

STATE REVIEWS



Indian Minerals Yearbook 2012

(Part- I)

51st Edition

STATE REVIEWS
(Jammu & Kashmir)

(FINAL RELEASE)

GOVERNMENT OF INDIA
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JAMMU & KASHMIR

Mineral Resources

Jammu & Kashmir is the sole holder of country's borax and sapphire resources and possesses 36% graphite, 21% marble and 14% of gypsum. Coal, gypsum and limestone are the important minerals produced in the State. **Coal** occurs in Poonch, Rajouri and Udhampur districts; **gypsum** in Baramulla and Doda districts; **limestone** in Anantnag, Baramulla, Kathua, Leh, Poonch, Pulwama, Rajauri, Srinagar and Udhampur districts; and **magnesite** in Leh and Udhampur districts.

Other minerals that occur in the State are **bauxite**, **ball clay** and **china clay** in Udhampur district; **bentonite** in Jammu district; **borax** and **sulphur** in Leh district; **diaspore** in Rajouri and Udhampur districts; **graphite** in Baramulla district; **lignite** and **marble** in Kupwara district; **quartz** and **silica sand** in Anantnag, Doda and Udhampur districts; **quartzite** in Anantnag district; and **sapphire** in Doda district (Tables - 1 and 2).

Exploration & Development

The details of exploration carried out by GSI in the state are furnished in Table - 3.

Production

The value of mineral production in Jammu & Kashmir at ₹150 crore during 2011-12

increased by 1.7% as compared to that of the previous year. The minerals produced in the State were coal, limestone and gypsum. The production of limestone increased by 46% while it decreased by 17% and 23% respectively for coal and gypsum in the year under review as compared to previous year (Table-4).

The production value of minor minerals was estimated at ₹142 crore for the year 2011-12.

There were 10 reporting mines in 2010-11 and 2011-12.

The index of mineral production in Jammu & Kashmir (base 2004-05=100) was 92.49 in 2011-12 as compared to 82.67 in the previous year.

Mineral-based Industry

Jammu & Kashmir Cements Ltd, a State Government undertaking, operates a cement plant of 1.98 lakh tpy capacity at Khrew in Pulwama district. The company also owns a tiny cement plant of 20,000 tpy capacity located at Wuyan in Srinagar district, besides, two other tiny cement plants that have a total capacity of 39,000 tpy. The State also has a unit in District Kathua of 1,800 tpy capacity that manufactures ceramic and refractory products. A 3,000 tpy capacity calcium carbide plant is situated at District Pulwama.

Table – 1 : Reserves/Resources of Minerals as on 1.4.2010 : Jammu & Kashmir

Mineral	Unit	Reserves				Remaining resources				Total resources (A+B)	
		Proved STD 111	Probable		Feasibility STD211	Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334		Total (B)
			STD121	STD122							
Bauxite	'000 tonnes	-	-	-	1323	182	520	-	2025	2025	
Bentonite	tonne	-	-	-	-	-	147400	-	147400	147400	
Borax	tonne	-	-	-	-	-	-	74204	74204	74204	
China clay	'000 tonnes	-	-	-	-	-	28122	-	28122	28122	
Diaspore	tonne	-	-	-	-	566	711	-	1277	1277	
Graphite	tonne	-	-	-	-	-	1059520	61681035	62740555	62740555	
Gypsum	'000 tonnes	1664	153	442	2259	4784	9785	6570	7680	175513	
Limestone	'000 tonnes	257480	5525	54100	317106	42116	21686	165199	43621	1274246	
Magnesite	'000 tonnes	2610	740	-	3350	600	100	-	-	895	
Marble	'000 tonnes	-	-	-	-	-	-	-	404703	404703	
Quartz-silica sand	'000 tonnes	-	-	-	-	-	-	-	3110	3110	
Quartzite	'000 tonnes	1500	58	-	1558	-	-	-	-	1558	
Sapphire	kg	-	-	-	-	-	-	-	450	450	
Sulphur (native)	'000 tonnes	-	-	-	-	-	-	-	210	210	

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Figures rounded off.

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Table – 2 : Reserves/Resources of Lignite as on 1.4.2012 : Jammu & Kashmir

(In million tonnes)

District	Proved	Indicated	Inferred	Total
Total	-	20.25	7.30	27.55
Kupwara	-	20.25	7.30	27.55

*Source: Coal Directory of India, 2011-12.***Table –3 : Details of Exploration Activities in Jammu & Kashmir, 2011-12**

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Metreage		
GSI Base Metal Reasi	Bakkal Serasandhu Khairikot	-	-	-	-	-	Reconnaissance stage investigation (G-4) initiated during FS 2009-10 was continued to reassess the potentiality of Pb-Zn mineralisation and other associated metals. The litho units exposed in the area belongs to Trikuta Formation and Khairikot Formation of Sirban Group of Proterozoic age. The contact between these formations is unconformable which is represented by brecciated quartzite/chert-breccia. Surface indications of sulphide mineralisation have been noticed in the form of ferruginisation/ limonitisation, old workings, gossans and slag pieces. A total of 18 old workings have been noticed in the area of investigation which were primarily located within contact zone confined between uppermost part of dolomitic horizon of Trikuta Formation and the lower most part of brecciated quartzite/chert-breccia of Khairikot Formation. Galena mineralisation occurs in the form of minor disseminations, lenses and veinlets as recorded SW of Sersandhu and Balada areas. The analytical results of 145 have been received so far. Out of these, 5 samples have shown anomalous value of Pb up to 0.99% and 10 samples have yielded Zn value up to 3.14%. One sample shows anomalous value for Mn up to 899 ppm. In western extension of the area, in Sangar-Manju-Gai section light grey, massive dolomite of Trikuta Formation shows galena chunks in association with chalcopyrite and stains of azurite. In southern extension, in Anji-Nangla area, specks of chalcopyrite in grayish black to black shale within stromatolitic dolomite of Trikuta Formation have been noticed. In hiralakot-Rahotkot area, six old workings were noticed in limestone of Trikuta Formation, south of village Chiralakot, which showed chunks/ veins of galena and sphalerite. In Khairikot area, one prominent old working having 5 m diameter is recorded at the contact of dolomite and brecciated quartzite/chert breccia. Big size chunks of galena were noticed in the roof part and walls of old workings. The work has been completed.

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Table - 3 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Metreage		
Base Metal Baramulla	Buniyar	-	-	-	-	-	Reconnaissance stage investigation (G-4) was carried out to reassess the nature and extent of Pb-Zn and other associated mineralisation in the area. Mapping along with systematic bed rock sampling in Banali area and traverse mapping in Buniyar and its adjoining areas helped in delineation of a 50 m wide mineralised zone within phyllitic sequence of Tirkanjan and Baren Formations of Dogra Group in Banali area. Galena mineralisation is recorded in the form of small disseminations, stringers and veinlets besides minute chunks at places. Mineralisation is mostly confined within quartz-sericite veins and quartz veins traversing phyllites of both the formations. The galena bearing quartz-sericite veins and quartz veins are impersistent in their occurrence and do not continue laterally due to pinching and swelling nature. The samples collected during the course of the investigation have been sent for chemical analyses and results are awaited. The investigation will be continued in FS 2012-13.

**Table – 4 : Mineral Production in Jammu & Kashmir, 2009-10 to 2011-12
(Excluding Atomic Minerals)**

(Value in ₹'000)

Mineral	Unit	2009-10			2010-11			2011-12 (P)		
		No. of mines	Qty	Value	No. of mines	Qty	Value	No. of mines	Qty	Value
All Minerals		11		737537	10		1477065	10		1501724
Coal	'000t	7	23	18600	7	24	22400	7*	20	42500
Gypsum	t	2	33197	9959	2	38143	11443	2	29505	8852
Limestone	'000t	2	278	59777	1	154	26991	1	225	34141
Minor Minerals@	-	-	-	649201	-	-	1416231	-	-	1416231

Note: The number of mines excludes minor minerals.

* Relates to coal mines as on 31.03.2011.

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