

CORRIGENDUM - 2 dated 14.10.2019 TO TENDER SPECIFICATION BHEL PSSR SCT 1861 - DT: 25.09.2019

Sub: Civil & architectural works of SEA WATER INTAKE SYSTEM at Units 1 & 2 of 2 X 660 MW Ennore SEZ STPP (on the ash dyke of NCTPS).

A. The following clarifications are provided in response to queries received from bidders.

S.No	Clause No	Bidder query	BHEL's Reply
1.	General	Please provide overall layout drawings of the proposed works.	Layout drawing (2 pages) attached with this Corrigendum for reference.
2.	General	Please provide GA drawings along with sectional views of SWIPH of Ennore SEZ and also NCTPS-2 SWPH with forebay drawings	Refer Drawings enclosed in VOLUME-IA PART – II Chapter 11 of TCC.
3.	General	Please provide soil investigation reports covering NCTPS SWIPH, to be constructed channel and of new SWIPH area of Ennore SEZ project.	Soil report (90 pages) attached for reference.
4.	General	Please clarify whether breaking/cutting of existing NCTPS-2 forebay is in the scope of bidder, if yes please provide timelines for isolation/shutdown of NCTPS-2 forebay.	Yes, time line shall be provided after award of work based on customer convenience.
5.	General	Please provide battery limits /terminal points	1316.463 N (-)282.468 E In general, upto to boundary wall of NCTPS-II
6.	General	Please provide UTM coordinates at connection of channel to existing NCTPS forebay and coordinate to be constructed SWIPH	Refer Drawing (Make up/ Intake Water Pump house, GA and RC details of Channel) enclosed in VOLUME-IA PART – II Chapter 11 of TCC for requisite data of coordinates.
7.	General	Please provide brief write up on scope of works as BOQ does not clearly define area wise work	Refer VOLUME-IA PART – I Chapter- II of TCC for scope of work.

S.No	Page No. /Reference Clause	Tender stipulations	Bidder's Query	BHEL's reply																																				
8.	TECHNICAL CONDITIONS OF CONTRACT (TCC)/VOLUME IA PART - I /CHAPTER VI/ Clause 1.6- TIME SCHEDULE	<p>1.6.7 MAJOR INTERMEDIATE MILESTONES</p> <p>1.6.7.1 The following Intermediate Milestones shall be applicable for this work.</p> <table border="1"> <thead> <tr> <th>S No</th> <th>Description</th> <th>Completion month from the date of start of the work</th> <th>Intermediate Milestone</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Completion of RCC works of Sea water intake channel from fore bay of NCTPS-II</td> <td>8th Month</td> <td>M1</td> </tr> <tr> <td>2</td> <td>Casting of roof slab of SWIPH</td> <td>11th month</td> <td>M2</td> </tr> </tbody> </table> <p>Note: Please refer Sl. No.7, Part-II, Chapter-1 of Technical Conditions of Contract (Volume 1A of Volume I Book I) for Penalty for Intermediate Milestones)</p> <p>1.6.9 CIVIL WORKS SCHEDULE FOR 2X660MW ENNORE SEZ POWER PROJECT</p> <p>Tentative construction schedule for civil works is as mentioned below.</p> <table border="1"> <thead> <tr> <th>Areas</th> <th>Completion from contractual date of commencement of work (In months)</th> </tr> </thead> <tbody> <tr> <td>Completion of RCC works of Sea water intake channel from forebay of NCTPS-II</td> <td>Progressively by 8th month</td> </tr> <tr> <td>Completion of RCC works of forebay</td> <td>Progressively by 8th month</td> </tr> <tr> <td>Completion of sump and foundations including equipment floor at RL 10.0M of SWIPH</td> <td>Progressively by 8th month</td> </tr> <tr> <td>Casting of roof slab of SWIPH</td> <td>Progressively by 11th month</td> </tr> <tr> <td>Completion of foundations of electrical annex along with transformer foundations</td> <td>Progressively by 7th month</td> </tr> <tr> <td>Completion of RCC works in superstructure of Electrical annex</td> <td>Progressively by 11th month</td> </tr> <tr> <td>Completion of RCC works of pipe sleepers inside plant premises of NCTPS-II for sea water intake pipe line and CW blow down pipe line</td> <td>Progressively by 8th month</td> </tr> <tr> <td>Completion of RCC works of pipe support structure outside plant premises of NCTPS-II for sea water intake pipe line and CW blow down pipe line</td> <td>Progressively by 10th month</td> </tr> <tr> <td>Completion of all architectural works of SWIPH</td> <td>Progressively by 15th month</td> </tr> <tr> <td>Completion of all architectural work of electrical annex</td> <td>Progressively by 15th month</td> </tr> <tr> <td>Material reconciliation, pending point closing, Final bill and contract closing</td> <td>18th month</td> </tr> </tbody> </table>	S No	Description	Completion month from the date of start of the work	Intermediate Milestone	1	Completion of RCC works of Sea water intake channel from fore bay of NCTPS-II	8th Month	M1	2	Casting of roof slab of SWIPH	11th month	M2	Areas	Completion from contractual date of commencement of work (In months)	Completion of RCC works of Sea water intake channel from forebay of NCTPS-II	Progressively by 8 th month	Completion of RCC works of forebay	Progressively by 8 th month	Completion of sump and foundations including equipment floor at RL 10.0M of SWIPH	Progressively by 8 th month	Casting of roof slab of SWIPH	Progressively by 11 th month	Completion of foundations of electrical annex along with transformer foundations	Progressively by 7 th month	Completion of RCC works in superstructure of Electrical annex	Progressively by 11 th month	Completion of RCC works of pipe sleepers inside plant premises of NCTPS-II for sea water intake pipe line and CW blow down pipe line	Progressively by 8 th month	Completion of RCC works of pipe support structure outside plant premises of NCTPS-II for sea water intake pipe line and CW blow down pipe line	Progressively by 10 th month	Completion of all architectural works of SWIPH	Progressively by 15 th month	Completion of all architectural work of electrical annex	Progressively by 15 th month	Material reconciliation, pending point closing, Final bill and contract closing	18 th month	<p>Bidder understands that the tentative schedule mentioned in Clause 1.6.9 are indicative only. They are not related to penalty clause.</p> <p>The penalty clause is related to two major milestones as mentioned in clause 1.6.7.1.</p> <p>Please confirm.</p>	Tender condition prevails
S No	Description	Completion month from the date of start of the work	Intermediate Milestone																																					
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S.No	Page No. /Reference Clause	Tender stipulations	Bidder's Query	BHEL's reply
9.	Drawing	GA Layout with topographical survey drawing.	Bidder requests Employer to provide a General Arrangement Drawing of whole work area with location of various structures / facilities to be constructed to understand respective position and levels.	Refer S.No. 1 and 2 above.
10.	Geotechnical Data	Geotechnical Data.	Bidder requests Employer to provide geotechnical data to understand subsoil strata of the work location.	Refer S.No. 3 above.
11.	VOLUME-II PRICE BID	Part C : Bill of Quantities	Bidder understands from the BOQ that the tender is purely item rate basis. No design is involved in the scope of contractor. The design specification provided in the technical specifications are standard and for reference only. Please confirm.	Confirmed
12.	VOLUME-II PRICE BID/ Part C : Bill of Quantities	Item 402.0 Transportation from BHEL store, straightening, cutting, bending, placing in position at any level, binding in position of steel reinforcements of TMT steel of grade Fe-500 conforming to IS:1786 including cost of binding wire, labour, scaffolding,	Bidder understands that laps, chair, spacers, lifting hook etc shall be measured and payable in this item.	Refer Clause 1.7.4 of VOLUME-IA PART – I Chapter- VII of TCC.

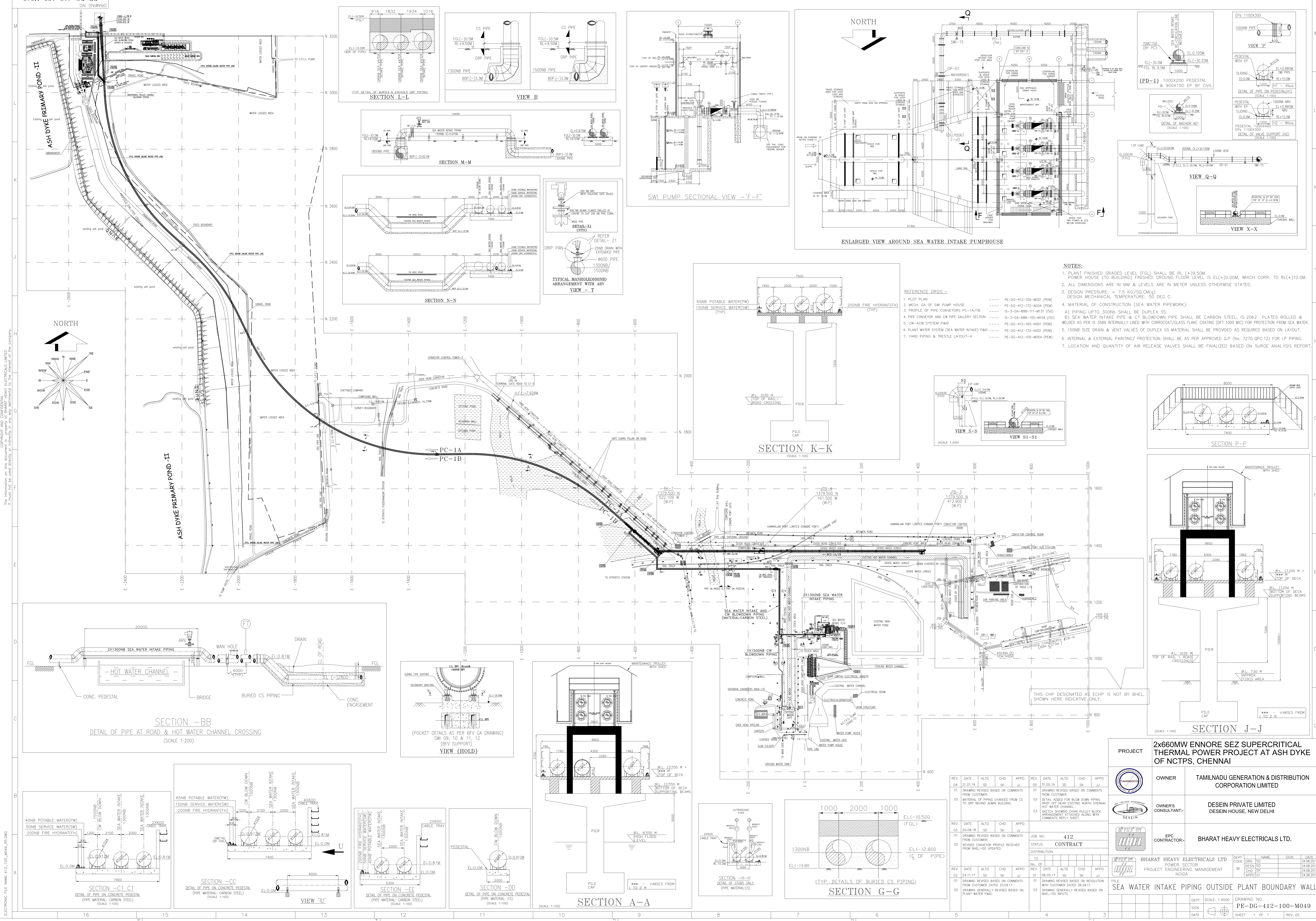
S.No	Page No. /Reference Clause	Tender stipulations	Bidder's Query	BHEL's reply
		transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer. Reinforcement steel will be supplied by BHEL free of cost for incorporation in permanent works.	Please confirm.	

Encl: 1. Layout drawing (2 pages)
2. Soil report (90 pages)

NOTE:

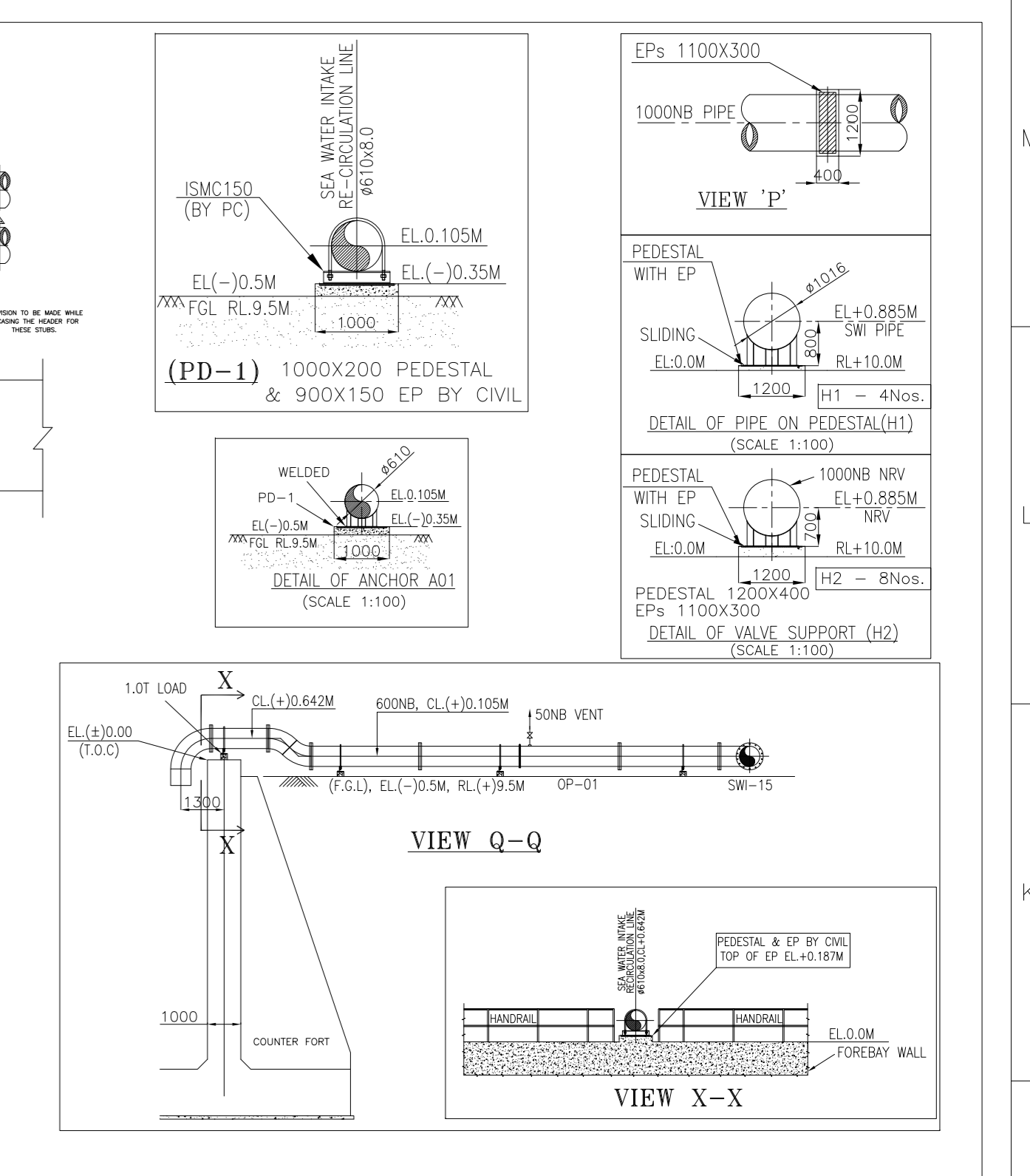
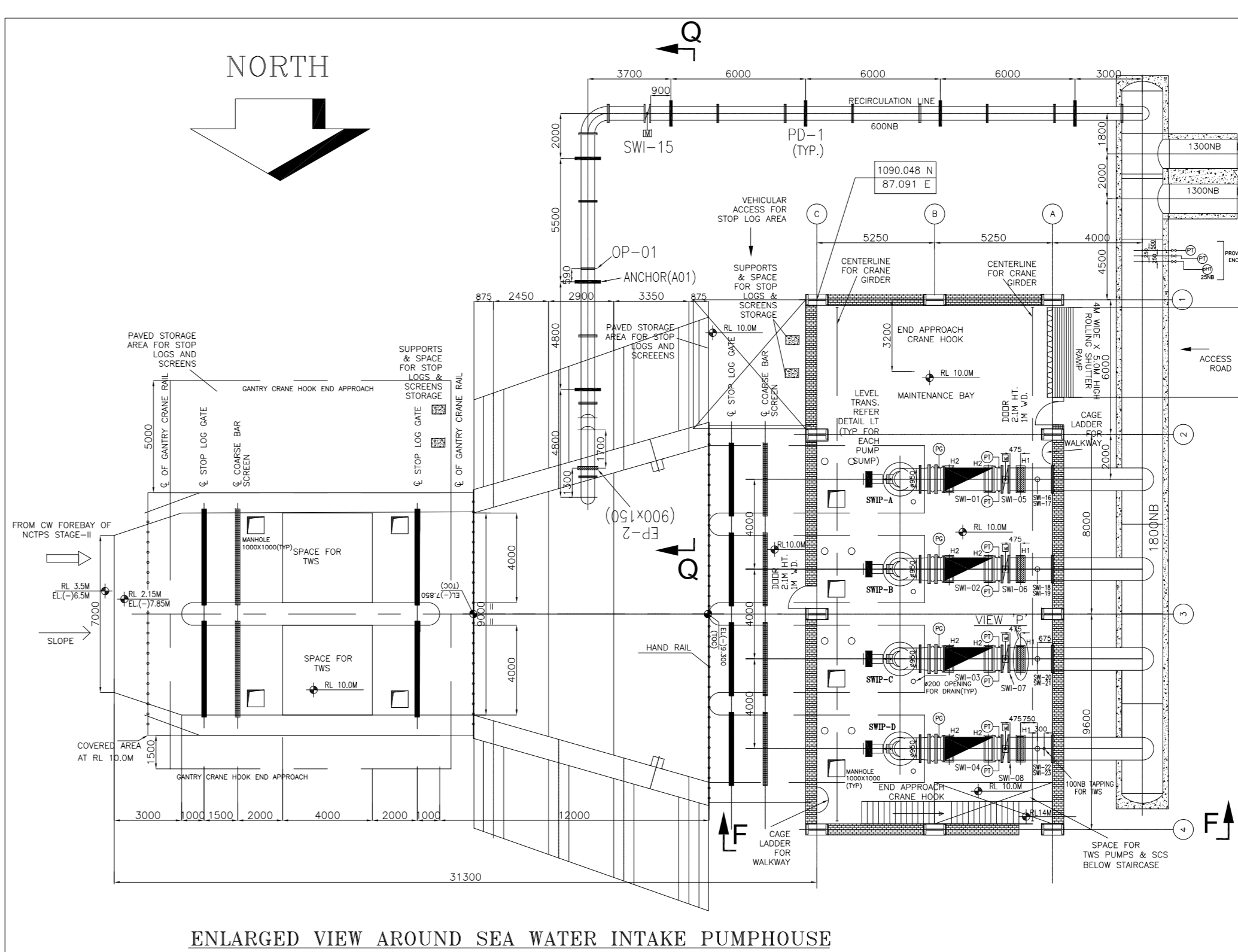
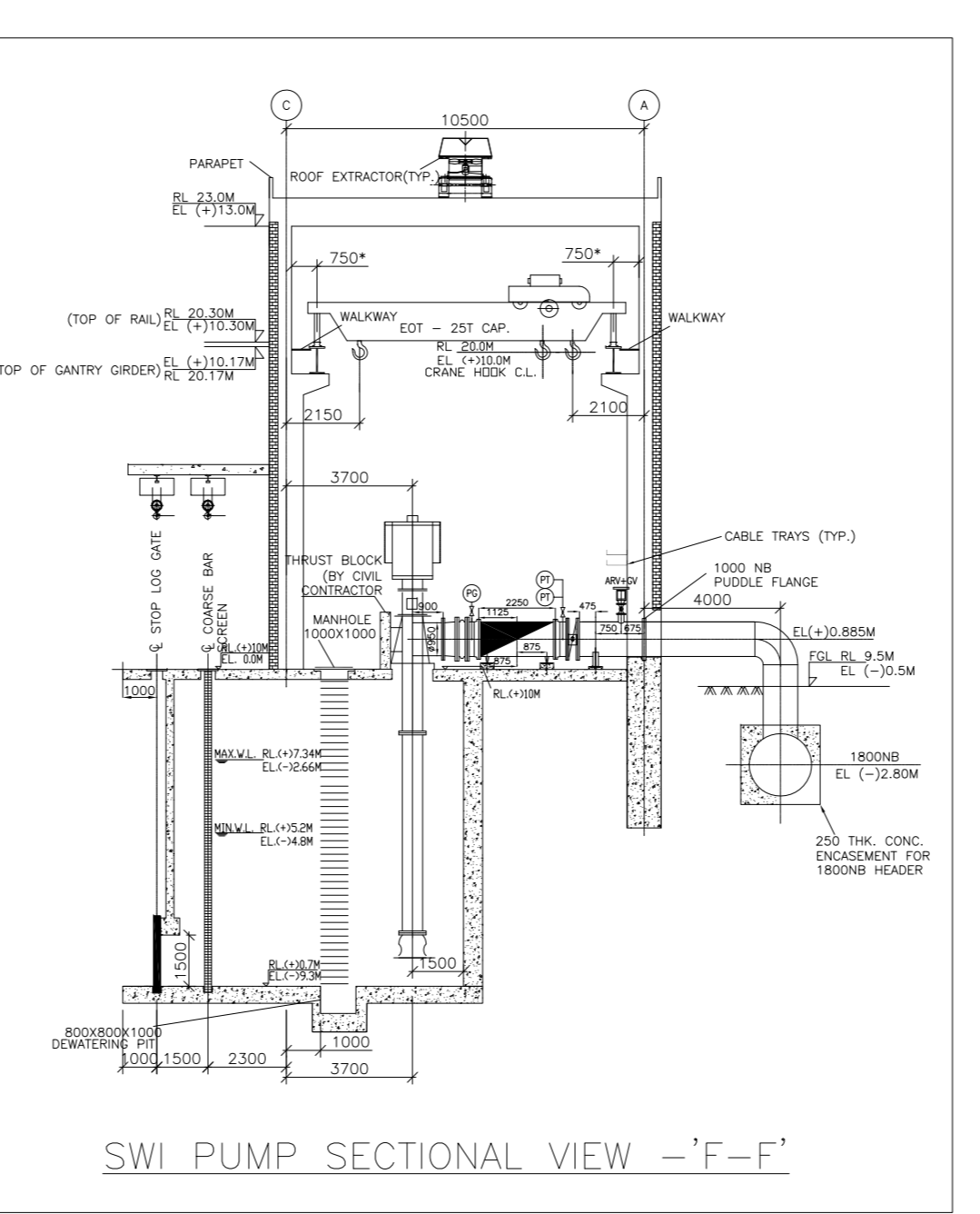
1. ALL OTHER CONDITIONS REMAIN UNCHANGED.
2. BIDDERS ARE REQUESTED TO CONSIDER THIS CORRIGENDUM AS PART OF TENDER SPECIFICATION AND QUOTE ACCORDINGLY.

-sd-
R.Siva
Dy. Manager/SCT



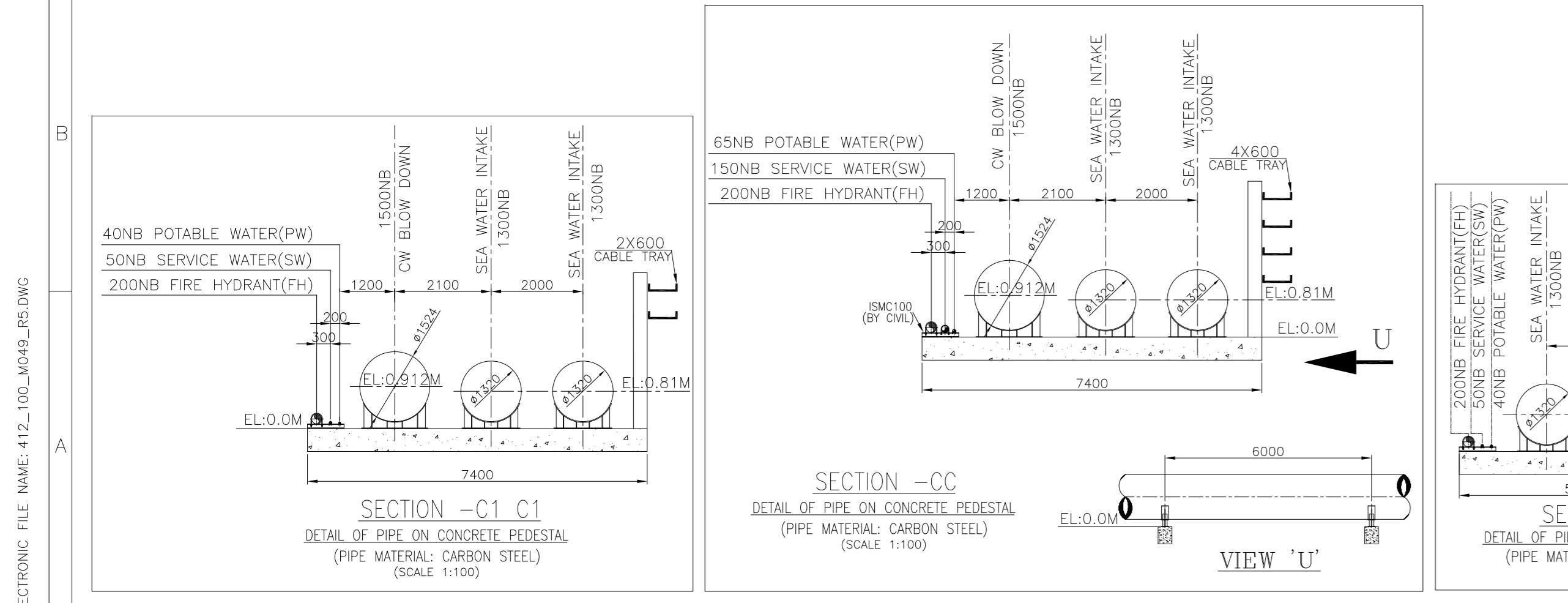
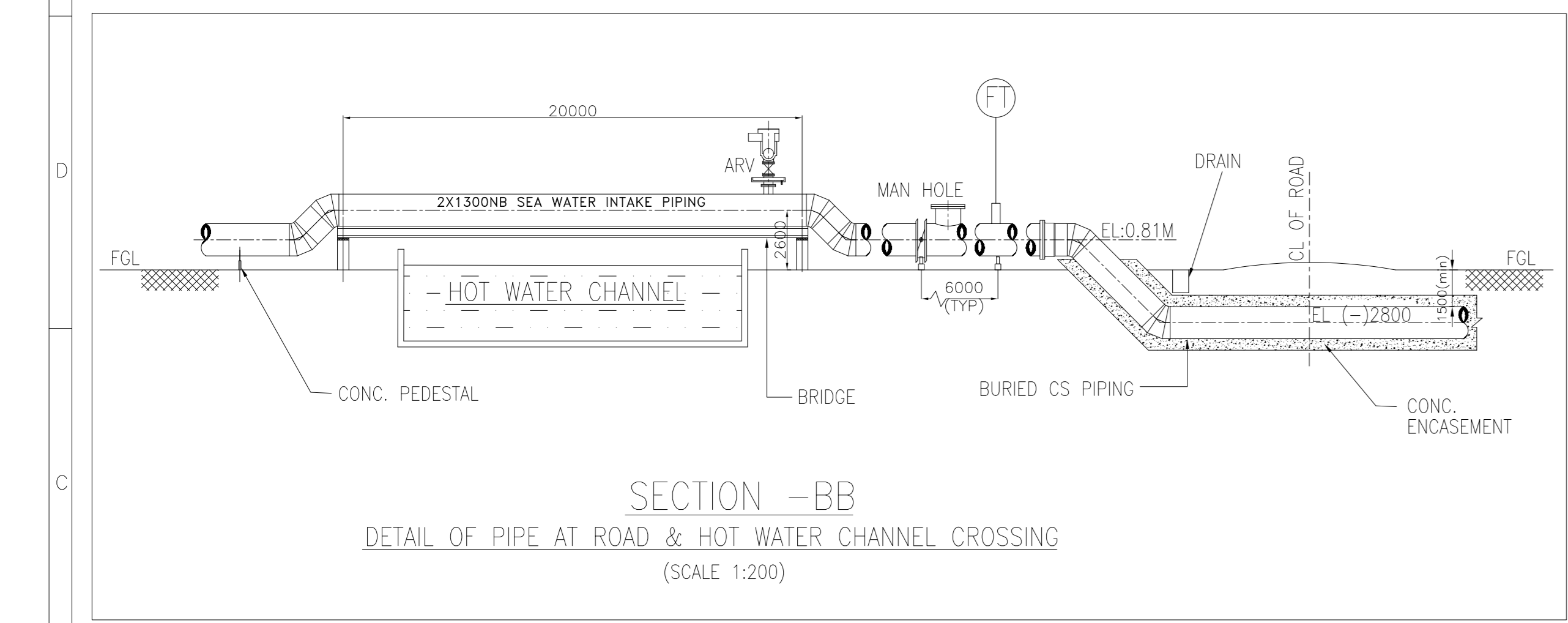
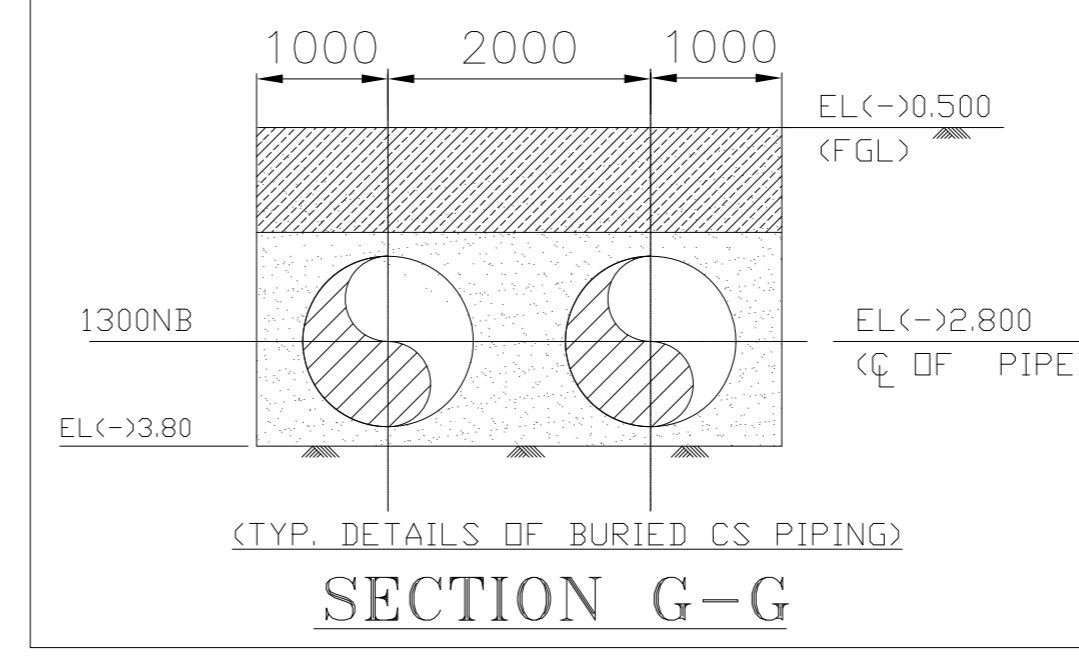
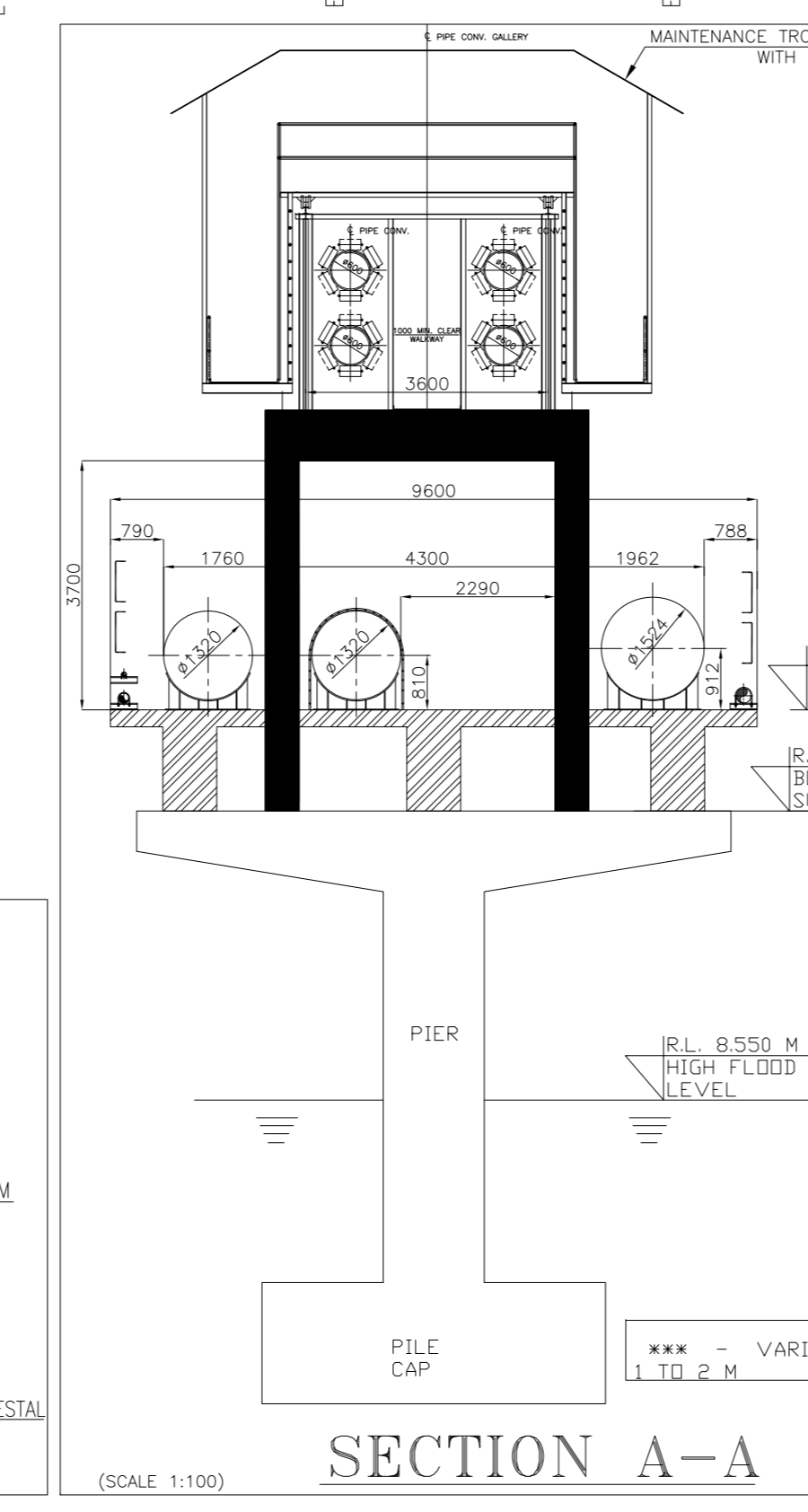
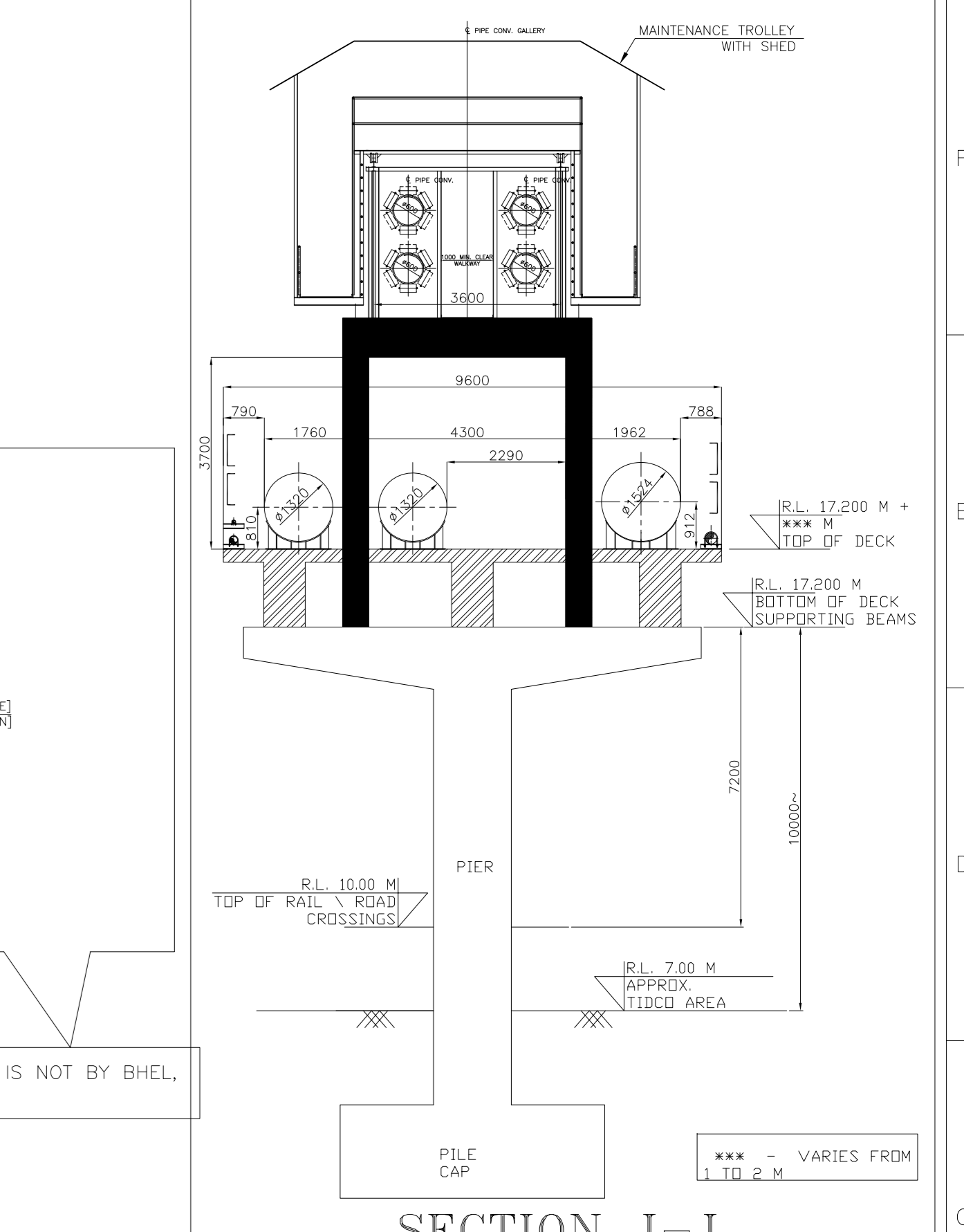
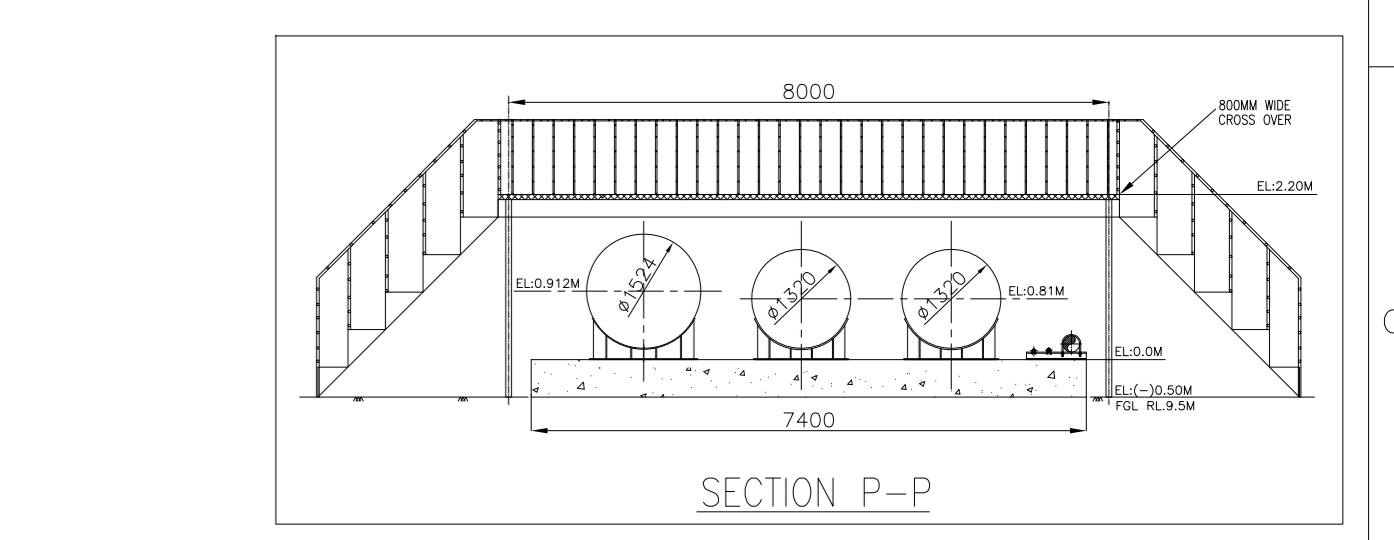
CONSENT AND CONFIDENTIAL
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ELECTRONIC FILE NAME: 412_100_M049_P01.DWG



- NOTES:**
- PLANT FINISHED GRADED LEVEL (FGL) SHALL BE RL (+)9.50M. POWER HOUSE (TG BUILDING) FINISHED FLOOR LEVEL IS EL(+0.00M, WHICH CORR. TO RL(+10.00M).
 - ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS OTHERWISE STATED.
 - DESIGN PRESSURE: = 7.5 KG/SQ.CM(G) DESIGN MECHANICAL TEMPERATURE: 50 DEG C.
 - MATERIAL OF CONSTRUCTION (SEA WATER PIPEWORK):
 A) PIPING UPTO 300NB SHALL BE DUPLEX SS.
 B) SEA WATER INTAKE PIPE & CT BLOWDOWN PIPE SHALL BE CARBON STEEL, IS:2062 PLATES ROLLED & WELDED AS PER IS 3589 INTERNALLY LINED WITH CORROCO/GLOSS FLAKE COATING (DFT 1000 MIC) FOR PROTECTION FROM SEA WATER.
 C) 150NB SIZE DRAIN & VENT VALVES OF DUPLEX SS MATERIAL SHALL BE PROVIDED AS REQUIRED BASED ON LAYOUT.
 D) INTERNAL & EXTERNAL PAINTING/PROTECTION SHALL BE AS PER APPROVED QP (No. 7270:OPC-12) FOR LP PIPING.
 E) LOCATION AND QUANTITY OF AIR RELEASE VALVES SHALL BE FINALIZED BASED ON SURGE ANALYSIS REPORT.

- REFERENCE DGS:-**
- | | |
|---|--------------------------|
| 1. PLOT PLAN | PE-DG-412-100-M001 (PEM) |
| 2. MECH. GA OF SWI PUMP HOUSE | PE-DG-412-172-N004 (PEM) |
| 3. PROFILE OF PIPE CONVEYORS PC-1A/1B | IS-3-GA-688-114-W16 (SS) |
| 4. PIPE CONVEYOR AND CW PIPE GALLERY SECTION | IS-3-GA-688-105-W16 (SS) |
| 5. CW-ACW SYSTEM P&ID | PE-DG-412-165-N001 (PEM) |
| 6. PLANT WATER SYSTEM (SEA WATER INTAKE) P&ID | PE-DG-412-172-N001 (PEM) |
| 7. YARD PIPING & TRESTLE LAYOUT-4 | PE-DG-412-100-M054 (PEM) |



REV.	DATE	ALTD	CHD	APPRD	STATUS	REVISION
04	21.01.19	SD	SK	JK	01	DRAWING REVISED BASED ON COMMENTS FROM CUSTOMER.
02	20.08.18	SD	SK	JK	02	DRAWING REVISED BASED ON COMMENTS FROM CUSTOMER.
03	20.08.18	SD	SK	JK	03	MATERIAL OF PIPING CHANGED FROM CS TO UP BEHIND ADMIN BUILDING.
01	24.11.17	SD	SK	JK	01	DRAWING REVISED BASED ON COMMENTS FROM CUSTOMER.
02	24.11.17	SD	SK	JK	02	REVISED CONVEYOR PROFILE RECEIVED FROM BHEL-ISO UPDATED.
01	24.11.17	SD	SK	JK	01	DRAWING REVISED BASED ON COMMENTS FROM CUSTOMER.
02	24.11.17	SD	SK	JK	02	DRAWING REVISED BASED ON COMMENTS FROM CUSTOMER DATED 26.04.17.
03	24.11.17	SD	SK	JK	03	DRAWING REVISED BASED ON COMMENTS FROM CUSTOMER DATED 26.04.17.

PROJECT 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI

OWNER TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED

OWNER'S CONSULTANT DESEIN PRIVATE LIMITED, DESEIN HOUSE, NEW DELHI

EPC CONTRACTOR BHARAT HEAVY ELECTRICALS LTD.

CONTRACT NO. 412

TITLE SEA WATER INTAKE PIPING OUTSIDE PLANT BOUNDARY WALL

DEPT. SCALE: 1:4000 **DRAWING NO.** PE-DG-412-100-M049

SIGN. SHEET 1 OF 1 **REV.** 05

DATE **REV.** 05

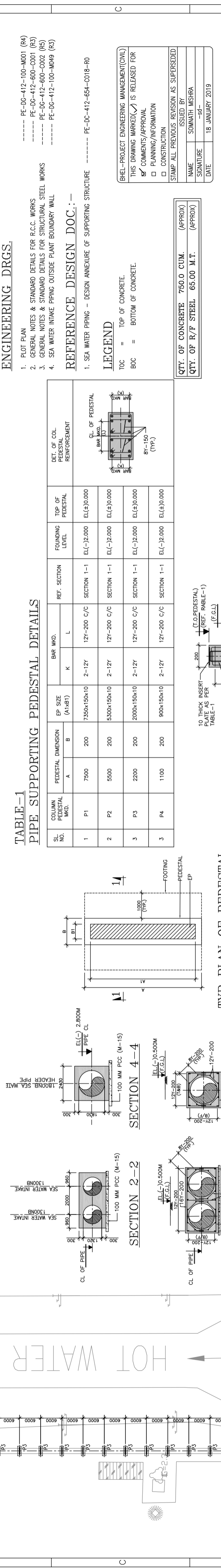
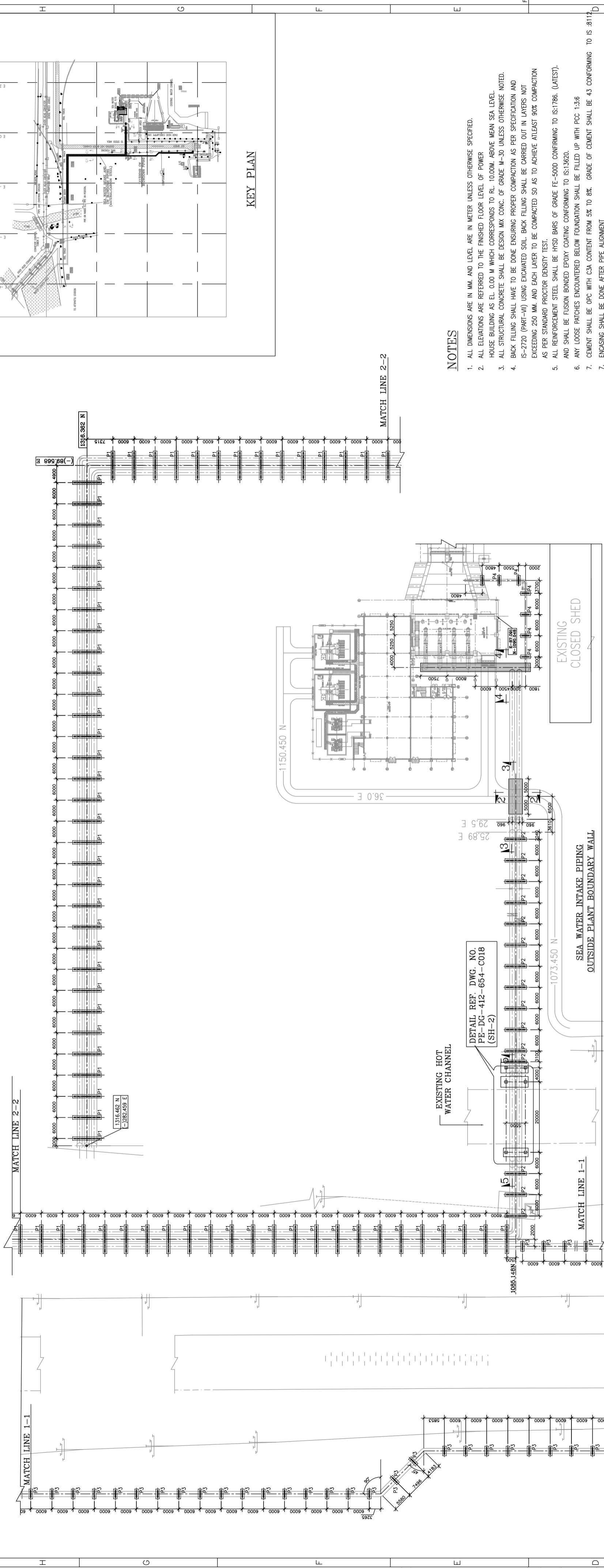


TABLE-1
PIPE SUPPORTING PEDESTAL DETAILS

SL. NO.	COLUMN PEDESTAL MKD.	PEDESTAL DIMENSION	EP SIZE (AxB)	BAR MKD.	REF. SECTION	FOUNDING LEVEL	TOP OF PEDESTAL	DET. OF COL. PEDESTAL REINFORCEMENT
1	P1	7500	200	7350x150x10	2-12Y	EL(-20.00)	EL(+30.000)	CL. OF PEDESTAL
2	P2	5500	200	5300x150x10	2-12Y	EL(-20.00)	EL(+30.000)	CL. OF PEDESTAL
3	P3	2200	200	2000x150x10	2-12Y	EL(-20.00)	EL(+30.000)	CL. OF PEDESTAL
3	P4	1100	200	900x150x10	2-12Y	EL(-20.00)	EL(+30.000)	CL. OF PEDESTAL

QTY. OF CONCRETE 750.0 CUM. (APPROX)
QTY. OF R/F STEEL 65.00 M.T. (APPROX)

PROJECT
2x660 MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI

OWNER:
TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED

OWNER'S CONSULTANT:
DESEIN PRIVATE LIMITED
DESEIN HOUSE, NEW DELHI

PROJECT ENGINEERING MANAGEMENT (O&M):
BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NEW DELHI

TITLE
SEA WATER PIPING OUT-SIDE PLANT BOUNDARY
DETAIL OF PIPE SUPPORTING STRUCTURE

JOB NO. 412
CONTRACT

DISTRIBUTION

TO	NO. OF	APPD	CHD	ALT	DATE

STATUS

REV.	DATE	APPD	CHD	ALT

DEPT. SCALE: SHEET 1 OF 2
SIGN DATE
REV. 0

NOTES

1. ALL DIMENSIONS ARE IN MM. AND LEVEL ARE IN METER UNLESS OTHERWISE SPECIFIED.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED FLOOR LEVEL OF POWER HOUSE BUILDING AS EL. 0.00 M WHICH CORRESPONDS TO RL. 10.00M ABOVE MEAN SEA LEVEL.
3. ALL STRUCTURAL CONCRETE SHALL BE DESIGN MIX CONC. OF GRADE M-30 UNLESS OTHERWISE NOTED.
4. BACK FILLING SHALL HAVE TO BE DONE ENSURING PROPER COMPACTION AS PER SPECIFICATION AND IS-2720 (PART-III) USING EXCAVATED SOIL. BACK FILLING SHALL BE CARRIED OUT IN LAYERS NOT EXCEEDING 250 MM. AND EACH LAYER TO BE COMPACTED SO AS TO ACHIEVE ATLEAST 90% COMPACTION AS PER STANDARD PROCTOR DENSITY TEST.
5. ALL REINFORCEMENT STEEL SHALL BE HYSD BARS OF GRADE FE-500D CONFORMING TO IS:1786. (A1EST). AND SHALL BE FUSION BONDED EPOXY COATING CONFORMING TO IS:13620.
6. ANY LOOSE PATCHES ENCOUNTERED BELOW FOUNDATION SHALL BE FILLED UP WITH PCC 1:3:6
7. CEMENT SHALL BE OPC WITH CSA CONTENT FROM 5% TO 8%. GRADE OF CEMENT SHALL BE 43 CONFORMING TO IS:8112
7. ENCASING SHALL BE DONE AFTER PIPE ALIGNMENT

ENGINEERING DRGS.

1. PLOT PLAN
2. GENERAL NOTES & STANDARD DETAILS FOR R.C.C. WORKS
3. GENERAL NOTES & STANDARD DETAILS FOR STRUCTURAL STEEL WORKS
4. SEA WATER INTAKE PIPING OUTSIDE PLANT BOUNDARY WALL

REFERENCE DESIGN DOC. :-

1. SEA WATER PIPING - DESIGN ANNEXURE OF SUPPORTING STRUCTURE ----- PE-DC-412-654-C018-RO

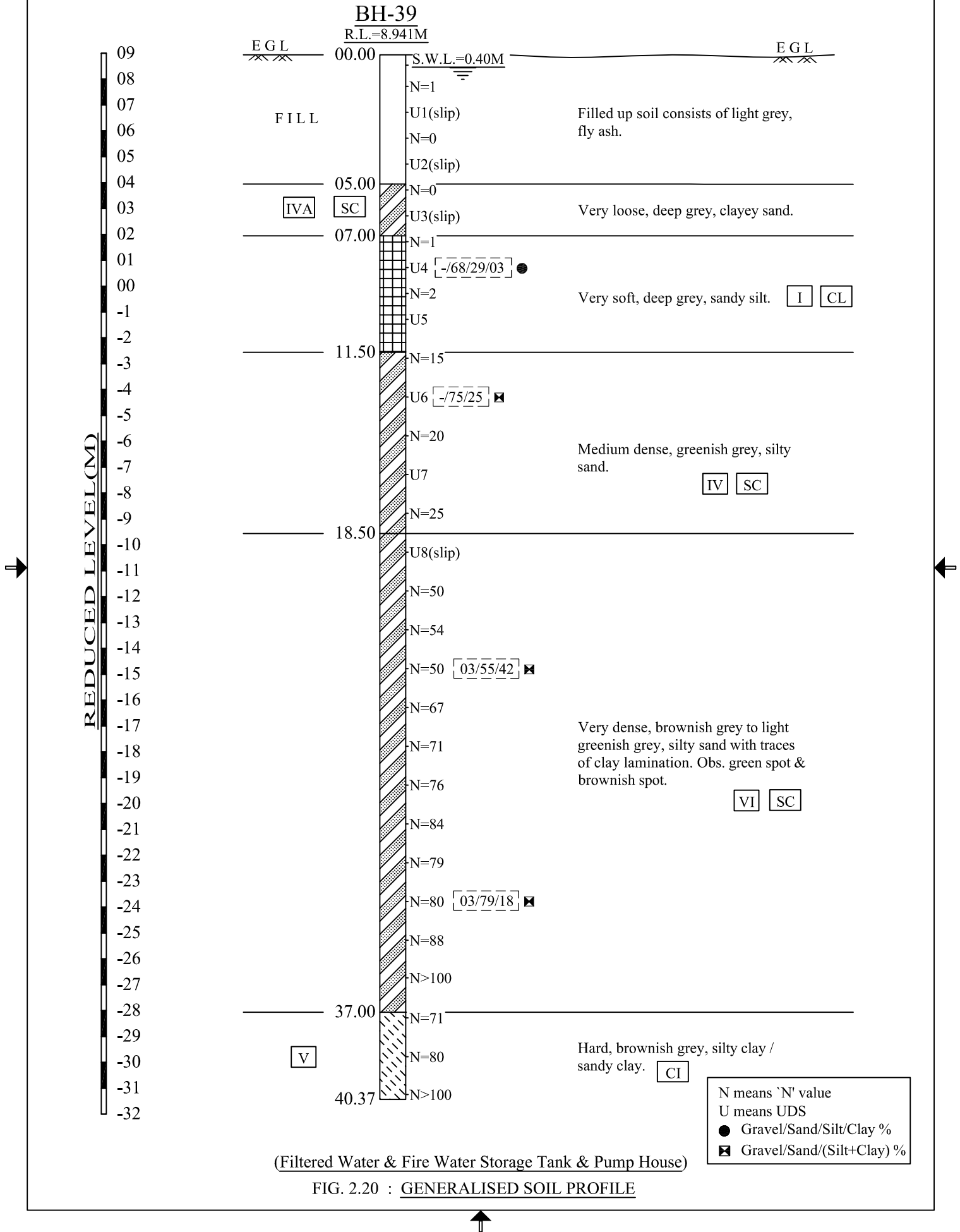
LEGEND

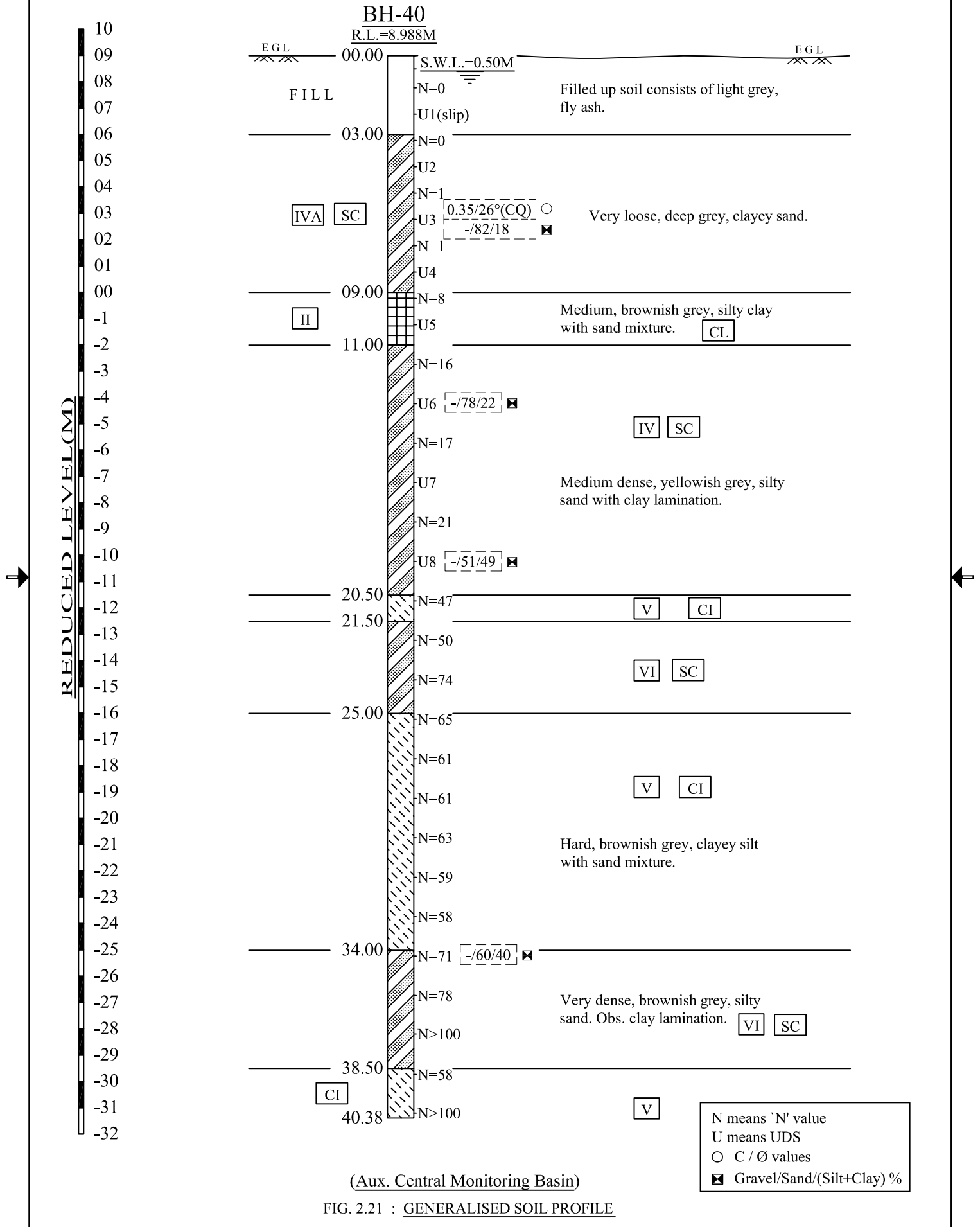
TOC = TOP OF CONCRETE
BOC = BOTTOM OF CONCRETE

BHEL-PROJECT ENGINEERING MANAGEMENT(O&M)

THIS DRAWING HAS BEEN RELEASED FOR
 COMMENTS/APPROVAL
 PLANNING/INFORMATION
 CONSTRUCTION
 STAMP ALL PREVIOUS REVISION AS SUPERSEDED

ISSUED BY: SOMNATH MISHRA
 SIGNATURE: [Signature]
 DATE: 18 JANUARY 2019





(Aux. Central Monitoring Basin)
FIG. 2.21 : GENERALISED SOIL PROFILE

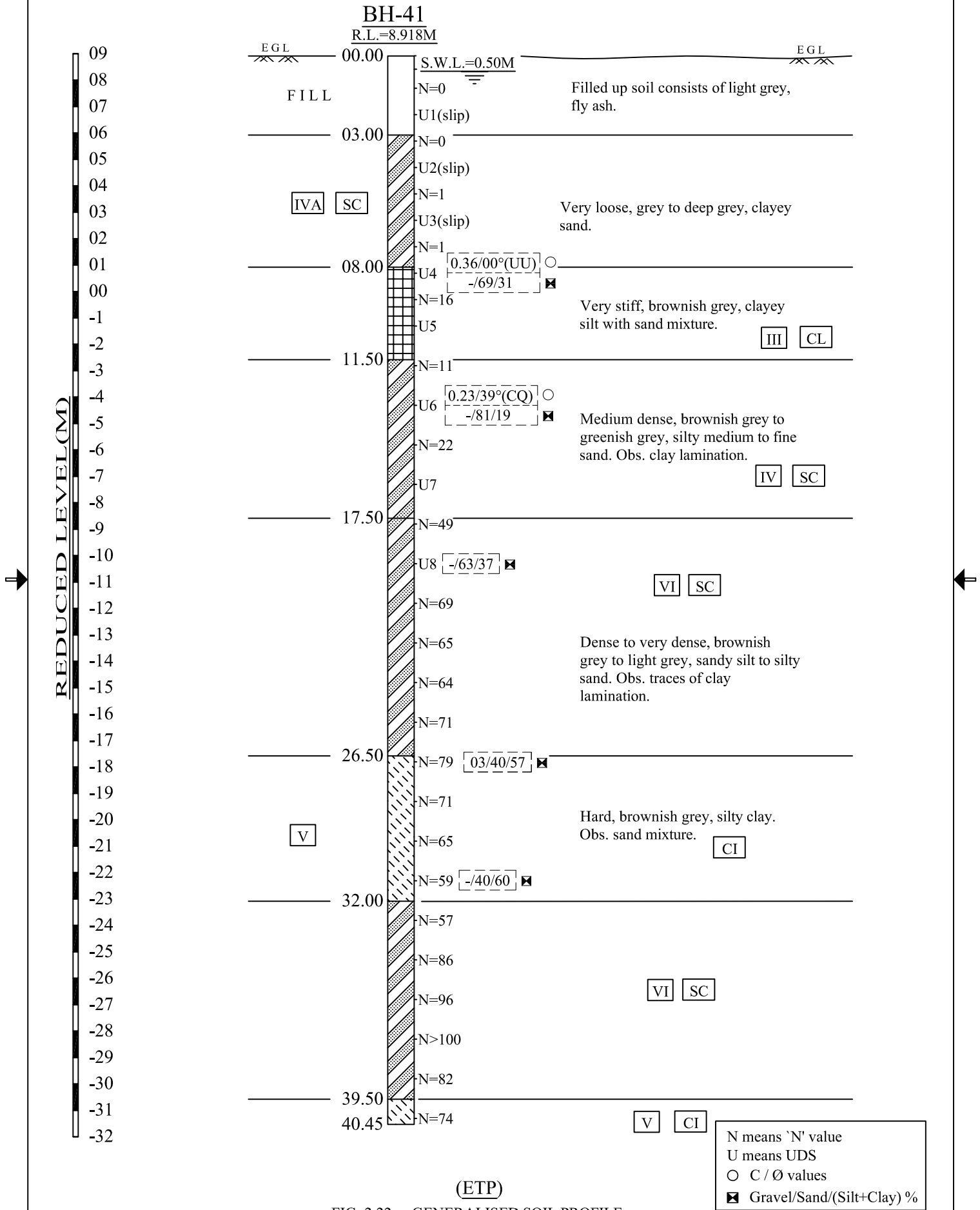


FIG. 2.22 : GENERALISED SOIL PROFILE

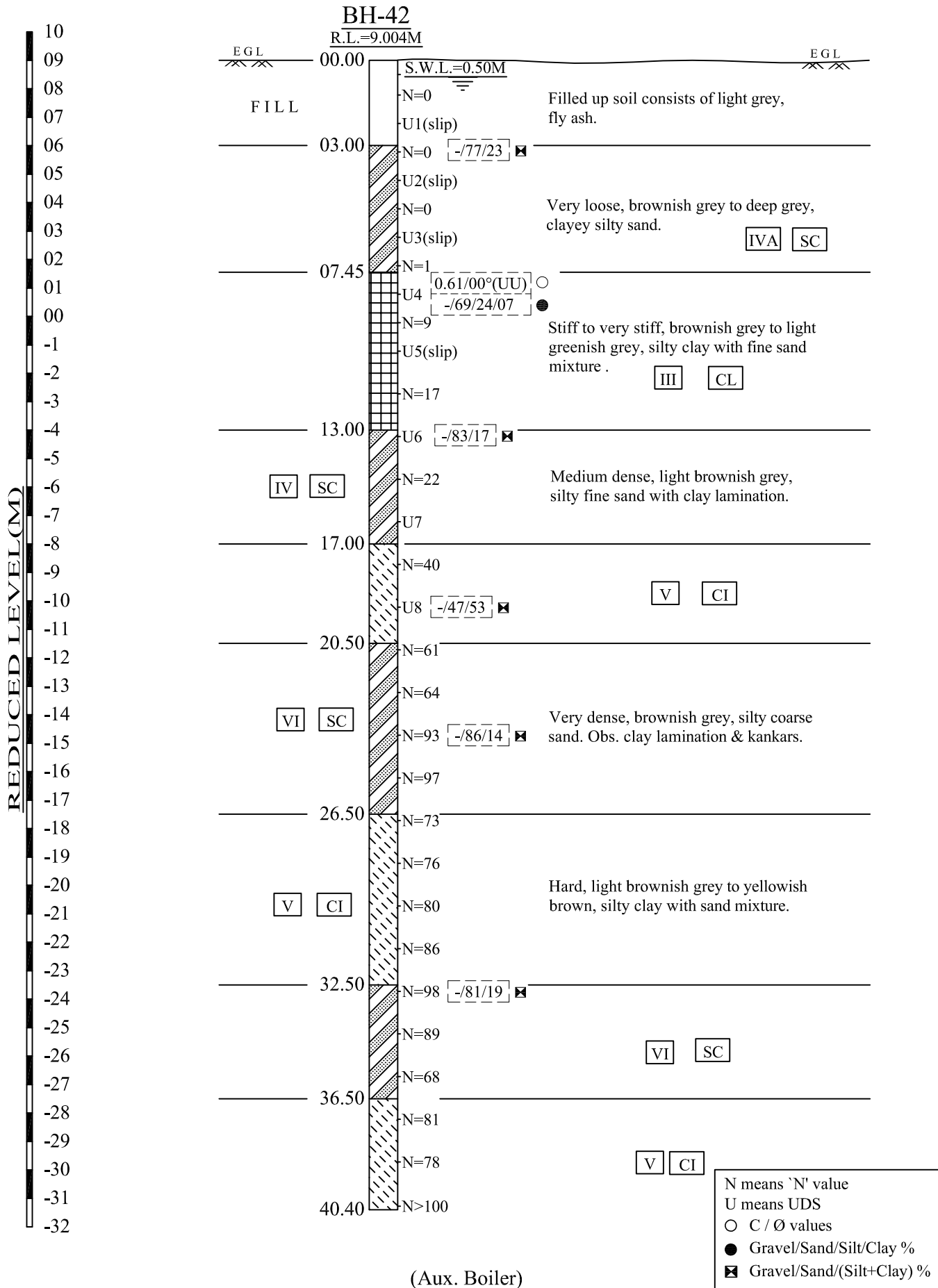
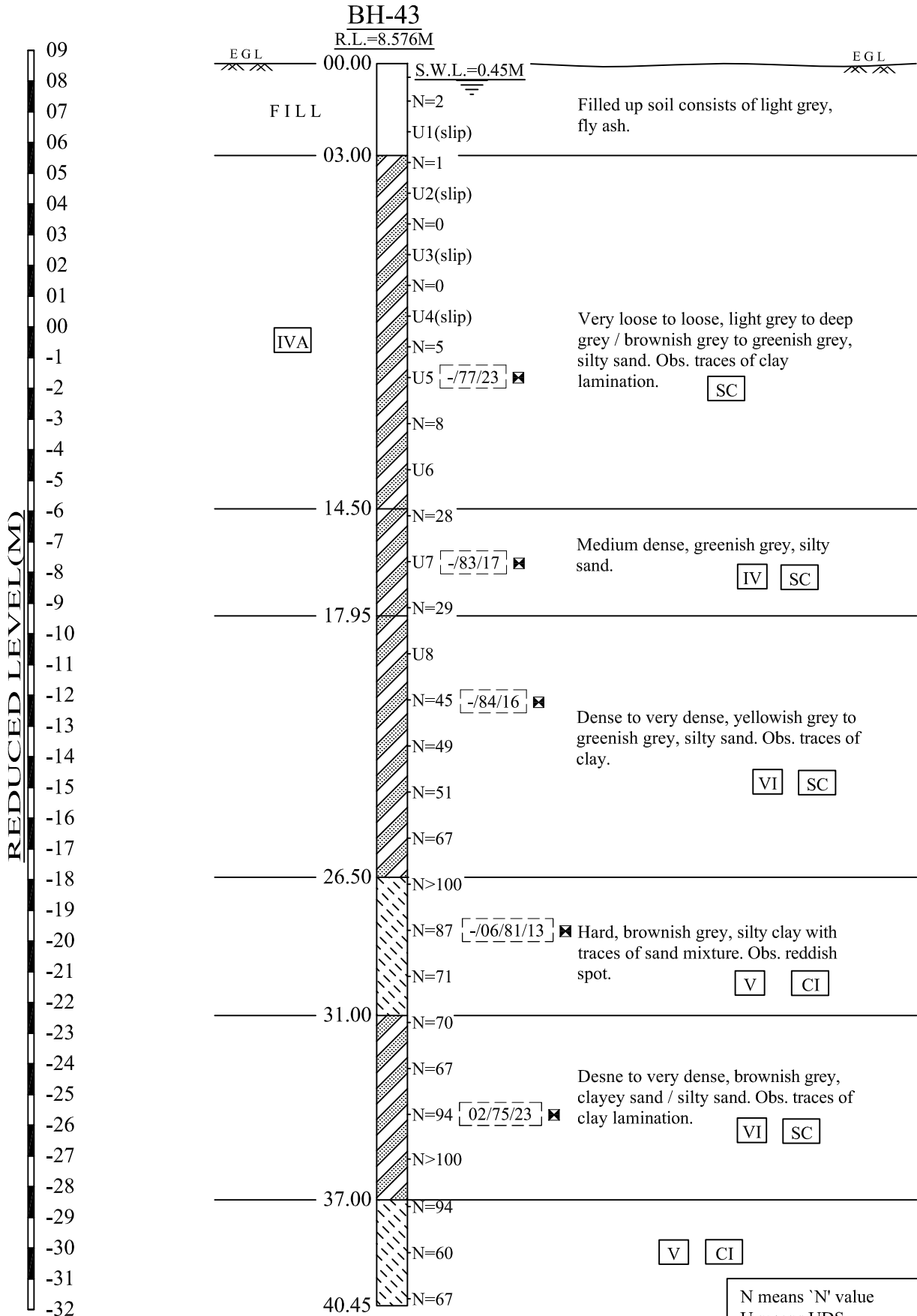
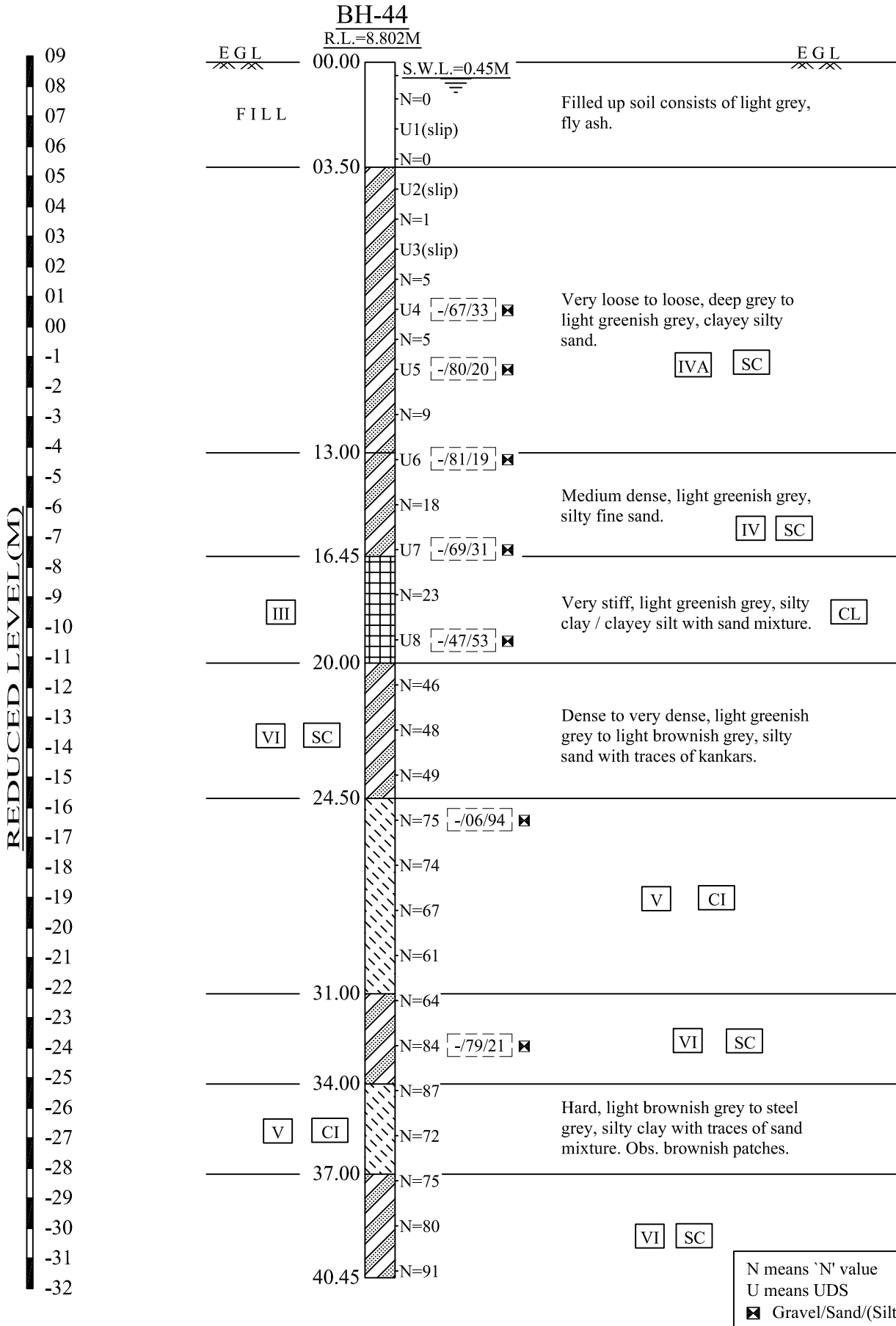


FIG. 2.23 : GENERALISED SOIL PROFILE



(Clarifier)

FIG. 2.24 : GENERALISED SOIL PROFILE



(Bulk Chemical Area)

FIG. 2.25 : GENERALISED SOIL PROFILE

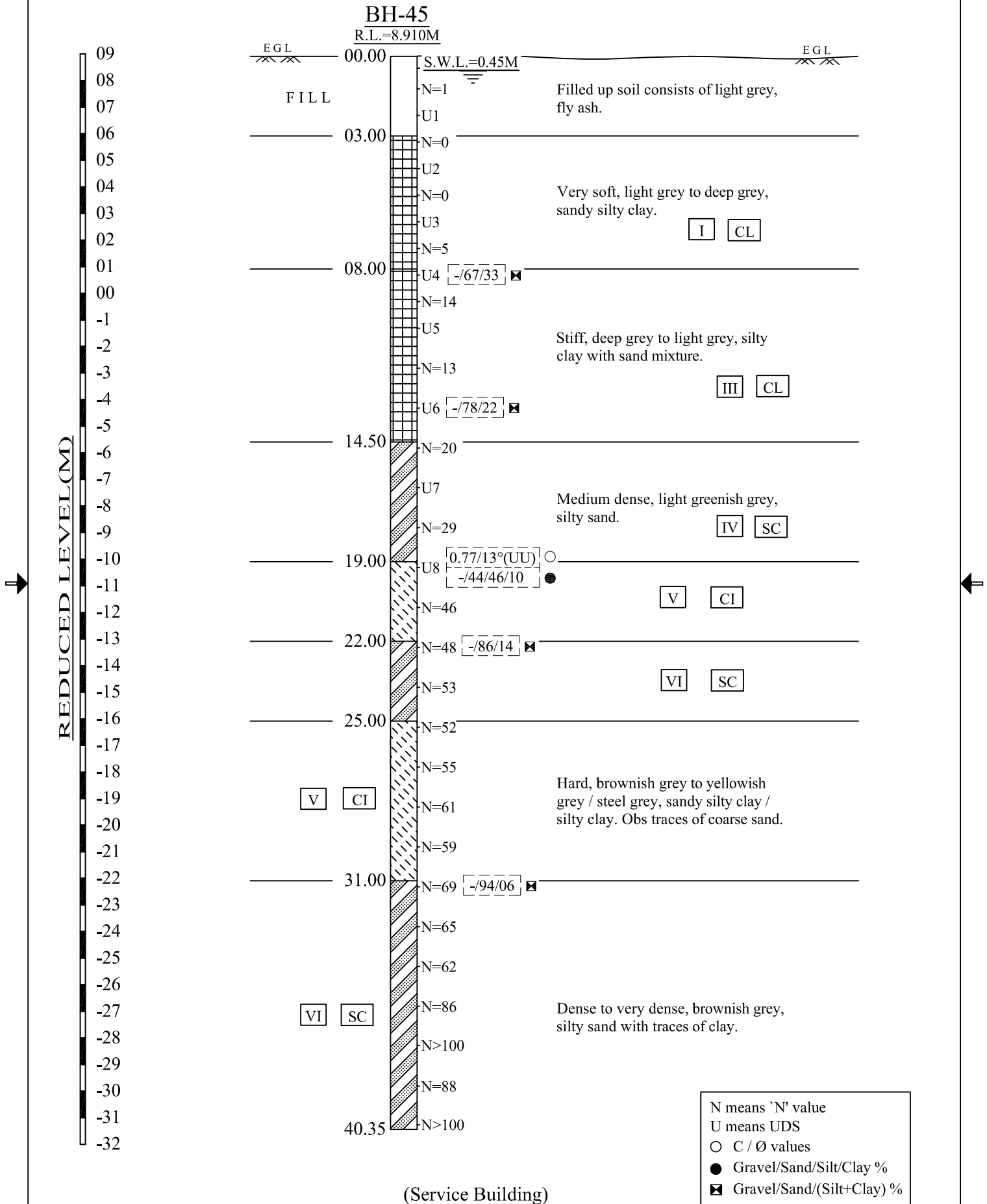


FIG. 2.26 : GENERALISED SOIL PROFILE

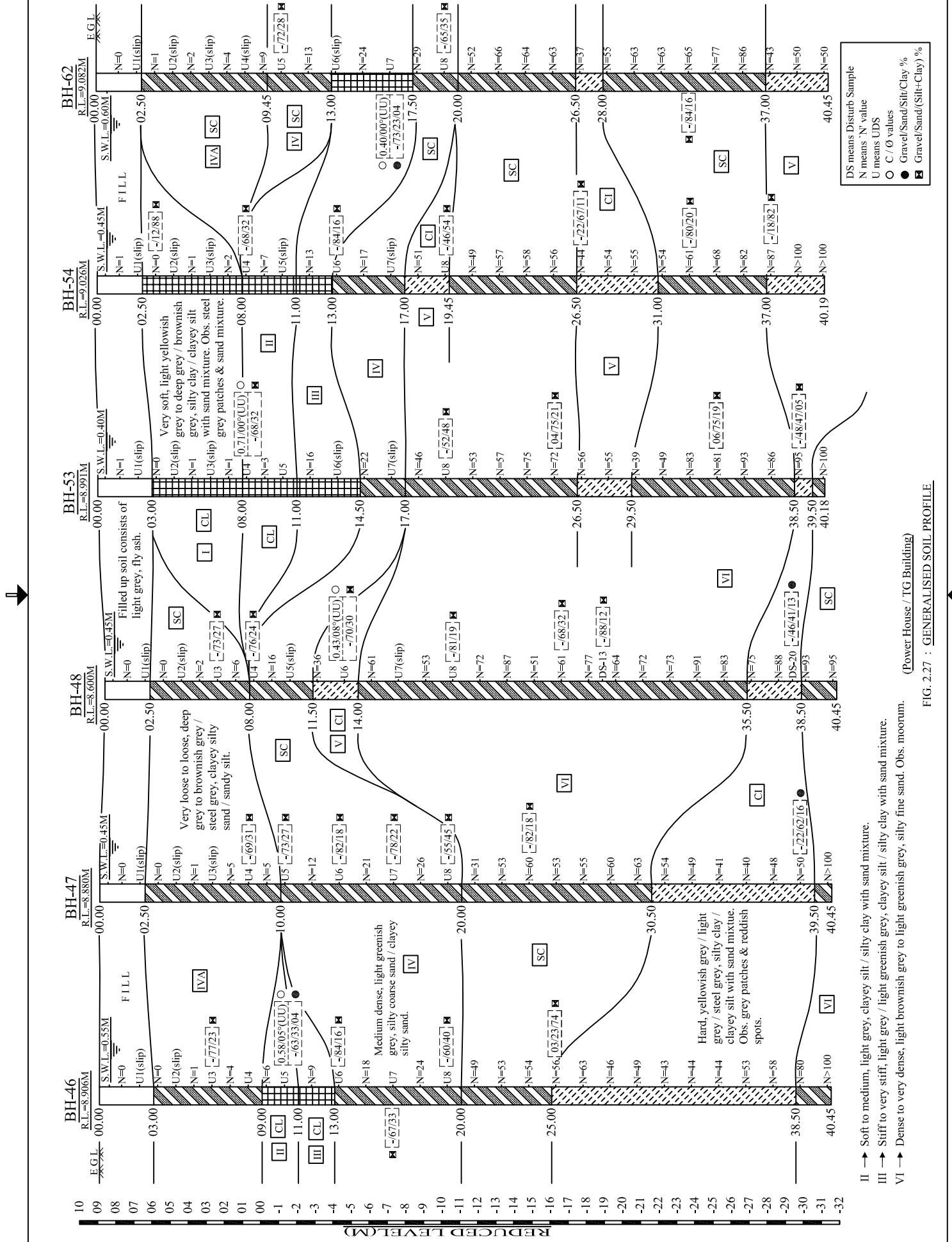
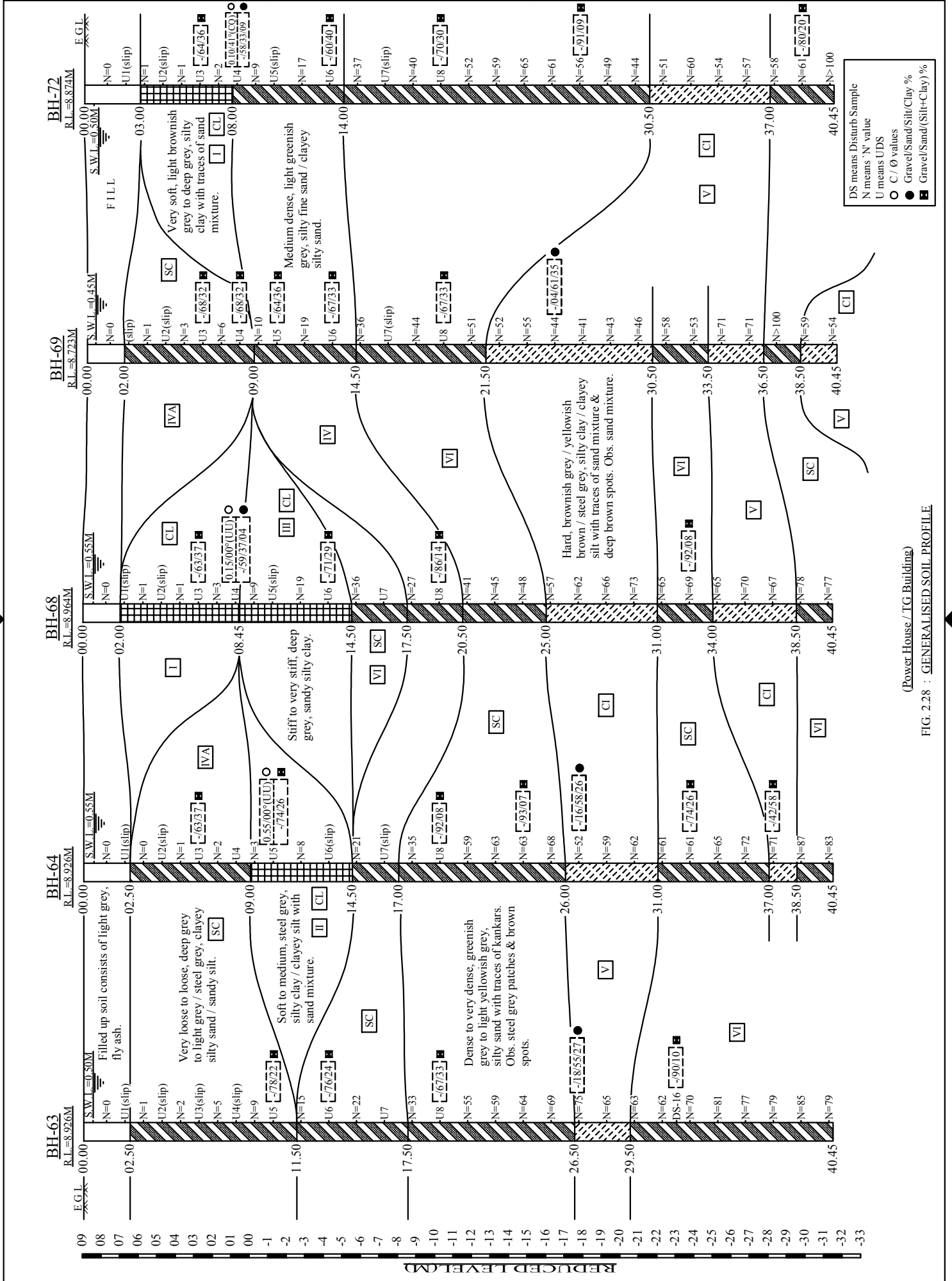


FIG. 2.27 : GENERALISED SOIL PROFILE (Power House / TG Building)

II → Soft to medium, light grey, clayey silt / silty clay with sand mixture.
 III → Stiff to very stiff, light grey / light greenish grey, clayey silt / silty clay with sand mixture.
 VI → Dense to very dense, light brownish grey to light greenish grey, silty fine sand. Obs. moorum.



(Power House / TG Building)
 FIG. 2.28 : GENERALISED SOIL PROFILE

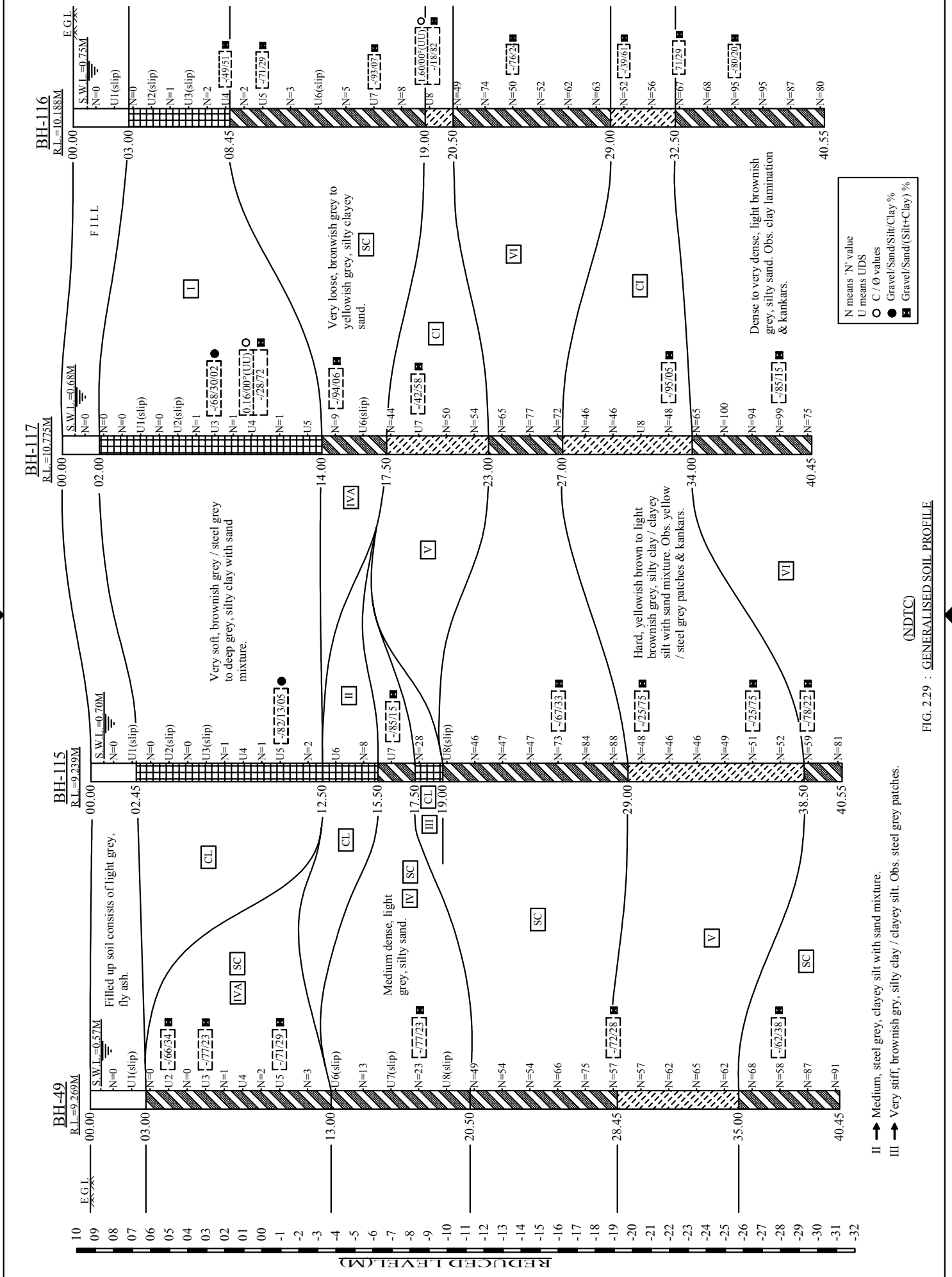
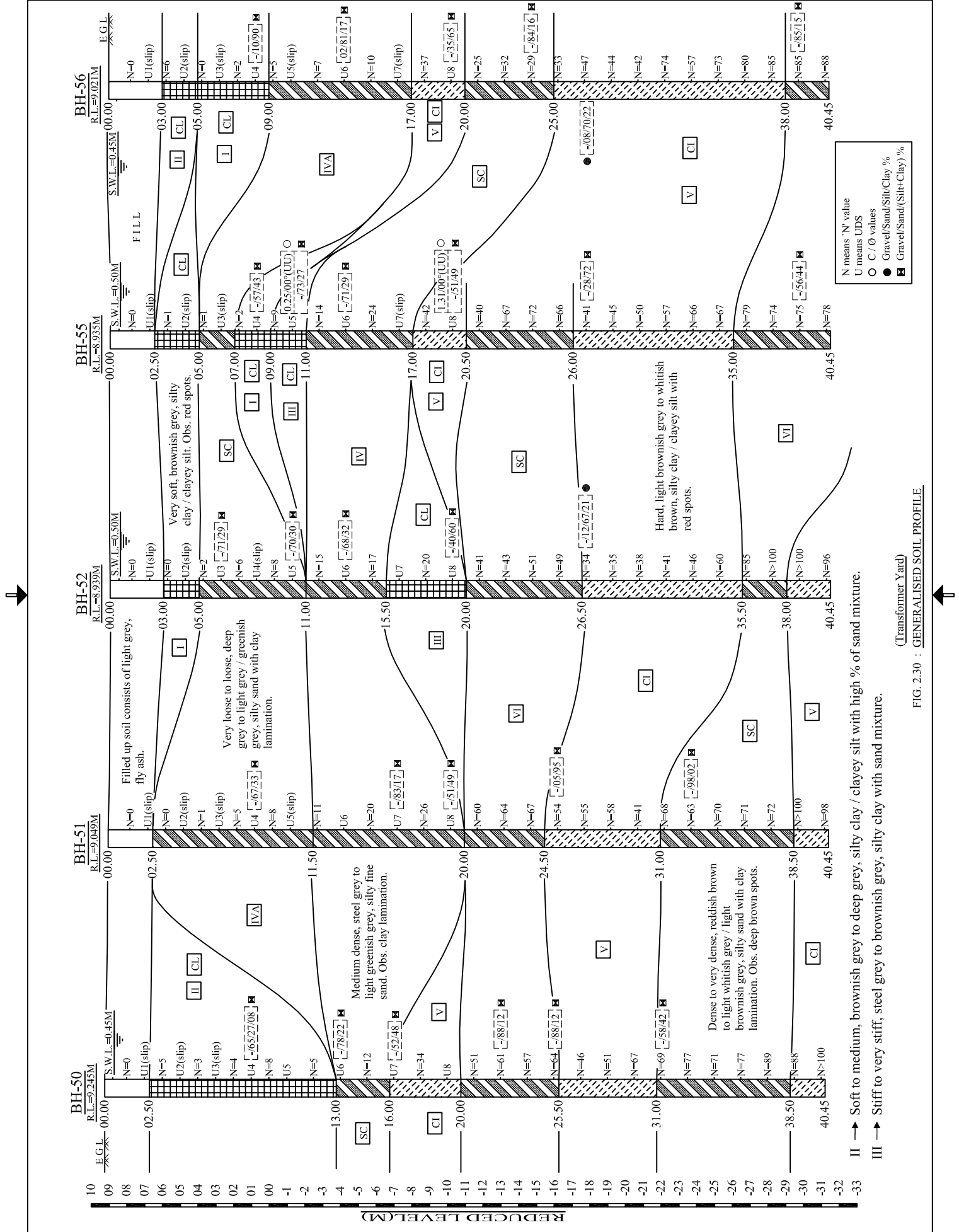


FIG. 2.29 : GENERALISED SOIL PROFILE (NDIC)

II → Medium, steel grey, clayey silt with sand mixture.
 III → Very stiff, brownish grey, silty clay / clayey silt. Obs. steel grey patches.



N means 'N' value
 U means UDS
 O C / O values
 ● Gravel/Sand/Silt/Clay %
 ■ Gravel/Sand/(Silt+Clay) %

II → Soft to medium, brownish grey to deep grey, silty clay / clayey silt with high % of sand mixture.
 III → Stiff to very stiff, steel grey to brownish grey, silty clay with sand mixture.

FIG. 2.30 : GENERALISED SOIL PROFILE (Transformer Yard)

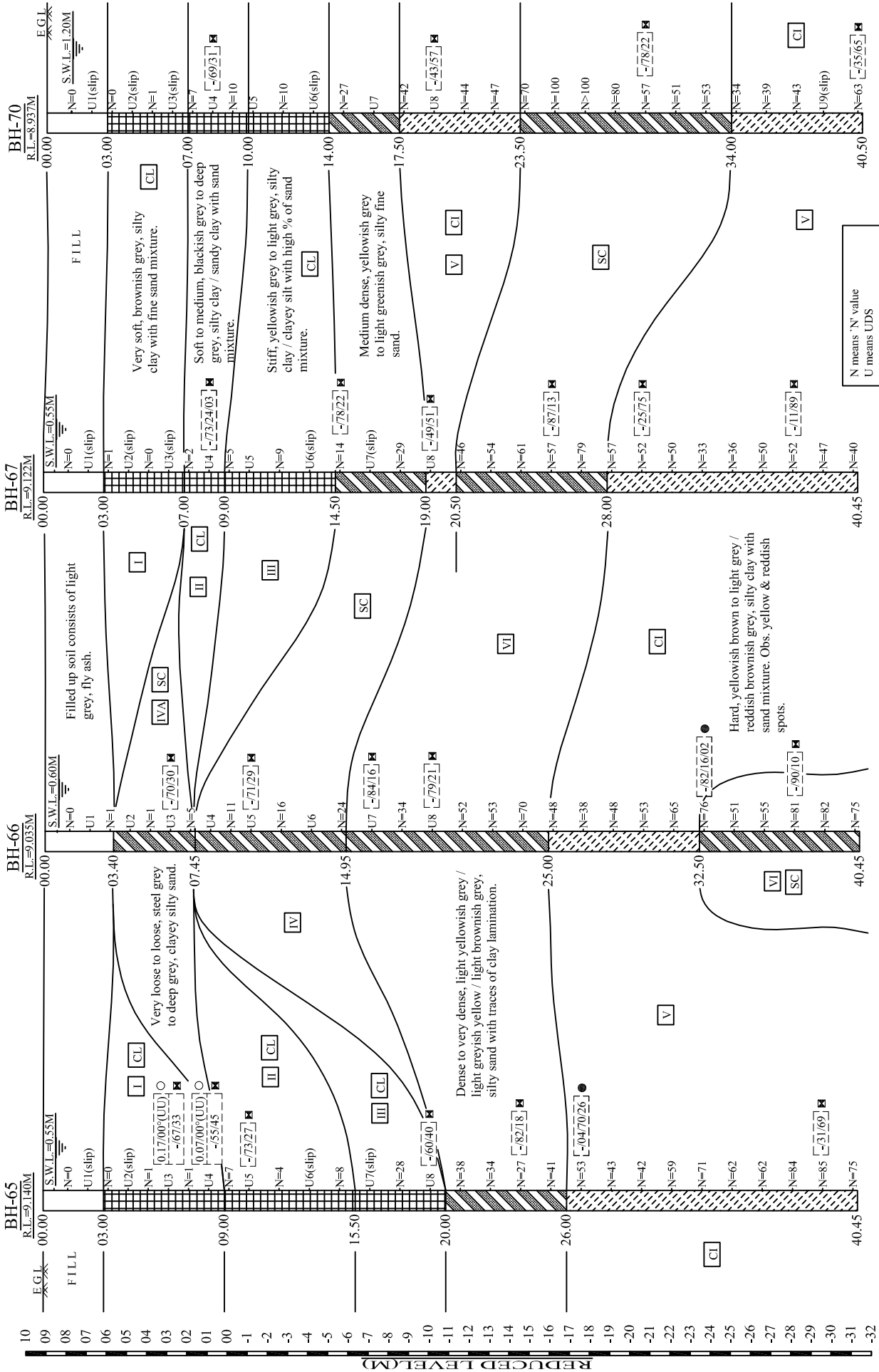
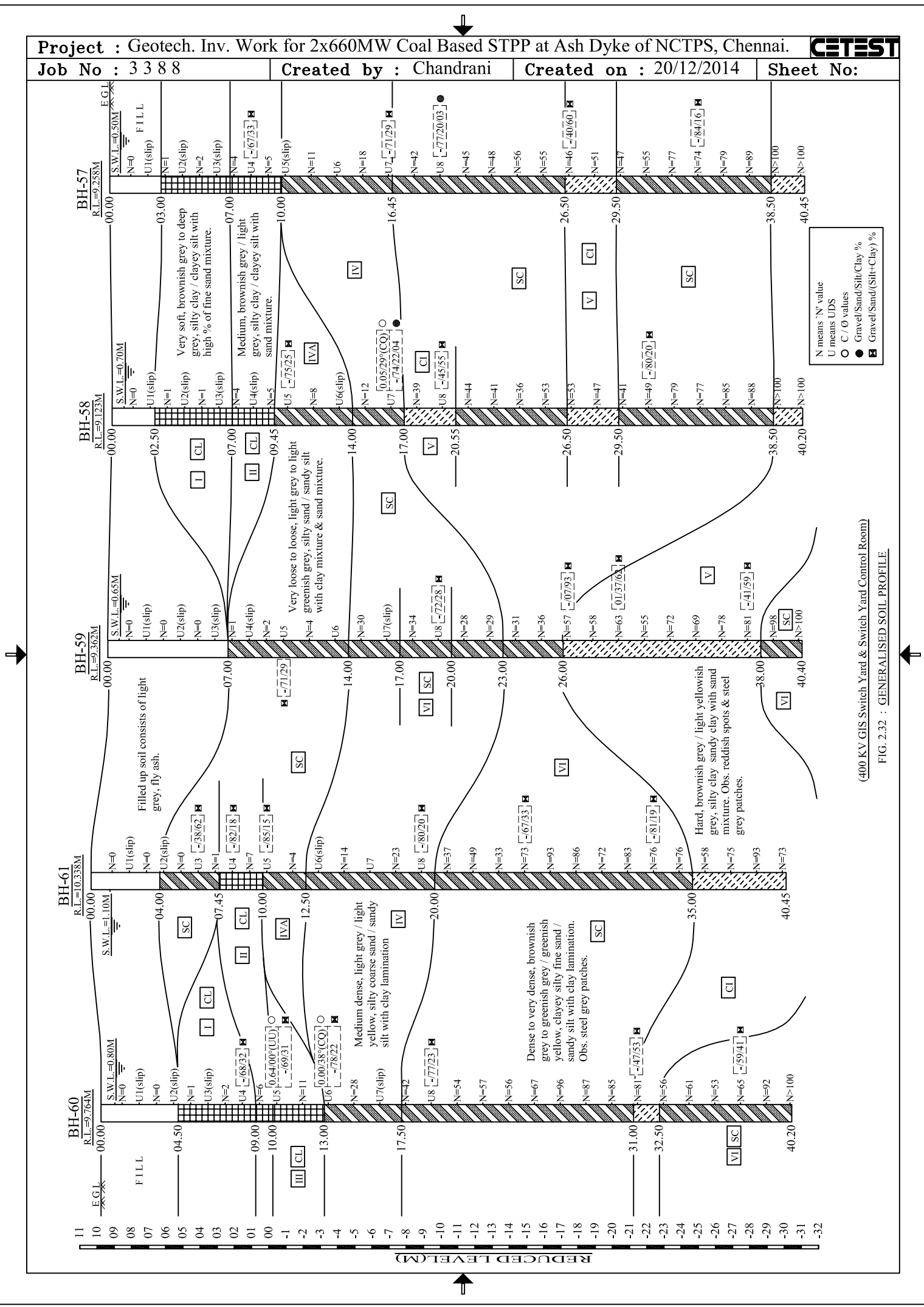


FIG. 2.31 : GENERALISED SOIL PROFILE (Transformer Yard)



(400 KV GIS Switch Yard & Switch Yard Control Room)

FIG. 2.32 : GENERALISED SOIL PROFILE

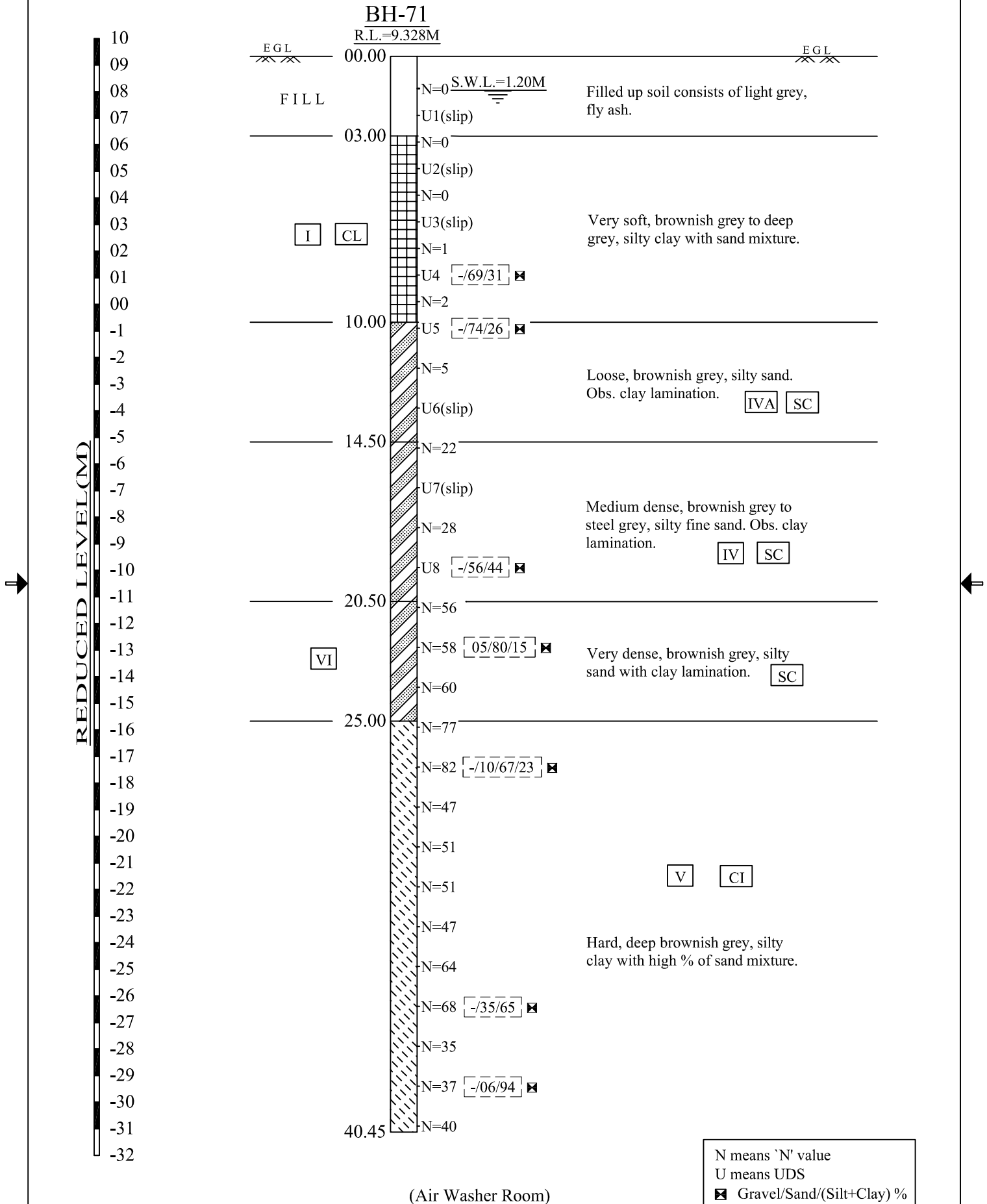
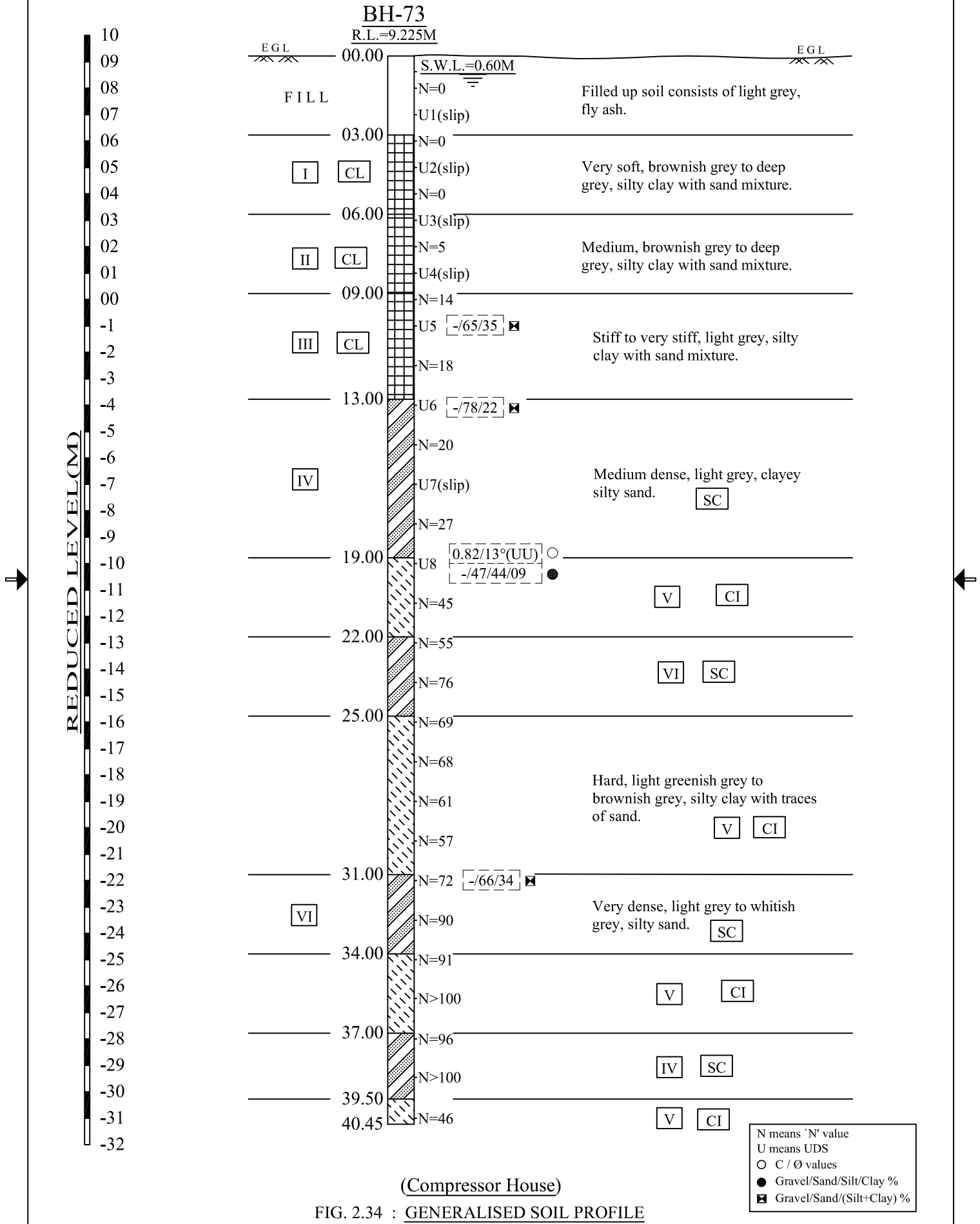
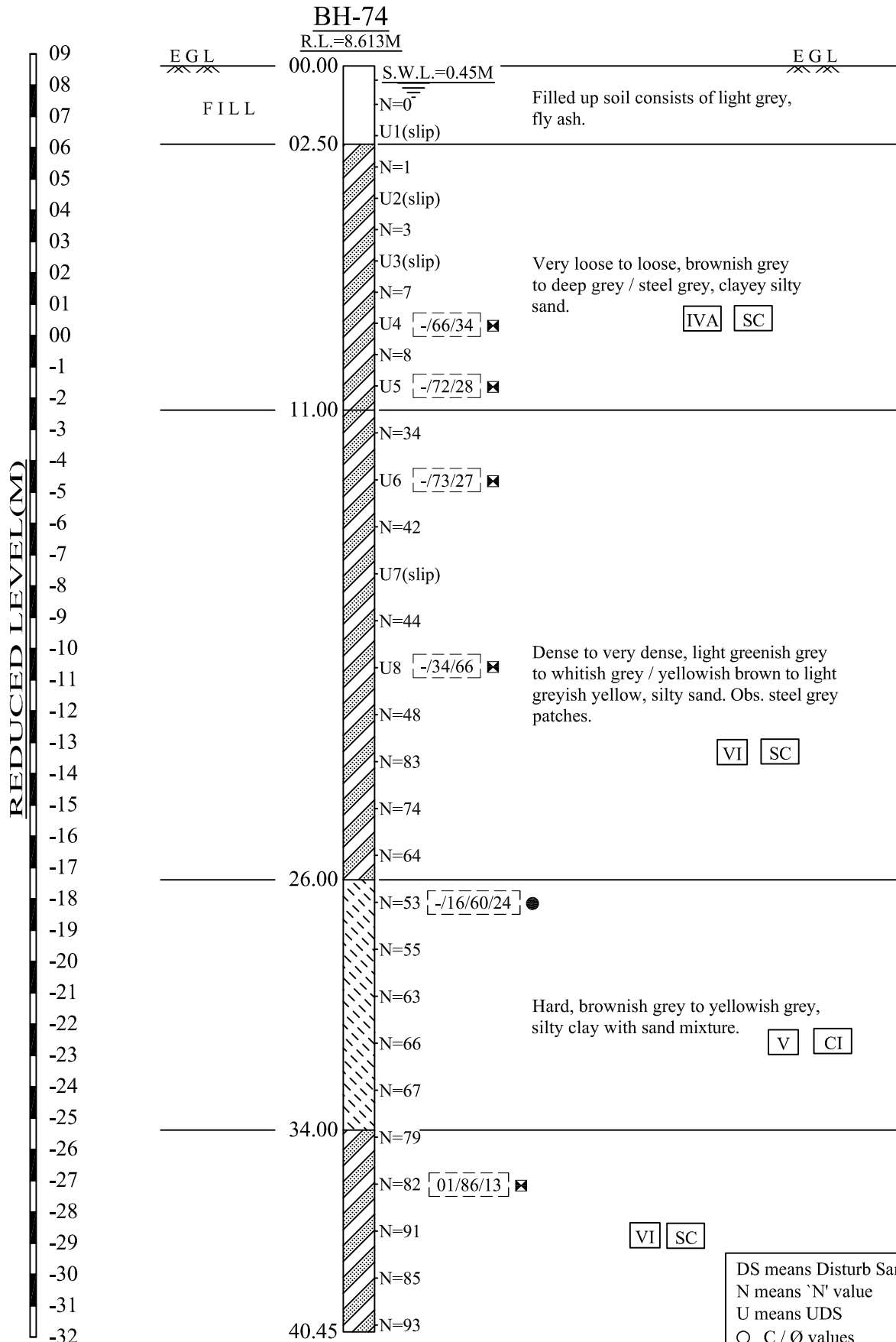


FIG. 2.33 : GENERALISED SOIL PROFILE

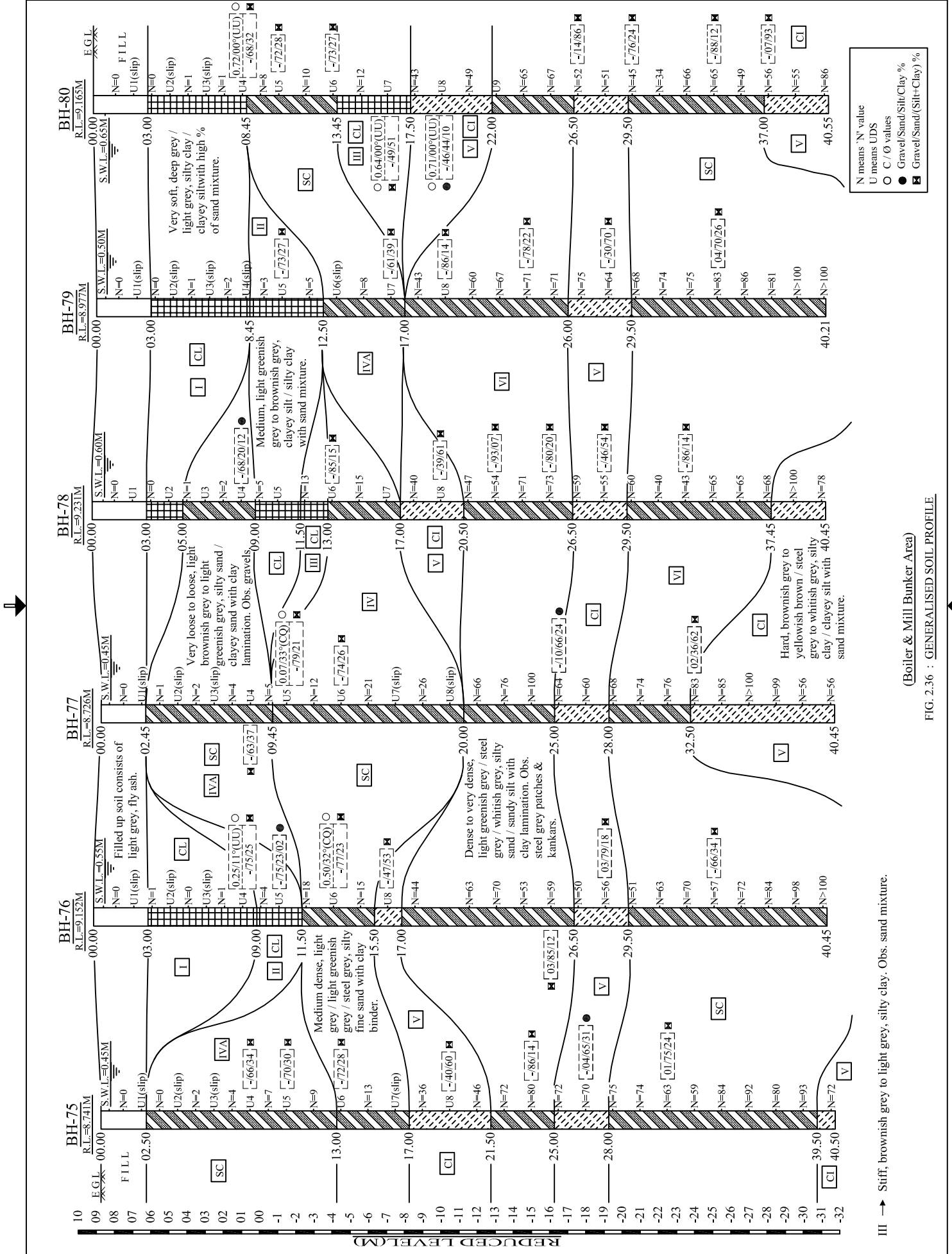




DS means Disturb Sample
 N means 'N' value
 U means UDS
 ○ C / Ø values
 ● Gravel/Sand/Silt/Clay %
 ✘ Gravel/Sand/(Silt+Clay) %

(Near Condensate Storage Tank)

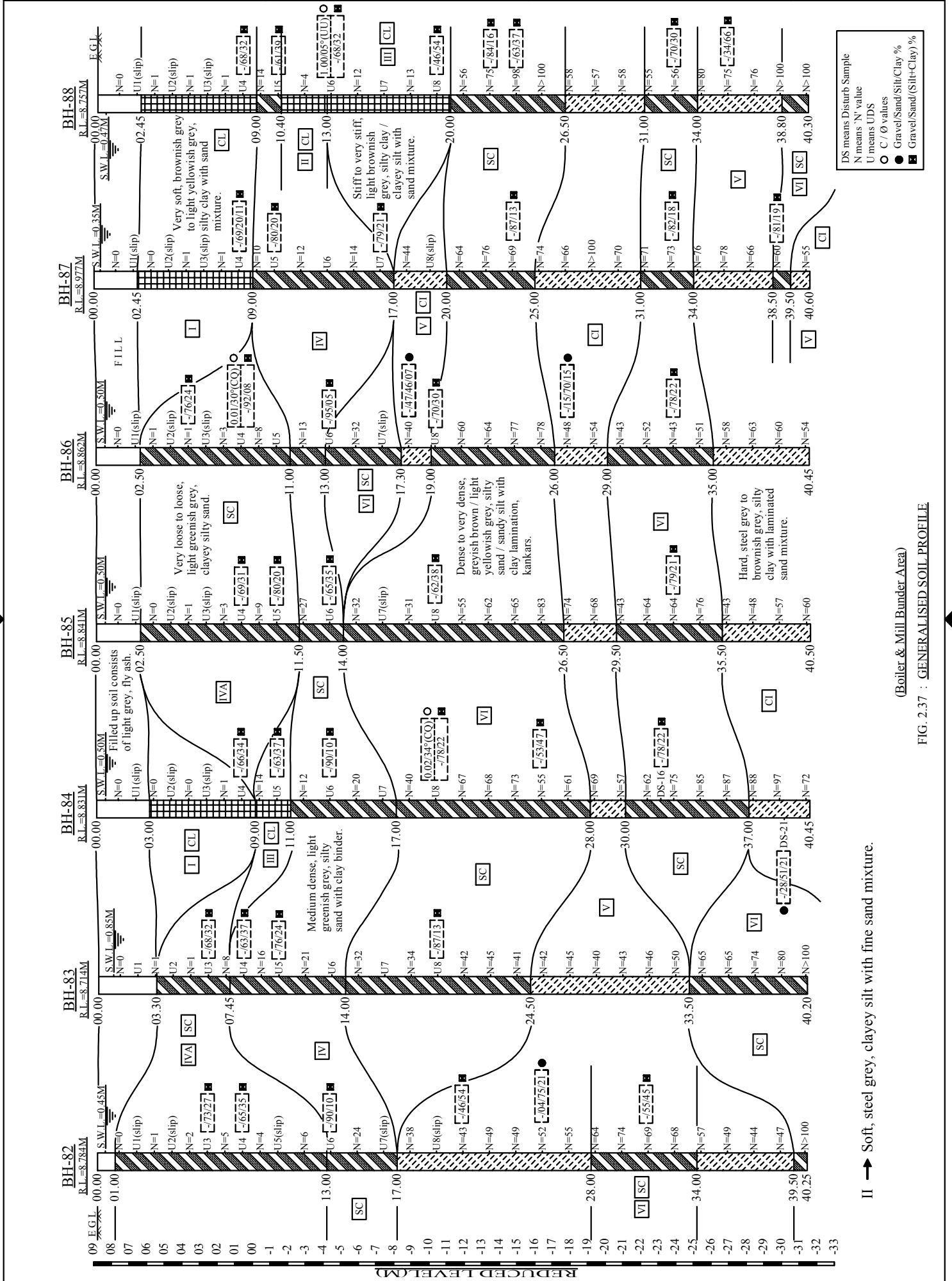
FIG. 2.35 : GENERALISED SOIL PROFILE



(Boiler & Mill Bunker Area)

FIG. 2.36 : GENERALISED SOIL PROFILE

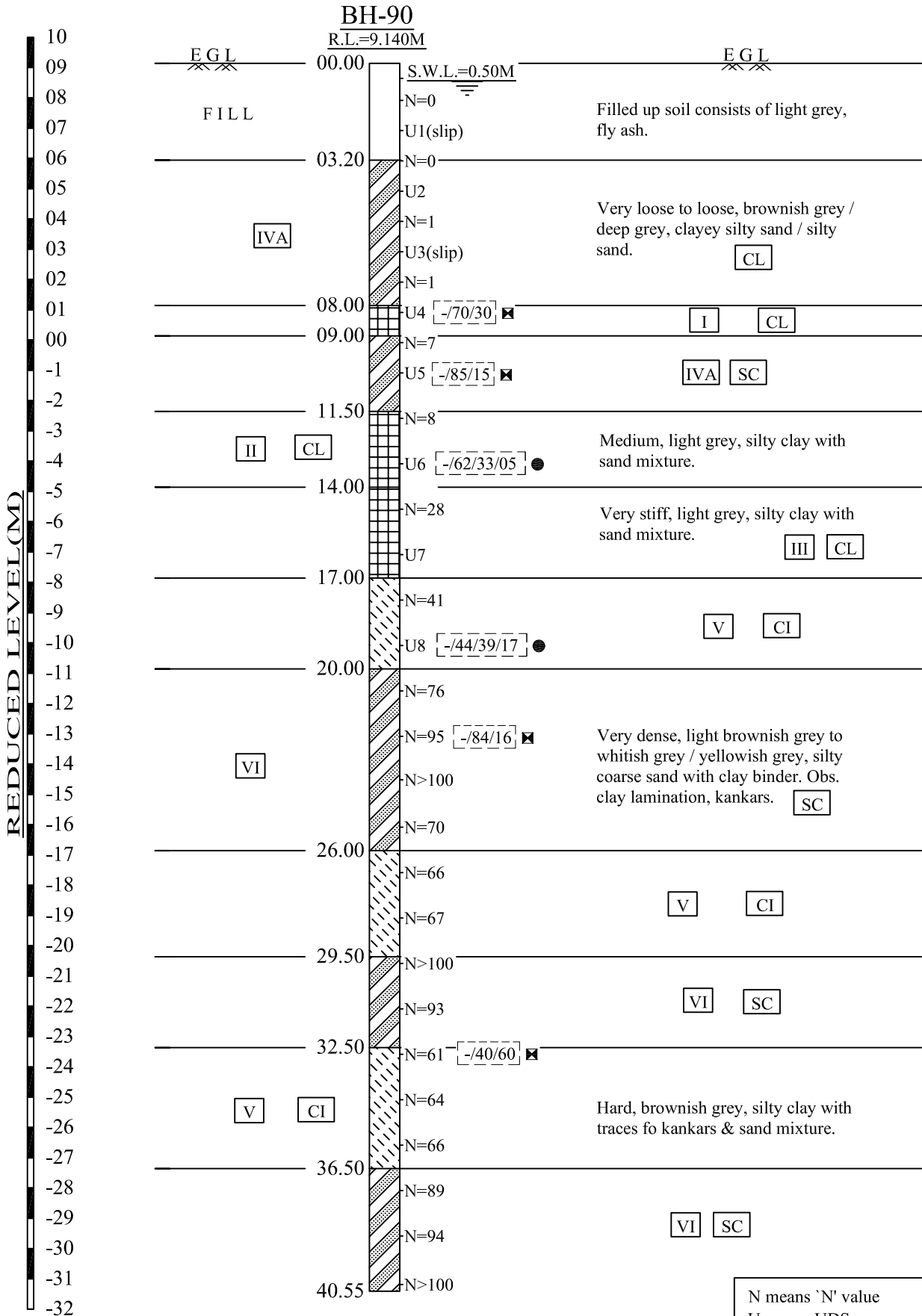
III → Stiff, brownish grey to light grey, silty clay. Obs. sand mixture.



DS means Disturb Sample
 N means 'N' value
 U means UDS
 ○ C / O values
 ● Gravel/Sand/Silt/Clay %
 ■ Gravel/Sand/(Silt+Clay) %

(Boiler & Mill Bunder Area)
 FIG. 2.37 : GENERALISED SOIL PROFILE

II → Soft, steel grey, clayey silt with fine sand mixture.



I → Brownish grey, silty clay with sand mixture.

(ESP Control Room)

FIG. 2.38 : GENERALISED SOIL PROFILE

N means 'N' value
 U means UDS
 ● Gravel/Sand/Silt/Clay %
 ✕ Gravel/Sand/(Silt+Clay) %

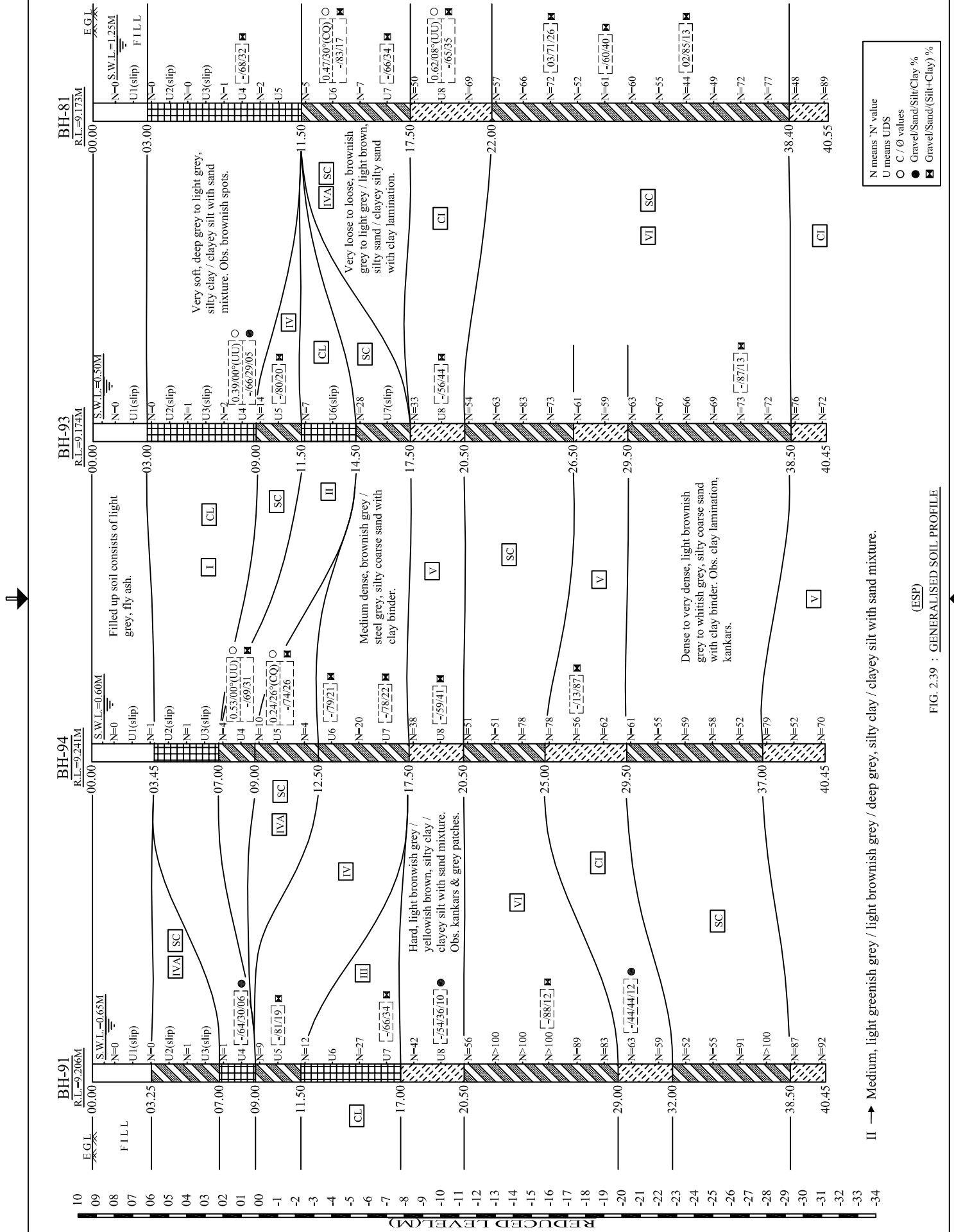


FIG. 2.39 : GENERALISED SOIL PROFILE (ESP)

II → Medium, light greenish grey / light brownish grey / deep grey, silty clay / clayey silt with sand mixture.



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 13/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.34

Co-ordinates E=(-)3065.000
N=4073.000

Field Test	Nos	Samples	Nos	Commencement Date :	17/02/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	19/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.222 m.
		Water Sample (WS)	1	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLES	
		EACH DIVN. = 15cm.							Depth (m)
21.00m Dense, light yellowish grey, silty sand. Obs. traces of clay.							47	DS-9 SPT-10	21.50 22.00-22.45
22.00m Dense to very dense, steel grey, sandy silt with traces of clay lamination. Obs. brownish spot.		11	20	27			52	DS-10 SPT-11	23.00 23.50-23.95
25.00m Hard, brownish grey, silty clay.		14	20	26			46	DS-11 SPT-12	24.50 25.00-25.45
28.00m Very dense, steel grey, silty sand with clay binder. Obs. brown patches.		12	19	24			43	DS-12 SPT-13	26.00 26.50-26.95
31.00m Very dense, brownish grey, silty sand.		17	26	36			62	DS-13 SPT-14	27.50 28.00-28.45
37.00m Very dense, brownish grey, silty sand with traces of clay lamination.		15	25	39			64	DS-14 SPT-15	29.00 29.50-29.95
40.35m N.B. - '*' means sample could not be recovered.		18	29	44			73	DS-15 SPT-16	30.50 31.00-31.45
		19	31	48			79	DS-16 SPT-17	32.00 32.50-32.95
		23	34	55			89	DS-17 SPT-18	33.50 34.00-34.45
		21	35	60			95	DS-18 SPT-19	35.00 35.50-35.95
		24	42	61			>100	DS-19 SPT-20	36.50 37.00-37.45
		21	53	48			>100	DS-20 SPT-21	38.00 38.50-38.88
		25	72	50			>100	DS-21 SPT-22	39.50 40.00-40.35
							8.0 cm Pentn.		
							5.0 cm Pentn.		





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 09/02/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.35

Co-ordinates E=(-)3161.000
N=4091.000

Field Test	Nos	Samples	Nos	Commencement Date :	19/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	21/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.037 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.6 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m Filled up soil consists of light grey, fly ash.								DS-1	0.50
		0	0	1			1	SPT-1	1.00-1.45
								*UDS-1	2.00-2.45
3.00m Very loose, brownish grey to deep grey, sandy silt / silty sand.		0	0	0			0	SPT-2	3.00-3.45
								*UDS-2	4.00-4.45
		0	1	0			0	SPT-3	5.00-5.45
								*UDS-3	6.00-6.45
		0	1	1			2	SPT-4	7.00-7.45
								*UDS-4	8.00-8.45
9.00m Loose, light brownish grey, clayey sand.		2	2	3			5	SPT-5	9.00-9.45
								UDS-5	10.00-10.45
11.50m Stiff to vey stiff, light grey to greenish grey, silty clay / clayey silt with sand mixture.		3	4	6			10	DS-2	11.00
								SPT-6	11.50-11.95
								DS-3	12.50
								UDS-6	13.00-13.45
		5	8	11			19	DS-4	14.00
								SPT-7	14.50-14.95
								DS-5	15.50
								UDS-7	16.00-16.45
17.50m Very stiff, light grey, silty clay / clayey silt with sand mixture.		6	9	15			24	DS-6	17.00
								SPT-8	17.50-17.95
								DS-7	18.50
								UDS-8	19.00-19.45
20.50m Dense, yellowish grey, silty sand. Obs. traces of kankars & clay lamination.		15	22	28			50	DS-8	20.00
21.50m								SPT-9	20.50-20.95
								DS-9	21.50





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 09/02/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.35

Co-ordinates E=(-)3161.000
N=4091.000

Field Test	Nos	Samples	Nos	Commencement Date : 19/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 21/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 9.037 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.6 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
21.50m Dense, yellowish grey, silty sand. Obs. traces of kankars & clay lamination.		16	21	26	47	SPT-10	22.00-22.45
					36	DS-10	23.00
23.50m Hard, brownish grey, silty clay. Obs. steel grey patches.		12	19	17	42	SPT-11	23.50-23.95
		10	17	25	40	DS-11	24.50
		9	17	23	60	SPT-12	25.00-25.45
					55	DS-12	26.00
27.50m Very dense, brownish grey, clayey silty sand. Obs. steel grey patches.		15	26	34	57	SPT-13	26.50-26.95
		13	24	31	63	DS-13	27.50
		14	24	33	58	SPT-14	28.00-28.45
		15	26	32	80	DS-14	29.00
31.00m Very dense, steel grey, clayey silty sand. Obs. brownish patches.		17	28	35	99	SPT-15	29.50-29.95
		19	31	49	>100	DS-15	30.50
		24	41	58	8.0 cm Pentn.	SPT-16	31.00-31.45
		34	50	50	>100	DS-16	32.00
34.00m Very dense, brownish grey, silty coarse sand.		28	50	50	8.0 cm Pentn.	SPT-17	32.50-32.95
						DS-17	33.50
						SPT-18	34.00-34.45
						DS-18	35.00
						SPT-19	35.50-35.95
						DS-19	36.50
						SPT-20	37.00-37.45
						DS-20	38.00
						SPT-21	38.50-38.88
						DS-21	39.50
40.38m						SPT-22	40.00-40.38

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.36

Co-ordinates E=(-)3174.000
N=4045.000

Field Test	Nos	Samples	Nos	Commencement Date :	21/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	23/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.164 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES	
		EACH DIVN. = 15cm.					Ref. No	Depth (m)
0.00m							DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	1		1	SPT-1	1.00-1.45
							*UDS-1	2.00-2.45
	3.00m	0	1	0		1	SPT-2	3.00-3.45
							*UDS-2	4.00-4.45
		0	1	1		2	SPT-3	5.00-5.45
Very loose to loose, light yellowish grey to deep grey, clayey silty sand.							*UDS-3	6.00-6.45
		1	2	2		4	SPT-4	7.00-7.45
							UDS-4	8.00-8.45
	9.45m	2	2	3		5	SPT-5	9.00-9.45
							UDS-5	10.00-10.45
Medium dense, steel grey, clayey silty sand. Obs. brownish patches.							DS-2	11.00
		3	5	8		13	SPT-6	11.50-11.95
							DS-3	12.50
13.00m							UDS-6	13.00-13.45
							DS-4	14.00
		4	7	13		20	SPT-7	14.50-14.95
							DS-5	15.50
							UDS-7	16.00-16.45
17.50m							DS-6	17.00
		8	13	19		32	SPT-8	17.50-17.95
							DS-7	18.50
Hard, light yellowish grey, silty clay / clayey silt with sand mixture.							UDS-8	19.00-19.45
							DS-8	20.00
21.00m		14	17	21		38	SPT-9	20.50-20.95





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.36

Co-ordinates E=(-)3174.000
N=4045.000

Field Test	Nos	Samples	Nos	Commencement Date :	21/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	23/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.164 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE						Ref. No	Depth (m)
		EACH DIVN. = 15cm.							
21.00m Hard, light yellowish grey, silty clay / clayey silt with sand mixture.								DS-9	21.50
22.00m		12	17	33				SPT-10	22.00-22.45
Hard, light grey, silty clay. Obs. brownish spot.								DS-10	23.00
25.00m		9	22	39				SPT-11	23.50-23.95
28.00m								DS-11	24.50
Hard, light brownish grey, silty clay.		14	21	28				SPT-12	25.00-25.45
31.00m								DS-12	26.00
Hard, light brownish grey, silty clay.		16	23	26				SPT-13	26.50-26.95
34.00m								DS-13	27.50
Hard, light brownish grey, silty clay with traces of sand mixture. Obs. steel grey patches.		17	23	27				SPT-14	28.00-28.45
37.00m								DS-14	29.00
Hard, light brownish grey, silty clay / clayey with sand. Obs. steel grey patches.		16	25	28				SPT-15	29.50-29.95
40.00m								DS-15	30.50
Very dense, brownish grey, silty sand.		17	27	38				SPT-16	31.00-31.45
43.00m								DS-16	32.00
Very dense, brownish grey, silty sand.		19	27	45				SPT-17	32.50-32.95
46.00m								DS-17	33.50
Very dense, brownish grey, silty sand. Obs. traces of clay.		20	35	48				SPT-18	34.00-34.45
49.00m								DS-18	35.00
Very dense, brownish grey, silty sand.		22	37	51				SPT-19	35.50-35.95
52.00m								DS-19	36.50
Very dense, brownish grey, silty sand. Obs. traces of clay.		19	31	44				SPT-20	37.00-37.45
55.00m								DS-20	38.00
Very dense, brownish grey, silty sand. Obs. traces of clay.		21	33	47				SPT-21	38.50-38.95
58.00m								DS-21	39.50
Very dense, brownish grey, silty sand. Obs. traces of clay.		29	52	50				SPT-22	40.00-40.38
40.38m									

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 22/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.37

Co-ordinates E=(-)2990.000
N=4069.000

Field Test	Nos	Samples	Nos	Commencement Date :	27/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	29/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.803 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE						Ref. No	Depth (m)	
		EACH DIVN. = 15cm.								
0.00m								DS-1	0.50	
Filled up soil consists of light grey, fly ash.		0	0	0	0			SPT-1	1.00-1.45	
									*UDS-1	2.00-2.45
3.00m								SPT-2	3.00-3.45	
Soft to medium, yellowish grey to deep grey, sandy clay.		0	1	0	1			*UDS-2	4.00-4.45	
									SPT-3	5.00-5.45
		0	1	1	2			UDS-3	6.00-6.45	
		2	2	3	5			SPT-4	7.00-7.45	
8.00m								UDS-4	8.00-8.45	
Loose, grey, clayey silty sand.		2	4	6	10			SPT-5	9.00-9.45	
									*UDS-5	10.00-10.45
11.00m								DS-2	11.00	
Medium dense, light greenish grey, silty sand.		3	5	7	12			SPT-6	11.50-11.95	
									DS-3	12.50
		5	10	14	24			UDS-6	13.00-13.45	
									DS-4	14.00
15.50m								SPT-7	14.50-14.95	
Dense, light greenish grey, silty sand.								DS-5	15.50	
									UDS-7	16.00-16.45
		11	12	19	31			DS-6	17.00	
									SPT-8	17.50-17.95
20.00m								DS-7	18.50	
Very dense, yellowish grey, silty sand with traces of clay. Obs. traces of kankars.								UDS-8	19.00-19.45	
		18	30	39	69			DS-8	20.00	
21.50m								SPT-9	20.50-20.95	
								DS-9	21.50	





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 22/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.37

Co-ordinates E=(-)2990.000
N=4069.000

Field Test	Nos	Samples	Nos	Commencement Date :	27/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	29/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.803 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE			SAMPLES		
		EACH DIVN. = 15cm.			Ref. No	Depth (m)	
Very dense, yellowish grey, silty sand with traces of clay. Obs. traces of kankars.		17	26	32	58	SPT-10	22.00-22.45
		17	25	35	60	DS-10	23.00
		21	23	33	56	SPT-11	23.50-23.95
		21	23	33	56	DS-11	24.50
		21	23	33	56	SPT-12	25.00-25.45
		21	23	33	56	DS-12	26.00
		19	21	29	50	SPT-13	26.50-26.95
		19	21	29	50	DS-13	27.50
		15	25	32	57	SPT-14	28.00-28.45
		17	29	35	64	DS-14	29.00
Hard, light brownish grey, silty clay with sand mixture. Obs. steel grey patches.		20	27	37	64	SPT-15	29.50-29.95
		20	27	37	64	DS-15	30.50
		19	31	42	73	SPT-16	31.00-31.45
		19	31	42	73	DS-16	32.00
		23	42	57	99	SPT-17	32.50-32.95
		23	42	57	99	DS-17	33.50
		28	53	50	>100	SPT-18	34.00-34.45
		28	53	50	>100	DS-18	35.00
		21	49	54	8.0 cm Pentn	SPT-19	35.50-35.88
		21	49	54	8.0 cm Pentn	DS-19	36.50
Very dense, steel grey, silty sand. Obs. brownish patches.		18	25	31	56	SPT-20	37.00-37.45
		18	25	31	56	DS-20	38.00
		17	23	29	52	SPT-21	38.50-38.95
		17	23	29	52	DS-21	39.50
Hard, steel grey, silty clay with traces of sand. Obs. brownish patches.		17	23	29	52	SPT-22	40.00-40.45
		17	23	29	52	DS-22	40.00-40.45

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.38

Co-ordinates E=(-)2990.000
N=4036.000

Field Test	Nos	Samples	Nos	Commencement Date :	26/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	27/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.592 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.4 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES		
		EACH DIVN. = 15cm.						Ref. No	Depth (m)	
0.00m								DS-1	0.50	
Filled up soil consists of light grey, fly ash.		0	1	1			<u>2</u>	SPT-1	1.00-1.45	
									*UDS-1	2.00-2.45
								<u>1</u>	SPT-2	3.00-3.45
3.00m	Very loose, light brownish grey to clayey silty sand.	0	1	0			<u>1</u>	SPT-2	3.00-3.45	
									*UDS-2	4.00-4.45
								<u>0</u>	SPT-3	5.00-5.45
8.00m		0	0	0			<u>0</u>	SPT-3	5.00-5.45	
									*UDS-3	6.00-6.45
								<u>3</u>	SPT-4	7.00-7.45
8.00m	Loose, steel grey, clayey silty sand.	0	1	2			<u>3</u>	SPT-4	7.00-7.45	
									UDS-4	8.00-8.45
								<u>5</u>	SPT-5	9.00-9.45
10.00m		1	2	3			<u>5</u>	SPT-5	9.00-9.45	
									UDS-5	10.00-10.45
								<u>14</u>	DS-2	11.00
10.00m	Medium dense, light greenish grey, silty sand.	2	6	8			<u>14</u>	SPT-6	11.50-11.95	
									DS-3	12.50
								<u>21</u>	UDS-6	13.00-13.45
16.00m		7	9	12			<u>21</u>	DS-4	14.00	
									SPT-7	14.50-14.95
								<u>33</u>	DS-5	15.50
16.00m	Hard, steel grey, silty clay with sand mixture. Obs. rusty spots.	11	15	18			<u>33</u>	UDS-7	16.00-16.45	
									DS-6	17.00
								<u>40</u>	SPT-8	17.50-17.95
20.00m	Dense to very dense, steel grey, silty sand with traces of clay. Obs. gravels & kankars.	13	18	22			<u>40</u>	DS-7	18.50	
									UDS-8	19.00-19.45
									DS-8	20.00
21.00m								SPT-9	20.50-20.95	





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.38

Co-ordinates E=(-)2990.000
N=4036.000

Field Test	Nos	Samples	Nos	Commencement Date :	26/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	27/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.592 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.4 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES		
		EACH DIVN. = 15cm.					Ref. No	Depth (m)	
21.00m Dense to very dense, steel grey, silty sand with traces of clay. Obs. gravels & kankars.							DS-9	21.50	
		17	25	33			SPT-10	22.00-22.45	
						58		DS-10	23.00
						>100		SPT-11	23.50-23.95
25.00m Very dense, light brownish / yellowish grey, silty sand with traces of clay binder.		18	41	62			DS-11	24.50	
						77		SPT-12	25.00-25.45
		17	35	42			DS-12	26.00	
						71		SPT-13	26.50-26.95
28.00m Hard, steel grey, silty clay.		19	32	39			DS-13	27.50	
						80		SPT-14	28.00-28.45
		20	35	45			DS-14	29.00	
						85		SPT-15	29.50-29.95
31.00m Very dense, steel grey, silty sand.							DS-15	30.50	
		19	33	44			SPT-16	31.50-31.95	
						77		DS-16	32.00
		17	35	45			SPT-17	32.50-32.95	
						80		DS-17	33.50
						87		SPT-18	34.00-34.45
37.00m Hard, steel grey, silty clay with traces of sand. Obs. brownish patches & brownish sand.		19	38	49			DS-18	35.00	
						90		SPT-19	35.50-35.95
		21	39	51			DS-19	36.50	
						50		SPT-20	37.00-37.45
		18	22	28			DS-20	38.00	
						51		SPT-21	38.50-38.95
40.35m		16	24	27			DS-21	39.50	
						>100		SPT-22	40.00-40.35
		40	70	50					
		5.0 cm Pentn.							

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.39

Co-ordinates E=(-)2915.000
N=4067.000

Field Test	Nos	Samples	Nos	Commencement Date :	09/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	12/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.941 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.4 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES	
		EACH DIVN. = 15cm.					Ref. No	Depth (m)
0.00m							DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	1		<u>1</u>	SPT-1	1.00-1.45
		0	0	0		<u>0</u>	*UDS-1	2.00-2.45
		0	0	0		<u>0</u>	SPT-2	3.00-3.45
5.00m		0	0	0		<u>0</u>	UDS-2	4.00-4.45
Very loose, deep grey, clayey sand.		0	0	0		<u>0</u>	SPT-3	5.00-5.45
		0	0	0		<u>0</u>	UDS-3	6.00-6.45
7.00m		0	0	1		<u>1</u>	SPT-4	7.00-7.45
Very soft, deep grey, sandy clay.		0	0	1		<u>1</u>	UDS-4	8.00-8.45
		0	1	1		<u>2</u>	SPT-5	9.00-9.45
		0	1	1		<u>2</u>	*UDS-5	10.00-10.45
11.50m		4	6	9		<u>15</u>	DS-2	11.00
Medium dense, greenish grey, silty sand.		4	6	9		<u>15</u>	SPT-6	11.50-11.95
		4	6	9		<u>15</u>	DS-3	12.50
		4	8	12		<u>20</u>	UDS-6	13.00-13.45
		4	8	12		<u>20</u>	DS-4	14.00
		4	8	12		<u>20</u>	SPT-7	14.50-14.95
18.50m		6	9	16		<u>25</u>	DS-5	15.50
Dense, light greenish grey, silty sand with traces of clay lamination.		6	9	16		<u>25</u>	UDS-7	16.00-16.45
		6	9	16		<u>25</u>	DS-6	17.00
		6	9	16		<u>25</u>	SPT-8	17.50-17.95
21.00m		15	23	27		<u>50</u>	DS-7	18.50
		15	23	27		<u>50</u>	*UDS-8	19.00-19.45
		15	23	27		<u>50</u>	DS-8	20.00
		15	23	27		<u>50</u>	SPT-9	20.50-20.95





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.39

Co-ordinates E=(-)2915.000
N=4067.000

Field Test	Nos	Samples	Nos	Commencement Date :	09/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	12/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.941 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.4 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES	
		EACH DIVN. = 15cm.					Ref. No	Depth (m)
Dense, light greenish grey, silty sand with traces of clay lamination.							DS-9	21.50
						54	SPT-10	22.00-22.45
Very dense, brownish grey, silty coarse sand with traces of clay lamination. Obs. green spot.		16	24	30			DS-10	23.00
						50	SPT-11	23.50-23.95
		16	21	29			DS-11	24.50
Very dense, light grey, silty coarse sand.						67	SPT-12	25.00-25.45
		19	30	37			DS-12	26.00
		17	29	42			SPT-13	26.50-26.95
Very dense, light grey, silty sand with traces of clay lamination. Obs. brownish spot.						71	DS-13	27.50
		16	30	46			SPT-14	28.00-28.45
		15	33	51			DS-14	29.00
Very dense, brownish grey, silty sand with traces of rock dust & mica.						84	SPT-15	29.50-29.95
		16	31	48			DS-15	30.50
						79	SPT-16	31.00-31.45
Very dense, light brownish grey, silty coarse sand with clay.						80	DS-16	32.00
		18	28	52			SPT-17	32.50-32.95
						88	DS-17	33.50
Very dense, light brownish grey, silty coarse sand with clay.						>100	SPT-18	34.00-34.45
		17	35	53			DS-18	35.00
						5.0 cm Pentn	SPT-19	35.50-35.85
Hard, brownish grey, silty clay. Obs. light grey silty sand in SPT-22.						71	DS-19	36.50
		18	65	40			SPT-20	37.00-37.45
		15	28	43			DS-20	38.00
Hard, brownish grey, silty clay. Obs. light grey silty sand in SPT-22.						80	SPT-21	38.50-38.95
		12	33	47			DS-21	39.50
						>100	SPT-22	40.00-40.37
		21	60	51				
						7.0 cm Pentn		

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 10/12/2014 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.40

Co-ordinates E=(-)2632.000
N=4116.000

Field Test	Nos	Samples	Nos	Commencement Date :	02/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	04/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.988 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.50 m.

DESCRIPTION	SYMBOL	N-VALUE						Ref. No	Depth (m)
		EACH DIVN. = 15cm.							
0.00m								DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0			0	SPT-1	1.00-1.45
								*UDS-1	2.00-2.45
								SPT-2	3.00-3.45
3.00m								*UDS-2	4.00-4.45
Very loose, deep grey, clayey silty sand.		0	0	0			0	SPT-3	3.00-3.45
								SPT-4	5.00-5.45
6.00m								UDS-3	6.00-6.45
Very loose, deep grey, silty clayey silt with sand mixture.		0	0	1			1	SPT-4	7.00-7.45
								UDS-4	8.00-8.45
9.00m								SPT-5	9.00-9.45
Medium, brownish grey, silty clay with sand mixture.		3	3	5			8	UDS-5	10.00-10.45
								DS-2	11.00
11.00m								SPT-6	11.50-11.95
Medium dense, greenish grey, silty sand with clay lamination.		3	6	10			16	DS-3	12.50
								UDS-6	13.00-13.45
								DS-4	14.00
								SPT-7	14.50-14.95
14.50m								DS-5	15.50
Medium dense, yellowish grey, silty sand with clay lamination.		4	6	11			17	UDS-7	16.00-16.45
								DS-6	17.00
								SPT-8	17.50-17.95
								DS-7	18.50
								UDS-8	19.00-19.45
20.50m								DS-8	20.00





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 10/12/2014 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.40

Co-ordinates E=(-)2632.000
N=4116.000

Field Test	Nos	Samples	Nos	Commencement Date :	02/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	04/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.988 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.50 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
20.50m Hard, brownish grey, silty clay with sand mixture.		11	20	27	47	SPT-9	20.50-20.95
21.50m		11	22	28	50	DS-9	21.50
25.00m Very dense, light brownish grey, silty medium sand. Obs. clay lamination.		19	34	40	74	SPT-10	22.00-22.45
						DS-10	23.00
29.50m Hard, light brownish grey, clayey silty clay with traces of sand.		17	30	35	65	SPT-11	23.50-23.95
						DS-11	24.50
		15	28	33	61	SPT-12	25.00-25.45
						DS-12	26.00
34.00m Hard, brownish grey, silty clay with sand mixture.		16	27	34	61	SPT-13	26.50-26.95
						DS-13	27.50
		17	27	36	63	SPT-14	28.00-28.45
						DS-14	29.00
37.00m Hard, brownish grey, silty clay with sand mixture.		17	27	36	63	SPT-15	29.50-29.95
						DS-15	30.50
		19	25	34	59	SPT-16	31.00-31.45
						DS-16	32.00
38.50m Very dense, brownish grey, silty sand. Obs. clay lamination.		16	22	36	58	SPT-17	32.50-32.95
						DS-17	33.50
		19	32	39	71	SPT-18	34.00-34.45
37.00m Very dense, brownish grey, silty sand.		21	36	42	78	DS-18	35.00
						SPT-19	35.50-35.95
38.50m Hard, brownish grey, silty clay.					>100	DS-19	36.50
		27	41	50	7.0 cm Pentn.	SPT-20	37.00-37.37
40.38m N.B. - '*' means sample could not be recovered.					58	DS-20	38.00
		17	26	32		SPT-21	38.50-38.95
					>100	DS-21	39.50
		21	55	50	8.0 cm Pentn.	SPT-22	40.00-40.38





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/12/2014 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.41

Co-ordinates E=(-)2628.000
N=4062.000

Field Test	Nos	Samples	Nos	Commencement Date :	05/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	06/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.918 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.50 m.

DESCRIPTION	SYMBOL	N-VALUE						Ref. No	Depth (m)
		EACH DIVN. = 15cm.							
0.00m								DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0			0	SPT-1	1.00-1.45
								*UDS-1	2.00-2.45
								SPT-2	3.00-3.45
3.00m		0	0	0			0	*UDS-2	4.00-4.45
Very loose, grey to deep grey, clayey sand.		0	0	1			1	SPT-3	5.00-5.45
								*UDS-3	6.00-6.45
		0	0	1			1	SPT-4	7.00-7.45
8.00m								UDS-4	8.00-8.45
Very stiff, brownish grey, clayey with sand / clayey sand.		3	6	10			16	SPT-5	9.00-9.45
								UDS-5	10.00-10.45
								DS-2	11.00
11.50m		3	4	7			11	SPT-6	11.50-11.95
Medium dense, greenish grey, silty sand. Obs. clay lamination.								DS-3	12.50
	13.00m							UDS-6	13.00-13.45
Medium dense, greenish grey, silty medium to fine sand.		8	10	12			22	DS-4	14.00
								SPT-7	14.50-14.95
								DS-5	15.50
17.50m		15	21	28			49	UDS-7	16.00-16.45
Dense, light grey, sandy silt. Obs. traces of clay lamination.								DS-6	17.00
								SPT-8	17.50-17.95
								DS-7	18.50
								UDS-8	19.00-19.45
20.50m								DS-8	20.00





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/12/2014 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.41

Co-ordinates E=(-)2628.000
N=4062.000

Field Test	Nos	Samples	Nos	Commencement Date :	05/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	06/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.918 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.50 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
Very dense, brownish grey, silty medium to coarse sand.		18	30	39	69	SPT-9	20.50-20.95
					65	DS-9	21.50
		16	29	36		SPT-10	22.00-22.45
					64	DS-10	23.00
		18	30	34		SPT-11	23.50-23.95
					71	DS-11	24.50
		17	29	42		SPT-12	25.00-25.45
					79	DS-12	26.00
		17	32	47		SPT-13	26.50-26.95
					71	DS-13	27.50
Hard, brownish grey, silty clay. Obs. sand mixture.		18	30	41		SPT-14	28.00-28.45
					65	DS-14	29.00
		17	29	36		SPT-15	29.50-29.95
					59	DS-15	30.50
		15	26	33		SPT-16	31.00-31.45
					57	DS-16	32.00
Very dense, brownish grey, clayey sand.		13	25	32		SPT-17	32.50-32.95
					86	DS-17	33.50
		23	40	46		SPT-18	34.00-34.45
					96	DS-18	35.00
		26	45	51		SPT-19	35.50-35.95
					>100	DS-19	36.50
		27	47	54		SPT-20	37.00-37.45
					82	DS-20	38.00
23	32	50		SPT-21	38.50-38.95		
			74	DS-21	39.50		
Hard, brownish grey, silty clay.		21	28	46		SPT-22	40.00-40.45





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 09/02/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.42

Co-ordinates E=(-)2804.000
N=3952.000

Field Test	Nos	Samples	Nos	Commencement Date :	19/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	21/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.004 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.5 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m Filled up soil consists of light grey, fly ash.		0	0	0	0	0	0	DS-1	0.50
3.00m Very loose, brownish grey to deep grey, clayey silty sand.		0	0	0	0	0	0	SPT-1	1.00-1.45
		0	1	0	0	0	0	*UDS-1	2.00-2.45
		0	0	1	0	0	0	SPT-2	3.00-3.45
7.45m Stiff, brownish grey, silty clay with sand mixture.		0	0	1	0	0	1	*UDS-2	4.00-4.45
		2	4	5	0	0	0	SPT-3	5.00-5.45
		2	4	5	0	0	0	*UDS-3	6.00-6.45
11.50m Very stiff, light greenish grey, silty clay with fine sand mixture.		5	8	9	0	0	17	SPT-4	7.00-7.45
		5	8	9	0	0	0	UDS-4	8.00-8.45
		5	8	9	0	0	0	SPT-5	9.00-9.45
13.00m Medium dense, light brownish grey, silty fine sand with clay lamination.		6	9	13	0	0	22	*UDS-5	10.00-10.45
		6	9	13	0	0	0	DS-2	11.00
		6	9	13	0	0	0	SPT-6	11.50-11.95
17.00m Hard, light brownish grey, silty clay with sand mixture.		11	17	23	0	0	40	DS-3	12.50
		11	17	23	0	0	0	UDS-6	13.00-13.45
		11	17	23	0	0	0	DS-4	14.00
20.50m Very dense, brownish grey, silty coarse sand. Obs. clay binder.		18	27	34	0	0	61	SPT-7	14.50-14.95
		18	27	34	0	0	0	DS-5	15.50
		18	27	34	0	0	0	UDS-7	16.00-16.45
21.50m		18	27	34	0	0	61	DS-6	17.00
		18	27	34	0	0	61	SPT-8	17.50-17.95
		18	27	34	0	0	61	DS-7	18.50
		18	27	34	0	0	61	UDS-8	19.00-19.45
		18	27	34	0	0	61	DS-8	20.00
		18	27	34	0	0	61	SPT-9	20.50-20.95
		18	27	34	0	0	61	DS-9	21.50





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 09/02/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.42

Co-ordinates E=(-)2804.000
N=3952.000

Field Test	Nos	Samples	Nos	Commencement Date :	19/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	21/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.004 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.5 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m								DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0			0	SPT-1	1.00-1.45
								*UDS-1	2.00-2.45
3.00m								DS-2	11.00
Very loose, brownish grey to deep grey, clayey silty sand.		0	0	0			0	SPT-2	3.00-3.45
								*UDS-2	4.00-4.45
7.45m								SPT-3	5.00-5.45
Stiff, brownish grey, silty clay with sand mixture.		0	1	0			0	*UDS-3	6.00-6.45
								SPT-4	7.00-7.45
								UDS-4	8.00-8.45
								SPT-5	9.00-9.45
11.50m								*UDS-5	10.00-10.45
Very stiff, light greenish grey, silty clay with fine sand mixture.		2	4	5			9	DS-2	11.00
								SPT-6	11.50-11.95
								DS-3	12.50
13.00m								UDS-6	13.00-13.45
Medium dense, light brownish grey, silty fine sand with clay lamination.		5	8	9			17	DS-4	14.00
								SPT-7	14.50-14.95
								DS-5	15.50
17.00m								UDS-7	16.00-16.45
Hard, light brownish grey, silty clay with sand mixture.		6	9	13			22	DS-6	17.00
								SPT-8	17.50-17.95
								DS-7	18.50
20.50m								UDS-8	19.00-19.45
Very dense, brownish grey, silty coarse sand. Obs. clay binder.		11	17	23			40	DS-8	20.00
								SPT-9	20.50-20.95
								DS-9	21.50
21.50m									





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.43

Co-ordinates E=(-)2762.000
N=4090.000

Field Test	Nos	Samples	Nos	Commencement Date :	07/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	09/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.576 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m								DS-1	0.50
Filled up soil consists of light grey, fly ash.		1	1	1			<u>2</u>	SPT-1	1.00-1.45
								*UDS-1	2.00-2.45
								SPT-2	3.00-3.45
								*UDS-2	4.00-4.45
3.00m	Very loose, light grey to deep grey, silty sand.	0	0	1			<u>1</u>	SPT-3	5.00-5.45
								*UDS-3	6.00-6.45
		0	0	0			<u>0</u>	SPT-4	7.00-7.45
								*UDS-4	8.00-8.45
9.00m	Loose, brownish grey to greenish grey, silty sand. Obs. traces of clay lamination in SPT-05.	0	0	0			<u>0</u>	SPT-5	9.00-9.45
								UDS-5	10.00-10.45
		1	2	3			<u>5</u>	DS-2	11.00
								SPT-6	11.50-11.95
14.50m	Medium dense, greenish grey, silty sand.	2	3	5			<u>8</u>	DS-3	12.50
								UDS-6	13.00-13.45
								DS-4	14.00
		7	11	17			<u>28</u>	SPT-7	14.50-14.95
17.95m	Dense, yellowish grey, silty sand. Obs. traces of clay.							DS-5	15.50
								UDS-7	16.00-16.45
								DS-6	17.00
		6	10	19			<u>29</u>	SPT-8	17.50-17.95
21.00m								DS-7	18.50
								UDS-8	19.00-19.45
		9	21	24			<u>45</u>	DS-8	20.00
								SPT-9	20.50-20.95





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.43

Co-ordinates E=(-)2762.000
N=4090.000

Field Test	Nos	Samples	Nos	Commencement Date :	07/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	09/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.576 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES	
		EACH DIVN. = 15cm.					Ref. No	Depth (m)
21.00m							DS-9	21.50
Dense, yellowish grey, silty sand. Obs. traces of clay.		11	22	27	49		SPT-10	22.00-22.45
		16	19	32	51		DS-10	23.00
25.00m		19	29	38	67		SPT-11	23.50-23.95
							DS-11	24.50
26.50m		28	44	59	>100		SPT-12	25.00-25.45
							DS-12	26.00
29.50m		24	36	51	87		SPT-13	26.50-26.95
							DS-13	27.50
31.00m		22	33	38	71		SPT-14	28.00-28.45
							DS-14	29.00
34.00m		22	33	38	70		SPT-15	29.50-29.95
							DS-15	30.50
37.00m		17	30	40	70		SPT-16	31.00-31.45
							DS-16	32.00
38.00m		17	28	39	67		SPT-17	32.50-32.95
							DS-17	33.50
40.45m		28	39	55	94		SPT-18	34.00-34.45
							DS-18	35.00
40.45m		38	51	45	>100		SPT-19	35.50-35.85
							DS-19	36.50
40.45m		32	43	51	94		SPT-20	37.00-37.45
							DS-20	38.00
40.45m		12	24	36	60		SPT-21	38.50-38.95
							DS-21	39.50
40.45m		12	21	46	67		SPT-22	40.00-40.45

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.44

Co-ordinates E=(-)2943.000
N=3981.000

Field Test	Nos	Samples	Nos	Commencement Date :	03/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	04/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.802 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE						Ref. No	Depth (m)
		EACH DIVN. = 15cm.							
0.00m								DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0			<u>0</u>	SPT-1	1.00-1.45
		0	0	0			<u>0</u>	*UDS-1	2.00-2.45
		0	0	0			<u>0</u>	SPT-2	3.00-3.45
3.50m Very loose, deep grey, clayey silty sand.		0	1	0			<u>1</u>	*UDS-2	4.00-4.45
		0	1	0			<u>1</u>	SPT-3	5.00-5.45
		0	1	0			<u>1</u>	*UDS-3	6.00-6.45
7.00m Loose, light greenish grey, silty sand. Obs. clay binder.		1	2	3			<u>5</u>	SPT-4	7.00-7.45
		1	2	3			<u>5</u>	UDS-4	8.00-8.45
		2	2	3			<u>5</u>	SPT-5	9.00-9.45
13.00m Medium dense, light greenish grey. silty sand.		2	3	6			<u>9</u>	UDS-5	10.00-10.45
		2	3	6			<u>9</u>	SPT-6	11.50-11.95
		2	3	6			<u>9</u>	DS-3	12.50
16.45m Very stiff, light greenish grey, silty clay / clayey silt with sand mixture.		4	7	11			<u>18</u>	UDS-6	13.00-13.45
		4	7	11			<u>18</u>	DS-4	14.00
		4	7	11			<u>18</u>	SPT-7	14.50-14.95
20.00m Dense, light greenish grey, silty fine sand.		8	10	13			<u>23</u>	DS-5	15.50
		8	10	13			<u>23</u>	UDS-7	16.00-16.45
		8	10	13			<u>23</u>	DS-6	17.00
21.50m		8	19	27			<u>46</u>	SPT-8	17.50-17.95
		8	19	27			<u>46</u>	DS-7	18.50
		8	19	27			<u>46</u>	UDS-8	19.00-19.45
		8	19	27			<u>46</u>	DS-8	20.00
		8	19	27			<u>46</u>	SPT-9	20.50-20.95
		8	19	27			<u>46</u>	DS-9	21.50





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.44

Co-ordinates E=(-)2943.000
N=3981.000

Field Test	Nos	Samples	Nos	Commencement Date :	03/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	04/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.802 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
21.50m					48		
Dense, light greenish grey, silty fine sand.		9	20	28		SPT-10	22.00-22.45
					49	DS-10	23.00
24.50m		10	20	29		SPT-11	23.50-23.95
					75	DS-11	24.50
Hard, light grey, silty clay / clayey silt with traces of sand. Obs. brownish patches.		15	30	45		SPT-12	25.00-25.45
					74	DS-12	26.00
		16	33	41		SPT-13	26.50-26.95
					67	DS-13	27.50
		17	30	37		SPT-14	28.00-28.45
31.00m					61	DS-14	29.00
		19	26	35		SPT-15	29.50-29.95
					64	DS-15	30.50
Very dense, light brownish grey, silty sand.		19	27	37		SPT-16	31.00-31.45
32.50m					84	DS-16	32.00
		22	36	48		SPT-17	32.50-32.95
Very dense, light brownish grey, silty sand.					87	DS-17	33.50
34.00m		21	37	50		SPT-18	34.00-34.45
					72	DS-18	35.00
		17	21	51		SPT-19	35.50-35.95
37.00m					75	DS-19	36.50
		19	30	45		SPT-20	37.00-37.45
Very dense, light brownish grey, silty sand.					80	DS-20	38.00
		19	31	49		SPT-21	38.50-38.95
39.50m					91	DS-21	39.50
		21	34	57		SPT-22	40.00-40.45
40.45m							

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 13/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.45

Co-ordinates E=(-)3000.000
N=3966.000

Field Test	Nos	Samples	Nos	Commencement Date : 15/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 17/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 8.91 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.45 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES	
		EACH DIVN. = 15cm.					Ref. No	Depth (m)
0.00m							DS-1	0.50
Filled up soil consists off light grey, fly ash.		0	0	1	1		SPT-1	1.00-1.45
							*UDS-1	2.00-2.45
3.00m					0		SPT-2	3.00-3.45
Very soft, light grey to deep grey, sandy silty clay.		0	0	0	0		*UDS-2	4.00-4.45
							SPT-3	5.00-5.45
					0		*UDS-3	6.00-6.45
		1	2	3	5		SPT-4	7.00-7.45
8.00m						UDS-4	8.00-8.45	
Stiff, deep grey to light grey, silty clay with sand mixture / clayey sand.		4	5	9	14		SPT-5	9.00-9.45
							UDS-5	10.00-10.45
					13		DS-2	11.00
		3	5	8			SPT-6	11.50-11.95
						DS-3	12.50	
						UDS-6	13.00-13.45	
						DS-4	14.00	
14.50m		7	9	11	20		SPT-7	14.50-14.95
Medium dense, light greenish grey, silty sand.							DS-5	15.50
							*UDS-7	16.00-16.45
		8	12	17	29		DS-6	17.00
						SPT-8	17.50-17.95	
						DS-7	18.50	
19.00m						UDS-8	19.00-19.45	
Hard, yellowish grey, sandy silty clay.							DS-8	20.00
		17	21	25	46		SPT-9	20.50-20.95
21.00m								



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 13/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.45

Co-ordinates E=(-)3000.000
N=3966.000

Field Test	Nos	Samples	Nos	Commencement Date : 15/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 17/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 8.91 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.45 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLER	Depth (m)
		EACH DIVN. = 15cm.							
21.00m Hard, yellowish grey, sandy silty clay.							48	DS-9	21.50
22.00m		17	22	26				SPT-10	22.00-22.45
Dense to very dense, brownish grey, silty sand. Obs. traces of clay.		15	21	32			53	DS-10	23.00
25.00m		16	23	29			52	SPT-11	23.50-23.95
25.00m		16	23	29			52	DS-11	24.50
25.00m		15	25	30			55	SPT-12	25.00-25.45
25.00m		15	25	30			55	DS-12	26.00
28.00m		17	26	35			61	SPT-13	26.50-26.95
28.00m		17	26	35			61	DS-13	27.50
28.00m		19	23	36			59	SPT-14	28.00-28.45
28.00m		19	23	36			59	DS-14	29.00
31.00m		21	28	41			69	SPT-15	29.50-29.95
31.00m		21	28	41			69	DS-15	30.50
31.00m		16	27	38			65	SPT-16	31.00-31.45
31.00m		16	27	38			65	DS-16	32.00
31.00m		20	29	33			62	SPT-17	32.50-32.95
31.00m		20	29	33			62	DS-17	33.50
31.00m		21	37	49			86	SPT-18	34.00-34.45
31.00m		21	37	49			86	DS-18	35.00
31.00m		21	37	49			86	SPT-19	35.50-35.95
31.00m		21	37	49			86	DS-19	36.00
37.00m		25	38	50			>100	SPT-20	37.00-37.38
37.00m		25	38	50			>100	DS-20	38.00
37.00m		19	41	47			88	SPT-21	38.50-38.95
37.00m		19	41	47			88	DS-21	39.50
40.35m		49	65	50			>100	SPT-22	40.00-40.35
40.35m		49	65	50			>100	DS-22	40.00-40.35

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.46

Co-ordinates E=(-)3020.000
N=3938.000

Field Test	Nos	Samples	Nos	Commencement Date :	05/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	06/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.906 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE						Ref. No	Depth (m)	
		EACH DIVN. = 15cm.								
0.00m								DS-1	0.50	
Filled up soil consists of light grey, fly ash.		0	0	0			0	SPT-1	1.00-1.45	
									*UDS-1	2.00-2.45
									SPT-2	3.00-3.45
3.00m	Very loose, deep grey, clayey silty sand.	0	0	0			0	*UDS-2	4.00-4.45	
									SPT-3	5.00-5.45
		0	1	0				1	UDS-3	6.00-6.45
		1	2	2				4	SPT-4	7.00-7.45
9.00m	Medium, light grey, clayey silt / silty clay with sand mixture.							*UDS-4	8.00-8.45	
		2	3	3				6	SPT-5	9.00-9.45
11.00m	Stiff, light grey, clayey silt / silty clay with sand mixture.							UDS-5	10.00-10.45	
		2	3	6				9	DS-2	11.00
13.00m	Medium dense, light greenish grey, silty coarse sand.							SPT-6	11.50-11.95	
									DS-3	12.50
		4	7	11				18	UDS-6	13.00-13.45
16.00m	Medium dense, light greenish grey, silty fine sand.							DS-4	14.00	
		5	9	15				24	SPT-7	14.50-14.95
20.00m	Dense, light greenish grey, silty fine sand.							DS-5	15.50	
									UDS-7	16.00-16.45
		13	20	29				49	DS-6	17.00
21.50m								SPT-8	17.50-17.95	
									DS-7	18.50
								UDS-8	19.00-19.45	
								DS-8	20.00	
								SPT-9	20.50-20.95	
								DS-9	21.50	



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.46

Co-ordinates E=(-)3020.000
N=3938.000

Field Test	Nos	Samples	Nos	Commencement Date :	05/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	06/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.906 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE			SAMPLES	
		EACH DIVN. = 15cm.			Ref. No	Depth (m)
21.50m		13	22	31	53	SPT-10 22.00-22.45
Very dense, light brownish grey, silty coarse sand.		15	21	33	54	DS-10 23.00
		15	21	33	54	SPT-11 23.50-23.95
25.00m		16	21	35	56	DS-11 24.50
		16	21	35	56	SPT-12 25.00-25.45
Hard, light grey, silty clay / clayey silt with sand mixture.		21	24	39	63	DS-12 26.00
		21	24	39	63	SPT-13 26.50-26.95
28.00m		12	20	26	46	DS-13 27.50
		12	20	26	46	SPT-14 28.00-28.45
Hard, brownish grey, silty clay / clayey silt. Obs. coarse sand.		17	23	26	49	DS-14 29.00
		17	23	26	49	SPT-15 29.50-29.95
31.00m		13	18	25	43	DS-15 30.50
		13	18	25	43	SPT-16 31.00-31.45
Hard, yellowish grey, silty clay with high % of coarse sand mixture.		12	17	27	44	DS-16 32.00
		12	17	27	44	SPT-17 32.50-32.95
35.50m		10	12	32	44	DS-17 33.50
		10	12	32	44	SPT-18 34.00-34.45
Hard, light grey, silty clay / clayey silt. Obs. brown spot.		11	23	30	53	DS-18 35.00
		11	23	30	53	SPT-19 35.50-35.95
38.50m		12	26	32	58	DS-19 36.50
		12	26	32	58	SPT-20 37.00-37.45
Very dense, brownish grey, silty coarse sand. Obs. moorum.		10	33	47	80	DS-20 38.00
		10	33	47	80	SPT-21 38.50-38.95
40.45m		19	58	72	>100	DS-21 39.50
						SPT-22 40.00-40.45

N.B. - '*' means sample could not be recovered.



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 29/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.47

Co-ordinates E=(-)3000.000
N=3916.000

Field Test	Nos	Samples	Nos	Commencement Date : 10/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 12/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 8.88 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.45 m.

DESCRIPTION	SYMBOL	N-VALUE						Ref. No	Depth (m)
		EACH DIVN. = 15cm.							
0.00m								DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0	0			SPT-1	1.00-1.45
	2.50m							*UDS-1	2.00-2.45
Very loose to loose, brownish grey to deep grey, clayey silty sand.		0	0	0	0			SPT-2	3.00-3.45
								*UDS-2	4.00-4.45
		0	0	1	1			SPT-3	5.00-5.45
								*UDS-3	6.00-6.45
		1	2	3	5			SPT-4	7.00-7.45
								UDS-4	8.00-8.45
		2	2	3	5			SPT-5	9.00-9.45
	10.00m							UDS-5	10.00-10.45
Medium dense, light greenish grey, silty sand.		4	6	6	12			DS-2	11.00
								SPT-6	11.50-11.95
								DS-3	12.50
								UDS-6	13.00-13.45
								DS-4	14.00
	14.50m	5	9	12	21			SPT-7	14.50-14.95
								DS-5	15.50
								UDS-7	16.00-16.45
Medium dense, light greenish grey, clayey silty sand.								DS-6	17.00
		7	11	15	26			SPT-8	17.50-17.95
								DS-7	18.50
								UDS-8	19.00-19.45
Dense, light greenish grey, clayey silty sand.	20.00m							DS-8	20.00
	20.50m								



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 29/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.47

Co-ordinates E=(-)3000.000
N=3916.000

Field Test	Nos	Samples	Nos	Commencement Date : 10/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 12/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 8.88 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.45 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
Dense, light greenish grey, clayey silty sand.		9	12	19	31	SPT-9	20.50-20.95
						DS-9	21.50
Very dense, light brownish grey, silty coarse sand.		15	23	30	53	SPT-10	22.00-22.45
						DS-10	23.00
		16	26	34	60	SPT-11	23.50-23.95
						DS-11	24.50
Very dense, steel grey, silty coarse sand.		20	24	29	53	SPT-12	25.00-25.45
						DS-12	26.00
		21	24	31	55	SPT-13	26.50-26.95
						DS-13	27.50
		25	27	33	60	SPT-14	28.00-28.45
						DS-14	29.00
Hard, light yellowish grey, silty clay with sand mixture.		26	29	34	63	SPT-15	29.50-29.95
						DS-15	30.50
		14	25	29	54	SPT-16	31.00-31.45
Hard, steel grey, silty clay with sand mixture.					49	DS-16	32.00
		13	23	26		SPT-17	32.50-32.95
Hard, light brownish grey, silty clay / clayey silt.					41	DS-17	33.50
		12	20	21		SPT-18	34.00-34.45
						DS-18	35.00
Very dense, light brownish grey, silty sand.		13	18	22	40	SPT-19	35.50-35.95
						DS-19	36.50
		14	20	28	48	SPT-20	37.00-37.45
N.B. - '*' means sample could not be recovered.					50	DS-20	38.00
		15	21	29		SPT-21	38.50-38.95
						DS-21	39.50
		32	54	62	>100	SPT-22	40.00-40.45





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 29/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.48

Co-ordinates E=(-)2980.000
N=3898.000

Field Test	Nos	Samples	Nos	Commencement Date : 13/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 15/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 8.60 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.45 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES		
		EACH DIVN. = 15cm.						Ref. No	Depth (m)	
0.00m Filled up soil consists of light grey, fly ash.								0	DS-1 SPT-1 *UDS-1	0.50 1.00-1.45 2.00-2.45
2.50m Very loose, light brownish grey, silty clayey sand.								0	SPT-2 *UDS-2	3.00-3.45 4.00-4.45
5.00m Very loose to loose, deep grey, silty clayey sand.								2	SPT-3 UDS-3	5.00-5.45 6.00-6.45
8.00m Medium dense, silty clayey sand. Obs. brown patches.								6	SPT-4 UDS-4	7.00-7.45 8.00-8.45
11.50m Hard, brownish grey, silty clay / clayey silt with rusty spots.								16	SPT-5 *UDS-5	9.00-9.45 10.00-10.45
14.00m Very dense, light greenish grey, silty clayey sand.								36	DS-2 SPT-6 DS-3 UDS-6	11.00 11.50-11.95 12.50 13.00-13.45
19.00m Very dense, brownish grey, silty sand with clay lamination.								61	DS-4 SPT-7 DS-5 *UDS-7	14.00 14.50-14.95 15.50 16.00-16.45
20.50m								53	DS-6 SPT-8 DS-7 UDS-8	17.00 17.50-17.95 18.50 19.00-19.45
									DS-8	20.00





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 29/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.48

Co-ordinates E=(-)2980.000
N=3898.000

Field Test	Nos	Samples	Nos	Commencement Date :	13/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	15/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.60 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
20.50m Very dense, brownish grey, silty sand with clay lamination.		22	32	40	72	SPT-9	20.50-20.95
					87	DS-9	21.50
22.00m Very dense, yellowish brown, silty fine to coarse sand.		24	39	48	51	SPT-10	22.00-22.45
		15	22	29	61	DS-10	23.00
25.00m Very dense, brownish grey, silty sand with traces of clay binder.		19	29	32	77	SPT-11	23.50-23.95
		27	36	41	64	DS-11	24.50
28.00m Very dense, brownish yellow, silty coarse sand. Obs. steel grey patches.		20	29	35	72	SPT-12	25.00-25.45
		24	31	41	73	DS-12	26.00
		25	33	40	91	SPT-13	26.50-26.95
		31	46	45	83	DS-13	27.50
		23	40	43	75	SPT-14	28.00-28.45
35.50m Hard, deep yellowish grey, silty clay.		18	35	40	88	DS-14	29.00
		20	39	49	93	SPT-15	29.50-29.95
		38	45	48	95	DS-15	30.50
38.50m Very dense, greyish yellow, silty coarse sand.		41	49	46		SPT-16	31.00-31.45
						DS-16	32.00
40.45m N.B. - '*' means sample could not be recovered.						SPT-17	32.50-32.95
						DS-17	33.50
						SPT-18	34.00-34.45
						DS-18	35.00
						SPT-19	35.50-35.95
						DS-19	36.50
						SPT-20	37.00-37.45
						DS-20	38.00
						SPT-21	38.50-38.95
						DS-21	39.50
						SPT-22	40.00-40.45





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 29/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.49

Co-ordinates E=(-)3294.000
N=3436.000

Field Test	Nos	Samples	Nos	Commencement Date : 20/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 21/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 9.269 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level :

DESCRIPTION	SYMBOL	N-VALUE						Ref. No	SAMPLER	Depth (m)
		EACH DIVN. = 15cm.								
0.00m								DS-1	0.50	
Filled up soil consists of light grey, fly ash.		0	0	0			0	SPT-1	1.00-1.45	
								*UDS-1	2.00-2.45	
								SPT-2	3.00-3.45	
3.00m								UDS-2	4.00-4.45	
Very loose, brownish grey, silty clayey sand to dark grey, silty clayey sand.		0	0	0			0	SPT-3	5.00-5.45	
								UDS-3	6.00-6.45	
		0	0	1			1	SPT-4	7.00-7.45	
								UDS-4	8.00-8.45	
9.00m								SPT-5	9.00-9.45	
Very loose, light grey, silty clayey sand.		1	1	1			2	UDS-5	10.00-10.45	
								DS-2	11.00	
		1	1	2			3	SPT-6	11.50-11.95	
						DS-3	12.50			
13.00m								*UDS-6	13.00-13.45	
Medium dense, light greenish grey, silty sand.								DS-4	14.00	
		5	6	7			13	SPT-7	14.50-14.95	
								DS-5	15.50	
								*UDS-7	16.00-16.45	
								DS-6	17.00	
		11	11	12			23	SPT-8	17.50-17.95	
								DS-7	18.50	
								*UDS-8	19.00-19.45	
								DS-8	20.00	
20.50m										

Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 29/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.49

Co-ordinates E=(-)3294.000
N=3436.000

Field Test	Nos	Samples	Nos	Commencement Date :	20/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	21/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.269 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
Medium dense, light greenish grey, silty sand.		14	20	29	49	SPT-9	20.50-20.95
						DS-9	21.50
Dense to very dense, brownish grey, silty sand.		15	24	30	54	SPT-10	22.00-22.45
						DS-10	23.00
		15	22	32	54	SPT-11	23.50-23.95
						DS-11	24.50
		19	30	36	66	SPT-12	25.00-25.45
						DS-12	26.00
		25	25	40	75	SPT-13	26.50-26.95
						DS-13	27.50
		18	25	32	57	SPT-14	28.00-28.45
						DS-14	29.00
Hard, brownish grey, silty sandy clay. Obs. yellow patches.		17	26	31	57	SPT-15	29.50-29.95
						DS-15	30.50
		15	27	35	62	SPT-16	31.00-31.45
						DS-16	32.00
		18	28	37	65	SPT-17	32.50-32.95
						DS-17	33.50
Very dense, whitish grey, silty sand with traces of mica. Obs. yellow patches.		19	30	32	62	SPT-18	34.00-34.45
						DS-18	35.00
		22	29	39	68	SPT-19	35.50-35.95
						DS-19	36.50
Very dense, greyish deep yellow, silty sand.		17	25	33	58	SPT-20	37.00-37.45
						DS-20	38.00
		30	39	48	87	SPT-21	38.50-38.95
N.B. - '*' means sample could not be recovered.						DS-21	39.50
		33	42	49	91	SPT-22	40.00-40.45



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 13/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.50

Co-ordinates E=(-)3074.000
N=3891.000

Field Test	Nos	Samples	Nos	Commencement Date :	13/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	14/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.245 m.
		Water Sample (WS)	1	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m Filled up soil consists of light grey, fly ash.								WS-1 DS-1	0.45 0.50
2.50m Medium, brownish grey, silty clay / clayey silt with high % of sand mixture.		0	0	0			0	SPT-1	1.00-1.45
5.00m Soft, deep grey, silty clay / clayey silt with high % of sand mixture.		1	2	3			5	*UDS-1	2.00-2.45
7.00m Soft to medium brownish grey, silty clay / clayey silt with high % of sand mixture.		0	1	2			3	SPT-2	3.00-3.45
10.00m Light grey, clayey silt / silty clay with high % of sand mixture.		1	2	2			4	*UDS-2	4.00-4.45
11.50m Medium, light greenish grey, silty clay / clayey silt with high % of sand mixture.		2	3	5			8	SPT-3	5.00-5.45
13.00m Medium dense, light greenish grey, silty sand. Obs. clay lamination.		0	2	3			5	*UDS-3	6.00-6.45
16.00m Hard, yellowish grey, silty clay / clayey silt with high % of sand mixture.		7	6	6			12	UDS-4	8.00-8.45
20.00m Very dense, light brownish yellow, silty coarse sand.		7	14	20			34	SPT-4	7.00-7.45
21.00m		17	24	27			51	UDS-5	10.00-10.45
								DS-2	11.00
								SPT-5	9.00-9.45
								UDS-6	13.00-13.45
								DS-4	14.00
								SPT-6	11.50-11.95
								DS-3	12.50
								UDS-7	16.00-16.45
								DS-6	17.00
								SPT-7	14.50-14.95
								DS-5	15.50
								UDS-8	19.00-19.45
								DS-7	18.50
								SPT-8	17.50-17.95
								DS-8	20.00
								SPT-9	20.50-20.95





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 13/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.50

Co-ordinates E=(-)3074.000
N=3891.000

Field Test	Nos	Samples	Nos	Commencement Date :	13/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	14/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.245 m.
		Water Sample (WS)	1	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLES
		EACH DIVN. = 15cm.						
21.00m							DS-9	21.50
Very dense, light brownish yellow, silty coarse sand.		21	28	33		61	SPT-10	22.00-22.45
		18	24	33		57	DS-10	23.00
		23	29	35		64	SPT-11	23.50-23.95
25.50m							DS-11	24.50
Hard, yellowish brown, silty clay / clayey sil. Obs. reddish spot, grey patches.		14	21	25		46	SPT-12	25.00-25.45
		16	23	28		51	DS-12	26.00
		17	33	34		67	SPT-13	26.50-26.95
28.45m							DS-13	27.50
Hard, light grey, silty clay / clayey silt with sand mixture, kankars. Obs. reddish spot.		24	31	38		69	SPT-14	28.00-28.45
		25	32	45		77	DS-14	29.00
		27	34	43		77	SPT-15	29.50-29.95
31.00m							DS-15	30.50
Very dense, steel grey, sandy silt / silty sand with reddish spot.		30	42	47		89	SPT-16	31.00-31.45
		31	40	48		88	DS-16	32.00
		29	53	57		>100	SPT-17	32.50-32.95
32.50m							DS-17	33.50
Very dense, light yellowish grey, silty coarse sand.		23	29	42		71	SPT-18	34.00-34.45
		27	34	43		77	DS-18	35.00
		30	42	47		89	SPT-19	35.50-35.95
35.50m							DS-19	36.50
Very dense, brownish grey, silty coarse sand.		31	40	48		88	SPT-20	37.00-37.45
		29	53	57		>100	DS-20	38.00
		29	53	57		>100	SPT-21	38.50-38.95
37.00m							DS-21	39.50
Very dense, steel grey, silty sand / sandy silt. Obs. yellowish spot.		31	40	48		88	SPT-22	40.00-40.45
		29	53	57		>100		
38.50m								
Hard, brownish grey, silty clay. Obs. yellowish grey silty sand.		29	53	57		>100		
		29	53	57		>100		
40.45m								

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.51

Co-ordinates E=(-)3039.000
N=3883.000

Field Test	Nos	Samples	Nos	Commencement Date :	07/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	08/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.049 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.60 m.

DESCRIPTION	SYMBOL	N-VALUE						Ref. No	Depth (m)
		EACH DIVN. = 15cm.							
0.00m Filled up soil consists of light grey, fly ash.								DS-1	0.50
		0	0	0			0	SPT-1	1.00-1.45
2.50m Very loose, brownish grey, clayey silty sand.								*UDS-1	2.00-2.45
		0	0	0			0	SPT-2	3.00-3.45
5.00m Very loose to loose, deep grey, clayey silty sand.							1	*UDS-2	4.00-4.45
		0	1	0			1	SPT-3	5.00-5.45
							5	*UDS-3	6.00-6.45
		1	2	3			5	SPT-4	7.00-7.45
9.00m Loose, greenish grey, silty sand.							8	UDS-4	8.00-8.45
		2	3	5			8	SPT-5	9.00-9.45
							11	*UDS-5	10.00-10.45
11.50m Medium dense, light greenish grey / steel grey, silty fine sand.							11	DS-2	11.00
		3	4	7			11	SPT-6	11.50-11.95
							20	DS-3	12.50
							20	UDS-6	13.00-13.45
		4	8	12			20	DS-4	14.00
							26	SPT-7	14.50-14.95
							26	DS-5	15.50
							26	UDS-7	16.00-16.45
		7	10	16			26	DS-6	17.00
							60	SPT-8	17.50-17.95
20.00m Very dense, light brownish grey, silty sand. Obs. deep brown spot.							60	DS-7	18.50
		18	25	35			60	UDS-8	19.00-19.45
							60	SPT-9	20.50-20.95
21.50m							60	DS-8	20.00
							60	SPT-9	20.50-20.95
							60	DS-9	21.50





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.51

Co-ordinates E=(-)3039.000
N=3883.000

Field Test	Nos	Samples	Nos	Commencement Date :	07/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	08/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.049 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.60 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
21.50m		20	26	38	64	SPT-10	22.00-22.45
Very dense, light brownish grey, silty sand. Obs. deep brown spot.		21	27	40	67	DS-10	23.00
		21	27	40	67	SPT-11	23.50-23.95
24.50m		13	21	33	54	DS-11	24.50
Hard, light brownish grey, silty clay / clayey silt with red spot.		14	24	31	55	SPT-12	25.00-25.45
		14	24	31	55	DS-12	26.00
28.00m		15	25	33	58	SPT-13	26.50-26.95
Hard, light brownish grey, silty clay with sand mixture. Obs. red spot.		14	17	24	41	DS-13	27.50
		14	17	24	41	SPT-14	28.00-28.45
31.00m		17	30	38	68	DS-14	29.00
Very dense, light whitish grey, silty coarse sand.		19	28	35	63	SPT-15	29.50-29.95
		19	28	35	63	DS-15	30.50
		19	30	40	70	SPT-16	31.00-31.45
35.00m		22	30	41	71	DS-16	32.00
Very dense, reddish brown, silty sand.		22	30	41	71	SPT-17	32.50-32.95
		23	29	43	72	DS-17	33.50
38.50m		33	59	70	>100	SPT-18	34.00-34.45
Hard, brownish grey, silty clay with sand mixture.		33	59	70	>100	DS-18	35.00
		35	41	57	98	SPT-19	35.50-35.95
40.45m		35	41	57	98	DS-19	36.50
						SPT-20	37.00-37.45
						DS-20	38.00
						SPT-21	38.50-38.95
						DS-21	39.50
						SPT-22	40.00-40.45

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.52

Co-ordinates E=(-)3059.000
N=3858.000

Field Test	Nos	Samples	Nos	Commencement Date :	08/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	10/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.939 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.5 m.

DESCRIPTION	SYMBOL	N-VALUE						Ref. No	Depth (m)	
		EACH DIVN. = 15cm.								
0.00m								DS-1	0.50	
Filled up soil consists of light grey, fly ash.		0	0	0			0	SPT-1	1.00-1.45	
									*UDS-1	2.00-2.45
3.00m								SPT-2	3.00-3.45	
Very soft, brownish grey, silty clay / clayey silt. Obs. red spots.		0	0	0			0	*UDS-2	4.00-4.45	
5.00m								SPT-3	5.00-5.45	
Very loose to loose, deep grey, silty clayey sand.		0	1	1			2	UDS-3	6.00-6.45	
		1	2	4			6	SPT-4	7.00-7.45	
									*UDS-4	8.00-8.45
9.00m								SPT-5	9.00-9.45	
Loose, light greenish grey, silty clayey sand.		2	3	5			8	UDS-5	10.00-10.45	
11.00m								DS-2	11.00	
Medium dense, light greenish grey, silty clayey sand.		4	7	8			15	SPT-6	11.50-11.95	
									DS-3	12.50
									UDS-6	13.00-13.45
15.50m								DS-4	14.00	
Very stiff, deep grey, silty clay / clayey silt with sand mixture.		0	7	10			17	SPT-7	14.50-14.95	
									DS-5	15.50
									UDS-7	16.00-16.45
20.00m								DS-6	17.00	
Dense, light greenish grey, silty fine sand.		6	7	13			20	SPT-8	17.50-17.95	
									DS-7	18.50
									UDS-8	19.00-19.45
21.50m								DS-8	20.00	
		12	18	23			41	SPT-9	20.50-20.95	
									DS-9	21.50





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.52

Co-ordinates E=(-)3059.000
N=3858.000

Field Test	Nos	Samples	Nos	Commencement Date : 08/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 10/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 8.939 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.5 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
21.50m Dense, light greenish grey, silty fine sand.		12	19	24	43	SPT-10	22.00-22.45
23.50m Very dense to dense, light greyish yellow, silty coarse sand.		17	22	29	51	DS-10	23.00
26.50m Hard, yellowish grey, silty clay. Obs. brown patches.		10	24	25	49	SPT-11	23.50-23.95
29.50m Hard, light yellowish grey, silty clay / clayey silt with sand mixture.		6	14	20	34	DS-11	24.50
32.00m Hard, whitish brown, silty clay with high % of sand.		11	16	19	35	SPT-12	25.00-25.45
35.50m Very dense, reddish brown, silty sand.		31	39	46	85	DS-12	26.00
38.00m Hard, light brownsh grey, silty clay with sand mixture.		27	55	50	>100	SPT-13	26.50-26.95
40.45m		32	41	55	96	DS-13	27.50
						SPT-14	28.00-28.45
						DS-14	29.00
						SPT-15	29.50-29.95
						DS-15	30.50
						SPT-16	31.00-31.45
						DS-16	32.00
						SPT-17	32.50-32.95
						DS-17	33.50
						SPT-18	34.00-34.45
						DS-18	35.00
						SPT-19	35.50-35.95
						DS-19	36.50
						SPT-20	37.00-37.39
						DS-20	38.00
						SPT-21	38.50-38.90
						DS-21	39.50
						SPT-22	40.00-40.45

N.B. - '*' means sample could not be recovered.



BORE LOG DATA SHEET

BORE HOLE NO.53

Co-ordinates E=(-)3020.000
N=3858.000

Field Test	Nos	Samples	Nos	Commencement Date :	07/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	09/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.991 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.4 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES		
		EACH DIVN. = 15cm.						Ref. No	Depth (m)	
0.00m Filled up soil consists of light grey, fly ash.		0	0	1				1	DS-1 SPT-1 *UDS-1	0.50 1.00-1.45 2.00-2.45
3.00m Very soft, light yellowish grey, silty clay / clayey silt with sand mixture. Obs. steel grey patches.		0	0	0				0	SPT-2 *UDS-2	3.00-3.45 4.00-4.45
5.00m Very soft, deep grey, silty clay / clayey silt with high % of sand mixture.		0	0	1				1	SPT-3 *UDS-3	5.00-5.45 6.00-6.45
8.00m Soft, light grey, silty clay / clayey silt with high % of sand mixture.		0	0	1				1	SPT-4 UDS-4	7.00-7.45 8.00-8.45
11.00m Very stiff, light greenish grey, silty clay / clayey silt with high % of sand mixture.		1	1	2				3	SPT-5 UDS-5	9.00-9.45 10.00-10.45
14.50m Medium dense, silty sand / sandy silt with clay lamination.		4	6	10				16	DS-2 SPT-6 DS-3 *UDS-6	11.00 11.50-11.95 12.50 13.00-13.45
17.00m Desne, light grey, silty sand with traces of clay mixture.		6	8	14				22	DS-4 SPT-7 DS-5 *UDS-7	14.00 14.50-14.95 15.50 16.00-16.45
20.00m Very dense, light yellowish grey, silty coarse sand.		15	20	26				46	DS-6 SPT-8 DS-7 UDS-8	17.00 17.50-17.95 18.50 19.00-19.45
21.00m		14	21	32				53	DS-8 SPT-9	20.00 20.50-20.95



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.53

Co-ordinates E=(-)3020.000
N=3858.000

Field Test	Nos	Samples	Nos	Commencement Date :	07/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	09/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.991 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.4 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES	
		EACH DIVN. = 15cm.					Ref. No	Depth (m)
21.00m Very dense, light yellowish grey, silty coarse sand.							DS-9	21.50
		20	27	30			SPT-10	22.00-22.45
						57	DS-10	23.00
23.50m Very dense, light brownish grey, silty coarse sand.							SPT-11	23.50-23.95
		25	35	40			DS-11	24.50
						75	SPT-12	25.00-25.45
25.00m Very dense, yellowish grey, silty sand / sandy silt. Obs. steel grey patches.							DS-12	26.00
		24	33	39			SPT-13	26.50-26.95
						72	DS-13	27.50
26.50m Hard, yellowish brown, silty clay / clayey silt. Obs. steel grey patches & reddish spot.							SPT-14	28.00-28.45
		7	21	35			DS-14	29.00
						56	SPT-15	29.50-29.95
						55	DS-15	30.50
		13	23	32			SPT-16	31.00-31.45
						39	DS-16	32.00
						49	SPT-17	32.50-32.95
		11	14	25			DS-17	33.50
						83	SPT-18	34.00-34.45
		13	20	29			DS-18	35.00
						81	SPT-19	35.50-35.95
		26	36	47			DS-19	36.50
						93	SPT-20	37.00-37.45
		22	33	48			DS-20	38.00
						86	SPT-21	38.50-38.95
		27	38	55			DS-21	39.50
						95	SPT-22	40.00-40.18
		24	37	49				
						81		
		30	42	53				
						95		
		39	50					
						>100		
						3.0 cm Pentn.		

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.54

Co-ordinates E=(-)3000.000
N=3845.000

Field Test	Nos	Samples	Nos	Commencement Date :	09/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	12/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	20	Level Of Ground :	9.026 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m Filled up soil consists of light grey, fly ash.								DS-1	0.50
		0	0	1			1	SPT-1	1.00-1.45
2.50m Very soft, brownish grey, silty clay / clayey silt with high % of fine sand mixture.								*UDS-1	2.00-2.45
		0	0	0			0	SPT-2	3.00-3.45
								*UDS-2	4.00-4.45
5.00m Very soft, deep grey, silty clay / clayey silt with high % of fine sand mixture.								SPT-3	5.00-5.45
		0	0	1			1	*UDS-3	6.00-6.45
								SPT-4	7.00-7.45
8.00m Medium, light grey, silty clay / clayey silt with high % of fine sand mixture.								UDS-4	8.00-8.45
		3	3	4			7	SPT-5	9.00-9.45
								*UDS-5	10.00-10.45
11.00m Stiff, light greenish grey, silty clay / clayey silt with high % of fine sand mixture.								DS-2	11.00
		5	5	8			13	SPT-6	11.50-11.95
								DS-3	12.50
13.00m Medium dense, light greenish grey, silty fine sand with traces of clay binder.								UDS-6	13.00-13.45
		4	7	10			17	DS-4	14.00
								SPT-7	14.50-14.95
								DS-5	15.50
17.00m Hard, steel grey, silty clay / clayey silt with sand mixture.								*UDS-7	16.00-16.45
		14	22	29			51	DS-6	17.00
								SPT-8	17.50-17.95
								DS-7	18.50
19.45m Dense to very dense, light brownish grey, silty sand.								UDS-8	19.00-19.45
		17	22	27			49	DS-8	20.00
21.00m								SPT-9	20.50-20.95





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.54

Co-ordinates E=(-)3000.000
N=3845.000

Field Test	Nos	Samples	Nos	Commencement Date :	09/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	12/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	20	Level Of Ground :	9.026 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLES	
		EACH DIVN. = 15cm.							Depth (m)
21.00m Dense to very dense, light brownish grey, silty sand.						57	DS-9	21.50	
		22	24	33			SPT-10	22.00-22.45	
23.50m Very dense, light yellowish grey, silty sand.						58	DS-10	23.00	
		20	27	31			SPT-11	23.50-23.95	
26.50m Hard, yellowish brown, silty clay / clayey silt. Obs. steel grey pebbles & reddish spot.						56	DS-11	24.50	
		19	26	30			SPT-12	25.00-25.45	
28.00m Hard, yellowish brown, silty clay / clayey silt with sand mixture. Obs. reddish spot & grey patches.						44	DS-12	26.00	
		15	20	24			SPT-13	26.50-26.95	
31.00m Very dense, light grey, silty sand with clay lamination.						54	DS-13	27.50	
		17	24	30			SPT-14	28.00-28.45	
35.50m Very dense, light grey, silty sand / sandy silt.						55	DS-14	29.00	
		20	26	29			SPT-15	29.45-29.90	
37.00m Hard, brownish grey, silty clay / clayey silt with sand mixture. Obs. grey patches & reddish spot.						54	DS-15	30.50	
		18	23	31			SPT-16	31.00-31.45	
39.50m Hard, deep brownish grey, silty clay clayey silt with sand mixture. Obs. 40.19m						61	DS-16	32.00	
		22	27	34			SPT-17	32.50-32.95	
		24	30	38			DS-17	33.50	
						68	SPT-18	34.00-34.45	
						82	DS-18	35.00	
		26	37	45			SPT-19	35.50-35.95	
						87	DS-19	36.50	
		30	39	48			SPT-20	37.00-37.45	
						>100	DS-20	38.00	
		37	47	57			SPT-21	38.50-38.95	
						>100	DS-21	39.50	
		53	50				SPT-22	40.00-40.19	
N.B. - '*' means sample could not be recovered.							4.0 cm Pentn.		





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.55

Co-ordinates E=(-)3039.000
N=3831.000

Field Test	Nos	Samples	Nos	Commencement Date :	09/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	10/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.935 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.5 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m Filled up soil consists of light grey, fly ash.		0	0	0	0	0	0	DS-1	0.50
2.50m Very soft, brownish grey, silty clay.		0	0	1			1	SPT-1 *UDS-1	1.00-1.45 2.00-2.45
5.00m Very loose, light grey, clayey silty sand.		0	1	0			1	SPT-2 *UDS-2	3.00-3.45 4.00-4.45
7.00m Very soft, deep grey, clayey silt with sand / clayey sand.		0	1	1			2	SPT-3 *UDS-3	5.00-5.45 6.00-6.45
9.00m Stiff, steel grey / brownish grey, silty clay / clayey silt with sand mixture / clayey sand.		4	4	5			9	SPT-4 UDS-4	7.00-7.45 8.00-8.45
11.00m Medium dense, light greenish grey, silty fine sand.		3	6	8			14	SPT-5 UDS-5	9.00-9.45 10.00-10.45
17.00m Hard, light grey, silty clay with high % of sand.		6	11	13			24	DS-2 SPT-6 DS-3 UDS-6	11.00 11.50-11.95 12.50 13.00-13.45
20.50m Dense to very dense, light brownish grey, silty sand.		11	19	23			42	DS-4 SPT-7 DS-5 *UDS-7	14.00 14.50-14.95 15.50 16.00-16.45
21.50m		13	19	21			40	DS-6 SPT-8 DS-7 UDS-8	17.00 17.50-17.95 18.50 19.00-19.45
								DS-8 SPT-9	20.00 20.50-20.95
								DS-9	21.50





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.55

Co-ordinates E=(-)3039.000
N=3831.000

Field Test	Nos	Samples	Nos	Commencement Date :	09/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	10/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.935 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.5 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
21.50m		17	27	40	67	SPT-10	22.00-22.45
Dense to very dense, light brownish grey, silty sand.		18	29	43	72	DS-10	23.00
		18	28	38	66	SPT-11	23.50-23.95
						DS-11	24.50
26.00m		12	17	24	41	SPT-12	25.00-25.45
Hard, light brownish grey, silty clay / clayey silt.		13	20	25	45	DS-12	26.00
		13	22	28	50	SPT-13	26.50-26.95
						DS-13	27.50
29.50m		15	25	32	57	SPT-14	28.00-28.45
Hard, light brownish grey, silty clay with high % of coarse sand.		17	31	35	66	DS-14	29.00
		18	30	37	67	SPT-15	29.50-29.95
						DS-15	30.50
35.00m		20	37	42	79	SPT-16	31.00-31.45
Very dense, brownish grey, silty sand with clay lamination. Obs. red patches.						DS-16	32.00
		21	33	41	74	SPT-17	32.50-32.95
37.00m		15	28	47	75	DS-17	33.50
Very dense, whitish / pinkish grey, clayey silty sand.						SPT-18	34.00-34.45
		20	30	48	78	DS-18	35.00
40.45m		20	30	48		SPT-19	35.50-35.95
						DS-19	36.50
						SPT-20	37.00-37.45
						DS-20	38.00
						SPT-21	38.50-38.95
						DS-21	39.50
						SPT-22	40.00-40.45

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.56

Co-ordinates E=(-)3074.000
N=3818.000

Field Test	Nos	Samples	Nos	Commencement Date :	26/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	27/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.021 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m Filled up soil consists of light grey, fly ash.		0	0	0	0	0	0	DS-1	0.50
3.00m Medium, dark greenish grey, silty clay.		2	3	3	3	3	6	SPT-1	1.00-1.45
5.00m Very soft, dark brownish grey, silty clay with traces of organic matter.		0	0	0	0	0	0	*UDS-1	2.00-2.45
9.00m Loose, light greenish grey, silty sand.		1	3	2	2	2	5	SPT-2	3.00-3.45
13.00m Loose, light greenish grey, silty sand with clay mixture.		3	3	4	4	4	7	*UDS-2	4.00-4.45
17.00m Hard, greenish grey, silty clay. Obs. steel grey patches.		19	17	20	20	20	37	SPT-3	5.00-5.45
20.00m Medium dense, brownish yellow, silty sand.		6	10	15	15	15	25	UDS-3	6.00-6.45
21.00m								SPT-4	7.00-7.45
								UDS-4	8.00-8.45
								SPT-5	9.00-9.45
								*UDS-5	10.00-10.45
								DS-2	11.00
								SPT-6	11.50-11.95
								DS-3	12.50
								UDS-6	13.00-13.45
								DS-4	14.00
								SPT-7	14.50-14.95
								DS-5	15.50
								*UDS-7	16.00-16.45
								DS-6	17.00
								SPT-8	17.50-17.95
								DS-7	18.50
								UDS-8	19.00-19.45
								DS-8	20.00
								SPT-9	20.50-20.95





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.56

Co-ordinates E=(-)3074.000
N=3818.000

Field Test	Nos	Samples	Nos	Commencement Date :	26/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	27/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.021 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES	
		EACH DIVN. = 15cm.					Ref. No	Depth (m)
21.00m Medium dense, brownish yellow, silty sand.							DS-9	21.50
		7	14	18			SPT-10	22.00-22.45
							DS-10	23.00
		8	12	17			SPT-11	23.50-23.95
25.00m Hard, brownish grey, silty clay / clayey silt. Obs. yellow patches.							DS-11	24.50
		8	13	20			SPT-12	25.00-25.45
							DS-12	26.00
		13	19	28			SPT-13	26.50-26.95
							DS-13	27.50
		11	20	24			SPT-14	28.00-28.45
							DS-14	29.00
		13	23	19			SPT-15	29.50-29.95
34.00m Hard, yellowish brown, silty clay with sand mixture. Obs. steel grey patches.							DS-15	30.50
		22	34	40			SPT-16	31.00-31.45
							DS-16	32.00
		17	25	32			SPT-17	32.50-32.95
							DS-17	33.50
38.00m Very dense, light greyish yellow, silty sand.							DS-18	35.00
		22	34	39			SPT-18	34.00-34.45
							DS-19	36.50
		19	35	45			SPT-19	35.50-35.95
40.45m							DS-20	38.00
		30	41	44			SPT-20	37.00-37.45
							DS-21	39.50
						SPT-21	38.50-38.95	
						DS-21	39.50	
						SPT-22	40.00-40.45	
N.B. - '*' means sample could not be recovered.								





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 05/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.57

Co-ordinates E=(-)3139.000
N=3818.000

Field Test	Nos	Samples	Nos	Commencement Date :	17/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	19/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.258 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.5 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m								DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0			0	SPT-1	1.00-1.45
									*UDS-1
3.00m							1	SPT-2	3.00-3.45
Very soft, brownish grey, silty clay / clayey silt with sand mixture.		0	0	1				*UDS-2	4.00-4.45
									SPT-3
5.00m							2		
Very soft, deep grey, silty clay / clayey silt with high % of sand mixture.		0	1	1				SPT-4	7.00-7.45
									*UDS-3
7.00m							4		
Medium, brownish grey, clayey silt with sand mixture.		0	2	2				SPT-5	9.00-9.45
									UDS-4
		2	2	3			5		
10.00m								*UDS-5	10.00-10.45
Medium dense, steel grey / brownish grey, silty sand / sandy silt with clay lamination.		3	4	7			11	DS-2	11.00
									SPT-6
								DS-3	12.50
								*UDS-6	13.00-13.45
								DS-4	14.00
		4	8	10			18	SPT-7	14.50-14.95
16.45m								UDS-7	16.00-16.45
Dense, steel grey to brownish grey, silty sand with traces of clay binder		16	15	27			42	DS-6	17.00
									SPT-8
								DS-7	18.50
								UDS-8	19.00-19.45
20.00m								DS-8	20.00
Dense, light brownish yellow, silty sand / sandy silt with clay lamination. Obs. steel grey patches.		14	16	29			45	SPT-9	20.50-20.95
21.00m									





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 05/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.57

Co-ordinates E=(-)3139.000
N=3818.000

Field Test	Nos	Samples	Nos	Commencement Date :	17/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	19/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.258 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.5 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLER	Depth (m)
		EACH DIVN. = 15cm.							
21.00m Dense, light brownish yellow, silty sand / sandy silt with clay lamination. Obs. steel grey patches.		13	18	30	48		DS-9	21.50	
23.50m Very dense, light brownish yellow, silty coarse sand.		15	24	32	56		SPT-10	22.00-22.45	
		17	25	30	55		DS-10	23.00	
26.50m Hard, brownish grey, silty clay with sand mixture. Obs. yellow patches.		9	20	26	46		SPT-11	23.50-23.95	
		10	25	26	51		DS-11	24.50	
29.50m Dense to dense, yellowish brown, silty sand / sandy silt with clay binder.		14	20	27	47		SPT-12	25.00-25.45	
		18	26	29	55		DS-12	26.00	
		17	35	42	77		SPT-13	26.50-26.95	
34.00m Very dense, yellowish brown, silty sand / sandy silt. Obs. steel grey patches.		25	35	39	74		DS-13	27.50	
		29	39	40	79		SPT-14	28.00-28.45	
		31	42	47	89		DS-14	29.00	
		37	49	52	>100		SPT-15	29.50-29.95	
38.50m Hard, brownish grey, silty clay / clayey silt with sand mixture. Obs. yellow spot.		39	49	57	>100		DS-15	30.50	
							SPT-16	31.00-31.45	
40.45m							DS-16	32.00	
							SPT-17	32.50-32.95	
							DS-17	33.50	
							SPT-18	34.00-34.45	
							DS-18	35.00	
							SPT-19	35.50-35.95	
							DS-19	36.50	
							SPT-20	37.00-37.45	
							DS-20	38.00	
							SPT-21	38.50-38.95	
							DS-21	39.50	
							SPT-22	40.00-40.45	

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 05/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.58

Co-ordinates E=(-)3155.000
N=3869.000

Field Test	Nos	Samples	Nos	Commencement Date : 15/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 17/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 9.123 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.7 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m Filled up soil consists of light grey, fly ash.		0	0	0	0	0	0	DS-1	0.50
2.50m Very soft, brownish grey, silty clay / clayey silt with high % of fine sand mixture.		0	0	1			1	SPT-2	3.00-3.45
5.00m Very soft, deep grey, silty clay / clayey silt with sand mixture.		0	0	1			1	SPT-3	5.00-5.45
7.00m Medium, light grey, silty clay with sand mixture.		0	2	2			4	SPT-4	7.00-7.45
10.00m Loose, light greenish grey, silty sand / sandy silt with fine sand mixture.		2	2	3			5	SPT-5	9.00-9.45
14.00m Medium dense, light greenish grey, silty sand silty sand / sandy silt with fine sand mixture.		3	5	7			12	SPT-7	14.50-14.95
17.00m Hard, light greenish grey, silty clay clayey silt with fine sand mixture.		9	17	22			39	SPT-8	17.50-17.95
20.00m Dense, light brownish yellow, silty sand / sandy silt with clay lamination. Obs. steel grey patches.		8	15	29			44	SPT-9	20.50-20.95
21.00m									





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 05/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.58

Co-ordinates E=(-)3155.000
N=3869.000

Field Test	Nos	Samples	Nos	Commencement Date :	15/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	17/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.123 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.7 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLES
		EACH DIVN. = 15cm.						
21.00m Dense, light brownish yellow, silty sand / sandy silt with clay lamination. Obs. steel grey patches.		9	16	25	41		DS-9	21.50
23.50m Dense to very dense, light brownish yellow, silty sand. Obs. kankars.		10	17	19	36		SPT-10	22.00-22.45
		17	25	28	53		DS-10	23.00
26.50m Hard, yellowish grey, silty clay. Obs. reddish spot.		12	26	27	53		SPT-11	23.50-23.95
		10	22	25	47		DS-11	24.50
29.50m Dense, yellowish brown, silty sand / sandy silt with clay binder.		13	20	21	41		SPT-12	25.00-25.45
		18	22	27	49		DS-12	26.00
31.00m Dense to very dense, steel grey, silty sand / sandy silt with clay lamination. Obs. yellow patches.		17	39	40	79		SPT-13	26.50-26.95
		25	32	45	77		DS-13	27.50
		28	39	46	85		SPT-14	28.00-28.45
		31	40	48	88		DS-14	29.00
37.00m Very dense, yellowish brown, silty sand / sandy silt. Obs. steel grey patches.		36	51	57	>100		SPT-15	29.50-29.95
		39	50		>100		DS-15	30.50
38.50m Hard, brownish grey, silty clay with sand mixture. Obs. light yellowish brown, sand at SPT-22.		36	51	57	>100		SPT-16	31.00-31.45
		39	50		>100		DS-16	32.00
40.20m		39	50		>100		SPT-17	32.50-32.95
N.B. - '*' means sample could not be recovered.					5.0 cm Pentn.		DS-17	33.50
							SPT-18	34.00-34.45
							DS-18	35.00
							SPT-19	35.50-35.95
							DS-19	36.50
							SPT-20	37.00-37.45
							DS-20	38.00
							SPT-21	38.50-38.95
							DS-21	39.50
							SPT-22	40.00-40.20





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.59

Co-ordinates E=(-)3220.000
N=3858.000

Field Test	Nos	Samples	Nos	Commencement Date :	24/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	25/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.362 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.65 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m								DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0	0			SPT-1	1.00-1.45
		0	0	0	0			*UDS-1	2.00-2.45
		0	0	0	0			SPT-2	3.00-3.45
		0	0	0	0			*UDS-2	4.00-4.45
		0	0	0	0			SPT-3	5.00-5.45
		0	0	0	0			*UDS-3	6.00-6.45
7.00m		0	0	1	1			SPT-4	7.00-7.45
Very loose, dark grey, silty sand with clay mixture.		1	1	1	2			*UDS-4	8.00-8.45
		1	1	1	2			SPT-5	9.00-9.45
		1	1	1	2			UDS-5	10.00-10.45
11.00m		1	2	2	4			DS-2	11.00
Very loose, light greenish grey, silty sand.		1	2	2	4			SPT-6	11.50-11.95
		1	2	2	4			DS-3	12.50
14.00m		7	11	19	30			UDS-6	13.00-13.45
Medium dense, light grey, silty coarse sand.		7	11	19	30			DS-4	14.00
		7	11	19	30			SPT-7	14.50-14.95
17.00m		10	14	20	34			DS-5	15.50
Dense, light greenish grey, silty sand.		10	14	20	34			*UDS-7	16.00-16.45
		10	14	20	34			DS-6	17.00
20.00m		6	12	16	28			SPT-8	17.50-17.95
Medium dense, light yellow, silty sand.		6	12	16	28			DS-7	18.50
		6	12	16	28			UDS-8	19.00-19.45
21.00m		6	12	16	28			DS-8	20.00
		6	12	16	28			SPT-9	20.50-20.95





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.59

Co-ordinates E=(-)3220.000
N=3858.000

Field Test	Nos	Samples	Nos	Commencement Date :	24/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	25/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.362 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.65 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLER	Depth (m)
		EACH DIVN. = 15cm.							
21.00m Medium dense, light yellow, silty sand.							29	DS-9	21.50
		7	10	19				SPT-10	22.00-22.45
23.00m Dense, light yellow, silty sand.							31	DS-10	23.00
		9	13	18				SPT-11	23.50-23.95
							36	DS-11	24.50
		6	15	21				SPT-12	25.00-25.45
26.50m							57	DS-12	26.00
		8	22	35				SPT-13	26.50-26.95
							58	DS-13	27.50
		10	25	33				SPT-14	28.00-28.45
							63	DS-14	29.00
		15	24	39				SPT-15	29.50-29.95
							55	DS-15	30.50
		14	20	35				SPT-16	31.00-31.45
							72	DS-16	32.00
		21	30	42				SPT-17	32.50-32.95
							69	DS-17	33.50
		18	29	40				SPT-18	34.00-34.45
							78	DS-18	35.00
		20	33	45				SPT-19	35.50-35.95
							81	DS-19	36.50
		24	39	42				SPT-20	37.00-37.45
38.00m							98	DS-20	38.00
		20	48	50				SPT-21	38.50-38.95
							>100	DS-21	39.50
40.40m		52	47	66	10.0 cm Penth.			SPT-22	40.00-40.40

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 05/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.60

Co-ordinates E=(-)3299.000
N=3891.000

Field Test	Nos	Samples	Nos	Commencement Date : 19/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 21/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 9.764 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.8 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m								DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0			0	SPT-1	1.00-1.45
		0	0	0			0	*UDS-1	2.00-2.45
		0	0	0			0	SPT-2	3.00-3.45
4.50m								*UDS-2	4.00-4.45
Very soft, deep grey, silty clay / clayey silt with sand mixture.		0	0	1			1	SPT-3	5.00-5.45
		0	1	1			2	*UDS-3	6.00-6.45
		0	1	1			2	SPT-4	7.00-7.45
9.00m								UDS-4	8.00-8.45
Medium, deep grey, silty clay / clayey silt with sand mixture.		2	3	3			6	SPT-5	9.00-9.45
	10.00m							UDS-5	10.00-10.45
Stiff, light grey, silty clay / clayey silt with high % of sand.		2	5	6			11	DS-2	11.00
		2	5	6			11	SPT-6	11.50-11.95
								DS-3	12.50
13.00m								UDS-6	13.00-13.45
Greenish grey, sandy silt / silty sand with clay binder.								DS-4	14.00
	14.50m		8	10	18		28	SPT-7	14.50-14.95
Medium dense, greenish grey, silty coarse sand.								DS-5	15.50
								*UDS-7	16.00-16.45
								DS-6	17.00
17.50m		12	16	26			42	SPT-8	17.50-17.95
Dense, greenish grey, clayey silty fine sand.								DS-7	18.50
								UDS-8	19.00-19.45
								DS-8	20.00
20.50m		18	26	28			54	SPT-9	20.50-20.95
Very dense, brownish grey, silty coarse sand with clay binder.									





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 05/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.60

Co-ordinates E=(-)3299.000
N=3891.000

Field Test	Nos	Samples	Nos	Commencement Date : 19/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 21/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 9.764 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.8 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES	
		EACH DIVN. = 15cm.					Ref. No	Depth (m)
21.00m Very dense, brownish grey, silty coarse sand with clay binder.		16	27	30	57	DS-9	21.50	
23.50m Very dense, brownish grey, silty coarse sand.		10	23	33	56	SPT-10	22.00-22.45	
		15	26	41	67	DS-10	23.00	
		26	40	56	96	SPT-11	23.50-23.95	
		21	38	49	87	DS-11	24.50	
		18	37	48	85	SPT-12	25.00-25.45	
		17	36	45	81	DS-12	26.00	
31.00m Hard, brownish grey, sandy clay with steel grey patches.		12	24	32	56	SPT-13	26.50-26.95	
32.50m Very dense, brownish grey, clayey sand. Obs. steel grey patches.		18	26	35	61	DS-13	27.50	
		17	22	31	53	SPT-14	28.00-28.45	
35.50m Very dense, greenish yellow, silty sand / sandy silt with clay lamination. Obs. steel grey patches.		19	27	38	65	DS-14	29.00	
		31	45	47	92	SPT-15	29.50-29.95	
38.50m Very dense, greenish yellow, silty coarse sand. Obs. reddish sand in SPT shoe.		42	50	>100		DS-15	30.50	
		5.0 cm Pentn.				SPT-16	31.00-31.45	
40.20m						DS-16	32.00	
						SPT-17	32.50-32.95	
						DS-17	33.50	
						SPT-18	34.00-34.45	
						DS-18	35.00	
						SPT-19	35.50-35.95	
						DS-19	36.50	
						SPT-20	37.00-37.45	
						DS-20	38.00	
						SPT-21	38.50-38.95	
						DS-21	39.50	
						SPT-22	40.00-40.20	

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.61

Co-ordinates E=(-)3299.000
N=3818.000

Field Test	Nos	Samples	Nos	Commencement Date :	21/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	7	Completion Date :	24/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	10.338 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	1.1 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
0.00m						DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0	0	SPT-1	1.00-1.45
		0	0	0	0	*UDS-1	2.00-2.45
		0	0	0	0	SPT-2	3.00-3.45
4.00m						*UDS-2	4.00-4.45
Very soft, yellowish grey, silty clay silt / silty sand.		0	0	0	0	SPT-3	5.00-5.45
		1	0	1	1	UDS-3	6.00-6.45
		2	3	4	7	SPT-4	7.00-7.45
7.45m						UDS-4	8.00-8.45
Medium, dark grey, silty clay with sand mixture.		2	3	4	7	SPT-5	9.00-9.45
		1	2	2	4	UDS-5	10.00-10.45
		1	2	2	4	DS-2	11.00
10.00m						SPT-6	11.50-11.95
Loose, light grey, silty sand / sandy silt.		4	6	8	14	DS-3	12.50
		6	10	13	23	*UDS-6	13.00-13.45
		6	10	13	23	DS-4	14.00
12.50m						SPT-7	14.50-14.95
Medium dense, light grey, silty sand / sandy silt.		6	10	13	23	DS-5	15.50
		6	10	13	23	UDS-7	16.00-16.45
		6	10	13	23	DS-6	17.00
		6	10	13	23	SPT-8	17.50-17.95
		6	10	13	23	DS-7	18.50
		6	10	13	23	UDS-8	19.00-19.45
20.00m						DS-8	20.00
Dense to very dense, light yellowish grey, silty sand with steel grey patches.		10	17	20	37	SPT-9	20.50-20.95
		10	17	20	37		
21.00m							





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.61

Co-ordinates E=(-)3299.000
N=3818.000

Field Test	Nos	Samples	Nos	Commencement Date :	21/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	7	Completion Date :	24/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	10.338 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	1.1 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLES	
		EACH DIVN. = 15cm.							Depth (m)
Dense to very dense, light yellowish grey, silty sand with steel grey patches.		21.00m					49	DS-9	21.50
			12	20	29			SPT-10	22.00-22.45
			8	13	20			DS-10	23.00
			18	33	40			SPT-11	23.50-23.95
			18	33	40			DS-11	24.50
Very dense, light yellowish grey, silty sand.		26.00m					93	SPT-12	25.00-25.45
			25	44	49			DS-12	26.00
			21	40	46			SPT-13	26.50-26.95
			18	32	40			DS-13	27.50
			23	36	47			SPT-14	28.00-28.45
Very dense, yellowish brown, silty sand. Obs. steel grey patches.		32.00m					72	DS-14	29.00
			18	35	41			SPT-15	29.50-29.95
			20	31	45			DS-15	30.50
			20	26	32			SPT-16	31.00-31.45
			20	26	32			DS-16	32.00
Hard, brownish yellow, silty clay with fine sand mixture.		35.00m					76	SPT-17	32.50-32.95
			20	31	45			DS-17	33.50
			20	26	32			SPT-18	34.00-34.45
			21	35	40			DS-18	35.00
			21	35	40			SPT-19	35.50-35.95
Hard, light yellowish grey, silty clay with fine sand mixture. Obs. steel grey patches in SPT-22.		38.00m					58	DS-19	36.50
			29	44	49			SPT-20	37.00-37.45
			21	35	40			DS-20	38.00
			29	44	49			SPT-21	38.50-38.95
			45	31	42			DS-21	39.50
	45	31	42			SPT-22	40.00-40.45		

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 29/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.62

Co-ordinates E=(-)2980.000
N=3818.000

Field Test	Nos	Samples	Nos	Commencement Date :	06/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	07/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.082 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.6 m.

DESCRIPTION	SYMBOL	N-VALUE							Ref. No	Depth (m)	
		EACH DIVN. = 15cm.									
0.00m Filled up soil consists of light grey, fly ash.		0	0	0					0	DS-1 SPT-1 *UDS-1	0.50 1.00-1.45 2.00-2.45
2.50m Very loose, light grey, silty sand.		0	0	1					1	SPT-2 *UDS-2	3.00-3.45 4.00-4.45
7.00m Very loose to loose, deep grey, clayey silty sand.		0	1	1					2	SPT-3 *UDS-3	5.00-5.45 6.00-6.45
9.45m Medium dense, steel grey, silty sand / sandy silt.		0	2	2					4	SPT-4 *UDS-4	7.00-7.45 8.00-8.45
13.00m Very stiff, steel grey / light greenish grey, silty clay / clayey silt with sand mixture.		2	3	6					9	SPT-5 UDS-5 DS-2 SPT-6 DS-3 *UDS-6	9.00-9.45 10.00-10.45 11.00 11.50-11.95 12.50 13.00-13.45
17.50m Medium dense, light greenish grey with steel grey, silty fine sand.		4	6	7					13	DS-4 SPT-7 DS-5 UDS-7 DS-6	14.00 14.50-14.95 15.50 16.00-16.45 17.00
20.00m Very dense, light greenish grey with steel grey, silty fine sand.		5	8	16					24	SPT-8 DS-7 UDS-8	17.50-17.95 18.50 19.00-19.45
20.50m		8	13	16					29	DS-8	20.00





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 29/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.62

Co-ordinates E=(-)2980.000
N=3818.000

Field Test	Nos	Samples	Nos	Commencement Date :	06/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	07/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.082 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.6 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
20.50m Very dense, light greenish grey with steel grey, silty fine sand.		18	25	27	52	SPT-9	20.50-20.95
21.50m					66	DS-9	21.50
23.00m Very dense, light yellowish grey, silty sand / sandy silt with clay lamination. Obs. steel grey patches.		22	30	36	64	SPT-10	22.00-22.45
		23	27	37	63	DS-10	23.00
		27	35	28	63	SPT-11	23.50-23.95
		27	35	28	63	DS-11	24.50
26.50m		8	16	21	37	SPT-12	25.00-25.45
28.00m					55	DS-12	26.00
28.00m Very dense, steel grey with yellowish brown, silty sand.		17	20	35	63	SPT-13	26.50-26.95
		15	24	39	63	DS-13	27.50
		17	28	35	63	SPT-14	28.00-28.45
		17	28	35	63	DS-14	29.00
32.50m					63	SPT-15	29.50-29.95
32.50m Very dense, whitish grey to deep grey, silty sand with laminated clay binder. Obs. reddish spots.		18	23	42	65	DS-15	30.50
		21	30	47	77	SPT-16	31.00-31.45
		27	33	53	86	DS-16	32.00
		27	33	53	86	SPT-17	32.50-32.95
37.00m					43	DS-17	33.50
37.00m Hard, deep yellowish brown, silty clay with sand mixture.		10	18	25	50	SPT-18	34.00-34.45
		15	22	28	50	DS-18	35.00
		15	22	28	50	SPT-19	35.50-35.95
		15	22	28	50	DS-19	36.50
40.45m					43	SPT-20	37.00-37.45
N.B. - '*' means sample could not be recovered.		17	21	29	50	DS-20	38.00
		17	21	29	50	SPT-21	38.50-38.95
					50	DS-21	39.50
					50	SPT-22	40.00-40.45





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.63

Co-ordinates E=(-)3000.000
N=3796.000

Field Test	Nos	Samples	Nos	Commencement Date :	08/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	09/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.926 m.
		Water Sample (WS)	1	Water Struck At :	
				Standing Water Level :	0.5 m.

DESCRIPTION	SYMBOL	N-VALUE							Ref. No	SAMPLER	Depth (m)
		EACH DIVN. = 15cm.									
0.00m Filled up soil consists of light grey, fly ash.									0	DS-1/WS-1	0.50
2.50m Very loose, light grey, clayey silty sand.									0 0 1	SPT-1	1.00-1.45
										*UDS-1	2.00-2.45
										SPT-2	3.00-3.45
										*UDS-2	4.00-4.45
										SPT-3	5.00-5.45
										*UDS-3	6.00-6.45
7.00m Loose, deep grey, clayey silty sand.									1 2 3	SPT-4	7.00-7.45
										*UDS-4	8.00-8.45
										SPT-5	9.00-9.45
										UDS-5	10.00-10.45
										DS-2	11.00
										SPT-6	11.50-11.95
										DS-3	12.50
										UDS-6	13.00-13.45
										DS-4	14.00
										SPT-7	14.50-14.95
										DS-5	15.50
										UDS-7	16.00-16.45
										DS-6	17.00
										SPT-8	17.50-17.95
										DS-7	18.50
										UDS-8	19.00-19.45
										DS-8	20.00
										SPT-9	20.50-20.95
20.50m Very dense, light yellowish grey, silty sand. Obs. steel grey patches.									13 22 33	DS-9	21.50





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.63

Co-ordinates E=(-)3000.000
N=3796.000

Field Test	Nos	Samples	Nos	Commencement Date :	08/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	09/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.926 m.
		Water Sample (WS)	1	Water Struck At :	
				Standing Water Level :	0.5 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES	
		EACH DIVN. = 15cm.					Ref. No	Depth (m)
21.50m Very dense, light yellowish grey, silty sand. Obs. steel grey patches.		12	20	39	59		SPT-10	22.00-22.45
23.50m Very dense, brownish yellow, silty sand. Obs. steel grey patches.		15	27	37	64		DS-10	23.00
26.50m Hard, yellowish brown to steel grey, silty clay.		16	32	43	69		SPT-11	23.50-23.95
29.50m Very dense, deep yellowish brown to steel grey silty sand / sandy silt. Obs. reddish spots.		16	35	30	75		DS-11	24.50
32.50m Very dense, whitish grey, silty sand with yellow patches.		16	35	30	65		SPT-12	25.00-25.45
35.50m Very dense, whitish grey, silty coarse sand with yellowish patches.		17	29	34	63		DS-12	26.00
37.00m Very dense, brownish grey, silty sand with clay lamination.		16	32	43	70		SPT-13	26.50-26.95
40.45m		18	27	43	62		DS-13	27.50
		18	30	32	81		SPT-14	28.00-28.45
		25	33	48	77		DS-14	29.00
		27	32	45	79		SPT-15	29.50-29.95
		30	33	46	85		DS-15	30.50
		33	37	48	79		SPT-16	31.00-31.45
		56	35	44			DS-16	32.00
							SPT-17	32.50-32.95
							DS-17	33.50
							SPT-18	34.00-34.45
							DS-18	35.00
							SPT-19	35.50-35.95
							DS-19	36.50
							SPT-20	37.00-37.45
							DS-20	38.00
							SPT-21	38.50-38.95
							DS-21	39.50
							SPT-22	40.00-40.45

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 27/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.64

Co-ordinates E=(-)3020.000
N=3778.000

Field Test	Nos	Samples	Nos	Commencement Date :	05/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	07/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.926 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m Filled up soil consists of light grey, fly ash.								DS-1	0.50
		0	0	0			0	SPT-1	1.00-1.45
								*UDS-1	2.00-2.45
2.50m Very loose, light grey, silty sand / sandy silt.		0	0	0			0	SPT-2	3.00-3.45
								*UDS-2	4.00-4.45
		0	1	0			1	SPT-3	5.00-5.45
								UDS-3	6.00-6.45
		0	1	1			2	SPT-4	7.00-7.45
								UDS-4	8.00-8.45
9.00m Soft to medium, steel grey, silty clay / clayey silt with sand mixture / clayey sand.		1	1	2			3	SPT-5	9.00-9.45
								UDS-5	10.00-10.45
		2	3	5			8	DS-2	11.00
								SPT-6	11.50-11.95
								DS-3	12.50
								*UDS-6	13.00-13.45
14.50m Medium dense, light greenish grey, silty fine sand.		8	8	13			21	DS-4	14.00
								SPT-7	14.50-14.95
								DS-5	15.50
								*UDS-7	16.00-16.45
17.00m Very dense, light greenish grey, silty fine sand.		10	12	23			35	DS-6	17.00
								SPT-8	17.50-17.95
								DS-7	18.50
								UDS-8	19.00-19.45
								DS-8	20.00
20.75m		14	24	35			59	SPT-9	20.50-20.95





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 27/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.64

Co-ordinates E=(-)3020.000
N=3778.000

Field Test	Nos	Samples	Nos	Commencement Date :	05/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	07/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.926 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLES
		EACH DIVN. = 15cm.						
20.75m							63	DS-9 21.50
Very dense, light greenish grey, silty fine sand.		16	27	36			63	SPT-10 22.00-22.45
		22	28	35			63	DS-10 23.00
23.50m							68	SPT-11 23.50-23.95
Very dense, light yellowish grey, silty coarse sand.		28	32	36			68	DS-11 24.50
		13	24	28			52	SPT-12 25.00-25.45
26.00m							59	DS-12 26.00
Hard, whitish grey, silty clay with deep brownish spot.		17	28	31			59	SPT-13 26.50-26.95
		16	29	33			62	DS-13 27.50
31.00m							61	SPT-14 28.00-28.45
Very dense, whitish grey, silty coarse sand.		13	25	36			61	DS-14 29.00
		17	29	32			62	SPT-15 29.50-29.95
34.00m							65	DS-15 30.50
Very dense, deep yellowish brown, silty sand.		15	26	39			65	SPT-16 31.00-31.45
		18	32	40			72	DS-16 32.00
37.00m							71	SPT-17 32.50-32.95
Hard, brownish grey, silty clay.		18	30	41			71	DS-17 33.50
		22	39	48			87	SPT-18 34.00-34.45
38.50m							83	DS-18 35.00
Very dense, light brownish yellow, silty fine sand.		22	39	48			83	SPT-19 35.50-35.95
		25	38	45			83	DS-19 36.50
40.45m								SPT-20 37.00-37.45
N.B. - '*' means sample could not be recovered.								DS-20 38.00
								SPT-21 38.50-38.95
								DS-21 39.50
								SPT-22 40.00-40.45





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 27/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.65

Co-ordinates E=(-)3074.000
N=3771.000

Field Test	Nos	Samples	Nos	Commencement Date :	28/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	31/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.14 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
0.00m						DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0	<u>0</u>	SPT-1	1.00-1.45
						*UDS-1	2.00-2.45
3.00m						SPT-2	3.00-3.45
Very soft, brownish grey, silty clay with fine sand mixture.		0	0	0	<u>0</u>	*UDS-2	4.00-4.45
		0	1	0	<u>1</u>	SPT-3	5.00-5.45
						UDS-3	6.00-6.45
7.00m						SPT-4	7.00-7.45
Vey soft, blackish grey, silty clay.		0	0	1	<u>1</u>	UDS-4	8.00-8.45
9.00m						SPT-5	9.00-9.45
Medium, brownish grey, sandy clay.		2	3	4	<u>7</u>		
						UDS-5	10.00-10.45
10.00m						DS-2	11.00
Medium, greenish grey, silty clay.		0	2	2	<u>4</u>	SPT-6	11.50-11.95
						DS-3	12.50
						*UDS-6	13.00-13.45
15.50m		3	4	4	<u>8</u>	DS-4	14.00
						SPT-7	14.50-14.95
Very stiff, steel grey, silty clay / clayey silt with laminated sand.						DS-5	15.50
						*UDS-7	16.00-16.45
		8	13	15	<u>28</u>	DS-6	17.00
						SPT-8	17.50-17.95
20.00m						DS-7	18.50
						UDS-8	19.00-19.45
20.75m						DS-8	20.00
		12	18	20	<u>38</u>	SPT-9	20.50-20.95





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 27/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.65

Co-ordinates E=(-)3074.000
N=3771.000

Field Test	Nos	Samples	Nos	Commencement Date :	28/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	31/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.14 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLER	Depth (m)	
		EACH DIVN. = 15cm.								
Dense, light greyish yellow, silty sand.		9	15	19			34	DS-9	21.50	
									SPT-10	22.00-22.45
		7	12	15			27	DS-10	23.00	
									SPT-11	23.50-23.95
		11	19	22			41	DS-11	24.50	
							SPT-12	25.00-25.45		
Hard, brownish grey, silty clay.		14	20	33			53	DS-12	26.00	
									SPT-13	26.50-26.95
		10	14	29			43	DS-13	27.50	
									SPT-14	28.00-28.45
		14	15	27			42	DS-14	29.00	
									SPT-15	29.50-29.95
		17	22	37			59	DS-15	30.50	
							SPT-16	31.00-31.45		
Hard, yellowish brown, silty clay with sand mixture.		20	31	40			71	DS-16	32.00	
									SPT-17	32.50-32.95
		25	30	32			62	DS-17	33.50	
									SPT-18	34.00-34.45
		27	33	29			62	DS-18	35.00	
							SPT-19	35.50-35.95		
Hard, light yellowish grey, silty clay with sand mixture.		22	39	45			84	DS-19	36.50	
									SPT-20	37.00-37.45
		31	40	45			85	DS-20	38.00	
							SPT-21	38.50-38.95		
N.B. - '*' means sample could not be recovered.		29	35	40			75	DS-21	39.50	
									SPT-22	40.00-40.45





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 23/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.66

Co-ordinates E=(-)3039.000
N=3760.000

Field Test	Nos	Samples	Nos	Commencement Date :	04/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	06/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.035 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.60 m.

DESCRIPTION	SYMBOL	N-VALUE					SAMPLES	
		EACH DIVN. = 15cm.					Ref. No	Depth (m)
0.00m							DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0	0		SPT-1	1.00-1.45
					1		UDS-1	2.00-2.45
3.40m		0	0	1			SPT-2	3.00-3.45
Very loose, deep grey, clayey silty sand.					1		UDS-2	4.00-4.45
		0	1	0			SPT-3	5.00-5.45
7.45m		2	2	3			UDS-3	6.00-6.45
					5		SPT-4	7.00-7.45
					11		UDS-4	8.00-8.45
14.95m		4	5	6			SPT-5	9.00-9.45
Medium dense, light greenish grey, silty fine sand.					16		UDS-5	10.00-10.45
		6	8	8			DS-2	11.00
					24		SPT-6	11.50-11.95
19.00m		8	11	13			DS-3	12.50
Dense, light greenish grey / steel grey, silty sand / sandy silt.					34		UDS-6	13.00-13.45
		8	14	20			DS-4	14.00
					52		SPT-7	14.50-14.95
21.50m		11	21	31			DS-5	15.50
Very dense, light brownish grey, silty sand.							UDS-7	16.00-16.45
							DS-6	17.00
							SPT-8	17.50-17.95
							DS-7	18.50
							UDS-8	19.00-19.45
							DS-8	20.00
							SPT-9	20.50-20.95
							DS-9	21.50



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 23/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.66

Co-ordinates E=(-)3039.000
N=3760.000

Field Test	Nos	Samples	Nos	Commencement Date :	04/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	06/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.035 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.60 m.

DESCRIPTION	SYMBOL	N-VALUE				SAMPLES	
		EACH DIVN. = 15cm.				Ref. No	Depth (m)
21.50m Very dense, light brownish grey, silty sand.		16	24	29	53	SPT-10	22.00-22.45
						DS-10	23.00
		18	32	38	70	SPT-11	23.50-23.95
						DS-11	24.50
25.00m Hard, brownish grey, silty clay. Obs. yellow soft.		14	21	27	48	SPT-12	25.00-25.45
						DS-12	26.00
		13	17	21	38	SPT-13	26.50-26.95
						DS-13	27.50
28.00m Hard, brownish grey, silty clay with traces of sand mixture.		16	22	26	48	SPT-14	28.00-28.45
						DS-14	29.00
		17	24	29	53	SPT-15	29.50-29.95
						DS-15	30.50
		16	28	37	65	SPT-16	31.00-31.45
						DS-16	32.00
32.50m Very dense, yellowish grey, silty sand with traces of clay binder.		18	34	42	76	SPT-17	32.50-32.95
						DS-17	33.50
		12	21	30	51	SPT-18	34.00-34.45
						DS-18	35.00
36.50m Very dense, light grey, silty sand.		15	23	32	55	SPT-19	35.50-35.95
						DS-19	36.50
		22	36	45	81	SPT-20	37.00-37.45
38.50m Very dense, light brownish grey, silty sand with traces of clay lamination.						DS-20	38.00
		23	37	45	82	SPT-21	38.50-38.95
						DS-21	39.50
40.45m		21	33	42	75	SPT-22	40.00-40.45



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.67

Co-ordinates E=(-)3059.000
N=3738.000

Field Test	Nos	Samples	Nos	Commencement Date :	08/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	09/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.122 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m								DS-1	0.50
Filled up soil consists of light grey, fly ash.		0	0	0			<u>0</u>	SPT-1	1.00-1.45
								*UDS-1	2.00-2.45
3.00m								SPT-2	3.00-3.45
Very soft, light brownish grey, silty clay.		0	0	1			<u>1</u>	*UDS-2	4.00-4.45
								SPT-3	5.00-5.45
								*UDS-3	6.00-6.45
7.00m								SPT-4	7.00-7.45
Soft, deep grey, silty clay with sand mixture / clayey sand.		0	1	1			<u>2</u>	UDS-4	8.00-8.45
								SPT-5	9.00-9.45
								UDS-5	10.00-10.45
9.00m								DS-2	11.00
Stiff, light grey, silty clay with high % of sand mixture.		1	2	3			<u>5</u>	SPT-6	11.50-11.95
								DS-3	12.50
								*UDS-6	13.00-13.45
14.50m								DS-4	14.00
Medium dense, light greenish grey, silty sand.		5	7	7			<u>14</u>	SPT-7	14.50-14.95
								DS-5	15.50
								*UDS-7	16.00-16.45
19.00m								DS-6	17.00
Light yellowish grey, silty clay / clayey silt.		9	14	15			<u>29</u>	SPT-8	17.50-17.95
								DS-7	18.50
								UDS-8	19.00-19.45
20.50m								DS-8	20.00
Dense to very desne, light brownish grey, silty sand.		11	20	26			<u>46</u>	SPT-9	20.50-20.95





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 12/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.67

Co-ordinates E=(-)3059.000
N=3738.000

Field Test	Nos	Samples	Nos	Commencement Date :	08/12/14
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	09/12/14
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	9.122 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	SAMPLES		
		EACH DIVN. = 15cm.							Depth (m)	
Desne to very dense, light brownish grey, silty sand.		21.00m						DS-9	21.50	
			13	23	31			54	SPT-10	22.00-22.45
									DS-10	23.00
			21	23	38			61	SPT-11	23.50-23.95
									DS-11	24.50
			19	22	35			57	SPT-12	25.00-25.45
									DS-12	26.00
			23	34	45			79	SPT-13	26.50-26.95
									DS-13	27.50
			16	22	35			57	SPT-14	28.00-28.45
		→ Hard, light grey, silty clay with coarse sand mixture.							DS-14	29.00
									SPT-15	29.50-29.95
		Hard, reddish brownish grey, silty clay with high % of coarse sand mixture.							DS-15	30.50
							SPT-16	31.00-31.45		
							DS-16	32.00		
Hard, brownish grey, silty clay with high % of coarse sand mixture.							SPT-17	32.50-32.95		
							DS-17	33.50		
							SPT-18	34.00-34.45		
							DS-18	35.00		
Hard, deep brownish grey, silty clay with fine sand mixture. Obs. reddish spot.							SPT-19	35.50-35.95		
							DS-19	36.50		
							SPT-20	37.00-37.45		
							DS-20	38.00		
							SPT-21	38.50-38.95		
							DS-21	39.50		
							SPT-22	40.00-40.45		

N.B. - '*' means sample could not be recovered.





Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 29/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.68

Co-ordinates E=(-)2980.000
N=3738.000

Field Test	Nos	Samples	Nos	Commencement Date :	07/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	08/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.964 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.55 m.

DESCRIPTION	SYMBOL	N-VALUE					Ref. No	Depth (m)
		EACH DIVN. = 15cm.						
0.00m Filled up soil consists of light grey, fly ash.							DS-1	0.50
		0	0	0		0	SPT-1	1.00-1.45
2.00m Very soft to soft, light brownish grey to deep grey, silty clay with traces of sand mixture.							*UDS-1	2.00-2.45
		0	0	1		1	SPT-2	3.00-3.45
							*UDS-2	4.00-4.45
		0	1	0		1	SPT-3	5.00-5.45
							UDS-3	6.00-6.45
		1	1	2		3	SPT-4	7.00-7.45
8.45m Stiff to very stiff, deep grey, sandy silty clay.							UDS-4	8.00-8.45
		3	4	5		9	SPT-5	9.00-9.45
							*UDS-5	10.00-10.45
		4	8	11		19	DS-2	11.00
							SPT-6	11.50-11.95
							DS-3	12.50
							UDS-6	13.00-13.45
14.50m Dense, light greenish grey, silty sand.		11	15	21		36	DS-4	14.00
							SPT-7	14.50-14.95
							DS-5	15.50
							UDS-7	16.00-16.45
17.50m Medium dense, light greenish grey, silty sand with traces of clay lamination.		7	12	15		27	DS-6	17.00
							SPT-8	17.50-17.95
							DS-7	18.50
							UDS-8	19.00-19.45
20.50m							DS-8	20.00



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 29/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.68

Co-ordinates E=(-)2980.000
N=3738.000

Field Test	Nos	Samples	Nos	Commencement Date : 07/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date : 08/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter : 150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground : 8.964 m.
		Water Sample (WS)	0	Water Struck At :
				Standing Water Level : 0.55 m.

DESCRIPTION	SYMBOL	N-VALUE			SAMPLES			
		EACH DIVN. = 15cm.			Ref. No	Depth (m)		
20.50m Dense, light yellowish grey, silty sand.		13	17	24	41	SPT-9	20.50-20.95	
							DS-9	21.50
		15	20	25	45	SPT-10	22.00-22.45	
							DS-10	23.00
25.00m Hard, light grey, silty clay. Obs. brownish & yellowish patches.		14	21	27	48	SPT-11	23.50-23.95	
							DS-11	24.50
		16	26	31	57	SPT-12	25.00-25.45	
							DS-12	26.00
28.00m Hard, steel grey, silty clay with sand mixture. Obs. brownish & yellowish patches.		18	29	33	62	SPT-13	26.50-26.95	
							DS-13	27.50
		19	29	37	66	SPT-14	28.00-28.45	
							DS-14	29.00
31.00m Very dense, steel grey / greyish pink, silty coarse sand. Obs. brownish spots in SPT-17.		20	31	42	73	SPT-15	29.50-29.95	
							DS-15	30.50
		19	28	37	65	SPT-16	31.00-31.45	
							DS-16	32.00
34.00m Hard, whitish grey, silty clay / clayey silt with sand mixture. Obs. yellowish spot.		20	31	38	69	SPT-17	32.50-32.95	
							DS-17	33.50
		27	31	34	65	SPT-18	34.00-34.45	
							DS-18	35.00
38.50m Very dense, light grey, silty sand.		30	37	33	70	SPT-19	35.50-35.95	
							DS-19	36.50
		25	32	35	67	SPT-20	37.00-37.45	
							DS-20	38.00
40.45m N.B. - '*' means sample could not be recovered.		27	37	41	78	SPT-21	38.50-38.95	
							DS-21	39.50
		26	35	42	77	SPT-22	40.00-40.45	



Project : Geotech. Inv. Work for 2x660MW Coal Based STPP at Ash Dyke of NCTPS, Chennai. **CETEST**

Job No : 3388 Created by : Chandrani Created on : 30/01/2015 Sheet No:

BORE LOG DATA SHEET

BORE HOLE NO.69

Co-ordinates E=(-)3000.000
N=3726.000

Field Test	Nos	Samples	Nos	Commencement Date :	09/01/15
Penetrometer (SPT)	22	Undisturbed (UDS)	8	Completion Date :	11/01/15
Cone (Pc)		Penetrometer (SPT)	22	Bore Hole Diameter :	150 mm.
Vane (V)		Disturbed (DS)	21	Level Of Ground :	8.723 m.
		Water Sample (WS)	0	Water Struck At :	
				Standing Water Level :	0.45 m.

DESCRIPTION	SYMBOL	N-VALUE						SAMPLES	
		EACH DIVN. = 15cm.						Ref. No	Depth (m)
0.00m Filled up soil consists of light grey, fly ash.		0	0	0	0	0	0	DS-1	0.50
2.00m Very loose to loose, light yellowish grey to deep grey, clayey silty sand.		0	0	1	1	1	1	SPT-1	1.00-1.45
		0	0	1	1	1	1	*UDS-1	2.00-2.45
		1	1	2	2	2	2	SPT-2	3.00-3.45
		1	1	2	2	2	2	*UDS-2	4.00-4.45
		1	1	2	2	2	2	SPT-3	5.00-5.45
9.00m Medium dense, steel grey to light grey, clayey silty sand.		1	2	4	4	4	4	UDS-3	6.00-6.45
		1	2	4	4	4	4	SPT-4	7.00-7.45
		2	4	6	6	6	6	UDS-4	8.00-8.45
		2	4	6	6	6	6	SPT-5	9.00-9.45
14.50m Dense, light yellowish grey, silty sand.		2	4	6	6	6	6	UDS-5	10.00-10.45
		5	8	11	11	11	11	DS-2	11.00
		5	8	11	11	11	11	SPT-6	11.50-11.95
		5	8	11	11	11	11	DS-3	12.50
17.50m Dense, light greenish grey, silty sand.		9	15	21	21	21	21	UDS-6	13.00-13.45
		9	15	21	21	21	21	DS-4	14.00
20.00m Very dense, light yellowish grey, silty medium to coarse sand.		9	15	21	21	21	21	SPT-7	14.50-14.95
		11	19	25	25	25	25	DS-5	15.50
21.50m		11	19	25	25	25	25	*UDS-7	16.00-16.45
		11	19	25	25	25	25	DS-6	17.00
		16	24	27	27	27	27	SPT-8	17.50-17.95
		16	24	27	27	27	27	DS-7	18.50
		16	24	27	27	27	27	UDS-8	19.00-19.45
		16	24	27	27	27	27	DS-8	20.00
		16	24	27	27	27	27	SPT-9	20.50-20.95
		16	24	27	27	27	27	DS-9	21.50

