

Indian Minerals Yearbook 2021

(Part-I)

60th Edition

STATE REVIEWS (Gujarat)

(ADVANCE RELEASE)

GOVERNMENT OF INDIA MINISTRY OF MINES INDIAN BUREAU OF MINES

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GUJARAT

Mineral Resources

Gujarat is the sole producer of chalk and is the principal producer of clay (others), fluorite (graded), kaolin, silica sand, lignite, petroleum & natural gas and marl in the country. The State is the sole holder of the country's chalk, marl and perlite resources and possesses 66% fluorite, 28% diatomite, 25% bentonite, 18% granite, 12% wollastonite, 10% limestone and 9% bauxite resources.

The important mineral occurrences in the State are: bauxite in Amreli, Bhavnagar, Jamnagar, Junagadh, Kheda, Kachchh, Porbandar, Sabarkantha & Valsad districts; ball clay in Banaskantha, Bharuch, Kachchh & Patan districts; bentonite in Amreli, Bhavnagar, Jamnagar, Kachchh & Sabarkantha districts; china clay in Amreli, Banaskantha, Bhavnagar, Jamnagar, Junagadh, Kachchh, Mahesana & Sabarkantha districts; chalk in Porbandar district; diatomite in Bhavnagar district; dolomite in Bhavnagar & Vadodara districts; fireclay in Bharuch, Kachchh, Mehsana, Rajkot, Sabarkantha, Surat & Surendranagar districts; fluorite in Vadodara & Bharuch districts; gypsum in Bhavnagar, Jamnagar, Junagadh, Kachchh and Surendranagar districts; lignite in Bharuch, Bhavnagar, Kachchh & Surat districts; limestone in Amreli, Banaskantha, Bharuch, Bhavnagar, Jamnagar, Junagadh, Kheda, Kachchh, Panchmahals, Porbandar, Rajkot, Sabarkantha, Surat, Vadodara & Valsad districts; marl in Amreli, Junagadh & Porbandar district; ochre in Banaskantha, Bhavnagar & Kachchh districts; perlite in Rajkot district; petroleum and natural gas in oil fields of Ankaleshwar, Kalol, Navgam, Balol & Cambay in Cambay onshore and offshore basins; quartz/silica sand in Bharuch, Bhavnagar, Dahod, Kheda, Kachchh, Panchmahals, Rajkot, Sabarkantha, Surat, Surendranagar, Vadodara & Valsad districts; and talc/soapstone/steatite in Sabarkantha district.

Other minerals that occur in the State are: apatite and rock phosphate in Panchmahals district; calcite in Amreli & Bharuch districts; copper ore in Banaskantha district; granite in Banaskantha, Mahesana & Sabarkantha districts; graphite in Panchmahals district; lead-zinc and marble in Banaskantha & Vadodara districts; manganese ore in Panchmahals & Vadodara districts; vermiculite in Vadodara district; and wollastonite in Banaskantha district. The lignite resources are located in Bharuch, Bhavnagar, Kachchh and Surat districts (Tables - 1 and 2).

Exploration & Development

The details of exploration activities conducted by GSI and various agencies during 2020-21 are furnished in Table - 3.

Production

Lignite, Natural Gas, Petroleum (Crude), Bauxite, Limestone etc were reported from Gujarat. The value of minor mineral's production is estimated as ₹ 4,794 crore for the year 2020-21. There was 143 reporting mines in 2020-21 in case of MCDR minerals (Table-4).

Mineral-based Industry

The present status of each mineral-based industry is not readily available. However, the important mineral-based industries in the Organised Sector in the State are furnished in Table - 5.

Table - 2: Reserves/Resources of Lignite as on 1.4.2021: Gujarat

(In million tonnes)

District	Proved	Indicated	Inferred	Total
Total	1278.65	283.70	1159.70	2722.05
Kachchh	335.61	56.40	33.09	425.10
Bharuch	724.76	118.59	491.23	1334.58
Bhavnagar	_	_	299.17	299.17
Surat	218.28	108.71	336.21	663.20

Source: Coal Directory of India 2020-21.

Table -1: Reserves/Resources of Minerals as on 1.4.2020: Gujarat

										•				
			Rese	Reserves						Ren	Remaining resources	ırces		E
Mineral	Unit	Proved	Probable	able	I	Feasibility	Pre-fe	Pre-feasibility	Measured	I Indicated	Inferred	Reconnaissance Tota	ance Total	resources
		SID III	STD121	STD122	(A)	S1D211	STD221	STD222	S1D331	S1D332	51D333	S1D334	(g)	(A+B)
Apatite	tonne	1	•	1	•	,	,	,	1	,	•	351000	351000	351000
Bauxite	'000 tonnes	83448	2005	15777	101230	86746	41434	21913	29145	22107	82774	11678	295797	397027
Copper														
Ore	'000 tonnes	•	•	•	•	2013	2371	696	129	1	7131	•	12613	12613
Metal	'000 tonnes	1	•	•	•	31.2	35.8	19.67	69.0	٠	113.38	•	200.74	200.74
Diatomite	'000 tonnes	•	•	•	•	•	•	•	•	•	811	•	811	811
Fluorite	tonne	•	•	•	•	8630000	•	•	٠	5723360	1920	•	14355280	14355280
Graphite	tonne	•	•	•	•	•	•	•	٠	2520805	835000	•	3355805	3355805
Lead-Zinc Ore	e													
Ore	'000 tonnes	1	•	•	•	2013	2371	696	129	•	200	•	5682	5682
Lead metal	'000 tonnes	1	•	•	•	81.94	88.2	34.41	3.9	•	•	•	208.45	208.45
Zinc metal	'000 tonnes	•	•	•	•	111.73	111.44	37.13	1.1	•	•	•	261.4	261.4
Lead-Zinc	'000 tonnes	•	•	•	•	•	•	•	٠	•	6.0	•	6.0	0.0
metal														
Limestone	'000 tonnes 722663	722663	115984 64467	64467	903115	507311	254583	176439	79919	2593098 1	18317659	160	21929169	22832284
Manganese O	Manganese Ore '000 tonnes	695	•	0	969	1			•	•	2180		2180	2875
Marl	tonne	50825000	50825000 17210000 110000	110000	68145000	68145000 26474477 4189000	4189000	•	•		390000		31053477	99198477
Perlite	'000 tonnes	1	•	•	•	140	683	595	•	•	•	886	2406	2406
Rare Earth	tonne	•	•	•	•	•	•	•	٠	424000	•	•	424000	424000
Elements														
Rock	tonne	•	•	•	•	•	•		•		314820		314820	314820
Phosphate														
Vermiculite	tonne	ı	•	•	•	•	•	1	•		1960	1	1960	1960
Wollastonite	tonne	•	•	,	•	1	1	•	•	1	1990000		1990000	1990000

Figures rounded off.

Table - 3: Details of Exploration Activities in Gujarat, 2020-21

Agency/	Location	Maj	oping	Dri	lling	C1:	D de .
Mineral/ District		Scale	Area (sq km)	No. of boreholes	Meterage	Sampling (No.)	Remarks Reserves/Resources estimated
GSI REE & RM							
Chhota Udepur	Nakhal Block	-	-	56	5800		Preliminary Exploration (G3) fo Rare - Earth Elements (REE) and Rare Metals (RM) was carried out in Nakhal Block of Saidiwasan Carbonatite Complex. Based on the work carried out in the F.S.2019 20, 5800 m of drilling work were taken up in Nakhal block of Saidiwasan area during the FS 2020 21. A total of 56 boreholes of 100±20 m vertical depth with 200 m spacing were planned. BH GJNF 01 and 04 showed carbonatite breccia along with fenitized phonolite. Carbonatite breccia was the main potential source for REI and RM. Soaked sandstone was also found along with carbonatite breccia. Average thickness of carbonatite breccia was 50–60 m.
Chhota Udepur	Gogadev-Janiyara						Preliminary exploration (G3) fo Rare-Earth Elements (REE mineralisation and other Rare Metals (RM) in Gogadev—Janiyara Geologically the area comprised metasediments of the Champane Group of Palaeoproterozoic Agrepresented by calc-silicate rocks These metasediments were intruded by Godhra granite of Neo Proterozoic Age and dykes o Deccan Volcanics of Uppe Cretaceous to Eocene Age. This bands of calc-silicate rocks which occured as enclave within Godhra granite were exposed in the south and southwestern part of the area A total of 90.3 meter auger drilling were completed and 100 bull samples (-35 mesh) were generated frs 28 auger borehole at 400 x 400 m interval. Near Village Janiyara in River Ani, panning of stream sediment resulted in 212 of non magnetic heavies from 20 kg o samples. Samples of the 1st orde streams draining from the granitoid and its late derivatives were

(contd)

collected. Systematic sampling of

Drilling

Table - 3 (contd)

Agency/

Location

block

District Scale Area No. of Meterage (sq km) boreholes	Mineral/						Complin
			Scale			Meterage	Samplin (No.)
Sabarkantna Nadri 1:2000 I	Tin Sabarkantha	Nadri	1:2000	1	_	_	-

Mapping

stream sediments of River Ani in grid pattern was also done to assess the REE and RM potentiality of the riverine sediments. About 10 bedrock sample (BRS) results received so far showed TREE value ranging from 364 to 583 ppm. Analysis of 18 samples received so far revealed that the TREE value in B-horizon was greater than C horizon. The total REE value ranged from 518 ppm to 1,300 ppm and 298-1,078 ppm respectively. Element wise distribution of the REE in all type of samples, which showed presence of > 500 ppm TREE, indicated that La, Ce, Nd and PR in LREE contribute the major % of TREE.

Remarks Reserves/Resources estimated

Preliminary exploration (G3) for strategic minerals / rare metals (Sn-W-Ta-Nb) in Nadri granite and pegmatites intrusive into Delhi Supergroup of rocks. To know the extension of mineralised lithounits in the eastern part of the Nadri block, in Sabarkantha district of Gujarat an area of 1 sq. km dimension adjacent to it was chosen for detailed mapping (1:2000) and mineral exploration in FS 2020-21. Quartz-fluorite veinswereNE-SW, NW-SE and E-W trending but majority of veins were following the E-W direction which were displaced by N-S and NW-SE strike slip faults. Later silicification resulted in the brecciation of quartzfluorite veins and epidotised granite, and giving rise to stockwork like feature. Cassiterite, chalcopyrite, pyrite, sphalerite and minor tungsten were the constituting phases of the fine mineralised disseminations in granite and quartz-fluorite veins. The partially available geochemical data of bedrock samples (BRS) suggested the tinmineralised nature of Ms-granite (399-434 ppm) and NE-SW (252-309 ppm) and E-W (552 ppm)

(contd)

Agency/	Location	Maj	pping	Dri	lling	G 1:	D 1
Mineral/ District		Scale	Area (sq km)	No. of boreholes	Meterage	Sampling (No.)	Remarks Reserves/Resources estimated
Base Metal							trending quartz fluorite veins Chemical data of samples of three trenches attests the tin-bearing naturof granitic bedrock (Sn 159–181 ppm) quartz veins (Sn 135–231ppm) and loose sediments lying over the bedrock (Sn 136–244ppm) in the trenches.
Banaskantha	Dungarpura block & Malana block		1.75			33	Preliminary exploration (G3) for bas metals and associated mineralisation in Dungarpura block and Malana block Kui-Chitrasani fault zone. Detailed geological mapping and topographica survey of 1.75 sq. km area (1 sq. km at Dungarpura and 0.75 sq. km at Malana were completed with the help of DGPs and all types of samples as per NQ7 were collected. During detailed geological mapping of Dungarpura are it was observed that cherty brecciated quartzite showed incidence of epigenetic hydrothermal base metal mineralisation. Cherty quartzite was highly oxidised, limonitised, siliceous and gritty in nature. Disseminated specks and stringers of galena sphalerite, pyrite and rare chalcopyrit with surficial encrustation of malachit and covellite were observed in cherty brecciated quartzite and quartz veins While cherty quartzite of Malana are was highly oxidised, limonitised and brecciated in nature cointained galen

(contd)

chemical analytical result of BRS samples collected from Dungarpura block showed concentration of Cu ranges from 25ppm to 0.1%, Pb ranged from 25ppm to 0.65% and Zn ranged from 25ppm to 1.1% while in Malana block concentration of Cu ranged from 25ppm to 0.18% and Zn ranged from 25ppm to 0.14%. Chemical analytical result of 16 channel samples showed the concentration of Pb and Zn ranging from 0.11% to 0.28% and 0.16 to 0.79% respectively. Analytical result of 17 water samples received so far, indicated value of Cu from 3.71 ppb to $73.96\ ppb$ and Pb from $2.69\ ppb$ to 8.90 ppb while 5 samples showed concentration of Zn from 84 ppb to

4,859.53 ppb.

Table- 3 (concld)

Agency/	Location	Map	pping	D	rilling	,	2 1	D 1
Mineral/ District		Scale	Area (sq km)	No. of boreholes		erage	Sampling (No.)	Remarks Reserves/Resources estimated
Commissioner of Limestone	Geology & Min	ing, Gu	ıjarat					
Gir Somnath	Barevala Singha Madhavpur Abl Pipalva, Gange Bhuva Timbi, K Sindhaj, Kukras	ash, tha, Kodidra,	-	-	90	3723	3 1339	The exploration was taken up with an objective to establish auctionable mineral reserves/resources. Exploration was under progress.
Devbhumi Dwarka	Pachtar		-	-	5	109	424	The exploration was taken up with an objective to establish auctionable mineral resources. About 7.49 million tonnes of reserves/resources were estimated during the year.
Amreli	Jafrabad		-	-	27	1350	621	The exploration was taken up with an objective to establish auctionable mineral reserves/resources. Exploration was under progress.
Bentonite Kachchh	Khirsara/Miyan Rajdhanjar I & Nundhatad		-	-	604	23779	.7 3139	The exploration was taken up with an objective to establish auctionable mineral reserves/resources. Exploration was under progress.
Chinaclay Kachchh	Nadapa, Kali Ta & Mokhana	lavadi	-	-	383	2413	39 4090	The exploration was taken up with an objective to establish auctionable mineral reserves/resources. Exploration was under progress.

(contd)

Table- 3 (concld)

Agency/ Mineral/	Location	Map	pping	I	Orilling		Campalin -	Domonto
District		Scale	Area (sq km)	No. of borehole		terage	Sampling (No.)	Remarks Reserves/Resources estimated
Commissioner of Bauxite	Geology & Mi	ining, Gu	ijarat					
Devbhumi Dwarka	Virpur Lusri, Mevasa, Lamb Magadevia, Sa & Nandana		-		234	495.	00 145	Virpur Lusri, Mevasa, Lamba Mahadevia, Satapara & Nandan Mevasa villages of Devbhumi Dwark district, Gujarat, was taken up wit an objective to establish auctionabl bauxite mineral resources in the area During study, a total of 234 borehole were drilled to a cumulative depth of 313 m and 1,457 samples wer collected for chemical analysis. Abou 66.845 million tonnes resources were established in the area.
Commissioner of	Geology & M	ining, Gu	ujarat					
Limestone Dwarka	Devbhumi, Dwarka		-	-	12	495	.00 10	
Junagadh	Junagadh		-	-	18	905	.00 9	1
Gir Somnath	Gir Somnath		-	-	85	2879	0.50 39	-
China clay Kachchh	Kachchh		-	-	37	3071	.00	- -
Bentonite Kachchh	Kachchh		_	-	11	574	.60	-

Table – 4 : Mineral Production in Gujarat, 2018-19 to 2020-21 (Excluding Atomic Minerals)

(Value in ₹ '000)

			2018-1	9		2019-2	20		2020-2	21 (P)
Mineral	Unit	No. of mines	Quantity	Value ^s	No. of		Value [§]	No.	of Quantit	y Value [§]
All Minerals		200		74901900	184		76880978	143		54368018
Lignite	'000t	-	12565	-	-	10357	-	-	10813	-
Natural Gas (ut.)	m cu.m	-	1402	-	-	1342	-	-	1138	-
Petroleum (crude)	'000t	-	4626	-	-	4707	-	-	4651	-
Bauxite	t	78	2185325	1412294	68	2076329	1439889	60	1497712	1196637
Manganese Ore	t	1*	-	-	1*	-	-	-	-	-
Limestone	'000t	121	26651	5662241	115	22868	5204303	83	22245	5017115
Marl%	t	-	1794940	324720	-	1646104	318711	-	1286248	219191
Sulphur#	t	-	91962	-	-	97107	-	-	82450	-
Minor Minerals		-	-	67502645	-	-	69918075	-	-	47935075

 ${\it Note}: {\it The number of mines excludes Fuel and Minor minerals}.$

Table – 5 : Principal Mineral-based Industries

Industri	les
Industry/plant	Capacity ('000 tpy)
Abrasives	
Bombay Mineral Limited Jam Khambhalia	86.4 (Abrasive Grain)
Carborandum Universal Ltd, Okha, Distt Jamnagar.	NA
Carborandum Universal Ltd, Bhatia, Distt Jamnagar	NA
Flexo-Plast Abrasives, Ahmedabad Orient Abrasive Ltd, Porbandar	NA 75 (Abrasive Grain) 150 (Calcined Bauxite) 30 (Castable Refractory)
Ashastas Duadasta	

Asbestos Products

U.P. Asbestos Ltd, Valsad.	36 (contd)
Sanghipuram, Distt Kachchh.	
Sanghi Industries Ltd,	36
Ramco Industries Ltd, Singura, Distt Kachchh.	72

Table - 5 (contd)

Cement Ambuja Cements Ltd, Ambuja Nagar, Distt Junag Ambuja Cement Ltd, Magdalla, Distt Surat (G).	
	adh. 5700
	1560
Mehta Group Gujarat Sidhee Cement, Sidheegran Sutrapada Distt Junagadh.	n, 1200
Mehta Group Saurashtra Cement Ltd, Porbandar, Distt Junagadh.	1500
Saurashtra Cement Ltd, Ranavav Porbandar,	3063
Hi Bond Cement, Gondal.	1200
J.K. Laxmi, Kalol, Distt Ganghinagar (G).	1000
J.K. Laxmi, Surat	1350
Sanghi Industries Ltd, Sanghipuram, Distt Kache	hh. 4000
Shree Digvijay Cement Co. Ltd, Digvijaygram, Sikka Distt Jamnagar.	1200 (43 Gr.) 200 (53. Gr.) 1200 (PPC)
1200 (Oil	well cement)
1200 (Sulphate R	,
Tata Chemicals Ltd, Mithapur, Distt Jamnagar.	500
UltraTech Cement Co. Ltd, Pipavav,	6400
Distt Amreli.	(contd

^{\$} Excludes the value of Fuel minerals.

^{*} Only labour reported.

[%] Associate with Limestone.

[#] Recovered as by-product from oil refineries.

Table - 5 (contd)

Table	- 5 ((contd)	
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Table - 5 (conta)	Table - 5 (contu)
Industry/plant Capacit ('000 tpy	
UltraTech Cement Ltd, (Narmada Cement), 145 Jafrabad, Distt Amreli.	0 Ankleshwar, Distt Bharuch. 12 (chloro- sulphuric acid)
UltraTech Cement Ltd, (Gujarat Cement), 640 Kovaya, Babarkot, Rajula Jafrabad,	Tata Chemicals Ltd, Mithapur, 875 (soda ash) Distt Jamnagar.
UltraTech Cement (formerly a unit of JCCL), 240 Sewagram, Abdasa, Distt Kachchh.	O Copper Smelter
UltraTech Cement (formerly a unit of JCCL), 240 Wanakbori, Distt Kheda (G).	Hindalco Industries Ltd, 500 (copper smelting) Birla Copper, Dahej, 1670 (H,SO ₄)
UltraTech Cement Ltd, Magdalla (G). 75	0 Distt Bharuch. 15 tonnes (Au) 150 tonnes (Ag)
Sparta Cements & Infra Ltd. Bhuj 100	
Vadraj Cement, Mora, Surat 600	Jhagadia, Distt. Bharuch. 20 (copper anodes)
Ceramic Unifrax India, Lakhtar 7.5 (Ceramic fiber produc Orient Glazes Ltd, OGPL 35.5	Kotda Sangani
Kheda Unit Radhu	Fertilizer Aarti Fertilizers, Vapi, Valsad 132 (SSP)
Chemical Baroda Rayon Corpn. Ltd, Surat. 15000 (yard 21600 (H ₂ SO 2.2 (sodium sulphat Century Chemicals, Nava Nanga,	Liberty Phosphate Ltd), Nandesarı, Vododara 367 (urea) 4) GSFC, Vadodara 108 (DAP) 200 (complex)
Distt Jamnagar. (refined sal	
Gujarat Alkalies & Chemicals Ltd, 14 Baroda. (caustic sod	9 GNEC Bharuch 636.0 (uras)
Gujarat Alkalies & Chemicals Ltd, 242 Dahej, Distt. Bharuch. (caustic Sod 151.4 (C	Hindalco Industries Ltd, Dahej, 400 (DAP/
33.408 (phosphoric acid	
GHCL Limited, Sutrapada. 1100 (Soda Asi	
71 (Sodium bicarbonat Indian Rayon Industries Ltd, 21 (yar	Dahej, Bharuch
Veraval, Distt Junagadh. 35.7 (H ₂ SO 10 (carbon disulphid	A KRIBITEO Eta, Hazita, Disti. Surat 2175 (area)
9.3 (sodium sulphat 91.3 (caustic sod	
Kamadhenu Nutrients Pvt.ltd. 10 Panoli,Ankleshwar (Dicalcium phosphat	Ahmadahad
Kohler India Corp. Pvt. Ltd, 15.02 (2Pc I	Nirma Ltd, Moraiya, Ahmedabad 100 (SSP)
Jhagadia, Talodara 8.29 (la 2.25 (Pedesta 4.73 (tan)	1) T J Agro Fertilizers Pvt. Ltd, Navsari 22 (SSP)
4.73 (tanl Navin Fluorine Industries Ltd, Surat. 22 (HI	Founday
Nirma Cement Ltd, Ranavav 421.2 (Soda asl	Steelcast Ltd, Ruvapuri Road, Bhavnagar 30
Nirma Soda Ash Plant Kalatalav, Bhavnagar 1008 (Soda Ash Ligh 648 (Soda Dens 144 (Refined Sodium Bicarbonat	Intolcast Pvt. Ltd, 16, 17 & 19 Ankur 2.4 (steel casting) Industrial Complex, Rajkot Gundal Road Shaper, Rajkot
Vaccun Salt (86- Saurashtra Chemicals Ltd, 365 (soda as	Intricast Pvt. Ltd, 25/28 Galaxy Industrial Estate, Rajkot Gundal Road Shaper, Rajkot
Porbandar, Distt Porbandar 20.4 (caustic sod 26.4 (refined bicarbonat	Invac Cast Pvt. Ltd, 444, 453 & 455 2.4 (steel casting) Nana Fofadia Road Bamangam, Vadodara
Shree Sulphurics Pvt. Ltd, $58 (H_2SO)$ (con	Gujarat Intuxt Ltd.184/P, Rajkot Gundal 1.8 (steel casting)

	Table	- 5	(contd)
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Table - 5 (contd)		Table - 5 (concld)	
Industry/plant	Capacity ('000 tpy)	Industry/plant	Capacity ('000 tpy)
Road Shaper, Rajkot		Piramal Glass Ltd, Kosamba.	340 (tpd)
Iron & Steel		Haldyn Glass (Gujarat) Ltd, Padra, Vadodara	. 320 TPD
	(sponge iron) e/liquid steel)	Prestige Glass Industries Pvt Ltd, Vagra.	11.5
Jindal Saw Ltd, Samaghogha, 900 (Sinter) Mundra 580 (Pig Iron) Ferro Alloys		Petroleum Refinery IOCL, Koyali.	13700
		RPL, Jamnagar	33000
Baroda Ferro Alloys Ltd, Panchmahals.	3.5	RPL, Jamnagar (SEZ).	27000
Essel Mining & Industries Ltd, Vapi, Distt Valsa	nd. 9	Essar Oil Ltd, Vadinar.	20000
Electro Ferro Alloys Ltd, Ahmedabad. Sponge Iron	0.3	Refractory Calders India Refractorie Ltd, Bhayati Jambudiya, Wankaner	42
Electrotherm India Pvt. Ltd, Samakhalli, Distt Kachchh	75	Lilanand Magnesite Pvt. Ltd, Dharmpur, Ranavav	10.8
Gallant Metal Ltd, Samakhialli, Distt Kachchh Global Hi-Tech Industries Ltd, Bhuj, Distt Kach	225000 chh 105	Synthetic Gas Reliance Industries Ltd, JG-DTA Gasification Area, Kunalus Lalpur	13122.48
Welspun Steel Ltd, Versamedi, Anjar Glass	144	Calcined Bauxite Birla VXL Ltd, Porbandar	36
Alembic Glass Industries Ltd, Baroda.	35.0	Bombay Minerals Ltd, Jamkhambhaliya	96
Bhagwati Glass Containers Ltd, Kalol.	8.7	Gujarat Credo Mineral Industries Ltd, 500	` •
Bharat Glass Tube Ltd, Bharuch.	7.2		processed bauxite)
Gobind Glass & Industries Ltd, Kadi.	NA	Saurashtra Calcine Bauxite & Allied Industries Ltd, Bhatia	39
Gopal Glass Works Ltd, Budasan, Distt Mehsana.	40.6	Shri Natraj Ceramics & Chemical Industries Ltd, Khambhaliya	24
Gujarat Borosil Ltd, Govali, Distt. Bharuch.	62.5	G: Grinding Unit	
Piramal Glass Ltd, Jambusar.	355 (tpd)	Data, not readily available for fertilizer and on respective websites, is taken from Indian FAI Statistics, and Survey of Cement Indian	Fertilizer Scenario,
	(contd)	respectively.	<i>y</i>