Indian Minerals Yearbook 2018

(Part- I)

57th Edition

STATE REVIEWS (Andhra Pradesh)

(FINAL RELEASE)

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ANDHRA PRADESH

Mineral Resources

Andhra Pradesh is the sole producer of apatite. The State is the leading producer of barytes, ball clay, dolomite, garnet (abrasive), laterite, limestone, quartz, quartzite, silica sand and vermiculite. It accounts for 92% barytes, 40% calcite, 41% mica, 31% each kyanite & garnet, 19% titanium minerals, 16% bauxite, 15% dolomite, 13% sillimanite, 12% each vermiculite & limestone resources of the country. Andhra Pradesh is endowed with the internationally known black, pink, blue and multicoloured varieties of granites. Krishna-Godavari basin areas in this State have emerged as new promising areas for hydrocarbons, especially natural gas.

Important minerals occurring in Andhra Pradesh are: **apatite** in Visakhapatnam district; **asbestos** in Cuddapah district; **ball clay** in West Godavari district; **barytes** in Anantapur, Cuddapah, Krishna, Kurnool, Nellore and Prakasam districts; **calcite** in Anantapur, Cuddapah, Kurnool and Visakhapatnam districts; **china clay** in Anantapur, Chittoor, Cuddapah, East Godavari, West Godavari, Guntur, Kurnool, Nellore and Visakhapatnam districts; **coal** in Godavari Valley Coalfield; **corundum** in Anantapur districts; **dolomite** in Anantapur and Kurnool districts; **felspar** in Anantapur, Cuddapah, West Godavari, Nellore and Vizianagaram districts; **fireclay** in Chittoor, Cuddapah, East Godavari, West Godavari, Kurnool and Srikakulam districts; **garnet** in East Godavari, Nellore and Srikakulam districts; **granite** in Anantapur, Chittoor, Cuddapah, Guntur, Krishna, Nellore, Prakasam, Srikakulam and Vizianagaram districts; **iron ore (hematite)** in Anantapur, Cuddapah, Guntur, Krishna, Kurnool and Nellore districts; **iron ore (magnetite)** in Prakasam districts; **lead-zinc** in Cuddapah, Guntur and Prakasam districts; **limestone** in Anantapur, Cuddapah, East Godavari, West Godavari, Guntur, Krishna, Kurnool, Nellore, Srikakulam, Visakhapatnam and Vizianagaram districts; **manganese ore** in Srikakulam and Vizianagaram districts; **mica** in Nellore and Visakhapatnam district; **ochre** in Anantapur and Cuddapah, West Godavari, Guntur, Kurnool and Visakhapatnam districts; **pyrophyllite** in Anantapur, Chittoor and Cuddapah district; **quartz/silica sand** in Anantapur, Chittoor, Cuddapah, West Godavari, Guntur, Krishna, Kurnool, Nellore, Prakasam, Srikakulam, Visakhapatnam and Vizianagaram districts; **quartzite** in Kurnool, Srikakulam, Visakhapatnam and Vizianagaram districts; **talc/soapstone/ steatite** in Anantapur, Chittoor, Cuddapah and Kurnool districts and **vermiculite** in Nellore and Visakhapatnam districts. **Petroleum & natural gas** deposits of importance are located in the onshore and offshore areas of Krishna-Godavari basin of the State.

Other minerals that occur in the State are **bauxite** in East Godavari and Visakhapatnam districts; **chromite** in Krishna district; **copper** in Guntur, Kurnool and Prakasam districts; **diamond** in Anantapur, Krishna and Kurnool districts; **gold** in Anantapur, Chittoor and Kurnool districts; **graphite** in East Godavari, West Godavari, Srikakulam, Visakhapatnam and Vizianagaram districts; **gypsum** in Guntur, Nellore and Prakasam districts; **kyanite** in Nellore and Prakasam districts; **magnesite** in Cuddapah district; **pyrite** in Kurnool district; **sillimanite** in West Godavari and Srikakulam district; **silver** in Guntur district; **titanium minerals** in East Godavari, Krishna, Nellore, Srikakulam and Visakhapatnam districts; and **tungsten** in East Godavari district (Tables-1 & 2).

Exploration & Development

The details of exploration activities conducted by various agencies for coal and other minerals during 2017-18 are furnished in Table - 3.

During 2017-18, National Oil Companies (NOC) continued their operations for exploration of oil and gas in the State.

Table –1: Reserves/Resources of Minerals as on 01.04.2015: Andhra Pradesh

Mineral	Unit	Reserves				Remaining Resources								Total resources (A+B)
		Proved STD 111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
			STD121	STD122			STD221	STD222						
Apatite	tonnes	27715	-	1680	29395	-	-	-	-	-	200163	-	200163	229558
Asbestos	tonnes	20016	-	4617	24633	684984	40408	18355	-	1541	67392	-	812679	837312
Ball clay#	tonnes	6700417	202950	1049025	7952392	5622514	2842702	10275648	-	2279330	28044529	-	49064723	57017115
Barytes#	tonnes	48990002	49358	372296	49411656	186544	94489	988514	104322	389630	28165637	105721	30034857	79446513
Bauxite	'000 tonnes	-	-	-	-	-	-	-	188971	138120	288176	-	615267	615267
Calcite#	tonnes	16522	8098	119526	144146	8538	-	105470	8562700	5200	282204	-	8964112	9108258
China clay#	'000 tonnes	2494	953	1889	5337	1508	989	2071	511	688	51427	362	57556	62893
Chromite	'000 tonnes	-	-	-	-	-	-	-	-	-	0.4		0.4	0.4
Copper														
Ore	'000 tonnes	-	-	-	-	686	-	105	-	5791	1000	-	7582	7582
Metal	'000 tonnes	-	-	-	-	6.88	-	1.05	-	97.45	8.32	-	114	114
Corundum#	tonnes	200	-	-	200	-	7	-	-	-	-	-	7	207
Diamond	carat	-	-	-	-	-	-	-	200483	1524317	98155	-	1822955	1822955
Dolomite#	'000 tonnes	86134	11371	17539	115045	176476.97	31908	38324	22373	77	910217	4301	1183677	1298722
Felspar#	tonnes	2295253	150795	556263	3002311	4427537	50911	2379650	361444	1819937	1571271	442950	11053700	14056011
Fireclay#	'000 tonnes	1252	40	642	1934	771	1400	1574	56	417	10211	132	14562	16496
Garnet	tonnes	1183898	4500	568750	1757148	12189	232525	791238	18	8800000	5674011	-	15509981	17267129

(Contd)

Table - 1 (Contd)

Mineral	Unit	Reserves				Remaining Resources								Total resources (A+B)
		Proved STD 111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
			STD121	STD122			STD221	STD222						
Gold														
Ore (primary)	tonnes	-	3902725	-	3902725	655133	-	889515	291000	55000	6980031	-	8870679	12773404
Metal (primary)	tonnes	-	8.49	-	8.49	2.45	-	3.57	1.08	0.17	23.78	-	31.05	39.54
Granite[##]														
(Dim. stone)	'000 cu m	-	-	-	-	-	-	-	-	-	2360396	-	2360396	2360396
Graphite	tonnes	-	-	-	-	-	1195	1135	-	1122	697575	-	701027	701027
Gypsum[#]	'000 tonnes	-	-	-	-	-	-	-	-	-	404	-	404	404
Iron ore														
(hematite)	'000 tonnes	17664	273	11832	29768	40595	49589	68425	377	4666	147628	13	311294	341062
Iron ore														
(magnetite)	'000 tonnes	-	-	-	-	43105	-	-	13800	1266666	68527	-	1392098	1392098
Kyanite	tonnes	-	-	-	-	-	-	399	-	-	32003829	-	32004228	32004228
Laterite[#]	'000 tonnes	13574	680	1710	15964	23238	5107	2244	24	1107	889.	-	32608	48572
Lead-zinc														
Ore	'000 tonnes	-	-	-	-	-	-	-	1000	4159	17530	-	22689	22689
Lead metal	'000 tonnes	-	-	-	-	-	-	-	28.70	119.53	688.65	-	836.88	836.88
Zinc metal	'000 tonnes	-	-	-	-	-	-	-	12.40	43.57	7.19	-	63.16	63.16
Limestone	'000 tonnes	1003483	19713	385133	1408329	269901	53722	706890	82112	268002	18666131	3466741	23513499	24921828
Magnesite	'000 tonnes	-	-	-	-	-	-	-	-	-	80	-	80	80
Manganese														
ore	'000 tonnes	2235	637	2086	4958	675	387	773	188	3220	6987	457	12687	17645
Mica[#]	kg	61942537	18293548	-	80236085	18960000	-	-	93830994	12894000	51668132	-	177353126	257589211

(Contd)

Table - 1 (Concld)

Mineral	Unit	Reserves				Remaining Resources								Total resources (A+B)
		Proved STD 111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
			STD121	STD122			STD221	STD222						
Ochre#	tonnes	5284990	-	64602	5349592	1404229.67	430231	1087353	347681	-	3596595	2121	6868210	12217802
Pyrite	'000 tonnes	-	-	-	-	-	-	-	-	-	880	-	880	880
Pyrophyllite#	tonnes	39376	-	9441	48817	366494	75201	311209	-	108831	737855	-	1599590	1648407
Quartz-silica sand#	'000 tonnes	94483	3429	13687	111599	32690	4039	17329	7081	6691	45661	11599	125090	236690
Quartzite#	'000 tonnes	16001	-	1389	17390	2103	8357	6418	-	3975	24797	1256	46905	64295
Sillimanite	tonnes	2045	-	37	2082	15	11278	12	267	7430300	1346988	-	8788861	8790943
Silver*														
Ore	tonnes	-	-	-	-	-	-	-	-	-	16950000	-	16950000	16950000
Metal	tonnes	-	-	-	-	-	-	-	-	-	128.13	-	128.13	128.13
Shale#	'000 tonnes	1120	162	272	1554	199	-	563	-	-	1142	90	1994	3548
Slate#	'000 tonnes	109	667	-	776	-	-	1075	-	-	1511	-	2586	3362
Talc/soapstone/ steatite#	'000 tonnes	1875	482	1001	3358	197	725	1804	184	369	3611	248	7137	10495
Tungsten*														
Ore	tonnes	-	-	-	-	-	-	-	3640000	4700800	5952500	509000	14802300	14802300
Contained WO_3	tonnes	-	-	-	-	-	-	-	5096	6574.64	8273.65	318.28	20262.57	20262.57
Vermiculite	tonnes	60892	19413	30566	110871	2040	917	5850	58396	5127	88865	-	161195	272066

Figures rounded off

 # Declared as Minor Mineral vide Gazette Notification dated 10.02.2015.

Minor Mineral before Gazette Notification dated 10.02.2015.

***Note**: The proved and indicated balance recoverable reserves of Crude Oil and Natural Gas as on 1.4.2018 in the State are 7.94 million tonnes and 59.89 billion cu m, respectively.*

Table – 2: Reserves/Resources of Coal as on 1.4.2018: Andhra Pradesh

(In million tonnes)

Coalfield	Proved	Indicated	Inferred	Total
Total/Godavari Valley	-	1149.05	431.65	1580.70

Source: *Coal Directory of India, 2017-18.*

Table-3: Details of Exploration Activities in Andhra Pradesh, 2017-18

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI							
Base Metal (Copper)							
Nellore	Around Udayagiri and Duttaluru Trenching	1:12500	150	-	-	-	During G4 stage reconnaissance survey for copper and associated mineralisation, an area of 150 sq km has been mapped on 1:12500 scale, besides 43 cu m pitting and trenching followed by collection of various types of samples.The Nellore Schist Belt (NSB) is divided into two litho-tectonic domains. The lower (Vinjamuru) dominated by amphibolites, hornblende schist, metabasalt and upper (Udayagiri) dominated by metapelites mainly quartz chlorite schist, quartz-biotite-garnet schist and quartzites. In Masayapetta tippa hillocks and Duttaluru hillocks, series of old pits have been identified for a cumulative length of 300 m and 250 m respectively with width varies from 10-30 m. The surface indications for mineralisation are manifested in the form of malachite stains, disseminated pyrite and chalcopyrite within the ferruginous quartzite and quartz vein.
Copper							
Nellore	Around Garimanipenta and Vinjamuru	1:12500	150	-	-	-	Reconnaissance survey for copper and associated mineralisation in the Nellore Greenstone belt was taken up by large scale mapping of 200 sq km on 1:12500 scale. The area is represented by migmatite gneiss. Malachite stains within pegmatite intruding into granite gneiss has been observed near Bhattinivaripalli area. Barite

(Contd)

(Table-2 Contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
							in the south of Venkatadripalem. IP and resistivity surveys carried out in Garemanipenta block has brought out a few prominent geophysical anomalies. These anomalies may indicate the presence of sporadic occurrence of quartz/ pegmatite veins associated with malachite stringers within the garnetiferous mica schist. A total of 46 BRS, 50 PTS, 161 soil and 26 petrochemical samples were collected and sent for analysing Cu, Pb, Zn, Au, Ag, Sn, W, Co, Mo, As and Ni.
Iron ore and Gold							
Chittoor	Velligallu schist belt	3.0	-	-	-	240	Preliminary exploration for iron ore and gold was carried out in this belt. Exploration comprised detailed mapping of 3.0 sq km, bed rock sampling and drilling. The lithounit studied in the area are banded magnetite quartzite (BMQ), dolerite dyke, pegmatite and granite, etc. BMQ occurs at the crestal part of the ridge. Several younger granitic apophyses, dolerite dykes and pegmatite cut across the BMQ bands all along the block area. 210 nos BRS, 10 nos OM, 10 nos PS and 10 nos of petrochemical samples were collected. BIF band on Errakonda hill was analysed and 200 ppb value of Au was obtained. The average Fe content in this BIF is 38.05% Fe over 15 m width.
Vijayanagaram	Devada Area	1:2000	1.0	-	600	375	General exploration for manganese ore was carried out in this area. The survey entangled mapping of 1 sq km on 1:2000 scale, 100 BRS, 10 petrochemical sampling, 30 PS, 20 OM, 5 XRD, 10 EPMA, 2 ore beneficiation, 100 PTS and 600 m drilling and 200 core sampling and 10 L km geophysical survey. The Khondalite suite comprises of lower feldspathic quartzite unit followed by quartzite, garnet-sillimanite gneiss and calc-granulite. Petrographic study of (Contd)

Table – 3 (Contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
							selected khondalite sample shows presence of quartz, feldspar and almandine garnet and opaques i.e. Mn ores. Ore petrographic study shows presence of mostly two types of Mn ores i.e. pyrolusite and psilomelane. There are various types of replacement texture seen to occur between pyrolusite and psilomelane such as gradual, inward, skeletal, and complete. Poikilitic inclusion of pyrolusite is noted within psilomelane.
Diamond							
Anantapur	Wajrakarur Kimberlite field (WKF)	-	750	-	-	204	Reconnaissance survey for kimberlite in the Wajrakarur Kimberlite field Anantapur district was taken up. An area of 750 sq km was covered in reconnaissance survey and collected 204 systematic stream sediment sampling. The EPMA results of the heavies confirmed its Kimberlite affinity. An anomalous area of 4.5 sq km was covered by ground magnetic survey and a total of 31 traverses were taken for detailed magnetic surveys in continuous recording mode to locate hidden kimberlite bodies and suggested 12 locations for testing. In the catchment area of Krishna - Munneru –Paleru rivers along Krishna river alluvial tracts, an aerial reconnaissance studies and geological survey of 1500 sq km on 1:50000 scale was carried out for Primary source rocks of secondary diamonds. The rock types observed in the area are hornblende biotite granite, alkali feldspar granite, pegmatite veins, lamproite dykes, gabbro and dolerite dykes with secondary carbonate veins, etc. Most of the mafic dykes came across during mapping are associated with secondary carbonate veins. A new gabbro dyke of strike length of 2.5 km with varying width from 50 m to 100 m was identified in west of Nallabandagudem village. A total 302 nos of stream sediment samples

(Contd)

Table – 3 (Contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
							were systematically collected and processed. 173 nos of heavy mineral grains were submitted for EPMA analysis. On the basis of semi quantitative data received for 35 nos of samples in the form of oxides, the grains were identified as Cr-pyroxene, clinopyroxene, orthopyroxene, ilmenite, epidote, etc. The Cr-pyroxene grains were recovered from 3rd order stream sediment sample. Rock samples were collected from ultramafic bodies and 8 nos of sample submitted each for petrological studies and XRD analysis.
	Krishna Munneru Paleru river	1:50000	1500	-	-	540	Reconnaissance survey was carried out by covering an area of 750 sq km to locate primary source for diamonds in the Penneru and Papaghni river basins, between Pulivendla and Khajipet. An integrated structural lineament map has been prepared. Key element dispersion maps were prepared for the target elements and its paragenetic group using NGCM data. Rocks of PGC-II, Cuddapah supergroup and Kurnool group are exposed. During the survey, a total of 203 nos. of stream sediment samples were collected and processed for the recovery of heavy mineral concentrates. Total 49 suspected grains were submitted for EPMA analysis which reveals non-kimberlitic affinity viz., almandine garnet, Mn-ilmenite, etc.
Gold							
Cuddapah & Anantapur	Northern part of Veligallu Schist belt adjoining areas	-	-	-	-	-	During reconnaissance survey for gold and associated minerals in northern part of Veligallu schist belt and adjoining areas, parts of Cuddapah and Anantapur district, an area of 312 sq km was covered in reconnaissance survey and large scale mapping of 150 sq. km on 1:12500 scale was carried out. A total of 355 samples were collected. A significant zone of mineralisation was identified in the northern part of the NERP block. The quartz vein in the mineralised (Contd)

Table – 3 (Contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks
		Scale	Area (sq km)	No. of boreholes	Meterage	(No.)	Reserves/Resources estimated
							zone is characterised by malachite stains and presence of sulphides in the form of disseminated pyrite and bornite. Ore microscopic studies revealed that chalcocite and chalcopyrite are the main copper sulphide phases. A dolerite dyke observed to the west of the alteration zone is rich in sericite and quartz. Three bedrock samples collected from the mineralised zone assayed Cu values ranging from 0.17% to 1.13%. Subsequently, channel sampling was carried at an interval of 1 m, and two samples analysed 1.26% & 1.07% for Cu.
Gold, Silver and associated minerals							
Kurnool	Block I, Block-II, Block-III	1:12500	156	-	-	-	Reconnaissance survey for gold, silver and associated minerals was taken up in the parts of Kurnool district. Large scale mapping of 156 sq km on 1:12500 scale in four blocks namely Block I, Block-II, Block-III and Block-IV was carried out and demarcated a 1.2 km long and 280 m wide zone of sulphide bearing metavolcanic near Madhavaram area that falls to the west of Block-I. Near Idipunur area, sheared sulphide mineralised quartz reef characterised by the presence of pyrite and chalcopyrite with minor covellite and measuring 130 m X 60 m has been identified. Channel sampling of the Idipunur quartz reef indicated that the concentration of sulphides is more in its central portion. In the trench quartz with pyrite and other yellowish sulphides is observed. Analytical results of 8 channel samples show low incidence of gold mineralisation with gold values ranging from 40 ppb to 189 ppb. In the NW part of Block-I, the malachite bearing boulders are spread over an area of 0.5 sq km indicating concealed zone of copper mineralisation. Tourmaline bearing pegmatite has (Contd)

Table-3 (Concld)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
							been identified in NNE of Buddinni area in Block 1 for a length of about 1.5 km with thickness of 8 m. In Mirzapur area Block-1, highly altered quartz reef showing evidences of mineralisation in the form of numerous anastomizing quartz vein as well as carbonatite vein has been observed with length of 210 m and width 60 m.
Graphite							
Eastern Ghat	-	-	167	-	-	-	G4 stage reconnaissance survey was taken up for locating graphite and possible tungsten mineralisation in the Eastern Ghat. Pitting and trenching of 167 cu m were carried out. The study area exposes various litho-units such as Khondalite Group and Charnockite Group which are in turn traversed by various pegmatite and quartz veins and Migmatite Group of rocks. A mineralised body of graphite has been traced for a strike length nearly 70 m with width of 1 to 2 m near old working no. 8. Two BRS sample shows uranium value 7.03 ppm in khondalite and 9.40 ppm in migmatite. Tungsten values are <5 ppm in all BRS samples. Fixed carbon value ranges from 4.54% to 10.8%.

Production

Andhra Pradesh was bifurcated into two states on 02.06.2014 and a new state 'Telangana' was formed. The data is analysed by considering the districts of the newly formed state for previous years.

Many important minerals are produced in Andhra Pradesh. The principal minerals produced in the state were Natural Gas (utilised), manganese ore, garnet (abrasive), limestone, sillimanite, vermiculite etc.

The value of minor minerals production was estimated at ` 9,353 crore for the year 2017-18.

The number of reporting mines in the State was 130 in 2017-18 in case of MCDR minerals (Table-4).

Table-4: Mineral Production in Andhra Pradesh, 2015-16 to 2017-18
(Excluding Atomic Minerals)

(Value in `'000)

Mineral	Unit	2015-16			2016-17			2017-18 (P)		
		No. of mines	Quantity	Value$	No. of mines	Quantity	Value$	No. of mines	Quantity	Value$$
All Minerals		**136**		**101514077**	**136**		**102855836**	**130**		**104648311**
Natural Gas (utilised.)	m c m	-	619	-	-	868	-	-	959	-
Petroleum (crude)	'000t	-	295	-	-	276	-	-	322	-
Gold	kg	1	-	-	1	-	-	1	-	-
Iron Ore	'000t	27	493	283258	22	485	264799	18	680	417688
Manganese ore	t	23	186632	328949	26	232257	729003	24	166872	737163
Apatite	t	1	110	387	1	-	-	1	-	-
Garnet (abrasive)	t	2	55583	471079	2	51243	565747	2	111390	1299361
Sillimanite	t	-	42409	340841	-	37109	321945	-	53749	472572
Limestone	'000t	76	32579	6556564	79	35515	7446888	80	38909	8193623
Vermiculite	t	6	21890	7986	5	7225	2441	4	4790	2891
Minor Minerals@		-	-	93525013	-	-	93525013	-	-	93525013

Note:*The number of mines excludes Petroleum (crude), Natural Gas (utilised), Atomic Fuel and Minor Minerals. (see also N.B. under tables-1 and 3 on pre pages)*

$ *Excludes the value of Petroleum (crude) & Natural Gas* (ut.), $$ *Excluding Fuel minerals.*

@ Figures for earlier years have been repeated as estimates, wherever necessary because of non-receipt of data.

Mineral-based Industry

The present status of each mineral-based industry is not readily available. However, the principal mineral based industries in the organised sector in the State are provided in Table-5.

Table – 5 : Principal Mineral-based Industries in Andhra Pradesh

Industry/plant	Capacity ('000 tpy)
Abrasives	
Grindwell Norton Ltd, Renigunta, Distt Chittoor.	5
Asbestos Products	
Hyderabad Industries Ltd, Ibrahimpatnam, Distt Krishna.	45
Ramco Industries, Ibrahimpatnam, Distt Krishna.	225
Cement	
ACC Ltd (formerly Encore cement), Vishakhapatnam (G).	300
Andhra Cements Ltd (Visaka Cement Works), Durga Nagar, Distt Visakhapatnam (G).	620
Andhra Cements Ltd, Durga Cement Works, Dachepalli, Distt Guntur.	2000
Bharthi Cement Corp. Pvt. Ltd, Nallingayapalli, Distt Kadapa.	5000
Bhavya Cement, Thangeda, Distt Guntur.	1400
Dalmia Cement (Bharat) Ltd, Kadapa.	2500
India Cements Ltd, Chilamkur, Distt Kadapa.	1460
India Cements Ltd, Yeraguntla, Distt Kadapa.	730
Jaypee Balaji Cement, Budawada, Distt Krishna.	5000
JSW Cement Ltd, Nandyal, Distt Kurnool.	4800

(Contd)

(Contd)

Table - 5 (Contd)

Industry/plant	Capacity ('000 tpy)
KCP Ltd, Macherla, Distt Guntur.	830
KCP Ltd, Muktyala, Distt Krishna.	1520
My Home Cement Industries Ltd, Mulakapalli, Distt Visakhapatnam (G).	2000
NCL Industries Ltd, Kondapalli, Distt Krishna (G).	990
Panyam Cements & Mineral Industries Ltd, Cement Nagar, Distt Kurnool.	1000
Parashakti Cement, Jettipalem, Distt Guntur.	1700
Penna Cement Industries Ltd, Talaricheruvu, Tadipatri, Distt Anantapur.	1800
Penna Cement Industries Ltd, Boyareddypalli, Distt Anantapur.	2000
Rain Commodities Ltd (Rain Cements), Boincheruvupalli, Distt Kurnool.	2160
Ramco Cement Ltd (formerly Madras Cements), Jayantipuram, K.S. Rajanagar, Distt Krishna.	3650
Ramco Cement Ltd, Vizag Grinding Unit, Distt Visakhapatnam.	950
Sree Jayajothi (Subs. of Myhome Cement Ind.) Yanakandala, Distt Kurnool.	3200
Sri Chakra Cements Ltd, Alamada, Distt Vizianagaram (G).	260
Sri Chakra Cements Ltd, Karampudi, Distt. Guntur.	310
Toshali Cement Ltd, Bayyavaram, Distt Visakhapatnam (G).	200
Ultra-Tech Cements Ltd (APCW), Tadipatri, Distt Anantapur.	6500
Zuari Cement, Krishnanagar, Yerranguntala, Distt Kadapa.	3800
Chemical	
A.P. Carbides Ltd, Kurnool.	23 (calcium carbide)
Andhra Sugars Ltd, Saggonda, Distt West Godavari.	132 (caustic soda) 99 (H_2SO_4)
Shree Rayalseema Alkalies &	69.5 (caustic soda)
Allied Chem. Ltd, Gondiparla, Distt Kurnool.	49.8 (Cl) 24.7 (HCl) 23.1 (KOH)

(Contd)

Table - 5 (Contd)

Industry/plant	Capacity ('000 tpy)
Shree Rayalseema High Strength Hypo Ltd, Gondiparla, Distt Kurnool.	9 (bleaching powder) 45 (H_2SO_4) 15 (Oleum)
Ceramic	
RAK Ceramics India Pvt Ltd, Samalkot, Distt East Godavari.	30000 (Vitrified tiles sq m/day) 1500 (sanitary ware pc/day)
Sentini Ceramica Pvt Ltd, Kanukollu, Distt Krishna (JV with H R Johnson (I) Ltd).	75
Spartek Ceramics India Ltd, Narsingapuram, Distt Chittoor.	NA
Kajaria Ceramics Ltd, Vijaywada.	2.3 (mill. sq m)
Fertilizer	
Agri Green Fertilizers & Chemicals Pvt Ltd, Cuddapah.	30 (SSP)
Bhaskar Fertiliser (P) Ltd, Anantpur	45 (SSP)
Coromandel International Ltd, Visakhapatnam.	1300 (NP/ NPKs)
Coromandel International Ltd, Kakinada, Distt East Godavari.	1925 (DAP)
GDS Chemicals & Fert Pvt Ltd., Anakapalli, Visakhapatnam	36 (SSP)
K. P. R. Fertilizers Ltd Biccavolu, E. Godavari	90 (SSP)
Krishna Industrial Corpn. Ltd, Nidadavole, Distt West Godavari.	45 (SSP) 33.5 (H_2SO_4)
Nagarjuna Fertilizers & Chemicals Ltd, Kakinada, Distt East Godavari. (Unit I & II)	1520 (Urea)
NG Fertilizers & Chemicals Pvt. Ltd, Kodurupadu, Distt Krishna	200 (SSP)
Prathyusha Chems and Fertilisers Ltd, Parwada, Visakhapatnam	100 (SSP)
Subhodaya Chemicals Ltd, Gauripatnam, Distt West Godavari.	42.9 (SSP)
The Andhra Sugars Ltd, Tanuku, Kovvur, Distt West Godavari.	66 (SSP) 45 (H_2SO_4)
Pesticides	
Jayalakshmi Fertilizers, Tanuku, Distt West Godavari.	2.4
Glass	
Triveni Glass Ltd, Kondagudem, Distt West Godavari.	10 (mill. sq m)

(Contd)

Table-5 (Contd)

Industry/plant	Capacity ('000 tpy)
Iron & Steel	
Visakhapatnam Steel Plant, Visakhapatnam.	8856 (sinter) 3400 (pig iron) 2910 (crude/liquid steel)
Pig Iron	
Lanco Industries Ltd, Rachaguneri, Distt Chittoor.	275
Rashtriya Ispat Nigam Ltd, Vishakhapatanam, Andhra Pradesh.	6500
Sathavahana Ispat Ltd, Haresamudram, Distt Anantapur.	210
Pellets	
Essar Steel Ltd, Visakhapatnam.	8000
Sponge Iron	
GSAL (India) Ltd, Sriramapuram, Dist. Vizianagaram.	220
Sree Rayalseema Green Steloy Ltd, Gooty, Distt Anantapur.	36
Sri Venkateshwara Sponge & Power Pvt Ltd, Merlapaka, Distt Chittoor.	90
Maa Mahamaya Industries Pvt Ltd, Relligaurammapeta, Distt Vizianagaram.	NA
Ferro-alloys	
Andhra Ferro Alloys Ltd, Kothavalasa, Distt Vizianagaram.	20
Deccan Ferro alloys (P) Ltd, Pendurthi, Visakhapatnam.	13

(Contd)

Table-5 (Concld)

Industry/plant	Capacity ('000 tpy)
FACOR Alloys Ltd, Shreeramnagar, Distt Vizianagaram.	72
Jindal Stainless (Hisar) Ltd, Kothavalasa, Distt Vizianagaram.	40
Metkore Alloys & Ind. Ltd (GMR Ferro alloys & Ind. Ltd) Ravivalasa, Distt Srikakulam.	25
Shree Sarda Alloys Ltd, Ravivalasa, Distt Srikakulam.	6
Refractory	
Carborandum Universal Ltd, Visakhapatnam.	3.6
RHI Clasil Ltd, Venkatapuram, Visakhapatnam.	50
Vesuviusindia Ltd, Visakhapatnam.	24
Lead-zinc	
HZL, Zinc Smelter, Visakhapatnam.	56 (Zn)*
Petroleum Refinery	
HPCL, Vizag.	8300
ONGC, Tatipaka, Distt East Godavari	66

** Operation has been discontinued.*

Note: *Data, not readily available for fertilizer and cement Industries on respective website, is taken from Indian Fertilizer Scenario /FAI Statistics, and Survey of Cement Industry & Directory, respectively.*