

STATE REVIEWS



Indian Minerals Yearbook 2019

(Part- I)

58th Edition

**STATE REVIEWS
(Assam)**

(ADVANCE RELEASE)

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES**

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ASSAM

Mineral Resources

Coal, petroleum & natural gas, limestone, fuller's earth, sillimanite and minor minerals are the chief mineral resources of the State. **Coal** occurs in Mikirs Hills, Dilli-Jeypore, Makum and Singrimari coalfields. Coal extracted from the State is friable and contains high sulphur. **Petroleum & natural gas** occurs in Digboi oilfields, Lakhimpur district and at Moran Rudrasagar oilfields in Sivasagar district located in Assam Arakan Fold Belt (AAFB), Upper Assam and Assam basins. **Limestone** occurs in Karbi Anglong, North Cachar Hills and Nowgaon districts. Besides, **china clay** occurs in Karbi

Anglong and North Lakhimpur districts; **fireclay** in Dibrugarh, Karbi Anglong, North Cachar Hills & North Lakhimpur districts; **fuller's earth** in Nalbari district; **granite** in Goalpara, Kamrup & Karbi Anglong districts, **iron ore (haematite)** in Kokrajhar district; **iron ore (magnetite)** in Dhubri, Goalpara & Kokrajhar districts; **quartz/silica sand** in Nowgaon district; and **sillimanite** in Karbi Anglong & Nowgaon districts. The reserve / resources of minerals and coal are furnished in (Tables - 1 and 2).

Exploration & Development

GSI carried out exploration for REE and Tungsten in Assam during 2018-19. Details of its activities are furnished in Table-3.

Table – 1: Reserves/Resources of Coal as on 1.4.2019 : Assam

(In million tonnes)

Coalfield	Proved	Indicated	Inferred	Total
Total	464.78	57.21	3.02	525.01
Singrimari	-	14.49	-	14.49
Makum	432.09	20.70	-	452.79
Dilli-Jeypore	32.00	22.02	-	54.02
Mikir Hills	0.69	-	3.02	3.71

Source: Indian Coal & Lignite Resources-2019, Natural Energy Resources, mission-II B; 2019 (GSI)

Table – 2 : Reserves/Resources of Minerals as on 1.4.2015 : Assam

Mineral	Unit	Reserves			Remaining resources						Total Resources (A+B)	
		Proved STD111	Probable STD121 STD122	Total (A)	Feasibility STD211	Pre-feasibility STD221 STD222	Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334		Total (B)
China Clay [#]	'000 tonnes	-	-	-	-	131	392	-	3520	-	4043	4043
Fireclay [#]	'000 tonnes	-	-	-	-	-	-	-	3161	-	3161	3161
Fuller's earth ^{##}	tonne	-	-	-	-	-	-	-	18860000	-	18860000	18860000
Granite (Dim. stone) ^{##}	'000 cu m	-	-	-	-	-	-	800	583150	-	583950	583950
Iron Ore (Haematite)	'000 tonnes	-	-	-	-	-	-	8600	4000	-	12600	12600
Iron Ore (Magnetite)	'000 tonnes	-	-	-	-	-	-	-	15380	-	15380	15380
Limestone	'000 tonnes	25542	152546	178088	167902	21973	4257	39859	901623	-	1290258	1468346
Quartz-silica sand [#]	'000 tonnes	-	-	-	-	-	-	-	1790	-	1790	1790
Sillimanite	tonne	-	-	-	-	-	-	850000	6700	3748000	4604700	4604700

Figures rounded off.

Declared as Minor Mineral vide Gazette Notification dated 10.02.2015.

Minor Minerals before issue of Gazette Notification dated 10.02.2015.

Note: The Proved and Indicated balance recoverable reserves of crude oil and natural gas as on 1.4.2016 are 160.79 million tonnes and 153.76 billion cu. m, respectively.

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Table – 3 : Details of Exploration Activities in Assam, 2018-19

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
GSI							
REE							
Kamrup	Garbhanga-Jorabat area	1:12500	75	-	-	75	A reconnaissance survey for REE in biotite gneiss and granitic rocks of Garbhanga-Jorabat area, Kamrup (Metro) district, Assam and Ri-Bhoi district, Meghalaya included mapping of 75 sq.km on 1:12,500 scale. Pitting and trenching of 75 cu.m in grid pattern were done in two blocks of 1.5 sq.km each and also 75 Pit/ Trench samples were collected. The chemical analysis results of pitting/ trenching samples indicated total REE concentration from 268.901 to 505.72 ppm (Avg. 381.94). BRS samples showed total REE content from 26.55 to 760.89 ppm (average 366.12 ppm).
Tungsten							
Karbi Anglong	Inglangagaon-Dokmuka-Baghpani area	1:12500	50	-	-	-	In Assam, during reconnaissance survey for tungsten in granite gneiss and associated granitoids in Inglangagaon-Dokmuka-Baghpani area, Karbi Anglong district, an Aerial reconnaissance survey was carried out in the area. An area of 50 sq. km was mapped on 1:12,500 scale. Based on spatial association of alterations and muscovite-tourmaline-bearing pegmatite veins, two possible zones which might be favourable for tungsten mineralisation have been delineated. Analytical results of monzogranite show elevated values of total REE ranged from 664.29 to 933.05 ppm while W ranges from 0.5 to 11 ppm. The elevated values are from samples collected from greisens vein and tourmaline-bearing pegmatite vein. Sn value ranges from 1.01 to 52 ppm. Mo ranges from 0.5 to 20.6 ppm.
Tungsten							
Kamrup	Barbitli area	1:12500	50	-	-	-	During reconnaissance survey for tungsten mineralisation in and around Khetri area, Kamrup (metro) district, An area of 90 sq. km was mapped on 1:12,500 scale. The hydrothermally altered quartz veins at Barbitli showed higher values of W (216 & 238 ppm), Sn (16.5 & 15.8 ppm) and Mo (8.28 & 11.94 ppm). The quartz vein sample at the contact between migmatite and

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Table-3 (Concl'd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
							pelitic schist near Sametapathar showed 463.8 ppm W with 12.4 ppm of Mo and 8.45 ppm of Sn. The miarolitic pegmatites from Helagog showed 5.19 to 96.09 ppm Sn and 2.89 to 10.88 ppm Mo. Garnetiferous pegmatite at 1.2 km NW of Gumaria indicated Sn value of 28.98 ppm and Mo value of 15.49 ppm.

Production

Petroleum (crude), Natural gas (ut.), coal and limestone were the principal minerals produced in Assam state in 2018-19. The value of minor minerals' production was estimated at ₹ 31 crore for the year 2018-19. There were 3 reporting mines in 2018-19 in Assam in case of MCDR minerals. (Table - 4)

**Table – 4: Mineral Production in Assam, 2016-17 to 2018-19
(Excluding Atomic Minerals)**

(Value in ₹ '000)

Mineral	Unit	2016-17			2017-18			2018-19 (P)		
		No. of mines	Quantity	Value ^{\$}	No. of mines	Quantity	Value ^{\$}	No. of mines	Quantity	Value ^{\$\$}
All Minerals		3		758449	3		768157	3		853165
Coal	'000t	-	600	-	-	781	-	-	784	-
Natural Gas (ut.)	m c m	-	3128	-	-	3220	-	-	3083	-
Petroleum (crude)	'000t	-	4203	-	-	4345	-	-	4310	-
Limestone	'000t	3	1594	444644	3	1432	454352	3	1652	539360
Sulphur#	t	-	6559	-	-	8051	-	-	7100	-
Minor Minerals@		-	-	313805	-	-	313805	-	-	313805

Note : The number of mines excludes fuels and minor minerals.

\$ Excludes the value of Fuel minerals.

Recovered as by-product from oil refinery.

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

Mineral-based Industry

The present status of each mineral-based industry is not readily available. However, as per the

available information, the principal mineral-based industries in the organised sector in the State are furnished in Table - 5.

Table – 5 : Principal Mineral-based Industries

Industry/plant	Capacity (‘000 tpy)
Asbestos Products	
Assam Roofing Ltd, Bonda, Distt. Kamrup.	58
Cement	
Barak Valley Cements Ltd, Jhoom basti, Badarpurghat, Distt. Karimganj.	330

(Contd)

Table – 5 (Contd)

Industry/plant	Capacity (‘000 tpy)
Calcom Cement (Dalmia Subsidiary), Distt. Nagaon.	1720
CCI Ltd, Bokajan, Distt. Karbi Anglong.	200
Cement Manufacturing Co. Ltd, Chamata Pathar, P. O. Sonapur, Distt. Kamrup (G).	2000
Purbanchal Cement, Vill. Sarutari, Distt. Kamrup	360

(Contd)

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Table – 5 (Contd)

Industry/plant	Capacity ('000 tpy)
Topcem Cement Gauripur Kamrup	660
Fertilizer	
Assam State Fertilizer & Chemicals Ltd,	33 (SSP)
Chandrapur, Distt. Kamrup (H ₂ SO ₄)	16.5
Brahmaputra Valley Fertilizers Corpn. Ltd, (Urea)	510
Namrup (Namrup II & III), Distt. Dibrugarh. Progressive Fertichem Pvt. Ltd, Topatoli, Kamrup.	45 (SSP)

(Contd)

Table – 5 (Concl'd)

Industry/plant	Capacity ('000 tpy)
Iron & Steel	
Shri Ganapati Ispat Pvt Ltd, Tinsukia.	NA
Petroleum Refinery	
Indian Oil Corporation, Bongaigaon.	2350
Indian Oil Corporation, Moonmati, Guwahati.	1000
Indian Oil Corporation, Digboi.	650
NRL, Numaligarh, Golaghat.	3000

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