

Jacobs

0 50 100 200 m

Dessinateur	Relacteur	Approbateur
-	-	-

Légende

 Puits de surveillance - Ancienne Décharge

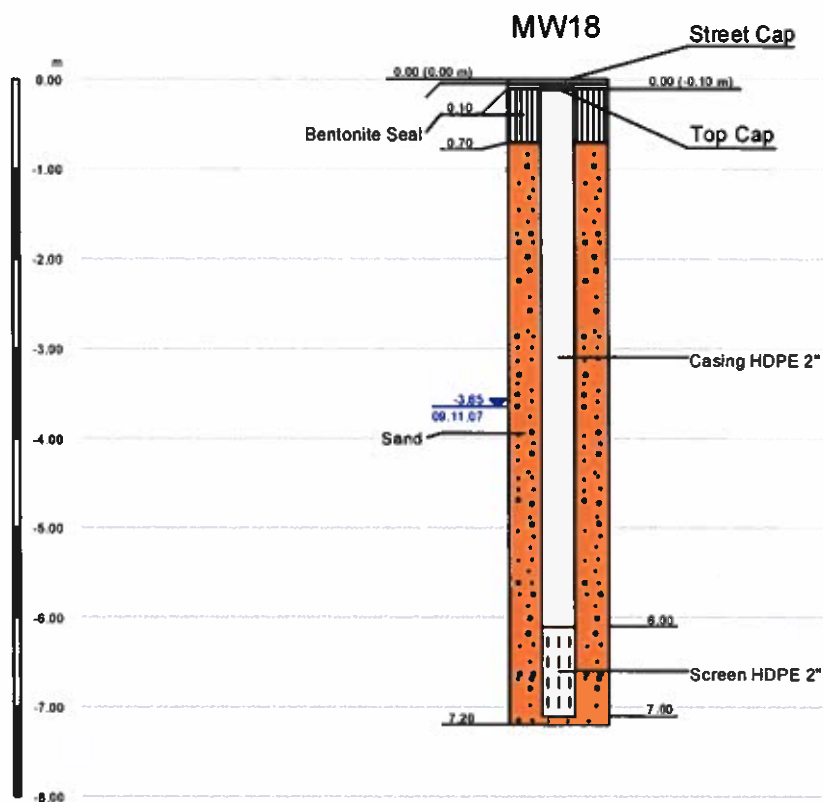
FIGURE 2
PLAN DE LOCALISATION DES PUIITS DE
SURVEILLANCE DE L'ANCIENNE DÉCHARGE
INTERNE DU SITE DE CHAUNY - DSP SAS



Tableau - Informations pour inscription à la banque de données du sous-sol
du BRGM Site de DSP SAS - Chauny

Désignation	Coursier_X	Coursier_Y	Z (m)	Système	Technologie de réalisation	prof_actuelle	diamètre_intérog
MW02	665085.74	2512343.36	non disponible	Lambert II étendu	non disponible	non disponible	2"
MW18	665016.88	2512542.61	45.10	Lambert II étendu	non disponible	7.10	2"
MW20	665032.97	2513200.20	45.07	Lambert II étendu	Sonic	10.20	2" / 50 mm
MW21	664898.93	2513101.02	45.32	Lambert II étendu	Sonic	11.20	2" / 50 mm
MW22	664923.67	2512542.11	45.03	Lambert II étendu	Battage / Carottage au câble	7.00	2" / 63 mm
MW23	665241.36	2513139.17	45.40	Lambert II étendu	Geoprobe	10.00	2" / 56-65 mm
MW24	665142.53	2513065.24	45.50	Lambert II étendu	Geoprobe	10.00	2" / 56-65 mm
MW25	665050.58	2512804.94	45.21	Lambert II étendu	Geoprobe	10.00	2" / 56-65 mm
DW01	665331.46	2512383.68	43.72	Lambert II étendu	Battage / Carottage au câble	18.50	4" / 103 mm
DW05	664947.49	2512450.77	44.14	Lambert II étendu	Battage / Carottage au câble	22.50	4" / 103 mm
DW06	664779.33	2512394.45	44.88	Lambert II étendu	Battage / Carottage au câble	21.00	4" / 103 mm
DW10	664923.33	2512580.03	45.04	Lambert II étendu	Battage / Carottage au câble	15.00	1" / 32 mm
DW11	664923.22	2512541.43	45.04	Lambert II étendu	Battage / Carottage au câble	19.00	1" / 32 mm
DW15.001b	664926.15	2512587.85	45.10	Lambert II étendu	Battage / Carottage au câble	15.00	2" / 63 mm
DW15.002	664920.07	2512574.23	44.97	Lambert II étendu	Battage / Carottage au câble	15.00	2" / 50 mm
CW08	664920.16	2512561.37	44.59	Lambert II étendu	Sonic	27.20	3" / 76 mm

Désignation	ep	nom_département	cat_souage	utilisation	Méthre d'œuvre	nature
MW02	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
MW18	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
MW20	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
MW21	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
MW22	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
MW23	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
MW24	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
MW25	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
DW01	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
DW05	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
DW06	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
DW10	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
DW11	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
DW15.001b	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
DW15.002	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE
CW08	02	ASNE	TUBE-PLASTIQUE MESURE-REGULIERE ACCES PRELEV EXPLOITE.	PIEZOMETRE	Jacobs (CH2M HILL IDC)	PIEZOMETRE

Désignation	Intégrateur	Date fin des travaux	Objet de la reconnaissance	nom_gommone	Intégrateur	Intégrateur
MW02	non disponible	non disponible	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
MW18	Geo-log	16/11/07	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
MW20	Boart Longyear	9/5/12	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
MW21	Boart Longyear	10/6/12	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
MW22	DSS Drilling/Boart Longyear	25/7/07	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
MW23	Agri Environnement	11/7/19	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
MW24	Agri Environnement	10/7/19	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
MW25	Agri Environnement	10/7/19	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
DW01	Mérissee S.A.	31/10/06	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
DW05	Mérissee S.A.	28/10/06	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
DW06	Mérissee S.A.	14/11/06	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
DW10	DSS Drilling/Boart Longyear	25/7/07	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
DW11	DSS Drilling/Boart Longyear	24/7/07	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
DW15.001b	DSS Drilling/Boart Longyear	22/7/07	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
DW15.002	DSS Drilling/Boart Longyear	11/5/17	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS
CW08	Boart Longyear	19/4/12	POLLUTION-NAPPE FLUCTUATION-NAPPE	CHAUNY	02300	DSP SAS



		Georg-Westermann-Allee 23a - 38104 Braunschweig	
		Tel: 0531/70096-0 - Fax: 0531/70096-29	
Project: Site Investigation			
Client: Chauny			
			
	DATE	NAME	APPENDIX
DRAWN	16.11.2007	S. THIELECKE	
APPROVED	16.11.2007	H. LENSKY	PROJECT NO.: 07425-M
Vertical Scale 1:75	Illustration:		
DIN A4	MW18		



CH2MHILL

SOIL BORING LOG

PROJECT NUMBER: 429724

BORING NUMBER: MW20

SHEET 1 OF 1

PROJECT : Sonic Investigation - Zone A

LOCATION : Chauny, France

ELEVATION :

DRILLING CONTRACTOR : Boart Longyear

DRILLING METHOD AND EQUIPMENT : Sonic

WATER LEVELS : ---

START : 09/05/2012

END : 09/05/2012

LOGGER : S. Julia

DEPTH BELOW EXISTING GRADE (m)	INTERVAL (m)		SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLIC LOG	PID-10.8 (ppm)	PID-11.7 (ppm)	COMMENTS	WELL DIAGRAM
		RECOVERY (%)						
1	0.50	100%	0.0-0.25m: TOPSOIL (ORGANIC) topsoil - Brown - loam with sand, gravel and cobble. Sand is fine. Gravel is angular, assorted. Some fine roots (grass). Soft. Dry.					Cap
2	1.50	100%	0.25-1.5m: SAND (SW) reddish yellow - well-graded fine sand with cobbles (few, up to 8cm), gravel (some, 2-4cm), silt (some). Gravel/cobble is coarse, assorted, angular. No cementation. Moist				1.5-2.4m: organic odour.	Cement grout
3	2.00	100%	> 1.1-1.5m: transition to fine sand with cobbles (trace to few).				2.4m: water entry. 2.4-3.3m: oxidised layer.	Bentonite
4	3.00	100%	1.5-2.4m: CLAY (CL) dark bluish grey - clay. Red coloring caused by oxidation (many) / fibrous peat / fine roots. Hard. Dry to moist.					
5	4.00	100%	2.4-3.3m: SILT (ML) greenish grey - sandy silt. Sand is fine (some). Red coloring caused by oxidation (many) / fibrous peat / fine roots. Soft. Wet (saturated).					
6	5.00	100%	3.3-4.1m: SAND (SP-SC) light yellowish brown - poorly-graded fine sand with clay (some). Red coloring caused by oxidation (many) / fibrous peat / fine roots. No cementation. Wet (saturated).					
7	6.00	100%	> 3.7-4.1m: transition to yellowish brown - fine sand. Some white shell fragments. No cementation. Wet (saturated).					
8	7.00	100%	4.1-7.9m: SAND & GRAVEL (GW/SW) yellowish brown - well-graded coarse sand and gravel with silt (rare to few). Gravel is assorted, angular. Many white shell fragments. No cementation. Wet (saturated).					Filter Pack 50mm HDPE Screen
9	8.00	100%	> 6.1-7.1m: transition to coarse gravel with sand (some) and silt (rare to few). Sand is coarse, assorted, angular.					
10	9.00	100%	> 7.1-7.9m: transition to coarse gravel with silt (rare to few). No white shell fragments observed.					Bentonite
11	10.00	100%	7.9-10.2m: SILT (ML) dark greenish grey - sandy silt. Sand is fine (few). Firm. Moist.					Caving / Bentonite
12	10.20		> 9.9-10.0m: layer of clay. Hard. Dry. Bottom of Boring at 10.20 m below ground surface					



CH2MHILL

SOIL BORING LOG

PROJECT NUMBER: **429724**

BORING NUMBER: **MW21**

SHEET **1** OF **1**

PROJECT : Sonic Investigation - Zone A

LOCATION : Chauny, France

ELEVATION :

DRILLING CONTRACTOR : Boart Longyear

DRILLING METHOD AND EQUIPMENT : Sonic

WATER LEVELS : ---

START : 10/05/2012

END : 10/05/2012

LOGGER : S. Julia

DEPTH BELOW EXISTING GRADE (m)	INTERVAL (m)		SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLIC LOG	PID-10.6 (ppm)	PID-11.7 (ppm)	COMMENTS	WELL DIAGRAM
		RECOVERY (%)						
1	1.00	100%	0.0-2.1m: FILL (FILL) red - silt with sand and gravel. Many red coloring caused by oxidation / wood fragment / fibrous peat. Firm. Dry.				0.0-2.1m: oxidised layer.	
2	2.00	100%						
3	3.00	100%	2.1-2.8m: CLAY (CL) greenish grey - clay. Some red coloring caused by oxidation / fibrous peat. Firm. Dry to moist.					
4	4.00	100%	2.8-4.8m: SILT (ML) greenish grey - silt. Many red coloring caused by oxidation / fibrous peat. Soft. Moist.					
5	5.00	100%	> 4.55-4.85: layer of well-graded sand with gravel (few) and silt (rare). Sand/gravel is coarse, assorted, angular. Many white shell fragments. No cementation. Wet (saturated).					
6	6.00	100%	4.8-7.8m: SAND & GRAVEL (GW/SW) yellowish brown - well-graded sand with gravel (few) and silt (rare). Sand/gravel is coarse, assorted, angular. Many white shell fragments. No cementation. Wet (saturated).					
7	7.00	100%	> 5.6-6.0m: transition to gravel with silt (rare). Gravel is coarse, assorted, subangular. No white shell fragments observed.					
8	8.00	100%	> 6.0-6.6m: transition to sand and gravel with silt (few). Sand/Gravel is coarse, assorted, angular. Many white shell fragments.					
9	9.00	100%	> 6.6-7.8m: transition to gravel with sand (some) and silt (few). Sand/gravel (up to 2-3cm) is coarse, assorted, angular. Many white shell fragments.					
10	10.00	100%	7.8-11.2m: SAND (SP-SC) dark greenish grey - poorly-graded fine sand with silt (few). Weak to moderate cementation. Wet (saturated).					
11	11.20	100%	Bottom of Boring at 11.20 m below ground surface					

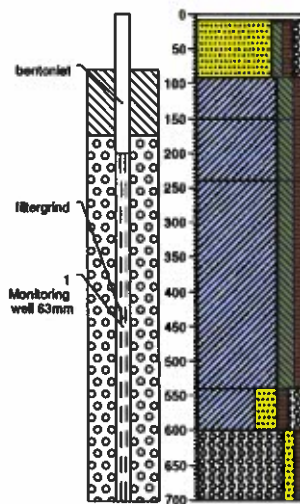
Projectnaam: Chauny

Boring: MW22

Datum: 25-10-2018

GWS: 250

Referentievlak: maaiveld



▲	-3	asfalt
		Volledig asfalt, Voorgraven
▲	-40	Zand, zeer grof, zeer hard, zwak siltig, zwak humeus, zwak grindig, sterk puinhoudend, grijsbruin, Voorgraven
▲	-150	Klei, vast, matig siltig, zwak humeus, matig kalkhoudend, grijswit, Pulsinstallatie machinaal
▲	-240	Klei, vast, matig siltig, zwak humeus, resten puin, bruin-grijs, Pulsinstallatie machinaal
▲	-440	Klei, matig vast, matig siltig, zwak humeus, sporen planten, neutraal-grijs, Pulsinstallatie machinaal
▲	-600	Grind, zeer grof, matig vast, zwak zandig, zwak humeus, grijszwart, Pulsinstallatie machinaal
	-700	

PROJET : Wells Installations Landfill 2019

LOCALISATION : Ancienne décharge interne, Chauny, France

ALTITUDE HAUT TETE DE PUIS : 45,99 m NGF

COORDONNEES : [1717219,70 Y ; 8268077,48 X] Lambert CC49

METHODE DE FORAGE : Geoprobe 7822DT, Tarière

SOUS-TRAITANT : Agri Environnement

SUMI PAR : F.Marmonier

VALIDE PAR : S.Julia

DEBUT : 11 juillet 2019 13h30

FIN : 11 juillet 2019 15h30

PROFONDEUR TOTALE : 10 m NS

DIAMETRE FORAGE : 6" / 150 mm

DIAMETRE TUBAGE : 2" / 56-65 mm

TYPE TUBAGE : PEHD

NIVEAU D'EAU FINAL : 4,33 m NS

MASSIF FILTRANT : Silice roulée

TAILLE DES GRAINS DU MASSIF : 1 - 2 mm

OUVERTURE CREPINE : 0.5 mm

ECHELLE (m)	RECUPERATION (%)	ECHANTILLON		LITHOLOGIE	NIVEAU D'EAU (m)	DESCRIPTION LITHOLOGIQUE NOM, CLASSIFICATION USCS, COULEUR, TENEUR EN EAU, DENSITE RELATIVE OU COHERENCE, STRUCTURE, MINERALOGIE	REMARQUES / COMMENTAIRES	COUPE DU PUIS
		NOM ECHANTILLON	FD (g/cm³) Liquide 100 g					
1			0			(GW) Avant-trou à la tarière manuelle jusqu'à refus. Gaviers anguleux sup. à 5 cm de Ø	Tête de puits hors sol	
2						(SP) Sables fins homogènes (90%) + graviers anguleux de 2 à 5 cm de Ø 10YR 6/6 - jaune brunâtre		
3								
4			0			(CL) Argiles sableuses 10YR 5/3 - marron Terrain sec et homogène jusqu'à 4,20 m Terrain saturé en eau à partir de 4,20 m		
5			0					
6								
7			0			(SP) Sables gris légèrement argileux (95%) + graviers anguleux 1 à 5 cm de Ø (5%) 10YR 6/2 - gris brunâtre clair		
8								
9								
10						Fin du sondage	Equipement : - 1 centreur à 6 m; - 10 sacs de 25kg de sables; - 5 sacs de 25kg de bentonite; - Présence d'un bouchon de fond en bois utilisé pour la tarière creuse.	

m NGF : mètre niveau général de la France / m NS : mètre par rapport au niveau du sol / USCS : système de classification uniformisée des sols

▽ Niveau d'eau initial

▽ Niveau d'eau final

□ Capot

■ Bentonite

|| Massif filtrant

□ Crépine

PROJET : Wells Installations Landfill 2019

LOCALISATION : Ancienne décharge interne, Chauny, France

ALTITUDE HAUT TETE DE PUIS : 45,65 m NGF

COORDONNEES : [1717120,36 Y ; 8268004,45 X] Lambert CC49

METHODE DE FORAGE : Geoprobe 7622DT, Tarière

SOUS-TRAITANT : Agri Environnement

SUIVI PAR : F.Marmonier

VALIDE PAR : S.Julia

DEBUT : 10 juillet 2019 15h35

FIN : 11 juillet 2019 11h20

PROFONDEUR TOTALE : 10 m NS

DIAMETRE FORAGE : 6" / 150 mm

DIAMETRE TUBAGE : 2" / 56-65 mm

TYPE TUBAGE : PEHD

NIVEAU D'EAU FINAL : 3,83 m NS

MASSIF FILTRANT : Silice roulée

TAILLE DES GRAINS DU MASSIF : 1 - 2 mm

OUVREURE CREPINE : 0,5 mm

Echelle (m)	Recupération (%)	Echantillon		Lithologie	Niveau d'eau (m)	Description lithologique NOM, CLASSIFICATION USCS, COULEUR, Teneur en eau, densité relative ou cohérence, structure, minéralogie	Remarques / Commentaires	Coupe du puits
		NOM Echantillon	PI (g/cm³) Longue 10,9 gV					
1			0		(GW) Avant-trou à la tarière manuelle jusqu'à refus. Graviers anguleux 3 à 5 cm de Ø	Tête de puits hors sol	
2			0			(SP) Sables fins (95%) + graviers anguleux et homogènes 1 à 5 cm de Ø (5%) 10YR 6/6 - jaune brunâtre		
3			0			(CL) Argiles sableuses 10YR 5/1 - gris et 10YR 5/3 - marron Terrain sec et très malléable		
4			0		3.83			
5			0					
6			0		5.5	Terrain saturé en eau à partir de 5,5 m		
7			0			(SP) Sables argileux fins et homogènes (70%) + graviers anguleux de 2 à 5 cm de Ø (30%) 10YR 5/3 - marron		
8								
9								
10						Fin du sondage	Equipement : - 1 centreur à 6 m; - 10 sacs de 25kg de sables; - 6 sacs de 25kg de bentonite; - Présence d'un bouchon de fond en bois utilisé pour la tarière creuse.	

m NGF : mètre niveau général de la France / m NS : mètre par rapport au niveau du sol / USCS : système de classification uniformisée des sols

▽ Niveau d'eau initial

▽ Niveau d'eau final

□ Capot

■ Bentonite

|| Massif filtrant

□ Crépine

PUITS

CLIENT : DuPont - Chauny, France

PROJET : DPCH0001

PUITS N° : MW25

PAGE 1/1

PROJET : Wells Installations Landfill 2019

LOCALISATION : Ancienne décharge interne, Chauny, France

ALTITUDE HAUT TETE DE PUIS : 45,59 m NGF

COORDONNEES : [1717026,62 Y ; 8267777,19 X] Lambert CC49

METHODE DE FORAGE : Geoprobe 7822DT, Tarière

SOUS-TRAITANT : Agri Environnement

SUMI PAR : F.Marmonier

VALIDE PAR : S.Julia

DEBUT : 10 juillet 2019 10h20

FIN : 10 juillet 2019 14h15

PROFONDEUR TOTALE : 10 m NS

DIAMETRE FORAGE : 6" / 150 mm

DIAMETRE TUBAGE : 2" / 56-65 mm

TYPE TUBAGE : PEHD

NIVEAU D'EAU FINAL : 4,0 m NS

MASSIF FILTRANT : Silice roulée

TAILLE DES GRAINS DU MASSIF : 1 - 2 mm

OUVERTURE CREPINE : 0,5 mm

Echelle (m)	RECUPERATION (%)	ECHANTILLON		LITHOLOGIE	NIVEAU D'EAU (m)	DESCRIPTION LITHOLOGIQUE NOM, CLASSIFICATION USCS, COULEUR, TENEUR EN EAU, DENSITE RELATIVE OU COHERENCE, STRUCTURE, MINERALOGIE	REMARQUES / COMMENTAIRES	COUPE DU PUIS
		NOM ECHANTILLON	PD (g/cm³) Sample 10.0 gV					
1			0			(GW) Avant-trou à la tarière manuelle jusqu'à refus	Tête de puits hors sol	
2			0			(SP) Sables limoneux 10YR 5/6 - jaune brunâtre		
3			0			(CL) Argiles limoneux légèrement humides/boues noires très maitesbles 10YR 2/1 - noir Avec des passages plus clairs : 10YR 5/1 - gris et 10YR 4/3 - marron	Légère odeur, humide	
4			0		4			
5			0			Sables fins (90%) + graviers subanguleux inf. à 5 cm de Ø (10%) 10YR 6/1 - gris		
6			0		6	Présence de matières végétales (branches+feuilles) en décomposition.		
7			0					
8			0			(SP) Sables fins (75%) + graviers anguleux (15%) 10YR 3/1 - gris très foncé		
9								
10						Fin du sondage	Equipement : - 1 centreur à 6 m; - 10 sacs de 25kg de sables; - 4,5 sacs de 25kg de bentonite; - Présence d'un bouchon de fond en bois utilisé pour la tarière creuse.	

m NGF : mètre niveau général de la France / m NS : mètre par rapport au niveau du sol / USCS : système de classification uniformisée des sols

▽ Niveau d'eau initial

▽ Niveau d'eau final

Capot Bentonite Massif filtrant Crépine

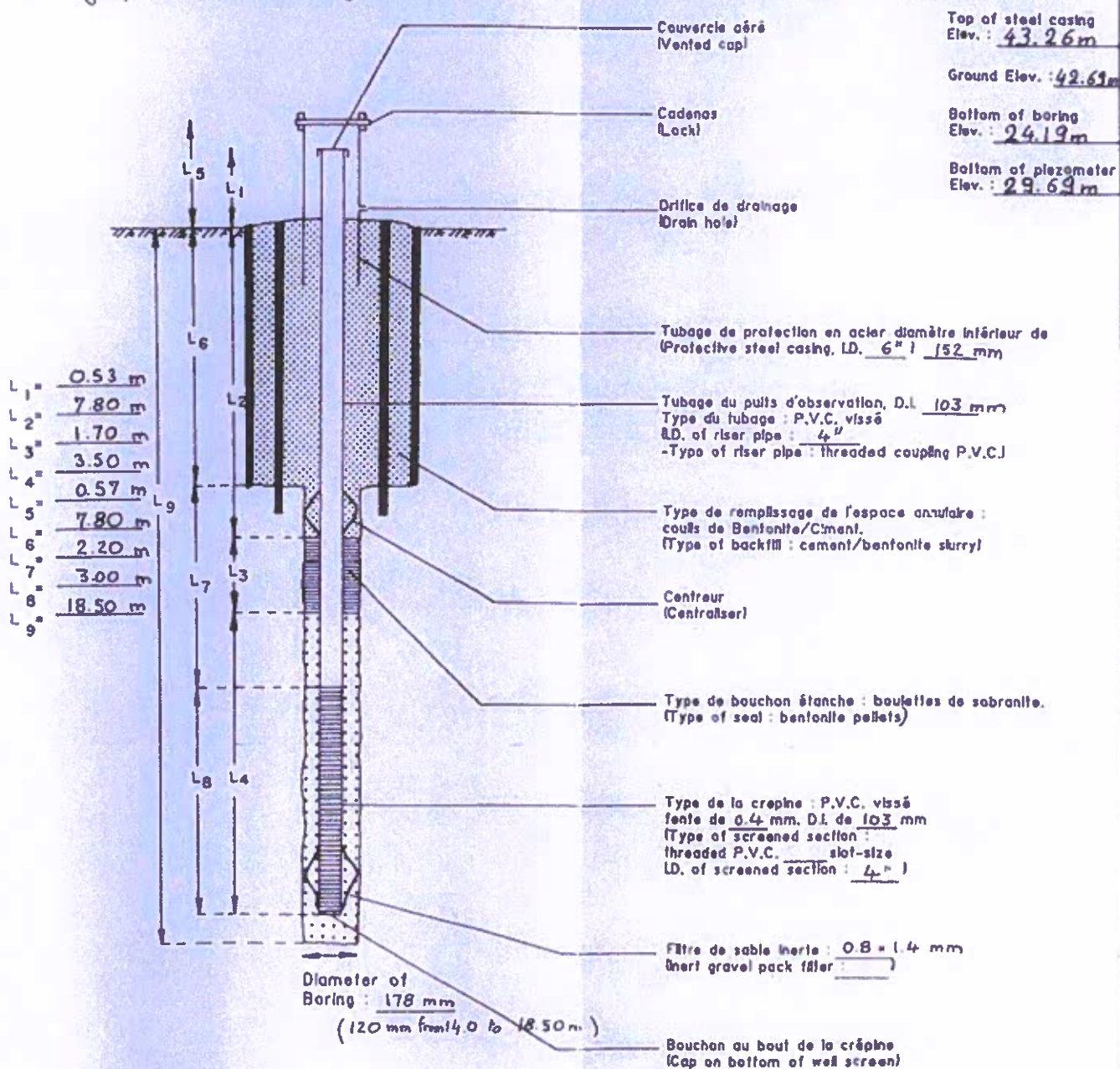
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Depth m	Drilling Method	LOG OF BORING	DW1	Symbol
		0.30 Silty CLAY, dark grey, organic, soft, some decomposed roots.		
1		CLAY, plastic, slightly sticky, mottled grey and orange, firm, with oxidation stains, some decomposed roots and lacustrine gastropod shell fragments.		
2		CLAY, plastic, sticky, green-grey, firm to stiff, with some oxidised roots to 1.50 m, some terrestrial shell fragments.		
3		PEAT with organic clay, plastic, dark brown to reddish brown, firm to soft, fibrous, with decomposed roots - No clay, compressible 0.20 at bottom.		
4		CLAY, very plastic, sticky, brown, soft, with silt, trace of roots and siliceous clayey SAND, green-grey, medium dense, with gravel, siliceous and some shells (oyster fragments).		
5		GRAVEL with some sand and clay, poorly graded, angular, grey, medium dense, CaCO ₃ marine shell fragments.		
6		GRAVEL and PEBBLES, almost clean, 10cm max size, mostly siliceous.		
7		GRAVEL with some sand and clay, poorly graded, angular, grey, medium dense, CaCO ₃ marine shell fragments.		
8		SAND, fine, poorly graded, grey, dense, with some siliceous and shell fragments - siliceous gravel from 7.00 to 7.50 m.		
9		Sandy CLAY, dark grey, stiff, with some lignite (wood).		
10		CLAY, light grey, dry, stiff, brittle.		
11		Sandy CLAY, dark grey, stiff.		
12		clayey SAND, fine, poorly graded, dark grey, medium dense, gradually changing to		
13		SAND with some clay, very fine, poorly graded (almost uniform), dark grey, very dense.		
14		fine SAND with trace of clay, poorly graded, dark green-grey, very dense.		
15				
16				
17				
18		18.00		
19		18.50 white CHALK		
20				
21				
22				
23				
24				
25				
26				

PIEZOMETER INSTALLATION REPORT









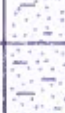
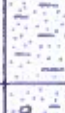

Project DUOLITE Phase II Piezometer No. DW1
 Location CHAUNY - FRANCE
 Project No. S6 C 2.43 Installed By MEURISSE S.A. Date 12 Sept 86 / 31 Oct 86

Method of Installation Reconnaissance borehole cored down to 11.00 m
Ø 311 mm borehole drilled with rotary rock bit, city potable water, down to 7.80 m
Ø 315 mm protective steel casing driven down to 7.80 m.
After setting bentonite cement slurry, Ø 220 mm steel casing driven down to 8.20 m
Redrilling Ø 178 mm with auger or cable percussion without fluid down to 18.50 m



Inspected By Michel Genoud

Woodward-Clyde Consultants

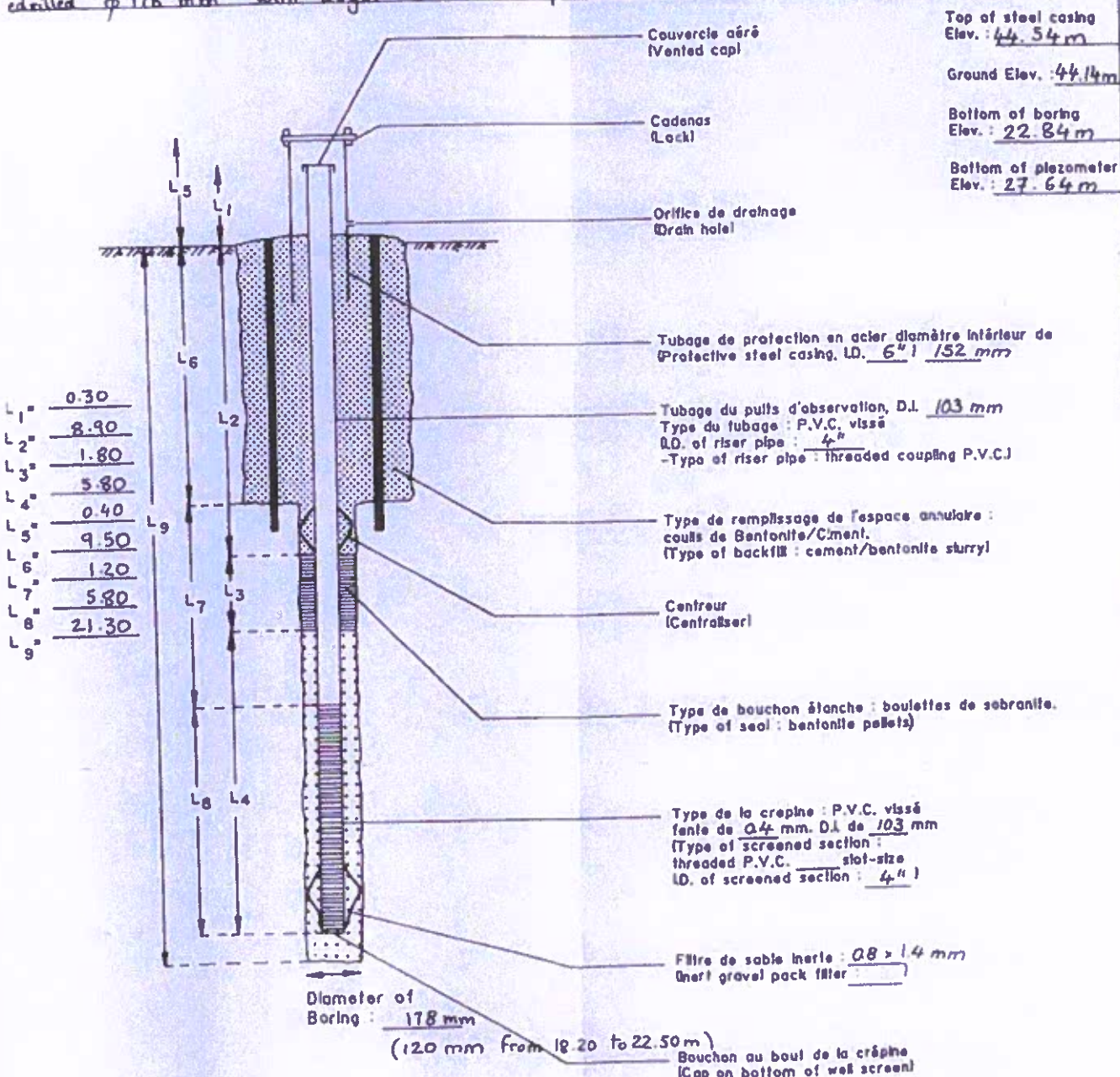
Depth in m	Drilling Method	LOG OF BORING DW5	Symbol
1	coring	FILL, very heterogeneous, with cobbles and gravels, landfill material, car parts, bottles, rubble...	
2		2.20	
3		silty CLAY, medium plastic, mottled green-grey and yellowish-brown (oxidation stains), organic, firm	
4		3.50 clayey SAND, poorly graded, dark grey loose 4.50 gradually changing to:	
5	cable percussion		
6		sandy GRAVEL, well graded, siliceous, dark grey, loose	
7			
8		8.40	
9	coring auger	9.00 fine SAND with clay, poorly graded, dark grey, medium dense	
10		fine SAND with clay, poorly graded, dark grey, dense to very dense, dry, gradually changing to sandy CLAY, plastic, dark grey, stiff	
11	cable percussion	11.00	
12		fine SAND with some clay, poorly graded, green-grey, loose to medium dense	
13		occasionally fine SAND, very dense	
14			
15	cable percussion	14.80	
16		fine SAND with clay, poorly graded, dark grey, dense	
17		17.00	
18		18.20 gravelly SAND with some clay, fine, poorly graded, dark grey, medium dense,	
19	auger	sandy CLAY, low plasticity, green grey, stiff with trace of lignite fragments, gradually changing to	
20		20.70 sandy CLAY, organic, plastic, black to dark grey, stiff	
21		weathered CHALK, plastic, light grey to whitish, stiff	
22			
23		END OF BORING 22.50 m	
24			
25			
26			

8.40
9.00
Sample
DW5-51

PIEZOMETER INSTALLATION REPORT

Piezometer No. DW5
 Project DUOLITE - Phase II Location CHAUNY - FRANCE
 Project No. S6C243 Installed By NEURISSE SA Date 20 Oct 86 / 28 Oct 86

Method of Installation Reconnaissance boring cored down to 9.30 m.
311 mm borehole drilled with rotary rock bit, city potable water down to 9.50 m.
315 mm protective steel casing driven down to 9.00 m.
After setting bentonite slurry, ϕ 220 mm steel casing driven down to 9.70 m.
drilled ϕ 178 mm with auger or cable percussion without fluid down to 22.50 m.



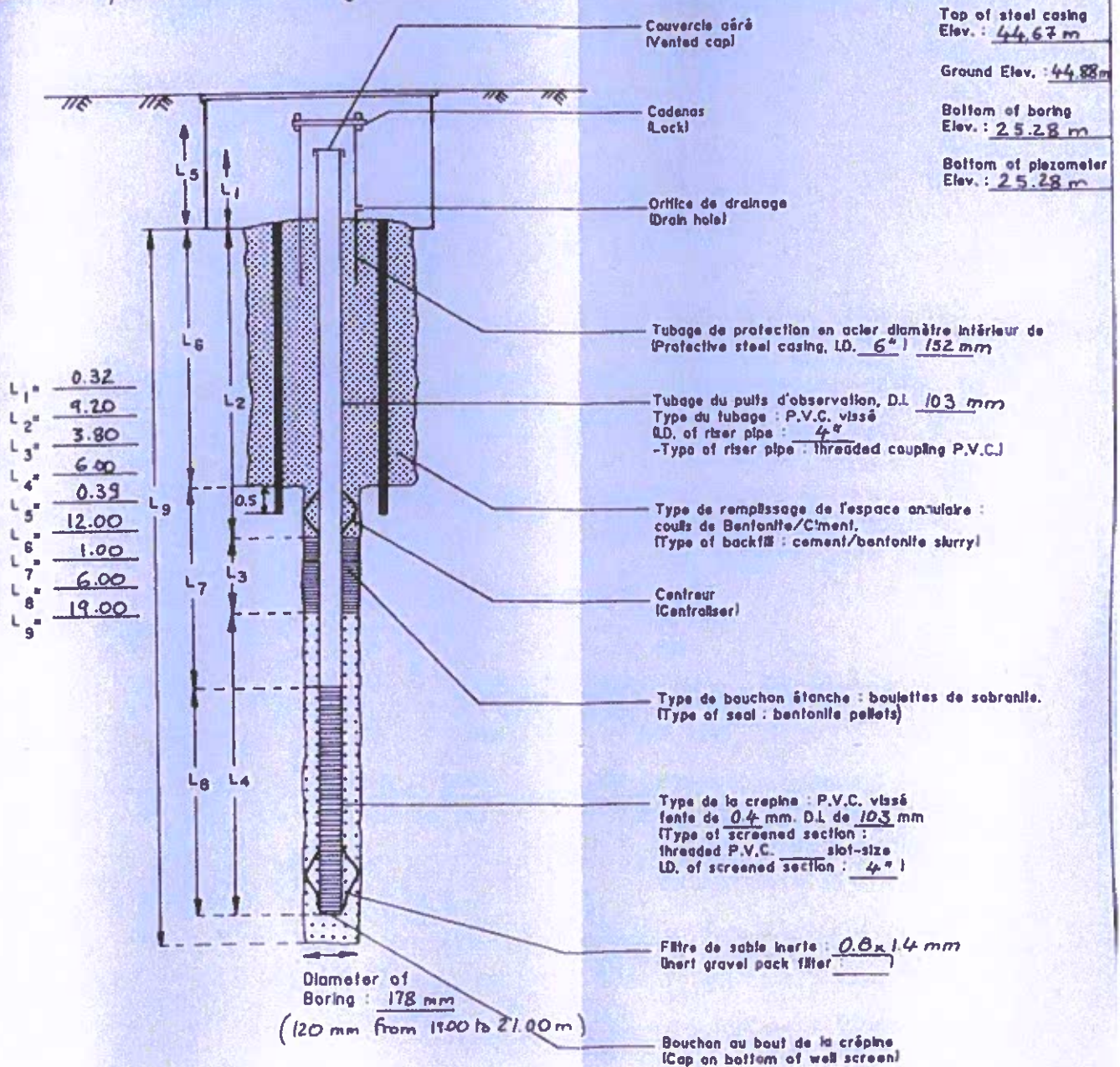
Inspected By Michel Genoud

Woodward-Clyde Consultants

Depth in m	Drilling Method	LOG OF BORING	DW 6	Symbol
1	coring	100 FILL, rubble, tiles, mixed with silt		
		160 FILL, heterogeneous, granular, black, loose, with bricks, tiles, mud, ashes...		
2		210 clayey FILL, heterogeneous, grey, soft, with brick, glass, white mud...		
3		silty CLAY, dark grey, Firm gradually changing to		
		370 CLAY, slightly plastic and sticky, mottled brown-grey, with silt and root, fine sand lenses		
4		silty CLAY, dark grey, Firm with some roots and traces of shell fragments, gradually changing to CLAY, plastic, green grey, sticky, soft with some silt		
5		480 and root material		
	cable percussion	540 PEAT, dark brown, friable, compressible with silt and trace of shell fragments		
6		peat SILT, very dark grey, friable, Firm gradually changing to		
7		750 silty CLAY, plastic, sticky, dark grey, Firm with root and some shell fragments, becoming sandy CLAY from 7.40 to 7.50 m.		
8				
9		sandy GRAVEL, coarse, well graded, siliceous, dark grey, loose, with shell fragments		
10	coring	11.50		
12		fine SAND, dark grey, dense with silt and some shell fragments, 12.50 small lignite fragments, 3mm size.		
13		12.70 silty CLAY, organic, very dark grey, stiff with lignite		
14	auger	fine SAND with some clay, green-grey, dense, dry.		
15		15.00		
16	cable percussion			
17		fine SAND with trace of clay, very dark grey, very dense slightly moist, slightly cemented		
18				
19		19.50		
20	auger	CLAY, plastic, green-grey, stiff		
		20.60		
21		white CHALK, plastic		
22		END OF BORING 21.00 m.		
23				
24				
25				
26				

PIEZOMETER INSTALLATION REPORT

Project DUOLITE - phase II Piezometer No. DW6
 Location CHARNY FRANCE
 Project No. S6C243 Installed By MEURISSE S.A. Date 19 Sept 86 / 14 Nov 86
 Method of Installation Reconnaissance borehole cored down to 13.00 m.
φ 311 mm borehole drilled with auger or cable percussion without fluid down to 12.00 m
φ 315 mm protective casing driven down to 12.00 m.
After setting bentonite cement slurry, φ 220 mm steel casing driven down to 12.50 m
Redrilled φ 178 mm with auger or cable percussion without fluid down to 21.00 m



Inspected By Michel Genard / Pierre Epert

Woodward-Clyde Consultants

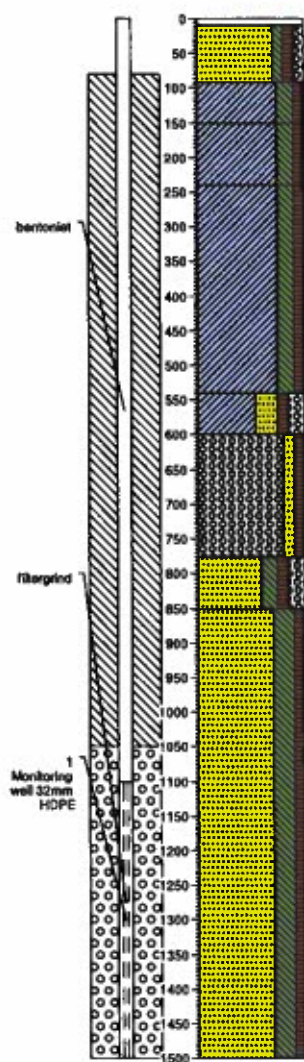
Projectnaam: Chauny

Boring: DW10

Datum: 25-10-2018

GWS: 250

Referentievlak: maaiveld

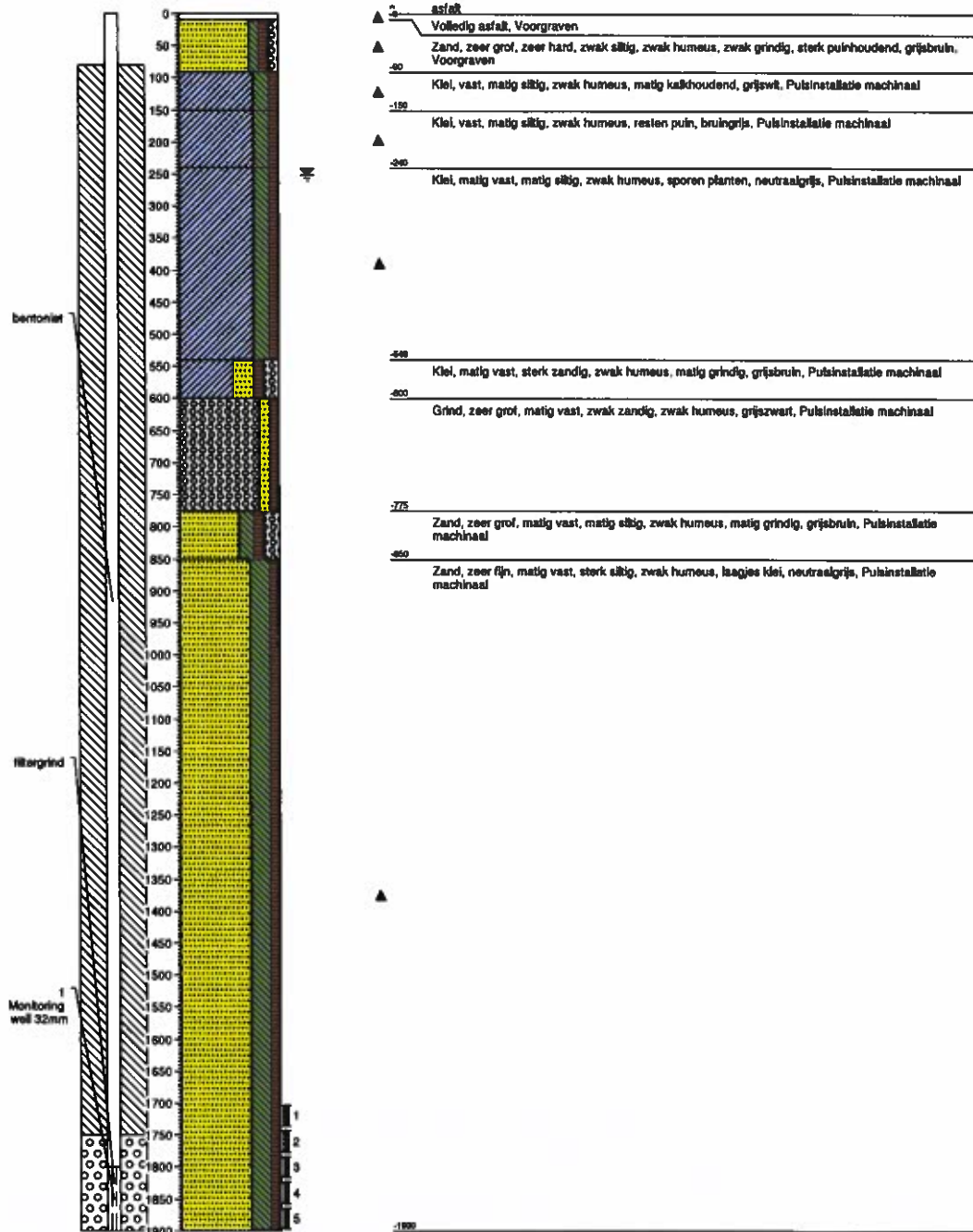


▲	-2	asfalt
▲	-5	Volledig asfalt, Voorgraven
▲	-30	Zand, zeer grof, zeer hard, zwak siltig, zwak humeus, zwak grindig, sterk puinhoudend, grijsbruin, Voorgraven
▲	-100	Klei, vast, matig siltig, zwak humeus, matig kalkhoudend, grijswit, Pulsinstallatie machinaal
▲	-150	Klei, vast, matig siltig, zwak humeus, resten puin, bruingrijs, Pulsinstallatie machinaal
▲	-200	Klei, matig vast, matig siltig, zwak humeus, sporen planten, neutraalgrijs, Pulsinstallatie machinaal
▲	-400	
▲	-450	Klei, matig vast, sterk zandig, zwak humeus, matig grindig, grijsbruin, Pulsinstallatie machinaal
▲	-500	Grind, zeer grof, matig vast, zwak zandig, zwak humeus, grijszwart, Pulsinstallatie machinaal
▲	-775	Zand, zeer grof, matig vast, matig siltig, zwak humeus, matig grindig, grijsbruin, Pulsinstallatie machinaal
▲	-850	Zand, zeer fijn, matig vast, sterk siltig, zwak humeus, laagjes klei, neutraalgrijs, Pulsinstallatie machinaal
▲	-1500	

Projectnaam: Chauny

Boring: DW11

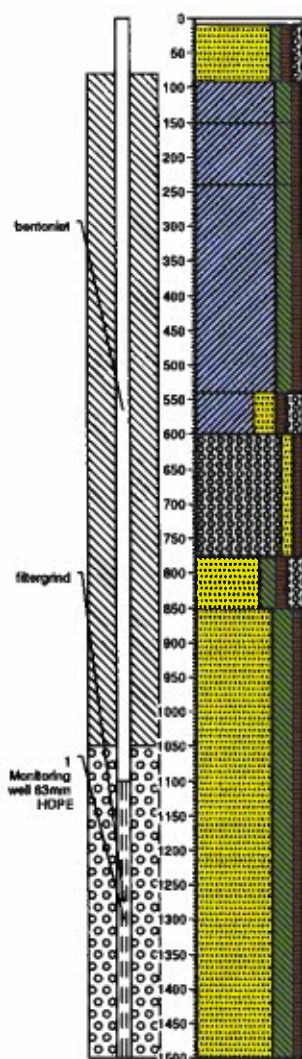
Datum: 24-10-2018
GWS: 250
Referentievlak: maaiveld



Projectnaam: Chauny

Boring: DW15.001bls

Datum: 23-10-2018
GWS: 250
Referentievlak: maaiveld

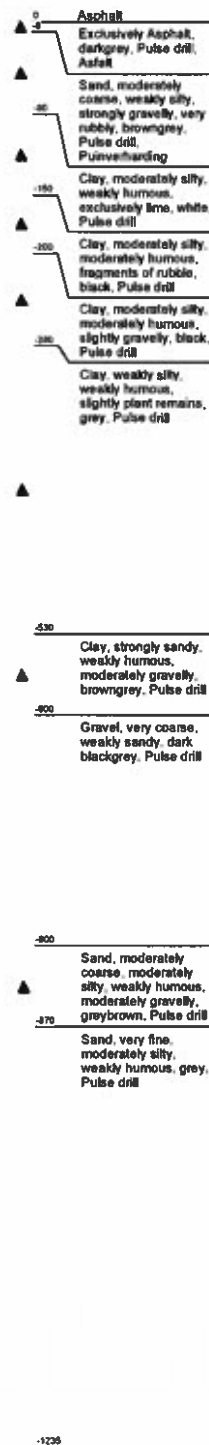
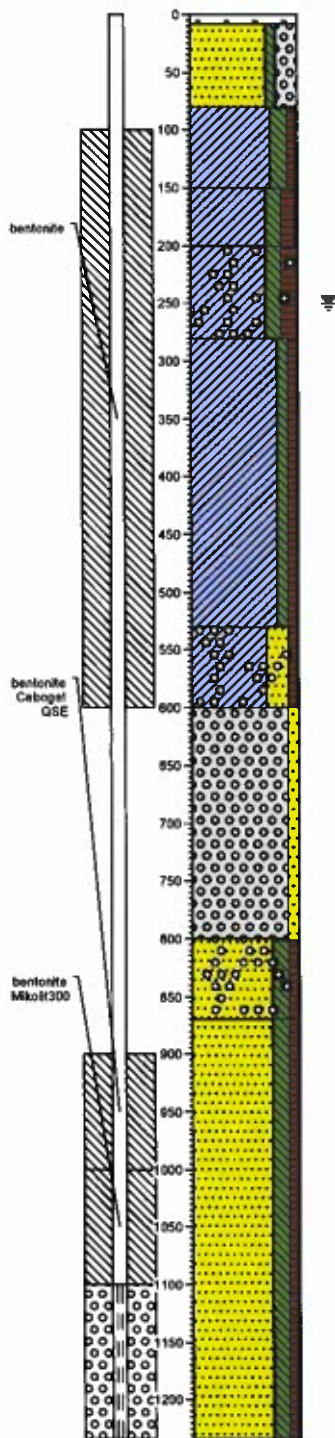


▲	0	asfalt
		Volledig asfalt, Voorgraven
▲	50	Zand, zeer grof, zeer hard, zwak siltig, zwak humeus, zwak grindig, sterk pulinhoudend, grijsbruin, Voorgraven
▲	100	Klei, vast, matig siltig, zwak humeus, matig kalkhoudend, grijswit, Pulsinstallatie machinaal
▲	150	Klei, vast, matig siltig, zwak humeus, resten pul, bruin-grijs, Pulsinstallatie machinaal
▲	200	Klei, matig vast, matig siltig, zwak humeus, sporen planten, neutraal-grijs, Pulsinstallatie machinaal
▲	250	
▲	300	
▲	350	
▲	400	
▲	450	
▲	500	
▲	550	
▲	600	Klei, matig vast, sterk zandig, zwak humeus, matig grindig, grijsbruin, Pulsinstallatie machinaal
▲	650	Grind, zeer grof, matig vast, zwak zandig, zwak humeus, grijszwart, Pulsinstallatie machinaal
▲	700	
▲	750	
▲	800	Zand, zeer grof, matig vast, matig siltig, zwak humeus, matig grindig, grijsbruin, Pulsinstallatie machinaal
▲	850	
▲	900	Zand, zeer fijn, matig vast, sterk siltig, zwak humeus, laagjes klei, neutraal-grijs, Pulsinstallatie machinaal
▲	950	
▲	1000	
▲	1050	
▲	1100	
▲	1150	
▲	1200	
▲	1250	
▲	1300	
▲	1350	
▲	1400	
▲	1450	
▲	1500	

Project Code: CHAUNY_FRANKRIJK

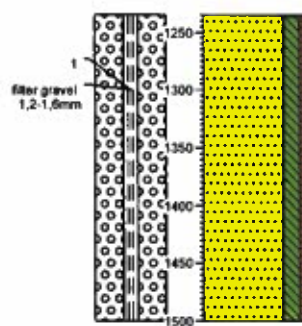
Drilling: DW-15-002 - 1

Date: 11-05-2017
 GWL: 250
 Ground level elevation maaiveld



Drilling: DW-15-002 - 2

Date: 11-05-2017
 GWL: 250
 Ground level elevation maaiveld



**CH2MHILL****SOIL BORING LOG**PROJECT NUMBER: **429724**BORING NUMBER: **S4 / CW08**SHEET **1** OF **3**

PROJECT : Sonic Investigation - Zone A

LOCATION : Chauny, France

ELEVATION :

DRILLING CONTRACTOR : Boart Longyear

DRILLING METHOD AND EQUIPMENT : Sonic

WATER LEVELS : ---

START : 17/04/2012

END : 19/04/2012

LOGGER : F. Mazza

DEPTH BELOW EXISTING GRADE (m)	INTERVAL (m)		SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLIC LOG	PID-10.6 (ppm)	PID-11.7 (ppm)	COMMENTS	WELL DIAGRAM
		RECOVERY (%)						
1	1.00	100%	0.0-7.0m: FILL (FILL) > 0.0-0.05m: asphalt. Dry. > 0.05-0.5m: light brown - well-graded sand and gravel. Sand is medium. Gravel is coarse, assorted, subangular. Dry.		0	0	Sample 20120417 S4 4.25-4.75 analysed for Biodegradation. Sample 20120417 S4 4.75-5.00 analysed for VOC/TOC.	
2	2.30	100%	> 0.5-1.0m: dark brown - well-graded sandy gravel with silt. Moist. > 1.0-1.1m: concrete. Dry.		03	01		
3	3.00	100%	> 1.1-2.1m: black - well-graded coarse sand and gravel. Wet. > 2.1-3.2m: very dark grey - silt with sand. Firm. Moist.		06	22		
4	4.00	100%	> 3.2-5.5m: grey - poorly-graded fine sand with silt (some). Moist.		31	43		
5	5.00	100 (UPVC core)%			32	72		
6	6.00	100%	> 5.5-5.6m: black - organic soil. Moist. > 5.6-6.0m: grey - silt with sand. Sand is fine. Moist.		09	05		
7	7.00	100%	> 6.0-7.0m: black - poorly-graded sand with silt. Moist.		03	11		
8	8.00	100%	7.0-7.6m: GRAVEL (GW) grey - well-graded medium/coarse gravel. Gravel is subangular, assorted. Many white shell fragments and black mottling. Wet (saturated).		12	05		
9	9.00	100%	7.6-12m: CLAYEY/SILTY SAND (SM/SC) greenish grey - Clayey/silty fine sand. Moderate cementation / Hard. Moist to wet. > 8.0-9.9m: No cementation / Soft. Wet.		42	73		
10	10.00	100%			0	04		

**CH2MHILL****SOIL BORING LOG**PROJECT NUMBER: **429724**BORING NUMBER: **S4 / CW08**SHEET **2** OF **3**

PROJECT : Sonic Investigation - Zone A

LOCATION : Chauny, France

ELEVATION :

DRILLING CONTRACTOR : Boart Longyear

DRILLING METHOD AND EQUIPMENT : Sonic

WATER LEVELS : ---

START : 17/04/2012

END : 19/04/2012

LOGGER : F. Mazza

DEPTH BELOW EXISTING GRADE (m)	INTERVAL (m)		SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLIC LOG	PID-10.6 (ppm)	PID-11.7 (ppm)	COMMENTS	WELL DIAGRAM
		RECOVERY (%)						
11	11.00	100%	> 9.9-10.2m: layer of redish brown fine sand. No cementation / Soft. Wet.			0.4		
						2.1		
						1.4		
						2.1		
12	12.00	100%	> 11.0-12.0m: transition to poorly-graded fine sand. No cementation. Wet (saturated).					
13	13.00	100%	12.0-17.2m: SANDY CLAY (CL) dark greenish grey - sandy clay. Sand is fine. Hard. Moist to wet.			4.3		
						2.1		
						1.2		
						3.1		
						1.2		
14	14.00	100%						
15	15.00	100%						
	15.50	100%						
16		100 (UPVC core)%	> 15.5-16.7m: Some layers of greenish grey clayey poorly graded fine sand. Some Fines: 39% (Clay: 25% / Silt: 14%), Mostly Sand: 58% (F/M/C: 55%/1%/2%). Trace Gravel/Cobble: 3%. Soft. Moist			0.2	Sample 20120418 S4 15.50-15.75 analysed for granulometry (G/S/F: 3%/58%/39%), VOC/TOC and density.	
						1.2		
17	17.00							
18	18.00	100%	17.2-21.4m: SAND (SP) greenish grey - poorly-graded fine sand. Few Fines: 7% (Clay: 3% / Silt: 4%), Mostly Sand: 93% (F/M/C: 90%/2%/1%), Gravel/Cobble: 0%. No cementation. Wet.					
19	19.00	100%				1.7		
20	20.00	100%				3		
						2.8		

**CH2MHILL****SOIL BORING LOG**PROJECT NUMBER: **429724**BORING NUMBER: **S4 / CW08**SHEET **3** OF **3**

PROJECT : Sonic Investigation - Zone A

LOCATION : Chauny, France

ELEVATION :

DRILLING CONTRACTOR : Boart Longyear

DRILLING METHOD AND EQUIPMENT : Sonic

WATER LEVELS : ---

START : 17/04/2012

END : 19/04/2012

LOGGER : F. Mazza

DEPTH BELOW EXISTING GRADE (m)	INTERVAL (m)		SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLIC LOG	PID-10.6 (ppm)	PID-11.7 (ppm)	COMMENTS	WELL DIAGRAM
		RECOVERY (%)						
21		100 (UPVC core)%					Sample 20120419 S4 20.75-21.00 analysed for granulometry (G/S/F: 0%/93%/7%), VOC/TOC and density.	
21.50			21.4-22.4m: CLAYEY/SILTY SAND (SM/SC) dark greenish grey - clayey/silty fine sand. Little Fines: 23% (Clay: 12% / Silt: 11%). Mostly Sand: 75% (F/M/C: 68%/4%/3%). Trace Gravel/Cobble: 2%. Moderate cementation / Hard.				Sample 20120419 S4 21.60 - 21.85 analysed for granulometry (G/S/F: 2%/75%/23%), VOC/TOC and density.	
22		100 (UPVC core)%					Sample 20120419 S4 22.15-22.40 analysed for granulometry (G/S/F: 12%/62%/26%), VOC/TOC and density.	
22.60			> 22.15-22.4m: transition to silty sand. Little to Some Fines: 26% (Clay: 8% / Silt: 18%). Mostly Sand: 62% (F/M/C: 24%/19%/19%). Few to Little Gravel/Cobble: 12%.					
23		100%	22.4-27.2m: BEDROCK (CHALK) White - Chalk					
24		100%	> 22.4-23.2m: weathered Bedrock.					
24.00			> 23.2-26.0m: hard Bedrock. Moist.					
25		100 (UPVC core)%					Sample 20120419 S4 24.75-25.00 analysed for granulometry (G/S/F: 11%/23%/66%) and VOC/TOC.	
25.50								
26		100%						
26.00			> 26.0-27.2m: hard Bedrock. Wet.					
27		100%						
27.00			Bottom of Boring at 27.20 m below ground surface					