

TSPL/MIN/MoEF/ENV/16-17/1034

Srikakulam. 29-11-2016.

To The Regional Office (South Eastern Zone) Ministry of Environment, Forests and Climate Change 1st and 2nd floor, HEPC Building, No.34, Cathedral Garden Road, Nungambakkam, Chennai - 600034

Dear Sir,

Sub: Srikurmam Heavy Mineral Sand Project at Mineral Sand Project at Vatsavalasa & Tonangi Villages in Gara mandal in Srikakulam District, Andhra Pradesh by M/s Trimex Sands Pvt. Ltd., submission of half yearly CRZ compliance report for the period of Apr'2016 - Sep'2016 - Reg.

Ref: CRZ Clearance vide F.No.11-67/2013-IA-III dated 28-04-2015

With reference to the subject CRZ clearance granted vide reference above, we are submitting the half yearly CRZ compliance report for the period of Apr'2016 -Sep'2016.

Thanking you

Yours truly

Vice President (Mines)

CC to: 1. APPCB, RO, VZM 2. CPCB, ZO, Bangalore

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CIN:

U14299TN2004PTC071437



Compliance report on CRZ Conditions

CRZ Clearance Vide F.NO. 11-67/2013-IA-III dated 28-04-2015

CRZ Specific conditions:

S.No	Conditions	Compliance			
1	Consent to Operate shall be obtained from State Pollution control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of mining work at the site.	Complied. Submitted vide letter N TSPL/MIN/MoEF/ENV/15-16/922 dated:28-11-2015			
2	The Project Proponent should obtain the NOC/Clearance from the Competen Authority, as applicable with regard to conservation and management plan on Ridley Turtle.	Principal Chief Conservator of Forests (WL) Chief Wildlife Warden, Hyderabad. Submit vide lr. no. TSPL/MIN/MoEF/ENV/15-16/9			
3	Soil conservation measures shall be prepared and implemented.	ed Being complied as detailed in the approved n			
4	The mined out pits shall be refilled with the sand only. The Ground Water Authority shall ensure that all the mined out pits are refilled concurrently. Site photographs shall be submit before and after the mining activity to Regional Office of MoEF	closure plan. Mined out pits are backfilled with waste san concurrently. Enclosed photographs of the site before and after the mining as per Annexure – 1.			
	All the conditions/recommendations as stipulated by the Andhra Pradesh Coastal Zone Management Authority (APCZMA) vide letter No. 6613/ENV/CZMA/2013 dated 15.02.2014, shall be complied with.	Complied as Annexure – 2			
6	The Mining shall be in accordance with the Mining plan approved by AMD and IBM	Being Complied.			
	The Project Proponent shall co-ordinate with the Directorate of Fisheries in respect of providing access to Beach for fishermen	Permanent access to the beach is provided for the fishermen.			
8 0 t	dround water monitoring on landward side of the mining area shall be carried out before during and after mining so as to check the bossible impact/sea water intrusion.	7 Nos. of Piezometers are constructed within ML area and water monitoring is carried out every month. In addition, water monitoring is done in 10 Nos. observation well situated within and outside the mining lease area. Plan showing the locations of the piezometers as Annexure-3 and observation wells and water monitoring reports are enclosed as Annexure-4 .			



9	Plantation shall be carried out on the mined out area, as committed.	Details for the last 6 months is enclosed as Annexure - 5		
Ground water observatory wells shall be within and outside the mining area prior to the mining for ground water monitoring. Project Proponent shall carry out soil analysis, ground water analysis at the site once in three months and submit the same to the State Pollution Control Board and Regional Office, MoEF to CC		7 Nos. of Piezometers are constructed within ML area and water monitoring is carried out every month. In addition, water monitoring is done in 10 Nos. observation well situated within and outside the mining lease area. Soil analysis is also carried out once in 3 months as enclosed as Approximated.		
11	Digital processing of the entire mining lease area using remote sensing technique should be carried out regularly once in three years for monitoring land use pattern and physiographic of the area and report submitted to the Regional Office, MoEF to CC			
12	No drilling and blasting should be involved.	Strictly ensured		
13	There shall be no ground water drawl in CRZ	Strictly ensured		
	area.			
14	There shall be no mining in intertidal zone.	No mining is carried out in inter tidal zone.		
15	To control dust during transportation water sprinklers shall be adopted and also the sand transport vehicles shall be covered with tarpaulin sheets.	Water tankers are deployed for haul road wetting – Annexure 7. Sand transport vehicles are covered with tarpaulin sheets to control the dust.		
16	TCLP analysis of both mined and tail materials can be done to check the presence of Hazardous materials and report shall be submitted along with the six monthly monitoring reports	Being complied. Enclosed as per Annexure - 8		
17	A green belt shall be developed after mining and refilling block by block.	Complied. Enclosed details of plantation as per Annexure -5		
18	Project proponent shall ensure that no disturbance is caused to the mangroves/fisher folk	Will be ensured and complied.		
19	All the commitments made during the public hearing including the budget for corporate social responsibility shall be earmarked for carrying out the activities.	Being complied. Details are as Annexure -9		
20	Mineral processing plant shall be located outside CRZ area.	Mineral processing plant is located outside CRZ area – Enclosed map with Annexure -3		
21	Safety measures shall be taken for workers to prevent radioactive impact on health. All the safety regulation as applicable shall be strictly followed.	Implemented as per the directive of the Atomic Energy Regulatory Board (AERB), DAE		



	All prior statutory clearances from Department of Atomic Energy, Indian Bureau of Mines, Central and State agencies as applicable shall be obtained.	
23	Sand dunes should not be flattened.	It is being complied.

General conditions:

(i)	A copy of the clearance letter shall also be displayed on the website of the concerned	TSPI /MINI/Moder/ENIX/15 16/000	lr.no
	State Pollution Control Board. The EC letter shall also be displayed at the Regional Office. District Industries centre and Collector's Office/Tehsildars's office for 30 days	28-11-2015.	Dated
(ii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.	period for financial year 2016-17 Annexure - 10	6 month given a
8	Officials from the Regional Office of MoEF & CC, Chennai who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents /data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF & CC should be forwarded to the CCF, Regional office of MoEF & CC, Chennai.		
9	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.	Will be complied	
10	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986. To ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	Noted.	
1	All other statutory clearances such as the approvals for storage of diesel from Chief	Complied. Submitted vide TSPL/MIN/MoEF/ENV/15-16/922 28-11-2015.	lr.no. Dated



	Wildlie (D. /) A second	
	Wildlife(Protection) Act, 1972 etc. Shall be obtained, as applicable by project proponent from the respective competent authorities.	S
12	These stipulations would be enforced among others under the provisions of Wate (Prevention and Control of Pollution) Act 1974, the Air (Prevention and control of Pollution) act 1981, the Environment(Protection) Act, 1986, the Public Liability(Insurance) Act, 1991 and EIA Notification, 2006	Notifications are complied
13	The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest & Climate change at http://www.envfor.nic.in . The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Chennai.	TSPL/MIN/MoEF/ENV/15-16/922 Dated 28-11-2015.
14	This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation v/s Union of India in Writ Petition (Civil) No. of 2004 as may be applicable to this project.	Noted.
15	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010	Noted.
16	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Prishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied. Submitted vide lr.no. TSPL/MIN/MoEF/ENV/15-16/922 Dated 28-11-2015.
17	T1	Being complied.



29/11/16

Before Mining





After Mining





Amexure - 2

Andhra Pradesh Coastal Zone Management Authority Minutes of Meeting

S.No	Condition	Compliance	
1	No mining shall be carried out in the intertidal zone and within 100 M from HTI towards landward side. No mining shall be carried out in sand dune areas.	Mining is carried up to 100m on the landward side of the HTL and the prohibited area is demarcated ensure no mining is carried out.	
2	Dressing or altering the sand dunes, hills natural features including landscape change shall not be carried out for beautification or recreational purposes. In case of mining of rare minerals, precautions shall be taken to preven intrusion of sea water into the hinterland to avoid problem of submersion/ flooding.	All sand dunes are identified before undertaking mining activities, by the ENVID group, Andhra University, Visakhapatnam. All these dunes are being protected and maintained as per MoEF guidelines and approved plan. No flattening, dressing or altering and landscape changes of sand dunes are done. All precautions as per the recommendations of the Hydro Geological study by the Andhra university are being implemented to prevent intrusion of sea water into	
3	The mining activities shall be regulated in such a way that there will be minimum disturbance to the fauna during spawning and brooding period i.e from November to March.	It is being complied.	
	The depth of mining is subject to the approval of competent authorities such as AMD/IBM.	Complied. Submitted vide Ir.no. TSPL/MIN/MoEF/ENV/15-16/921 Dated 28-11-2015	
	Tailings and rejects should be filled back systematically after separating the heavy/rare minerals. Sand tailings shall be put back at the mined area on completion of extraction of rare minerals. As a follow up measure, afforestation with the suitable species shall be taken up on mined out areas to prevent erosion of shoreline.	Sand tailings and rejects are being filled back to mined out areas systematically after separating the heavy/rare minerals. Afforestation being carried out with different species on mined out areas to	
S n a	Mining shall be carried out in phases only. imultaneous opening of entire beach front is ot permissible. There shall be uninterrupted ccess to the seafront. Minimum 20 m. width f approach roads shall be provided wherever eccessary.	prevent erosion of shoreline. It is being complied.	
p:	ater observation wells within and outside the	Provided ground water observation wells and monitoring is being carried out within and outside the ease area. Enclosed observation	

monitoring of ground water quality and water
levels in the surrounding areas. These analysis
as per norms must be documented and sent
regularly (every three months) to the Zonal
Laboratory, Andhra Pradesh Pollution Control
Board.

well's location map Annexure-4 and monitoring reports as Annexure -6

	Dodiet.			
8	Radiation survey shall be carried out as stipulated by the Atomic Minerals Division of Government of India to ascertain the effects of radio-active minerals.	Regulations Board (AERB), DAE and reports submitted periodically.		
9	The Total Suspended Solids (TSS) in the discharge waste water shall be maintained within the permissible limit which is subject to the standards stipulated by the APPCB.	Enclosed Annexure - 8 Being complied.		
10	Baseline data of benthic fauna shall be furnished before the Commencement of the work on expansion of the existing project. The industry shall prepare such data and circulate among the members of the APCZMA for the purpose of record	Chief Conservator of Forests (WL) & Chief Wildlife Warden		
11	The afforestation with suitable species shall be implemented to act as shelter belt/wind break to stabilize the filled up areas.	Being complied. Submitted vide Ir.no.TSPL/MIN/MoEF/ENV/15- 16/921 Dated 28-11-2015		
12	Mining shall be carried out by permitted methods without the use of any forms of blasting. Use of explosives for blasting is prohibited.	Complied		
13	Extraction of Monozite is a prohibited activity as the same is not permitted by the Atomic Minerals Directorate of Department of Atomic Energy.	Complied.		
14	The project proponent shall strive to obtain the performance report on similar plants under operation using seawater in South Africa or elsewhere.	Will be complied.		
15	The Authority also felt that post project monitoring of shoreline by a specialized agency like NIO / ICMAM/ Andhra University shall be taken up to study the impact of mining of rare minerals on shoreline in conformity with the conditions stipulated in the environmental clearance by the Government of India to the industry.	Noted.		



Registered Office:

B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038. Ph.: (O) 040-23748555 / 23748616, Fax: 040-23748666, Email: teamlabs@gmail.com

ISO 9001 : 2008, ISO 14001 : 2004 and OHSAS 18001 : 2007 Certified Organization Laboratory Recognised by Ministry Environment, Forests and Climate Change, Gol, New Delhi

TEST REPORT

Test Report No.TLC/V/Env/TSPL/8/0916

dt10.10.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling:

Water samples as per Details given

Date of Sample Collected : 21 09 2016

No	Parameter	Mogadalapadu Open Well water	Parlavanipeta Open Well water	Pedda vatsavalasa Open Well water	Yerraguddi Open Well water	Pedda Tonangi Open Well water
1	pH	8.15	7.95	8.0	7.8	7.4
2	Colour Hazen units	5	5	5	5	5
3	Odour	un objectionable	un objectionable	un objectionable	un objectionable	un objectionable
4	Total Dissolved solids	1180mgpl	1580mgpl	1690mgpl	720mgpl	2490mgpl
5	Total Suspended Solids	5mgpl	5mgpl	6mgpl	5mgp!	7mgpl
6	Turbidity	3.8 NTU	6.2 NTU	7.2 NTU	2.5NTU	B.S NTU
7	Total Hardness as CaCo3	450 mgpl	180mgpi	440mgpl	120mgpl	390mgpl
8	Calcium as CaCo3	290mgpl	120mgpl	290mgpl	80mgpl	350min)
9	Magneslum as CaCo3	160mgpl	60mgpl	150 mgpl	40mgpl	250mgpl 140 mgpl
0	Chlorides Cl-	290mgpl	280mgpl	460mgpl	105mgpl	CO
1	Flouride	0.6mgpl	0.5mgpl	0.5mgpl	0.4mgpl	685mgpl
2	Sulphates	120mgpl	35mgpl	90mgpl	30mgpl	0.5mgpl
3	Nitrates	22,0 mgpl	12.8 mgpl	14.0mgpl	10.5 mgpl	62mgpl
4	Phosphates	BDL	BDL	BDL	BDL	18.5 mgpl
5	Iron	0.03mgpl	0.05mgpl	0.05mgpl	0.03mgpl	BDL OF THE STATE O
6	Lead	BDL	BDL	BDL	BDL	0.05mgpl
	Water table from ground level in mtrs	2.55	2.45	1.75	3.4	BDL -

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TEST REPORT

Test Report No.TLC/V/Env/TSPL/10/0916

dt10.10.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

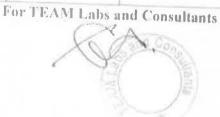
Trimex Sands Pvt. Ltd.

Location of sampling:

Water samples as per Details given

Date of Sample Collected: 21.09.2016

No	Parameter	Komara vanipeta O. W.water	Bandaruvani peta O. W.water	Chinatonangi open well water	Batchuvanipeta open well wate
1	рН	7.4	7.6	7.5	7.3
2	Colour Hazen units	5	5	5	5
3	Odour	un objectionable	un objectionable	ил objectionable	un objectionable
4	Total Dissolved solids	1550mgpl	790mgpl	610 mgpl	1990mgpl
5	Total Suspended Solids	5mgpl	5mgpl	5mgpl	5mgpl
6	Turbidity	4.0 NTU	4.8 NTU	3.0NTU	0.5.174
7	Total Hardness as CaCo3	540mgpl	460mgpl	180mgpl	8.5 NTU 760mgpl
8	Calcium as CaCo3	360mgpl	280mgpl	110mgpl	400
9	Magnesium as CaCo3	180mgpl	180 mgpl	70mgpl	480mgpl 280mgpl
10	Chlorides Cl-	350mgpl	180mgpl	120mgpl	
11	Flouride	0.5mgpl	0.5mgpl	0.4mgpl	950mgpl
12	Sulphates	60mgpl	50mgpl	35mgpl	0.6mgpl
13	Nitrates	28.5 mgpl	11.5 mgpl	10.5mgpl	160mgpl
14	Phosphates	BDL	BDL	BDL BDL	11.9 mgpl
15	Iron	0.07mgpl	0.04gpl	0.05mgpl	BDL
16	Lead	BDL	BDL	BDL BDL	0.07mgpl
	Water table from ground level in mtrs	2.3	2.25	1.15	BDL 1.75



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TEST REPORT

Test Report No.TLC/V/Env/TSPL/9/0916

dt10.10.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling:

Water samples as per Details given

Date of Sample Collected: 21.09.2016

No	parameter	Pond at Vatchavalasa	PCP open well	MSP Open well
1	pH	7.4	7.5	7.8
2	Colour Hazen units	5	5	5
3	Odour	un objectionable	un objection	un objectionable
4	Total Dissolved solids	450	405mgpl	650mgpl
5	Total Suspended Solids	5	5mgpl	5mgpl
6	Turbidity	1.6NTU	2.5NTU	3.2 NTU
7	Total Hardness as CaCo3	150mgpl	115mgpl	220mgpl
8	Calcium as CaCo3	90mgpl	80mgpl	The state of the s
9	Magnesium as CaCo3	60mgp!	35mgpl	140mgpl
10	Chlorides CI-	110mgpl	90mgpl	80mgpl
11	Flouride	0.5 mgpl	0.4mgpl	98mgpl
12	Sulphates	30mgpl	20mgpl	0.4mgpl
13	Nitrates	0.5mgpl		30mgpl
14	Phosphates	BDL	0.5mgpl	0.5 mgpl
15	Iron	0.04mgpl	BDL	BDL
16	Lead	BDL	0.03mgpl	0.04mgpl
	Water table from groundlevel		BDL	BDL
	inmtrs		1.7	2.90

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TEST REPORT

Test Report No.TLC/V/Env/TSPL/8/0816

dt16.09.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling: Water samples as per Details given

Date of Sample Collected: 11.08.2016

No	Parameter	Mogadalapadu Open Well water	Parlavanipeta Open Well water	Pedda vatsavalasa Open Well water	Yerraguddi Open Well water	Pedda Tonangi Open Well water
1	рН	7.4	7.95	7.95	7.9	7.4
2	Colour Hazen units	5	5	5	5	5
3	Odour	un objectionable	un objectionable	un objectionable	un objectionable	un objectionable
4	Total Dissolved solids	1750mgpl	1650mgpl	1540mgpl	680mgpl	2570mgpl
5	Total Suspended Solids	5mgpl	5mgpl	7mgpl	5mgpl	7mgpl
6	Turbidity	4.0 NTU	5.0 NTU	4.4 NTU	2.ONTU	7.0.1711
7	Total Hardness as CaCo3	330 mgpl	205mgpl	540mgpl	195mgpl	7.0 NTU 510mgpl
8	Calcium as CaCo3	210mgpl	120mgpl	320mgpl	115mgpl	200
9	Magnesium as CaCo3	120mgpl	85mgpl	220 mgp!	80mgpl	290mgpl 220 mgpl
10	Chlorides CI-	260mgpl	290mgpl	480mgpl	130mgpl	***
1.1	Flouride	0.6mgpl	0.4mgpl	0.5mgpl	0.4mgpl	660mgpl
12	Sulphates	92mgpl	40mgpl	115mgpl	32mgpl	0.5mgpl
13	Nitrates	19.5 mgpl	15.5 mgpl	22.5mgpl	17.2 mgpl	80mgpl
14	Phosphates	BDL	BDL	BDL	BD1	24.0 mgpl
15	Iron	0.04mgpl	0.05mgpl	0.06mgpi	0.04mgpl	BDL
16	Lead	BDL	BDL	BDL	BDL BDL	0.05mgpl
	Water table from ground level in mtrs	3.36	2.75	3.30	6.50	BDL

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TEST REPORT

Test Report No.TLC/V/Env/TSPL/10/0816

dt16.09.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling:

Water samples as per Details given

Date of Sample Collected: 11.08.2016

No	Parameter	Komara vanipeta O. W.water	Bandaruvani peta O. W.water	Chinatonangi open well water	Batchuvanipeta open well water
1	рН	7.5	7.7	7.7	7.2
2	Colour Hazen units	5	5	5	5
3	Odour	un objectionable	un objectionable	un objectionable	un objectionable
4	Total Dissolved solids	1490mgpl	730mgpl	780 mgpl	1790 mgpl
5	Total Suspended Solids	5mgpl	5mgpl	5mgpl	Smgpl
6	Turbidity	3.0 NTU	4.2 NTU	3.7 NTU	5.0 NTU
7	Total Hardness as CaCo3	375mgpl	490mgpl	160mgpl	740mgpl
8	Calcium as CaCo3	260mgpl	320mgpl	90mgpl	480mgpl
9	Magnesium as CaCo3	115mgpl	170 mgpl	70mgpl	260mgpl
10	Chlorides Cl-	240mgpl	105mgpl	180mgpi	770mgpl
11	Flouride	0.3mgpl	0.4mgpl	0.4mgpl	0.4mgpl
12	Sulphates	78mgpl	70mgpl	30mgpl	155mgpl
13	Nitrates	32.6 mgpl	9.0 mgpl	8.0 mgpl	8.2 mgpl
14	Phosphates	BDL	BDL	BDL	BDL
15	Iron	0.07mgpl	0.04gpl	0.05mgpl	0.06mgpl
16	Lead	BDL	BDL	BDL	BDL
	Water table from ground level in mtrs	4.32	6.6	2.5	4.10

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TEST REPORT

Test Report No.TLC/V/Env/TSPL/9/0816

dt16.09.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling: Water samples as per Details given

Date of Sample Collected :

11.08.2016

No	parameter	Pond at Vatchavalasa	PCP open well	MSP Open well	PCP Tail water
1	pH	7.7	7.9	7.6	7.8
2	Colour Hazen units	5	5	5	5
3	Odour	un objectionable	un objection able	un objectionable	un objectiona ble
4	Total Dissolved solids	510	345mgpl	630mgpl	140
5	Total Suspended Solids	5	5mgpl	5mgpl	15
6	Turbidity	1.5NTU	2.0NTU	3.0 NTU	9.5 NTU
7	Total Hardness as CaCo3	105mgpl	105mgpl	205mgpl	65mgpl
8	Calcium as CaCo3	60 mgpl	70mgpl	130mgpl	
9	Magnesium as CaCo3	45mgpl	35mgpl	750 mgpl	45mgpl 20mgpl
10	Chlorides Cl-	75mgpl	65mgpl	80mgpl	65mgpl
11	Flouride	0.5 mgpl	0.4mgpl	0.4mgpl	
12	Sulphates	32mgpl	22mgpl	35mgpl	0.5 mgpl
13	Nitrates	0.5mgpl	0.5mgpl	0.6 mgpl	22mgpl
14	Phosphates	BDL	BDL	BDL	0.5mgpl
15	Iron	0.04mgpl	0.03mgpl	0.04mgpl	BDL
16	Lead	BDL	BDL	BDL	0.09mgpl
	Water table from groundlevel inmtrs	*	2.15	2.90	BDL

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TEST REPORT

Test Report No.TLC/V/Env/TSPL/8/0716

dt08.08.2016

Description of Test: Phisico-chemical Analysis of Water

Name of the client: Trimex Sands Pvt. Ltd.
Location of sampling: Water samples as per Details given
Date of Sample Collected: 19.07.2016

lo	Parameter	Mogadalapadu Open Well water	Parlavanipeta Open Well water	Pedda vatsavalasa Open Well water	Yerraguddi Open Well water	Pedda Tonang Open Well water
1	pH	7.8	7.8	7.8	7.7	7.4
2	Colour Hazen units	5	5	5	5	5
3	Odour	un objectionable	un objectionable	un objectionable	un objectionable	un
d .	Total Dissolved solids	1810mgpt	1690mgpl	1680mgpł	720mgpl	objectionable 2670mgpl
5	Total Suspended Solids	5mgpl	5mgpt	7mgpl	5mgpl	9mgpl
6	Turbidity	4.4 NTU	5.7 NTU	5.2 NTU	4.0NTU	A A NUMBER
7	Total Hardness as CaCo3	310 nigpl	195mgpl	525mgpl	190mgpl	8.2 NTU 490mgpl
8	Calcium as CaCo3	190mgpl	Hümgpl	310mgpl	115mgpl	280mgpt
9	Magnesium as CaCo3	120mgpl	85mgpl	215 mgpl	75mgpl	210 mgpl
0	Chlorides Cl-	270mgpl	285mgpl	460mgpl	750	
1	Flouride	0.6mgpl	0.4mgpl	0.5mgpl	120mgp1	640mgpl
2	Sulphates	95mgpl	45mgpl	120mgpl	0.4mgpt	0.5mgpl
3	Nitrates	21.2mgpl	19.2 mgpl	27.5mgpl	30mgpl	75mgpl
4	Phosphates	BD1	BDL	BDL.	15.2 mgpl	27.7 mgpl
5	Iron	0.05mgpl	0.05mgpl		BDL	BDL
6	Lead	BDL	BDL	0.06mgpl BDL	0.04mgpl	0.05mgpl
	Water table from ground level in mtrs	3.25	2.81	3.28	BDL 6.53	BDL,

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Test Report No.TLC/V/Env/TSPL/10/05 REPORT

dt08.08.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling:

Water samples as per Details given

Date of Sample Collected: 19.07.2016

No	Parameter	Komara vanipeta O. W.water	Bandarvani peta O. W.water	Chinatonangi open well water	Batchuvanipeta open well water
1	pH	7.5	7.5	7.7	7.5
2	Colour Hazen units	5	5	5	5
3	Odour	un objectionable	un objectionable	un objectionable	
4	Total Dissolved solids	1560mgpl	790mgpl	840 mgpl	objectionable 1990 mgpl
5	Total Suspended Solids	5mgpl	5mgpl	5mgpl	5mgpl
6	Turbity	3.5 NTU	3.0 NTU	3.5 NTU	E D NISSA
7	Total Hardness as CaCo3	390mgpl	505mgpl	150mgpl	5.0 NTU 730mgpl
8	Calcium as CaCo3	270mgpl	325mgpl	90mgpl	480mgpl
9	Magnesium as CaCo3	120mgpl	180 mgpl	60mgpl	250mgpl
10	Chlorides CI-	260mgpl	110mgp1	175mm1	
11	Flouride	0.3mgpl	0.4mgpl	175mgpl 0.4mgpl	790mgpl
12	Sulphates	75mgpl	75mgpl		0.4mgpl
13	Nitrates	35.6 mgpl	12.0 mgpl	35mgpl	160mgpl
14	Phosphates	BDL	BDL.	7.5 mgpl	9.5 mgpl
15	Iron	0.07mgpl	0.04gpl	BDL	BDL
16	Lead	BDL	BDI.	0.05mgpl	0.06mgpl
	Water table from	4.35	8.70	BDL	BDL
	ground level in mtrs		0.70	2.65	4.18

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TEST REPORT

Test Report No.TLC/V/Env/TSPL/9/0716

dt08.08.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling: Water samples as per Details given

Date of Sample Collected: 19.07.2016

No	parameter	Pond atVatchayalasa	PCP open well	MSP Open well	PCP Tail water	
1	pH	7.8	7.9	7.6	7.8	
2	Colour Hazen units	5	5	5	5	
3	Odour	un objectionable	un objection able	un objectionable	un objection able	
4	Total Dissolved solids	525	350mgpl	640mgpl	145	
5	Total Suspended Solids	5	5mgpl	5mgpl	15	
6	Turbidity	1.8NTU	2.0NTU	4.0 NTU	10.2 NTU	
7	Total Hardness as CaCo3	95mgpl	115mgpl	210mgpl	60mgpl	
8	Calcium as CaCo3	60 mgpl	80mgpl	130mgpl	40mgpl	ı
9	Magnesium as CaCo3	35mgpl	35mgpl	80 mgpl	20mgpl	
10	Chlorides Cl-	70mgpl	70mgpl	75mgpl	70mgpl	l
11	Flouride	0.5 mgpl	0.4mgpl	0.4mgpl	0.5 mgpl	
12	Sulphates	30mgpl	28mgpl	30mgpl	20mgpl	l
13	Nitrates	0.5mgpl	0.5mgpl	0.9 mgpl	0.5mgpl	į
14	Phosphates	BDL	BDL	BDL	BDL	ĺ
15	Iron	0.04mgpl	0.03mgpl	0.04mgpl	0.09mgpl	l
16	Lead	BDL	BDL	BDL	BDL	ĺ
	Water table from groundlevel inmtrs	*	2.18	2.96		

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TEST REPORT

Test Report No.TLC/V/Env/TSPL/8/0616

dt04.07.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling: Water samples as per Details given

Date of Sample Collected: 18.06.2016

Parameter	Mogadalapada Open Well water	Parlavanipeta Open Well water	Pedda vatsavalasa Open Well water	Verraguddi Open Well water	Pedda Tonangi Open Well water
pH	8.1	7.8	7.6	7.6	7.4
Colour Hazen units	5	5	5	5	5
Odour	un öbjectionable	un objectionable	un objectionable	un objectionable	un objectionable
Total Dissolved solids	1880mgp1	1710mgpl	1930mgpl	790mgpl	2990mgpl
Total Suspended Solids	5mgpl	5mgpl	6mgpt	5mgpl	6mgpl
Turbidity	3.9 NTU	5.0 NTU	3.3NTU	3.2NTI	5.5NTU
Total Hardness as CaCo3	330 mgpl	185mgpl	540mgpl	180mgpi	510mgpt
Calcium as CaCo3	190mgpl	Homgpl	330mgp1	105mgpl	280mgpl
Magnesium as CaCo3	140mgp1	75mgpl	210 mgpl	75mgpl	230 mgpl
Chlorides Cl-	290mgpl	260mgpl	480mgpl	105mgpl	625mgpl
Flouride	0.6mgpl	0.4mgpl	0.5mgpl	0.4mgpl	0.5mgpl
Sulphates	105mgpl	55mgpl	115mgpl	32mgpl	90mgpl
Nitrates	18.5 mgpl	16.0 mgpl	24.5mgpl	10.2mgpl	29.5mgpl
Phosphates	BDI.	BDL.	BDL	BDL.	BDL.
Iron	0.04mgpt	0.03mgpt	0,05mgpl	0.04mgpl	0.05mgpt
Lend	BDL	BDL.	BDL	BDL.	BDL
Water table from ground level in mtrs	3.21	2.78	3.25	6,49	*



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Test Report No.TLC/V/Env/TSPL/10/00LGT REPORT dt04.07.2016
Description of Test: Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling:

Water samples as per Details given

Date of Sample Collected: 18.06.2016

No	Parameter	Komara vanipeta O. W.water	Chinna yatsayalasa O. W.water	Chinatonangi open well water	Batchuvanipeta open well water
1	pH	7.5	7.4	7.7	7,4
2	Colour Hazen units	5	5	5	5
3	Odour	un objectionable	un objectionable	un objectionable	un objectionable
4	Total Dissolved solids	1690mgpl	805mgpl	970 mgpl	2120 mgpl
5	Total Suspended Solids	5mgpl	5mgpl	5mgpl	5mgpl
6	Turbity	4.2 NTU	3.2 NTU	4.2 NTU	5.8 NTU
7	Total Hardness as CaCo3	410mgpl	510mgpl	160mgpl	740mgpl
8	Calcium as CaCo3	270mgpl	330mgpt	90mgpl	480mgpl
9	Magnesium as CaCo3	140mgpl	180 mgpl	70mgpl	260mgpl
10	Chlorides CI-	290mgpl	120mgpl	190mgpl	810mgpl
11	Flouride	0.3mgpl	0.4mgpl	0.4mgpl	0.4mgpl
12	Sulphates	90mgpi	90mgpl	32mgpl	185mgpl
13	Nitrates	40.5 mgpl	18.0 mgpl	12.0mgpl	11.0 mgpl
14	Phosphates	BDL	BDL	BDL.	BDL.
15	Iron	0.06mgpl	0.04gpl	0.04mgpl	0.06mgpl
16	Lead	BDL	BDL	BDL	BDL.
	Water table from ground level in mtrs	4.3	8.65	2.63	4.13

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TEST REPORT

Test Report No.TLC/V/Env/TSPL/9/0616

dt04.07.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling: Water samples as per Details given

Date of Sample Collected: 18.06.2016

No	parameter	Pond atVatchavala sa/	PCP open well	MSP Open well	PCP Tail water
1	рH	8.25	7.8	7.6	7.8
2	Colour Hazen units	5	5	5	5
3	Odour	un objectionable	un objection able	un objectionable	un objection able
4	Total Dissolved solids	550	390mgpl	690mgpl	155
5	Total Suspended Solids	5	5mgpt	5mgpl	16
6	Turbidity	L4 NTU	2.6NTU	4.4 NTU	9.8NTU
7	Total Hardness as CaCo3	90mgp1	120mgpl	220mgpl	65mgpl
8	Calcium as CaCo3	60 mgpl	80mgpl	130mgpl	40mgpl
9	Magnesium as CaCo3	300mgpl	40mgpl	90 mgpi	25mgpl
10	Chlorides Cl-	70mgpl	62mgpl	90mgpl	80mgpl
H	Flouride	0.5 mgpl	0.4mgpt	0.4mgpl	0.5 mgpl
12	Sulphates	35mgpl	30mgpl	32mgpl	22mgpl
13	Nitrates	0.5mgpl	0.5mgpl	0.9 mgpl	0.5mgpl
14	Phosphates	BDL	BDL.	BDL.	BDL
15	Iron	0.05mgpl	0.04 mgpl	0.04mgpl	
16	Lead	BDL	BDL	BD1	0.09mgpl BDL
	Water table from groundlevel inmtrs		2.14	2.92	5171.

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Test Report No.TLC/V/Env/TSPL/8/0516 TEST REPORT dt06.06.2016

Description of Test:

Phisico-chemical Analysis of Water Trimex Sands Pvt. Ltd.

Name of the client: Location of sampling:

Water samples as per Details given

No	Parameter	Mogadalapadu. Open Well water	Parlavanipeta Open Well water	Pedda vatsavalasa Open Well water	Yerraguddi Open Well water
1	pH	7.6	8.1	8.1	7.8
2	Colour Hazen units	5	5	5	5
3	Odour	un objectionable	un objectionable	un objectionable	un objectionable
4	Total Dissolved solids	740mgpl	1580mgpl	1090mgpl	745mgpl
5	Total Suspended Solids	5mgpl	5mgpl	8mgpl	5mgpl
6	Turbidity	4.4NTU	4.2 NTU	5.2NTU	3.9NTU
7	Total Hardness as CaCo3	420 mgpl	180mgpl	480mgpl	180mgpl
8	Calcium as CaCo3	240mgpl	110mgpl	270mgpl	105mgpl
9	Magnesium as CaCo3	180mgpl	70mgpl	210 mgpl	75mgpl
10	Chlorides Cl-	180mgpl	330mgpl	370mgpl	80mgpl
11	Flouride	0.4mgpl	0.4mgpl	0.5mgpl	0.4mgpf
12	Sulphates	45mgpl	40mgpl	85mgpl	35mgpl
13	Nitrates	12.2 mgpl	15.0 mgpl	14.5mgpl	8.5mgpl
14	Phosphates	BDL	BDL	BDL	BDL
15	Iron	0.04mgpl	0.03mgpl	0.05mgpl	0.04mgpl
16	Lead	BDL	BDL	BDL	BDL
	Water table from ground level in mtrs	3.21	270	3.2	6,40

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Test Report No.TLC/V/Env/TSPL/10/0516 TREPORT dt06.06.2016
Description of Test: Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling:

Water samples as per Details given

Date of Sample Collected: 09.05.2016

No	Parameter	Komara vanipeta O. W.water	Chinna vatsavalasa O. W.water	Chinatonangi open well water	Batchuvanipeta open well water
1	pН	7.5	7.7	7,6	7.8
2	Colour Hazen units	5	5	5	5
3	Odour	un objectionable	un objectionable	un objectionable	un objectionable
4	Total Dissolved solids	1480mgpl	760mgpl	705	1850
5	Total Suspended Solids	5mgpl	5mgpl	5mgpl	5mgpl
6	Turbity	5.8 NTU	3.3 NTU	3.7 NTU	6.6 NTU
7	Total Hardness as CaCo3	525mgpl	340mgpl	120mgpl	840mgpl
8	Calcium as CaCo3	315mgpl	250mgpl	80mgpl	520mgpl
9	Magnesium as CaCo3	210mgpl	90 mgpl	40mgpl	320mgpl
10	Chlorides Cl-	430mgpl	120mgpl	130mgpl	1140mgp1
11	Flouride	0.3mgpl	0.4mgpl	0.4mgpl	0.4mgpl
12	Sulphates	125mgpl	55mgpl	40mgpl	325mgpl
13	Nitrates	50.2 mgpt	14.4 mgpl	14.2mgpl	9.5 mgpl
14	Phosphates	BDL	BDL	BDI.	BDL
15	Iron	0.06mgpl	0.04gpl	0.04mgpl	0.06mgpl
16	Lead	BDL.	BDL	BDL	BDL
	Water table from ground level in mtrs	4.32	8.65	2.65	3.98

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Test Report No.TLC/V/Env/TSPL/9/0516 TEST REPORT dt06.06.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling: Water samples as per Details given

Date of Sample Collected: 09.05.2016

No	parameter	Pond atVatchavala su/	PCP open well	MSP Open well	PCP Tail water
1	рН	7.2	8.1	7.6	8.8
2	Colour Hazen units	5	5	5	5
3	Odour	un objectionable	un objection able	un objectionable	un objection able
4	Total Dissolved solids	485	355mgpl	680mgpl	145
5	Total Suspended Solids	5	5mgpl	5mgpl	20
6	Turbidity	1.2 NTU	2.9NTU	5.5 NTU	19.0NTU
7	Total Hardness as CaCo3	230mgpl	110mgpl	305mgpl	85mgpl
8	Calcium as CaCo3	180 mgpl	80mgpl	210mgpl	50 mgpl
9	Magnesium as CaCo3	50mgpl	30mgpt	95 mgpl	35mgpl
10	Chlorides Cl-	45mgpl	40mgpl	70mgpl	40mgpl
11	Flouride	0.5 mgpl	0.4mgpl	0.4mgpl	0.6 mgpl
12	Sulphates	70mgpl	35mgpl	30mgpl	18mgpl
13	Nitrates	0.4mgpl	0.5mgpl	0.5 mgpl	0.5mgpl
14	Phosphates	BDL	BDL.	BDL.	BDL
15	Iron	0.05mgpl	0.04 mgpl	0.04mgpl	0.08mgpl
16	Lead	BDL	BDI.	BDL.	BDL
	Water table from groundlevel inmtrs	-	1-17	2.89	

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Test Report No.TLC/V/Env/TSPL/6/0416 REPORTING.05.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling:

Water samples as per Details given

Date of Sample Collected: 11.04.2016

No	Parameter	Mogadalapadu Open Well water	Parlavanipeta Open Well water	Pedda vatsavalasa Open Well water	Yerraguddi Open Well water
1	pH	7.8	8.1	8.1	7.9
2	Colour Hazen units	5	5	5	5
3	Odour	un objectionable	un objectionable	un objectionable	un objectionable
4	Total Dissolved solids	790mgpl	1790mgpl	1250mgpl	790mgpl
5	Total Suspended Solids	5mgpl	5mgpl	8mgpl	5mgpl
6	Turbidity	4.0NTU	3.5NTU	7.2NTU	3.2NTU
7	Total Hardness as CaCo3	430 mgpl	180mgpl	505mgpl	170mgpt
8	Calcium as CaCo3	240mgpl	110mgpl	290mgpl	95mgpl
9	Magnesium as CaCo3	190mgpl	70mgpt	215 mgpl	75mgpl
10	Chlorides Cl-	190mgpl	340mgpl	380mgpl	95mgpl
11	Flouride	0.4mgpl	0.4mgpl	0.5mgpl	0.4mgpl
12	Sulphates	45mgpl	42mgpl	90mgpl	30mgpl
13	Nitrates	14.2 mgpl	16.8 mgpl	18.5mgpl	9.5mgpl
14	Phosphates	BDL	BDL	BDL	BDL
15	lron	0.04mgpl	0.03mgpl	0.06mgpl	0.04mgpl
16	Lead	BDL	BDL	BDL	BDL
	Water table from ground level in mtrs	3.2	275	3.2	6.46



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Test Report No.TLC/V/Env/TSPL/8/0416 dt02.05.2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling:

Water samples as per Details given

No	Parameter	Komara vanipeta O. W.water	Chima vatsavalasa O. W.water	Chinatonangi open well water	Batchuvanipeta open well water	
1	рН	7.5	7.7	7,6	7,8	
2	Colour Hazen units	5	5	5	5	
3	Odour	un objectionable	un objectionable	un objectionable	un objectionable	
4	Total Dissolved solids	1530mgpl	740mgp!	715	1870	
5	Total Suspended Solids	5mgpl	5mgpl	5mgpl	5mgpl	
6	Turbity	4.5NTU	2.8NTU	2.5 NTU	7.0NTU	
7	Total Hardness as CaCo3	545mgpl	350mgp1	125mgpl	870mgp1	
8	Calcium as CaCo3	335mgpl	250mgpl	80mgpl	540mgpl	
9	Magnesium as CaCo3	210mgpl	100 mgpl	45mgpl	330mgpl	
10	Chlorides Cl-	445mgpl	135mgpl	140mgpt	1205mgpl	
11	Flouride	0.3mgpl	0.4mgpt	0.4mgpl	0.4mgpl	
12	Sulphates	135mgpl	60mgpl	45mgpl	350mgpl	
13	Nitrates	49.8 mgpl	12.8mgpl	11.9mgpl	6.6 mgpl	
14.	Phosphates	BDL	BDL	BDL	BDL	
15	Iron	0.06mgpl	0.06gpl	0.05mgpl	0.05mgpl	
16	Lead	BDL	BDL.	BDL	BDL	
	Water table from ground level in mtrs	4.32	8.69	2.65	4.10	

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TEST REPORT

Test Report No.TLC/V/Env/TSPL/7/0416

dt02.05,2016

Description of Test:

Phisico-chemical Analysis of Water

Name of the client:

Trimex Sands Pvt. Ltd.

Location of sampling:

Water samples as per Details given

Date of Sample Collected: 11.04.2016

No	parameter	Pond atVatchavalasa/	PCP open well	MSP Open well
1	pH	7.2	8.1	7.7
2	Colour Hazen units	5	5	5
3	Odour	un objectionable	un objectionable	un objectionable
4	Total Dissolved solids	470	340mgpl	720mgpl
5	Total Suspended Solids	5	5mgpl	5mgpl
6	Turbidity	1.6 NTU	3.9NTU	4.8NTU
7	Total Hardness as CaCo3	240mgpl	120mgpl	310mgpl
8	Calcium as CaCo3	180 mgpl	80mgpl	210mgpl
9	Magnesium as CaCo3	60mgpl	40mgpl	100 mgpl
1.0	Chlorides CI-	40mgpl	45mgpl	75mgpl
11	Flouride	0.5 mgpl	0.4mgpl	0.4mgpl
12	Sulphates	82mgpl	30mgpl	32mgpl
1.3	Nitrates	0.4mgpl	0.5mgpl	0.8 mgpl
14	Phosphates	BDL	BDL	BDL
15	Iron	0.05mgp1	0.04 mgpl	0.04mgpl
16	Lend	BDL	BDL	BDL
	Water table from groundlevel inmtrs	-	2.1	2.89

Piezometer Monitoring for the month of Apl-2016

Location	Date	Time	Temp (C)	рН	EC (uS/cm @25C)	TDS (mg/L)	SAL (PSU)	Water Table+MSL
PM-1	19-Apr-16	9:30:16	28.7	7.8	604	393	0.2	0.138
PM-2	19-Apr-16	9:50:04	29.1	8.4	266	173	0.09	5.404
PM-3	19-Apr-16	10:15:07	29.4	7.69	1012	658	0.56	5.266
PM-4	19-Apr-16	10:20:14	29.7	7.54	505	328	0.13	3.89
PM-5	19-Apr-16	12:19:57	29.9	7.18	345	224	0.11	3.137
PM-6	19-Apr-16	11:15:32	29.4	7.21	1321	858	0.63	0.43
PM-7	19-Apr-16	12:03:40	29.9	7.30	1164	756	0.55	3.35

Piezometer Monitoring for the month of May-2016

Location	Date	Time	Temp (C)	рН	EC (uS/cm @25C)	TDS (mg/L)	SAL (PSU)	Water Table+MSL
PM-1	27-May-16	10:29:16	30.2	8.25	684	444	0.29	0.188
PM-2	27-May-16	11:03:13	32.1	8.2	166	107	0.05	4.494
PM-3	27-May-16	11:13:15	32.8	8.3	334	217	0.11	5.266
PM-4	27-May-16	15:13:11	33.6	8.21	746	484	0.31	3.34
PM-5	27-May-16	15:33:01	31.7	7.48	323	209	0.1	3.437
PM-6	27-May-16	15:55:43	29.9	7.58	1397	908	0.66	0.35
PM-7	27-May-16	15:43:05	30.9	7.46	727	472	0.3	2.8

Piezometer Monitoring for the month of June-2016

					*			_
Location	Date	Time	Temp (C)	рН	EC (uS/cm @25C)	TDS (mg/L)	SAL (PSU)	Water Table+MSL
PM-1	29-Jun-16	11:21:57	31.1	7.83	697	453	0.29	0.228
PM-2	29-Jun-16	13:52:49	30.7	7.24	236	153	0.07	4.194
PM-3	29-Jun-16	14:36:31	31.2	8.26	312	202	0.1	5.266
PM-4	29-Jun-16	15:35:22	29.7	8.03	801	520	0.34	3.44
PM-5	29-Jun-16	15:52:23	29.7	7.78	324	210	0.1	3.637
PM-6	29-Jun-16	16:44:09	29.4	7.3	1260	819	0.6	0.32
PM-7	29-Jun-16	16:25:36	29.8	7.25	287	186	0.09	3.25

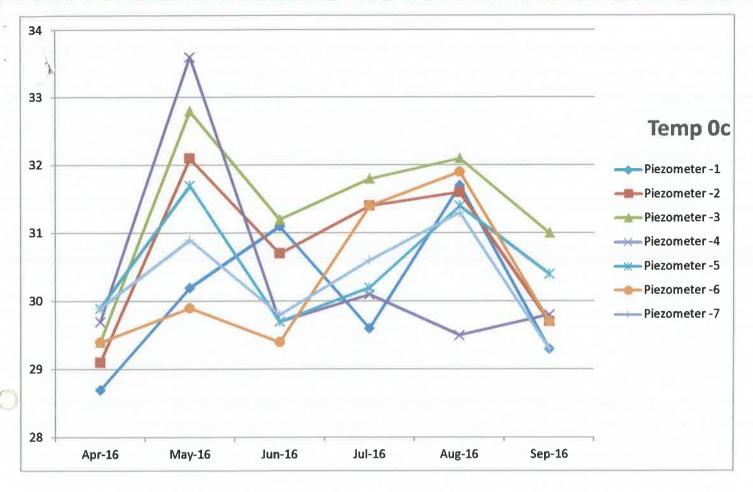
Location	Date	Time	Temp (C)	рН	EC (uS/cm @25C)	TDS (mg/L)	SAL (PSU)	Water Table+MSL
PM-1	28-Jul-16	11:39:35	29.6	7.58	602	391	0.25	0.58
PM-2	28-Jul-16	11:56:28	31.4	7.63	226	146	0.07	4.894
PM-3	28-Jul-16	12:13:39	31.8	8.11	313	203	0.1	5.906
PM-4	28-Jul-16	14:40:25	30.1	8.01	785	458	0.32	3.545
PM-5	29-Jul-16	15:21:41	30.2	7.31	310	201	0.1	4.207
PM-6	29-Jul-16	15:30:52	31.4	7.34	244	158	0.08	1.55
PM-7	29-Jul-16	16:39:52	30.6	7.74	774	503	0.32	3.93

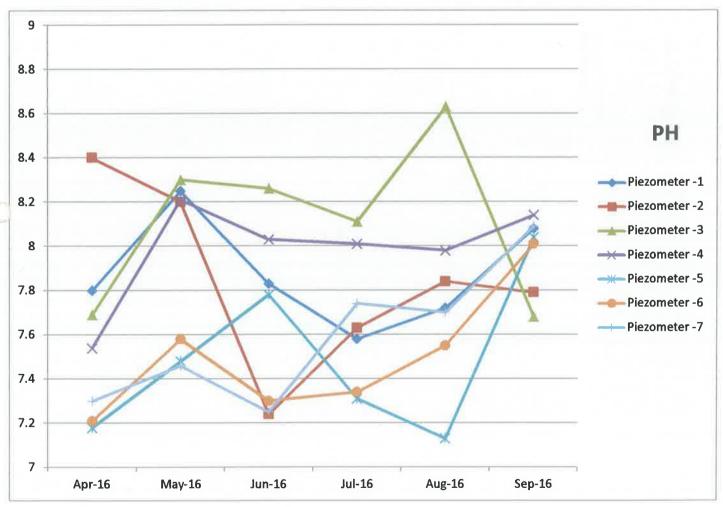
Piezometer Monitoring for the month of August-2016

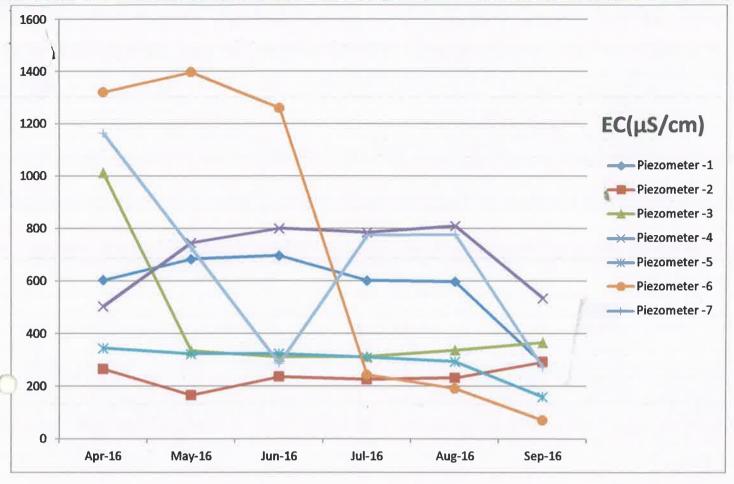
Location	Date	Time	Temp (C)	рН	EC (uS/cm @25C)	TDS (mg/L)	SAL (PSU)	Water Table+MSL
PM-1	18-Aug-16	10:56:15	31.7	7.72	598	388	0.25	0.83
PM-2	18-Aug-16	11:56:28	31.6	7.84	232	150	0.07	5.094
PM-3	18-Aug-16	12:39:35	32.1	8.63	337	219	0.11	5.966
PM-4	18-Aug-16	13:39:52	29.5	7.98	810	500	0.29	3.25
PM-5	18-Aug-16	16:21:41	31.4	7.13	294	191	0.09	4.157
PM-6	18-Aug-16	15:30:52	31.9	7.55	192	124	0.06	1.62
PM-7	18-Aug-16	16:39:52	31.3	7.7	777	505	0.33	4.03

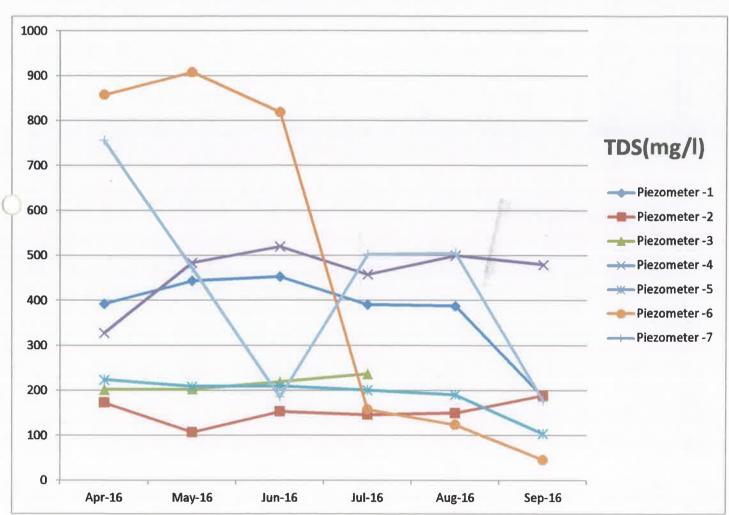
<u>Piezometer Monitoring for the month of September-2016</u>

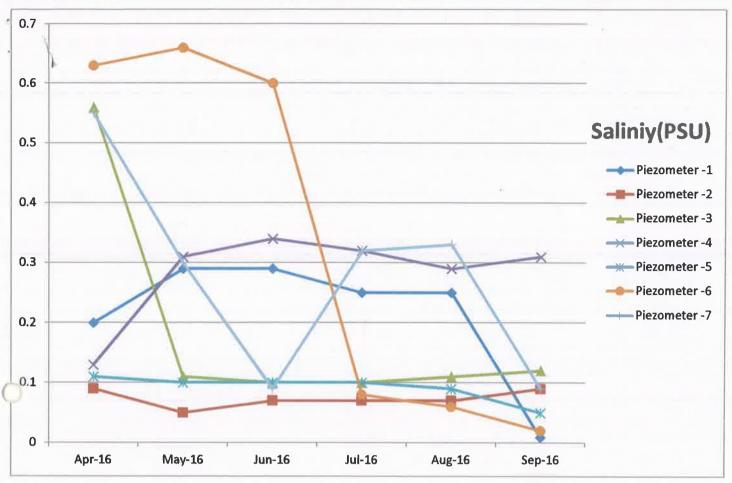
Location	Date	Time	Temp (C)	рН	EC (uS/cm @25C)	TDS (mg/L)	SAL (PSU)	Water Table+MSL
PM-1	28-Sep-16	10:29:16	29.3	8.08	287	186	0.09	1.18
PM-2	28-Sep-16	11:03:13	29.7	7.79	292	189	0.09	5.294
PM-3	28-Sep-16	11:13:15	31	7.68	366	237	0.12	6.166
PM-4	28-Sep-16	15:13:11	29.8	8.14	535	480	0.31	3.111
PM-5	28-Sep-16	15:33:01	30.4	8.04	160	104	0.05	4.347
PM-6	28-Sep-16	15:55:43	29.7	8.01	71	46	0.02	1.67
PM-7	28-Sep-16	15:43:05	29.3	8.09	273	177	0.09	4.33

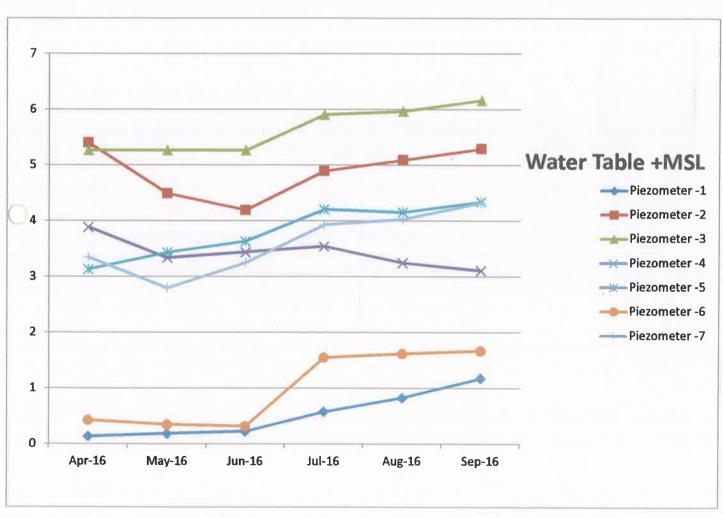














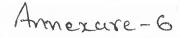
Plantation Details

YEAR	TYPE OF SPECIES	No of Plants			
		Plan	Actual		
Afforestation in F	Refilled areas :				
2016-2017 (up to Sep, 2016)	Casuarina, Acacia, Eucalyptus, Cashew	31815	85,751		
Green Belt:					
2016-2017 (up to Sep, 2016)	Eucalyptus, Acacia, Badam, Neem etc	2550	3800		

Afforestation in Back filled areas









TSPL/ENV/MOEF/2016-17/ \0\(\sigma\)

Srikakulam, 24-10-2016.

To The Regional Office (South Eastern Zone) Ministry of Environment, Forests and Climate Change 1st & 2nd floor, HEPC building, No.34 Cathedral Garden Road, Nungambakkam Chennai - 600034

Dear Sir,

Sub: Observation wells water quality data report - Submission - Reg.

Ref: Environmental Clearance vide No.J-11015/175/2011-IA.II (M) dated 17-04-2015 & CRZ Clearance vide F.No.11-67/2013-IA-III dated 28-04-2015.

As per the reference cited above, please find herewith enclosed quarterly report of observation wells & Piezometer monitoring for the period of Jul to Sep, 2016.

Thanking You,

Yours faithfully,

Vice President (Mines)

CC:

Regional Director, CGWB, Hyderabad-500068 Central Pollution Control Board, Bengalure

AP Pollution Control Board, Hyderabad AP Pollution Control Board, Vizianagaram

Trimex Sands Pvt Ltd: Vatchavalasa (V), Gara Mandal, Srikakulam District 532 404, Andhra Pradesh, India. Tel: +91 8942 283755, Fax: +91 8942 2837 8, email: info@trimexsands.com

Hyderabad Office:

2nd Floor, Sri Durga Towers, Plot No. 201, Road No. 10, Banjara Hills, Hyderabad 500 034, Andhra Pradesh India Tel: +91 40 2338 4380 / 3371 3600 Fax: +91 40 2338 4068

Trimex Fowers, No.1 Subbaraya Avenue, C.P. Ramaswamy Road, Alwarpet, Chennai 600 016 Eamilnoclu Iridia. Tel: +91 44 2498 8822 / 8813 Fax: +91 44 2498 6047 web: www.trimexsands.com

CIN:

Reg. Office:

U14299TN2004PTC071437



TSPL/ENV/MoEF/2016-17/1004

Srikakulam, 12-07-2016

The Regional Office (South Eastern Zone)

Ministry of Environment, Forests and Climate Change

1st & 2nd floor, HEPC building, No.34

Cathedral Garden Road, Nungambakkam

Chennai - 600034

Dear Sir,

Sub: Observation wells water quality data report reg.

Ref: Environmental Clearance vide No.J-11015/175/2011-IA.II (M) dated 17-04-2015 & CRZ Clearance vide F.No.11-67/2013-IA-III dated 28-04-2015.

As per the reference cited above, please find herewith enclosed quarterly report of cobservation wells & Piezometer monitoring for the period of Apr-2016 to Jun-2016.

Thanking You,

Yours faithfully,

Vice President

Mining

CC:
Regional Director, CGWB, Hyderabad-500068
Central Pollution Control Board, Bengalure
AP Pollution Control Board, Hyderabad
AP Pollution Control Board, Vizianagaram

Mosk product



TSPL/ENV/MoEF/2016-17/1003

Srikakulam, 12-07-2016

To
The Regional Office (South Eastern Zone)
Ministry of Environment, Forests and Climate Change
1st & 2nd floor, HEPC building, No.34
Cathedral Garden Road, Nungambakkam
Chennai - 600034

"Dear Sir,

Sub: Soil analysis report - reg.

Ref: CRZ Clearance vide F.No.11-67/2013-IA-III dated 28-04-2015.

As per the reference cited above, please find herewith enclosed Soil analysis report for the period of Apr-2016 to Jun-2016.

Thanking You,

Yours Faithfully,

Vice President Mining

CC:

AP Pollution Control Board, Hyderabad AP Pollution Control Board, Vizianagaram (NO S. PARhymh)

0/0.

TRIMEX

TSPL/ENV/MOEF/2016-17/1096

Srikakulam, 24-10-2016.

To The Regional Office (South Eastern Zone) Ministry of Environment, Forests and Climate Change 1st & 2nd floor, HEPC building, No.34 Cathedral Garden Road, Nungambakkam Chennai -- 600034.

Dear Sir,

Sub: Soil analysis report - Submission - Reg.

Ref: CRZ Clearance vide F.No.11-67/2013-IA-III dated 28-04-2015.

As per the reference cited above, please find herewith enclosed Soil analysis report for the period of Jul to Sep, 2016.

Thanking You,

Yours Faithfully,

Vice President (Mines)

CC:

AP Pollution Control Board, Hyderabad AP Pollution Control Board, Vizianagaram

Trimex Sands Pvt Ltd: Vatchavalasa (V). Gara Mandal, Sukawalam District 532 404, Andhra Pradesh, India. Tel: 191 8942 283755, Fax. 191 8942 283758 email: info@timessands.com

Hyderabad Office:

and Floor, 5th Durga, Towers, Plot No. 201, Road No. 10, Banjara Hills, Hyderabad S00 014, And Ina Pradesh, Hidia Tel: 191-40-2338-4380 / 3371-3600 Fax +91-40-2338-4068

Reg. Office:

Frimex Fowers, No.1 Subbaraya Avenue, C.P. Ramaswamy Road, Alwarpet, Chennai 600 (2): 8 Tamilnadu, India. Tel: 491 44 2498 8822 / 8813 Fax: +91 44 2498 6047 web: www.trimexsands.com

CIN:

U14299TN2004PTC071437

Annexure-7

Water Sprinkling on Haul Roads





Labs and Consultants

1163

Registered Office:

B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038. Ph.: (O) 040-23748555 / 23748616, Fax: 040-23748666, Email: teamlabs@gmail.com

ISO 9001 : 2008, ISO 14001 : 2004 and OHSAS 18001 : 2007 Certified Organization Laboratory Recognised by Ministry Environment, Forests and Climate Change, Gol, New Delhi

WEST REPORT

Test Report No.TLC/V/Env/TSPL/11/0916

dt10.10.2016

Description of Test:

Analysis of Heavy metal in TCLP(Toxicity Characteristic Leaching

Procedure) extract

Name of the client:

Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Date of Collection:

21.09.2016

Sample Description;

Raw materials & Taili8ng samples

Test Method:

USEPA Test Method-1311

SNo.	PARAMETER	UNIT	RESULT Extraction with Fluid At pH 4.9	
			Raw material(ROM)	Tailings
1	Total Chromium	Mg/l	0.13	0.12
2	Cr ⁶⁺	Mg/l	NIL	NIL
3	Zinc	Mg/l	0.11	0.14
4	Cadmium	Mg/I	NIL	NIL
5	Lead	Mg/I	0.12	0.12
6	Copper	Mg/I	NIL	NIL
7	Iron	Mg/I	0.19	0.16
8	Cobalt	Mg/l	NIL	NIL
9	Nickel	Mg/l	NIL	NIL
10	Manganese	Mg/I	0.29	0.25
11	Arsenic	Mg/I	NIL	NIL
12	Mercury	Mg/l	NIL	NIL

For TEAM Labs and Consultants

COMPLIANCE TO THE PUBLIC HEARING OF SRIKURMAM MINERAL SANDS MINE OF TRIMEX SANDS PVT. LTD CONDUCTED ON 29.12.2012

S.No	Suggestions/Objections	Response from Project Proponent	Action Plan Along with	Complianc
1	Cui mala aviva la t		Financial Budget	
1	Sri TalapaguVenkata			Complied
	Ramana, SARD, NGO,			
	Kotabommali		Action Plan	
		Dr. N.L.Rao, Head	Vocational training to	
	He welcomed the project and	(Liaison), M/s Trimex	youth. Employees will be	
	stated that they are not	Sands Pvt. Ltd	provided with higher	
	against industrialization.	expressed his	education facilities which	
	There was migration of	thankfulness and	will enhance their skills.	
	people in the area to	promised to continue		
	Rangoon, Gujarat places for	the CSR activities with	Budget: MinimumRs.2.0	
	employment. He opined that,	the same commitment	Crores every year towards	
	M/s Trimex industries has	in future also. He	CSR activities.	
	implement well as part of CSR	promised that they will		
	activities. He requested the	provide jobs for the	Timeframe: Every year	
	management to provide	local people.	Timen ame: Every year	
	employment to skilled and	, and proof		
	unskilled people in the			
	nearby area			
2	Sri BaratamNageswaraRao,			Complied
	Market Committee			Compiled
	Chairman, Srikurmam		Pudget W. L. D. C.	
		Du N I Day II I	Budget: MinimumRs.2.0	
	He welcomed the project and	Dr. N. L. Rao, Head	Crores every year towards	
	stated that 7 to 8 Panchayats	(Liaison), M/s Trimex	CSR activities.	
	in the area are getting	Sands Pvt. Ltd		
	benefited due to M/s Trimex	expressed his	Timeframe: Every year	
	Industry. The industry	thankfulness and		
	providing livelihood to labor	promised to continue		
	and Galacian	with the same		
	and fisherman community	commitment in future		
		also.		
3	Smt. Lopinti Lakshmi,		Budget: MinimumRs.2.0	Complied

	Chintavalasa (v)		Crores every year toward	1 1
		Dr. N. L. Rao, He	ad CSR activities.	as
	She expressed her happine	ss (Liaison), M/s Trim		
	and at a	0 61		
	management is providin		anie: Every year	
	health facilities and treatin	a thoules I	is	
	ailments to the local villagers	dii		
	She stated that, the	- continu	e	
	management has provided	, sain	1	
	medical facilities to 30 people		e	
	of her village and also			
	developing the schools in the			
	area as a part of CSR			
_	activities.			
1	Sri RanaSrinivas, MPTC,		Action Plan	
	Chintavalasa (v)	Dr. N. L. Rao, Head	(m)	Complie
		(Liaison), M/s Trimex	nas	
	He-welcomed the project and	Canda	THE I	
	stated that the management	Over the Land	development of road and	
	has provided employment,	expressed his	other infrastructure	
	laying of roads and other	thankfulness and	facilities will also be taken	
	facilities in al	promised to continue	up in their proposed CSR	
	villages	with the same	activities	
1	mages.	commitment in future		
+		also.		
- 1	Sri TelukutiManohar,		Action D	
1	Pedavatsavalasa (v)		Action Plan C	omplied
			The management has	
1		or. N. L. Rao, Head a	ssured that the impact on	
ii	nformed that have	Liaison), M/s Trimex th	ne environment will be	
p	laces hofore	ands Pvt. Ltd m	laintained at minimum by	
e	Stablishment of M.	pressed his ta	king all possible care and	
sa	ands and at	ankiumess and m	itigation measures.	
CO	\max	omised to continue		
	provided with	th at	dget: Minimum Pa 2 0	
G11	ormed that there are no also		ores every year towards	

	pollution problems in the			
	industry premises during its		Timeframe: Every year	Į.
	operations. There is no sea			
	water intrusion in this area;			
	the quality is good at the well	1		
	provided in their village. He	J)		
	also informed that the			f
	management has provided	III		
	temple, medical facilities to		`	
	the local people as a part of			
	CSR activities.			
6	Sri TaniVenkataApparao,		Action Plan	Complied
	PedaTulugu (v)	Dr. N. L. Rao, Head		
		(Liaison), M/s Trimex		
	He welcomed that project and	Sands Pvt. Ltd	The state of the s	
	stated that there is no	expressed his)	1
	problem due to existing	thankfulness and	taking all possible care and	
	operations of the industry	promised to continue	mitigation measures.	
	and provided employment to	with the same	Budget: MinimumRs.2.0	
	the local people.	commitment in future	Crores every year towards	
		also.	CSR activities.	
			Timeframe: Every year	1)
7	Sri M. AnandaRao,		Action Plan	Complied
	Fisherman Community,		The management has	
	Komaravanipeta (v)		assured that needs of their	
		Dr. N. L. Rao, Head	villages will also be taken	
	He expressed his grievance	(Liaison), M/s Trimex	in their proposed CSR	
	and stated that due to mining	Sands Pvt. Ltd informed	activities. Budget:	
	activity tsunami may come	that Tsunami would not	MinimumRs.2.0 Crores	
	and this may affect their	arise due to sand	every year towards CSR	
	village first. He informed that	mining and this	activities.	
	the management has not	industry is		
	provided any employment to	environment friendly	Timeframe: Every year	
	their community. He stated		-, 0, 3, 5, 6, 1	

Ó

	1
that, the industry is carrying that the management	
out mining activity in 10 would look in a	
deres of land in Tonangi employment of	
village and has not provided in Tonangi village	
any facilities under CSR their expansion and	
activity. Finally, he requested	
the management to provide	
pension to the old people,	
drinking water and medical	
facilities to the nearby	
villagers. He opined that,	
most of the people migrating	
to Gujarat and other	
to Gujarat and other areas for	
employment due to lack of fish catch.	
of T. Santhakao, Tulugu (v)	
Action Plan	Complied.
He stated that, M/s Trimey D management has	1
Industry has done well in the Grand Ado, Head assured that needs of their	
area by implementing so a large villages will also be taken	
many activities under gon	
opined that his activities.	
establishment of M. T. thankfulness and MinimumRs 20	
/	
o wards CSR	
Is reduced. I come to	
the expansion lates	
of the proposed project. Timeframe: Every year	
KurumanaAppaRao	
Chintavalasa (v) Action Plan	
Tile management	plied.
He expressed high the N. L. Rao, Head assured that not let the	
and stated that M/o Tri	
Industrial Sands Pyt Ltd in the	
l employment his lactivities	
and requested the promise	
promised that the every year towards CSR	

12	Koyyana,	The suggestions		Complied.
12	Sri D. Simhadri, Tulugu (v) He requested the management to provide further employment in the expansion of the proposed project. Sri Koyyana,	The management has already provided employment for 1200 people and promised to provide more employment for the proposed project.	Action Plan The management has assured that needs of their villages will also be taken in their proposed CSR activities. Budget: MinimumRs.2.0 Crores every year towards CSR activities.	Complied.
11	He requested the management to provide 50 cents land to Ashramam and drinking water facility to their village. Sri KoyyanaJagadeesh, Koyyanapeta (v) He expressed his grievance and stated that the nearby farmers have lost their crops and there are no developmental activities due to the operation of the industry. He requested to provide agricultural instruments to farmers.	The management would consider the suggestion given. The management after understanding the grievance said by the farmers has suggested that the necessary training in technical aspects will be provided to the local farmers and necessary guidance will also be provided by the local agricultural officers.	Action Plan The management has assured that needs of their	
10	management to provide slab to Government school in their village. Sri KomaraKorlayya, Komaravanipeta (v)	management would consider the suggestion given.	activities. Timeframe: Every year	Not

Γ	Satyanarayana, Tulug (v) provided by the
	He requested the management to develop local panchayat and provide employment to women also in the industry. The dot by the local panchayat has been accepted and it is committed to provide local employment to woman folk of the area,
1	Vatsavalasa (v) Dr. N. L. Rao, Head (Liaison), M/s Trimex Sands Pvt. Ltd expressed his thankfulness and stated for their agricultural crops. He requested the management to take precautionary measures for control of pollution problems and to develop their area as part of CSR activities. Dr. N. L. Rao, Head (Liaison), M/s Trimex Sands Pvt. Ltd expressed his thankfulness and stated that the management will take all the precautionary in their proposed CSR activities. Action Plan Adequate protective measures will be taken up to avoid any pollution from the proposed activities. The management has assured that needs of their villages will also be taken in their proposed CSR activities. MinimumRs.2.0 Crores every year towards CSR activities.
Han was had filling red poll the	Sri. G. Vijay Reddy, READS, The management has suggested that a comprehensive hydrogeological study has been carried out by atter intrusion. Management of the mined out area to uce groundwater use of 1, 800 KL of water day from Vamsadhara Total capital cost and annual recurring cost towards pollution control measures/ monitoring, occupational health & safety, reclamation, green belt development etc would be Rs1064 lakhs and Rs1616 lakhs respectively.

		×		
	River may cause water	drawn from a point at		
	scarcity in the surrounding	Vamsadara river, where		
	areas for agricultural and	no water drawal for		
	drinking water purposes. He	irrigation is existing		
	requested the management to	downstream.		
	store rainwater and the	Apart from that		
	stored water may use for	rainwater harvesting		
	industrial purpose. He	structures will also be		
	suggested developing tree	developed in the		
	plantation on both sides of	project area and		
	the roads to reduce air	awareness creation will		
	pollution. He also suggested	also be carried out in		
	providing separate fund to	nearby villages to		
	workers who are working in	augment and catch the		
	their factory for emergency	rainwater for future		
	use.	use.		
16	Sri KundiSuuryanarayana,	The management	Total capital cost and	Complied.
	Perlavanipeta (v), Ex-	informed that adequate	annual recurring cost	1
	sarpanch	measures will be	towards pollution control	
		adopted to minimize		
	He stated that the fisherman	the impacts of mining	,	
	would be affected due to sand	operation on fishing		
	mining operations and	activity.	belt development etc	
	further deepening of mining		would be Rs1064 lakhs and	
	activity up to 4-5 m would		Rs1616 lakhs respectively.	
			KS1010 lakiis respectively.	
45	community.	m		
17	Sri BandiRamu,	The management	The management has	Complied.
	Mugadalpadu (v)	informed that all the	assured that need based	
	He opined that the industry is	precautionary	CSR activities will be	
	implementing the CSR	measures for pollution	continued by spending	
	activities in the nearby	problems will be taken	about Rs.2.0 Crores/year.	
	villages due to pollution	and will develop their	Total capital cost and	
	problems from the industry	area as a part of CSR	annual recurring cost	
	operations. He expressed that	activity. A	towards pollution control	

>

the mining activity.	1
the mining activity beyond 4 m, may cause pollution and other problems for the fishermen community. He also opined that, deeper mining activity may cause opined that, though there are skilled persons available in the area, the management is not providing employment to them. He expressed that, the old people in the area suffering from joint pains and other ailments. He also felt that due to mining activity, the fisherman in this area is losing their livelihood. 18 Sri GunduRaghuram, Ex. MPP, Ampolu (v) 18 Sri GunduRaghuram, Ex. He stated that the industry has put its effort in solving the difficulties of people in the nearby areas. He requested to provide further employment in expansion project also. 19 Sri M. Krishna Murthv. Dr. M. L. Rao, Head (Liaison), M/s Trimex Sands Pvt. Ltd coxpressed his thankfulness and stated that the management will take all possible ways to improve employment and will develop their area as a part of CSR activity.	olied.
He stated that the industry has put its effort in solving the difficulties of people in the nearby areas. He requested to provide further employment in expansion project also. Sands Pvt. Ltd expressed his continued by spending about Rs.2.0 Crores/year. Will take all possible ways to improve employment and will develop their area as a part of CSR activity. Sands Pvt. Ltd expressed his continued by spending about Rs.2.0 Crores/year.	
He stated that new industries are necessary for that the management Total capital cost and	

	development of Srikakulam	will take all the	annual recurring cost	
	district. The people in this	precautionary	towards pollution control	
	area are benefited due to	measures for pollution	measures/ monitoring,	
	establishment of M/s Trimex	problems and will	occupational health &	
	Industry and the management	develop their area as a	safety, reclamation, green	
	has provided infrastructure	part of CSR activity.	belt development etc	
	facilities to fishermen like		would be Rs1064 lakhs and	
	construction of temple, school		Rs1616 lakhs respectively.	
	and hospital under CSR			
	activities. He requested the			
	management, that they			
	should clear apprehensions of			
	the people with regard to the			
	mining activity and other			
	problems. He finally			
	requested to develop their			
	villages in all aspects.	-		
2		Dr. N. L. Rao, Head	The management has	0 11
-	Srikurmam (v)	(Liaison), M/s Trimex	- State indi	Complie
	Si ikui mam (v)	Sands Pvt. Ltd		
		expressed his	The state of the s	
	She stated that the	thankfulness and stated	continued by spending	
	management has taken up		about Rs.2.0 Crores/year.	
	developmental activities in	that the management		
	the area and the expansion of	will take all means to		
	the project also would	develop their area as a		
	develop further in this area.	part of CSR activity.		
2:	Sri Neeranjanalu	Dr. N. L. Rao, Head	The management has	Complie
		(Liaison), M/s Trimex	assured that need based	
	He stated that the fisherman	Sands Pvt. Ltd stated	CSR activities will be	
	would be affected due to sand	that the management	continued by spending	
	mining operations and	will take all the	about Rs.2.0 Crores/year.	
	further deepening beyond 4	precautionary	Total capital cost and	
	m would further affect	measures for pollution	annual recurring cost	
	in would futther affect			
	fishermen community. He	problems and will	towards pollution control	

7	expressed that, the people in	measures for pollution	measures/ monitoring.	T
1	the area are benefited due to	1	, , , , , , , , , , , , , , , , , , , ,	
	establishment of the M/s		The state of the s	
	Trimex Industry and	part of CSR activity.	di di	
	requested the management to	part of doredervity.	would be Rs1064 lakhs and	
	remove the silt in the		Rs1616 lakhs respectively.	
	irrigation canals to facilitate	7.	noto to taking respectively.	
	the irrigation water for 70			
	acres of agricultural land of			
	their village.			
24	Sri M.saidu Reddy,	Dr. N. L. Rao, Head	The management has	C
	President of Green Corps	(Liaison), M/s Trimex	Tidas	Complied.
	Society, Hyderabad	Sands Pvt. Ltd	COD	
		expressed that the	continued by spending	
	He suggested the following to	management will take	about Rs.2.0 Crores/year.	
	the management:	all possible means to	Total capital cost and	
	1) Management should	address the demands	annual recurring cost	
	allocate CSR fund of 2-	and develop their area	towards pollution control	
	5% from the profits.	as a part of CSR activity.	measures/ monitoring,	
	2) The management		occupational health &	
	should provide	The budgetary	safety, reclamation, green	
	greenbelt not only in	allocation will be made	belt development etc	
	the industry but in	as per the need based	would be Rs1064 lakhs and	
	vacant lands to reduce	assessment carried out	Rs1616 lakhs respectively.	
	pollution levels.	by the industry.	will respectively.	
	3) He praised the District			
	Collector for involving			
	in taking up of CSR			
	activities with the			
	industries for			
	developing the			
	Government hostels.			
	4) The Management			
	should provide			
	computer training			
	,			

	programmes to the	
	local students and to	
	educate them in all	
	aspects.	
25	Sri Cumani	
	Hyderabad (Liaison), M/s Trimex will be continued to	Complie
3	(Liaison), M/s Trimex Sands Pvt. Ltd expressed his thankfulness and stated that the management 1) The study in the area was carried out as per 2001 census but report to be carried out as per censes 2011 2) The management proposed mining of 0.5 MTPA of raw sand by minor operations and 5.5 MTPA of raw sand by semimechanized method. The management should explore possibility of manual operations so as to increase employment. The proposed BT roads in the project (Liaison), M/s Trimex Sands Pvt. Ltd expressed his thankfulness and stated that the management will take all the precautionary measures for pollution problems and will develop their area as a part of CSR activity. Census 2011 data has not yet released by the Government. However, the available data from the internet regarding 2011 and primary need based assessment study carried out is utilized in developing the CSR activities in the area. Total capital cost and annual recurring cost towards pollution control measures/ monitoring, occupational health & safety, reclamation, green belt development etc would be Rs1064 lakhs and Rs1616 lakhs respectively.	Complied
	would be damaged in Collector, Panchayat	
	management should in order to develop CSR	
	explore for laying activities in the study cement roads.	

26	4) The Management should provide 3-5 crores towards welfare of fisherman community 5) The management should co-ordinate and form a committee with local people for implementing SCR activities 6) The management should develop greenbelt in 150 acres mined out land every year, so that the total mining area of 720 ha would be covered with greenbelt in 12 years. Sri Gopi, Peda Vatsavalasa (v) He welcomed the project and stated that the management should provide further employment to the local people in expansion project. He opined that the extra mining activity will also increase the life time of the project thus increasing employment opportunity to	Dr. N. L. Rao, Head (Liaison), M/s Trimex Sands Pvt. Ltd expressed his thankfulness and stated that the management will take all the precautionary measures for pollution problems and will develop their area as a part of CSR activity.	The management has Complied.
	project thus increasing	part of CSR activity.	belt development etc

	that they should facilitate the	
	day to day monitoring activity	
	so as to get an idea of sea	
	water intrusion.	
27	Sri Tanna!	
	Student Call 1	
1 1		Complied
	Sands Dut , Sands Will be	
	youth.	
	completion of his thankfulness and will be	
	with higher	
	and finally will take the facilities which	
6	employed in Madhya Pradesh precautionary will enhance their skills.	
V	which is far away from his measures for pollution Budget.	
n	ative place. He informed that problems and Budget: MinimumRs 2.0	
h	and will Crown	
Tr	TIMOV C	
ine	dustrialization is required part of CSR activity.	
for	the development of the Timeframe: Every year	
dis	trict and this may improve	
the	infractional	1
the	infrastructure facilities in	
roge	local area. Finally, he	
requ	dested the public not to	
oppo	ose the industrialization	
for a	a cause of pollution and	
The second second	issues.	
Sri Na	agabhusanam Dr. N. I. S.	
	N. L. Rao, Head	
He we	Compliation Co	ed.
stated	that Ltd	
proble	018	
industr	ion the stated i	1
further	and this will that the	
· u uler	develop the area. will take all the	
	precautionary	1
	measures for pollution	
	problems	
	problems and will	

		develop their area as part of CSR activity.	a	
29	Sri P. PentaRao, President of Malamahanadu Visakhapatnam He welcomed the project and stated that the people should invite industrialization by protecting the environment He expressed that there is not objection from the people for the expansion of the M/s Trimex Industries, as they are doing developmental activities in the surrounding areas. He requested the management to provide minimum wages to the labor working in the industry as	expressed h thankfulness and state that the managemen will further develo their area as a part of CSR activity.	ex td is d int p	Complied
20	per wages act.			
30		Dr. N. L. Rao, Head (Liaison), M/s Trimex Sands Pvt. Ltd expressed his thankfulness and stated that the management will take all the precautionary measures to control any pollution and will develop their area as a part of CSR activity.	assured that need based CSR activities will be	Complied.

P

			Would be Pates	
31	SmtLaxmiNarasimha Devi,		would be Rs1064 lakhs and	
	Ex-Marc m	Dr. N. L. Rao, Head	Rs1616 lakhs respectively.	
1	Ex-MPTC, Tonangi (v)	(Liaison), M/s Trimex		Complied
	Ch -	Sands D.		a surpried
	She welcomed the expansion	expressed		
	of the industry, as she opined	thankfulness and stated		
1 1	that, there is no pollution	that the management		
1 1	problem due to operation of	will further		
1 1	the industry, or	will further develop		
	Provide om I	their area as a part of		
1	onangi village.	CSR activity.		
32 S	ri Guntu Lave			
	1 -	or. N. L. Rao, Head Th	90	
H	e evarage (L	Liaison), M/s Trimex ass	management has a	omplied.
lan	1 Scrievance Sa	ands put Ital	mar need based	1
ha	that there would the	at the	wellvilles will had	1
be	problems with wil	II tales u	tinued by spending	
tne	even though pre	Cautiona	ut Rs.2.0 Crores/year	
eve	rybody is talking that me	asures for pollution annu	al capital cost and	
ther	e is no pollution from the pro-	hloma	lai recurring cost	
indu	stry. He opined that the dove	WILL LOWIS	rds pollution control	
fishe	rmen again			
be at	fected due to operation		ational back	
of the	e sand mining activities.	safety	reclamational health &	
He	Stated W.	belt	, reclamation, green	
manag	the line		development etc	
		Pater	be Rs1064 lakhs and	
to their	ed single employment	1/21019	lakhs respectively.	
to provi	village. He requested			
COach I:	de employment to the			
coast III	e village people.	1		
ori Gon	du Krishna Murthy, Dr. N.			
Chairma	n. Dietari	L. Rao, Head Need bas	ed CSR activities Complied	
_	e Com	WIII De	Const	d.
operativ		Pvt. Ltd spendin	continued by	
operativ Market	expressed		about Rs.2.0	
		his Crores/yea		1

He invited the project and	that the management
stated that the management	will take all possible
should provide infrastructure	ways to develop their
facilities and to develop the	area as a part of CSR
area. He requested to provide	activity.
further employment in all	
villages in the expansion of	
the project.	

Ö



S.NO.	Nature of Activity	Amount Spent Rs. (in Lakhs)
1	Self-Employment Training / Educational Infrastructure	10.43
2	Medical Facilities / Infrastructure	10.39
3	Community Welfare Schemes / Infrastructure	16.97
4	Infrastructure like Roads / Irrigation / Hostels	4.76
5	Sports	0.09
6	Green Belt (Surrounding Villages)	0.08
	Grand Total:	42.72



Expenditure for Environmental measures

	Recurring Expenditures	
S.No	Description	During the Period Apr to Sep, 2016 (in Rs.)
1	Environmental Monitoring – Air, Water & Noise (outsourced).	43,000
2	Dust suppression on roads in factory	1,49,000
3	PPE cost for dust and sound (dust masks, ear muffs, etc.).	25,000
4	De dusting & Bag filter –addition of bag filter and maintenance.	0
5	Expenditure on refilling / pumping from PCP, leveling by dozer.	45,40,000
6	Slime management cost in mines.	3,43,76,000
7	Thickener Operation.	1,23,94,000
8	Afforestation, Nursery maintenance (Seeds, Saplings, Manure, Watering, Wages etc.)	10,96,000
9	Fencing 100mts from HTL	34,000
	Capital Expenditures	21,000
1	Thickener	0
2	Slime management cost in mines	0
3	Water recovery plant	0
	Total	5,26,57,000





TSPL/ENV/PCB/ES/2015-16/ 1007

Srikakulam, 13.08.2016

To
The Joint Chief Environment Engineer
AP Pollution Control Board
Paryavaran Bhavan, A3, IE
Sanathnagar
Hyderabad-38

Dear Sir,

Sub: Environmental Statement – Form-V - 2015-16 – Reg. Ref: APPCB/VSP/VZM/152/HO/CFO/2015 Dated 30.10.2015

As per the reference cited, please find herewith Environmental Statement in Form-V for the financial year 2015-16.

Thanking You

Yours faithfully

Vice President

Mining

Cc:

The Environment Engineer
AP Pollution Control Board
Regional Office, Plot no – 11
1st floor, Shivaji Colony
Pradeep Nagar, Vizianagaram-535002

Trimex Sands Pvt Ltd: Vatchavalasa (V), Gara Mandal, Srikakulam District - 532 404, Andhra Pradesh, India. Tel: +91 8942 283755, Fax: +91 8942 283758, email: info@trimexsands.com

Hyderabad Office:

2nd Floor, Sri Durga Towers, Plot No. 201, Road No. 10, Banjara Hills, Hyderabad - 500 034, Andhra Pradesh, India. Tel: +91 40 2338 4380 / 3371 3600 Fax: +91 40 2338 4068

Just Mayung

Reg. Office:

Trimex Towers, No.1 Subbaraya Avenue, C.P. Ramaswamy Road, Alwarpet, Chennai 600 018. Tamilnadu, India. Tel: +91 44 2498 8822 / 8813 Fax: +91 44 2498 6047 web: www.trimexsands.com

CIN: U14299TN2004PTC071437

FORM – V (See Rule 14)

Environmental Statement for the financial year ending with 31st March, 2016

PART - A

(i) Name and Address of the Owner/ Occupier of the Industry Operation or process

M/S TRIMEX SANDS PVT. LTD. Vatsavalsa (V), Gara (M), Srikakulam Dist – 532 404

(ii) Industry category Primary

1360, 1533 & 1595

(SIC Code), Secondary – (SIC Code)

(iii) Production capacity - (Permitted quantity as per CFO)

S.No	Product	Quantity (TPD)
1	Ilmenite	1100
2	Sillimanite	550
3	Garnet	550
By Proc	fucts	
4	Rutile	44
5	Zircon	44
6	Mineral Rich Tailings	260

(iv) Year of establishment

2009 - 2010

(v) Date of the last environmental statement submitted.

28.09.2015

(Vide Ir no TSPL/ENV/PCB/2014-15/909)

PART - B

(i) Water consumption, m³/d:

Process :-

7908 KLD

Cooling :-

- NA -

Domestic :-

14.62 KLD

	Process Water Consumption in m3 per unit of products		
Name of Product	During the Previous Financial Year 2014-15	During the Current Financial Year 2015-16	
Ilmanite, Rutile, Garnet,	(1)	(2)	
Zircon, Sillimanite	9.36	8.40	

ii) Raw Material Consumption:

	Name of Products	Process Raw Materials in tons per unit of products		
Name of Raw Material		During the Previous Financial Year 2014-15	During the Current Financial Year 2015-16	
Beach Sand	Ilmanite, Rutile, Garnet, Zircon, Sillimanite	5.81	8.20	

^{*} Industry may be use codes if disclosing details of raw material would violate contractual obligations, otherwise ass industries have to name the raw materials used.

PART C

Pollutants Quantity of Pollutants Discharged (mass / day)	Concentration of Pollutants in discharges (mass/volume)	Percentage or Variation from prescribed Standards with Reasons
(a) Water:	There is no discharge from the industry. 10 no.s observation wells and 7 No.s of piezometer wells are being monitored for water table and quality parameters. It is observed that all the parameters are under permissible limit.	NA
(b) Air	Monthly Ambient Air Quality monitoring is being carried out within and outside the mining lease area (surrounding villages). Stack Emission Details Annexure I.	NA

PART -- D

HAZARDOUS WASTES

(as specified under Hazardous Wastes/Management and handling Rules, 1989)

Hazardous Wastes (Waste Lubricant Oil)	Total Quantity (lit)		
(waste buoneant on)	During the Previous Financial Year 2014-15	During the Current Financial Year 2015-16	
(a) From Process	1927	2690	
(b) From Pollution control facilities	NA	NA	

PART - E

SOLID WASTES:-

SOLID WASTES (silica sand tailings)	Total Quantity (tons)		
	During the Previous Financial Year 2014-15	During the Current Financial Year 2015-16	
(a) From Process	14,88,119	23,74,980	
(b) From Pollution Control Facility	NA	NA	
(c)(i) Quantity to be recycled or reutilized within the unit	1,14,689	65,527	
(ii) Sold	NA		
(iii) Disposed	The above qty under (a) is backfilled at mined out area for reclamation and afforestation	The above qty under (a) is backfilled at mined out area for reclamation and afforestation	

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as solid wastes and indicate disposal practice adopted for both these categories of wastes

S.No	Name of HW / Solid Waste	Quantity	Type / Nature	Mode of Disposal
1	Waste Lubricant Oil	2690 liters (2015-16)	Inflammable	Stored in closed barrels in designated area and disposed by sale to the authorized agencies.
2	Silica Sand Tailings	23,74,980 tones (2015- 16)	Non hazardous in nature	The same qty is back filled at mined out areas for reclamation and afforestation.
3	Waste Batteries	59 No.s	Hazardous in nature	Used Batteries is being disposed to the authorized agency on buyback basis.

PART - G

Impact of the pollution abatement measure taken on conservation of natural resources and on the cost of production.

AFFORESTATION & GREEN BELT DEVELOPMENT AT PCP, MSP & MINING AREA

Plantation details for the year 2015-16 as follows

Types of species	PCP & MSP	Mining Area
Casuarina		65,464
Eucalyptus & Acacia	***	450
Palm Seeds		-150
Forest tree variety(Gulmohar,Badam,Neem,Kanuga)	4640	7.7
Total	4640	65,914

Expenditure on Pollution control measures and Conservation of Natural Resources

S.No	Description	During the Financial Year 2014-2015 (in Rs.)	During the current Financial Year 2015-2016 (in Rs.)	
1.11.5	Environmental Monitoring – Air. Water & Noise (outsourced).	1,69,000	65,000	
2	Dust suppression on roads in factory	3,83,652	2,08,000	
3	PPE cost for dust and sound (dust masks, ear muffs, etc.). 4,43,561		2.96,000	
4	De dusting & Bag filter –addition of bag filter and maintenance.	14,42,000	12,15,000	
5	Expenditure on refilling / pumping from PCP, leveling by dozer.	1,18,67,046	68,85,000	
6	Slime management cost in mines.	1,50,55,875	3,85,34,000	
7	Thickener Operation.	1,65,97,741	1,37,90,000	
8	Afforestation, Nursery maintenance (Seeds, Saplings, Manure, Watering, Wages etc.)	18,42,000	11,87,000	
9	Fencing 100mts from HTL	in so ar	60,000	
	Capital Ex	penditures		
1	Thickener		8,27,08,000	
2	Slime management cost in mines	F45	44,59,000	
3	Water recovery plant		4,06,73,000	
	Total	3,59,81000	19,00,80,000	

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution.

Air Pollution Control Measures

- Inside the plant premises CC roads are laid and mining area haul roads are being sprinkled with water periodically to ensure that there is no dust generation due to plying of vehicles.
- The plant is equipped with Air Pollution Control devices such as pulse jet bag filters & dust extraction systems etc. designed to control the emission (SPM) level below115 mg/Nm³ from any stacks installed at the plant.



- Bag filter efficiency test is being carried out periodically and report is being submitted to APPCB
- Installed water treatment plant to treat the process water and thereby reduce dependability on river water. It is generating about 150 m³/hr of clean water.

PART-I

Any other particulars for improving the quality of the environment.

- Using Conventional Florescent Lamps (CFL) at administrative building for energy conservation.
- Separate flow meter being maintained.
- Conducting World Environment Day & Vanamahostavam day celebrations by massive plantation program.
- Vermi compost being developed in house nursery to enrich the plantation pits.
- Concentrate produced at wet plant is transported to the dry plant through pumping instead of tripper transportation.

Place: Srikakulam

Date: 13-08-16

Signature:

Designation: Vice President