

Government of India  
Ministry of Mines

**Bulletin of**  
**MINING LEASES & PROSPECTING LICENCES, 2009**

*(Excluding Atomic Minerals, Coal, Lignite, Petroleum, Natural Gas and Minor Minerals)*



**INDIAN BUREAU OF MINES**

**Nagpur**

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*Issued by*  
**Controller General**  
**Indian Bureau of Mines**

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**Mineral Economics Division**

Printed at IBM Press, 8/200/March 2011

# Preface

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Indian Bureau of Mines is the custodian for all Mineral & Mining information in the country. As part of its regular activity, it undertakes the function of updating and preparing the Directory of Mining Leases as a continuous exercise wherein compilation of country-wide information on mining leases and prospecting licences granted/executed/renewed/revoked/surrendered are carried out, assorted, analysed and disseminated by way of published documents, namely, *Bulletin of Mineral Information* and *Bulletin of Mining Leases and Prospecting Licences* etc.

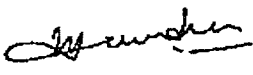
Presently in its twelfth edition, this publication - *The Bulletin of Mining Leases and Prospecting Licences 2009* - contains information on mining leases, prospecting licences as well as reconnaissance permits as on 31.3.2009. Information contained in the Directory of Mining Leases after assortment and analysis with different parameters have been segregated into statewise, districtwise, mineralwise and sectorwise for easy comprehension of the data on distribution of Mining Leases/Prospecting Licences/Reconnaissance Permits executed across the country with clearer demarcation of high, medium and low mineral-potential-bearing-districts. Exhaustive information on mining leases abridged concisely for easy assimilation will suit the convenience of readers be they be entrepreneurs or policy makers. This type of information exclusive in coverage in the subject relating to Mining Leases & Prospecting Licences is largely aimed at providing the much-needed and latest information to all the stakeholders of the Mineral Industry.

Predominant portions of this publication owes their basis to the updated Directory of Mining Leases as on 31.3.2009, which in turn was compiled from the data supplied by the different State Governments under the statutory provision of Rule 57 (2) of MCR, 1960. Insofar as prospecting licences/reconnaissance permits are concerned, the individual licence/permit deeds and the consolidated annual returns received under Rule 57(1) and (2) of MCR, 1960, for the same period, have been utilised. Besides the above, the approval orders in case of reconnaissance permits were also used as sources of information.

I hope that the analysis and information presented in this publication will be useful and handy in the process of planning & programming new ventures, commissioning new projects for mineral-based industries and in judicious utilisation of mineral resources of the country.

In the end, I would like to express IBM's sincere thanks to all the State Government Departments for furnishing information of mining leases, prospecting licences and reconnaissance permits and would solicit their cooperation in the future as well.

Nagpur  
Dated: 25.01.2011

  
(C.S. Gundewar)  
Controller General  
Indian Bureau of Mines



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# Chapter I

## INTRODUCTION

India has a total geographical area of about 328 million hectares. Of this, the mining lease area, except for fuel and atomic minerals, constitutes around 0.14% (491446 hectares). The position of mining leases as on 31.3.2009 reveals that there are as many as 9,415 mining leases (compared to 8,784 in the previous year) granted in the country by the State Governments covering 59 minerals (excluding coal, lignite, petroleum, natural gas, atomic minerals and minor minerals) with a total area of 491446 hectares and spread over 23 States. These 59 minerals are broadly classified into metallic and non-metallic minerals. This bulletin highlights statewise, sectorwise and districtwise distribution of mining leases, prospecting licences and reconnaissance permits, frequency distribution of mining leases, etc. Though apparently negligible, the mining lease area of the country is considered as an important land use segment as it contributes to the economic growth of the country. Besides, it calls for environmental protection, as land under lease gets subjected to degradation during the process of mining activities.

India is well-endowed with a wide variety of naturally occurring minerals. These are being exploited to cater to the needs of domestic mineral-based industries as well as to meet export demands to earn foreign exchange. Today, as many as 59 minerals including major metallic and non-metallic minerals are being exploited in the country excluding coal, atomic and some minor minerals.

The Indian Mineral Sector is opened fully to private sector including domestic and foreign. The Government of India in its new National Mineral Policy 2008 has enunciated policy measures like assured right to next stage mineral concession, transferability of mineral concessions and transparency in allotment of concession in order to reduce delays and with a purpose to weed out impediments that hinder inflow of investments and technology into the Mining Sector of the country. These policy initiatives would provide suitable environment for exploration and judicious utilisation of the country's mineral wealth. Apart from these, the National Mineral Policy has enunciated several policy measures that seek to strengthen the framework/institutions that support the Indian Mining Sector which includes Geological Survey of India, Indian Bureau of Mines and State Directorates of Geology & Mining. In order to give effect to the direction envisioned in the new Mineral Policy, the Ministry of Mines has promulgated the review and reformatting of the existing Act and has prepared the draft of the new Act, namely, Mines & Minerals (Development and Regulation) Act 2010, with the aim to develop the Mineral Sector of the country in a holistic manner. As per existing MMDR Act, 1957, the limit of maximum areas of RP, PL and ML is 10,000 sq. km, 25 sq.km and 10 sq.km respectively in a state.

Under Rule 57 (1) of MCR,1960, a copy of every reconnaissance permit, (no provision for renewal of reconnaissance permits), prospecting licence and mining lease granted or renewed shall be supplied by each State Government within two months of such grant or renewal to the Controller General, Indian Bureau of Mines. Besides, under Rule 57 (2) of MCR,1960 all the State Governments/ Union Territories are required to submit to the Controller General, Indian Bureau of Mines, a consolidated annual return of reconnaissance permits/prospecting licences/mining leases granted or executed in Proforma 'A'; prospecting licences/mining leases renewed in Proforma 'B'; and termination of mining leases & reasons for termination in Proforma 'C' for the preceding Financial year ending in March. The above statements for the previous Financial year are required to be submitted to Indian Bureau of Mines on or before 30th June each year by the State Government. From such information received from all the State Governments under statutory provisions, the information pertaining to mining leases and prospecting licences is compiled, processed and updated. These stored data is retrieved and made available for further requisite studies, analysis and for consumption of information seekers.

## Chapter 2

# LAND USE SCENARIO

India's geographical area is about 328 million hectares. The entire geographical area is broadly classified into 8 segments which are as follows.

Sl. No.	Area/Segment	Total Area in Million Hectares	Percentage of Area
1.	Agricultural, cultivable & culturable land (Net Sown Area)	141.89	43.16
2.	Permanent pastures & other grazing land	10.42	3.17
3.	Culturable waste land	13.12	3.99
4.	Forest	69.79	21.23
5.	Barren & Un-culturable land	17.48	5.32
6.	Non-agricultural land	25.03	7.61
7.	Mining lease area	0.49	0.14
8.	Land under miscellaneous (Tree Crops & Groves)	3.38	1.03
9.	Other area (no information available)	47.17	14.35
	<b>Total</b>	<b>328.77</b>	<b>100.00</b>

Source: Website [www.dacnet.nic.in/eands/At\\_Glance\\_2008/Ch-14/tb14.1.xls](http://dacnet.nic.in/eands/At_Glance_2008/Ch-14/tb14.1.xls).

Out of the entire geographical area, almost two-third are under agricultural, cultivable, permanent pasture, forest and grazing lands. The mining lease area, constitutes around 491445.64 hectares which is approximately 0.14% of the total geological area. However, mining lease area, though a miniscule segment in the total land area, continues to be an important segment and an essential contributing factor to the economy of the country. At the same time there is need to pay due attention to environment aspects as these land areas under mining leases are subjected to various processes of mining activity and are liable to degradation.



## Chapter 3

### MINING LEASES

#### 3.1 STATEWISE ANALYSIS

As per the Lease Directory as on 31.3.2009, there were 9,415 mining leases granted by State Governments for 59 different minerals, covering an area of 4,91,446 hectares in the country. States rich in minerals where maximum number of mining leases were granted are Rajasthan (23%) followed by Andhra Pradesh (17%), Gujarat (13%), Madhya Pradesh (10%), Karnataka (7%), Tamil Nadu (5%), Goa & Orissa (4% each) and Jharkhand, Chhattisgarh & Maharashtra (3% each). These eleven States together account for about 92% of the total leases executed and the remaining twelve States where such leases were executed accounted for about 8 percent of the total mining leases.

The maximum area in percentage covered under mining leases in different States are Rajasthan 21% followed by Orissa 14%, Karnataka 12%, Andhra Pradesh 11%, Jharkhand 7%, Goa 6%, Madhya Pradesh & Gujarat 6% each, Maharashtra and Chhattisgarh 4% each. These ten States account for about 92% of the total mining lease area granted and the remaining 8 percent was accounted for by the rest of the thirteen States.

The Statewise mining lease distribution together with lease areas as well as statewise/districtwise distribution of mining leases as on 31.03.2009 are furnished in Tables - 1 to 4.

**Table-1: Statewise Summary of Lease Distribution  
(As on 31.03.2009)**

State	No. of Leases	Percentage	Leases Area (Hect.)	Percentage
Andhra Pradesh	1578	16.76	54470.79	11.08
Assam	8	0.08	929.5	0.19
Bihar	10	0.11	2030.16	0.41
Chhattisgarh	312	3.31	17650.66	3.59
Goa	422	4.48	31457.43	6.40
Gujarat	1228	13.04	27962.54	5.69
Haryana	108	1.15	11471.52	2.33
Himachal Pradesh	54	0.57	2027.18	0.41
Jammu & Kashmir	55	0.58	1814.75	0.37
Jharkhand	323	3.43	36974.67	7.52
Karnataka	693	7.36	57398.26	11.68
Kerala	109	1.16	3042.12	0.66
Madhya Pradesh	948	10.07	28442.41	5.79
Maharashtra	280	2.97	17703.21	3.60
Manipur	2	0.02	610.17	0.12
Meghalaya	19	0.21	1433.97	0.29
Orissa	387	4.12	67212.90	13.68
Rajasthan	2167	23.02	105607.10	21.48
Sikkim	3	0.03	96.30	0.02
Tamil Nadu	482	5.12	6652.01	1.35
Uttar Pradesh	88	0.93	9290.11	1.89
Uttarakhand	69	0.73	3077.78	0.62
West Bengal	70	0.75	4090.10	0.83
<b>All India</b>	<b>9415</b>	<b>100</b>	<b>491445.64</b>	<b>100</b>

**Table-3: Statewise/Mineralwise Distribution of Leases and Lease Area  
(As on 31.3.2009)**

State	Mineral	No. of Leases	Lease Area (Hect.)
Andhra Pradesh	Amethyst	4	12.99
	Apatite	1	13.29
	Asbestos	7	352.08
	Ball Clay	22	265.52
	Barytes	118	2132.94
	Calcite	5	139.20
	China clay	60	895.81
	Clay (others)	8	281.37
	Corundum	8	38.93
	Dolomite	99	1683.48
	Felspar	31	516.50
	Fireclay	24	82.31
	Garnet	15	944.35
	Gold	1	168.42
	Graphite	3	59.26
	Iron ore	31	1389.68
	Laterite	87	916.56
	Lime kankar	14	100.63
	Limeshell	4	88.19
	Limestone	205	22805.35
	Magnesite	1	6.57
	Manganese ore	39	1113.20
	Mica	110	2087.99
	Moulding sand	1	31.16
	Ochre	19	193.93
	Phosphorite	1	2.83
	Pyrophyllite	6	147.55
	Quartz	421	5861.07
	Quartzite	19	354.64
	Sand (others)	14	2024.23
	Shale	11	181.85
	Silica sand	72	1116.80
	Sillimanite	1	7000.00
Slate	11	420.78	
Steatite	100	948.72	
Vermiculite	5	92.61	
<b>Total</b>	<b>1578</b>	<b>54470.79</b>	
Assam	Limestone	8	929.50
	<b>Total</b>	<b>8</b>	<b>929.50</b>
Bihar	Limestone	6	166.06
	Mica	2	1196.80

contd...

State	Mineral	No. of Leases	Lease Area (Hect.)
Bihar (concl'd)	Pyrites	1	647.50
	Quartz	1	19.80
	<b>Total</b>	<b>10</b>	<b>2030.16</b>
Chhattisgarh	Bauxite	27	5353.33
	China clay	7	32.83
	Corundum	2	27.24
	Dolomite	84	573.80
	Fireclay	5	21.20
	Graphite	3	98.79
	Iron Ore	14	5538.60
	Limestone	122	5596.30
	Moulding Sand	7	48.57
	Ochre	1	10.12
	Quartz	12	36.14
	Quartzite	16	145.68
	Steatite	3	6.62
	Tin	9	161.44
	<b>Total</b>	<b>312</b>	<b>17650.66</b>
Goa	Bauxite	4	1791.07
	Iron Ore	359	25877.40
	Manganese Ore	59	3788.96
	<b>Total</b>	<b>422</b>	<b>31457.43</b>
Gujarat	Agate	2	186.15
	Ball Clay	6	26.63
	Bauxite	167	6037.77
	Calcareous Sand	14	151.54
	Calcite	5	63.31
	Chalk	166	669.83
	China Clay	68	1180.93
	Clay (Others)	99	1063.27
	Copper Ore	1	171.43
	Dolomite	94	1043.87
	Felspar	1	1.00
	Fireclay	83	429.11
	Fluorite	2	31.69
	Gypsum	7	86.85
	Laterite	3	409.78
	Limestone	386	15218.16
	Manganese Ore	1	2.95
	Moulding Sand	4	6.83
	Ochre	5	45.55
	Perlite	1	144.65

contd...

State	Mineral	No. of Leases	Lease Area (Hect.)	
Gujarat (concl'd)	Quartz	30	204.80	
	Quartzite	1	19.30	
	Silica Sand	74	720.06	
	Steatite	6	22.04	
	Vermiculite	2	25.04	
	<b>Total</b>	<b>1228</b>	<b>27962.54</b>	
	Haryana	Barytes	1	79.32
Calcite		2	158.56	
China Clay		38	3296.11	
Dolomite		2	252.15	
Felspar		2	261.45	
Lime Kankar		2	325.52	
Limestone		6	71.17	
Mica		1	400.00	
Quartz		14	675.12	
Quartzite		4	68.23	
Silica Sand		35	5802.54	
Slate		1	81.35	
<b>Total</b>		<b>108</b>	<b>11471.52</b>	
Himachal Pradesh		Barytes	2	81.39
		Limestone	52	1945.79
	<b>Total</b>	<b>54</b>	<b>2027.18</b>	
Jammu & Kashmir	Borax	1	159.00	
	China Clay	2	59.70	
	Gypsum	17	113.54	
	Limestone	32	797.21	
	Magnesite	2	485.30	
	Opal	1	200.00	
	<b>Total</b>	<b>55</b>	<b>1814.75</b>	
Jharkhand	Bauxite	46	4039.14	
	China Clay	21	1536.27	
	Copper Ore	4	6806.37	
	Dolomite	1	18.45	
	Felspar	9	253.70	
	Fireclay	25	915.11	
	Gold	1	19.50	
	Graphite	15	443.67	
	Iron Ore	48	12379.23	
	Kyanite	8	2591.35	
	Limestone	54	4580.47	
	Mica	31	971.17	
	Ochre	1	5.62	

contd...

State	Mineral	No. of Leases	Lease Area (Hect.)	
Jharkhand (concl'd)	Pyrophyllite	1	22.50	
	Pyroxenite	8	78.70	
	Quartz	26	301.75	
	Quartzite	3	27.83	
	Sand (Others)	15	1918.18	
	Steatite	6	65.66	
	<b>Total</b>	<b>323</b>	<b>36974.67</b>	
Karnataka	Barytes	1	17.00	
	Bauxite	6	607.12	
	Calcite	1	17.00	
	China Clay	17	841.55	
	Chromite	6	1190.76	
	Clay (Others)	2	24.68	
	Copper Ore	1	259.00	
	Corundum	8	104.70	
	Dolomite	20	437.33	
	Felsite	6	132.06	
	Felspar	5	134.47	
	Fireclay	5	270.49	
	Gold	7	6296.06	
	Graphite	4	235.04	
	Iron Ore	165	18216.54	
	Kyanite	8	312.11	
	Laterite	3	97.23	
	Limeshell	20	1648.60	
	Limestone	145	17822.39	
	Magnesite	10	223.52	
	Manganese Ore	71	4418.23	
	Moulding Sand	46	1284.23	
	Ochre	6	615.57	
	Quartz	68	784.82	
	Quartzite	2	8.09	
	Silica Sand	49	1200.26	
	Steatite	8	164.80	
	Vermiculite	3	34.61	
	<b>Total</b>	<b>693</b>	<b>57398.26</b>	
	Kerala	Bauxite	3	1.37
		China Clay	43	122.64
		Graphite	1	1.25
Iron Ore		1	86.06	
Laterite		7	27.30	
Limeshell	7	1963.50		

contd...

State	Mineral	No. of Leases	Lease Area (Hect.)
Kerala (concl'd)	Limestone	1	245.69
	Quartz	2	2.51
	Sand (Others)	3	174.57
	Silica Sand	37	89.83
	Sillimanite	4	327.40
	<b>Total</b>	<b>109</b>	<b>3042.12</b>
Madhya Pradesh	Barytes	2	5.37
	Bauxite	58	1273.09
	Calcite	28	69.40
	China Clay	19	174.01
	Clay (Others)	5	119.25
	Copper Ore	2	479.90
	Diamond	2	576.51
	Diaspore	12	86.28
	Dolomite	136	1511.67
	Fireclay	35	308.41
	Iron Ore	16	200.76
	Laterite	47	401.73
	Lead & Zinc Ore	2	12.76
	Limestone	377	19452.79
	Manganese Ore	51	1676.64
	Ochre	63	1258.34
	Rhosphorite	4	112.97
	Pyrophyllite	38	272.61
	Quartz	7	45.36
	Quartzite	1	6.10
	Sand (Others)	3	17.52
	Shale	16	178.71
	Silica Sand	4	3.32
	Slate	1	55.49
	Steatite	17	115.93
	Vermiculite	2	27.49
	<b>Total</b>	<b>948</b>	<b>28442.41</b>
Maharashtra	Agate	2	54.98
	Bauxite	35	5385.04
	China Clay	8	88.64
	Chromite	1	16.22
	Corundum	1	3.96
	Dolomite	17	259.61
	Felspar	2	34.25
	Fireclay	2	18.40
	Fluorite	1	31.22

contd...

State	Mineral	No. of Leases	Lease Area (Hect.)
Maharashtra (concl'd)	Iron Ore	27	1309.90
	Kyanite	15	307.35
	Laterite	6	95.51
	Limestone	60	6162.64
	Manganese Ore	44	1418.31
	Mica	1	42.06
	Moulding Sand	2	51.87
	Ochre	1	12.36
	Quartz	11	172.67
	Sand (Others)	12	740.30
	Shale	1	32.49
	Silica Sand	31	1465.43
	<b>Total</b>	<b>280</b>	<b>17703.21</b>
	Manipur	Chromite	2
<b>Total</b>		<b>2</b>	<b>610.17</b>
Meghalaya	China Clay	2	9.77
	Fireclay	1	221.44
	Limestone	15	1197.86
	Shale	1	4.90
	<b>Total</b>	<b>19</b>	<b>1433.97</b>
Orissa	Amethyst	1	27.65
	Asbestos	1	49.22
	Bauxite	7	6673.28
	China Clay	8	693.94
	Chromite	21	7041.86
	Corundum	2	91.41
	Dolomite	7	740.03
	Fireclay	16	1877.14
	Graphite	85	2242.21
	Iolite	8	76.97
	Iron Ore	92	27784.19
	Lead & Zinc Ore	1	499.60
	Limestone	29	6050.14
	Manganese Ore	27	8539.26
	Mica	1	2.67
	Ochre	1	102.27
	Pyrophyllite	8	487.29
	Quartz	51	854.96
	Quartzite	10	129.97
	Sand (Others)	6	437.43
	Sillimanite	1	2483.02
Steatite	3	292.13	
Tin	1	36.26	
<b>Total</b>	<b>387</b>	<b>67212.90</b>	

contd...

State	Mineral	No. of Leases	Lease Area (Hect.)
Rajasthan	Asbestos	28	1286.41
	Ball Clay	24	1997.30
	Barytes	4	120.36
	Calcite	28	1211.55
	China Clay	158	7142.88
	Clay (Others)	1	5.00
	Copper Ore	5	1717.95
	Dolomite	6	287.91
	Epidote	1	5.00
	Felspar	615	9525.19
	Fireclay	25	2326.80
	Fluorite	14	1668.60
	Garnet	16	350.13
	Graphite	2	383.55
	Gypsum	44	14300.27
	Iron Ore	16	1525.50
	Jasper	5	211.70
	Kyanite	1	5.00
	Lead & Zinc Ore	7	7089.27
	Limestone	57	20438.82
	Magnesite	3	15.00
	Manganese Ore	1	80.00
	Mica	133	3279.43
	Ochre	36	1456.51
	Phosphorite	6	2092.11
	Pyrophyllite	6	308.16
	Quartz	609	6163.07
	Quartzite	1	5.00
	Shale	1	5.00
	Silica Sand	100	4907.04
	Steatite	208	15446.96
Vermiculite	1	42.22	
Wollastonite	5	207.41	
<b>Total</b>	<b>2167</b>	<b>105607.10</b>	
Sikkim	Copper Ore	3	96.30
<b>Total</b>	<b>3</b>	<b>96.30</b>	
Tamil Nadu	Bauxite	2	158.46
	China Clay	2	15.55
	Dolomite	1	62.07
	Felspar	1	39.47
	Fireclay	25	107.09

contd...



Table-3 (concl'd)

State	Mineral	No. of Leases	Lease Area (Hect.)
Tamil Nadu (concl'd)	Garnet	57	524.14
	Graphite	5	291.62
	Gypsum	8	210.59
	Limeshell	2	729.05
	Limestone	167	2868.00
	Magnesite	16	1204.91
	Quartz	174	330.29
	Silica Sand	17	48.44
	Steatite	4	38.62
	Vermiculite	1	23.71
	<b>Total</b>	<b>482</b>	<b>6652.01</b>
Uttar Pradesh	Calcite	1	27.92
	Dolomite	1	1656.32
	Limestone	4	3623.43
	Phosphorite	1	874.00
	Pyrophyllite	23	1491.87
	Silica Sand	58	1616.57
	<b>Total</b>	<b>88</b>	<b>9290.11</b>
Uttarakhand	Limestone	6	124.92
	Magnesite	4	741.12
	Phosphorite	2	222.05
	Steatite	57	1989.69
	<b>Total</b>	<b>69</b>	<b>3077.78</b>
West Bengal	China Clay	38	978.80
	Dolomite	1	847.00
	Felspar	1	2.23
	Fireclay	13	2148.83
	Limestone	1	0.67
	Moulding Sand	2	5.51
	Ochre	1	5.76
	Phosphorite	1	29.13
	Pyrophyllite	1	2.19
	Quartz	8	18.69
	Quartzite	1	4.70
	Sand (Others)	1	44.09
	Silica Sand	1	2.50
	<b>Total</b>	<b>70</b>	<b>4090.10</b>

**Table-4: Statewise/Districtwise/Mineralwise Distribution of Leases and Lease Area**  
(As on 31.3.2009)

State	District	Mineral	No. of Leases	Lease Area (Hect.)	
Andhra Pradesh	Adilabad	China clay	14	131.30	
		Clay (others)	1	4.24	
		Laterite	1	11.33	
		Limestone	12	2685.28	
		Manganese ore	10	377.64	
		Quartz	1	4.80	
		Sand (others)	1	216.00	
		<b>Total</b>	<b>40</b>	<b>3430.59</b>	
		Anantapur	Barytes	1	2.00
	China clay		3	28.35	
	Corundum		2	16.36	
	Dolomite		48	671.71	
	Felspar		3	32.53	
	Gold		1	168.42	
	Iron ore		8	361.25	
	Laterite		1	38.86	
	Limestone		22	1952.37	
	Ochre		3	22.12	
	Pyrophyllite		1	34.84	
	Quartz		19	506.48	
	Shale		1	3.16	
	Steatite		36	523.51	
	<b>Total</b>		<b>149</b>	<b>4361.96</b>	
	Chittoor		China clay	3	29.33
			Felspar	1	3.78
			Pyrophyllite	3	20.73
		Quartz	14	106.82	
		Steatite	3	16.73	
		<b>Total</b>	<b>24</b>	<b>177.39</b>	
	Cuddapah	Asbestos	7	352.08	
		Barytes	98	1532.02	
		China clay	13	611.92	
		Clay (others)	5	245.27	
		Dolomite	10	279.47	
		Felspar	13	278.60	
		Iron ore	1	18.62	
		Laterite	4	314.38	
		Limestone	19	1703.60	
		Magnesite	1	6.57	
		Ochre	7	36.07	
		Pyrophyllite	2	91.98	
		Quartz	15	246.36	
		Quartzite	4	184.78	
	Shale	2	19.71		

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Andhra Pradesh (contd)	Cuddapah	Silica sand	1	1.87
		Steatite	3	57.46
		<b>Total</b>	<b>205</b>	<b>5980.76</b>
	Godavari East	China clay	15	28.62
		Fireclay	22	74.22
		Graphite	1	5.00
		Laterite	14	80.16
		<b>Total</b>	<b>52</b>	<b>188.00</b>
	Godavari West	Ball clay	22	265.52
		China clay	4	25.39
		Clay (others)	2	31.86
		<b>Total</b>	<b>28</b>	<b>322.77</b>
	Guntur	Lime kankar	1	3.80
		Limestone	25	3294.34
		Quartz	5	33.84
		Slate	1	40.47
		<b>Total</b>	<b>32</b>	<b>3372.45</b>
	Karimnagar	Dolomite	2	32.47
		Laterite	2	8.30
		Limestone	2	478.36
		Sand (others)	5	1610.85
		Silica sand	1	10.00
		<b>Total</b>	<b>12</b>	<b>2139.98</b>
	Khammam	Barytes	4	297.91
		Corundum	6	22.57
		Dolomite	7	437.23
		Felspar	1	23.29
		Garnet	7	80.45
		Graphite	2	54.26
Iron ore		6	646.28	
Limestone		2	32.23	
Mica		2	29.83	
Quartz		12	43.11	
Sand (others)		4	86.90	
<b>Total</b>		<b>53</b>	<b>1754.06</b>	
Krishna	Iron ore	3	13.87	
	Limestone	17	2377.35	
	Quartz	5	9.85	
	<b>Total</b>	<b>25</b>	<b>2401.07</b>	

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Andhra Pradesh (contd)	Kurnool	Barytes	7	227.62
		Calcite	2	33.68
		China clay	3	17.03
		Dolomite	29	243.02
		Felspar	1	16.87
		Iron ore	10	69.75
		Laterite	6	19.83
		Limestone	71	4302.27
		Ochre	7	124.60
		Quartz	15	166.24
		Quartzite	4	31.77
		Shale	6	21.46
		Silica sand	14	187.14
		Steatite	58	351.02
		<b>Total</b>	<b>233</b>	<b>5812.30</b>
	Mahbubnagar	Felspar	8	68.70
		Quartz	101	1167.16
		<b>Total</b>	<b>109</b>	<b>1235.86</b>
	Medak	Amethyst	1	1.31
		Laterite	7	41.05
		Ochre	1	5.67
		Quartz	22	177.77
		<b>Total</b>	<b>31</b>	<b>225.80</b>
	Nalgonda	Laterite	6	9.52
		Limestone	30	4784.28
		Quartz	19	183.21
		Shale	1	4.45
		<b>Total</b>	<b>56</b>	<b>4981.46</b>
	Nellore	Barytes	3	44.87
		Felspar	4	92.73
		Garnet	1	39.68
		Iron ore	2	274.00
		Laterite	9	63.34
		Limeshell	2	75.56
		Mica	98	1698.94
		Quartz	68	943.70
		Silica sand	39	880.16
		Vermiculite	5	92.61
		<b>Total</b>	<b>231</b>	<b>4205.59</b>
	Nizamabad	Laterite	4	29.86
		Quartz	3	7.65
		<b>Total</b>	<b>7</b>	<b>37.51</b>

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Andhra Pradesh (contd)	Prakasam	Barytes	5	28.52
		Garnet	4	4.79
		Iron ore	1	5.91
		Quartz	71	1719.22
		Silica sand	16	30.13
		Slate	10	380.31
		<b>Total</b>	<b>107</b>	<b>2168.88</b>
		Rangareddi	Amethyst	3
	China clay		2	6.47
	Fireclay		2	8.09
	Laterite		13	138.69
	Limestone		5	1195.27
	Quartz		29	178.90
	Shale		1	133.07
	<b>Total</b>		<b>55</b>	<b>1672.17</b>
	Srikakulam		Garnet	2
		Lime kankar	1	5.85
		Limeshell	1	4.00
		Quartz	2	12.98
		Quartzite	2	16.02
		Silica sand	1	7.50
		Sillimanite	1	7000.00
		<b>Total</b>	<b>10</b>	<b>7861.43</b>
	Visakhapatnam	Apatite	1	13.29
		Calcite	3	105.52
		China clay	3	17.40
		Garnet	1	4.35
		Laterite	7	62.93
		Limeshell	1	8.63
		Mica	10	359.22
		Ochre	1	5.47
		Phosphorite	1	2.83
		Quartz	9	210.89
		<b>Total</b>	<b>37</b>	<b>790.53</b>
	Vizianagaram	Lime Kankar	12	90.98
		Manganese ore	29	735.56
		Moulding sand	1	31.16
		Quartz	11	142.09
		Quartzite	9	122.07
		Sand (others)	3	96.63
		<b>Total</b>	<b>65</b>	<b>1218.49</b>

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Andhra Pradesh (concl'd)	Warangal	Dolomite	3	19.58
		Laterite	13	98.31
		Sand (others)	1	13.85
		<b>Total</b>	<b>17</b>	<b>131.74</b>
Assam	Karbi Anglong	Limestone	1	171.00
		<b>Total</b>	<b>1</b>	<b>171.00</b>
	North Cachar Hills	Limestone	7	758.50
		<b>Total</b>	<b>7</b>	<b>758.50</b>
Bihar	Nawada	Mica	2	1196.80
		<b>Total</b>	<b>2</b>	<b>1196.80</b>
	Rohtas	Limestone	6	166.06
		Pyrites	1	647.50
		<b>Total</b>	<b>7</b>	<b>813.56</b>
	Supaul	Quartz	1	19.80
<b>Total</b>		<b>1</b>	<b>19.80</b>	
Chhattisgarh	Bastar	Bauxite	2	27.28
		Iron ore	1	192.25
		Limestone	19	58.39
		<b>Total</b>	<b>22</b>	<b>277.92</b>
	Bilaspur	Dolomite	35	282.32
		<b>Total</b>	<b>35</b>	<b>282.32</b>
	Dantewara	Corundum	2	27.24
		Iron ore	5	2553.41
		Tin	9	161.44
		<b>Total</b>	<b>16</b>	<b>2742.09</b>
	Durg	Dolomite	39	166.24
		Iron ore	4	2562.69
		Limestone	44	1075.01
		Moulding sand	3	12.12
Quartzite		5	44.31	
<b>Total</b>		<b>95</b>	<b>3860.37</b>	
Janjgir-Champa	Dolomite	5	86.17	
	Limestone	3	717.15	
	<b>Total</b>	<b>8</b>	<b>803.32</b>	
Jashpur	Bauxite	5	60.37	
	Quartz	2	4.36	
	<b>Total</b>	<b>7</b>	<b>64.73</b>	

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Chhattisgarh (concl'd)	Kabirdham	Bauxite	2	664.33
		Dolomite	1	12.14
		Limestone	3	9.45
		<b>Total</b>	<b>6</b>	<b>685.92</b>
	Kanker	Bauxite	3	13.22
		Iron ore	3	149.53
		Limestone	1	0.63
		Moulding sand	1	13.84
		Steatite	3	6.62
		<b>Total</b>	<b>11</b>	<b>183.84</b>
		Korba	Fireclay	1
	<b>Total</b>		<b>1</b>	<b>0.46</b>
	Mahasamund	Fireclay	3	15.79
		Quartz	5	9.20
		<b>Total</b>	<b>8</b>	<b>24.99</b>
	Raigarh	Dolomite	2	9.33
		Fireclay	1	4.95
	Raigarh	Limestone	6	18.83
		Quartz	2	4.25
		Quartzite	3	60.57
		<b>Total</b>	<b>14</b>	<b>97.93</b>
	Raipur	Dolomite	2	17.60
		Limestone	43	3708.57
<b>Total</b>		<b>45</b>	<b>3726.17</b>	
Rajnandgaon	China clay	7	32.83	
	Iron ore	1	80.72	
	Limestone	3	8.27	
	Moulding sand	3	22.61	
	Ochre	1	10.12	
	Quartz	3	18.33	
	Quartzite	8	40.80	
	<b>Total</b>	<b>26</b>	<b>213.68</b>	
Surguja	Bauxite	15	4588.13	
	Graphite	3	98.79	
	<b>Total</b>	<b>18</b>	<b>4686.92</b>	
Goa	North Goa	Iron ore	122	8948.35
		Manganese ore	15	894.64
		<b>Total</b>	<b>137</b>	<b>9842.99</b>

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Goa (concl'd)	South Goa	Bauxite	4	1791.07
		Iron ore	237	16929.05
		Manganese ore	44	2894.32
		<b>Total</b>	<b>285</b>	<b>21614.44</b>
Gujarat	Amreli	Bauxite	3	237.58
		China clay	1	3.01
		Clay (others)	1	89.60
		Limestone	5	1864.75
		<b>Total</b>	<b>10</b>	<b>2194.94</b>
	Banaskantha	Calcite	1	3.76
		Copper ore	1	171.43
		Limestone	9	422.35
		Vermiculite	1	1.84
		<b>Total</b>	<b>12</b>	<b>599.38</b>
	Bharuch	Agate	2	186.15
		Silica sand	26	270.83
		<b>Total</b>	<b>28</b>	<b>456.98</b>
	Bhavnagar	Chalk	1	12.00
		Clay (others)	4	190.81
		Dolomite	3	52.99
		Limestone	1	20.00
		Moulding sand	1	2.80
		<b>Total</b>	<b>10</b>	<b>278.60</b>
	Dahod	Fluorite	1	0.49
		Limestone	5	187.51
		Quartz	1	4.20
		<b>Total</b>	<b>7</b>	<b>192.20</b>
	Jamnagar	Bauxite	116	3099.27
		Calcareous sand	14	151.54
		Chalk	8	33.52
		Clay (others)	3	28.78
Limestone		61	2203.89	
Ochre		1	20.23	
<b>Total</b>		<b>203</b>	<b>5537.23</b>	
Junagarh	Chalk	3	27.90	
	Limestone	120	3092.30	
	<b>Total</b>	<b>123</b>	<b>3120.20</b>	
Kheda	Bauxite	16	84.78	
	Limestone	1	10.93	
	<b>Total</b>	<b>17</b>	<b>95.71</b>	

contd...



State	District	Mineral	No. of Leases	Lease Area (Hect.)
Gujarat (contd)	Kachchh	Ball clay	5	21.14
		Bauxite	13	2352.86
		China clay	52	513.33
		Clay (others)	84	642.48
		Fireclay	1	3.00
		Gypsum	5	83.63
		Laterite	3	409.78
		Limestone	9	2600.27
		Ochre	1	2.00
		Silica sand	10	191.90
		<b>Total</b>	<b>183</b>	<b>6820.39</b>
	Panchmahals	Manganese ore	1	2.95
		Quartz	27	193.56
		Quartzite	1	19.30
		<b>Total</b>	<b>29</b>	<b>215.81</b>
	Patan	Ball clay	1	5.49
		China clay	1	36.22
		Clay (others)	5	103.82
		Ochre	3	23.32
		<b>Total</b>	<b>10</b>	<b>168.85</b>
	Porbandar	Bauxite	6	171.99
		Chalk	129	509.60
		China clay	1	3.97
		Limestone	170	3271.75
		<b>Total</b>	<b>306</b>	<b>3957.31</b>
	Rajkot	Chalk	25	86.81
		Fireclay	17	50.67
		Gypsum	2	3.22
		Limestone	2	37.13
		Perlite	1	144.65
		Silica sand	1	4.00
		<b>Total</b>	<b>48</b>	<b>326.48</b>
	Sabarkantha	Bauxite	13	91.29
		Calcite	3	6.58
		China clay	5	383.13
		Felspar	1	1.00
		Fireclay	9	34.62
		Limestone	2	2.53
		Quartz	1	4.04
		Silica sand	11	64.04
		Steatite	6	22.04
		<b>Total</b>	<b>51</b>	<b>609.27</b>

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Gujarat (contd)	Surat	Limestone	1	1504.75
		Silica sand	1	6.52
		<b>Total</b>	<b>2</b>	<b>1511.27</b>
	Surendranagar	Clay (others)	2	7.78
		Fireclay	55	308.45
		Moulding sand	3	4.03
		Silica sand	25	182.77
		<b>Total</b>	<b>85</b>	<b>503.03</b>
		Vadodara	Calcite	1
	Dolomite		91	990.88
	Fluorite		1	31.20
	Quartz		1	3.00
	Vermiculite		1	23.20
	<b>Total</b>		<b>95</b>	<b>1101.25</b>
	Haryana	Faridabad	China clay	1
Silica sand			19	4440.55
<b>Total</b>			<b>20</b>	<b>4565.55</b>
Gurgaon		China clay	37	3171.11
		Quartz	4	97.93
		Quartzite	2	47.78
		Silica sand	16	1361.99
		<b>Total</b>	<b>59</b>	<b>4678.81</b>
Mahendragarh		Barytes	1	79.32
		Calcite	2	158.56
		Dolomite	2	252.15
		Felspar	2	261.45
		Limestone	6	71.17
		Mica	1	400.00
		Quartz	10	577.19
		Slate	1	81.35
		<b>Total</b>	<b>25</b>	<b>1881.19</b>
Rewari		Quartzite	2	20.45
<b>Total</b>	<b>2</b>	<b>20.45</b>		
Himachal Pradesh	Bilaspur	Limestone	3	236.50
		<b>Total</b>	<b>3</b>	<b>236.50</b>
	Sirmur	Barytes	2	81.39
		Limestone	46	620.79
		<b>Total</b>	<b>48</b>	<b>702.18</b>
	Solan	Limestone	3	1088.50
	<b>Total</b>	<b>3</b>	<b>1088.50</b>	

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Jammu & Kashmir	Anantnag	Limestone	22	215.77
		<b>Total</b>	<b>22</b>	<b>215.77</b>
	Baramula	Gypsum	9	47.91
		<b>Total</b>	<b>9</b>	<b>47.91</b>
	Doda	Gypsum	6	56.81
		<b>Total</b>	<b>6</b>	<b>56.81</b>
	Leh	Borax	1	159.00
		Opal	1	200.00
		<b>Total</b>	<b>2</b>	<b>359.00</b>
	Poonch	Limestone	2	200.89
		<b>Total</b>	<b>2</b>	<b>200.89</b>
	Pulwama	Gypsum	2	8.82
		Limestone	6	235.53
<b>Total</b>		<b>8</b>	<b>244.35</b>	
Srinagar	Limestone	2	145.02	
	<b>Total</b>	<b>2</b>	<b>145.02</b>	
Udhampur	China clay	2	59.70	
	Magnesite	2	485.30	
	<b>Total</b>	<b>4</b>	<b>545.00</b>	
Jharkhand	Bokaro	Limestone	1	17.57
		Sand (others)	2	152.83
		<b>Total</b>	<b>3</b>	<b>170.40</b>
	Deogarh	Felspar	1	0.91
		Quartz	1	4.22
		<b>Total</b>	<b>2</b>	<b>5.13</b>
	Dhanbad	Fireclay	6	294.51
		Limestone	1	17.40
		Quartz	1	5.18
		Sand (others)	13	1765.35
		<b>Total</b>	<b>21</b>	<b>2082.44</b>
	Dumka	Quartz	1	0.88
		<b>Total</b>	<b>1</b>	<b>0.88</b>
Garwah	Limestone	3	1178.92	
	<b>Total</b>	<b>3</b>	<b>1178.92</b>	
Giridih	Felspar	1	191.42	
	Mica	3	190.72	
	Steatite	1	3.64	
	<b>Total</b>	<b>5</b>	<b>385.78</b>	

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Jharkhand (contd)	Godda	Limestone	1	18.82
		<b>Total</b>	<b>1</b>	<b>18.82</b>
	Gumla	Bauxite	25	2660.75
		<b>Total</b>	<b>25</b>	<b>2660.75</b>
	Hazaribagh	Felspar	1	3.13
		Fireclay	4	215.04
		Limestone	11	511.23
		Mica	1	197.00
		Pyrophyllite	1	22.50
		Quartz	1	8.20
		<b>Total</b>	<b>19</b>	<b>957.10</b>
	Kodarma	Felspar	4	19.43
		Mica	26	579.00
		Quartz	6	89.89
		Steatite	1	1.08
		<b>Total</b>	<b>37</b>	<b>689.40</b>
	Latehar	Bauxite	2	478.35
		China clay	1	8.25
		Fireclay	15	405.56
		Graphite	1	17.81
		Iron ore	1	2.04
		Mica	1	4.45
		Quartz	11	142.32
		<b>Total</b>	<b>32</b>	<b>1058.78</b>
	Lohardaga	Bauxite	18	855.48
		<b>Total</b>	<b>18</b>	<b>855.48</b>
	Palamau	Dolomite	1	18.45
Felspar		1	1.25	
Graphite		14	425.86	
Iron ore		4	58.06	
Limestone		2	1069.80	
Steatite		1	2.52	
<b>Total</b>		<b>23</b>	<b>1575.94</b>	
Ranchi	China clay	2	19.07	
	Felspar	1	37.56	
	Limestone	6	1335.35	
	<b>Total</b>	<b>9</b>	<b>1391.98</b>	
Sahebganj	China clay	2	12.25	
	<b>Total</b>	<b>2</b>	<b>12.25</b>	

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Jharkhand (concl'd)	Saraikela-Kharaswa	Kyanite	1	3.84
		Pyroxenite	1	13.64
		Quartz	4	49.04
		Steatite	1	31.36
		<b>Total</b>	<b>7</b>	<b>97.88</b>
	Singhbhum (East)	Copper ore	4	6806.37
		Kyanite	1	2.43
		Limestone	24	383.08
		<b>Total</b>	<b>29</b>	<b>7191.88</b>
	Singhbhum (West)	China clay	16	1496.70
		Gold	1	19.50
		Iron ore	43	12319.13
		Kyanite	6	2585.08
		Limestone	5	48.30
		Ochre	1	5.62
		Pyroxenite	7	65.06
		Quartz	1	2.02
		Quartzite	3	27.83
		Steatite	2	27.06
		<b>Total</b>	<b>85</b>	<b>16596.30</b>
Unidentified		Bauxite	1	44.56
		<b>Total</b>	<b>1</b>	<b>44.56</b>
Karnataka	Bagalkot	Dolomite	14	352.25
		Iron ore	2	69.99
		Limestone	82	5759.30
		Manganese ore	1	59.60
		Quartz	1	4.05
		<b>Total</b>	<b>100</b>	<b>6245.19</b>
	Bangalore	China clay	1	48.56
		Corundum	2	12.14
		Felspar	4	131.91
		Fireclay	1	2.02
		Silica sand	1	41.83
		<b>Total</b>	<b>9</b>	<b>236.46</b>
	Belgaum	Bauxite	5	578.32
		Calcite	1	17.00
		China clay	5	83.49
		Clay (others)	2	24.68
Dolomite		5	80.63	
Fireclay		1	2.16	
Iron ore		1	20.23	

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Karnataka (contd)	Belgaum	Laterite	2	95.21
		Limestone	16	1081.17
		Manganese ore	1	40.47
		Moulding sand	4	61.92
		Quartz	2	12.81
		Quartzite	2	8.09
		Silica sand	4	13.40
		<b>Total</b>	<b>51</b>	<b>2119.58</b>
	Bellary	Corundum	1	4.07
		Iron ore	121	10615.95
		Limestone	2	8.04
		Manganese ore	10	649.09
		Moulding sand	5	51.68
		Ochre	2	529.35
		Quartz	18	119.69
		Steatite	2	2.17
		<b>Total</b>	<b>161</b>	<b>11980.04</b>
		Bidar	Ochre	1
	<b>Total</b>		<b>1</b>	<b>21.85</b>
	Chikmagalur	Dolomite	1	4.45
		Iron ore	3	5412.34
		Quartz	1	7.41
		<b>Total</b>	<b>5</b>	<b>5424.20</b>
	Chitradurga	Barytes	1	17.00
		Copper ore	1	259.00
		Iron ore	15	508.58
		Kyanite	1	169.96
		Limestone	18	1948.59
		Manganese ore	28	1598.07
		Moulding sand	1	48.56
		Quartz	8	194.29
	<b>Total</b>	<b>73</b>	<b>4744.05</b>	
	Kodagu	Corundum	1	0.80
		<b>Total</b>	<b>1</b>	<b>0.80</b>
	Dawangere	Iron ore	1	38.45
		Manganese ore	2	64.54
		Moulding sand	9	229.61
		Ochre	1	1.65
		Quartz	3	160.12
		<b>Total</b>	<b>16</b>	<b>494.37</b>
	Dharwar	China clay	1	20.23
		Iron ore	4	190.37
		<b>Total</b>	<b>5</b>	<b>210.60</b>

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State	District	Mineral	No. of Leases	Lease Area (Hect.)
Karnataka (contd)	Gulbarga	Gold	1	55.75
		Limestone	14	7145.11
		Moulding sand	2	97.50
		Quartz	2	32.29
		<b>Total</b>	<b>19</b>	<b>7330.65</b>
	Hassan	China clay	2	311.60
		Chromite	6	1190.76
		Quartz	4	70.75
		Steatite	1	80.93
		Vermiculite	1	26.30
		<b>Total</b>	<b>14</b>	<b>1680.34</b>
	Haveri	Moulding sand	23	642.20
		<b>Total</b>	<b>23</b>	<b>642.20</b>
	Kolar	China clay	4	300.51
		Felspar	1	2.56
		Fireclay	1	14.16
		Gold	1	5215.21
		Laterite	1	2.02
		<b>Total</b>	<b>8</b>	<b>5534.46</b>
	Koppal	Quartz	9	85.96
		<b>Total</b>	<b>9</b>	<b>85.96</b>
	Mandya	Corundum	1	1.64
		Felsite	2	2.88
		Quartz	4	35.22
		<b>Total</b>	<b>7</b>	<b>39.74</b>
	Mysore	Corundum	3	86.05
		Felsite	4	129.18
		Graphite	4	235.04
		Kyanite	6	139.73
		Limestone	2	24.28
		Magnesite	10	223.52
		Quartz	2	4.99
		Steatite	1	12.14
		Vermiculite	2	8.31
		<b>Total</b>	<b>34</b>	<b>863.24</b>
	Uttara Kannada	Iron ore	4	390.52
		Limeshell	14	1058.96
		Limestone	1	151.71
		Manganese ore	8	824.45
		Moulding sand	2	152.76
		Quartz	1	1.82
		Silica Sand	14	261.22
		<b>Total</b>	<b>44</b>	<b>2841.44</b>

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State	District	Mineral	No. of Leases	Lease Area (Hect.)	
Karnataka (concl'd)	Raichur	Gold	4	987.06	
		Quartz	2	6.59	
		<b>Total</b>	<b>6</b>	<b>993.65</b>	
	Shimoga	China clay	3	33.99	
		Iron ore	1	7.29	
		Kyanite	1	2.42	
		Limestone	1	97.12	
		Manganese ore	2	71.50	
		Quartz	1	16.19	
		<b>Total</b>	<b>9</b>	<b>228.51</b>	
		Dakshina Kannada	Limeshell	1	101.17
	Quartz		1	1.95	
	Silica sand		3	118.29	
	<b>Total</b>		<b>5</b>	<b>221.41</b>	
	Tumkur	China clay	1	43.17	
		Fireclay	2	252.15	
		Gold	1	38.04	
		Iron ore	13	962.82	
		Limestone	9	1607.07	
		Manganese ore	19	1110.51	
		Ochre	1	6.07	
		Quartz	9	30.69	
		Steatite	4	69.56	
		<b>Total</b>	<b>59</b>	<b>4120.08</b>	
		Udupi	Bauxite	1	28.80
			Limeshell	5	488.47
			Ochre	1	56.65
Silica sand	27		765.52		
<b>Total</b>	<b>34</b>		<b>1339.44</b>		
Kerala	Alapuzha (Alleppy)	Laterite	1	2.09	
		Limeshell	5	518.50	
		Silica sand	36	41.83	
		<b>Total</b>	<b>42</b>	<b>562.42</b>	
	Ernakulam	Graphite	1	1.25	
		<b>Total</b>	<b>1</b>	<b>1.25</b>	
	Idukki (Iddiki)	Silica sand	1	48.00	
		<b>Total</b>	<b>1</b>	<b>48.00</b>	
	Kannur	Laterite	5	24.08	
		<b>Total</b>	<b>5</b>	<b>24.08</b>	

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State	District	Mineral	No. of Leases	Lease Area (Hect.)
Kerala (concl'd)	Kasargod	China clay	1	2.93
		<b>Total</b>	<b>1</b>	<b>2.93</b>
	Kollam	Bauxite	3	1.37
		China clay	4	8.28
		Laterite	1	1.13
		Sand (others)	3	174.57
		Sillimanite	4	327.40
		<b>Total</b>	<b>15</b>	<b>512.75</b>
	Kottayam	Limeshell	2	1445.00
		<b>Total</b>	<b>2</b>	<b>1445.00</b>
	Kozhikode	Iron ore	1	86.06
		Quartz	1	2.03
		<b>Total</b>	<b>2</b>	<b>88.09</b>
	Palakkad	Limestone	1	245.69
		<b>Total</b>	<b>1</b>	<b>245.69</b>
	Thiruvananthapuram	China clay	38	111.43
		<b>Total</b>	<b>38</b>	<b>111.43</b>
Wynad	Quartz	1	0.48	
	<b>Total</b>	<b>1</b>	<b>0.48</b>	
Madhya Pradesh	Badwani	Calcite	25	55.61
		<b>Total</b>	<b>25</b>	<b>55.61</b>
	Balaghat	Bauxite	1	40.46
		Copper ore	2	479.90
		Dolomite	18	134.93
		Fireclay	1	2.41
		Limestone	8	79.65
		Manganese ore	40	1512.49
		Ochre	1	16.18
		Sand (others)	2	15.50
		<b>Total</b>	<b>73</b>	<b>2281.52</b>
	Betul	Lead & Zinc ore	2	12.76
		<b>Total</b>	<b>2</b>	<b>12.76</b>
	Chhatarpur	China clay	2	20.12
		Diaspore	7	32.00
		Limestone	2	4.91
		Phosphorite	1	48.76
Pyrophyllite		13	54.27	
Quartzite		1	6.10	
Steatite		2	10.36	
<b>Total</b>		<b>28</b>	<b>176.52</b>	

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State	District	Mineral	No. of Leases	Lease Area (Hect.)
Madhya Pradesh (contd)	Chhindwara	Dolomite	11	86.80
		Manganese ore	7	118.97
		<b>Total</b>	<b>18</b>	<b>205.77</b>
	Damoh	Laterite	1	21.25
		Limestone	9	1491.37
		Sand (others)	1	2.02
		<b>Total</b>	<b>11</b>	<b>1514.64</b>
	Datia	Quartz	2	14.09
		<b>Total</b>	<b>2</b>	<b>14.09</b>
	Dewas	Barytes	1	3.35
		<b>Total</b>	<b>1</b>	<b>3.35</b>
	Dhar	Limestone	20	129.66
		Ochre	1	6.31
		<b>Total</b>	<b>21</b>	<b>135.97</b>
	Gwalior	China clay	1	20.63
		Iron ore	3	27.06
		Laterite	1	4.84
		Quartz	1	1.29
		<b>Total</b>	<b>6</b>	<b>53.82</b>
	Jabalpur	Bauxite	4	13.96
		Dolomite	7	64.67
		Fireclay	13	96.89
		Iron ore	12	161.11
		Laterite	8	60.28
		Limestone	11	1069.64
		Manganese ore	3	14.32
		Ochre	2	8.93
		Quartz	2	13.98
		Steatite	3	43.34
		<b>Total</b>	<b>65</b>	<b>1547.12</b>
	Jhabua	Calcite	3	13.79
		Dolomite	23	921.05
		Limestone	1	2.15
Manganese ore		1	30.86	
Phosphorite		2	11.41	
Steatite		1	3.59	
Vermiculite		2	27.49	
<b>Total</b>		<b>33</b>	<b>1010.34</b>	

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State	District	Mineral	No. of Leases	Lease Area (Hect.)
Madhya Pradesh (contd)	Katni	Bauxite	10	79.46
		Dolomite	23	137.76
		Fireclay	16	160.83
		Iron ore	1	12.59
		Laterite	3	16.07
		Limestone	92	1545.23
		Ochre	4	10.11
		Silica sand	1	0.60
		Steatite	3	27.45
		<b>Total</b>	<b>153</b>	<b>1990.10</b>
Khargaon	China clay	1	0.61	
		Dolomite	1	4.04
		Limestone	2	4.89
		Silica sand	3	2.72
		<b>Total</b>	<b>7</b>	<b>12.26</b>
Mandla	Dolomite	37	110.41	
		<b>Total</b>	<b>37</b>	<b>110.41</b>
Mandsaur	Laterite	11	51.52	
		Shale	16	178.71
		Slate	1	55.49
		<b>Total</b>	<b>28</b>	<b>285.72</b>
Morena	Limestone	1	18.00	
		<b>Total</b>	<b>1</b>	<b>18.00</b>
Narasinhapur	Dolomite	5	14.10	
		Fireclay	1	20.00
		Limestone	2	35.06
		Steatite	8	31.19
		<b>Total</b>	<b>16</b>	<b>100.35</b>
Nimach	Laterite	5	53.28	
		Limestone	7	1339.94
		<b>Total</b>	<b>12</b>	<b>1393.22</b>
Panna	Diamond	2	576.51	
		Limestone	1	48.39
		<b>Total</b>	<b>3</b>	<b>624.90</b>
Rewa	Bauxite	12	147.61	
		Limestone	18	1719.25
		Ochre	3	47.37
		<b>Total</b>	<b>33</b>	<b>1914.23</b>

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State	District	Mineral	No. of Leases	Lease Area (Hect.)
Madhya Pradesh (concd)	Sagar	Dolomite	2	20.36
		Phosphorite	1	52.80
		Pyrophyllite	2	3.21
		<b>Total</b>	<b>5</b>	<b>76.37</b>
	Satna	Bauxite	27	334.85
		China clay	11	100.57
		Clay (others)	5	119.25
		Laterite	17	176.75
		Limestone	192	10958.63
		Ochre	42	977.77
		<b>Total</b>	<b>294</b>	<b>12667.82</b>
		Seoni	Dolomite	9
	<b>Total</b>		<b>9</b>	<b>17.55</b>
	Shahdol	Bauxite	1	500.27
		China clay	3	20.84
		Fireclay	1	5.66
		Laterite	1	17.74
		Ochre	2	26.76
		<b>Total</b>	<b>8</b>	<b>571.27</b>
	Shivpuri	Diaspore	1	17.00
		<b>Total</b>	<b>1</b>	<b>17.00</b>
	Shyampur	Limestone	7	508.25
		Ochre	2	22.59
		<b>Total</b>	<b>9</b>	<b>530.84</b>
	Sidhi	Bauxite	1	3.40
		Limestone	4	497.77
		Ochre	3	119.31
<b>Total</b>		<b>8</b>	<b>620.48</b>	
Tikamgarh	Barytes	1	2.02	
	Diaspore	4	37.28	
	Pyrophyllite	23	215.13	
	Quartz	2	16.00	
	<b>Total</b>	<b>30</b>	<b>270.43</b>	
Umaria	China clay	1	11.24	
	Fireclay	3	22.62	
	Ochre	3	23.01	
	<b>Total</b>	<b>7</b>	<b>56.87</b>	
Unidentified	Bauxite	2	153.08	
	<b>Total</b>	<b>2</b>	<b>153.08</b>	

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State	District	Mineral	No. of Leases	Lease Area (Hect.)
Maharashtra	Akola	Limestone	1	16.57
		<b>Total</b>	<b>1</b>	<b>16.57</b>
	Amravati	China clay	2	16.71
		Fireclay	1	13.26
		<b>Total</b>	<b>3</b>	<b>29.97</b>
	Bhandara	Chromite	1	16.22
		Corundum	1	3.96
		Kyanite	15	307.35
		Manganese ore	7	445.97
		Quartz	4	33.32
		Sand (others)	2	43.34
		<b>Total</b>	<b>30</b>	<b>850.16</b>
		Chandrapur	China clay	1
	Fluorite		1	31.22
	Iron ore		3	29.92
	Laterite		6	95.51
	Limestone		22	3872.90
	Quartz		3	32.81
	Sand (others)		5	461.08
	Shale		1	32.49
	<b>Total</b>		<b>42</b>	<b>4573.93</b>
	Gadchiroli	Iron ore	3	359.67
		<b>Total</b>	<b>3</b>	<b>359.67</b>
	Gondia	Iron ore	4	30.80
		Quartz	1	14.32
		<b>Total</b>	<b>5</b>	<b>45.12</b>
	Jalna	Agate	2	54.98
<b>Total</b>		<b>2</b>	<b>54.98</b>	
Kolhapur	Bauxite	19	3993.25	
	Iron ore	1	143.95	
	<b>Total</b>	<b>20</b>	<b>4137.20</b>	
Nagpur	China clay	4	40.75	
	Dolomite	16	197.70	
	Manganese ore	36	780.49	
	Ochre	1	12.36	
	Quartz	1	1.07	
	Sand (others)	4	191.88	
	<b>Total</b>	<b>62</b>	<b>1224.25</b>	

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State	District	Mineral	No. of Leases	Lease Area (Hect.)
Maharashtra (concl'd)	Raigad	Bauxite	8	546.30
		<b>Total</b>	<b>8</b>	<b>546.30</b>
	Ratnagiri	Bauxite	7	720.43
		Moulding sand	1	47.02
		Silica sand	8	478.82
		<b>Total</b>	<b>16</b>	<b>1246.27</b>
	Satara	Bauxite	1	125.06
		<b>Total</b>	<b>1</b>	<b>125.06</b>
	Sindhudurg	China clay	1	13.18
		Felspar	2	34.25
		Fireclay	1	5.14
		Iron ore	16	745.56
		Manganese ore	1	191.85
		Mica	1	42.06
		Moulding sand	1	4.85
		Quartz	2	91.15
		Silica sand	23	986.61
		<b>Total</b>	<b>48</b>	<b>2114.65</b>
		Yeotmal	Dolomite	1
	Limestone		37	2273.17
Sand (others)	1		44.00	
<b>Total</b>	<b>39</b>		<b>2379.08</b>	
Manipur	Chandel	Chromite	1	223.93
		<b>Total</b>	<b>1</b>	<b>223.93</b>
	Ukhrul	Chromite	1	386.24
		<b>Total</b>	<b>1</b>	<b>386.24</b>
Meghalaya	Garo Hills West	Fireclay	1	221.44
		Limestone	3	530.00
		<b>Total</b>	<b>4</b>	<b>751.44</b>
	Jaintia Hills	Limestone	7	39.49
		<b>Total</b>	<b>7</b>	<b>39.49</b>
	Khasi Hills East	China clay	2	9.77
		Limestone	5	628.37
		Shale	1	4.90
		<b>Total</b>	<b>8</b>	<b>643.04</b>
	Orissa	Angul	Quartz	1
Sand (others)			3	318.33
<b>Total</b>			<b>4</b>	<b>326.46</b>

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State	District	Mineral	No. of Leases	Lease Area (Hect.)
Orissa (contd)	Bargarh	Graphite	11	190.10
		Limestone	2	806.53
		Quartz	1	15.21
		<b>Total</b>	<b>14</b>	<b>1011.84</b>
	Baudh	Quartz	4	58.47
		<b>Total</b>	<b>4</b>	<b>58.47</b>
	Bolangir	Graphite	52	1416.69
		Limestone	1	27.65
		Manganese ore	1	7.27
		Quartz	2	143.99
		<b>Total</b>	<b>56</b>	<b>1595.60</b>
	Cuttack	Fireclay	7	926.19
		<b>Total</b>	<b>7</b>	<b>926.19</b>
	Dhenkanal	Chromite	2	847.48
		<b>Total</b>	<b>2</b>	<b>847.48</b>
	Ganjam	Sillimanite	1	2483.02
		<b>Total</b>	<b>1</b>	<b>2483.02</b>
	Jajpur	Chromite	13	3995.63
		Iron ore	1	190.22
		Quartz	1	7.23
		Quartzite	1	2.31
		<b>Total</b>	<b>16</b>	<b>4195.39</b>
	Jharsuguda	Fireclay	2	246.42
		Ochre	1	102.27
		Quartzite	2	107.01
		Sand (others)	1	109.20
		<b>Total</b>	<b>6</b>	<b>564.90</b>
	Kalahandi	Amethyst	1	27.65
		Corundum	1	57.46
		Graphite	10	220.90
		lolite	8	76.97
		Quartz	31	311.93
		<b>Total</b>	<b>51</b>	<b>694.91</b>
	Keonjhar	Asbestos	1	49.22
		Chromite	6	2198.75
		Iron ore	54	19487.60
		Manganese ore	17	6464.91

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State	District	Mineral	No. of Leases	Lease Area (Hect.)
Orissa (contd)	Keonjhar	Pyrophyllite	8	487.29
		Quartz	2	35.99
		<b>Total</b>	<b>88</b>	<b>28723.76</b>
	Khurda	Fireclay	2	127.64
		<b>Total</b>	<b>2</b>	<b>127.64</b>
	Koraput	Bauxite	2	4915.11
		China clay	1	38.50
		Limestone	2	1586.18
		Mica	1	2.67
		Quartz	2	22.76
		<b>Total</b>	<b>8</b>	<b>6565.22</b>
	Malkangiri	Quartz	1	2.48
		Tin	1	36.26
		<b>Total</b>	<b>2</b>	<b>38.74</b>
	Mayurbhanj	China clay	7	655.44
		Fireclay	1	22.49
		Iron ore	7	1204.91
		Quartz	1	1.29
		Quartzite	7	20.65
		Steatite	2	136.20
		<b>Total</b>	<b>25</b>	<b>2040.98</b>
	Nawapara	Corundum	1	33.95
		Graphite	4	116.06
		Limestone	3	342.93
		<b>Total</b>	<b>8</b>	<b>492.94</b>
	Nayagarh	Graphite	1	16.64
		<b>Total</b>	<b>1</b>	<b>16.64</b>
Raygada	Bauxite	1	1388.74	
	Graphite	7	281.82	
	Manganese ore	2	512.83	
	<b>Total</b>	<b>10</b>	<b>2183.39</b>	
Sambalpur	Fireclay	1	8.84	
	Quartz	3	47.73	
	<b>Total</b>	<b>4</b>	<b>56.57</b>	
Sundargarh	Bauxite	4	369.43	
	Dolomite	7	740.03	
	Fireclay	3	545.56	
	Iron ore	30	6901.46	

contd...



State	District	Mineral	No. of Leases	Lease Area (Hect.)	
Orissa (concl'd)	Sundargarh	Lead & Zinc ore	1	499.60	
		Limestone	21	3286.85	
		Manganese ore	7	1554.25	
		Quartz	2	199.75	
		Sand (others)	2	9.90	
		Steatite	1	155.93	
		<b>Total</b>	<b>78</b>	<b>14262.76</b>	
Rajasthan	Ajmer	Asbestos	4	214.66	
		Felspar	245	2771.33	
		Garnet	5	24.14	
		Lead & Zinc ore	1	480.45	
		Limestone	1	8.57	
		Magnesite	1	5.00	
		Mica	44	1301.76	
		Quartz	102	773.51	
		Steatite	2	131.00	
		Vermiculite	1	42.22	
		Wollastonite	2	9.92	
		<b>Total</b>	<b>408</b>	<b>5762.56</b>	
		Alwar	Barytes	2	41.85
			China clay	1	4.73
	Copper ore		1	914.07	
	Felspar		3	14.99	
	Fireclay		1	3.75	
	Ochre		1	60.70	
	Silica sand		1	4.73	
	Steatite		8	511.01	
	<b>Total</b>		<b>18</b>	<b>1555.83</b>	
	Banswara		Graphite	2	383.55
			Limestone	1	65.82
		Manganese ore	1	80.00	
		Steatite	2	713.08	
		<b>Total</b>	<b>6</b>	<b>1242.45</b>	
	Barmer	China clay	3	14.89	
		Gypsum	6	1966.51	
		Silica sand	5	551.09	
		<b>Total</b>	<b>14</b>	<b>2532.49</b>	
	Bharatpur	Fireclay	3	47.75	
		Ochre	2	10.00	
		Silica sand	20	1148.84	
<b>Total</b>		<b>25</b>	<b>1206.59</b>		

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Rajasthan (contd)	Bhilwara	Asbestos	9	45.00
		Calcite	1	5.00
		China clay	13	782.82
		Felspar	329	5891.23
		Garnet	1	5.00
		Kyanite	1	5.00
		Lead & Zinc ore	1	1200.00
		Mica	81	1723.43
		Ochre	3	16.00
		Quartz	4	57.88
		Silica sand	1	5.00
		Steatite	14	1752.70
		<b>Total</b>	<b>458</b>	<b>11489.06</b>
		Bikaner	Ball clay	14
	China clay		53	3516.21
	Fireclay		18	2190.31
	Gypsum		16	4554.24
	Quartz		2	8.65
	<b>Total</b>		<b>103</b>	<b>11245.75</b>
	Bundi	China clay	2	109.00
		Ochre	2	99.37
		Quartz	1	4.50
		Silica sand	1	259.00
		<b>Total</b>	<b>6</b>	<b>471.87</b>
	Chittorgarh	Ball clay	1	83.23
		China clay	30	972.46
		Limestone	8	3709.18
		Ochre	21	973.64
		Quartz	24	104.13
		Shale	1	5.00
		<b>Total</b>	<b>85</b>	<b>5847.64</b>
	Dausa	China clay	1	32.37
		Iron ore	1	65.25
		Quartz	3	191.28
		Silica sand	7	340.93
		Steatite	5	352.20
		<b>Total</b>	<b>17</b>	<b>982.03</b>
	Dungarpur	Felspar	1	100.00
		Fluorite	9	425.98
		Steatite	53	3766.85
		<b>Total</b>	<b>63</b>	<b>4292.83</b>

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)	
Rajasthan (contd)	Ganganagar	Gypsum	8	1475.89	
		<b>Total</b>	<b>8</b>	<b>1475.89</b>	
	Hanumangarh	Gypsum	5	2786.09	
		<b>Total</b>	<b>5</b>	<b>2786.09</b>	
	Jaipur	Asbestos	1	66.50	
		Calcite	1	296.41	
		China clay	7	1171.14	
		Dolomite	2	92.93	
		Epidote	1	5.00	
		Felspar	9	270.93	
		Iron ore	5	1106.80	
		Limestone	3	1334.90	
		Mica	2	68.37	
		Ochre	2	183.00	
		Quartz	25	563.81	
		Silica sand	18	864.90	
		Steatite	9	849.98	
		<b>Total</b>	<b>85</b>	<b>6874.67</b>	
		Jaisalmer	Ball clay	1	150.00
			Dolomite	1	32.37
	Gypsum		4	1067.89	
	Limestone		2	1998.00	
	Ochre		1	32.37	
	Silica sand		8	385.00	
	<b>Total</b>		<b>17</b>	<b>3665.63</b>	
	Jalore	Fluorite	4	1075.00	
		Gypsum	1	178.50	
		<b>Total</b>	<b>5</b>	<b>1253.50</b>	
	Jhunjhunu	Calcite	4	109.94	
		Copper ore	4	803.88	
		Dolomite	1	33.68	
		Fireclay	3	84.99	
		Iron ore	5	257.54	
		Ochre	1	33.00	
		Pyrophyllite	1	42.50	
		Quartz	2	170.00	
		Steatite	5	432.56	
		<b>Total</b>	<b>26</b>	<b>1968.09</b>	
	Jodhpur	Jasper	5	211.70	
		<b>Total</b>	<b>5</b>	<b>211.70</b>	

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Rajasthan (contd)	Karauli	China clay	4	18.92
		Clay (others)	1	5.00
		Silica sand	27	746.37
		Steatite	1	5.00
		<b>Total</b>	<b>33</b>	<b>775.29</b>
	Kota	Limestone	6	1319.52
		<b>Total</b>	<b>6</b>	<b>1319.52</b>
	Nagaur	Ball clay	2	10.00
		China clay	38	177.27
		Gypsum	4	2271.15
		Limestone	12	6700.63
		<b>Total</b>	<b>56</b>	<b>9159.05</b>
	Pali	Ball clay	6	777.73
		China clay	4	305.53
		Felspar	2	69.87
		Limestone	11	1114.15
		Magnesite	2	10.00
		Quartz	16	1180.68
		<b>Total</b>	<b>41</b>	<b>3457.96</b>
	Rajsamand	Asbestos	11	729.82
		Felspar	2	10.00
		Lead & Zinc ore	3	1725.82
		Mica	2	10.00
		Pyrophyllite	2	105.00
		Quartz	331	1688.97
		Steatite	29	2277.28
		<b>Total</b>	<b>380</b>	<b>6546.89</b>
	Sawai Madhopur	Ochre	1	38.43
		Quartz	2	249.45
		Silica sand	3	287.02
		<b>Total</b>	<b>6</b>	<b>574.90</b>
	Sikar	Barytes	1	47.51
		Calcite	8	227.62
		China clay	1	32.54
		Dolomite	2	128.93
		Felspar	9	271.46
		Iron ore	5	95.91
		Limestone	5	2363.12
		Ochre	1	5.00
		Quartz	56	748.41
		Silica sand	3	15.00
		Steatite	1	5.00
		<b>Total</b>	<b>92</b>	<b>3940.50</b>

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)	
Rajasthan (concl'd)	Sirohi	Calcite	5	366.66	
		Fluorite	1	167.62	
		Lead & Zinc ore	1	63.00	
		Limestone	7	1120.03	
		Quartz	3	12.75	
		Wollastonite	2	95.69	
		<b>Total</b>	<b>19</b>	<b>1825.75</b>	
	Tonk	Felspar	3	70.37	
		Garnet	10	320.99	
		Mica	4	175.87	
		Quartz	14	297.84	
		Quartzite	1	5.00	
		Silica sand	6	299.16	
		Steatite	1	48.00	
		<b>Total</b>	<b>39</b>	<b>1217.23</b>	
	Udaipur	Asbestos	3	230.43	
		Barytes	1	31.00	
		Calcite	9	205.92	
		China clay	1	5.00	
		Felspar	10	46.97	
		Lead & Zinc ore	1	3620.00	
		Limestone	1	704.90	
		Ochre	1	5.00	
		Phosphorite	6	2092.11	
		Pyrophyllite	3	160.66	
		Quartz	24	111.21	
		Steatite	78	4602.30	
		Wollastonite	1	101.80	
		<b>Total</b>	<b>139</b>	<b>11917.30</b>	
		Sikkim	Sikkim East	Copper ore	3
	<b>Total</b>			<b>3</b>	<b>96.30</b>
	Tamil Nadu	Ariyalur	Limestone	10	591.97
			<b>Total</b>	<b>10</b>	<b>591.97</b>
Chengai-Anna		Quartz	1	6.58	
		<b>Total</b>	<b>1</b>	<b>6.58</b>	
Chennai		Quartz	1	1.00	
		<b>Total</b>	<b>1</b>	<b>1.00</b>	
Coimbatore		Quartz	9	17.83	
		Steatite	2	5.46	
		<b>Total</b>	<b>11</b>	<b>23.29</b>	

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Tamil Nadu (contd)	Cuddalore	Fireclay	5	49.06
		Silica sand	1	1.06
		<b>Total</b>	<b>6</b>	<b>50.12</b>
	Dharmapuri	Quartz	2	18.62
		<b>Total</b>	<b>2</b>	<b>18.62</b>
	Dindigul	Limestone	15	43.24
		Quartz	14	14.87
		<b>Total</b>	<b>29</b>	<b>58.11</b>
	Erode	Limestone	1	1.82
		Quartz	41	85.31
		<b>Total</b>	<b>42</b>	<b>87.13</b>
	Kanchipuram	Limeshell	1	190.00
		Silica sand	7	27.56
		<b>Total</b>	<b>8</b>	<b>217.56</b>
	Kanyakumari	Garnet	11	273.79
		<b>Total</b>	<b>11</b>	<b>273.79</b>
	Karur	Limestone	14	46.39
		Magnesite	2	4.41
		Quartz	43	67.80
		<b>Total</b>	<b>59</b>	<b>118.60</b>
	Madurai	Graphite	1	14.51
		Limestone	2	3.11
		Quartz	4	5.80
		<b>Total</b>	<b>7</b>	<b>23.42</b>
	Nagapattinam	Silica sand	5	9.47
		<b>Total</b>	<b>5</b>	<b>9.47</b>
	Namakkal	Bauxite	2	158.46
Limestone		15	41.24	
Magnesite		1	1.82	
Quartz		21	40.60	
<b>Total</b>		<b>39</b>	<b>242.12</b>	
Perambalur	Fireclay	18	51.96	
	Gypsum	4	164.14	
	Limestone	32	527.51	
	<b>Total</b>	<b>54</b>	<b>743.61</b>	
Erode	Quartz	11	6.28	
	<b>Total</b>	<b>11</b>	<b>6.28</b>	

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Tamil Nadu (contd)	Ramanathapuram	Limeshell	1	539.05
		<b>Total</b>	<b>1</b>	<b>539.05</b>
	Salem	Felspar	1	39.47
		Limestone	27	150.41
		Magnesite	13	1198.68
		Quartz	24	60.14
		<b>Total</b>	<b>65</b>	<b>1448.70</b>
	Sivaganga	Graphite	4	277.11
		<b>Total</b>	<b>4</b>	<b>277.11</b>
	Theni (Madurai)	Limestone	3	6.77
		<b>Total</b>	<b>3</b>	<b>6.77</b>
	Thiruvannamalai	Fireclay	1	4.87
		<b>Total</b>	<b>1</b>	<b>4.87</b>
	Thiruvarur (Nagapattinam)	Silica sand	1	4.16
		<b>Total</b>	<b>1</b>	<b>4.16</b>
	Tiruchirappalli	China clay	1	12.30
		Dolomite	1	62.07
		Fireclay	1	1.20
		Garnet	1	19.06
		Gypsum	4	46.45
		Limestone	8	88.45
		Quartz	2	4.07
		Steatite	1	4.90
		<b>Total</b>	<b>19</b>	<b>238.50</b>
		Tirunelveli	Garnet	43
	Limestone		19	643.90
	<b>Total</b>		<b>62</b>	<b>853.26</b>
Thoothukudi (Tuticorin)	Limestone	3	6.48	
	<b>Total</b>	<b>3</b>	<b>6.48</b>	
Thoothukudi	Garnet	2	21.93	
	Limestone	2	4.75	
	<b>Total</b>	<b>4</b>	<b>26.68</b>	
Unidentified	Limestone	2	2.46	
	<b>Total</b>	<b>2</b>	<b>2.46</b>	
Vellore	Quartz	1	1.39	
	Steatite	1	28.26	
	Vermiculite	1	23.71	
	<b>Total</b>	<b>3</b>	<b>53.36</b>	

contd...

State	District	Mineral	No. of Leases	Lease Area (Hect.)
Tamil Nadu (concl'd)	Villupuram	China clay	1	3.25
		Silica sand	2	5.11
		<b>Total</b>	<b>3</b>	<b>8.36</b>
	Virudhunagar	Limestone	14	709.50
<b>Total</b>		<b>14</b>	<b>709.50</b>	
Uttar Pradesh	Allahabad	Silica sand	52	1419.23
		<b>Total</b>	<b>52</b>	<b>1419.23</b>
	Chitrakut	Silica sand	6	197.34
		<b>Total</b>	<b>6</b>	<b>197.34</b>
	Hamirpur	Pyrophyllite	4	31.42
		<b>Total</b>	<b>4</b>	<b>31.42</b>
	Jhansi	Pyrophyllite	6	141.12
		<b>Total</b>	<b>6</b>	<b>141.12</b>
	Lalitpur	Phosphorite	1	874.00
		Pyrophyllite	10	1308.25
		<b>Total</b>	<b>11</b>	<b>2182.25</b>
	Mahoba	Pyrophyllite	3	11.08
		<b>Total</b>	<b>3</b>	<b>11.08</b>
	Sonbhadra	Calcite	1	27.92
Dolomite		1	1656.32	
Limestone		4	3623.43	
<b>Total</b>		<b>6</b>	<b>5307.67</b>	
Uttarakhand	Almoda	Steatite	2	6.24
		<b>Total</b>	<b>2</b>	<b>6.24</b>
	Bageshwar	Magnesite	1	53.20
		Steatite	41	1696.67
		<b>Total</b>	<b>42</b>	<b>1749.87</b>
	Dehradun	Limestone	2	97.15
		Phosphorite	2	222.05
		<b>Total</b>	<b>4</b>	<b>319.20</b>
	Pithoragarh	Magnesite	3	687.92
		Steatite	14	286.78
		<b>Total</b>	<b>17</b>	<b>974.70</b>
	Tehri Garhwal	Limestone	4	27.77
		<b>Total</b>	<b>4</b>	<b>27.77</b>

contd...



Table-4 (concl'd)

State	District	Mineral	No. of Leases	Lease Area (Hect.)
West Bengal	Bankura	China clay	14	319.06
		Felspar	1	2.23
		Fireclay	5	40.06
		Quartz	4	10.72
		Quartzite	1	4.70
		Silica sand	1	2.50
		<b>Total</b>	<b>26</b>	<b>379.27</b>
		Birbhum	China clay	22
	Fireclay		1	46.00
	Quartz		1	1.60
	<b>Total</b>		<b>24</b>	<b>375.05</b>
	Burdwan	Fireclay	6	2061.58
		Moulding sand	1	0.37
		<b>Total</b>	<b>7</b>	<b>2061.95</b>
	Jalpaiguri	Dolomite	1	847.00
		<b>Total</b>	<b>1</b>	<b>847.00</b>
	Midnapur	Ochre	1	5.76
		<b>Total</b>	<b>1</b>	<b>5.76</b>
	Purulia	China clay	2	332.29
		Fireclay	1	1.19
		Limestone	1	0.67
		Moulding sand	1	5.14
		Phosphorite	1	29.13
		Pyrophyllite	1	2.19
		Quartz	3	6.37
		Sand (others)	1	44.09
		<b>Total</b>	<b>11</b>	<b>421.07</b>

### 3.2 DISTRICTWISE ANALYSIS

#### (i) High Mineral Potential Districts

Districtwise analysis indicates that the total number of mineral-bearing districts is around 277 and that they are spread across 23 states in the country. Out of these, 20 districts in 6 states are considered as high mineral potential districts wherein more than 100 mining leases each have been granted. A total of 4,367 mining leases have been granted in these districts covering an area of 148,257 hectares. These constitute about 46% of total number of mining leases in the country and cover around 30% of the total area. Information on the number of mining leases granted in high mineral potential districts is furnished in Table-5.

**Table-5: High Mineral Potential Districts**

S.No.	District	State	No. of Leases	No. of Minerals	Lease Area (Hect.)
1.	Anantapur	Andhra Pradesh	149	14	4,361.96
2.	Cuddapah	Andhra Pradesh	205	17	5,980.76
3.	Kurnool	Andhra Pradesh	233	14	5,812.30
4.	Mahbubnagar	Andhra Pradesh	109	2	1,235.86
5.	Nellore	Andhra Pradesh	231	10	4,205.59
6.	Prakasam	Andhra Pradesh	107	6	2,168.88
7.	North Goa	Goa	137	2	9,842.99
8.	South Goa	Goa	285	3	21,614.44
9.	Jamnagar	Gujarat	203	6	5,537.23
10.	Junagarh	Gujarat	123	2	3,120.20
11.	Kachchh	Gujarat	183	10	6,820.39
12.	Porbandar	Gujarat	306	4	3,957.31
13.	Bellary	Karnataka	161	8	11,980.04
14.	Katni	Madhya Pradesh	153	9	1,990.10
15.	Satna	Madhya Pradesh	294	6	12,667.82
16.	Ajmer	Rajasthan	408	11	5,762.56
17.	Bhilwara	Rajasthan	458	12	11,489.06
18.	Bikaner	Rajasthan	103	5	11,245.75
19.	Rajsamand	Rajasthan	380	7	6,546.89
20.	Udaipur	Rajasthan	139	13	11,917.30
	<b>Total</b>		<b>4,367</b>		<b>1,48,257.43</b>

**(ii) Medium Mineral Potential Districts**

Districts wherein mining leases between 51 and 100 are granted are considered as Medium Potential districts. There are 2,180 such mining leases granted in 32 districts in 12 states covering an area of 1,39,420 hectares. These constitute 23% of the total number of mining leases in the country and cover over 28% of the total area. Information on the number of mining leases granted in medium potential districts is furnished in Table-6.

**Table-6: Medium Mineral Potential Districts**

S.No.	District	State	No. of Leases	No. of Minerals	Lease Area (Hect.)
1.	Godavari East	Andhra Pradesh	52	4	188.00
2.	Khammam	Andhra Pradesh	53	11	1,754.06
3.	Nalgonda	Andhra Pradesh	56	4	4,981.46
4.	Rangareddi	Andhra Pradesh	55	7	1,672.17
5.	Vizianagaram	Andhra Pradesh	65	6	1,218.49
6.	Durg	Chhattisgarh	95	5	3,860.37
7.	Sabarkantha	Gujarat	51	9	609.27
8.	Surendranagar	Gujarat	85	4	503.03
9.	Vadodara	Gujarat	95	5	1,101.25
10.	Gurgaon	Haryana	59	4	4,678.81
11.	Singhbhum (West)	Jharkhand	85	10	16,596.30
12.	Bagalkot	Karnataka	100	5	6,245.19
13.	Belgaum	Karnataka	51	14	2,119.58
14.	Chitradurga	Karnataka	73	8	4,744.05
15.	Tumkur	Karnataka	59	9	4,120.08
16.	Balaghat	Madhya Pradesh	73	8	2,281.52
17.	Jabalpur	Madhya Pradesh	65	10	1,547.12
18.	Nagpur	Maharashtra	62	6	1,224.25
19.	Bolangir	Orissa	56	4	1,595.60
20.	Kalahandi	Orissa	51	5	694.91
21.	Keonjhar	Orissa	88	6	28,723.76
22.	Sundargarh	Orissa	78	10	14,262.76
23.	Chittorgarh	Rajasthan	85	6	5,847.64
24.	Dungarpur	Rajasthan	63	3	4,292.83
25.	Jaipur	Rajasthan	85	13	6,874.67
26.	Nagaur	Rajasthan	56	4	9,159.05
27.	Sikar	Rajasthan	92	11	3,940.50
28.	Karur	Tamil Nadu	59	3	118.60
29.	Perambalur	Tamil Nadu	54	3	743.61
30.	Salem	Tamil Nadu	65	4	1,448.70
31.	Tirunelveli	Tamil Nadu	62	2	853.26
32.	Allahabad	Uttar Pradesh	52	1	1,419.23
	<b>Total</b>		<b>2,180</b>		<b>1,39,420.12</b>

(iii) Low Mineral Potential Districts

Districts wherein mining leases granted are between 1 and 50 are considered as Low Mineral Potential districts. There are 2,868 mining leases granted in 225 such districts in 22 states covering an area of 2,03,768 hectares in the country. These account for 31% of the total leases in the country covering 42% of the total area. Statewise distribution of low potential districts, no. of leases and total area covered are furnished in Table-7.

Table-7: Low Mineral Potential Districts

S.No.	State	No. of Districts	No. of Leases	Lease Area (Hect.)
1.	Andhra Pradesh	11	263	20,891.26
2.	Assam	2	8	929.50
3.	Bihar	3	10	2,030.16
4.	Chhattisgarh	13	217	13,790.29
5.	Gujarat	11	182	6,313.86
6.	Haryana	4	49	6,792.71
7.	Himachal Pradesh	3	54	2,027.18
8.	Jammu & Kashmir	8	55	1,814.75
9.	Jharkhand	18	238	20,378.37
10.	Karnataka	18	249	28,189.32
11.	Kerala	11	109	3,042.12
12.	Madhya Pradesh	27	363	9,955.85
13.	Maharashtra	13	218	16,478.96
14.	Manipur	2	2	610.17
15.	Meghalaya	3	19	1,433.97
16.	Orissa	16	114	21,935.87
17.	Rajasthan	18	298	28,530.85
18.	Sikkim	1	3	96.30
19.	Tamil Nadu	26	242	3,487.84
20.	Uttar Pradesh	6	36	7,870.88
21.	Uttarakhand	5	69	3,077.78
22.	West Bengal	6	70	4,090.10
	<b>Total</b>	<b>225</b>	<b>2,868</b>	<b>203,768.09</b>

### 3.3 MINERALWISE ANALYSIS

There are 59 naturally occurring minerals for which mining leases are granted in the country. These minerals are broadly classified into Scheduled and Non-Scheduled minerals.

#### (i) Scheduled Minerals

The Scheduled Minerals include ferrous, non-ferrous & noble metals, industrial mineral and precious mineral. The ferrous group includes chromite, iron ore and manganese ore; non-ferrous group consists of bauxite, copper and lead & zinc ores; noble metal group includes gold and industrial mineral group includes asbestos. At present, there are no commercial mining leases for silver and platinum group of metals in the country.

There are 9 minerals under Scheduled Minerals for which mining leases are granted as on 31.3.2009. The number of leases granted are 1,520, i.e., 16% of the total mining leases accounting for an area of 1,81,404.87 hectares which is 37% of the total mining area in the country. Out of the nine scheduled minerals, the total number of mining leases granted for iron ore is placed at 769 followed by bauxite (355), manganese ore (293), asbestos (36), chromite (30) and copper ore (16). These six minerals account for 1499 mining leases, i.e., 98% of the mining leases under this category accounting for an area of 1,66,742.75 hectares which is 92% of the lease area accounted under Scheduled Minerals. The distribution of mining leases for Scheduled Minerals are given in Table-8.

**Table- 8 : Distribution of Mining Leases for Scheduled Minerals**

S.No.	Mineral	No. of Lease Executed	Area in Hectares
1.	Asbestos	36	1687.71
2.	Bauxite	355	31319.67
3.	Chromite	30	8859.01
4.	Copper ore	16	9530.95
5.	Diamond	2	576.51
6.	Gold	9	6483.98
7.	Iron ore	769	94307.86
8.	Lead & Zinc ore	10	7601.63
9.	Manganese ore	293	21037.55
	<b>Total</b>	<b>1,520</b>	<b>1,81,404.87</b>

#### (ii) Non-Scheduled Minerals

There are 50 Non-Scheduled or Industrial minerals, for which leases are granted in the country. In all, there are 7,895 (84% of the total mining leases) mining leases granted for these minerals that account for an area of 3,10,040.77 hectares which is 63% of the total lease area. Distribution of mining leases for Non-Scheduled minerals are given in Table-9.

Table-9: Distribution of Mining Leases for Non-Scheduled Minerals

S. No.	Mineral	No. of Leases	Lease Area (Hect.)
1.	Agate	4	241.13
2.	Amethyst	5	40.64
3.	Apatite	1	13.29
4.	Ball clay	52	2289.45
5.	Barytes	128	2436.38
6.	Borax	1	159.00
7.	Calcareous sand	14	151.54
8.	Calcite	70	1686.94
9.	Chalk	166	669.83
10.	China clay	491	17069.43
11.	Clay (others)	115	1493.57
12.	Corundum	21	266.24
13.	Diaspore	12	86.28
14.	Dolomite	469	9373.69
15.	Epidote	1	5.00
16.	Felsite	6	132.06
17.	Felspar	667	10768.26
18.	Fireclay	259	8726.33
19.	Fluorite	17	1731.51
20.	Garnet	88	1818.62
21.	Graphite	118	3755.39
22.	Gypsum	76	14711.25
23.	Iolite	8	76.97
24.	Jasper	5	211.70
25.	Kyanite	32	3215.81

(contd...)

Table-9 (concl'd)

S. No.	Mineral	No. of Leases	Lease Area (Hect.)
26.	Laterite	153	1948.11
27.	Lime kankar	16	426.15
28.	Limeshell	33	4429.34
29.	Limestone	1733	130097.36
30.	Magnesite	36	2676.42
31.	Mica	279	7980.12
32.	Moulding sand	62	1428.17
33.	Ochre	134	3706.03
34.	Opal	1	200.00
35.	Perlite	1	144.65
36.	Phosphorite	15	3333.09
37.	Pyrites	1	647.50
38.	Pyrophyllite	83	2732.17
39.	Pyroxenite	8	78.70
40.	Quartz	1434	15471.05
41.	Quartzite	58	769.54
42.	Sand (others)	54	5356.32
43.	Shale	30	402.95
44.	Silica sand	478	16972.79
45.	Sillimanite	6	9810.42
46.	Slate	13	557.62
47.	Steatite	412	19091.17
48.	Tin	10	197.70
49.	Vermiculite	14	245.68
50.	Wollastonite	5	207.41
	<b>Total</b>	<b>7895</b>	<b>310040.77</b>

### 3.4 FREQUENCY DISTRIBUTION OF MINING LEASES

The number of mining leases so far executed for various minerals are classified into eight categories:

- Category -I : Includes minerals for which number of mining leases executed are between 1,001 and 2000;
- Category -II : Includes minerals for which number of mining leases executed are between 501 and 1,000;
- Category -III: Includes minerals for which number of mining leases executed are between 401 and 500;
- Category -IV: Includes minerals for which number of mining leases executed are between 301 and 400;
- Category -V : Includes minerals for which number of mining leases executed are between 201 and 300;
- Category -VI: Includes minerals for which number of mining leases executed are between 101 and 200;
- Category -VII: Includes minerals for which number of mining leases executed are between 51 and 100; and
- Category -VIII: Includes minerals for which number of mining leases executed are between 1 and 50.

Number of minerals, their mining leases and area of leases covered categorywise are summarised in Table - 10. The frequency distribution of mining leases is given in Table - 11.

**Table - 10 : Categorywise Number of Minerals, their Mining Leases and Area of Leases**

Category	No. of Minerals	No. of Mining Leases		Lease Area	
		No. of Leases	Percentage	In Hect.	Percentage
I	2	3,167	34	1,45,568.41	30
II	2	1,436	15	1,05,076.12	21
III	4	1,850	20	62,507.08	13
IV	1	355	4	31,319.67	6
V	3	831	9	37,744.00	8
VI	6	814	9	14,009.31	3
VII	8	543	5	30,792.46	6
VIII	33	419	4	64,428.59	13
<b>Total</b>	<b>59</b>	<b>9,415</b>	<b>100</b>	<b>4,91,445.64</b>	<b>100</b>



**Table-11 : Frequency Distribution of Mining Leases**

Category	Frequency of Leases	Mineral	No. of Mining Leases Granted	Lease Area in Hect.
I	>1000	Limestone	1733	130097.36
		Quartz	1434	15471.05
		<b>Total</b>	<b>3167</b>	<b>145568.41</b>
II	Between 501 and 1000	Felspar	667	10768.26
		Iron ore	769	94307.86
		<b>Total</b>	<b>1436</b>	<b>105076.12</b>
III	Between 401 and 500	China clay	491	17069.43
		Dolomite	469	9373.69
		Silica sand	478	16972.79
		Steatite	412	19091.17
		<b>Total</b>	<b>1850</b>	<b>62507.08</b>
IV	Between 301 and 400	Bauxite	355	31319.67
		<b>Total</b>	<b>355</b>	<b>31319.67</b>
V	Between 201 and 300	Fireclay	259	8726.33
		Manganese ore	293	21037.55
		Mica	279	7980.12
		<b>Total</b>	<b>831</b>	<b>37744.00</b>
VI	Between 101 and 200	Barytes	128	2436.38
		Chalk	166	669.83
		Clay (others)	115	1493.57
		Graphite	118	3755.39
		Laterite	153	1948.11
		Ochre	134	3706.03
		<b>Total</b>	<b>814</b>	<b>14009.31</b>
VII	Between 51 and 100	Ball clay	52	2289.45
		Calcite	70	1686.94
		Garnet	88	1818.62
		Gypsum	76	14711.25
		Moulding sand	62	1428.17
		Pyrophyllite	83	2732.17
		Quartzite	58	769.54
		Sand (others)	54	5356.32
		<b>Total</b>	<b>543</b>	<b>30792.46</b>

contd...

Table-11 (concl'd)

Category	Frequency of Leases	Mineral	No. of Mining Leases Granted	Lease Area in Hect.
VIII	Between 1 and 50	Agate	4	241.13
		Amethyst	5	40.64
		Apatite	1	13.29
		Asbestos	36	1687.71
		Borax	1	159.00
		Calcareous sand	14	151.54
		Chromite	30	8859.01
		Copper ore	16	9530.95
		Corundum	21	266.24
		Diamond	2	576.51
		Diaspore	12	86.28
		Epidote	1	5.00
		Felsite	6	132.06
		Fluorite	17	1731.51
		Gold	9	6483.98
		Iolite	8	76.97
		Jasper	5	211.70
		Kyanite	32	3215.81
		Lead & Zinc ore	10	7601.63
		Lime kankar	16	426.15
		Limeshell	33	4429.34
		Magnesite	36	2676.42
		Opal	1	200.00
		Perlite	1	144.65
		Phosphorite	15	3333.09
		Pyrites	1	647.50
		Pyroxenite	8	78.70
		Shale	30	402.95
		Sillimanite	6	9810.42
		Slate	13	557.62
		Tin	10	197.70
Vermiculite	14	245.68		
Wollastonite	5	207.41		
		<b>Total</b>	<b>419</b>	<b>64428.59</b>

### 3.5 MUSEUM DISTRICTS OF MINERALS

Districts wherein there are concentration of both number and wide variety of minerals are considered as Museum Districts of minerals. There are as many as 69 districts covering 13 states which have more than 4 varieties of minerals. The districts and occurrences of wide variety of minerals have been listed in Table-4. Cuddapah, Anantpur and Kurnool districts of Andhra Pradesh; Belgaum district of Karnataka; and Jaipur, Bhilwara and Udaipur districts of Rajasthan are considered as Museum Districts of Minerals. These seven districts are endowed with as many as 12 varieties of minerals respectively.

### 3.6 SECTORWISE DISTRIBUTION OF MINING LEASES

Out of the total 9,415 mining leases in the country, 500 (5%) leases have been executed in the Public Sector, extending over an area of 1,45,334.36 hectares (30%). The remaining 8,915 (95%) mining leases with an area of 3,46,111.28 hectares (70%) have been executed in the Private Sector. Most of the Scheduled Minerals, namely, copper ore, lead & zinc ores, gold, iron ore, manganese ore and chromite and Non-Scheduled Minerals like limestone, dolomite, pyrite, apatite, barytes, fluorite, asbestos, kyanite, magnesite, etc. are being exploited by both Public and Private Sectors.

#### Leases Under Central Government Public Sector Undertakings

There are 185 mining leases under Central Government Public Sector Undertakings executed in 18 States for different minerals, covering an area of 73,160.20 hectares. The States rich in minerals where maximum number of mining leases executed for Central Govt. Public Sector Undertakings are Maharashtra 33 (18%) followed by Madhya Pradesh 28 (15%), Andhra Pradesh 26 (14%), Jharkhand 20 (11%), Orissa and Rajasthan 15 (8% each), Tamil Nadu 12 (6%) and Chhattisgarh 11 (6%). These eight States together account for over 86% of total leases executed and the remaining 10 States account for the rest of the 14 percent.

The prominent States where maximum mining lease areas are located are Jharkhand (23%) followed by Orissa (22%), Karnataka (16%), Madhya Pradesh (9%), Andhra Pradesh (8%), Chhattisgarh (7%) and Rajasthan (5%). These seven States account for 90% of the total lease area executed and the remaining States account for the rest of the 10 percent.

#### Leases Under State Government Public Sector Undertakings

There are 315 number of mining leases executed in 18 States for different minerals, covering an area of 72,174.16 hectares. The States rich in minerals where there are maximum number of mining leases executed are Karnataka 61 (19%) followed by Rajasthan 53 (17%), Tamil Nadu 51 (16%), Orissa 40 (13%), Chhattisgarh 26 (8%), Maharashtra 17 (5%), Gujarat 16 (5%) and Andhra Pradesh 13 (4%). These eight States together account for over 87% of the total leases executed and the remaining 10 States account for the rest of the 13 percent.

The prominent States where maximum mining lease areas are located are Rajasthan (31%), Orissa (28%), Karnataka (14%), Uttar Pradesh (9%), Gujarat (6%), and Tamil Nadu (4%). These six States together account for around 92% of the total lease area executed while the remaining 12 States account for the rest of the 8 percent.

Statewise and Sectorwise distribution of mining leases are given in Tables-12 to 14.

**Table-12: Sectorwise Distribution of Mining Leases (As on 31.03.2009)**  
(Public Sector and Private Sector)

S.No.	State	Total		Public Sector		Private Sector	
		No. of Leases	Lease Area (Hects.)	No. of Leases	Lease Area (Hects.)	No. of Leases	Lease Area (Hects.)
1.	Andhra Pradesh	1578	54470.79	39	7174.76	1539	47296.03
2.	Assam	8	929.50	2	338.00	6	591.50
3.	Bihar	10	2030.16	1	647.50	9	1382.66
4.	Chhattisgarh	312	17650.66	37	6209.82	275	11440.84
5.	Goa	422	31457.43	-	-	422	31457.43
6.	Gujarat	1228	27962.54	16	4135.94	1212	23826.60
7.	Haryana	108	11471.52	2	325.52	106	11146.00
8.	Himachal Pradesh	54	2027.18	2	410.23	52	1616.95
9.	Jammu & Kashmir	55	1814.75	3	573.40	52	1241.35
10.	Jharkhand	323	36974.67	29	18186.38	294	18788.29
11.	Karnataka	693	57398.26	68	21506.82	625	35891.44
12.	Kerala	109	3042.12	8	506.62	101	2535.50
13.	Madhya Pradesh	948	28442.41	37	7083.73	911	21358.68
14.	Maharashtra	280	17703.21	50	2247.79	230	15455.42
15.	Manipur	2	610.17	-	-	2	610.17
16.	Meghalaya	19	1433.97	2	605.44	17	828.53
17.	Orissa	387	67212.90	55	36611.72	332	30601.18
18.	Rajasthan	2167	105607.10	68	26425.24	2099	79181.86
19.	Sikkim	3	96.30	3	96.30	-	-
20.	Tamil Nadu	482	6652.01	63	3632.14	419	3019.87
21.	Uttar Pradesh	88	9290.11	8	6634.33	80	2655.78
22.	Uttarakhand	69	3077.78	4	758.05	65	2319.73
23.	West Bengal	70	4090.10	3	1224.63	67	2865.47
	<b>All India</b>	<b>9415</b>	<b>491445.64</b>	<b>500</b>	<b>145334.36</b>	<b>8915</b>	<b>346111.28</b>

**Table-13: Distribution of Mining Leases in Public Sector (As on 31/03/2009)**  
(Under Central Government and State Government)

S.No.	State	Central Government		State Government		Total	
		No. of Leases	Lease Area (Hects.)	No. of Leases	Lease Area (Hects.)	No. of Leases	Lease Area (Hects.)
1.	Andhra Pradesh	26	6034.50	13	1140.26	39	7174.76
2.	Assam	1	171.00	1	167.00	2	338.00
3.	Bihar	1	647.50	0	0	1	647.50
4.	Chhattisgarh	11	5771.21	26	438.61	37	6209.82
5.	Gujarat	0	0	16	4135.94	16	4135.94
6.	Haryana	2	325.52	0	0	2	325.52
7.	Himachal Pradesh	2	410.23	0	0	2	410.23
8.	Jammu & Kashmir	1	485.30	2	88.10	3	573.40
9.	Jharkhand	20	16667.30	9	1519.08	29	18186.38
10.	Karnataka	7	11438.83	61	10067.996	8	21506.82
11.	Kerala	6	344.33	2	162.29	8	506.62
12.	Madhya Pradesh	28	6789.16	9	294.57	37	7083.73
13.	Maharashtra	33	1653.48	17	594.31	50	2247.79
14.	Meghalaya	0	0	2	605.44	2	605.44
15.	Orissa	15	16324.76	40	20286.965	5	36611.72
16.	Rajasthan	15	4033.81	53	22391.436	8	26425.24
17.	Sikkim	0	0	3	96.30	3	96.30
18.	Tamil Nadu	12	1020.14	51	2612.00	63	3632.14
19.	Uttar Pradesh	1	33.58	7	6600.75	8	6634.33
20.	Uttarakhand	3	661.05	1	97.00	4	758.05
21.	West Bengal	1	348.50	2	876.13	3	1224.63
	<b>Total</b>	<b>185</b>	<b>73160.20</b>	<b>315</b>	<b>72174.16</b>	<b>500</b>	<b>145334.36</b>

State	District	Mineral	Central Government		State Government		Total		
			No. of Leases	Lease Area (Hects.)	No. of Leases	Lease Area (Hects.)	No. of Leases	Lease Area (Hects.)	
Maharashtra (concl'd)	Chandrapur	Fluorite	0	0	1	31.22	1	31.22	
	Chandrapur	Sand (others)	5	461.08	0	0	5	461.08	
	Gondia	Iron ore	0	0	1	4.37	1	4.37	
	Nagpur	Dolomite	0	0	2	56.76	2	56.76	
	Nagpur	Manganese ore	16	474.97	0	0	16	474.97	
	Nagpur	Sand (others)	4	191.88	0	0	4	191.88	
	Sindhudurg	Felspar	0	0	1	29.27	1	29.27	
	Sindhudurg	Silica sand	0	0	1	105.07	1	105.07	
	Yeotmal	Limestone	0	0	2	119.75	2	119.75	
	Yeotmal	Sand (others)	1	44.00	0	0	1	44.00	
		<b>Total</b>		<b>33</b>	<b>1653.48</b>	<b>17</b>	<b>594.31</b>	<b>50</b>	<b>2247.79</b>
Meghalaya	Garohills West	Fireclay	0	0	1	221.44	1	221.44	
	Garohills West	Limestone	0	0	1	384.00	1	384.00	
		<b>Total</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>605.44</b>	<b>2</b>	<b>605.44</b>	
Orissa	Bargarh	Limestone	0	0	2	806.53	2	806.53	
	Dhenkanal	Chromite	0	0	2	847.48	2	847.48	
	Ganjam	Sillimanite	1	2483.02	0	0	1	2483.02	
	Jajpur	Chromite	0	0	5	2865.85	5	2865.85	
	Jajpur	Iron ore	0	0	1	190.22	1	190.22	
	Kalahandi	Amethyst	0	0	1	27.65	1	27.65	
	Kalahandi	Corundum	0	0	1	57.46	1	57.46	
	Keonjhar	Chromite	0	0	3	1934.64	3	1934.64	
	Keonjhar	Iron ore	5	4309.72	9	5540.96	14	9850.68	
	Keonjhar	Manganese ore	1	999.79	6	3511.75	7	4511.54	
	Koraput	Bauxite	1	4647.00	0	0	1	4647.00	
	Koraput	Limestone	0	0	2	1586.18	2	1586.18	
	Nawapara	Corundum	0	0	1	33.95	1	33.95	
	Nawapara	Limestone	0	0	3	342.93	3	342.93	
	Raygada	Manganese ore	0	0	1	501.67	1	501.67	
	Sundargarh	Bauxite	1	117.44	0	0	1	117.44	
	Sundargarh	Dolomite	2	384.03	0	0	2	384.03	
	Sundargarh	Iron ore	3	2590.30	3	2039.69	6	4629.99	
	Sundargarh	Limestone	1	793.46	0	0	1	793.46	
		<b>Total</b>		<b>15</b>	<b>16324.76</b>	<b>40</b>	<b>20286.96</b>	<b>55</b>	<b>36611.72</b>
Rajasthan	Alwar	Copper ore	1	914.07	0	0	1	914.07	
	Banswara	Graphite	0	0	2	383.55	2	383.55	
	Barmer	Gypsum	2	1100.66	3	725.85	5	1826.51	
	Bikaner	Gypsum	3	367.02	11	4177.47	14	4544.49	
	Dungarpur	Fluorite	0	0	4	292.30	4	292.30	
	Ganganagar	Gypsum	4	346.50	4	1129.39	8	1475.89	
	Hanumangarh	Gypsum	0	0	5	2786.09	5	2786.09	
	Jaisalmer	Gypsum	1	501.68	2	366.21	3	867.89	
	Jaisalmer	Limestone	0	0	2	1998.00	2	1998.00	
	Jalore	Fluorite	0	0	4	1075.00	4	1075.00	
	Jalore	Gypsum	0	0	1	178.50	1	178.50	
	Jhunjhunu	Copper ore	4	803.88	0	0	4	803.88	
	Nagaur	Gypsum	0	0	4	2271.15	4	2271.15	
	Nagaur	Limestone	0	0	3	4915.44	3	4915.44	
	Sirohi	Lead & Zinc ore	0	0	1	63.00	1	63.00	
	Udaipur	Barytes	0	0	1	31.00	1	31.00	
	Udaipur	Calcite	0	0	1	49.50	1	49.50	
	Udaipur	Phosphorite	0	0	5	1948.98	5	1948.98	
		<b>Total</b>		<b>15</b>	<b>4033.81</b>	<b>53</b>	<b>22391.43</b>	<b>68</b>	<b>26425.24</b>

contd...

Table-14 (concl'd)

State	District	Mineral	Central Government		State Government		Total	
			No. of Leases	Lease Area (Hects.)	No. of Leases	Lease Area (Hects.)	No. of Leases	Lease Area (Hects.)
Sikkim	Sikkim East	Copper ore	0	0	3	96.30	3	96.30
		<b>Total</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>96.30</b>	<b>3</b>	<b>96.30</b>
Tamil Nadu	Ariyalur	Limestone	0	0	5	384.01	5	384.01
	Chengai-Anna	Quartz	0	0	1	6.58	1	6.58
	Cuddalore	Fireclay	0	0	2	42.05	2	42.05
	Dindigul	Quartz	0	0	2	1.47	2	1.47
	Erode	Quartz	0	0	8	32.22	8	32.22
	Kanchipuram	Limeshell	0	0	1	190.00	1	190.00
	Kanchipuram	Silica sand	0	0	3	20.87	3	20.87
	Kanyakumari	Garnet	5	258.31	0	0	5	258.31
	Karur	Quartz	0	0	6	18.90	6	18.90
	Namakkal	Quartz	0	0	4	10.43	4	10.43
	Perambalur	Limestone	0	0	1	110.68	1	110.68
	Erode	Quartz	0	0	1	4.00	1	4.00
	Ramnathapuram	Limeshell	0	0	1	539.05	1	539.05
	Salem	Magnesite	7	761.83	3	431.24	10	1193.07
	Salem	Quartz	0	0	2	1.09	2	1.09
	Sivaganga	Garnet	0	0	2	242.46	2	242.46
	Tiruchirapalli	China clay	0	0	1	12.30	1	12.30
	Tiruchirapalli	Dolomite	0	0	1	62.07	1	62.07
	Tirunelveli	Garnet	0	0	1	4.36	1	4.36
	Tirunelveli	Limestone	0	0	2	27.80	2	27.80
	Vellore	Vermiculite	0	0	1	23.71	1	23.71
	Villupuram	Silica sand	0	0	1	3.73	1	3.73
	Virudhunagar	Limestone	0	0	2	446.58	2	446.58
		<b>Total</b>	<b>12</b>	<b>1020.14</b>	<b>51</b>	<b>2612.00</b>	<b>63</b>	<b>3632.14</b>
Uttar Pradesh	Allahabad	Silica sand	1	33.58	0	0	1	33.58
	Lalitpur	Phosphorite	0	0	1	874.00	1	874.00
	Lalitpur	Pyrophyllite	0	0	1	447.00	1	447.00
	SonbhadraD	Dolomite	0	0	1	1656.32	1	1656.32
	SonbhadraLi	Limestone	0	0	4	3623.43	4	3623.43
			<b>Total</b>	<b>1</b>	<b>33.58</b>	<b>7</b>	<b>6600.75</b>	<b>8</b>
Uttarakhand	Dehradun	Limestone	0	0	1	97.00	1	97.00
	Dehradun	Phosphorite	2	222.05	0	0	2	222.05
	Pithoragarh	Magnesite	1	439.00	0	0	1	439.00
			<b>Total</b>	<b>3</b>	<b>661.05</b>	<b>1</b>	<b>97.00</b>	<b>4</b>
West Bengal	Burdwan	Fireclay	1	348.50	0	0	1	348.50
	Jalpaiguri	Dolomite	0	0	1	847.00	1	847.00
	Purulia	Phosphorite	0	0	1	29.13	1	29.13
			<b>Total</b>	<b>1</b>	<b>348.50</b>	<b>2</b>	<b>876.13</b>	<b>3</b>

### 3.7 YEARWISE STATUS OF EXPIRY OF MINING LEASES

Every mining lease is granted for a stipulated period and once this period expires the lessees shall have to apply for renewal to the respective State Governments as per the provisions under MCR,1960. The period of leases varies from minimum 20 years to a maximum of 30 years. Further renewal (s) are possible for period or periods not exceeding 20 years in each case. Out of the total number of leases in the Directory (9,415), more than 1,245 leases will expire between 2010 and 2016 . The yearwise breakup of expiry of leases and statewise and yearwise breakup of expiry of leases are given in Tables-15 and 16.

Table-15: Yearwise Status of Expiry of Mining Leases as on 31/03/2009

Year of Expiry	No. of Leases	Percentage (%)	Lease Area (Hect.)	Percentage (%)
2010	115	1.22	11879.34	2.41
2011	120	1.27	12619.80	2.56
2012	160	1.70	18126.49	3.68
2013	149	1.58	14815.20	3.01
2014	176	1.86	9722.09	1.97
2015	219	2.32	8947.89	1.82
2016	306	3.25	16499.05	3.35



Table- 16 : Statewise and Yearwise Status of Expiry of Mining Leases

S.No.	State	2010		2011		2012		2013		2014		2015		2016	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
1.	Andhra Pradesh	13	550.19	11	125.51	12	2164.12	4	207.58	35	1774.02	21	1071.84	47	1118.16
2.	Assam	1	40.00	-	-	2	584.50	-	-	1	31.00	-	-	-	-
3.	Bihar	-	-	-	-	2	65.54	-	-	-	-	-	-	-	-
4.	Chhattisgarh	2	14.21	1	3.10	5	655.07	12	1805.17	15	39.58	22	106.01	23	459.42
5.	Goa	-	-	-	-	-	-	-	-	1	44.69	1	52.10	-	-
6.	Gujarat	7	26.67	21	74.85	32	506.27	36	368.69	25	186.53	26	146.11	26	3000.51
7.	Haryana	2	237.02	-	-	-	-	-	-	3	719.97	10	1043.00	47	3733.92
8.	Himachal Pradesh	1	8.79	1	238.20	8	547.09	1	172.03	-	-	1	3.72	-	-
9.	Jammu & Kashmir	-	-	-	-	-	-	2	88.87	-	-	2	40.89	-	-
10.	Jharkhand	18	444.04	3	2542.24	1	1160.10	4	1213.47	11	618.10	16	236.62	5	43.40
11.	Karnataka	5	134.88	10	4934.79	12	1687.70	9	5598.96	7	377.55	12	339.66	17	1468.41
12.	Kerala	7	15.48	4	5.08	6	7.65	6	13.98	2	3.34	8	509.53	6	518.22
13.	Madhya Pradesh	15	101.23	15	146.30	33	1397.07	25	580.28	30	1290.58	54	767.56	42	501.43
14.	Maharashtra	7	124.15	6	201.70	3	78.53	5	68.14	8	240.25	7	1023.85	10	884.35
15.	Manipur	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.	Meghalaya	1	384.00	-	-	-	-	1	240.55	-	-	-	-	-	-
17.	Orissa	17	2878.36	14	643.48	11	6796.96	3	412.65	3	321.70	6	223.44	11	762.94
18.	Rajasthan	15	6892.42	28	3634.42	27	2203.70	38	4038.04	25	3747.62	23	3311.29	36	3878.43
19.	Sikkim	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20.	Tamil Nadu	1	7.06	3	10.75	3	224.24	1	4.63	7	114.66	8	57.38	27	86.12
21.	Uttar Pradesh	-	-	1	49.06	2	47.80	-	-	1	2.70	-	-	1	2.53
22.	Uttarakhand	1	1.50	1	8.13	1	0.15	-	-	1	202.02	-	-	6	32.09
23.	West Bengal	2	18.74	1	2.19	-	-	2	2.16	1	7.78	2	14.89	2	9.12
	<b>Total</b>	<b>115</b>	<b>11879.34</b>	<b>120</b>	<b>12619.80</b>	<b>160</b>	<b>18126.49</b>	<b>149</b>	<b>14815.20</b>	<b>176</b>	<b>9722.09</b>	<b>219</b>	<b>8947.89</b>	<b>306</b>	<b>16499.05</b>

## Chapter 4

# PROSPECTING LICENCES

Under the Mines & Minerals (Development & Regulation) Act, 1957, "Prospecting Licence" (PL) means a licence granted for the purpose of undertaking "prospecting operations" with a view to exploring, locating or proving mineral deposits. The State Government and Union Territories are empowered to grant /execute/ renew / revoke prospecting licences ( PL) under provisions of Mineral Concession Rules,1960.

The area restrictions for prospecting licences have been substantially liberalised by making such restrictions applicable statewide instead of the country as a whole.

### 4.1 STATEWISE DISTRIBUTION OF PROSPECTING LICENCES

As per information received from the State Governments/Union Territories, 8 prospecting licences were executed covering an area of 426 hectares during 2008-09 as compared to 25 prospecting licences covering 6,036 hectares area that were executed during 2007-08. The statewide distribution of prospecting licences executed during 2006-07 to 2008-09 is given in Table-17.

**Table-17: Prospecting Licences Executed from 2006-07 to 2008-09  
(By States)**

State	2006-07		2007-08		2008-09	
	No.	Area (Hect.)	No.	Area (Hect.)	No.	Area (Hect.)
Andhra Pradesh	1	2	2	632	1	189
Gujarat	-	-	1	5	-	-
Karnataka	1	18	1	1500	-	-
Madhya Pradesh	1	564	2	2004	-	-
Maharashtra	2	38	-	-	-	-
Orissa	2	54	12	1534	-	-
Rajasthan	7	660	4	337	7	237
Uttarakhand	1	11	3	24	-	-
<b>Total</b>	<b>151</b>	<b>347</b>	<b>25</b>	<b>6036</b>	<b>8</b>	<b>426</b>

*Area figures rounded off*

The states where prospecting licences were executed during 2008-09 include Rajasthan (7) and Andhra Pradesh (1). Rajasthan alone accounted for 87.50% licences while Andhra Pradesh accounted for rest of the 12.50% of the total prospecting licences executed. Areawise, Rajasthan covered 237 hectares and Andhra Pradesh 189 hectares.

### 4.2 MINERALWISE DISTRIBUTION OF PROSPECTING LICENCES

Mineralwise, in 2008-09, prospecting licences executed were for wollastonite (2); china clay, limestone and soapstone ( 1 each); and associated minerals (3). There were eight minerals in 2008-09 that accounted for a total area of 426 ha for which prospecting licences were executed. The mineralwise distribution of prospecting licences executed during 2006-07 to 2008-09 is given in Table -18.

## Chapter 5

### RECONNAISSANCE PERMITS

The provision of Reconnaissance Permit (RP) was introduced with effect from 20.12.1999 under the Mines & Minerals (Development & Regulation) Act, 1957 and from 18.1.2000 under the Mineral Concession Rules, 1960 & Mineral Conservation and Development Rules, 1988 made under the Act. Reconnaissance Permit is a permit granted for the purpose of undertaking "reconnaissance operations" which means any operation undertaken for preliminary prospecting of a mineral through regional, aerial, geophysical or geochemical surveys and geological mapping, but does not include pitting, trenching, drilling (except drilling of boreholes on a grid specified from time to time by the Central Government) or subsurface excavation.

As per Section 6 (1) (aa) one or more Reconnaissance Permits covering a total area of 10,000 sq.km may be granted provided that the area granted under a single Reconnaissance Permit shall not exceed 5000 sq. km in a State. As per Section 7 (1) the period for which a Reconnaissance Permit may be granted shall not exceed 3 years. As per rule 63 A of MCR 1960, the State Government is obligated to dispose of any application for Reconnaissance Permits within six months from the date of receipt of application for such Permits under Rule 4 A of MCR, 1960.

During the year 2008-09, the Govt. has approved/granted 19 Reconnaissance Permits covering a total area of 40052.02 sq.km. Out of these, the maximum number of RPs were in Rajasthan (7) followed by Madhya Pradesh (4), Andhra Pradesh & Karnataka (3 each) and Chhattisgarh & Jharkhand (1 each).

The details of Reconnaissance Permits approved/granted during 2008-09 are given in Table-20.

**Table-20: Approval / Grant of Reconnaissance Permits during 2008-09**

S.No.	State	Mineral	No. of RPs	Area in sq. km
1.	Andhra Pradesh	Diamond, Gold, Copper, Lead, Zinc Silver, Bismuth, Cadmium, etc.	3	8350.00
2.	Chhattisgarh	Diamond, Gemstone, Precious stones	1	1128.00
3.	Jharkhand	Diamond	1	2010.00
4.	Karnataka	Diamond, Gold	2	3197.00
		Diamond, Gold & Associated minerals	1	1538.00
5.	Madhya Pradesh	Iron ore, Manganese ore, Titanium, Vanadium	2	4358.00
		Manganese ore	1	10.00
		Copper, Lead, Zinc, Gold & Associated minerals	1	3504.39
6.	Rajasthan	Gold, Copper Lead Zinc & Associated minerals	4	1557.50
		Potash, Rock salt & Associated minerals	3	14399.13
		<b>Total</b>	<b>19</b>	<b>40052.02</b>

**Table-18: Prospecting Licences Executed from 2006-07 to 2008-09  
(By Minerals)**

Mineral	2006-07		2007-08		2008-09	
	No.	Area (Hect.)	No.	Area (Hect.)	No.	Area (Hect.)
Barytes	1	2	-	-	-	-
Calcite	1	50	-	-	-	-
China clay	-	-	-	-	1	20
Chromite	-	-	1	175	-	-
Diamond	-	-	1	604	-	-
Iron ore	1	3	3	134	-	-
Limestone	1	564	3	2009	1	189
Pyrophyllite	-	-	1	32	-	-
Quartz	1	43	-	-	-	-
Silica sand	1	20	-	-	-	-
Soapstone/steatite	2	31	4	184	1	20
Wollastonite	-	-	-	-	2	45
Associated minerals	7	634	12	2898	3	152
<b>Total</b>	<b>15</b>	<b>1347</b>	<b>25</b>	<b>6036</b>	<b>8</b>	<b>426</b>

*Area figures rounded off*

#### 4.3 AREAWISE DISTRIBUTION OF PROSPECTING LICENCES

Areawise analysis indicated that area covered for limestone was 189 ha., similarly area covered for wollastonite was 45 ha., china clay & soapstone 20 ha. each, and associated minerals 152 ha.. In total there were 8 minerals in 2008-09 that accounted for a total area of 426 ha. for which prospecting licences were executed.

#### 4.4 SECTORWISE DISTRIBUTION OF PROSPECTING LICENCES

All the prospecting licences executed during 2008-09 were in Private Sector alone. Sectorwise distribution of prospecting licences and area covered thereunder during 2006-07 to 2008-09 are given in Table-19.

**Table-19: Sectorwise Distribution of Prospecting Licences, 2006-07 to 2008-09**

Sector	2006-07		2007-08		2008-09	
	No.	Area (Hect.)	No.	Area (Hect.)	No.	Area (Hect.)
Public	-	2	779	-	-	-
Private	15	1347	23	5257	8	426
Public%	-	-	8	13	-	-
Private%	100	100	92	87	100	100
<b>Total</b>	<b>15</b>	<b>1347</b>	<b>25</b>	<b>6036</b>	<b>8</b>	<b>426</b>

*Area figures rounded off*