

LITHOLOGS OF LODHVA BLOCK, SUTRAPADA TALUKA, GIR-SOMNATH DISTRICT

Borehole No.		LBH-1					Date of commencement			10-06-2025
Cordinates							Date of closure			13-06-2025
20°50'59.70"N		70°35'12.10"E					Final Depth			20.00
R.L.		23.00								
Run Length		RUN	RECOVERY %	RECOVERY (m)	RQD (%)	LITHOLOGY	EXTRAPOLATION			REMARK
FROM	TO						FROM	TO	THICKNESS	
0.00	1.00	1.00	62.00%	—		Top black soil	0.00	0.35	0.35	
				0.62		Limestone with calcareous clay	0.35	1.00	0.65	
1.00	2.00	1.00	97.00%	0.69		Limestone with yellowish calcareous clay	1.00	1.70	0.70	
				0.28		Whitish to yellowish limestone	1.70	2.00	0.30	
2.00	3.00	1.00	97.00%	0.97		Buff white limestone	2.00	3.00	1.00	
3.00	4.00	1.00	97.00%	0.97		Buff white limestone	3.00	4.00	1.00	
4.00	5.00	1.00	98.00%	0.98		Buff white limestone	4.00	5.00	1.00	
5.00	6.00	1.00	97.00%	0.97		Pinkish to buff white limestone	5.00	6.00	1.00	
6.00	7.00	1.00	97.00%	0.39	75.00	Pinkish to buff white limestone	6.00	6.40	0.40	
				0.58		Light brownish calcareous clay	6.40	7.00	0.60	
7.00	8.00	1.00	98.00%	0.98	82.00	Light brownish calcareous clay	7.00	8.00	1.00	
8.00	9.00	1.00	98.00%	0.98	88.00	Yellow to brown calcareous clay	8.00	9.00	1.00	
9.00	10.00	1.00	98.00%	0.98	86.00	Light brown clay	9.00	10.00	1.00	
10.00	11.00	1.00	98.00%	0.19	68.00	Light brown clay	10.00	10.20	0.20	
				0.79		Yellowish to brownish calcareous clay	10.20	11.00	0.80	
11.00	12.00	1.00	98.00%	0.98	80.00	Yellowish to brownish calcareous clay	11.00	12.00	1.00	
12.00	13.00	1.00	98.00%	0.98	60.00	Yellowish to brownish calcareous clay	12.00	13.00	1.00	
13.00	14.00	1.00	98.00%	0.98	42.00	Yellow calcareous clay	13.00	14.00	1.00	
14.00	15.00	1.00	98.00%	0.98	23.00	Yellow calcareous clay	14.00	15.00	1.00	
15.00	16.00	1.00	98.00%	0.98	36.00	Brownish calcareous clay	15.00	16.00	1.00	
16.00	17.00	1.00	98.00%	0.34	46.00	Brownish calcareous clay	16.00	16.35	0.35	
				0.64		Brownish to yellow calcareous clay	16.35	17.00	0.65	
17.00	18.00	1.00	97.00%	0.97	28.00	Brownish to yellow calcareous clay	17.00	18.00	1.00	
18.00	19.00	1.00	98.00%	0.59	56.00	Brownish to yellow calcareous clay	18.00	18.60	0.60	
				0.39		Yellow to brown calcareous clay with low effervescences	18.60	19.00	0.40	
19.00	20.00	1.00	98.00%	0.79	64.00	Yellow to brown calcareous clay with low effervescences	19.00	19.80	0.80	
				0.19		Yellow to light brown calcareous clay	19.80	20.00	0.20	
Borehole LBH- 1 closed at depth of 20.00 m										
Average core recovery (%) of Limestone in Borehole LBH-1 is 92.14										

Borehole No.	LBH-2						Date of commencement			08-06-2025
Cordinates							Date of closure			10-06-2025
20°51'2.90"N	70°35'38.10"E						Final Depth			20.00
R.L.	27.00						EXTRAPOLATION			REMARK
Run Length		RUN	RECOVERY %	RECOVERY (m)	RQD (%)	LITHOLOGY	FROM	TO	THICKNESS	
FROM	TO									
0.00	1.00	1.00	85.00%	—	42.00	Top black soil	0.00	0.13	0.13	
				0.85		Whitish to buff white limestone	0.13	1.00	0.87	
1.00	2.00	1.00	97.00%	0.97	18.00	Whitish to buff white limestone	1.00	2.00	1.00	
2.00	3.00	1.00	98.00%	0.98		Buff white to pinkish limestone	2.00	3.00	1.00	
3.00	4.00	1.00	97.00%	0.56		Yellowish to whitish limestone	3.00	3.57	0.57	
				0.22		Limestone with yellowish calcareous clay	3.57	3.80	0.23	
				0.19		Whitish Limestone	3.80	4.00	0.20	
4.00	5.00	1.00	97.00%	0.66	24.00	Whitish Limestone	4.00	4.68	0.68	
				0.31		yellowish brown marl	4.68	5.00	0.32	
5.00	6.00	1.00	98.00%	0.51	74.00	yellowish brown marl	5.00	5.52	0.52	
				0.47		Brown to yellowish hard clay with least effervescences	5.52	6.00	0.48	
6.00	7.00	1.00	98.00%	0.98	96.00	Yellow to brown clay with low calcareous matter	6.00	7.00	1.00	
7.00	8.00	1.00	98.00%	0.21	91.00	Yellow to brown clay with calcareous matter	7.00	7.22	0.22	
				0.77		Yellowish calcareous clay mixed with limestone fragments	7.22	8.00	0.78	
8.00	9.00	1.00	98.00%	0.54	99.00	Yellowish to brown clay with low calcareous matter	8.00	8.55	0.55	
				0.44		Yellowish calcareous clay mixed with limestone fragments	8.55	9.00	0.45	
9.00	10.00	1.00	97.00%	0.19	55.00	Brown clay	9.00	9.20	0.20	
				0.78		Yellowish calcareous clay	9.20	10.00	0.80	
10.00	11.00	1.00	97.00%	0.97	59.00	Yellow to brown calcareous clay	10.00	11.00	1.00	
11.00	12.00	1.00	98.00%	0.98	80.00	Yellowish to brownish calcareous clay	11.00	12.00	1.00	
12.00	13.00	1.00	98.00%	0.98	92.00	Yellowish to brownish calcareous clay	12.00	13.00	1.00	
13.00	14.00	1.00	97.00%	0.97	71.00	Yellowish calcareous clay	13.00	14.00	1.00	
14.00	15.00	1.00	98.00%	0.49	62.00	Yellowish to brownish clay	14.00	14.50	0.50	
				0.29		yellowish brown marl	14.50	14.80	0.30	
				0.20		yellowish brown marl	14.80	15.00	0.20	
15.00	16.00	1.00	97.00%	0.30	74.00	yellowish brown marl	15.00	15.31	0.31	
				0.08		Whitish marl	15.31	15.40	0.09	
				0.59		yellowish brown marl mixed limestone fragmnets	15.40	16.00	0.60	
16.00	17.00	1.00	98.00%	0.63	82.00	Whitish to pinkish marl	16.00	16.64	0.64	
				0.35		Calcareous clay	16.64	17.00	0.36	
17.00	18.00	1.00	98.00%	0.27	65.00	Yellowish calcareous clay	17.00	17.28	0.28	
				0.43		Yellow to brown clay	17.28	17.72	0.44	
				0.28		yellowish brown marl mixed limestone fragmnets	17.72	18.00	0.28	
18.00	19.00	1.00	98.00%	0.98	86.00	yellowish brown marl	18.00	19.00	1.00	
19.00	20.00	1.00	98.00%	0.14	94.00	yellowish brown marl	19.00	19.15	0.15	
				0.84		Yellowish to brown clay	19.15	20.00	0.85	
Borehole LBH- 2 closed at depth of 20.00 m										
Average core recovery (%) of Limestone in Borehole LBH-2 is 94.80										

Borehole No.	LBH-3						Date of commencement			06-06-2025
Coordinates							Date of closure			19-06-2025
20°51'1.50"N	70°36'5.50"E						Final Depth			15.00
R.L.	32.00						EXTRAPOLATION			REMARK
Run Length		RUN	RECOVERY %	RECOVERY (m)	RQD (%)	LITHOLOGY	FROM	TO	THICKNESS	
FROM	TO									
0.00	1.00	1.00	69.00%	—		Top black soil	0.00	0.30	0.30	
				0.69		Dark brown to light brownish limestone fragments	0.30	1.00	0.70	
1.00	2.00	1.00	98.00%	0.98		soft whitish limestone fragments	1.00	2.00	1.00	
2.00	3.00	1.00	98.00%	0.98		soft whitish limestone	2.00	3.00	1.00	
3.00	4.00	1.00	98.00%	0.98		Light yellowish limestone fragments	3.00	4.00	1.00	
4.00	5.00	1.00	98.00%	0.98	83.00	Yellowish limestone	4.00	4.50	0.50	
						Yellow to brownish calcareous clay	4.50	5.00	0.50	
5.00	6.00	1.00	97.00%	0.97	89.00	Yellowish to greyish clay mixed with calcareous matter and ferruginous things present at some places	5.00	6.00	1.00	
6.00	7.00	1.00	98.00%	0.98	93.00	Yellowish to greyish clay mixed with calcareous matter	6.00	7.00	1.00	
7.00	8.00	1.00	98.00%	0.64	89.00	Yellowish to brownish clay gives least effervescence with HCL	7.00	7.65	0.65	
				0.34		Yellowish clay with some calcareous matter	7.65	8.00	0.35	
8.00	9.00	1.00	98.00%	0.14	89.00	Yellowish clay with calcareous matter	8.00	8.15	0.15	
				0.84		Brownish clay	8.15	9.00	0.85	
9.00	10.00	1.00	97.00%	0.68	88.00	Brownish clay	9.00	9.70	0.70	
				0.29		Yellowish clay gives least effervescence with HCL	9.70	10.00	0.30	
10.00	11.00	1.00	98.00%	0.10	89.00	Yellow to whitish clay	10.00	10.10	0.10	
				0.88		Yellow to brownish calcareous clay	10.10	11.00	0.90	
11.00	12.00	1.00	98.00%	0.98	93.00	Yellow to brownish calcareous clay	11.00	12.00	1.00	
12.00	13.00	1.00	98.00%	0.98	95.00	Yellow to brownish calcareous clay	12.00	13.00	1.00	
13.00	14.00	1.00	98.00%	0.88	92.00	Yellow to brownish calcareous clay	13.00	13.90	0.90	
				0.10		Yellowish to brownish calcareous clay with fine sand	13.90	14.00	0.10	
14.00	15.00	1.00	98.00%	0.98	92.00	Yellowish to brownish calcareous clay with fine sand	14.00	15.00	1.00	
Borehole LBH- 3 closed at depth of 15.00 m										
Average core recovery (%) of Limestone in Borehole LBH-3 is 92.20										

Borehole No.	LBH-4						Date of commencement			15-06-2025		
Coordinates							Date of closure			17-06-2025		
20°50'37.60"N	70°35'11.10"E						Final Depth			13.00		
R.L.	18.00											
Run Length		RUN	RECOVERY %	RECOVERY (m)	RQD (%)	LITHOLOGY	EXTRAPOLATION			REMARK		
FROM	TO						FROM	TO	THICKNESS			
0.00	1.00	1.00	49.00%	—	68.00	Top black soil	0.00	0.50	0.50			
				0.49		Brownish to yellowish marl	0.50	1.00	0.50			
1.00	2.00	1.00	98.00%	0.81	71.00	Brownish to yellowish marl	1.00	1.82	0.82			
				0.17		Whitish limestone	1.82	2.00	0.18			
2.00	3.00	1.00	98.00%	0.98	27.00	White to buff white limestone	2.00	3.00	1.00			
3.00	4.00	1.00	97.00%	0.27		Whitish to buff white limestone	3.00	3.28	0.28			
				0.47		yellowish limestone fragments	3.28	3.76	0.48			
				0.23		Whitish limestone	3.76	4.00	0.24			
4.00	5.00	1.00	98.00%	0.98	12.00	limestone with calcareous clay	4.00	5.00	1.00			
5.00	6.00	1.00	98.00%	0.98		Yellowish limestone mixed with calcareous clay at some places	5.00	6.00	1.00			
6.00	7.00	1.00	97.00%	0.74	12.00	Whitish limestone	6.00	6.76	0.76			
				0.23		Yellowish limestone	6.76	7.00	0.24			
7.00	8.00	1.00	98.00%	0.98		Yellowish limestone mixed with calcareous clay at some places	7.00	8.00	1.00			
8.00	9.00	1.00	97.00%	0.20		Yellowish limestone	8.00	8.21	0.21			
				0.77		Whitish limestone	8.21	9.00	0.79			
9.00	10.00	1.00	97.00%	0.81		Whitish to buff white limestone	9.00	9.82	0.82			
				0.16		whitish marl	9.82	10.00	0.18			
10.00	11.00	1.00	98.00%	0.98	40.00	Yellowish marl with few limestone fragments	10.00	11.00	1.00			
11.00	12.00	1.00	98.00%	0.49	78.00	Yellowish marl	11.00	11.50	0.50			
				0.49		Brown to yellowish clay with fine sand	11.50	12.00	0.50			
12.00	13.00	1.00	98.00%	0.98	85.00	Brown to yellowish calcareous clay with low effervescence with fine sand	12.00	13.00	1.00			
Borehole LBH- 4 closed at depth of 13.00 m												
Average core recovery (%) of Limestone in Borehole LBH-4 is 97.56												

Borehole No.	LBH-5						Date of commencement			04-06-2025
Cordinates							Date of closure			06-06-2025
20°50'37.80"N	70°35'39.30"E						Final Depth			15.00
R.L.	19.50						EXTRAPOLATION			REMARK
Run Length		RUN	RECOVERY %	RECOVERY (m)	RQD (%)	LITHOLOGY	FROM	TO	THICKNESS	
FROM	TO									
0.00	1.00	1.00	73.00%	—	24.00	Top black soil	0.00	0.26	0.26	
				0.73		Light greyish limestone	0.26	1.00	0.74	
1.00	2.00	1.00	97.00%	0.27		limestone fragments mixed with clay	1.00	1.28	0.28	
				0.41		Light pinkish limestone	1.28	1.70	0.42	
				0.29		limestone fragments mixed with clay	1.70	2.00	0.30	
2.00	3.00	1.00	97.00%	0.57		limestone fragments mixed with clay	2.00	2.58	0.58	
				0.40		Whitish limestone	2.58	3.00	0.42	
3.00	4.00	1.00	98.00%	0.98		light pinkish limestone	3.00	4.00	1.00	
4.00	5.00	1.00	97.00%	0.43	12.00	light pinkish limestone	4.00	4.44	0.44	
				0.54		Whitish to light pinkish limestone	4.44	5.00	0.56	
5.00	6.00	1.00	97.00%	0.57	61.00	Whitish to light pinkish limestone	5.00	5.58	0.58	
				0.13		yellowish brown marl	5.58	5.72	0.14	
				0.27		Yellowish to light greyish marl	5.72	6.00	0.28	
6.00	7.00	1.00	98.00%	0.98	91.00	Yellowish marl	6.00	7.00	1.00	
7.00	8.00	1.00	98.00%	0.98	96.00	Yellowish to greyish calcareous clay	7.00	8.00	1.00	
8.00	9.00	1.00	98.00%	0.98	84.00	Yellowish to greyish calcareous clay / Low effervescence	8.00	9.00	1.00	
9.00	10.00	1.00	72.00%	0.68	56.00	Yellowish to greyish calcareous clay	9.00	9.70	0.70	
				0.04		Light greyish clay	9.70	10.00	0.30	
10.00	11.00	1.00	97.00%	0.97	85.00	Light greyish clay	10.00	11.00	1.00	
11.00	12.00	1.00	98.00%	0.39	84.00	Light greyish clay	11.00	11.40	0.40	
				0.59		Yellowish to greyish marl	11.40	12.00	0.60	
12.00	13.00	1.00	97.00%	0.97	30.00	Yellowish to greyish marl	12.00	13.00	1.00	
13.00	14.00	1.00	98.00%	0.34	72.00	Yellowish to greyish marl	13.00	13.35	0.35	
				0.64		Yellowish to brown clay	13.35	14.00	0.65	
14.00	15.00	1.00	98.00%	0.98	78.00	Yellowish to brown clay	14.00	15.00	1.00	
Borehole LBH- 5 closed at depth of 15.00 m										
Average core recovery (%) of Limestone in Borehole LBH-5 is 93.17										

Borehole No.	LBH-6						Date of commencement			30-05-2025		
Cordinates							Date of closure			31-05-2025		
20°50'38.30"N	70°36'7.40"E						Final Depth			10.00		
R.L.	23.00											
Run Length		RUN	RECOVERY %	RECOVERY (m)	RQD (%)	LITHOLOGY	EXTRAPOLATION			REMARK		
FROM	TO						FROM	TO	THICKNESS			
0.00	1.00	1.00	72.00%	—		Top Black soil	0.00	0.26	0.26			
				0.72		White to pinkish limestone	0.26	1.00	0.74			
1.00	2.00	1.00	98.00%	0.98		Whitish limestone	1.00	2.00	1.00			
2.00	3.00	1.00	98.00%	0.98		limestone fragments mixed with clay	2.00	3.00	1.00			
3.00	4.00	1.00	98.00%	0.98	37.00	limestone fragments mixed with clay	3.00	4.00	1.00			
4.00	5.00	1.00	98.00%	0.98	86.00	Greyish marl	4.00	5.00	1.00			
5.00	6.00	1.00	97.00%	0.97	27.00	Greyish to brown marl	5.00	6.00	1.00			
6.00	7.00	1.00	98.00%	0.98	94.00	Brownish to yellowish Calcareous clay	6.00	7.00	1.00			
	8.00	1.00	98.00%	0.98	85.00	Brownish to yellowish marl	7.00	8.00	1.00			
8.00	9.00	1.00	98.00%	0.98	96.00	Brownish to yellowish Calcareous clay	8.00	9.00	1.00			
9.00	10.00	1.00	98.00%	0.49	93.00	Brownish to yellowish Calcareous clay	9.00	9.50	0.50			
				0.49		Light brown clay	9.50	10.00	0.50			
Borehole LBH- 6 closed at depth of 10.00 m												
Average core recovery (%) of Limestone in Borehole LBH-6 is 91.50												

Borehole No.	LBH-7						Date of commencement			31-05-2025		
Coordinates							Date of closure			01-06-2025		
20°50'37.10"N	70°36'32.30"E						Final Depth			10.00		
R.L.	28.00						EXTRAPOLATION			REMARK		
FROM	TO	RUN	RECOVERY %	RECOVERY (m)	RQD (%)	LITHOLOGY	FROM	TO	THICKNESS			
0.00	1.00	1.00	83.00%	–		Top black soil	0.00	0.15	0.15			
				0.56		White to pinkish limestone	0.15	0.72	0.57			
				0.27		Yellow to brownish limestone	0.72	1.00	0.28			
1.00	2.00	1.00	98.00%	0.98		Yellow to brownish limestone	1.00	2.00	1.00			
2.00	3.00	1.00	98.00%	0.98		Yellow to brownish limestone	2.00	3.00	1.00			
3.00	4.00	1.00	97.00%	0.97		Yellow to brownish limestone	3.00	4.00	1.00			
4.00	5.00	1.00	97.00%	0.97	41.00	Yellow limestone	4.00	5.00	1.00			
5.00	6.00	1.00	98.00%	0.98	69.00	Yellowish calcareous marl	5.00	6.00	1.00			
6.00	7.00	1.00	98.00%	0.98	59.00	Yellowish calcareous marl	6.00	7.00	1.00			
7.00	8.00	1.00	98.00%	0.39	71.00	Yellowish calcareous marl	7.00	7.40	0.40			
				0.59		Greyish to yellowish calcareous clay	7.40	8.00	0.60			
8.00	9.00	1.00	98.00%	0.49	58.00	Greyish to yellowish calcareous clay mixed with loose limestone sediments	8.00	8.50	0.50			
				0.49		Greyish to yellowish marl	8.50	9.00	0.50			
9.00	10.00	1.00	98.00%	0.69	88.00	Greyish to yellowish marl	9.00	9.70	0.70			
				0.29		Greyish clay	9.70	10.00	0.30			
Borehole LBH- 7 closed at depth of 10.00 m												
Average core recovery (%) of Limestone in Borehole LBH-7 is 94.60												