

Job No.750001

Annual Environmental Monitoring Report Of

Talcher Coalfields

For

2015-16

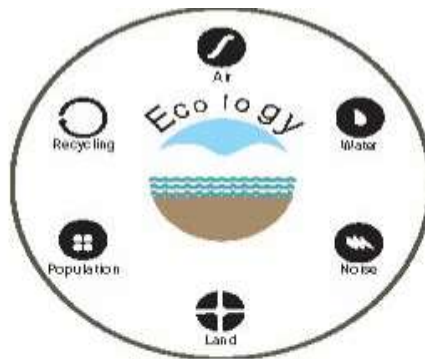


MCL

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INTRODUCTION

TALCHER COALFIELD

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

Talcher coalfield is the largest repository of power grade coal in India. It occupies a basin in the south-eastern part of the Mahanadi Valley belt of Gondwana Basin and covers an area of about 1800 sq.kms and is located mainly in Angul district of Orissa. It is located between longitudes 20 degree 53 minute to 21 degree 12 minute North and longitudes 84 degree to 85 degree 23 minute East. The strike length of the coalfield in east-west direction is about 80 kms and the width in northsouth direction is about 26 Kms. The total area of the coalfield is about 1800 sq.kms.

Talcher coalfield is strategically located to supply power grade coal to other part of the country, especially to southern and western India power houses. The coalfield is situated near Cuttack-Sambalpur railway line, which is linked to Howrah-Chennai and Howrah-Mumbai railway line. It is only 192 kms away from a major port in the eastern coast of Odisha i.e. Paradeep port. Railway link is available between Talcher and Paradeep-via-Cuttack. Talcher and Dhamra port, Talcher coalfield is also favorably located for consumers of Southern and western India itself where coal can be transported either by rail or rail cum sea route.

HISTORY OF EXPLORATION IN TALCHER COALFIELD

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

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

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

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

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

HISTORY OF MINING IN TALCHER COALFIELD

Underground mines in seam-I were started in twenties as mentioned earlier. Consequent to exploration by NCDC in Fifties, South Balanda OCP (1.0 Mty) and Nandira underground mines were planned for production of C/D grade coal in sixties. Coal from South Balanda was initially planned for supply to Talcher Power Station of OSEB, located nearby, by cross country transport system over a distance of about 10 kms.

Fertilizer Corporation of India (FCI) opened up coal based fertilizer plant near South Balanda. Total coal from South Balanda and Nandira were linked to FCI for movement by road/ belt conveyors. As an alternative, Jagannath OCP (2.0 Mty) was opened by NCDC to supply power grade coal to Talcher thermal power station of erstwhile Orissa State Electricity Board (OSEB). As the demand of power grade coal increased over the years, rail transport to southern power houses started from Jagannath OCP through Balanda and Jagannath sidings and the production capacity of the project was enhanced to 3.0 Mty and then to 4.0 Mty and now to 6.0 Mty.

Expansion Project report of 8.0 Mty for Jagannath OCP is being formulated.

To supply coal to Thermal Power Station (6x120mw) of NALCO, near Angul, Bharatpur OCP was opened in 1985. The project has now been expanded to 20.0 Mty.

To supply coal to Super Thermal Power Station of NTPC (6x500 MW) located at Kaniah, Lingaraj OCP (5 Mty) had been taken up for operation in 1991. Coal from Lingaraj to NTPC, Kaniah is being transported by MGR covering a distance of around 22kms. The project has now been expanded to 16.0 Mty capacity.

Kalinga OCP (8 Mty) (now renamed as Balram OCP) was opened in 1991 to supply coal to North Madras and Tuticorin power houses by rail. The project has been expanded to 15.0 Mty and now the project is called Balram OCP.

Ananta opencast project (4 Mty) was started in 1988 for supply of coal to power station of Vizag Steel Plant at Vizag and charge chrome project of ICCL at Choudwar. This coal is being transported by rail system from colliery siding. The project has now been expanded to 15.0 Mty.

Chhendipada OCP, a pilot project of 0.35 Mty capacity was approved in 1997 near Chhendipada to develop the north western part of the coalfield and now mine is temporarily not in operation. Hingula OCP (2.0 Mty) was approved in 1999 to supply coal to Thermal Power Stations of Southern India. The project capacity has now been expanded to 15.0 Mty.

Bhubaneswari (20.0 Mty) and Kaniha OCP (10.0 Mty) were formulated subsequently to meet the growing demand of coal from the coalfield. Both Bhubaneswari and Kaniha OCPs are running mines.

All the above mines are being operated by MCL, a subsidiary of CIL. Not a single captive block mine has yet been operational.

LOCATION

Talcher coalfield constitutes the south-eastern most part of the Lower Gondwana basins within the Mahanadi Valley graben bounded by Latitude 20⁰53' to 21⁰12' N and Longitude: 84⁰ to 85⁰23'E.

The major part of the coalfield including the present coal mining area falls in Angul district. Brahmani River falls in Dhenkanal district. A part of the coalfield in the north lies in Deogarh district.

COMMUNICATION

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

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

TOPOGRAPHY AND DRAINAGE

Topographically the coalfield can be divided in two parts - eastern part and the western part. The eastern part largely covered by Barakar Formation (or Lower Kamthi Formation), is slightly undulating with an average elevation of around 150m above MSL. The western part comprises largely of steeply sloping Kamthi hillocks. Minimum and maximum elevation from MSL is 60m and 567m respectively for the coalfield. The terrain is undulating and accommodates large number of

villages and fertile lands. The soil in this area varies from rich loams to the gravelly detritus of the hill slopes.

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

CLIMATE AND RAINFALL

The climate of the area is generally dry and arid except in monsoon season. It is influenced by prevalence of dry air of the continental type. It is characterized by extreme conditions, summers being intensely warm and winters rather cold. The summer is severe during May-June when temperature rises as high as 49^oC accompanied by high humidity. Winter is very pleasant, prevails during December-January. The area experiences warm to hot climate with temperature varying from 9.9^oC to 44.4^oC. Average humidity varies from 26% to 83%. Generally the humidity is highest in August and least in March. The climate of this region resembles with that of Deccan plateau.

Annual mean wind velocity is 7 Km/hr. with maximum speed of more than 20 Km/hr. It is generally observed that the wind speed in the area is light to moderate except in the early monsoon period when it is generally strong. Higher speed wind blows during latter part of summer or rainy season in the direction of South-West or North- East. Winds blow with slow or moderate speed in rest part of the year. In winter the winds blow either from West or North. Frequent variation in wind speed takes place only in summers.

The area has monsoon type climate with rain fall predominantly in the months of June to September and some in the other months. Average rainfall per annum is 1329 mm. Maximum rainfall per annum is 2200 mm and minimum is 700 mm as per records available.

LIST OF ENVIRONMENTAL QUALITY MONITORING STATIONS

Table 1: List of Air Quality Monitoring Stations

Sl no	Area	Project	Name of the station
1	Bharatpur	Bharatpur	Rejects dump yard near World bank office
2			Nakeipasi Village
3			Near Civil maintenance office of Hingula Area
4			Regional store
5		Chhendipada	Near site office
6			Near fire station
7			Mamuraia sahi
8			Dolamandap chhak
9	Hingula	Balram	Natada Village
10			On backfilled area near field time office
11			Project Office, Balaram OCP
12			Solada village
13		Hingula	Malibandha Village
14			Project Office
15			Bhalugadia Village
16			Gopal prasad village
17	Jagannath	Ananta	Ananta Expansion area (A1)
18			Near Talcher West underground (A2)
19			Near Ananta OC Project office(A3)
20			Ananta vihar colony
21		Bhubaneswari	N-E of mine (A1)
22			S-E of mine (A2)
23			Raghunathpur village
24			B.C.M.L. Workshop
25		Jagannath	Jagannath OCP-Time office (A1)
26			Jagannath colony (A2)
27			Near West Sump(A3)
28			Near view point (A4)
29	Kaniha	Kaniha	Site office
30			Telisingha village
31			Patharmunda village
32			Near Jarda village
33	Lingaraj	Lingaraj	Lingraj CGM Office
34			Near Radhakrishna Temple
35			Near C.T.road (Lingaraj to Dera)
36			Near Langijoda village
37			Lingaraj township (One in Pre- & one in Post Monsoon)
38	Talcher	Nandira	Project Office
39			Natedi Village
40		Talcher	GM Office
41			Canteen, Talcher Colliery

Table 2: List of Noise Level Monitoring Stations

Sl no	Area	Project	Name of the Station	
1	Bharatpur	Bharatpur	On Backfill, near rejects dump yard	
2			Padmabatipur vill.	
3			Near Civil maintenance office of Kalinga colony/Pressure filter	
4		chendipada	Near site office	
5			Near Mine working	
6			Near Weigh bridge	
7	Hingula	Balaram	Natada Village	
8			On backfilled area near field time office	
9			Project Office, Balaram OCP	
10			Nakeipasi Village	
11		Hingula	Malibandha Village	
12			Project Office	
13			Bhalugadia Village	
14			Gopal prasad village	
15			Ananta	Ananta Expansion area (A1)
16				Near Talcher West underground (A2)
17	Near Ananta OC Project office(A3)			
18	Ananta vihar colony			
19	Bhubaneswari	N-E of mine (A1)		
20		S-E of mine (A2)		
21		Raghunathpur village		
22		B.C.M.L. Workshop		
23	Jagannath	Jagannath OCP-Time office (A1)		
24		Jagannath colony (A2)		
25		Near West Sump(A3)		
26		Near view point (A4)		
27	Kaniha	Kaniha	Site office	
28			Telisingha village	
29			Patharmunda village	
30			Near Jarda village	
31	Lingaraj	Lingaraj	Lingraj CGM Office	
32			Near Radhakrishna Temple	
33			Near C.T.road (Lingaraj to Dera)	
34			Near Langijoda village	
35	Talcher colliery	Deulbera	Manager's Office	
36			Deulbera Colony	
37		Nandira	Project Office	
38			Natedi Village	
39		Talcher	GM Office	
40			Canteen, Talcher Colliery	
41		Talcher west	Near air shaft	
42			Near haulage room at Incline no.2	

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

Sl no	Area	Project	Name of the Station
1	Jagannath	Jagannath	Mine disch. Water
2		Ananta	Mine disch. Water
3		Bhubaneswari	Mine disch. in Bangaru jhor
4	Bharatpur	Bharatpur	Mine disch.before pt.of confl.with Bangaru nulla
5		Chhendipada	Mine discharge water
6	Lingaraj	Lingaraj	Outlet of MDTP
7			Lingraj mine disch./Outlet of O&G trap at confl.pt.of Brahmani river
8	Kaniha	Kaniha	Kaniha mine discharge, when disch. will come
9	Hingula	Hingula	Final disch. Point
10		Balram	Mine Discharge Water
11	Talcher	Talcher	Talcher colliery mine discharge
12			Nandira colliery mine discharge
13			Deulbera colliery mine discharge
14			Rani park Submersible pump
15			Handidhua colliery mine discharge

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

Sl no	Area	Project	Name of the Station	
1	Jagannath	Jagannath	mine discharge water	
2			O & G trap outlet	
3			O & G trap inlet	
4		Ananta	Mine discharge water	
5			O & G trap outlet	
6			O&G trap inlet (half yrly)	
7		Bhubaneswari		Mine discharge water
8				100m upstream of point of confluence of natural mine water drain to Bangaru Jhor
9				100m downstream of point of confluence of natural mine water drain to Bangaru Jhor
10				50m before the point of confluence of natural drain of mine pumped water to Bangaru Jhor
11	Bharatpur	Bharatpur	Mine discharge at point of confluence with Bangaru Nallah	
12			O & G trap outlet	
13		Chhendipada	outlet of Mine discharge water	
14	Lingaraj	Lingaraj	outlet of MDTP	
15			O & G trap inlet	
16			Dischage from Deaulbera Siding	
17			OB Dumb runoff near new logijoda basti	
18			O & G trap outlet	
19	Kaniha	Kaniha	outlet of MDTP	
20			Pond in South side of Quarry	
21	Hingula	Hingula	mine discharge water	
22			discharge point at north of mine into singhda jhor	
23			O & G trap outlet	
24		Balram		mine discharge water
25				100m u/s of the natural mine water drain to Bangaru Jhor
26				100m d/s of the natural mine water drain to Bangaru Jhor
27				50m before point of connfluence of Bangaru Jhor
28				O& G outlet
29	Talcher	Talcher	Talcher colliery mine discharge	
30			Nandira colliery mine discharge	
31			Duelbera colliery mine discharge	
32			Near Incline No.2 of talcher west colliery	
33			Ranipark submersible pump	

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

Sl no	Area	Project	Name of the Station
1	Jagannath	Jagannath	DETP/STP OUTLET
2			DETP/STP INLET
3		Ananta	DETP/STP OUTLET
4			DETP/STP INLET
5	Bharatpur	Bharatpur	DETP/STP OUTLET
6			DETP/STP INLET
7	Lingraj	Lingraj	Domestic effluent discharge from sedimentation pond(earthen pit)
8	Hingula	Balram	DETP/STP OUTLET of Balram colony

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

Sl no	Area	Project	Name of the Station
1	Jagannath	Jagannath	Mine sump water
2	Ananta	Ananta	Mine sump water
3	Lingraj	Lingraj	Mine sump water

Table 7: List of Drinking Water Quality Monitoring Stations

Sl no	Area	Project	Name of the Station
1	Jagannath	Jagannath OCP	Jagannath colony tap water
2			Rakas village well water
3			Balanda colony tap water
4			Jagannath colony tap water
5		Ananta OCP	Ananta colony tap water
6			Hensmul village well water
7			Dera village tube-well water
8		Bhubaneswari OCP	Project site office water
9			Narharipur village tube well water
10			Jilinda village well water
11	Bharatpur	Bharatpur OCP	Tap water in Nehru shatapdi Nagar
12			Old quarry water
13		Chhendipada	Bore well water at site office
14	Lingraj	Lingraj OCP	MTK office tap water, LOCP
15			Lingaraj township tap water
16			Tap water GM Office
17			Deulbera colony tap water
18			well from Balunga khamar village
19			well from Deulbera Village
20			well from Talabera village
21	Kaniha	Kaniha OCP	Project office tubewell
22			Jarda village well water
23			Jamunia village well water
24			Kansamunda village well water
25	Hingula	Hingula OCP	Time office water
26			Kumunda Village borewell water
27			Gopal Prasad Village borewell water
28		Balaram Ocp	Danara village borewell water
29			Balaram Colony tap water
30			Nakeiposi Village borewell water
31	Talcher	Talcher	Talcher Colliery Canteen Tap water

Table 8: List of Ground Water Level Stations

Sl no	Area	Project	Name of the Station
1	Bharatpur	Chhendipada	Open well nearest to the Mine
2	Hingula	Balram	Danara Village Well
3			Nakeipasi Village Well
4			Hingula
5		Gopalprasad village well water	
6		Jagannath	Jagannath
7	Ananta		Dera Village Well
8			Hensmul Village Well
9			Bhubaneswari
10	Naraharipur village Well		
11	Kaniha		Kaniha
12		Jamunia vill. Well	
13		Kansamunda Village Well	
14	Lingraj	Lingraj	Deulbera colony Well
15			Balunga khamar Village Well
16			Talabera village Well
17	Talcher	Talcher	Naraharipur Village Well
18			Natedi Village Well
19			Deulbera colony well

Table 9: List of Surface Water Monitoring Stations

Sl no	Area	Project	Name of the Station	
1	Jagannath	Ananta	Bangaru jhor river near Joragarhia/Banapalli as u/s water of point of confluence of Ananta OCP	
2			Bangarujhor river near Raghunathpur/Jilinda village as d/s water of Ananta OCP	
3		Bhubaneswari	Bangarujhor river near Raghunathpur/Jilinda village as u/s water of Bhubaneswari OCP	
4			Bangarujhor stream near Sareila/Khaisa pala village as d/s water of Bhubaneswari OCP before joining Brahmani river	
5			Pond water of Madanmohanpur	
6	Bharatpur	Bharatpur	Bangaru Jhor river near Joragarhia/Banapalli as d/s water of point of confluence of Bharathpur OCP	
7			Bangarujhor river near Telepasi/Solada village as u/s water of Bharathpur OCP	
8	Lingraj	Lingraj	Village pond near Deulbera siding	
9	Kaniha	Kaniha	Singada jhor stream nearer to village Khairnali/ Bhagirathipur as u/s water for Kaniha OCP	
10			Before Junction point of Singadajhor & Brahmani river at Balangi village as d/s for Kaniha OCP	
11			Tikra nadi near Kaniah village as u/s water for Kaniah OCP	
12			Tikra nadi near Shagarhi Pala village as d/s water for Kaniah OCP	
13	Hingula	Hingula	Singadhajhor stream nearer to village Chhotabani as u/s water for Hingula OCP	
14			Singadhajhor stream nearer to village Chittalpur as d/s water for Hingula OCP	
15			Pond water of Kankarei village	
16		Balaram	Balaram	Bangarujhor river near Telepasi/Solada village as d/s water of Balram OCP
17				Derjenga reservoir as a part of impact study
18				Singadhajhor stream nearer to village Chittalpur as u/s water for Hingula OCP
19				Pond water of Ambapal village
20	Talcher	Talcher	Nandira Jhor near Karnapur/ Sakasingha village as u/s of Nandira U/G mine	
21			Nandira Jhor near Tentolei/ Pengua village as d/s of Nandira U/G mine	
22			Pond water of Gopinathpur 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

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

	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-
10.	Nitrate nitrogen	APHA 22nd Edition	Microprocessor based spectrophotometer-
11.	Ammonical Nitrogen	IS 3025 (PART 34) : 1988,	Microprocessor based spectrophotometer-
12.	Total kjeldhal Nitrogen	IS 3025 (PART 34) : 1988	Microprocessor based spectrophotometer-
13.	Total residual chlorine	IS 3025 (PART 26) : 1986	Microprocessor based spectrophotometer-
14.	Calcium	IS 3025 (PART 40) : 1991,EDTA Titrimetric	Burette, Pipette
15.	Chloride	IS 3025 (PART 32) : 1988,	Microprocessor based spectrophotometer-
16.	Fluoride	APHA 22nd Edition , IS 3025(Pat 60):SPANDS	Microprocessor based spectrophotometer-
17.	Total Alkalinity	IS 3025 (PART 23) : 1986, Titration Method	Burette, Pipette
18.	Total hardness	IS 3025 (PART 21) : 1983, EDTA Volumetric	Burette, Pipette
19.	Dissolved phosphate	APHA 22nd Edition , IS 3025 (Pat 31): 1988	Microprocessor based spectrophotometer-
20.	DO	IS 3025 (PART 38) : 1989, Winkler Azide Method	Burette, Pipette
21.	Sulfate	APHA 22nd Edition , IS 3025(Part 24): 1986,	Microprocessor based spectrophotometer-
22.	Sulfide	APHA 22nd Edition , IS 3025(Part 29):1986	Microprocessor based spectrophotometer-
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	Hot Air Oven, Electronic Balance
37.	BOD	IS 3025 (PART 44) : 1993.3 day incubation	BOD Incubator
38.	Phenolics	APHA 22nd Edition ,4- Amino antipyrene Method	-
Microbiological Tests			
39.	Total coliform	MPN Test	LTEK MPN Kit

TABLES FOR AIR QUALITY DATA

**Project: Bharatpur OCP
Monitoring Station: Nakeipasi Village**

Table 14

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
22-Apr-15	284	129	25	27	42	East to West hot & Sunny evening rainfall
07-May-15	293	134	26	28	47	East to West Sunny
22-May-15	258	126	23	25	51	West to East Sunny
05-Jun-15	223	116	21	23	48	West to East & Heavy Rainfall
22-Jun-15	234	112	24	26	57	South to North Cloudy & Rainfall
07-Jul-15	220	138	19	21	55	East to West Cloudy,Rainfall
23-Jul-15	214	130	21	23	50	West to East Sunny & Evening Rainfall
07-Aug-15	229	124	23	25	42	West to East Sunny
21-Aug-15	214	118	21	23	38	East to West Sunny & Evening Rainfall
04-Sep-15	235	141	25	27	46	East to West Hot Sunny & Evening Rainfall
21-Sep-15	267	131	23	25	49	East to West Sunny
06-Oct-15	338	225	20	22	52	South to North Sunny
21-Oct-15	342	188	17	19	55	East to West Sunny
05-Nov-15	293	196	15	17	78	West to East Sunny
19-Nov-15	308	216	17	19	69	West to East Sunny
04-Dec-15	502	312	18	20	180	East to West Sunny
19-Dec-15	322	277	15	17	86	South to North Cloudy
07-Jan-16	268	173	16	19	76	South to North Sunny
21-Jan-16	530	240	14	17	62	West to East Sunny
04-Feb-16	476	259	16	18	85	East to West Sunny
19-Feb-16	591	287	15	17		East to West Sunny
04-Mar-16	476	259	14	17	68	South to North Sunny
21-Mar-16	574	271	16	18	104	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	591.00	312.00	26.00	28.00	180.00	
Minimum	214.00	112.00	14.00	17.00	38.00	
Mean	334.39	187.04	19.30	21.43	65.45	
95 Percentile	569.60	286.00	25.00	27.00	103.10	
98 Percentile	583.52	301.00	25.56	27.56	148.08	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Bharatpur OCP
Monitoring Station: Near civil maintenance office of Hingula Area
Table 15

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
22-Apr-15	351	145	27	29	47	East to West hot & Sunny evening rainfall
08-May-15	326	139	29	31	52	East to West Sunny
22-May-15	364	146	30	32	61	West to East Sunny
05-Jun-15	305	125	22	24	65	West to East & Heavy Rainfall
22-Jun-15	317	131	26	28	62	South to North Cloudy & Rainfall
07-Jul-15	287	110	24	26	46	East to West Cloudy,Rainfall
23-Jul-15	265	117	22	24	43	West to East Sunny & Evening Rainfall
07-Aug-15	279	135	25	27	40	West to East Sunny
21-Aug-15	268	125	23	25	46	East to West Sunny & Evening Rainfall
04-Sep-15	284	138	25	29	31	East to West Hot Sunny & Evening Rainfall
21-Sep-15	251	127	26	28	41	East to West Sunny
06-Oct-15	379	210	17	19	51	South to North Sunny
21-Oct-15	367	198	19	21	65	East to West Sunny
05-Nov-15	326	156	21	23	75	West to East Sunny
19-Nov-15	351	189	15	17	82	West to East Sunny
04-Dec-15	185	134	23	25	81	East to West Sunny
19-Dec-15	456	176	18	20	96	South to North Cloudy
07-Jan-16	353	257	17	20	64	South to North Sunny
21-Jan-16	292	186	13	18	68	West to East Sunny
04-Feb-16	350	195	19	21	71	East to West Sunny
19-Feb-16	357	225	19	21	76	East to West Sunny
04-Mar-16	350	195	21	23		South to North Sunny
21-Mar-16	304	182	14	16		West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	456.00	257.00	30.00	32.00	96.00	
Minimum	185.00	110.00	13.00	16.00	31.00	
Mean	320.30	162.65	21.52	23.78	60.14	
95 Percentile	377.80	223.50	28.80	30.80	82.00	
98 Percentile	422.12	242.92	29.56	31.56	90.40	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

**Project: Bharatpur OCP
Monitoring Station: Regional Store**

Table 16

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
22-Apr-15	324	126	24	26	40	East to West hot & Sunny evening rainfall
08-May-15	318	128	25	27	45	East to West Sunny
22-May-15	314	139	27	29	49	West to East Sunny
05-Jun-15	286	120	20	22	53	West to East & Heavy Rainfall
22-Jun-15	272	129	25	27	51	South to North Cloudy & Rainfall
07-Jul-15	234	127	27	29	41	East to West Cloudy,Rainfall
23-Jul-15	224	121	23	25	53	West to East Sunny & Evening Rainfall
07-Aug-15	286	130	24	26	57	West to East Sunny
21-Aug-15	257	139	22	24	54	East to West Sunny & Evening Rainfall
04-Sep-15	286	130	24	26	57	West to East Sunny
21-Sep-15	274	136	25	27	52	East to West Sunny
06-Oct-15	435	361	20	22	65	South to North Sunny
21-Oct-15	441	351	18	20	72	East to West Sunny
05-Nov-15	346	173	16	18	102	West to East Sunny
19-Nov-15	401	292	18	20	53	West to East Sunny
04-Dec-15	325	185	19	21	55	East to West Sunny
19-Dec-15	259	176	16	18	51	South to North Cloudy
07-Jan-16	378	232	16	19	45	South to North Sunny
21-Jan-16	338	123	17	22	65	West to East Sunny
04-Feb-16	540	176	18	20	58	East to West Sunny
19-Feb-16	449	274	14	16	51	East to West Sunny
04-Mar-16	540	176	15	17	60	South to North Sunny
21-Mar-16	597	289	17	19	112	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	597.00	361.00	27.00	29.00	112.00	
Minimum	224.00	120.00	14.00	16.00	40.00	
Mean	353.22	184.04	20.43	22.61	58.30	
95 Percentile	540.00	345.10	26.80	28.80	99.00	
98 Percentile	571.92	356.60	27.00	29.00	107.60	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Bharatpur OCP
Monitoring Station: Reject dump yard near World Bank office

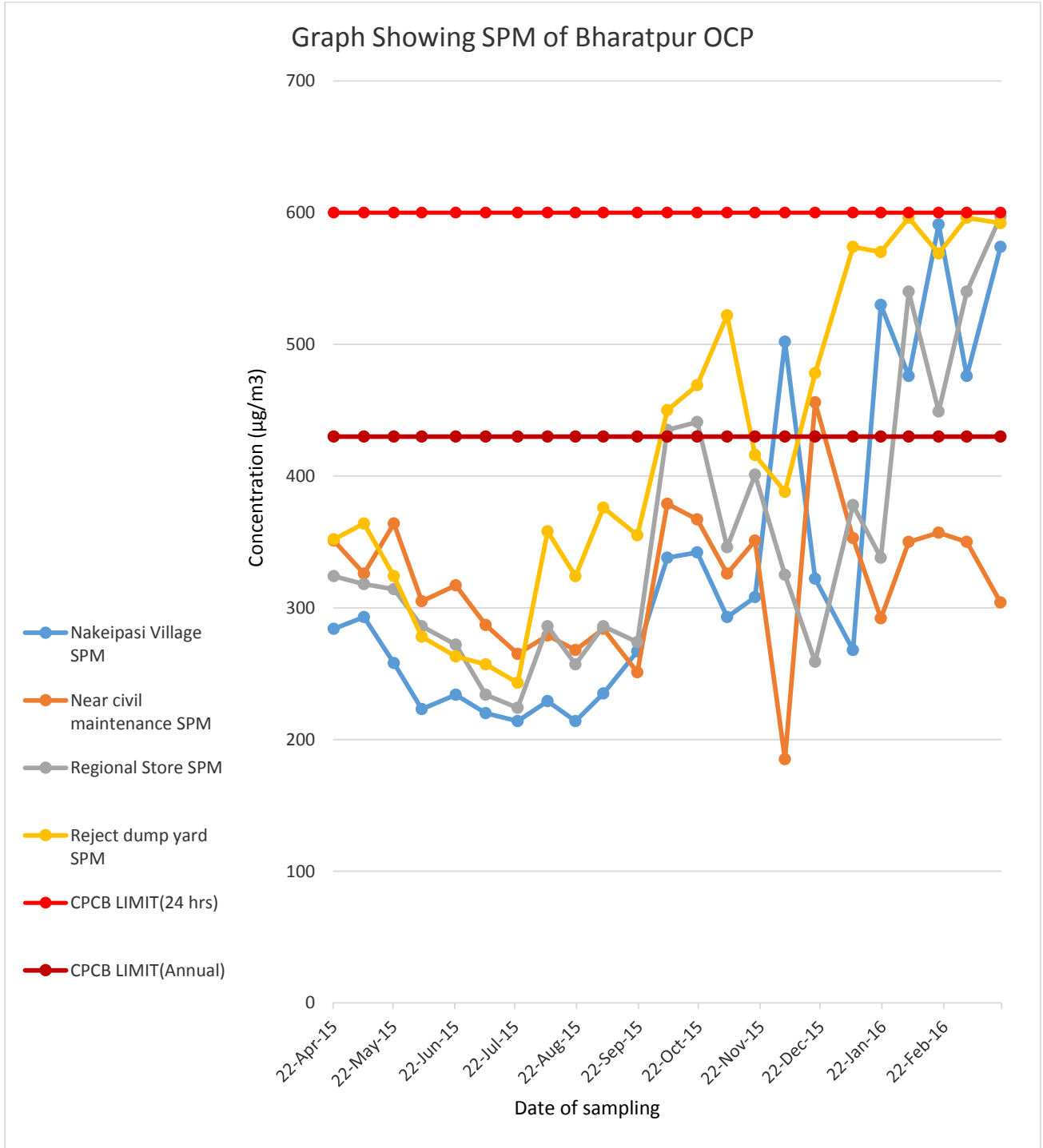
Table 17

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
22-Apr-15	352	137	29	32	59	East to West hot & Sunny evening rainfall
08-May-15	364	143	31	33	61	East to West Sunny
22-May-15	324	131	28	30	58	West to East Sunny
05-Jun-15	278	124	25	27	60	West to East & Heavy Rainfall
22-Jun-15	263	121	23	25	62	South to North Cloudy & Rainfall
07-Jul-15	257	158	27	29	34	East to West Cloudy, Rainfall
23-Jul-15	243	135	25	27	41	West to East Sunny & Evening Rainfall
07-Aug-15	358	146	28	30	54	West to East Sunny
21-Aug-15	324	131	25	27	51	East to West Sunny & Evening Rainfall
04-Sep-15	376	159	30	32	55	West to East Sunny
21-Sep-15	355	140	27	29	57	East to West Sunny
06-Oct-15	450	333	18	22	55	South to North Sunny
21-Oct-15	469	311	21	23	69	East to West Sunny
05-Nov-15	522	295	18	20	110	West to East Sunny
19-Nov-15	416	291	20	22	121	West to East Sunny
04-Dec-15	388	174	20	22	95	East to West Sunny
19-Dec-15	478	311	17	19	97	South to North Cloudy
07-Jan-16	574	224	15	22	88	South to North Sunny
21-Jan-16	570	280	15	20	61	West to East Sunny
04-Feb-16	596	250	22	24	82	East to West Sunny
19-Feb-16	569	212	17	19	68	East to West Sunny
04-Mar-16	596	250	16	19	59	South to North Sunny
21-Mar-16	592	291	18	21	129	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	596.00	333.00	31.00	33.00	129.00	
Minimum	243.00	121.00	15.00	19.00	34.00	
Mean	422.35	206.39	22.39	24.96	70.70	
95 Percentile	595.60	311.00	29.90	32.00	119.90	
98 Percentile	596.00	323.32	30.56	32.56	125.48	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

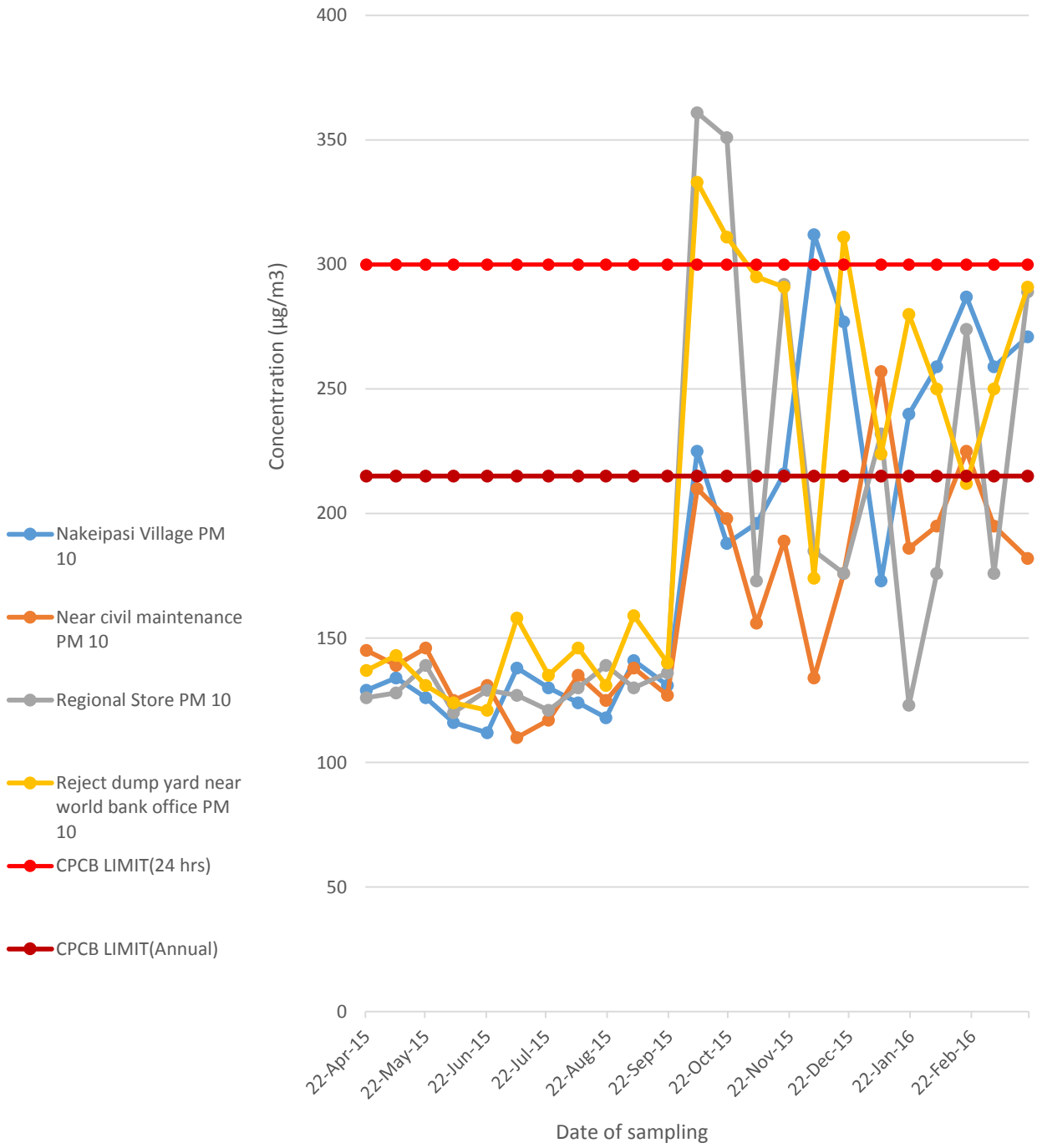
All values in µg/m³

Table 18: Analysis of Heavy Metals & NAAQS Parameters

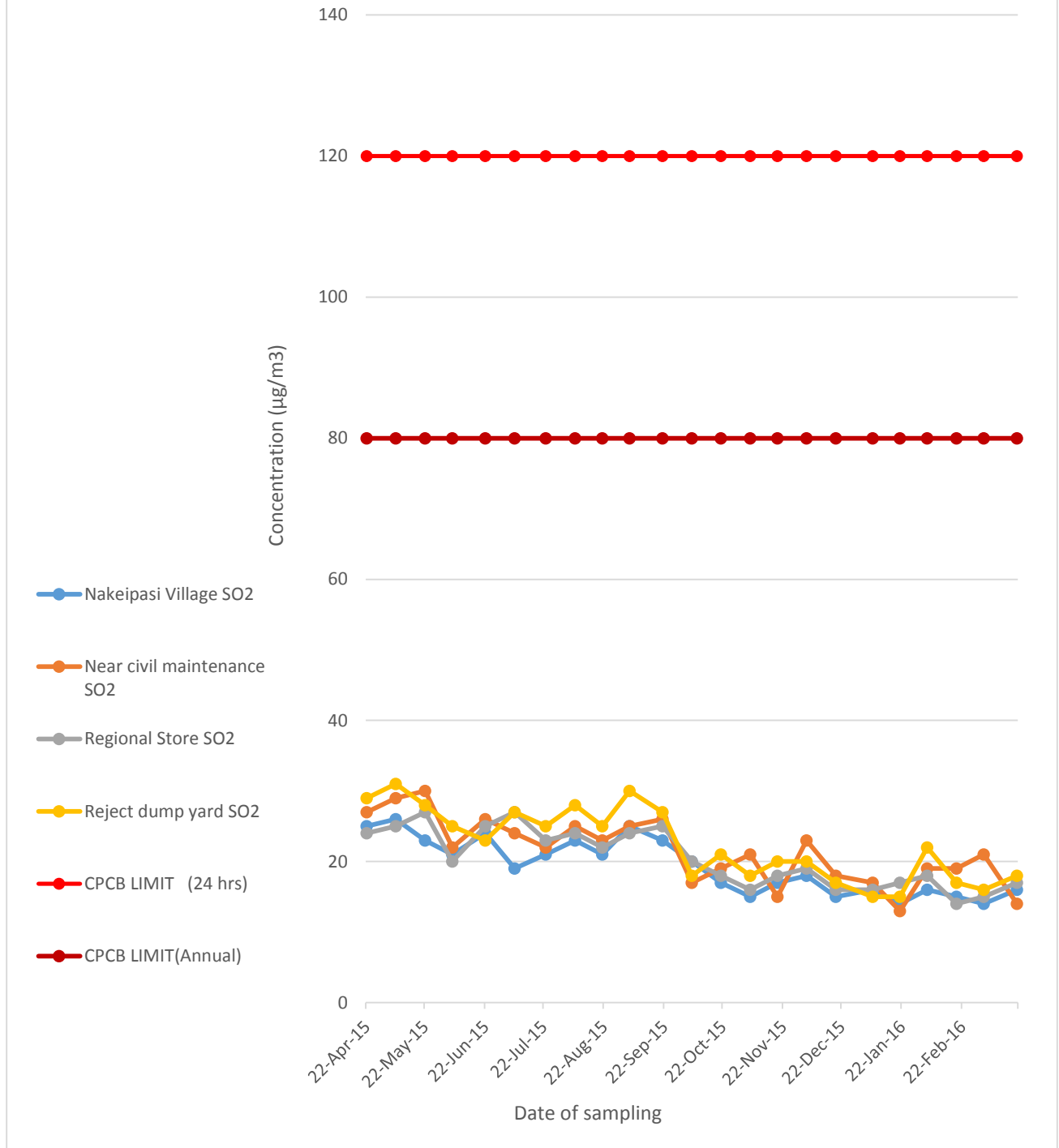
Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
Nakeipasi village	04-12-15	20	10.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.854	<1.0	<1.0	<0.5
Nakeipasi village	19-12-15	18.5	9.4	<0.07	<1.0	<1.0	<1.0	<0.02	0.824	<1.0	<1.0	<0.5
Nakeipasi village	07-01-16	21.9	10.3	<0.07	<1.0	<1.0	<1.0	<0.02	0.892	<1.0	<1.0	<0.5
Nakeipasi village	21-01-16	20.8	9.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.928	<1.0	<1.0	<0.5
Nakeipasi village	04-02-16	22.6	9.83	<0.07	<1.0	<1.0	<1.0	<0.02	0.798	<1.0	<1.0	<0.5
Nakeipasi village	19-02-16	21.3	10.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.927	<1.0	<1.0	<0.5
Nakeipasi village	04-03-16	19.2	8.56	<0.07	<1.0	<1.0	<1.0	<0.02	0.72	<1.0	<1.0	<0.5
Nakeipasi village	21-03-16	19.6	8.56	<0.07	<1.0	<1.0	<1.0	<0.02	0.856	<1.0	<1.0	<0.5
Reject dump yard near World Bank Office	21-03-16	20.6	8.52	<0.07	<1.0	<1.0	<1.0	<0.02	0.726	<1.0	<1.0	<0.5
Near civil maintenance office of Hingula Area	21-03-16	21.5	10.9	<0.07	<1.0	<1.0	<1.0	<0.02	0.941	<1.0	<1.0	<0.5
Regional store	21-03-16	18.4	9.56	<0.07	<1.0	<1.0	<1.0	<0.02	0.827	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24 hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

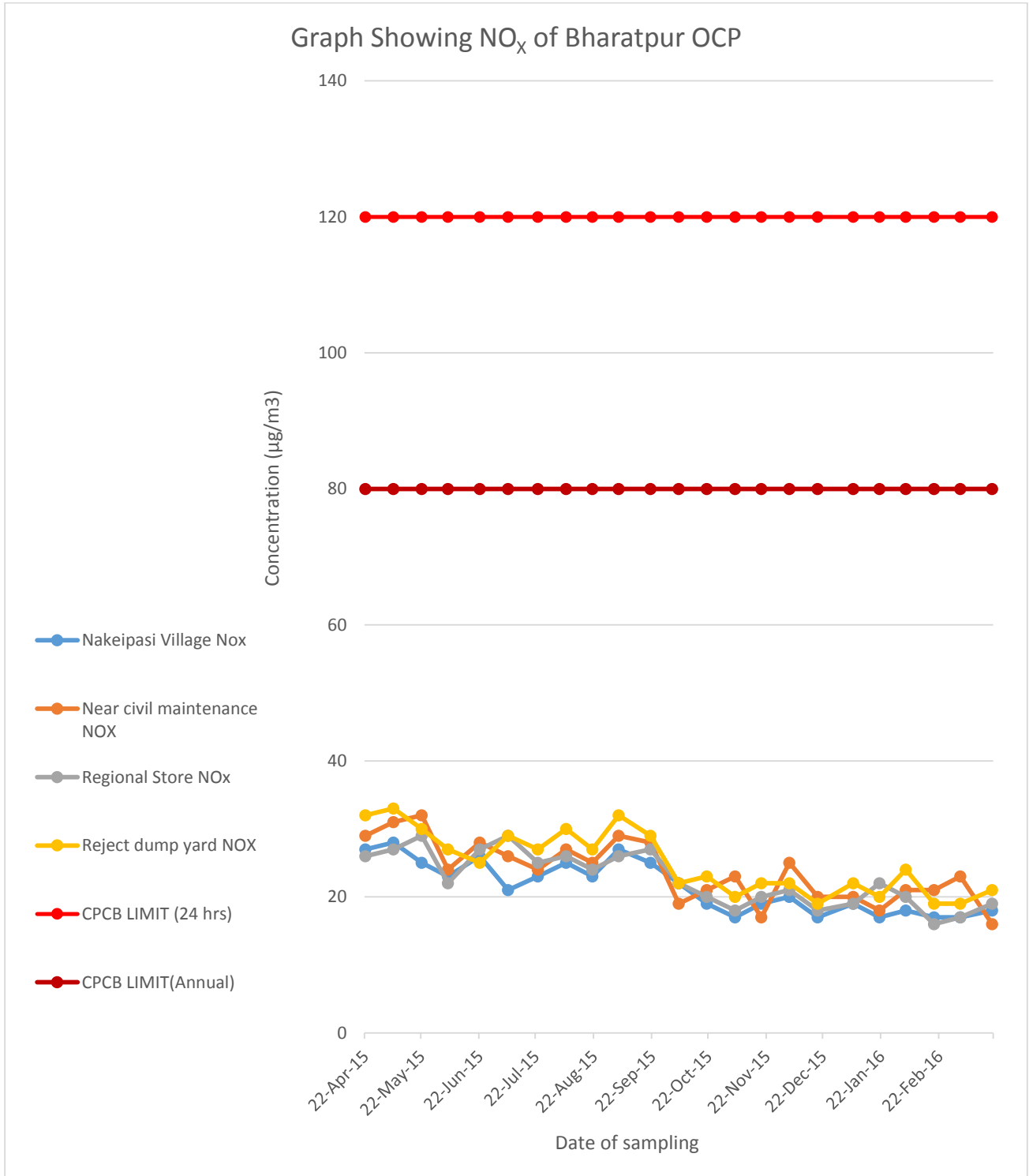


Graph Showing PM₁₀ of Bharatpur OCP

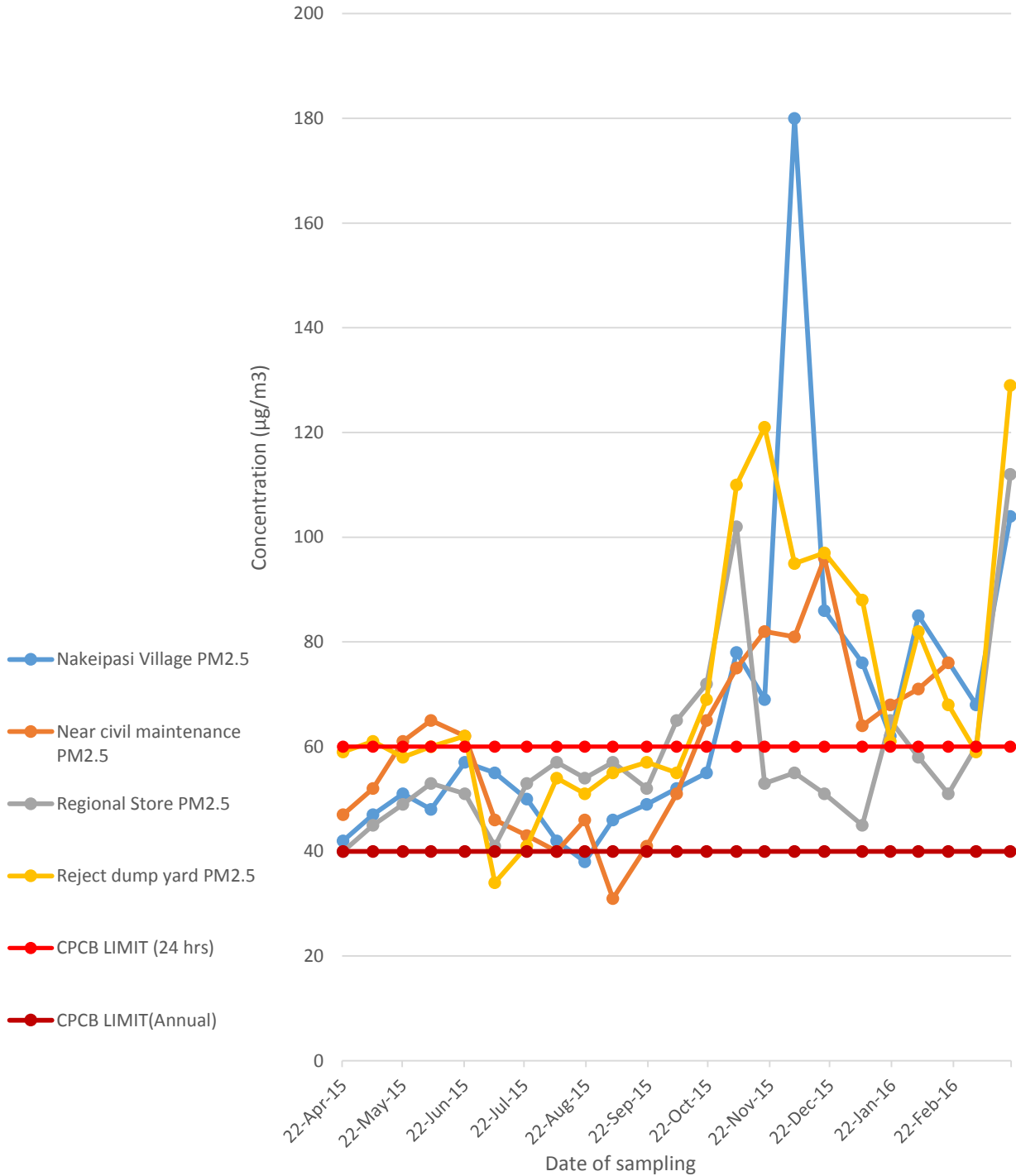


Graph Showing SO₂ of Bharatpur OCP





Graph Showing PM_{2.5} of Bharatpur OCP



Project: Chhendipada OCP
Monitoring Station: Dolamandap Chhak

Table 19

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
20-Apr-15	275	137	23	25	35	South to North hot& Sunny
06-May-15	282	140	27	30	49	South to North Sunny
20-May-15	249	131	25	28	51	South to North Sunny
01-Jun-15	231	116	20	22	36	West to East Sunny
16-Jun-15	228	111	18	20	57	East to West Sunny & Evening Rainfall
01-Jul-15	286	127	23	25	35	East to West Sunny & Evening Rainfall
17-Jul-15	256	121	22	24	38	East to West Sunny & Evening Heavy Rainfall
05-Aug-15	294	134	25	27	48	South to North Sunny
19-Aug-15	285	126	26	28	45	East to West Sunny
01-Sep-15	273	121	23	25	41	East to West Cloudy & Rainfall
18-Sep-15	261	116	21	23	34	East to West Cloudy & Rainfall
01-Oct-15	250	118	15	17	59	West to East Sunny
16-Oct-15	354	178	16	18	45	South to North Sunny
02-Nov-15	274	130	17	19	51	East to West Sunny
16-Nov-15	273	126	16	18	50	South to North Sunny
01-Dec-15	294	199	15	17	153	East to West Sunny
16-Dec-15	592	281	13	15	91	East to West Cloudy
04-Jan-16						Monitoring not done
18-Jan-16	404	189	13	17	49	East to West Sunny
01-Feb-16	208	159	17	19	45	East to West Sunny
16-Feb-16	223	138	14	16		East to West Sunny
01-Mar-16	208	159	11	13		East to West Sunny
16-Mar-16	322	173	13	15	96	East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	592.00	281.00	27.00	30.00	153.00	
Minimum	208.00	111.00	11.00	13.00	34.00	
Mean	287.36	146.82	18.77	20.95	55.40	
95 Percentile	401.50	198.50	25.95	28.00	98.85	
98 Percentile	513.04	246.56	26.58	29.16	131.34	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

Project: Chhendipada OCP
Monitoring Station: Near Site Office

Table 20

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
20-Apr-15	351	153	29	31	59	South to North hot& Sunny
06-May-15	337	134	30	32	62	South to North Sunny
20-May-15	309	128	28	30	57	South to North Sunny
01-Jun-15	327	134	25	27	59	West to East Sunny
16-Jun-15	314	131	23	25	55	East to West Sunny & Evening Rainfall
01-Jul-15	290	142	26	28	50	East to West Sunny & Evening Rainfall
17-Jul-15	280	132	24	26	42	East to West Sunny & Evening Heavy Rainfall
05-Aug-15	298	139	26	28	54	South to North Sunny
19-Aug-15	272	125	24	26	48	East to West Sunny
01-Sep-15	298	139	26	28	54	East to West Cloudy & Rainfall
18-Sep-15	286	131	24	26	46	East to West Cloudy & Rainfall
01-Oct-15	359	108	16	18	50	West to East Sunny
16-Oct-15	327	165	20	22	69	South to North Sunny
02-Nov-15	307	128	18	20	55	East to West Sunny
16-Nov-15	234	124	20	22	65	South to North Sunny
01-Dec-15	465	280	16	18	95	East to West Sunny
16-Dec-15	256	139	19	21	89	East to West Cloudy
04-Jan-16	191	142	17	21	58	South to North Sunny
18-Jan-16	259	162	15	20	87	East to West Sunny
01-Feb-16	352	201	14	16	83	East to West Sunny
16-Feb-16	254	133	19	21	61	East to West Sunny
01-Mar-16	352	201	12	15	79	East to West Sunny
16-Mar-16	315	109	14	16	47	East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	465.00	280.00	30.00	32.00	95.00	
Minimum	191.00	108.00	12.00	15.00	42.00	
Mean	305.78	146.96	21.09	23.35	61.91	
95 Percentile	358.30	201.00	28.90	30.90	88.80	
98 Percentile	418.36	245.24	29.56	31.56	92.36	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Chhendipada OCP
Monitoring Station: Mamuria sahi

Table 21

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
20-Apr-15	245	131	24	26	43	South to North hot& Sunny
06-May-15	259	136	26	28	41	South to North Sunny
20-May-15	271	140	23	26	45	South to North Sunny
01-Jun-15	261	124	22	24	42	West to East Sunny
16-Jun-15	253	121	20	23	41	East to West Sunny & Evening Rainfall
01-Jul-15	243	110	22	24	38	East to West Sunny & Evening Rainfall
17-Jul-15	232	109	18	20	34	East to West Sunny & Evening Heavy Rainfall
05-Aug-15	214	111	20	22	49	South to North Sunny
19-Aug-15	228	127	23	25	41	East to West Sunny
01-Sep-15	214	111	20	22	49	East to West Cloudy & Rainfall
18-Sep-15	226	121	19	21	43	East to West Cloudy & Rainfall
01-Oct-15	262	142	17	19	33	West to East Sunny
16-Oct-15	261	133	14	16	50	South to North Sunny
02-Nov-15	253	161	19	21	43	East to West Sunny
16-Nov-15	296	153	15	17	59	South to North Sunny
01-Dec-15	211	122	21	23	85	East to West Sunny
16-Dec-15	351	202	19	21	97	East to West Cloudy
04-Jan-16	326	156	12	16	42	South to North Sunny
18-Jan-16	343	225	16	21	50	East to West Sunny
01-Feb-16	257	137	19	21	60	East to West Sunny
16-Feb-16	252	178	17	19	57	East to West Sunny
01-Mar-16	257	137	14	16	54	East to West Sunny
16-Mar-16	357	249	16	18	60	East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	357.00	249.00	26.00	28.00	97.00	
Minimum	211.00	109.00	12.00	16.00	33.00	
Mean	264.00	145.04	18.96	21.26	50.26	
95 Percentile	350.20	222.70	23.90	26.00	82.50	
98 Percentile	354.36	238.44	25.12	27.12	91.72	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Chhendipada OCP
Monitoring Station: Near Fire Station

Table 22

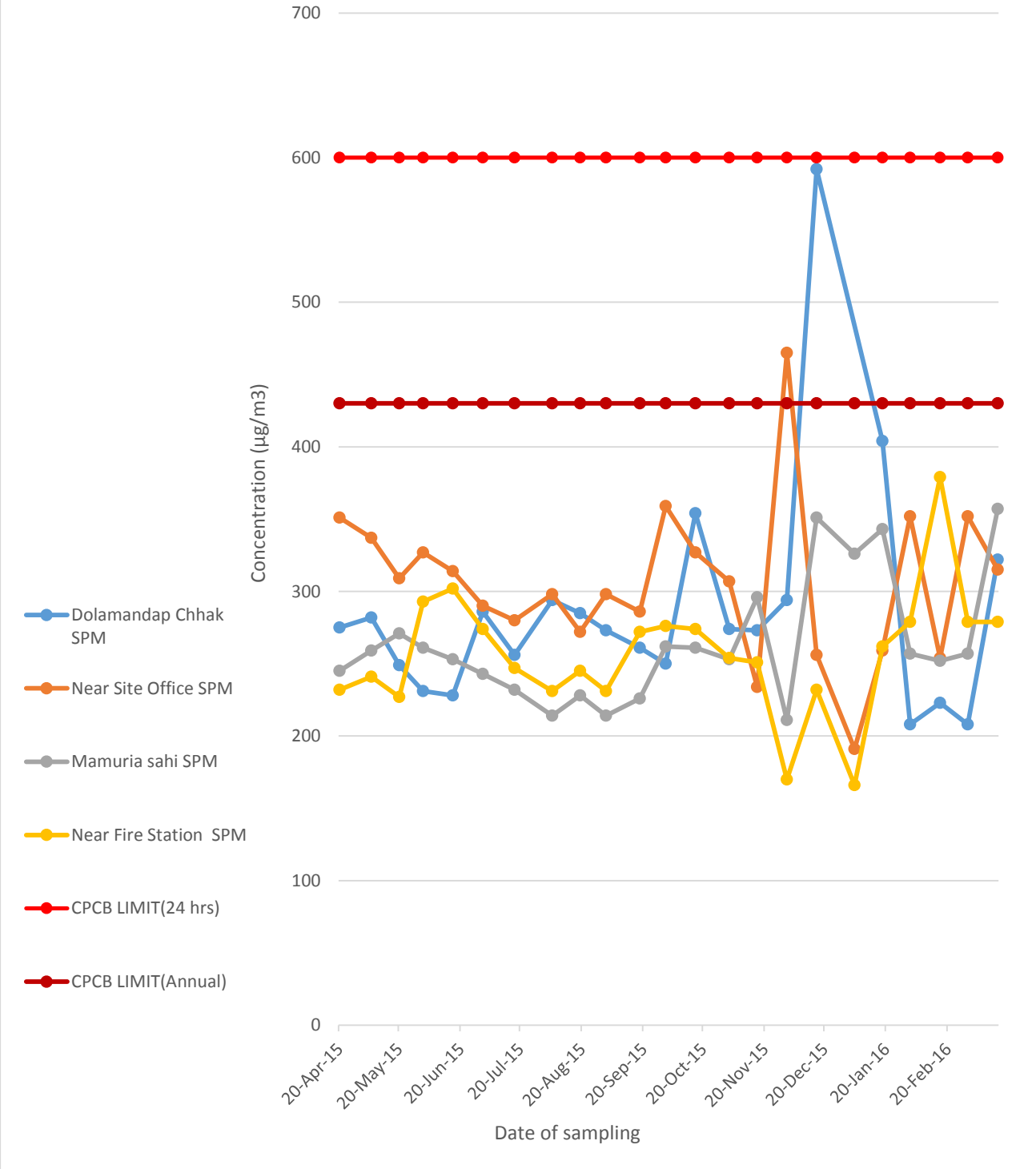
Date of Sampling	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	Remarks
20-Apr-15	232	120	24	26	32	South to North hot& Sunny
06-May-15	241	127	23	25	46	South to North Sunny
20-May-15	227	119	22	25	41	South to North Sunny
01-Jun-15	293	125	24	26	47	West to East Sunny
16-Jun-15	302	129	21	23	52	East to West Sunny & Evening Rainfall
01-Jul-15	274	116	24	26	44	East to West Sunny & Evening Rainfall
17-Jul-15	247	111	19	21	40	East to West Sunny & Evening Heavy Rainfall
05-Aug-15	231	119	21	23	45	South to North Sunny
19-Aug-15	245	115	22	24	49	East to West Sunny
01-Sep-15	231	119	21	23	45	East to West Cloudy & Rainfall
18-Sep-15	272	125	22	24	32	East to West Cloudy & Rainfall
01-Oct-15	276	112	14	16	35	West to East Sunny
16-Oct-15	274	162	15	17	52	South to North Sunny
02-Nov-15	254	113	21	23	60	East to West Sunny
16-Nov-15	251	136	17	19	56	South to North Sunny
01-Dec-15	170	102	18	20	92	East to West Sunny
16-Dec-15	232	125	15	17	69	East to West Cloudy
04-Jan-16	166	92	12	17	61	South to North Sunny
18-Jan-16	262	130	15	19	58	East to West Sunny
01-Feb-16	279	187	16	18	54	East to West Sunny
16-Feb-16	379	216	21	23	43	East to West Sunny
01-Mar-16	279	187	10	12	35	East to West Sunny
16-Mar-16	279	174	12	14		East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	379.00	216.00	24.00	26.00	92.00	
Minimum	166.00	92.00	10.00	12.00	32.00	
Mean	256.35	133.09	18.65	20.91	49.45	
95 Percentile	301.10	187.00	24.00	26.00	68.60	
98 Percentile	345.12	203.24	24.00	26.00	82.34	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

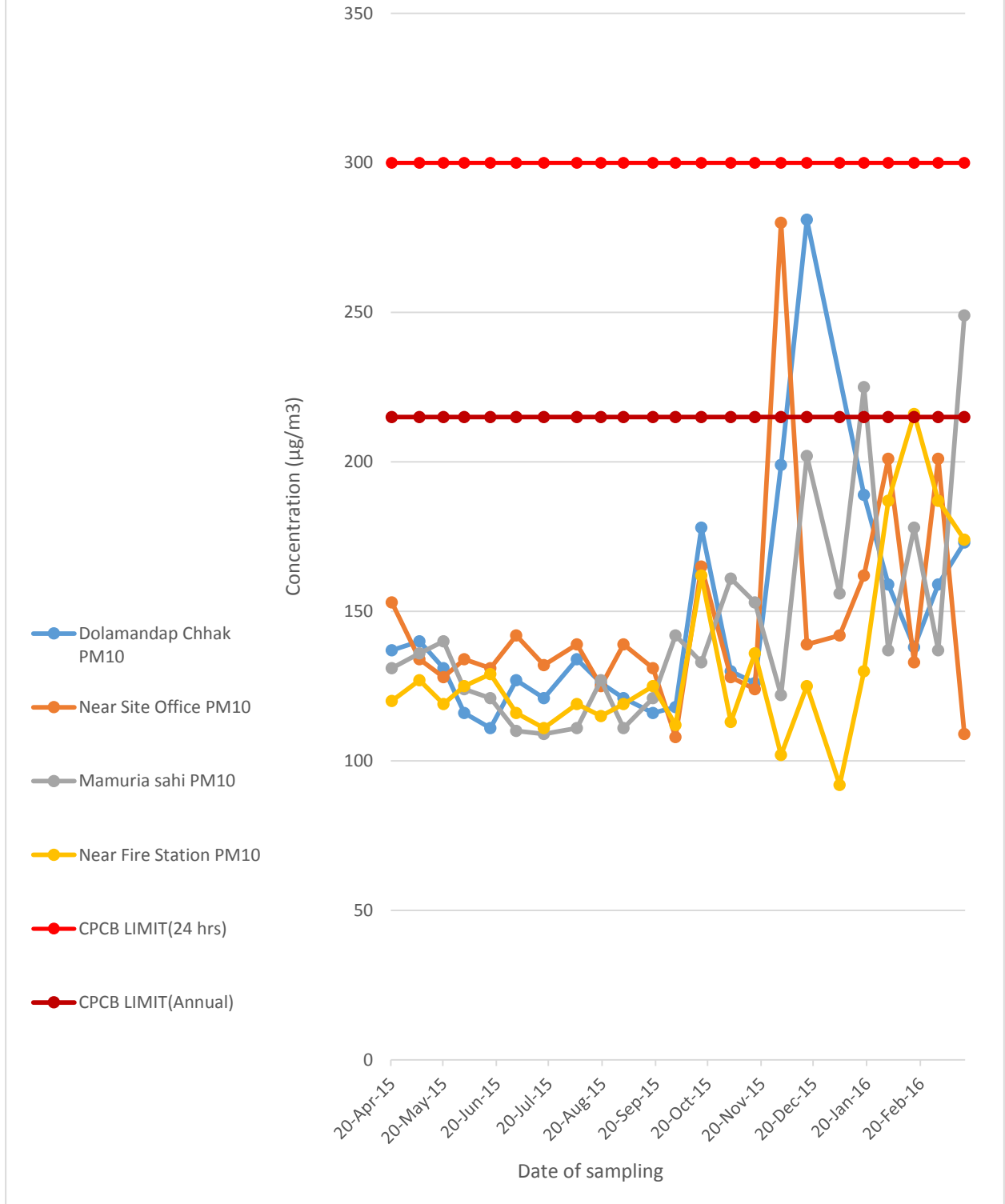
Table 23: Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Near Site office	16-03-16	21.3	9.56	<0.07	<1.0	<1.0	<1.0	<0.02	0.75	<1.0	<1.0	<0.5
Near fire station	16-03-16	20.6	9.62	<0.07	<1.0	<1.0	<1.0	<0.02	0.789	<1.0	<1.0	<0.5
Mamuraia Sahi	16-03-16	21.3	9.56	<0.07	<1.0	<1.0	<1.0	<0.02	0.75	<1.0	<1.0	<0.5
Dolamandap chhak	16-03-16	19.7	9.8/	<0.07	<1.0	<1.0	<1.0	<0.02	0.618	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

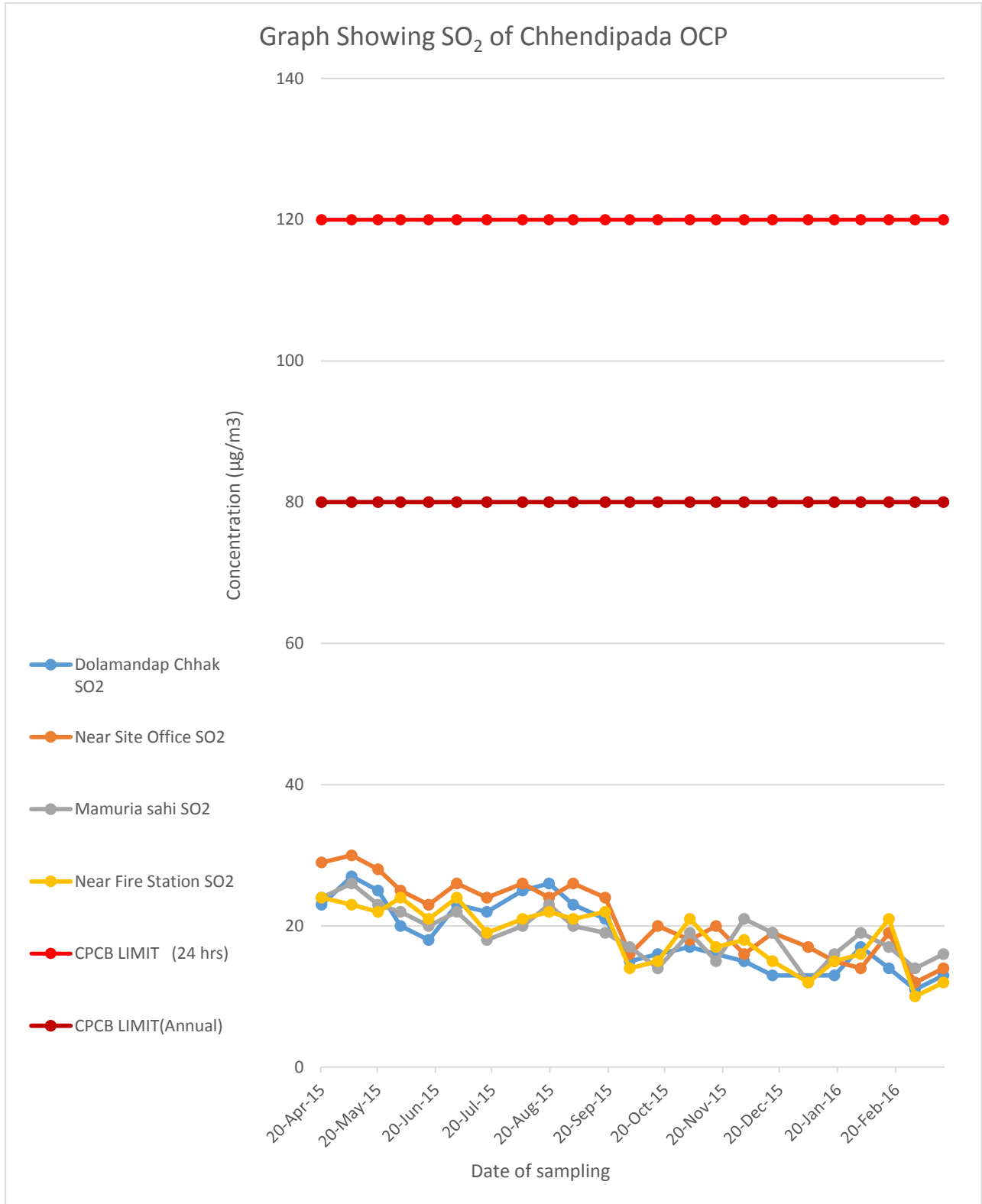
Graph Showing SPM of Chhendipada OCP



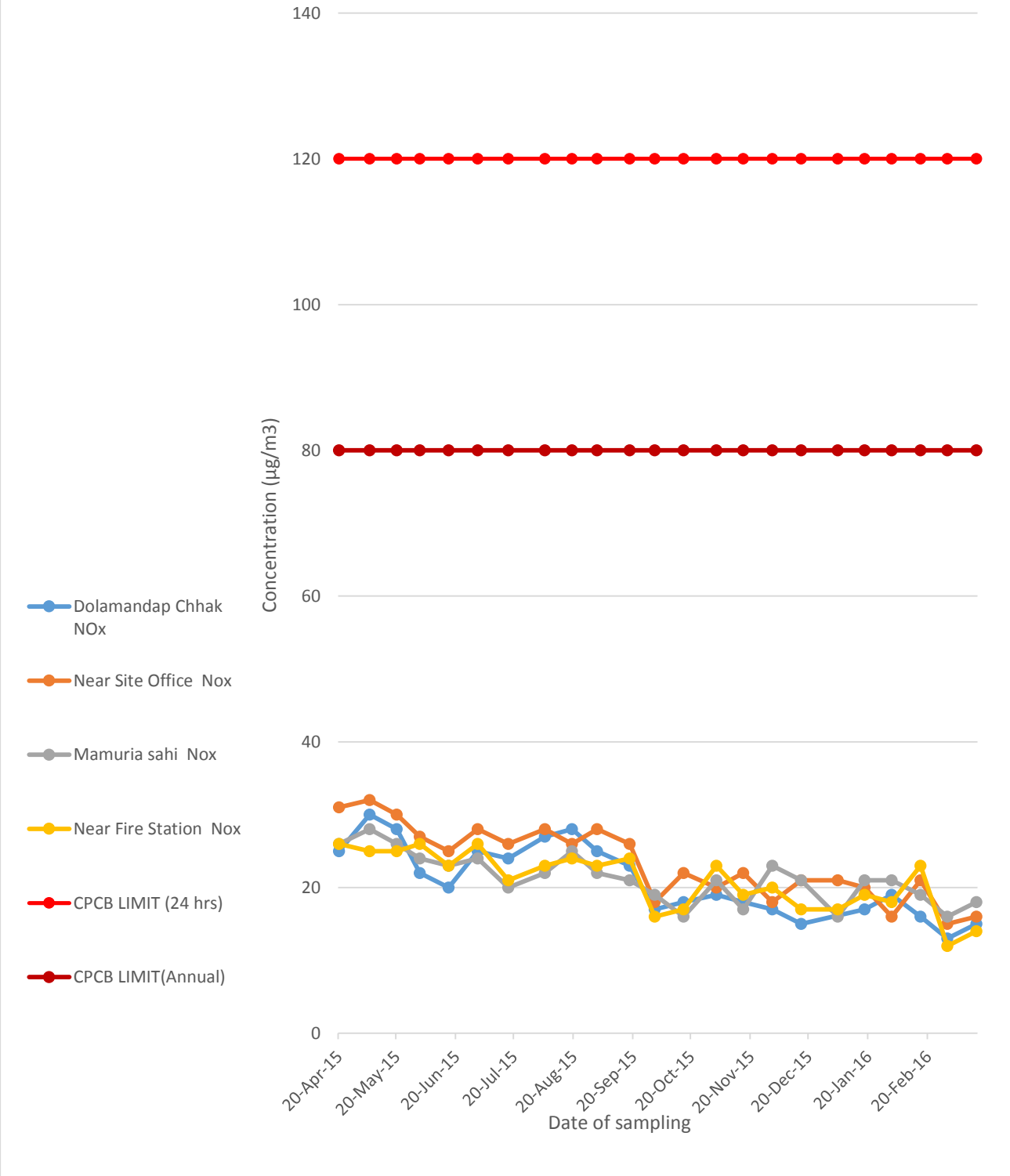
Graph Showing PM₁₀ of Chhendipada OCP

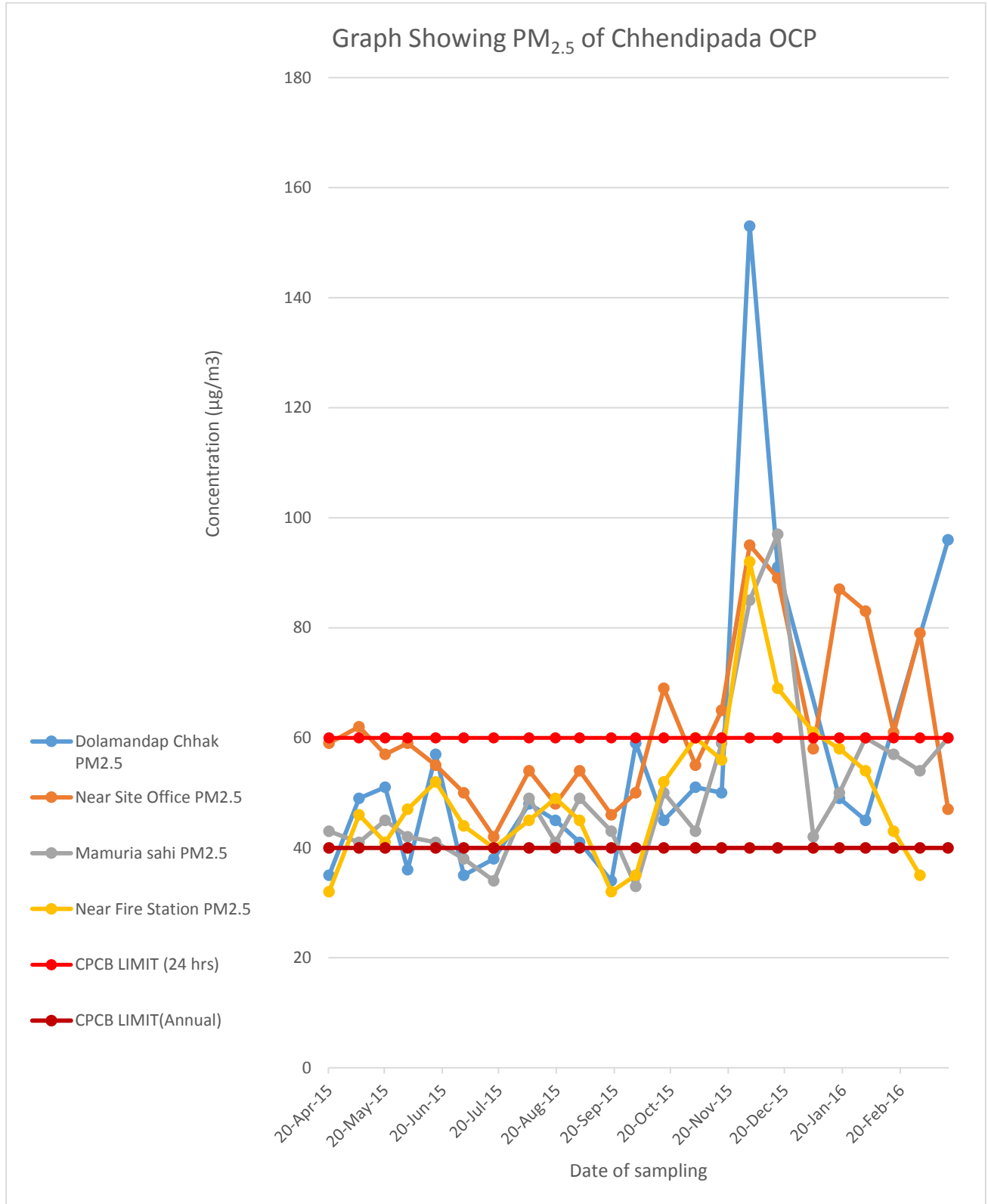


Graph Showing SO₂ of Chhendipada OCP



Graph Showing NO_x of Chhendipada OCP





Project: Balram OCP
Monitoring Station: Natada Village

Table 24

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
21-Apr-15	294	131	25	27	39	East to West hot & Sunny
07-May-15	272	126	23	25	41	East to West Sunny
21-May-15	262	120	21	23	47	East to West Sunny
04-Jun-15	245	116	23	25	51	East to West Sunny
19-Jun-15	234	113	24	26	43	East to West Cloudy & Evening Rainfall
06-Jul-15	231	109	25	27	40	South to North Sunny & Evening Rainfall
22-Jul-15	219	102	21	23	32	South to North Sunny & Evening Rainfall
06-Aug-15	226	113	23	25	42	East to West Sunny
20-Aug-15	236	124	22	24	40	South to North Cloudy Rainfall
07-Sep-15	207	120	25	27	37	East to West Hot Sunny & Evening Rainfall
19-Sep-15	227	116	24	26	41	East to West Cloudy & Rainfall
05-Oct-15	371	257	18	20	54	East to West Sunny
20-Oct-15	336	221	15	17	42	East to West Sunny
04-Nov-15	226	121	21	23	110	East to West Sunny
18-Nov-15	316	182	19	21	92	West to East Sunny
03-Dec-15	354	154	19	21	89	East to West Sunny
18-Dec-15	246	168	16	18	76	West to East Cloudy
06-Jan-16	337	291	16	19	56	West to East Sunny
20-Jan-16	284	140	12	16	56	West to East Sunny
03-Feb-16	400	181	16	18	65	South to North Sunny
18-Feb-16	501	192	15	17	57	South to North Sunny
03-Mar-16	400	181	14	16		West to East Sunny
18-Mar-16	315	204	16	18	45	South to North Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	501.00	291.00	25.00	27.00	110.00	
Minimum	207.00	102.00	12.00	16.00	32.00	
Mean	293.00	155.74	19.70	21.83	54.32	
95 Percentile	400.00	253.40	25.00	27.00	91.85	
98 Percentile	456.56	276.04	25.00	27.00	102.44	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Balram OCP
Monitoring Station: On backfilled area near field time office

Table 25

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
21-Apr-15	321	147	30	33	55	East to West hot & Sunny
08-May-15	337	140	27	29	59	East to West Sunny
21-May-15	346	137	29	31	64	East to West Sunny
04-Jun-15	323	125	25	27	66	East to West Sunny
19-Jun-15	312	120	23	25	67	East to West Cloudy & Evening Rainfall
06-Jul-15	305	117	27	29	62	South to North Sunny & Evening Rainfall
22-Jul-15	283	126	24	26	51	South to North Sunny & Evening Rainfall
06-Aug-15	262	121	25	27	55	East to West Sunny
20-Aug-15	287	139	27	29	57	South to North Cloudy Rainfall
07-Sep-15						Strike
19-Sep-15	249	132	25	27	49	East to West Cloudy & Rainfall
05-Oct-15	395	325	23	25	67	East to West Sunny
20-Oct-15	416	295	21	23	69	East to West Sunny
04-Nov-15	287	147	16	18	106	East to West Sunny
18-Nov-15	367	246	21	23	97	West to East Sunny
03-Dec-15	281	114	18	20	54	East to West Sunny
18-Dec-15	300	185	20	22	69	West to East Cloudy
06-Jan-16	569	185	20	23	77	West to East Sunny
20-Jan-16	563	183	14	18	59	West to East Sunny
03-Feb-16	500	275	20	22	94	South to North Sunny
18-Feb-16	565	300	20	22	81	South to North Sunny
03-Mar-16	500	275	18	20	44	West to East Sunny
18-Mar-16	508	275	14	16	34	South to North Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	569.00	325.00	30.00	33.00	106.00	
Minimum	249.00	114.00	14.00	16.00	34.00	
Mean	376.18	186.77	22.14	24.32	65.27	
95 Percentile	564.90	299.75	28.90	30.90	96.85	
98 Percentile	567.32	314.50	29.58	32.16	102.22	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Balram OCP
Monitoring Station: Project Office Balram OCP

Table 26

Date of Sampling	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	Remarks
21-Apr-15	343	152	28	31	52	East to West hot & Sunny
08-May-15	341	150	27	29	50	East to West Sunny
21-May-15	357	148	30	32	67	East to West Sunny
04-Jun-15	365	154	29	31	62	East to West Sunny
19-Jun-15	327	137	27	29	60	East to West Cloudy & Evening Rainfall
06-Jul-15	298	142	24	26	51	South to North Sunny & Evening Rainfall
22-Jul-15	252	131	22	24	42	South to North Sunny & Evening Rainfall
06-Aug-15	310	139	26	28	58	East to West Sunny
20-Aug-15	328	149	28	30	60	South to North Cloudy Rainfall
07-Sep-15						Strike
19-Sep-15	256	124	23	25	42	East to West Cloudy & Rainfall
05-Oct-15	416	311	14	16	43	East to West Sunny
20-Oct-15	452	316	19	21	65	East to West Sunny
04-Nov-15	459	289	17	19	107	East to West Sunny
18-Nov-15	367	216	21	23	101	West to East Sunny
03-Dec-15	481	281	21	23	122	East to West Sunny
18-Dec-15	209	160	19	21	78	West to East Cloudy
06-Jan-16	577	185	11	15	68	West to East Sunny
20-Jan-16	513	203	14	19	58	West to East Sunny
03-Feb-16	524	291	19	21	83	South to North Sunny
18-Feb-16	535	287	18	20	68	South to North Sunny
03-Mar-16	524	291	15	17	76	West to East Sunny
18-Mar-16	596	291	12	14	61	South to North Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	596.00	316.00	30.00	32.00	122.00	
Minimum	209.00	124.00	11.00	14.00	42.00	
Mean	401.36	206.68	21.09	23.36	67.00	
95 Percentile	574.90	310.00	28.95	31.00	106.70	
98 Percentile	588.02	313.90	29.58	31.58	115.70	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Balram OCP
Monitoring Station: Solada Village

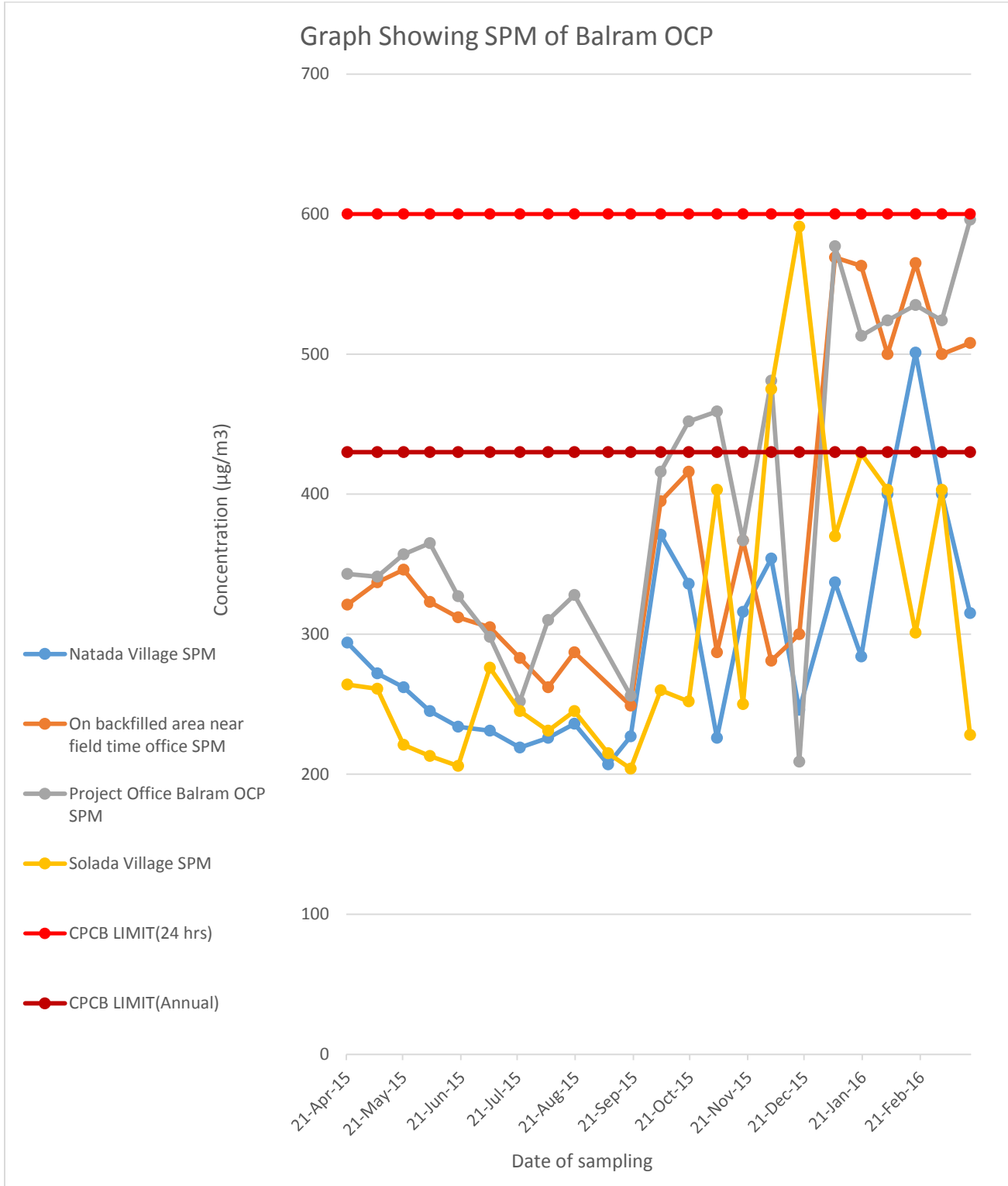
Table 27

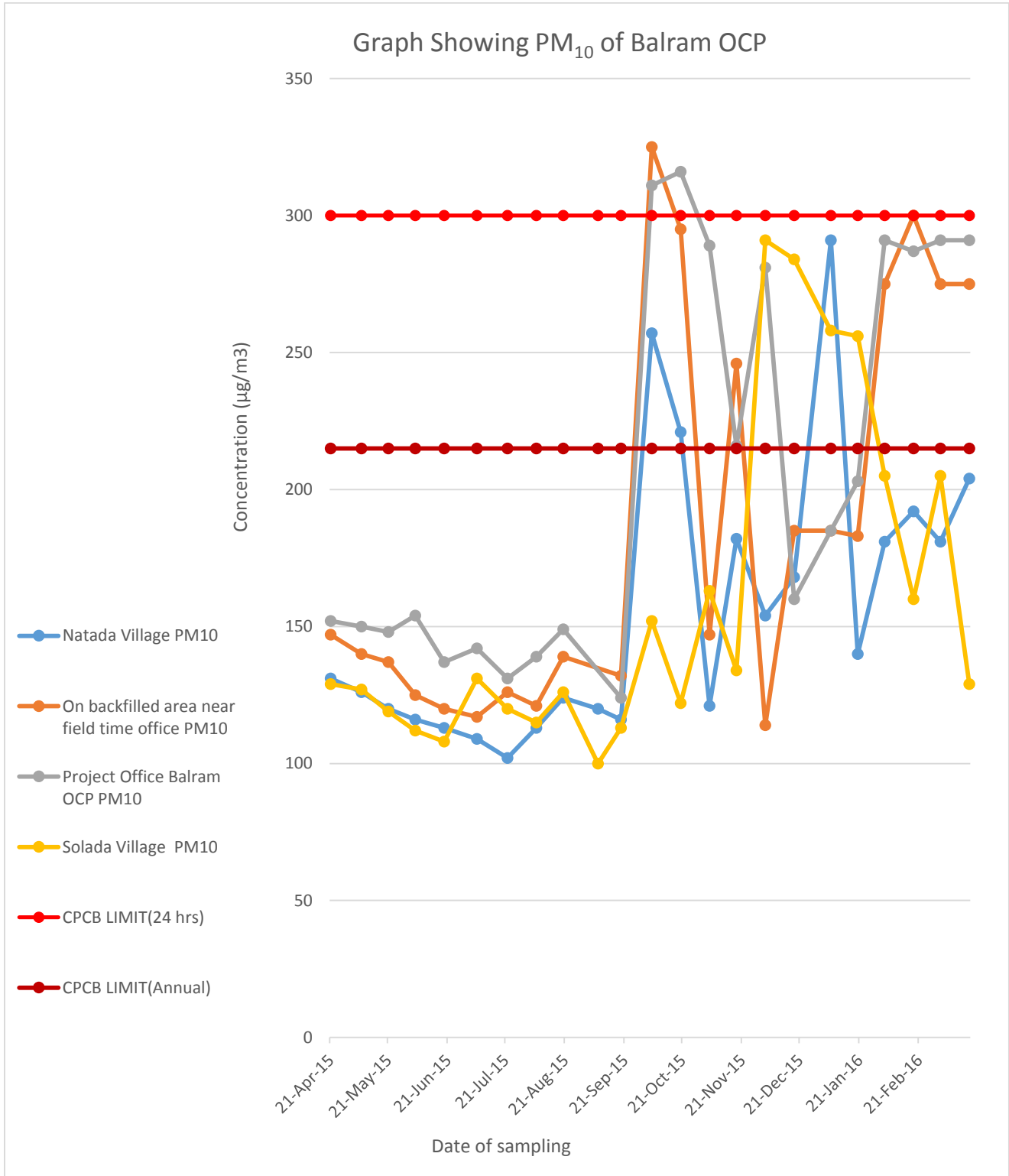
Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
21-Apr-15	264	129	24	26	36	East to West hot & Sunny
08-May-15	261	127	25	27	39	East to West Sunny
21-May-15	221	119	22	24	41	East to West Sunny
04-Jun-15	213	112	21	22	37	East to West Sunny
19-Jun-15	206	108	19	21	47	East to West Cloudy & Evening Rainfall
06-Jul-15	276	131	23	25	57	South to North Sunny & Evening Rainfall
22-Jul-15	245	120	20	22	49	South to North Sunny & Evening Rainfall
06-Aug-15	231	115	19	21	42	East to West Sunny
20-Aug-15	245	126	21	23	46	South to North Cloudy Rainfall
07-Sep-15	215	100	23	25	35	East to West Hot Sunny & Evening Rainfall
18-Sep-15	204	113	18	20	31	East to West Cloudy & Rainfall
05-Oct-15	260	152	16	18	40	East to West Sunny
20-Oct-15	252	122	14	16	61	East to West Sunny
04-Nov-15	403	163	15	17	127	East to West Sunny
18-Nov-15	250	134	14	16	120	West to East Sunny
03-Dec-15	475	291	17	19	137	East to West Sunny
18-Dec-15	591	284	15	17	98	West to East Cloudy
06-Jan-16	370	258	12	17	52	West to East Sunny
20-Jan-16	429	256	20	24	66	West to East Sunny
03-Feb-16	403	205	15	17	73	South to North Sunny
18-Feb-16	301	160	15	17		South to North Sunny
03-Mar-16	403	205	12	15	36	West to East Sunny
18-Mar-16	228	129	15	17		South to North Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	591.00	291.00	25.00	27.00	137.00	
Minimum	204.00	100.00	12.00	15.00	31.00	
Mean	302.00	159.09	18.04	20.26	60.48	
95 Percentile	470.40	281.40	23.90	25.90	127.00	
98 Percentile	539.96	287.92	24.56	26.56	133.00	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

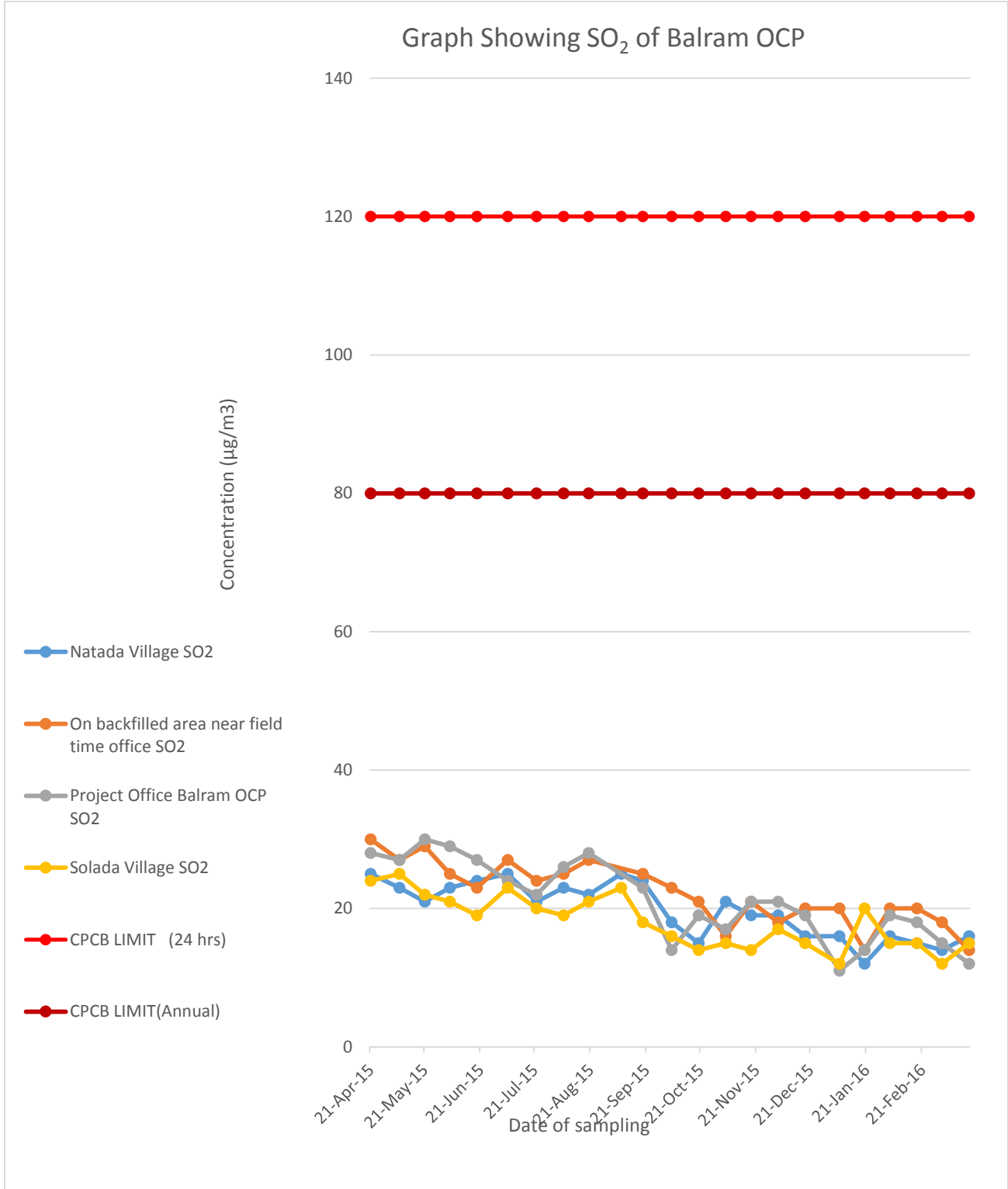
All values in µg/m³

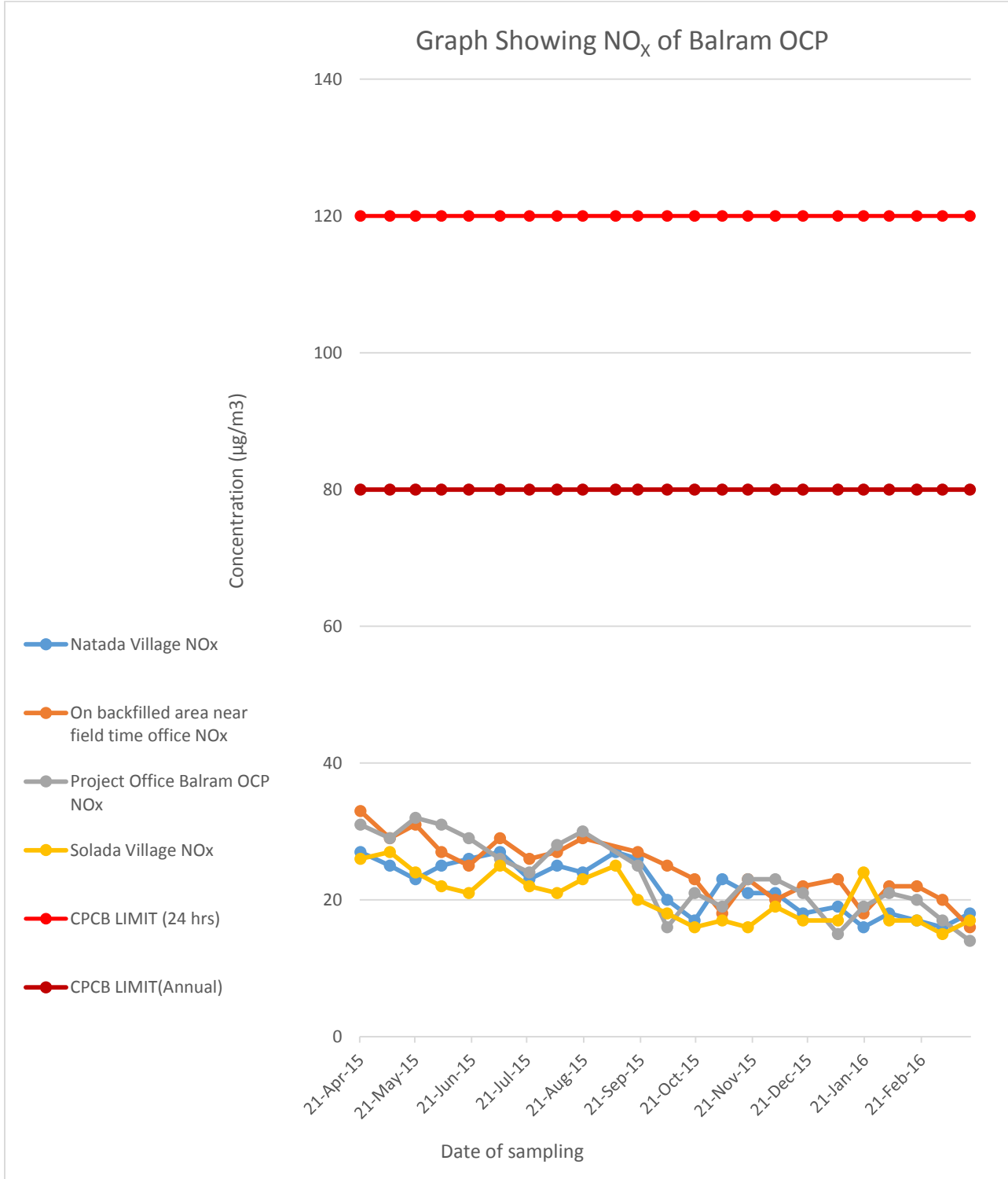
Table 28: Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Natada village	18-03-16	22.2	9.56	<0.07	<1.0	<1.0	<1.0	<0.02	0.798	<1.0	<1.0	<0.5
On back field area near field time office	18-03-16	21.8	10	<0.07	<1.0	<1.0	<1.0	<0.02	0.9	<1.0	<1.0	<0.5
Project office balram ocp	18-03-16	21.3	10.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.927	<1.0	<1.0	<0.5
Solada village	18-03-16	20.5	9.4	<0.07	<1.0	<1.0	<1.0	<0.02	0.896	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

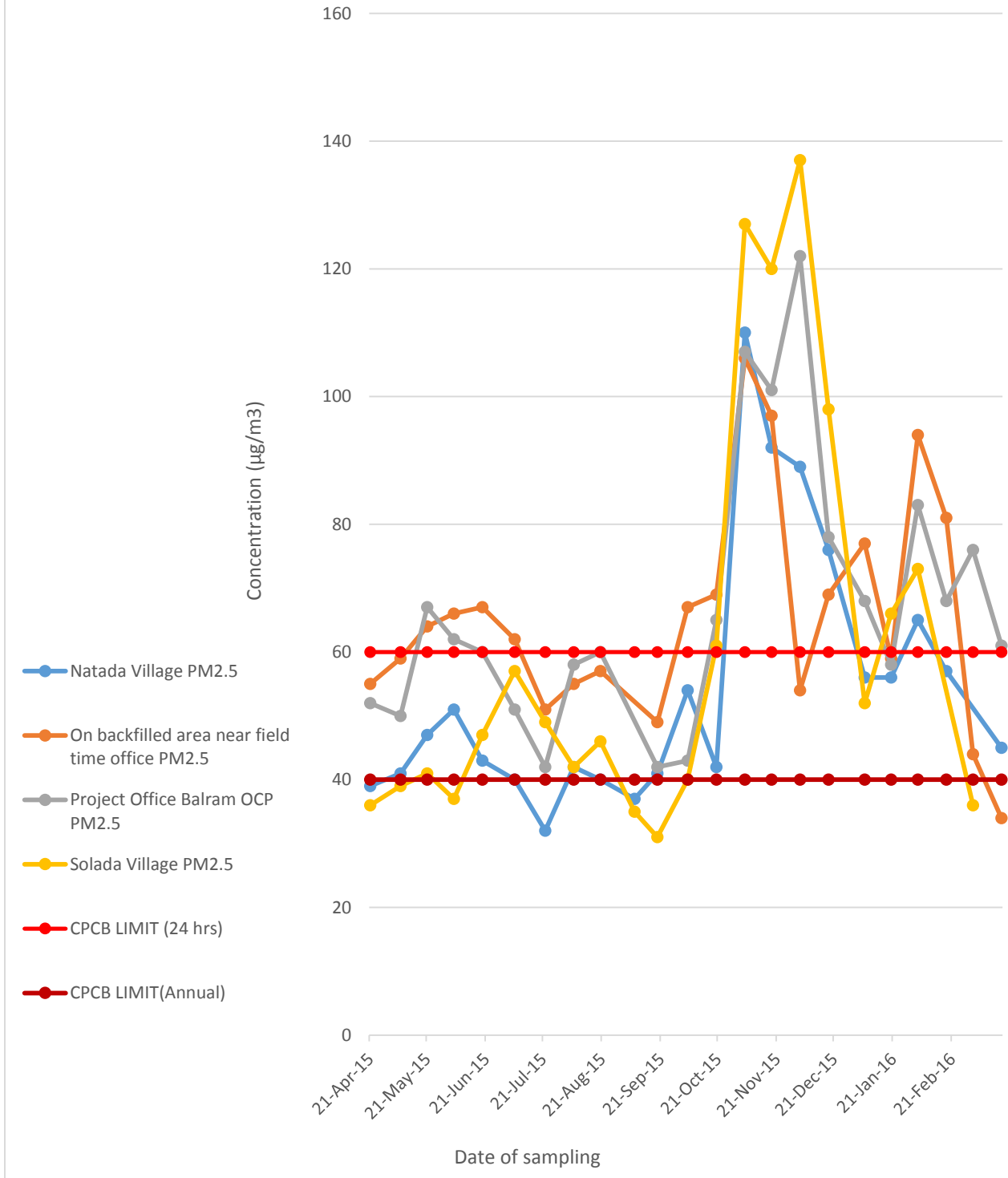








Graph Showing PM_{2.5} of Balram OCP



Project: Hingula OCP
Monitoring Station: Bhalugadia Village

Table 29

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
17-Apr-15	242	139	25	27	43	East to West hot & Sunny
05-May-15	254	132	23	25	46	West to East Sunny
19-May-15	249	126	24	26	49	South to North Sunny
02-Jun-15	258	121	25	27	56	South to North Sunny
17-Jun-15	264	128	27	29	53	South to North Hot Sunny
03-Jul-15	214	116	22	24	40	West to East Sunny
20-Jul-15	205	103	20	22	34	East to West Sunny & Evening Heavy Rainfall
04-Aug-15	199	110	21	23	38	South to North Hot & Sunny
18-Aug-15	229	125	23	25	41	East to West Cloudy Rainfall
03-Sep-15	279	134	19	22	37	South to North Cloudy Rainfall
16-Sep-15	264	126	21	23	41	South to North Cloudy & Rainfall
03-Oct-15	307	225	18	20	53	East to West Sunny
19-Oct-15	345	233	17	19	55	East to West Sunny
03-Nov-15	243	145	15	17	108	South to North Sunny
17-Nov-15	324	164	15	17	101	South to North Sunny
02-Dec-15	284	181	18	20	57	West to East Sunny
17-Dec-15	526	264	14	16	87	East to West Cloudy
05-Jan-16	342	138	15	18	58	West to East Hot & Sunny
19-Jan-16	566	215	18	21	61	South to North Sunny
02-Feb-16	405	182	14	16	75	South to North Sunny
17-Feb-16	254	167	16	18	57	West to East Sunny
02-Mar-16	405	182	12	15		West to East Sunny
17-Mar-16	254	157	11	13	47	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	566.00	264.00	27.00	29.00	108.00	
Minimum	199.00	103.00	11.00	13.00	34.00	
Mean	300.52	157.09	18.83	21.00	56.23	
95 Percentile	513.90	232.20	25.00	27.00	100.30	
98 Percentile	548.40	250.36	26.12	28.12	105.06	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Hingula OCP
Monitoring Station: Project Office

Table 30

Date of Sampling	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	Remarks
17-Apr-15	297	147	26	28	52	East to West hot & Sunny
05-May-15	307	139	27	29	57	West to East Sunny
19-May-15	329	147	30	32	60	South to North Sunny
02-Jun-15	289	134	27	29	64	South to North Sunny
17-Jun-15	315	139	29	31	64	South to North Hot Sunny
03-Jul-15	233	135	25	27	62	West to East Sunny
20-Jul-15	212	124	23	25	51	East to West Sunny & Evening Heavy Rainfall
04-Aug-15	227	128	25	27	46	South to North Hot & Sunny
18-Aug-15	257	134	27	29	49	East to West Cloudy Rainfall
03-Sep-15	281	121	23	25	41	South to North Cloudy Rainfall
16-Sep-15	296	134	21	23	48	South to North Cloudy & Rainfall
03-Oct-15	359	264	16	18	54	East to West Sunny
19-Oct-15	378	286	21	23	58	East to West Sunny
03-Nov-15	345	266	19	21	113	South to North Sunny
17-Nov-15	376	211	22	24	107	South to North Sunny
02-Dec-15	228	123	19	21	85	West to East Sunny
17-Dec-15	373	291	16	18	86	East to West Cloudy
05-Jan-16	361	242	14	17	47	West to East Hot & Sunny
19-Jan-16	420	171	13	17	79	South to North Sunny
02-Feb-16	501	266	16	18	61	South to North Sunny
17-Feb-16	490	201	12	14	81	West to East Sunny
02-Mar-16	501	266	14	16	53	West to East Sunny
17-Mar-16	297	202	12	14	35	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	501.00	291.00	30.00	32.00	113.00	
Minimum	212.00	121.00	12.00	14.00	35.00	
Mean	333.57	185.70	20.74	22.87	63.17	
95 Percentile	499.90	284.00	28.80	30.80	104.90	
98 Percentile	501.00	288.80	29.56	31.56	110.36	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

Project: Hingula OCP
Monitoring Station: Gopalprasad Village

Table 31

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
17-Apr-15	215	121	20	22	47	East to West hot & Sunny
05-May-15	276	134	26	28	51	West to East Sunny
19-May-15	260	138	25	27	55	South to North Sunny
02-Jun-15	273	132	23	25	51	South to North Sunny
17-Jun-15	252	123	24	26	50	South to North Hot Sunny
03-Jul-15	242	125	20	22	32	West to East Sunny
20-Jul-15	237	121	18	20	30	East to West Sunny & Evening Heavy Rainfall
04-Aug-15	249	129	20	22	40	South to North Hot & Sunny
18-Aug-15	264	132	24	26	45	East to West Cloudy Rainfall
03-Sep-15	212	113	18	20	34	South to North Cloudy Rainfall
16-Sep-15	224	119	20	22	39	South to North Cloudy & Rainfall
03-Oct-15	328	213	16	18	64	East to West Sunny
19-Oct-15	291	131	15	17	56	East to West Sunny
03-Nov-15	231	136	14	16	101	South to North Sunny
17-Nov-15	310	151	17	19	105	South to North Sunny
02-Dec-15	303	193	16	18	96	West to East Sunny
17-Dec-15	284	201	18	20	94	East to West Cloudy
05-Jan-16	298	177	19	23	37	West to East Hot & Sunny
19-Jan-16	215	105	14	18	42	South to North Sunny
02-Feb-16	316	121	18	20	40	South to North Sunny
17-Feb-16	310	237	19	21		West to East Sunny
02-Mar-16	316	121	10	13	51	West to East Sunny
17-Mar-16	186	108	14	16		West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	328.00	237.00	26.00	28.00	105.00	
Minimum	186.00	105.00	10.00	13.00	30.00	
Mean	264.87	142.65	18.61	20.83	55.24	
95 Percentile	316.00	211.80	24.90	26.90	101.00	
98 Percentile	322.72	226.44	25.56	27.56	103.40	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Hingula OCP
Monitoring Station: Malibandha Village

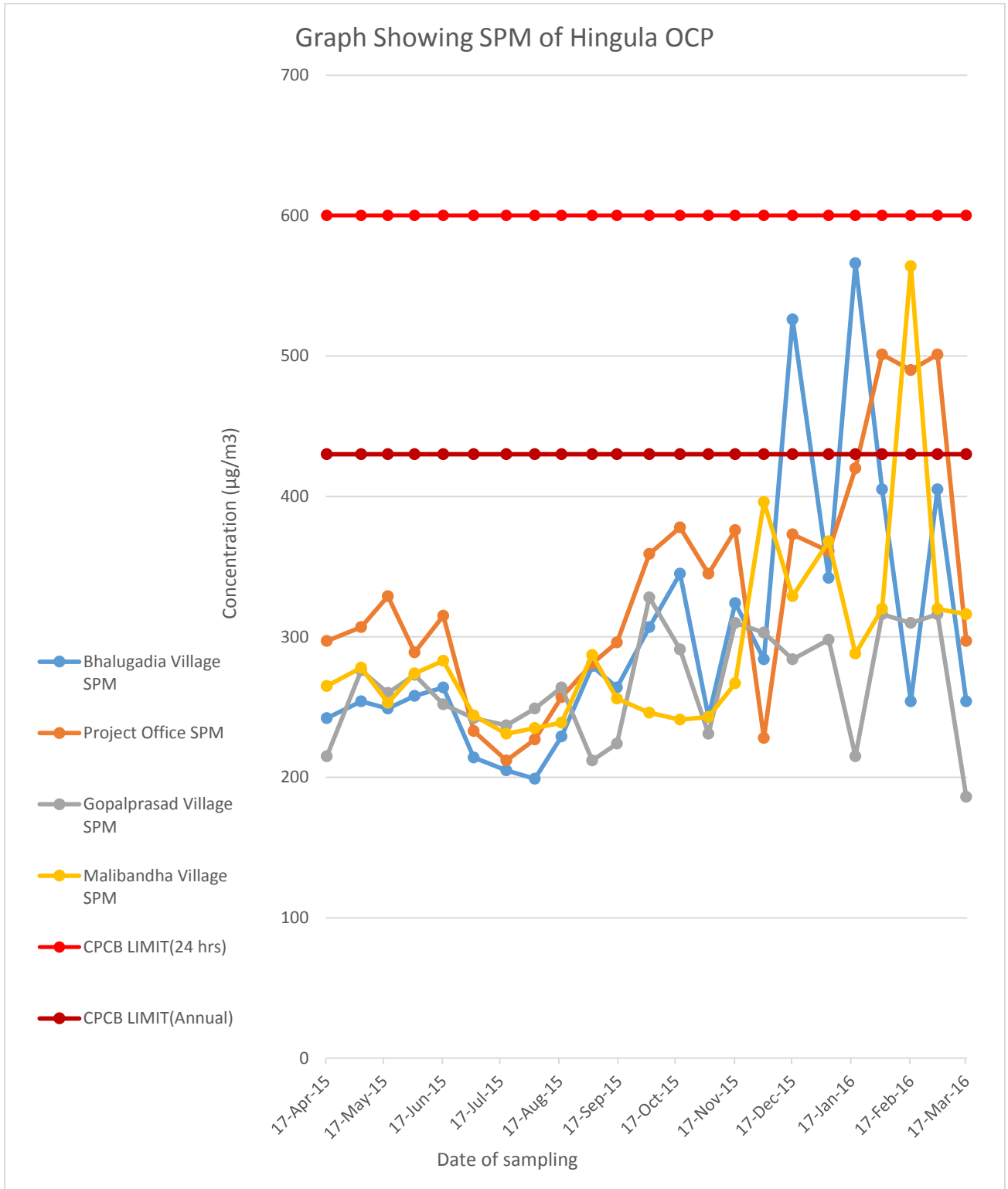
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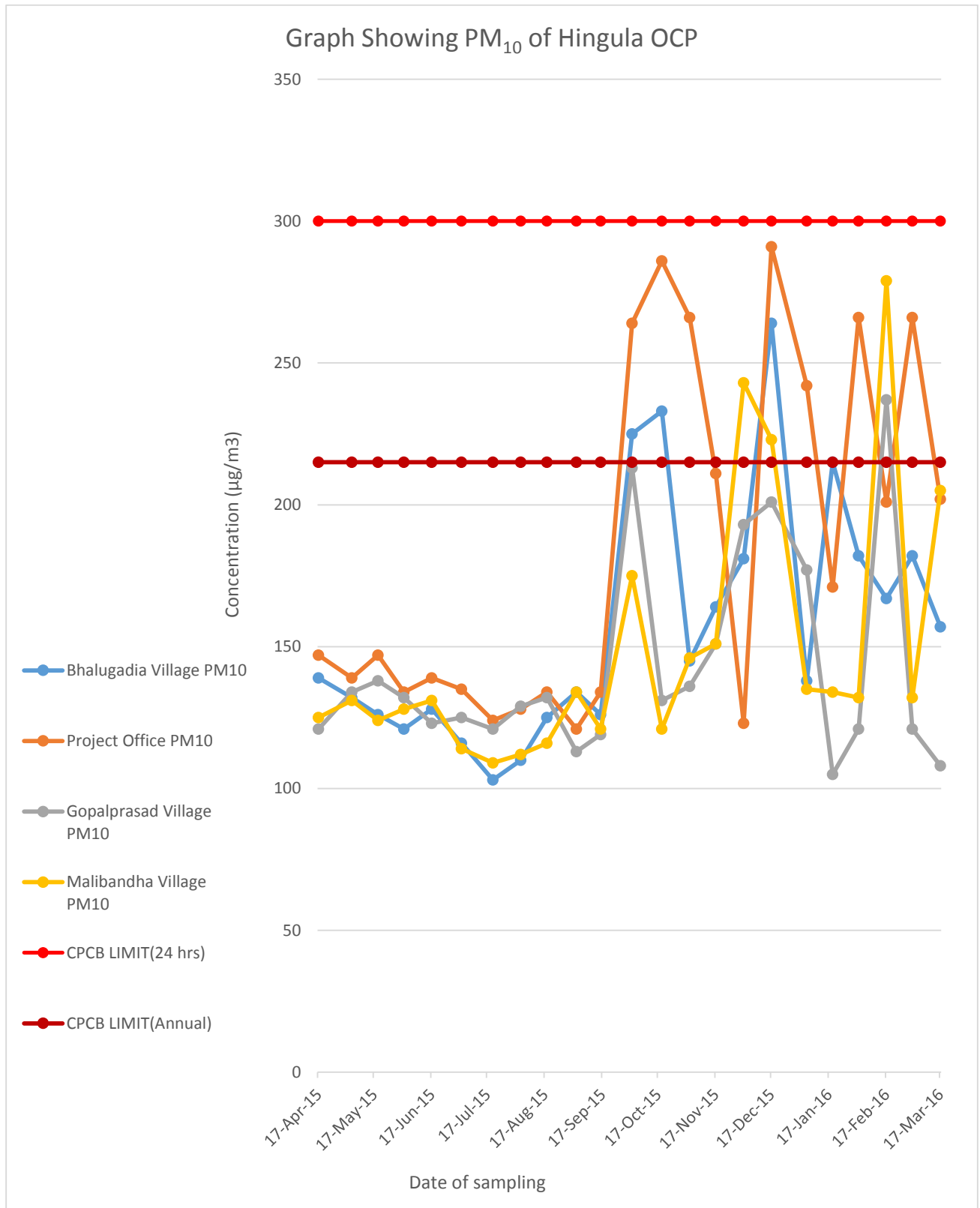
Date of Sampling	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	Remarks
17-Apr-15	265	125	25	27	43	East to West hot & Sunny
05-May-15	278	131	24	26	37	West to East Sunny
19-May-15	253	124	22	24	34	South to North Sunny
02-Jun-15	274	128	24	26	39	South to North Sunny
17-Jun-15	283	131	26	28	41	South to North Hot Sunny
03-Jul-15	244	114	21	23	33	West to East Sunny
20-Jul-15	231	109	19	21	30	East to West Sunny & Evening Heavy Rainfall
04-Aug-15	235	112	21	23	45	South to North Hot & Sunny
18-Aug-15	239	116	22	24	38	East to West Cloudy Rainfall
03-Sep-15	287	134	24	26	43	South to North Cloudy Rainfall
16-Sep-15	256	121	22	24	40	South to North Cloudy & Rainfall
03-Oct-15	246	175	20	22	57	East to West Sunny
19-Oct-15	241	121	18	20	54	East to West Sunny
03-Nov-15	243	146	16	18	118	South to North Sunny
17-Nov-15	267	151	19	21	112	South to North Sunny
02-Dec-15	396	243	16	18	102	West to East Sunny
17-Dec-15	329	223	14	16	91	East to West Cloudy
05-Jan-16	368	135	16	20	27	West to East Hot & Sunny
19-Jan-16	288	134	12	15	64	South to North Sunny
02-Feb-16	320	132	14	16	80	South to North Sunny
17-Feb-16	564	279	14	16	62	West to East Sunny
02-Mar-16	320	132	11	13	63	West to East Sunny
17-Mar-16	316	205	13	15	46	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	564.00	279.00	26.00	28.00	118.00	
Minimum	231.00	109.00	11.00	13.00	27.00	
Mean	293.17	148.74	18.83	20.96	56.48	
95 Percentile	393.20	241.00	24.90	26.90	111.00	
98 Percentile	490.08	263.16	25.56	27.56	115.36	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

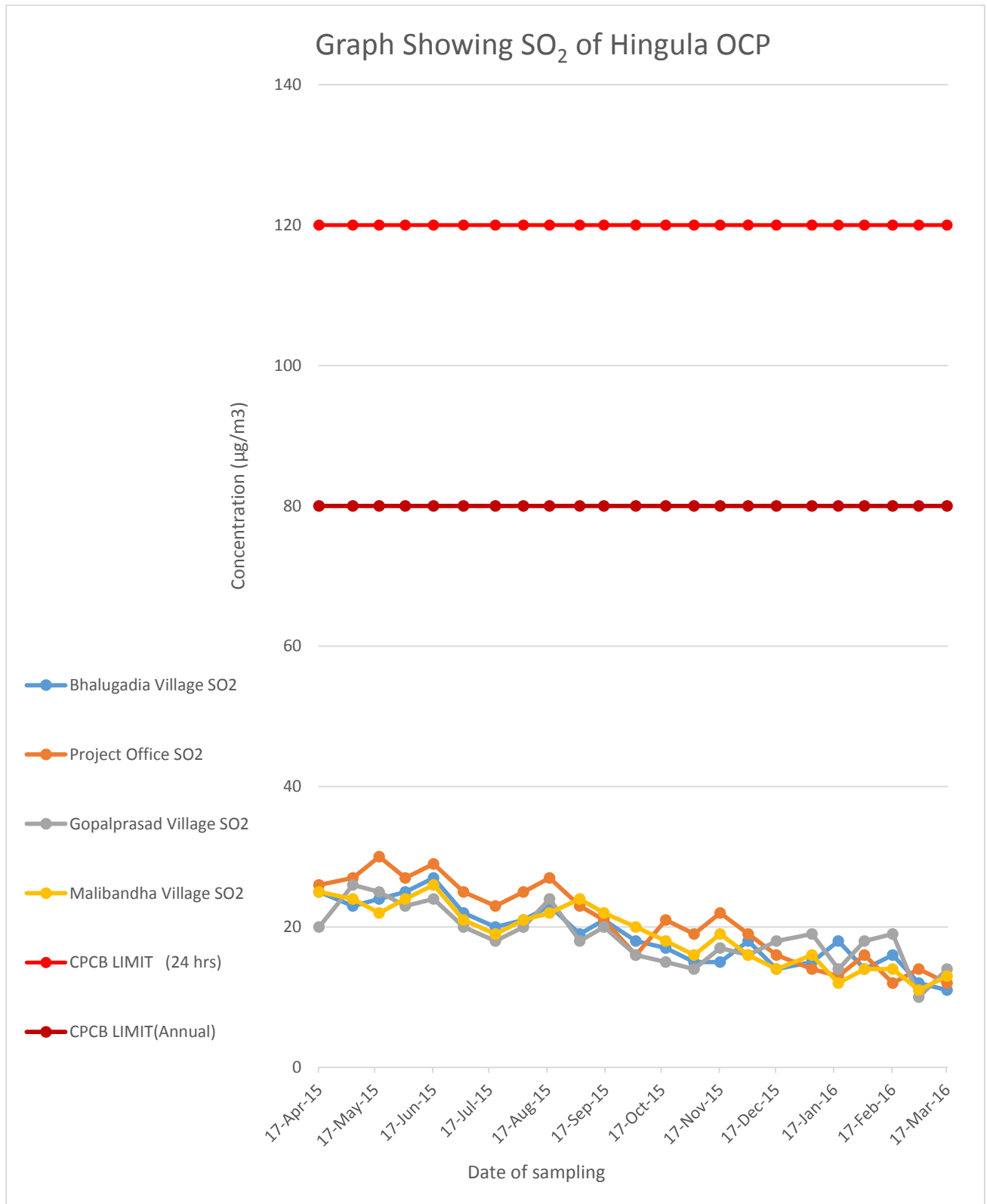
All values in µg/m³

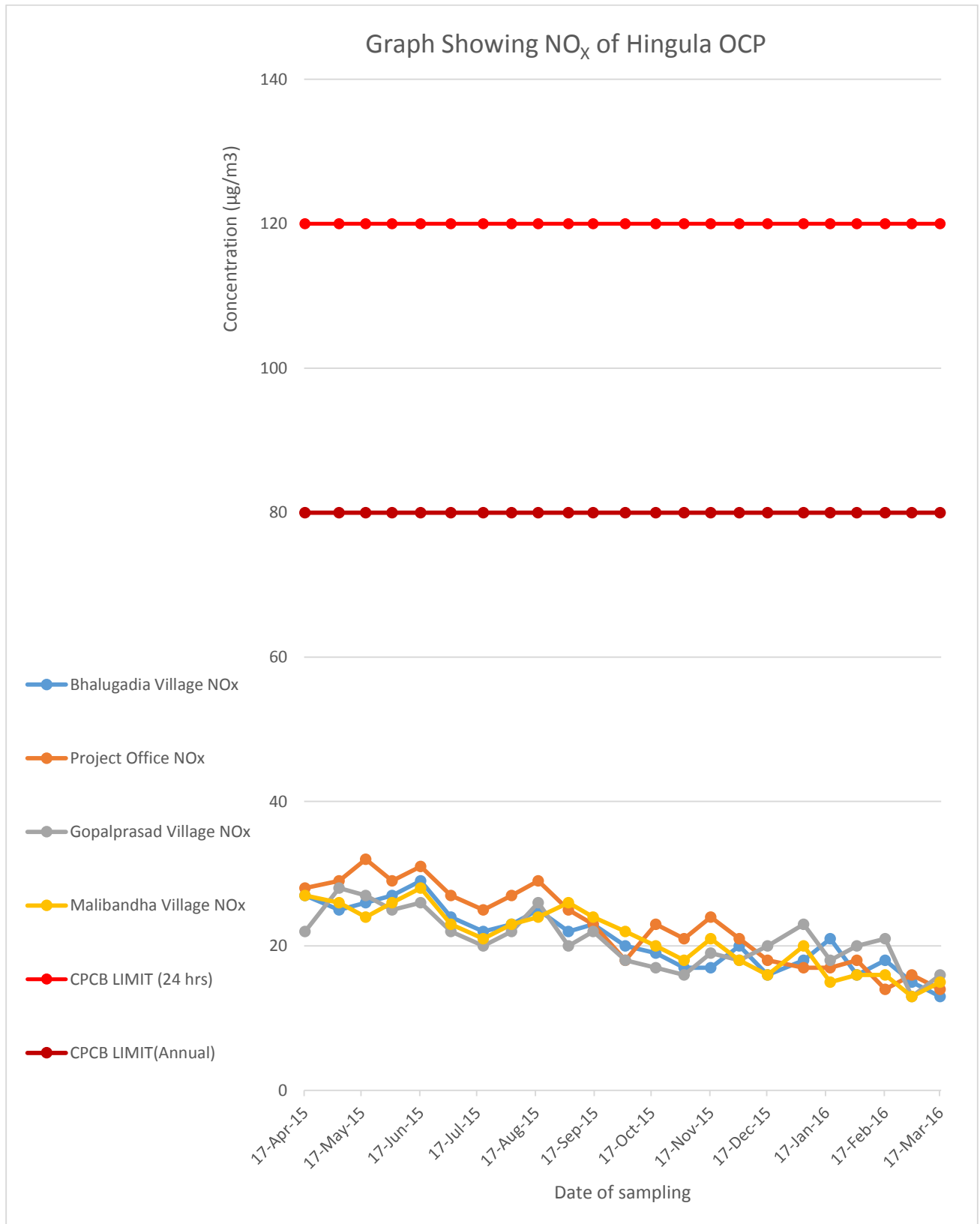
Table 33: Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Malibandha village	17-03-16	21.4	9.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.756	<1.0	<1.0	<0.5
Hingula project office	17-03-16	20.3	9.65	<0.07	<1.0	<1.0	<1.0	<0.02	0.896	<1.0	<1.0	<0.5
Gopal Prasad village	17-03-16	19.6	10.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.952	<1.0	<1.0	<0.5
Bhalugadia village	17-03-16	18.5	9.45	<0.07	<1.0	<1.0	<1.0	<0.02	0.756	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

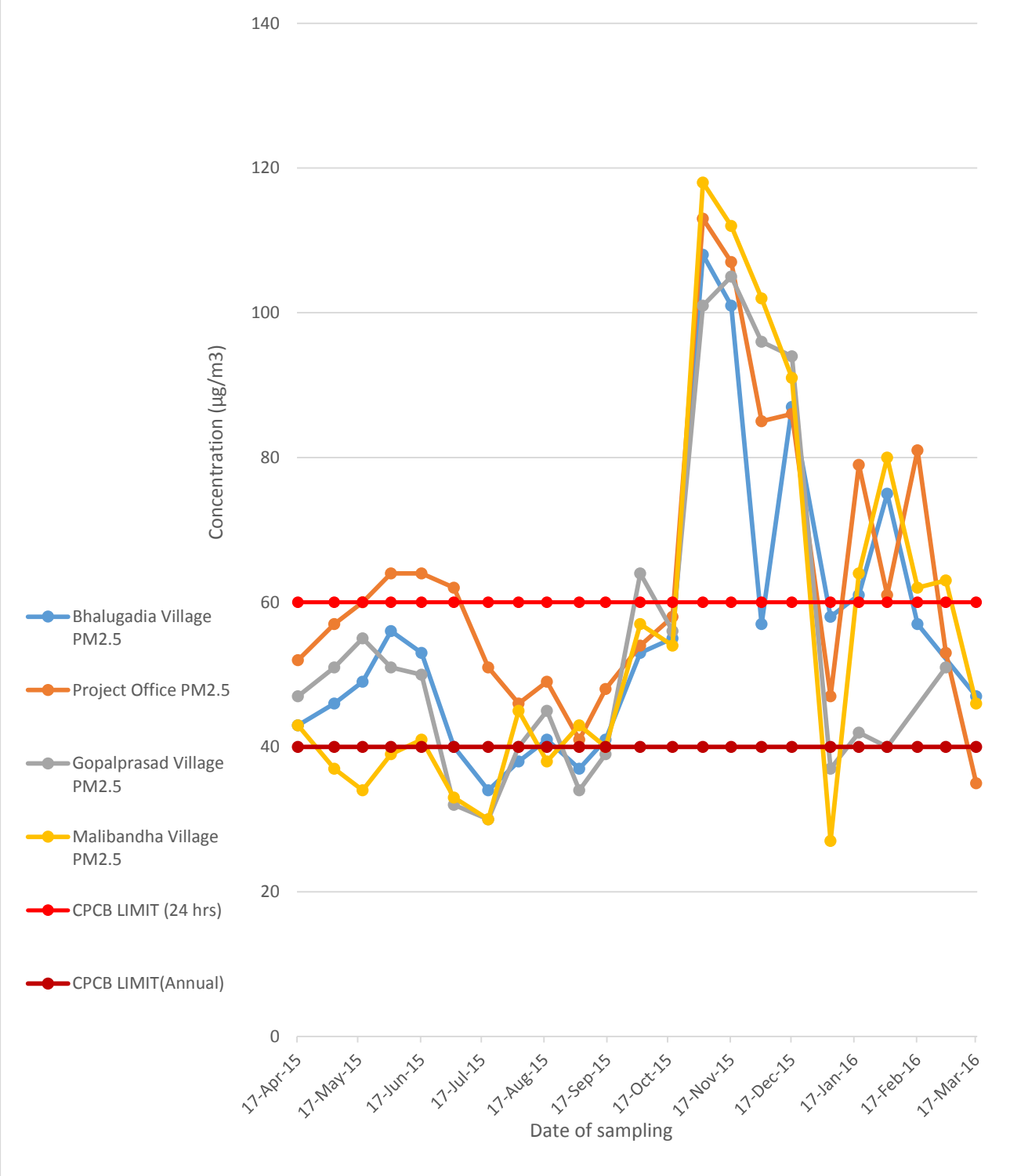








Graph Showing PM_{2.5} of Hingula OCP



Project: Ananta OCP
Monitoring Station: Ananta Expansion Area (A1)

Table 34

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
24-Apr-15	365	158	30	32	64	East to West hot & Sunny
12-May-15	352	153	32	34	66	East to West Sunny
26-May-15	367	158	30	33	64	East to West Sunny
09-Jun-15	356	151	28	30	61	East to West Sunny
24-Jun-15	345	131	29	31	66	South to North Sunny
09-Jul-15	367	159	30	32	64	West to East Cloudy & Rainfall
27-Jul-15	374	165	32	34	68	East to West Sunny & Cloudy
11-Aug-15	389	172	30	32	64	West to East Sunny & Evening Rainfall
25-Aug-15	398	186	32	34	68	East to West Sunny
10-Sep-15	375	156	30	32	61	East to West Sunny
24-Sep-15	362	141	28	30	51	West to East Sunny
10-Oct-15	491	366	18	20	76	East to West Sunny
27-Oct-15	451	346	22	24	72	East to West Sunny
13-Nov-15	540	291	20	22	103	West to East Sunny
26-Nov-15	372	245	22	24	92	South to North Sunny
09-Dec-15	451	275	22	24	131	East to West Sunny
23-Dec-15	495	305	20	22	82	West to East Cloudy
09-Jan-16	556	240	14	17	68	East to West Sunny
23-Jan-16	584	264	15	19	80	East to West Sunny
08-Feb-16	562	290	19	21	80	South to North Sunny
23-Feb-16	434	242	18	20	103	West to East Sunny
08-Mar-16	562	290	21	23		West to East Sunny
23-Mar-16	608	297	18	21	61	East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	608.00	366.00	32.00	34.00	131.00	
Minimum	345.00	131.00	14.00	17.00	51.00	
Mean	441.57	225.26	24.35	26.57	74.77	
95 Percentile	581.80	341.90	32.00	34.00	103.00	
98 Percentile	597.44	357.20	32.00	34.00	119.24	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Ananta OCP
Monitoring Station: Ananta Vihar Colony

Table 35

Date of Sampling	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	Remarks
24-Apr-15	242	123	24	26	44	East to West hot & Sunny
12-May-15	230	120	22	24	41	East to West Sunny
26-May-15	242	125	23	25	45	East to West Sunny
09-Jun-15	257	131	25	27	51	East to West Sunny
24-Jun-15	232	122	23	25	42	South to North Sunny
09-Jul-15	228	124	25	27	40	West to East Cloudy & Rainfall
27-Jul-15	225	127	21	23	43	East to West Sunny & Cloudy
11-Aug-15	211	116	20	22	49	West to East Sunny & Evening Rainfall
25-Aug-15	238	127	22	24	45	East to West Sunny
10-Sep-15	211	116	20	22	49	East to West Sunny
24-Sep-15	237	124	21	23	43	West to East Sunny
10-Oct-15	356	242	19	21	46	East to West Sunny
27-Oct-15	345	201	15	17	41	East to West Sunny
13-Nov-15	427	217	16	18	99	West to East Sunny
26-Nov-15	322	216	15	17	87	South to North Sunny
09-Dec-15	480	193	18	20	154	East to West Sunny
23-Dec-15	176	141	16	18	60	West to East Cloudy
09-Jan-16	569	268	15	20	55	East to West Sunny
23-Jan-16	580	260	15	19	59	East to West Sunny
08-Feb-16	327	108	14	16	70	South to North Sunny
23-Feb-16	369	189	15	17	54	West to East Sunny
08-Mar-16	326	108	11	13	66	West to East Sunny
23-Mar-16	359	177	13	15		East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	580.00	268.00	25.00	27.00	154.00	
Minimum	176.00	108.00	11.00	13.00	40.00	
Mean	312.57	159.78	18.61	20.83	58.32	
95 Percentile	560.10	258.20	24.90	26.90	98.40	
98 Percentile	575.16	264.48	25.00	27.00	130.90	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

Project: Ananta OCP
Monitoring Station: Near Ananta OC project office (A3)

Table 36

Date of Sampling	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	Remarks
24-Apr-15	270	130	27	29	52	East to West hot & Sunny
12-May-15	284	126	24	26	50	East to West Sunny
26-May-15	293	134	25	27	61	East to West Sunny
09-Jun-15	306	138	27	29	58	East to West Sunny
24-Jun-15	327	131	28	30	55	South to North Sunny
09-Jul-15	291	129	24	26	58	West to East Cloudy & Rainfall
27-Jul-15	257	123	22	25	51	East to West Sunny & Cloudy
11-Aug-15	268	132	24	26	45	West to East Sunny & Evening Rainfall
25-Aug-15	281	146	26	28	48	East to West Sunny
10-Sep-15	276	128	25	27	41	East to West Sunny
24-Sep-15	294	134	27	29	48	West to East Sunny
10-Oct-15	457	373	20	22	68	East to West Sunny
27-Oct-15	441	342	19	21	69	East to West Sunny
13-Nov-15	446	276	17	19	128	West to East Sunny
26-Nov-15	430	291	19	21	116	South to North Sunny
09-Dec-15	607	356	20	22	207	East to West Sunny
23-Dec-15	223	130	18	20	81	West to East Cloudy
09-Jan-16	492	203	20	23	88	East to West Sunny
23-Jan-16	589	249	13	17	73	East to West Sunny
08-Feb-16	564	269	18	20	69	South to North Sunny
23-Feb-16	515	257	18	20	85	West to East Sunny
08-Mar-16	564	269	15	17	63	West to East Sunny
23-Mar-16	590	287	19	21	94	East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	607.00	373.00	28.00	30.00	207.00	
Minimum	223.00	123.00	13.00	17.00	41.00	
Mean	394.13	206.65	21.52	23.70	74.26	
95 Percentile	589.90	354.60	27.00	29.00	126.80	
98 Percentile	599.52	365.52	27.56	29.56	172.24	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

Project: Ananta OCP
Monitoring Station: Near Talcher west underground (A2)

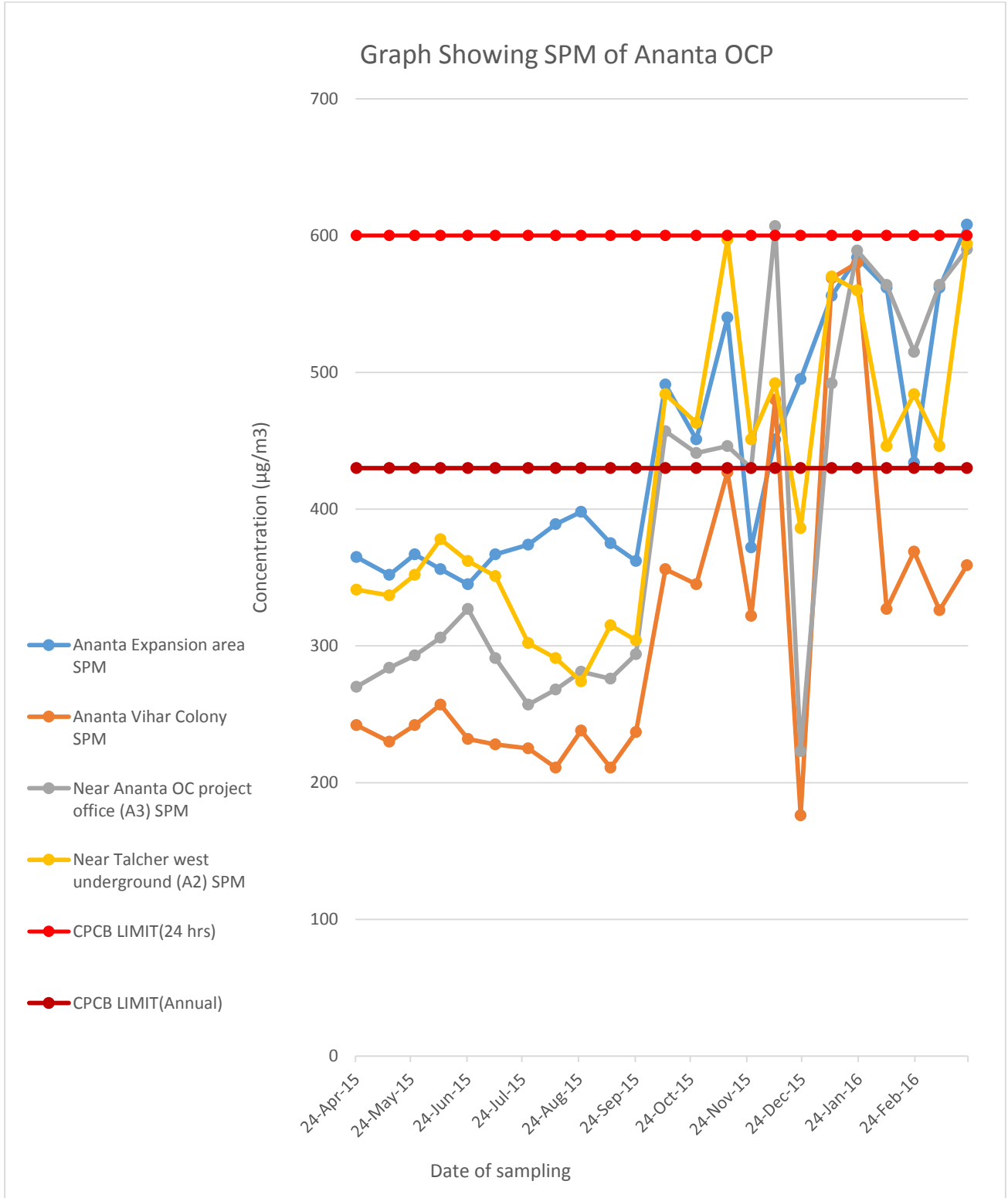
Table 37

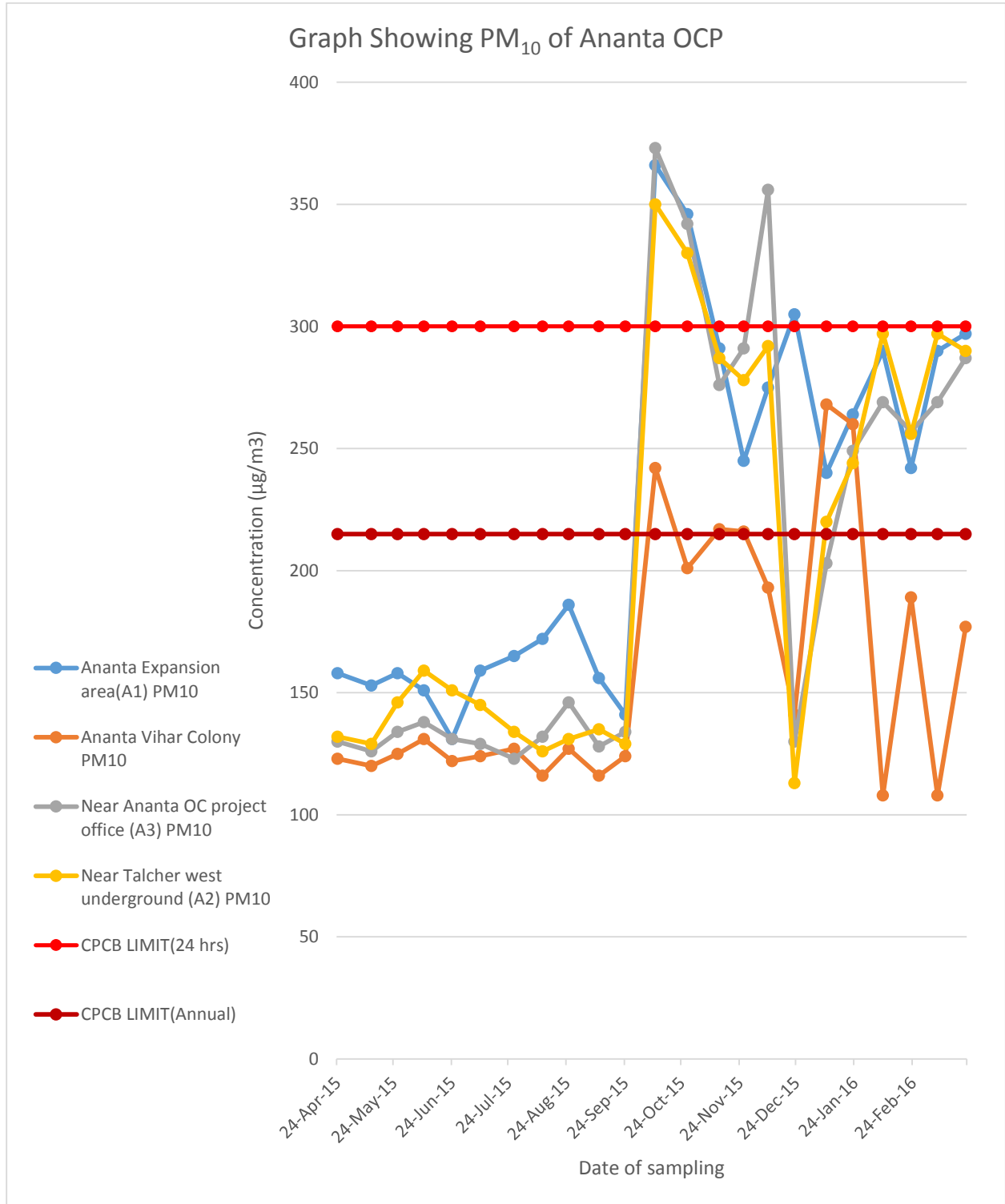
Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
24-Apr-15	341	132	28	30	55	East to West hot & Sunny
12-May-15	337	129	27	29	58	East to West Sunny
26-May-15	352	146	26	28	67	East to West Sunny
09-Jun-15	378	159	31	33	65	East to West Sunny
24-Jun-15	362	151	25	27	62	South to North Sunny
09-Jul-15	351	145	26	32	65	West to East Cloudy & Rainfall
27-Jul-15	302	134	25	27	56	East to West Sunny & Cloudy
11-Aug-15	291	126	26	28	52	West to East Sunny & Evening Rainfall
25-Aug-15	274	131	28	30	55	East to West Sunny
10-Sep-15	315	135	27	29	60	East to West Sunny
24-Sep-15	304	129	25	27	58	West to East Sunny
10-Oct-15	484	350	23	25	72	East to West Sunny
27-Oct-15	463	330	18	20	75	East to West Sunny
13-Nov-15	597	287	21	23	93	West to East Sunny
26-Nov-15	451	278	18	20	88	South to North Sunny
09-Dec-15	492	292	19	21	136	East to West Sunny
23-Dec-15	386	113	22	24	83	West to East Cloudy
09-Jan-16	570	220	13	18	56	East to West Sunny
23-Jan-16	560	244	20	24	69	East to West Sunny
08-Feb-16	446	297	16	18		South to North Sunny
23-Feb-16	484	256	14	16		West to East Sunny
08-Mar-16	446	297	19	21	75	West to East Sunny
23-Mar-16	594	290	21	23	119	East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	597.00	350.00	31.00	33.00	136.00	
Minimum	274.00	113.00	13.00	16.00	52.00	
Mean	416.52	207.43	22.52	24.91	72.33	
95 Percentile	591.60	326.70	28.00	31.80	119.00	
98 Percentile	595.68	341.20	29.68	32.56	129.20	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

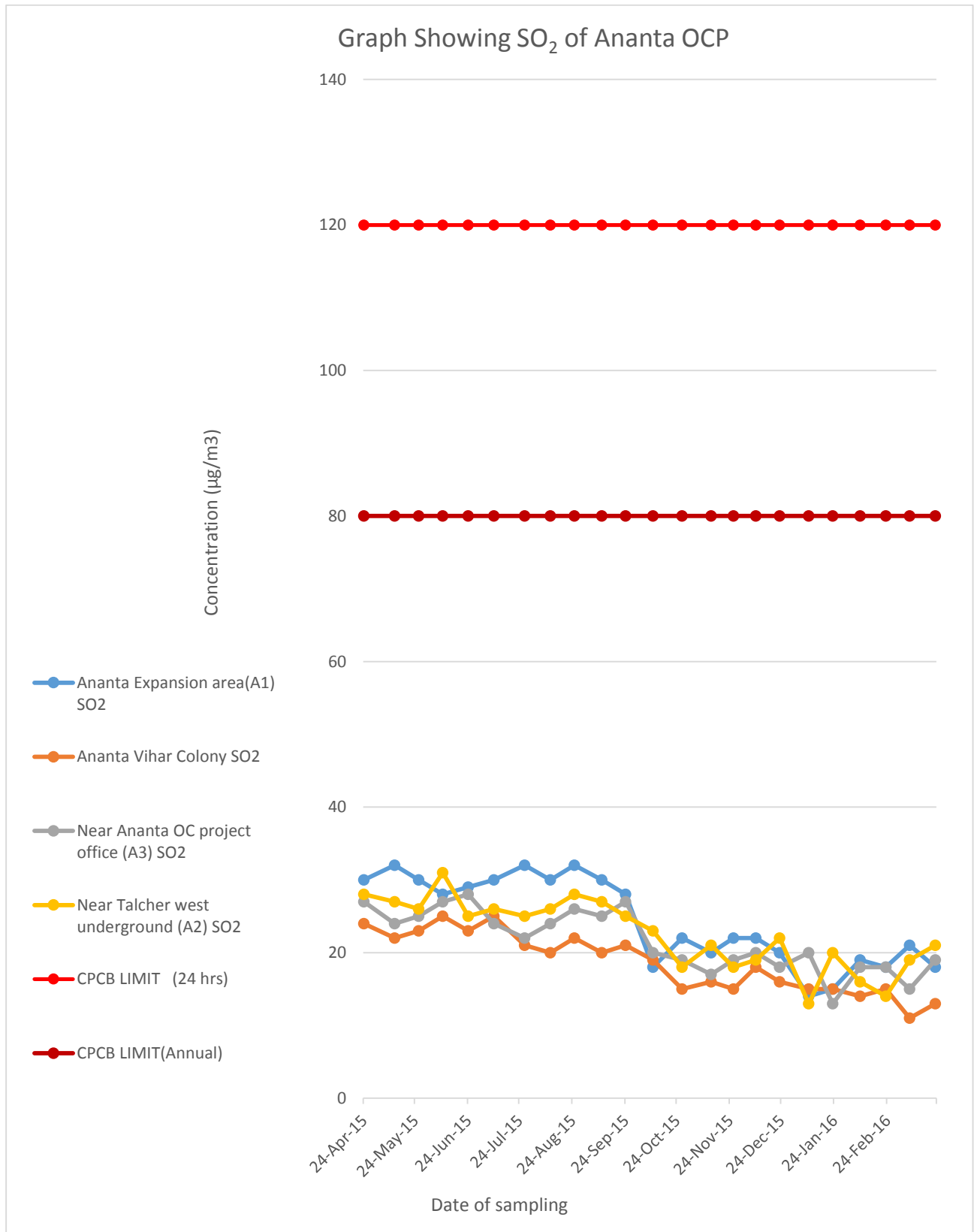
All values in µg/m³

Table 38: Analysis of Heavy Metals & NAAQS Parameters

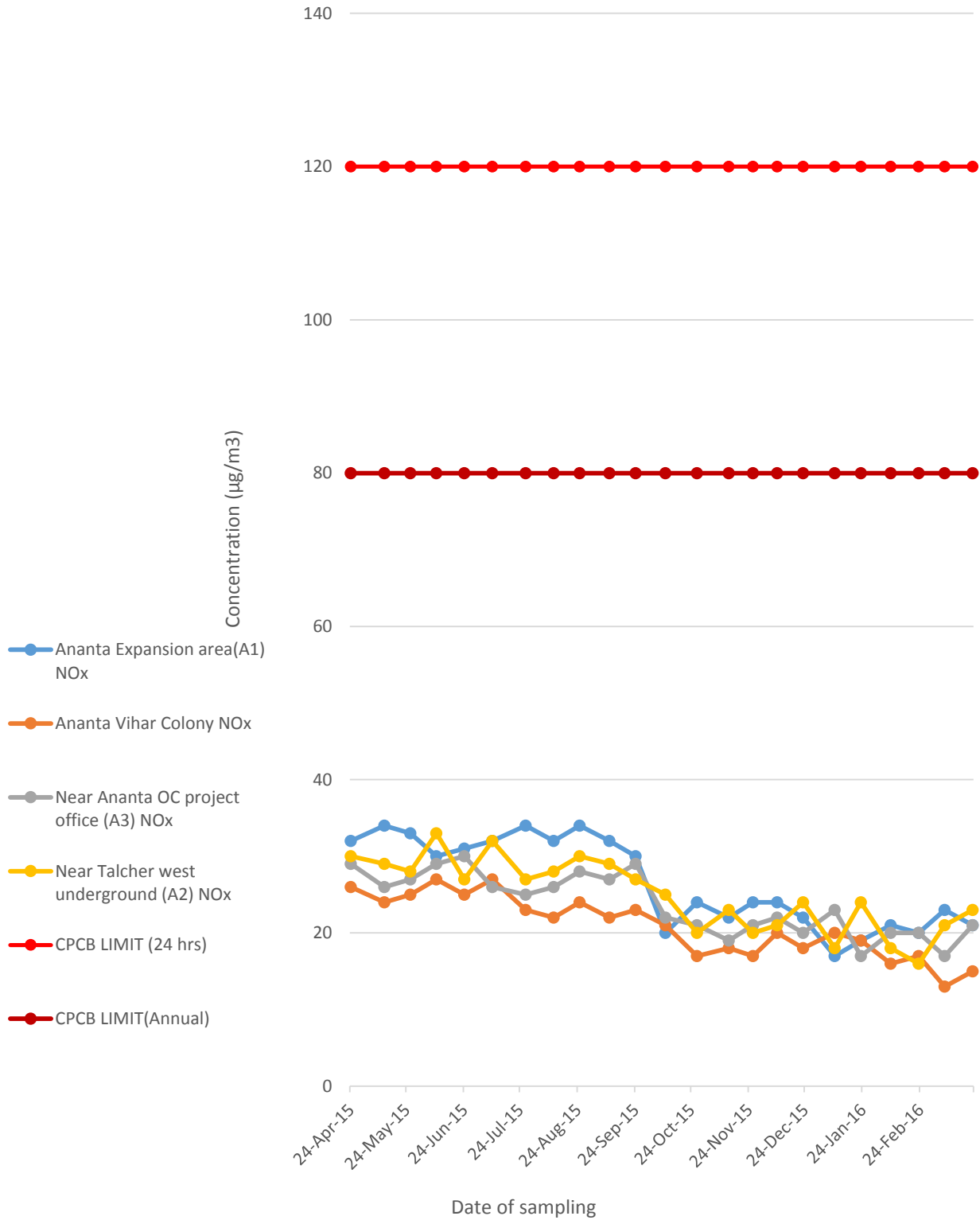
Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Ananta Expansion Area	23-03-16	18.2	8.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.852	<1.0	<1.0	<0.5
Near Talcher west underground mines	23-03-16	17.9	8.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.796	<1.0	<1.0	<0.5
Near Ananta vihar colony	23-03-16	18.3	9	<0.07	<1.0	<1.0	<1.0	<0.02	0.8	<1.0	<1.0	<0.5
Near Ananta OCP project office	23-03-16	17.6	7.9	<0.07	<1.0	<1.0	<1.0	<0.02	0.745	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

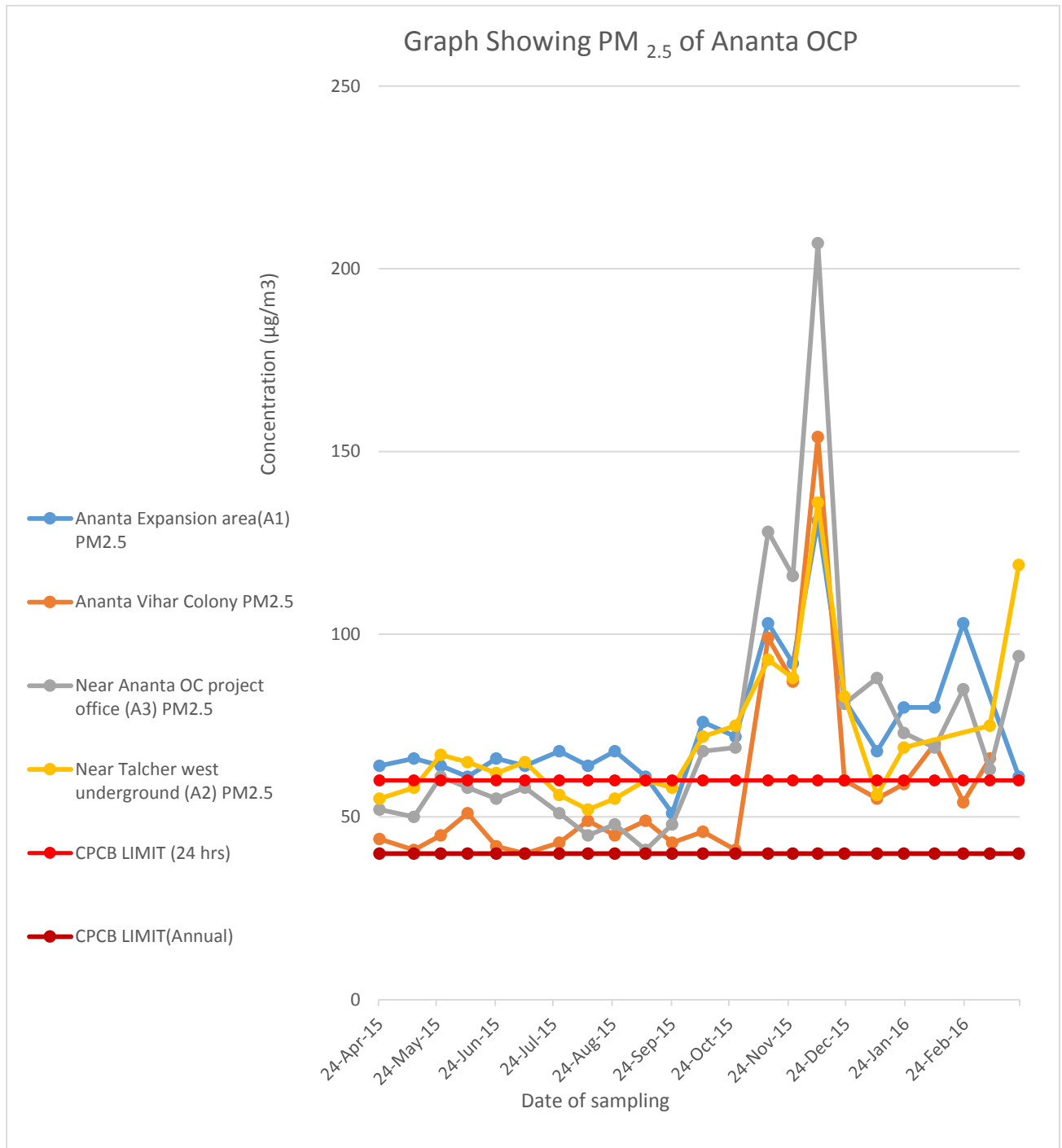






Graph Showing NO_x of Ananta OCP





Project: Bhubaneswari OCP
Monitoring Station: B.C.M.L.Workshop

Table 39

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
27-Apr-15	285	127	24	26	47	East to West hot & Sunny
13-May-15	295	124	25	27	45	West to East Sunny
27-May-15	347	142	27	29	65	East to West Sunny
10-Jun-15	356	148	29	31	60	West to East Sunny & Rainfall
25-Jun-15	367	154	31	33	66	South to North Sunny
14-Jul-15	338	140	27	29	63	West to East Sunny & Rainfall
31-Jul-15	354	145	29	31	60	West to East Hot Sunny
12-Aug-15	314	141	27	29	58	South to North Sunny & Evening Rainfall
26-Aug-15	329	147	29	31	61	South to North Sunny
11-Sep-15	327	134	25	27	55	East to West Cloudy & Evening Rainfall
25-Sep-15	312	146	28	30	58	South to North Sunny
12-Oct-15	367	291	22	24	69	East to West Sunny
28-Oct-15	394	275	21	23	59	East to West Sunny
10-Nov-15	313	207	20	22	117	East to West Sunny
24-Nov-15	305	204	17	19	109	South to North Sunny
08-Dec-15	233	171	17	20	66	East to West Sunny
22-Dec-15	234	204	15	17	58	East to West Cloudy
12-Jan-16	212	141	19	23	44	West to East Sunny
25-Jan-16	299	130	17	22	48	East to West Sunny
10-Feb-16	292	188	17	19	87	East to West Sunny
25-Feb-16	230	109	21	23	98	South to North Hot & Sunny Evening Rainfall
10-Mar-16	292	188	19	21	68	East to West Sunny
26-Mar-16	359	160	18	20	45	East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	394.00	291.00	31.00	33.00	117.00	
Minimum	212.00	109.00	15.00	17.00	44.00	
Mean	311.04	165.91	22.78	25.04	65.48	
95 Percentile	367.00	268.20	29.00	31.00	107.90	
98 Percentile	382.12	283.96	30.12	32.12	113.48	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Bhubaneswari OCP
Monitoring Station: Raghunathpur Village

Table 40

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
27-Apr-15	314	151	25	27	45	East to West hot & Sunny
13-May-15	317	138	24	26	43	West to East Sunny
27-May-15	289	127	23	25	49	East to West Sunny
10-Jun-15	275	114	21	23	35	West to East Sunny & Rainfall
25-Jun-15	283	126	23	25	53	South to North Sunny
14-Jul-15	261	111	19	22	37	West to East Sunny & Rainfall
31-Jul-15	245	127	22	24	46	West to East Hot Sunny
12-Aug-15	256	132	23	25	51	South to North Sunny & Evening Rainfall
26-Aug-15	268	122	25	27	54	South to North Sunny
11-Sep-15	273	124	21	23	42	East to West Cloudy & Evening Rainfall
25-Sep-15	268	134	23	25	49	South to North Sunny
12-Oct-15	351	241	15	17	51	East to West Sunny
28-Oct-15	326	216	18	20	56	East to West Sunny
10-Nov-15	203	113	17	19	105	East to West Sunny
24-Nov-15	316	210	18	20	101	South to North Sunny
08-Dec-15	271	163	21	23	110	East to West Sunny
22-Dec-15	231	159	18	20	81	East to West Cloudy
12-Jan-16	327	207	15	19	56	West to East Sunny
25-Jan-16	419	134	15	20	67	East to West Sunny
10-Feb-16	258	146	14	16	60	East to West Sunny
25-Feb-16	387	278	15	17	68	South to North Hot & Sunny Evening Rainfal
10-Mar-16	258	146	12	15		East to West Sunny
26-Mar-16	426	273	14	16	31	East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	426.00	278.00	25.00	27.00	110.00	
Minimum	203.00	111.00	12.00	15.00	31.00	
Mean	296.61	160.52	19.17	21.48	58.64	
95 Percentile	415.80	269.80	24.90	26.90	104.80	
98 Percentile	422.92	275.80	25.00	27.00	107.90	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Bhubaneswari OCP
Monitoring Station: N-E of Mine (A1)

Table 41

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
29-Apr-15	324	138	28	30	54	East to West hot & Sunny
13-May-15	357	142	30	32	62	West to East Sunny
27-May-15	326	138	28	30	59	East to West Sunny
10-Jun-15	338	142	26	28	55	West to East Sunny & Rainfall
25-Jun-15	345	144	28	30	57	South to North Sunny
14-Jul-15	314	137	26	28	52	West to East Sunny & Rainfall
31-Jul-15	304	131	25	27	50	West to East Hot Sunny
12-Aug-15	327	138	27	29	57	South to North Sunny & Evening Rainfall
26-Aug-15	279	131	24	26	51	South to North Sunny
11-Sep-15	314	127	26	28	54	East to West Cloudy & Evening Rainfall
25-Sep-15	297	126	24	26	50	South to North Sunny
12-Oct-15	384	286	21	23	59	East to West Sunny
28-Oct-15	413	297	23	25	64	East to West Sunny
10-Nov-15	526	263	19	21	127	East to West Sunny
24-Nov-15	356	241	23	25	115	South to North Sunny
08-Dec-15	437	285	16	19	136	East to West Sunny
22-Dec-15	573	246	21	23	97	East to West Cloudy
12-Jan-16	571	290	16	19	87	West to East Sunny
25-Jan-16	352	266	20	24	77	East to West Sunny
10-Feb-16	550	278	15	17	72	East to West Sunny
25-Feb-16	357	176	19	21	62	South to North Hot & Sunny Evening Rainfall
10-Mar-16	550	278	18	21	38	East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	573.00	297.00	30.00	32.00	136.00	
Minimum	279.00	126.00	15.00	17.00	38.00	
Mean	390.64	200.00	22.86	25.09	69.77	
95 Percentile	569.95	289.80	28.00	30.00	126.40	
98 Percentile	572.16	294.06	29.16	31.16	132.22	
STANDARD	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Bhubaneswari OCP
Monitoring Station: S-E of Mine (A2)

Table 42

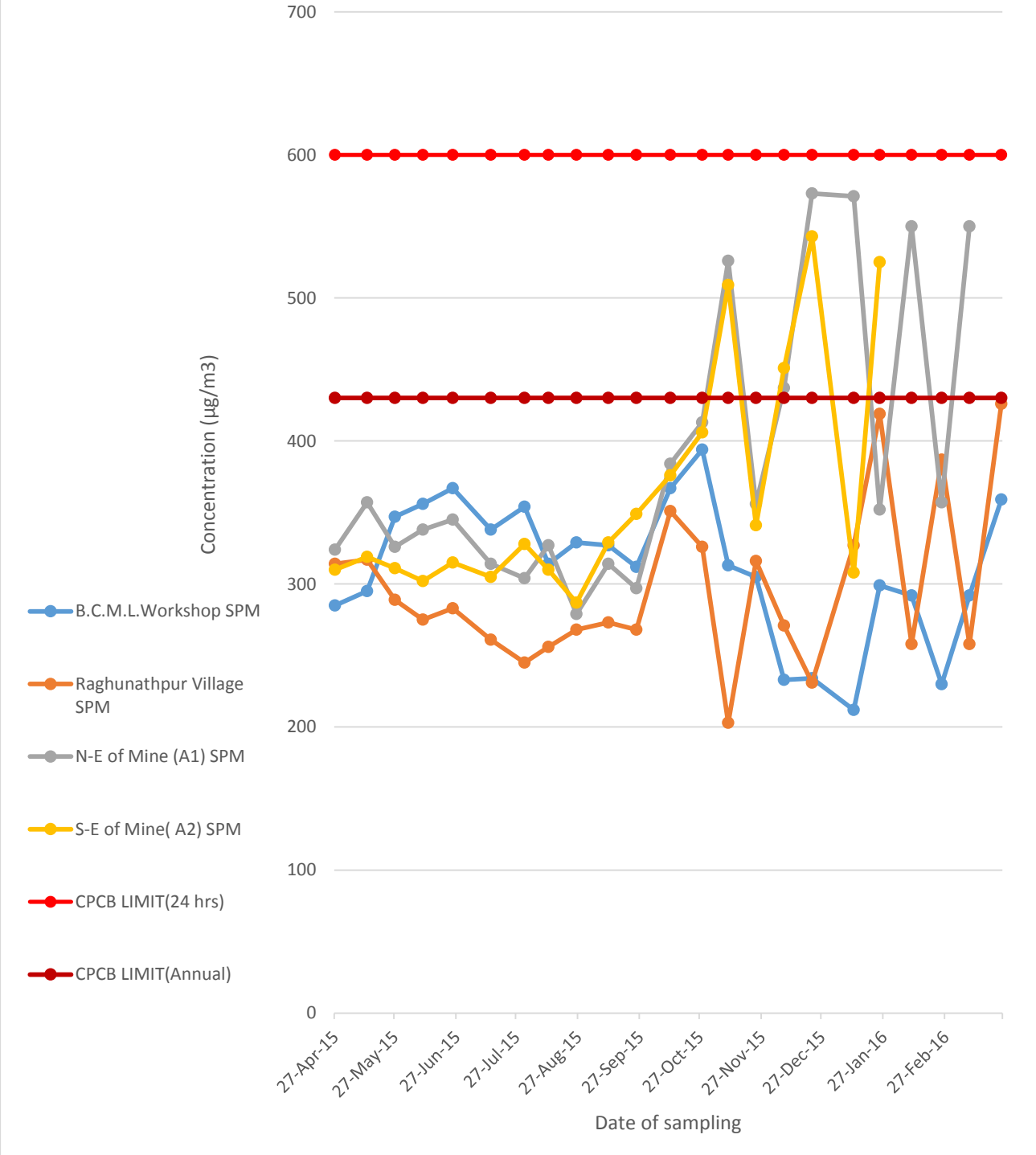
Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
29-Apr-15	310	132	29	31	56	East to West hot & Sunny
13-May-15	319	135	27	29	58	West to East Sunny
27-May-15	311	131	25	27	63	East to West Sunny
10-Jun-15	302	125	24	26	61	West to East Sunny & Rainfall
25-Jun-15	315	131	26	28	59	South to North Sunny
14-Jul-15	305	127	24	26	62	West to East Sunny & Rainfall
31-Jul-15	328	139	28	30	65	West to East Hot Sunny
12-Aug-15	310	126	25	27	61	South to North Sunny & Evening Rainfall
26-Aug-15	287	127	23	25	47	South to North Sunny
11-Sep-15	329	134	27	29	64	East to West Cloudy & Evening Rainfall
25-Sep-15	349	141	25	27	60	South to North Sunny
12-Oct-15	376	295	19	21	64	East to West Sunny
28-Oct-15	406	311	20	22	69	East to West Sunny
10-Nov-15	509	237	21	23	121	East to West Sunny
24-Nov-15	341	224	20	22	127	South to North Sunny
08-Dec-15	451	290	19	22	152	East to West Sunny
22-Dec-15	543	237	23	25	92	East to West Cloudy
12-Jan-16	308	136	17	21	78	West to East Sunny
25-Jan-16	525	184	16	21	88	East to West Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	543.00	311.00	29.00	31.00	152.00	
Minimum	287.00	125.00	16.00	21.00	47.00	
Mean	364.42	176.95	23.05	25.37	76.16	
95 Percentile	526.80	296.60	28.10	30.10	129.50	
98 Percentile	536.52	305.24	28.64	30.64	143.00	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

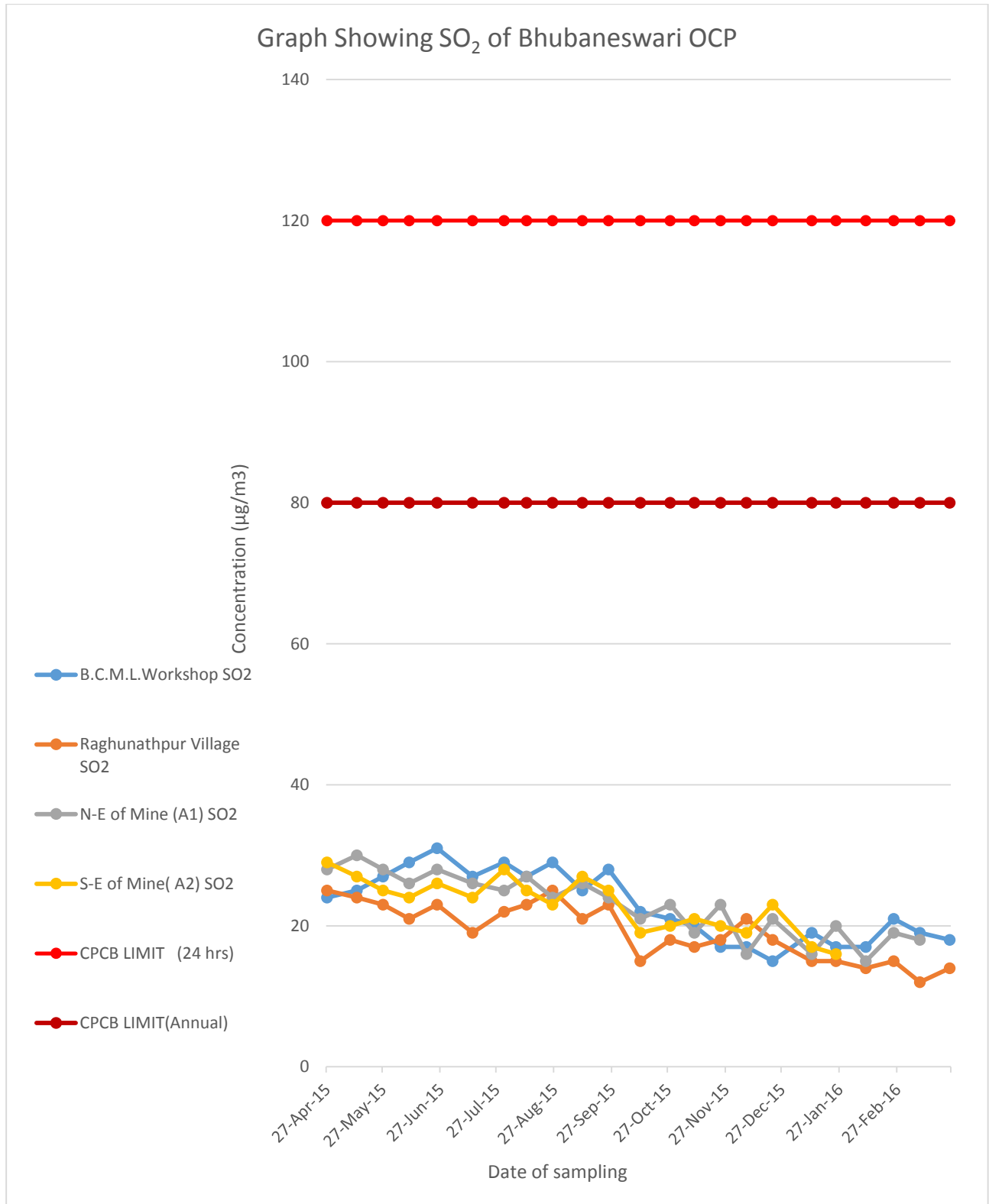
Table 43: Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Raghunathpur village	28-03-16	18.5	9.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.853	<1.0	<1.0	<0.5
BCML workshop	28-03-16	19.5	9.1	<0.07	<1.0	<1.0	<1.0	<0.02	0.83	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

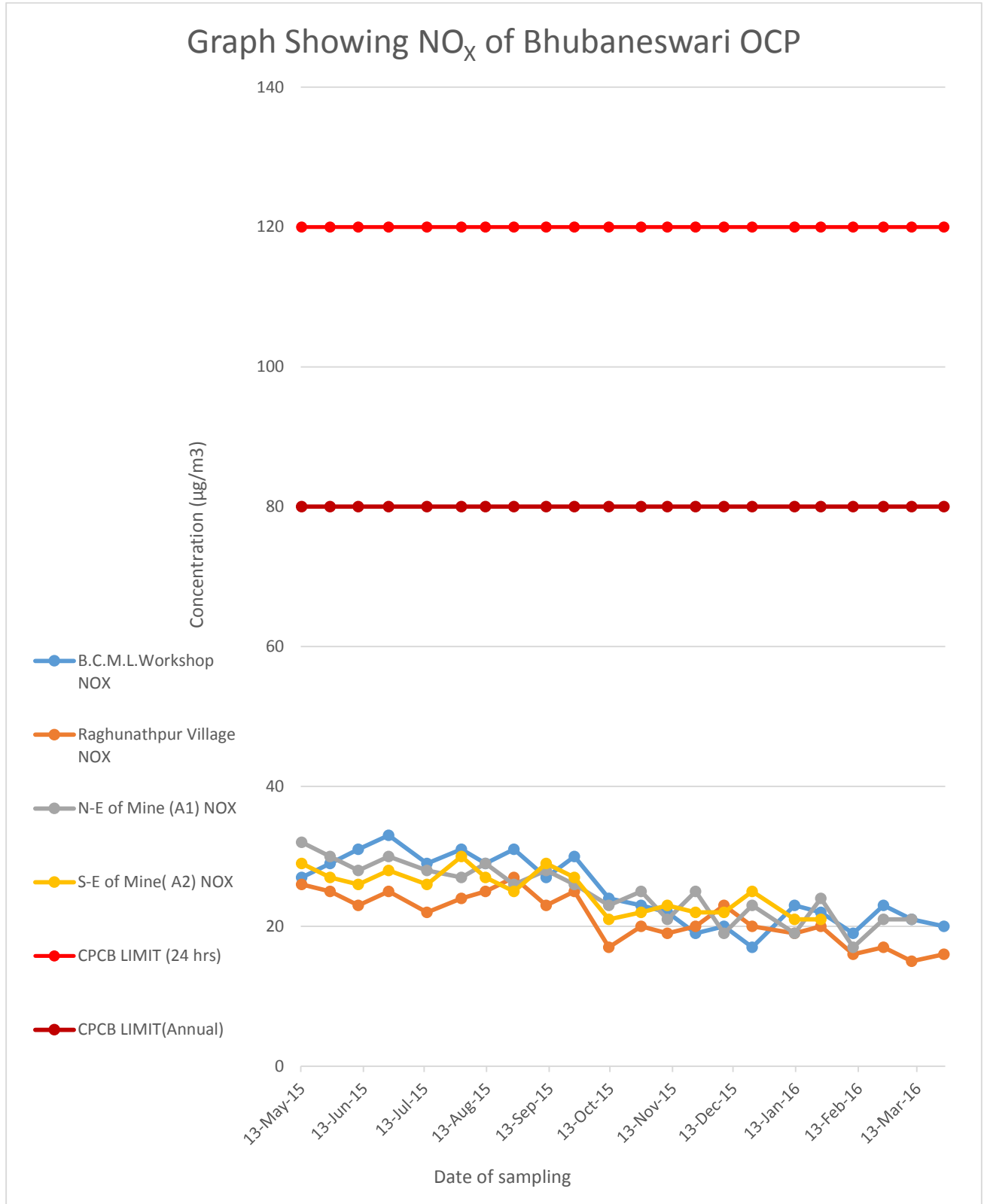
Graph Showing SPM of Bhubaneswari OCP

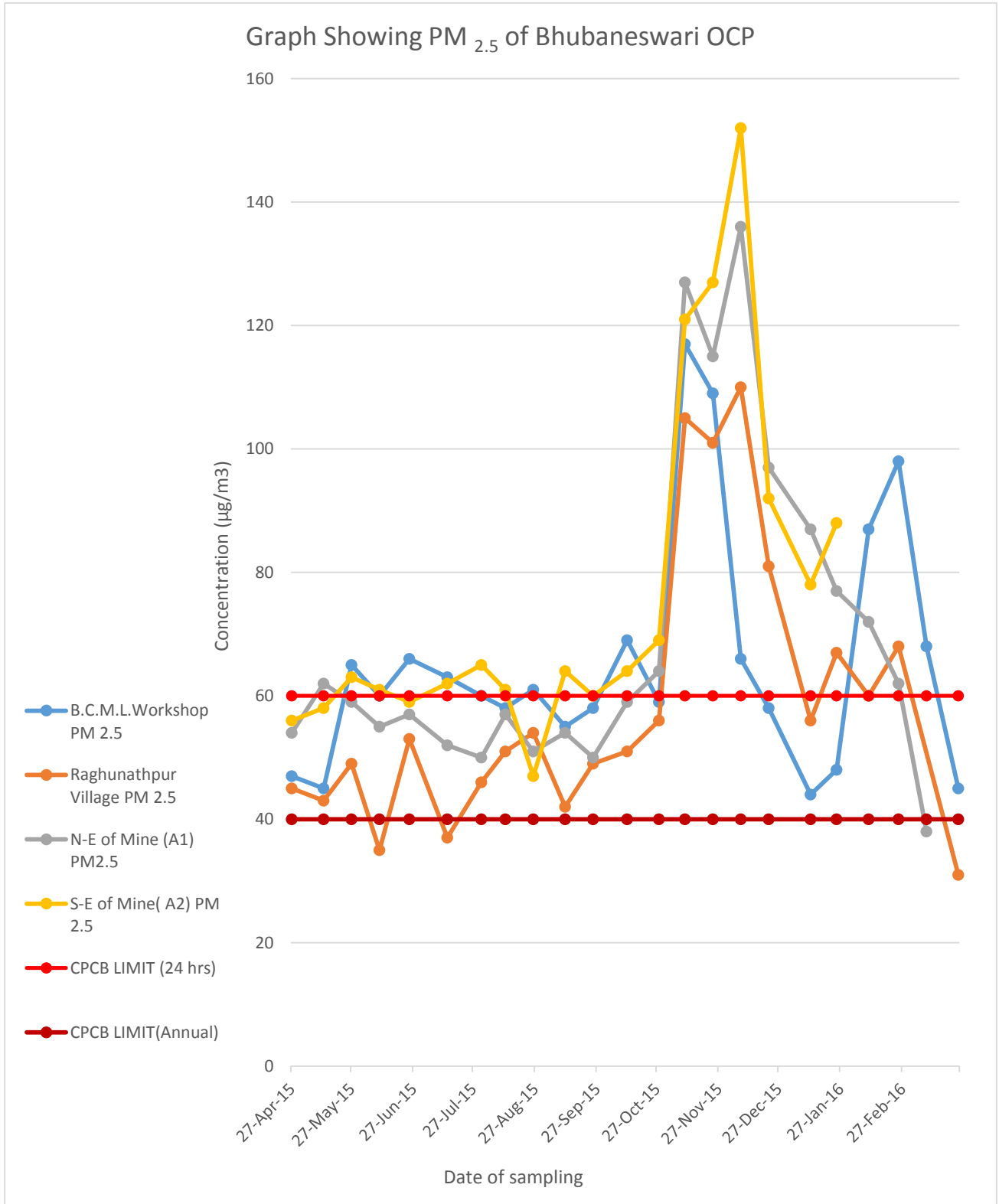






Graph Showing NO_x of Bhubaneswari OCP





Project: Jagannath OCP
Monitoring Station: Jagannath Colony (A2)

Table 44

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
23-Apr-15	256	125	26	28	37	East to West hot & Sunny
11-May-15	264	127	23	25	41	South to North Sunny
25-May-15	235	122	22	24	44	East to West Sunny
08-Jun-15	213	107	20	22	56	West to East Sunny
23-Jun-15	226	112	22	24	41	West to East Cloudy & Rainfall
08-Jul-15	235	106	24	26	45	West to East Cloudy & Rainfall
24-Jul-15	236	123	22	24	47	South to North Cloudy,Rainfall
10-Aug-15	242	127	25	27	49	South to North Sunny
24-Aug-15	231	120	22	24	45	East to West Sunny & Evening Rainfall
08-Sep-15	261	116	20	22	42	West to East Sunny
23-Sep-15	254	122	21	23	45	South to North Sunny
09-Oct-15	251	178	18	20	52	South to North Sunny
26-Oct-15	284	176	20	22	49	East to West Sunny
07-Nov-15	263	152	15	17	102	East to West Sunny
20-Nov-15	247	141	16	18	100	South to North Sunny
10-Dec-15	334	213	17	19	106	South to North Sunny
24-Dec-15	235	168	15	17	59	South to North Cloudy
08-Jan-16	306	121	16	19	63	South to North Sunny
22-Jan-16	465	277	21	24	51	South to North Sunny
05-Feb-16	328	179	12	14	94	West to East Sunny
22-Feb-16	318	159	15	17	93	East to West Hot Sunny
07-Mar-16	320	179	10	12	73	South to North Sunny
22-Mar-16	584	275	12	14		South to North Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	584.00	277.00	26.00	28.00	106.00	
Minimum	213.00	106.00	10.00	12.00	37.00	
Mean	286.43	153.26	18.87	20.96	60.64	
95 Percentile	451.90	268.80	24.90	26.90	101.90	
98 Percentile	531.64	276.12	25.56	27.56	104.32	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

Project: Jagannath OCP
Monitoring Station: Jagannath OCP - Time Office (A1)

Table 45

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
23-Apr-15	367	161	31	33	65	East to West hot & Sunny
11-May-15	376	160	32	35	63	South to North Sunny
25-May-15	354	139	29	31	59	East to West Sunny
08-Jun-15	317	136	27	29	57	West to East Sunny
23-Jun-15	303	131	25	27	59	West to East Cloudy & Rainfall
08-Jul-15	309	125	29	31	57	West to East Cloudy & Rainfall
24-Jul-15	295	137	27	29	55	South to North Cloudy,Rainfall
10-Aug-15	281	145	29	31	56	South to North Sunny
24-Aug-15	271	134	27	29	51	East to West Sunny & Evening Rainfall
08-Sep-15	264	127	25	27	60	West to East Sunny
23-Sep-15	271	134	28	30	54	South to North Sunny
09-Oct-15	354	282	21	23	65	South to North Sunny
26-Oct-15	376	259	18	20	56	East to West Sunny
07-Nov-15	286	161	16	18	125	East to West Sunny
20-Nov-15	297	164	18	20	118	South to North Sunny
10-Dec-15	468	266	18	20	130	South to North Sunny
24-Dec-15	532	269	21	23	87	South to North Cloudy
08-Jan-16	412	196	20	22	64	South to North Sunny
22-Jan-16	545	269	13	17	78	South to North Sunny
05-Feb-16	537	287	15	17	98	West to East Sunny
22-Feb-16	572	284	16	18		East to West Hot Sunny
07-Mar-16	537	287	17	19	71	South to North Sunny
22-Mar-16	575	276	15	17	67	South to North Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	575.00	287.00	32.00	35.00	130.00	
Minimum	264.00	125.00	13.00	17.00	51.00	
Mean	386.91	196.91	22.48	24.61	72.50	
95 Percentile	569.30	286.70	30.80	32.80	124.65	
98 Percentile	573.68	287.00	31.56	34.12	127.90	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Jagannath OCP
Monitoring Station: Near view point (A4)

Table 46

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
23-Apr-15	326	147	30	33	64	East to West hot & Sunny
11-May-15	337	153	31	33	61	South to North Sunny
25-May-15	342	149	28	30	63	East to West Sunny
08-Jun-15	367	135	29	31	59	West to East Sunny
23-Jun-15	341	129	26	28	60	West to East Cloudy & Rainfall
08-Jul-15	346	125	27	29	63	West to East Cloudy & Rainfall
24-Jul-15	331	118	25	27	55	South to North Cloudy,Rainfall
10-Aug-15	351	131	27	29	51	South to North Sunny
24-Aug-15	327	125	25	27	55	East to West Sunny & Evening Rainfall
08-Sep-15	369	129	27	29	46	West to East Sunny
23-Sep-15	347	137	24	26	49	South to North Sunny
09-Oct-15	376	259	20	22	42	South to North Sunny
26-Oct-15	446	362	21	23	72	East to West Sunny
07-Nov-15	389	268	17	19	124	East to West Sunny
20-Nov-15	343	223	19	21	117	South to North Sunny
10-Dec-15	465	290	21	24	136	South to North Sunny
24-Dec-15	353	210	17	19	97	South to North Cloudy
08-Jan-16	713	198	17	20	41	South to North Sunny
22-Jan-16	573	270	16	20	65	South to North Sunny
05-Feb-16	398	212	21	23	81	West to East Sunny
22-Feb-16	421	175	20	22	98	East to West Hot Sunny
07-Mar-16	398	212	23	25	56	South to North Sunny
22-Mar-16	567	264	14	16	105	South to North Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	713.00	362.00	31.00	33.00	136.00	
Minimum	326.00	118.00	14.00	16.00	41.00	
Mean	401.13	192.22	22.83	25.04	72.17	
95 Percentile	572.40	288.00	29.90	32.80	123.30	
98 Percentile	651.40	330.32	30.56	33.00	130.72	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Jagannath OCP
Monitoring Station: Near West sump (A3)

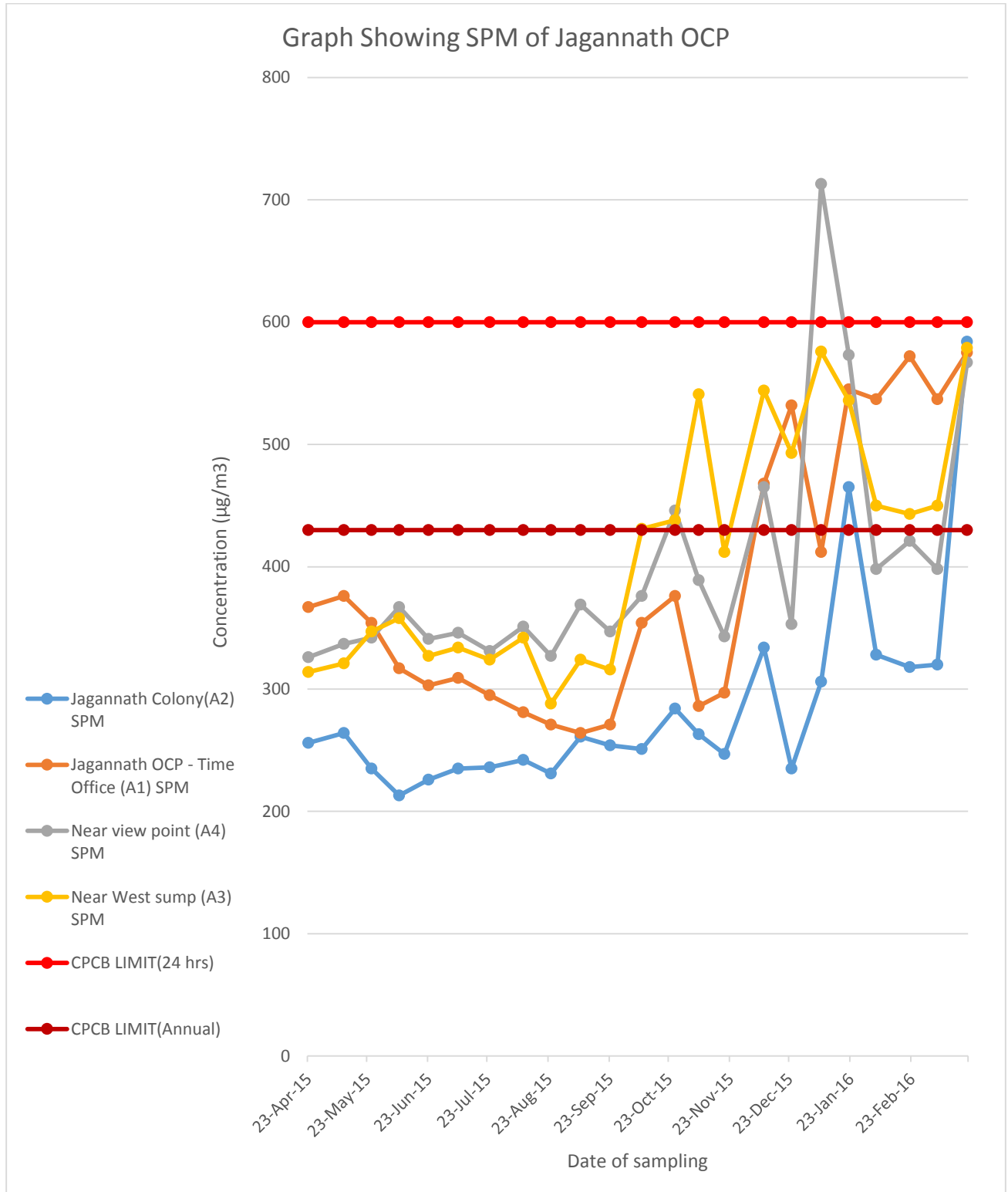
Table 47

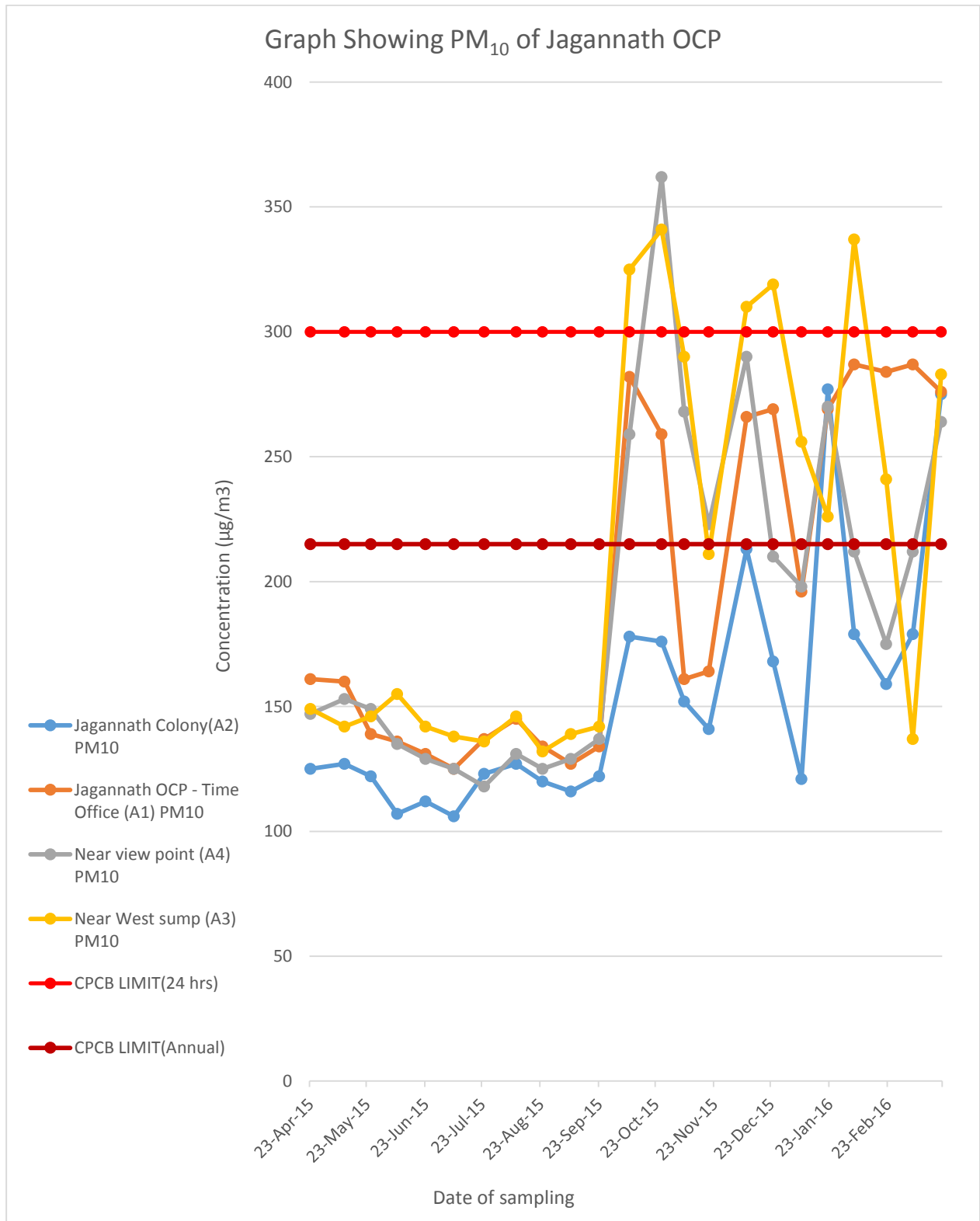
Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
23-Apr-15	314	149	29	32	61	East to West hot & Sunny
11-May-15	321	142	28	30	66	South to North Sunny
25-May-15	347	146	30	32	68	East to West Sunny
08-Jun-15	358	155	32	34	71	West to East Sunny
23-Jun-15	327	142	29	31	65	West to East Cloudy & Rainfall
08-Jul-15	334	138	30	32	62	West to East Cloudy & Rainfall
24-Jul-15	324	136	28	30	58	South to North Cloudy,Rainfall
10-Aug-15	342	146	29	31	62	South to North Sunny
24-Aug-15	288	132	27	29	60	East to West Sunny & Evening Rainfall
08-Sep-15	324	139	24	26	58	West to East Sunny
23-Sep-15	316	142	27	29	56	South to North Sunny
09-Oct-15	431	325	23	25	61	South to North Sunny
26-Oct-15	438	341	22	24	67	East to West Sunny
07-Nov-15	541	290	21	23	137	East to West Sunny
20-Nov-15	412	211	22	24	130	South to North Sunny
10-Dec-15	544	310	19	21	192	South to North Sunny
24-Dec-15	493	319	20	22	92	South to North Cloudy
08-Jan-16	576	256	20	23	67	South to North Sunny
22-Jan-16	536	226	19	23	70	South to North Sunny
05-Feb-16	450	337	19	21	101	West to East Sunny
22-Feb-16	443	241	18	20	102	East to West Hot Sunny
07-Mar-16	450	137	15	18		South to North Sunny
22-Mar-16	579	283	17	19	134	South to North Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	579.00	341.00	32.00	34.00	192.00	
Minimum	288.00	132.00	15.00	18.00	56.00	
Mean	412.52	210.57	23.83	26.04	83.64	
95 Percentile	572.80	335.80	30.00	32.00	136.85	
98 Percentile	577.68	339.24	31.12	33.12	168.90	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

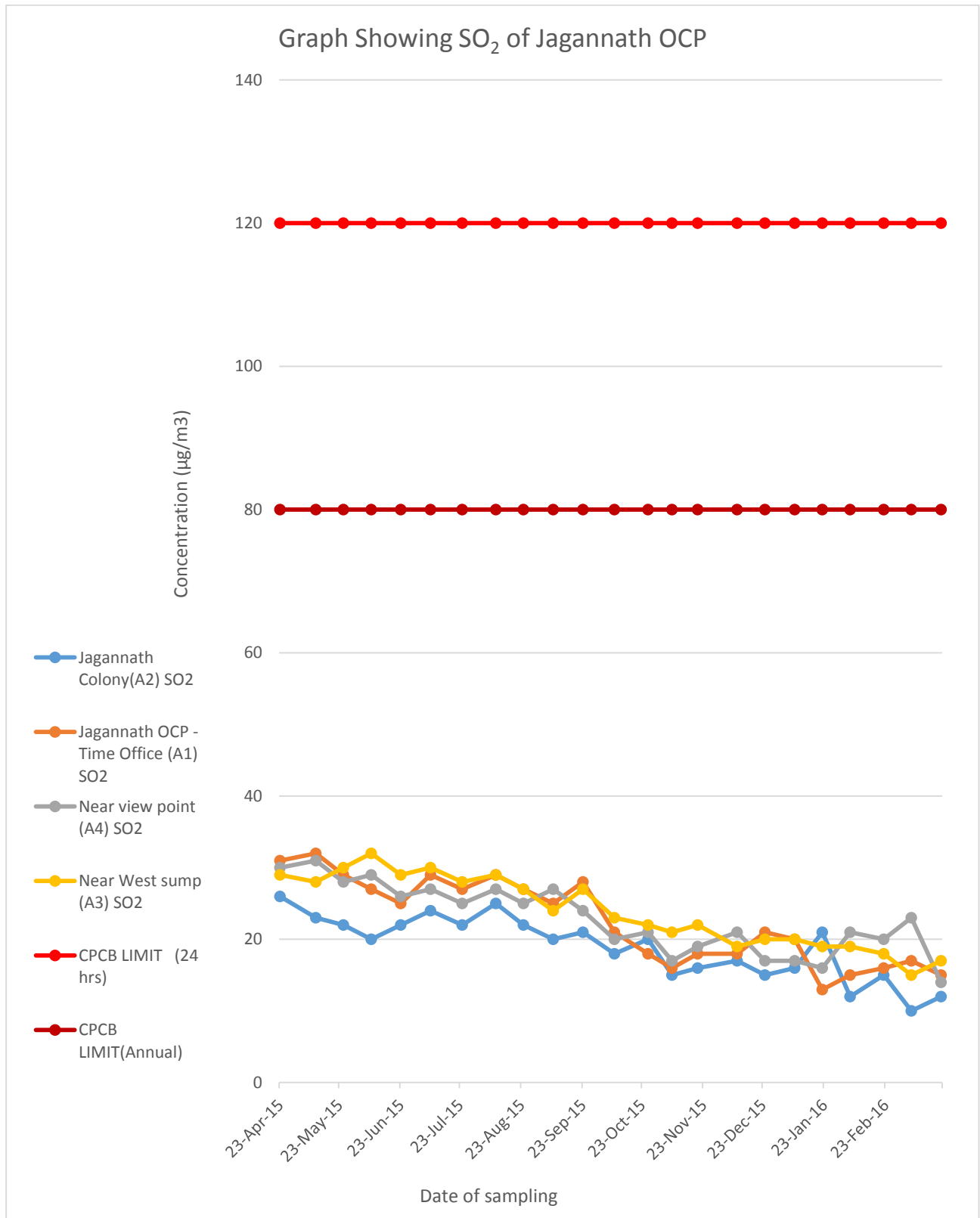
All values in µg/m³

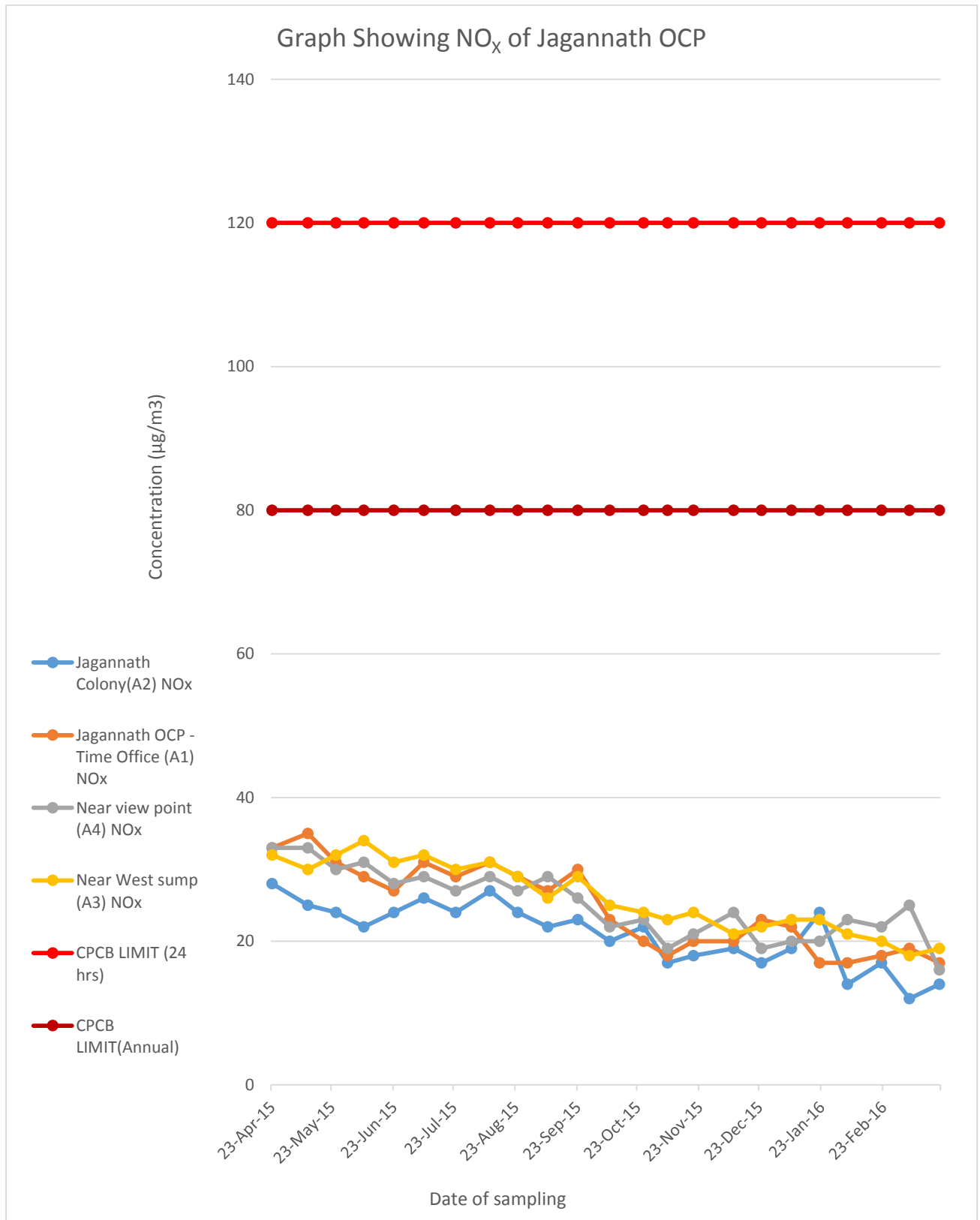
Table 48: Analysis of Heavy Metals & NAAQS Parameters

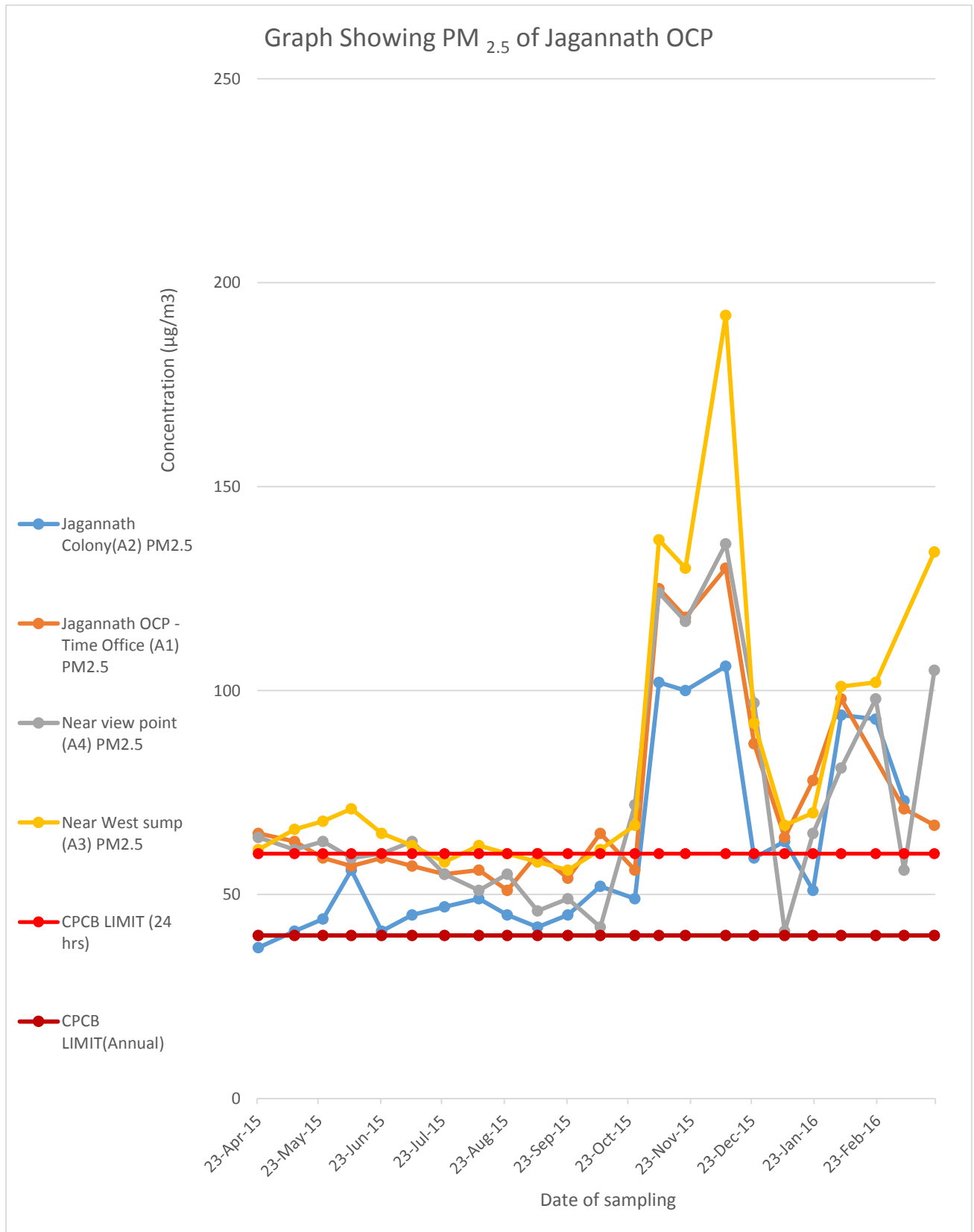
Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone(O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide(CO)	Mercury(Hg)	Chromium(Cr)	Cadmium(Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
Jagannath colony (A2)	10-12-15	20.7	10.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.9	<1.0	<1.0	<0.5
Jagannath colony (A2)	25-12-15	26.3	10	<0.07	<1.0	<1.0	<1.0	<0.02	0.853	<1.0	<1.0	<0.5
Jagannath colony (A2)	08-01-16	21.2	9.7	<0.07	<1.0	<1.0	<1.0	<0.02	0.859	<1.0	<1.0	<0.5
Jagannath colony (A2)	22-01-16	20	10.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.909	<1.0	<1.0	<0.5
Jagannath colony (A2)	05-02-16	22.9	9.3	<0.07	<1.0	<1.0	<1.0	<0.02	0.927	<1.0	<1.0	<0.5
Jagannath colony (A2)	22-02-16	20.8	11.4	<0.07	<1.0	<1.0	<1.0	<0.02	0.867	<1.0	<1.0	<0.5
Jagannath colony (A2)	07-03-16	21	9.3	<0.07	<1.0	<1.0	<1.0	<0.02	0.756	<1.0	<1.0	<0.5
Jagannath colony (A2)	22-03-16	17.9	8.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.823	<1.0	<1.0	<0.5
Jagannath OCP Time Office	22-03-16	19.8	8.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.782	<1.0	<1.0	<0.5
Near View Point	22-03-16	17.3	9	<0.07	<1.0	<1.0	<1.0	<0.02	0.905	<1.0	<1.0	<0.5
Near West Sump	22-03-16	18.5	10.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.912	<1.0	<1.0	<0.5
Standard		400(24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0(8Hours)			











Project: Kaniha OCP
Monitoring Station: Near Jarda village

Table 49

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
16-Apr-15	241	132	23	25	41	East to West hot & Sunny
04-May-15	245	123	22	24	42	West to East Sunny
18-May-15	224	119	21	23	49	East to West Sunny
03-Jun-15	218	115	19	21	47	East to West Sunny & Evening Rainfall
18-Jun-15	234	117	21	23	52	East to West & Evening Rainfall
03-Jul-15	201	104	18	20	40	South to North Sunny
21-Jul-15	212	111	20	22	45	West to East Sunny & Evening Rainfall
03-Aug-15	227	119	21	23	47	East to West Hot Sunny & Evening Rainfall
17-Aug-15	235	128	23	25	46	East to West Cloudy Rainfall
09-Sep-15	237	131	25	27	41	South to North Sunny
22-Sep-15	248	124	23	25	46	East to West Sunny
07-Oct-15	367	201	17	19	50	East to West Sunny
24-Oct-15	328	301	15	17	55	South to North Sunny
09-Nov-15	389	175	19	21	85	South to North Sunny
23-Nov-15	392	224	17	19	94	East to West Sunny
07-Dec-15	387	281	16	18	77	West to East Sunny
21-Dec-15	353	273	18	20	80	East to West Cloudy
11-Jan-16	535	213	13	18	47	South to North Sunny
27-Jan-16	487	221	12	16	97	West to East Sunny
09-Feb-16	335	147	15	17	73	West to East Sunny
24-Feb-16	400	262	18	20	96	East to West Hot Sunny
09-Mar-16						Monitoring not done
25-Mar-16	215	152	10	12	75	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	535.00	301.00	25.00	27.00	97.00	
Minimum	201.00	104.00	10.00	12.00	40.00	
Mean	305.00	171.50	18.45	20.68	60.23	
95 Percentile	482.65	280.60	23.00	25.00	95.90	
98 Percentile	514.84	292.60	24.16	26.16	96.58	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Kaniha OCP
Monitoring Station: Patharmunda Village

Table 50

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
16-Apr-15	276	129	24	26	47	East to West hot & Sunny
04-May-15	289	138	26	28	51	West to East Sunny
18-May-15	326	143	28	30	59	East to West Sunny
03-Jun-15	306	136	27	29	52	East to West Sunny & Evening Rainfall
18-Jun-15	293	128	25	27	54	East to West & Evening Rainfall
03-Jul-15	318	141	27	29	62	South to North Sunny
21-Jul-15	278	132	24	26	54	West to East Sunny & Evening Rainfall
03-Aug-15	284	129	23	25	60	East to West Hot Sunny & Evening Rainfall
17-Aug-15	294	134	27	29	59	East to West Cloudy Rainfall
09-Sep-15	297	236	23	25	54	South to North Sunny
22-Sep-15	284	131	26	28	57	East to West Sunny
07-Oct-15	358	276	15	17	56	East to West Sunny
24-Oct-15	324	186	13	15	58	South to North Sunny
09-Nov-15	362	162	17	19	76	South to North Sunny
23-Nov-15	369	213	16	18	81	East to West Sunny
07-Dec-15	440	284	18	20	109	West to East Sunny
21-Dec-15	154	105	21	23	43	East to West Cloudy
11-Jan-16	440	194	14	19	63	South to North Sunny
27-Jan-16	401	299	13	17	85	West to East Sunny
09-Feb-16	358	193	54	16		West to East Sunny
24-Feb-16	510	275	14	16		East to West Hot Sunny
09-Mar-16	358	193	16	18	48	East to West Sunny
25-Mar-16	247	129	14	16	84	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	510.00	299.00	54.00	30.00	109.00	
Minimum	154.00	105.00	13.00	15.00	43.00	
Mean	328.96	177.65	21.96	22.43	62.48	
95 Percentile	440.00	283.20	27.90	29.00	85.00	
98 Percentile	479.20	292.40	42.56	29.56	99.40	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

Project: Kaniha OCP
Monitoring Station: Site Office

Table 51

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
16-Apr-15	305	149	28	30	56	East to West hot & Sunny
04-May-15	292	141	26	28	51	West to East Sunny
18-May-15	287	135	24	26	54	East to West Sunny
03-Jun-15	265	123	23	25	56	East to West Sunny & Evening Rainfall
18-Jun-15	245	121	24	26	59	East to West & Evening Rainfall
03-Jul-15	242	118	21	23	45	South to North Sunny
21-Jul-15	232	112	23	25	40	West to East Sunny & Evening Rainfall
03-Aug-15	246	125	24	26	45	East to West Hot Sunny & Evening Rainfall
17-Aug-15	231	120	26	28	52	East to West Cloudy Rainfall
09-Sep-15	258	132	28	30	47	South to North Sunny
22-Sep-15	269	124	24	26	41	East to West Sunny
07-Oct-15	311	144	16	18	66	East to West Sunny
24-Oct-15	344	249	18	20	61	South to North Sunny
09-Nov-15	339	156	19	21	106	South to North Sunny
23-Nov-15	286	156	18	20	101	East to West Sunny
07-Dec-15	303	200	17	19	122	West to East Sunny
21-Dec-15	159	133	16	18	59	East to West Cloudy
11-Jan-16	310	235	14	17	39	South to North Sunny
27-Jan-16	449	268	20	24	68	West to East Sunny
09-Feb-16	426	188	18	20	48	West to East Sunny
24-Feb-16	395	139	15	17	105	East to West Hot Sunny
09-Mar-16						Monitoring not done
25-Mar-16	379	264	13	15	45	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	449.00	268.00	28.00	30.00	122.00	
Minimum	159.00	112.00	13.00	15.00	39.00	
Mean	298.77	160.55	20.68	22.82	62.09	
95 Percentile	424.45	263.25	27.90	29.90	105.95	
98 Percentile	439.34	266.32	28.00	30.00	115.28	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Kaniha OCP
Monitoring Station: Telisingha Village

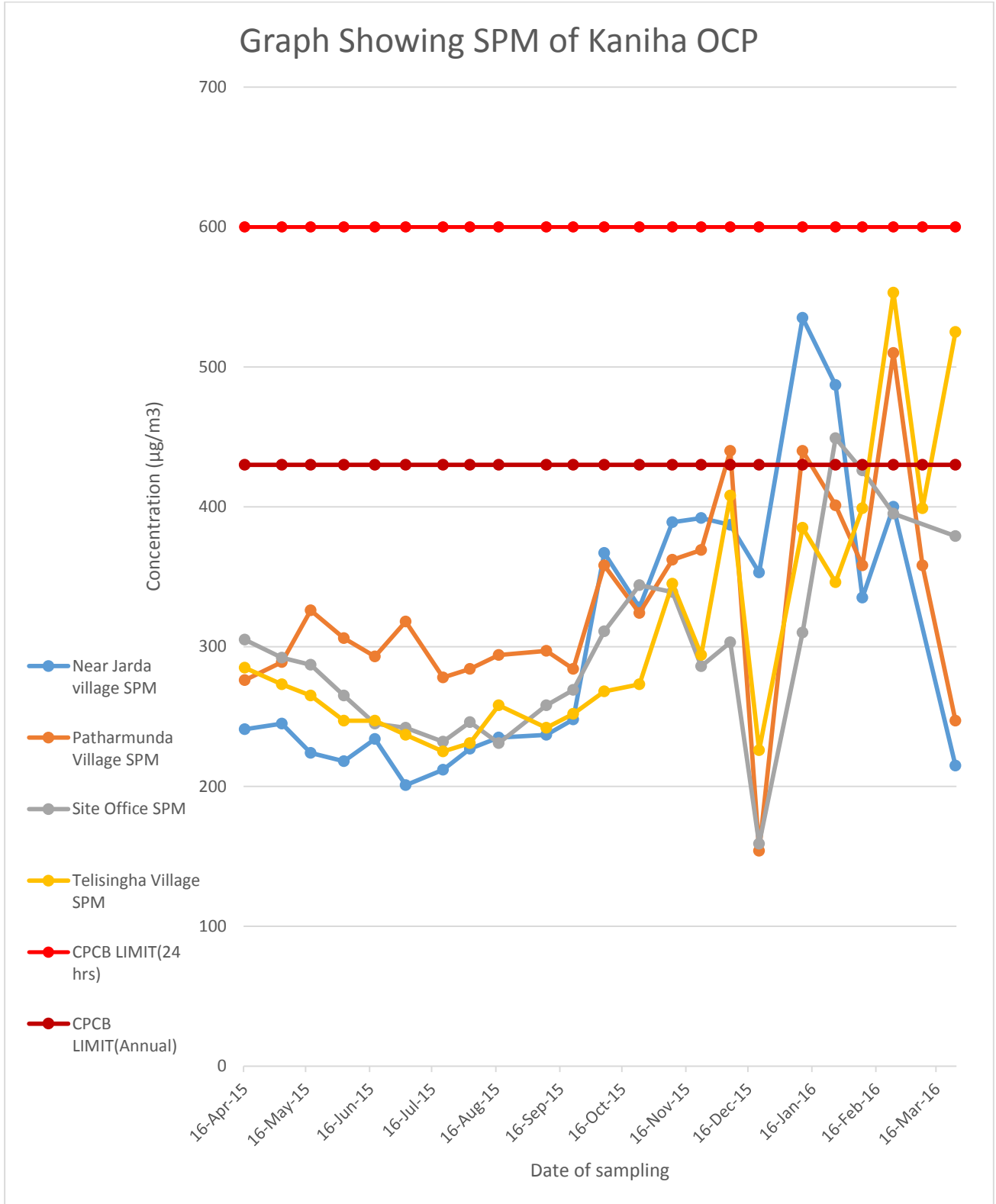
Table 52

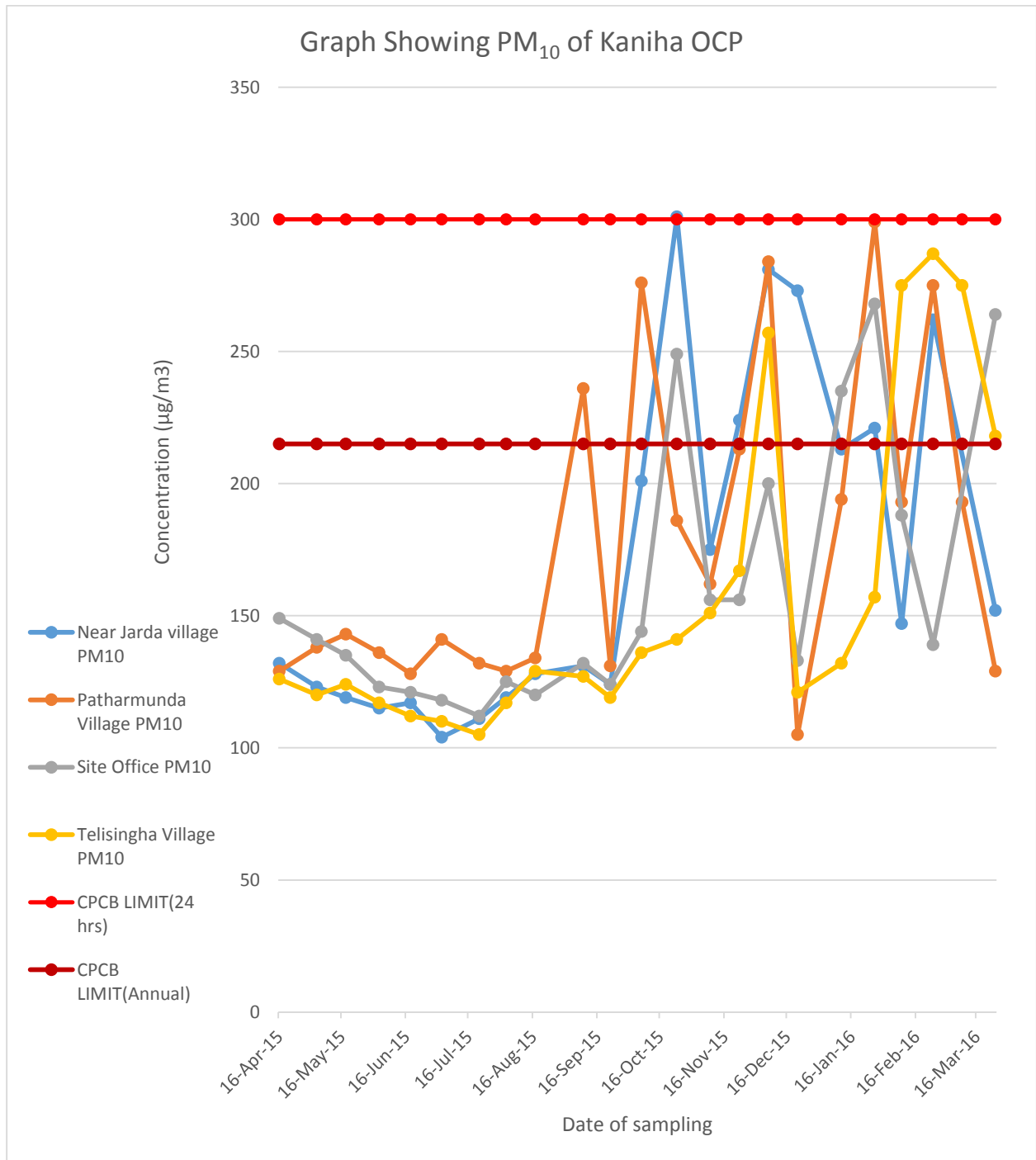
Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
16-Apr-15	285	126	26	28	50	East to West hot & Sunny
04-May-15	273	120	24	26	48	West to East Sunny
18-May-15	265	124	22	24	51	East to West Sunny
03-Jun-15	247	117	20	22	47	East to West Sunny & Evening Rainfall
18-Jun-15	247	112	22	24	48	East to West & Evening Rainfall
03-Jul-15	237	110	19	22	46	South to North Sunny
21-Jul-15	225	105	21	23	42	West to East Sunny & Evening Rainfall
03-Aug-15	231	117	22	24	50	East to West Hot Sunny & Evening Rainfall
17-Aug-15	258	129	24	26	48	East to West Cloudy Rainfall
09-Sep-15	242	127	21	23	45	South to North Sunny
22-Sep-15	252	119	25	27	48	East to West Sunny
07-Oct-15	268	136	14	16	52	East to West Sunny
24-Oct-15	273	141	12	14	65	South to North Sunny
09-Nov-15	345	151	16	18	98	South to North Sunny
23-Nov-15	294	167	14	16	92	East to West Sunny
07-Dec-15	408	257	19	21	58	West to East Sunny
21-Dec-15	226	121	15	17	89	East to West Cloudy
11-Jan-16	385	132	12	16	72	South to North Sunny
27-Jan-16	346	157	17	21	90	West to East Sunny
09-Feb-16	399	275	16	18	61	West to East Sunny
24-Feb-16	553	287	16	18	91	East to West Hot Sunny
09-Mar-16	399	275	14	16	66	East to West Sunny
25-Mar-16	525	218	11	13	55	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	553.00	287.00	26.00	28.00	98.00	
Minimum	225.00	105.00	11.00	13.00	42.00	
Mean	312.30	157.52	18.35	20.57	61.39	
95 Percentile	513.30	275.00	24.90	26.90	91.90	
98 Percentile	540.68	281.72	25.56	27.56	95.36	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

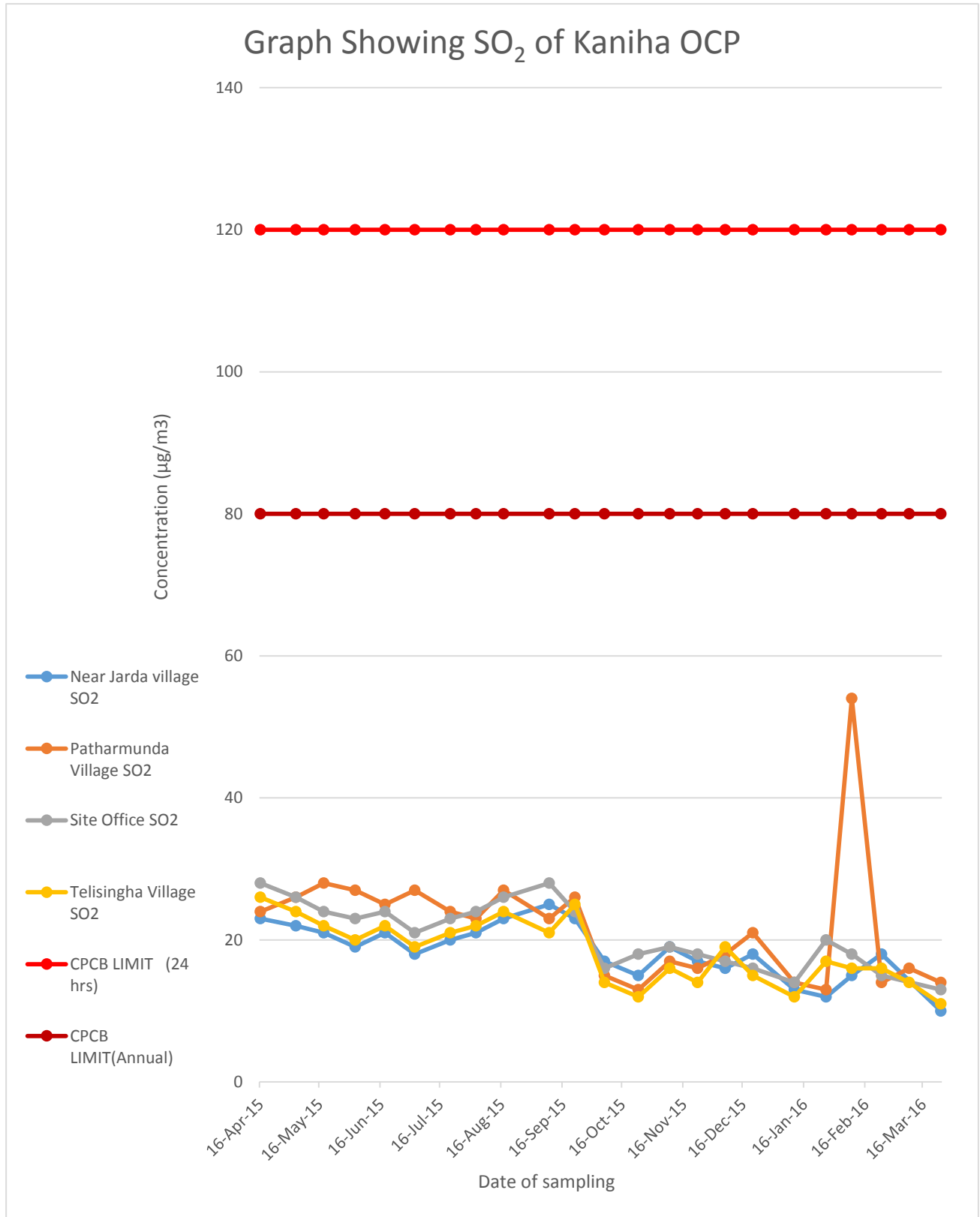
All values in $\mu\text{g}/\text{m}^3$

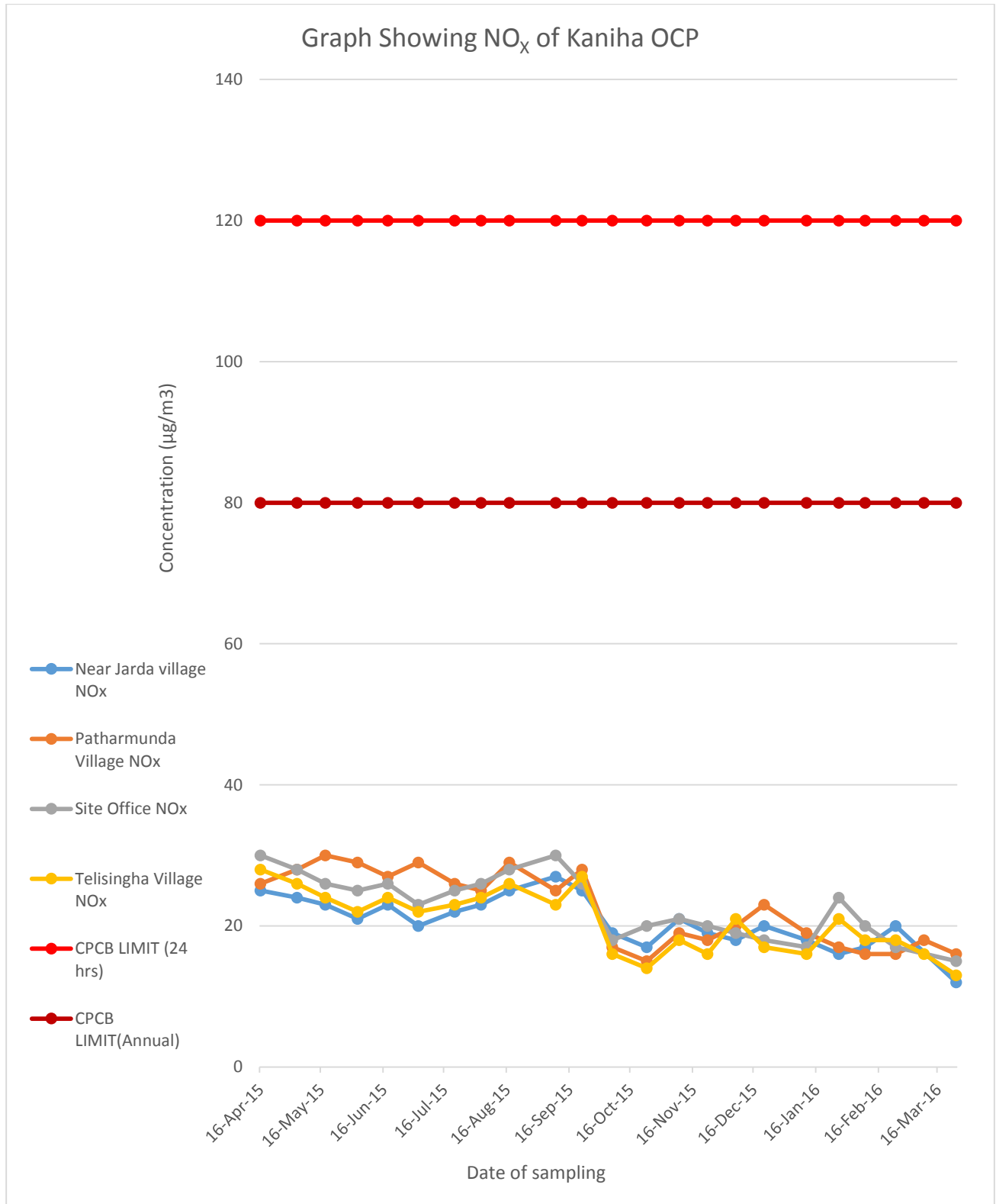
Table 53: Analysis of Heavy Metals & NAAQS Parameters

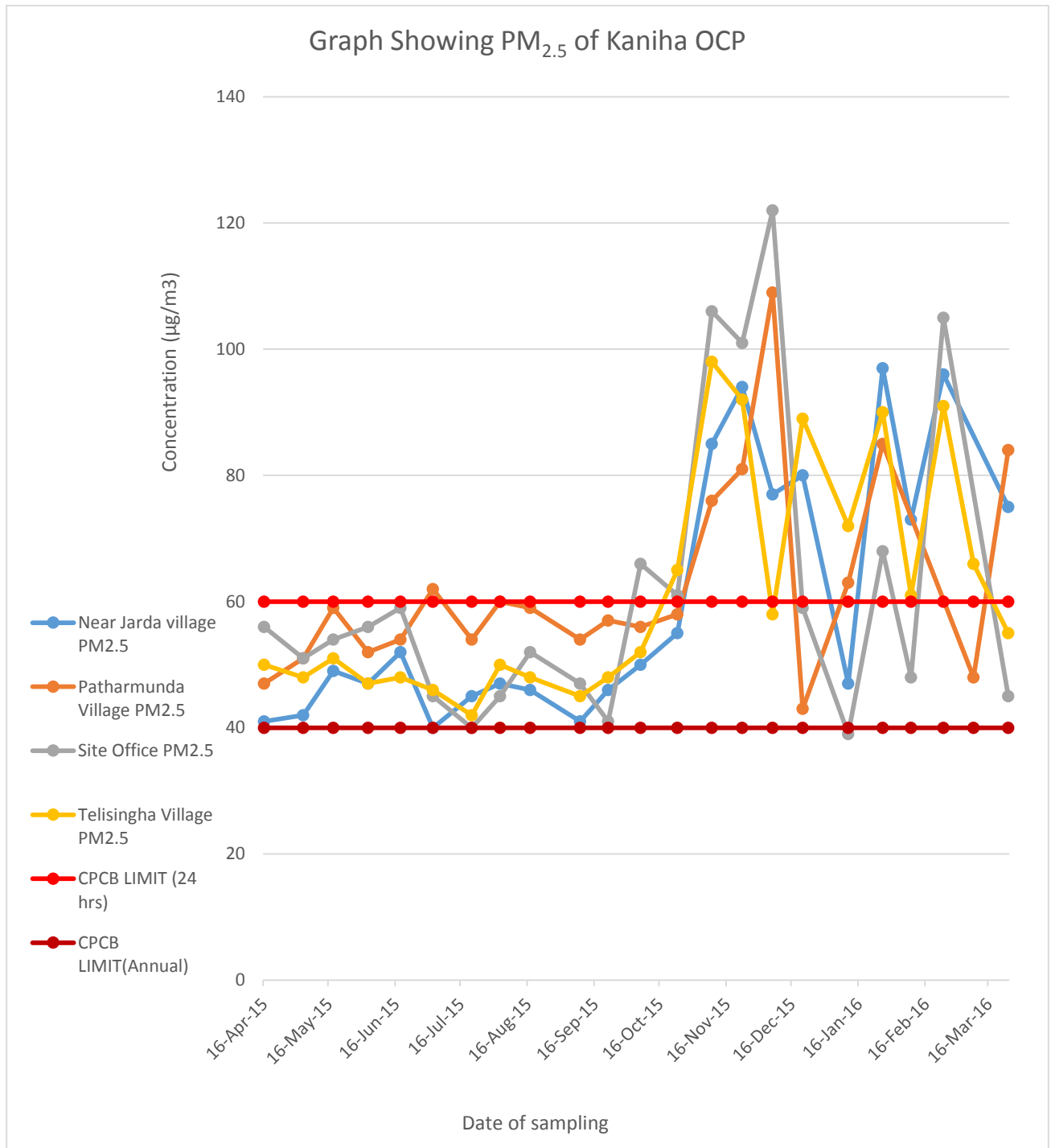
Name of Location	Date of Sampling	Ammonia(NH ₃)	Ozone(O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene(C ₆ H ₆)	Carbon monoxide(CO)	Mercury(Hg)	Chromium(Cr)	Cadmium(Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
Telisingha Village	07-12-15	19.5	11.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.94	<1.0	<1.0	<0.5
Telisingha Village	21-12-15	19.5	9.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.832	<1.0	<1.0	<0.5
Patharmunda Village	07-12-15	18.4	10.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.821	<1.0	<1.0	<0.5
Patharmunda Village	21-12-15	18.6	9.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.88	<1.0	<1.0	<0.5
Telisingha Village	11-01-16	18.9	9.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.917	<1.0	<1.0	<0.5
Telisingha Village	27-01-16	19.2	8.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.832	<1.0	<1.0	<0.5
Patharmunda Village	11-01-16	18.6	9.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.973	<1.0	<1.0	<0.5
Patharmunda Village	27-01-16	19.8	9.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.88	<1.0	<1.0	<0.5
Telisingha Village	09-02-16	17.9	9.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.937	<1.0	<1.0	<0.5
Telisingha Village	24-02-16	19.2	10.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.89	<1.0	<1.0	<0.5
Patharmunda Village	09-02-16	19.7	10.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.886	<1.0	<1.0	<0.5
Patharmunda Village	24-02-16	17.8	10.1	<0.07	<1.0	<1.0	<1.0	<0.02	0.953	<1.0	<1.0	<0.5
Telisingha Village	09-03-16	19.6	10.1	<0.07	<1.0	<1.0	<1.0	<0.02	0.923	<1.0	<1.0	<0.5
Telisingha Village	25-03-16	16.8	8.4	<0.07	<1.0	<1.0	<1.0	<0.02	0.869	<1.0	<1.0	<0.5
Site office Kaniha	25-03-16	17.6	9	<0.07	<1.0	<1.0	<1.0	<0.02	0.956	<1.0	<1.0	<0.5
Patharmunda Village	09-03-16	18.5	9.89	<0.07	<1.0	<1.0	<1.0	<0.02	0.853	<1.0	<1.0	<0.5
Patharmunda Village	25-03-16	17.1	10.1	<0.07	<1.0	<1.0	<1.0	<0.02	0.85	<1.0	<1.0	<0.5
Near Jarda Village	25-03-16	16.9	9.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.852	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			











Project: Lingaraj OCP
Monitoring Station: Radhakrishna Temple

Table 54

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
29-Apr-15	355	154	31	33	64	East to West hot & Sunny
14-May-15	361	157	29	32	61	South to North Sunny
28-May-15	342	145	28	30	65	South to North Sunny
11-Jun-15	358	151	29	31	62	West to East Sunny & Rainfall
26-Jun-15	327	141	27	29	60	West to East & Rainfall
13-Jul-15	335	134	25	27	62	East to West Sunny
29-Jul-15	312	124	23	25	55	West to East Sunny & Evening Rainfall
13-Aug-15	289	121	26	29	61	South to North Sunny
27-Aug-15	295	130	28	30	64	East to West Rainfall
14-Sep-15	267	127	24	26	61	East to West Cloudy & Heavy Rainfall
28-Sep-15	241	121	22	24	65	East to West Sunny
13-Oct-15	459	318	19	21	62	South to North Sunny
29-Oct-15	441	327	18	20	69	West to East Sunny
12-Nov-15	469	231	20	22	113	West to East Sunny
25-Nov-15	316	137	20	22	101	West to East Sunny
11-Dec-15	401	281	20	23	132	West to East Sunny
25-Dec-15	469	288	18	20	81	West to East Sunny
13-Jan-16	572	246	16	21	87	West to East Sunny
28-Jan-16	425	244	15	19	66	South to North Sunny
11-Feb-16	279	140	15	17		South to North Sunny
26-Feb-16	489	246	22	24		East to West Hot & Sunny Evening Rainfal
12-Mar-16	279	140	19	21	66	South to North Sunny
29-Mar-16	357	179	21	23	46	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	572.00	327.00	31.00	33.00	132.00	
Minimum	241.00	121.00	15.00	17.00	46.00	
Mean	366.87	186.17	22.39	24.74	71.57	
95 Percentile	487.00	315.00	29.00	31.90	113.00	
98 Percentile	535.48	323.04	30.12	32.56	124.40	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Lingaraj OCP
Monitoring Station: Near Langijoda Village
Table55

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
28-Apr-15	297	132	25	27	46	East to West hot & Sunny evening rainfall
14-May-15	303	135	27	29	52	South to North Sunny
28-May-15	289	130	25	27	49	South to North Sunny
11-Jun-15	294	135	24	26	54	West to East Sunny & Rainfall
26-Jun-15	271	127	26	28	52	West to East & Rainfall
13-Jul-15	265	125	22	25	55	East to West Sunny
29-Jul-15	252	118	19	21	31	West to East Sunny & Evening Rainfall
13-Aug-15	235	114	20	23	35	South to North Sunny
27-Aug-15	249	128	23	25	38	East to West Rainfall
14-Sep-15	240	130	22	24	43	East to West Cloudy & Heavy Rainfall
28-Sep-15	256	135	20	22	46	East to West Sunny
13-Oct-15	311	242	18	20	51	South to North Sunny
29-Oct-15	324	275	16	18	54	West to East Sunny
12-Nov-15	374	211	22	24	89	West to East Sunny
25-Nov-15	338	227	19	21	94	West to East Sunny
11-Dec-15	344	235	18	20	132	West to East Sunny
25-Dec-15	384	261	15	17	93	West to East Sunny
13-Jan-16	400	132	16	20	68	West to East Sunny
28-Jan-16	387	185	17	21	76	South to North Sunny
11-Feb-16	224	118	16	18	59	South to North Sunny
26-Feb-16	449	278	16	18	56	East to West Hot & Sunny Evening Rainfal
12-Mar-16	224	118	14	16	71	South to North Sunny
29-Mar-16	567	274	12	14	48	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	567.00	278.00	27.00	29.00	132.00	
Minimum	224.00	114.00	12.00	14.00	31.00	
Mean	316.39	172.39	19.65	21.91	60.52	
95 Percentile	444.10	274.90	25.90	27.90	93.90	
98 Percentile	515.08	276.68	26.56	28.56	115.28	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Lingaraj OCP
Monitoring Station: Near CT Road (Lingaraj to Dera)

Table 56

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
28-Apr-15	317	131	28	30	42	East to West hot & Sunny evening rainfall
14-May-15	308	125	26	28	40	South to North Sunny
28-May-15	276	123	24	26	43	South to North Sunny
11-Jun-15	285	127	25	27	51	West to East Sunny & Rainfall
26-Jun-15	264	121	23	25	47	West to East & Rainfall
13-Jul-15	269	131	24	26	39	East to West Sunny
29-Jul-15	247	123	21	23	34	West to East Sunny & Evening Rainfall
13-Aug-15	254	127	23	25	42	South to North Sunny
27-Aug-15	264	121	24	26	45	East to West Rainfall
14-Sep-15	261	134	19	22	40	East to West Cloudy & Heavy Rainfall
28-Sep-15	241	127	24	26	48	East to West Sunny
13-Oct-15	368	213	21	23	57	South to North Sunny
29-Oct-15	372	241	23	25	65	West to East Sunny
12-Nov-15	383	222	17	19	115	West to East Sunny
25-Nov-15	341	207	21	23	123	West to East Sunny
11-Dec-15	391	248	19	21	158	West to East Sunny
25-Dec-15	430	293	21	23	97	West to East Sunny
13-Jan-16	500	279	19	22	65	West to East Sunny
28-Jan-16	542	243	18	23	58	South to North Sunny
11-Feb-16	408	256	22	24	86	South to North Sunny
26-Feb-16	326	171	17	19	98	East to West Hot & Sunny Evening Rainfal
12-Mar-16	408	256	18	20		South to North Sunny
29-Mar-16	294	180	17	19	30	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	542.00	293.00	28.00	30.00	158.00	
Minimum	241.00	121.00	17.00	19.00	30.00	
Mean	336.91	182.57	21.48	23.70	64.68	
95 Percentile	493.00	276.70	25.90	27.90	122.60	
98 Percentile	523.52	286.84	27.12	29.12	143.30	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

Project: Lingaraj OCP
Monitoring Station: Lingaraj Township

Table 57

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
13-Jul-15	297	136	28	30	58	East to West Sunny
10-Mar-16	336	210	21	23	78	East to West Sunny
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

Project: Lingaraj OCP
Monitoring Station: Lingaraj CGM Office

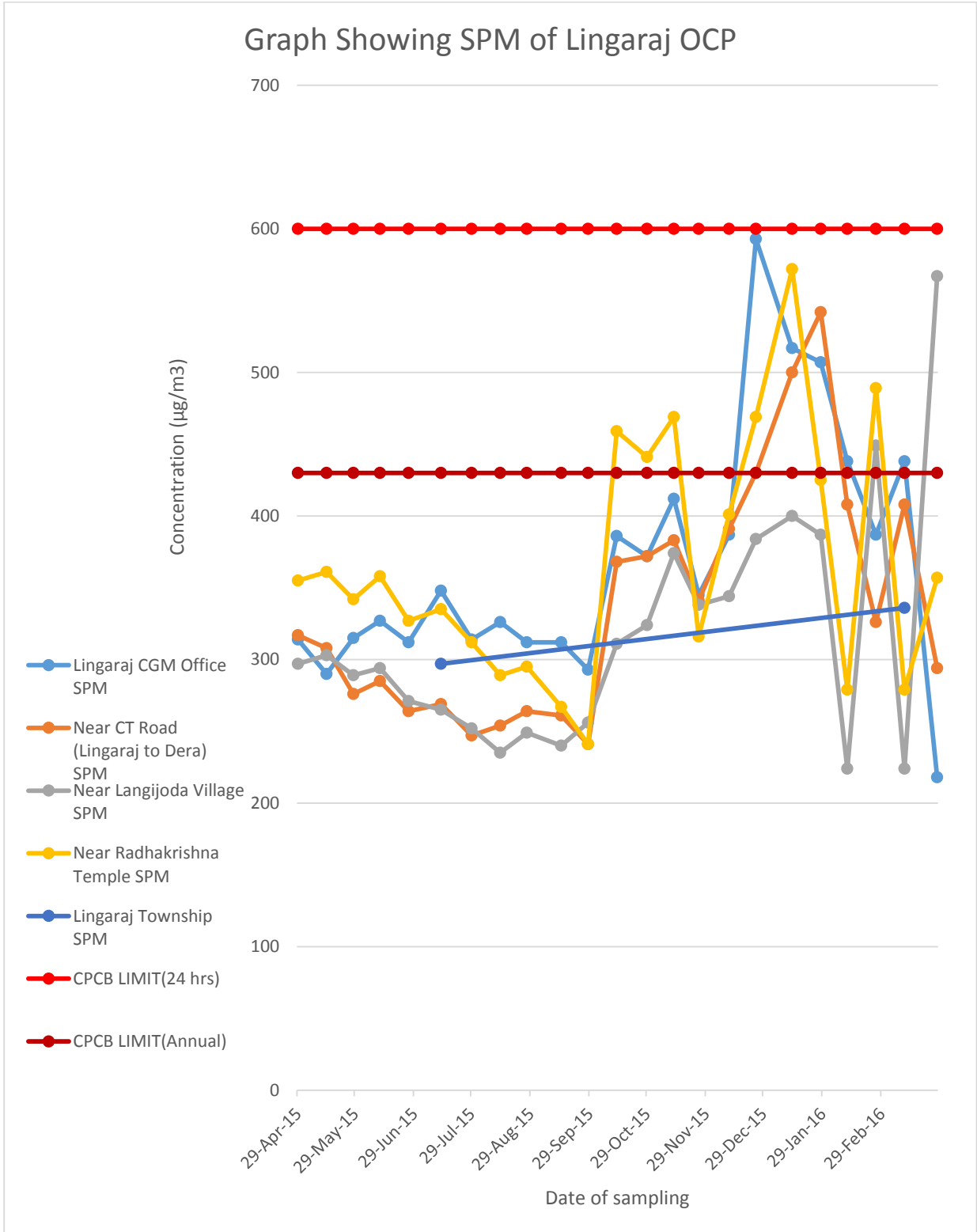
Table 58

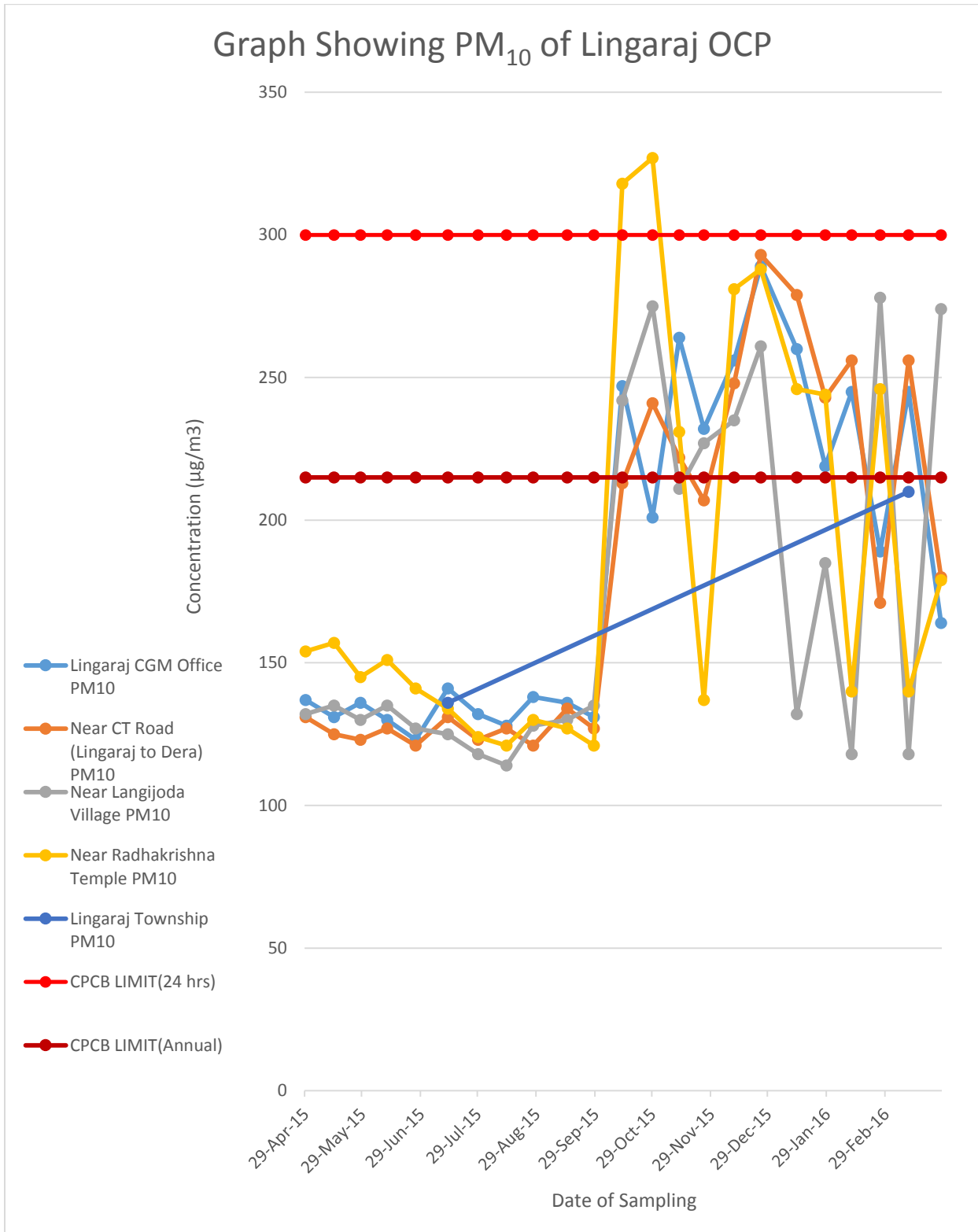
Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
29-Apr-15	314	137	27	29	55	East to West hot & Sunny
14-May-15	290	131	24	26	51	South to North Sunny
28-May-15	315	136	26	28	54	South to North Sunny
11-Jun-15	327	130	27	29	57	West to East Sunny & Rainfall
26-Jun-15	312	123	25	27	55	West to East & Rainfall
13-Jul-15	348	141	29	31	59	East to West Sunny
29-Jul-15	314	132	25	27	52	West to East Sunny & Evening Rainfall
13-Aug-15	326	128	24	26	55	South to North Sunny
27-Aug-15	312	138	26	28	58	East to West Rainfall
14-Sep-15	312	136	25	27	51	East to West Cloudy & Heavy Rainfall
28-Sep-15	293	131	27	29	55	East to West Sunny
13-Oct-15	386	247	22	24	67	South to North Sunny
29-Oct-15	372	201	20	22	64	West to East Sunny
12-Nov-15	412	264	15	17	136	West to East Sunny
25-Nov-15	345	232	15	17	127	West to East Sunny
11-Dec-15	387	256	17	20	152	West to East Sunny
25-Dec-15	593	289	15	17	98	West to East Sunny
13-Jan-16	517	260	15	20	72	West to East Sunny
28-Jan-16	507	219	12	17	57	South to North Sunny
11-Feb-16	438	245	19	21	74	South to North Sunny
26-Feb-16	387	189	19	21	99	East to West Hot & Sunny Evening Rainfal
12-Mar-16	438	245	17	19	53	South to North Sunny
29-Mar-16	218	164	15	17	61	West to East Sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	593.00	289.00	29.00	31.00	152.00	
Minimum	218.00	123.00	12.00	17.00	51.00	
Mean	367.96	185.83	21.13	23.43	72.26	
95 Percentile	516.00	263.60	27.00	29.00	135.10	
98 Percentile	559.56	278.00	28.12	30.12	144.96	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

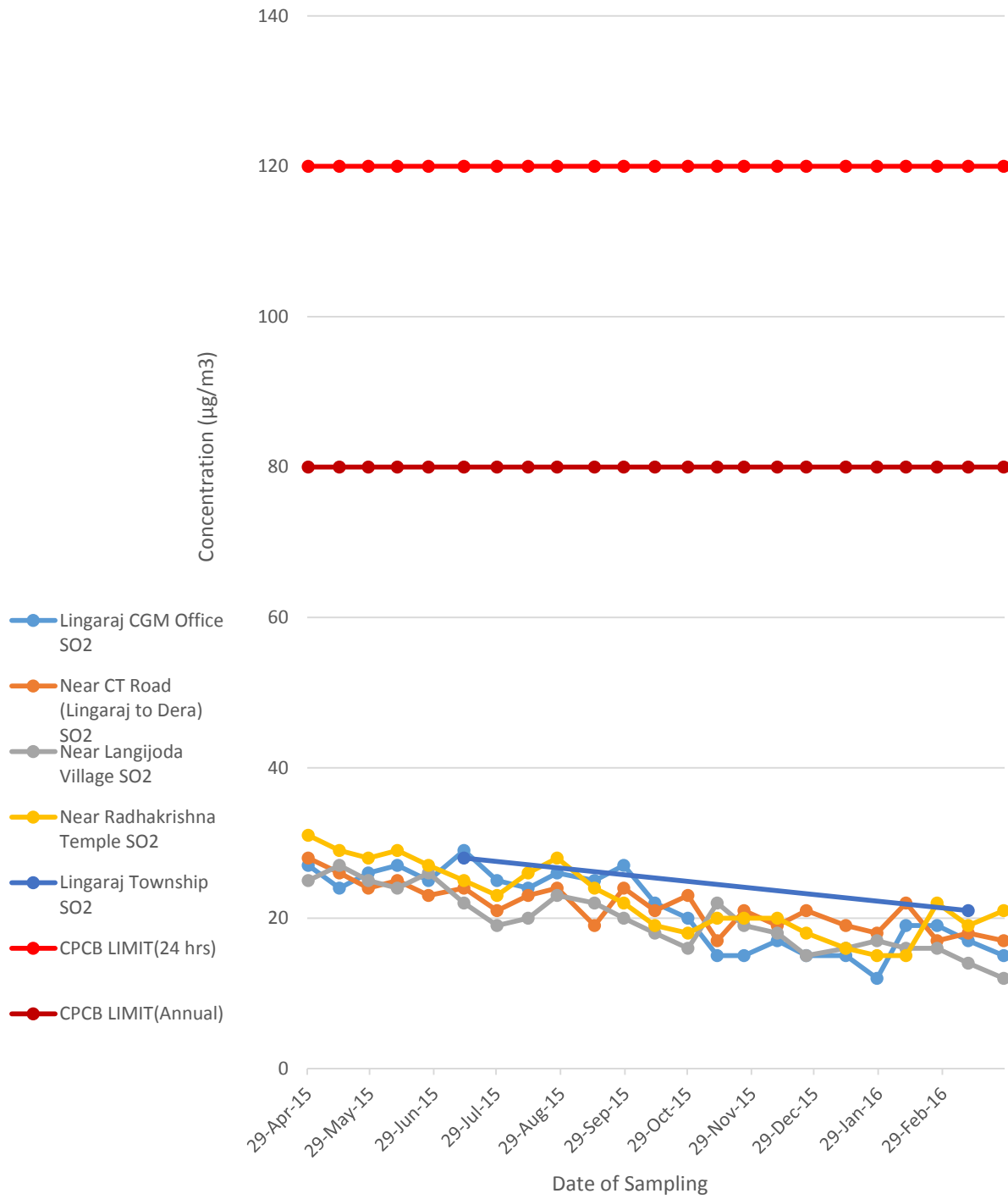
Table 59: Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
Near Langijoda village	11-12-15	20.4	12.4	<0.07	<1.0	<1.0	<1.0	<0.02	0.921	<1.0	<1.0	<0.5
Near Langijoda village	28-12-15	25.9	11.3	<0.07	<1.0	<1.0	<1.0	<0.02	0.869	<1.0	<1.0	<0.5
Near Langijoda village	13-01-16	22	7.1	<0.07	<1.0	<1.0	<1.0	<0.02	0.673	<1.0	<1.0	<0.5
Near Langijoda village	28-01-16	24	6.7	<0.07	<1.0	<1.0	<1.0	<0.02	0.594	<1.0	<1.0	<0.5
Near Langijoda village	11-02-16	23.9	9.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.808	<1.0	<1.0	<0.5
Near Langijoda village	26-02-16	22.9	7.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.682	<1.0	<1.0	<0.5
Near Langijoda village	11-03-16	17.5	9.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.823	<1.0	<1.0	<0.5
Near Langijoda village	29-03-16	15.5	9.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.845	<1.0	<1.0	<0.5
Near CT Road	29-03-16	16.3	10.1	<0.07	<1.0	<1.0	<1.0	<0.02	0.863	<1.0	<1.0	<0.5
Lingaraj CGM office	29-03-16	16.5	8.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.869	<1.0	<1.0	<0.5
Near Radhakrishna mandir	29-03-16	15.9	8.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.936	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

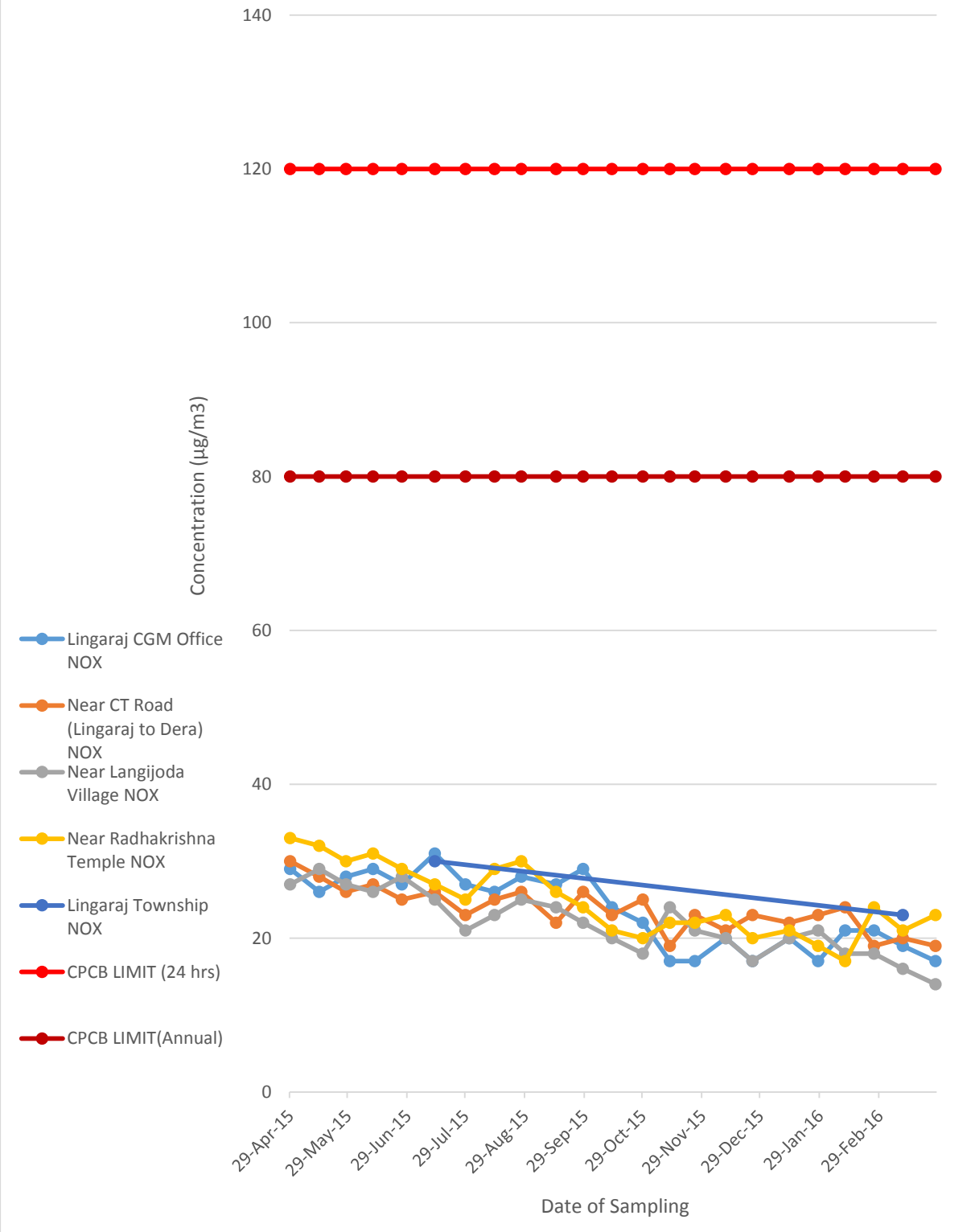




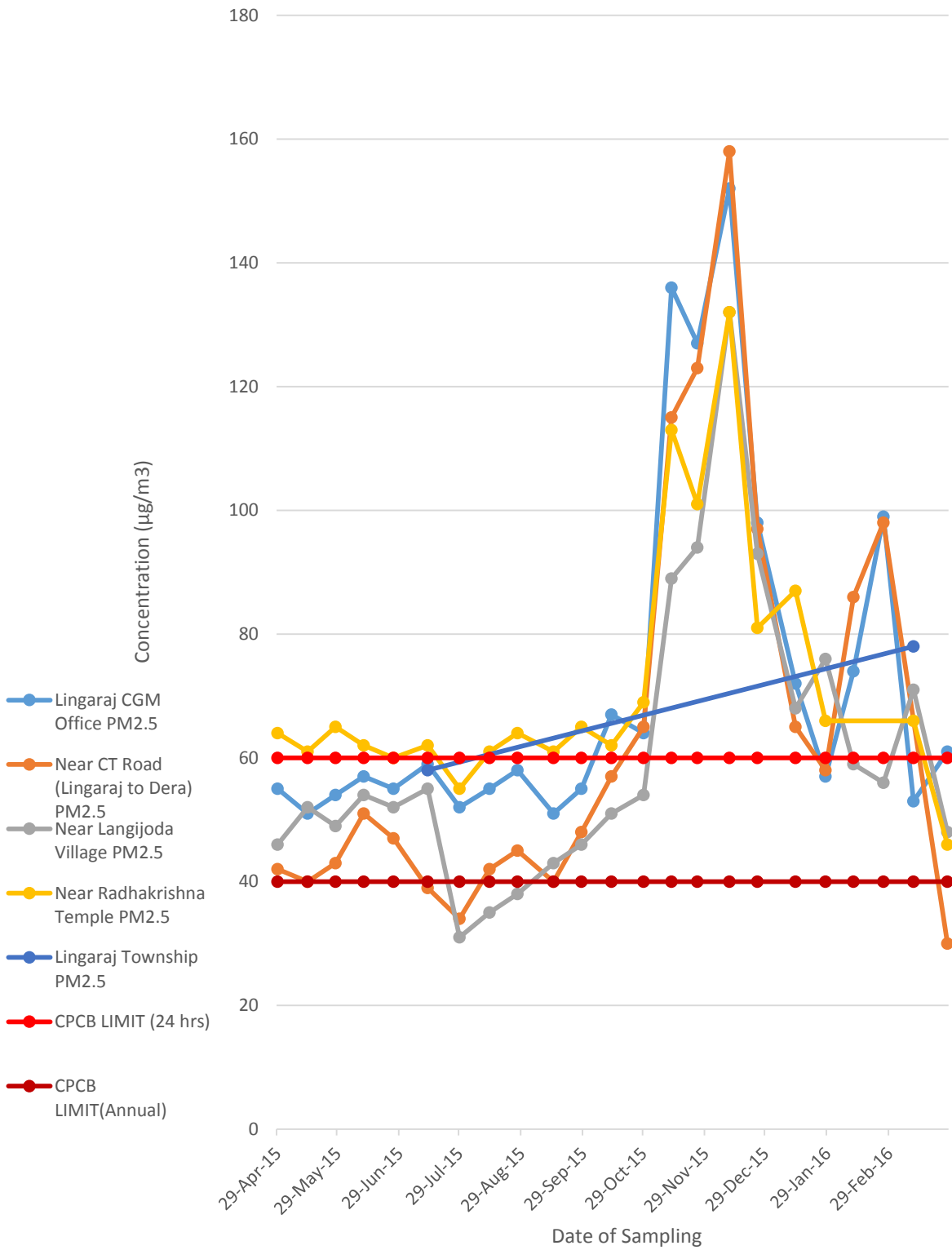
Graph Showing SO₂ of Lingaraj OCP



Graph Showing NO_x of Lingaraj OCP



Graph Showing PM_{2.5} of Lingaraj OCP



Project: Talcher Area

Monitoring Station: Canteen, Talcher Colliery

Table 60

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
27-Apr-15	255	127	22	24	49	South to North hot& Sunny
15-May-15	258	134	24	26	47	East to West Sunny
29-May-15	269	131	25	27	51	East to West Sunny
12-Jun-15	278	136	26	28	49	East to West Hot Sunny
29-Jun-15	260	125	23	25	53	South to North & Heavy Rainfall
14-Jul-15						Strike
30-Jul-15	273	125	23	25	49	South to North Hot Sunny
14-Aug-15	283	131	25	27	53	East to West Cloudy & Heavy Rainfall
28-Aug-15	275	124	23	25	46	South to North Cloudy Rainfall
15-Sep-15	251	126	21	23	41	East to West Cloudy & Heavy Rainfall
29-Sep-15	235	112	22	24	47	East to West Sunny
14-Oct-15	343	298	14	16	51	South to North Sunny
30-Oct-15	316	216	16	18	49	East to West Sunny
14-Nov-15	321	161	15	17	120	East to West Sunny
27-Nov-15	325	186	14	16	111	East to West Sunny
12-Dec-15	389	287	17	19	97	West to East Sunny
28-Dec-15	416	284	18	20	84	West to East Sunny
14-Jan-16	707	256	11	15	58	West to East Sunny
29-Jan-16	546	240	15	20	69	East to West Sunny
12-Feb-16	401	257	13	15	86	East to West Sunny
27-Feb-16	303	153	13	15	62	West to East Hot & Sunny Evening Rainfal
14-Mar-16	446	257	14	16		South to North Sunny& Evening Rainfal
30-Mar-16	210	130	12	14	105	West to East Sunny & Evening Rainfal
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	707.00	298.00	26.00	28.00	120.00	
Minimum	210.00	112.00	11.00	14.00	41.00	
Mean	334.55	181.64	18.45	20.68	65.57	
95 Percentile	541.00	286.85	25.00	27.00	111.00	
98 Percentile	639.38	293.38	25.58	27.58	116.40	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in $\mu\text{g}/\text{m}^3$

Project: Talcher Area
Monitoring Station: G.M Office

Table 61

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
27-Apr-15	237	123	24	26	47	South to North hot& Sunny
15-May-15	246	127	27	29	43	East to West Sunny
29-May-15	222	119	23	25	47	East to West Sunny
12-Jun-15	269	127	24	26	42	East to West Hot Sunny
29-Jun-15	252	118	21	23	40	South to North & Heavy Rainfall
14-Jul-15						Strike
30-Jul-15	285	132	25	27	53	South to North Hot Sunny
14-Aug-15	234	125	23	25	51	East to West Cloudy & Heavy Rainfall
28-Aug-15	246	131	25	27	55	South to North Cloudy Rainfall
15-Sep-15	216	114	20	22	49	East to West Cloudy & Heavy Rainfall
29-Sep-15	206	125	18	20	44	East to West Sunny
14-Oct-15	322	202	16	18	48	South to North Sunny
30-Oct-15	303	145	14	16	52	East to West Sunny
14-Nov-15	309	187	19	21	124	East to West Sunny
27-Nov-15	346	174	17	19	116	East to West Sunny
12-Dec-15	320	196	18	20	79	West to East Sunny
28-Dec-15	404	216	20	22	90	West to East Sunny
14-Jan-16	443	256	12	18	51	West to East Sunny
29-Jan-16	590	271	18	23	53	East to West Sunny
12-Feb-16	450	276	12	14	90	East to West Sunny
27-Feb-16	274	147	12	14	54	West to East Hot & Sunny Evening Rainfal
14-Mar-16	400	230	10	12	42	South to North Sunny& Evening Rainfal
30-Mar-16	194	107	11	13	52	West to East Sunny & Evening Rainfal
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	590.00	276.00	27.00	29.00	124.00	
Minimum	194.00	107.00	10.00	12.00	40.00	
Mean	307.64	165.82	18.59	20.91	60.09	
95 Percentile	449.65	270.25	25.00	27.00	114.70	
98 Percentile	531.20	273.90	26.16	28.16	120.64	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Talcher Area
Monitoring Station: Natedi Village

Table 62

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
28-Apr-15	210	118	24	26	35	East to West hot & Sunny evening rainfall
15-May-15	224	121	25	27	37	East to West Sunny
29-May-15	236	128	23	25	41	East to West Sunny
12-Jun-15	253	121	21	23	37	East to West Hot Sunny
29-Jun-15	241	125	22	24	34	East to West Hot Sunny
14-Jul-15	253	121	21	23	41	East to West Hot Sunny
30-Jul-15	244	125	23	25	45	South to North Hot Sunny
14-Aug-15	254	121	22	24	41	East to West Cloudy & Heavy Rainfall
28-Aug-15	261	125	24	26	44	South to North Cloudy Rainfall
15-Sep-15	231	116	19	22	35	East to West Cloudy & Heavy Rainfall
29-Sep-15	243	109	17	19	39	East to West Sunny
14-Oct-15	225	140	15	17	46	South to North Sunny
30-Oct-15	243	112	13	15	54	East to West Sunny
14-Nov-15	259	134	18	20	115	East to West Sunny
27-Nov-15	264	131	15	17	104	East to West Sunny
12-Dec-15	275	181	16	18	51	West to East Sunny
28-Dec-15	419	249	14	16	83	West to East Sunny
14-Jan-16	313	238	13	18	67	West to East Sunny
29-Jan-16	409	232	18	21	58	East to West Sunny
12-Feb-16	311	235	14	16		East to West Sunny
27-Feb-16	267	134	14	16	66	West to East Hot & Sunny Evening Rainfall
14-Mar-16	450	276	11	13	31	South to North Sunny & Evening Rainfall
30-Mar-16	216	106	10	12	121	West to East Sunny & Evening Rainfall
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	450.00	276.00	25.00	27.00	121.00	
Minimum	210.00	106.00	10.00	12.00	31.00	
Mean	273.96	152.09	17.91	20.13	55.68	
95 Percentile	418.00	247.90	24.00	26.00	114.45	
98 Percentile	436.36	264.12	24.56	26.56	118.48	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Talcher Area
Monitoring Station: Project Office

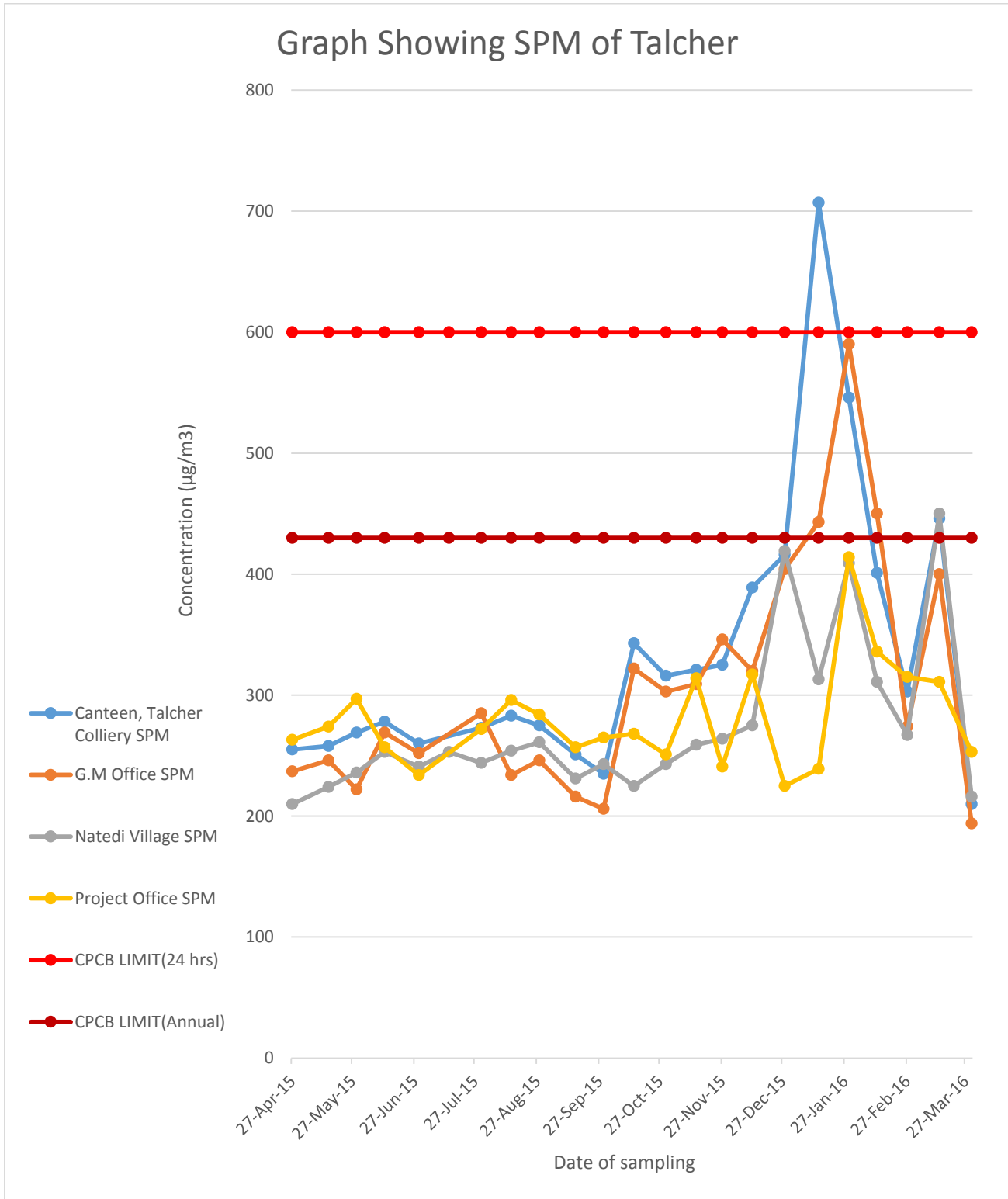
Table 63

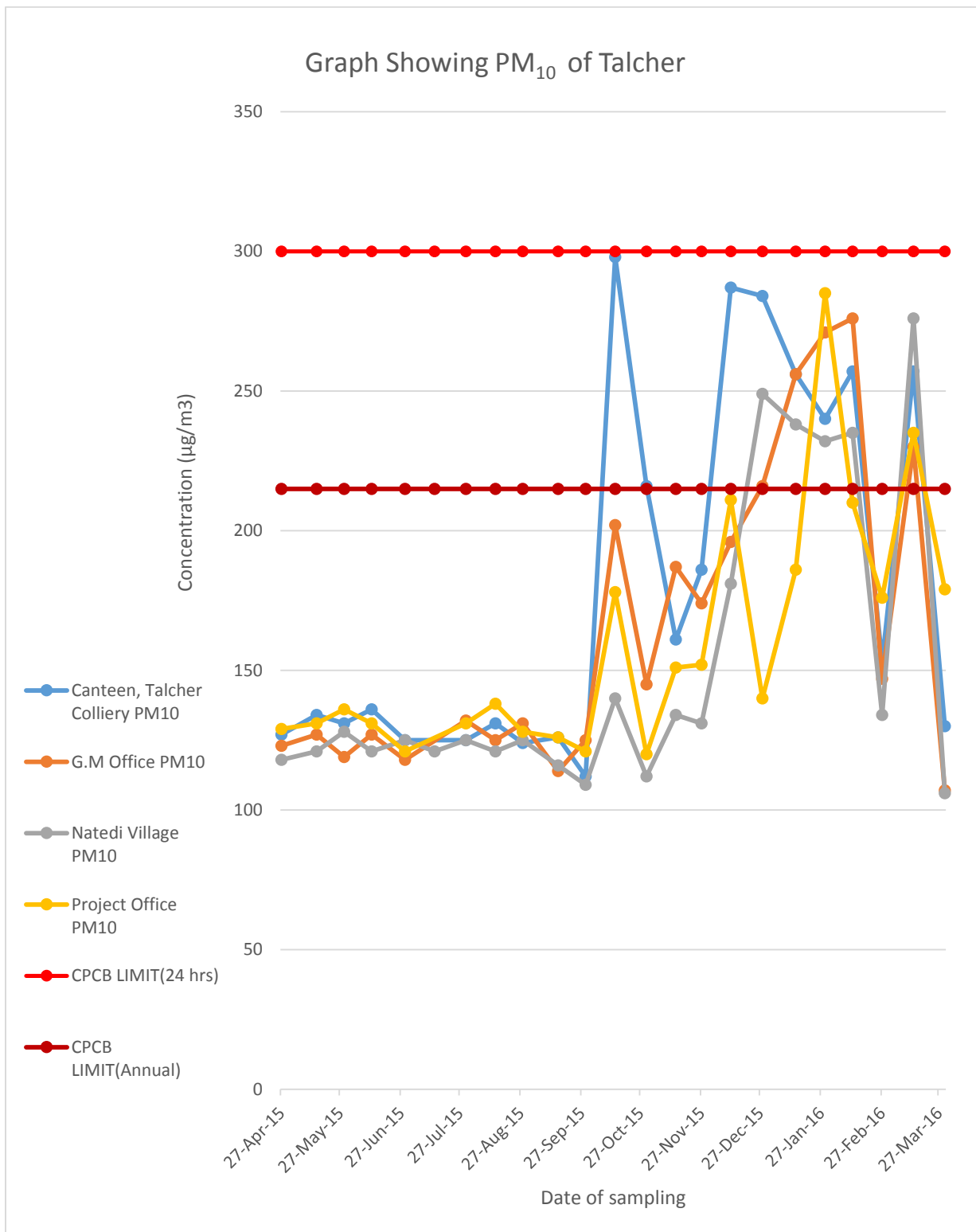
Date of Sampling	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	Remarks
28-Apr-15	263	129	24	27	46	East to West hot & Sunny evening rainfall
15-May-15	274	131	23	25	41	East to West Sunny
29-May-15	297	136	25	27	49	East to West Sunny
12-Jun-15	257	131	23	25	45	East to West Hot Sunny
29-Jun-15	234	121	20	22	43	South to North & Heavy Rainfall
14-Jul-15						Strike
30-Jul-15	272	131	20	22	40	South to North Hot Sunny
14-Aug-15	296	138	24	26	45	East to West Cloudy & Heavy Rainfall
28-Aug-15	284	128	26	28	49	South to North Cloudy Rainfall
15-Sep-15	257	126	21	23	41	East to West Cloudy & Heavy Rainfall
29-Sep-15	265	121	23	25	46	East to West Sunny
14-Oct-15	268	178	18	20	41	South to North Sunny
30-Oct-15	251	120	16	18	50	East to West Sunny
14-Nov-15	314	151	18	20	100	East to West Sunny
27-Nov-15	241	152	18	20	98	East to West Sunny
12-Dec-15	317	211	14	16	36	West to East Sunny
28-Dec-15	225	140	16	18	29	West to East Sunny
14-Jan-16	239	186	15	19	61	West to East Sunny
29-Jan-16	414	285	16	21	69	East to West Sunny
12-Feb-16	336	210	15	17	51	East to West Sunny
27-Feb-16	315	176	16	18		West to East Hot & Sunny Evening Rainfal
14-Mar-16	311	235	12	14	37	South to North Sunny& Evening Rainfal
30-Mar-16	253	179	14	16	51	West to East Sunny & Evening Rainfal
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	414.00	285.00	26.00	28.00	100.00	
Minimum	225.00	120.00	12.00	14.00	29.00	
Mean	281.05	159.77	18.95	21.23	50.86	
95 Percentile	335.05	233.80	24.95	27.00	98.00	
98 Percentile	381.24	264.00	25.58	27.58	99.20	
STANDARD (24 hrs)	600	300	120	120	60	
STANDARD (Annual)	430	215	80	80	40	

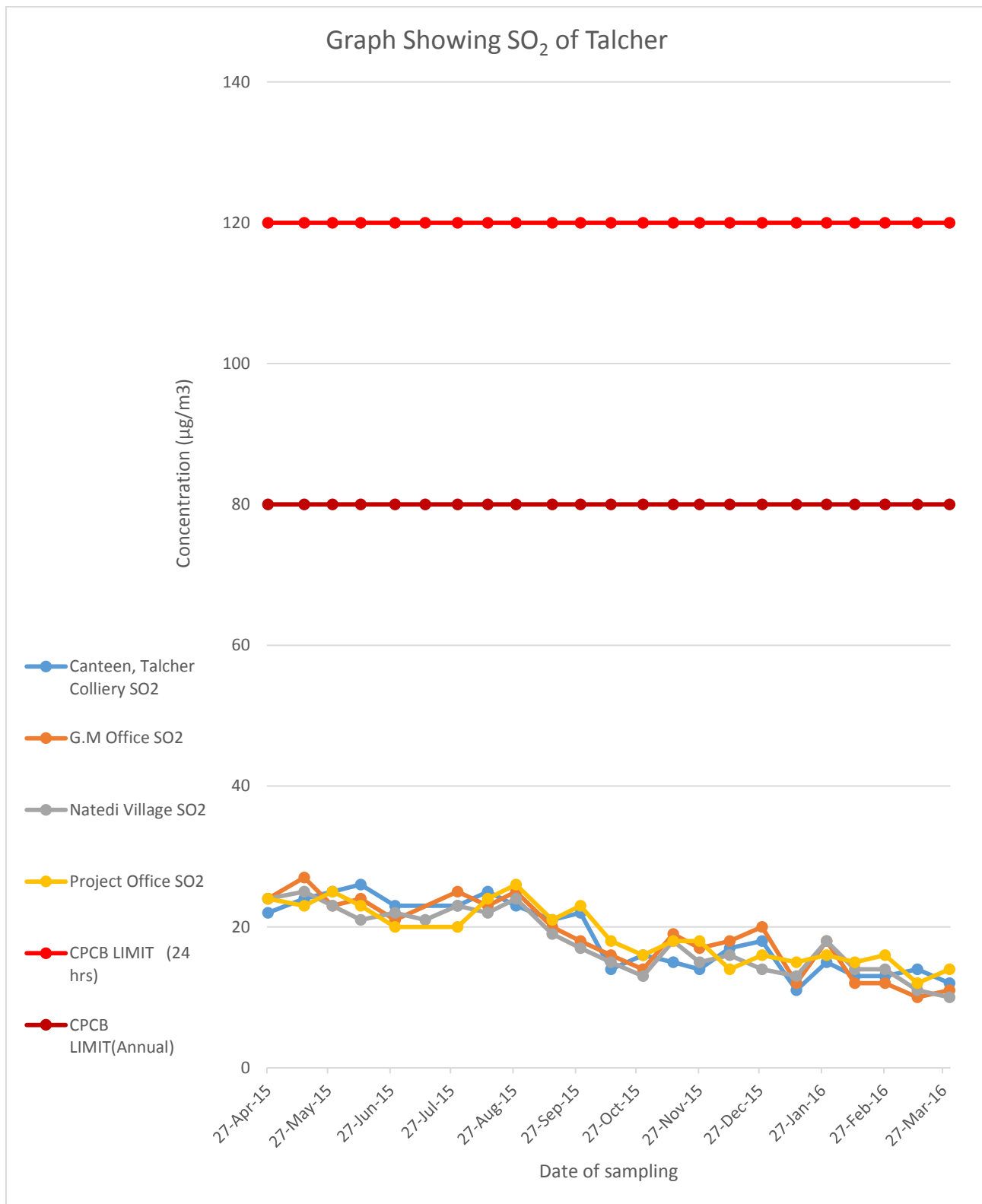
All values in $\mu\text{g}/\text{m}^3$

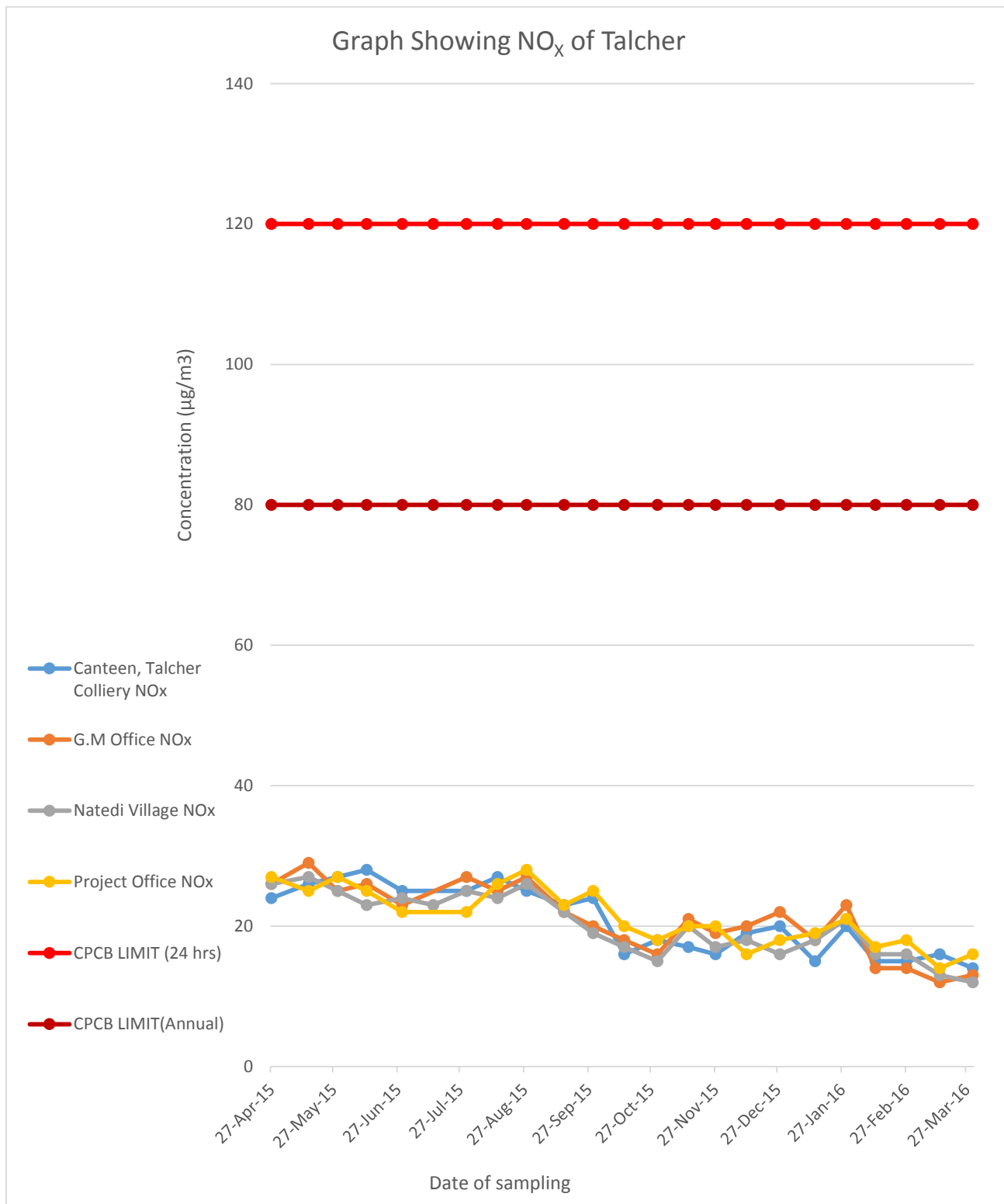
Table 64: Analysis of Heavy Metals & NAAQS Parameters

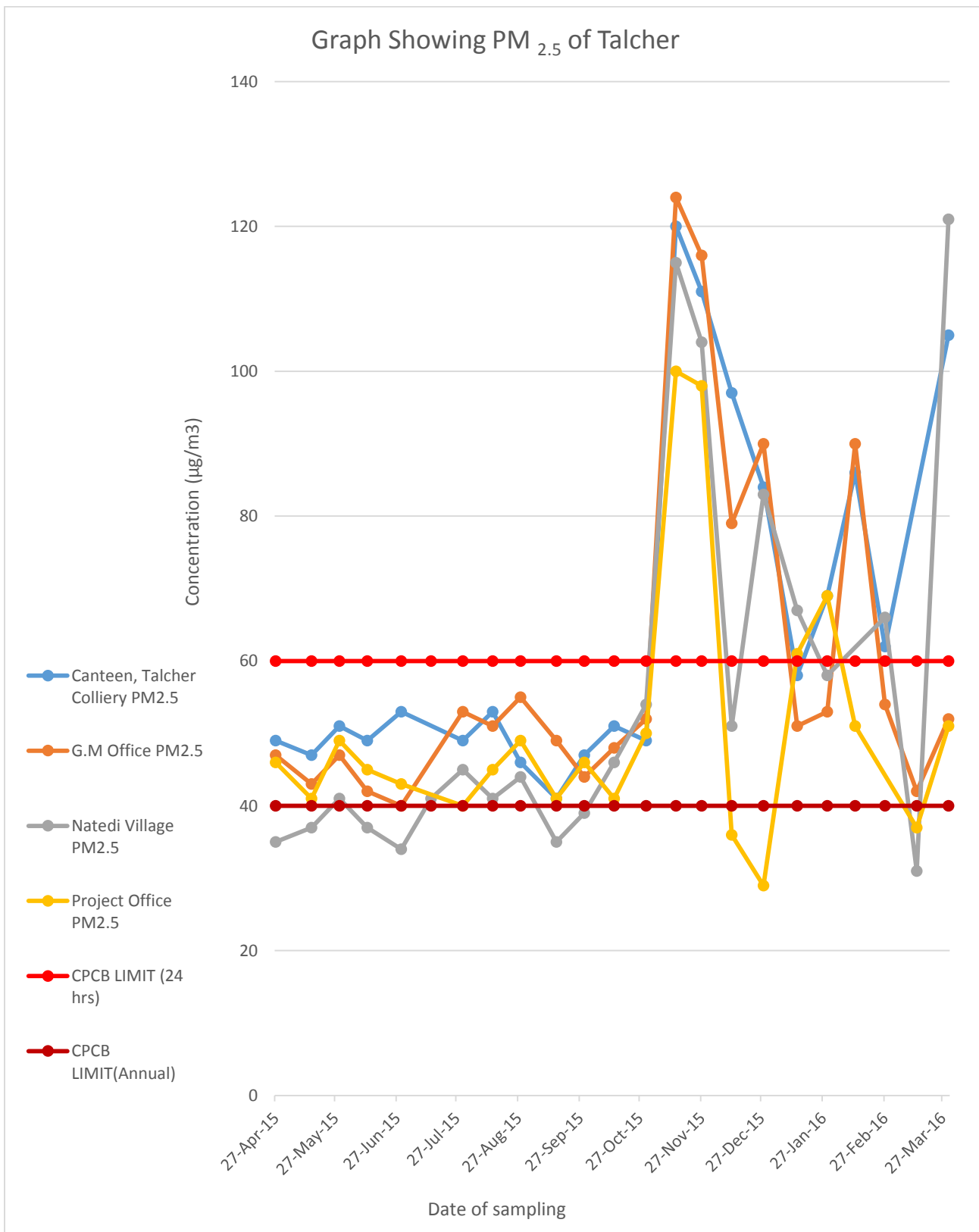
Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Talcher GM office	30-03-16	16.5	8.9	<0.07	<1.0	<1.0	<1.0	<0.02	0.942	<1.0	<1.0	<0.5
Canteen Talcher	30-03-16	17.2	9.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.863	<1.0	<1.0	<0.5
Nandira Project Office	30-03-16	18.5	9.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.956	<1.0	<1.0	<0.5
Natedi Village	30-03-16	19.6	10.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.856	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			











TABLES FOR NOISE LEVEL MONITORING DATA

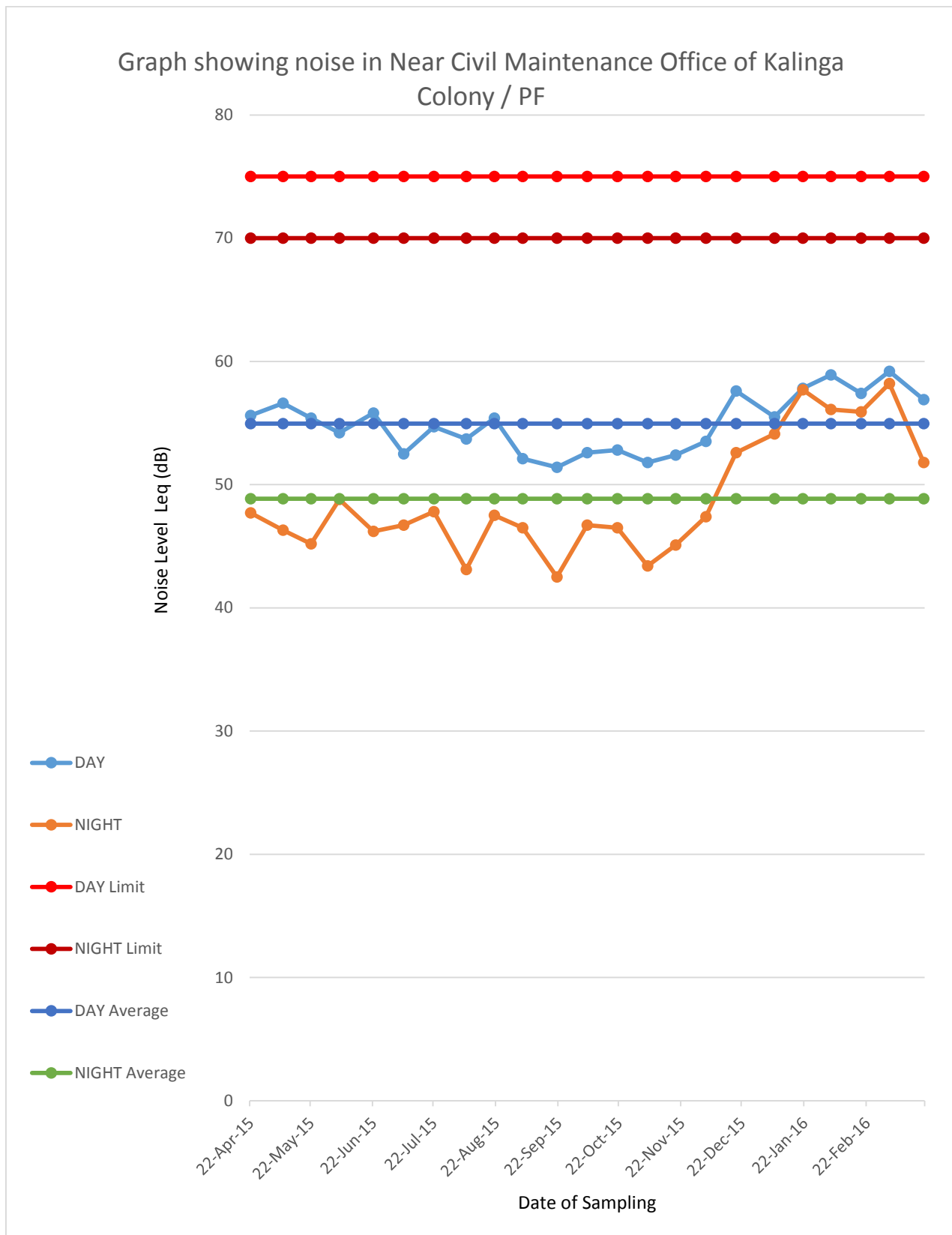
Project: Bharatpur OCP

Monitoring Station: Near civil maintenance office of Kalinga Colony/PF

Table 65

DATE OF SAMPLING	DAY	NIGHT
22-Apr-15	55.6	47.7
08-May-15	56.6	46.3
22-May-15	55.4	45.2
05-Jun-15	54.2	48.8
22-Jun-15	55.8	46.2
07-Jul-15	52.5	46.7
22-Jul-15	54.7	47.8
07-Aug-15	53.7	43.1
21-Aug-15	55.4	47.5
04-Sep-15	52.1	46.5
21-Sep-15	51.4	42.5
06-Oct-15	52.6	46.7
21-Oct-15	52.8	46.5
05-Nov-15	51.8	43.4
19-Nov-15	52.4	45.1
04-Dec-15	53.5	47.4
19-Dec-15	57.6	52.6
07-Jan-16	55.5	54.1
21-Jan-16	57.8	57.7
04-Feb-16	58.9	56.1
19-Feb-16	57.4	55.9
04-Mar-16	59.2	58.2
21-Mar-16	56.9	51.8
Brief Statistic	Day	Night
Max	59.20	58.20
Min	51.40	42.50
Mean	54.95	48.86
Noise Standard	75	70

All values are in Leq (dB)

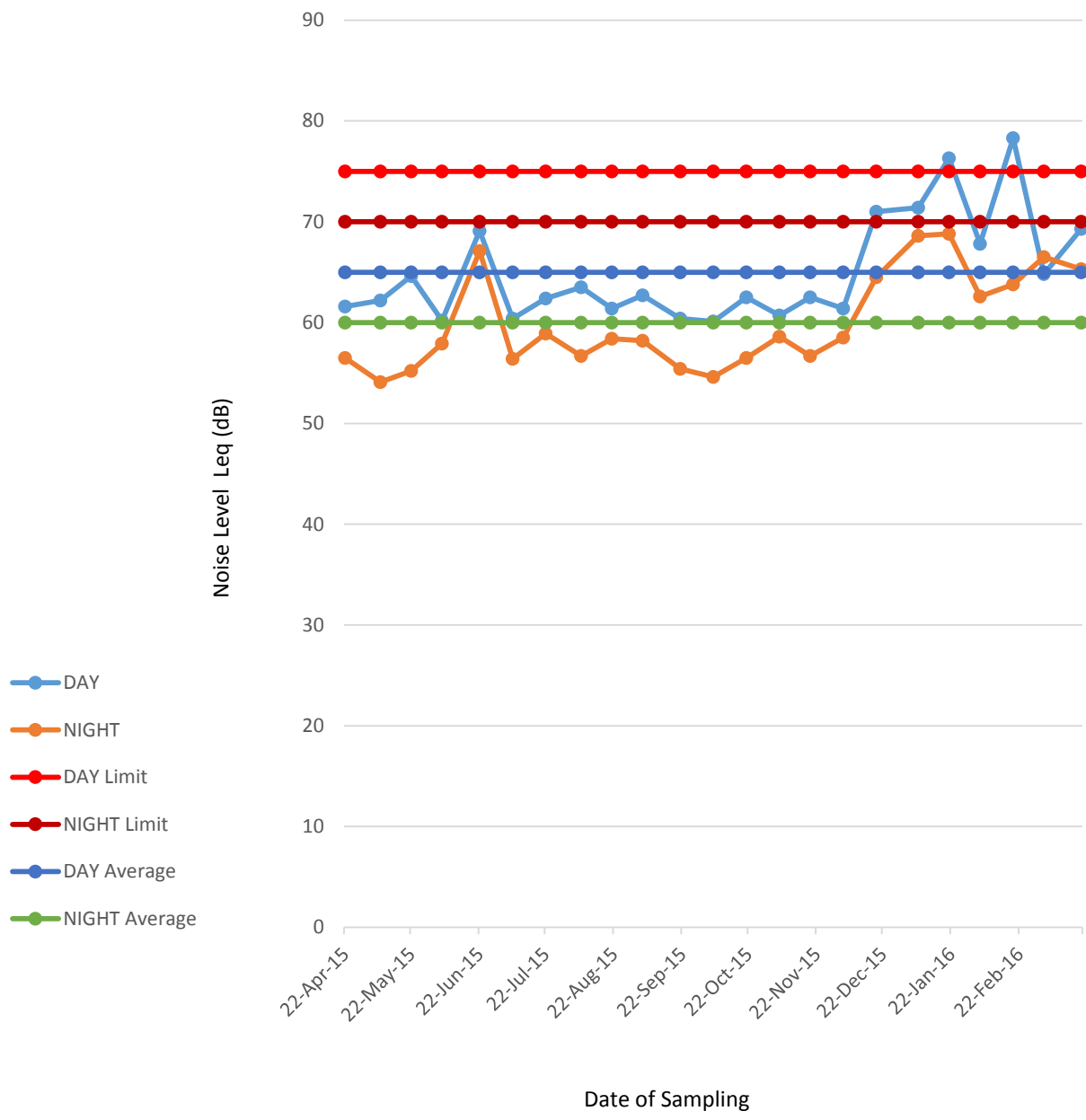


Project: Bharatpur OCP
Monitoring Station: On backfill near reject dump yard
Table 66

DATE OF SAMPLING	DAY	NIGHT
22-Apr-15	61.6	56.5
08-May-15	62.2	54.1
22-May-15	64.6	55.2
05-Jun-15	60.2	57.9
22-Jun-15	69.1	67.1
07-Jul-15	60.4	56.4
22-Jul-15	62.4	58.9
07-Aug-15	63.5	56.7
21-Aug-15	61.4	58.4
04-Sep-15	62.7	58.2
21-Sep-15	60.4	55.4
06-Oct-15	60.1	54.6
21-Oct-15	62.5	56.5
05-Nov-15	60.7	58.6
19-Nov-15	62.5	56.7
04-Dec-15	61.4	58.5
19-Dec-15	71	64.5
07-Jan-16	71.4	68.6
21-Jan-16	76.3	68.8
04-Feb-16	67.8	62.6
19-Feb-16	78.3	63.8
04-Mar-16	64.8	66.5
21-Mar-16	69.3	65.3
Brief Statistic	Day	Night
Max	78.30	68.80
Min	60.10	54.10
Mean	64.98	59.99
Noise Standard	75	70

All values are in Leq (dB)

Graph showing noise in On Backfill Near Reject Dump Yard

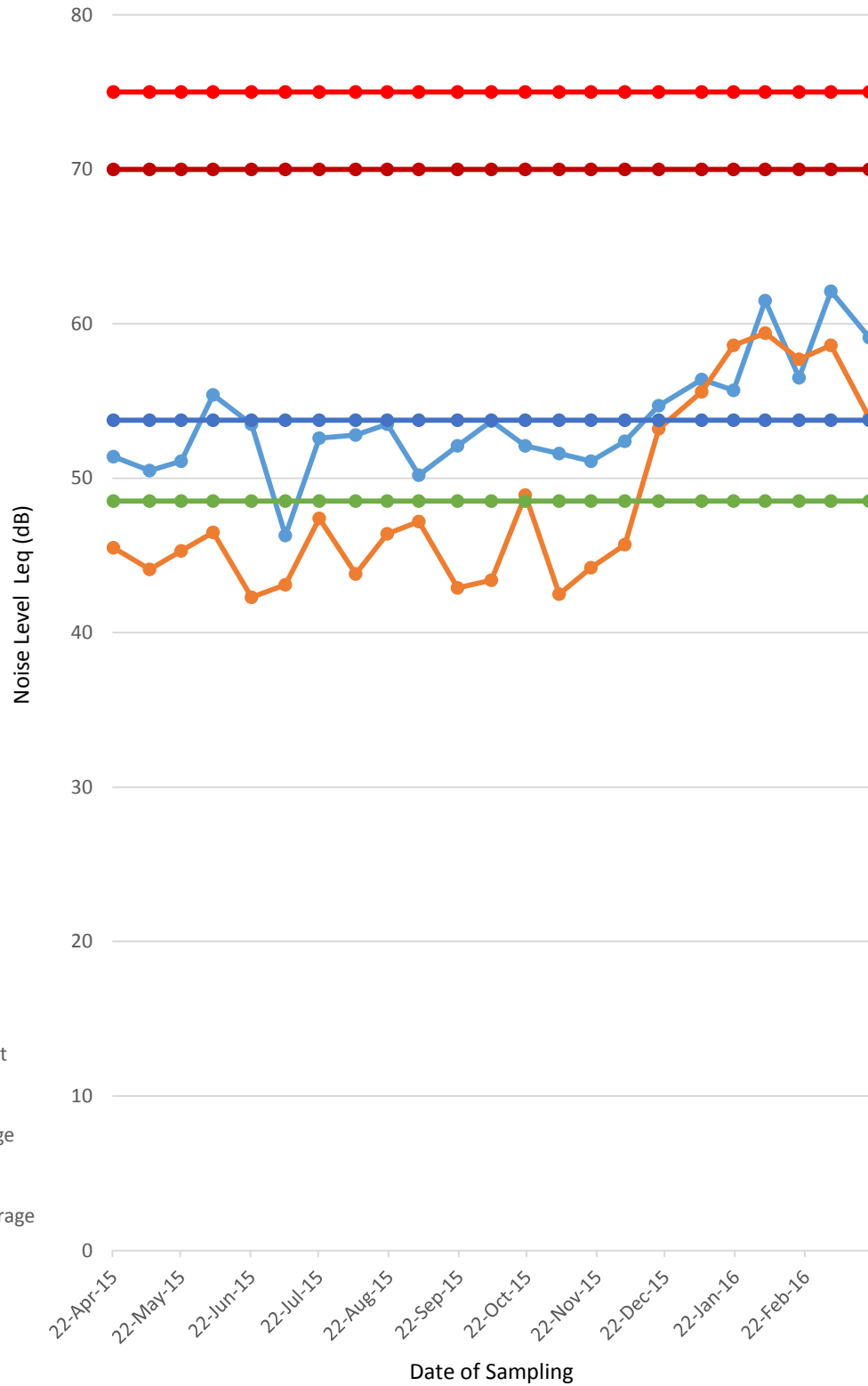


Project: Bharatpur OCP
Monitoring Station: Padmabatipur Village
Table 67

DATE OF SAMPLING	DAY	NIGHT
22-Apr-15	51.4	45.5
08-May-15	50.5	44.1
22-May-15	51.1	45.3
05-Jun-15	55.4	46.5
22-Jun-15	53.5	42.3
07-Jul-15	46.3	43.1
22-Jul-15	52.6	47.4
07-Aug-15	52.8	43.8
21-Aug-15	53.5	46.4
04-Sep-15	50.2	47.2
21-Sep-15	52.1	42.9
06-Oct-15	53.7	43.4
21-Oct-15	52.1	48.9
05-Nov-15	51.6	42.5
19-Nov-15	51.1	44.2
04-Dec-15	52.4	45.7
19-Dec-15	54.7	53.2
07-Jan-16	56.4	55.6
21-Jan-16	55.7	58.6
04-Feb-16	61.5	59.4
19-Feb-16	56.5	57.7
04-Mar-16	62.1	58.6
21-Mar-16	59.1	53.9
Brief Statistic	Day	Night
Max	62.10	59.40
Min	46.30	42.30
Mean	53.75	48.53
Noise Standard	75	70

All values are in Leq (dB)

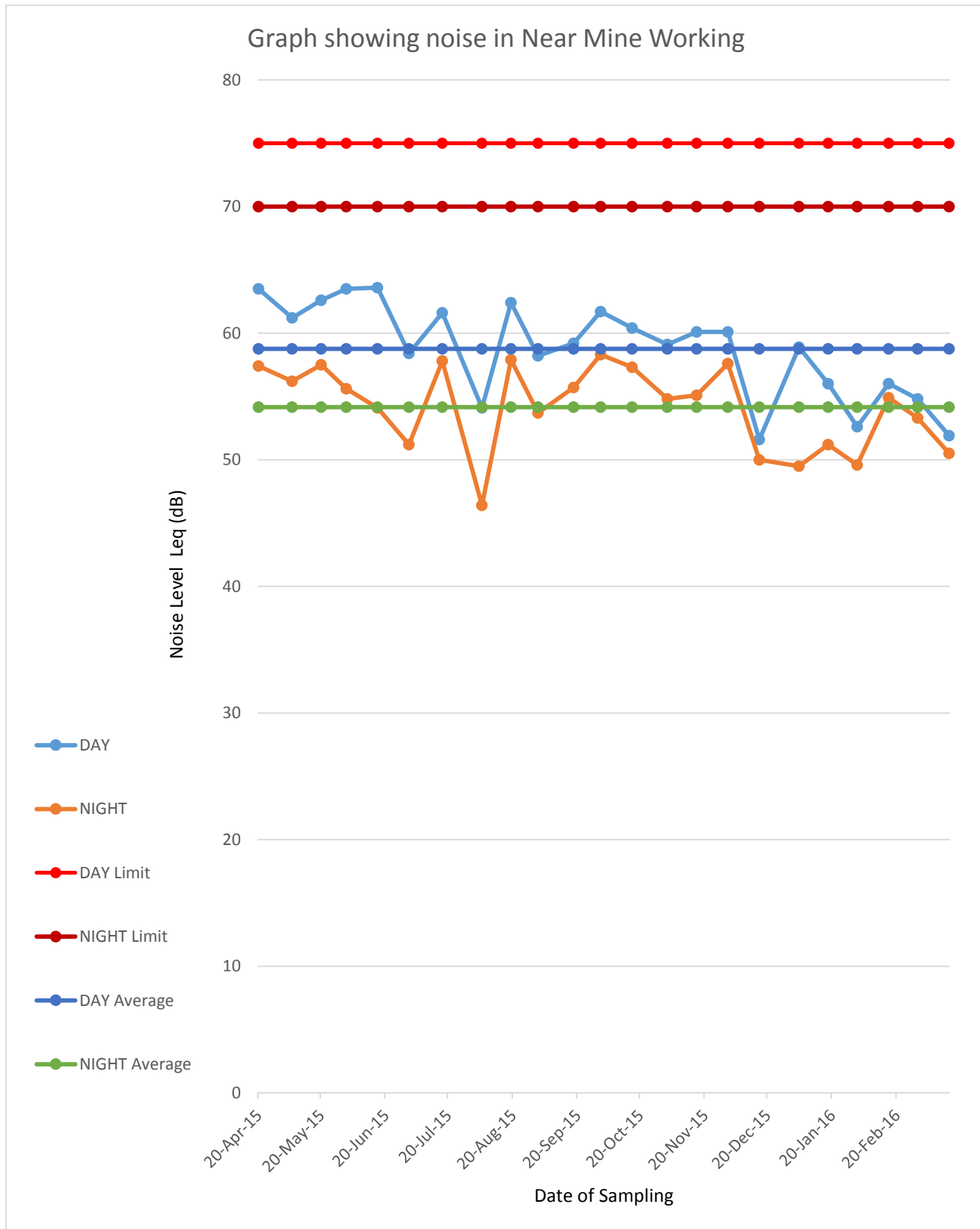
Graph showing noise in Padmabatipur Village



Project: Chhendipada OCP
Monitoring Station: Near Mine Working
Table 68

DATE OF SAMPLING	DAY	NIGHT
20-Apr-15	63.5	57.4
06-May-15	61.2	56.2
20-May-15	62.6	57.5
01-Jun-15	63.5	55.6
16-Jun-15	63.6	54.1
01-Jul-15	58.4	51.2
17-Jul-15	61.6	57.8
05-Aug-15	54.1	46.4
19-Aug-15	62.4	57.9
01-Sep-15	58.2	53.7
18-Sep-15	59.2	55.7
01-Oct-15	61.7	58.3
16-Oct-15	60.4	57.3
02-Nov-15	59.1	54.8
16-Nov-15	60.1	55.1
01-Dec-15	60.1	57.6
16-Dec-15	51.6	50
04-Jan-16	58.9	49.5
18-Jan-16	56	51.2
01-Feb-16	52.6	49.6
16-Feb-16	56	54.9
01-Mar-16	54.8	53.3
16-Mar-16	51.9	50.5
Brief Statistic	Day	Night
Max	63.60	58.30
Min	51.60	46.40
Mean	58.76	54.16
Noise Standard	75	70

All values are in Leq (dB)

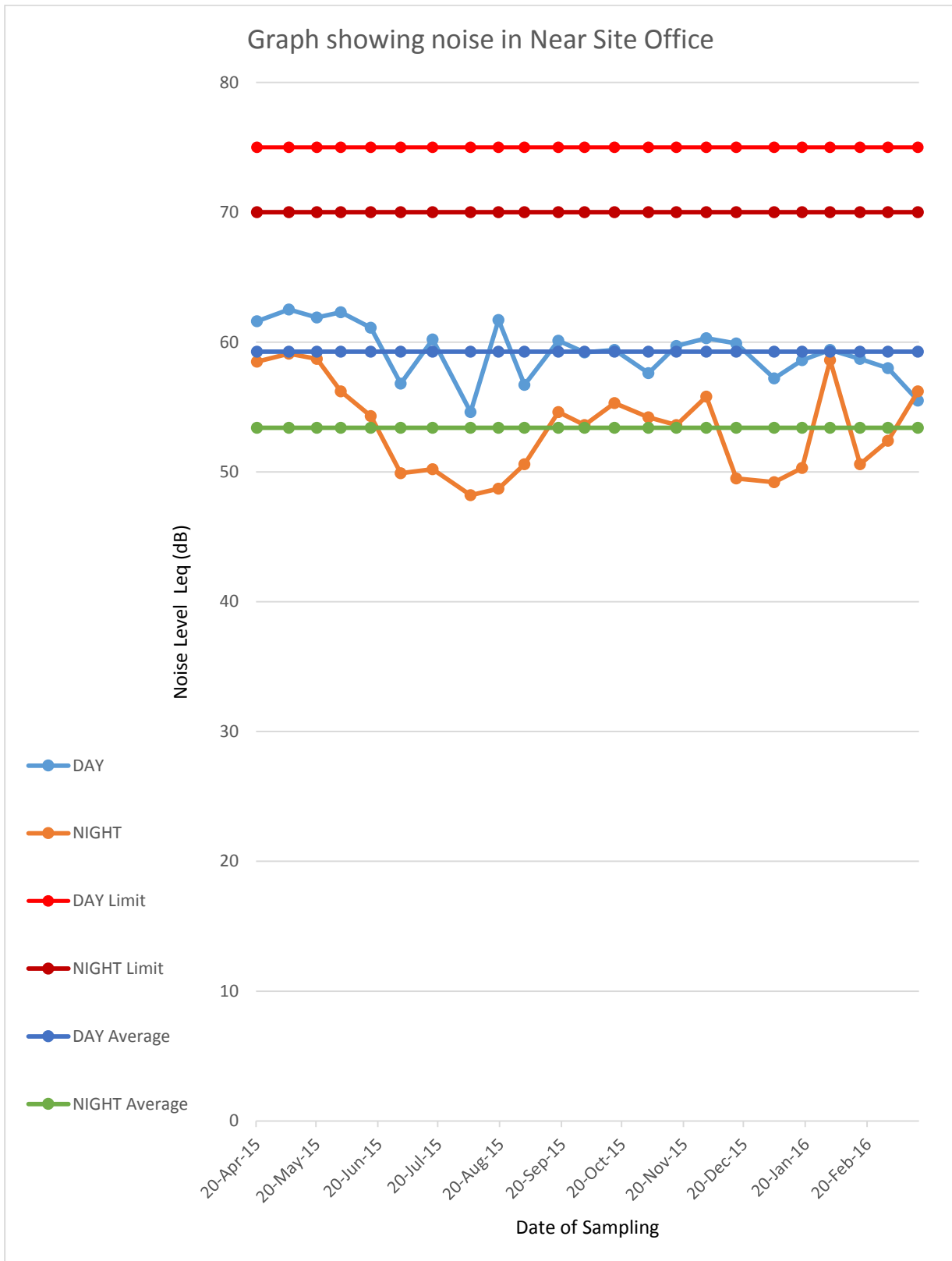


Project: Chhendipada OCP
Monitoring Station: Near Site Office

Table 69

DATE OF SAMPLING	DAY	NIGHT
20-Apr-15	61.6	58.5
06-May-15	62.5	59.1
20-May-15	61.9	58.7
01-Jun-15	62.3	56.2
16-Jun-15	61.1	54.3
01-Jul-15	56.8	49.9
17-Jul-15	60.2	50.2
05-Aug-15	54.6	48.2
19-Aug-15	61.7	48.7
01-Sep-15	56.7	50.6
18-Sep-15	60.1	54.6
01-Oct-15	59.2	53.6
16-Oct-15	59.4	55.3
02-Nov-15	57.6	54.2
16-Nov-15	59.7	53.6
01-Dec-15	60.3	55.8
16-Dec-15	59.9	49.5
04-Jan-16	57.2	49.2
18-Jan-16	58.6	50.3
01-Feb-16	59.4	58.6
16-Feb-16	58.7	50.6
01-Mar-16	58	52.4
16-Mar-16	55.5	56.2
Brief Statistic	Day	Night
Max	62.50	59.10
Min	54.60	48.20
Mean	59.26	53.40
Noise Standard	75	70

All values are in Leq (dB)

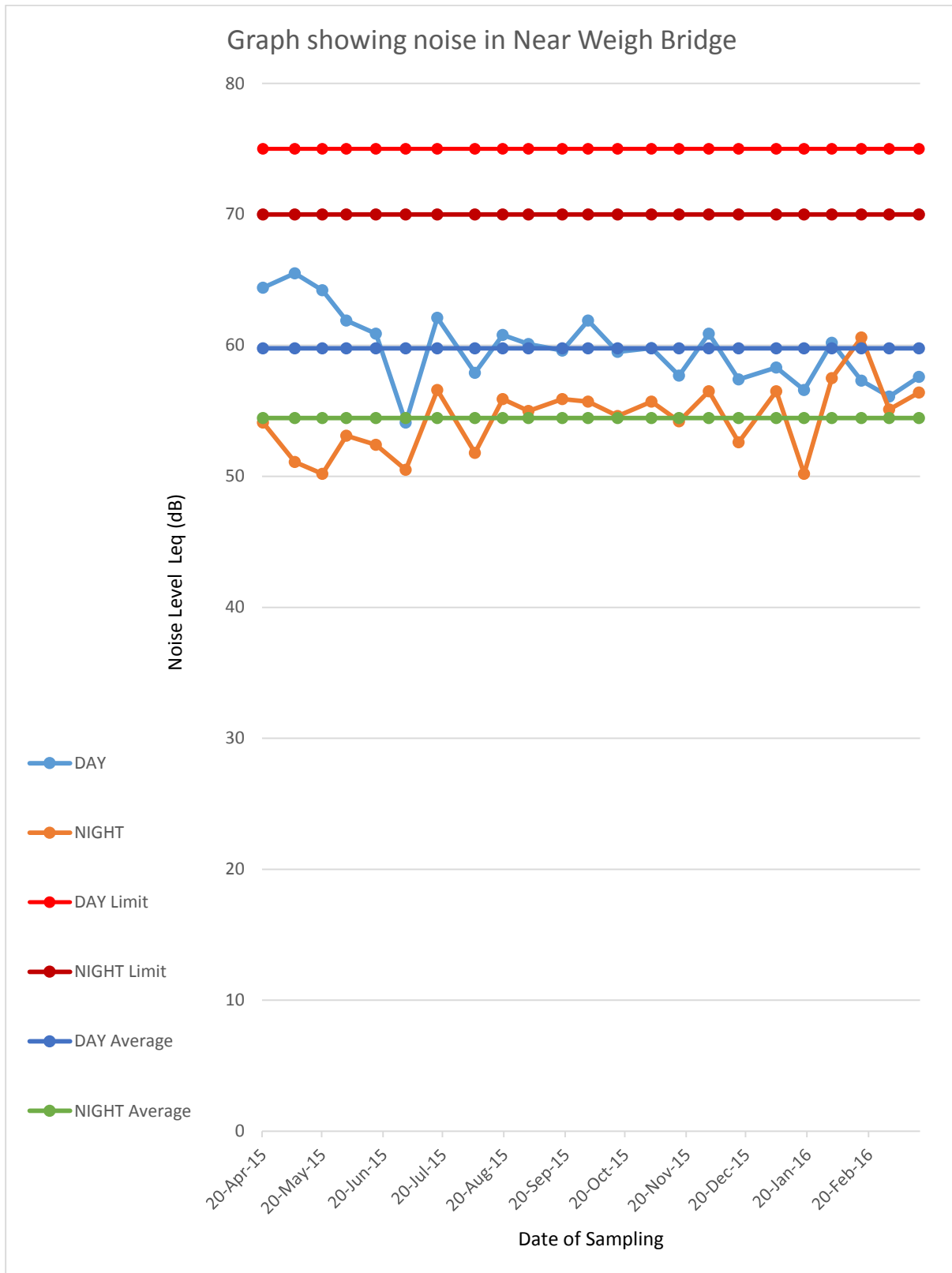


Project: Chhendipada OCP
Monitoring Station: Near Weigh Bridge

Table 70

DATE OF SAMPLING	DAY	NIGHT
20-Apr-15	64.4	54.1
06-May-15	65.5	51.1
20-May-15	64.2	50.2
01-Jun-15	61.9	53.1
16-Jun-15	60.9	52.4
01-Jul-15	54.1	50.5
17-Jul-15	62.1	56.6
05-Aug-15	57.9	51.8
19-Aug-15	60.8	55.9
01-Sep-15	60.1	55
18-Sep-15	59.6	55.9
01-Oct-15	61.9	55.7
16-Oct-15	59.5	54.6
02-Nov-15	59.8	55.7
16-Nov-15	57.7	54.2
01-Dec-15	60.9	56.5
16-Dec-15	57.4	52.6
04-Jan-16	58.3	56.5
18-Jan-16	56.6	50.2
01-Feb-16	60.2	57.5
16-Feb-16	57.3	60.6
01-Mar-16	56.1	55.1
16-Mar-16	57.6	56.4
Brief Statistic	Day	Night
Max	65.50	60.60
Min	54.10	50.20
Mean	59.77	54.44
Noise Standard	75	70

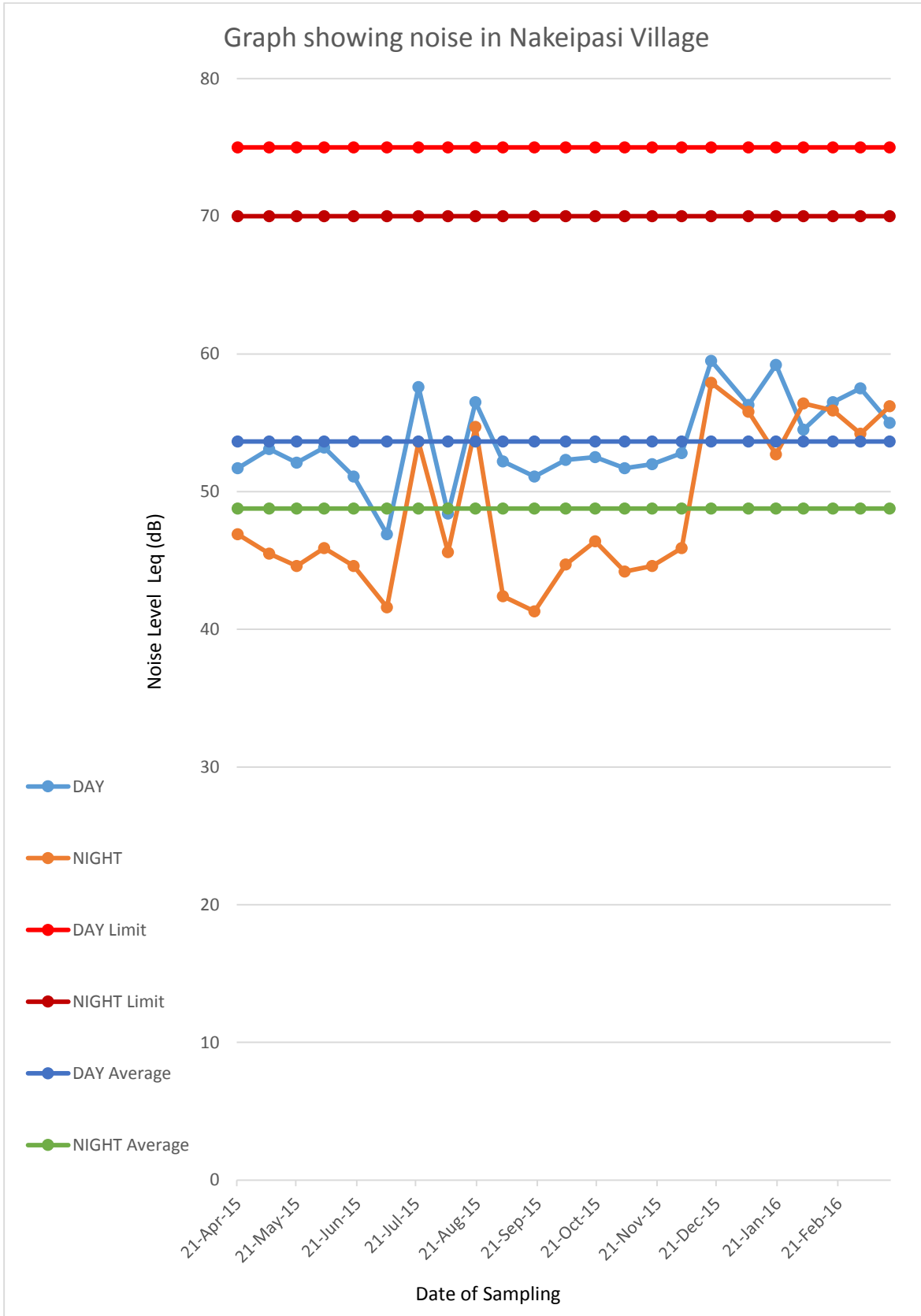
All values are in Leq (dB)



Project: Balram OCP
Monitoring Station: Nakeipasi Village
Table 71

DATE OF SAMPLING	DAY	NIGHT
21-Apr-15	51.7	46.9
07-May-15	53.1	45.5
21-May-15	52.1	44.6
04-Jun-15	53.2	45.9
19-Jun-15	51.1	44.6
06-Jul-15	46.9	41.6
22-Jul-15	57.6	53.6
06-Aug-15	48.4	45.6
20-Aug-15	56.5	54.7
03-Sep-15	52.2	42.4
19-Sep-15	51.1	41.3
05-Oct-15	52.3	44.7
20-Oct-15	52.5	46.4
04-Nov-15	51.7	44.2
18-Nov-15	52	44.6
03-Dec-15	52.8	45.9
18-Dec-15	59.5	57.9
06-Jan-16	56.3	55.8
20-Jan-16	59.2	52.7
03-Feb-16	54.5	56.4
18-Feb-16	56.5	55.9
03-Mar-16	57.5	54.2
18-Mar-16	55	56.2
Brief Statistic	Day	Night
Max	59.50	57.90
Min	46.90	41.30
Mean	53.64	48.77
Noise Standard	75	70

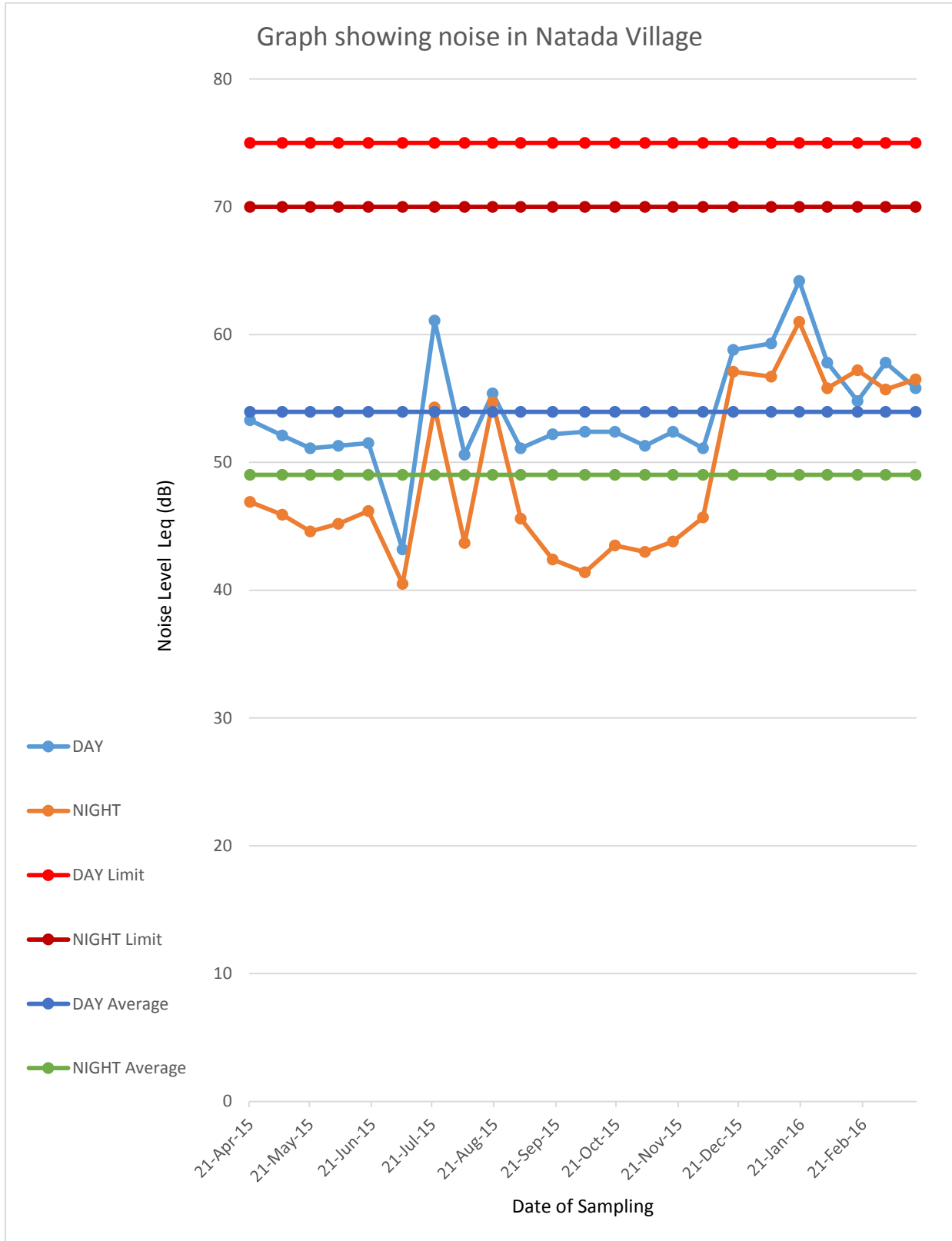
All values are in Leq (dB)



Project: Balram OCP
Monitoring Station: Natada Village
Table 72

DATE OF SAMPLING	DAY	NIGHT
21-Apr-15	53.3	46.9
07-May-15	52.1	45.9
21-May-15	51.1	44.6
04-Jun-15	51.3	45.2
19-Jun-15	51.5	46.2
06-Jul-15	43.2	40.5
22-Jul-15	61.1	54.3
06-Aug-15	50.6	43.7
20-Aug-15	55.4	54.7
03-Sep-15	51.1	45.6
19-Sep-15	52.2	42.4
05-Oct-15	52.4	41.4
20-Oct-15	52.4	43.5
04-Nov-15	51.3	43
18-Nov-15	52.4	43.8
03-Dec-15	51.1	45.7
18-Dec-15	58.8	57.1
06-Jan-16	59.3	56.7
20-Jan-16	64.2	61
03-Feb-16	57.8	55.8
18-Feb-16	54.8	57.2
03-Mar-16	57.8	55.7
18-Mar-16	55.8	56.5
Brief Statistic	Day	Night
Max	64.20	61.00
Min	43.20	40.50
Mean	53.96	49.02
Noise Standard	75	70

All values are in Leq (dB)

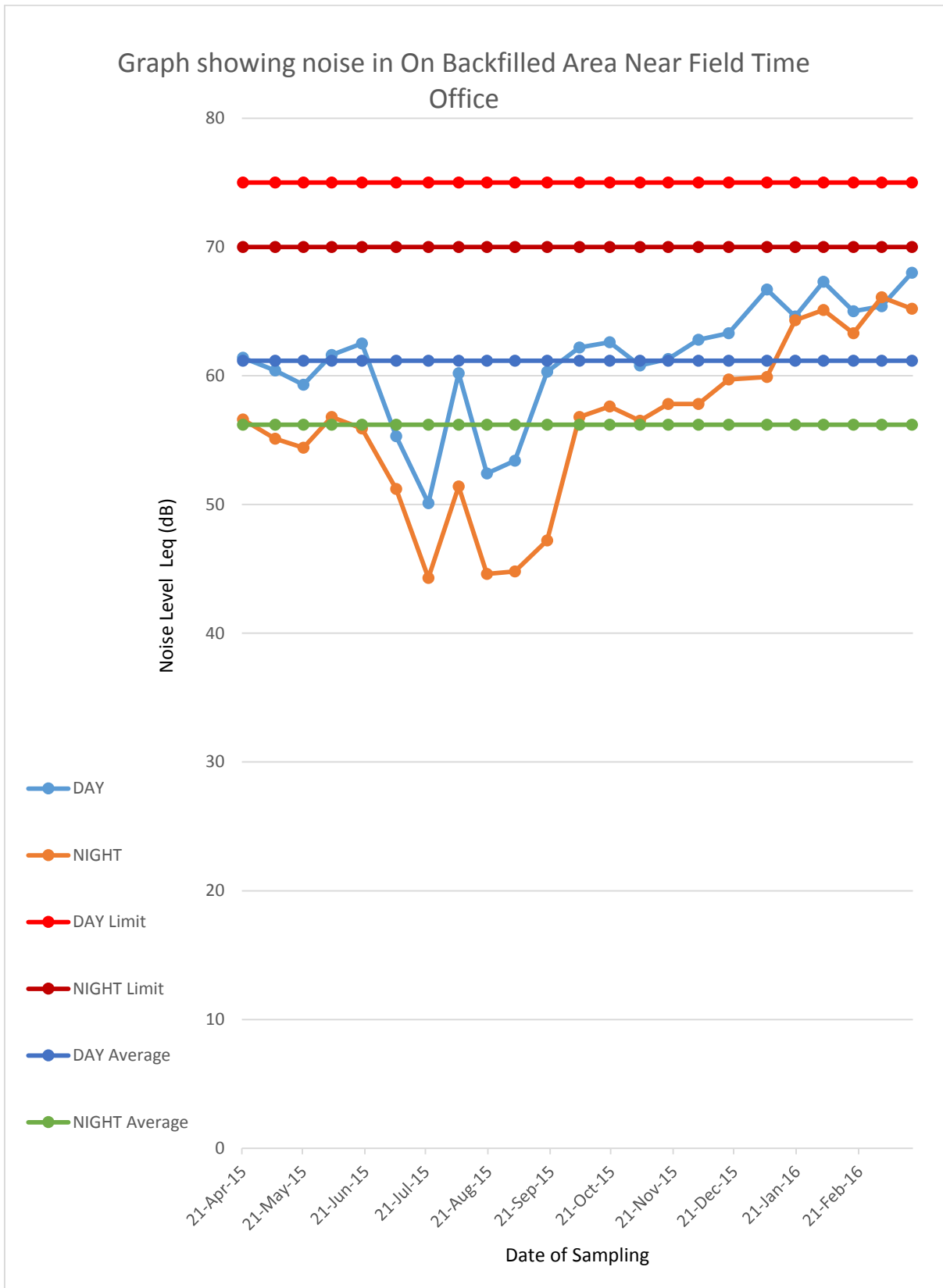


Project: Balram OCP
Monitoring Station: On backfilled area near field time office
Table 73

DATE OF SAMPLING	DAY	NIGHT
21-Apr-15	61.4	56.6
07-May-15	60.4	55.1
21-May-15	59.3	54.4
04-Jun-15	61.6	56.8
19-Jun-15	62.5	55.9
06-Jul-15	55.3	51.2
22-Jul-15	50.1	44.3
06-Aug-15	60.2	51.4
20-Aug-15	52.4	44.6
03-Sep-15	53.4	44.8
19-Sep-15	60.3	47.2
05-Oct-15	62.2	56.8
20-Oct-15	62.6	57.6
04-Nov-15	60.8	56.5
18-Nov-15	61.3	57.8
03-Dec-15	62.8	57.8
18-Dec-15	63.3	59.7
06-Jan-16	66.7	59.9
20-Jan-16	64.6	64.3
03-Feb-16	67.3	65.1
18-Feb-16	65	63.3
03-Mar-16	65.4	66.1
18-Mar-16	68	65.2
Brief Statistic	Day	Night
Max	68.00	66.10
Min	50.10	44.30
Mean	61.17	56.19
Noise Standard	75	70

All values are in Leq (dB)

Graph showing noise in On Backfilled Area Near Field Time Office



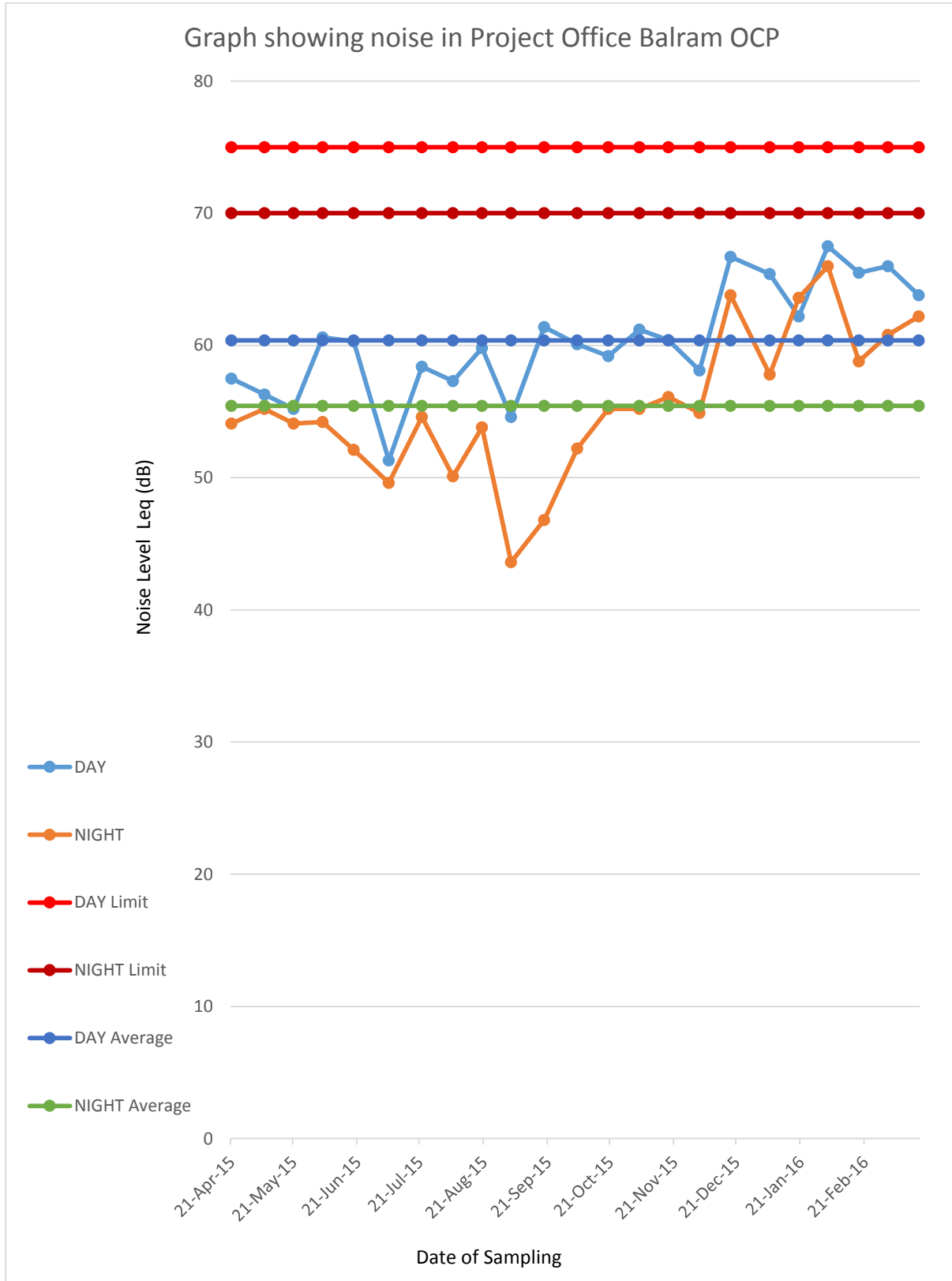
Project: Balram OCP
Monitoring Station: Project Office Balram OCP

Table 74

DATE OF SAMPLING	DAY	NIGHT
21-Apr-15	57.5	54.1
07-May-15	56.3	55.2
21-May-15	55.2	54.1
04-Jun-15	60.6	54.2
19-Jun-15	60.3	52.1
06-Jul-15	51.3	49.6
22-Jul-15	58.4	54.6
06-Aug-15	57.3	50.1
20-Aug-15	59.8	53.8
03-Sep-15	54.6	43.6
19-Sep-15	61.4	46.8
05-Oct-15	60.1	52.2
20-Oct-15	59.2	55.2
04-Nov-15	61.2	55.2
18-Nov-15	60.4	56.1
03-Dec-15	58.1	54.9
18-Dec-15	66.7	63.8
06-Jan-16	65.4	57.8
20-Jan-16	62.2	63.6
03-Feb-16	67.5	66
18-Feb-16	65.5	58.8
03-Mar-16	66	60.8
18-Mar-16	63.8	62.2
Brief Statistic	Day	Night
Max	67.5	66
Min	51.3	43.6
Mean	60.38261	55.42609
Noise Standard	75	70

All values are in Leq (dB)

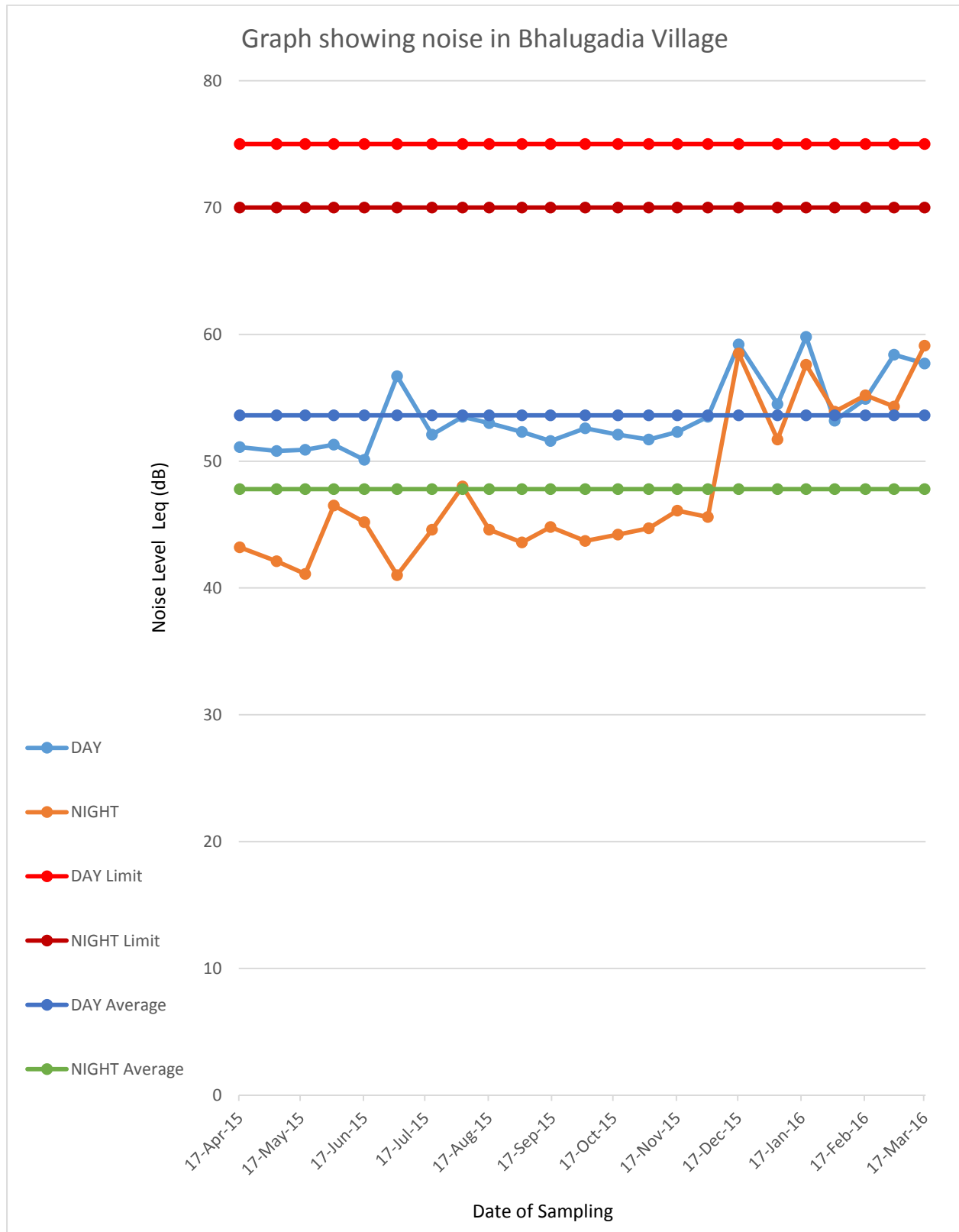
Graph showing noise in Project Office Balram OCP



Project: Hingula OCP
Monitoring Station: Bhalugadia Village
Table 75

DATE OF SAMPLING	DAY	NIGHT
17-Apr-15	51.1	43.2
05-May-15	50.8	42.1
19-May-15	50.9	41.1
02-Jun-15	51.3	46.5
17-Jun-15	50.1	45.2
03-Jul-15	56.7	41
20-Jul-15	52.1	44.6
04-Aug-15	53.5	48
17-Aug-15	53	44.6
02-Sep-15	52.3	43.6
16-Sep-15	51.6	44.8
03-Oct-15	52.6	43.7
19-Oct-15	52.1	44.2
03-Nov-15	51.7	44.7
17-Nov-15	52.3	46.1
02-Dec-15	53.5	45.6
17-Dec-15	59.2	58.5
05-Jan-16	54.5	51.7
19-Jan-16	59.8	57.6
02-Feb-16	53.2	53.9
17-Feb-16	54.9	55.2
02-Mar-16	58.4	54.3
17-Mar-16	57.7	59.1
Brief Statistic	Day	Night
Max	59.80	59.10
Min	50.10	41.00
Mean	53.62	47.80
Noise Standard	75	70

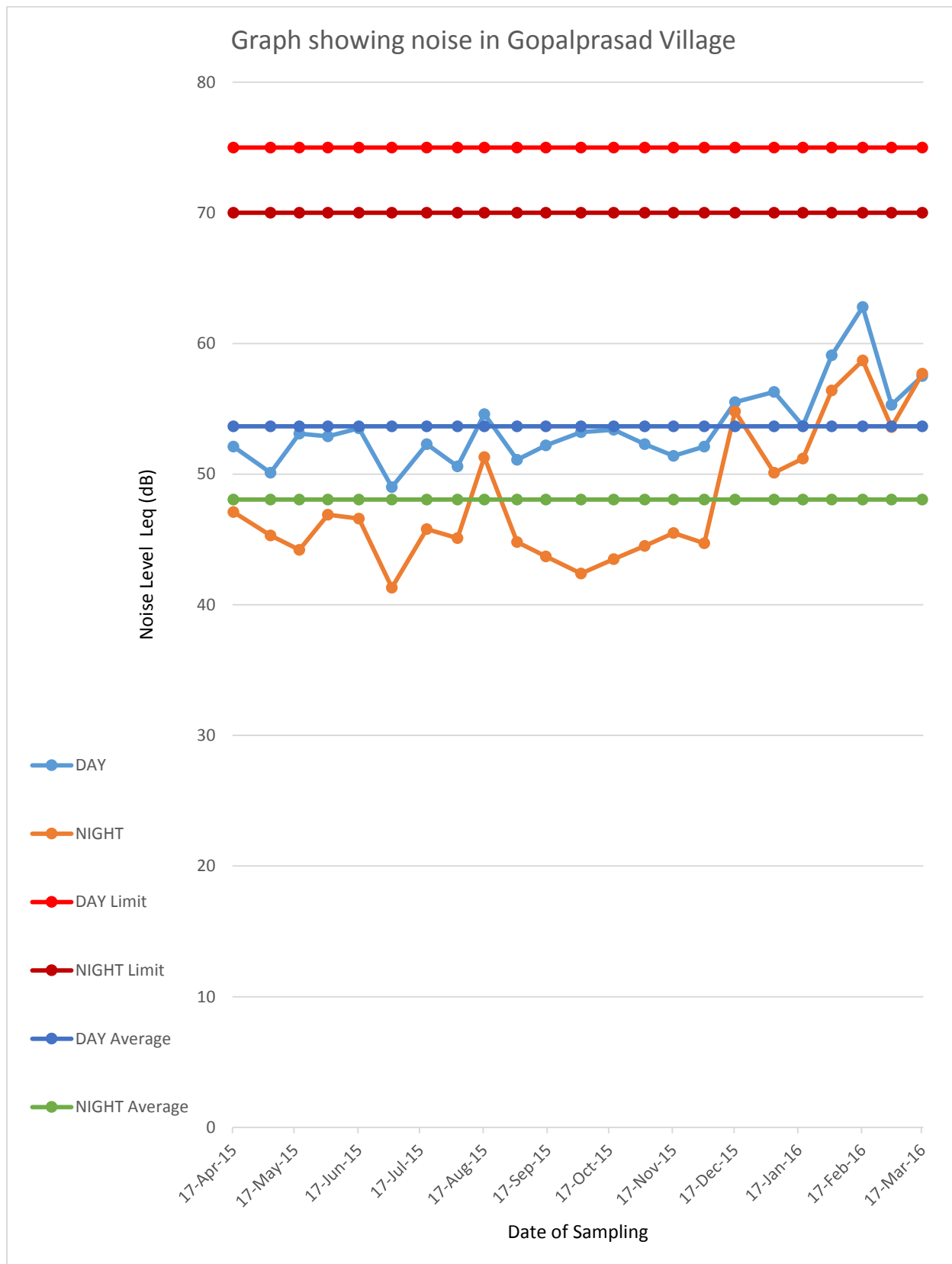
All values are in Leq (dB)



Project: Hingula OCP
Monitoring Station: Gopalprasad Village
Table 76

DATE OF SAMPLING	DAY	NIGHT
17-Apr-15	52.1	47.1
05-May-15	50.1	45.3
19-May-15	53.1	44.2
02-Jun-15	52.9	46.9
17-Jun-15	53.5	46.6
03-Jul-15	49	41.3
20-Jul-15	52.3	45.8
04-Aug-15	50.6	45.1
17-Aug-15	54.6	51.3
02-Sep-15	51.1	44.8
16-Sep-15	52.2	43.7
03-Oct-15	53.2	42.4
19-Oct-15	53.4	43.5
03-Nov-15	52.3	44.5
17-Nov-15	51.4	45.5
02-Dec-15	52.1	44.7
17-Dec-15	55.5	54.8
05-Jan-16	56.3	50.1
19-Jan-16	53.7	51.2
02-Feb-16	59.1	56.4
17-Feb-16	62.8	58.7
02-Mar-16	55.3	53.6
17-Mar-16	57.5	57.7
Brief Statistic	Day	Night
Max	62.80	58.70
Min	49.00	41.30
Mean	53.66	48.05
Noise Standard	75	70

All values are in Leq (dB)



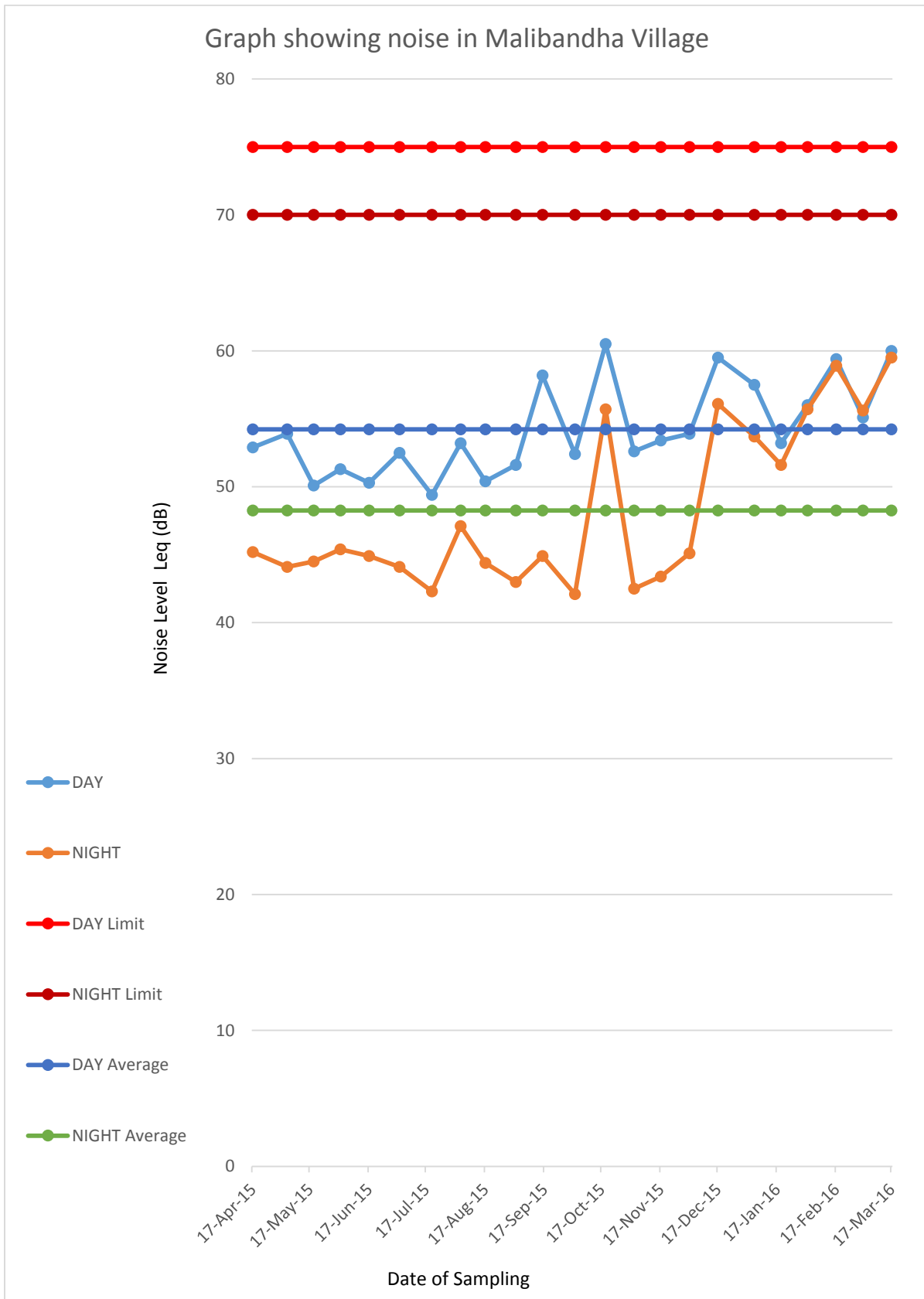
Project: Hingula OCP
Monitoring Station: Malibandha Village

Table 77

DATE OF SAMPLING	DAY	NIGHT
17-Apr-15	52.9	45.2
05-May-15	53.9	44.1
19-May-15	50.1	44.5
02-Jun-15	51.3	45.4
17-Jun-15	50.3	44.9
03-Jul-15	52.5	44.1
20-Jul-15	49.4	42.3
04-Aug-15	53.2	47.1
17-Aug-15	50.4	44.4
02-Sep-15	51.6	43
16-Sep-15	58.2	44.9
03-Oct-15	52.4	42.1
19-Oct-15	60.5	55.7
03-Nov-15	52.6	42.5
17-Nov-15	53.4	43.4
02-Dec-15	53.9	45.1
17-Dec-15	59.5	56.1
05-Jan-16	57.5	53.7
19-Jan-16	53.2	51.6
02-Feb-16	56	55.7
17-Feb-16	59.4	58.9
02-Mar-16	55.1	55.6
17-Mar-16	60	59.5
Brief Statistic	Day	Night
Max	60.50	59.50
Min	49.40	42.10
Mean	54.23	48.25
Noise Standard	75	70

All values are in Leq (dB)

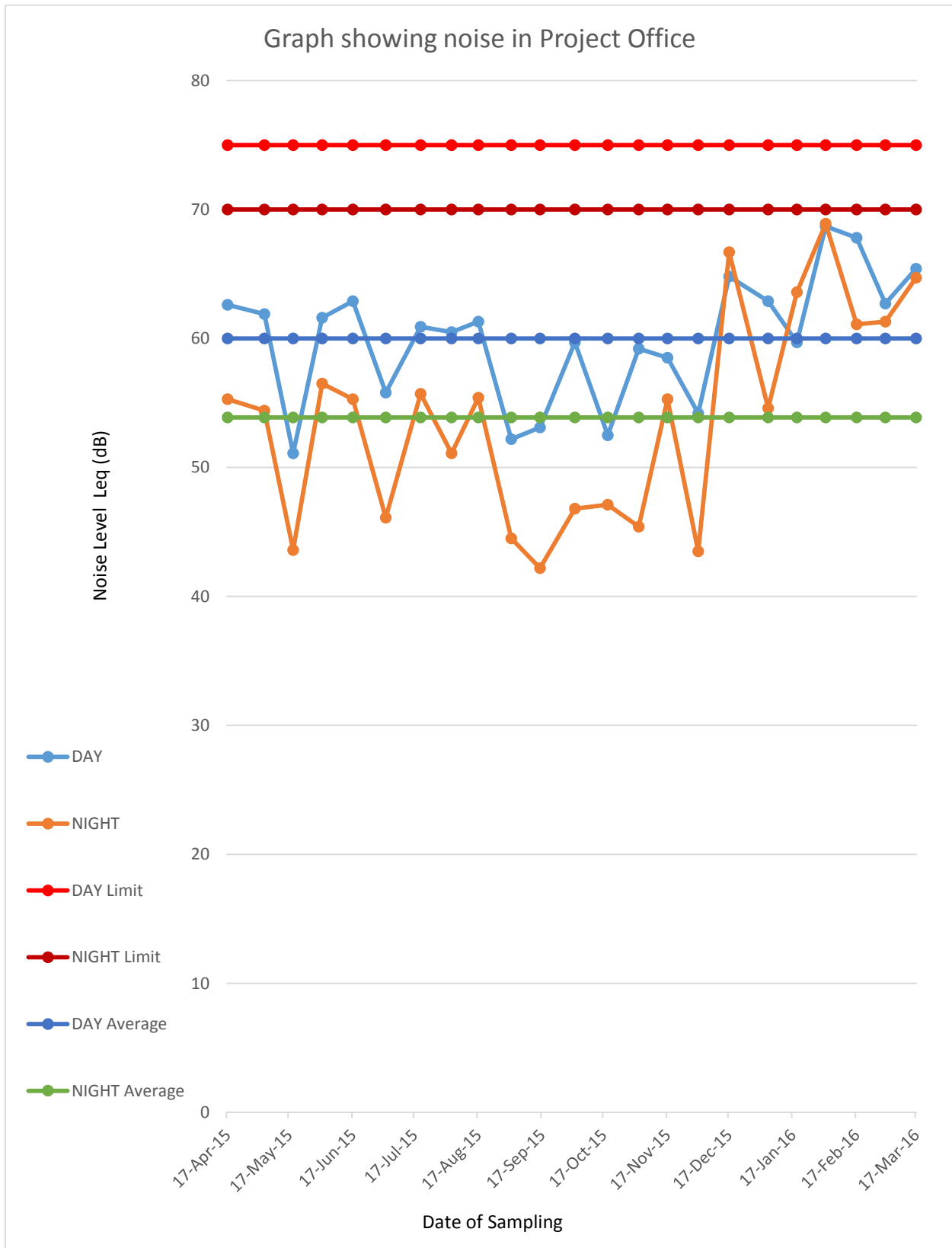
Graph showing noise in Malibandha Village



Project: Hingula OCP
Monitoring Station: Project Office
Table 78

DATE OF SAMPLING	DAY	NIGHT
17-Apr-15	62.6	55.3
05-May-15	61.9	54.4
19-May-15	51.1	43.6
02-Jun-15	61.6	56.5
17-Jun-15	62.9	55.3
03-Jul-15	55.8	46.1
20-Jul-15	60.9	55.7
04-Aug-15	60.5	51.1
17-Aug-15	61.3	55.4
02-Sep-15	52.2	44.5
16-Sep-15	53.1	42.2
03-Oct-15	59.7	46.8
19-Oct-15	52.5	47.1
03-Nov-15	59.2	45.4
17-Nov-15	58.5	55.3
02-Dec-15	54.2	43.5
17-Dec-15	64.8	66.7
05-Jan-16	62.9	54.6
19-Jan-16	59.7	63.6
02-Feb-16	68.7	68.9
17-Feb-16	67.8	61.1
02-Mar-16	62.7	61.3
17-Mar-16	65.4	64.7
Brief Statistic	Day	Night
Max	68.70	68.90
Min	51.10	42.20
Mean	60.00	53.87
Noise Standard	75	70

All values are in Leq (dB)

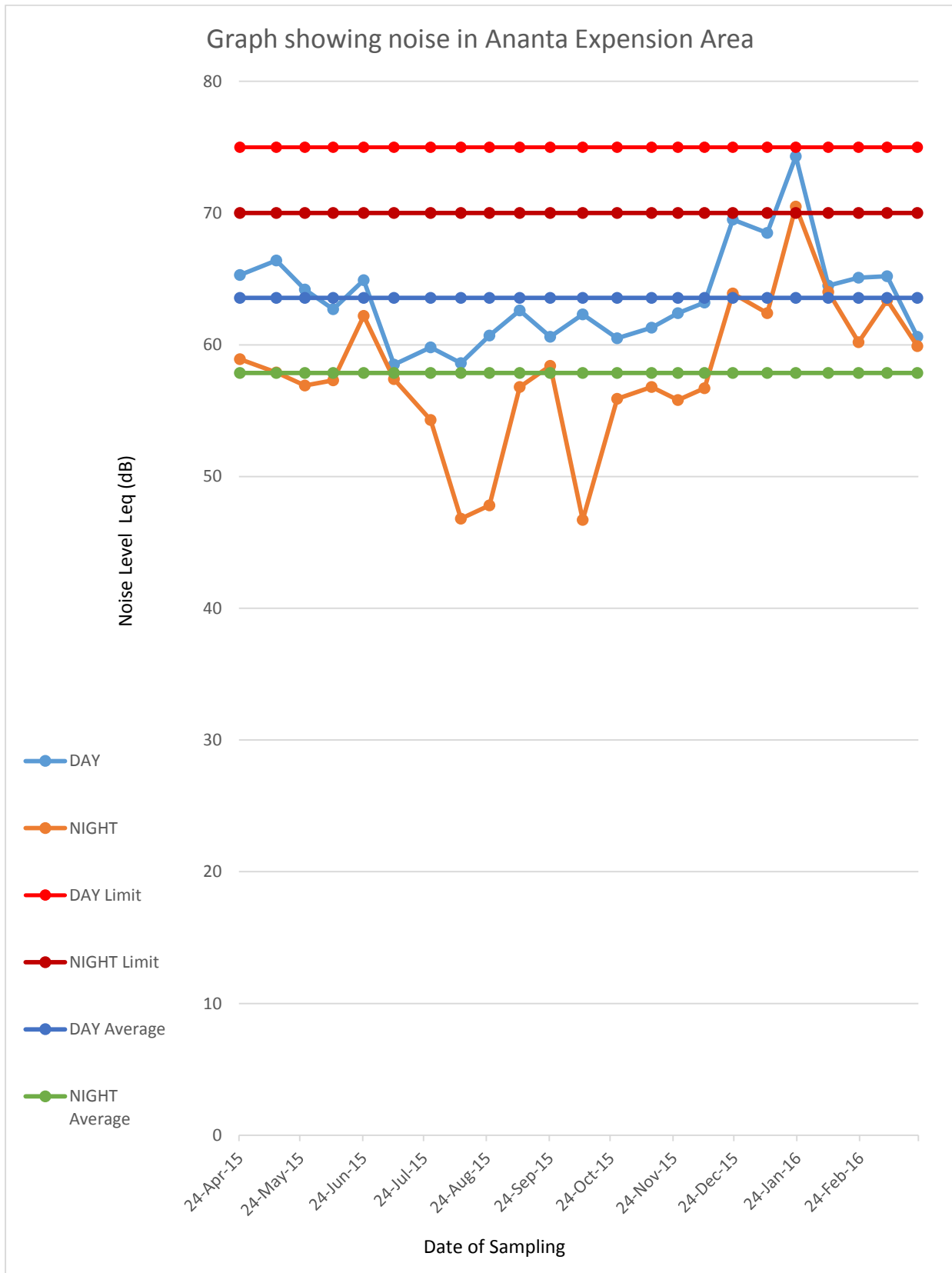


Project: Ananta OCP
Monitoring Station: Ananta expansion area (A1)

Table 79

DATE OF SAMPLING	DAY	NIGHT
24-Apr-15	65.3	58.9
12-May-15	66.4	57.9
26-May-15	64.2	56.9
09-Jun-15	62.7	57.3
24-Jun-15	64.9	62.2
09-Jul-15	58.5	57.4
27-Jul-15	59.8	54.3
11-Aug-15	58.6	46.8
25-Aug-15	60.7	47.8
09-Sep-15	62.6	56.8
24-Sep-15	60.6	58.4
10-Oct-15	62.3	46.7
27-Oct-15	60.5	55.9
13-Nov-15	61.3	56.8
26-Nov-15	62.4	55.8
09-Dec-15	63.2	56.7
23-Dec-15	69.5	63.9
09-Jan-16	68.5	62.4
23-Jan-16	74.3	70.5
08-Feb-16	64.5	64
23-Feb-16	65.1	60.2
08-Mar-16	65.2	63.4
23-Mar-16	60.6	59.9
Brief Statistic	Day	Night
Maximum	74.3	70.5
Minimum	58.5	46.7
Mean	63.55	57.87
Noise Standard	75	70

All values are in Leq (dB)



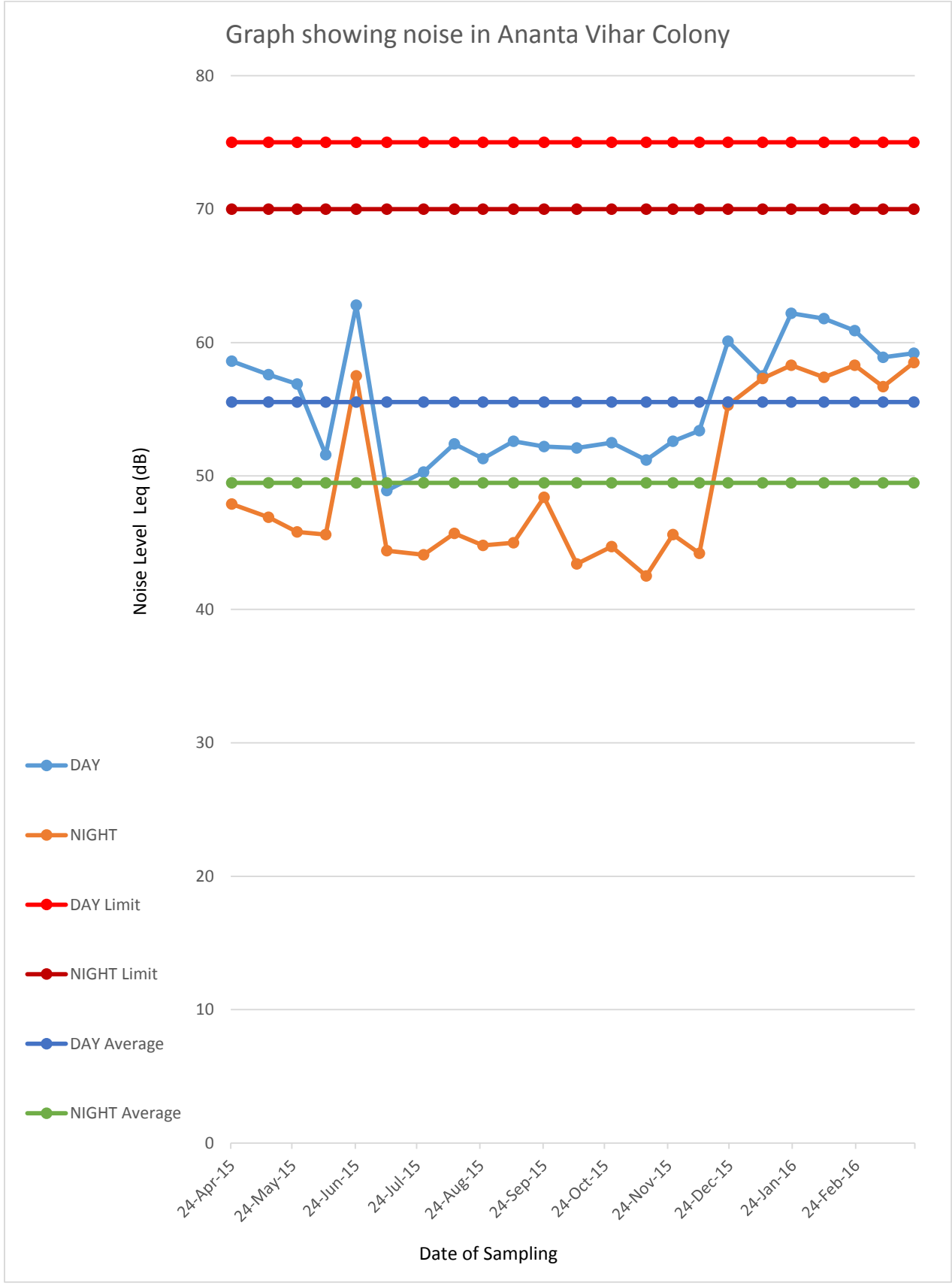
Project: Ananta OCP
Monitoring Station: Ananta Vihar Colony

Table 80

DATE OF SAMPLING	DAY	NIGHT
24-Apr-15	58.6	47.9
12-May-15	57.6	46.9
26-May-15	56.9	45.8
09-Jun-15	51.6	45.6
24-Jun-15	62.8	57.5
09-Jul-15	48.9	44.4
27-Jul-15	50.3	44.1
11-Aug-15	52.4	45.7
25-Aug-15	51.3	44.8
09-Sep-15	52.6	45
24-Sep-15	52.2	48.4
10-Oct-15	52.1	43.4
27-Oct-15	52.5	44.7
13-Nov-15	51.2	42.5
26-Nov-15	52.6	45.6
09-Dec-15	53.4	44.2
23-Dec-15	60.1	55.3
09-Jan-16	57.5	57.3
23-Jan-16	62.2	58.3
08-Feb-16	61.8	57.4
23-Feb-16	60.9	58.3
08-Mar-16	58.9	56.7
23-Mar-16	59.2	58.5
Brief Statistic	Day	Night
Maximum	62.8	58.5
Minimum	48.9	42.5
Mean	55.55	49.49
Noise Standard	75	70

All values are in Leq (dB)

Graph showing noise in Ananta Vihar Colony



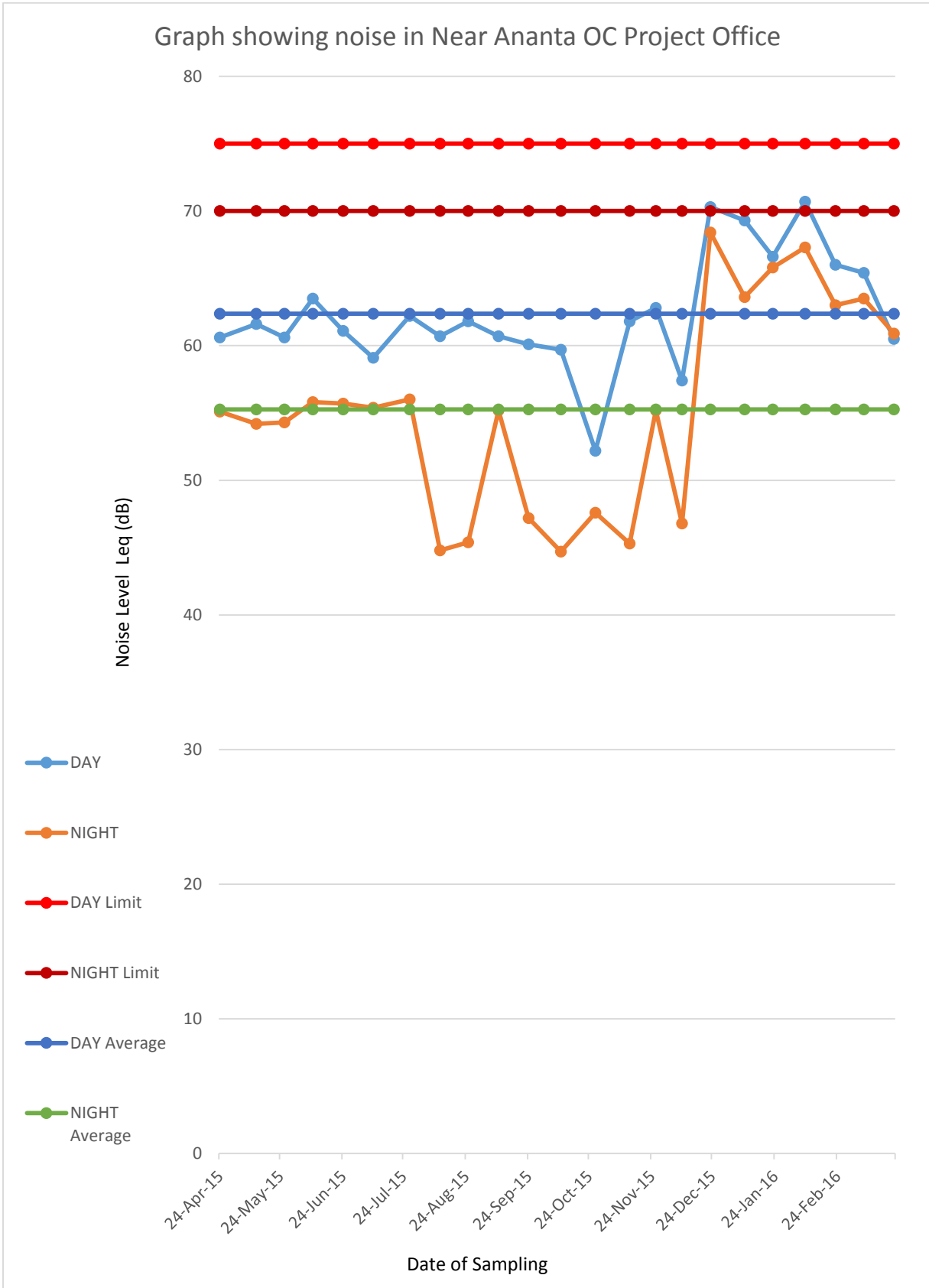
Project: Ananta OCP
Monitoring Station: Near Ananta OC Project Office (A3)

Table 81

DATE OF SAMPLING	DAY	NIGHT
24-Apr-15	60.6	55.1
12-May-15	61.6	54.2
26-May-15	60.6	54.3
09-Jun-15	63.5	55.8
24-Jun-15	61.1	55.7
09-Jul-15	59.1	55.4
27-Jul-15	62.2	56
11-Aug-15	60.7	44.8
25-Aug-15	61.8	45.4
09-Sep-15	60.7	55.2
24-Sep-15	60.1	47.2
10-Oct-15	59.7	44.7
27-Oct-15	52.2	47.6
13-Nov-15	61.8	45.3
26-Nov-15	62.8	55.2
09-Dec-15	57.4	46.8
23-Dec-15	70.3	68.4
09-Jan-16	69.3	63.6
23-Jan-16	66.6	65.8
08-Feb-16	70.7	67.3
23-Feb-16	66	63
08-Mar-16	65.4	63.5
23-Mar-16	60.5	60.9
Brief Statistic	Day	Night
Maximum	70.7	68.4
Minimum	52.2	44.7
Mean	62.38	55.27
Noise Standard	75	70

All values are in Leq (dB)

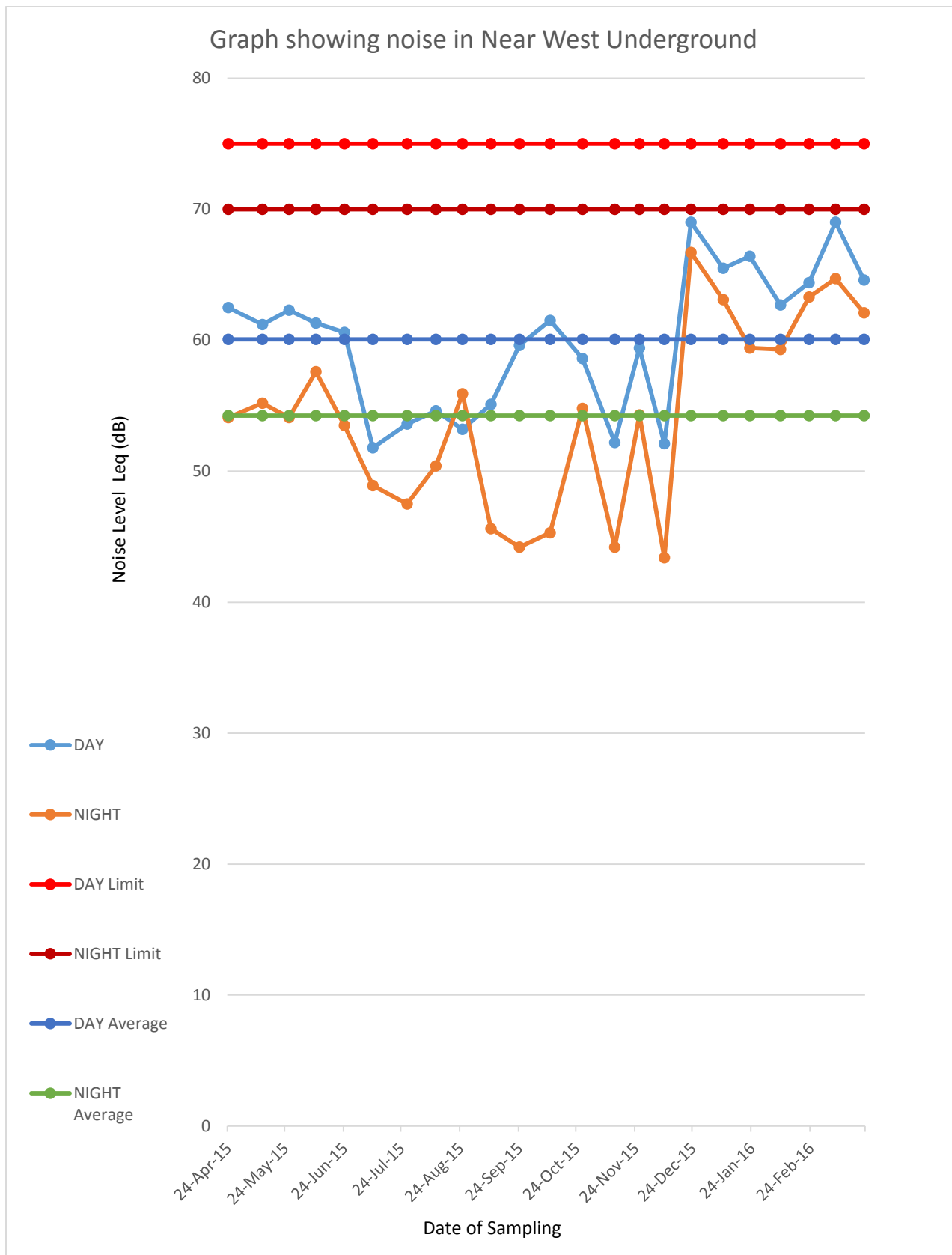
Graph showing noise in Near Ananta OC Project Office



Project: Ananta OCP
Monitoring Station: Near Talcher West underground (A2)
Table 82

DATE OF SAMPLING	DAY	NIGHT
24-Apr-15	62.5	54.1
12-May-15	61.2	55.2
26-May-15	62.3	54.1
09-Jun-15	61.3	57.6
24-Jun-15	60.6	53.5
09-Jul-15	51.8	48.9
27-Jul-15	53.6	47.5
11-Aug-15	54.6	50.4
25-Aug-15	53.2	55.9
09-Sep-15	55.1	45.6
24-Sep-15	59.6	44.2
10-Oct-15	61.5	45.3
27-Oct-15	58.6	54.8
13-Nov-15	52.2	44.2
26-Nov-15	59.4	54.3
09-Dec-15	52.1	43.4
23-Dec-15	69	66.7
09-Jan-16	65.5	63.1
23-Jan-16	66.4	59.4
08-Feb-16	62.7	59.3
23-Feb-16	64.4	63.3
08-Mar-16	69	64.7
23-Mar-16	64.6	62.1
Brief Statistic	Day	Night
Maximum	69	66.7
Minimum	51.8	43.4
Mean	60.05	54.24
Noise Standard	75	70

All values are in Leq (dB)

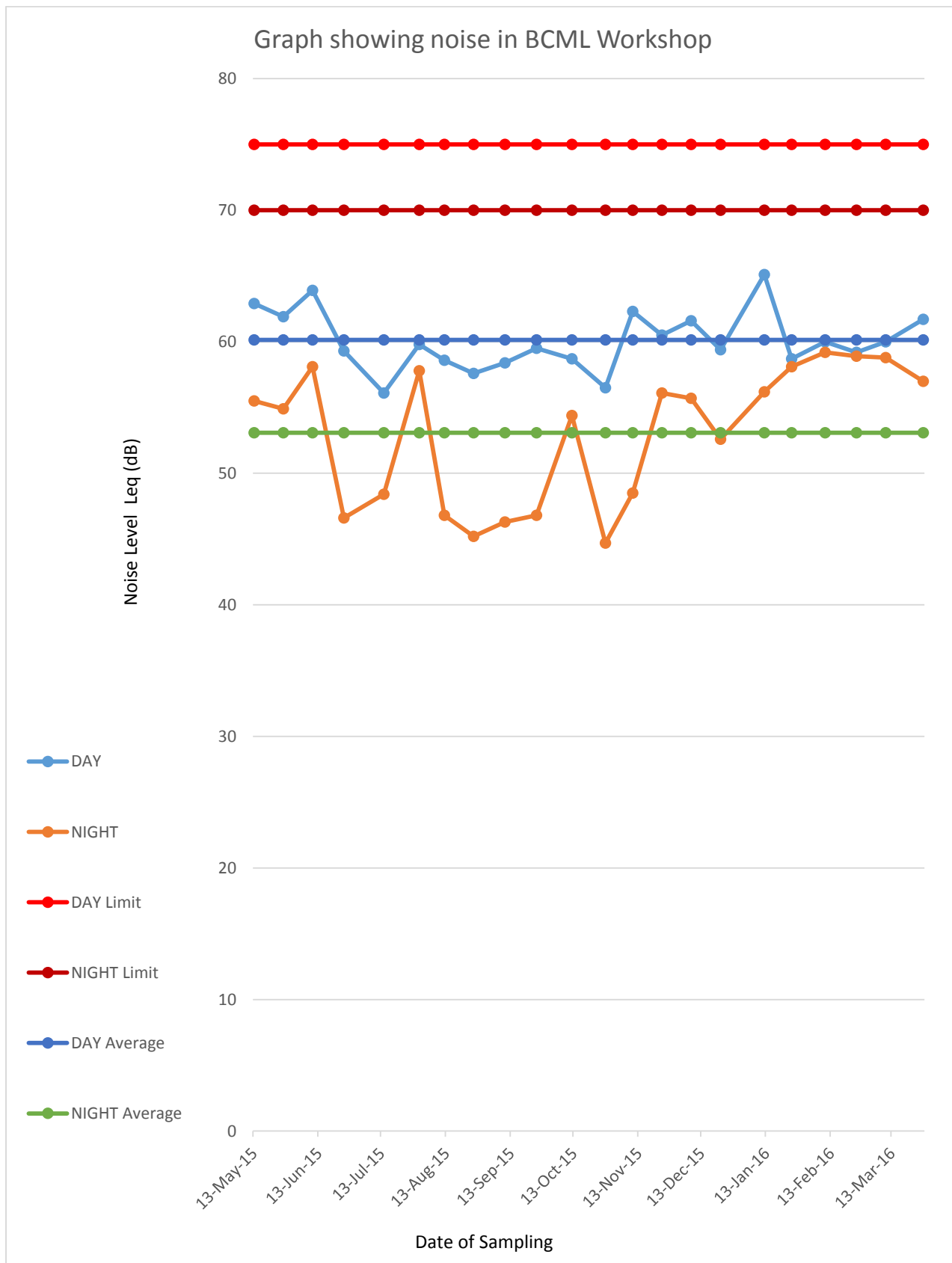


Project: Bhubaneswari OCP
Monitoring Station: B.C.M.L Workshop

Table 83

DATE OF SAMPLING	DAY	NIGHT
27-Apr-15	61.4	54.2
13-May-15	62.9	55.5
27-May-15	61.9	54.9
10-Jun-15	63.9	58.1
25-Jun-15	59.3	46.6
14-Jul-15	56.1	48.4
31-Jul-15	59.8	57.8
12-Aug-15	58.6	46.8
26-Aug-15	57.6	45.2
10-Sep-15	58.4	46.3
25-Sep-15	59.5	46.8
12-Oct-15	58.7	54.4
28-Oct-15	56.5	44.7
10-Nov-15	62.3	48.5
24-Nov-15	60.5	56.1
08-Dec-15	61.6	55.7
22-Dec-15	59.4	52.6
12-Jan-16	65.1	56.2
25-Jan-16	58.7	58.1
10-Feb-16	60	59.2
25-Feb-16	59.2	58.9
10-Mar-16	60	58.8
28-Mar-16	61.7	57
Brief Statistic	Day	Night
Maximum	65.1	59.2
Minimum	56.1	44.7
Mean	60.13	53.08
Noise Standard	75	70

All values are in Leq (dB)

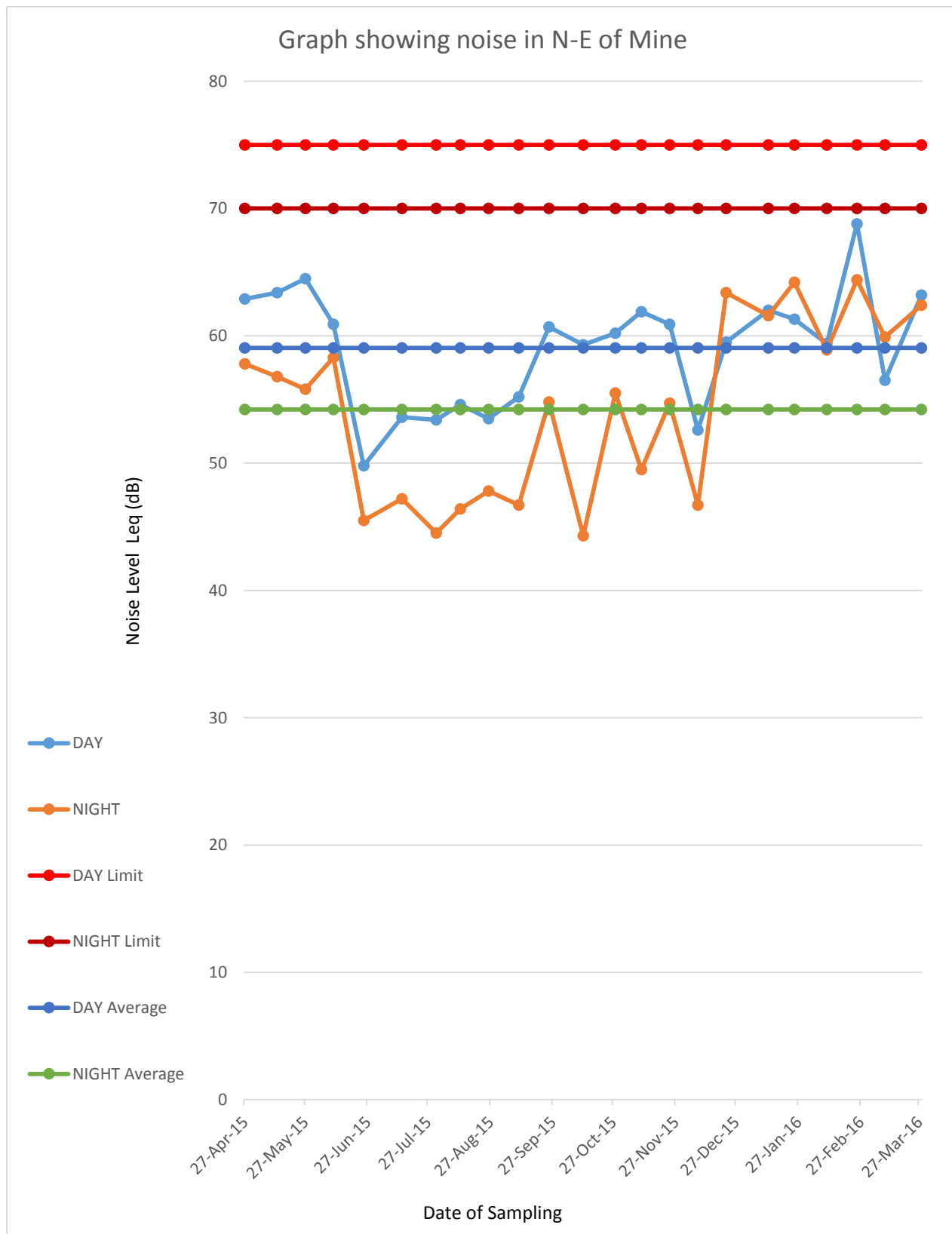


Project: Bhubaneswari OCP
Monitoring Station: N-E of Mine (A1)

Table 84

DATE OF SAMPLING	DAY	NIGHT
27-Apr-15	62.9	57.8
13-May-15	63.4	56.8
27-May-15	64.5	55.8
10-Jun-15	60.9	58.3
25-Jun-15	49.8	45.5
14-Jul-15	53.6	47.2
31-Jul-15	53.4	44.5
12-Aug-15	54.6	46.4
26-Aug-15	53.5	47.8
10-Sep-15	55.2	46.7
25-Sep-15	60.7	54.8
12-Oct-15	59.3	44.3
28-Oct-15	60.2	55.5
10-Nov-15	61.9	49.5
24-Nov-15	60.9	54.7
08-Dec-15	52.6	46.7
22-Dec-15	59.5	63.4
12-Jan-16	62	61.6
25-Jan-16	61.3	64.2
10-Feb-16	59.4	58.9
25-Feb-16	68.8	64.4
10-Mar-16	56.5	59.9
28-Mar-16	63.2	62.4
Brief Statistic	Day	Night
Maximum	68.8	64.4
Minimum	49.8	44.3
Mean	59.05	54.22
Noise Standard	75	70

All values are in Leq (dB)

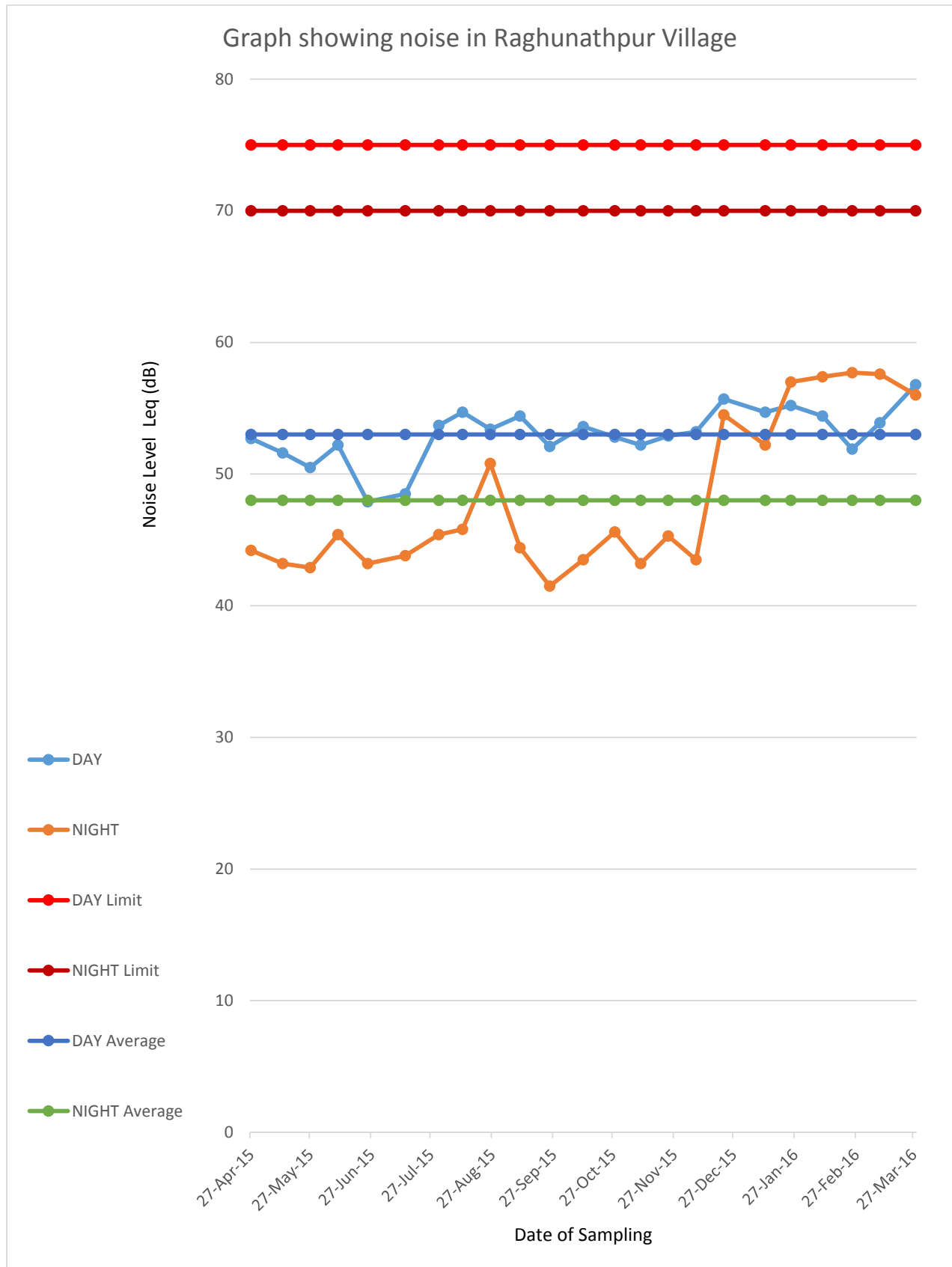


Project: Bhubaneswari OCP
Monitoring Station: Raghunathpur Village

Table 85

DATE OF SAMPLING	DAY	NIGHT
27-Apr-15	52.7	44.2
13-May-15	51.6	43.2
27-May-15	50.5	42.9
10-Jun-15	52.2	45.4
25-Jun-15	47.9	43.2
14-Jul-15	48.5	43.8
31-Jul-15	53.7	45.4
12-Aug-15	54.7	45.8
26-Aug-15	53.4	50.8
10-Sep-15	54.4	44.4
25-Sep-15	52.1	41.5
12-Oct-15	53.6	43.5
28-Oct-15	52.8	45.6
10-Nov-15	52.2	43.2
24-Nov-15	52.9	45.3
08-Dec-15	53.2	43.5
22-Dec-15	55.7	54.5
12-Jan-16	54.7	52.2
25-Jan-16	55.2	57
10-Feb-16	54.4	57.4
25-Feb-16	51.9	57.7
10-Mar-16	53.9	57.6
28-Mar-16	56.8	56
Brief Statistic	Day	Night
Maximum	56.8	57.7
Minimum	47.9	41.5
Mean	53.00	48.00
Noise Standard	75	70

All values are in Leq (dB)

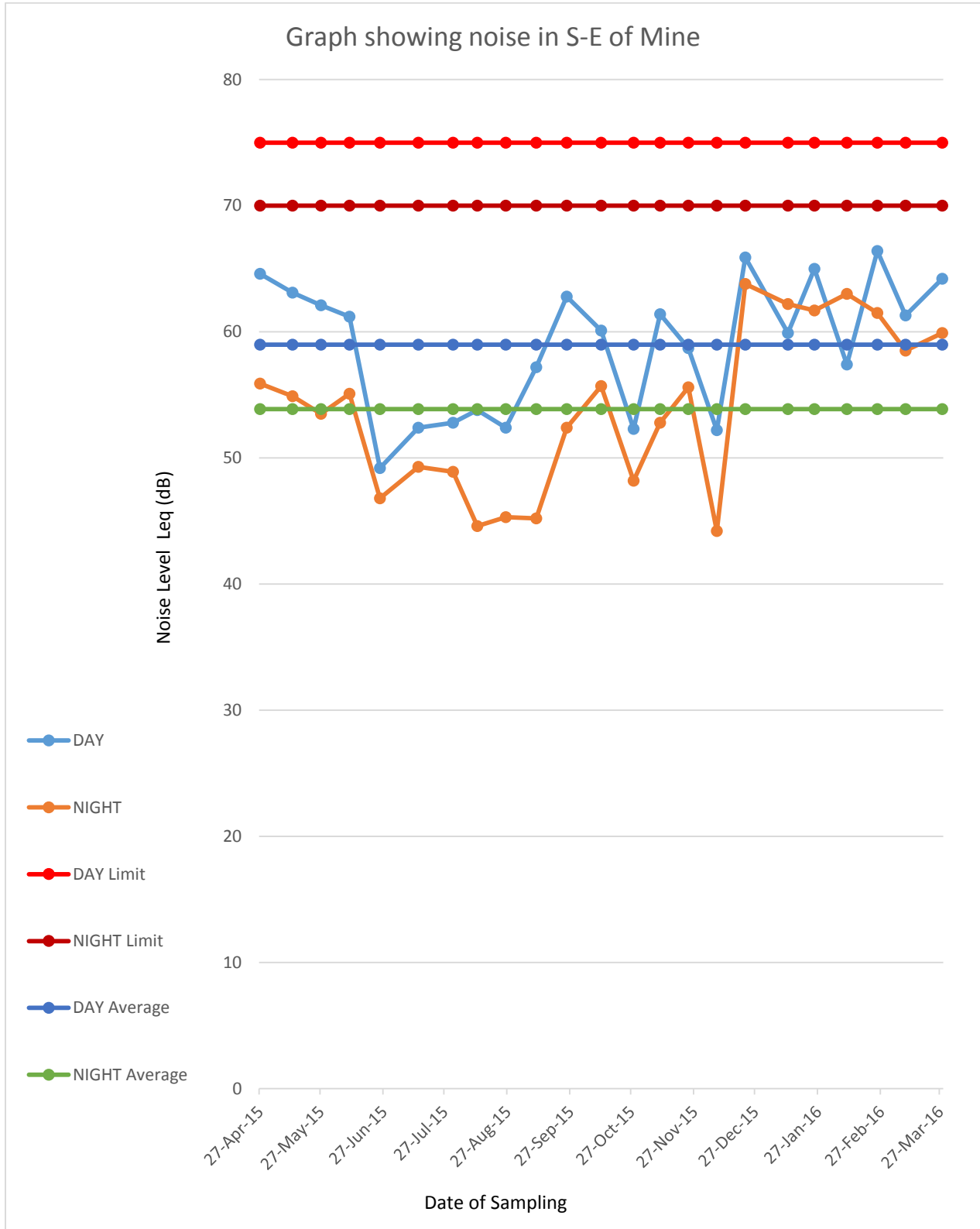


Project: Bhubaneswari OCP
Monitoring Station: S-E of Mine (A2)

Table 86

DATE OF SAMPLING	DAY	NIGHT
27-Apr-15	64.6	55.9
13-May-15	63.1	54.9
27-May-15	62.1	53.5
10-Jun-15	61.2	55.1
25-Jun-15	49.2	46.8
14-Jul-15	52.4	49.3
31-Jul-15	52.8	48.9
12-Aug-15	53.8	44.6
26-Aug-15	52.4	45.3
10-Sep-15	57.2	45.2
25-Sep-15	62.8	52.4
12-Oct-15	60.1	55.7
28-Oct-15	52.3	48.2
10-Nov-15	61.4	52.8
24-Nov-15	58.7	55.6
08-Dec-15	52.2	44.2
22-Dec-15	65.9	63.8
12-Jan-16	59.9	62.2
25-Jan-16	65	61.7
10-Feb-16	57.4	63
25-Feb-16	66.4	61.5
10-Mar-16	61.3	58.5
28-Mar-16	64.2	59.9
Brief Statistic	Day	Night
Maximum	66.4	63.8
Minimum	49.2	44.2
Mean	58.97	53.87
Noise Standard	75	70

All values are in Leq (dB)

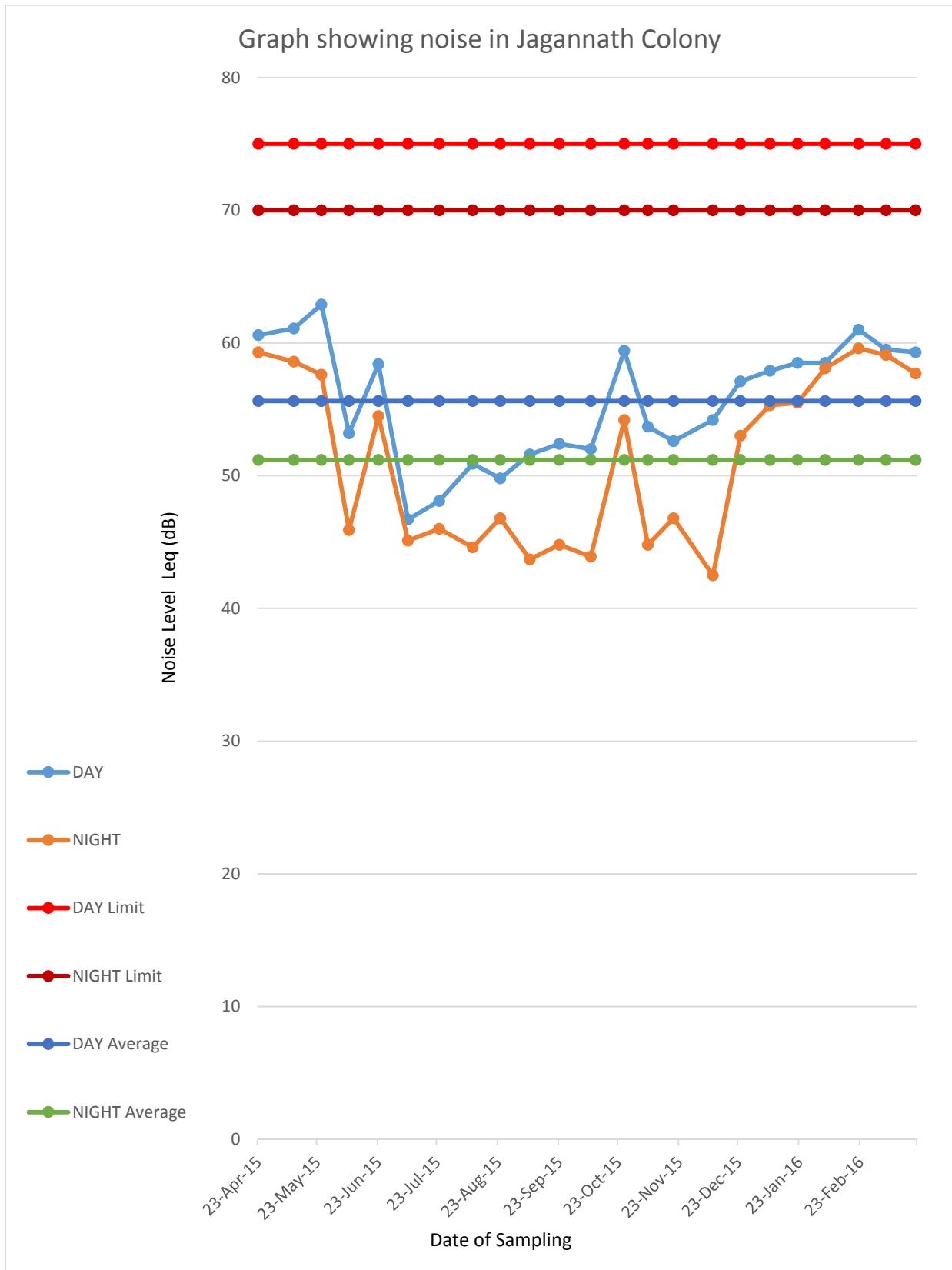


Project: Jagannath OCP
Monitoring Station: Jaganath Colony (A2)

Table 87

DATE OF SAMPLING	DAY	NIGHT
23-Apr-15	60.6	59.3
11-May-15	61.1	58.6
25-May-15	62.9	57.6
08-Jun-15	53.2	45.9
23-Jun-15	58.4	54.5
08-Jul-15	46.7	45.1
24-Jul-15	48.1	46
10-Aug-15	50.9	44.6
24-Aug-15	49.8	46.8
08-Sep-15	51.6	43.7
23-Sep-15	52.4	44.8
09-Oct-15	52	43.9
26-Oct-15	59.4	54.2
07-Nov-15	53.7	44.8
20-Nov-15	52.6	46.8
10-Dec-15	54.2	42.5
24-Dec-15	57.1	53
08-Jan-16	57.9	55.3
22-Jan-16	58.5	55.5
05-Feb-16	58.5	58.1
22-Feb-16	61	59.6
07-Mar-16	59.5	59.1
22-Mar-16	59.3	57.7
Brief Statistic	Day	Night
Maximum	62.9	59.6
Minimum	46.7	42.5
Mean	55.63	51.19
Noise Standard	75	70

All values are in Leq (dB)

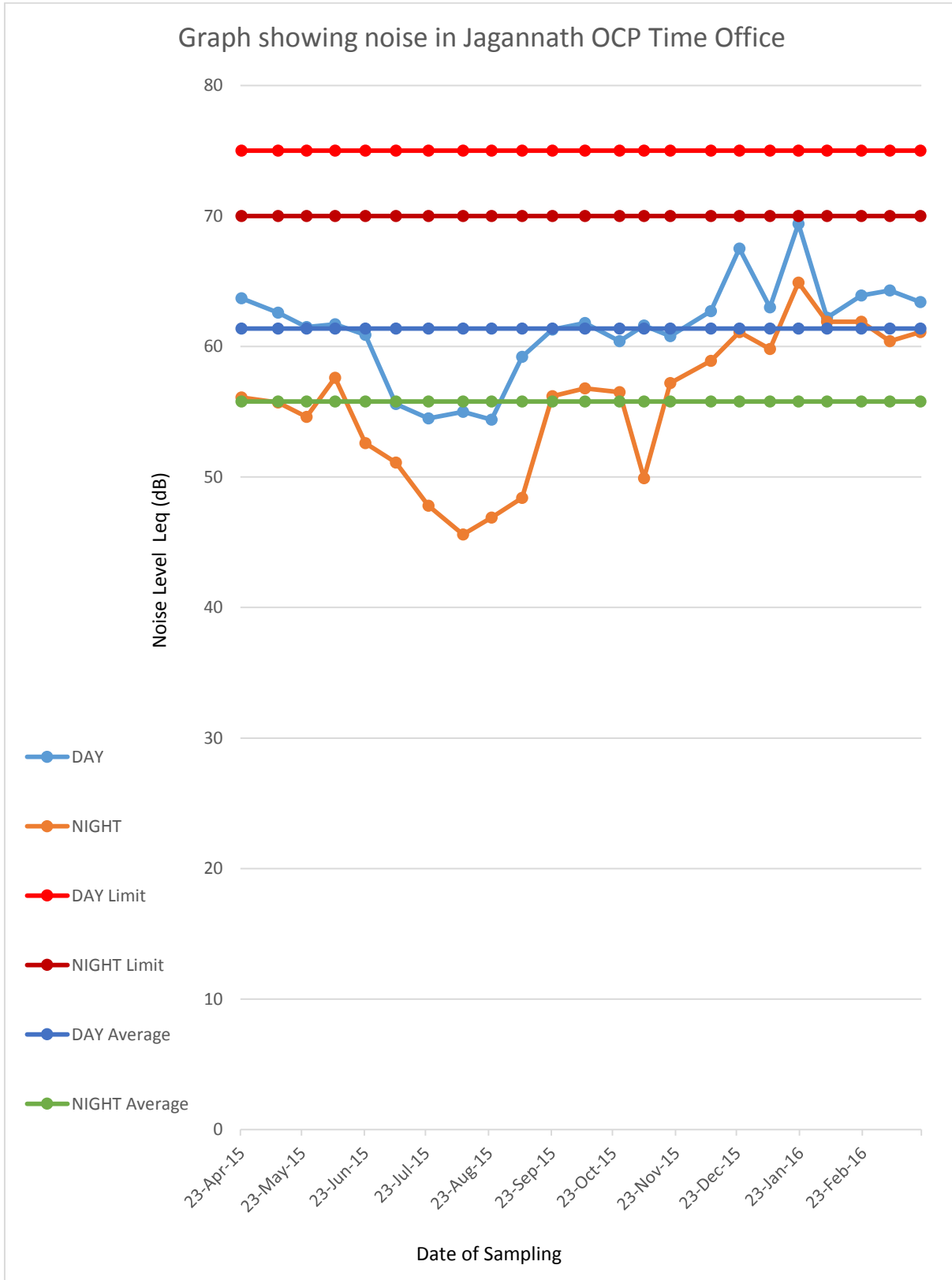


Project: Jagannath OCP
Monitoring Station: Jagannath OCP-Time Office (A1)
Table 88

DATE OF SAMPLING	DAY	NIGHT
23-Apr-15	63.7	56.1
11-May-15	62.6	55.7
25-May-15	61.5	54.6
08-Jun-15	61.7	57.6
23-Jun-15	60.9	52.6
08-Jul-15	55.6	51.1
24-Jul-15	54.5	47.8
10-Aug-15	55	45.6
24-Aug-15	54.4	46.9
08-Sep-15	59.2	48.4
23-Sep-15	61.3	56.2
09-Oct-15	61.8	56.8
26-Oct-15	60.4	56.5
07-Nov-15	61.6	49.9
20-Nov-15	60.8	57.2
10-Dec-15	62.7	58.9
24-Dec-15	67.5	61.1
08-Jan-16	63	59.8
22-Jan-16	69.4	64.9
05-Feb-16	62.2	61.9
22-Feb-16	63.9	61.9
07-Mar-16	64.3	60.4
22-Mar-16	63.4	61.1
Brief Statistic	Day	Night
Maximum	69.4	64.9
Minimum	54.4	45.6
Mean	61.37	55.78
Noise Standard	75	70

All values are in Leq (dB)

Graph showing noise in Jagannath OCP Time Office

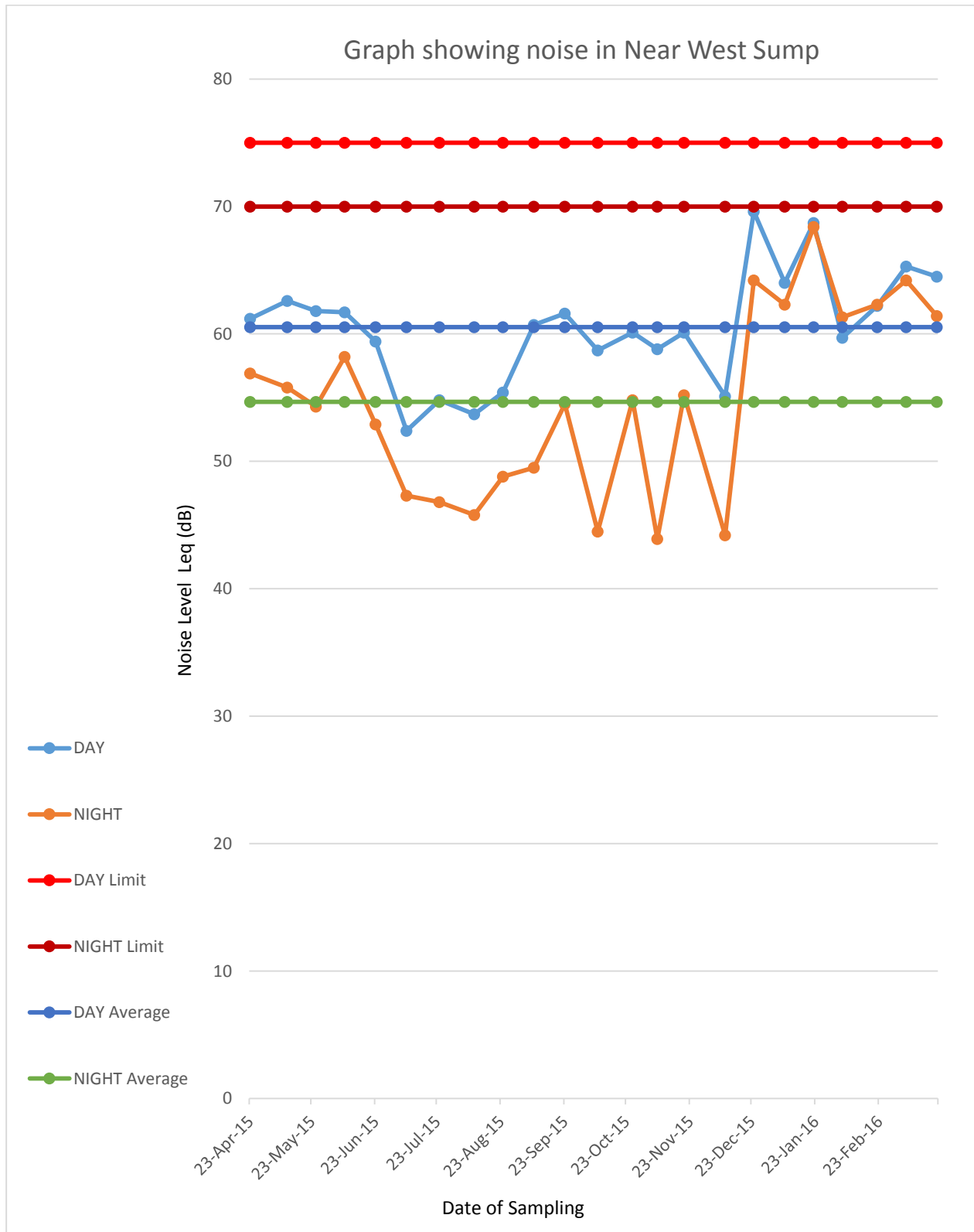


Project: Jagannath OCP
Monitoring Station: Near West sump (A3)

Table 89

DATE OF SAMPLING	DAY	NIGHT
23-Apr-15	61.2	56.9
11-May-15	62.6	55.8
25-May-15	61.8	54.3
08-Jun-15	61.7	58.2
23-Jun-15	59.4	52.9
08-Jul-15	52.4	47.3
24-Jul-15	54.8	46.8
10-Aug-15	53.7	45.8
24-Aug-15	55.4	48.8
08-Sep-15	60.7	49.5
23-Sep-15	61.6	54.5
09-Oct-15	58.7	44.5
26-Oct-15	60.1	54.8
07-Nov-15	58.8	43.9
20-Nov-15	60.1	55.2
10-Dec-15	55.1	44.2
24-Dec-15	69.6	64.2
08-Jan-16	64	62.3
22-Jan-16	68.7	68.4
05-Feb-16	59.7	61.3
22-Feb-16	62.2	62.3
07-Mar-16	65.3	64.2
22-Mar-16	64.5	61.4
Brief Statistic	Day	Night
Maximum	69.6	68.4
Minimum	52.4	43.9
Mean	60.53	54.67
Noise Standard	75	70

All values are in Leq (dB)

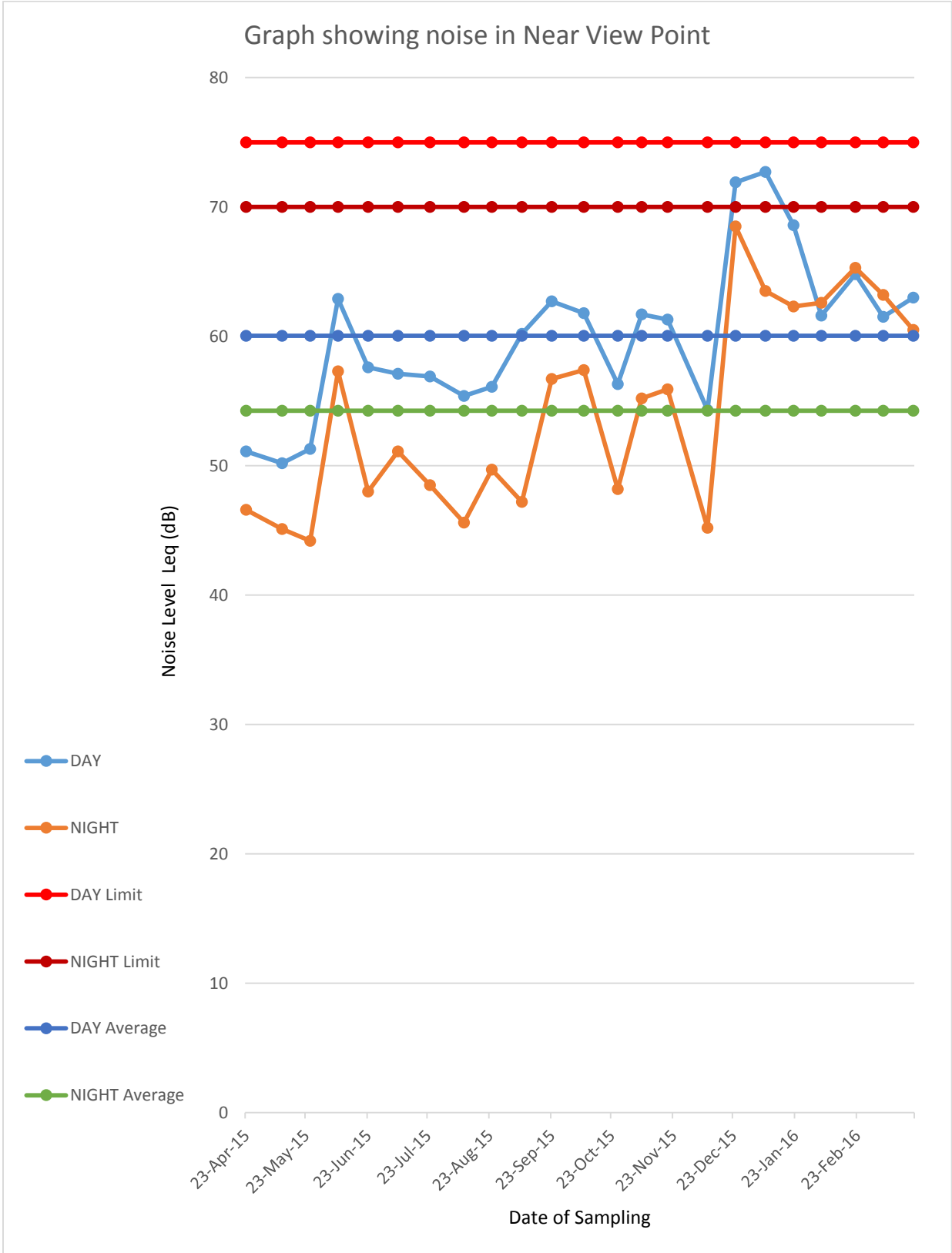


Project: Jagannath OCP
Monitoring Station: Near View point (A4)

Table 90

DATE OF SAMPLING	DAY	NIGHT
23-Apr-15	51.1	46.6
11-May-15	50.2	45.1
25-May-15	51.3	44.2
08-Jun-15	62.9	57.3
23-Jun-15	57.6	48
08-Jul-15	57.1	51.1
24-Jul-15	56.9	48.5
10-Aug-15	55.4	45.6
24-Aug-15	56.1	49.7
08-Sep-15	60.2	47.2
23-Sep-15	62.7	56.7
09-Oct-15	61.8	57.4
26-Oct-15	56.3	48.2
07-Nov-15	61.7	55.2
20-Nov-15	61.3	55.9
10-Dec-15	54.3	45.2
24-Dec-15	71.9	68.5
08-Jan-16	72.7	63.5
22-Jan-16	68.6	62.3
05-Feb-16	61.6	62.6
22-Feb-16	64.8	65.3
07-Mar-16	61.5	63.2
22-Mar-16	63	60.5
Brief Statistic	Day	Night
Maximum	72.7	68.5
Minimum	50.2	44.2
Mean	60.04	54.25
Noise Standard	75	70

All values are in Leq (dB)

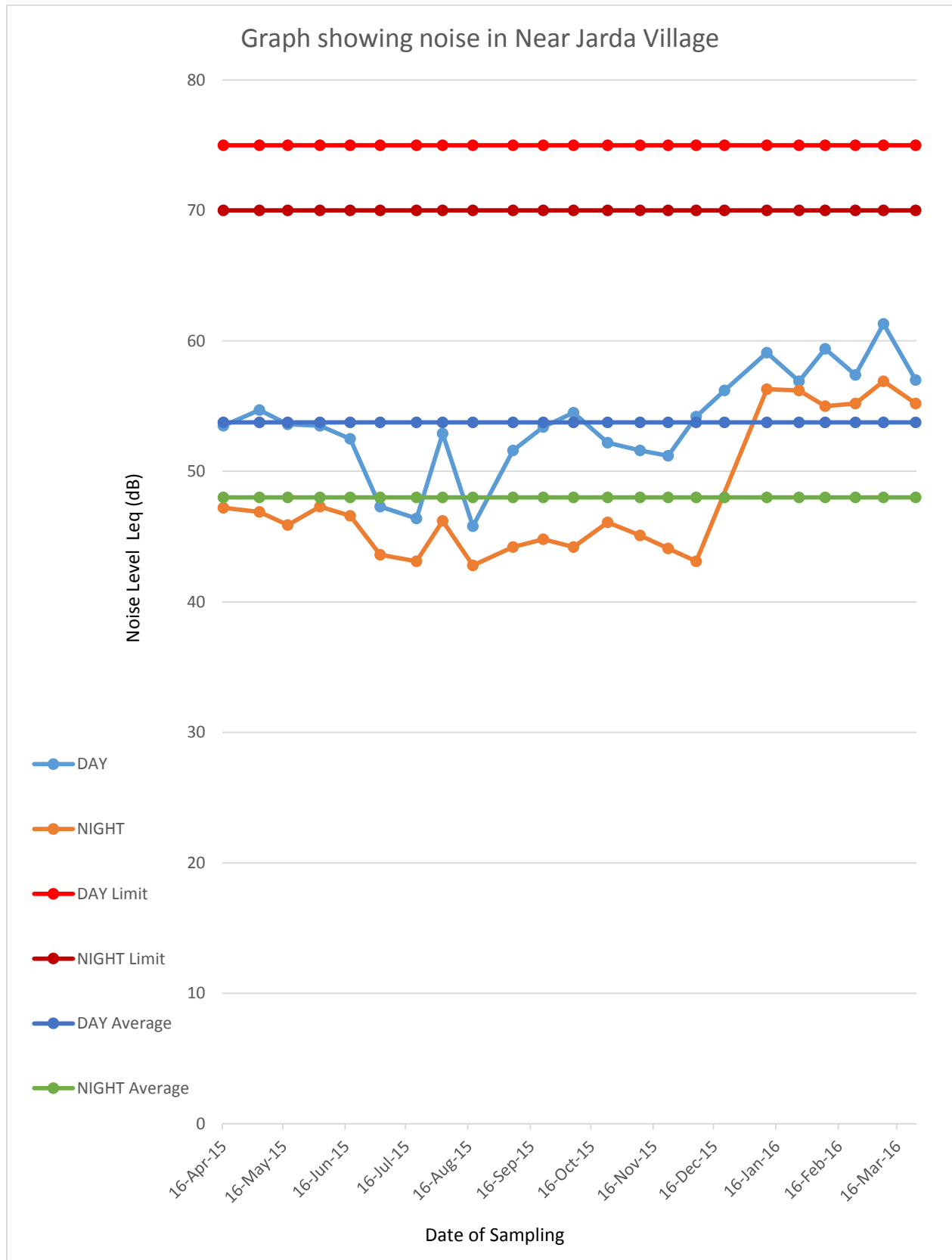


Project: Kaniha OCP
Monitoring Station: Near Jarda village

Table 91

DATE OF SAMPLING	DAY	NIGHT
16-Apr-15	53.5	47.2
04-May-15	54.7	46.9
18-May-15	53.6	45.9
03-Jun-15	53.5	47.3
18-Jun-15	52.5	46.6
03-Jul-15	47.3	43.6
21-Jul-15	46.4	43.1
03-Aug-15	52.9	46.2
18-Aug-15	45.8	42.8
07-Sep-15	51.6	44.2
22-Sep-15	53.4	44.8
07-Oct-15	54.5	44.2
24-Oct-15	52.2	46.1
09-Nov-15	51.6	45.1
23-Nov-15	51.2	44.1
07-Dec-15	54.2	43.1
21-Dec-15	56.2	
11-Jan-16	59.1	56.3
27-Jan-16	56.9	56.2
09-Feb-16	59.4	55
24-Feb-16	57.4	55.2
09-Mar-16	61.3	56.9
25-Mar-16	57	55.2
Brief Statistic	Day	Night
Max	61.30	56.90
Min	45.80	42.80
Mean	53.75	48.00
Noise Standard	75	70

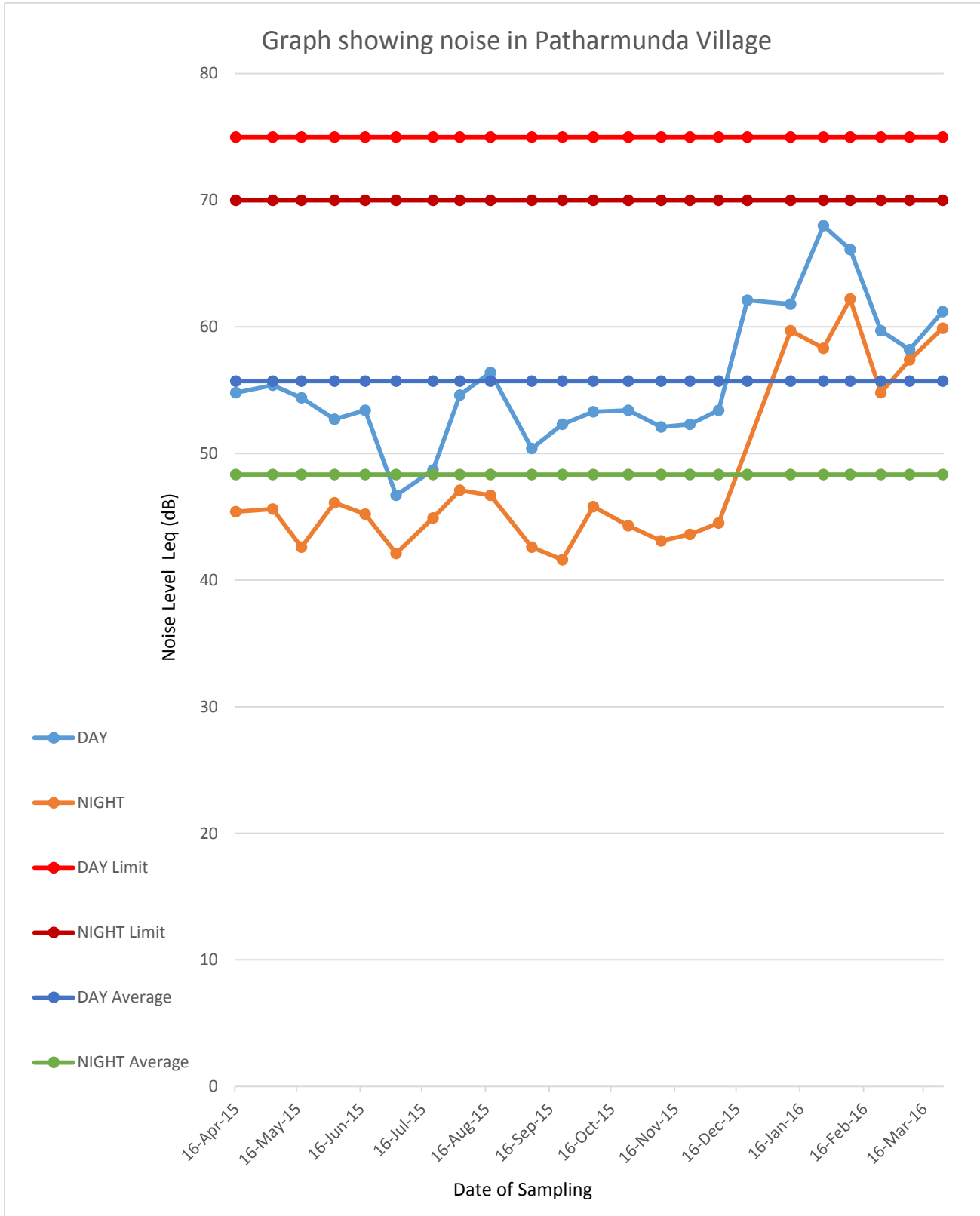
All values are in Leq (dB)



Project: Kaniha OCP
Monitoring Station: Patharmunda Village
Table 92

DATE OF SAMPLING	DAY	NIGHT
16-Apr-15	54.8	45.4
04-May-15	55.4	45.6
18-May-15	54.4	42.6
03-Jun-15	52.7	46.1
18-Jun-15	53.4	45.2
03-Jul-15	46.7	42.1
21-Jul-15	48.7	44.9
03-Aug-15	54.6	47.1
18-Aug-15	56.4	46.7
07-Sep-15	50.4	42.6
22-Sep-15	52.3	41.6
07-Oct-15	53.3	45.8
24-Oct-15	53.4	44.3
09-Nov-15	52.1	43.1
23-Nov-15	52.3	43.6
07-Dec-15	53.4	44.5
21-Dec-15	62.1	
11-Jan-16	61.8	59.7
27-Jan-16	68	58.3
09-Feb-16	66.1	62.2
24-Feb-16	59.7	54.8
09-Mar-16	58.2	57.4
25-Mar-16	61.2	59.9
Brief Statistic	Day	Night
Max	68.00	62.20
Min	46.70	41.60
Mean	55.71	48.34
Noise Standard	75	70

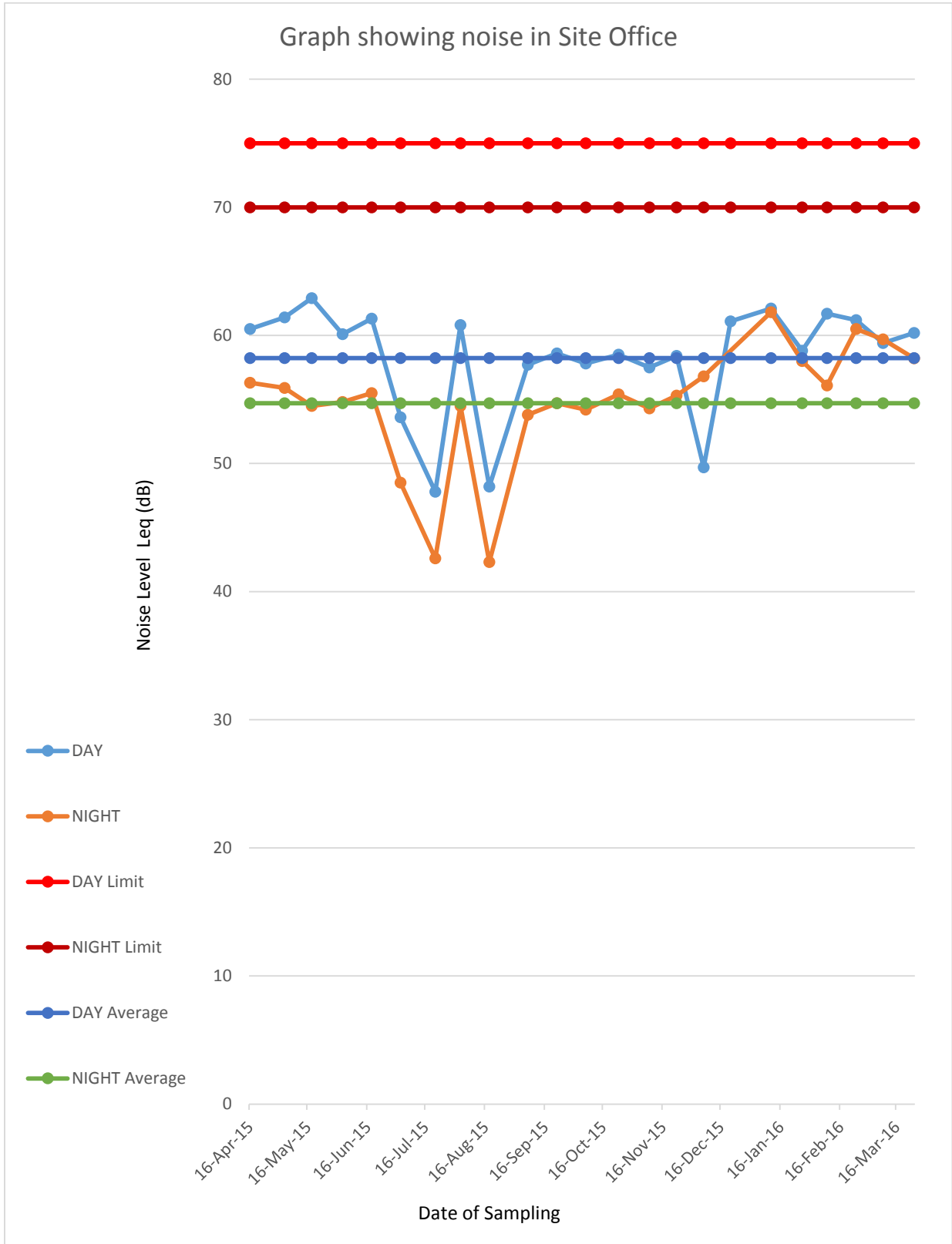
All values are in Leq (dB)



Project: Kaniha OCP
Monitoring Station: Site Office
Table 93

DATE OF SAMPLING	DAY	NIGHT
16-Apr-15	60.5	56.3
04-May-15	61.4	55.9
18-May-15	62.9	54.5
03-Jun-15	60.1	54.8
18-Jun-15	61.3	55.5
03-Jul-15	53.6	48.5
21-Jul-15	47.8	42.6
03-Aug-15	60.8	54.5
18-Aug-15	48.2	42.3
07-Sep-15	57.7	53.8
22-Sep-15	58.6	54.7
07-Oct-15	57.8	54.2
24-Oct-15	58.5	55.4
09-Nov-15	57.5	54.3
23-Nov-15	58.4	55.3
07-Dec-15	49.7	56.8
21-Dec-15	61.1	
11-Jan-16	62.1	61.8
27-Jan-16	58.8	58
09-Feb-16	61.7	56.1
24-Feb-16	61.2	60.5
09-Mar-16	59.4	59.7
25-Mar-16	60.2	58.2
Brief Statistic	Day	Night
Max	62.90	61.80
Min	47.80	42.30
Mean	58.23	54.71
Noise Standard	75	70

All values are in Leq (dB)

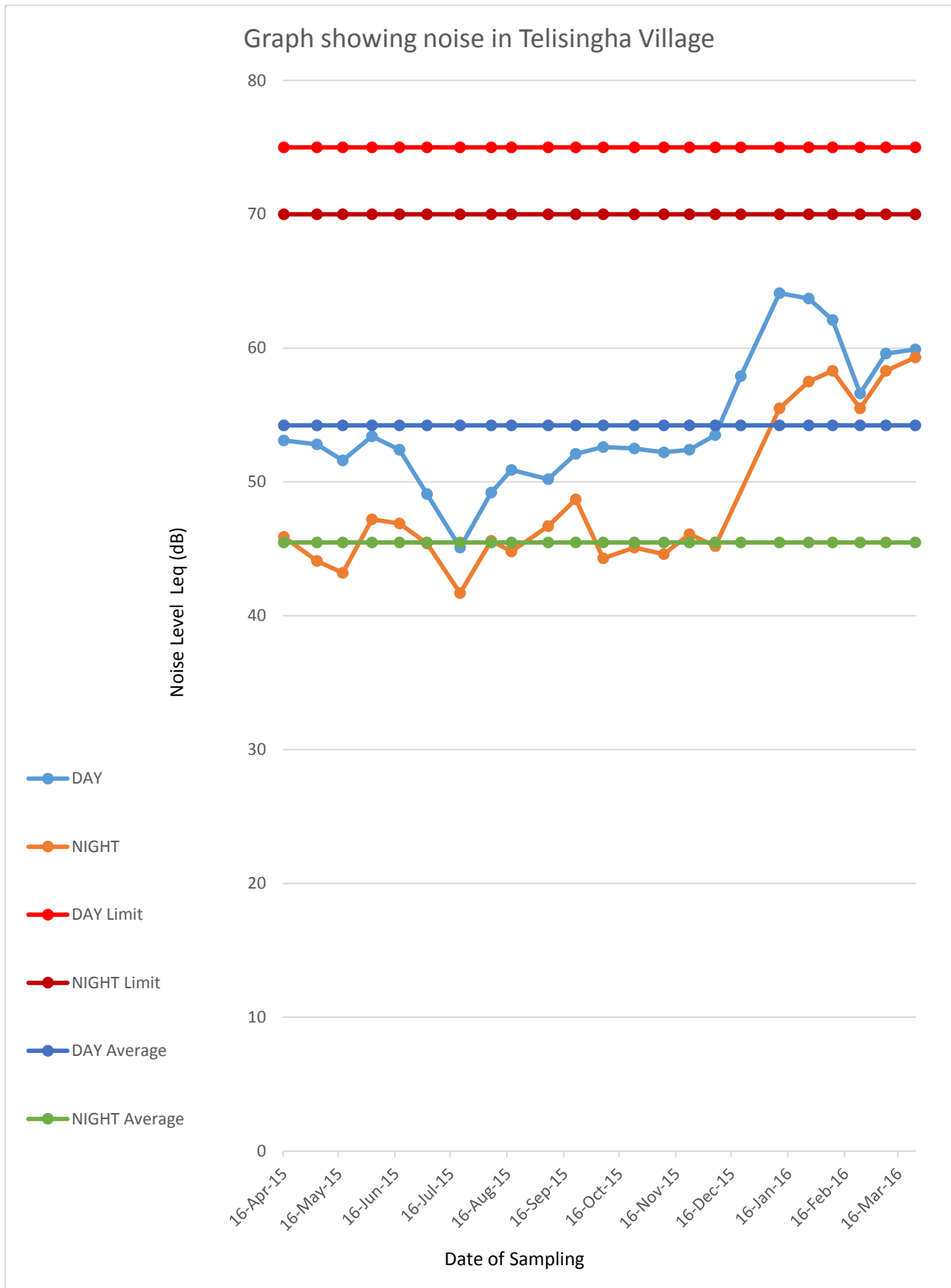


Project: Kaniha OCP
Monitoring Station: Telisingha Village

Table 94

DATE OF SAMPLING	DAY	NIGHT
16-Apr-15	53.1	45.9
04-May-15	52.8	44.1
18-May-15	51.6	43.2
03-Jun-15	53.4	47.2
18-Jun-15	52.4	46.9
03-Jul-15	49.1	45.4
21-Jul-15	45.1	41.7
07-Aug-15	49.2	45.6
18-Aug-15	50.9	44.8
07-Sep-15	50.2	46.7
22-Sep-15	52.1	48.7
07-Oct-15	52.6	44.3
24-Oct-15	52.5	45.1
09-Nov-15	52.2	44.6
23-Nov-15	52.4	46.1
07-Dec-15	53.5	45.2
21-Dec-15	57.9	
11-Jan-16	64.1	55.5
27-Jan-16	63.7	57.5
09-Feb-16	62.1	58.3
24-Feb-16	56.6	55.5
09-Mar-16	59.6	58.3
25-Mar-16	59.9	59.3
Brief Statistic	Day	Night
Max	64.10	59.30
Min	45.10	41.70
Mean	54.22	48.63
Noise Standard	75	70

All values are in Leq (dB)

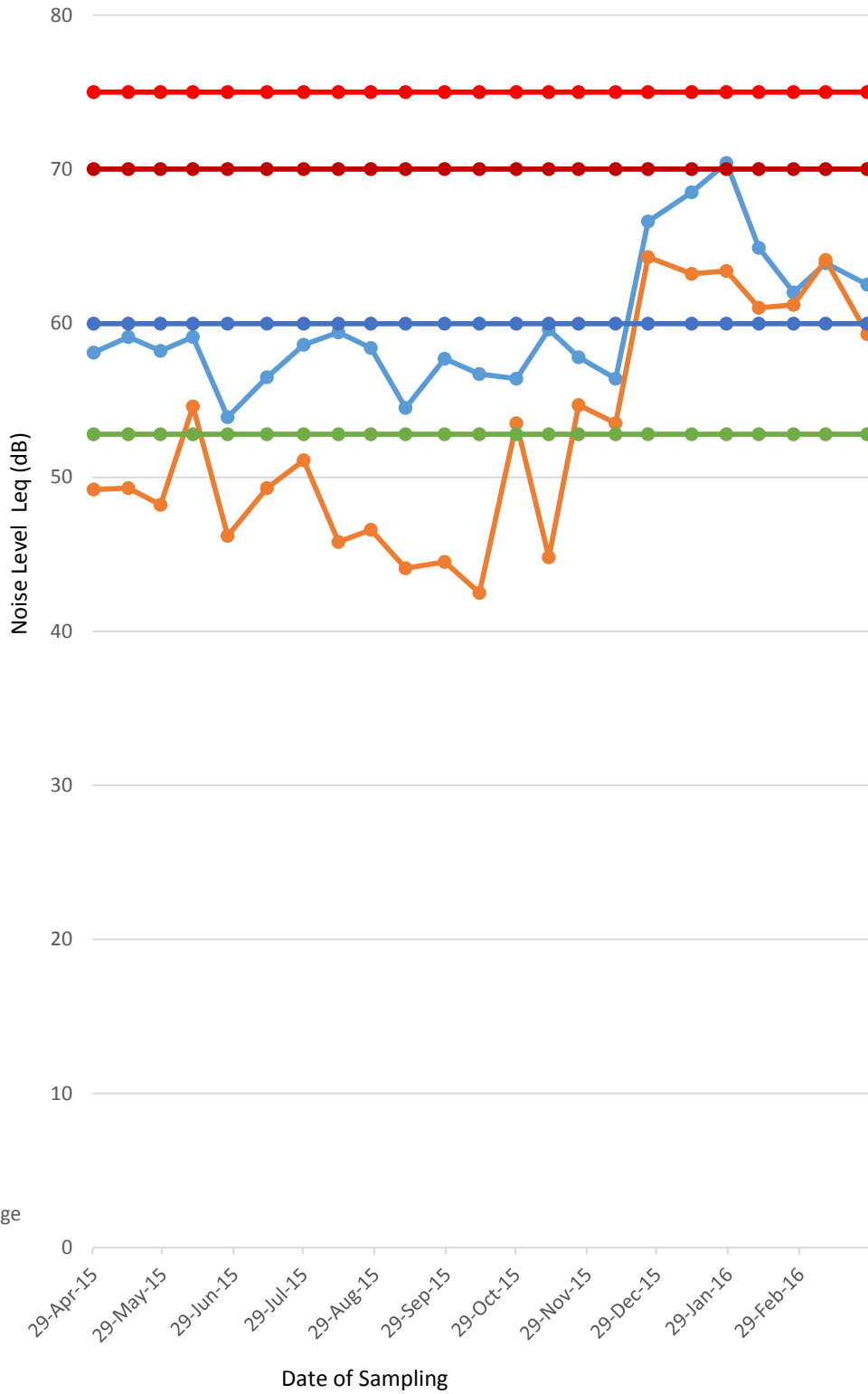


Project: Lingaraj OCP
Monitoring Station: Lingaraj CGM Office
Table 95

DATE OF SAMPLING	DAY	NIGHT
29-Apr-15	58.1	49.2
14-May-15	59.1	49.3
28-May-15	58.2	48.2
11-Jun-15	59.1	54.6
26-Jun-15	53.9	46.2
13-Jul-15	56.5	49.3
29-Jul-15	58.6	51.1
13-Aug-15	59.4	45.8
27-Aug-15	58.4	46.6
11-Sep-15	54.5	44.1
28-Sep-15	57.7	44.5
13-Oct-15	56.7	42.5
29-Oct-15	56.4	53.5
12-Nov-15	59.6	44.8
25-Nov-15	57.8	54.7
11-Dec-15	56.4	53.5
25-Dec-15	66.6	64.3
13-Jan-16	68.5	63.2
28-Jan-16	70.4	63.4
11-Feb-16	64.9	61
26-Feb-16	62	61.2
11-Mar-16	63.9	64.1
29-Mar-16	62.5	59.3
Brief Statistic	Day	Night
Max	70.40	64.30
Min	53.90	42.50
Mean	59.97	52.80
Noise Standard	75	70

All values are in Leq (dB)

Graph showing noise in Lingaraj CGM Office



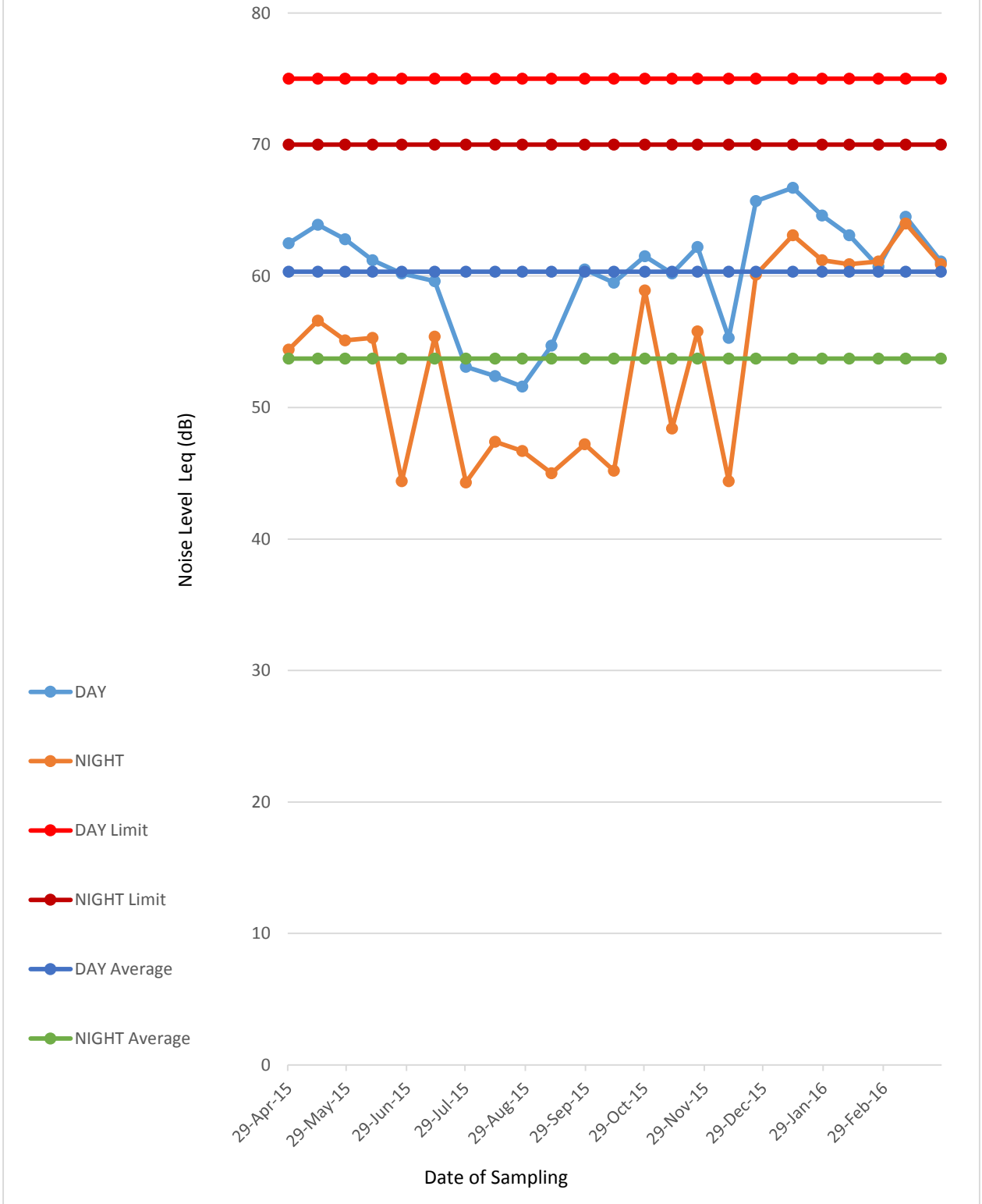
Project: Lingaraj OCP
Monitoring Station: Near CT Road (Lingaraj to Dera)

Table 96

DATE OF SAMPLING	DAY	NIGHT
29-Apr-15	62.5	54.4
14-May-15	63.9	56.6
28-May-15	62.8	55.1
11-Jun-15	61.2	55.3
26-Jun-15	60.2	44.4
13-Jul-15	59.6	55.4
29-Jul-15	53.1	44.3
13-Aug-15	52.4	47.4
27-Aug-15	51.6	46.7
11-Sep-15	54.7	45
28-Sep-15	60.5	47.2
13-Oct-15	59.5	45.2
29-Oct-15	61.5	58.9
12-Nov-15	60.2	48.4
25-Nov-15	62.2	55.8
11-Dec-15	55.3	44.4
25-Dec-15	65.7	60.1
13-Jan-16	66.7	63.1
28-Jan-16	64.6	61.2
11-Feb-16	63.1	60.9
26-Feb-16	60.7	61.1
11-Mar-16	64.5	64
29-Mar-16	61.1	60.9
Brief Statistic	Day	Night
Max	66.70	64.00
Min	51.60	44.30
Mean	60.33	53.73
Noise Standard	75	70

All values are in Leq (dB)

Graph showing noise in Near CT Road (Lingaraj to Dera)



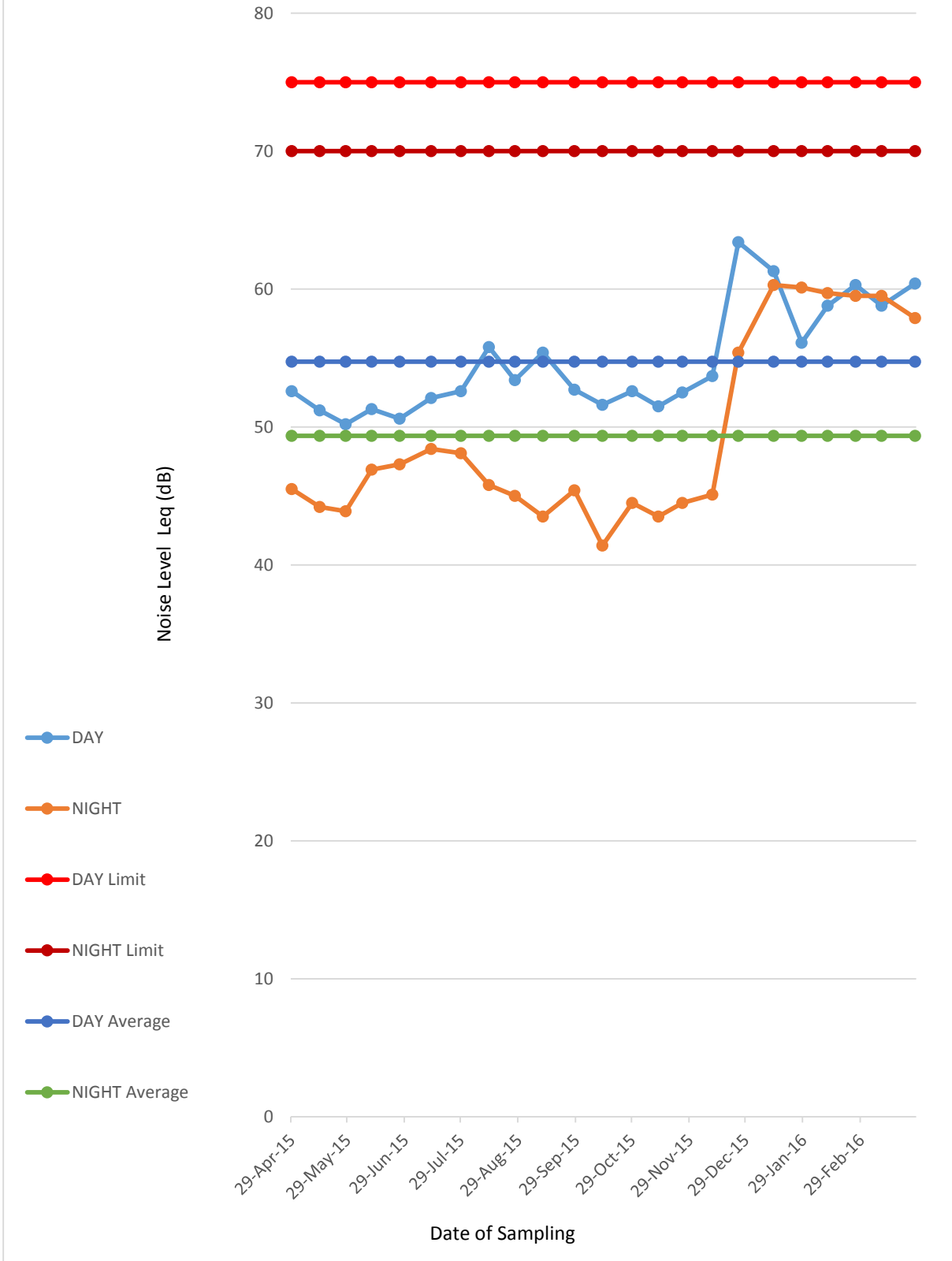
Project: Lingaraj OCP
Monitoring Station: Near Langijoda Village

Table 97

DATE OF SAMPLING	DAY	NIGHT
29-Apr-15	52.6	45.5
14-May-15	51.2	44.2
28-May-15	50.2	43.9
11-Jun-15	51.3	46.9
26-Jun-15	50.6	47.3
13-Jul-15	52.1	48.4
29-Jul-15	52.6	48.1
13-Aug-15	55.8	45.8
27-Aug-15	53.4	45
11-Sep-15	55.4	43.5
28-Sep-15	52.7	45.4
13-Oct-15	51.6	41.4
29-Oct-15	52.6	44.5
12-Nov-15	51.5	43.5
25-Nov-15	52.5	44.5
11-Dec-15	53.7	45.1
25-Dec-15	63.4	55.4
13-Jan-16	61.3	60.3
28-Jan-16	56.1	60.1
11-Feb-16	58.8	59.7
26-Feb-16	60.3	59.5
11-Mar-16	58.8	59.5
29-Mar-16	60.4	57.9
Brief Statistic	Day	Night
Max	63.40	60.30
Min	50.20	41.40
Mean	54.73	49.37
Noise Standard	75	70

All values are in Leq (dB)

Graph showing noise in Near Langijoda Village

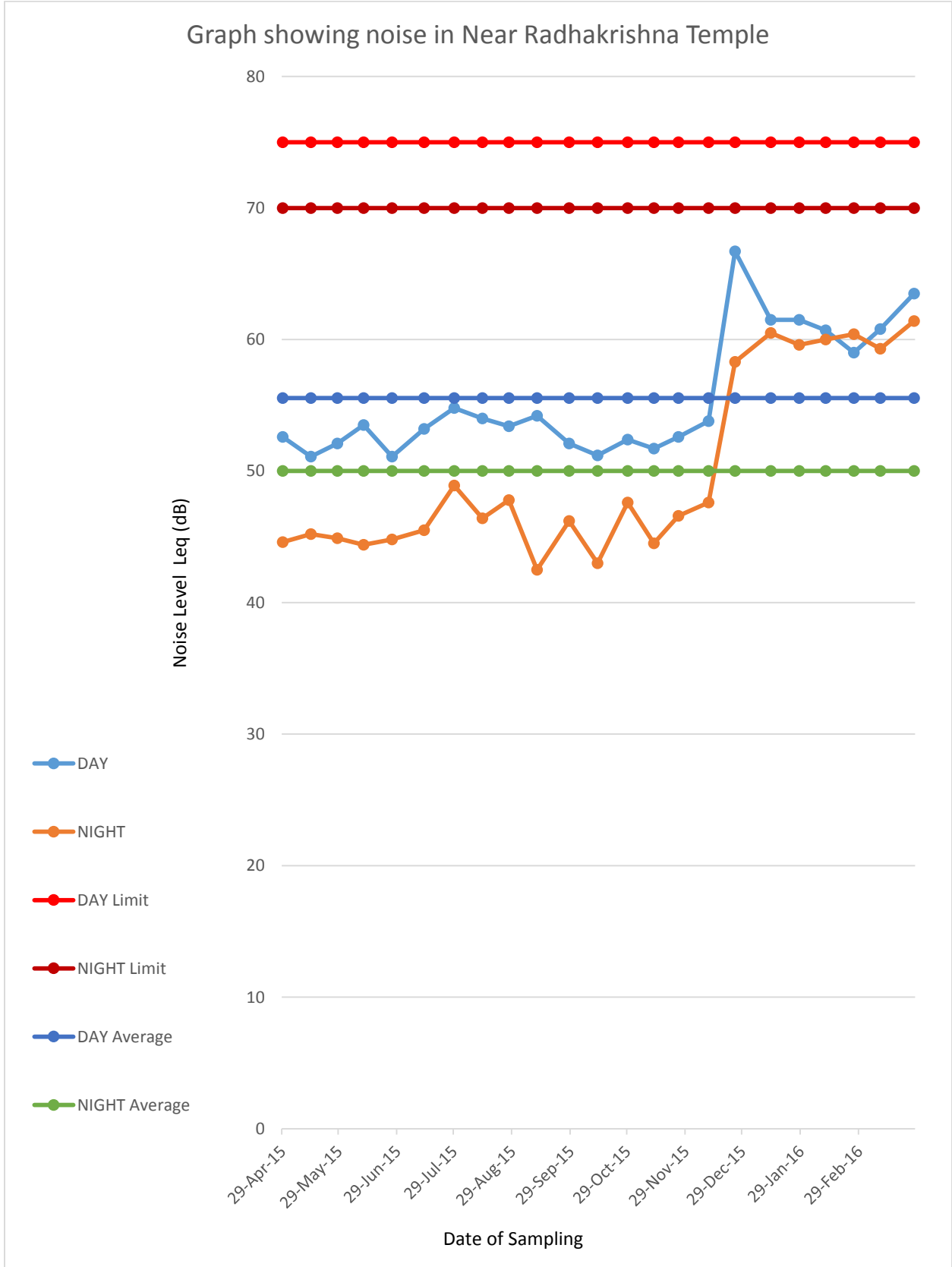


Project: Lingaraj OCP
Monitoring Station: Near Radhakrishna Temple
Table 98

DATE OF SAMPLING	DAY	NIGHT
29-Apr-15	52.6	44.6
14-May-15	51.1	45.2
28-May-15	52.1	44.9
11-Jun-15	53.5	44.4
26-Jun-15	51.1	44.8
13-Jul-15	53.2	45.5
29-Jul-15	54.8	48.9
13-Aug-15	54	46.4
27-Aug-15	53.4	47.8
11-Sep-15	54.2	42.5
28-Sep-15	52.1	46.2
13-Oct-15	51.2	43
29-Oct-15	52.4	47.6
12-Nov-15	51.7	44.5
25-Nov-15	52.6	46.6
11-Dec-15	53.8	47.6
25-Dec-15	66.7	58.3
13-Jan-16	61.5	60.5
28-Jan-16	61.5	59.6
11-Feb-16	60.7	60
26-Feb-16	59	60.4
11-Mar-16	60.8	59.3
29-Mar-16	63.5	61.4
Brief Statistic	Day	Night
Max	66.70	61.40
Min	51.10	42.50
Mean	55.54	50.00
Noise Standard	75	70

All values are in Leq (dB)

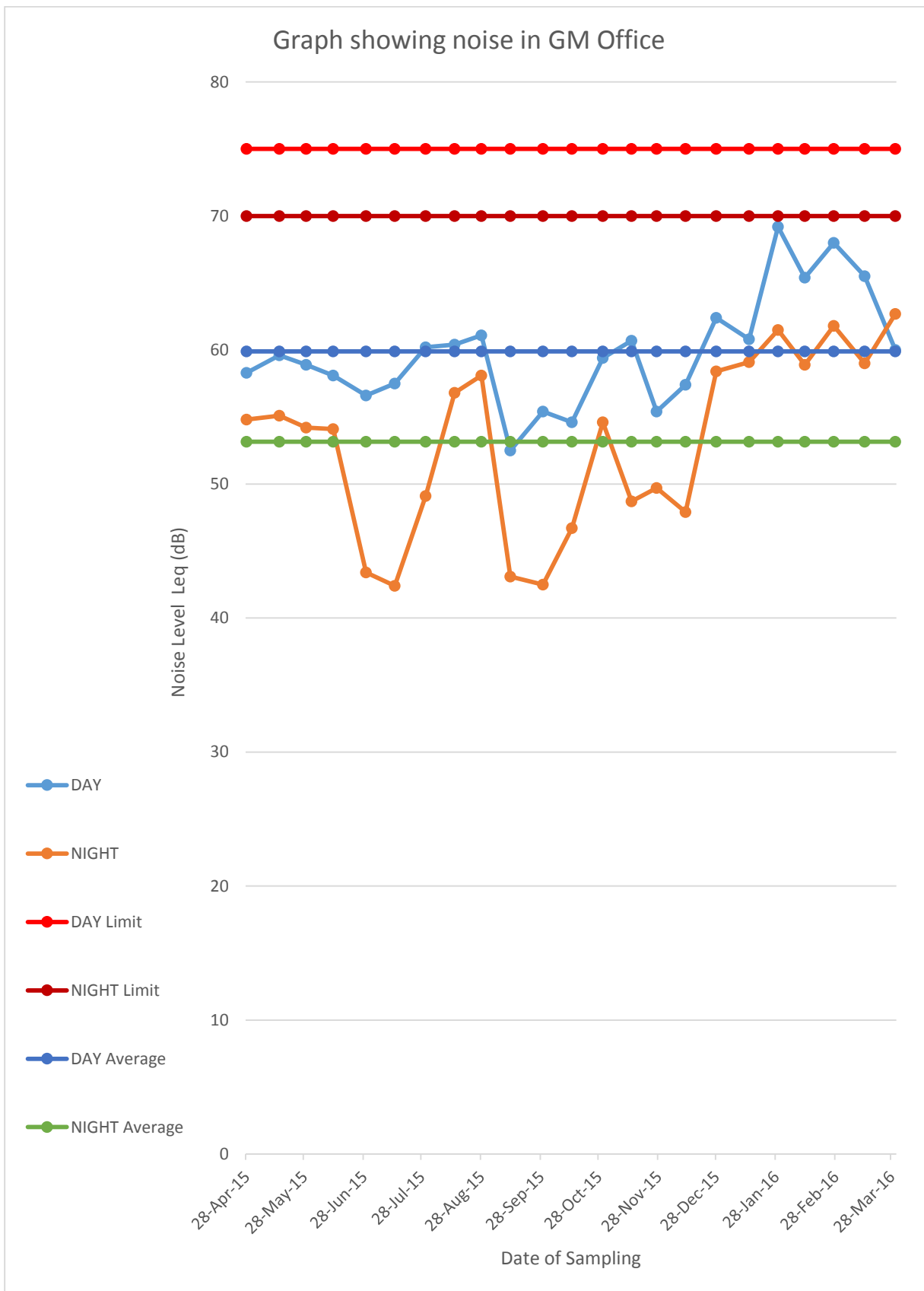
Graph showing noise in Near Radhakrishna Temple



Project: Talcher Area
Monitoring Station: GM Office
Table 99

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	58.3	54.8
15-May-15	59.6	55.1
29-May-15	58.9	54.2
12-Jun-15	58.1	54.1
29-Jun-15	56.6	43.4
14-Jul-15	57.5	42.4
30-Jul-15	60.2	49.1
14-Aug-15	60.4	56.8
28-Aug-15	61.1	58.1
12-Sep-15	52.5	43.1
29-Sep-15	55.4	42.5
14-Oct-15	54.6	46.7
30-Oct-15	59.4	54.6
14-Nov-15	60.7	48.7
27-Nov-15	55.4	49.7
12-Dec-15	57.4	47.9
28-Dec-15	62.4	58.4
14-Jan-16	60.8	59.1
29-Jan-16	69.2	61.5
12-Feb-16	65.4	58.9
27-Feb-16	68	61.8
14-Mar-16	65.5	59
30-Mar-16	60	62.7
Brief Statistic	Day	Night
Max	69.20	62.70
Min	52.50	42.40
Mean	59.89	53.16
Noise Standard	75	70

All values are in Leq (dB)



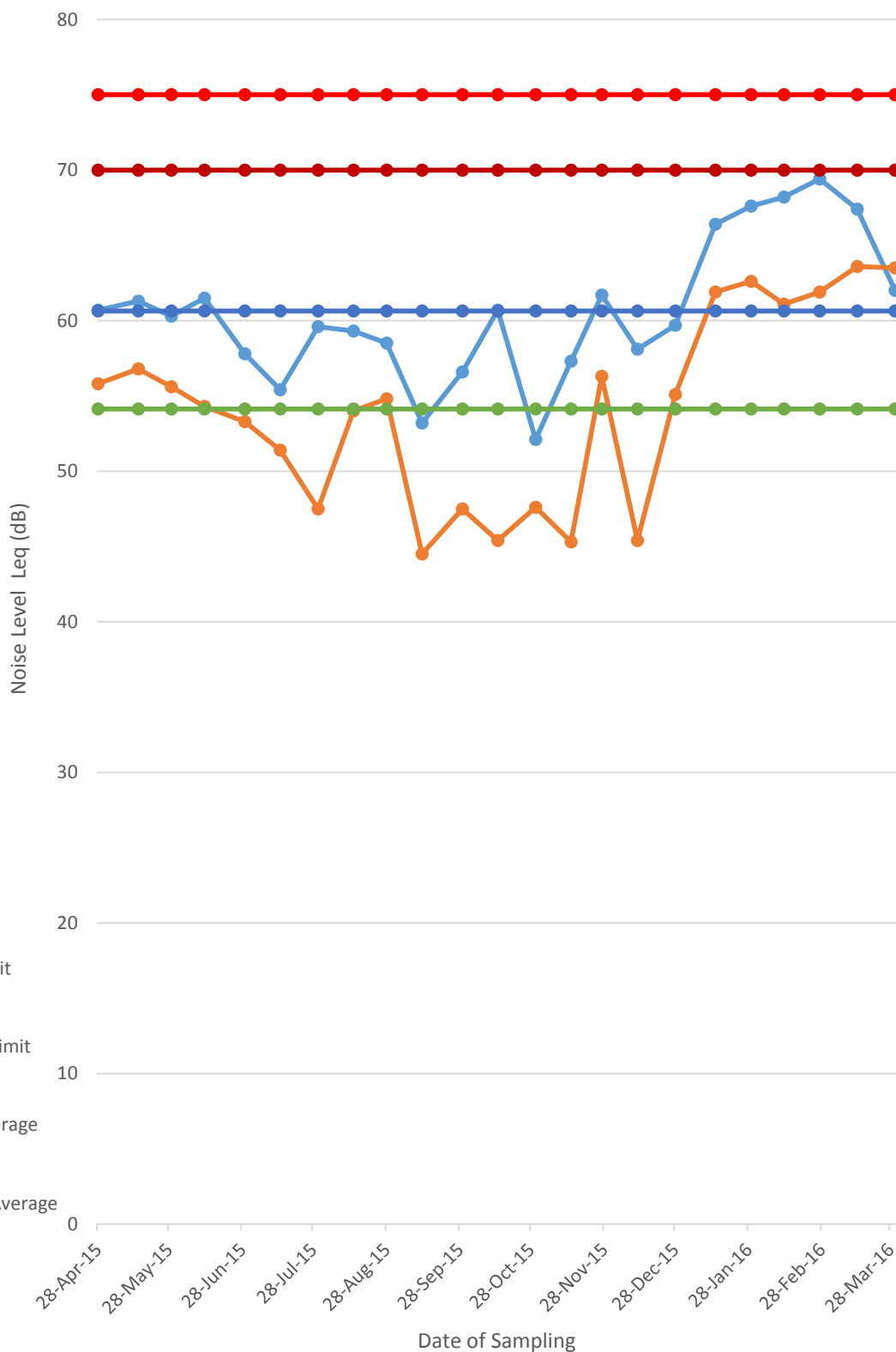
Project: Talcher Area
Monitoring Station: Canteen, Talcher Colliery

Table 100

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	60.7	55.8
15-May-15	61.3	56.8
29-May-15	60.3	55.6
12-Jun-15	61.5	54.3
29-Jun-15	57.8	53.3
14-Jul-15	55.4	51.4
30-Jul-15	59.6	47.5
14-Aug-15	59.3	54
28-Aug-15	58.5	54.8
12-Sep-15	53.2	44.5
29-Sep-15	56.6	47.5
14-Oct-15	60.7	45.4
30-Oct-15	52.1	47.6
14-Nov-15	57.3	45.3
27-Nov-15	61.7	56.3
12-Dec-15	58.1	45.4
28-Dec-15	59.7	55.1
14-Jan-16	66.4	61.9
29-Jan-16	67.6	62.6
12-Feb-16	68.2	61.1
27-Feb-16	69.4	61.9
14-Mar-16	67.4	63.6
30-Mar-16	62	63.5
Brief Statistic	Day	Night
Max	69.40	63.60
Min	52.10	44.50
Mean	60.64	54.14
Noise Standard	75	70

All values are in Leq (dB)

Graph showing noise in Canteen Talcher Colliery

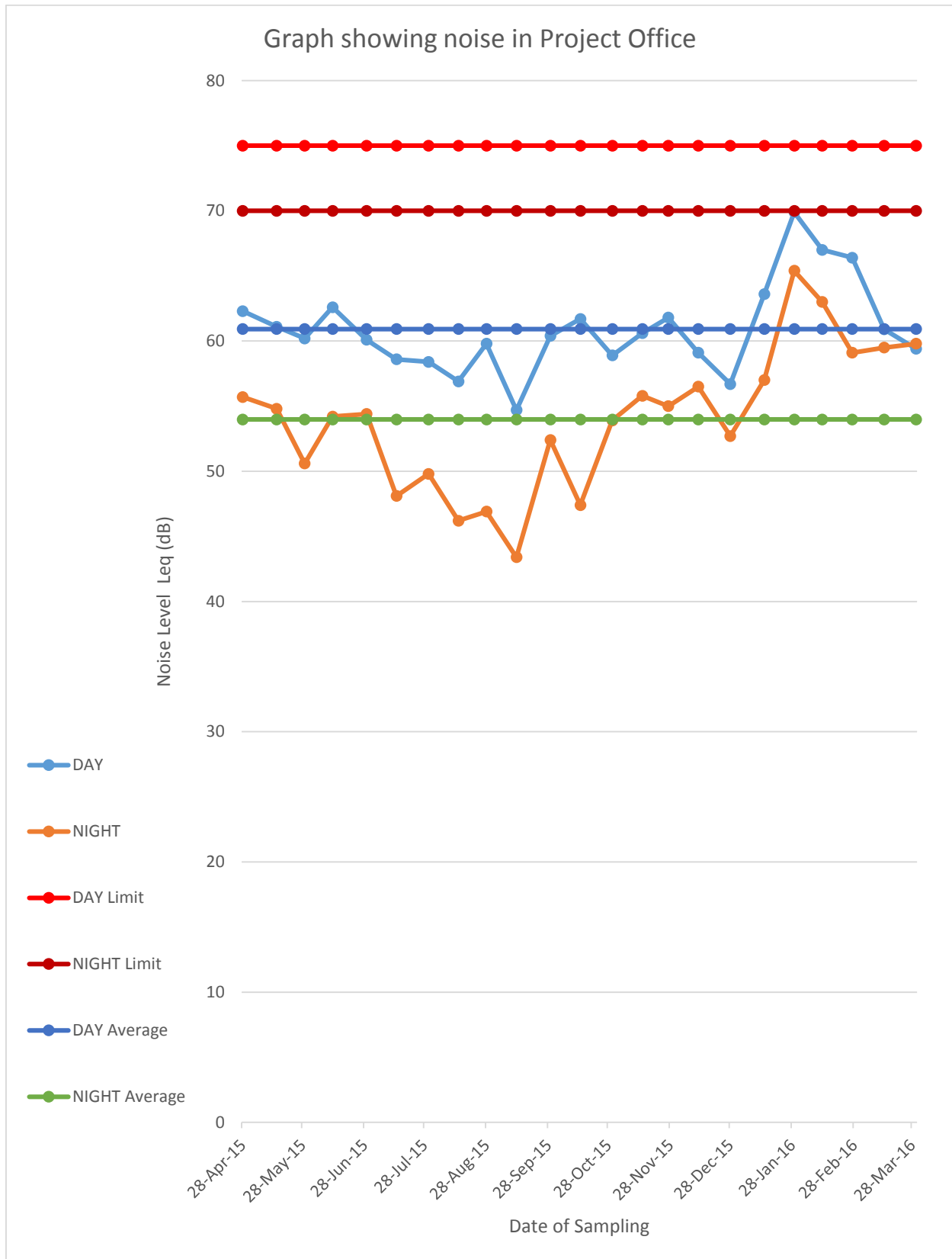


Project: Talcher Area
Monitoring Station: Project Office

Table 101

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	62.3	55.7
15-May-15	61.1	54.8
29-May-15	60.2	50.6
12-Jun-15	62.6	54.2
29-Jun-15	60.1	54.4
14-Jul-15	58.6	48.1
30-Jul-15	58.4	49.8
14-Aug-15	56.9	46.2
28-Aug-15	59.8	46.9
12-Sep-15	54.7	43.4
29-Sep-15	60.4	52.4
14-Oct-15	61.7	47.4
30-Oct-15	58.9	53.9
14-Nov-15	60.6	55.8
27-Nov-15	61.8	55
12-Dec-15	59.1	56.5
28-Dec-15	56.7	52.7
14-Jan-16	63.6	57
29-Jan-16	69.9	65.4
12-Feb-16	67	63
27-Feb-16	66.4	59.1
14-Mar-16	60.9	59.5
30-Mar-16	59.4	59.8
Brief Statistic	Day	Night
Max	69.90	65.40
Min	54.70	43.40
Mean	60.92	53.98
Noise Standard	75	70

All values are in Leq (dB)

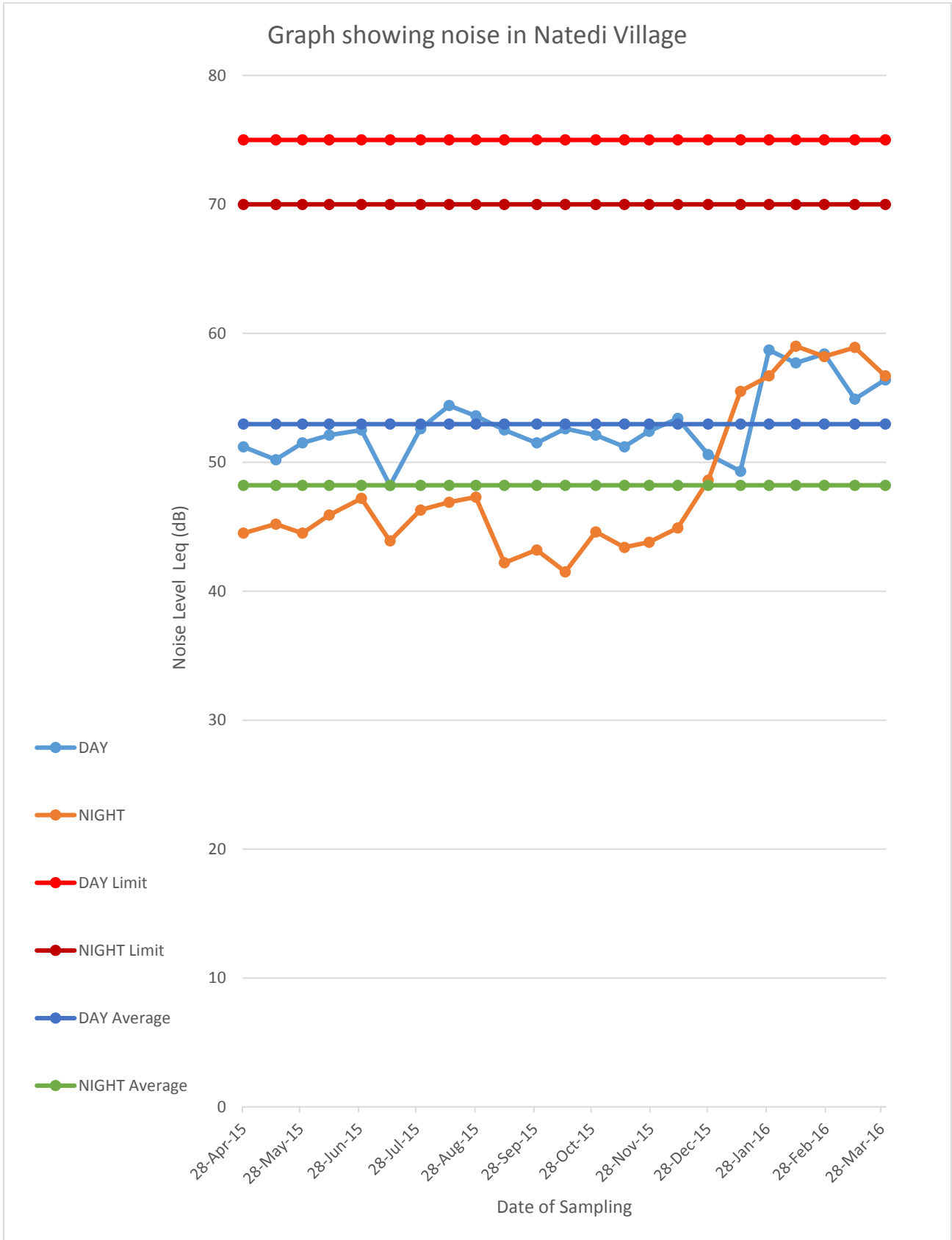


Project: Talcher Area
Monitoring Station: Natedi Village

Table 102

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	51.2	44.5
15-May-15	50.2	45.2
29-May-15	51.5	44.5
12-Jun-15	52.1	45.9
29-Jun-15	52.5	47.2
14-Jul-15	48.2	43.9
30-Jul-15	52.6	46.3
14-Aug-15	54.4	46.9
28-Aug-15	53.6	47.3
12-Sep-15	52.5	42.2
29-Sep-15	51.5	43.2
14-Oct-15	52.6	41.5
30-Oct-15	52.1	44.6
14-Nov-15	51.2	43.4
27-Nov-15	52.4	43.8
12-Dec-15	53.4	44.9
28-Dec-15	50.6	48.6
14-Jan-16	49.3	55.5
29-Jan-16	58.7	56.7
12-Feb-16	57.7	59
27-Feb-16	58.4	58.2
14-Mar-16	54.9	58.9
30-Mar-16	56.4	56.7
Brief Statistic	Day	Night
Max	58.70	59.00
Min	48.20	41.50
Mean	52.96	48.21
Noise Standard	75	70

All values are in Leq (dB)

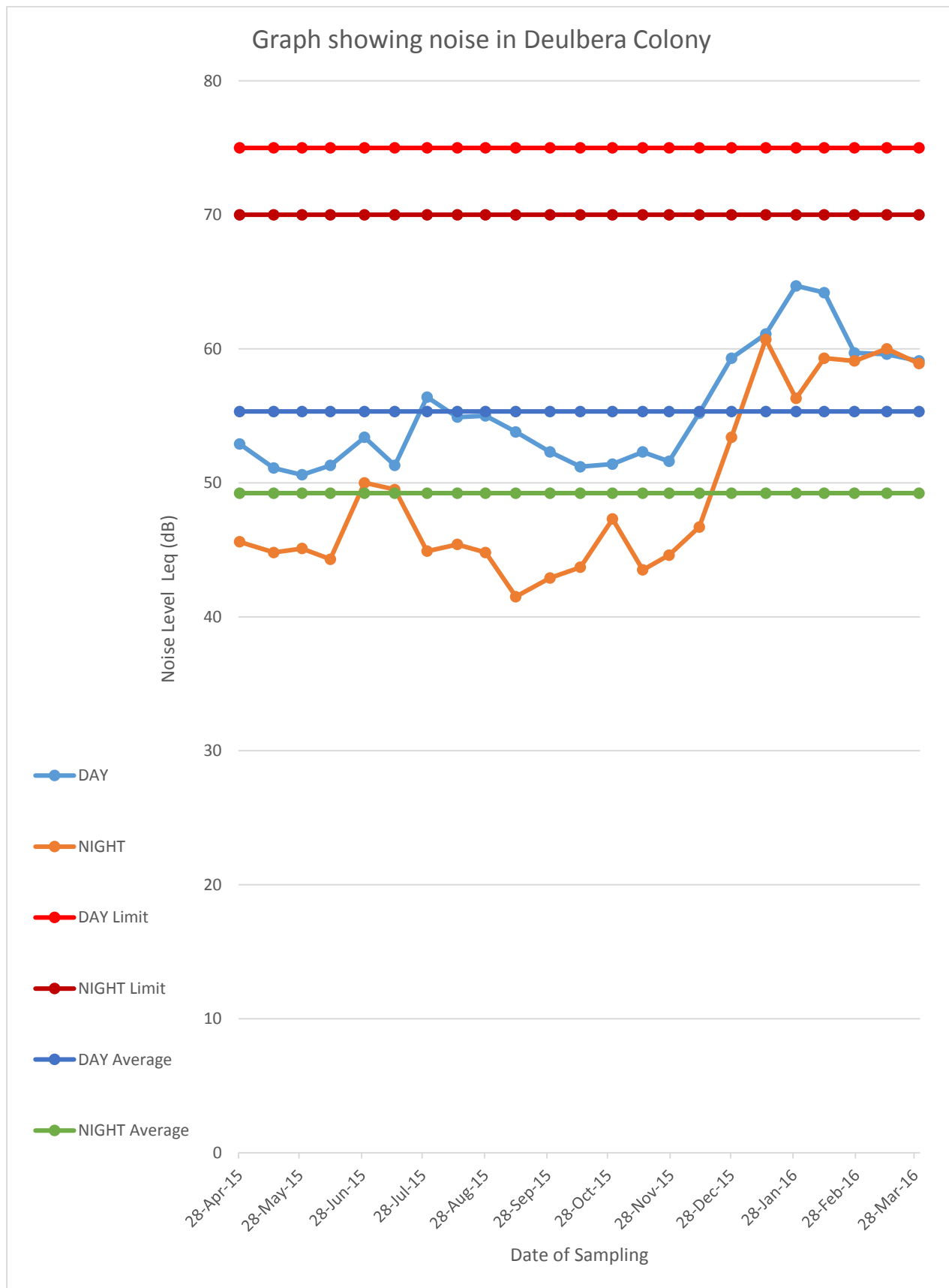


Project: Talcher Area
Monitoring Station: Deulbera Colony

Table 103

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	52.9	45.6
15-May-15	51.1	44.8
29-May-15	50.6	45.1
12-Jun-15	51.3	44.3
29-Jun-15	53.4	50
14-Jul-15	51.3	49.5
30-Jul-15	56.4	44.9
14-Aug-15	54.9	45.4
28-Aug-15	55	44.8
12-Sep-15	53.8	41.5
29-Sep-15	52.3	42.9
14-Oct-15	51.2	43.7
30-Oct-15	51.4	47.3
14-Nov-15	52.3	43.5
27-Nov-15	51.6	44.6
12-Dec-15	55.2	46.7
28-Dec-15	59.3	53.4
14-Jan-16	61.1	60.7
29-Jan-16	64.7	56.3
12-Feb-16	64.2	59.3
27-Feb-16	59.7	59.1
14-Mar-16	59.6	60
30-Mar-16	59.1	58.9
Brief Statistic	Day	Night
Max	64.70	60.70
Min	50.60	41.50
Mean	55.32	49.23
Noise Standard	75	70

All values are in Leq (dB)

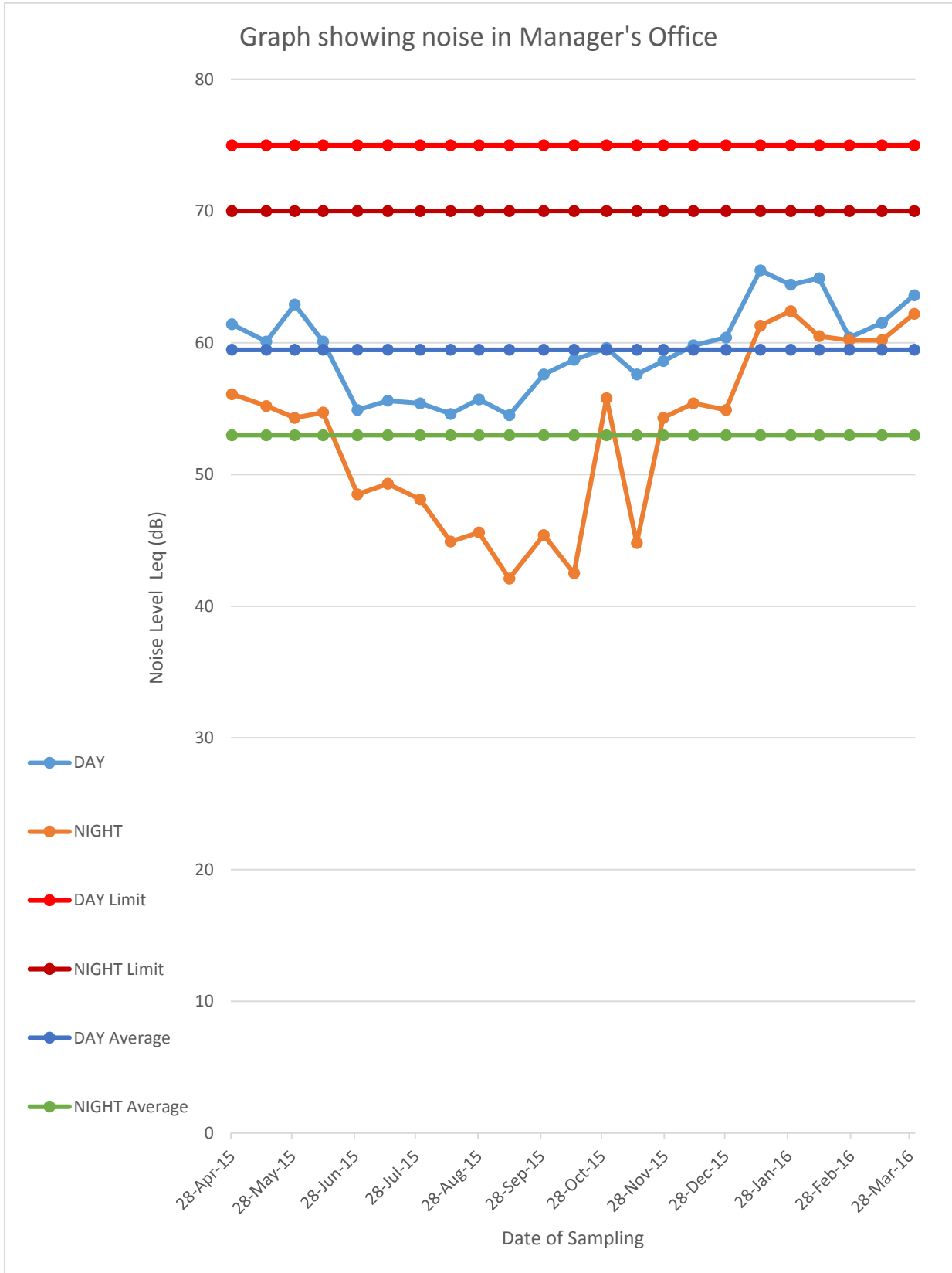


Project: Talcher Area
Monitoring Station: Manager's Office

Table 104

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	61.4	56.1
15-May-15	60.1	55.2
29-May-15	62.9	54.3
12-Jun-15	60.1	54.7
29-Jun-15	54.9	48.5
14-Jul-15	55.6	49.3
30-Jul-15	55.4	48.1
14-Aug-15	54.6	44.9
28-Aug-15	55.7	45.6
12-Sep-15	54.5	42.1
29-Sep-15	57.6	45.4
14-Oct-15	58.7	42.5
30-Oct-15	59.6	55.8
14-Nov-15	57.6	44.8
27-Nov-15	58.6	54.3
12-Dec-15	59.8	55.4
28-Dec-15	60.4	54.9
14-Jan-16	65.5	61.3
29-Jan-16	64.4	62.4
12-Feb-16	64.9	60.5
27-Feb-16	60.4	60.2
14-Mar-16	61.5	60.2
30-Mar-16	63.6	62.2
Brief Statistic	Day	Night
Max	65.50	62.40
Min	54.50	42.10
Mean	59.47	52.99
Noise Standard	75	70

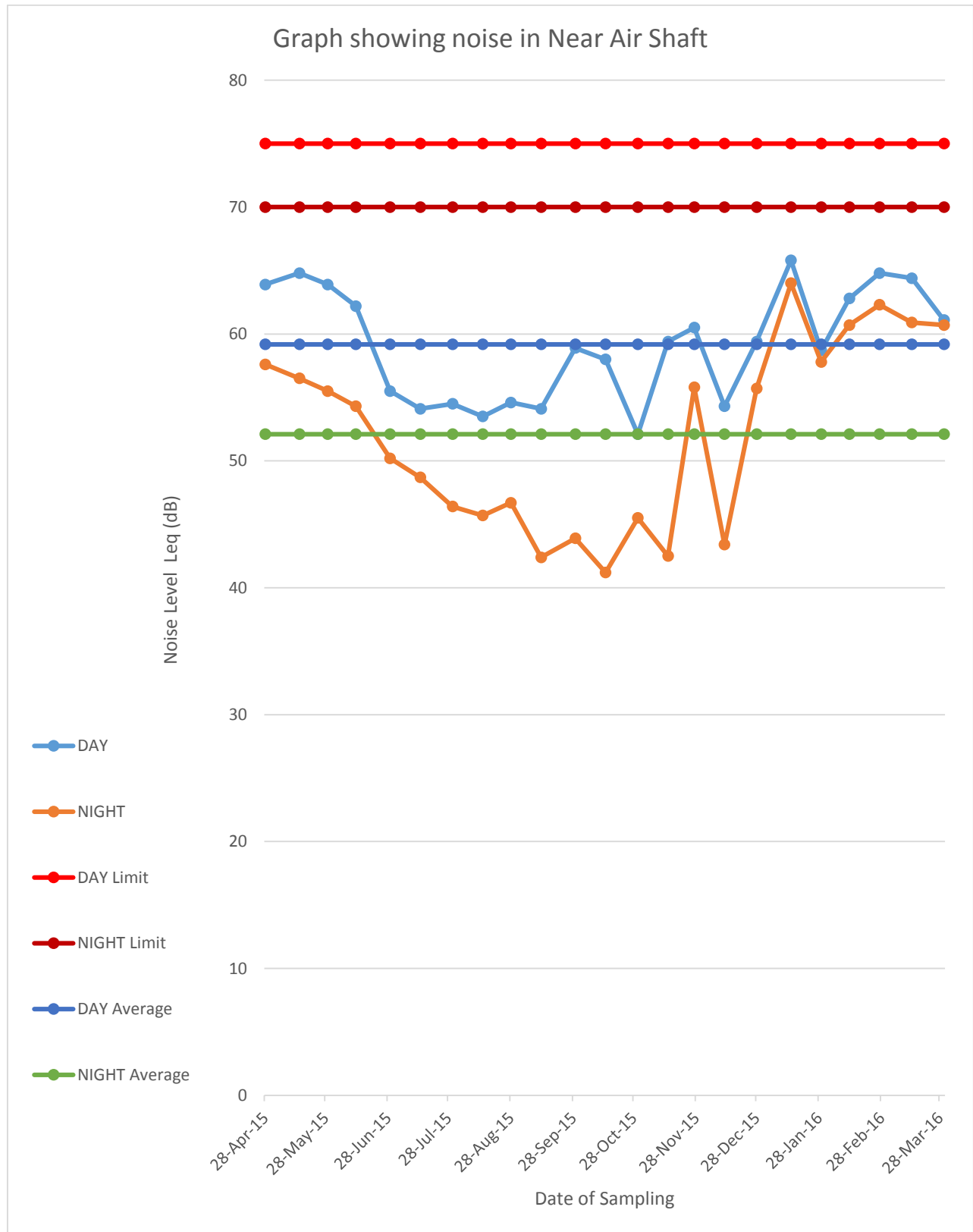
All values are in Leq (dB)



Project: Talcher Area
Monitoring Station: Near Air Shaft
Table 105

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	63.9	57.6
15-May-15	64.8	56.5
29-May-15	63.9	55.5
12-Jun-15	62.2	54.3
29-Jun-15	55.5	50.2
14-Jul-15	54.1	48.7
30-Jul-15	54.5	46.4
14-Aug-15	53.5	45.7
28-Aug-15	54.6	46.7
12-Sep-15	54.1	42.4
29-Sep-15	58.9	43.9
14-Oct-15	58	41.2
30-Oct-15	52.1	45.5
14-Nov-15	59.4	42.5
27-Nov-15	60.5	55.8
12-Dec-15	54.3	43.4
28-Dec-15	59.4	55.7
14-Jan-16	65.8	64
29-Jan-16	58.7	57.8
12-Feb-16	62.8	60.7
27-Feb-16	64.8	62.3
14-Mar-16	64.4	60.9
30-Mar-16	61.1	60.7
Brief Statistic	Day	Night
Max	65.80	64.00
Min	52.10	41.20
Mean	59.19	52.10
Noise Standard	75	70

All values are in Leq (dB)

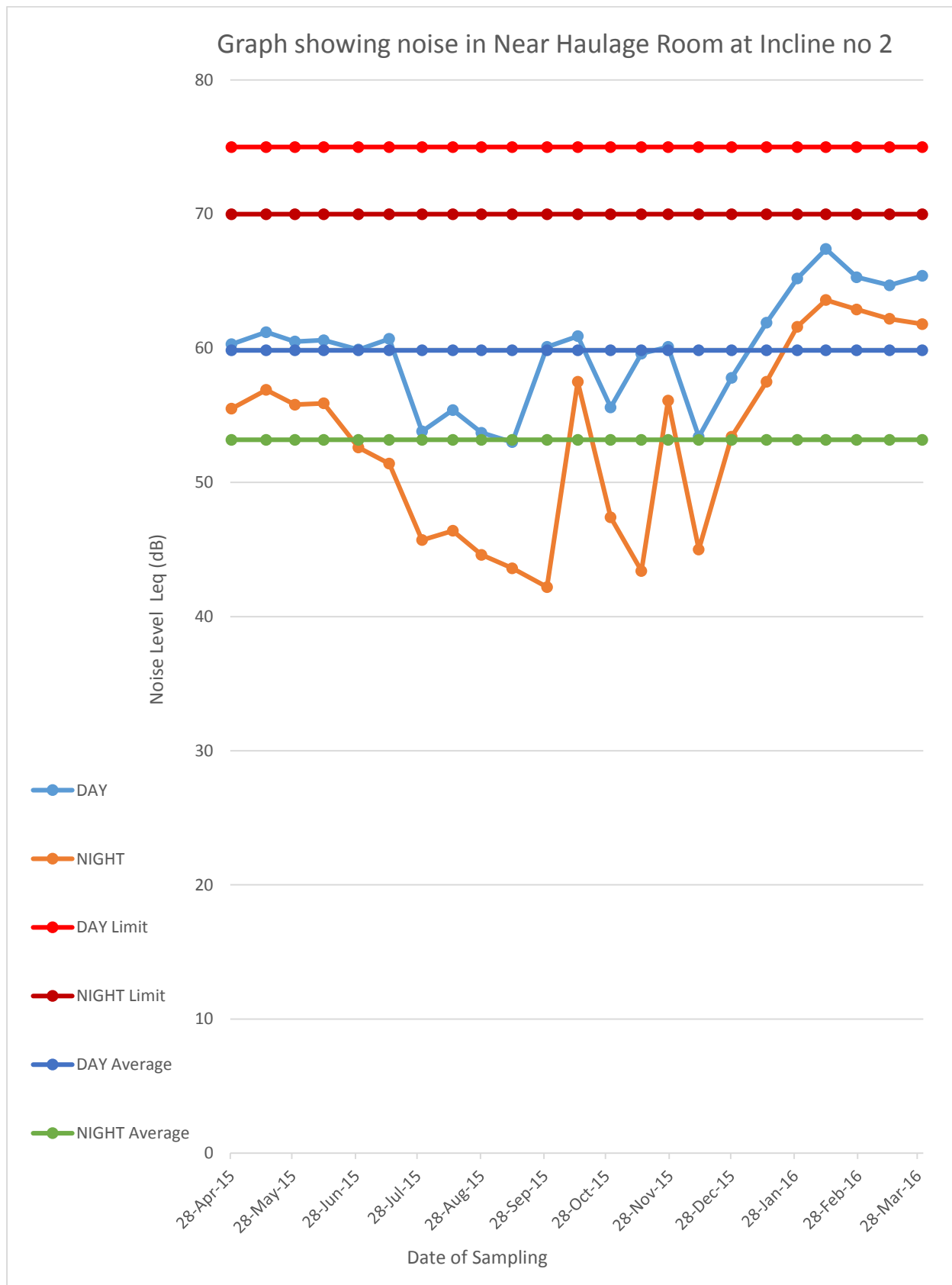


Project: Talcher Area
Monitoring Station: Near haulage room at incline no-2

Table 106

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	60.3	55.5
15-May-15	61.2	56.9
29-May-15	60.5	55.8
12-Jun-15	60.6	55.9
29-Jun-15	59.9	52.6
14-Jul-15	60.7	51.4
30-Jul-15	53.8	45.7
14-Aug-15	55.4	46.4
28-Aug-15	53.7	44.6
12-Sep-15	53	43.6
29-Sep-15	60.1	42.2
14-Oct-15	60.9	57.5
30-Oct-15	55.6	47.4
14-Nov-15	59.6	43.4
27-Nov-15	60.1	56.1
12-Dec-15	53.4	45
28-Dec-15	57.8	53.4
14-Jan-16	61.9	57.5
29-Jan-16	65.2	61.6
12-Feb-16	67.4	63.6
27-Feb-16	65.3	62.9
14-Mar-16	64.7	62.2
30-Mar-16	65.4	61.8
Brief Statistic	Day	Night
Max	67.40	63.60
Min	53.00	42.20
Mean	59.85	53.17
Noise Standard	75	70

All values are in Leq (dB)

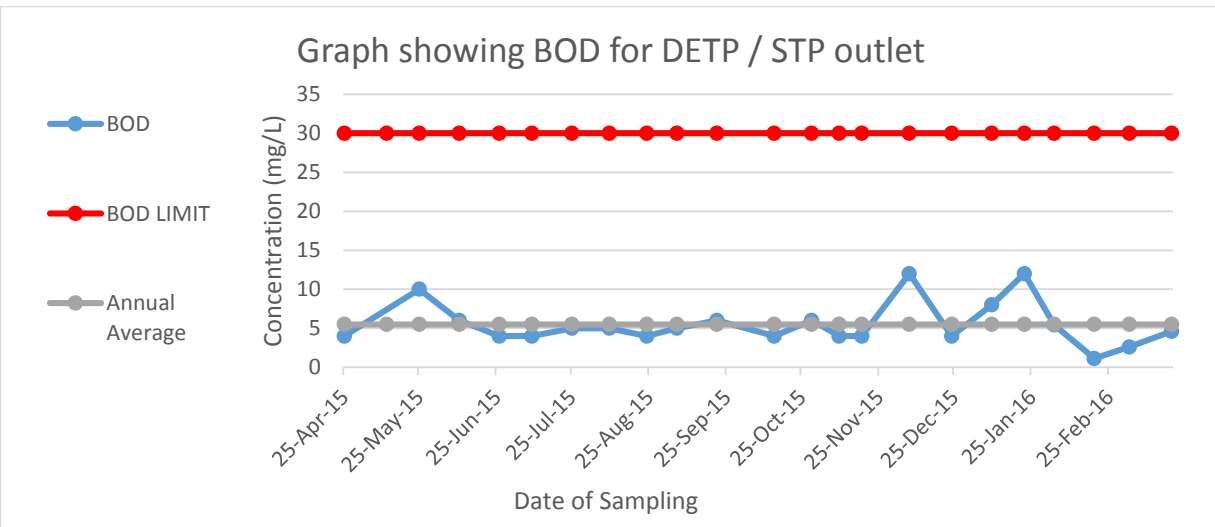
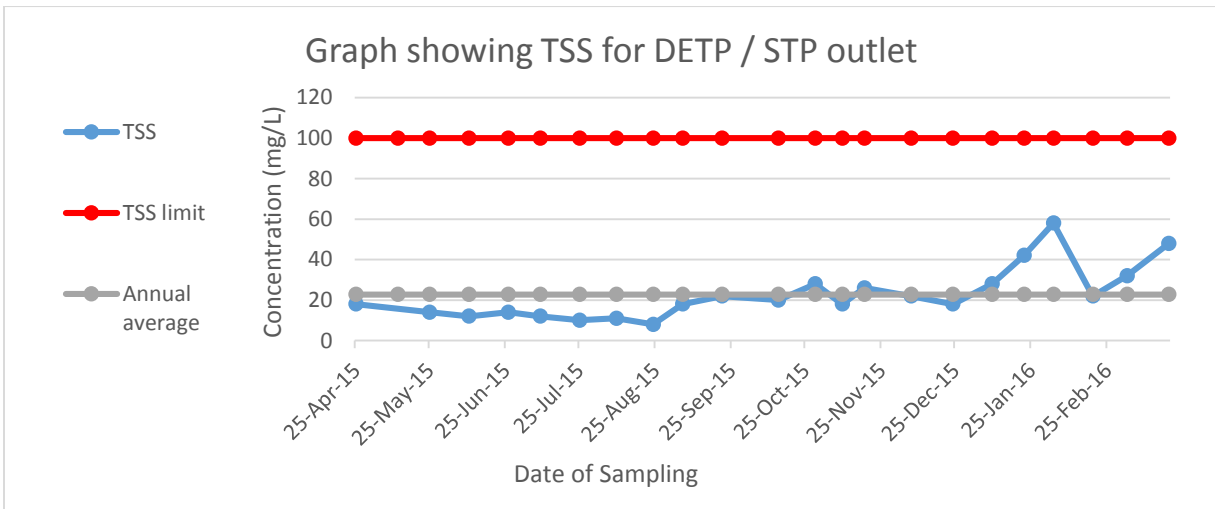
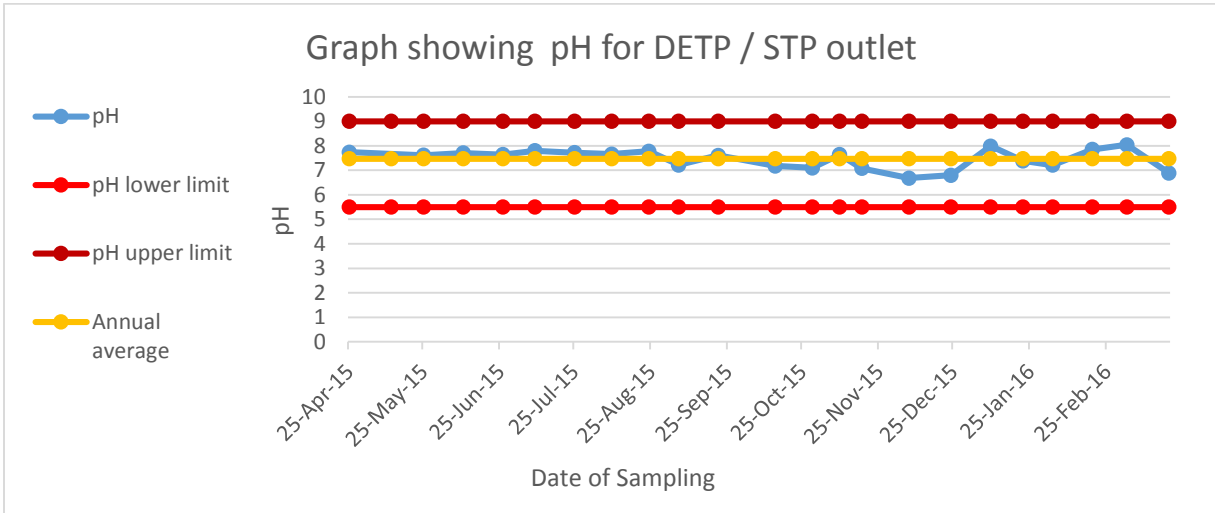


TABLES FOR EFFLUENT WATER QUALITY DATA

Project: Bharatpur OCP
Monitoring Station: DETP / STP outlet
Table 107

Date of Sampling	pH	TSS	BOD
25-Apr-15	7.74	18	4
12-May-15	Maintenance		
25-May-15	7.62	14	10
10-Jun-15	7.71	12	6
26-Jun-15	7.64	14	4
09-Jul-15	7.8	12	4
25-Jul-15	7.72	10	5
09-Aug-15	7.66	11	5
24-Aug-15	7.78	8	4
05-Sep-15	7.22	18	5
21-Sep-15	7.61	22	6
14-Oct-15	7.18	20	4
29-Oct-15	7.1	28	6
09-Nov-15	7.64	18	4
18-Nov-15	7.08	26	4
07-Dec-15	6.68	22	12
24-Dec-15	6.8	18	4
09-Jan-16	7.99	28	8
22-Jan-16	7.39	42	12
03-Feb-16	7.21	58	5.4
19-Feb-16	7.85	22	1.13
04-Mar-16	8.04	32	2.6
21-Mar-16	6.89	48	4.6

All values are in mg/L



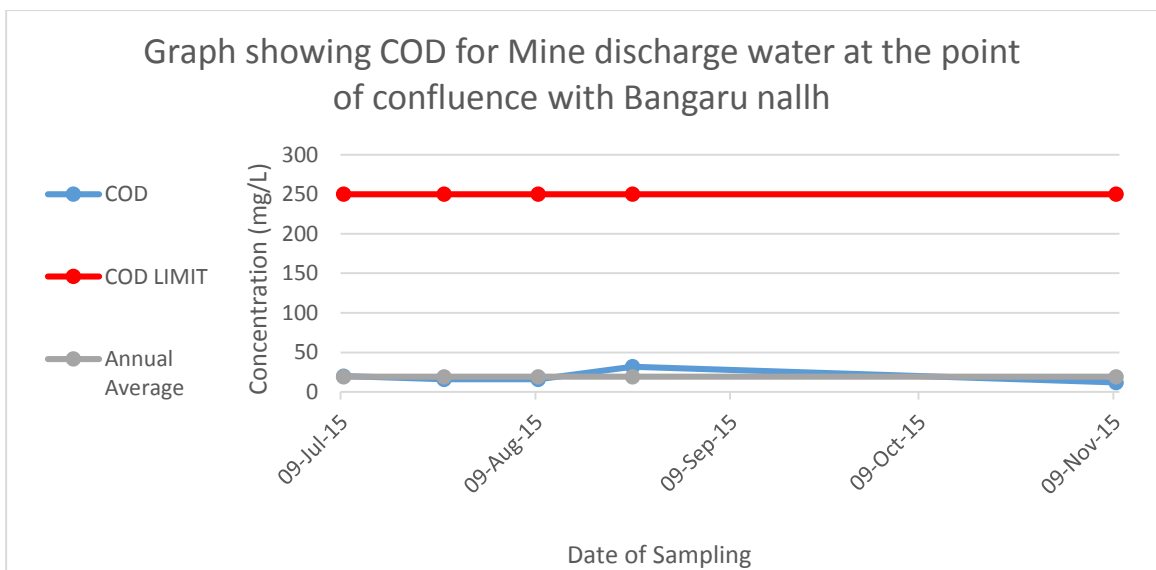
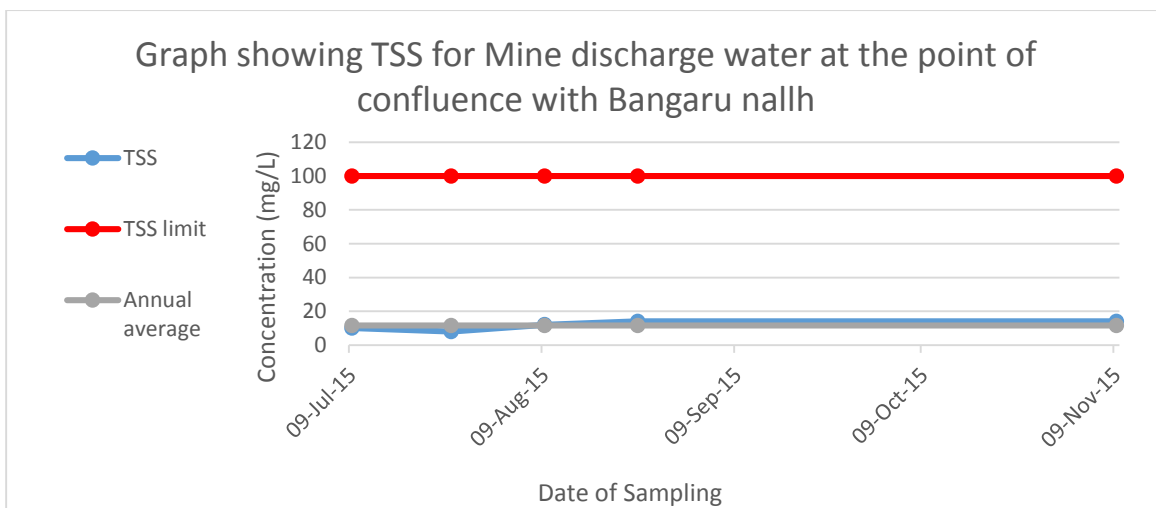
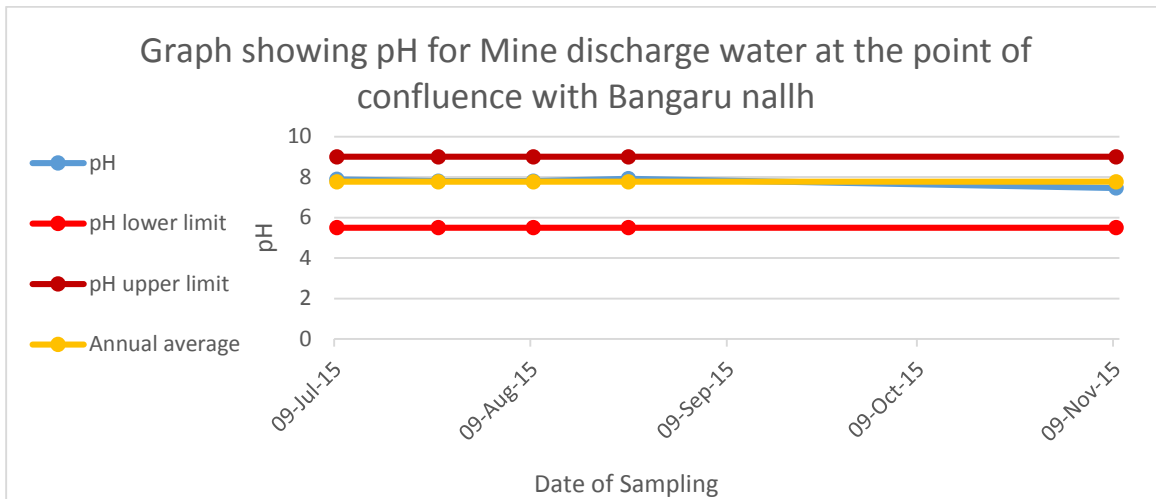
Project: Bharatpur OCP

Monitoring Station: Mine discharge water at the point of confluence with Bangaru nallah

Table 108

Date of Sampling	pH	Oil & Grease	TSS	COD
09-Jul-15	7.89	<4.0	10	20
25-Jul-15	7.8	<4.0	8	16
09-Aug-15	7.8	<4.0	12	16
24-Aug-15	7.92	<4.0	14	32
09-Nov-15	7.46	<4.0	14	12

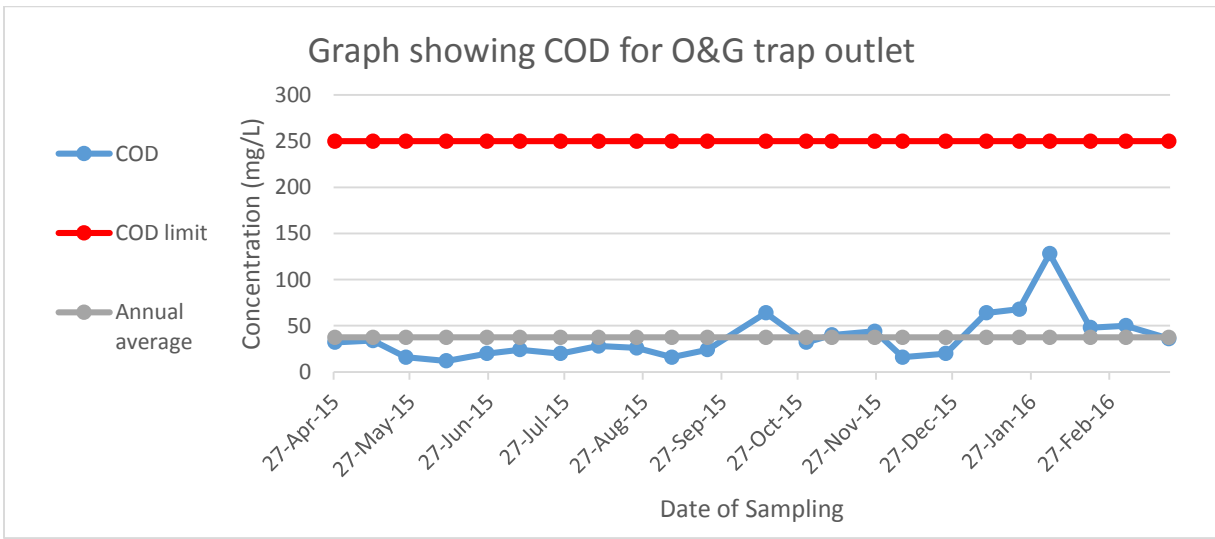
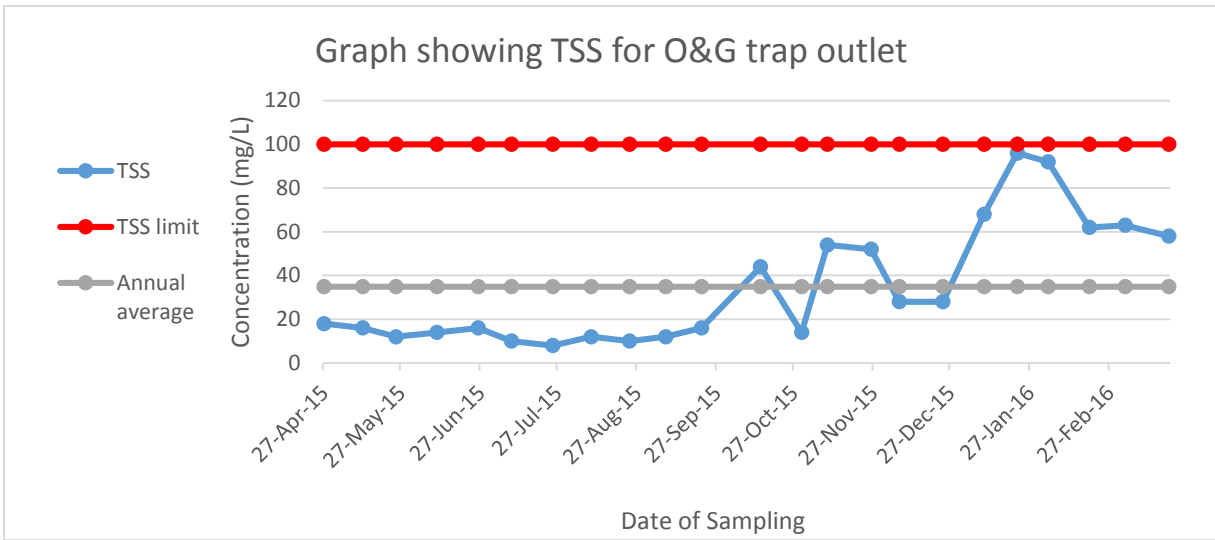
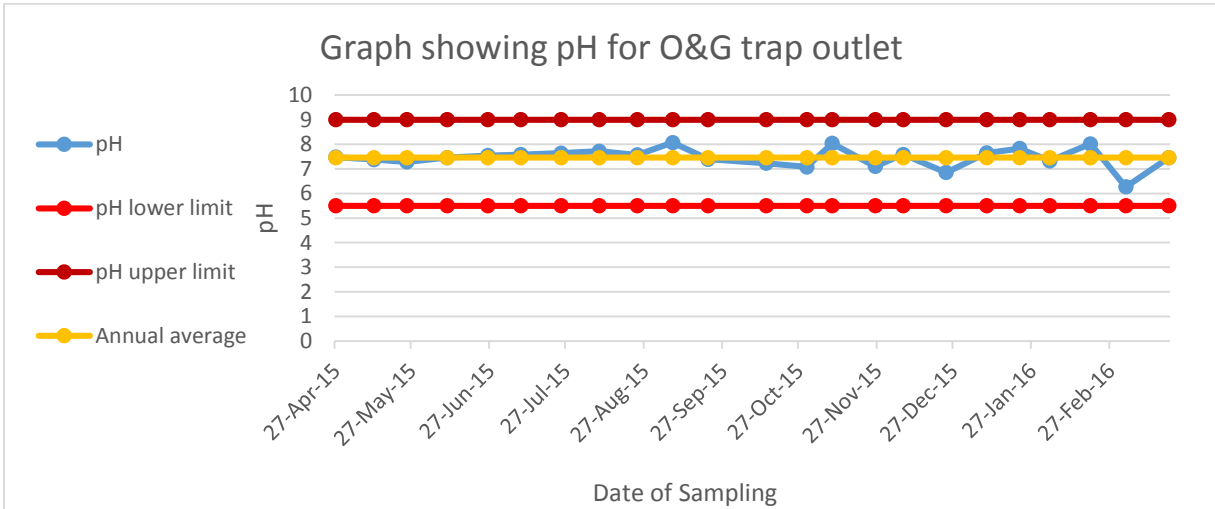
All values are in mg/L



Project: Bharatpur OCP
Monitoring Station: O&G trap outlet
Table 109

Date of Sampling	pH	Oil & Grease	TSS	COD
27-Apr-15	7.48	<4.0	18	32
12-May-15	7.38	<4.0	16	34
25-May-15	7.28	<4.0	12	16
10-Jun-15	7.46	<4.0	14	12
26-Jun-15	7.54	<4.0	16	20
09-Jul-15	7.58	<4.0	10	24
25-Jul-15	7.64	<4.0	8	20
09-Aug-15	7.72	<4.0	12	28
24-Aug-15	7.57	<4.0	10	26
07-Sep-15	8.07	<4.0	12	16
21-Sep-15	7.39	<4.0	16	24
14-Oct-15	7.23	<4.0	44	64
30-Oct-15	7.08	<4.0	14	32
09-Nov-15	8.04	<4.0	54	40
26-Nov-15	7.1	<4.0	52	44
07-Dec-15	7.59	<4.0	28	16
24-Dec-15	6.85	<4.0	28	20
09-Jan-16	7.65	<4.0	68	64
22-Jan-16	7.83	<4.0	96	68
03-Feb-16	7.33	<4.0	92	128
19-Feb-16	8.02	<4.0	62	48
04-Mar-16	6.27	<4.0	63	50
21-Mar-16	7.46	<4.0	58	36

All values are in mg/L



Project: Bharatpur OCP (Effluent Yearly 22 Parameter)
Monitoring Station: Mine Discharge before pt. Of confl. With Bangaru nulla

Table 110

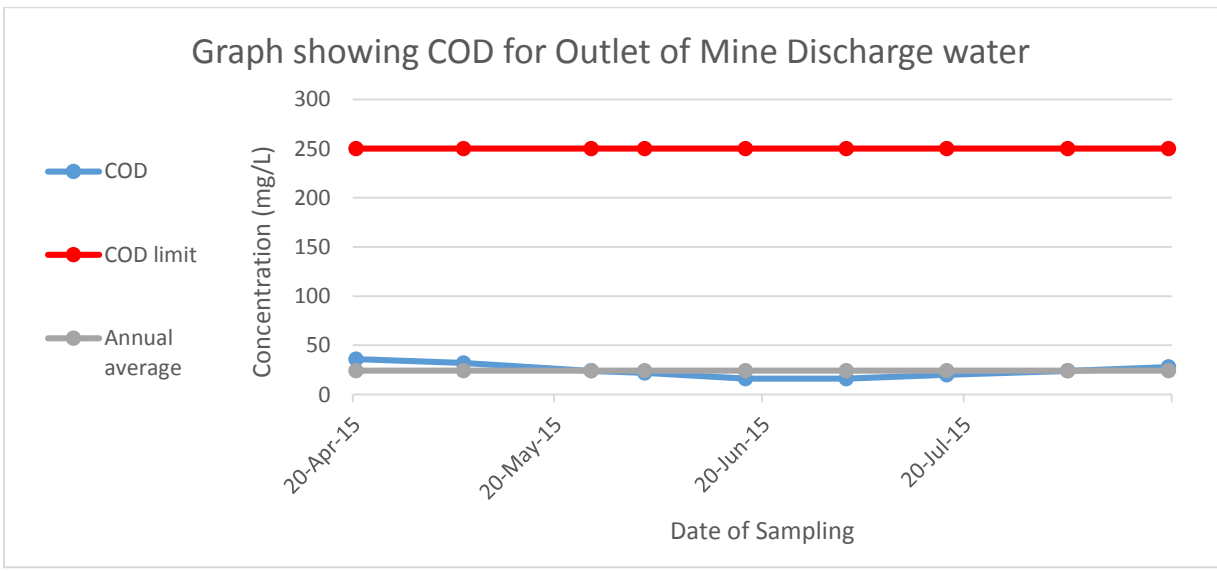
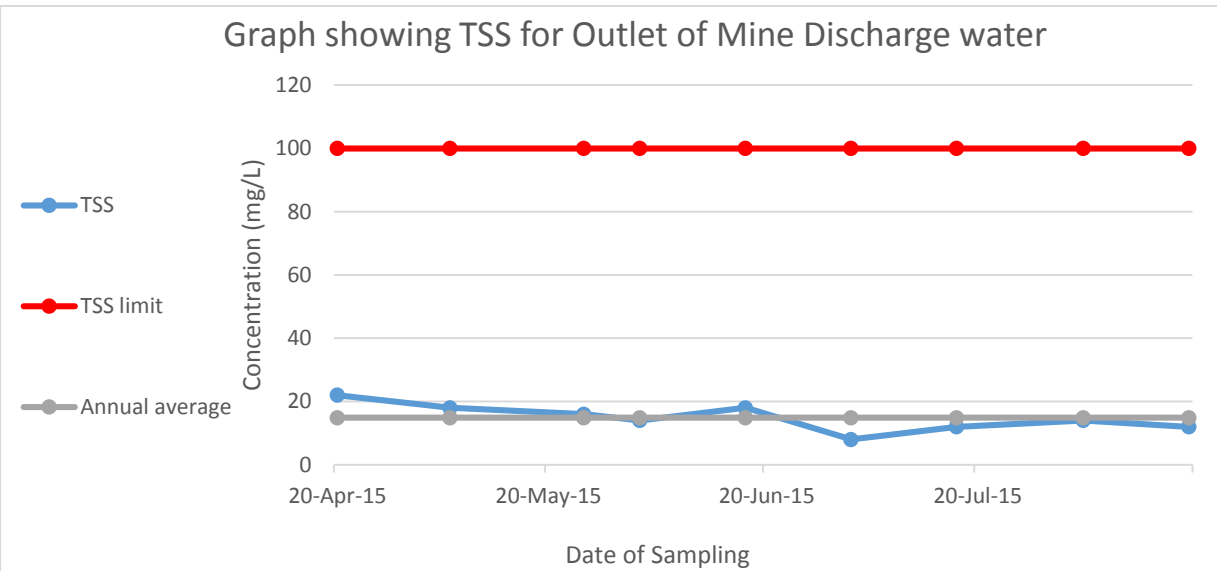
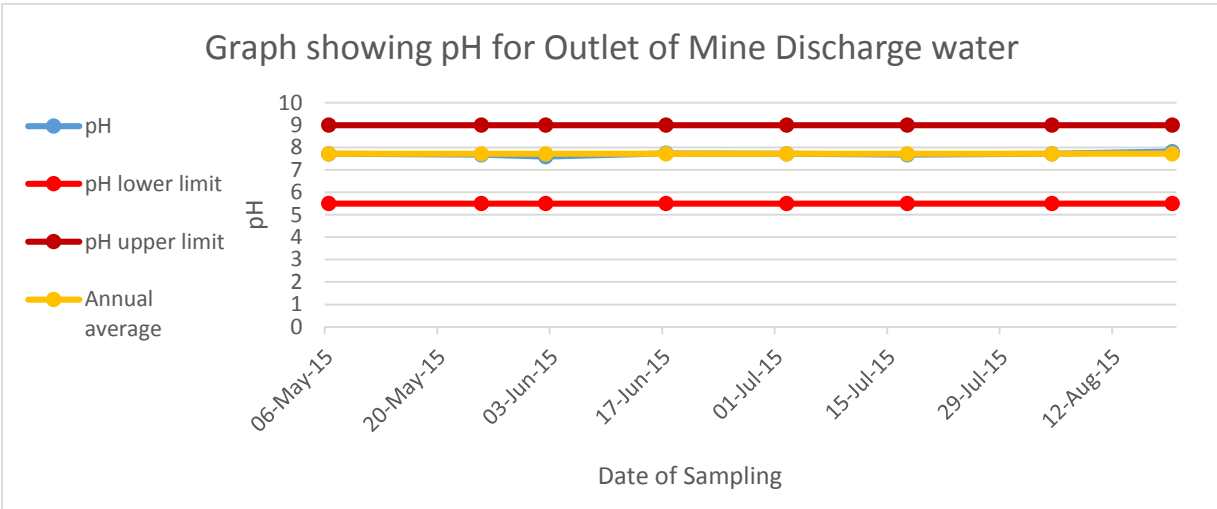
Area	Bharatpur	MoEF-Sch-VI Standards
Date	9.11.2015	
Color	Accept-able	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.9	
Nitrate Nitrogen	1.9	10
Ammonia Nitrogen	0.38	50
Total Kjeldahl Nitrogen	1.14	100
BOD	8	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.28	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.36	2
Dis. PO ₄	0.22	5
Sulphide	0.004	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.18	3

All values are in mg/L

Project: Chhendipada OCP
Monitoring Station: Outlet of Mine Discharge water
Table 111

Date of Sampling	pH	Oil & Grease	TSS	COD
20-Apr-15	7.8	<4.0	22	36
06-May-15	7.72	<4.0	18	32
25-May-15	7.68	<4.0	16	24
02-Jun-15	7.59	<4.0	14	22
17-Jun-15	7.74	<4.0	18	16
02-Jul-15	7.72	<4.0	8	16
17-Jul-15	7.68	<4.0	12	20
04-Aug-15	7.72	<4.0	14	24
19-Aug-15	7.82	<4.0	12	28

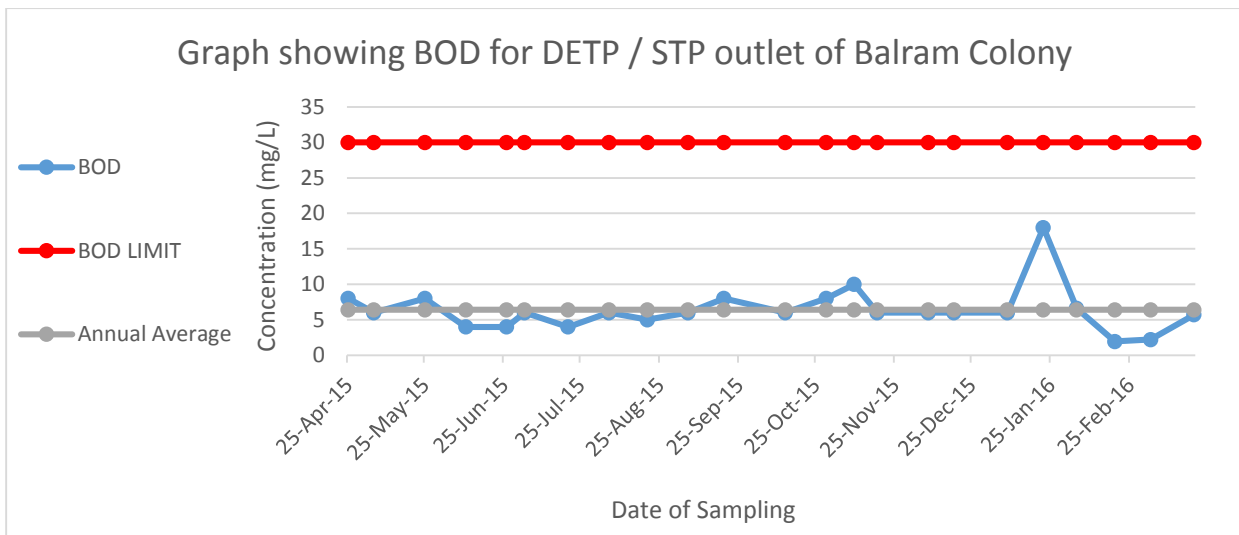
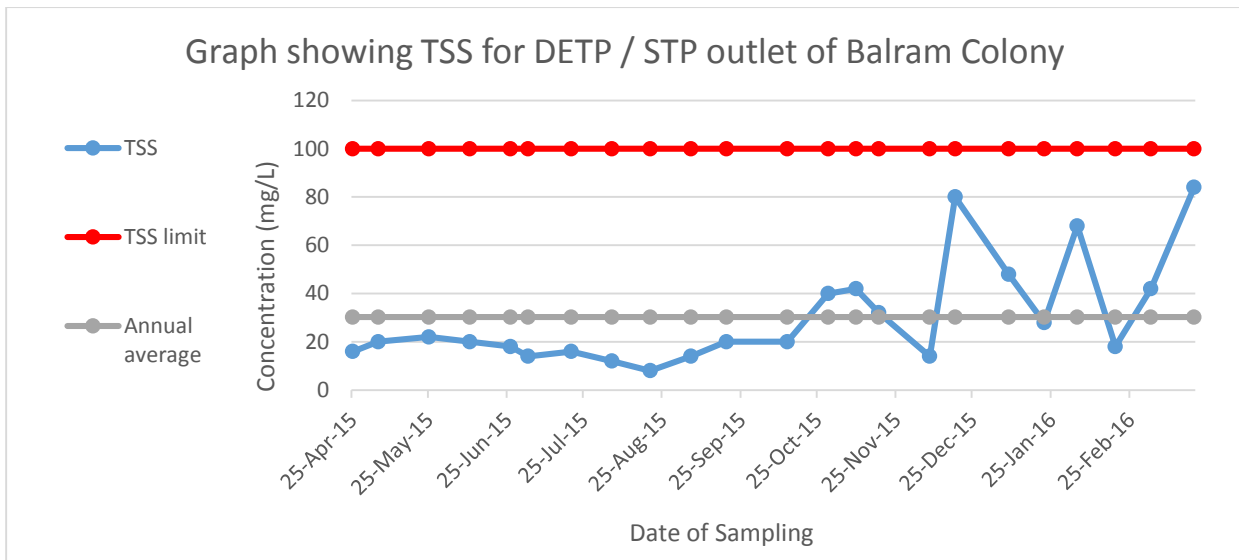
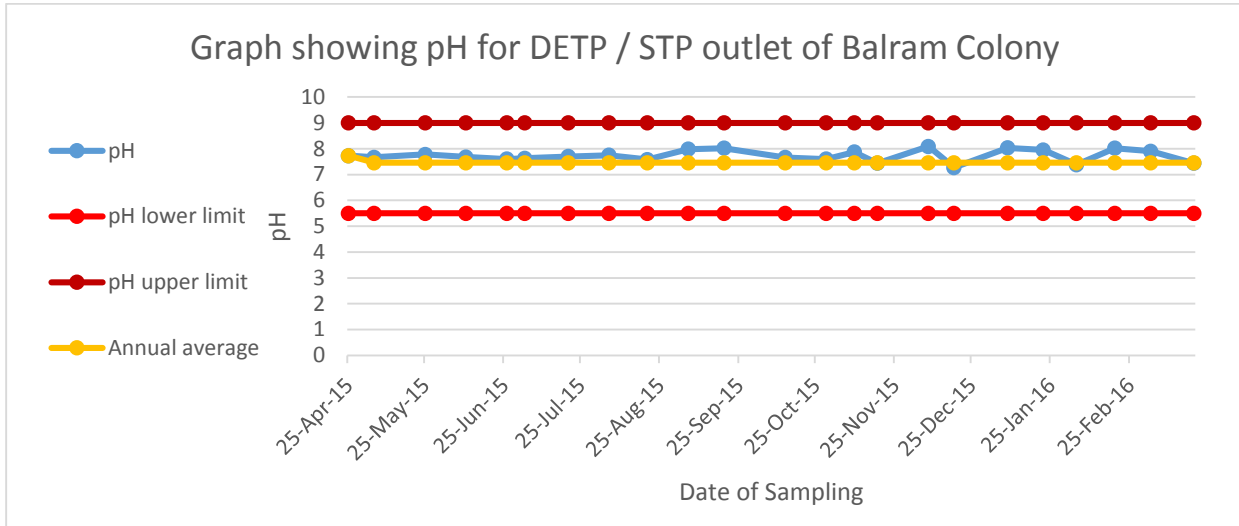
All values are in mg/L



Project: Balram OCP
Monitoring Station: DETP / STP outlet of Balram Colony
Table 112

Date of Sampling	pH	TSS	BOD
25-Apr-15	7.73	16	8
05-May-15	7.67	20	6
25-May-15	7.78	22	8
10-Jun-15	7.68	20	4
26-Jun-15	7.6	18	4
03-Jul-15	7.63	14	6
20-Jul-15	7.7	16	4
05-Aug-15	7.75	12	6
20-Aug-15	7.58	8	5
05-Sep-15	7.98	14	6
19-Sep-15	8.02	20	8
13-Oct-15	7.66	20	6
29-Oct-15	7.6	40	8
09-Nov-15	7.87	42	10
18-Nov-15	7.44	32	6
08-Dec-15	8.09	14	6
18-Dec-15	7.27	80	6
08-Jan-16	8.03	48	6
22-Jan-16	7.95	28	18
04-Feb-16	7.38	68	6.6
19-Feb-16	8.02	18	1.93
04-Mar-16	7.9	42	2.2
21-Mar-16	7.44	84	5.7

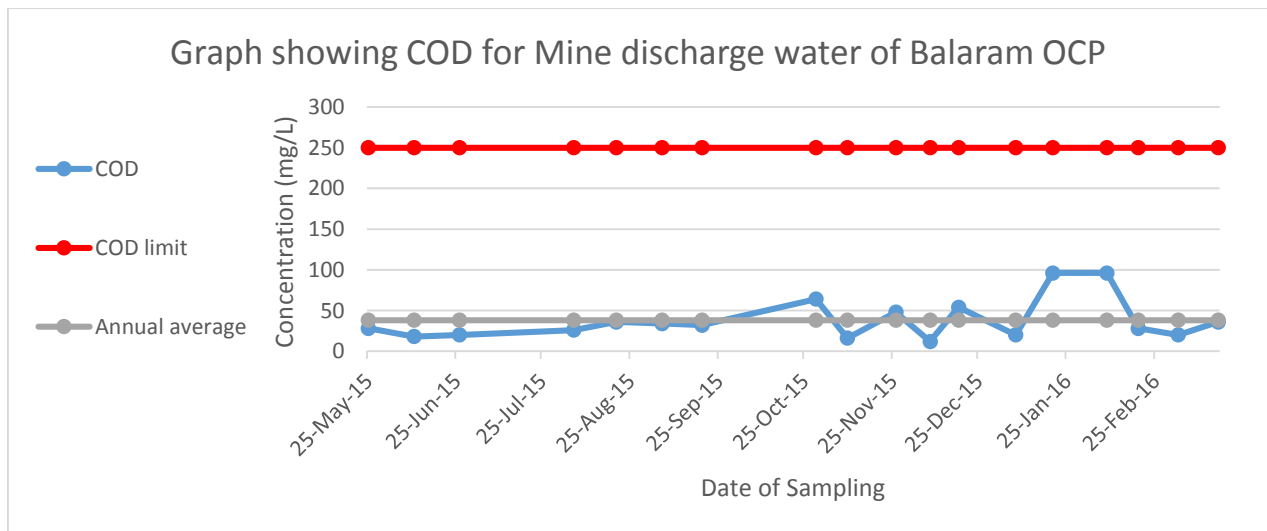
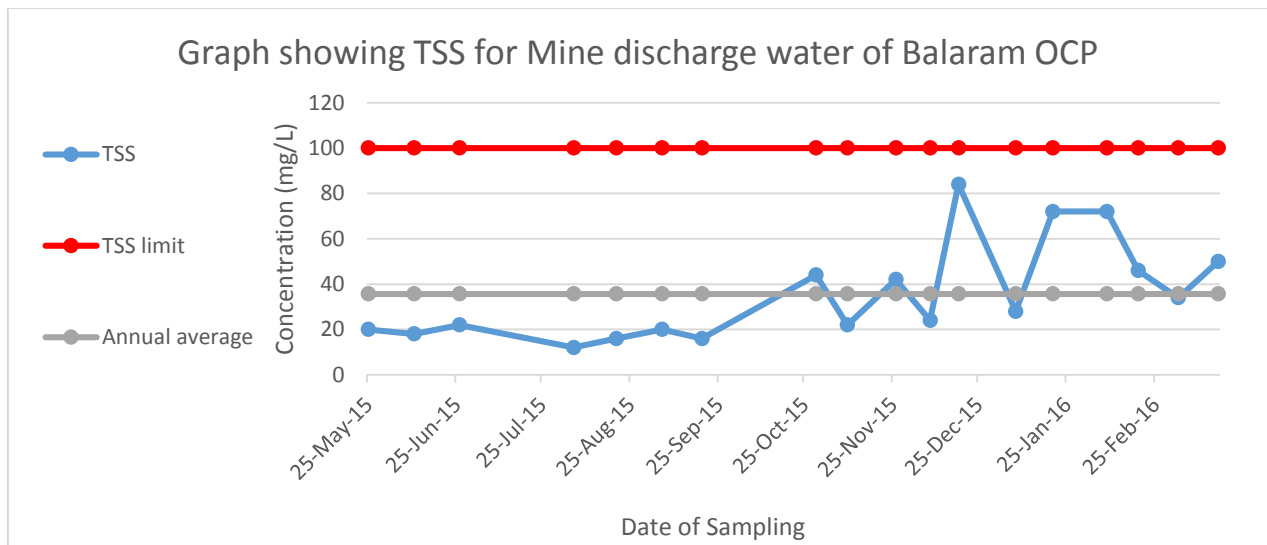
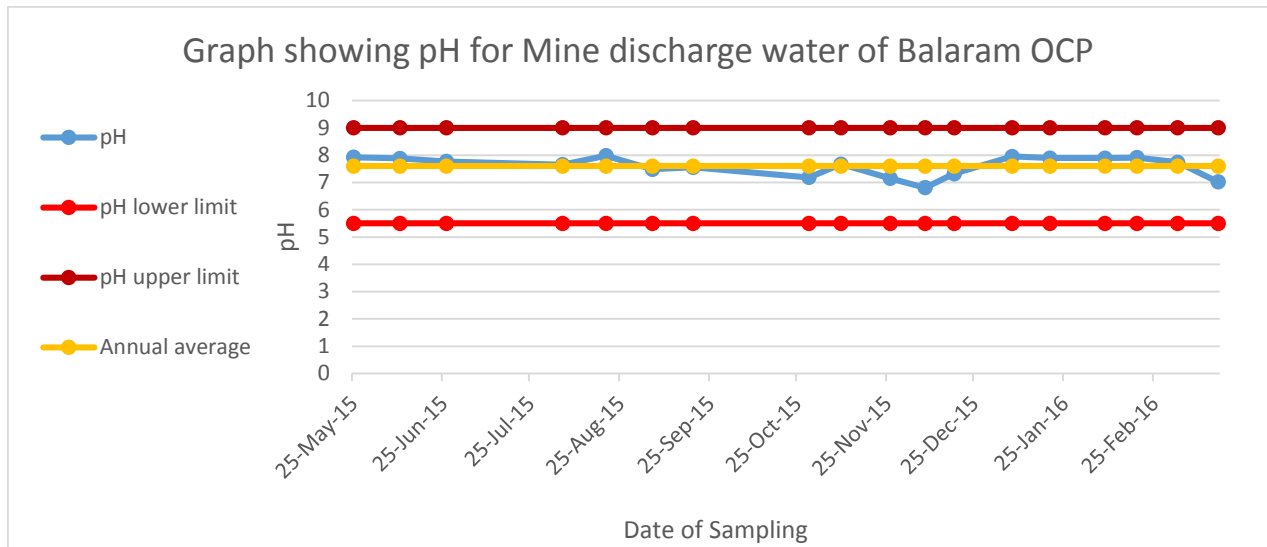
All values are in mg/L



Project: Balram OCP
Monitoring Station: Mine discharge water of Balram OCP
Table 113

Date of Sampling	pH	Oil & Grease	TSS	COD
25-May-15	7.92	<4.0	20	28
10-Jun-15	7.88	<4.0	18	18
26-Jun-15	7.77	<4.0	22	20
05-Aug-15	7.65	<4.0	12	26
20-Aug-15	7.98	<4.0	16	36
05-Sep-15	7.48	<4.0	20	34
19-Sep-15	7.55	<4.0	16	32
29-Oct-15	7.18	<4.0	44	64
09-Nov-15	7.67	<4.0	22	16
26-Nov-15	7.15	<4.0	42	48
08-Dec-15	6.81	<4.0	24	12
18-Dec-15	7.32	<4.0	84	54
07-Jan-16	7.95	<4.0	28	20
20-Jan-16	7.89	<4.0	72	96
08-Feb-16	7.89	<4.0	72	96
19-Feb-16	7.91	<4.0	46	28
04-Mar-16	7.74	<4.0	34	20
18-Mar-16	7.02	<4.0	50	36

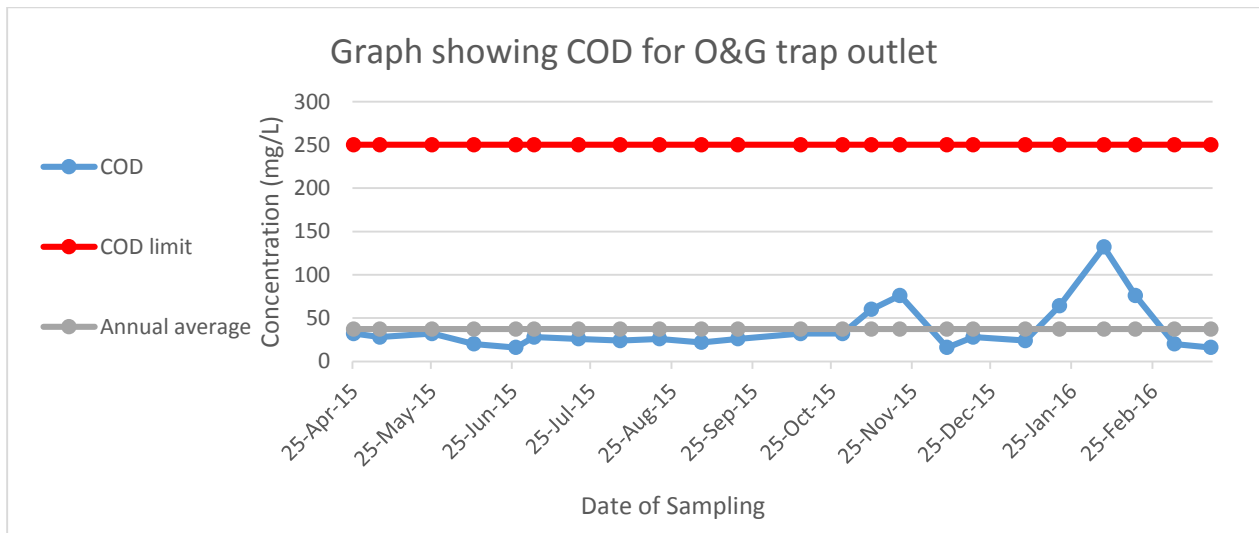
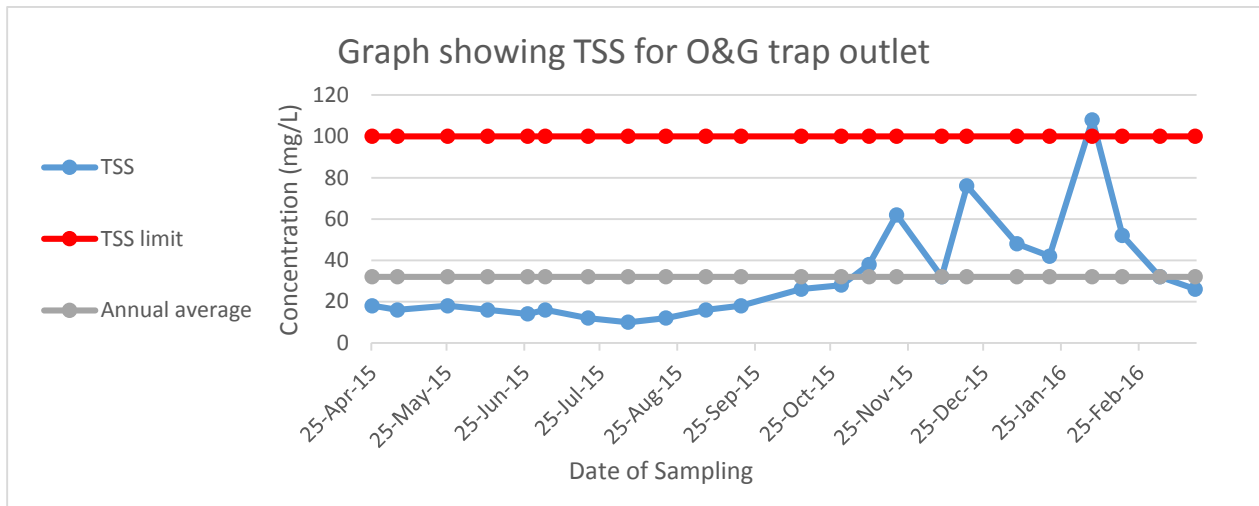
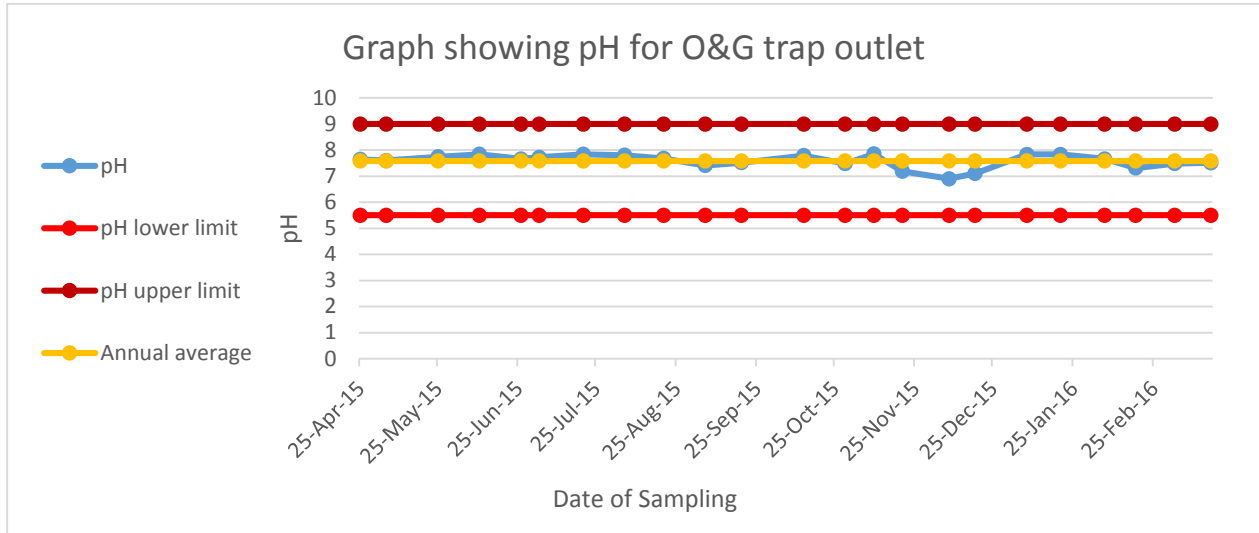
All values are in mg/L



Project: Balram OCP
Monitoring Station: O&G trap outlet
Table 114

Date of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-15	7.64	<4.0	18	32
05-May-15	7.6	<4.0	16	28
25-May-15	7.74	<4.0	18	32
10-Jun-15	7.84	<4.0	16	20
26-Jun-15	7.66	<4.0	14	16
03-Jul-15	7.72	<4.0	16	28
20-Jul-15	7.84	<4.0	12	26
05-Aug-15	7.8	<4.0	10	24
20-Aug-15	7.68	<4.0	12	26
05-Sep-15	7.41	<4.0	16	22
19-Sep-15	7.52	<4.0	18	26
13-Oct-15	7.79	<4.0	26	32
29-Oct-15	7.48	<4.0	28	32
09-Nov-15	7.85	<4.0	38	60
20-Nov-15	7.19	<4.0	62	76
08-Dec-15	6.9	<4.0	32	16
18-Dec-15	7.1	<4.0	76	28
07-Jan-16	7.83	<4.0	48	24
20-Jan-16	7.83	<4.0	42	64
06-Feb-16	7.66	<4.0	108	132
18-Feb-16	7.31	<4.0	52	76
04-Mar-16	7.48	<4.0	32	20
18-Mar-16	7.51	<4.0	26	16

All values are in mg/L



**Project: Balram OCP (Effluent Yearly 22 Parameter)
Monitoring Station: Balram mine discharge water**

Table 115

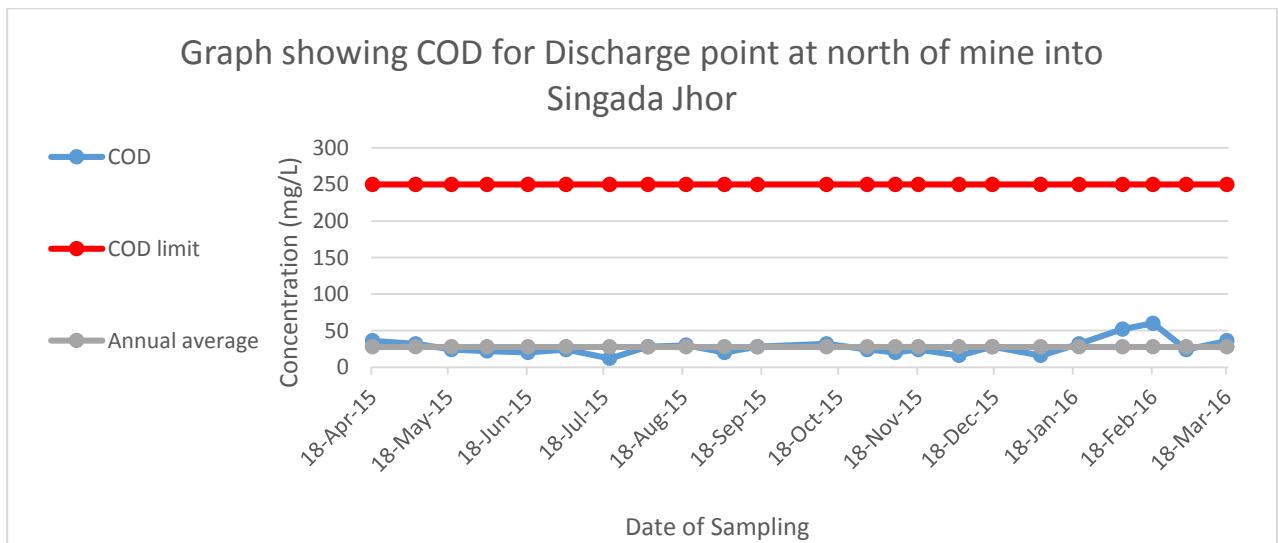
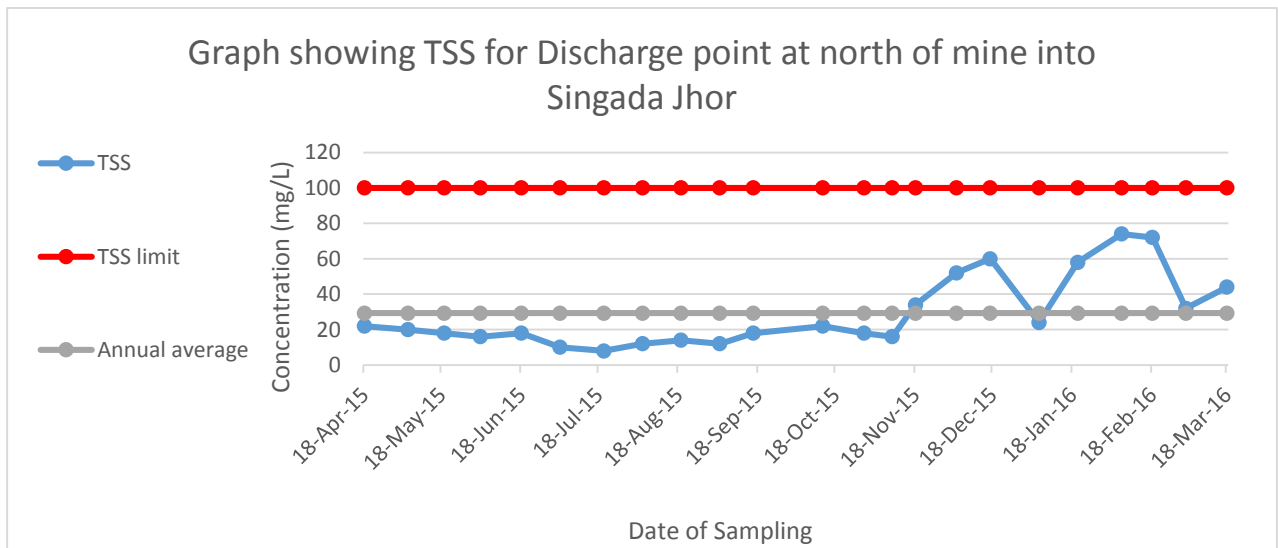
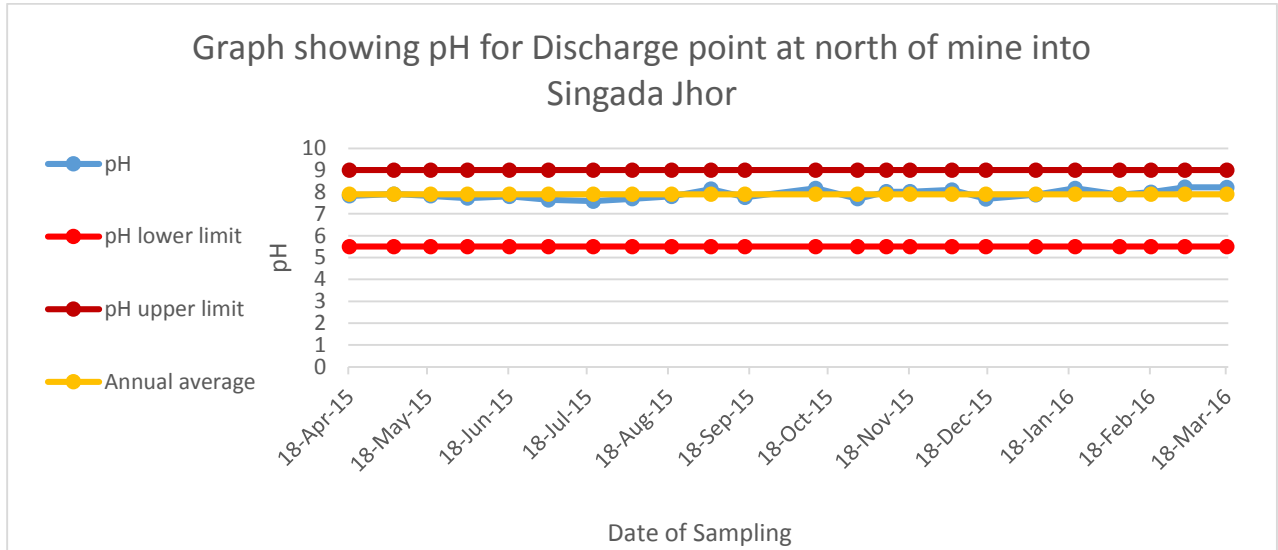
Area	Hingula	MoEF-Sch-VI Standards
Date	9.11.2015	
Color	Accept-able	Acceptable
Agreeable	Agreeable	Agreeable
Temp. °C	23.8	
Nitrate Nitrogen	2	10
Ammonia Nitrogen	0.52	50
Total Kjedadhl Nitrogen	1.62	100
BOD	16	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.52	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.54	2
Dis. PO ₄	0.36	5
Sulphide	0.004	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.15	3

All values are in mg/L

Project: Hingula OCP
Monitoring Station: Discharge point at north of mine into Singada Jhor
Table 116

Date of Sampling	pH	Oil & Grease	TSS	COD
18-Apr-15	7.82	<4.0	22	36
05-May-15	7.9	<4.0	20	32
19-May-15	7.82	<4.0	18	24
02-Jun-15	7.72	<4.0	16	22
18-Jun-15	7.8	<4.0	18	20
03-Jul-15	7.64	<4.0	10	24
20-Jul-15	7.58	<4.0	8	12
04-Aug-15	7.69	<4.0	12	28
19-Aug-15	7.8	<4.0	14	30
03-Sep-15	8.13	<4.0	12	20
16-Sep-15	7.76	<4.0	18	28
13-Oct-15	8.17	<4.0	22	32
29-Oct-15	7.69	<4.0	18	24
09-Nov-15	8.01	<4.0	16	20
18-Nov-15	8.01	<4.0	34	24
04-Dec-15	8.09	<4.0	52	16
17-Dec-15	7.68	<4.0	60	28
05-Jan-16	7.87	<4.0	24	16
20-Jan-16	8.17	<4.0	58	32
06-Feb-16	7.88	<4.0	74	52
18-Feb-16	7.99	<4.0	72	60
02-Mar-16	8.22	<4.0	32	24
18-Mar-16	8.21	<4.0	44	36

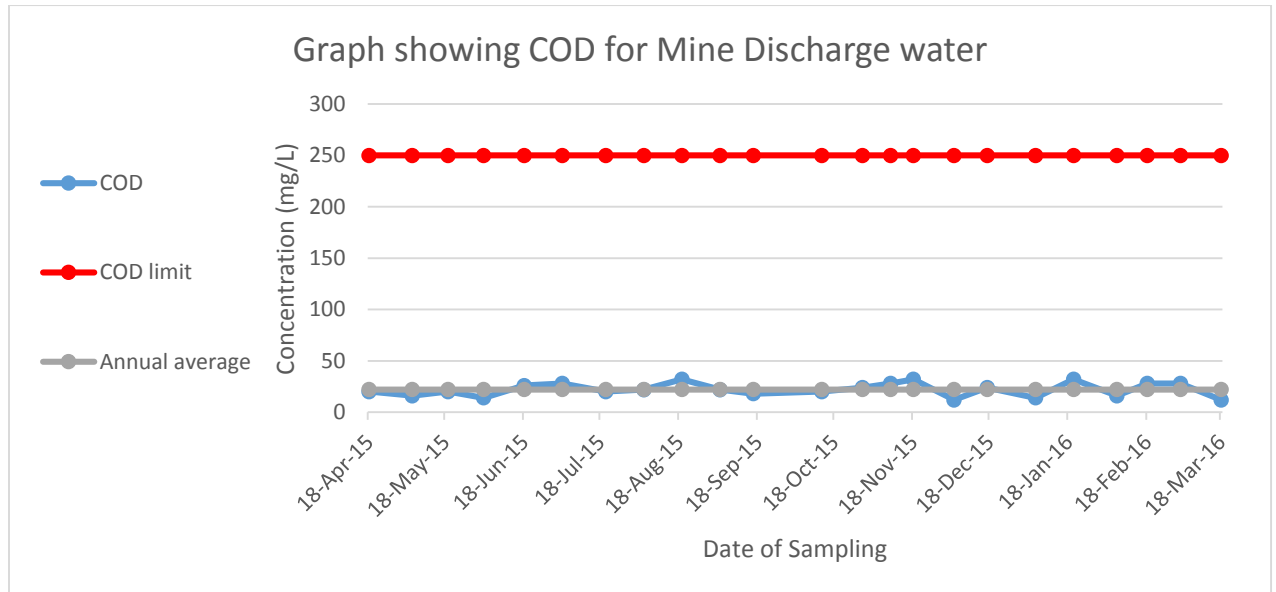
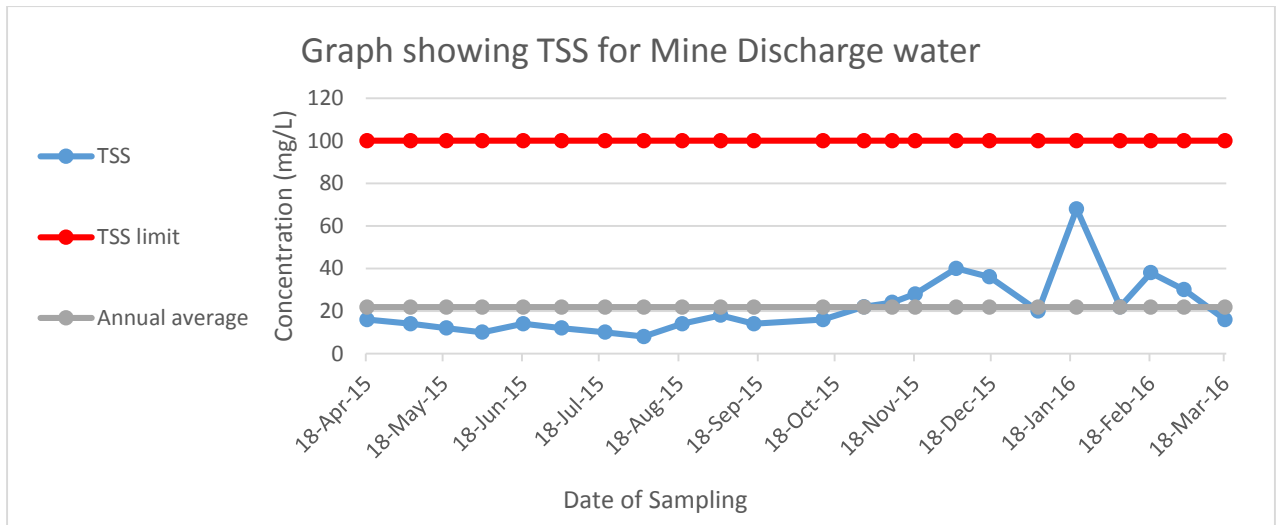
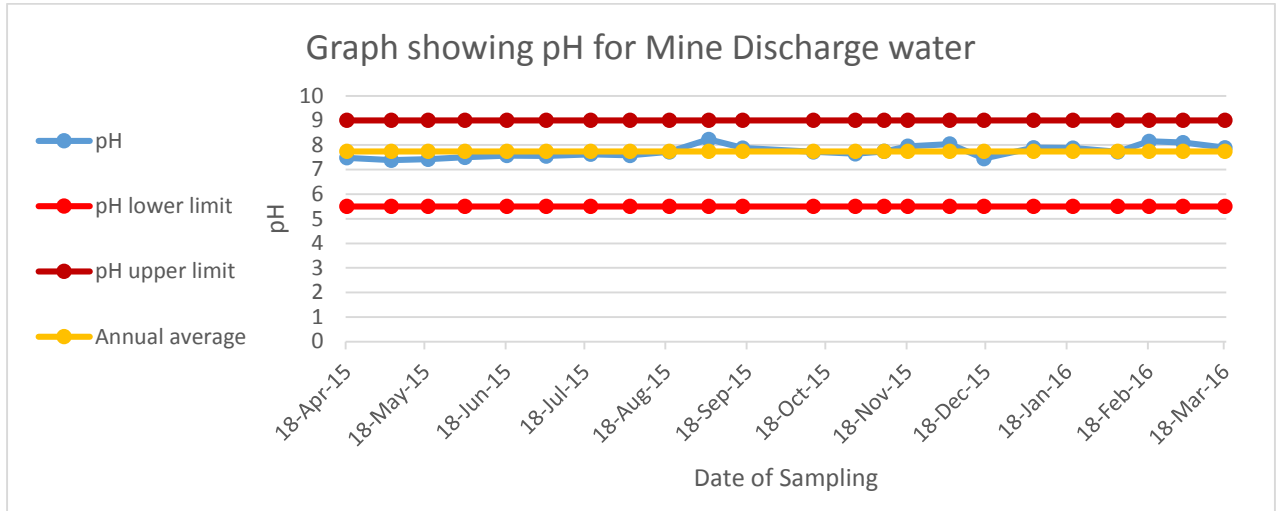
All values are in mg/L



Project: Hingula OCP
Monitoring Station: Mine Discharge water
Table 117

Date of Sampling	pH	Oil & Grease	TSS	COD
18-Apr-15	7.48	<4.0	16	20
05-May-15	7.38	<4.0	14	16
19-May-15	7.42	<4.0	12	20
02-Jun-15	7.5	<4.0	10	14
18-Jun-15	7.57	<4.0	14	26
03-Jul-15	7.55	<4.0	12	28
20-Jul-15	7.62	<4.0	10	20
04-Aug-15	7.58	<4.0	8	22
19-Aug-15	7.72	<4.0	14	32
03-Sep-15	8.23	<4.0	18	22
16-Sep-15	7.88	<4.0	14	18
13-Oct-15	7.72	<4.0	16	20
29-Oct-15	7.64	<4.0	22	24
09-Nov-15	7.74	<4.0	24	28
18-Nov-15	7.95	<4.0	28	32
04-Dec-15	8.04	<4.0	40	12
17-Dec-15	7.45	<4.0	36	24
05-Jan-16	7.89	<4.0	20	14
20-Jan-16	7.88	<4.0	68	32
06-Feb-16	7.72	<4.0	22	16
18-Feb-16	8.15	<4.0	38	28
02-Mar-16	8.1	<4.0	30	28
18-Mar-16	7.89	<4.0	16	12

All values are in mg/L

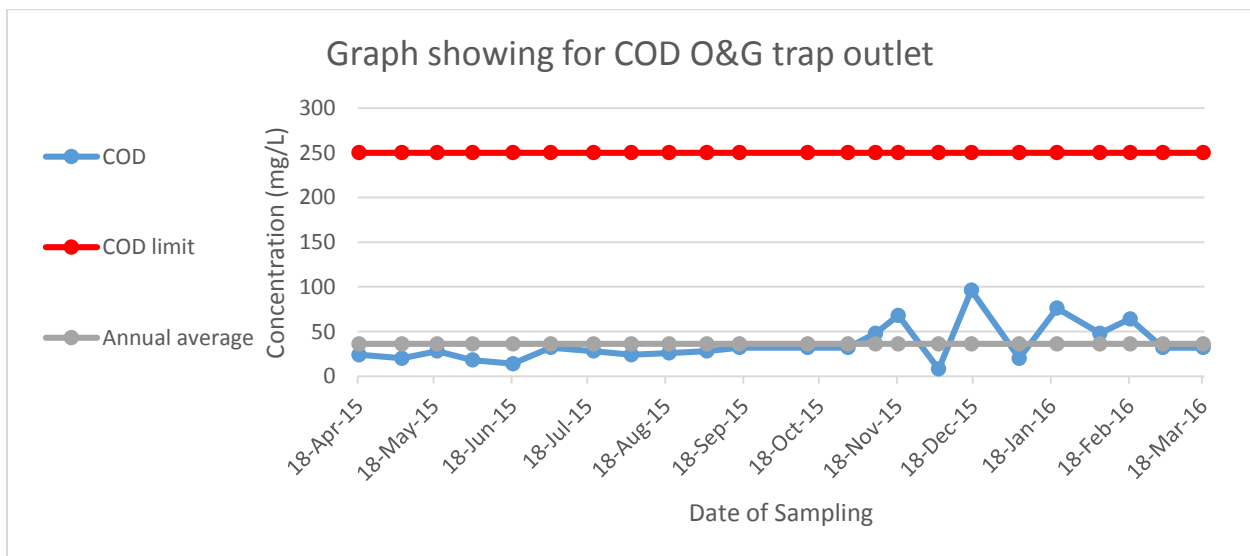
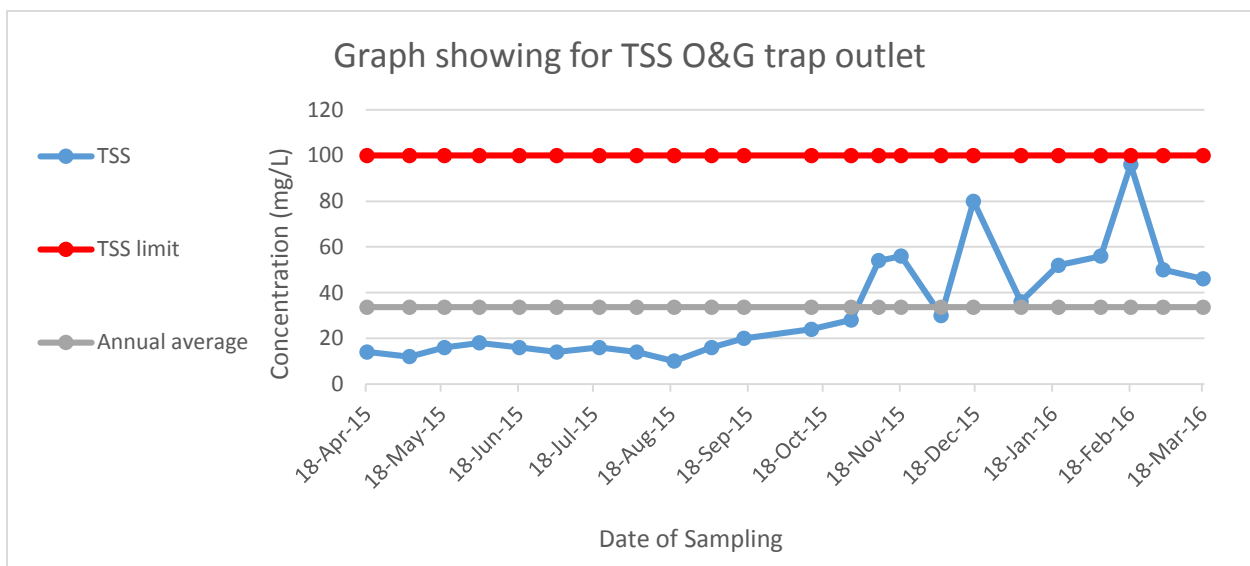
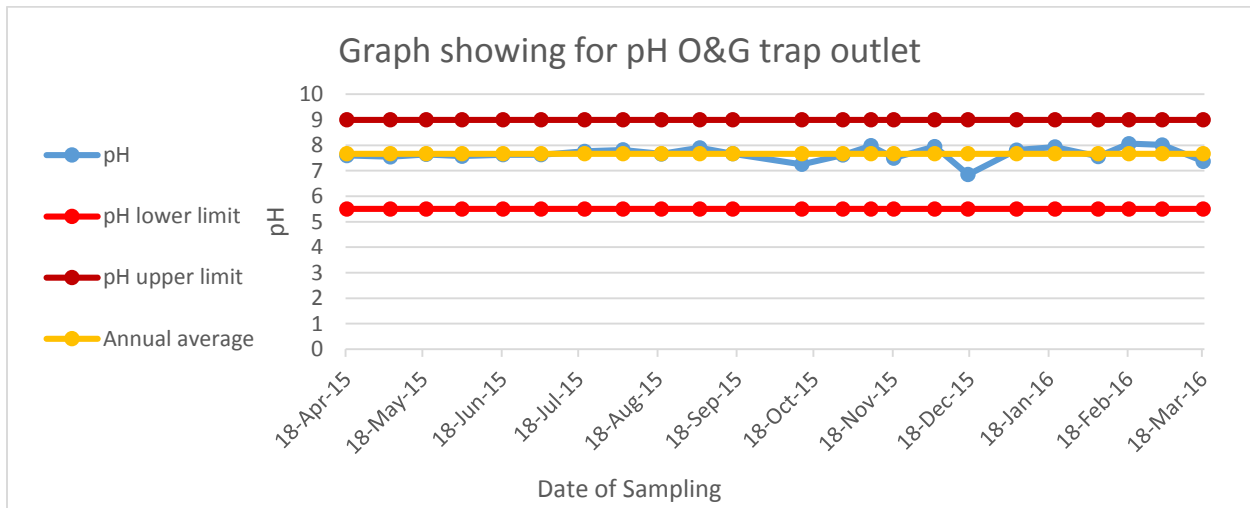


Project: Hingula OCP
Monitoring Station: O&G trap outlet

Table 118

Date of Sampling	pH	Oil & Grease	TSS	COD
18-Apr-15	7.6	<4.0	14	24
05-May-15	7.55	<4.0	12	20
19-May-15	7.64	<4.0	16	28
02-Jun-15	7.57	<4.0	18	18
18-Jun-15	7.63	<4.0	16	14
03-Jul-15	7.63	<4.0	14	32
20-Jul-15	7.76	<2.0	16	28
04-Aug-15	7.82	<4.0	14	24
19-Aug-15	7.66	<4.0	10	26
03-Sep-15	7.9	<4.0	16	28
16-Sep-15	7.67	<4.0	20	32
13-Oct-15	7.25	<4.0	24	32
29-Oct-15	7.62	<4.0	28	32
09-Nov-15	7.98	<4.0	54	48
18-Nov-15	7.5	<4.0	56	68
04-Dec-15	7.95	<4.0	30	8
17-Dec-15	6.85	<4.0	80	96
05-Jan-16	7.81	<4.0	36	20
20-Jan-16	7.93	<4.0	52	76
06-Feb-16	7.56	<4.0	56	48
18-Feb-16	8.06	<4.0	96	64
02-Mar-16	8.01	<4.0	50	32
18-Mar-16	7.37	<4.0	46	32

All values are in mg/L



Project: Hingula OCP (Effluent Yearly 22 Parameter)
Monitoring Station: Final Discharge point

Table 119

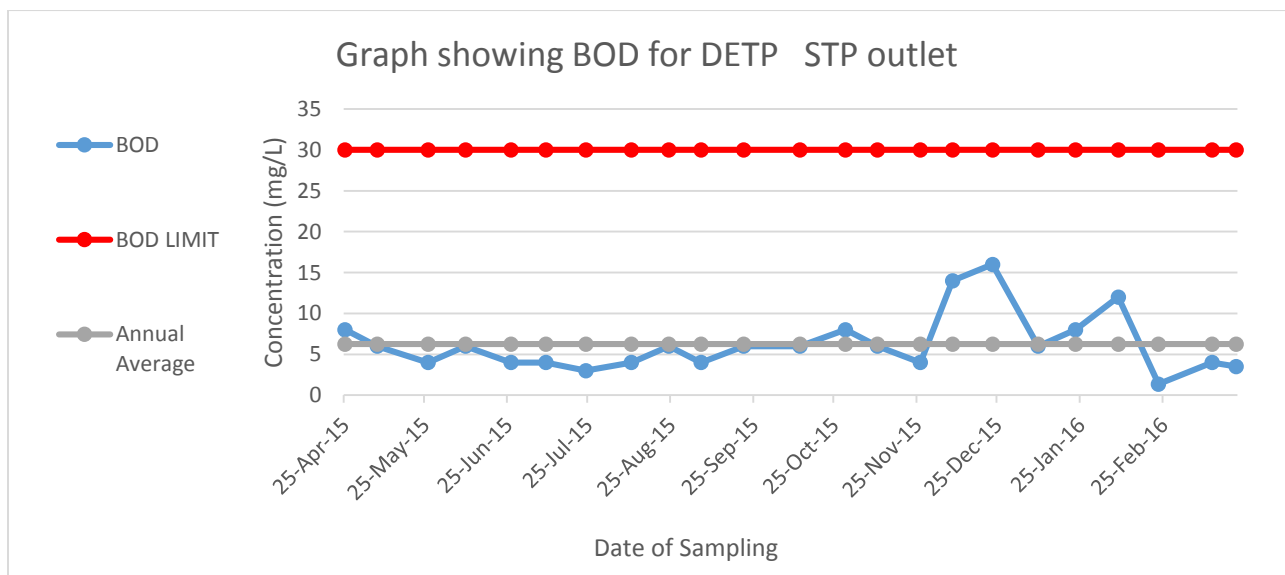
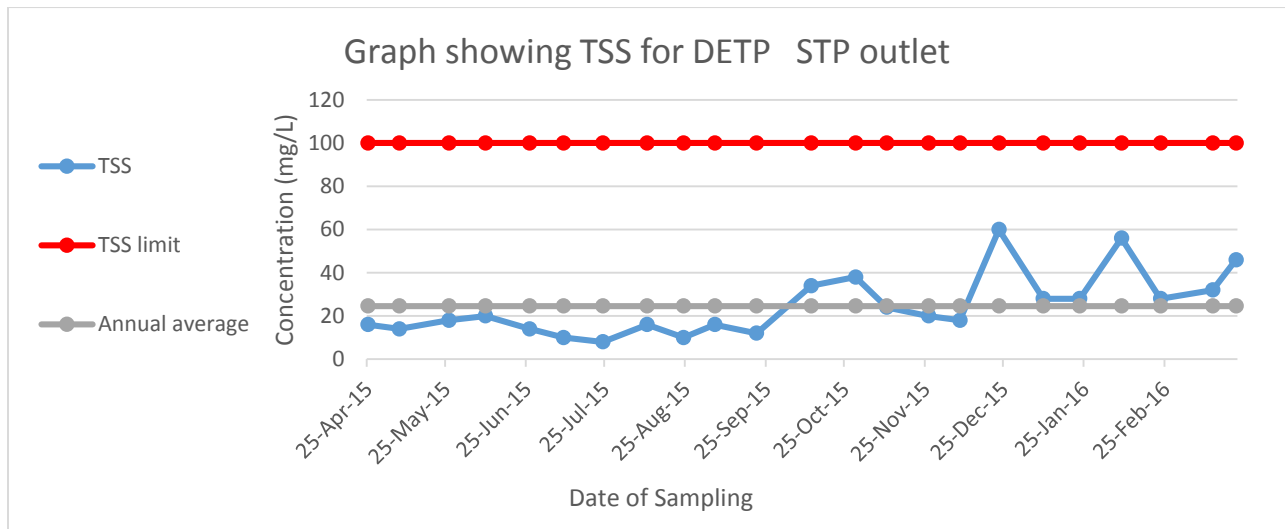
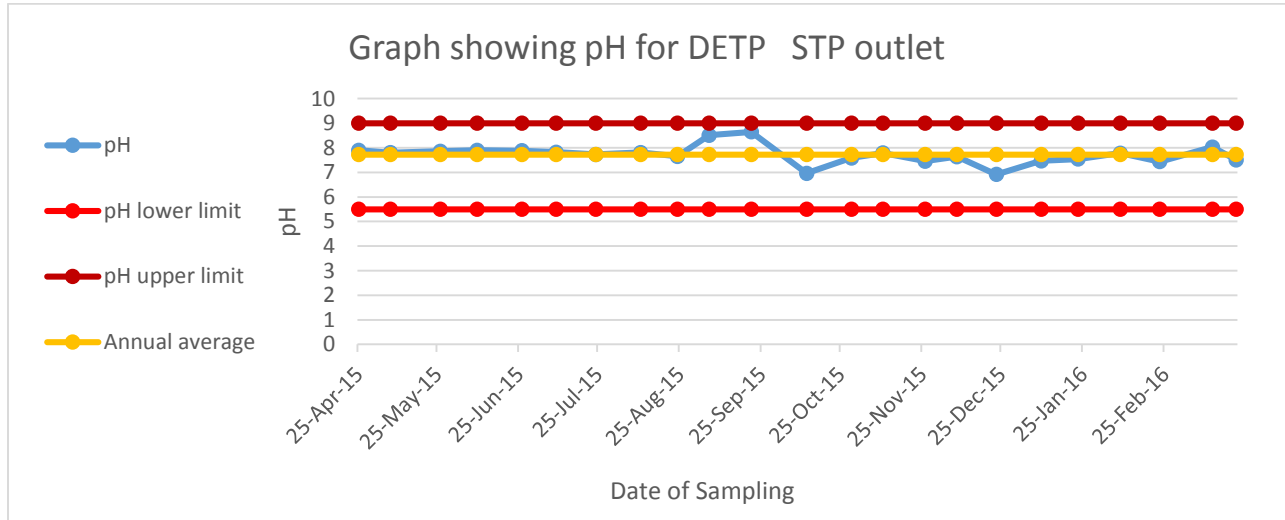
Area	Hingula	MoEF-Sch-VI Standards
Date	9.11.2015	
Color	Accept-able	Acceptable
Agreeable	Agreeable	Agreeable
Temp. °C	23.9	
Nitrate Nitrogen	1.8	10
Ammonia Nitrogen	0.28	50
Total Kjeldahl Nitrogen	2.26	100
BOD	12	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.44	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.48	2
Dis. PO ₄	0.28	5
Sulphide	0.003	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.16	3

All values are in mg/L

Project: Ananta OCP
Monitoring Station: DETP / STP outlet
Table 120

Date of Sampling	pH	TSS	BOD
25-Apr-15	7.9	16	8
07-May-15	7.8	14	6
26-May-15	7.86	18	4
09-Jun-15	7.9	20	6
26-Jun-15	7.88	14	4
09-Jul-15	7.82	10	4
24-Jul-15	7.73	8	3
10-Aug-15	7.81	16	4
24-Aug-15	7.65	10	6
05-Sep-15	8.51	16	4
21-Sep-15	8.65	12	6
12-Oct-15	6.96	34	6
29-Oct-15	7.59	38	8
10-Nov-15	7.79	24	6
26-Nov-15	7.46	20	4
08-Dec-15	7.64	18	14
23-Dec-15	6.92	60	16
09-Jan-16	7.47	28	6
23-Jan-16	7.54	28	8
08-Feb-16	7.78	56	12
23-Feb-16	7.44	28	1.36
14-Mar-16	8.03	32	4
23-Mar-16	7.51	46	3.5

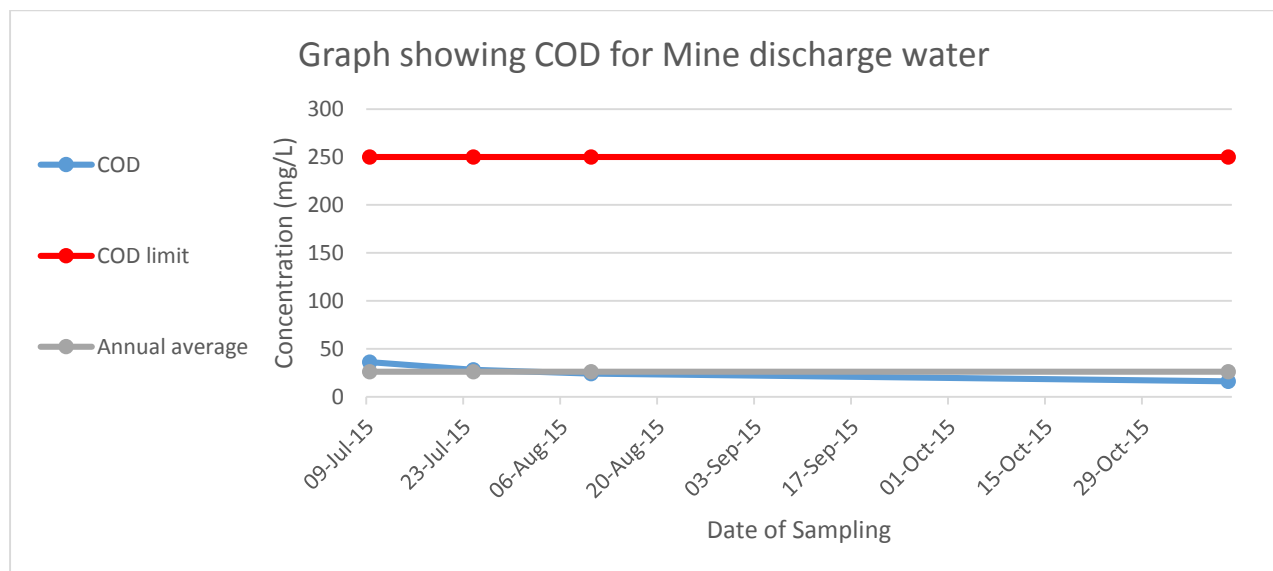
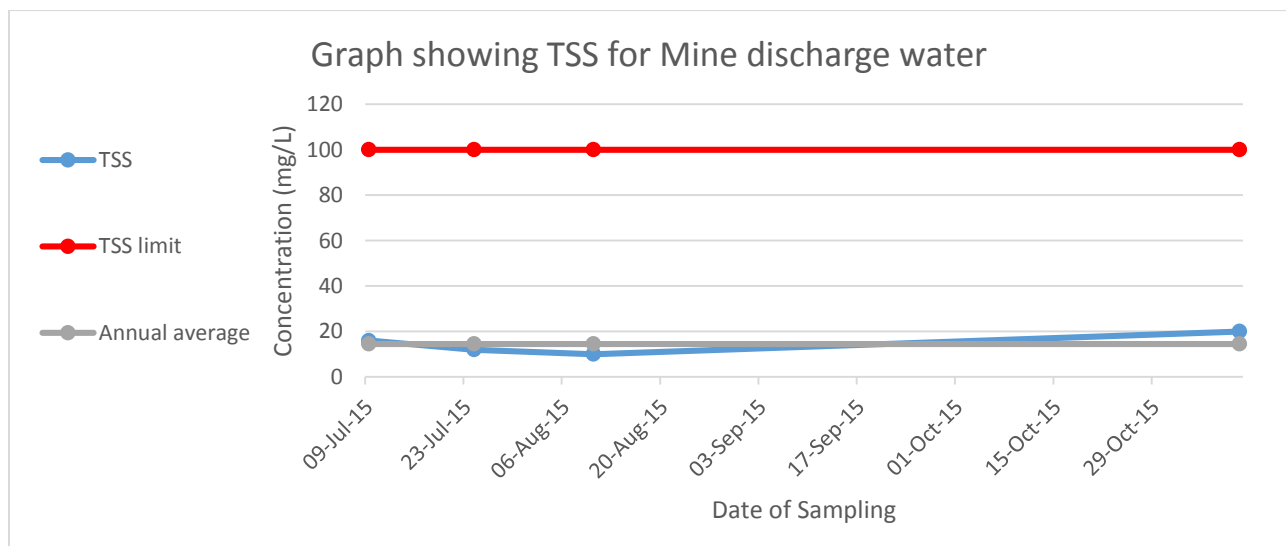
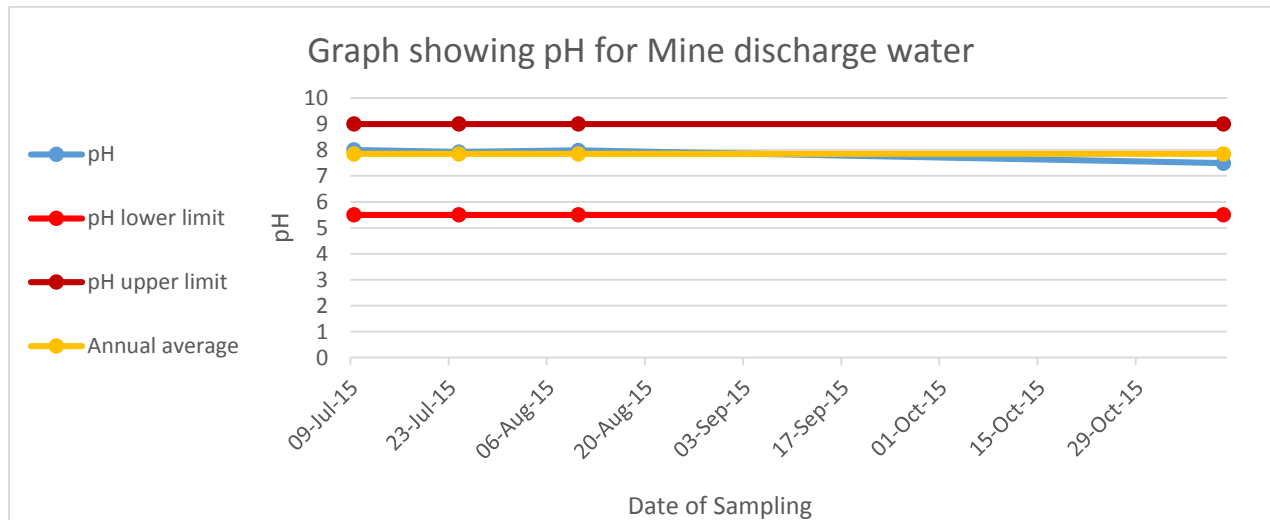
All values are in mg/L



Project: Ananta OCP
Monitoring Station: Mine discharge water
Table 121

Date of Sampling	pH	Oil & Grease	TSS	COD
09-Jul-15	8	<4.0	16	36
24-Jul-15	7.92	<4.0	12	28
10-Aug-15	7.98	<4.0	10	24
10-Nov-15	7.49	<4.0	20	16

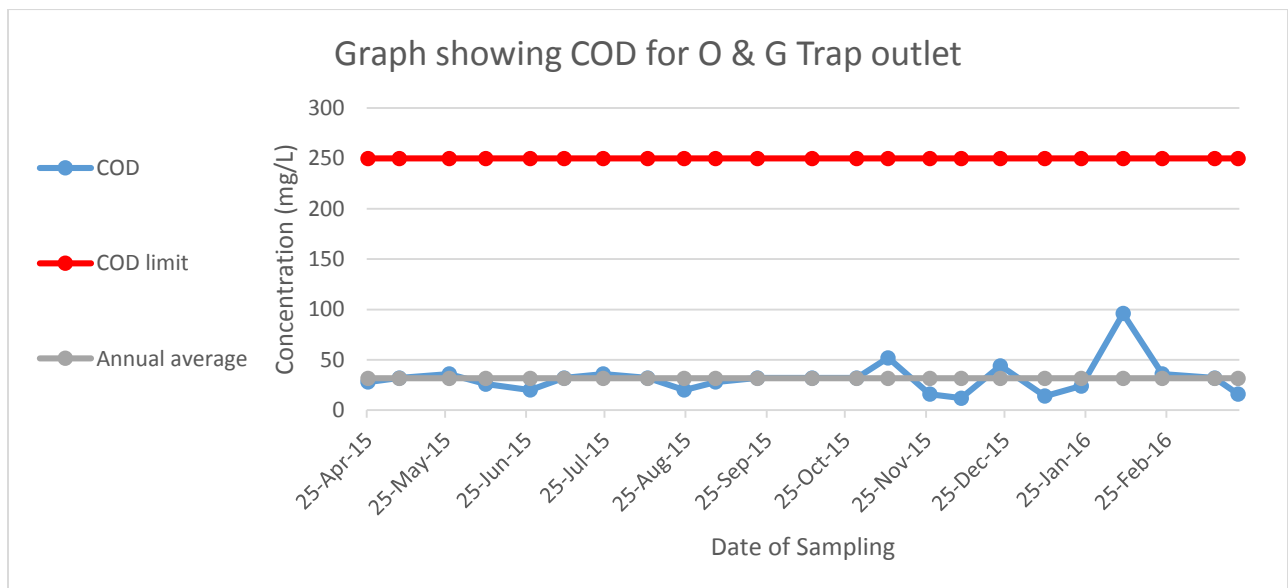
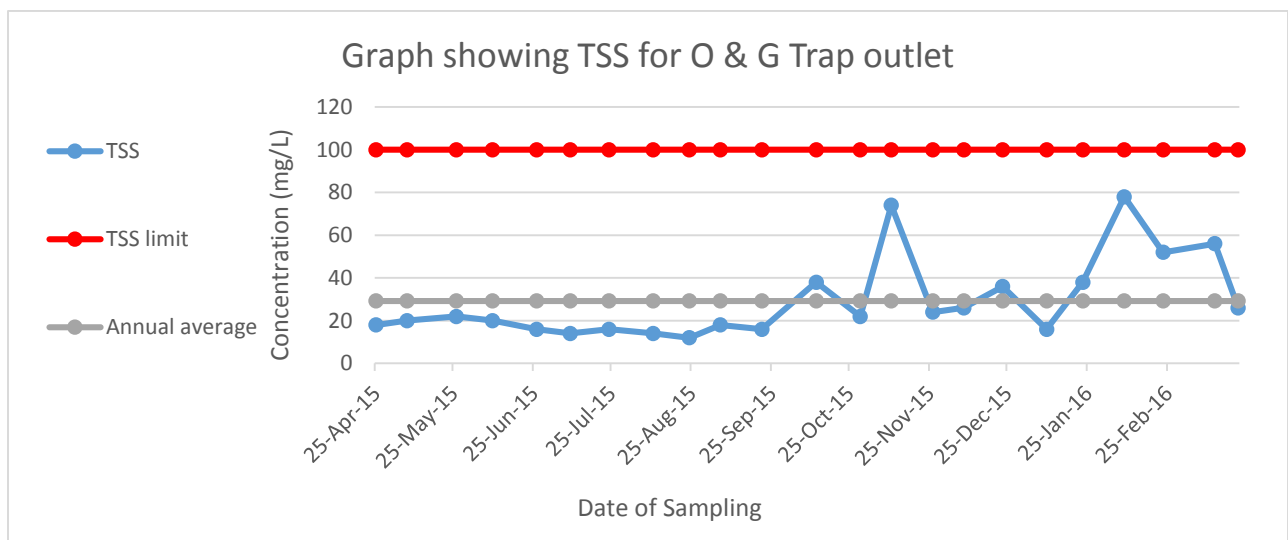
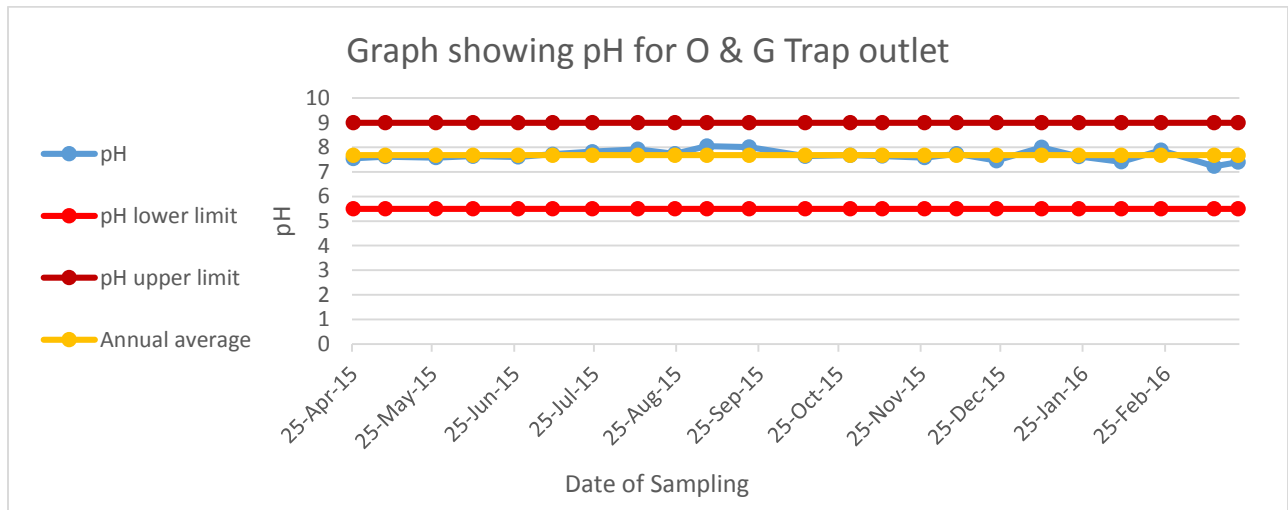
All values are in mg/L



Project: Ananta OCP
Monitoring Station: O & G Trap outlet
Table 122

Date of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-15	7.55	<4.0	18	28
07-May-15	7.62	<4.0	20	32
26-May-15	7.58	<4.0	22	36
09-Jun-15	7.64	<4.0	20	26
26-Jun-15	7.61	<4.0	16	20
09-Jul-15	7.72	<4.0	14	32
24-Jul-15	7.82	<4.0	16	36
10-Aug-15	7.92	<4.0	14	32
24-Aug-15	7.74	<4.0	12	20
05-Sep-15	8.05	<4.0	18	28
21-Sep-15	8.01	<4.0	16	32
12-Oct-15	7.64	<4.0	38	32
29-Oct-15	7.68	<4.0	22	32
10-Nov-15	7.65	<4.0	74	52
26-Nov-15	7.58	<4.0	24	16
08-Dec-15	7.74	<4.0	26	12
23-Dec-15	7.46	<4.0	36	44
09-Jan-16	8	<4.0	16	14
23-Jan-16	7.63	<4.0	38	24
08-Feb-16	7.41	<4.0	78	96
23-Feb-16	7.88	<4.0	52	36
14-Mar-16	7.23	<4.0	56	32
23-Mar-16	7.4	<4.0	26	16

All values are in mg/L

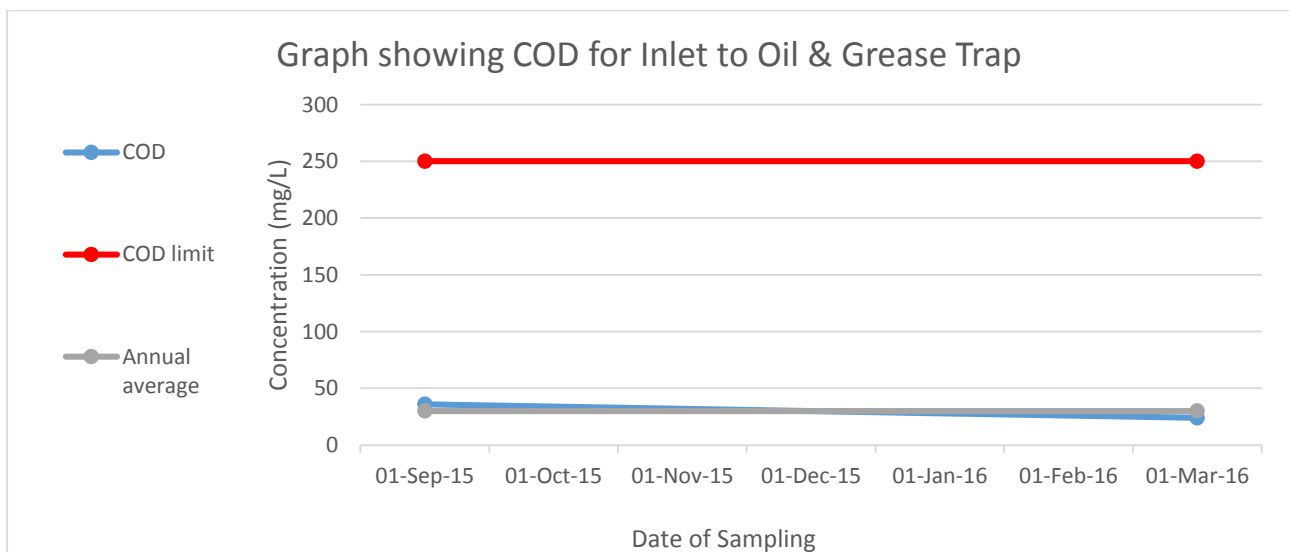
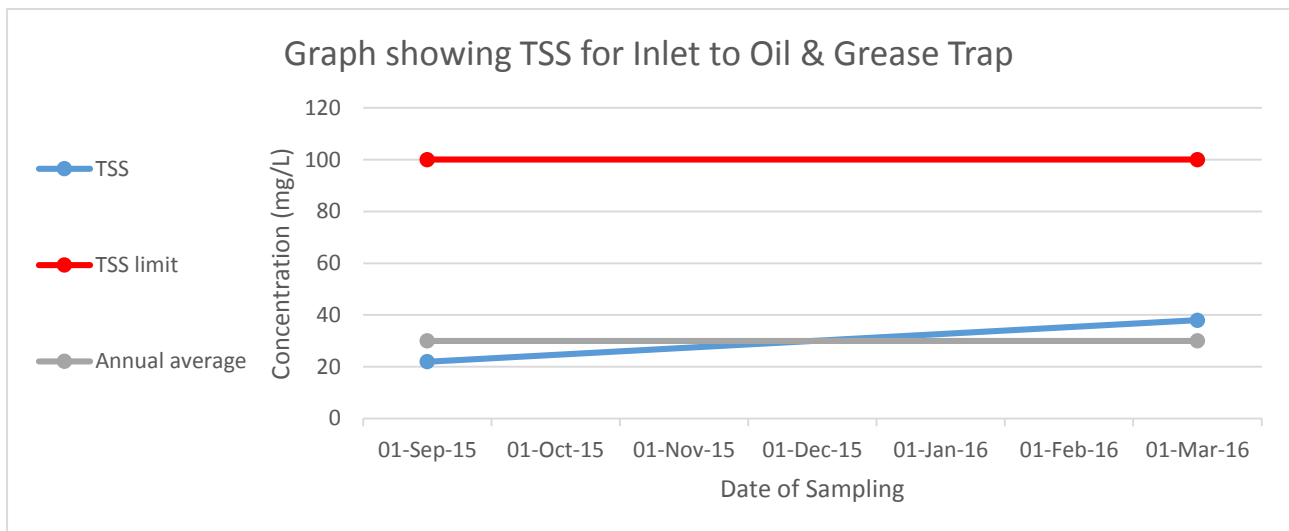
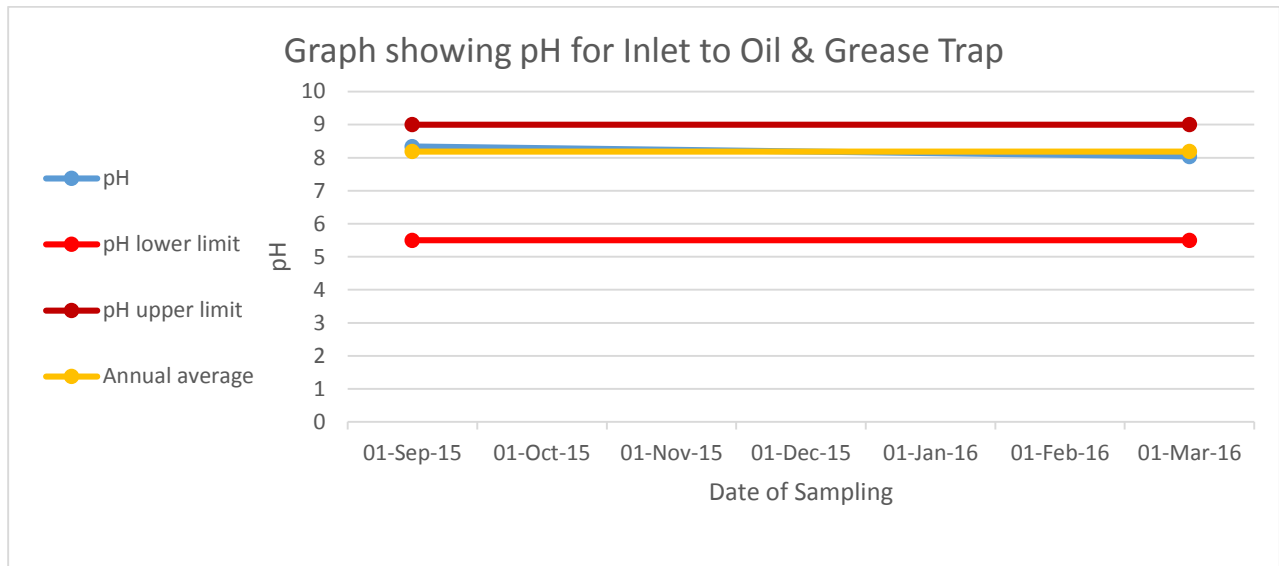


Project: Ananta OCP
Monitoring Station: Inlet to Oil & Grease Trap

Table 123

Date of Sampling	pH	Oil & Grease	TSS	COD
05-Sep-15	8.34	<4.0	22	36
14-Mar-16	8.04	<4.0	38	24

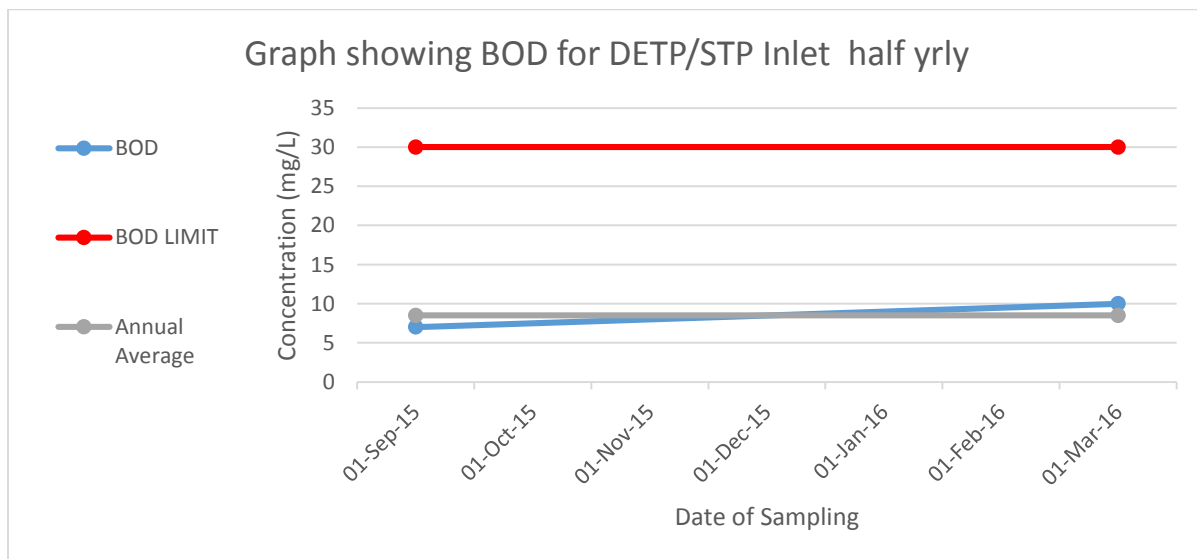
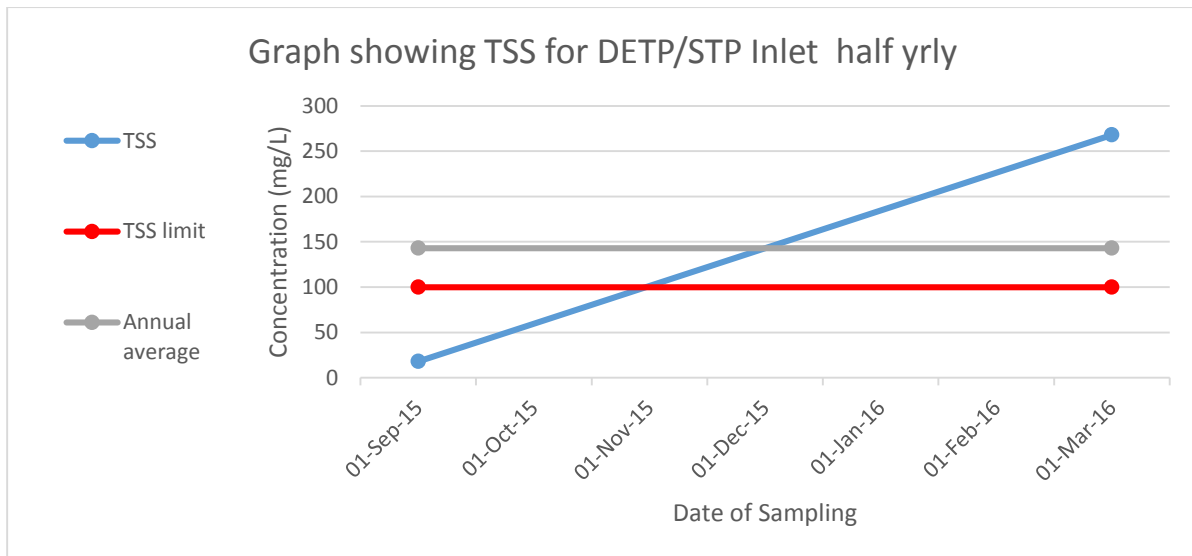
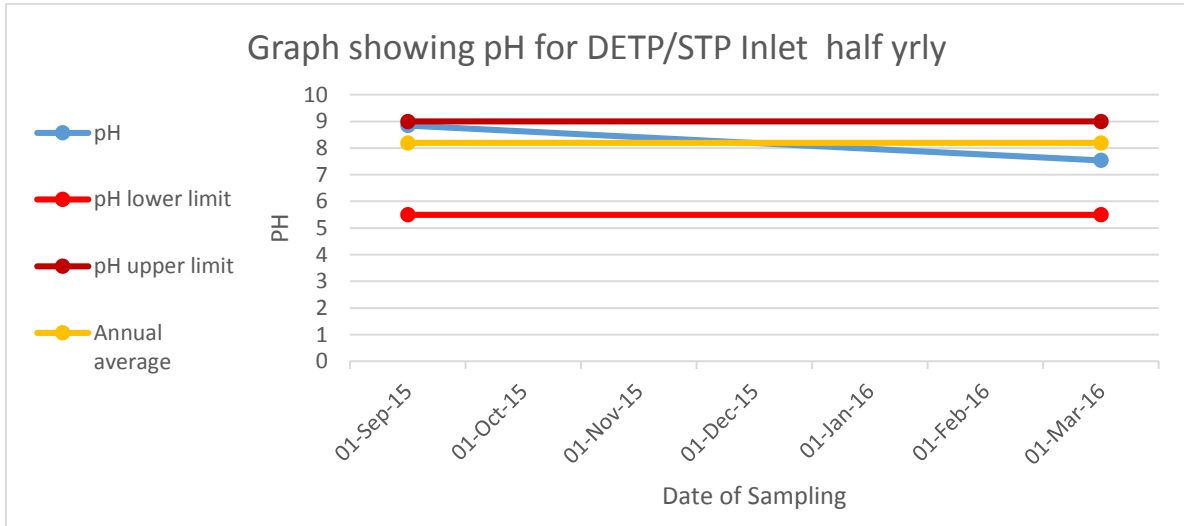
All values are in mg/L



Project: Ananta OCP
Monitoring Station: DETP / STP Inlet
Table 124

Date of Sampling	pH	TSS	BOD
05-Sep-15	8.85	18	7
14-Mar-16	7.54	268	10

All values are in mg/L



Project: Ananta OCP (Effluent Yearly 22 Parameter)

Monitoring Station: Mine Discharge water

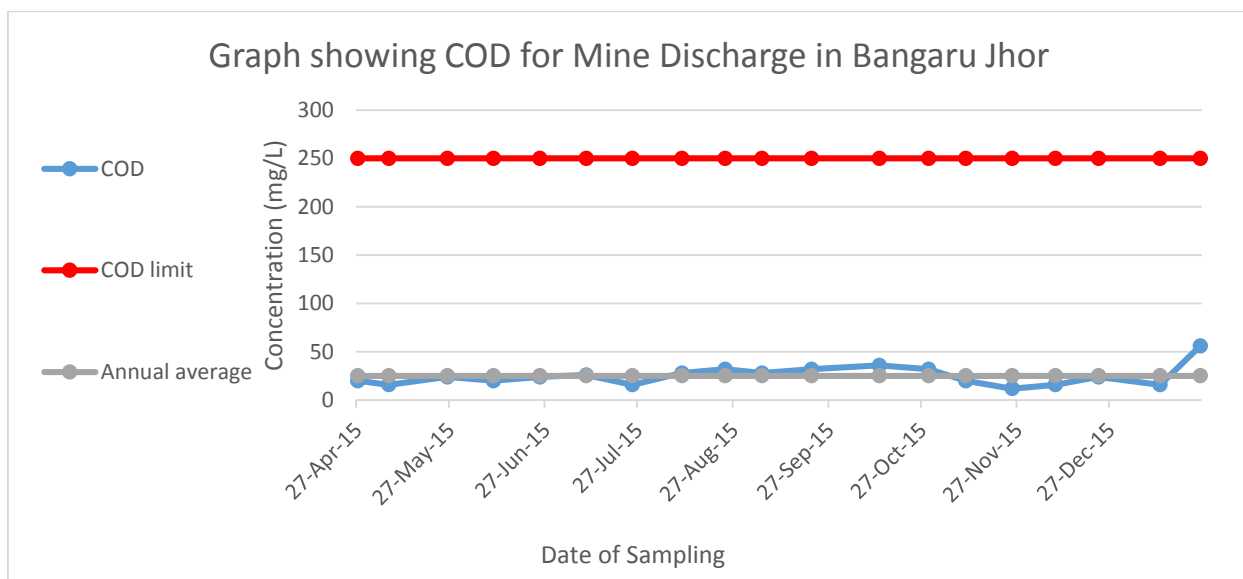
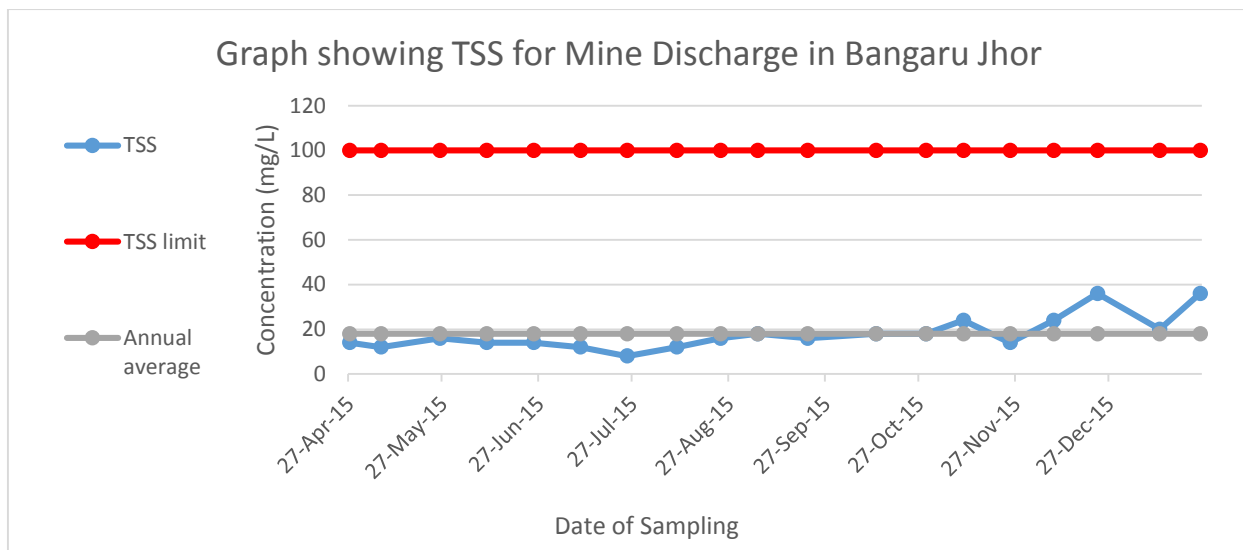
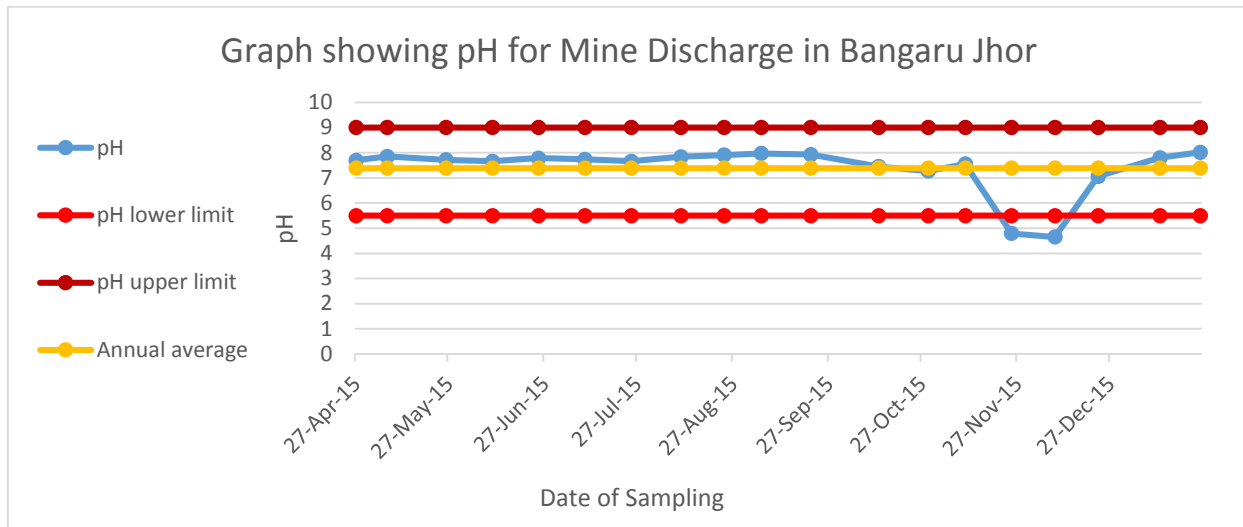
Table 125(a)

Area	Jagannath	MoEF-Sch-VI Standards
Date	9.11.2015	
Color	Accept-able	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.7	
Nitrate Nitrogen	2.2	10
Ammonia Nitrogen	0.28	50
Total Kjeldahl Nitrogen	0.58	100
BOD	8.0	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.26	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.66	2
Dis. PO₄	0.28	5
Sulphide	0.005	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.14	3

Project: Bhubaneswari OCP
Monitoring Station: Mine Discharge in Bangaru Jhor
Table 126

Date of Sampling	pH	Oil & Grease	TSS	COD
27-Apr-15	7.7	<4.0	14	20
07-May-15	7.85	<4.0	12	16
26-May-15	7.72	<4.0	16	24
10-Jun-15	7.66	<4.0	14	20
25-Jun-15	7.79	<4.0	14	24
10-Jul-15	7.74	<4.0	12	26
25-Jul-15	7.66	<4.0	8	16
10-Aug-15	7.84	<4.0	12	28
24-Aug-15	7.91	<4.0	16	32
05-Sep-15	7.97	<4.0	18	28
21-Sep-15	7.93	<4.0	16	32
13-Oct-15	7.45	<4.0	18	36
29-Oct-15	7.27	<4.0	18	32
10-Nov-15	7.55	<4.0	24	20
25-Nov-15	4.79	<4.0	14	12
09-Dec-15	4.65	<4.0	24	16
23-Dec-15	7.06	<4.0	36	24
12-Jan-16	7.8	<4.0	20	16
25-Jan-16	8.02	<4.0	36	56

All values are in mg/L



Project: Bhubaneswari OCP (Effluent Yearly 22 Parameter)

Monitoring Station: Mine Discharge in Bangaru Jhor

Table 127

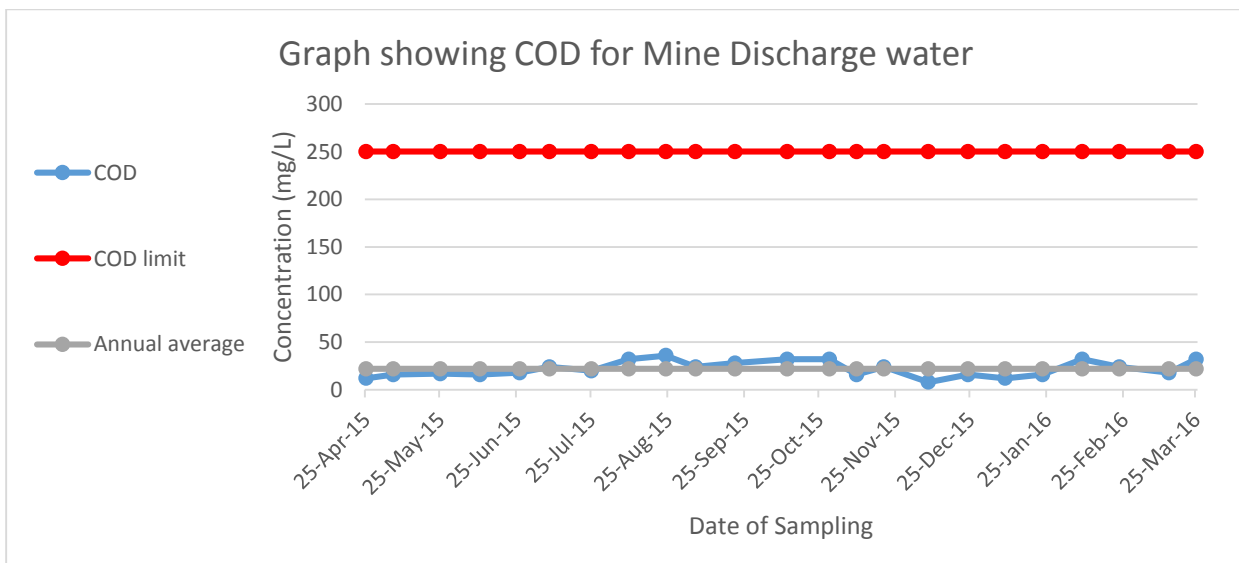
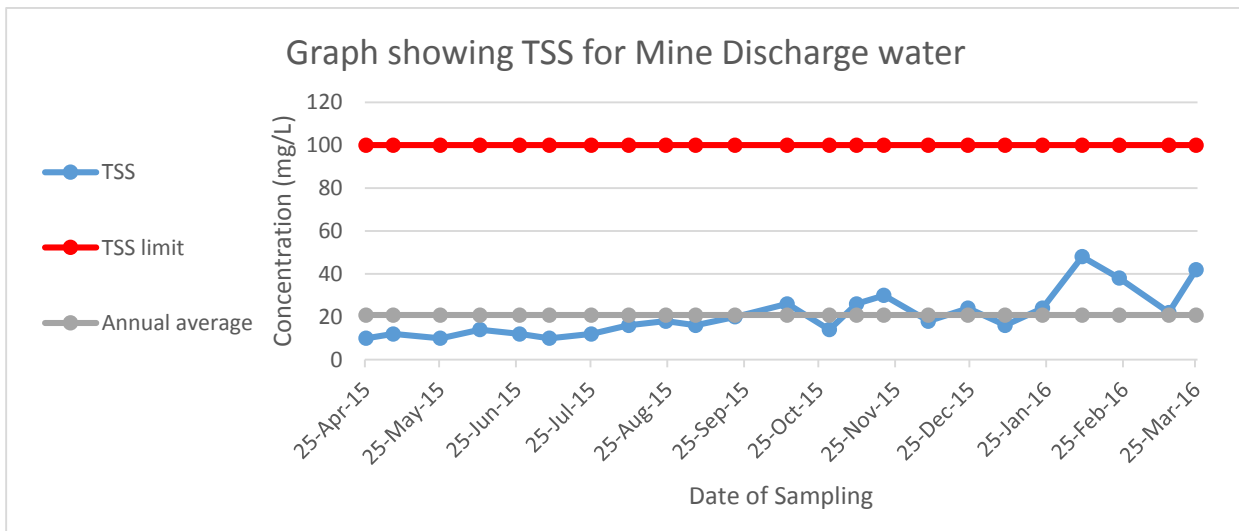
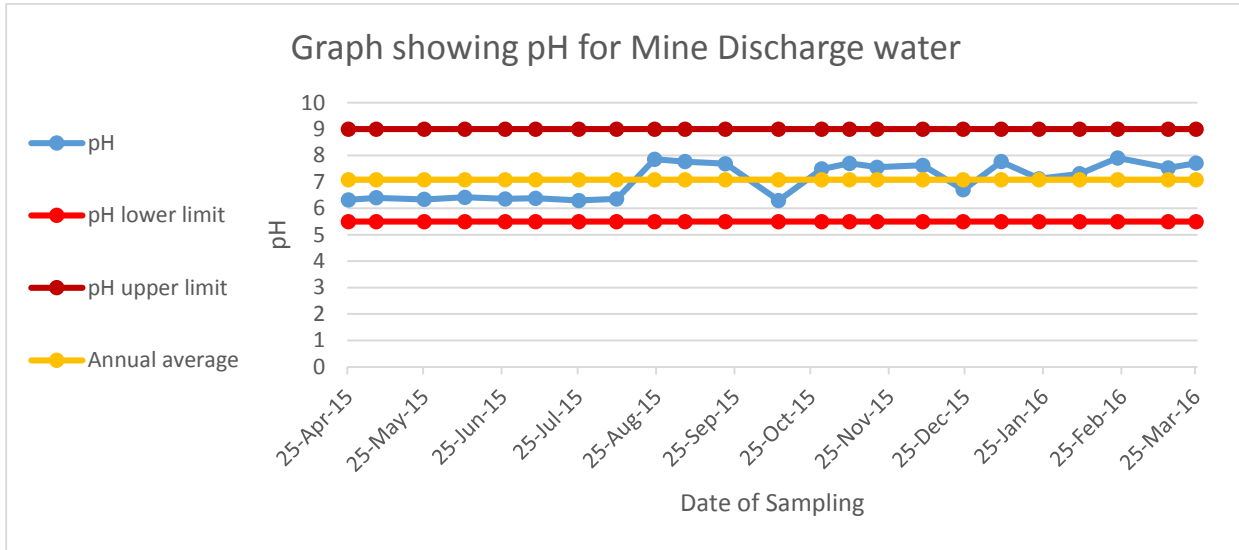
Area	Jagannath	MoEF-Sch-VI Standards
Date	9.11.2015	
Color	Accept-able	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.9	
Nitrate Nitrogen	2	10
Ammonia Nitrogen	0.33	50
Total Kjedaahl Nitrogen	0.82	100
BOD	14	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.36	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.58	2
Dis. PO ₄	0.32	5
Sulphide	0.003	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.18	3

All values are in mg/L

Project: Jagannath OCP
Monitoring Station: Mine Discharge water
Table 128

Date Of Sampling	PH	Oil & Grease	TSS	COD
25-Apr-15	6.32	<4.0	10	12
06-May-15	6.4	<4.0	12	16
25-May-15	6.34	<4.0	10	17
10-Jun-15	6.42	<4.0	14	16
26-Jun-15	6.36	<4.0	12	18
08-Jul-15	6.38	<4.0	10	24
25-Jul-15	6.3	<4.0	12	20
09-Aug-15	6.36	<4.0	16	32
24-Aug-15	7.86	<4.0	18	36
05-Sep-15	7.77	<4.0	16	24
21-Sep-15	7.69	<4.0	20	28
12-Oct-15	6.3	<4.0	26	32
29-Oct-15	7.49	<4.0	14	32
09-Nov-15	7.7	<4.0	26	16
20-Nov-15	7.56	<4.0	30	24
08-Dec-15	7.63	<4.0	18	8
24-Dec-15	6.7	<4.0	24	16
08-Jan-16	7.77	<4.0	16	12
23-Jan-16	7.12	<4.0	24	16
08-Feb-16	7.31	<4.0	48	32
23-Feb-16	7.91	<4.0	38	24
14-Mar-16	7.53	<4.0	22	18
25-Mar-16	7.71	<4.0	42	32

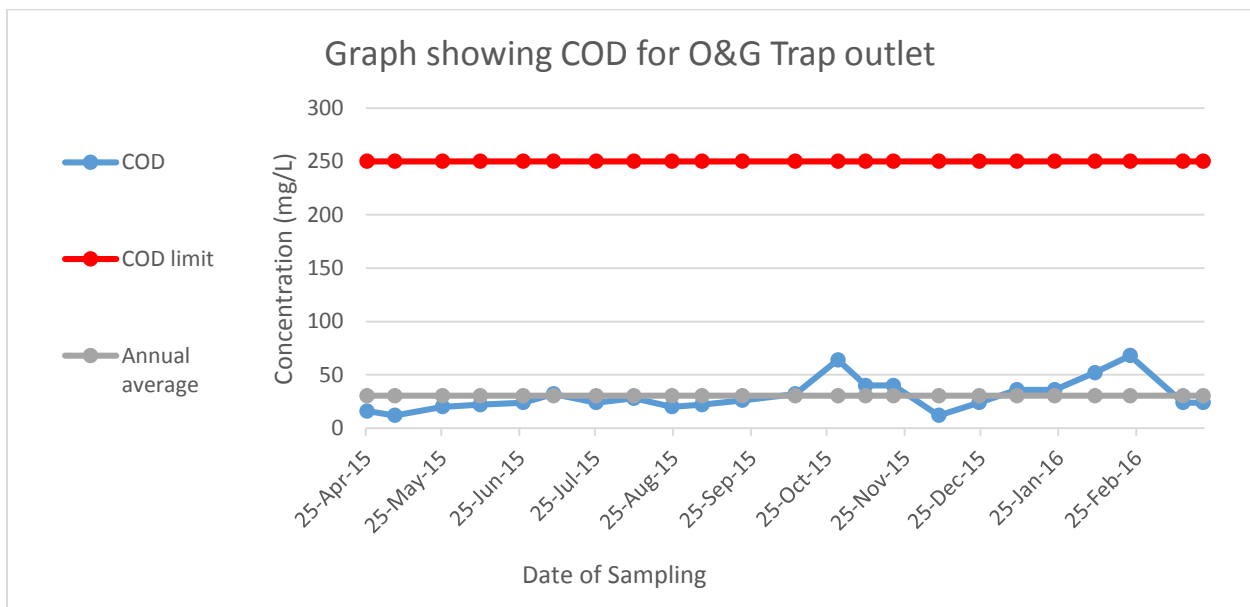
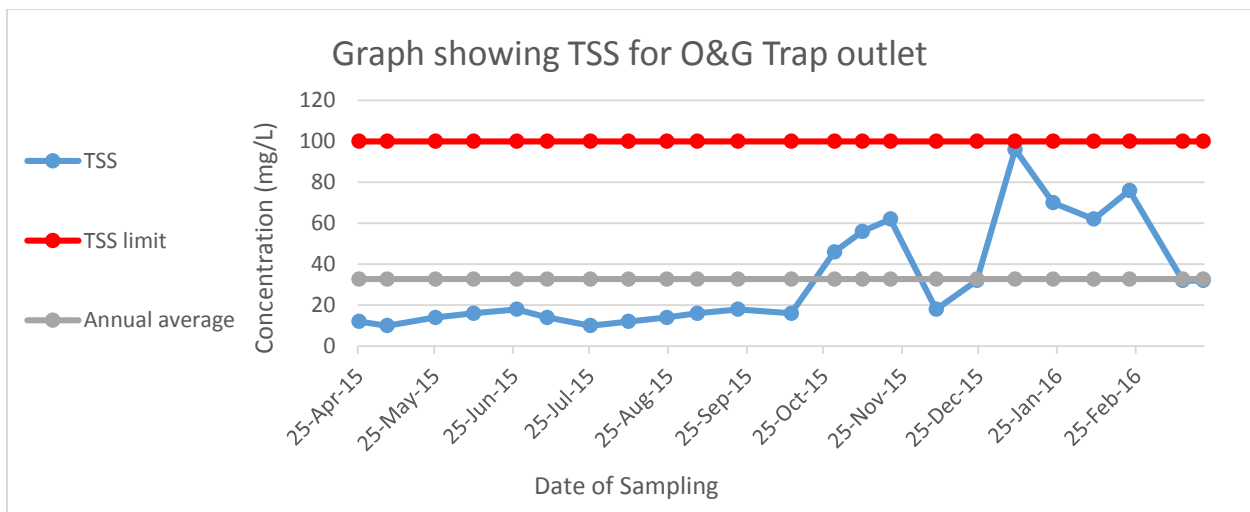
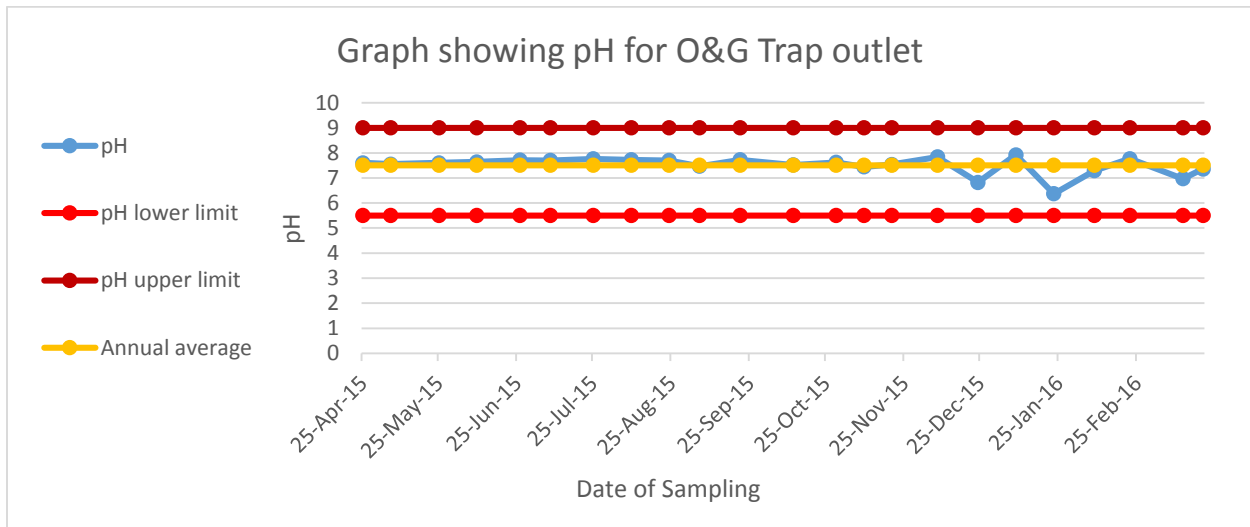
All values are in mg/L



Project: Jagannath OCP
Monitoring Station: O & G Trap outlet
Table 129

Date Of Sampling	PH	Oil & Grease	TSS	COD
25-Apr-15	7.6	<4.0	12	16
06-May-15	7.55	<4.0	10	12
25-May-15	7.6	<4.0	14	20
09-Jun-15	7.64	<4.0	16	22
26-Jun-15	7.71	<4.0	18	24
08-Jul-15	7.7	<4.0	14	32
25-Jul-15	7.76	<4.0	10	24
09-Aug-15	7.72	<4.0	12	28
24-Aug-15	7.7	<4.0	14	20
05-Sep-15	7.47	<4.0	16	22
21-Sep-15	7.72	<4.0	18	26
12-Oct-15	7.52	<4.0	16	32
29-Oct-15	7.62	<4.0	46	64
09-Nov-15	7.44	<2.0	56	40
20-Nov-15	7.54	<4.0	62	40
08-Dec-15	7.84	<4.0	18	12
24-Dec-15	6.82	<4.0	32	24
08-Jan-16	7.92	<4.0	96	36
23-Jan-16	6.37	<4.0	70	36
08-Feb-16	7.29	<4.0	62	52
22-Feb-16	7.77	<4.0	76	68
14-Mar-16	6.97	<4.0	32	24
22-Mar-16	7.36	<4.0	32	24

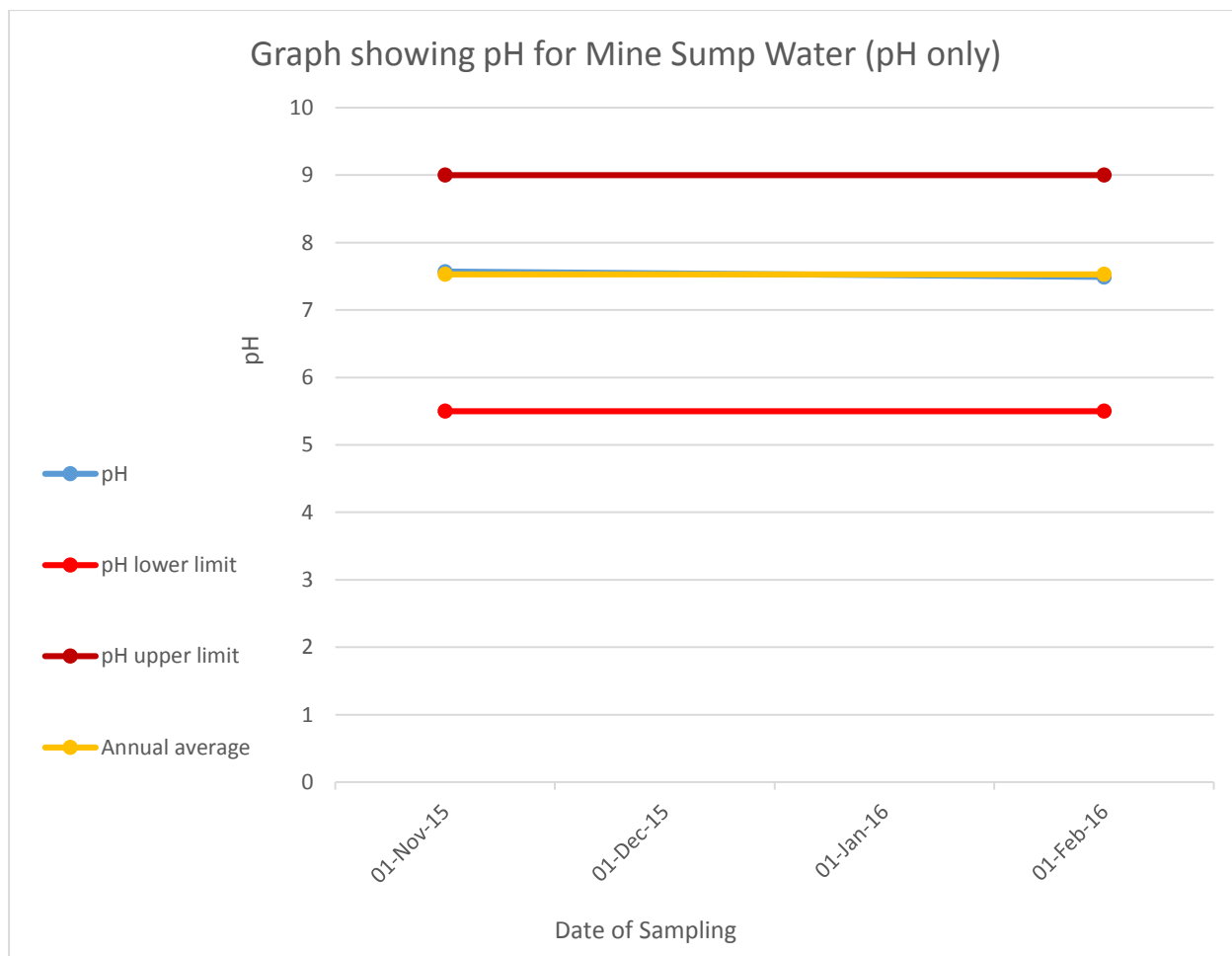
All values are in mg/L



Project: Jagannath OCP
Monitoring Station: Mine Sump Water

Table 130

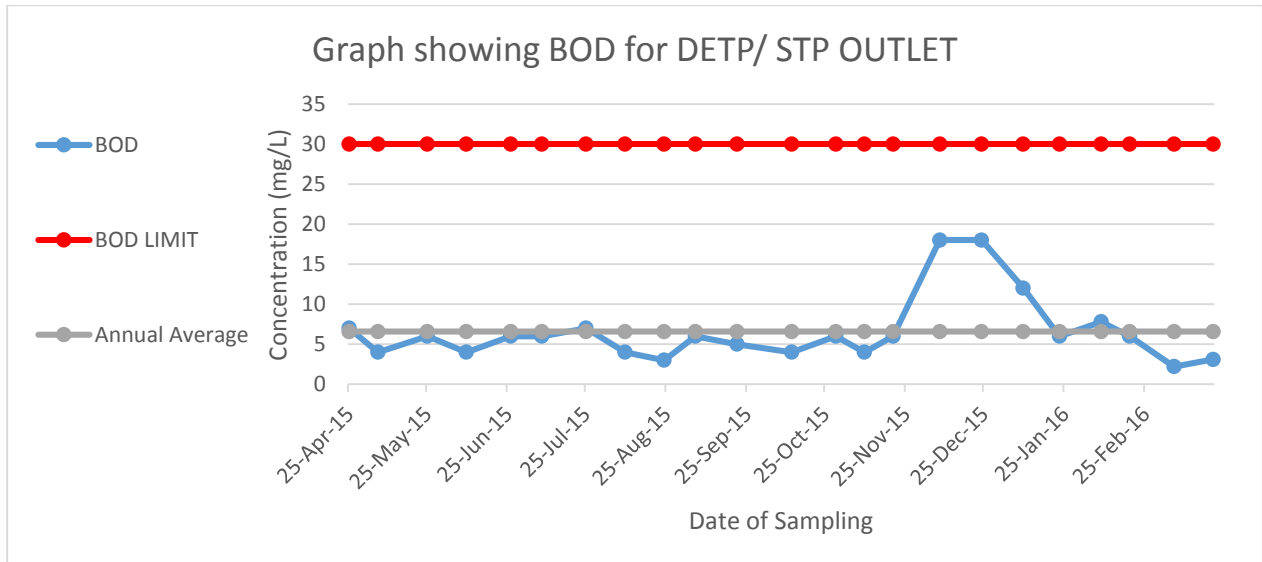
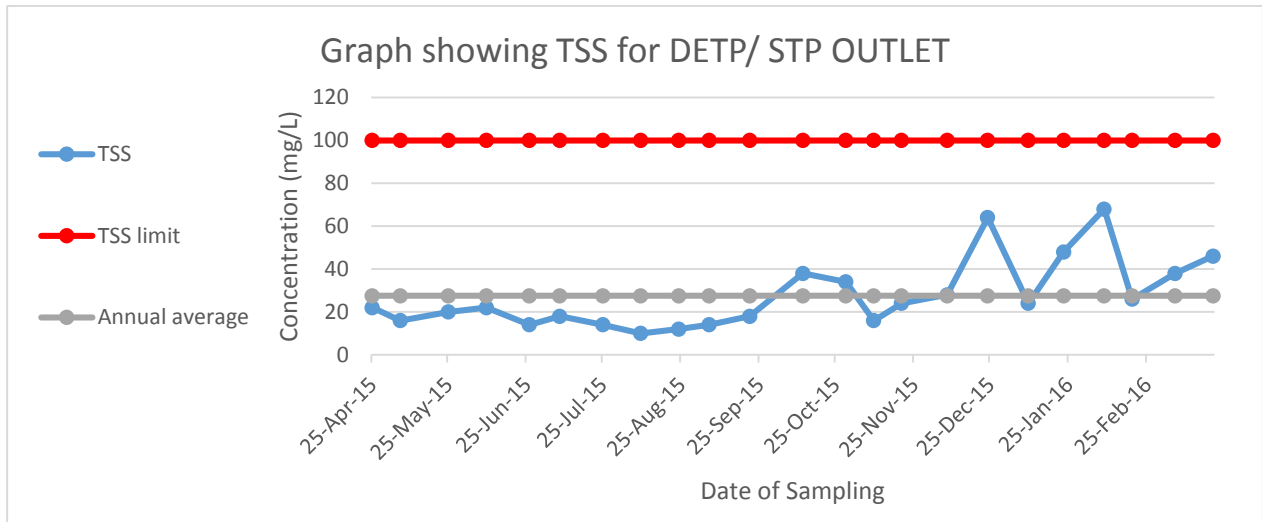
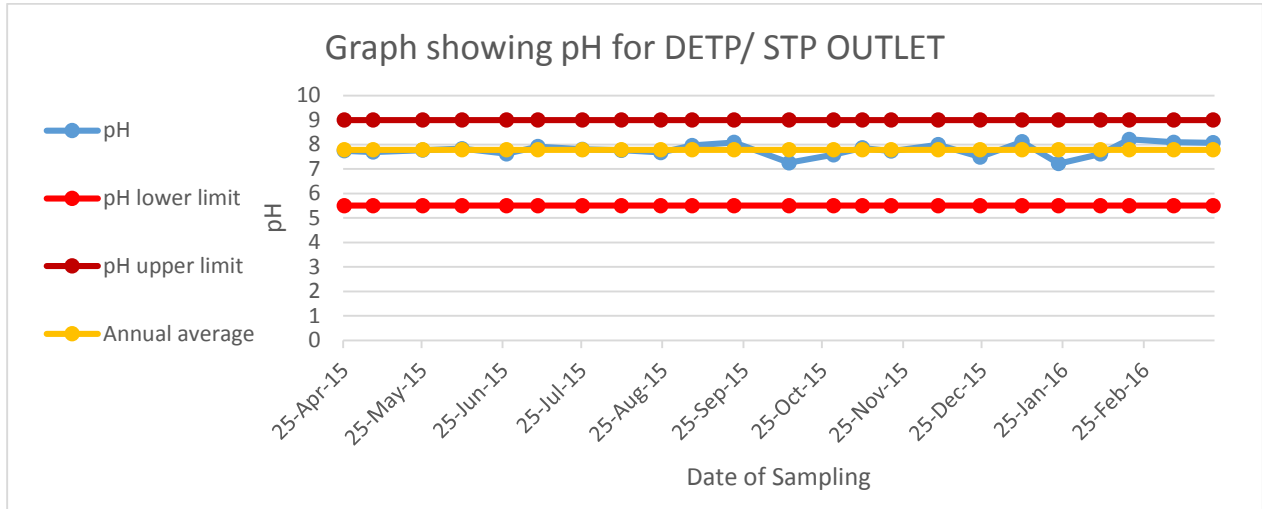
Date Of Sampling	PH
17-Nov-15	7.57
05-Feb-16	7.49



Project: Jagannath OCP
Monitoring Station: DETP / STP outlet
Table 131

Date Of Sampling	PH	TSS	BOD
25-Apr-15	7.74	22	7
06-May-15	7.69	16	4
25-May-15	7.77	20	6
09-Jun-15	7.83	22	4
26-Jun-15	7.62	14	6
08-Jul-15	7.91	18	6
25-Jul-15	7.8	14	7
09-Aug-15	7.76	10	4
24-Aug-15	7.67	12	3
05-Sep-15	7.96	14	6
21-Sep-15	8.08	18	5
12-Oct-15	7.25	38	4
29-Oct-15	7.58	34	6
09-Nov-15	7.86	16	4
20-Nov-15	7.73	24	6
08-Dec-15	7.99	28	18
24-Dec-15	7.49	64	18
09-Jan-16	8.11	24	12
23-Jan-16	7.22	48	6
08-Feb-16	7.61	68	7.8
19-Feb-16	8.21	26	6
07-Mar-16	8.09	38	2.2
22-Mar-16	8.07	46	3.1

All values are in mg/L

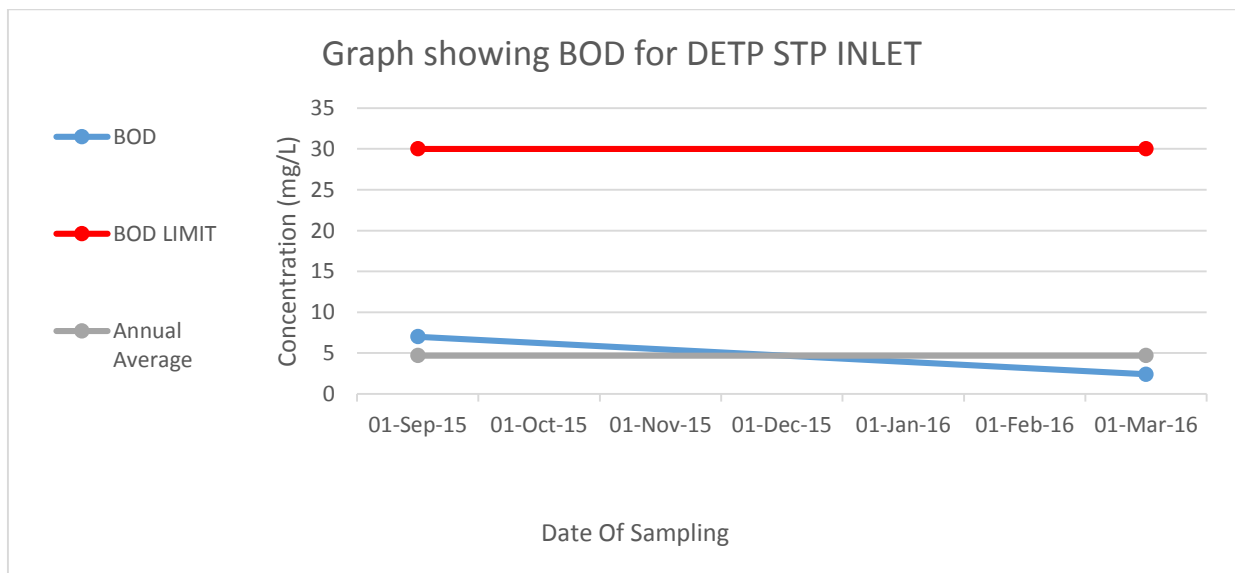
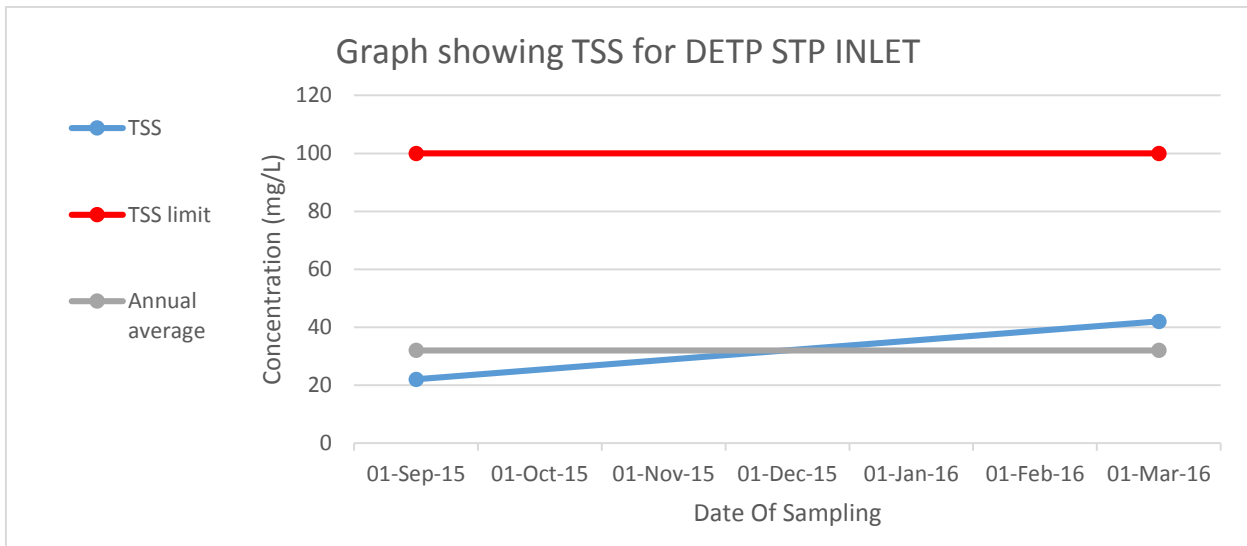
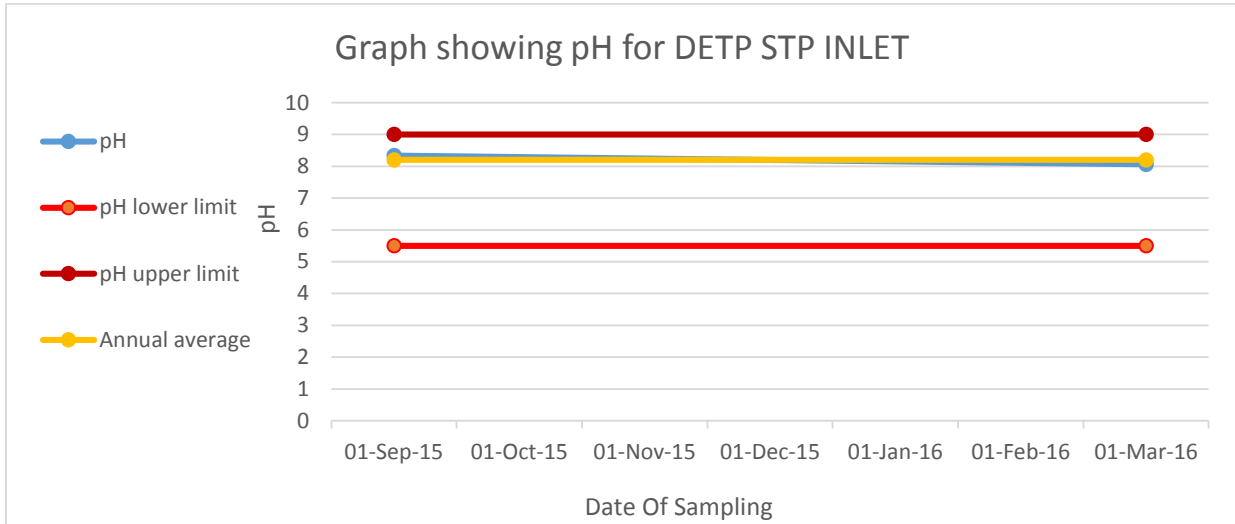


Project: Jagannath OCP
Monitoring Station: DETP STP INLET

Table 132

Date Of Sampling	PH	TSS	BOD
05-Sep-15	8.34	22	7
07-Mar-16	8.06	42	2.4

All values are in mg/L

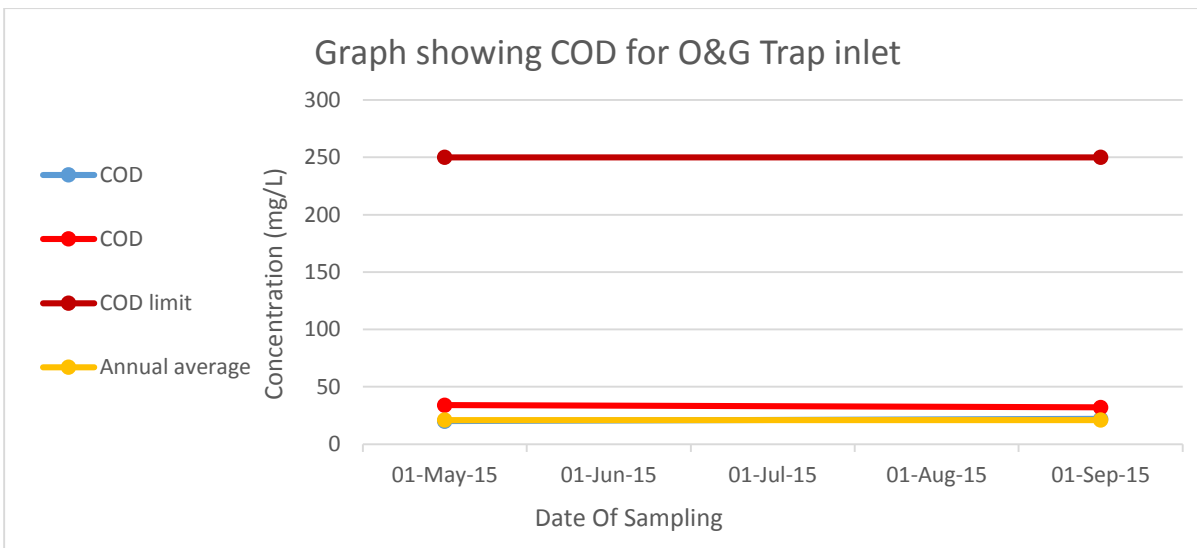
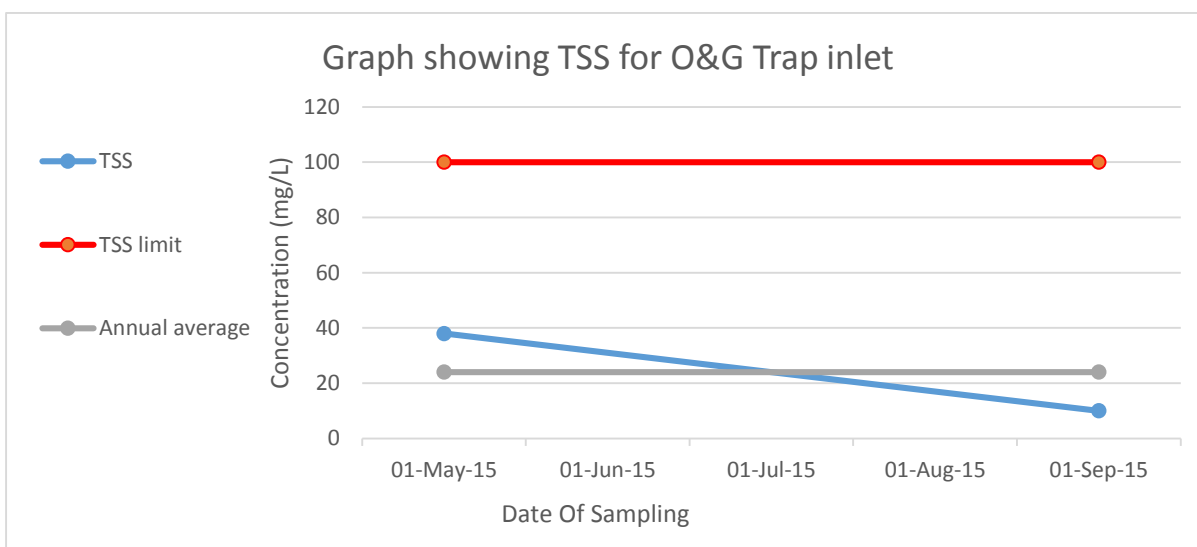
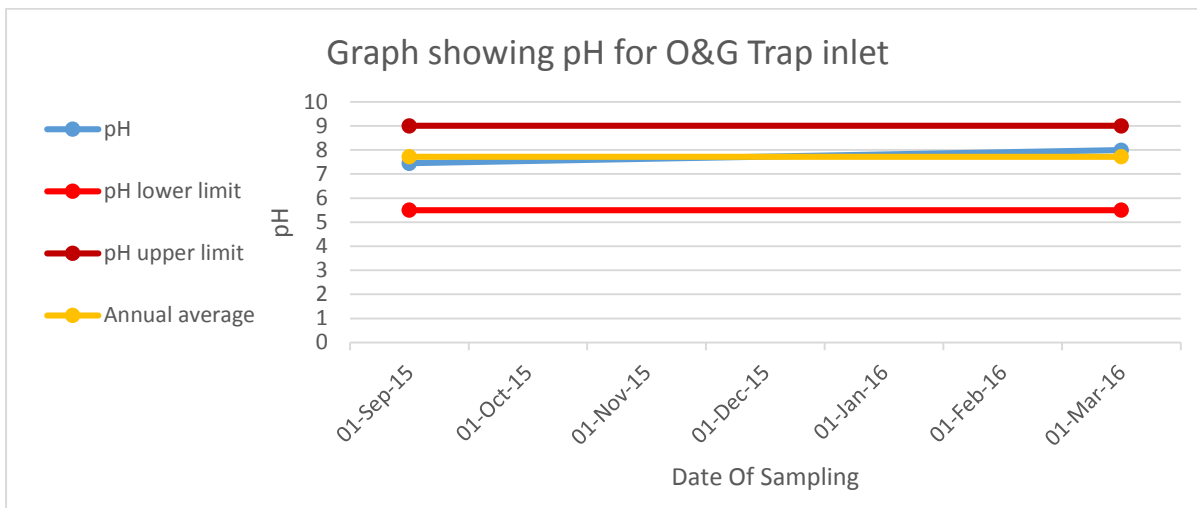


Project: Jagannath OCP
Monitoring Station: O&G Trap inlet

Table 133

Date Of Sampling	PH	Oil & Grease	TSS	COD
05-Sep-15	7.45	<4.0	10	22
14-Mar-16	7.99	<4.0	38	20

All values are in mg/L



Project: Jagannath OCP (Effluent Yearly 22 Parameter)
Monitoring Station: Mine Discharge water

Table 134

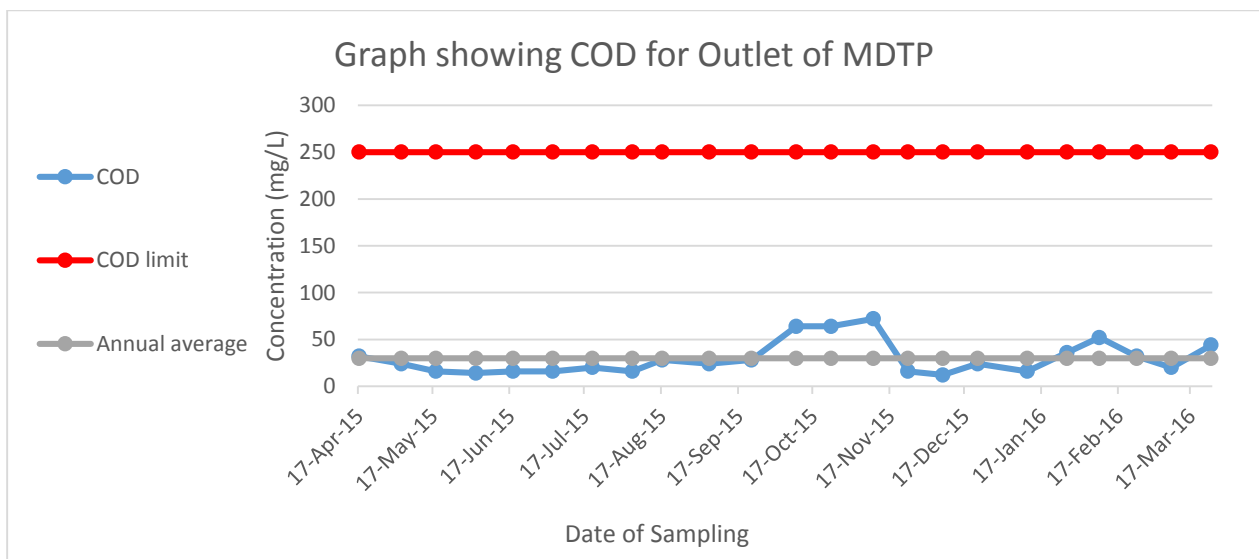
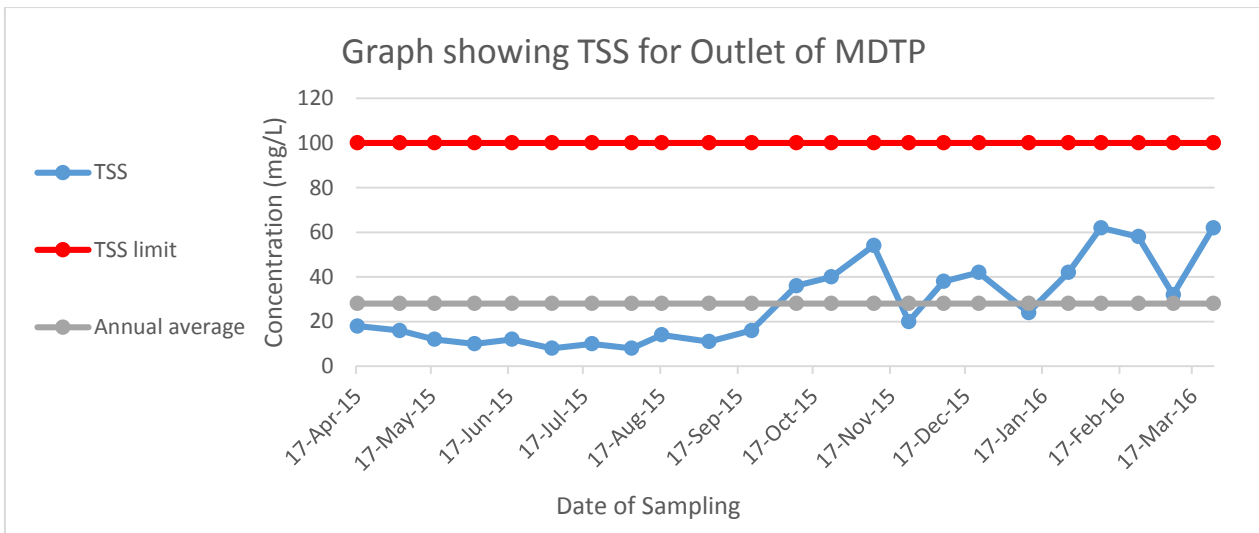
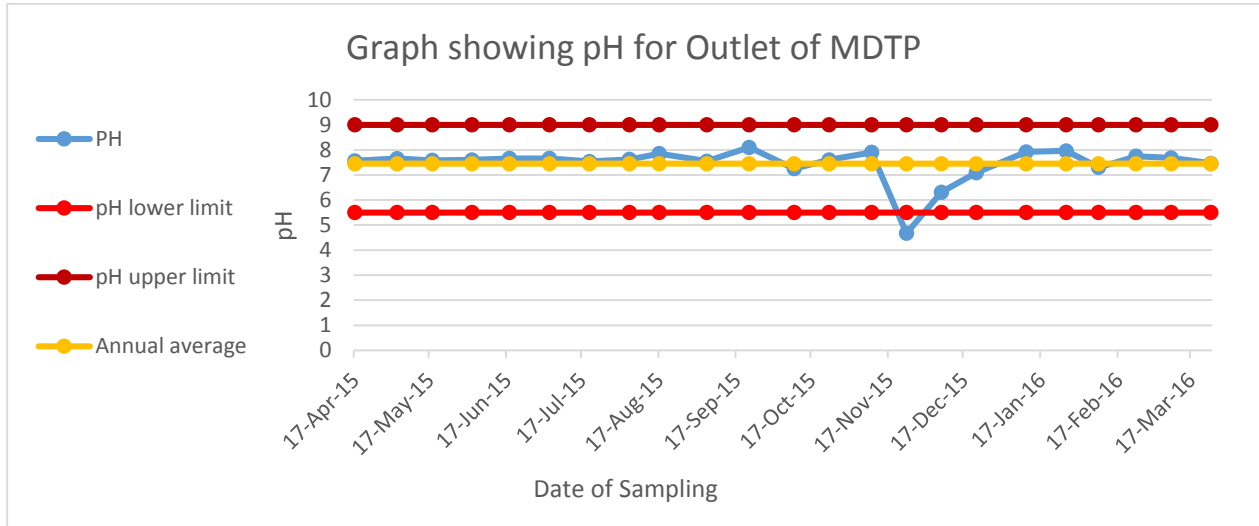
Area	Jagannath	MoEF-Sch-VI Standards
Date	9.11.2015	
Color	Accept-able	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.8	
Nitrate Nitrogen	1.8	10
Ammonia Nitrogen	0.32	50
Total Kjeldahl Nitrogen	0.88	100
BOD	12	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.52	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.46	2
Dis. PO ₄	0.26	5
Sulphide	0.004	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.16	3

All values are in mg/L

Project: Kaniha OCP
Monitoring Station: Outlet of MDTP
Table 135

Date Of Sampling	pH	Oil & Grease	TSS	COD
17-Apr-15	7.56	<4.0	18	32
04-May-15	7.65	<4.0	16	24
18-May-15	7.58	<4.0	12	16
03-Jun-15	7.6	<4.0	10	14
18-Jun-15	7.66	<4.0	12	16
04-Jul-15	7.66	<4.0	8	16
20-Jul-15	7.54	<4.0	10	20
05-Aug-15	7.62	<4.0	8	16
17-Aug-15	7.85	<4.0	14	28
05-Sep-15	7.55	<4.0	11	24
22-Sep-15	8.1	<4.0	16	28
10-Oct-15	7.25	<4.0	36	64
24-Oct-15	7.6	<4.0	40	64
10-Nov-15	7.9	<4.0	54	72
24-Nov-15	4.67	<4.0	20	16
08-Dec-15	6.31	<4.0	38	12
22-Dec-15	7.09	<4.0	42	24
11-Jan-16	7.92	<4.0	24	16
27-Jan-16	7.96	<4.0	42	36
09-Feb-16	7.3	<4.0	62	52
24-Feb-16	7.75	<4.0	58	32
09-Mar-16	7.68	<4.0	32	20
25-Mar-16	7.46	<4.0	62	44

All values are in mg/L

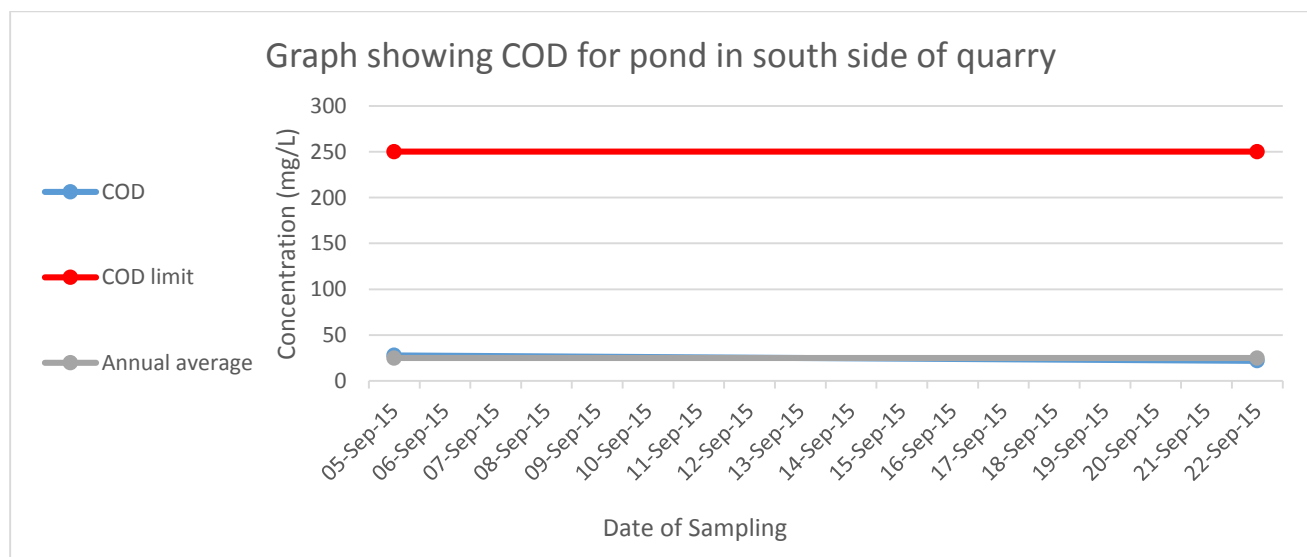
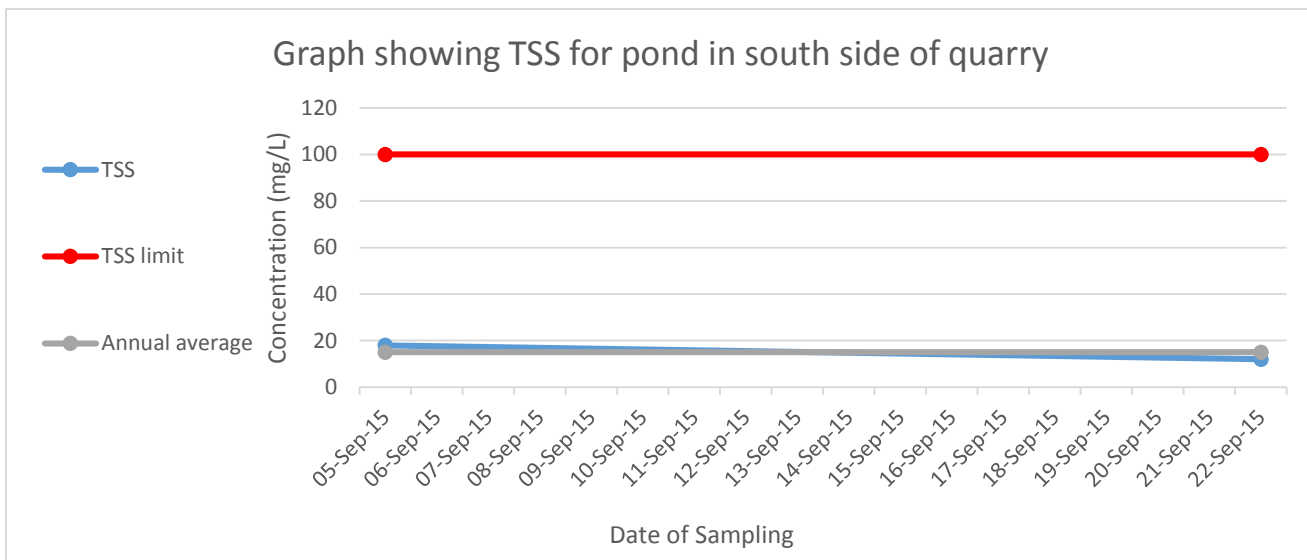
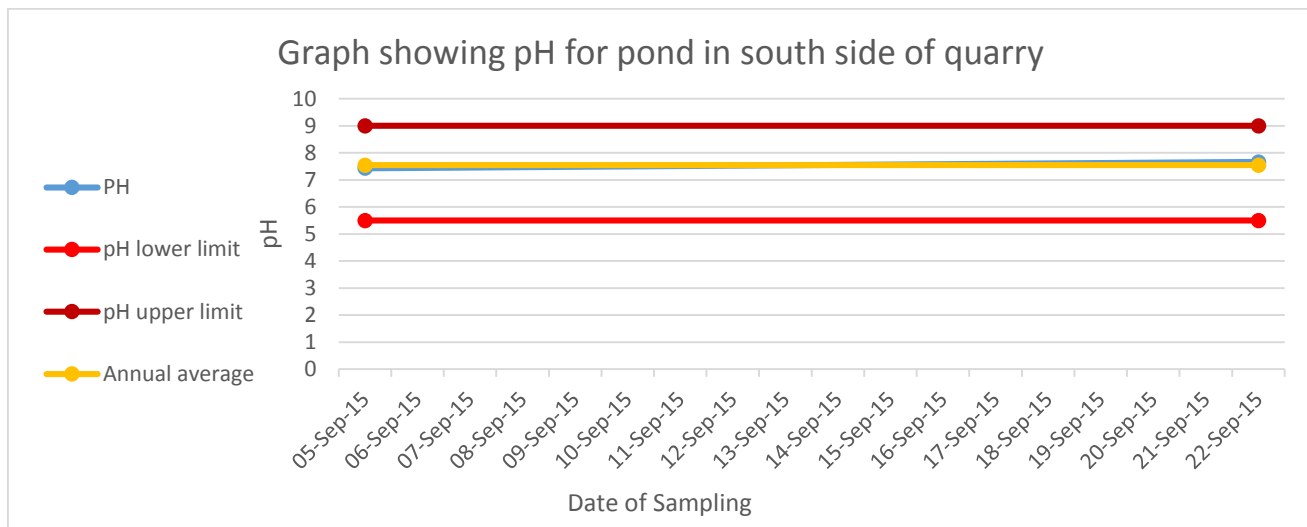


Project: Kaniha OCP
Monitoring Station: Pond in south side of quarry

Table 136

Date Of Sampling	pH	Oil & Grease	TSS	COD
05-Sep-15	7.43	<4.0	18	28
22-Sep-15	7.66	<4.0	12	22

All values are in mg/L



Project: Kaniha OCP (Effluent Yearly 22 Parameter)
Monitoring Station: Mine Discharge

Table 137

Area	Kaniha	MoEF-Sch-VI Standards
Date	9.11.2015	
Color	Accept-able	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.9	
Nitrate Nitrogen	2	10
Ammonia Nitrogen	0.28	50
Total Kjeldahl Nitrogen	2.26	100
BOD	12	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.44	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.48	2
Dis. PO ₄	0.28	5
Sulphide	0.003	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.16	3

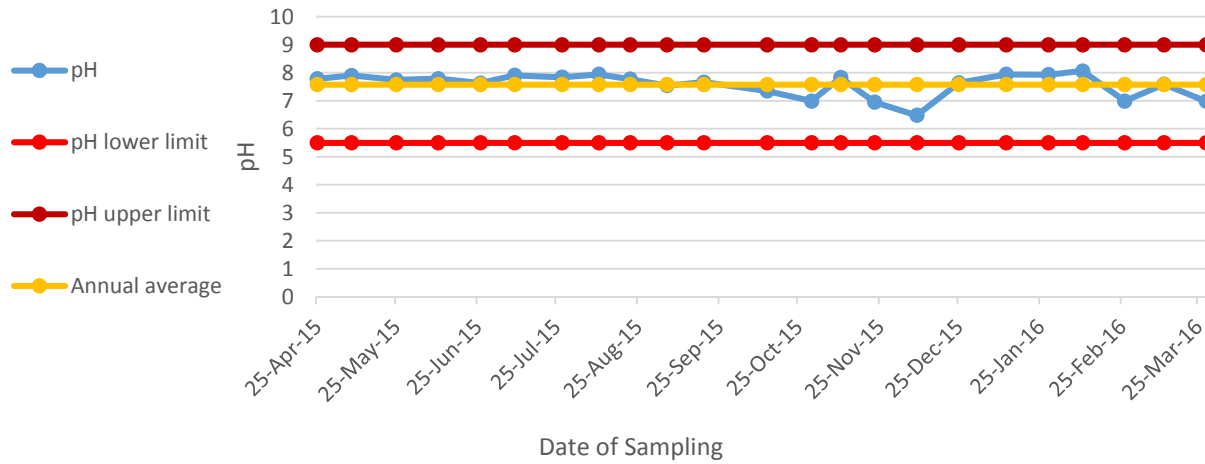
All values are in mg/L

Project: Lingaraj OCP
Monitoring Station: Discharge from Deulbera Siding
Table 138

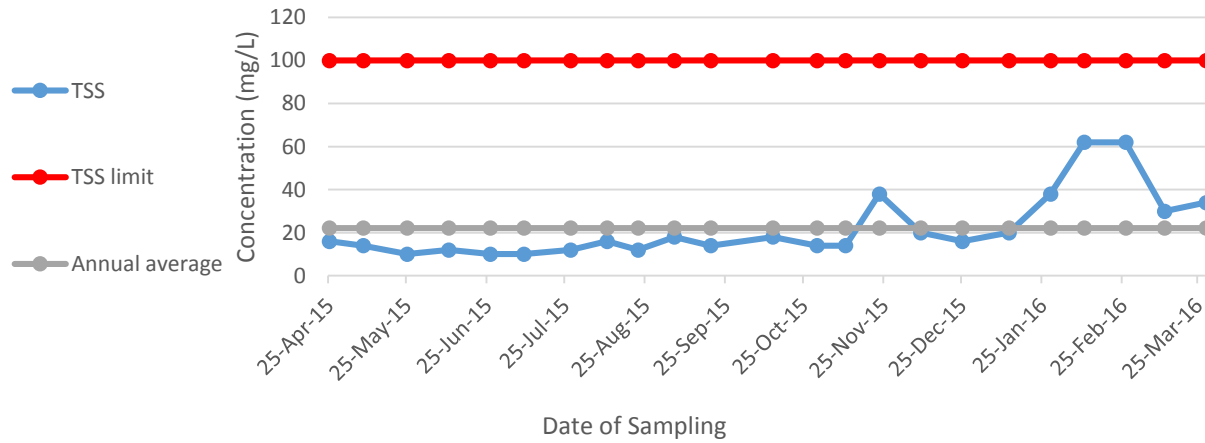
Date Of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-15	7.78	<4.0	16	32
08-May-15	7.9	<4.0	14	28
25-May-15	7.74	<4.0	10	12
10-Jun-15	7.79	<4.0	12	14
26-Jun-15	7.63	<4.0	10	16
09-Jul-15	7.91	<4.0	10	24
27-Jul-15	7.84	<4.0	12	22
10-Aug-15	7.94	<4.0	16	32
22-Aug-15	7.77	<4.0	12	20
05-Sep-15	7.54	<4.0	18	32
19-Sep-15	7.66	<4.0	14	20
13-Oct-15	7.35	<4.0	18	32
30-Oct-15	6.99	<4.0	14	20
10-Nov-15	7.83	<4.0	14	16
23-Nov-15	6.95	<4.0	38	32
09-Dec-15	6.48	<4.0	20	12
25-Dec-15	7.64	<4.0	16	12
12-Jan-16	7.94	<2.0	20	12
28-Jan-16	7.93	<4.0	38	20
10-Feb-16	8.06	<4.0	62	88
26-Feb-16	6.99	<4.0	62	36
12-Mar-16	7.59	<4.0	30	20
28-Mar-16	6.98	<4.0	34	20

All values are in mg/L

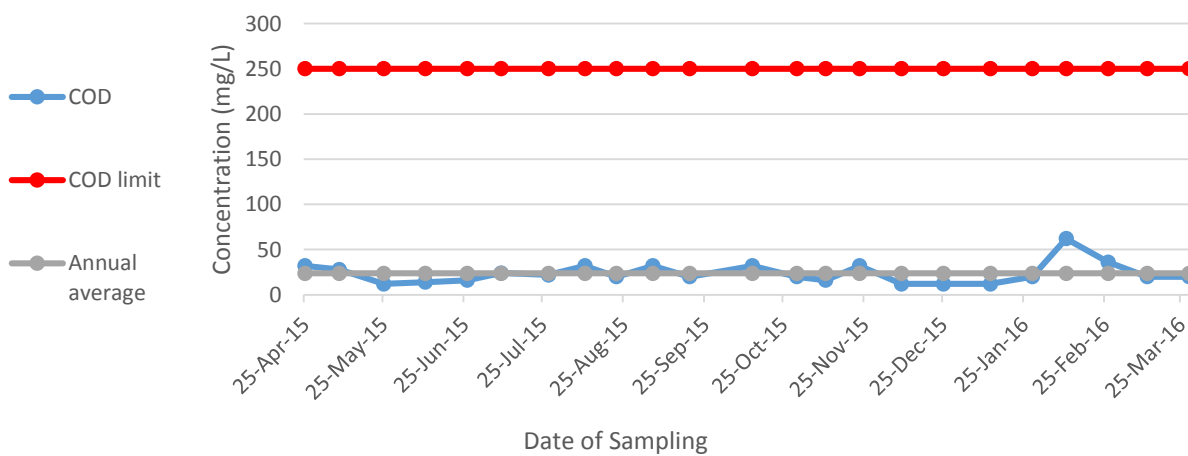
Graph showing pH for Discharge from Deulbera Siding



Graph showing TSS for Discharge from Deulbera Siding



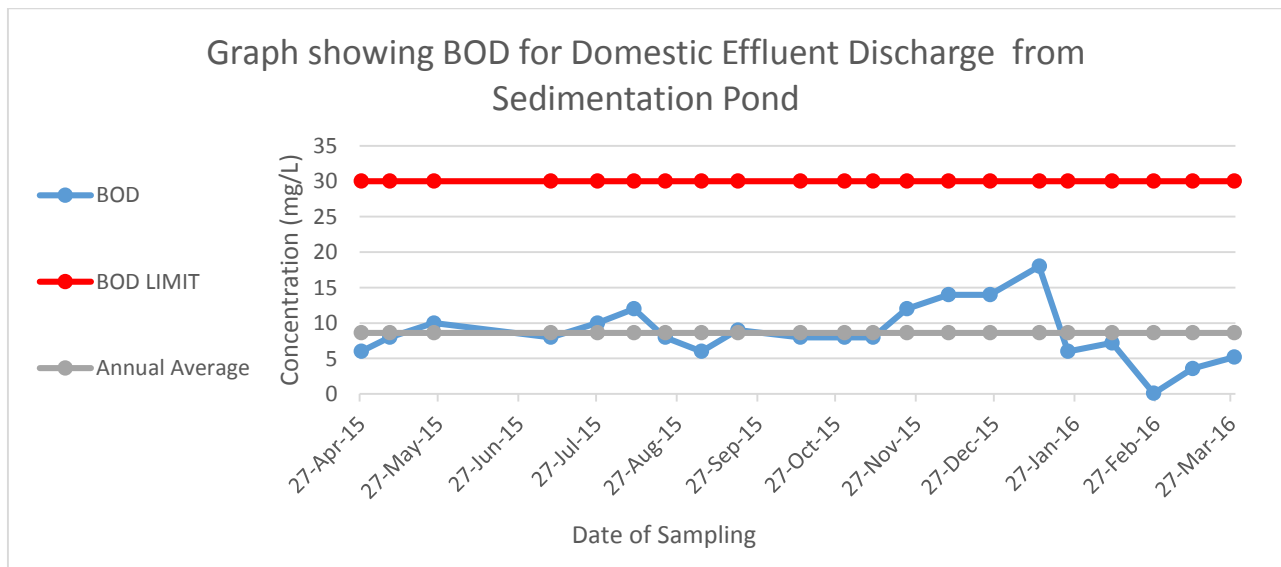
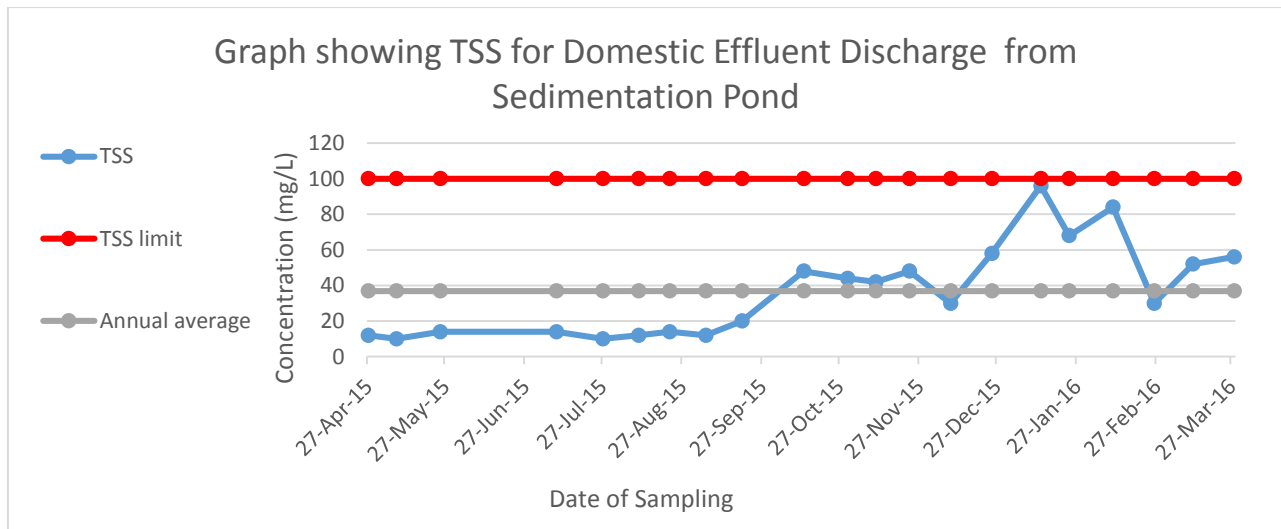
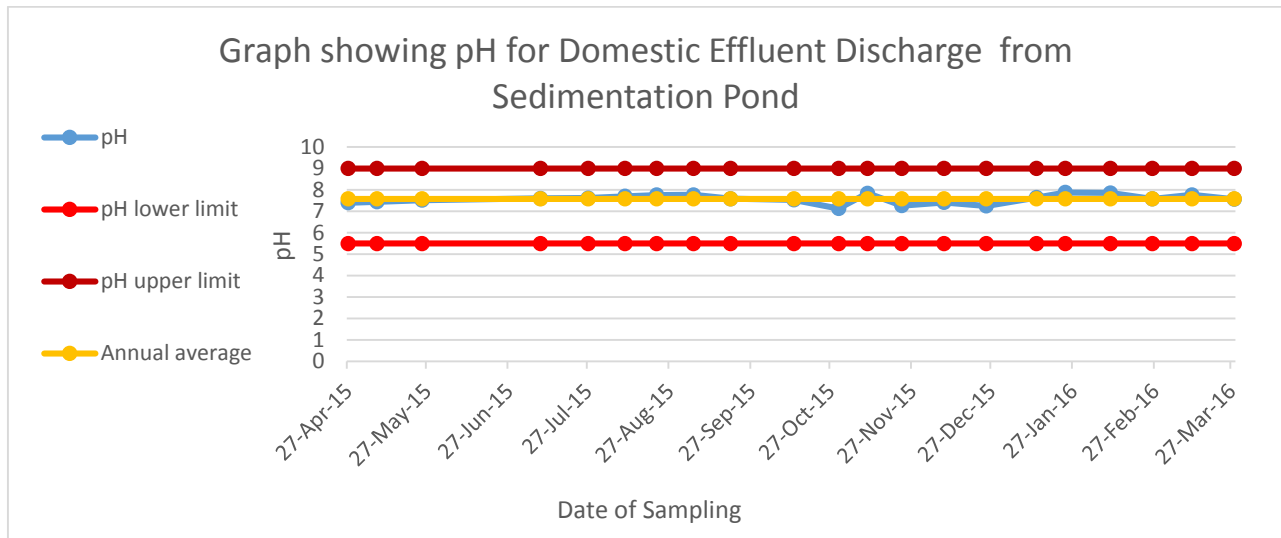
Graph showing COD for Discharge from Deulbera Siding



Project: Lingaraj OCP
Monitoring Station: Domestic Effluent Discharge from Sedimentation Pond
Table 139

Date Of Sampling	pH	TSS	BOD
27-Apr-15	7.4	12	6
08-May-15	7.45	10	8
25-May-15	7.52	14	10
09-Jul-15	7.6	14	8
27-Jul-15	7.62	10	10
10-Aug-15	7.7	12	12
22-Aug-15	7.76	14	8
05-Sep-15	7.77	12	6
19-Sep-15	7.59	20	9
13-Oct-15	7.54	48	8
30-Oct-15	7.13	44	8
10-Nov-15	7.84	42	8
23-Nov-15	7.27	48	12
09-Dec-15	7.42	30	14
25-Dec-15	7.25	58	14
13-Jan-16	7.64	96	18
24-Jan-16	7.88	68	6
10-Feb-16	7.86	84	7.2
26-Feb-16	7.58	30	0.099
12-Mar-16	7.77	52	3.6
28-Mar-16	7.57	56	5.2

All values are in mg/L

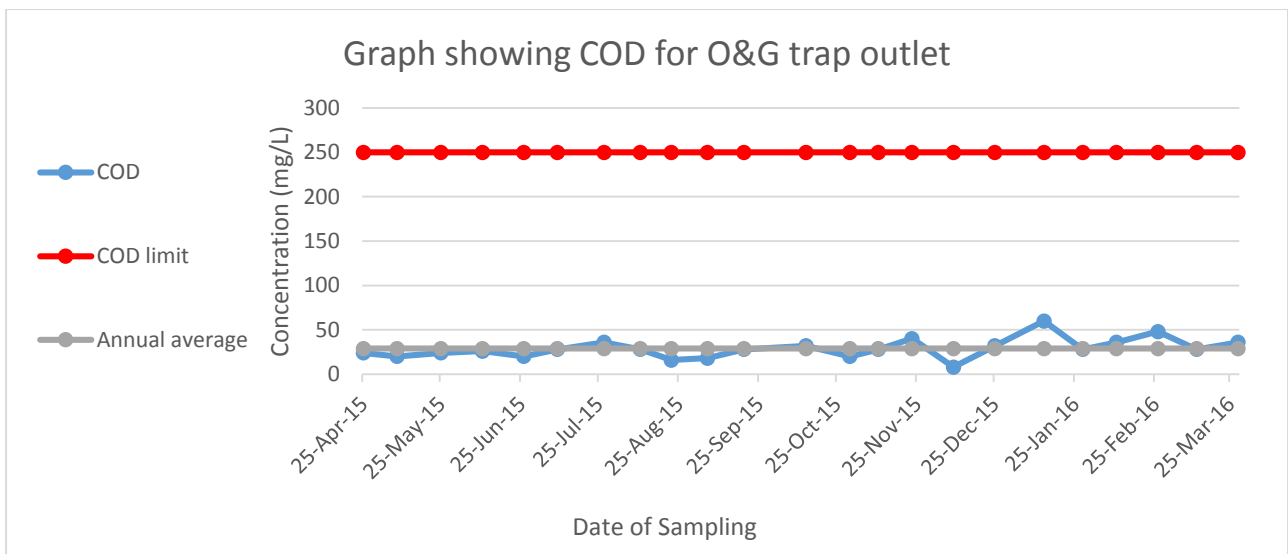
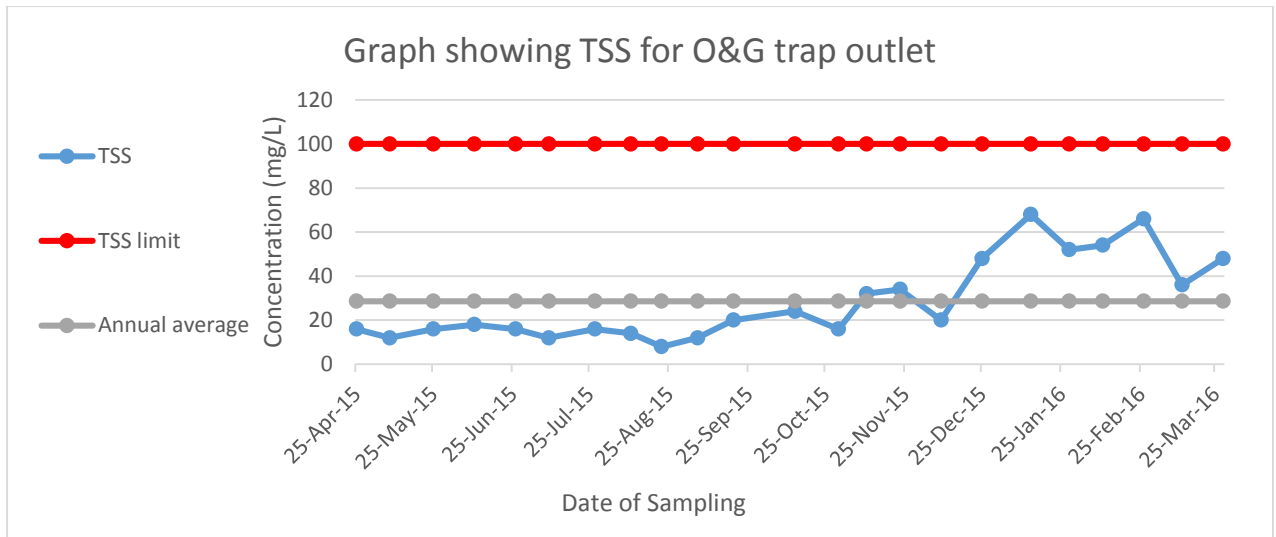
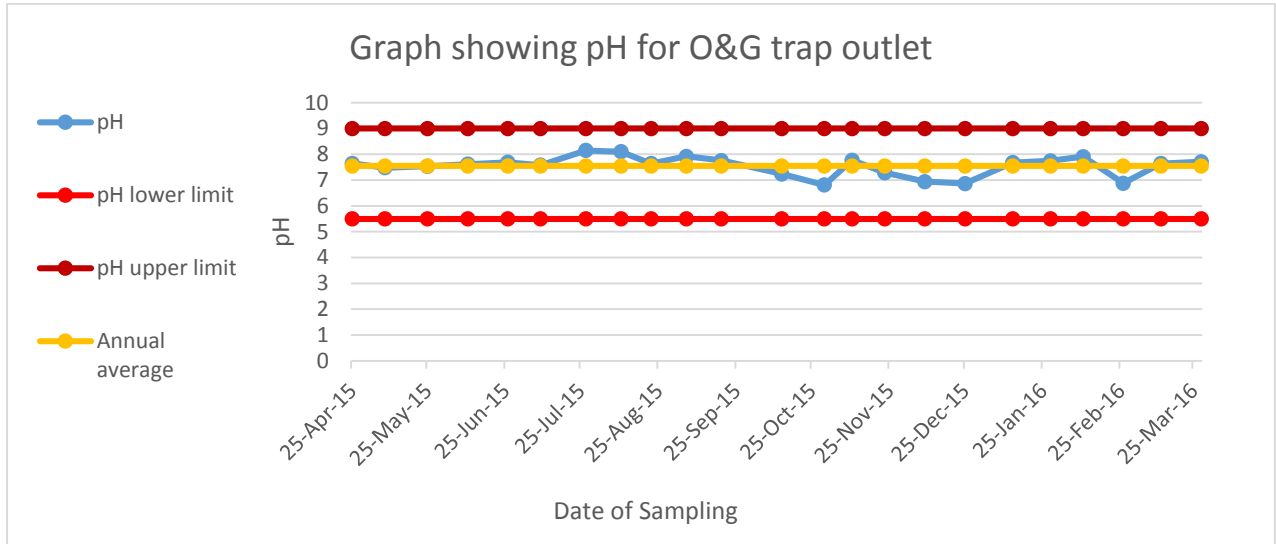


Project: Lingaraj OCP
Monitoring Station: O&G trap outlet

Table 140

Date Of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-15	7.65	<4.0	16	24
08-May-15	7.48	<4.0	12	20
25-May-15	7.54	<4.0	16	24
10-Jun-15	7.62	<4.0	18	26
26-Jun-15	7.69	<4.0	16	20
09-Jul-15	7.58	<4.0	12	28
27-Jul-15	8.15	<4.0	16	36
10-Aug-15	8.1	<4.0	14	28
22-Aug-15	7.64	<4.0	8	16
05-Sep-15	7.92	<4.0	12	18
19-Sep-15	7.76	<4.0	20	28
13-Oct-15	7.24	<4.0	24	32
30-Oct-15	6.81	<4.0	16	20
10-Nov-15	7.77	<4.0	32	28
23-Nov-15	7.29	<4.0	34	40
09-Dec-15	6.94	<4.0	20	8
25-Dec-15	6.87	<4.0	48	32
13-Jan-16	7.68	<4.0	68	60
28-Jan-16	7.75	<4.0	52	28
10-Feb-16	7.91	<4.0	54	36
26-Feb-16	6.88	<4.0	66	48
12-Mar-16	7.64	<4.0	36	28
28-Mar-16	7.71	<4.0	48	36

All values are in mg/L

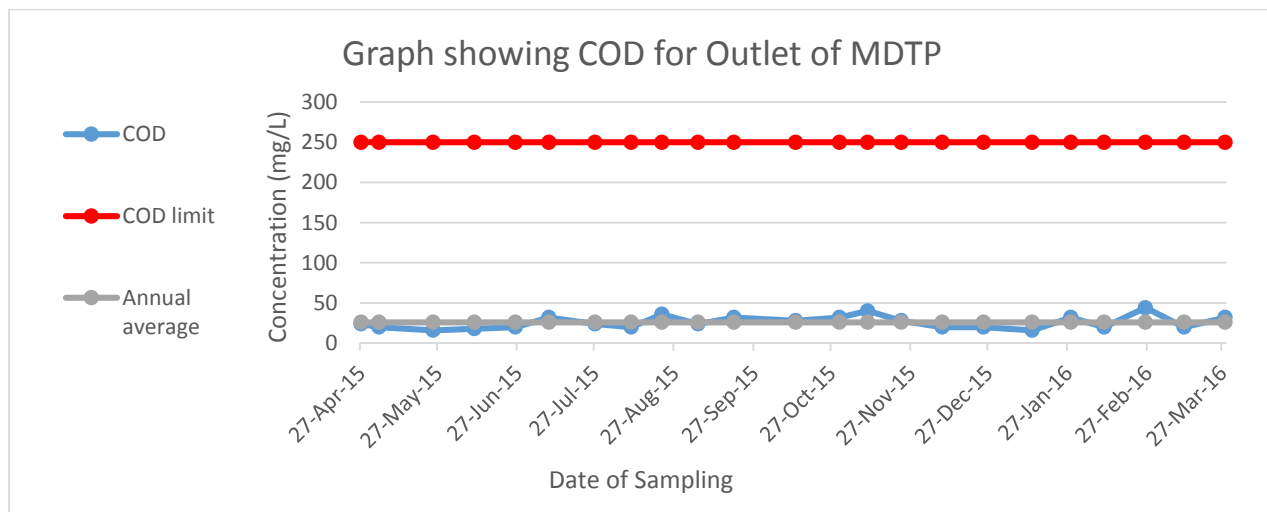
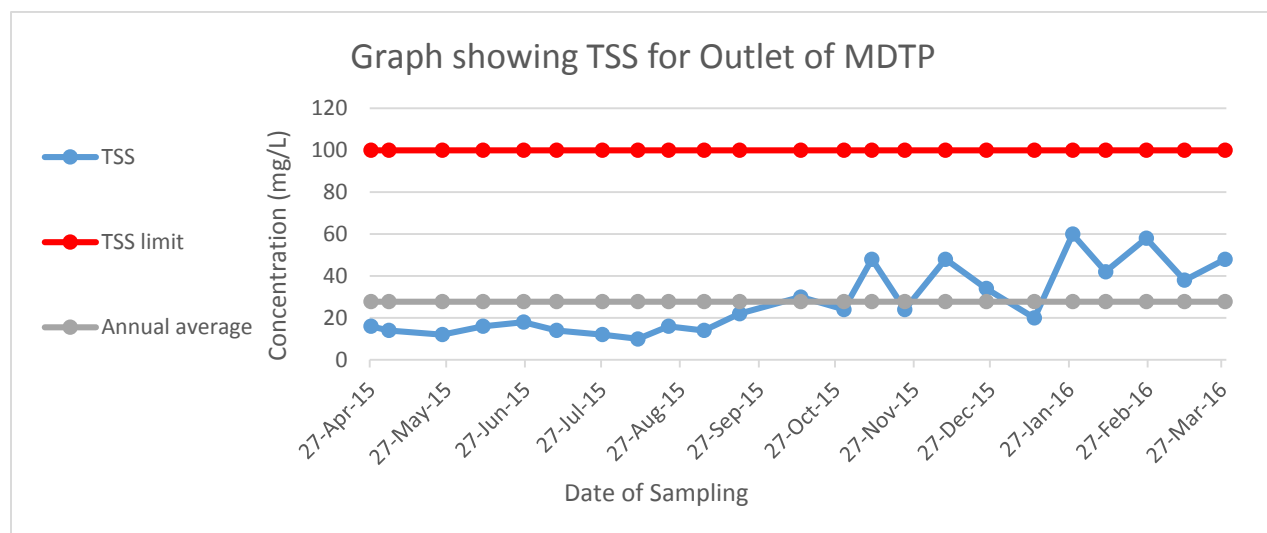
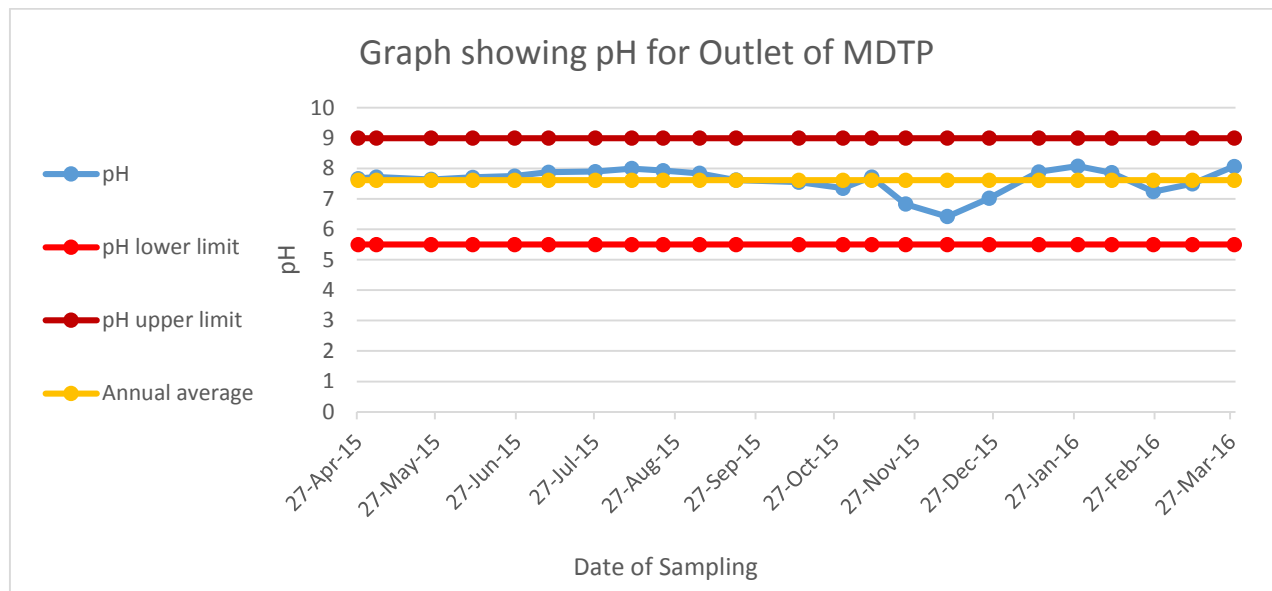


Project: Lingaraj OCP
Monitoring Station: Outlet of MDTP

Table 141

Date Of Sampling	pH	Oil & Grease	TSS	COD
27-Apr-15	7.67	<4.0	16	24
04-May-15	7.72	<4.0	14	20
25-May-15	7.64	<4.0	12	16
10-Jun-15	7.71	<4.0	16	18
26-Jun-15	7.75	<4.0	18	20
09-Jul-15	7.88	<4.0	14	32
27-Jul-15	7.9	<4.0	12	24
10-Aug-15	8	<4.0	10	20
22-Aug-15	7.93	<4.0	16	36
05-Sep-15	7.84	<4.0	14	24
19-Sep-15	7.62	<4.0	22	32
13-Oct-15	7.55	<4.0	30	28
30-Oct-15	7.35	<4.0	24	32
10-Nov-15	7.72	<4.0	48	40
23-Nov-15	6.83	<4.0	24	28
09-Dec-15	6.42	<4.0	48	20
25-Dec-15	7.02	<4.0	34	20
13-Jan-16	7.89	<4.0	20	16
28-Jan-16	8.08	<4.0	60	32
10-Feb-16	7.86	<4.0	42	20
26-Feb-16	7.24	<4.0	58	44
12-Mar-16	7.5	<4.0	38	20
28-Mar-16	8.07	<4.0	48	32

All values are in mg/L

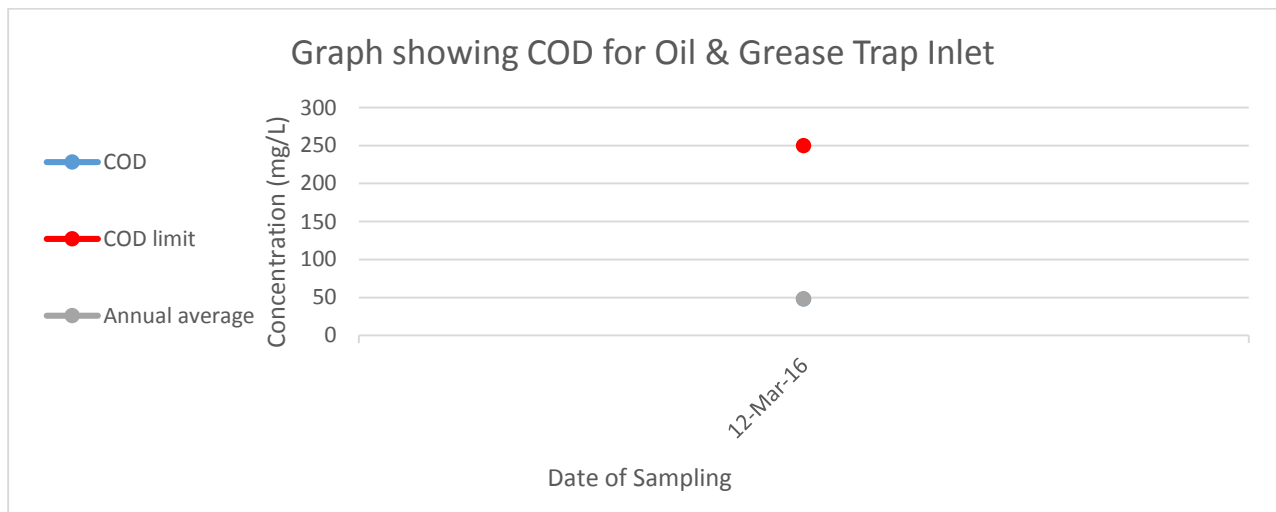
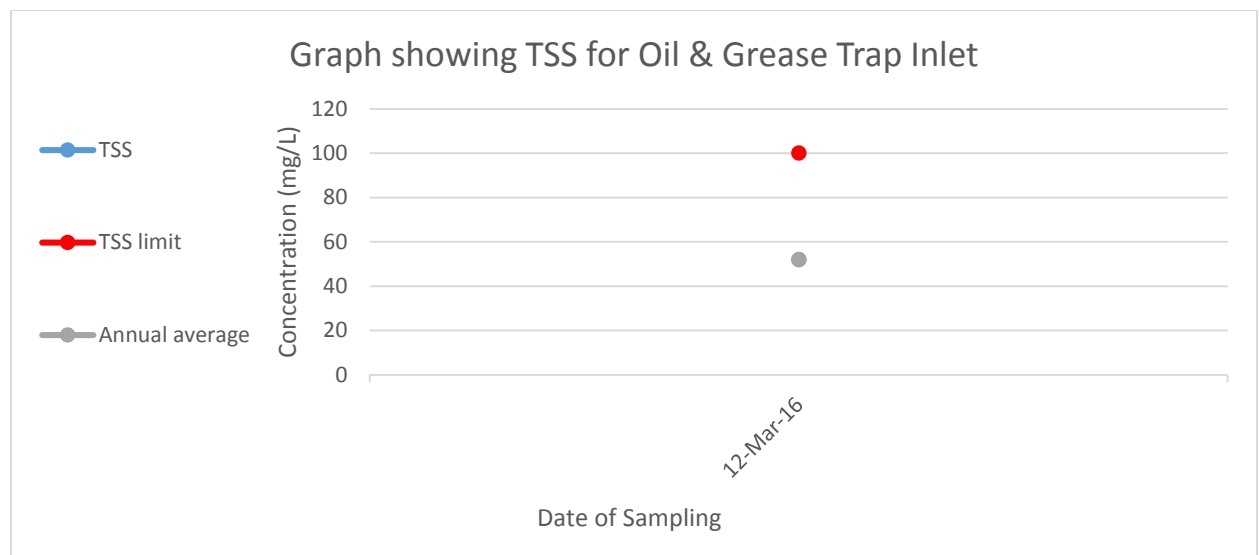
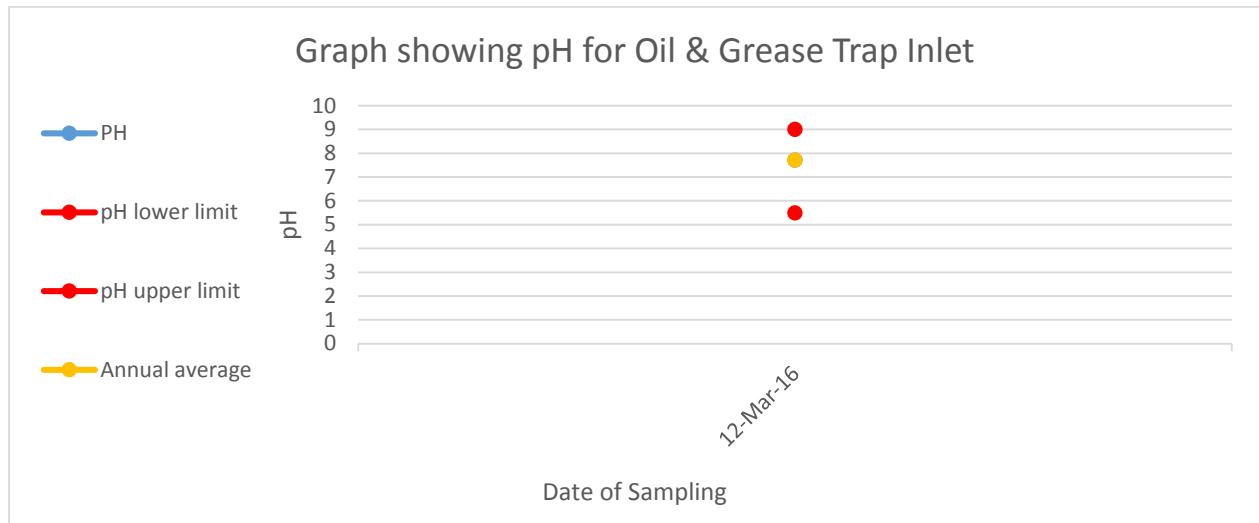


Project: Lingaraj OCP
Monitoring Station: Oil & Grease Trap Inlet

Table 142

Date Of Sampling	pH	Oil & Grease	TSS	COD
12-Mar-16	7.71	<4.0	52	48

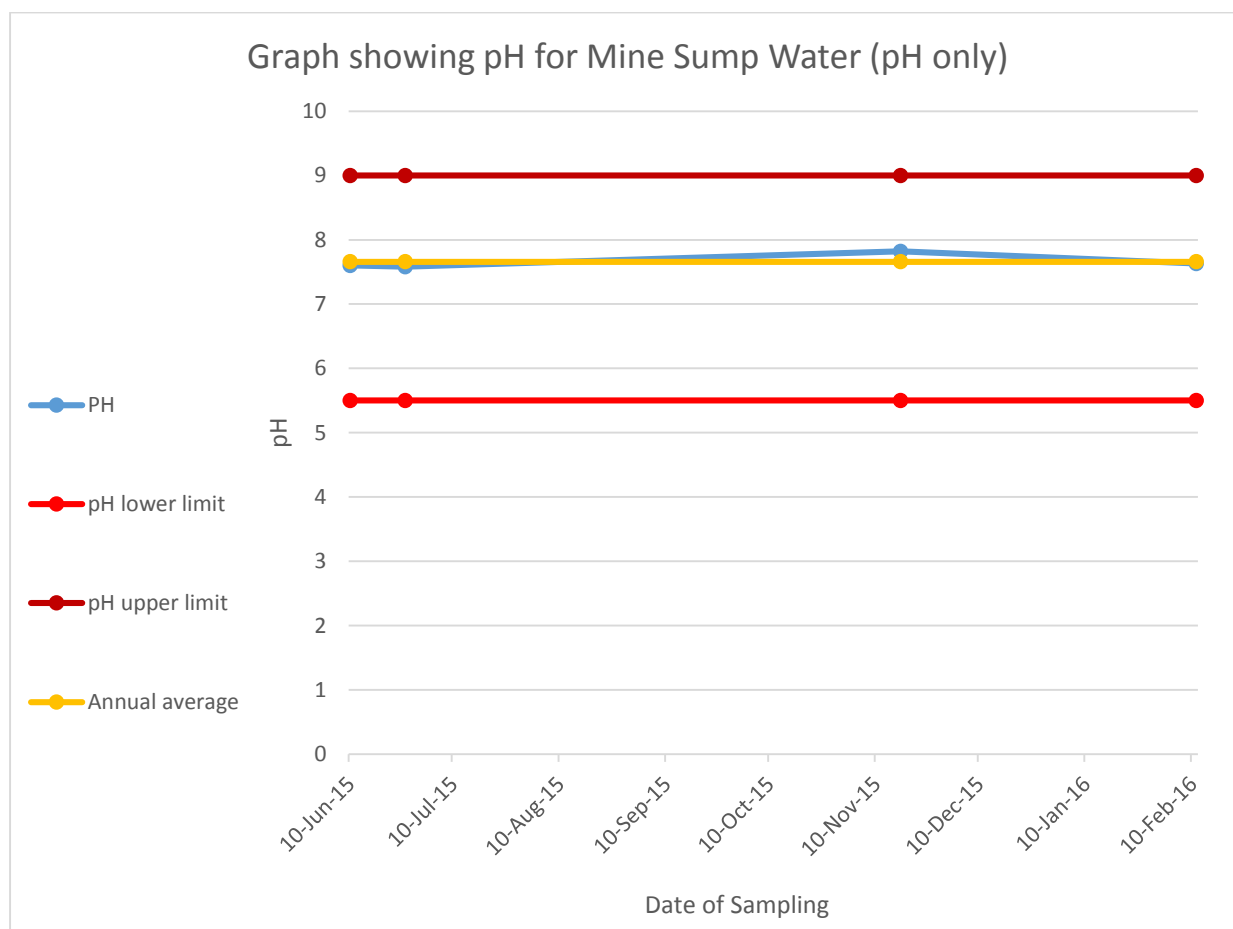
All values are in mg/L



Project: Lingaraj OCP
Monitoring Station: Mine Sump Water

Table 143

Date Of Sampling	pH
10-Jun-15	7.6
26-Jun-15	7.58
17-Nov-15	7.82
11-Feb-16	7.63



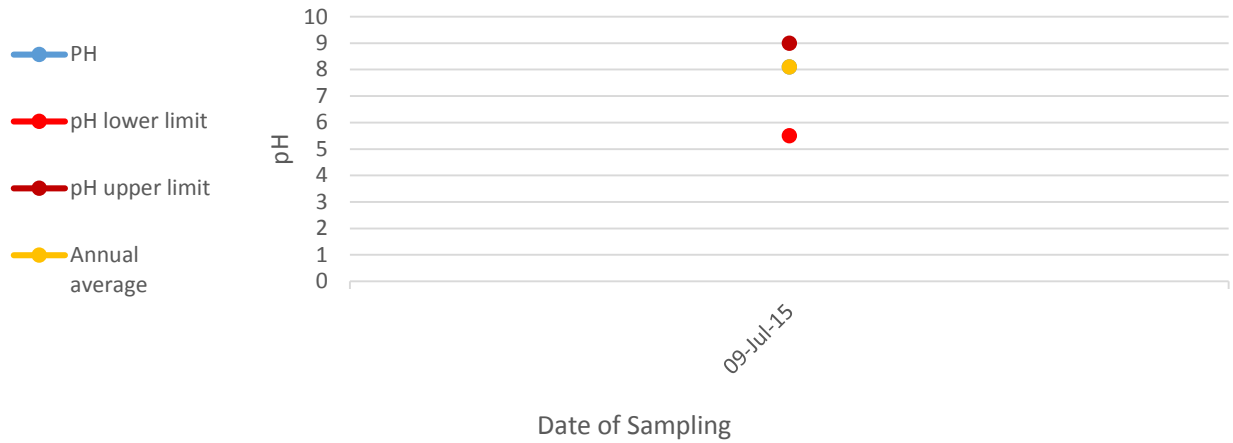
Project: Lingaraj OCP
Monitoring Station: Ob dump run off near Longijuda Basti

Table 144

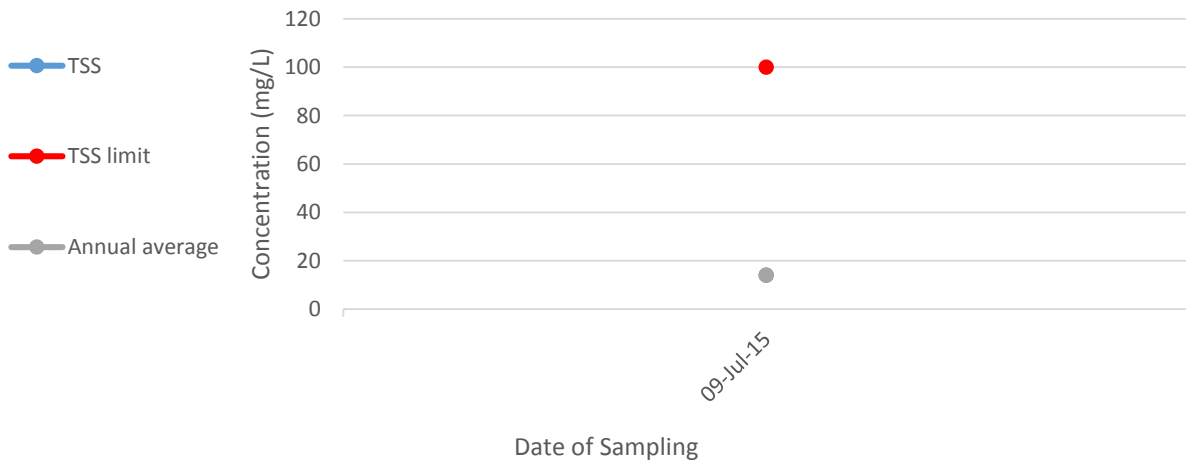
Date Of Sampling	pH	Oil & Grease	TSS	COD
09-Jul-15	8.1	<4.0	14	32

All values are in mg/L

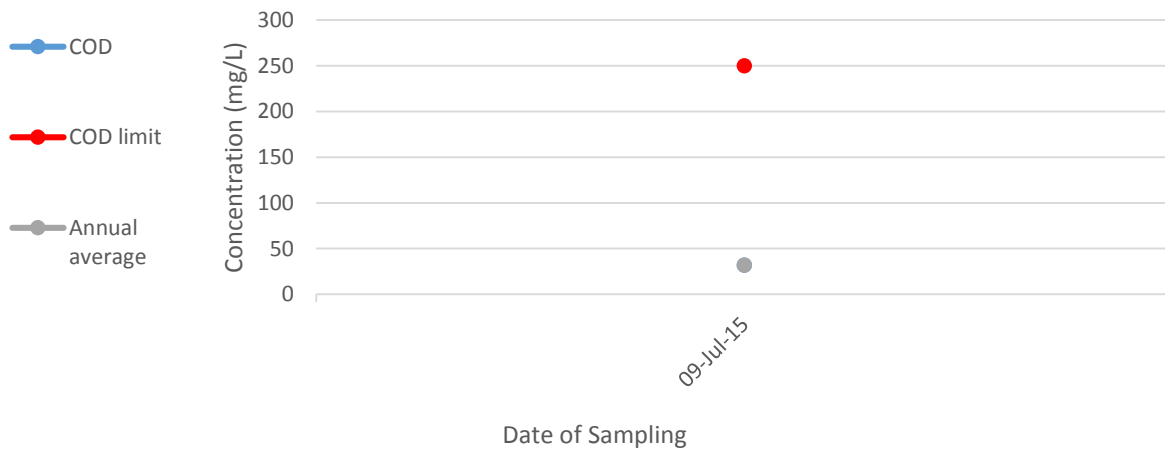
Graph showing pH for Ob dump run off near Longijuda Basti



Graph showing TSS for Ob dump run off near Longijuda Basti



Graph showing COD for Ob dump run off near Longijuda Basti



Project: Lingaraj OCP (Effluent Yearly 22 Parameter)

Table 145

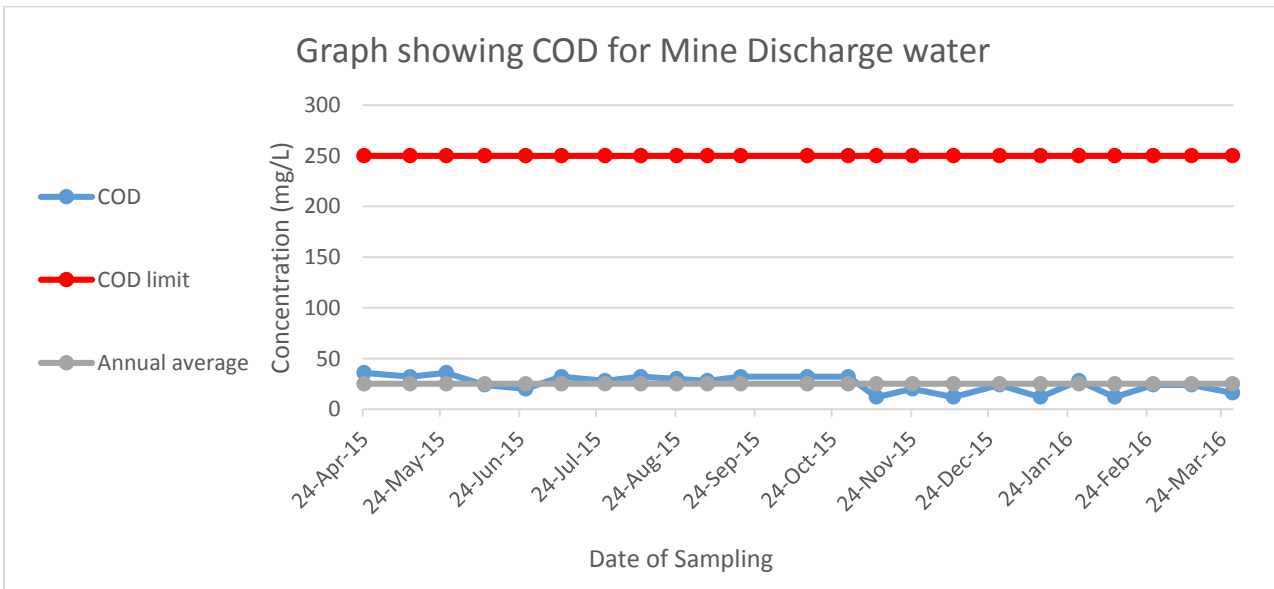
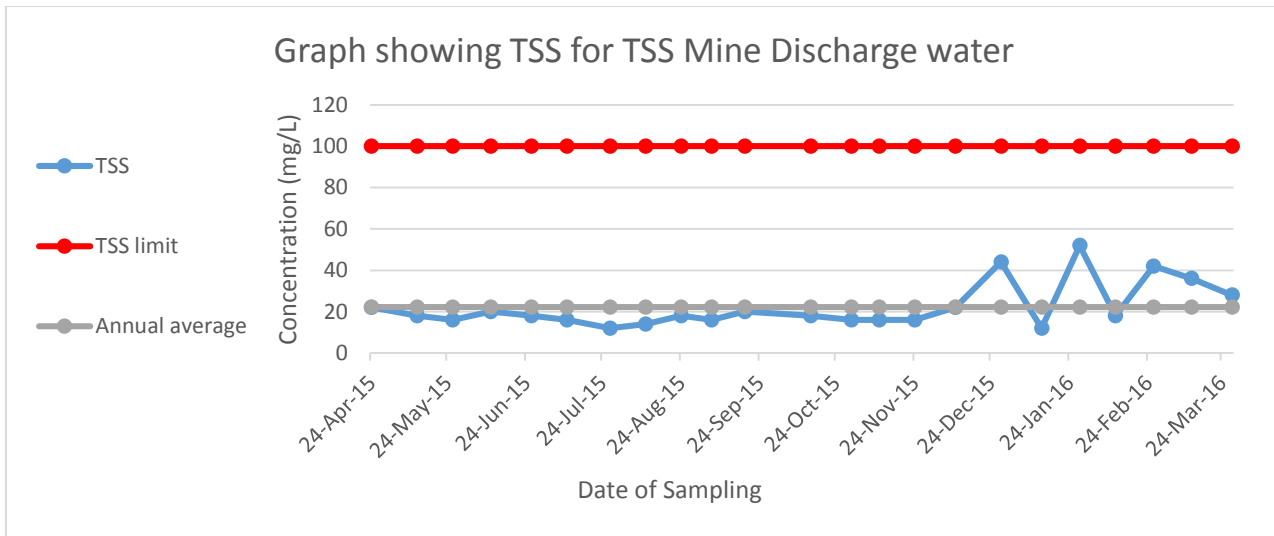
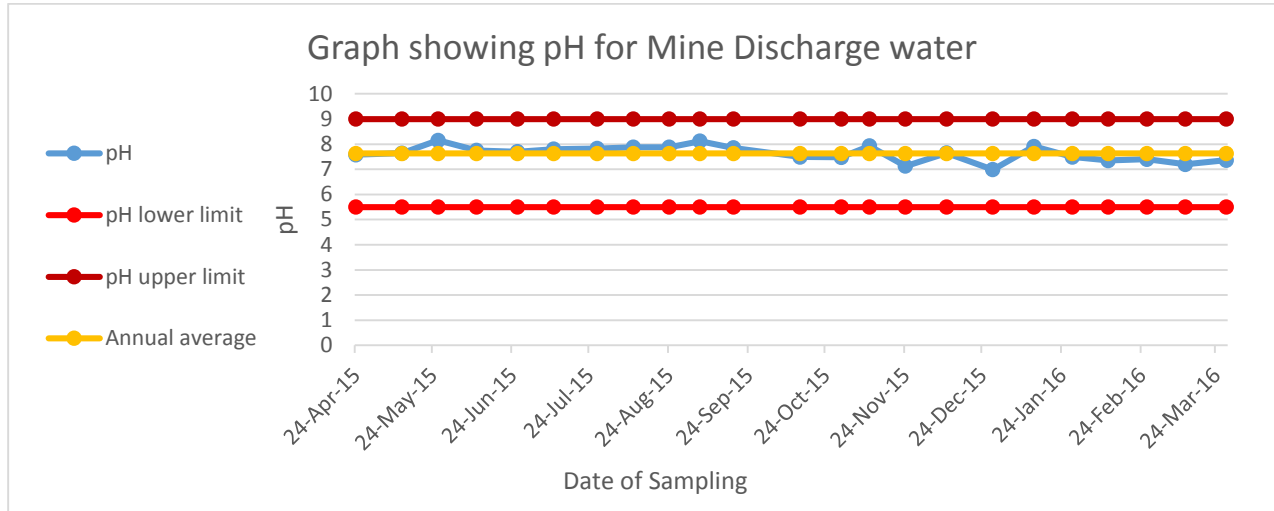
Area	Lingaraj	Lingaraj	MoEF-Sch-VI Standards
Sampling station	Outlet of MDTP	Outlet of O&G at Conf. Pt. Brahmani river	
Date	10.11.2015	10.10.2015	
Color	Accept-able	Accept-able	Acceptable
Odour	Agreeable	Agreeable	Agreeable
Temp. °C	23.9	23.9	
Nitrate Nitrogen	2.2	1.8	10
Ammonia Nitrogen	0.14	0.34	50
Total Kjeldahl Nitrogen	1.92	1.16	100
BOD	14	12	30
Arsenic	<0.01	<0.01	0.2
Lead	<0.05	<0.05	0.1
Hexavalent Chromium	<0.01	<0.01	0.1
Total Chromium	<0.1	<0.1	2
Copper	<0.02	<0.02	3
Zinc	0.28	0.42	5
Cadmium	<0.0005	<0.0005	2.0
Selenium	<0.01	<0.01	0.05
Nickel	0.32	<0.1	3
Flouride	0.16	0.42	2
Dis. PO ₄	0.004	0.24	5
Sulphide	0.004	0.005	2
Phenols	<0.001	<0.001	1
Manganese	<0.05	<0.05	2
Iron	0.2	0.22	3

All values are in mg/L

Project: Deulbera Colliery UG
Monitoring Station: Mine Discharge water
Table 146

Date of Sampling	pH	Oil & Grease	TSS	COD
24-Apr-15	7.58	<4.0	22	36
12-May-15	7.64	<4.0	18	32
26-May-15	8.15	<4.0	16	36
10-Jun-15	7.75	<4.0	20	24
26-Jun-15	7.7	<4.0	18	20
10-Jul-15	7.8	<4.0	16	32
27-Jul-15	7.83	<4.0	12	28
10-Aug-15	7.88	<4.0	14	32
24-Aug-15	7.88	<4.0	18	30
05-Sep-15	8.12	<4.0	16	28
18-Sep-15	7.85	<4.0	20	32
14-Oct-15	7.49	<4.0	18	32
30-Oct-15	7.48	<4.0	16	32
10-Nov-15	7.93	<4.0	16	12
24-Nov-15	7.13	<4.0	16	20
10-Dec-15	7.65	<4.0	22	12
28-Dec-15	6.99	<4.0	44	24
13-Jan-16	7.91	<4.0	12	12
28-Jan-16	7.49	<4.0	52	28
11-Feb-16	7.35	<4.0	18	12
26-Feb-16	7.4	<4.0	42	24
12-Mar-16	7.2	<4.0	36	24
28-Mar-16	7.36	<4.0	28	16

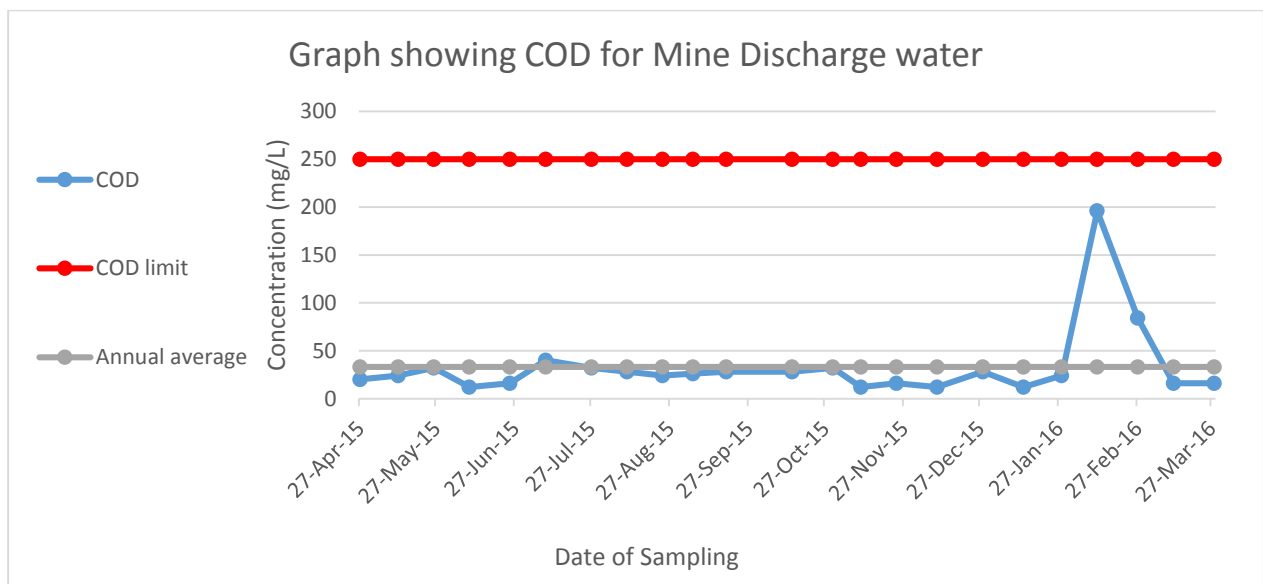
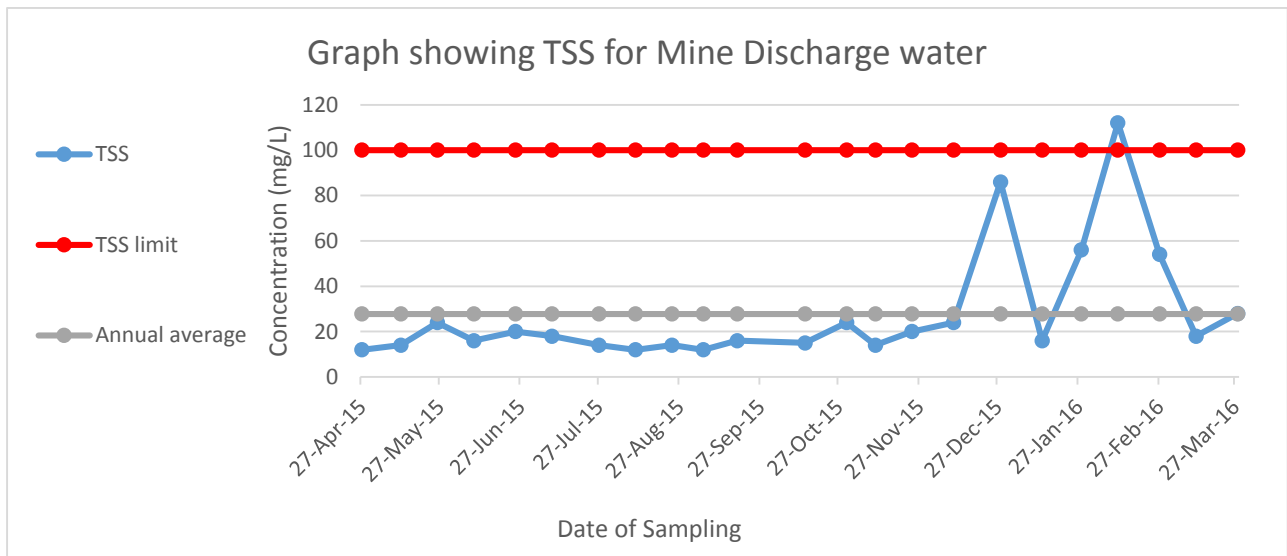
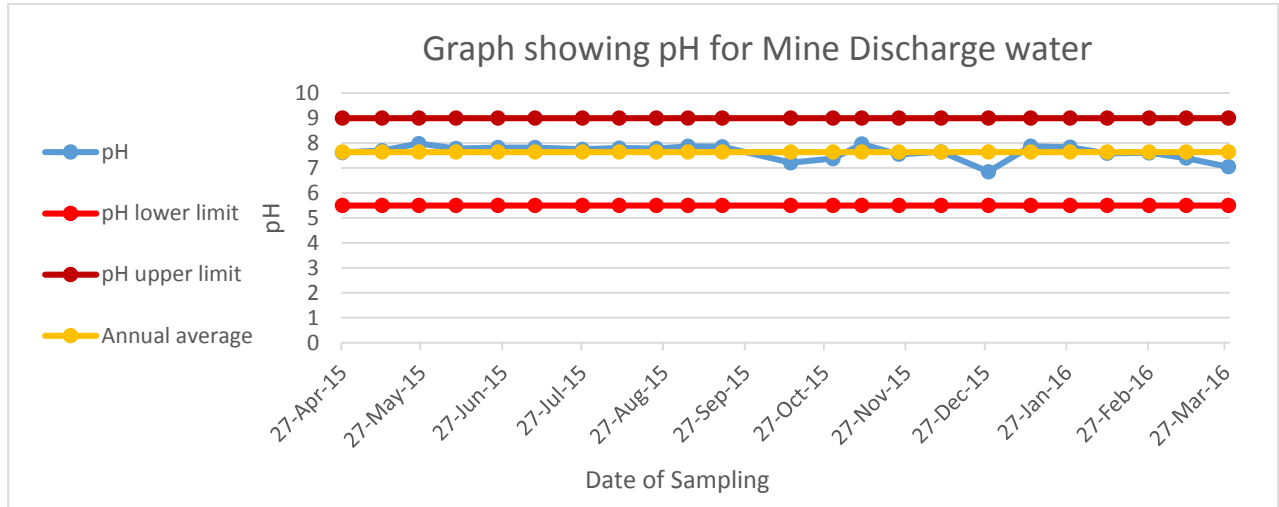
All values are in mg/L



Project: Nandira Colliery UG
Monitoring Station: Mine Discharge water
Table 147

Date of Sampling	pH	Oil & Grease	TSS	COD
27-Apr-15	7.62	<4.0	12	20
12-May-15	7.7	<4.0	14	24
26-May-15	7.98	<4.0	24	32
09-Jun-15	7.78	<4.0	16	12
25-Jun-15	7.82	<4.0	20	16
09-Jul-15	7.82	<4.0	18	40
27-Jul-15	7.75	<4.0	14	32
10-Aug-15	7.8	<4.0	12	28
24-Aug-15	7.78	<4.0	14	24
05-Sep-15	7.87	<4.0	12	26
18-Sep-15	7.85	<4.0	16	28
14-Oct-15	7.58	<4.0	28	32
30-Oct-15	7.27	<4.0	26	24
10-Nov-15	7.99	<4.0	34	44
20-Nov-15	7.35	<4.0	32	24
10-Dec-15	8.15	<4.0	18	8
28-Dec-15	7.19	<4.0	34	16
09-Jan-16	7.99	<4.0	12	12
22-Jan-16	7.81	<4.0	46	28
11-Feb-16	7.09	<4.0	26	16
27-Feb-16	7.51	<4.0	48	32
04-Mar-16	7.47	<4.0	48	28
30-Mar-16	6.95	<4.0	26	16

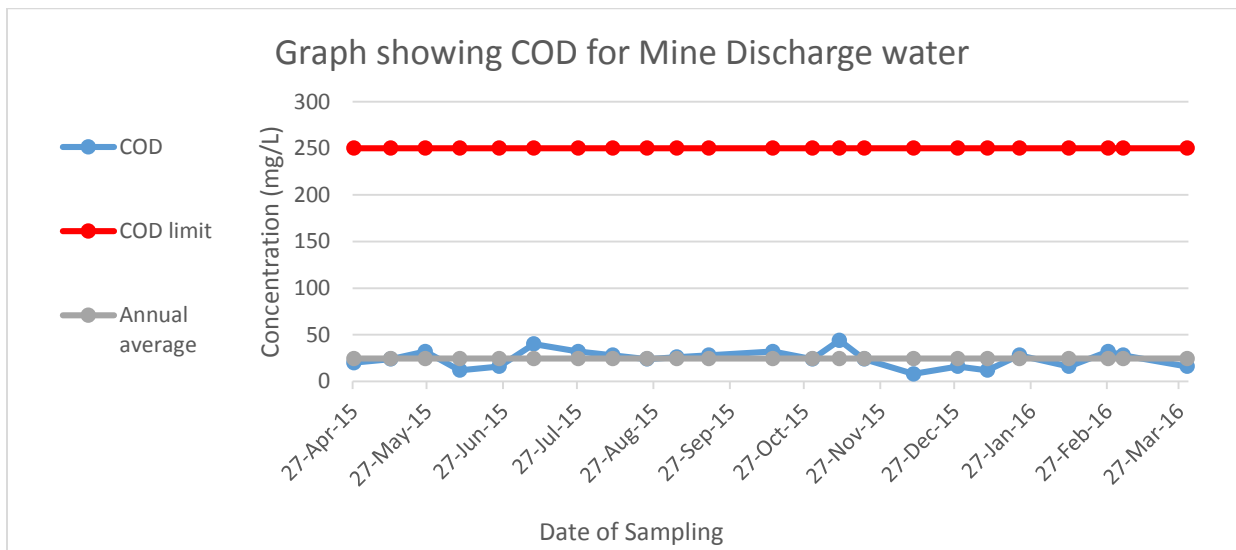
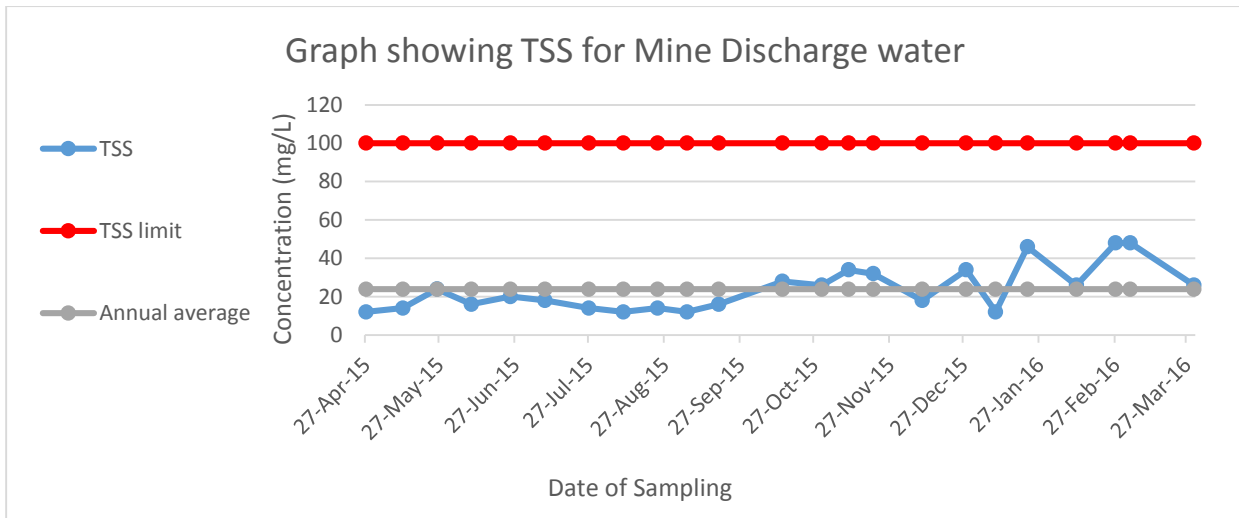
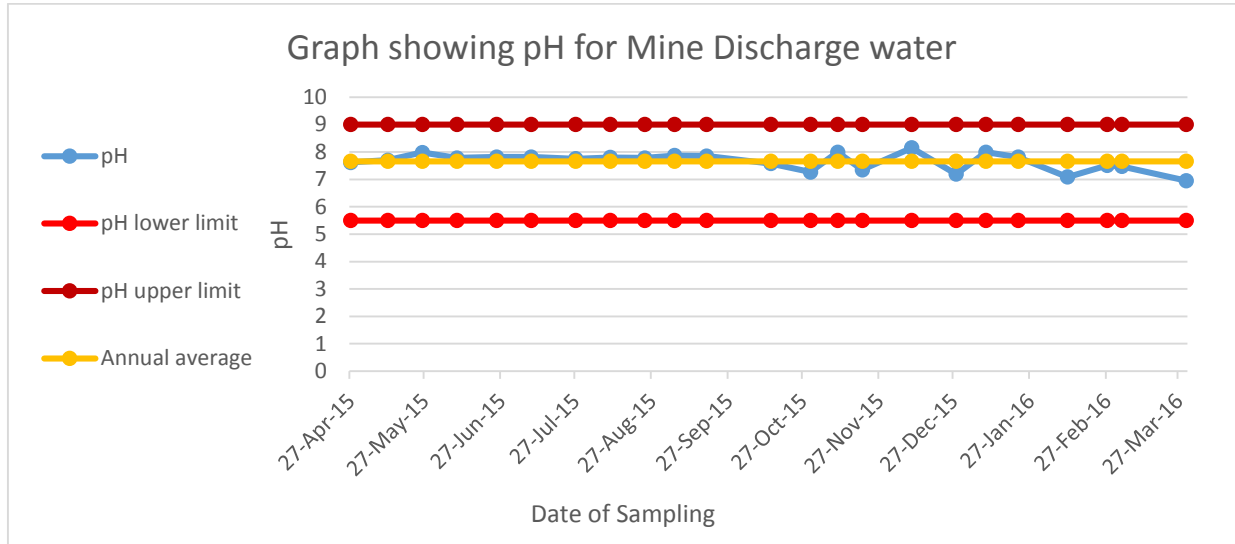
All values are in mg/L



Project: Talcher Colliery UG
Monitoring Station: Mine Discharge water
Table 148

Date of Sampling	pH	Oil & Grease	TSS	COD
27-Apr-15	7.68	<4.0	14	24
27-Jul-15	7.92	<4.0	16	36
10-Aug-15	7.63	<4.0	8	20
24-Aug-15	7.82	<4.0	16	36
05-Sep-15	7.64	<4.0	20	32
18-Sep-15	7.43	<4.0	18	30
14-Oct-15	7.21	<4.0	15	28
30-Oct-15	7.38	<4.0	24	32
10-Nov-15	7.96	<4.0	14	12
24-Nov-15	7.55	<4.0	20	16
10-Dec-15	7.65	<4.0	24	12
28-Dec-15	6.85	<4.0	86	28
13-Jan-16	7.87	<4.0	16	12
28-Jan-16	7.83	<4.0	56	24
11-Feb-16	7.59	<4.0	112	196
27-Feb-16	7.61	<4.0	54	84
12-Mar-16	7.4	<4.0	18	16
28-Mar-16	7.05	<4.0	28	16

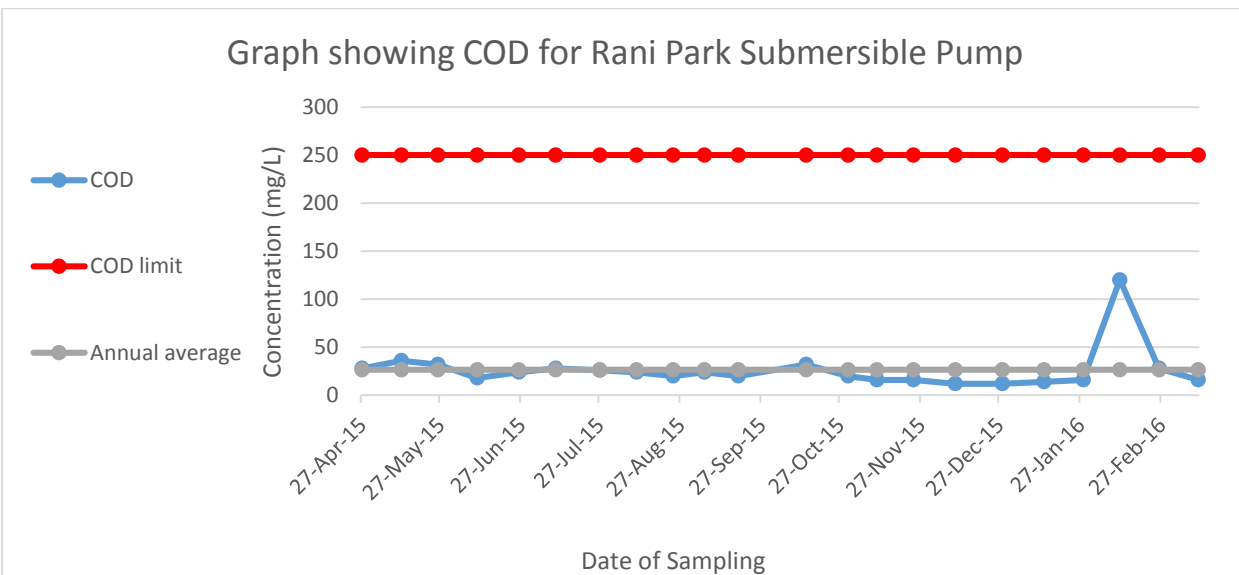
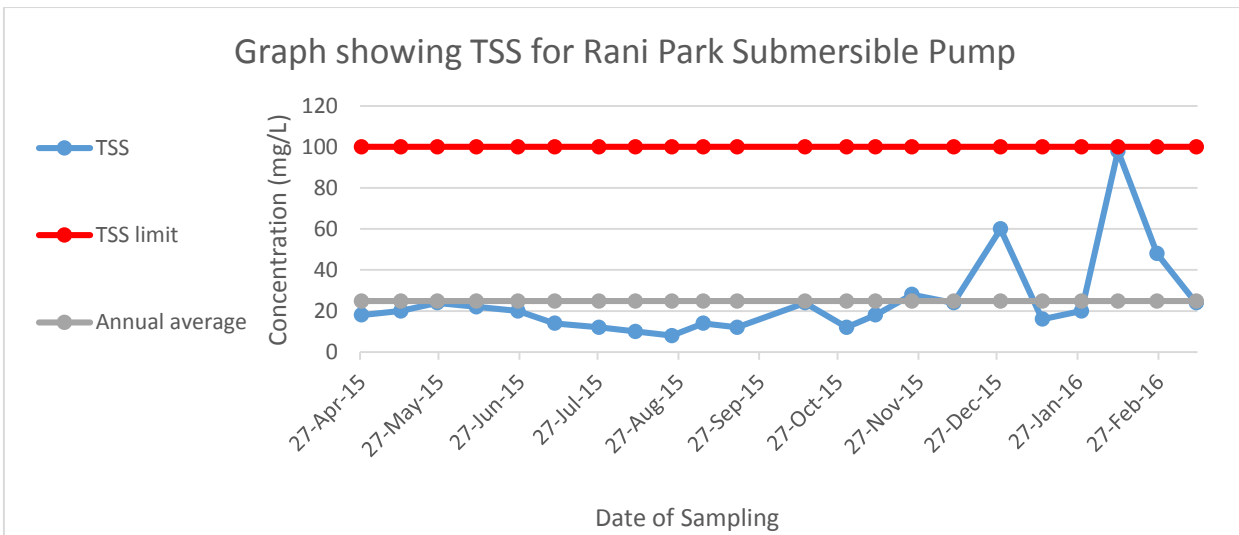
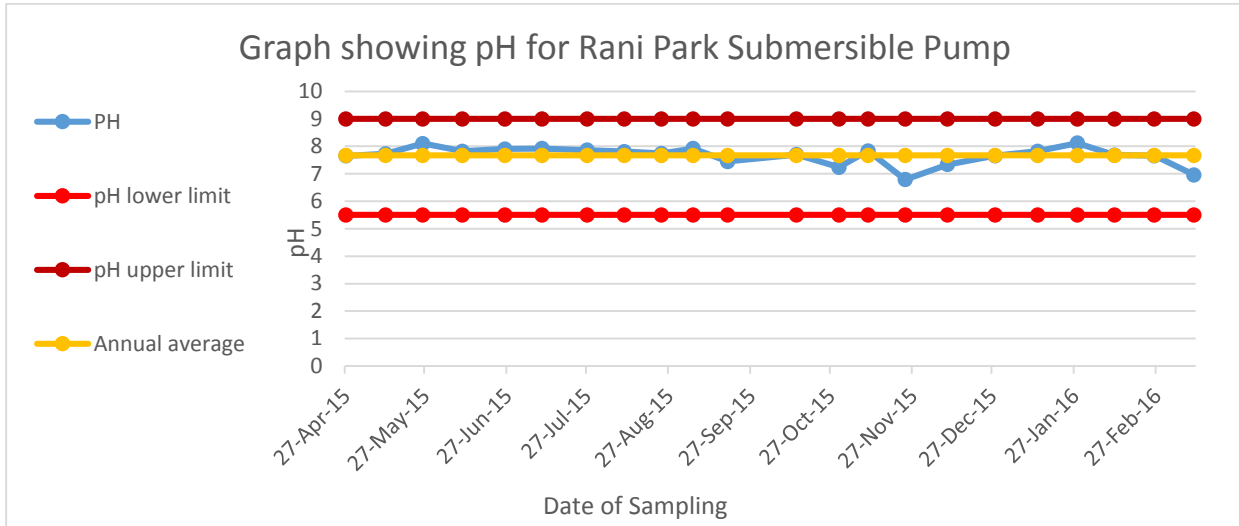
All values are in mg/L



Project: Talcher Colliery UG
Monitoring Station: Rani Park Submersible Pump
Table 149

Date of Sampling	pH	Oil & Grease	TSS	COD
27-Apr-15	7.65	<4.0	18	28
12-May-15	7.73	<4.0	20	36
26-May-15	8.1	<4.0	24	32
10-Jun-15	7.82	<4.0	22	18
26-Jun-15	7.9	<4.0	20	24
10-Jul-15	7.92	<4.0	14	28
27-Jul-15	7.86	<4.0	12	26
10-Aug-15	7.81	<4.0	10	24
24-Aug-15	7.74	<4.0	8	20
05-Sep-15	7.92	<4.0	14	24
18-Sep-15	7.45	<4.0	12	20
14-Oct-15	7.7	<4.0	24	32
30-Oct-15	7.24	<4.0	12	20
10-Nov-15	7.83	<4.0	18	16
24-Nov-15	6.79	<4.0	28	16
10-Dec-15	7.34	<4.0	24	12
28-Dec-15	7.66	<4.0	60	12
13-Jan-16	7.82	<4.0	16	14
28-Jan-16	8.12	<4.0	20	16
11-Feb-16	7.68	<4.0	98	120
26-Feb-16	7.66	<4.0	48	28
12-Mar-16	6.96	<4.0	24	16

All values are in mg/L



Effluent Yearly 22 Parameter: Talcher Area

Table: 150

Area	Talcher	Talcher	Talcher	Talcher	Talcher	MoEF-Sch-VI Standards
Project	Talcher colliery	Nandira colliery	Deulbera colliery			
Sampling station	Mine discharge Water	Mine discharge Water	Mine discharge Water	Rani Park submersible pump	Handidhua colliery mine discharge	
Date	10.11.2015	10.11.2015.	10.11.2015	10.11.2015	10.11.2015	
Color	Accept-able	Accept-able	Accept-able	Accept-able	Accept-able	Acceptable
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Temp. °C	23.9	23.9	23.9	23.9	24	
Nitrate Nitrogen	1.8	2.2	2	2.2	1.8	10
Ammonia Nitrogen	0.18	0.18	0.16	0.16	0.42	50
Total Kjedadhl Nitrogen	2.2	2	2.12	1.98	1.86	100
BOD	10	14	16	12	18	30
Arsenic	<0.01	<0.01	<0.01	<0.01	<0.01	0.2
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	0.1
Hexavalent Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	0.1
Total Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	2
Copper	<0.02	<0.02	<0.02	<0.02	<0.02	3
Zinc	0.42	0.46	0.4	0.48	0.54	5
Cadmium	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	2.0
Selenium	<0.01	<0.01	<0.01	<0.01	<0.01	0.05
Nickel	<0.1	<0.1	<0.1	<0.1	<0.1	3
Flouride	0.44	0.36	0.32	0.36	0.46	2
Dis. PO ₄	0.16	0.2	0.18	0.2	0.28	5
Sulphide	0.003	0.005	0.004	0.003	0.004	2
Phenols	<0.001	<0.001	<0.001	<0.001	<0.001	1
Manganese	<0.05	<0.05	<0.05	<0.05	<0.05	2
Iron	0.18	0.16	0.2	0.22	0.24	3

All units are in mg/L

TABLES FOR DRINKING WATER QUALITY DATA

Table 151

Project	Bharatpur OCP	Bharatpur OCP	Bharatpur OCP	Bharatpur OCP		
Monitoring Station	NS nagar Tap water	NS nagar Tap water	NS nagar Tap water	NS nagar Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	05.05.15	9.7.2015	9.9.15	Desirable	Permissible
Colour(Hazen)	3	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	4	3	1	10
pH	7.39	7.45	7.43	7.43	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	80	80	92	200	600
Total Hardness(mg/L)	160	156	152	172	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	34	34	34	36	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	NIL	0.2	—
Total Dissolve Solid(mg/L)	274	268	272	294	500	2000
Calcium(mg/L)	38.4	36.8	35.2	40	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	0.07	0.1	0.3
Sulphate(mg/L)	53	49	49	57	200	400
Nitrate(mg/L)	6.2	5.76	5.76	6.65	45	100
Fluoride(mg/L)	0.31	0.28	0.25	0.21	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	No relaxation
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	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 152

Project	Bharatpur OCP	Bharatpur OCP	Bharatpur OCP		
Monitoring Station	Tap water in Nehru Shatapdi Nagar	NS nagar Tap water	NS nagar Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	9.11.2015	6.1.2016	8.3.2016	Desirable	Permissible
Colour(Hazen)	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	4	1	10
pH	7.45	7.48	7.47	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	92	84	200	600
Total Hardness(mg/L)	176	176	168	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	38	38	36	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	304	306	288	500	2000
Calcium(mg/L)	41.6	41.6	40	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.06	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	59	63	57	200	400
Nitrate(mg/L)	6.65	6.2	6.2	45	100
Fluoride(mg/L)	0.26	0.35	0.25	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	No relaxation
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	0.05	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.01	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	***	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Table 153

Project	Bharatpur OCP	Bharatpur OCP		
Monitoring Station	Old quarry water	Old quarry water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	05.05.15	10.6.2015	Desirable	Permissible
Colour(Hazen)	5	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	7	7	1	10
pH	7.48	7.48	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	116	116	200	600
Total Hardness(mg/L)	220	220	200	600
Iron(mg/L)	<0.06	<0.06	0.3	1
Chloride(mg/L)	54	54	250	1000
Residual Free chlorine(mg/L)	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	382	3.88	500	2000
Calcium(mg/L)	51.2	54.4	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)	75	74	200	400
Nitrate(mg/L)	6.2	7.09	45	100
Fluoride(mg/L)	0.43	0.45	1	1.5
Selenium(mg/L)	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	0.01	No relaxation
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	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002

Table 154

Project	Chhendipada OCP	Chhendipada OCP	Chhendipada OCP	Chhendipada OCP		
Monitoring Station	Borewell water at site office	Borewell water at site office	Borewell water at site office	Borewell water at site office	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	20.4.2015	06.05.15	2.6.2015	2.7.2015	Desirable	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)	2	2	2	3	1	10
pH	8.26	8.23	8.23	8.24	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	180	176	176	176	200	600
Total Hardness(mg/L)	316	312	312	304	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	74	72	72	68	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	546	542	538	546	500	2000
Calcium(mg/L)	75.5	73.6	73.6	72	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)	108	105	92	104	200	400
Nitrate(mg/L)	22.5	18.61	14.62	7.97	45	100
Fluoride(mg/L)	0.42	0.45	0.47	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	No relaxation
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)	0.06	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 155

Project	Chhendipada OCP	Chhendipada OCP	Chhendipada OCP	Chhendipada OCP		
Monitoring Station	Borewell water at site office	Borewell water at site office	Borewell water at site office	Borewell water at site office	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	4.8.2015	1.9.15	1.10.2015	09.11.2015	Desirable	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)	2	3	4	2	1	10
pH	8.23	8.21	8.18	7.98	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	184	184	172	176	200	600
Total Hardness(mg/L)	316	316	308	324	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	78	70	72	72	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	Nil	0.2	—
Total Dissolve Solid(mg/L)	552	544	532	552	500	2000
Calcium(mg/L)	75.2	75.2	75.3	76.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.06	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.06	0.1	0.3
Sulphate(mg/L)	118	108	122	112	200	400
Nitrate(mg/L)	3.42	18.61	17.72	8.86	45	100
Fluoride(mg/L)	0.43	0.63	0.61	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	No relaxation
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	0.08	5	15
Hexavelent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 156

Project	Chhendipada OCP	Chhendipara OCP	Chhendipara OCP	Chhendipada OCP		
Monitoring Station	Borewell water at site office	Borewell water at site office	Borewell water at site office	Borewell water at site office	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	09.12.2015	4.1.2016	2.2.2016	1.3.2016	Desirable	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)	4	4	2	3	1	10
pH	8.24	8.15	8.14	8.15	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	172	184	184	172	200	600
Total Hardness(mg/L)	304	308	316	308	200	600
Iron(mg/L)	<0.05	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	62	64	82	68	250	1000
Residual Free chlorine(mg/L)	Nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	524	536	544	536	500	2000
Calcium(mg/L)	72	73.6	75.2	73.6	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)	114	116	112	112	200	400
Nitrate(mg/L)	8.86	8.86	9.75	11.96	45	100
Fluoride(mg/L)	0.43	0.61	0.68	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	No relaxation
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)	0.08	0.11	0.06	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 157

Project	Balram OCP	Balram OCP	Balaram OCP	Balram OCP		
Monitoring Station	Balram Colony Tap water	Balram Colony Tap water	Balram Colony Tap water	Balram Township Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	06.05.15	4.6.2015	8.7.2015	Desirable	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)	4	4	3	4	1	10
pH	8.34	8.31	8.31	8.35	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	40	44	44	200	600
Total Hardness(mg/L)	64	68	68	64	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	12	12	14	14	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	110	114	118	112	500	2000
Calcium(mg/L)	14.4	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)	19	20	23	18	200	400
Nitrate(mg/L)	3.54	3.54	4.43	4.43	45	100
Fluoride(mg/L)	0.1	0.11	0.12	0.1	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	No relaxation
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	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 158

Project	Balram OCP	Balram OCP	Balram OCP	Balram OCP		
Monitoring Station	Balram Colony Tap Water	Balram Colony Tap Water	Balram Colony Tap water	Balaram colony tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	5.8.2015	8.9.15	7.10.2015	9.11.2015	Desirable	Permissible
Colour(Hazen)	3	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	2	3	1	10
pH	8.37	8.34	8.37	8.37	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	44	44	40	200	600
Total Hardness(mg/L)	60	68	72	68	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	14	16	16	14	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	106	118	126	114	500	2000
Calcium(mg/L)	14.4	16	16	16	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)	18	25	23	22	200	400
Nitrate(mg/L)	4.43	4.43	3.99	4.43	45	100
Fluoride(mg/L)	0.1	0.13	0.1	0.11	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	No relaxation
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)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 159

Project	Balram OCP	Balram OCP	Balram OCP	Balram OCP		
Monitoring Station	Balaram colony tap water	Balram Colony Tap Water	Balram Colony Tap Water	Balram colony tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	9.12.2015	6.1.2016	4.2.2016	4.3.2016	Desirable	Permissible
Colour(Hazen)	3	3	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	3	4	1	10
pH	8.36	8.32	8.32	8.33	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	40	48	44	200	600
Total Hardness(mg/L)	88	68	76	72	200	600
Iron(mg/L)	<0.05	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	14	14	18	16	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	118	118	130	122	500	2000
Calcium(mg/L)	26	16	17.6	16	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)	23	25	28	33	200	400
Nitrate(mg/L)	4.43	4.43	4.43	4.43	45	100
Fluoride(mg/L)	0.11	0.19	0.12	0.11	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	No relaxation
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)	<0.01	0.02	0.02	<0.02	5	15
Hexavelent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	***	*****		<0.001	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001		0.001	0.002

Table 160

Project	Balram OCP	Balram OCP	Balram OCP	Balram OCP		
Monitoring Station	Danara Village bore well water	Danara Village bore well water	Danara Village Borewell water	Danara Village bore well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	06.05.15	5.8.2015	9.11.2015	7.1.2016	Desirable	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	3	3	4	1	10
pH	8.26	8.21	8.25	8.26	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	256	276	264	264	200	600
Total Hardness(mg/L)	480	476	484	476	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	112	116	108	102	250	1000
Residual Free chlorine(mg/L)	nil	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	844	836	828	824	500	2000
Calcium(mg/L)	113.6	113.6	116.8	113.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.08	<0.02	0.1	0.3
Sulphate(mg/L)	160	172	134	144	200	400
Nitrate(mg/L)	23.04	25.69	14.18	13.29	45	100
Fluoride(mg/L)	0.65	0.65	0.63	0.68	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	No relaxation
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	0.11	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	***	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 161

Project	Balram OCP	Balram OCP	Balram OCP	Balram OCP		
Monitoring Station	Naikeposi Village bore well water	Naikeposi Village bore well water	Naikeposi Village borewell water	Naikeposi Village tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	06.05.15	5.8.2015	9.11.2015	7.01.16	Desirable	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	2	4	3	1	10
pH	8.87	8.84	8.76	8.81	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	136	144	136	156	200	600
Total Hardness(mg/L)	240	234	248	248	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	50	58	56	52	250	1000
Residual Free chlorine(mg/L)	nil	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	418	422	428	428	500	2000
Calcium(mg/L)	59.2	56	59.2	59.2	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)	82	88	76	84	200	400
Nitrate(mg/L)	6.65	7.09	7.97	8.42	45	100
Fluoride(mg/L)	0.37	0.38	0.36	0.57	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.1	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
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)	0.05	<0.02	0.05	<.01	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 162

Project	Hingula OCP	Hingula OCP	Hingula OCP	Hingula OCP		
Monitoring Station	Time office tap water	Time office tap water	Time office tap water	Time office tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	18.4.2015	05.05.15	2.6.2015	2.7.2015	Desirable	Permissible
Colour(Hazen)	3	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	3	4	1	10
pH	8.35	8.37	8.37	8.28	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	40	40	44	200	600
Total Hardness(mg/L)	68	64	64	68	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	16	14	12	16	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	116	112	108	118	500	2000
Calcium(mg/L)	16	14.4	16	16	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)	25	23	23	25	200	400
Nitrate(mg/L)	4.43	3.99	3.99	4.43	45	100
Fluoride(mg/L)	0.1	0.11	0.11	0.1	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	No relaxation
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	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 163

Project	Hingula OCP	Hingula OCP	Hingula OCP	Hingula OCP		
Monitoring Station	Time office tap water	Time office tap water	Time office tap water	Time office tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	4.8.2015	3.9.15	3.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	3	5	1	10
pH	8.25	8.27	8.23	8.24	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	40	32	32	200	600
Total Hardness(mg/L)	64	64	56	56	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	14	14	12	12	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	Nil	0.2	—
Total Dissolve Solid(mg/L)	110	108	96	98	500	2000
Calcium(mg/L)	16	14.4	12.8	12.8	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)	24	19	17	17	200	400
Nitrate(mg/L)	3.99	3.99	3.54	3.99	45	100
Fluoride(mg/L)	0.1	0.11	0.09	0.1	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	No relaxation
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)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 164

Project	Hingula OCP	Hingula OCP	Hingula OCP	Hingula OCP		
Monitoring Station	Time office tap water	Time office tap water	Time office tap water	Time office tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	09.12.2015	5.1.2016	3.2.2016	2.3.2016	Desirable	Permissible
Colour(Hazen)	2	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	unobje	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	4	3	1	10
pH	8.23	8.25	8.26	8.2	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	32	32	32	200	600
Total Hardness(mg/L)	56	48	48	52	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	10	10	10	10	250	1000
Residual Free chlorine(mg/L)	Nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	98	84	82	92	500	2000
Calcium(mg/L)	12.8	11.2	11.2	12.8	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)	17	16	16	17	200	400
Nitrate(mg/L)	3.99	3.54	3.99	3.99	45	100
Fluoride(mg/L)	0.1	0.11	0.09	0.09	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	No relaxation
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)	<0.01	<.01	0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	***	*****		<0.001	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001		0.001	0.002

Table 165

Project	Hingula OCP	Hingula OCP	Hingula OCP	Hingula OCP		
Monitoring Station	Gopal Prasad Bore well water	Gopal Prasad Bore well water	Gopal Prasad Bore well water	Gopal Prasad Bore well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	18.4.2015	05.05.15	2.6.2015	2.7.2015	Desirable	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)	2	3	2	3	1	10
pH	8.55	8.54	8.52	8.47	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	172	172	176	172	200	600
Total Hardness(mg/L)	304	308	300	280	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	68	70	64	64	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	528	532	516	504	500	2000
Calcium(mg/L)	73.6	75.2	73.6	68.8	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)	108	109	94	80	200	400
Nitrate(mg/L)	8.42	8.86	8.86	10.19	45	100
Fluoride(mg/L)	0.61	0.62	0.63	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	No relaxation
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)	0.06	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 166

Project	Hingula OCP	Hingula OCP	Hingula OCP	Hingula OCP		
Monitoring Station	Gopal Prasad Bore well water	Gopal Prasad Bore well water	Gopal Prasad Bore well water	Gopal Prasad Village Bore well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	4.8.2015	3.9.15	3.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	3	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	4	4	1	10
pH	8.44	8.4	8.42	8.36	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	172	168	164	152	200	600
Total Hardness(mg/L)	280	284	272	276	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	68	64	60	62	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	492	486	474	474	500	2000
Calcium(mg/L)	67.2	68.8	65.6	65.6	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)	92	88	84	86	200	400
Nitrate(mg/L)	10.63	8.86	9.3	7.97	45	100
Fluoride(mg/L)	0.63	0.41	0.53	0.39	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	No relaxation
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	0.06	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 167

Project	Hingula OCP	Hingula OCP	Hingula OCP	Hingula OCP		
Monitoring Station	Gopal Prasad Village Bore well water	Gopal Prasad Vill Tube well water	Gopal Prasad Bore well water	Gopal Prasad Bore well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	09.12.2015	6.1.2016	3.2.2016	2.3.2016	Desirable	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)	2	4	3	2	1	10
pH	8.37	8.38	8.45	8.45	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	156	168	156	156	200	600
Total Hardness(mg/L)	276	280	264	280	200	600
Iron(mg/L)	<0.06	<0.06	BDL	<0.06	0.3	1
Chloride(mg/L)	56	64	62	62	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	478	478	456	482	500	2000
Calcium(mg/L)	65.6	65.6	62.4	65.6	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)	82	88	80	84	200	400
Nitrate(mg/L)	7.97	8.42	8.42	9.75	45	100
Fluoride(mg/L)	0.42	0.48	0.53	0.52	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	No relaxation
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)	0.05	0.09	0.08	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 168

Project	Hingula OCP	Hingula OCP	Hingula OCP	Hingula OCP		
Monitoring Station	Kumunda Village Bore well water	Kumunda Village Bore well water	Kumunda Village Bore well water	Kumunda Village Bore well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	18.4.2015	05.05.15	2.6.2015	2.7.2015	Desirable	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	3	2	2	1	10
pH	8.27	8.25	8.28	8.22	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	132	136	148	136	200	600
Total Hardness(mg/L)	228	238	232	232	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	52	54	52	52	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	396	402	406	416	500	2000
Calcium(mg/L)	54.4	56	54.4	54.4	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)	74	76	76	65	200	400
Nitrate(mg/L)	6.65	7.09	7.09	9.3	45	100
Fluoride(mg/L)	45	0.45	0.47	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	No relaxation
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	0.03	<0.02	0.04	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 169

Project	Hingula OCP	Hingula OCP	Hingula OCP	Hingula OCP		
Monitoring Station	Kumunda Village Bore well water	Kumunda Village Well water	Kumunda Village Bore well water	Kumunda Village Bore well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	5.8.2015	3.9.15	3.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	2	5	1	10
pH	8.24	8.22	8.25	8.18	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	152	148	1.52	144	200	600
Total Hardness(mg/L)	240	256	256	260	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	58	56	58	58	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	Nil	0.2	—
Total Dissolve Solid(mg/L)	424	438	446	446	500	2000
Calcium(mg/L)	57.6	60	59.2	60.8	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)	86	82	76	82	200	400
Nitrate(mg/L)	9.75	7.97	9.3	7.53	45	100
Fluoride(mg/L)	0.42	0.46	0.46	0.37	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	No relaxation
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	0.03	0.07	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 170

Project	Hingula OCP	Hingula OCP	Hingula OCP	Hingula OCP		
Monitoring Station	Kumunda Village Bore well water	Kumunda Village Bore well water	Kumunda Village Bore well water	Kumunda Village Bore well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	09.12.2015	6.1.2016	3.2.2016	2.3.2016	Desirable	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	4	3	3	1	10
pH	8.25	8.22	8.28	8.27	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	132	144	148	140	200	600
Total Hardness(mg/L)	235	252	252	252	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	48	56	56	56	250	1000
Residual Free chlorine(mg/L)	Nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	412	434	438	438	500	2000
Calcium(mg/L)	56	59.2	59.2	60.8	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)	78	82	76	82	200	400
Nitrate(mg/L)	7.97	7.97	9.3	9.3	45	100
Fluoride(mg/L)	0.39	0.51	0.61	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	No relaxation
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	0.08	0.06	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 171

Project	Ananta OCP	Ananta OCP	Ananta OCP	Ananta OCP		
Monitoring Station	Hensmul Village well water	Hensmul Village well water	Hensmul Village well water	Hensmul Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	13.05.15	6.6.2015	10.7.2015	Desirable	Permissible
Colour(Hazen)	3	4	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	8.2	8.18	8.24	8.13	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	244	248	252	236	200	600
Total Hardness(mg/L)	440	436	436	412	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	98	96	92	92	250	1000
Residual Free chlorine(mg/L)	0.15	0.13	0.1	92	0.2	—
Total Dissolve Solid(mg/L)	758	752	746	728	500	2000
Calcium(mg/L)	107.2	107.2	104	97.6	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)	140	138	136	124	200	400
Nitrate(mg/L)	12.4	12.4	13.73	13.73	45	100
Fluoride(mg/L)	0.68	0.65	0.65	0.69	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.69	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
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	<0.02	<0.02	5	15
Hexavelent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 172

Project	Ananta OCP	Ananta OCP	Ananta OCP	Ananta OCP		
Monitoring Station	Hensmul Village well water	Hensmul Village well water	Hensmul Village well water	Hensmul Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	9.9.15	8.10.2015	9.11.2015	Desirable	Permissible
Colour(Hazen)	3	3	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	8.14	8.17	8.14	8.14	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	244	240	244	224	200	600
Total Hardness(mg/L)	408	420	432	412	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	108	98	94	92	250	1000
Residual Free chlorine(mg/L)	0.12	0.11	0.14	0.11	0.2	—
Total Dissolve Solid(mg/L)	714	726	742	712	500	2000
Calcium(mg/L)	97.6	102.4	102.4	99.2	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)	148	136	144	126	200	400
Nitrate(mg/L)	14.18	13.73	18.61	13.73	45	100
Fluoride(mg/L)	0.67	0.75	0.68	0.68	1	1.5
Selenium(mg/L)	0.69	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
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	0.12	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 173

Project	Ananta OCP	Ananta OCP	Ananta OCP	Ananta OCP		
Monitoring Station	Hensmul Village well water	Hensmul Village well water	Hensmul Village well water	Hensmul Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	10.12.2015	9.1.2016	8.2.2016	10.3.2016	Desirable	Permissible
Colour(Hazen)	3	2	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	5	5	1	10
pH	8.14	8.12	8.17	8.17	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	232	244	32	228	200	600
Total Hardness(mg/L)	424	436	52	420	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	88	96	10	94	250	1000
Residual Free chlorine(mg/L)	0.13	0.13	0.11	0.13	0.2	—
Total Dissolve Solid(mg/L)	734	754	88	728	500	2000
Calcium(mg/L)	101	104	11.2	100.8	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)	132	148	15	140	200	400
Nitrate(mg/L)	11.96	12.4	354	14.62	45	100
Fluoride(mg/L)	0.67	0.71	0.1	0.69	1	1.5
Selenium(mg/L)	<0.002	<0.002	0.69	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
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	0.16	0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 174

Project	Ananta OCP	Ananta OCP	Ananta OCP	Ananta OCP		
Monitoring Station	Dera Village Tube well water	Dera Village Tube well water	Dera Village Tube well water	Dera Village Tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	13.05.15	6.6.2015	10.7.2015	Desirable	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	4	4	4	1	10
pH	7.83	7.82	7.86	7.84	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	108	108	112	112	200	600
Total Hardness(mg/L)	196	192	200	196	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	42	40	44	44	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	334	328	342	354	500	2000
Calcium(mg/L)	46.4	44.8	49.6	48	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)	65	63	72	58	200	400
Nitrate(mg/L)	26.58	18.16	15.06	15.95	45	100
Fluoride(mg/L)	0.63	0.61	0.67	0.37	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	No relaxation
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	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 175

Project	Ananta OCP	Ananta OCP	Ananta OCP	Ananta OCP		
Monitoring Station	Dera Village Tube well water	Dera Village Tube well water	Dera Village Tube well water	Dera Village Tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	10.9.15	8.10.2015	9.11.2015	Desirable	Permissible
Colour(Hazen)	2	3	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	4	2	4	1	10
pH	7.82	7.76	7.74	7.79	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	112	116	112	116	200	600
Total Hardness(mg/L)	192	204	196	208	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	46	46	44	46	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	342	354	342	358	500	2000
Calcium(mg/L)	46.4	48	46.4	49.6	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)	71	74	71	64	200	400
Nitrate(mg/L)	14.62	17.72	16.83	5.76	45	100
Fluoride(mg/L)	0.35	0.34	0.39	0.31	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	No relaxation
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)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 176

Project	Ananta OCP	Ananta OCP	Ananta OCP	Ananta OCP		
Monitoring Station	Dera Village Tube well water	Dera Village Tube well water	Dera Village Tube well water	Dera Village Tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	10.12.2015	13.1.2016	8.2.2016	8.3.2016	Desirable	Permissible
Colour(Hazen)	2	3	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	2	4	1	10
pH	7.72	7.76	7.76	7.69	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	112	112	116	104	200	600
Total Hardness(mg/L)	208	188	200	192	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	42	42	56	42	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	358	328	348	334	500	2000
Calcium(mg/L)	49.6	44.8	48	46.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.13	0.1	0.3
Sulphate(mg/L)	67	63	69	63	200	400
Nitrate(mg/L)	5.78	5.32	6.65	6.65	45	100
Fluoride(mg/L)	0.34	0.28	0.41	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	No relaxation
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)	<0.01	0.05	0.05	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 177

Project	Ananta OCP	Ananta OCP	Ananta OCP	Ananta OCP		
Monitoring Station	Ananta Colony Tap water	Ananta Colony Tap water	Ananta colony tap water	Ananta Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	13.05.15	8.8.2015	9.11.2015	8.2.2016	Desirable	Permissible
Colour(Hazen)	2	3	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	4	4	1	10
pH	8.52	8.54	8.45	8.47	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	140	152	136	148	200	600
Total Hardness(mg/L)	244	248	244	252	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	58	60	54	60	250	1000
Residual Free chlorine(mg/L)	nil	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	424	432	424	438	500	2000
Calcium(mg/L)	59.2	57.6	57.6	60.8	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)	78	88	76	82	200	400
Nitrate(mg/L)	6.2	6.65	6.65	9.3	45	100
Fluoride(mg/L)	0.47	0.46	0.36	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	No relaxation
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	<0.02	0.04	0.07	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 178

Project	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP		
Monitoring Station	Project site office water	Project site office water	Project site office water	Project site office water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	27.4.2015	12.05.15	10.6.2015	10.07.2015	Desirable	Permissible
Colour(Hazen)	2	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	4	3	1	10
pH	8.67	8.64	8.63	8.55	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	88	84	88	96	200	600
Total Hardness(mg/L)	152	152	152	156	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	32	34	32	34	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	262	266	268	282	500	2000
Calcium(mg/L)	36.8	36.8	36.8	36.8	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)	52	53	53	51	200	400
Nitrate(mg/L)	6.2	6.2	6.65	5.32	45	100
Fluoride(mg/L)	0.25	0.27	0.27	0.27	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	No relaxation
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	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 179

Project	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP		
Monitoring Station	Project site office water	Project site office water	Project site office water	Project site office water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	10.9.15	7.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	2	3	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	5	5	1	10
pH	8.53	8.51	8.48	8.47	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	100	100	96	92	200	600
Total Hardness(mg/L)	156	156	160	152	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	38	34	34	32	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	274	268	276	260	500	2000
Calcium(mg/L)	36.8	36.8	38.4	36.8	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)	53	53	56	47	200	400
Nitrate(mg/L)	5.76	5.76	5.32	4.7	45	100
Fluoride(mg/L)	0.28	0.27	0.33	0.25	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	No relaxation
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)	0.17	<0.02	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 180

Project	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP		
Monitoring Station	Project site office water	Project site office water	Project site office water	Project site office water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	10.12.2015	12.1.2016	10.2.2016	10.3.2016	Desirable	Permissible
Colour(Hazen)	2	4	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	5	4	3	1	10
pH	8.53	8.43	8.45	8.46	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	96	96	88	200	600
Total Hardness(mg/L)	152	156	164	156	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	30	32	42	34	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	262	268	284	272	500	2000
Calcium(mg/L)	35.2	36.8	38.4	36.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.12	<0.02	0.12	0.12	0.1	0.3
Sulphate(mg/L)	51	61	56	53	200	400
Nitrate(mg/L)	4.87	5.32	6.65	6.2	45	100
Fluoride(mg/L)	0.27	0.23	0.32	0.25	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	No relaxation
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)	<0.01	0.03	0.04	0.03	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 181

Project	Bhubaneswar i OCP	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP		
Monitoring Station	Naraharipur Tube well water	Naraharipur Tube well water	Naraharipur Tube well water	Naraharipur Tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	27.4.2015	12.05.15	10.6.2015	10.7.2015	Desirable	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)	4	3	4	4	1	10
pH	7.81	7.78	7.84	7.83	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	108	112	104	108	200	600
Total Hardness(mg/L)	196	200	192	192	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	44	46	42	44	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	344	352	336	346	500	2000
Calcium(mg/L)	46.4	48	46.4	44.8	75	200
Copper(mg/L)	46.4	46.4	46.4	46.4	0.05	1.5
Manganese(mg/L)	>0.02	>0.02	>0.02	>0.02	0.1	0.3
Sulphate(mg/L)	68	69	68	55	200	400
Nitrate(mg/L)	22.15	18.61	13.73	15.51	45	100
Fluoride(mg/L)	0.33	0.35	0.35	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	No relaxation
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	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 182

Project	Bhubaneswari OCP	Bhubaneswar i OCP	Bhubaneswar i OCP	Bhubaneswar i OCP		
Monitoring Station	Naraharipur Tube well water	Naraharipur Tube well water	Naraharipur Tube well water	Naraharipur Tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	10.9.15	7.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	3	4	1	10
pH	7.8	7.78	7.75	7.75	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	120	116	116	116	200	600
Total Hardness(mg/L)	200	208	204	208	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	50	48	46	46	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	354	360	354	356	500	2000
Calcium(mg/L)	48	49.6	49.6	49.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.07	0.07	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	69	69	72	64	200	400
Nitrate(mg/L)	15.06	15.95	13.29	5.5	45	100
Fluoride(mg/L)	0.34	0.28	0.42	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	<0.002	<0.002	<0.002	0.01	No relaxation
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	0.12	0.12	0.04	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 183

Project	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP		
Monitoring Station	Naraharipur Tube well water	Naraharipur Tube well water	Naraharipur Tube well water	Naraharipur Tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	09.12.2015	12.1.2016	10.2.2016	8.3.2016	Desirable	Permissible
Colour(Hazen)	3	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	4	2	1	10
pH	7.75	7.76	7.79	7.72	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	112	112	124	112	200	600
Total Hardness(mg/L)	206	196	208	208	200	600
Iron(mg/L)	<0.06	<0.06	42	<0.06	0.3	1
Chloride(mg/L)	42	44	48	46	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	355	342	362	356	500	2000
Calcium(mg/L)	48	46.4	49.6	48	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.69	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	69	69	72	64	200	400
Nitrate(mg/L)	5.76	5.32	7.53	6.65	45	100
Fluoride(mg/L)	0.36	0.36	0.38	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	No relaxation
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)	0.2	0.04	0.06	0.06	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 184

Project	Jagannath OCP	Jagannath OCP	Jagannath OCP	Jagannath OCP		
Monitoring Station	Jagannath Colony Tap water	Jagannath Colony Tap water	Jagannath Colony Tap water	Jagannath Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	12.05.15	4.6.2015	8.7.2015	Desirable	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)	2	3	3	4	1	10
pH	7.48	7.46	7.44	7.47	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	120	124	124	108	200	600
Total Hardness(mg/L)	228	228	232	196	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	44	46	46	42	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	352	348	364	352	500	2000
Calcium(mg/L)	54.4	52.8	54.4	46.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.05	0.1	0.3
Sulphate(mg/L)	72	72	74	59	200	400
Nitrate(mg/L)	753	6.65	6.65	7.09	45	100
Fluoride(mg/L)	0.46	0.43	0.45	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	No relaxation
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)	0.05	0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 185

Project	Jagannath OCP	Jagannath OCP	Jagannath OCP	Jagannath OCP		
Monitoring Station	Jagannath Colony Tap water	Jagannath Colony Tap water	Jagannath Colony Tap water	Jagannath Colony Tap water (Monthly)	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	5.8.2015	9.9.15	8.10.2015	9.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	4	4	1	10
pH	7.46	7.43	8.47	7.46	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	108	108	100	103	200	600
Total Hardness(mg/L)	204	212	204	204	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	52	48	44	46	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	NIL	NIL	0.2	—
Total Dissolve Solid(mg/L)	358	364	352	352	500	2000
Calcium(mg/L)	48	51.2	48	48	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)	67	68	59	57	200	400
Nitrate(mg/L)	7.53	7.97	7.97	5.76	45	100
Fluoride(mg/L)	0.45	0.39	0.47	0.31	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	No relaxation
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	0.05	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 186

Project	Jagannath OCP	Jagannath OCP	Jagannath OCP	Jagannath OCP		
Monitoring Station	Jagannath Colony Tap water (Monthly)	Jagannath Colony Tap water	Jagannath Colony Tap water	Jagannath Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	10.12.2015	8.1.2016	5.2.2016	8.3.2016	Desirable	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)	4	5	2	3	1	10
pH	7.45	7.49	7.43	7.43	6.5-8.5	No
Total Alkalinity(mg/L)	108	112	104	104	200	600
Total Hardness(mg/L)	204	208	196	196	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	42	42	46	44	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	356	358	344	344	500	2000
Calcium(mg/L)	48	49.6	46.4	46.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	65	76	65	66	200	400
Nitrate(mg/L)	6.65	5.76	6.65	6.65	45	100
Fluoride(mg/L)	0.38	0.32	0.45	0.36	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No
Zinc(mg/L)	<0.01	0.07	0.06	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 187

Project	Jagannath OCP	Jagannath OCP		
Monitoring Station	Jagannath Colony tap water (Quarterly)	Jagannath Colony Tap water (Quarterly)	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	9.11.2015	5.2.2016	Desirable	Permissible
Colour(Hazen)	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	1	10
pH	7.46	7.49	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	103	112	200	600
Total Hardness(mg/L)	204	208	200	600
Iron(mg/L)	<0.06	<0.06	0.3	1
Chloride(mg/L)	46	42	250	1000
Residual Free chlorine(mg/L)	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	352	358	500	2000
Calcium(mg/L)	48	49.6	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)	57	76	200	400
Nitrate(mg/L)	5.76	5.76	45	100
Fluoride(mg/L)	0.31	0.32	1	1.5
Selenium(mg/L)	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	0.01	No relaxation
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)	0.05	0.07	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	***	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002

Table 188

Project	Jagannath OCP	Jagannath OCP	Jagannath OCP	Jagannath OCP		
Monitoring Station	Rakas Village well water	Rakas Village well water	Rakas Village well water	Rakas Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	12.05.15	4.6.2015	10.7.2015	Desirable	Permissible
Colour(Hazen)	2	3	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	5	5	5	1	10
pH	8.19	8.17	8.15	8.24	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	88	88	88	80	200	600
Total Hardness(mg/L)	152	152	152	132	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	28	30	30	28	250	1000
Residual Free chlorine(mg/L)	0.12	0.1	0.12	0.14	0.2	—
Total Dissolve Solid(mg/L)	234	236	238	234	500	2000
Calcium(mg/L)	35.2	35.2	36.8	30.4	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)	51	52	51	46	200	400
Nitrate(mg/L)	5.76	5.76	6.2	6.2	45	100
Fluoride(mg/L)	0.32	0.34	0.35	0.19	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	No relaxation
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	0.08	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 189

Project	Jagannath OCP	Jagannath OCP	Jagannath OCP	Jagannath OCP		
Monitoring Station	Rakas Village well water	Rakas Village well water	Rakas Village well water	Rakas Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	4.8.2015	9.9.15	7.10.2015	9.11.2015	Desirable	Permissible
Colour(Hazen)	2	4	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	8.26	8.23	8.21	8.18	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	80	84	88	88	200	600
Total Hardness(mg/L)	136	144	148	148	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	32	32	32	34	250	1000
Residual Free chlorine(mg/L)	0.12	0.13	0.12	0.13	0.2	—
Total Dissolve Solid(mg/L)	240	248	258	256	500	2000
Calcium(mg/L)	32	33.6	35.2	35.2	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)	44	47	51	52	200	400
Nitrate(mg/L)	5.32	6.2	7.09	5.32	45	100
Fluoride(mg/L)	0.21	0.32	0.34	0.28	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	No relaxation
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	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 190

Project	Jagannath OCP	Jagannath OCP	Jagannath OCP	Jagannath OCP		
Monitoring Station	Rakas Village well water	Rakas Village well water	Rakas Village well water	Rakas Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	10.12.2015	7.1.2016	8.2.2016	10.3.2016	Desirable	Permissible
Colour(Hazen)	4	4	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	8.19	8.24	8.16	8.24	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	96	84	88	200	600
Total Hardness(mg/L)	140	152	144	148	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.07	0.3	1
Chloride(mg/L)	28	34	34	32	250	1000
Residual Free chlorine(mg/L)	0.12	0.1	0.1	0.12	0.2	—
Total Dissolve Solid(mg/L)	238	264	252	254	500	2000
Calcium(mg/L)	33.6	36.8	33.6	35.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	52	<0.02	0.1	0.3
Sulphate(mg/L)	45	55	1	51	200	400
Nitrate(mg/L)	5.76	5.32	53.2	5.76	45	100
Fluoride(mg/L)	0.25	0.27	0.32	0.24	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	No relaxation
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	0.06	0.04	0.05	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 191

Project	Jagannath OCP	Jagannath OCP	Jagannath OCP	Jagannath OCP		
Monitoring Station	Balanda Colony Tap water	Balanda Colony Tap water	Balanda colony tap water	Balanda Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	12.05.15	5.8.2015	9.11.2015	5.2.2016	Desirable	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	2	4	4	1	10
pH	7.37	7.35	7.34	7.32	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	88	84	88	88	200	600
Total Hardness(mg/L)	164	160	168	168	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	38	36	38	38	250	1000
Residual Free chlorine(mg/L)	nil	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	284	282	288	288	500	2000
Calcium(mg/L)	38.4	38.4	40	40	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)	53	57	55	59	200	400
Nitrate(mg/L)	5.76	6.2	5.3	5.76	45	100
Fluoride(mg/L)	0.26	0.28	0.3	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	No relaxation
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)	0.06	<0.02	0.02	0.04	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 192

Project	Kaniha OCP	Kaniha OCP	Kaniha OCP	Kaniha OCP		
Monitoring Station	Project Office Tube well water	Project Office Tube well water	Project Office Tube well water	Project Office Tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	17.4.2015	04.05.15	3.6.2015	4.7.2015	Desirable	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)	4	4	3	4	1	10
pH	8.58	8.56	8.52	8.56	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	92	84	92	200	600
Total Hardness(mg/L)	156	152	148	160	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	34	32	32	34	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	268	262	260	284	500	2000
Calcium(mg/L)	36.8	35.2	35.2	40	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.05	0.05	0.05	<0.02	0.1	0.3
Sulphate(mg/L)	55	53	55	55	200	400
Nitrate(mg/L)	5.76	5.76	5.76	5.76	45	100
Fluoride(mg/L)	0.29	0.27	0.32	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	No relaxation
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	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 193

Project	Kaniha OCP	Kaniha OCP	Kaniha OCP	Kaniha OCP		
Monitoring Station	Project Office Tube well water	Project office Tube well water	Project Office Tube well water	Project Office Tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	5.8.2015	9.9.15	8.10.2015	10.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	4	5	1	10
pH	8.53	8.56	8.52	8.53	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	100	108	104	104	200	600
Total Hardness(mg/L)	164	172	176	168	200	600
Iron(mg/L)	<0.06	<0.06	0.31	<0.06	0.3	1
Chloride(mg/L)	42	38	38	38	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	292	296	304	288	500	2000
Calcium(mg/L)	40	41.6	41.6	40	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)	59	66	55	53	200	400
Nitrate(mg/L)	5.76	5.76	7.09	4.87	45	100
Fluoride(mg/L)	0.28	0.32	0.35	0.29	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	No relaxation
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		0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 194

Project	Kaniha OCP	Kaniha OCP	Kaniha OCP	Kaniha OCP		
Monitoring Station	Project Office Tube well water	Project / Site Office Tube well water	Project / Site Office Tube well water	Project / Site Office Tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	10.12.2015	11.1.2016	9.2.2016	9.3.2016	Desirable	Permissible
Colour(Hazen)	2	2	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	5	4	4	1	10
pH	8.54	8.54	8.56	8.48	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	96	108	104	96	200	600
Total Hardness(mg/L)	168	180	172	172	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	34	38	38	38	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	288	312	298	298	500	2000
Calcium(mg/L)	40	43.2	40	41.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.12	<0.02	0.12	<0.02	0.1	0.3
Sulphate(mg/L)	61	61	61	55	200	400
Nitrate(mg/L)	4.87	5.32	6.2	7.09	45	100
Fluoride(mg/L)	0.31	0.35	0.35	0.31	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	No relaxation
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)	0.1	0.04	0.05	0.04	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 195

Project	Kaniha OCP	Kaniha OCP	Kaniha OCP	Kaniha OCP		
Monitoring Station	Jarda village well water	Jarda village well water	Jarda village well water	Jarda village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	17.4.2015	4.7.2015	8.10.2015	11.1.2016	Desirable	Permissible
Colour(Hazen)	4	3	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	8.34	8.41	8.36	8.39	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	156	156	156	152	200	600
Total Hardness(mg/L)	272	268	268	264	200	600
Iron(mg/L)	<0.06	0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	62	60	60	58	250	1000
Residual Free chlorine(mg/L)	0.16	0.13	0.14	0.12	0.2	—
Total Dissolve Solid(mg/L)	474	478	466	458	500	2000
Calcium(mg/L)	65.6	41.6	64	62.4	75	200
Copper(mg/L)	bdl	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	bdl	0.05	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	88	58	80	80	200	400
Nitrate(mg/L)	7.97	6.65	9.3	8.86	45	100
Fluoride(mg/L)	0.36	0.52	0.57	0.49	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	No relaxation
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	<0.02	0.07	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	***	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 196

Project	Kaniha OCP	Kaniha OCP	Kaniha OCP	Kaniha OCP		
Monitoring Station	Jamunia Village well water	Jamunia Village well water	Jamunia village well water	Jamunia Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	04.05.15	5.8.2015	10.11.2015	9.2.2016	Desirable	Permissible
Colour(Hazen)	3	4	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	8.31	8.38	8.36	8.41	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	160	164	152	156	200	600
Total Hardness(mg/L)	276	272	272	276	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	64	68	62	68	250	1000
Residual Free chlorine(mg/L)	0.11	0.11	0.12	0.1	0.2	—
Total Dissolve Solid(mg/L)	482	484	472	474	500	2000
Calcium(mg/L)	67.2	65.6	65.6	65.6	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)	92	96	78	80	200	400
Nitrate(mg/L)	7.97	10.19	6.65	8.86	45	100
Fluoride(mg/L)	0.37	0.54	0.42	0.59	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	No relaxation
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	0.06	0.07	5	15
Hexavelent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 197

Project	Kaniha OCP	Kaniha OCP	Kaniha OCP	Kaniha OCP		
Monitoring Station	Kansamunda village well water	Kansamunda village well water	Kansamunda village well water	Kansamunda village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	3.6.2015	9.9.15	10.12.2015	9.3.2016	Desirable	Permissible
Colour(Hazen)	4	4	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	8.35	8.34	8.28	8.32	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	164	160	148	144	200	600
Total Hardness(mg/L)	264	280	258	268	200	600
Iron(mg/L)	0.06	0.07	<0.06	<0.06	0.3	1
Chloride(mg/L)	58	64	56	60	250	1000
Residual Free chlorine(mg/L)	0.1	0.11	0.11	0.12	0.2	—
Total Dissolve Solid(mg/L)	462	478	472	462	500	2000
Calcium(mg/L)	62.4	67.2	64	64	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	82	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	80	80	88	82	200	400
Nitrate(mg/L)	8.86	8.86	5.76	9.3	45	100
Fluoride(mg/L)	0.41	0.54	0.52	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	No relaxation
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	0.08	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.01	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	<0.001	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001		0.001	0.002

Table 198

Project	Lingaraj OCP	Lingaraj OCP	Lingaraj OCP	Lingaraj OCP		
Monitoring Station	Balunga khamar vill well	Balunga khamar vill well	Balunga khamar vill well	Balunga khamar vill well	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	27.4.2015	9.7.2015	7.10.2015	12.1.2016	Desirable	Permissible
Colour(Hazen)	3	4	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	4	5	1	10
pH	8.44	8.47	8.44	8.38	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	88	96	104	200	600
Total Hardness(mg/L)	164	160	164	164	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	36	36	36	36	250	1000
Residual Free chlorine(mg/L)	0.13	0.13	0.1	0.11	0.2	—
Total Dissolve Solid(mg/L)	284	286	288	282	500	2000
Calcium(mg/L)	40	40	38.4	38.4	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)	57	54	52	55	200	400
Nitrate(mg/L)	4.87	5.76	5.32	5.76	45	100
Fluoride(mg/L)	0.34	0.35	0.32	0.27	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	No relaxation
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		0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 199

Project	Lingaraj OCP	Lingaraj OCP	Lingaraj OCP		
Monitoring Station	MTK office LOCP	MTK office tap water LOCP	MTKoffice tap water,LOCP	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	27.4.2015	10.8.2015	10.12.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	3	1	10
pH	8.15	8.16	8.12	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	40	40	200	600
Total Hardness(mg/L)	64	68	68	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	14	16	14	250	1000
Residual Free chlorine(mg/L)	nil	NIL	nil	0.2	—
Total Dissolve Solid(mg/L)	110	118	118	500	2000
Calcium(mg/L)	14.4	16	16	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)	19	23	22	200	400
Nitrate(mg/L)	4.43	4.43	4.43	45	100
Fluoride(mg/L)	0.09	0.11	0.12	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	No relaxation
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	0.07	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Table 200

Project	Lingaraj OCP	Lingaraj OCP	Lingaraj OCP	Lingaraj OCP		
Monitoring Station	Deulbera vill well water	Deulbera Well	Well from Deulbera village	Deulbera village Well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	12.05.15	10.8.2015	10.11.2015	8.2.2016	Desirable	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)	2	5	3	4	1	10
pH	8.13	8.45	8.35	8.48	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	104	52	104	200	600
Total Hardness(mg/L)	60	156	80	160	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	12	38	18	36	250	1000
Residual Free chlorine(mg/L)	nil	0.12	nil	0.11	0.2	—
Total Dissolve Solid(mg/L)	104	274	138	276	500	2000
Calcium(mg/L)	14.4	36.8	19.2	38.4	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)	16	52	28	57	200	400
Nitrate(mg/L)	3.99	5.32	4.43	6.2	45	100
Fluoride(mg/L)	0.08	0.32	0.15	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	<0.002	<0.002	<0.002	0.01	No relaxation
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)	0.08	<0.02	0.03	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***		Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 201

Project	Lingaraj OCP	Lingaraj OCP	Lingaraj OCP		
Monitoring Station	Lingaraj township tap water	Lingaraj township tap water	Lingaraj township tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	12.05.15	9.9.15	12.1.2006	Desirable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	4	1	10
pH	8.13	8.15	8.15	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	44	40	200	600
Total Hardness(mg/L)	60	72	68	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	12	16	14	250	1000
Residual Free chlorine(mg/L)	nil	NIL	nil	0.2	—
Total Dissolve Solid(mg/L)	104	124	114	500	2000
Calcium(mg/L)	14.4	16	16	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)	16	25	25	200	400
Nitrate(mg/L)	3.99	4.43	4.43	45	100
Fluoride(mg/L)	0.08	0.14	0.16	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	No relaxation
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)	0.08	0.14	<.01	5	15
Hexavelent Chromium(mg/L)	<0.06	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Table 202

Project	Lingaraj OCP	Lingaraj OCP	Lingaraj OCP	Lingaraj OCP		
Monitoring Station	Talabera well water	Talabera well water	Well from Talabera village	Talabera vill well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	10.6.2015	9.9.15	10.12.2015	10.3.2016	Desirable	Permissible
Colour(Hazen)	2	3	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	5	5	1	10
pH	8.38	8.47	8.45	8.28	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	96	92	32	200	600
Total Hardness(mg/L)	156	164	156	48	200	600
Iron(mg/L)	<0.06	0.07	<0.06	<0.06	0.3	1
Chloride(mg/L)	32	36	32	10	250	1000
Residual Free chlorine(mg/L)	0.11	0.12	0.11	0.14	0.2	—
Total Dissolve Solid(mg/L)	268	280	274	86	500	2000
Calcium(mg/L)	36.8	38.4	36.8	11.2	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)	67	59	51	169	200	400
Nitrate(mg/L)	6.65	5.76	4.87	3.1	45	100
Fluoride(mg/L)	0.36	0.38	0.26	0.1	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	No relaxation
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	0.14	<0.01	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.01	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 203

Project	Lingaraj OCP	Lingaraj OCP	Lingaraj OCP		
Monitoring Station	Tap water at GM office	Tap water at GM office	tap water at GM office	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	10.6.2015	7.10.2015	8.2.2016	Desirable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable		Agreeable	Agreeable
Turbidity(NTU)	3	2	3	1	10
pH	8.17	8.13	8.16	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	40	40	200	600
Total Hardness(mg/L)	68	68	64	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	14	14	14	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	116	120	114	500	2000
Calcium(mg/L)	16	16	14.4	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)	23	22	19	200	400
Nitrate(mg/L)	3.99	4.87	4.43	45	100
Fluoride(mg/L)	0.11	0.11	0.11	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	No relaxation
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	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Table 204

Project	Lingaraj OCP	Lingaraj OCP	Lingaraj OCP		
Monitoring Station	Delbera Colony tap water	Deulbera colony tap water	Deulbera Colony tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	9.7.2015	10.11.2015	10.3.2016	Desirable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	4	1	10
pH	8.13	8.12	8.25	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	40	56	200	600
Total Hardness(mg/L)	72	68	92	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	14	14	20	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	124	118	158	500	2000
Calcium(mg/L)	16	16	20.8	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)	21	22	29	200	400
Nitrate(mg/L)	4.43	4.43	5.32	45	100
Fluoride(mg/L)	0.11	0.12	0.13	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	No relaxation
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)	<0.06	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Table 205

Project	Talcher Colliery UG	Talcher Colliery UG	Talcher Colliery UG	Talcher Colliery UG		
Monitoring Station	Talcher Colliery canteen Tap Water	Talcher Colliery Canteen Tap Water	Talcher Colliery canteen Tap Water	Talcher Colliery canteen Tap Water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	27.4.2015	12.05.15	11.6.2015	9.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	4	4	1	10
pH	8.34	8.36	8.33	8.31	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	48	44	44	200	600
Total Hardness(mg/L)	64	76	72	76	200	600
Iron(mg/L)	bdl	<0.06	0.08	0.08	0.3	1
Chloride(mg/L)	12	16	16	16	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	110	128	128	134	500	2000
Calcium(mg/L)	14.4	16	16	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	<0.02	0.1	0.3
Sulphate(mg/L)	19	23	24	26	200	400
Nitrate(mg/L)	3.54	4.43	4.43	4.43	45	100
Fluoride(mg/L)	0.1	0.11	0.13	0.12	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	No relaxation
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	0.07	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 206

Project	Talcher Colliery UG	Talcher Colliery UG	Talcher Colliery UG	Talcher Colliery UG		
Monitoring Station	Talcher Colliery Canteen Tap Water	Talcher Colliery canteen Tap Water	Talcher Colliery canteen Tap Water	Talcher Colliery canteen Tap Water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	10.8.2015	10.9.15	7.10.2015	10.11.2015	Desirable	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)	4	3	3	3	1	10
pH	8.34	8.32	8.34	8.35	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	52	48	52	200	600
Total Hardness(mg/L)	76	88	80	80	200	600
Iron(mg/L)	<0.06	<0.06	bdl	<0.06	0.3	1
Chloride(mg/L)	18	20	18	18	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	Nil	0.2	—
Total Dissolve Solid(mg/L)	138	146	140	138	500	2000
Calcium(mg/L)	17.6	20.8	19.2	19.2	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)	26	31	28	28	200	400
Nitrate(mg/L)	4.43	4.87	5.32	4.43	45	100
Fluoride(mg/L)	0.13	0.18	0.11	0.15	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	No relaxation
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	0.15	<0.02	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 207

Project	Talcher Colliery UG	Talcher Colliery UG	Talcher Colliery UG	Talcher Colliery UG		
Monitoring Station	Talcher Colliery canteen Tap Water	Talcher Colliery canteen Tap Water	Talcher Colliery canteen Tap Water	Talcher Colliery canteen Tap Water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	10.12.2015	13.1.2016	10.2.2016	8.3.2016	Desirable	Permissible
Colour(Hazen)	3	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	3	3	1	10
pH	8.27	8.37	8.37	8.32	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	52	44	52	200	600
Total Hardness(mg/L)	80	84	76	84	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	18	20	18	18	250	1000
Residual Free chlorine(mg/L)	Nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	138	148	134	146	500	2000
Calcium(mg/L)	19.2	19.2	17.6	19.2	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)	33	28	27	27	200	400
Nitrate(mg/L)	4.43	4.87	4.43	5.32	45	100
Fluoride(mg/L)	0.13	0.26	0.14	0.12	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	No relaxation
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		<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	5
Faecal col.as MPN/ 100 ml	***	*****	*****	*****	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

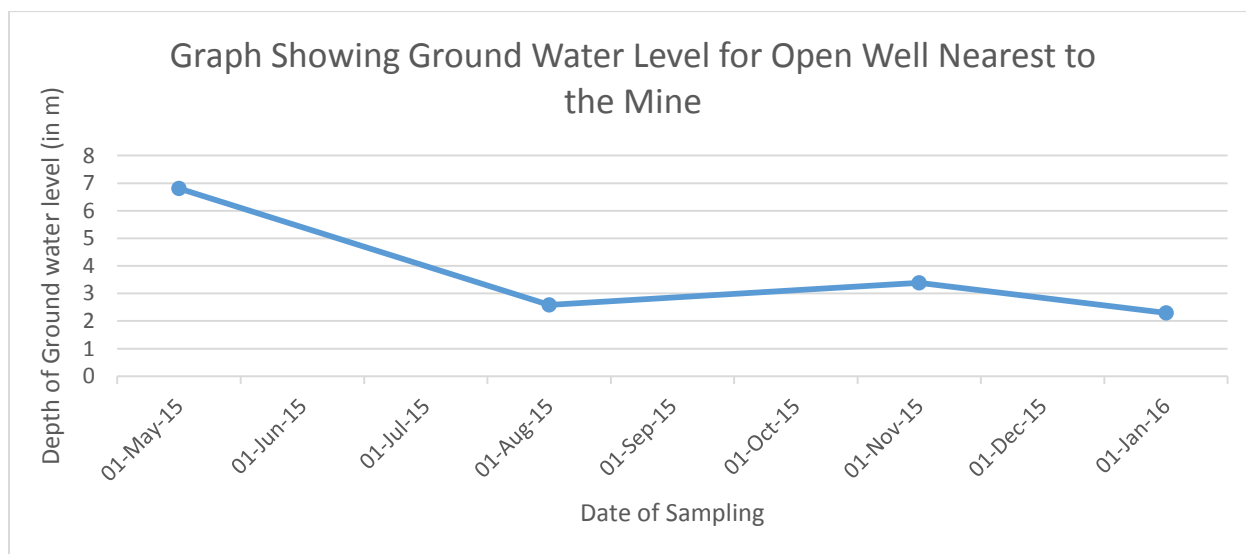
TABLES FOR GROUND WATER LEVEL DATA

Project: Chhendipada

Monitoring Station: Open Well Nearest to the Mine

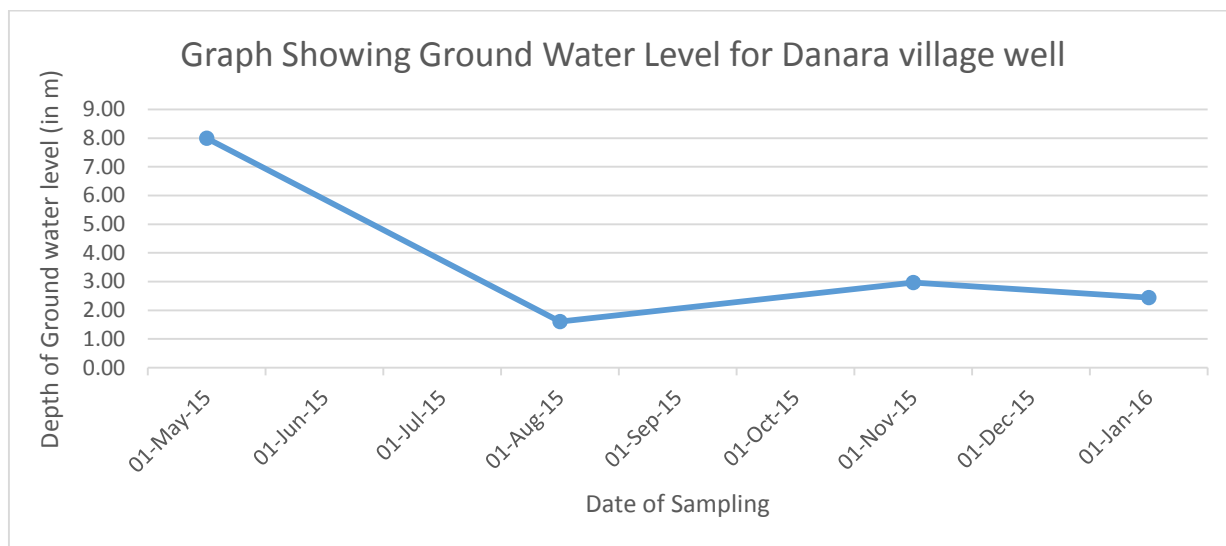
Table 208

Date of sampling	Water level (Meters)
18-May-15	6.81
19-Aug-15	2.59
02-Nov-15	3.38
04-Jan-16	2.29



Project: Balaram OCP
Monitoring Station: Danara village well
Table 209

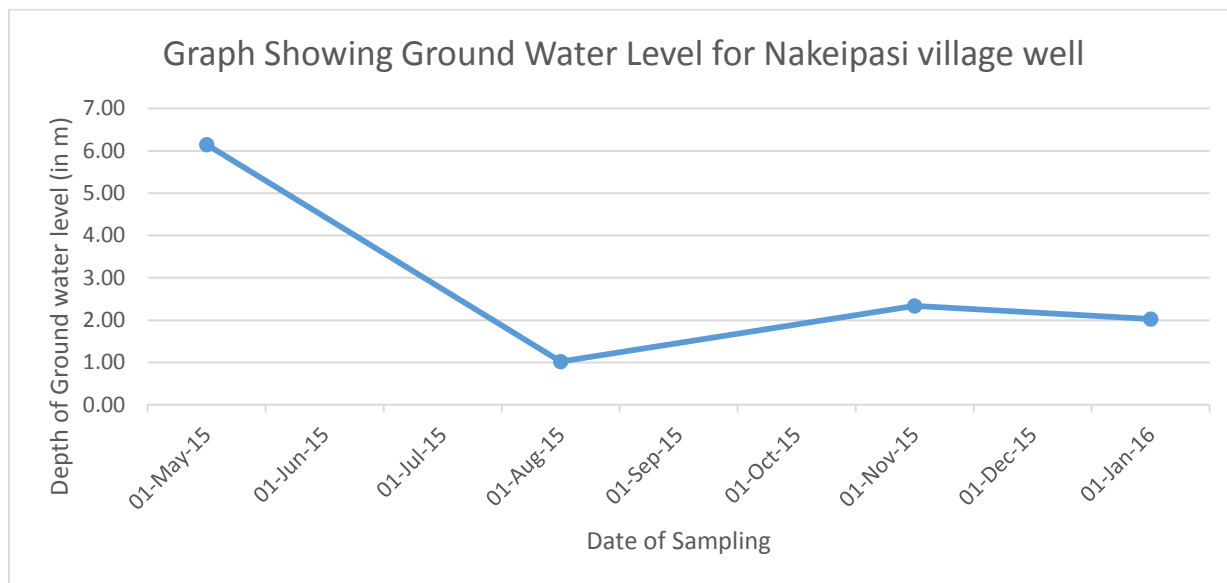
Date of sampling	Water level (Meters)
19-May-15	8.00
18-Aug-15	1.60
09-Nov-15	2.97
06-Jan-16	2.44



Project: Balaram OCP
Monitoring Station: Nakeipasi village well

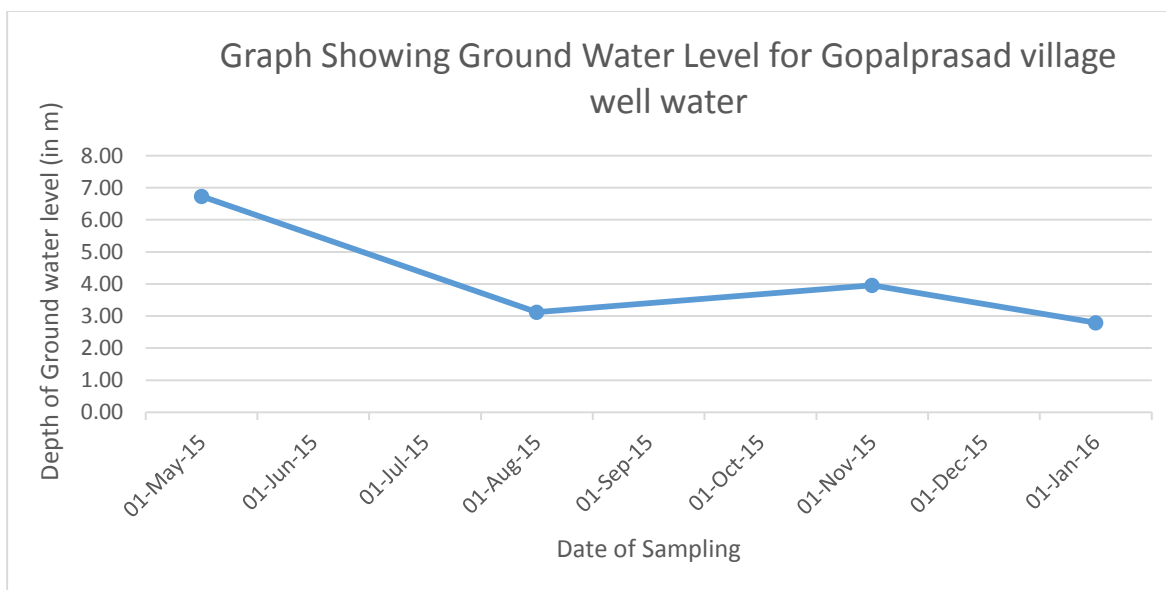
Table 210

Date of sampling	Water level (Meters)
19-May-15	6.15
18-Aug-15	1.02
09-Nov-15	2.34
06-Jan-16	2.03



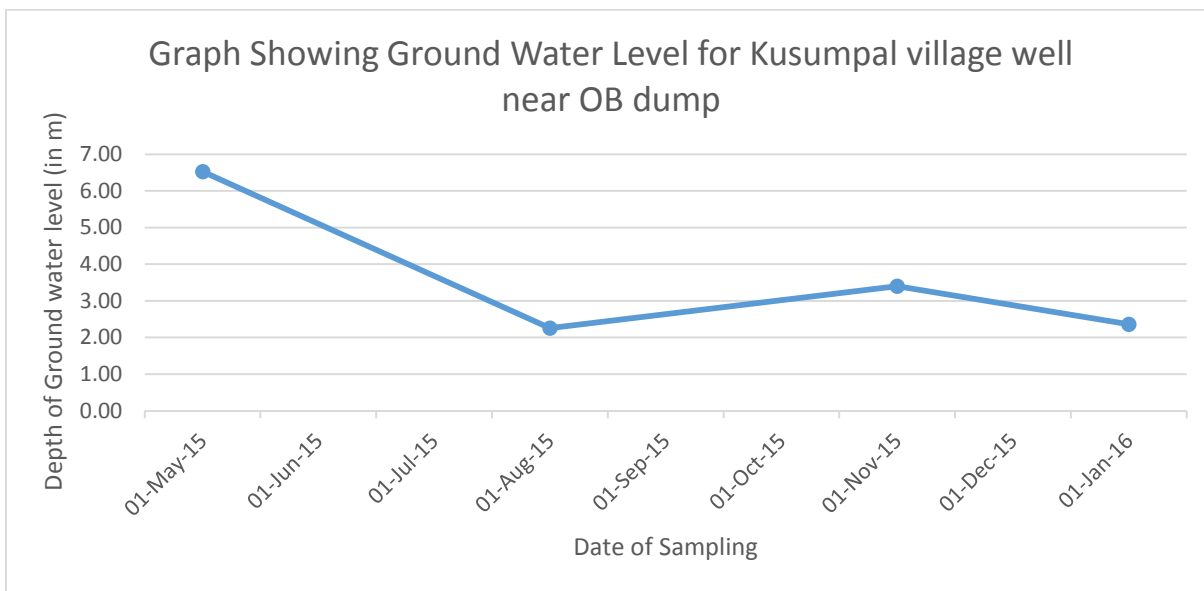
Project: Hingula OCP
Monitoring Station: Gopalprasad village well water
Table 211

Date of sampling	Water level (Meters)
17-May-15	6.73
18-Aug-15	3.12
09-Nov-15	3.96
05-Jan-16	2.79



Project: Hingula OCP
Monitoring Station: Kusumpal village well near OB dump
Table 212

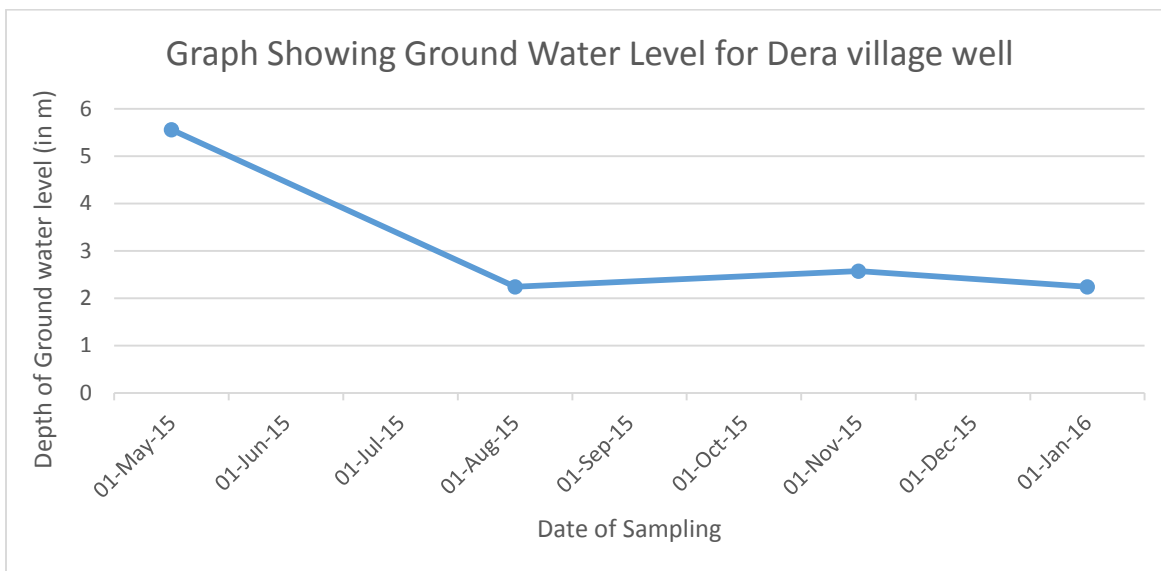
Date of sampling	Water level (Meters)
17-May-15	6.53
18-Aug-15	2.26
09-Nov-15	3.40
05-Jan-16	2.36



Project: Ananta OCP
Monitoring Station: Dera village well

Table 213

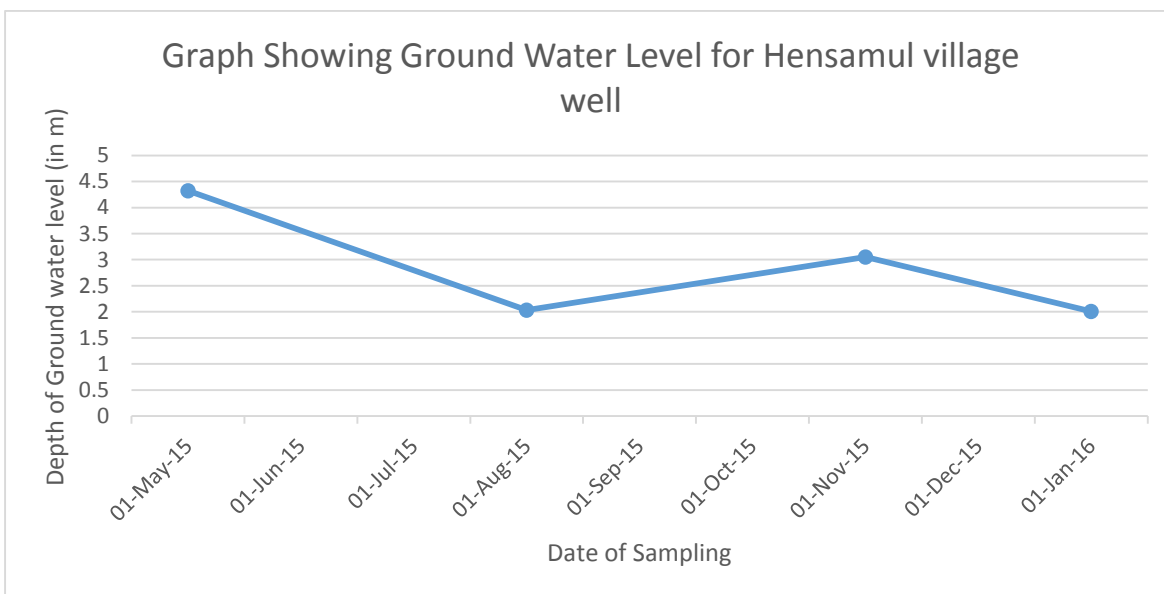
Date of sampling	Water level (Meters)
27-May-15	5.56
21-Aug-15	2.24
10-Nov-15	2.57
09-Jan-16	2.24



Project: Ananta OCP
Monitoring Station: Hensamul village well

Table 214

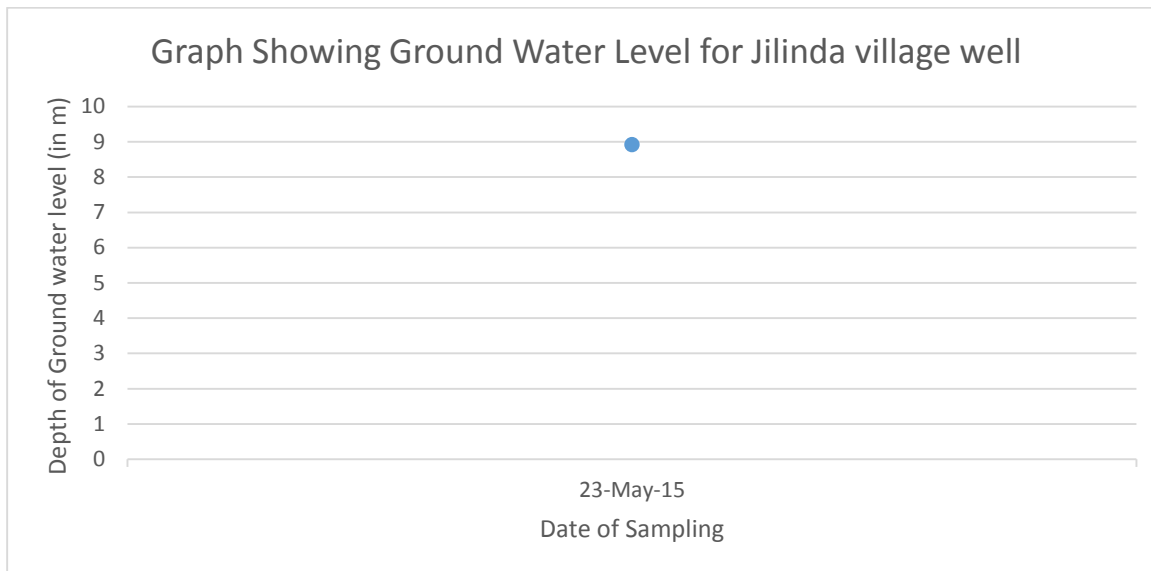
Date of sampling	Water level (Meters)
23-May-15	4.32
21-Aug-15	2.03
10-Nov-15	3.05
09-Jan-16	2.01



Project: Bhubaneswari OCP
Monitoring Station: Jilinda village well

Table 215

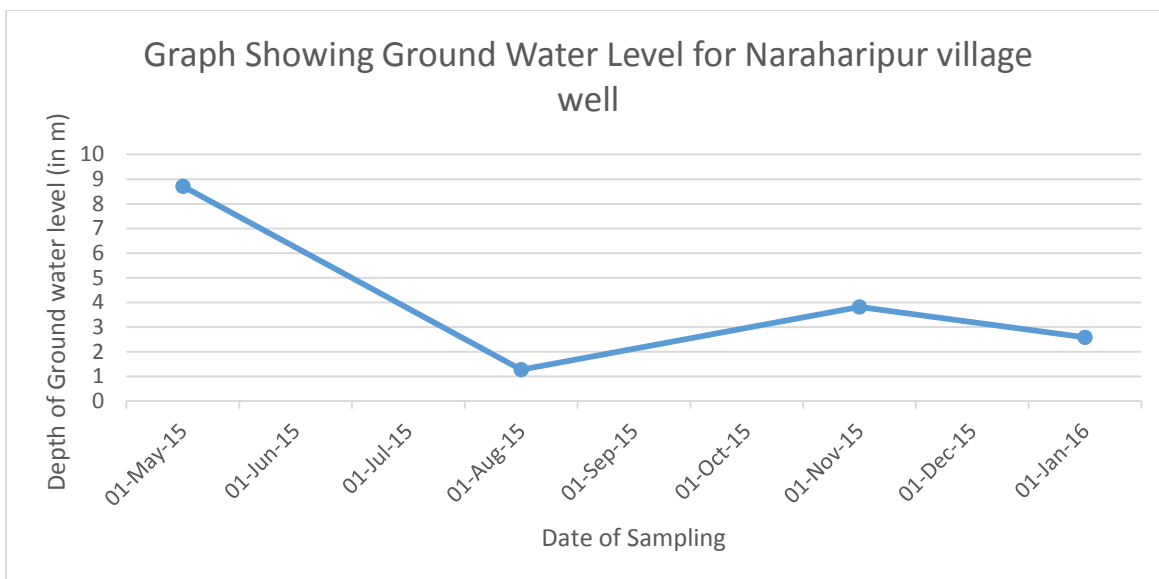
Date of sampling	Water level (Meters)
23-May-15	8.92



Project: Bhubaneswari OCP
Monitoring Station: Naraharipur village well

Table 216

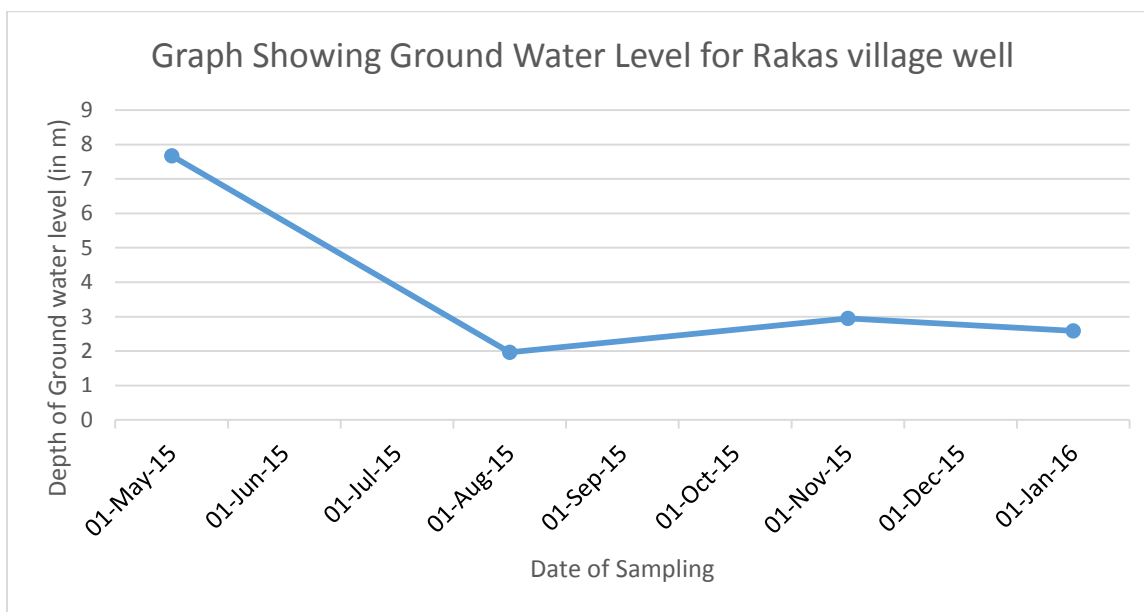
Date of sampling	Water level (Meters)
23-May-15	8.71
28-Aug-15	1.27
10-Nov-15	3.81
12-Jan-16	2.59



Project: Jagannath OCP
Monitoring Station: Rakas village well

Table 217

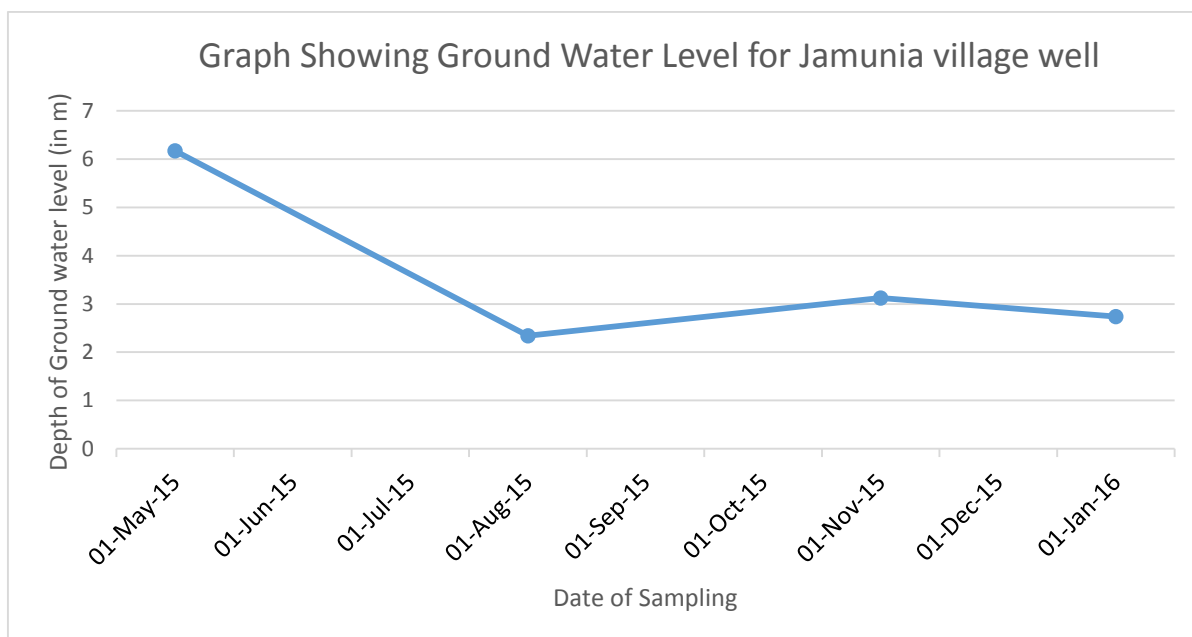
Date of sampling	Water level (Meters)
25-May-15	7.67
21-Aug-15	1.96
10-Nov-15	2.95
08-Jan-16	2.59



Project: Kaniha OCP
Monitoring Station: Jamunia village well

Table 218

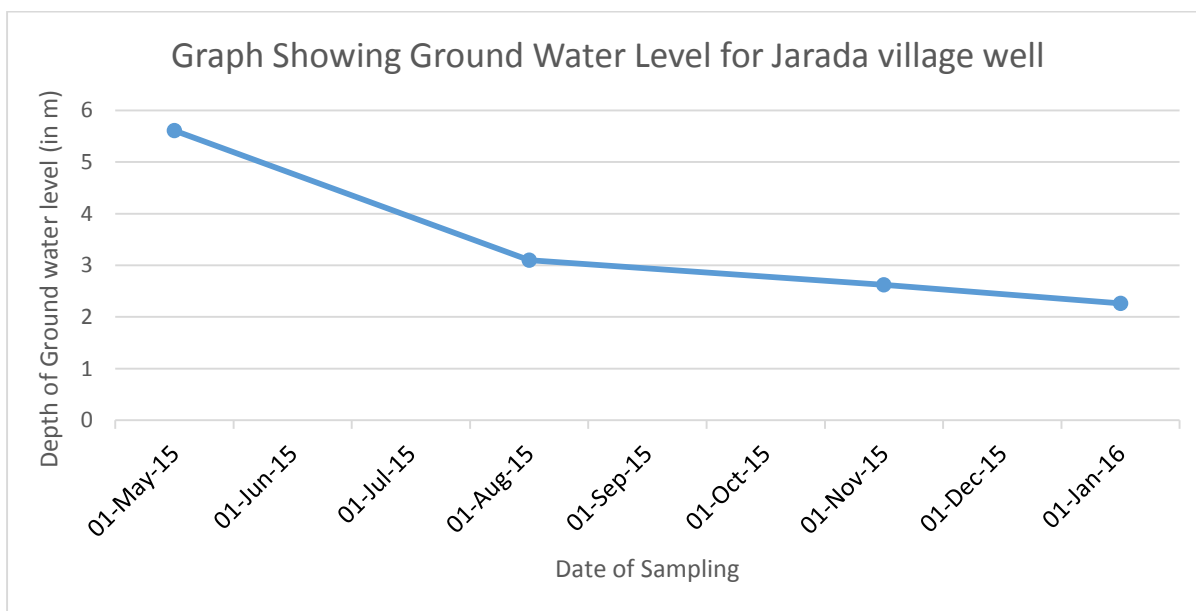
Date of sampling	Water level (Meters)
16-May-15	6.17
17-Aug-15	2.34
10-Nov-15	3.12
11-Jan-16	2.74



Project: Kaniha OCP
Monitoring Station: Jarada village well

Table 219

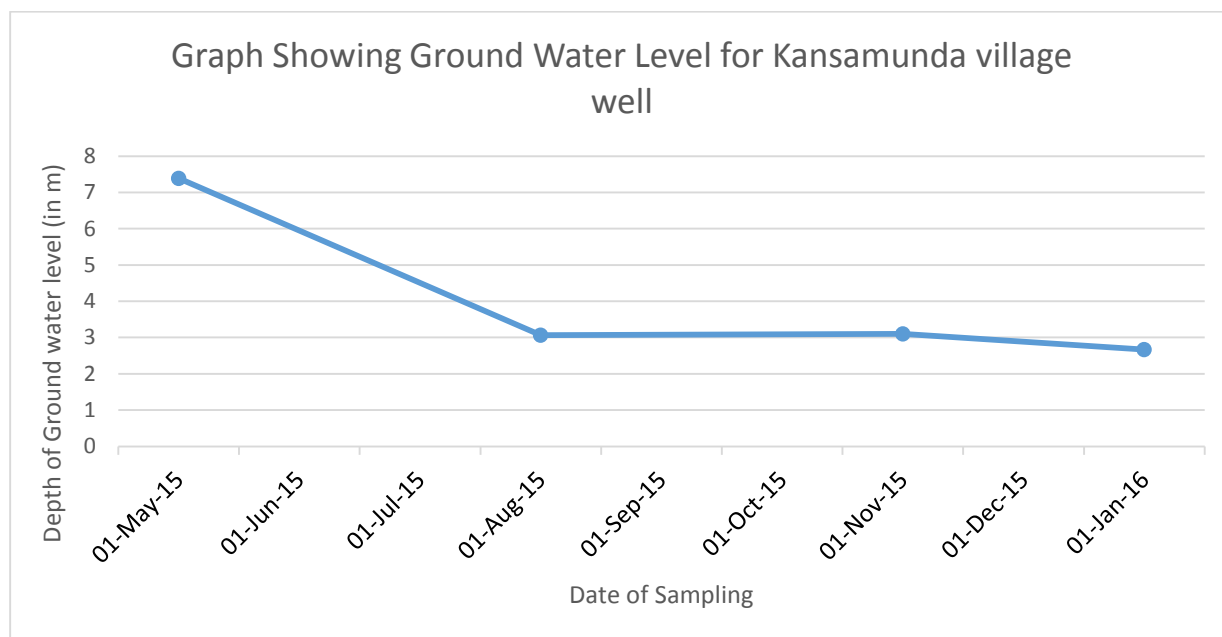
Date of sampling	Water level (Meters)
16-May-15	5.61
17-Aug-15	3.1
10-Nov-15	2.62
11-Jan-16	2.26



Project: Kaniha OCP
Monitoring Station: Kansamunda village well

Table 220

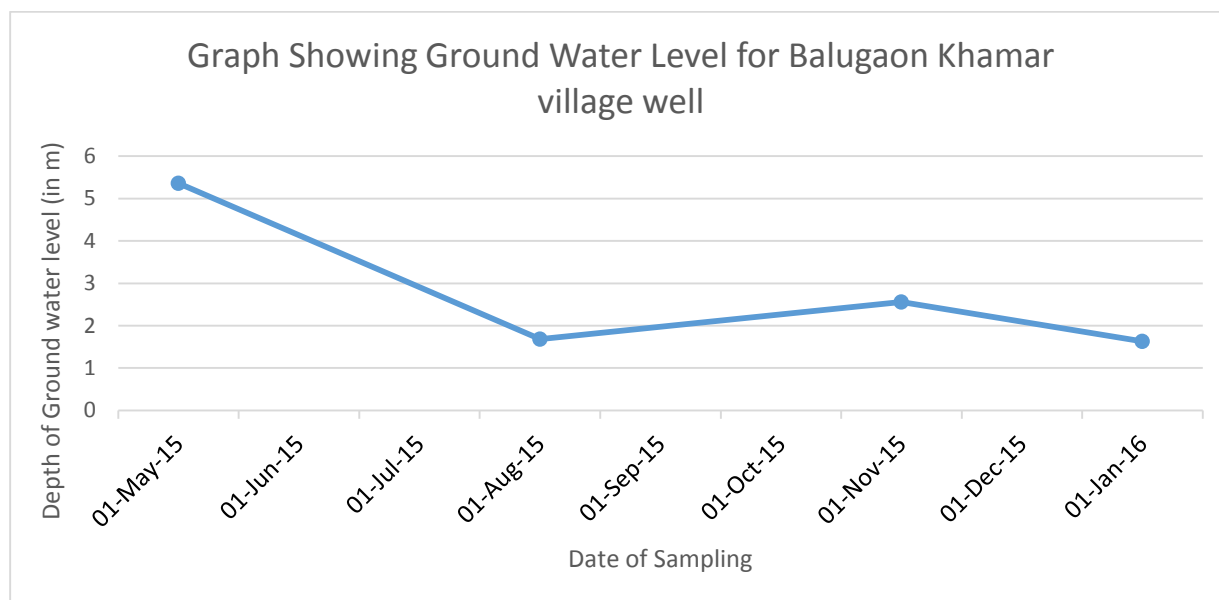
Date of sampling	Water level (Meters)
16-May-15	7.39
17-Aug-15	3.07
10-Nov-15	3.1
11-Jan-16	2.67



Project: Lingaraj OCP
Monitoring Station: Balugaon Khamar village well

Table 221

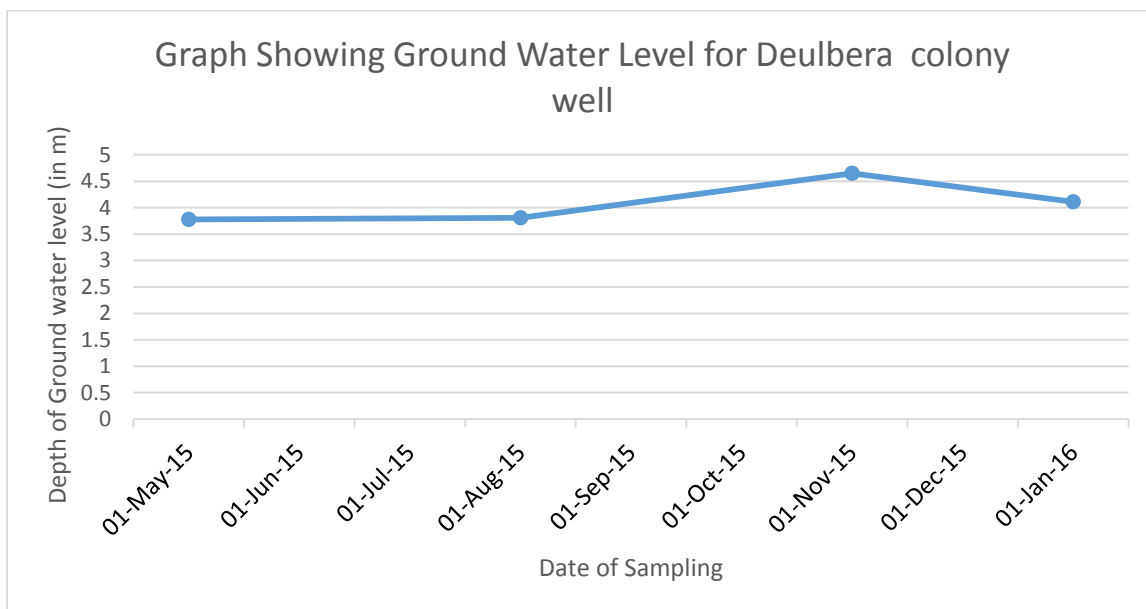
Date of sampling	Water level (Meters)
25-May-15	5.36
27-Aug-15	1.68
12-Nov-15	2.56
13-Jan-16	1.63



Project: Lingaraj OCP
Monitoring Station: Deulbera colony well

Table 222

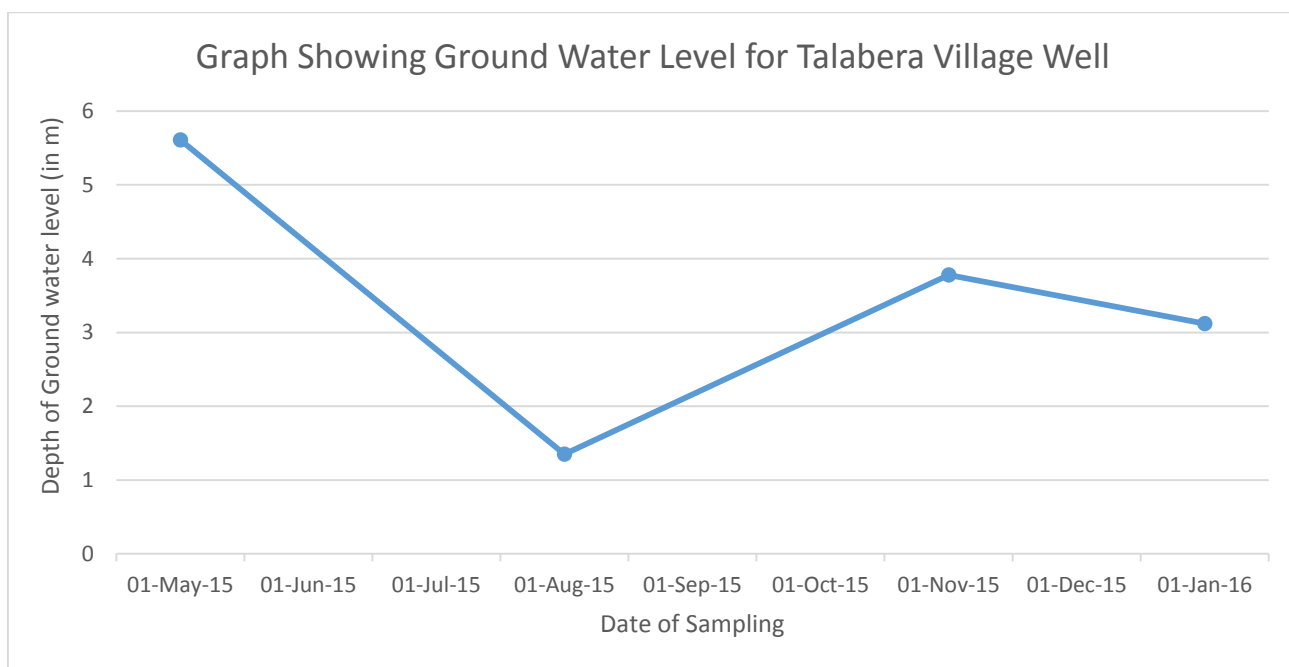
Date of sampling	Water level (Meters)
25-May-15	3.78
27-Aug-15	3.81
12-Nov-15	4.65
13-Jan-16	4.11



Project: Lingaraj OCP
Monitoring Station: Talabera Village Well

Table 223

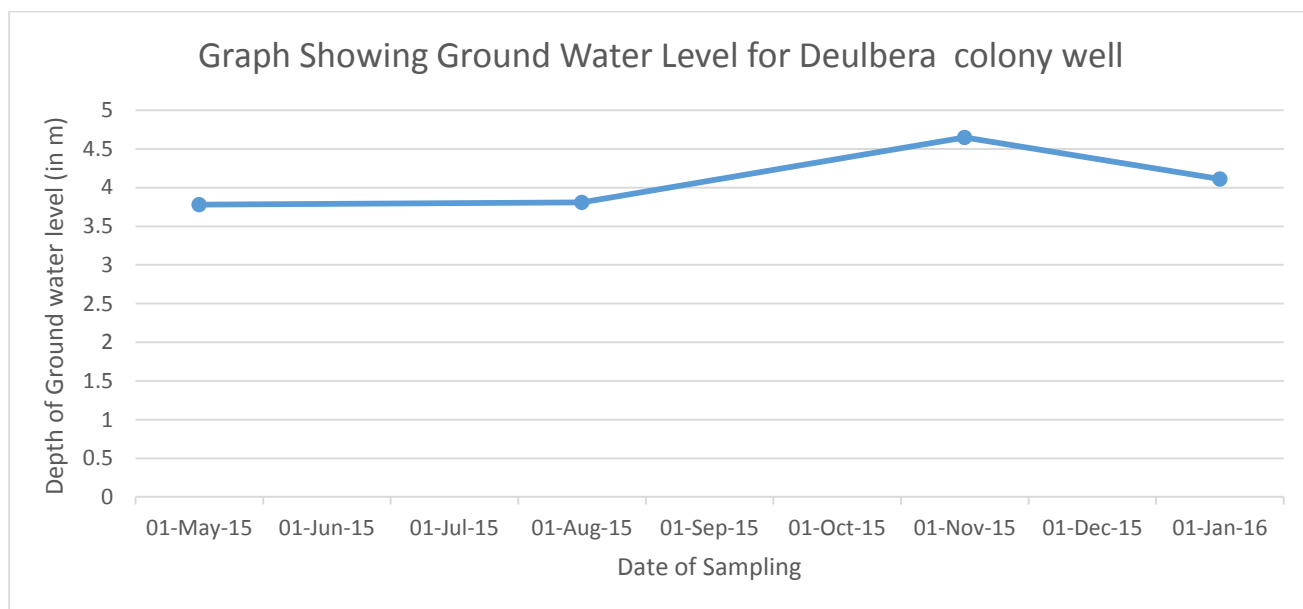
Date of sampling	Water level (Meters)
25-May-15	5.61
27-Aug-15	1.35
12-Nov-15	3.78
13-Jan-16	3.12



Project: Talcher Area
Monitoring Station: Deulbera colony well

Table 224

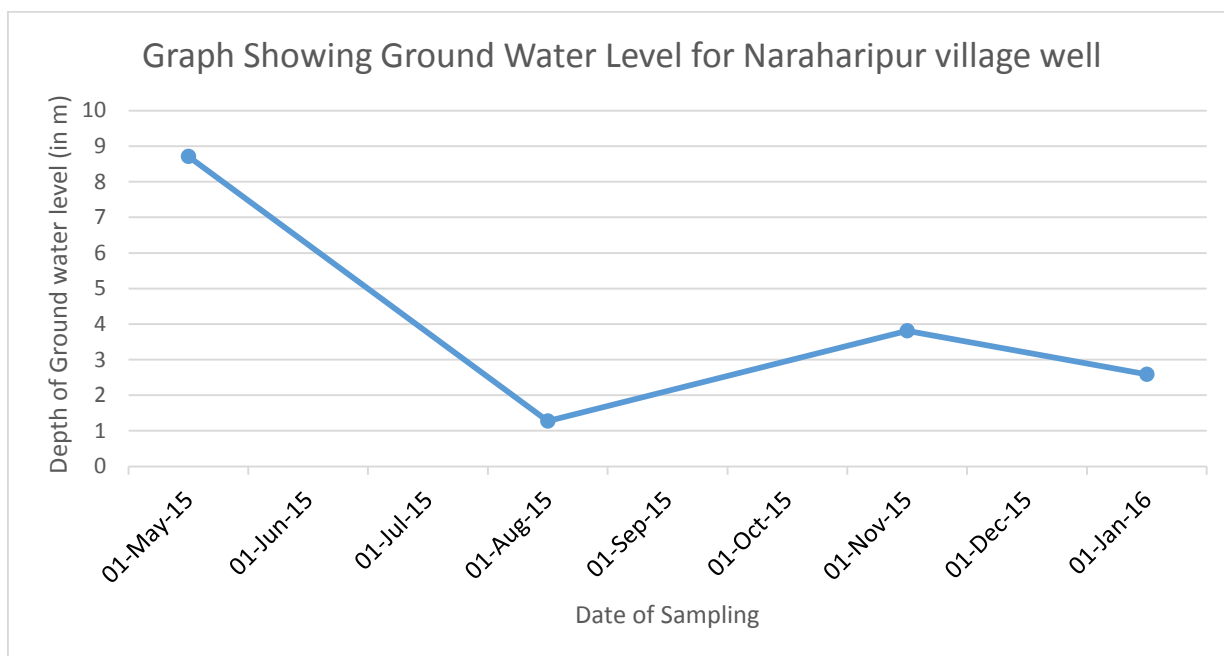
Date of sampling	Water level (Meters)
28-May-15	3.78
27-Aug-15	3.81
12-Nov-15	4.65
14-Jan-16	4.11



Project: Talcher Area
Monitoring Station: Naraharipur village well

Table 225

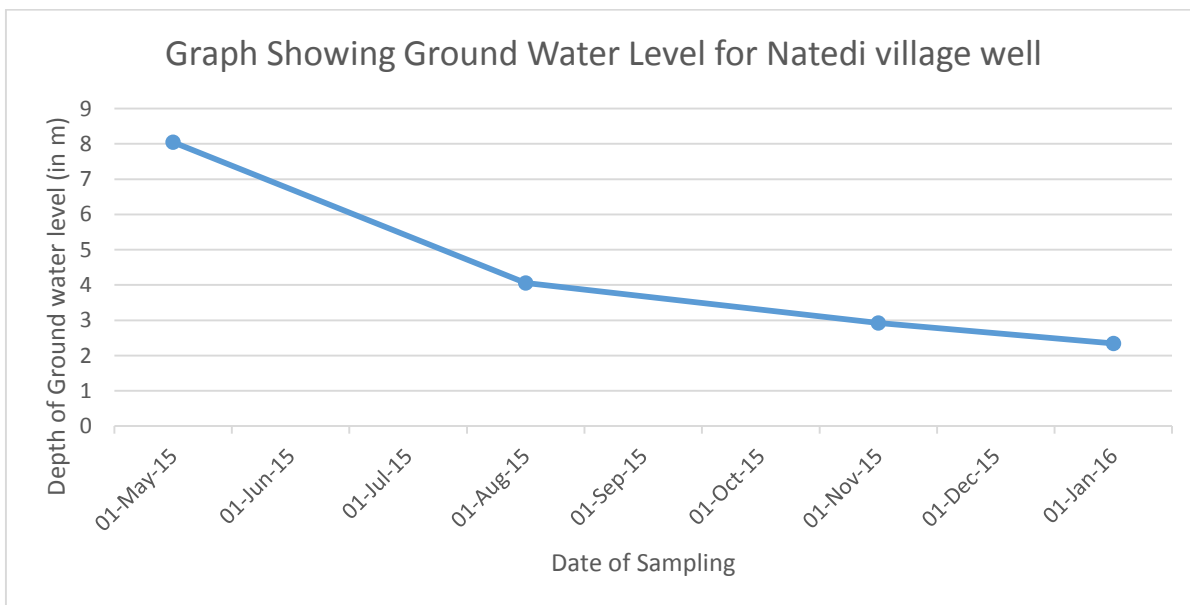
Date of sampling	Water level (Meters)
28-May-15	8.71
27-Aug-15	1.27
14-Nov-15	3.81
14-Jan-16	2.59



Project: Talcher Area
Monitoring Station: Natedi village well

Table 226

Date of sampling	Water level (Meters)
28-May-15	8.05
28-Aug-15	4.06
14-Nov-15	2.92
14-Jan-16	2.34



TABLES FOR SURFACE WATER QUALITY DATA

Table 227

Project	Bharatpur	Bharatpur OCP	Bharatpur OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Bangarujhor river near SoladaVill as U/S water of Bharatpur OCP	Bangarujhor river near Telepasi Village as U/S water of Bharatpur OCP	Bangarujhor river near Solada Village as U/S water of Bharatpur OCP	
Dt. of sampling	24.8.2015	09.11.2015	4.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	20	16	12	3
Cadmium(mg/L)	0.0011	0.001	0.0012	0.01
Chlorides(mg/L)	30	28	26	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.4	4.6	4
Fluoride(mg/L)	0.16	0.18	0.16	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	<0.06	<0.06	0.05	50
Lead(mg/L)	<0.005	<0.005	<0.005	0.1
Nitrate(mg/L)	7.53	7.62	7.58	50
pH	7.6	7.66	7.72	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	94	88	84	400
Total Dissolved Solids(mg/L)	334	326	322	1500
TSS(mg/L)	44	38	42	-
Zinc(mg/L)	0.24	0.22	0.18	15
Total Hardness(mg/L)	224	228	224	-
Mangnese(mg/L)	0.05	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 228

Project	Balram OCP	
Monitoring Station	Bangaru jhor river near Telepasi Vill as D/S water of Balram OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Dt. of sampling	24.8.2015	
Arsenic(mg/L)	<0.002	0.2
BOD(mg/L)	20	3
Cadmium(mg/L)	0.0019	0.01
Chlorides(mg/L)	38	600
Copper(mg/L)	<0.03	1.5
Dissolved Oxygen(mg/L)	4.6	4
Fluoride(mg/L)	0.27	1.5
Hexavalent Chromium(mg/L)	<0.01	0.05
Iron(mg/L)	0.11	50
Lead(mg/L)	0.007	0.1
Nitrate(mg/L)	11.08	50
pH	7.44	6.5-8.5
Phenolic Compound(mg/L)	<0.002	0.005
Selenium(mg/L)	<0.002	0.05
Sulphate(mg/L)	92	400
Total Dissolved Solids(mg/L)	340	1500
TSS(mg/L)	28	-
Zinc(mg/L)	0.15	15
Total Hardness(mg/L)	216	-
Manganese(mg/L)	BDL	
Nickel(mg/L)	BDL	

Table 229

Project	Balram OCP	BalramOCP	Balram OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Pond Water of Ambapal Vill	Pond Water of AmbapalVill	Pond Water of Ambapal Vill	
Dt. of sampling	24.8.2015	09.11.2015	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	1.6	1.8	2	3
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.01
Chlorides(mg/L)	16	18	16	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.6	4.5	4.4	4
Fluoride(mg/L)	0.23	0.28	0.26	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	<0.06	0.32	0.05	50
Lead(mg/L)	0.019	0.021	0.018	0.1
Nitrate(mg/L)	8.86	8.99	8.78	50
pH	7.93	8.2	8.1	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	14	16	14	400
Total Dissolved Solids(mg/L)	132	138	140	1500
TSS(mg/L)	26	30	32	-
Zinc(mg/L)	0.37	0.35	0.33	15
Total Hardness(mg/L)	92	95	92	-
Manganese(mg/L)	0.11	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 230

Project	BalramOCP	BalramOCP	Balram OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Derjenga reservoir as a part of impact study	Derjenga reservoir as a part of impact study	Derjenga reservoir as a part of impact study	
Dt. of sampling	24.8.2015	09.11.2015	12.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	20	2	2.2	3
Cadmium(mg/L)	0.0019	0.0008	0.0007	0.01
Chlorides(mg/L)	38	52	54	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.6	4.4	4.8	4
Fluoride(mg/L)	0.27	0.32	0.34	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	0.11	0.22	0.06	50
Lead(mg/L)	0.007	0.015	0.013	0.1
Nitrate(mg/L)	11.08	7.1	7.2	50
pH	7.44	7.92	8	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	92	38	34	400
Total Dissolved Solids(mg/L)	340	522	512	1500
TSS(mg/L)	28	58	62	-
Zinc(mg/L)	0.15	0.3	0.32	15
Total Hardness(mg/L)	216	122	118	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 231

Project	Hingula OCP	Hingula OCP	Hingula OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Singhadjhor stream nearer to Vill Chhotabani as U/S water for Hingula OCP	Singhadjhor stream nearer to Vill Chhotabani as U/S water for Hingula OCP	Singhadjhor stream nearer to Vill Chhotabani as U/S water for Hingula OCP	
Dt. of sampling	19.8.2014	09.11.2015	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	1.6	1.4	3	3
Cadmium(mg/L)	0.003	0.005	0.005	0.01
Chlorides(mg/L)	28	30	28	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.6	4.8	4.4	4
Fluoride(mg/L)	0.41	0.43	0.41	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	<0.06	<0.06	0.05	50
Lead(mg/L)	0.099	0.057	0.083	0.1
Nitrate(mg/L)	4.43	4.35	4.32	50
pH	8.21	8.13	8.1	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	18	16	14	400
Total Dissolved Solids(mg/L)	224	218	214	1500
TSS(mg/L)	24	26	28	-
Zinc(mg/L)	0.19	0.21	0.23	15
Total Hardness(mg/L)	148	144	148	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 232

Project	Hingula	HingulaOCP	Hingula OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Singhadjhor stream nearer to Vill Chittalpuras D/S water for Hingula OCP	Singhadjhor stream nearer to Vill Chittalpuras D/S water for Hingula OCP	Singhadjhor stream nearer to Vill Chittalpuras D/S water for Hingula OCP	
Dt. of sampling	19.8.2015	09.11.2015	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2	3	3.2	3
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.01
Chlorides(mg/L)	34	38	36	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.5	4.8	4
Fluoride(mg/L)	0.27	0.31	0.33	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	0.18	0.22	0.18	50
Lead(mg/L)	0.016	0.012	0.011	0.1
Nitrate(mg/L)	4.87	4.79	4.62	50
pH	8.05	7.98	8.15	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	127	124	118	400
Total Dissolved Solids(mg/L)	374	368	360	1500
TSS(mg/L)	52	55	54	-
Zinc(mg/L)	0.39	0.41	0.43	15
Total Hardness(mg/L)	284	289	287	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 233

Project	Hingula	HingulaOCP	Hingula OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Pond Water of Kankarei Village	Pond Water of Kankarei Village	Pond Water of Kankarei Village	
Dt. of sampling	19.8.2015	09.11.2015	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	1.6	1.8	1.6	3
Cadmium(mg/L)	0.0009	0.0008	0.0006	0.01
Chlorides(mg/L)	42	44	40	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.7	4.6	4
Fluoride(mg/L)	0.13	0.15	0.13	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	0.07	<0.06	0.05	50
Lead(mg/L)	0.168	0.161	0.054	0.1
Nitrate(mg/L)	6.65	6.57	6.51	50
pH	7.82	7.87	7.83	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	19	21	18	400
Total Dissolved Solids(mg/L)	162	155	152	1500
TSS(mg/L)	36	34	36	-
Zinc(mg/L)	0.3	0.4	0.3	15
Total Hardness(mg/L)	100	102	104	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 234

Project	Ananta OCP	Ananta OCP	Ananta OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Bangarujhor river near Banapalli as U/S water of Point of confluence of Ananta OCP	Bangarujhor river near Joragarhiaas U/S water of Point of confluence of Ananta OCP	Bangarujhor river near Banapalli as U/S water of Point of confluence of Ananta OCP	
Dt. of sampling	22.8.2015	09.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	1.6	2	3	3
Cadmium(mg/L)	0.0015	0.0013	0.0011	0.01
Chlorides(mg/L)	30	26	24	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.6	4.4	4.6	4
Fluoride(mg/L)	0.33	0.28	0.26	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	<0.06	<0.05	0.05	50
Lead(mg/L)	0.053	0.049	0.046	0.1
Nitrate(mg/L)	5.32	4.88	4.82	50
pH	7.89	7.96	7.91	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	132	124	120	400
Total Dissolved Solids(mg/L)	360	344	336	1500
TSS(mg/L)	28	30	28	-
Zinc(mg/L)	0.2	0.3	0.2	15
Total Hardness(mg/L)	296	285	283	-
Mangnese(mg/L)	1.14	<0.02	<0.02	
Nickel(mg/L)	0.2	<0.1	<0.1	

Table 235

Project	Ananta OCP	Ananta OCP	Ananta OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Bangarujhor river near RaghunathpurVill as D/S water of Ananta OCP	Bangarujhor river near RaghunathpurVill as D/S water of Ananta OCP	JilindaVill as D/S water of Ananta OCP	
Dt. of sampling	22.8.2015	09.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2	4	5	3
Cadmium(mg/L)	0.0006	0.0008	0.0006	0.01
Chlorides(mg/L)	34	32	28	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.2	4.4	4
Fluoride(mg/L)	0.66	0.62	0.58	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	0.07	<0.05	0.05	50
Lead(mg/L)	0.021	0.024	0.024	0.1
Nitrate(mg/L)	4.43	4.36	4.32	50
pH	7.77	7.72	7.78	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	192	184	182	400
Total Dissolved Solids(mg/L)	512	500	488	1500
TSS(mg/L)	54	58	52	-
Zinc(mg/L)	0.62	0.56	0.53	15
Total Hardness(mg/L)	296	290	286	-
Mangnese(mg/L)	0.03	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 236

Project	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Bangarujhor stream near AhaisapalaVill as D/S water for Bhubaneswari OCP before joining Brahmani river	Bangarujhor stream near SareilaVill as D/S water for Bhubaneswari OCP before joiningBrahmani river	Bangarujhor stream near AhaisapalaVill as D/S water for Bhubaneswari OCP before joining Brahmani river	
Dt. of sampling	24.8.2015	09.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	3	4	3
Cadmium(mg/L)	<0.0005	<0.005	<0.0005	0.01
Chlorides(mg/L)	32	28	30	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.3	4.5	4.2	4
Fluoride(mg/L)	0.43	0.38	0.34	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	1.12	0.16	1.12	50
Lead(mg/L)	0.029	0.026	0.024	0.1
Nitrate(mg/L)	18.61	16.92	15.16	50
pH	7.79	7.84	7.9	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	171	180	178	400
Total Dissolved Solids(mg/L)	424	416	410	1500
TSS(mg/L)	102	98	96	-
Zinc(mg/L)	0.04	0.06	0.04	15
Total Hardness(mg/L)	284	276	272	-
Mangnese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL		<0.1	

Table 237

Project	Bhubaneswari OCP	Bhubaneswari OCP	Bhubaneswari OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Pond water of MadanMohanpur	Pond water of MadanMohanpur	Pond water of MadanMohanpur	
Dt. of sampling	24.8.2015	09.11.2015	8.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.6	5	6	3
Cadmium(mg/L)	<0.0005	<0.005	<0.0005	0.01
Chlorides(mg/L)	92	82	84	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.4	4.3	4.5	4
Fluoride(mg/L)	0.51	0.47	0.45	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	<0.06	0.18	1.13	50
Lead(mg/L)	<0.005	<0.005	<0.005	0.1
Nitrate(mg/L)	28.35	26.92	25.72	50
pH	7.95	8.05	8.1	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	34	32	36	400
Total Dissolved Solids(mg/L)	294	290	286	1500
TSS(mg/L)	74	82	84	-
Zinc(mg/L)	0.13	0.11	0.08	15
Total Hardness(mg/L)	84	50	92	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 238

Project	Kaniha	Kaniha	Kaniha OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Singhada jhor stream nearer to Vill Khairnali as U/S water Kaniha OCP	Singhada jhor stream nearer to Village Bhagirathipur as U/S water for Kaniha OCP	Singhada jhor stream nearer to Village Khairnali as U/S water for Kaniha OCP	
Dt. of sampling	17.8.2015	10.11.2015	9.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.6	2.4	2.6	3
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.01
Chlorides(mg/L)	30	26	22	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.4	4.6	4.8	4
Fluoride(mg/L)	0.11	0.13	0.11	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	<0.06	0.17	0.05	50
Lead(mg/L)	0.027	0.029	0.027	0.1
Nitrate(mg/L)	5.76	5.63	5.61	50
pH	8.29	8.22	8.24	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	37	39	42	400
Total Dissolved Solids(mg/L)	216	220	224	1500
TSS(mg/L)	54	58	62	-
Zinc(mg/L)	0.14	0.18	0.14	15
Total Hardness(mg/L)	156	162	166	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 239

Project	Kaniha OCP	Kaniha OCP	Kaniha OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Before junction point of Singhada jhor and Brahmani river at Balangi Vill as D/S for Kaniha OCP	Before junction point of Singhada jhor and Brahmani river at BalangiVill as D/S for Kaniha OCP	Before junction point of Singhada jhor and Brahmani river at BalangiVill as D/S for Kaniha OCP	
Dt. of sampling	17.8.2015	10.11.2015	9.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	3	6	3
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.01
Chlorides(mg/L)	24	22	20	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.2	4.4	4.2	4
Fluoride(mg/L)	0.3	0.28	0.24	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	0.84	0.82	0.8	50
Lead(mg/L)	0.065	0.082	0.06	0.1
Nitrate(mg/L)	3.99	4.1	4.12	50
pH	8.21	8.15	8.1	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	38	36	32	400
Total Dissolved Solids(mg/L)	234	238	240	1500
TSS(mg/L)	144	140	144	-
Zinc(mg/L)	0.03	0.05	0.04	15
Total Hardness(mg/L)	188	182	186	-
Mangnese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 240

Project	Kaniha OCP	Kaniha OCP	Kaniha OCP	
Monitoring Station	Tikra Nadi near Kaniha Vill as U/S water for Kaniha OCP	Tikra Nadi near Kaniha Vill as U/S water for Kaniha OCP	Tikra Nadi near Kaniha Vill as U/S water for Kaniha OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Dt. of sampling	17.8.2015	10.11.2015	9.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	3	2	2.2	3
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.01
Chlorides(mg/L)	22	24	22	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	3.9	4.1	4.2	4
Fluoride(mg/L)	0.31	0.33	0.3	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	0.82	0.76	0.72	50
Lead(mg/L)	0.016	0.014	0.012	0.1
Nitrate(mg/L)	15.95	15.82	15.72	50
pH	8.15	8	7.96	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	30	32	28	400
Total Dissolved Solids(mg/L)	142	138	142	1500
TSS(mg/L)	202	196	198	-
Zinc(mg/L)	0.63	0.59	0.62	15
Total Hardness(mg/L)	88	84	88	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 241

Project	Kaniha OCP	Kaniha OCP	Kaniha OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Tikra Nadi near Shagarhi Pala village as D/S for Kaniha OCP	Tikra Nadi near Shagarhi Pala village as D/S for Kaniha OCP	Tikra Nadi near Shagarhi Pala village as D/S for Kaniha OCP	
Dt. of sampling	17.8.2015	10.11.2015	9.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	1.6	1.8	2.4	3
Cadmium(mg/L)	0.0007	0.0008	0.0007	0.01
Chlorides(mg/L)	22	20	18	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.6	4.4	4.6	4
Fluoride(mg/L)	0.52	0.48	0.44	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	<0.06	<0.06	0.05	50
Lead(mg/L)	0.047	0.048	0.045	0.1
Nitrate(mg/L)	16.39	16.24	16.12	50
pH	8.04	8.1	8	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	29	27	26	400
Total Dissolved Solids(mg/L)	136	133	130	1500
TSS(mg/L)	30	34	36	-
Zinc(mg/L)	0.78	0.67	0.64	15
Total Hardness(mg/L)	96	92	94	-
Manganese(mg/L)	0.03	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 242

Project	Lingraj OCP	Lingraj OCP	Lingraj OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Village Pond near deulbera Siding	Village Pond near deulbera Siding	Village Pond near deulbera Siding	
Dt. of sampling	24.8.2015	10.11.2015	8.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	1.6	2	4	3
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.01
Chlorides(mg/L)	34	32	30	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.6	4.5	4.4	4
Fluoride(mg/L)	0.18	0.22	0.24	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	0.19	0.17	0.14	50
Lead(mg/L)	0.24	0.02	0.1	0.1
Nitrate(mg/L)	3.99	3.86	3.8	50
pH	7.79	7.79	7.86	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	31	36	38	400
Total Dissolved Solids(mg/L)	188	192	190	1500
TSS(mg/L)	36	32	36	-
Zinc(mg/L)	0.87	0.82	0.86	15
Total Hardness(mg/L)	148	154	158	-
Manganese(mg/L)	0.11	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 243

Project	Talcher OCP	Talcher OCP	Talcher OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Nandira Jhor near Sakasingha vill as U/S of Nandira U/G mine	Nandira Jhor near Sakasingha vill as U/S of Nandira U/G mine	Nandira Jhor near Karnapur vill as U/S of Nandira U/G mine	
Dt. of sampling	24.8.2015	5.2.2016	10.11.2015	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2	2.4	2.6	3
Cadmium(mg/L)	0.0007	0.0006	0.0007	0.01
Chlorides(mg/L)	32	24	26	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.2	4	4
Fluoride(mg/L)	1.1	0.98	1.12	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	<0.06	0.05	0.04	50
Lead(mg/L)	0.049	0.04	0.042	0.1
Nitrate(mg/L)	5.32	6	6.1	50
pH	8.26	8.25	8.3	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.005	0.05
Sulphate(mg/L)	37	40	42	400
Total Dissolved Solids(mg/L)	254	248	251	1500
TSS(mg/L)	44	78	82	-
Zinc(mg/L)	0.2	0.35	0.37	15
Total Hardness(mg/L)	176	188	192	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 244

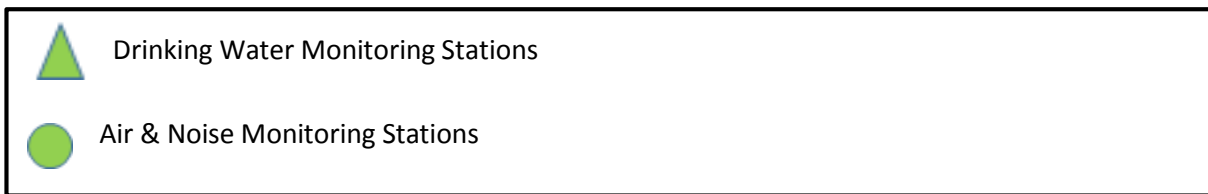
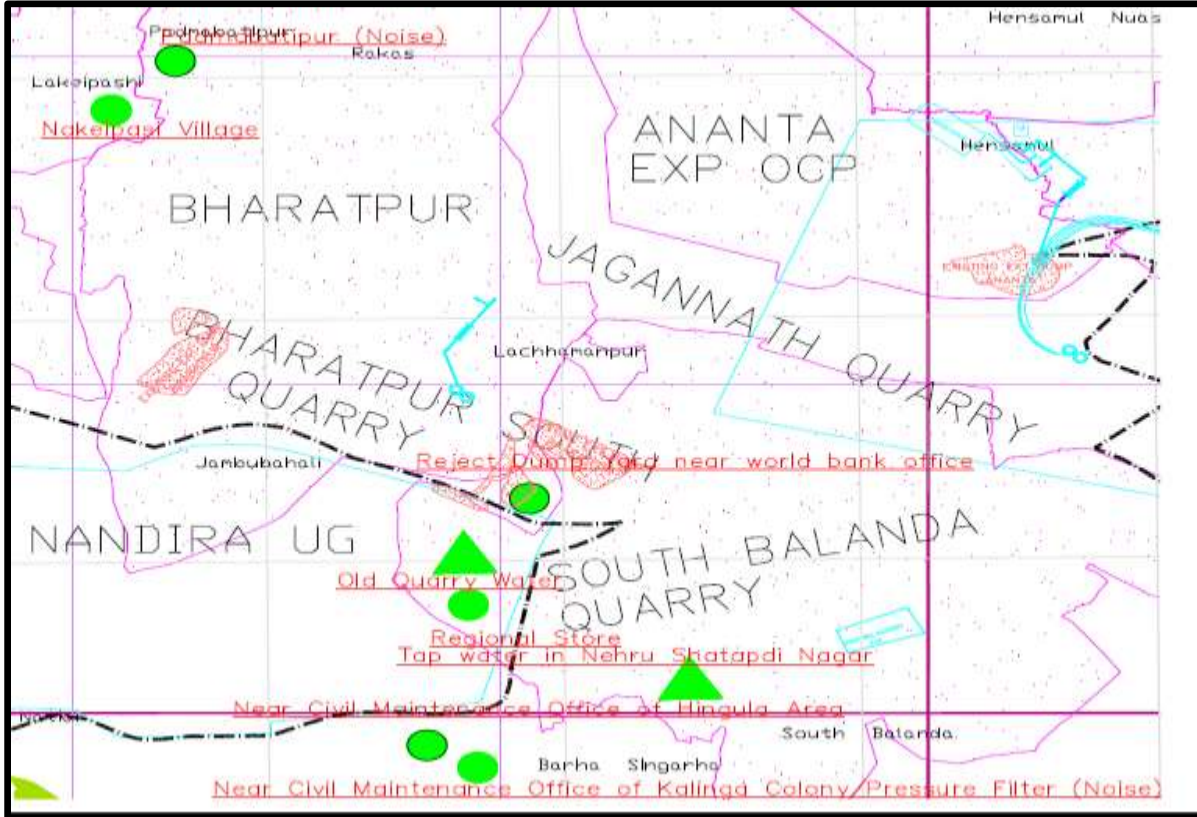
Project	Talcher OCP	Talcher OCP	Talcher OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Nandira Jhor near Pengua vill as D/S of Nandira U/G mine	Nandira Jhor near Pengua vill as D/S of Nandira U/G mine	Nandira Jhor near Tentolei vill as D/S of Nandira U/G mine	
Dt. of sampling	24.8.2015	5.2.2016	10.11.2015	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	2.6	2.8	3
Cadmium(mg/L)	0.0006	0.0006	0.0005	0.01
Chlorides(mg/L)	28	32	30	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.1	4.4	4.5	4
Fluoride(mg/L)	1.16	0.92	1.14	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	0.06	0.05	<0.06	50
Lead(mg/L)	0.046	0.038	0.042	0.1
Nitrate(mg/L)	6.2	6	6.3	50
pH	8.35	8.24	8.28	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.005	<0.0005	0.05
Sulphate(mg/L)	44	38	42	400
Total Dissolved Solids(mg/L)	254	236	248	1500
TSS(mg/L)	86	82	84	-
Zinc(mg/L)	0.34	0.26	0.32	15
Total Hardness(mg/L)	196	184	193	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

Table 245

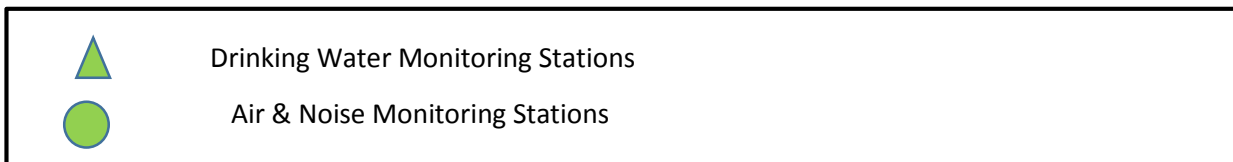
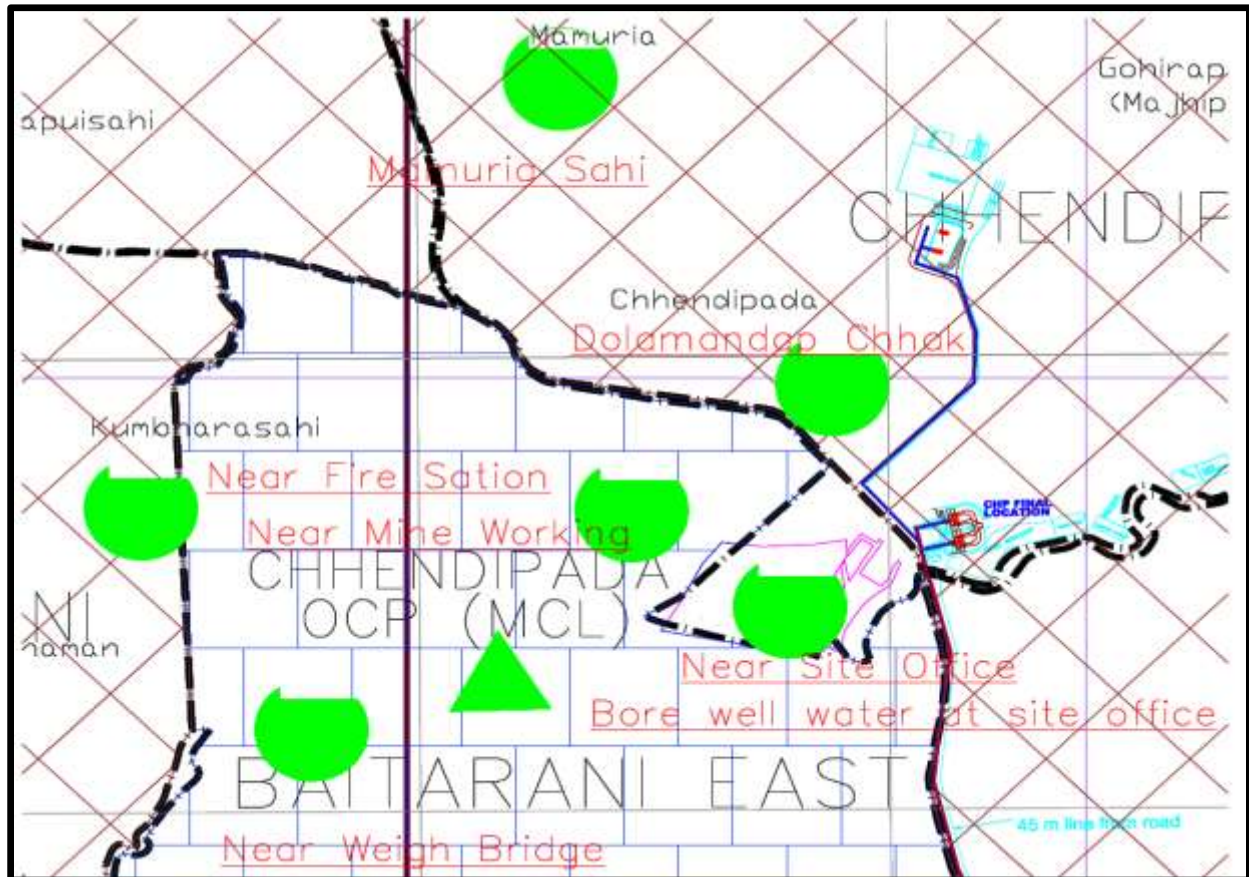
Project	Talcher OCP	Talcher OCP	Talcher OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Pond water of Gopinathpur village	Pond water of Gopinathpur village	Pond water of Gopinathpur village	
Dt. of sampling	24.8.2015	10.11.2015	8.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	1.6	1.8	2	3
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.01
Chlorides(mg/L)	40	36	38	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	405	4.5	4.2	4
Fluoride(mg/L)	0.47	0.43	0.41	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	0.05
Iron(mg/L)	0.21	0.19	0.17	50
Lead(mg/L)	0.046	0.036	0.032	0.1
Nitrate(mg/L)	5.76	6.69	5.52	50
pH	8.07	8	8.13	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.002	<0.002	0.005
Selenium(mg/L)	<0.002	<0.0005	<0.005	0.05
Sulphate(mg/L)	16	14	16	400
Total Dissolved Solids(mg/L)	82	78	72	1500
TSS(mg/L)	28	26	30	-
Zinc(mg/L)	0.22	0.19	0.18	15
Total Hardness(mg/L)	44	41	45	-
Manganese(mg/L)	0.02	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.1	<0.1	

LOCATION MAP OF MONITORING STATIONS

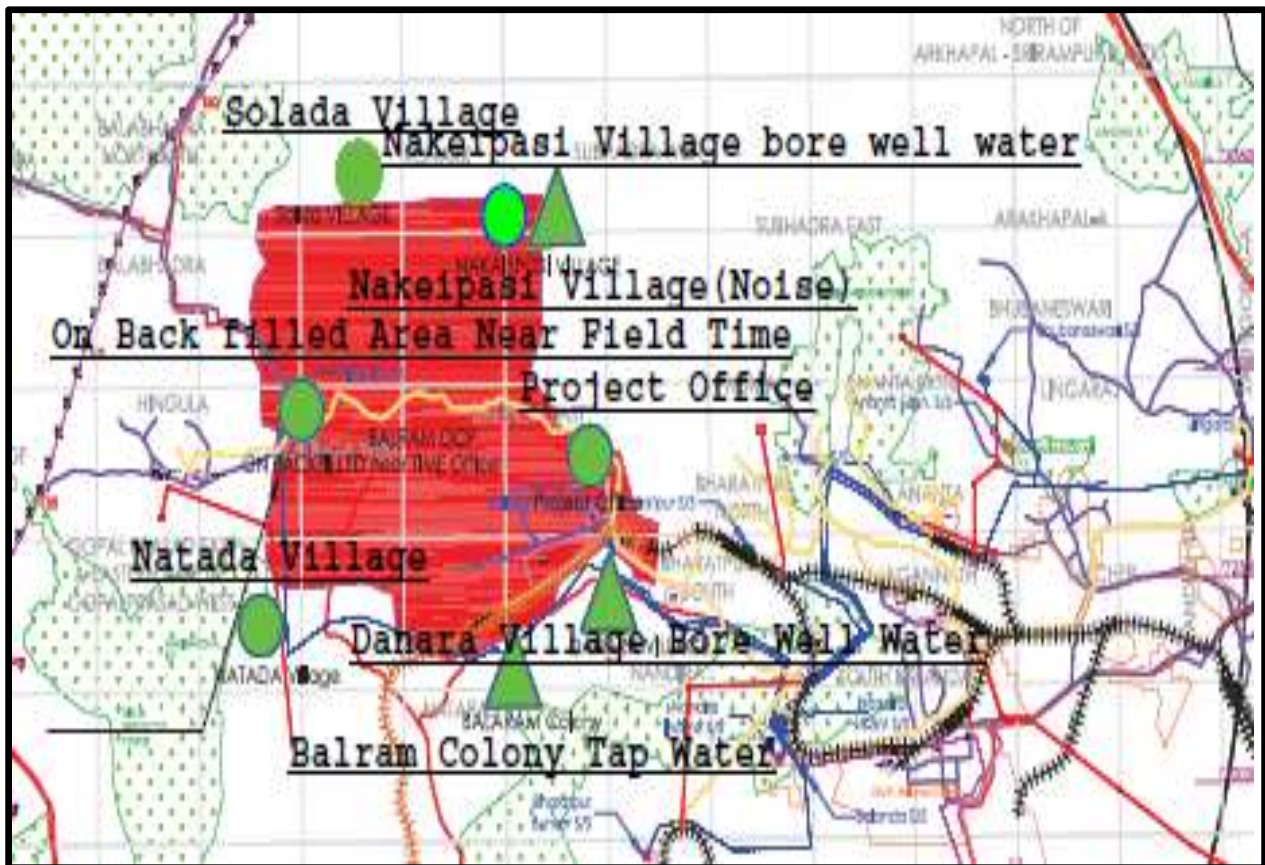
Location Map of Monitoring Stations for Bharatpur OCP



Location Map of Monitoring Stations for Chhendipada OCP



Location Map of Monitoring Stations for Balram OCP

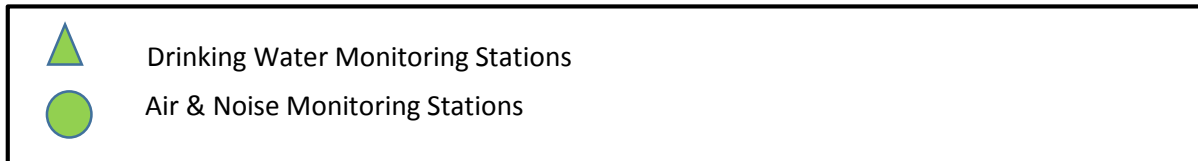
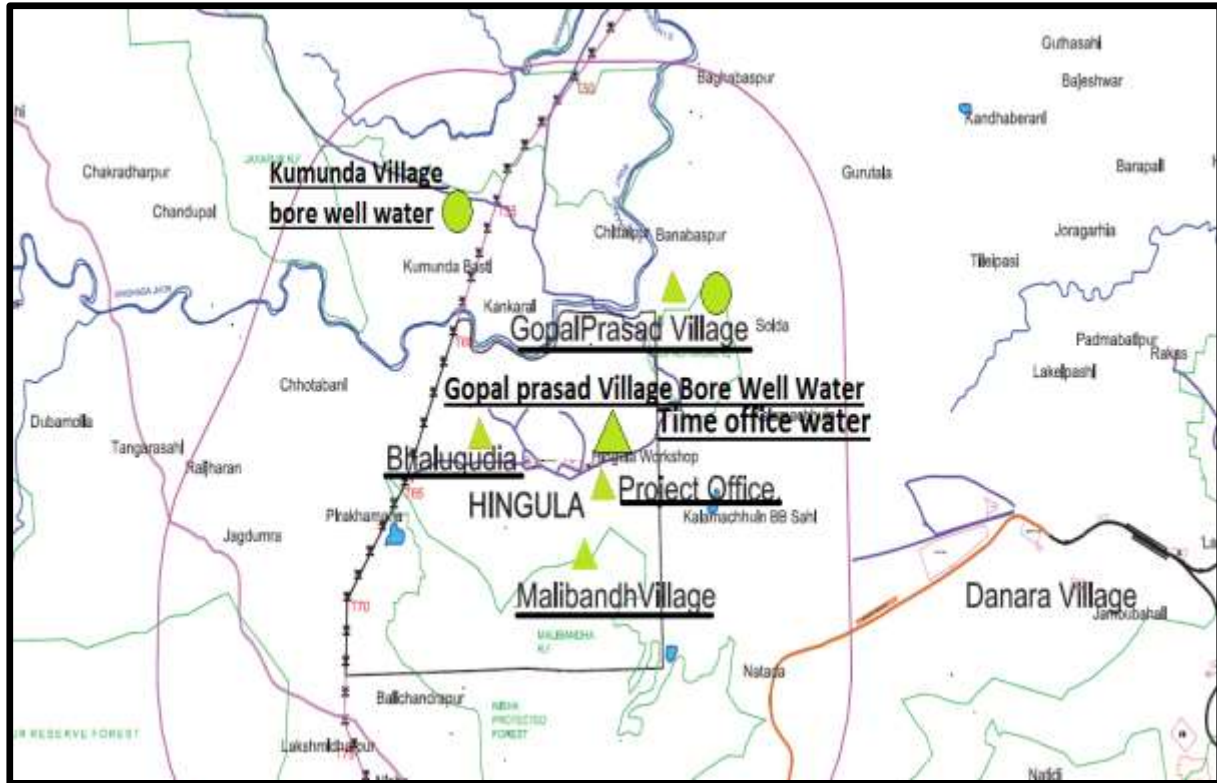


Drinking Water Monitoring Stations

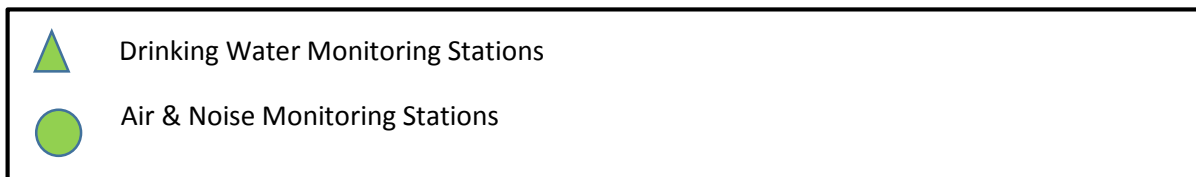
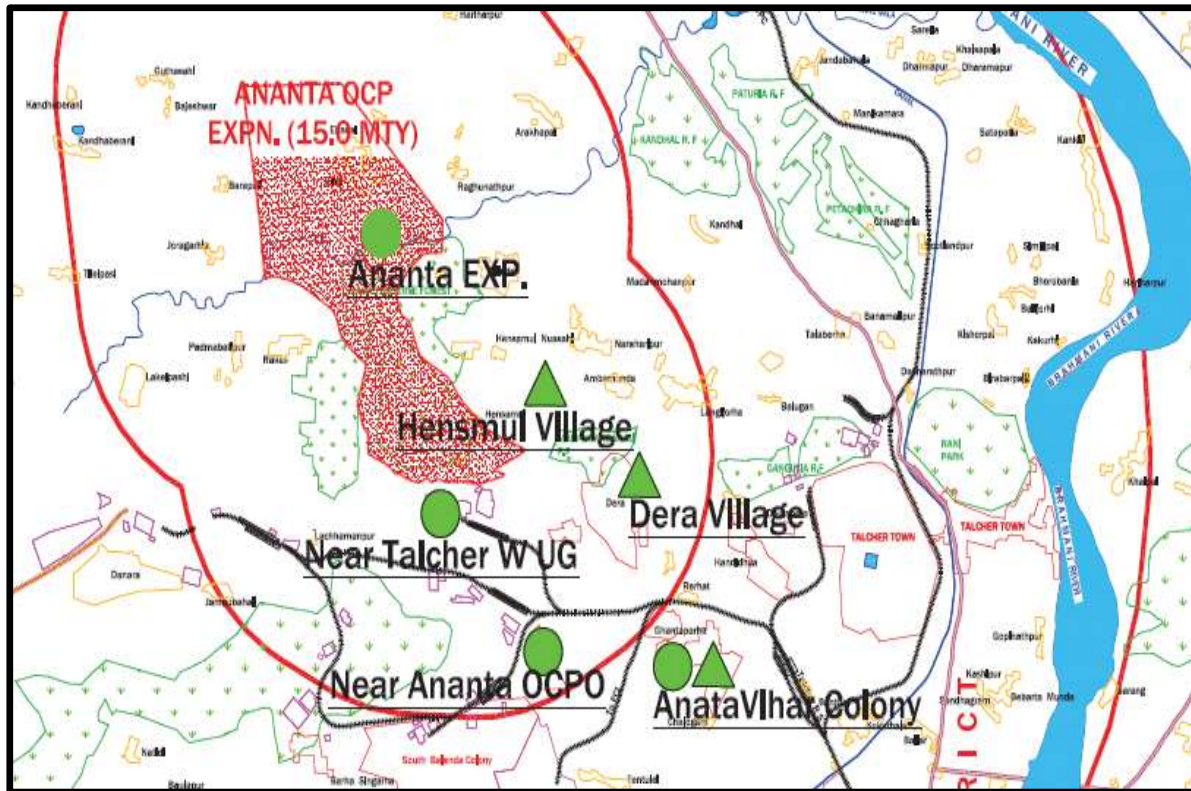


Air & Noise Monitoring Stations

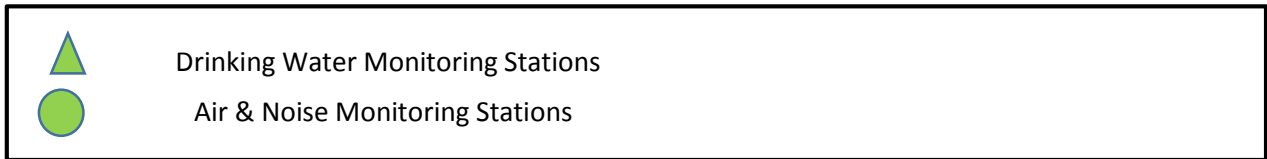
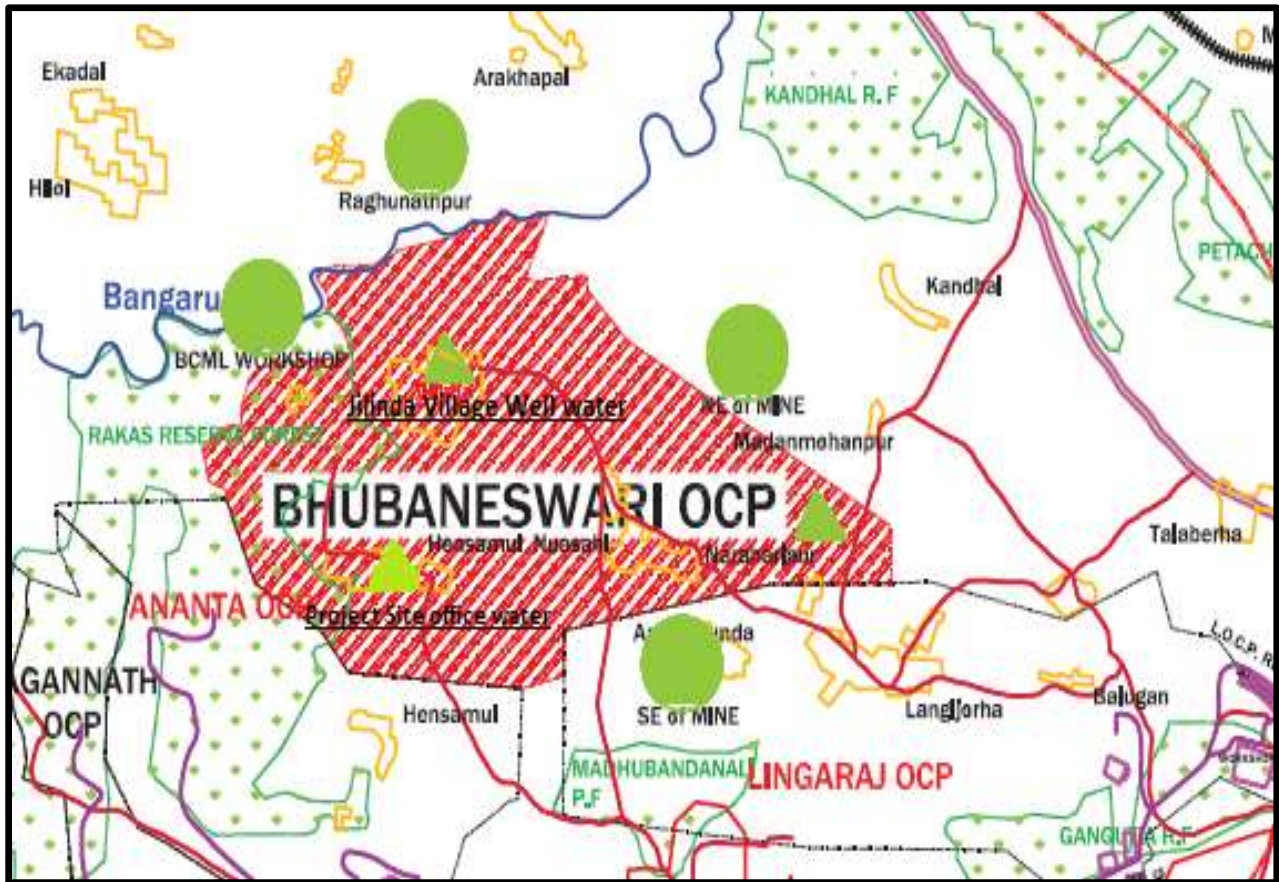
Location Map of Monitoring Stations for Hingula OCP



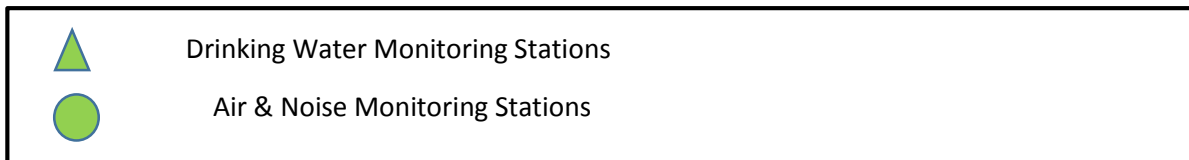
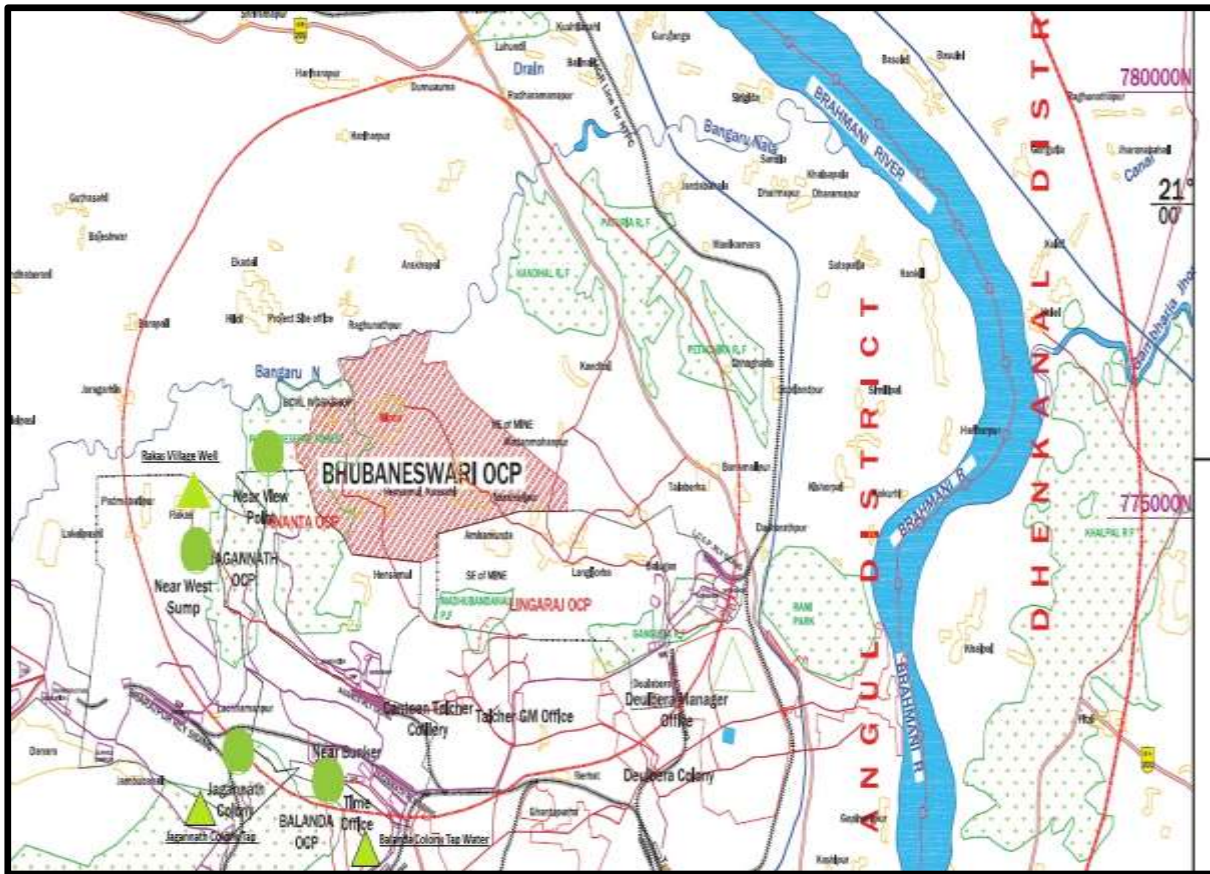
Location Map of Monitoring Stations for Ananta OCP



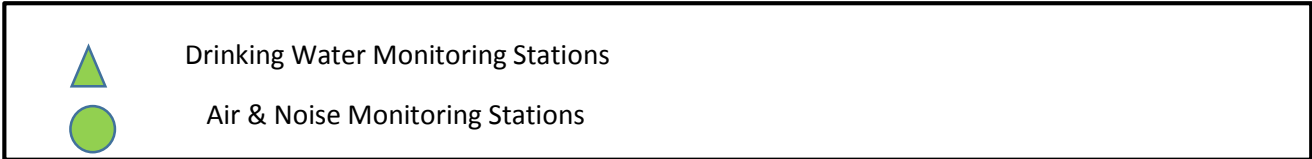
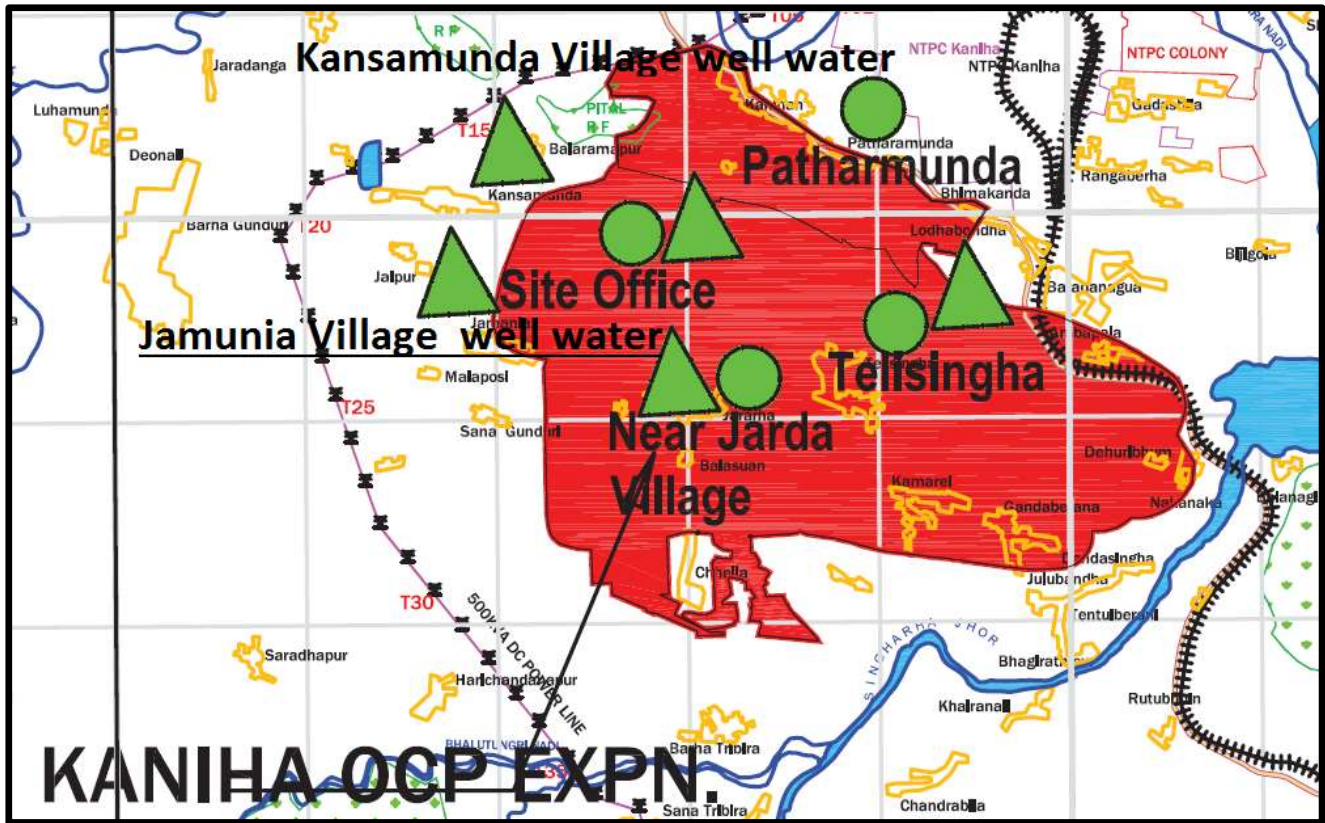
Location Map of Monitoring Stations for Bhubaneswarl OCP



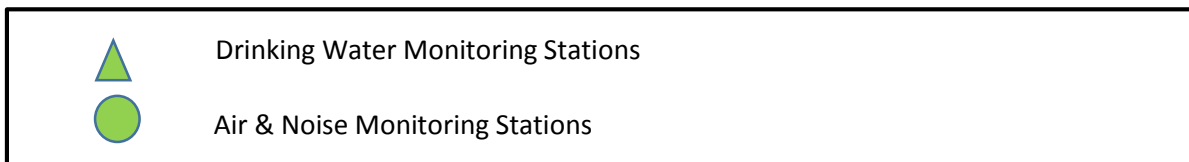
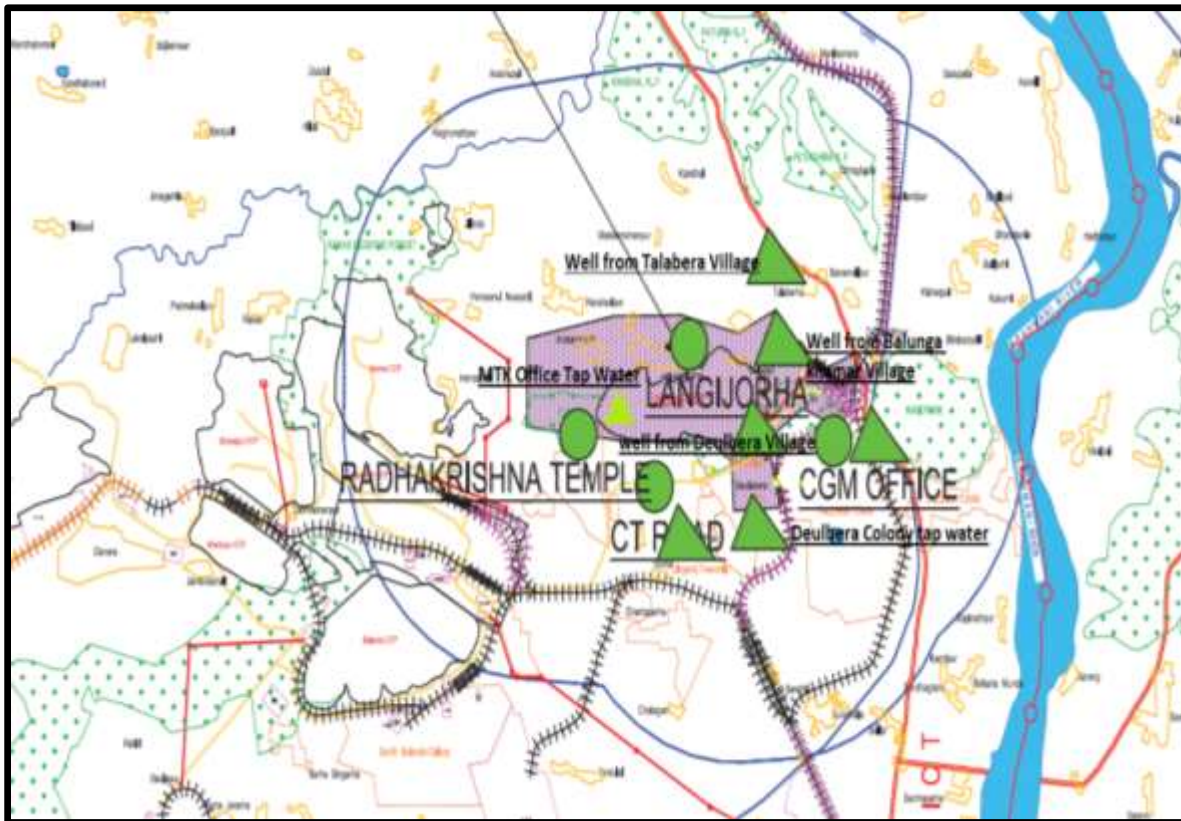
Location Map of Monitoring Stations for Jagannath OCP



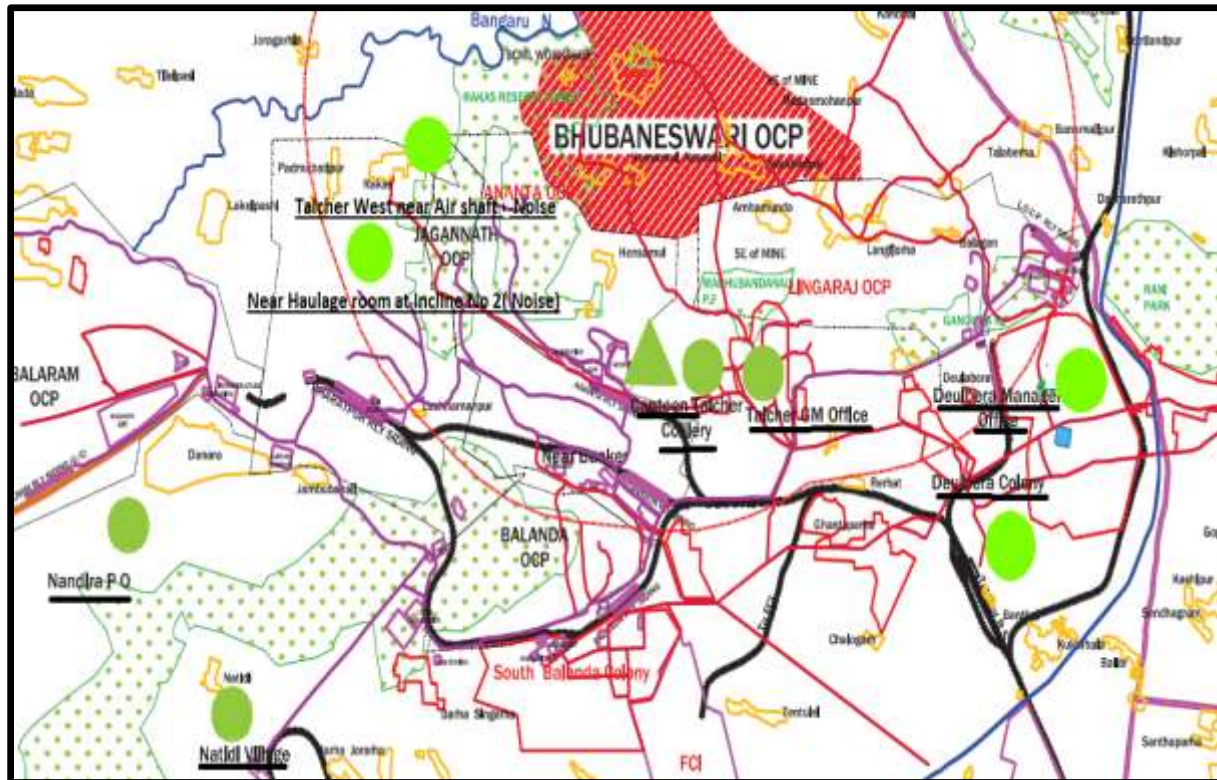
Location Map of Monitoring Stations for Kaniha OCP





Location Map of Monitoring Stations for Lingraj OCP



Location Map of Monitoring Stations for Talcher Area



	Drinking Water Monitoring Stations
	Air & Noise Monitoring Stations