

BORE LOGS

CLIENT : HLL LIFECARE LIMITED**PROJECT :** Geotechnical Investigation work for proposed "Hadron Beam Structure" at Kharghar, Navi Mumbai.**BORE HOLE NO. :** BH-1**SHEET NO. :** 1**LOCATION :** Actrec, TATA Memorial Center,
Kharghar, Navi Mumbai.**DATE :** 10/05/2016 TO 12/05/2016**METHOD :** ROTARY DRILLING**GROUND R. L. :** 0.00M**CASING :** 0.80 MTR BGL**GROUND W. T. :** 4.50 MBGL**JOB NO. :** 1993

DEPTH (m)	DIA. OF BORE HOLE	LOG.	STRATA DESCRIPTION	SAMPLE		BLOWS/15cm				SPT N	C R %	RQD %	OTHER TESTS
				DEPTH (m)	TYPE	15	30	45	60				
0.00	100MM		Filling Clay With Boulders	0.00									
0.80				0.80	DS-1								
1.50				1.50							NIL	NIL	
1.75			Yellowish Brown Completely Weathered Rock	1.75	SPT-1	18	28	X	X	R			
2.80				2.80									
2.85				2.85	SPT-2	38	X	X	X	R	85	NIL	
3.00				3.00									
4.50			Yellowish Brown Highly Weathered Rock	4.50							19	NIL	
5.00	NX			5.00							67	48	
6.00				6.00									
7.00				7.00							80	79	
8.00			Light Gray Basalt Rock	8.00									
9.00				9.00							83	82	
9.00				9.00									
9.00				9.00							87	80	
10.00				10.00									

SPT N = STANDARD PENETRATION TEST VALUE

RQD = ROCK QUALITY DESIGNATION

UDS = UNDISTURBED SOIL SAMPLE

CR = CORE RECOVERY

DS = DISTURBED SOIL SAMPLE

VST = VANE SHEAR TEST

REMARKS : NEXT PAGE**PERFECT GEOTECHNICS PVT. LTD. NAVI MUMBAI**

NOT TO SCALE

CLIENT : HLL LIFECARE LIMITED**PROJECT:** Geotechnical Investigation work for proposed "Hadron Beam Structure" at Kharghar, Navi Mumbai.**BORE HOLE NO. :** BH-1**SHEET NO. :** 2**LOCATION :** Actrec, TATA Memorial Center,
Kharghar, Navi Mumbai.**DATE :** 10/05/2016 TO 12/05/2016**METHOD :** ROTARY DRILLING**GROUND R. L. :** 0.00M**CASING :** 0.80 MTR BGL**GROUND W. T. :** 4.50 MBGL**JOB NO. :** 1993

DEPTH (m)	DIA. OF BORE HOLE	LOG.	STRATA DESCRIPTION	SAMPLE		BLOWS/15cm				SPT N	C R %	RQD %	OTHER TESTS
				DEPTH (m)	TYPE	15	30	45	60				
10.00	NX	+	Light Gray Basalt Rock	10.00									
		+		10.50									
		+											
11.00		+									87	73	
		+											
		+											
		+											
12.00		+		12.00									
13.00													
14.00													
15.00													
16.00													
17.00													
18.00													
19.00													
20.00													

SPT N = STANDARD PENETRATION TEST VALUE

RQD = ROCK QUALITY DESIGNATION

UDS = UNDISTURBED SOIL SAMPLE

CR = CORE RECOVERY



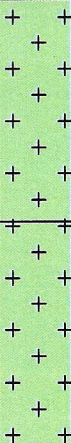
DS = DISTURBED SOIL SAMPLE

VST = VANE SHEAR TEST

REMARKS : BOREHOLE TERMINATED AT 12.00M BGL.**PERFECT GEOTECHNICS PVT. LTD. NAVI MUMBAI**

NOT TO SCALE

CLIENT : HLL LIFECARE LIMITED**PROJECT:** Geotechnical Investigation work for proposed "Hadron Beam Structure" at Kharghar, Navi Mumbai.**BORE HOLE NO. :** BH-2**SHEET NO. :** 1**LOCATION :** Actrec, TATA Memorial Center,
Kharghar, Navi Mumbai.**DATE :** 10/05/2016 TO 11/05/2016**METHOD :** ROTARY DRILLING**GROUND R. L. :** 0.00M**CASING :** 0.80 MTR BGL**GROUND W. T. :** 4.50 MBGL**JOB NO. :** 1993

DEPTH (m.)	DIA. OF BORE HOLE	LOG.	STRATA DESCRIPTION	SAMPLE		BLOWS/15cm				SPT N	C R %	RQD %	OTHER TESTS
				DEPTH (m)	TYPE	15	30	45	60				
EGL	100MM		Filling Clay With Boulders	0.00	DS-1								
1.00			Yellowish Brown Completely Weathered Rock	0.80 1.00							NIL	NIL	
2.00	NX		Yellowish Brown Highly Weathered Rock	2.50							17	NIL	
3.00											13	NIL	
4.00				4.00							20	NIL	
5.00				5.50							17	NIL	
6.00				7.00							83	17	
7.00				8.50							97	90	
8.00			Light Gray Fractured Basalt Rock										
9.00			Light Gray Basalt Rock										
10.00				10.00									

SPT N = STANDARD PENETRATION TEST VALUE

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UDS = UNDISTURBED SOIL SAMPLE

CR = CORE RECOVERY

DS = DISTURBED SOIL SAMPLE

VST = VANE SHEAR TEST

REMARKS : BOREHOLE TERMINATED AT 10.00M BGL.**PERFECT GEOTECHNICS PVT. LTD. NAVI MUMBAI**

NOT TO SCALE

CLIENT : HLL LIFECARE LIMITED**PROJECT:** Geotechnical Investigation work for proposed "Hadron Beam Structure" at Kharghar, Navi Mumbai.**BORE HOLE NO. :** BH-3**SHEET NO. :** 1**LOCATION :** Actrec, TATA Memorial Center,
Kharghar, Navi Mumbai.**DATE :** 13/05/2016 TO 15/05/2016**METHOD :** ROTARY DRILLING**GROUND R. L. :** 0.00M**CASING :** 1.40 MTR BGL**GROUND W. T. :** 4.50 MBGL**JOB NO. :** 1993

DEPTH (m)	DIA. OF BORE HOLE	LOG.	STRATA DESCRIPTION	SAMPLE		BLOWS/15cm				SPT N	C R %	RQD %	OTHER TESTS
				DEPTH (m)	TYPE	15	30	45	60				
ESL				0.00									
1.00	100MM		Filling Clay With Boulders	1.40	DS-1								
				1.50							NIL	NIL	
2.00			Yellowish Brown Completely Weathered Rock	1.70	SPT-1	18	27	X	X	R			
3.00				3.00							NIL	NIL	
				3.05	SPT-2	38	X	X	X	R			
4.00			Yellowish Brown Highly Weathered Rock	4.50							13	NIL	
5.00				6.00							20	07	
6.00	NX			7.50							67	60	
7.00			Light Gray Basalt Rock	9.00							80	73	
8.00											90	87	
9.00													
10.00													

SPT N = STANDARD PENETRATION TEST VALUE

RQD = ROCK QUALITY DESIGNATION

UDS = UNDISTURBED SOIL SAMPLE

CR = CORE RECOVERY

DS = DISTURBED SOIL SAMPLE

VST = VANE SHEAR TEST

REMARKS : NEXT PAGE**PERFECT GEOTECHNICS PVT. LTD. NAVI MUMBAI**

NOT TO SCALE

CLIENT : HLL LIFECARE LIMITED**PROJECT:** Geotechnical Investigation work for proposed "Hadron Beam Structure" at Kharghar, Navi Mumbai.**BORE HOLE NO. :** BH-3**SHEET NO. :** 2**LOCATION :** Actrec, TATA Memorial Center,
Kharghar, Navi Mumbai.**DATE :** 13/05/2016 TO 15/05/2016**GROUND R. L. :** 0.00M**METHOD :** ROTARY DRILLING**GROUND W. T. :** 4.50 MBGL**CASING :** 1.40 MTR BGL**JOB NO. :** 1993

DEPTH (m)	DIA. OF BORE HOLE	LOG.	STRATA DESCRIPTION	SAMPLE		BLOWS/15cm				SPT N	C R %	RQD %	OTHER TESTS
				DEPTH (m)	TYPE	15	30	45	60				
10.00	NX	+	Light Gray Basalt Rock	10.00									
		+		10.50									
		+											
11.00		+											
		+											
		+											
		+											
		+											
12.00		+		12.00									

13.00													
14.00													
15.00													
16.00													
17.00													
18.00													
19.00													
20.00													

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UDS = UNDISTURBED SOIL SAMPLE

CR = CORE RECOVERY

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REMARKS: BOREHOLE TERMINATED AT 12.00M BGL.**PERFECT GEOTECHNICS PVT. LTD. NAVI MUMBAI**

NOT TO SCALE

CLIENT : HLL LIFECARE LIMITED**PROJECT :** Geotechnical Investigation work for proposed "Hadron Beam Structure" at Kharghar, Navi Mumbai.**BORE HOLE NO. :** BH-4**SHEET NO. :** 1**LOCATION :** Actrec, TATA Memorial Center,**DATE :** 15/05/2016 TO 16/05/2016

Kharghar, Navi Mumbai.

METHOD : ROTARY DRILLING**GROUND R. L. :** 0.00M**CASING :** 1.00 MTR BGL**GROUND W. T. :** 4.60 MBGL**JOB NO. :** 1993

DEPTH (m.)	DIA. OF BORE HOLE	LOG.	STRATA DESCRIPTION	SAMPLE		BLOWS/15cm				SPT N	C R %	RQD %	OTHER TESTS	
				DEPTH (m)	TYPE	15	30	45	60					
EGL	100MM		Filling Clay With Boulders	0.00										
1.00					1.00	DS-1								
	NX		Yellowish Brown Completely Weathered Rock	1.50							NIL	NIL		
				1.55	SPT-1	32	X	X	X	R				
2.00			Yellowish Brown Highly Weathered Rock								23	NIL		
3.00				3.00								27	NIL	
4.00														
4.50				4.50										
5.00												13	NIL	
6.00				6.00										
7.00												23	NIL	
7.50				7.50										
8.00			Light Gray Basalt Rock								83	53		
9.00				9.00										
												87	72	
10.00														

SPT N = STANDARD PENETRATION TEST VALUE

RQD = ROCK QUALITY DESIGNATION

UDS = UNDISTURBED SOIL SAMPLE

CR = CORE RECOVERY

DS = DISTURBED SOIL SAMPLE

VST = VANE SHEAR TEST

REMARKS : NEXT PAGE**PERFECT GEOTECHNICS PVT. LTD. NAVI MUMBAI**

NOT TO SCALE

CLIENT : HLL LIFECARE LIMITED**PROJECT:** Geotechnical Investigation work for proposed "Hadron Beam Structure" at Kharghar, Navi Mumbai.**BORE HOLE NO. :** BH-4**SHEET NO. :** 2**LOCATION :** Actrec, TATA Memorial Center,
Kharghar, Navi Mumbai.**DATE :** 15/05/2016 TO 16/05/2016**METHOD :** ROTARY DRILLING**GROUND R. L. :** 0.00M**CASING :** 1.00 MTR BGL**GROUND W. T. :** 4.60 MBGL**JOB NO. :** 1993

DEPTH (m.)	DIA. OF BORE HOLE	LOG.	STRATA DESCRIPTION	SAMPLE		BLOWS/15cm				SPT N	C R %	RQD %	OTHER TESTS
				DEPTH (m)	TYPE	15	30	45	60				
10.00	NX	+	Light Gray Basalt Rock	10.00									
		+		10.50									
		+											
11.00		+											
		+											
		+											
		+											
		+											
		+											
12.00		+		12.00									
13.00													
14.00													
15.00													
16.00													
17.00													
18.00													
19.00													
20.00													

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REMARKS : BOREHOLE TERMINATED AT 12.00M BGL.**PERFECT GEOTECHNICS PVT. LTD. NAVI MUMBAI**

NOT TO SCALE

CLIENT : HLL LIFECARE LIMITED**PROJECT:** Geotechnical Investigation work for proposed "Hadron Beam Structure" at Kharghar, Navi Mumbai.**BORE HOLE NO. :** BH-5**SHEET NO. :** 1**LOCATION :** Actrec, TATA Memorial Center,
Kharghar, Navi Mumbai.**DATE :** 12/05/2016 TO 14/05/2016**GROUND R. L. :** 0.00M**METHOD :** ROTARY DRILLING**GROUND W. T. :** 4.70 MBGL**CASING :** 1.50 MTR BGL**JOB NO. :** 1993

DEPTH (m)	DIA. OF BORE HOLE	LOG.	STRATA DESCRIPTION	SAMPLE		BLOWS/15cm				SPT N	C R %	RQD %	OTHER TESTS
				DEPTH (m)	TYPE	15	30	45	60				
ESL				0.00									
1.00	100MM		Filling Clay With Boulders										
			Completely Weathered Rock	1.50									
2.00				1.70	SPT-1	19	39	X	X	R			
				1.75									
3.00			Light Gray Fractured Boulders	3.00							27	NIL	
4.00				4.50							33	NIL	
5.00			Yellowish Red Brown Highly Weathered Rock	6.00							20	NIL	
6.00				7.50							33	NIL	
7.00				9.00							60	08	
8.00			Light Gray Fractured Basalt Rock										
9.00			Light Gray Basalt Rock								80	72	
10.00													

SPT N = STANDARD PENETRATION TEST VALUE

RQD = ROCK QUALITY DESIGNATION

UDS = UNDISTURBED SOIL SAMPLE

CR = CORE RECOVERY

DS = DISTURBED SOIL SAMPLE

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REMARKS : NEXT PAGE**PERFECT GEOTECHNICS PVT. LTD. NAVI MUMBAI**

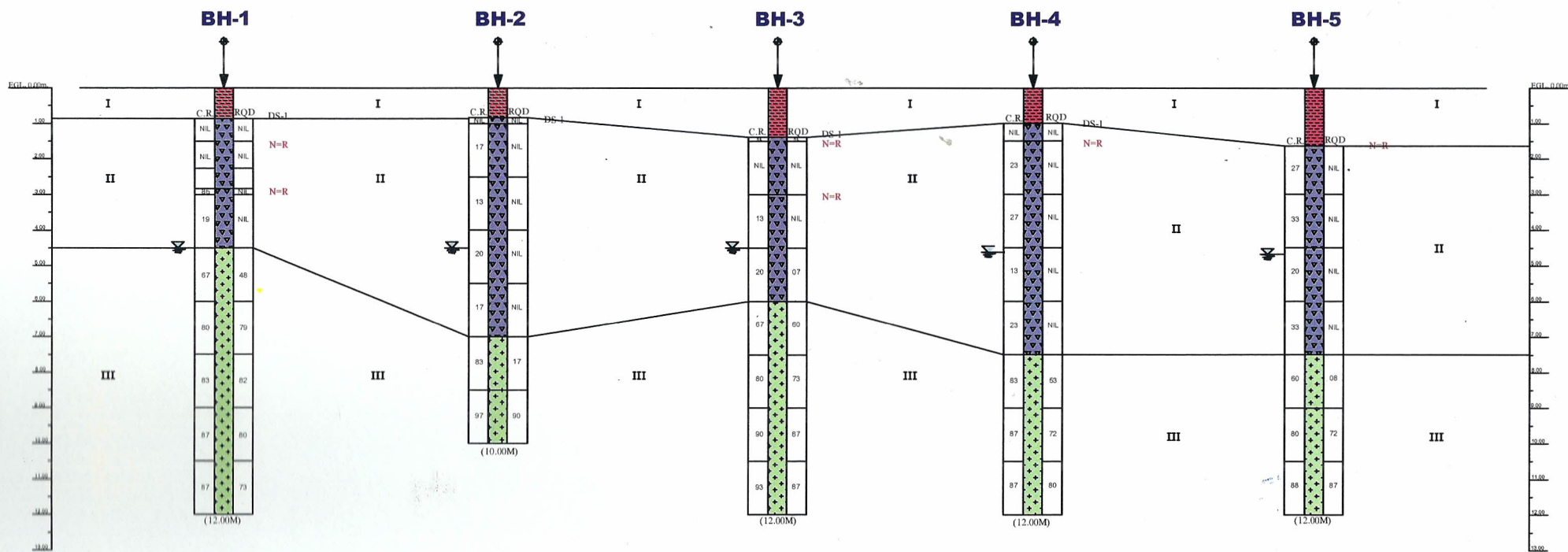
NOT TO SCALE

CLIENT : HLL LIFECARE LIMITED**PROJECT:** Geotechnical Investigation work for proposed "Hadron Beam Structure" at Kharghar, Navi Mumbai.**BORE HOLE NO. :** BH-5**SHEET NO. :** 2**LOCATION :** Actrec, TATA Memorial Center,
Kharghar, Navi Mumbai.**DATE :** 12/05/2016 TO 14/05/2016**METHOD :** ROTARY DRILLING**GROUND R. L. :** 0.00M**CASING :** 1.50 MTR BGL**GROUND W. T. :** 4.70 MBGL**JOB NO. :** 1993

DEPTH (m.)	DIA. OF BORE HOLE	LOG.	STRATA DESCRIPTION	SAMPLE		BLOWS/15cm				SPT N	C R %	RQD %	OTHER TESTS
				DEPTH (m)	TYPE	15	30	45	60				
10.00	NX	+	Light Gray Basalt Rock	10.00									
		+		10.50									
		+											
11.00		+											
		+											
		+											
		+											
		+											
		+											
12.00		+		12.00									
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17.00													
18.00													
19.00													
20.00													

SPT N = STANDARD PENETRATION TEST VALUE
CR = CORE RECOVERYRQD = ROCK QUALITY DESIGNATION
DS = DISTURBED SOIL SAMPLEUDS = UNDISTURBED SOIL SAMPLE
VST = VANE SHEAR TEST**REMARKS :** BOREHOLE TERMINATED AT 12.00M BGL**PERFECT GEOTECHNICS PVT. LTD. NAVI MUMBAI**

NOT TO SCALE



LEGEND LAYERS :

- = GROUNDWATER LEVEL
- I = FELLING
- II = COMPLETELY WEATHERED ROCK
- III = BASALT BEDROCK

HLL LIFECARE LIMITED	
SUB-SURFACE PROFILE THROUGH BORE HOLES FOR PROPOSED	
HADRON BEAM STRUCTURE KHARGHAR, NAVI MUMBAI	
Drawn By : Komal	Date : May 2016
Appr. by : Mr. Manoj Kumar	Scale : Not To Scale