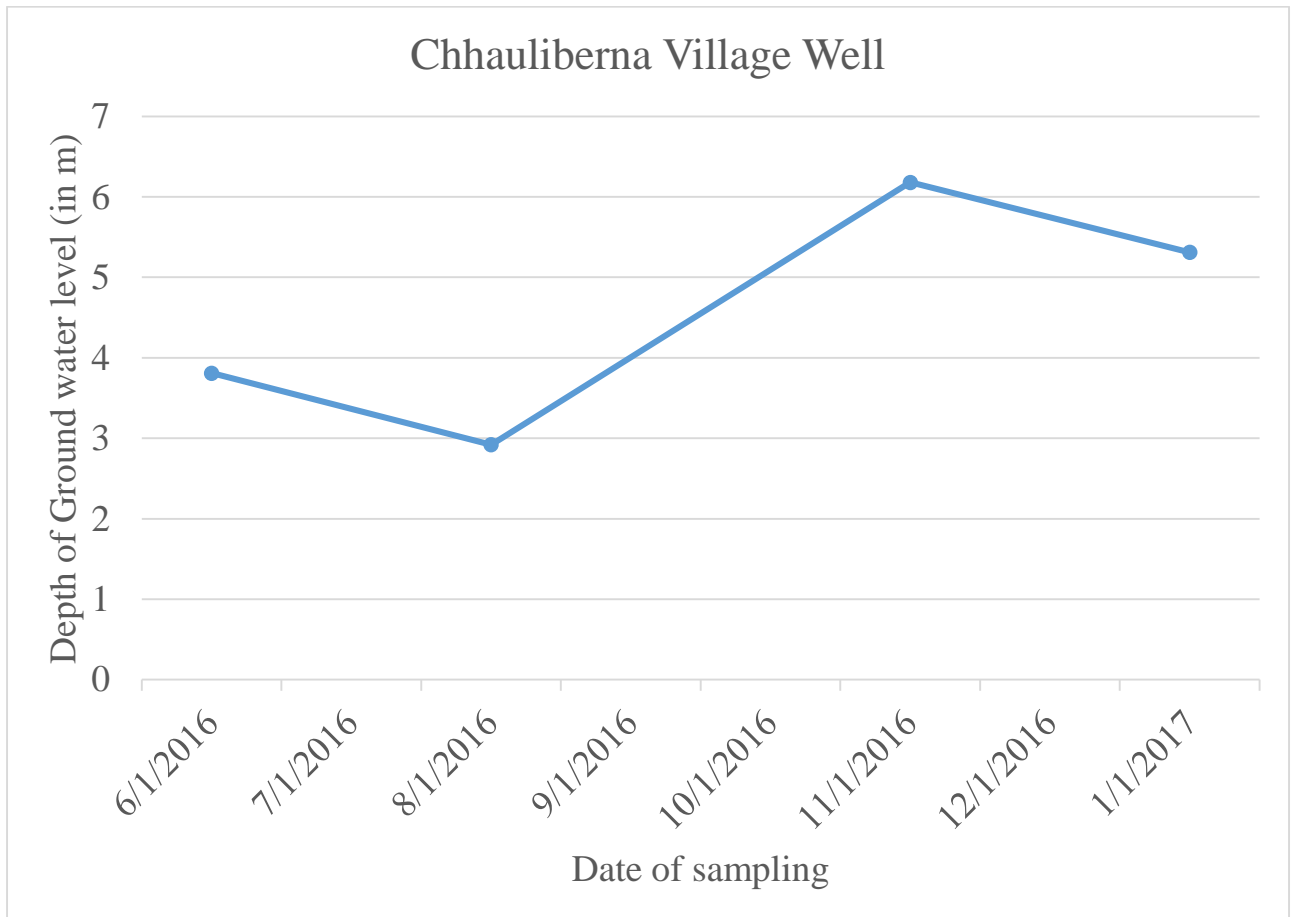
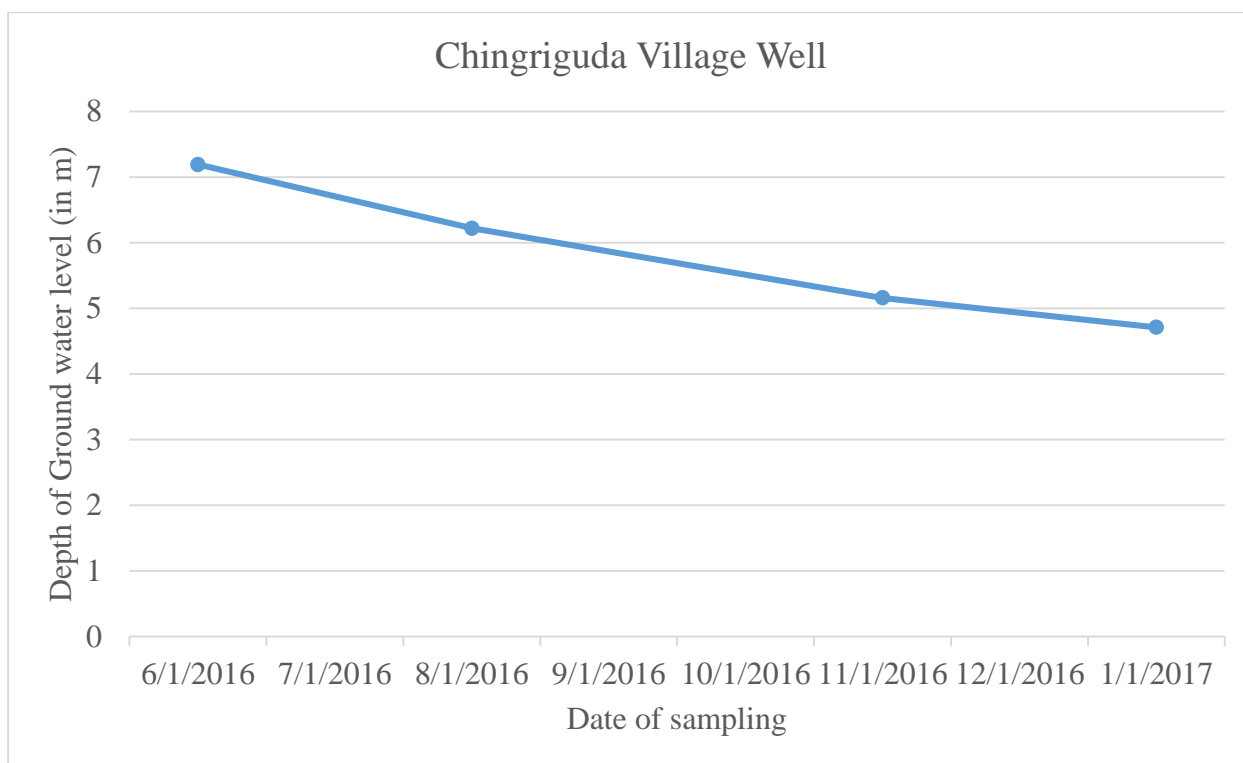


TABLE: 220

Project: Orient
Monitoring Station: Chingriguda Village Well

Date of sampling	Water level
27-06-2016	7.19
24-08-2016	6.22
26-11-2016	5.16
20-01-2017	4.71



TABLE;221

Project: Orient
Monitoring Station: Jhopadi Basti Village Well

Date of sampling	Water level
20-06-2016	5.26
22-08-2016	3.53
22-11-2016	2.76
27-01-2017	2.01

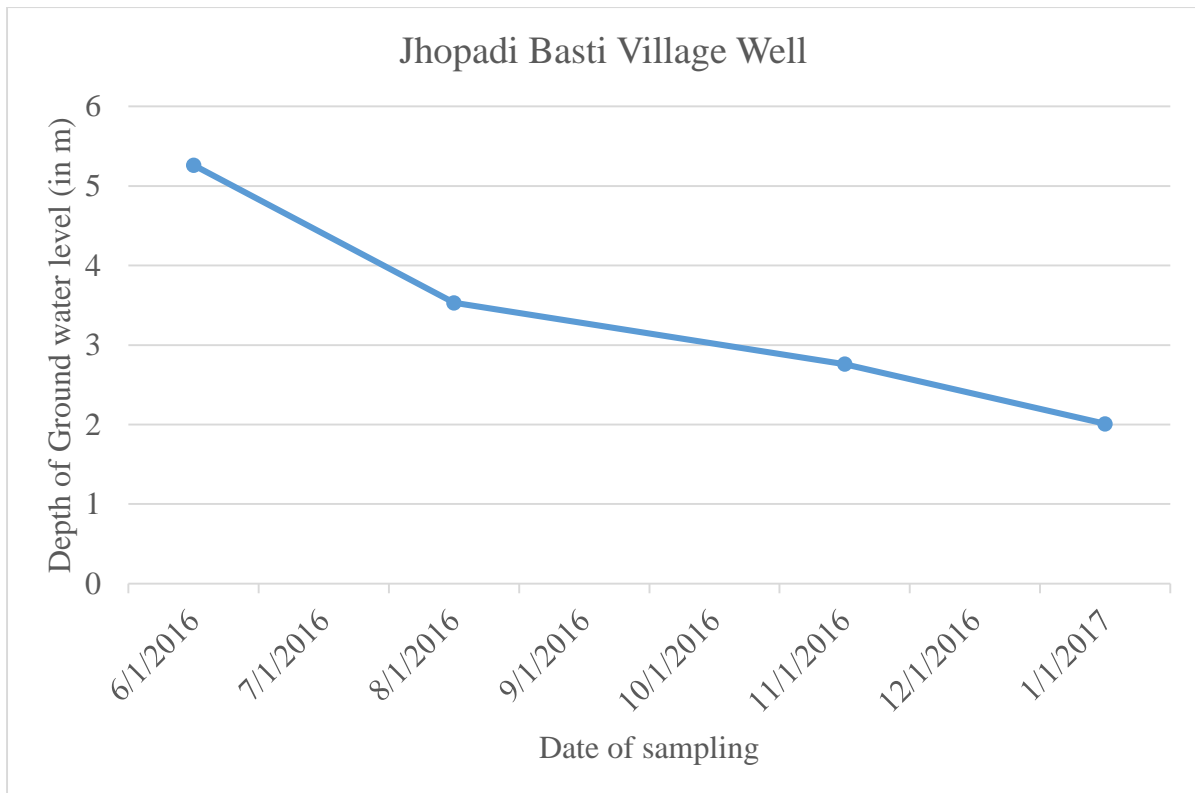


TABLE:222

Project: Orient
Monitoring Station: Kudopali Village Well

Date of sampling	Water level
24-06-2016	1.3
24-08-2016	0.69
26-11-2016	0.51
20-01-2017	1.02

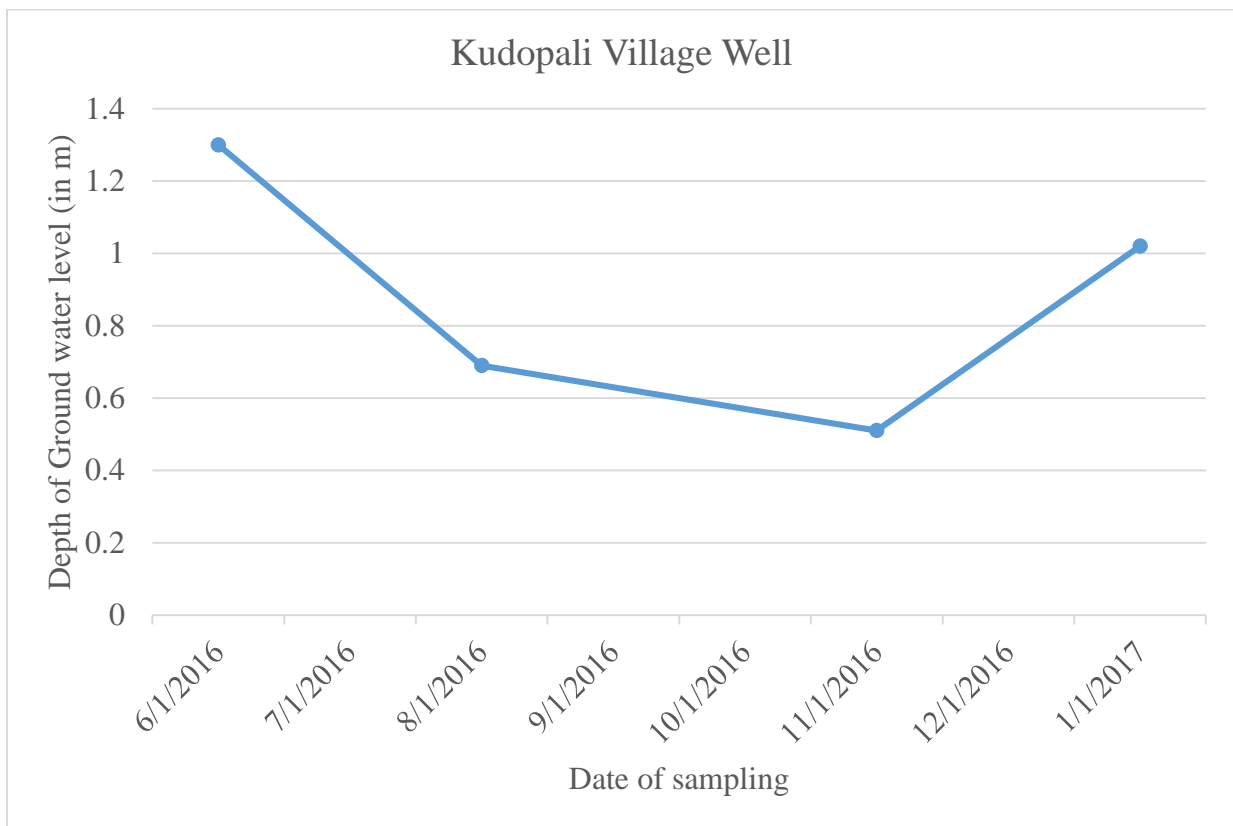


TABLE:223

Project: Orient
Monitoring Station: Lajkura Village Well

Date of sampling	Water level
24-06-2016	5.54
23-08-2016	4.7
26-11-2016	2.28
20-01-2017	1.65

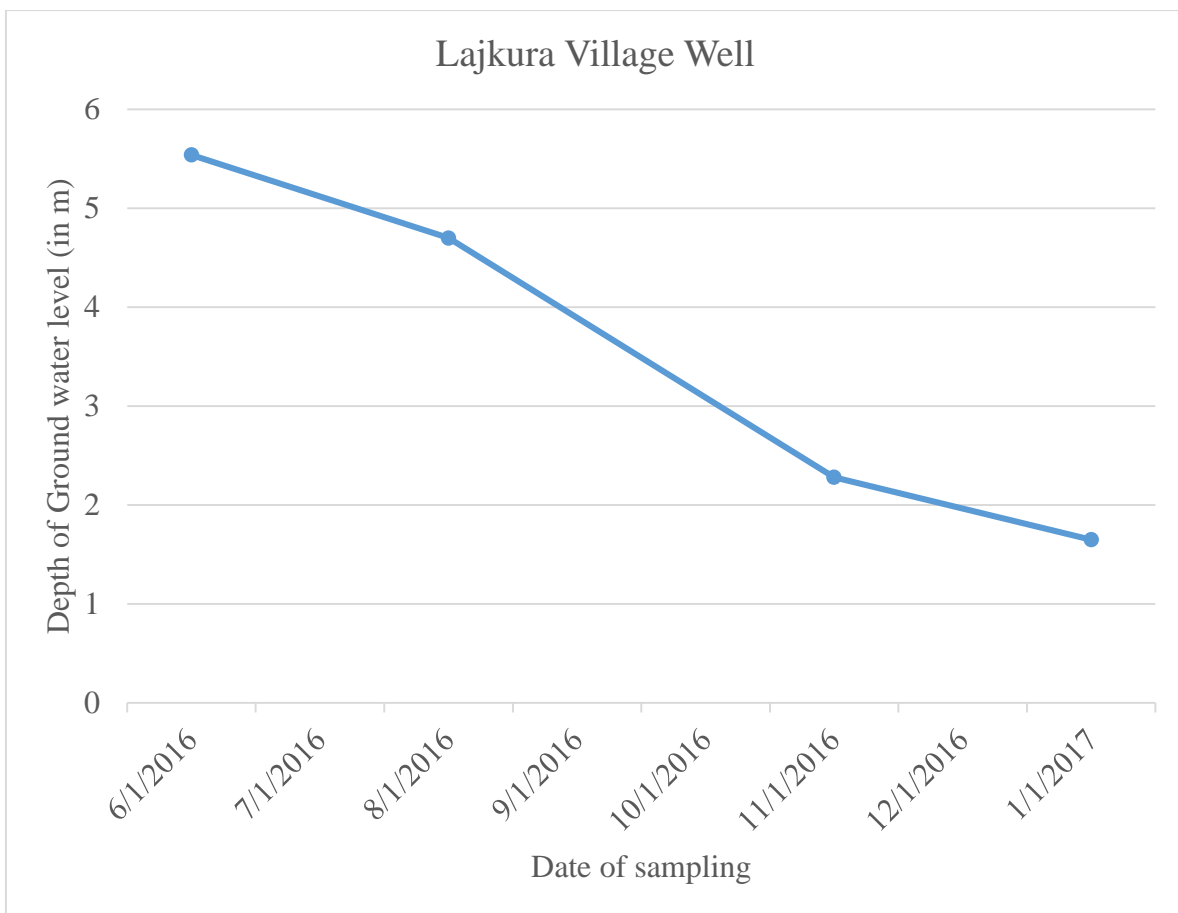


TABLE:224

Project: Orient
Monitoring Station: Madhuban Nagar Well

Date of sampling	Water level
23-06-2016	10.24
22-08-2016	8.38
25-11-2016	5.64
20-01-2017	5.07

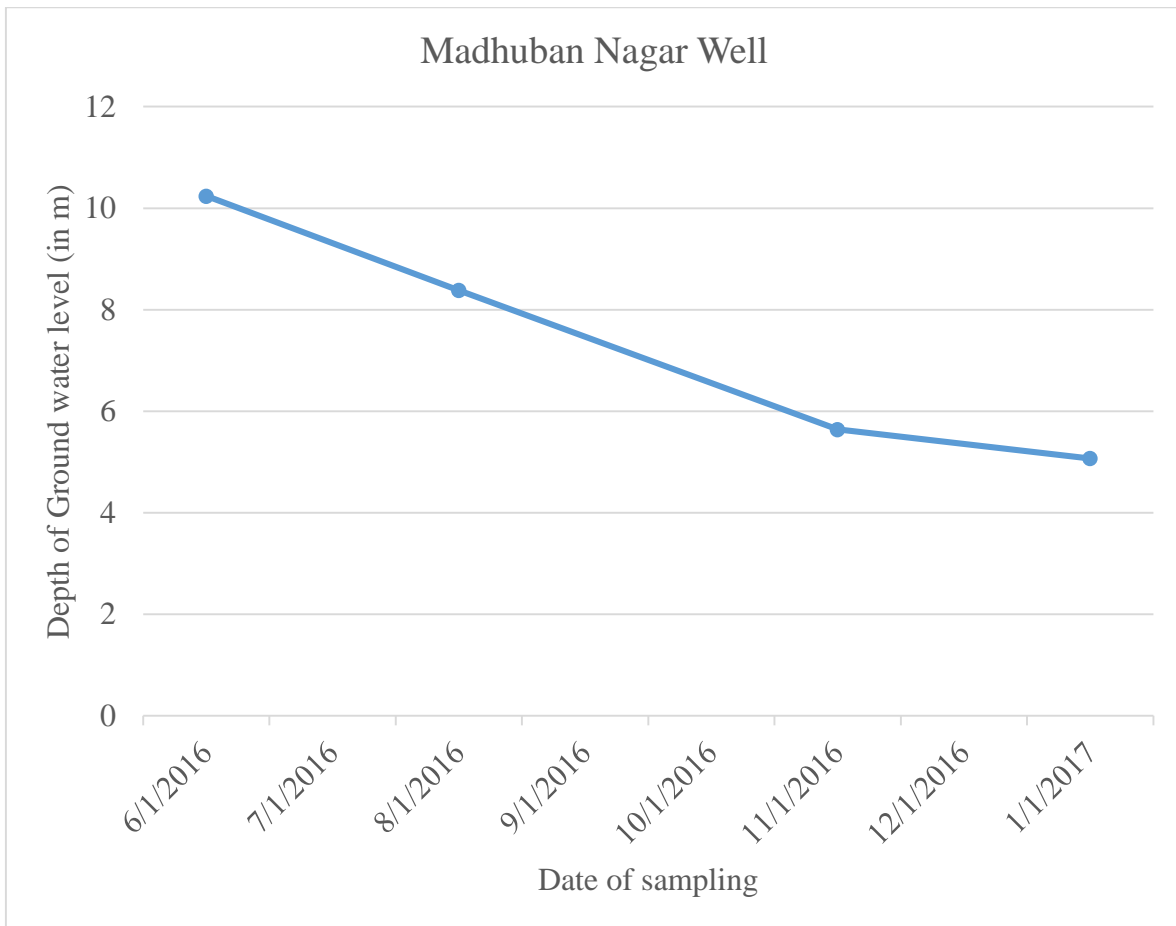


TABLE:225

Project: Lajkura OCP
Monitoring Station: Mine Sump water

Date of Sampling	TSS in mg/L
23.08.2016	34
27.09.2016	38
29.07.2016	66

TABLE:226

Project: Lajkura OCP
Monitoring Station: Sedimentation pond

Date of Sampling	TSS in mg/L
29.07.2016	58
23.08.2016	28
27.09.2016	44

TABLE:227

Project: Samaleswari OCP
Monitoring Station: Mine Sump water

Date of Sampling	TSS in mg/L
23.08.2016	28
27.09.2016	40
29.07.2016	128

TABLE:228

Project: Samaleswari OCP
Monitoring Station: Sedimentation pond

Date of Sampling	TSS in mg/L
29.07.2016	108
23.08.2016	26
27.09.2016	28

TABLE:229

Project: Belpahar OCP
Monitoring Station: 100m d/s of point of confluence of mine discharge water with Lilari

Date of Sampling	TSS in mg/L
29.07.2016	60
25.08.2016	22
28.09.2016	38

TABLE:230

Project: Belpahar OCP
Monitoring Station: 100m u/s of point of confluence of mine discharge water with Lilari

Date of Sampling	TSS in mg/L
29.07.2016	72
25.08.2016	36
28.09.2016	26

TABLE:231

Project: Basundhara (W) OCP
Monitoring Station: 100m D/S of point of confluence of mine discharge water with Basundhara Nallah near Kulaparha Village

Date of Sampling	TSS in mg/L
20.07.2016	64
19.08.2016	34
20.09.2016	54

TABLE:232

Project: Basundhara (W) OCP
Monitoring Station: 100 m u/s of the point of confluence of mine discharge water with Basundhara nallah near Kulaparha village

Date of Sampling	TSS in mg/L
20.07.2016	72
19.08.2016	42
20.09.2016	14

TABLE:233

Project: Kulda OCP
Monitoring Station: 100m D/S of point of confluence of mine discharge water with Basundhara Nalla

Date of Sampling	TSS in mg/L
18.07.2016	74
19.08.2016	32
20.09.2016	46

TABLE:234

Project: Kulda OCP
Monitoring Station: 100m U/S of point of confluence of mine discharge water with Basundhara Nalla

Date of Sampling	TSS in mg/L
18.07.2016	56
19.08.2016	30
20.09.2016	12

TABLE:235

Project: Kulda OCP
Monitoring Station: 100m D/S of point of confluence of mine discharge water with External Nallah near OB Dump

Date of Sampling	TSS in mg/L
19.07.2016	88
19.08.2016	32
20.09.2016	22

TABLE:236

Project: Kulda OCP
Monitoring Station: 100m U/S of point of confluence of mine discharge water with External Nallah near OB Dump

Date of Sampling	TSS in mg/L
19.07.2016	84
19.08.2016	38
20.09.2016	30