

Annex D

Historical Borehole Records



SS 89 SW 33

Norwest Holst Soil Engineering Ltd.

Borehole No.
1

BOREHOLE LOG

Contract No. F5331
Location Maesteg Park
Client Ogwr Borough Council
Method of Boring Percussion
Diameter of Borehole 150mm

8469 9162
Sheet 1 of 1
Chainage
Ground Level m.A.O.D.
Date 4/8/82

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/ R.Q.D. %	Daily Progress
TOPSOIL		0.20					
Firm brown and grey mottled silty stony CLAY.		1.40			0.50		
Firm brown silty very stony CLAY with cobbles and boulders.		6.00			1.50 2.50 3.50 4.50	96 for 300mm 72 for 150mm 40 for 75mm	

Type of Sample

- S.P.T. Undisturbed
 C.P.T. Vane
 Jar Water
 Bulk Piezometer

Remarks (Observations of Ground Water etc.)

Borehole dry.

Water levels are subject to seasonal or tidal variations and should not be taken as constant



SS89SW

34

Norwest Holst Soil Engineering Ltd.

Borehole No.

2

BOREHOLE LOG

Contract No. F5331
Location Maesteg Park
Client Ogwr Borough Council
Method of Boring Percussion
Diameter of Borehole 150mm

8467 9166
Sheet 1 of 1
Chainage
Ground Level m.A.O.D.
Date 4/8/82

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.Q.D. %	Daily Progress
TOPSOIL		0.10					
Soft brown and grey silty stony CLAY.					0.50		
					1.50		
		2.40			2.50	100 for 300mm	
Firm brown silty very stony CLAY with cobbles and boulders.					3.50	92 for 375mm	
					4.50	75 for 225mm	
		6.00					

Type of Sample

- S.P.T. Undisturbed
C.P.T. Vane
Jar Water
Bulk Piezometer

Remarks (Observations of Ground Water etc.)

Borehole dry.



Norwest Holst Soil Engineering Ltd.		Borehole No.	
BOREHOLE LOG		3	
Contract No. F5331		8465 9165	
Location Maesteg Park		Sheet 1 of 1	
Client Ogwr Borough Council		Chainage	
Method of Boring Percussion		Ground Level m.A.O.D.	
Diameter of Borehole 150mm		Date 5/8/82	

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.Q.D.%	Daily Progress
TOPSOIL		0.10					
Soft yellow/brown silty sandy CLAY.	X				0.50		
	X X						
	X X	1.50			1.50		
Stiff grey/brown silty sandy CLAY with cobbles and boulders.	X				2.50	67 for 225mm	
	X				3.50	48	
	X				4.50	50 for 75mm	
	X				6.00	99 for 300mm	
	X	7.00					

Type of Sample	Remarks (Observations of Ground Water etc.)
S.P.T. Undisturbed	Water seepage at 4.40m.
C.P.T. X Vane	Sealed by casing at 5.00m.
Jar Δ Water	
Bulk Piezometer	

Water levels are subject to seasonal or tidal variations and should not be taken as constant



SS89 SW

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Norwest Holst Soil Engineering Ltd.

Borehole No.

4

Contract No. F5331
Location Maesteg Park
Client Ogwr Borough Council
Method of Boring Percussion
Diameter of Borehole 150mm

BOREHOLE LOG

8467 9162
Sheet 1 of 1
Chainage
Ground Level m.A.O.D.
Date 5/8/82

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.O.D. %	Daily Progress
TOPSOIL		0.10			0.50		
Soft brown sandy stony CLAY.		1.70			1.50		
Stiff grey/brown silty sandy CLAY with cobbles and boulders.		6.00			2.50 3.50 4.50	59 91 for 375mm 117 for 300mm	

Type of Sample

Is S.P.T. Undisturbed
Ic. C.P.T. X Vane
O Jar Δ Water
● Bulk Piezometer

Remarks (Observations of Ground Water etc.)

Water seepage at 4.20m, sealed by casing at 5.00m.

SS 89 Sw/18-25

TRIAL PIT 2

Depth (m)

0.00 - 0.10
0.10 - 0.30
0.30 - 0.60
0.60 - 1.20
1.20 - 1.50

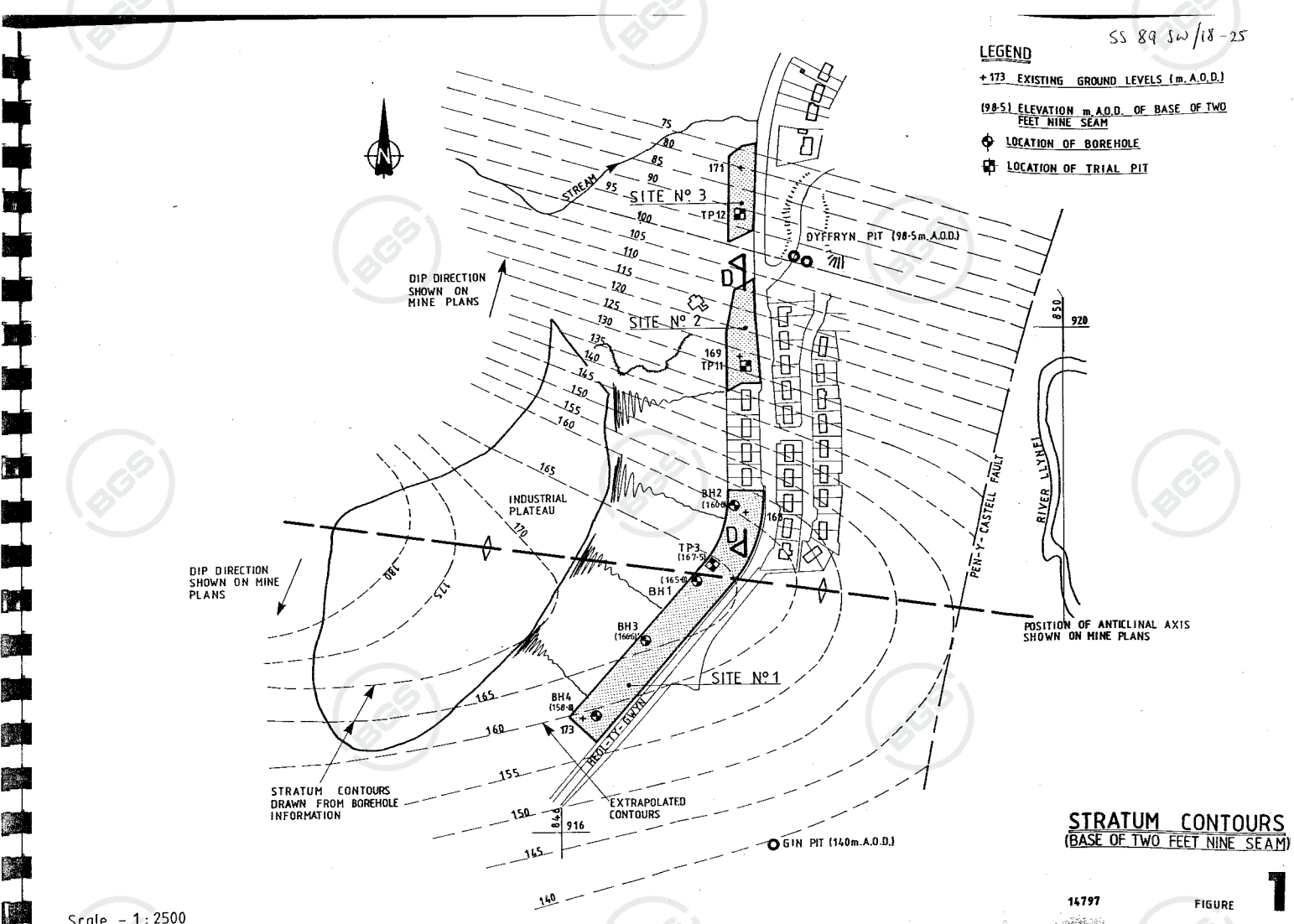
Ground Level 168.6 mAOD

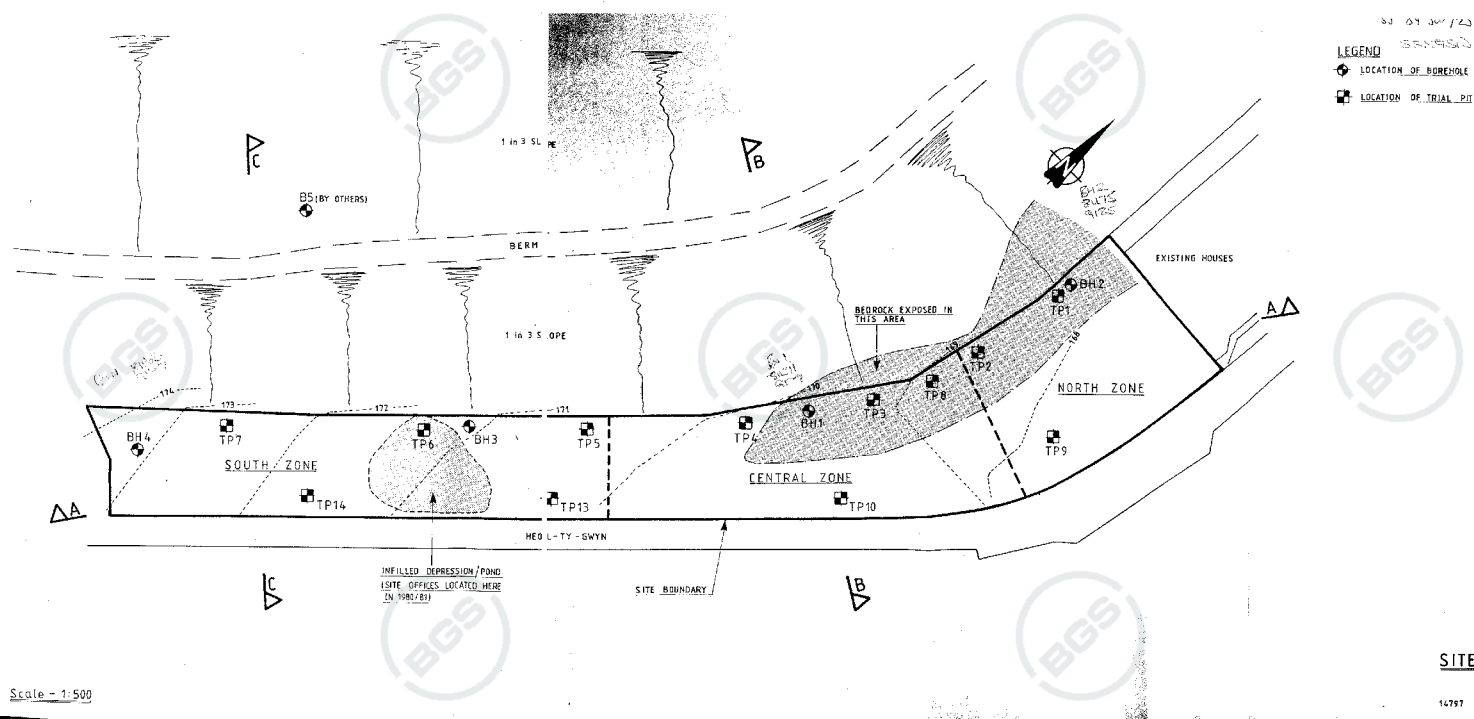
Stratum

Turf and black sandy topsoil.
Soft to firm light grey gravelly CLAY,
much mudstone gravel
Very weak grey, with much iron staining, very
thinly bedded highly weathered MUDSTONE
Weak dark grey laminated very closely jointed
moderately weathered carbonaceous SHALE.
Weak black moderately weathered shiny COAL.

Notes:

1. Bedding slightly undulating, overall dip approx. 015/8.
2. Sides of pit stable.
3. Strong inflow of water at 1.20m from south end of pit, issuing from top of coal; water level stabilised at 1.1m after 5 minutes.
4. No further excavation due to strong inflow of water.





SS 89 SW/18-25

TRIAL PIT 4

Ground Level 169.8 mAOD

Depth (m)

Stratum

0.00 - 0.15

Turf and soft to firm light grey CLAY with some gravel, rootlets.

0.15 - 0.40

Stiff light grey gravelly CLAY with some sub-rounded cobbles of sandstone (GLACIAL TILL)

0.40 - 0.70

Stiff light grey CLAY with gravel lithorelicts of mudstone and relict thin bedding.
(COMPLETELY WEATHERED MUDSTONE)

0.70 - 0.80

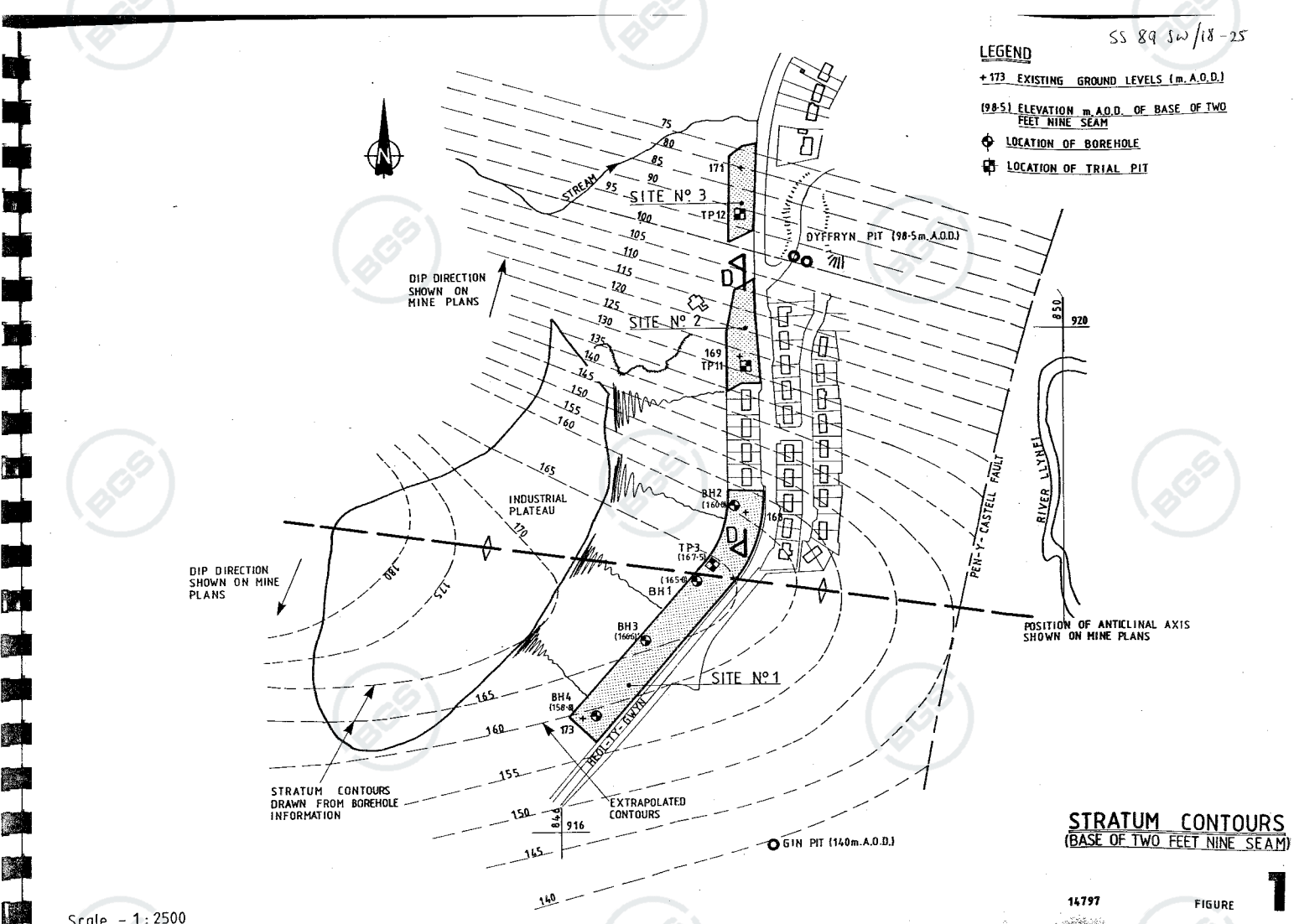
Very weak dark grey, with iron staining, laminated moderately weathered carbonaceous SHALE; dip 300/20.

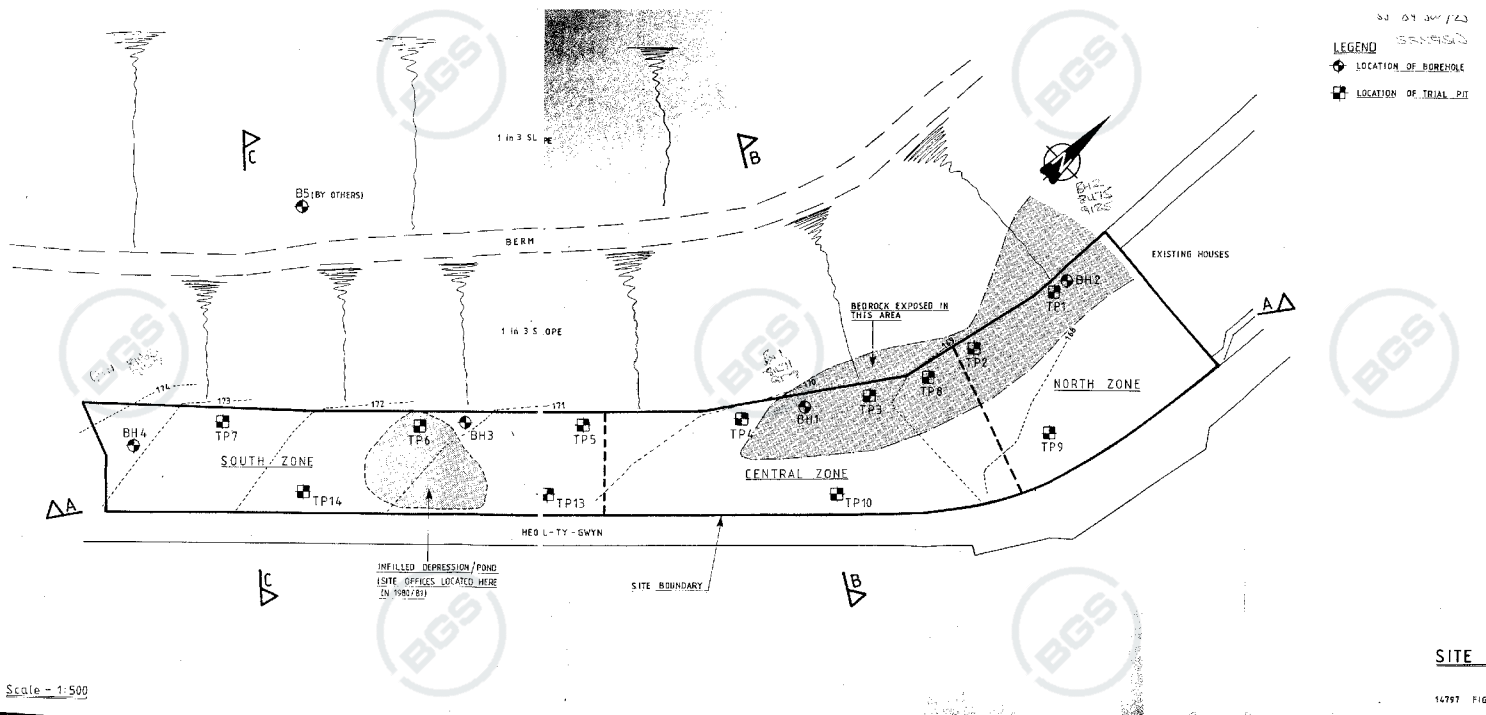
0.80 - 1.00

Weak, becoming moderately strong, black shiny COAL.

Notes:

1. Sides of pit stable.
2. No groundwater seepages encountered.
3. Further excavation prevented by hard coal in base of pit.





SS 89 SW/18-25

TRIAL PIT TP7

Ground Level 172.6 mAOD

Depth (m)

Stratum

0.00 - 0.30

Turf and soft to firm grey-brown gravelly
CLAY (FILL)

0.30 - 1.20

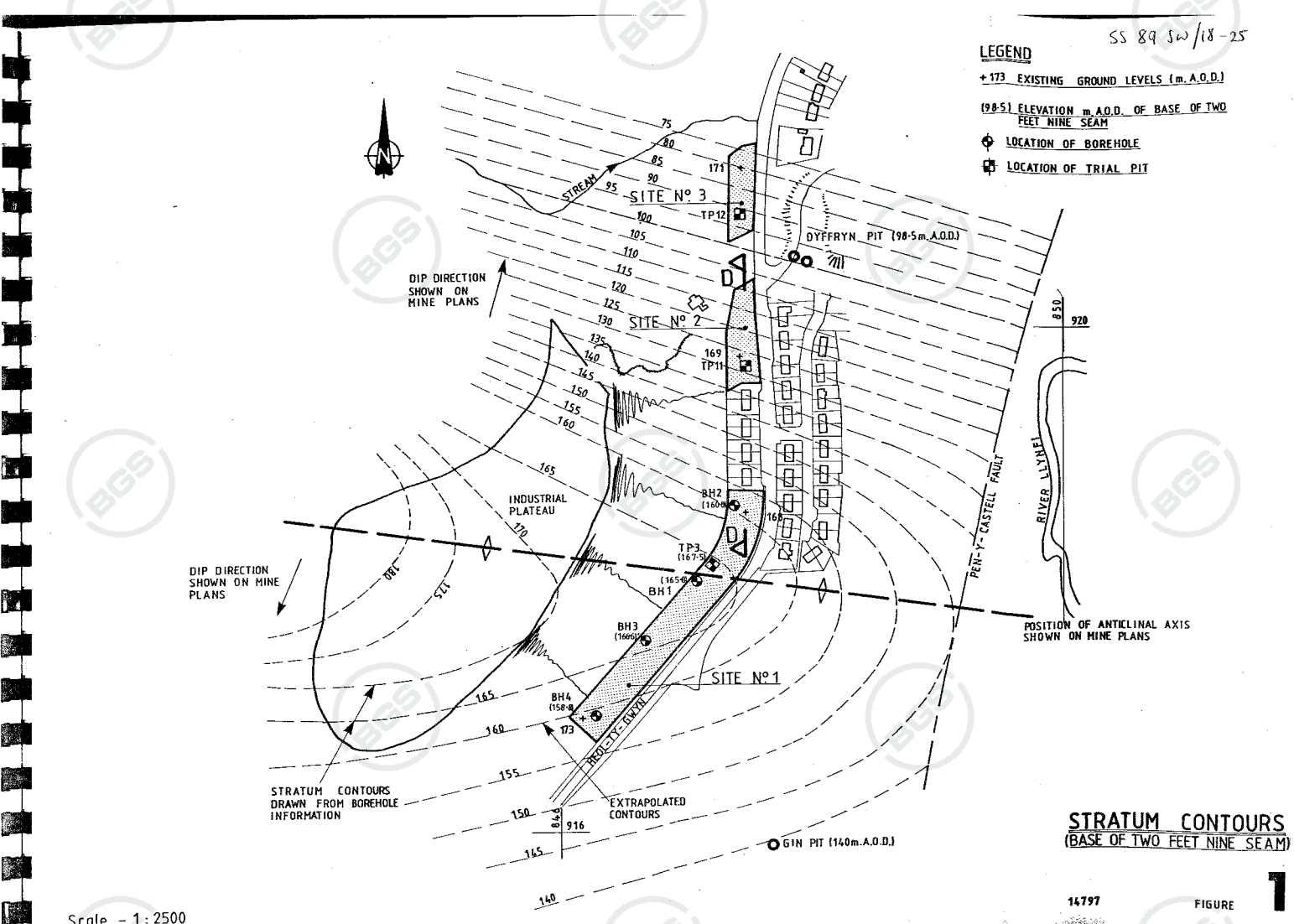
Stiff grey-brown gravelly CLAY with angular
to sub-rounded cobbles and boulders of sandstone,
some organic debris and pieces of wood; polythene
sheet and other refuse (FILL)

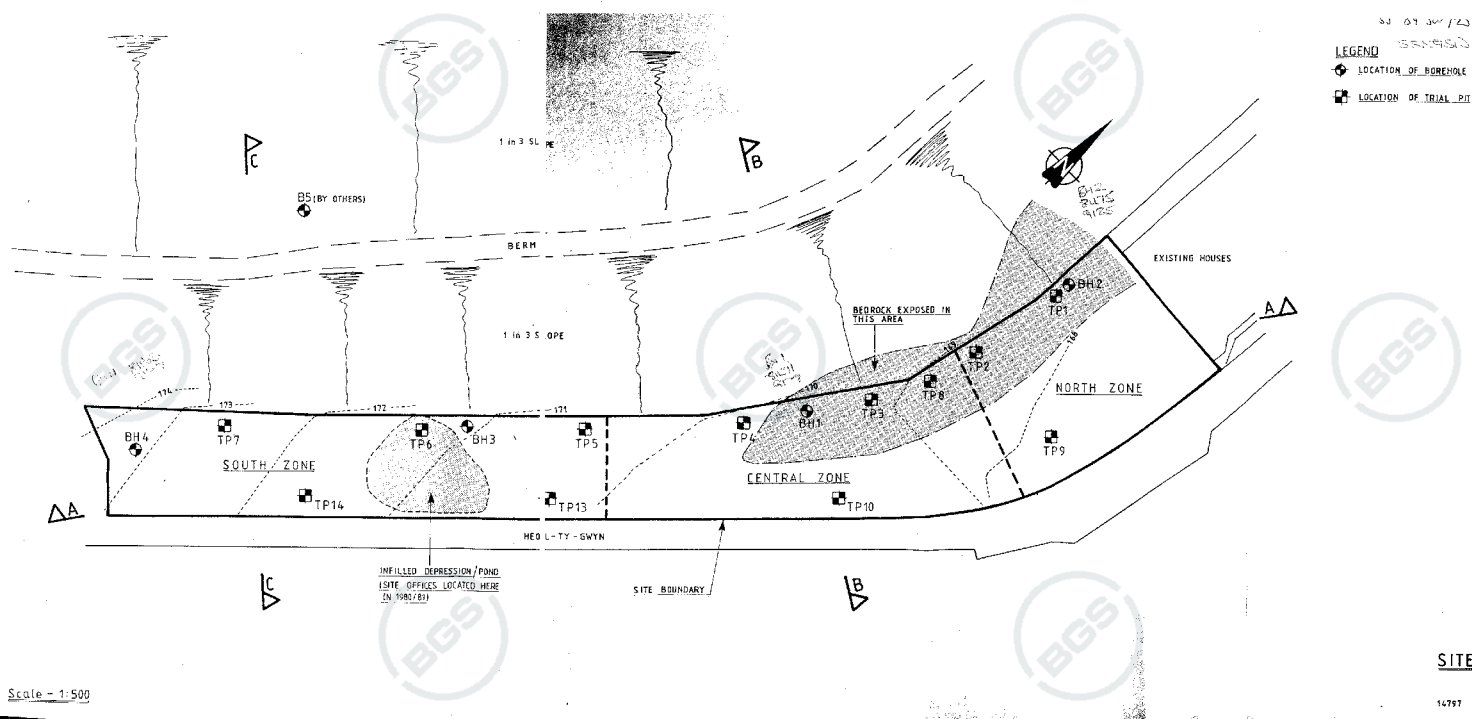
1.20 - 1.60

Very stiff grey slightly sandy gravelly CLAY
with sub-angular to sub-rounded cobbles and
boulders of sandstone, becoming very bouldery
at 1.6m. (GLACIAL TILL)

Notes:

1. Sides of pit stable.
2. Moderate groundwater seepage from eastern side at 1.2m depth.
3. Further excavation prevented by boulders.





SS 89 SW/18-25.

TRIAL PIT TP10

Ground Level 168.5 mAOD

Depth (m)

Stratum

0.00 - 0.35

Turf and stiff grey gravelly CLAY, rootlets (FILL)

0.35 - 0.90

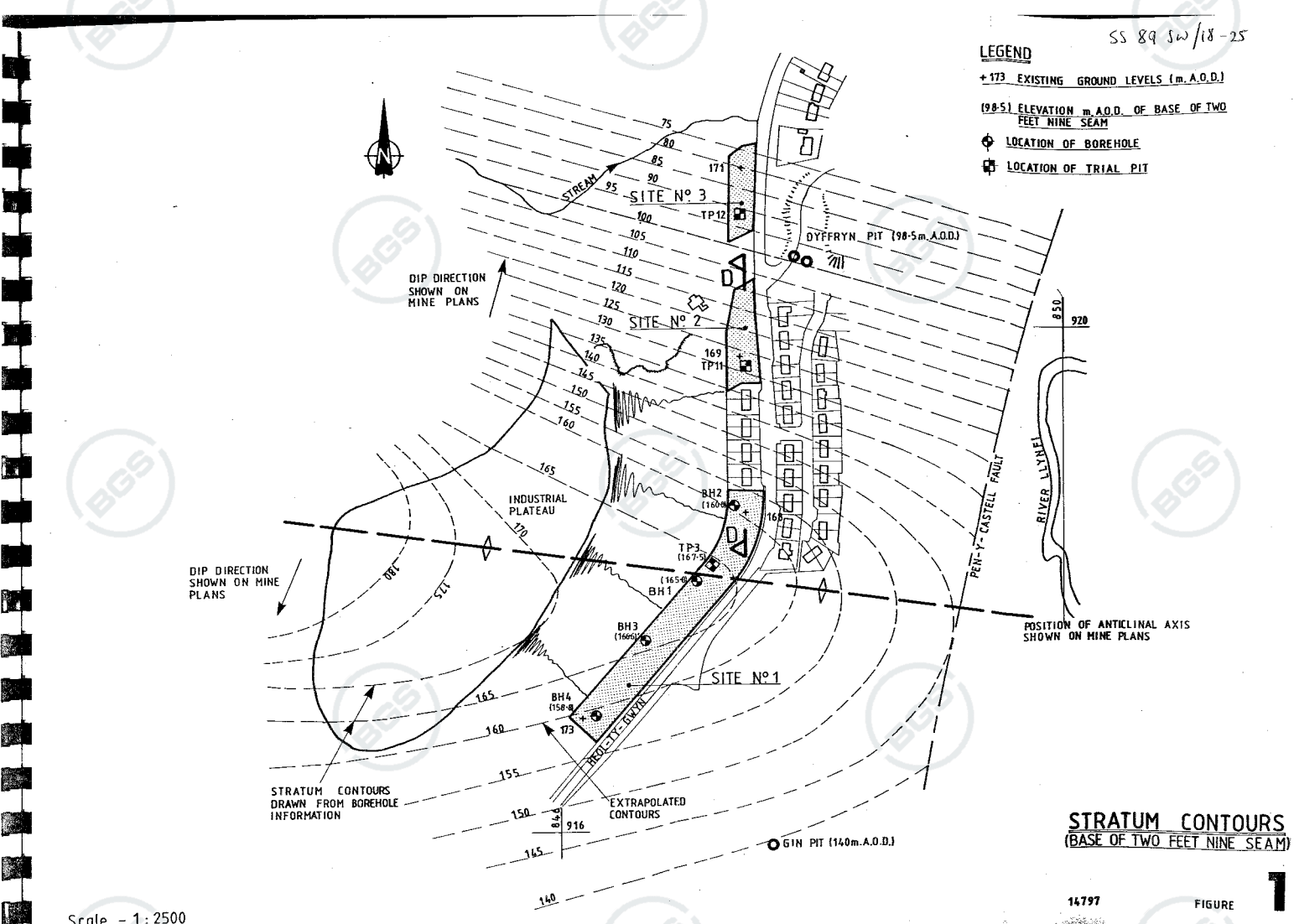
Very stiff grey and brown mottled gravelly sandy SILT with some more clayey zones and some cobbles and boulders (up to 0.6m diameter) of sandstone. (GLACIAL TILL)

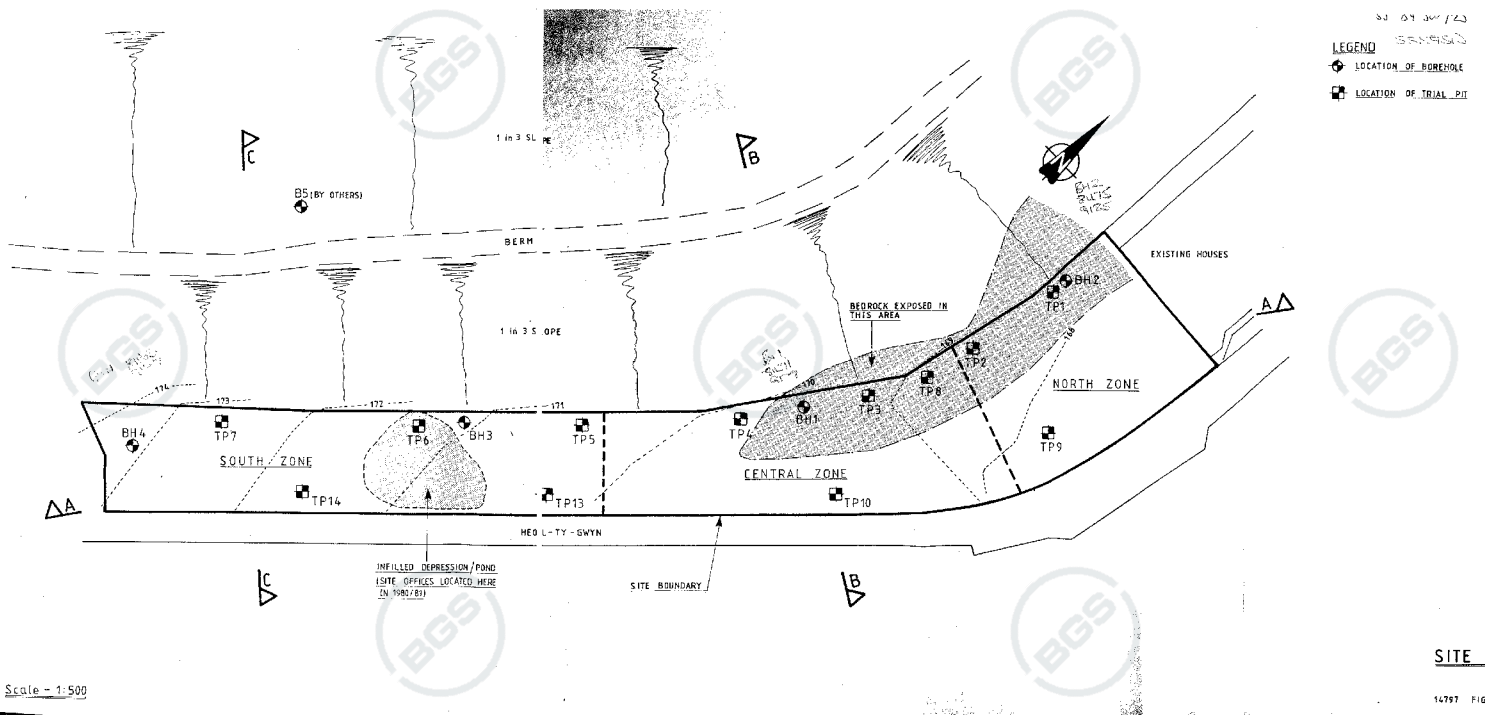
0.90 - 1.70

Dense black gravelly medium to coarse SAND with much iron staining along sub-horizontal zones (COMPLETELY WEATHERED COAL)

Notes:

1. Sides of pit stable
2. Slight groundwater seepage at 1.3m depth
3. Sharp contact between glacial till and coal
4. No further excavation because coal becoming very dense at 1.7m.





SS 89 SW 18-25

TRIAL PIT TP13

Ground Level 170.4 mAOD

Depth (m)

Stratum

0.00 - 0.40

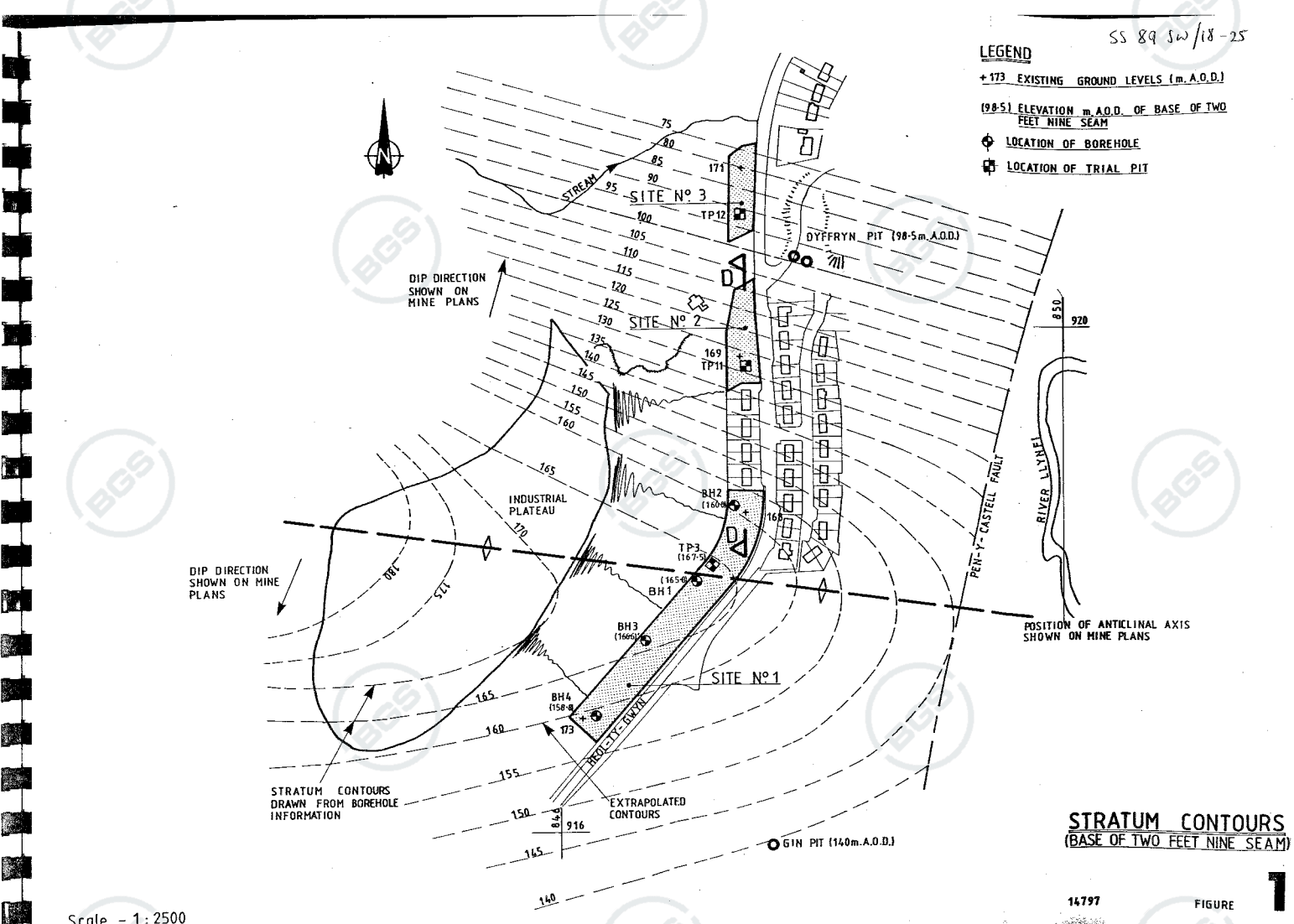
Turf and firm to stiff grey-brown gravelly sandy SILT with occasional pieces of timber (FILL)

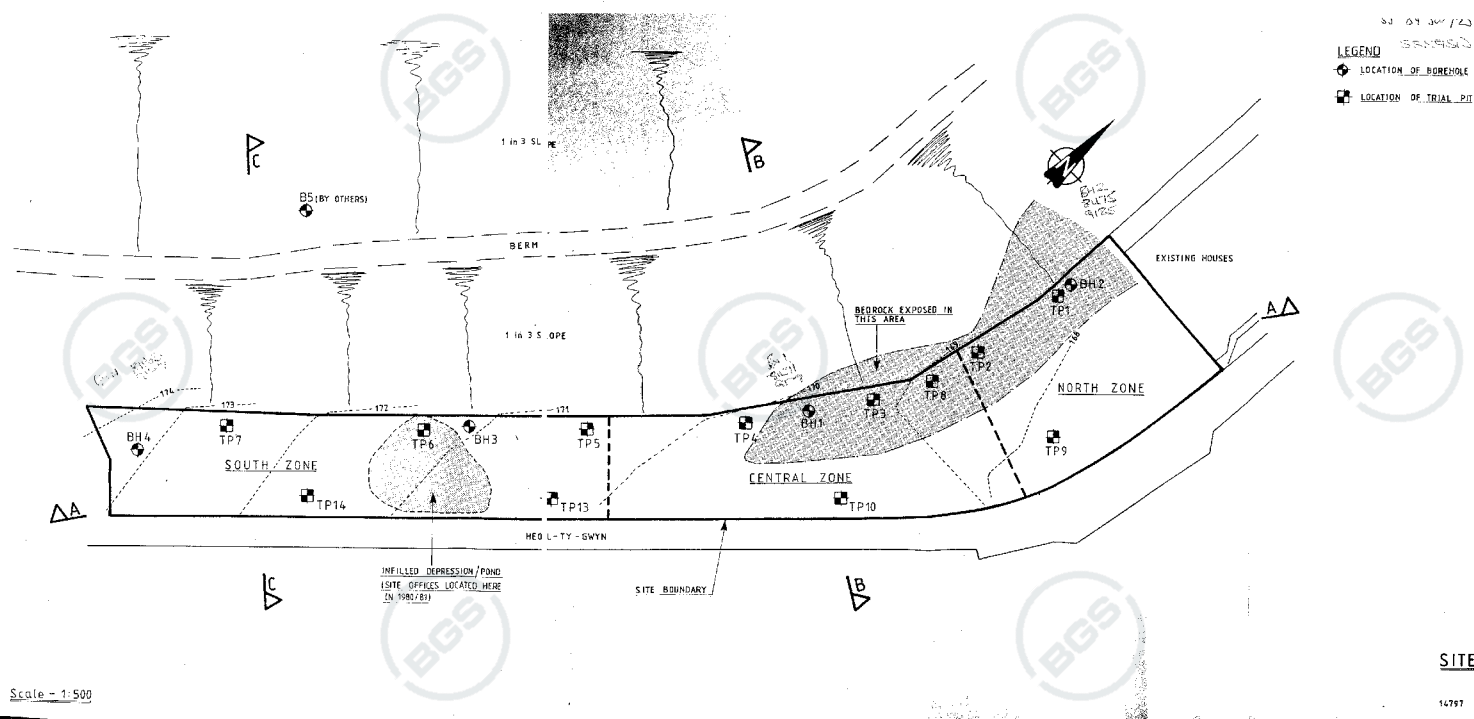
0.40 - 2.00

Stiff grey-brown, with iron staining, gravelly sandy SILT with some clay and frequent sub-angular to sub-rounded cobbles and boulders (up to 0.3m diameter) of sandstone (GLACIAL TILL)

Notes:

1. Sides of pit stable
2. No groundwater seepages encountered
3. Trial pit completed to instruction





SS 89 SW/18-25.

TRIAL PIT TP14

Ground Level 171.7 mAOD

Depth (m)

Stratum

0.00 - 0.05

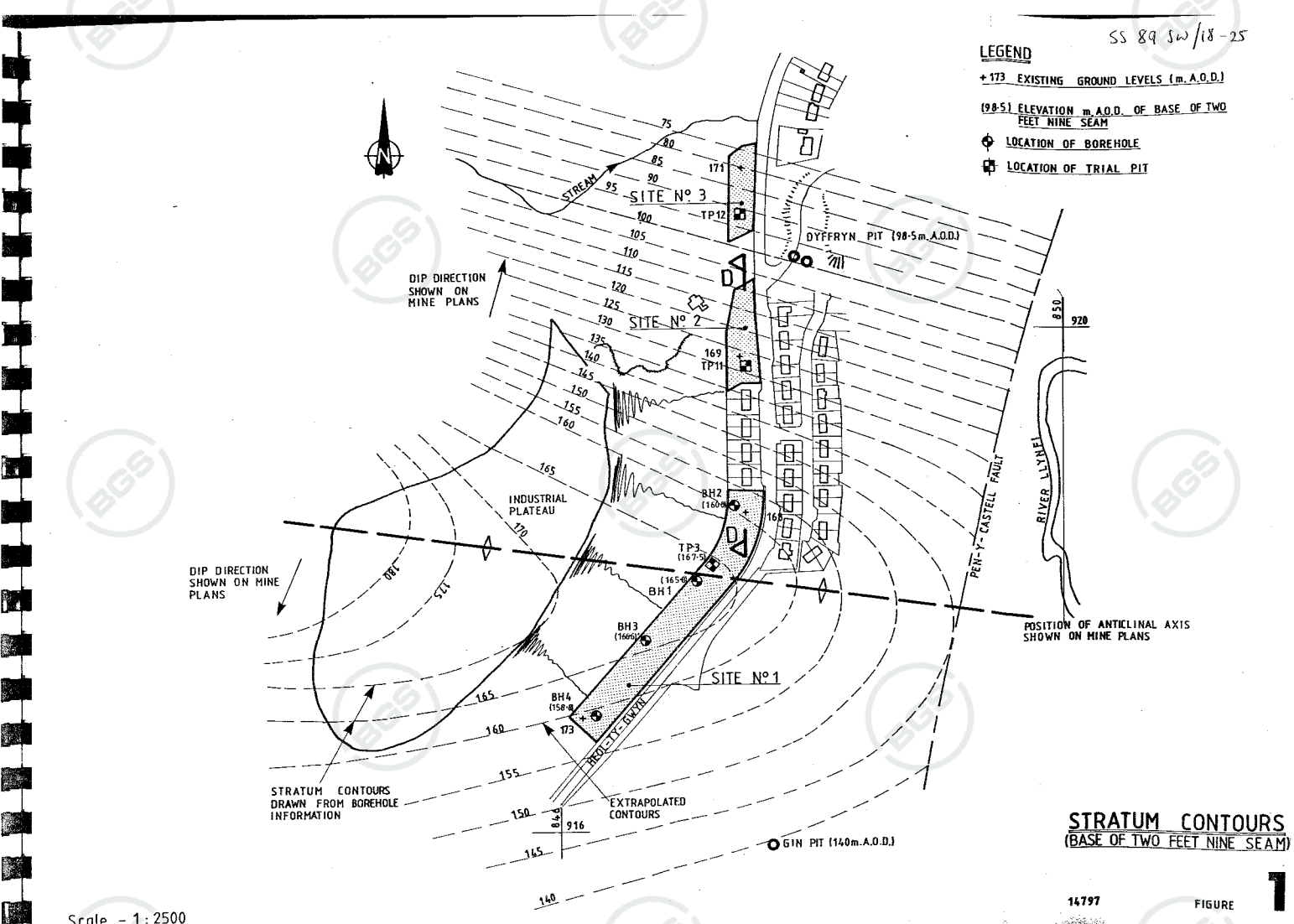
Turf and topsoil

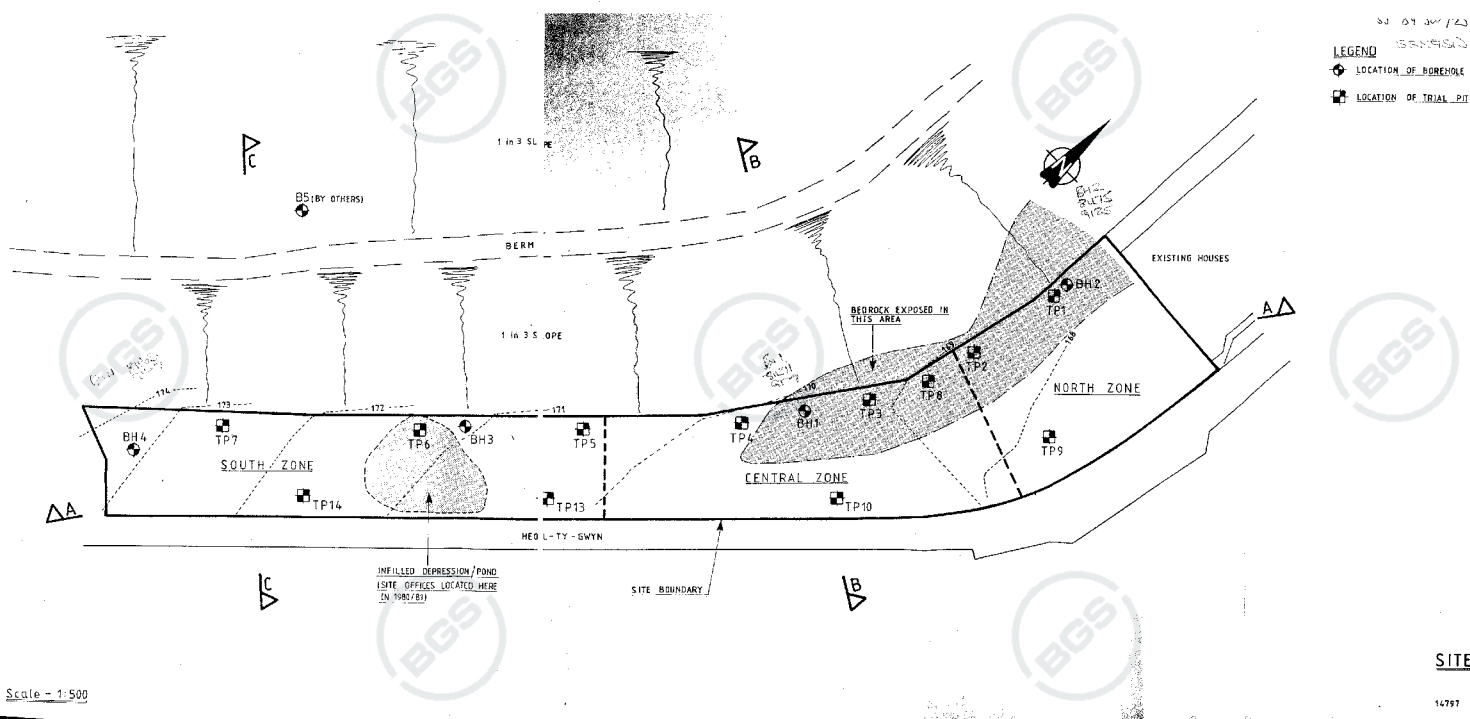
0.05 - 2.20

Loose to medium dense angular GRAVEL of moderately weathered mudstone with some angular cobbles and boulders of mudstone, with a little clay matrix (IRONSTONE WORKINGS SPOIL)

Notes:

1. Sides of pit stable
2. No groundwater seepages encountered
3. Trial pit completed to instruction

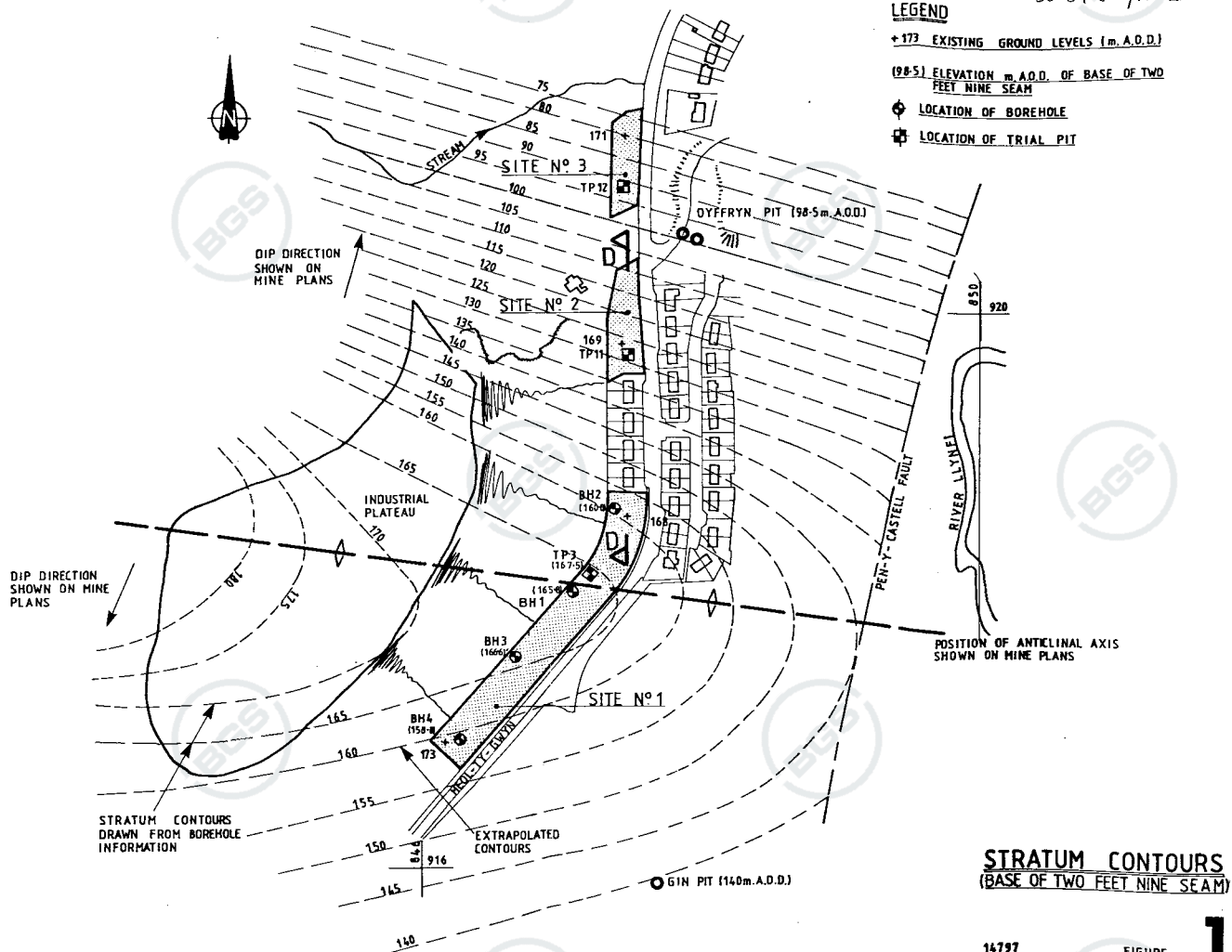




SS 89 SW/18-25

LEGEND

- +173 EXISTING GROUND LEVELS (m. A.O.D.)
- (98.5) ELEVATION m. A.O.D. OF BASE OF TWO FEET NINE SEAM
- LOCATION OF BOREHOLE
- ⊠ LOCATION OF TRIAL PIT



Scale - 1:2500

STRATUM CONTOURS
(BASE OF TWO FEET NINE SEAM)

14797

FIGURE

1



OVE ARUP & PARTNERS

SS 89 SW/19

RECORD OF BOREHOLE 2 Sheet 1 of 2

APPENDIX	A
JOB NO	14797
MADE BY	TG
DATE MADE	Oct.85

DAILY PROGRESS	DEPTH TO WATER	DEPTHS OF CASING	SAMPLES			LEG- END	DEPTH	REDUCED LEVEL	DESCRIPTION OF STRATA
			DEPTH		TYPE				
			FROM	TO					
19.10.85			0.00	6.74					Ground Level 168.3 mAO
			Dry core drilling full recovery						Very weak grey-brown very thinly bedded highly to completely weathered MUDSTONE. (Compressed by dry drilling)
19.10.85									
20.10.85	DRY								
		6.80					6.74	161.56	
		(98)							
			6.74	8.03	47 (9)				Recovered as 0.1m very soft light brown sticky CLAY, 0.25m iron-stained coal and mudstone GRAVEL, 0.5m moderately weak to weak black with iron- staining, dull becoming shiny moderately weathered COAL, recovered as sandy gravel (PROBABLE COLLAPSED/ BACKSTOWNED WORKINGS)
			8.03	8.34	65 (10)		8.34	159.90	
			8.34	9.55	86 (79)				Strong grey medium to widely bedded fresh silty SANDSTONE
									Joints 70° to sub-vertical, planar, rough, iron- stained, tight.
		9.80	9.55	9.75	100 (70)				
		(89)							

REMARKS

- Full water flush return 9.55-12.70m depth.
- Borehole backfilled with shale, 12.70-4.00m, cement grout plug
4.00m - 2.00m, shale 2.00m to ground surface.

TYPE OF BORING

0.0-6.74 Rotary dry drilling
6.74 - 12.70 Rotary water flush
DIAMETER OF BORING
0.0 - 6.80 98mm
6.80 - 9.55 86mm
9.55 - 12.70 76mm

CASING TUBES

0.0 - 6.80 98mm
6.80 - 9.80 84mm

BOREHOLE 2



OVE ARUP & PARTNERS

SS 89 SW/19

RECORD OF BOREHOLE 2 Sheet 2 of 2

APPENDIX	A
JOB NO	14797
MADE BY	TG
DATE MADE	Oct. 85

DAILY PROGRESS	DEPTH TO WATER	DEPTHS OF CASING	SAMPLES			LEG- END	DEPTH	REDUCED LEVEL	DESCRIPTION OF STRATA
			DEPTH		TYPE				
			FROM	TO					
20.10.85									Ground Level 168.3 mAD
			9.75	11.18	91				Strong silty SANDSTONE (see sheet 1 for details)
					(35)				
			11.18	12.70	92				
					(55)				
		9.80							
20.10.85		(84)							
							12.70	155.60	
									Borehole complete at 12.70m depth.

REMARKS

1. Full water flush return 9.55-12.70m depth.
2. Borehole backfilled with shale, 12.70-4.00m, cement grout plug 4.00m - 2.00m, shale 2.00m to ground surface.

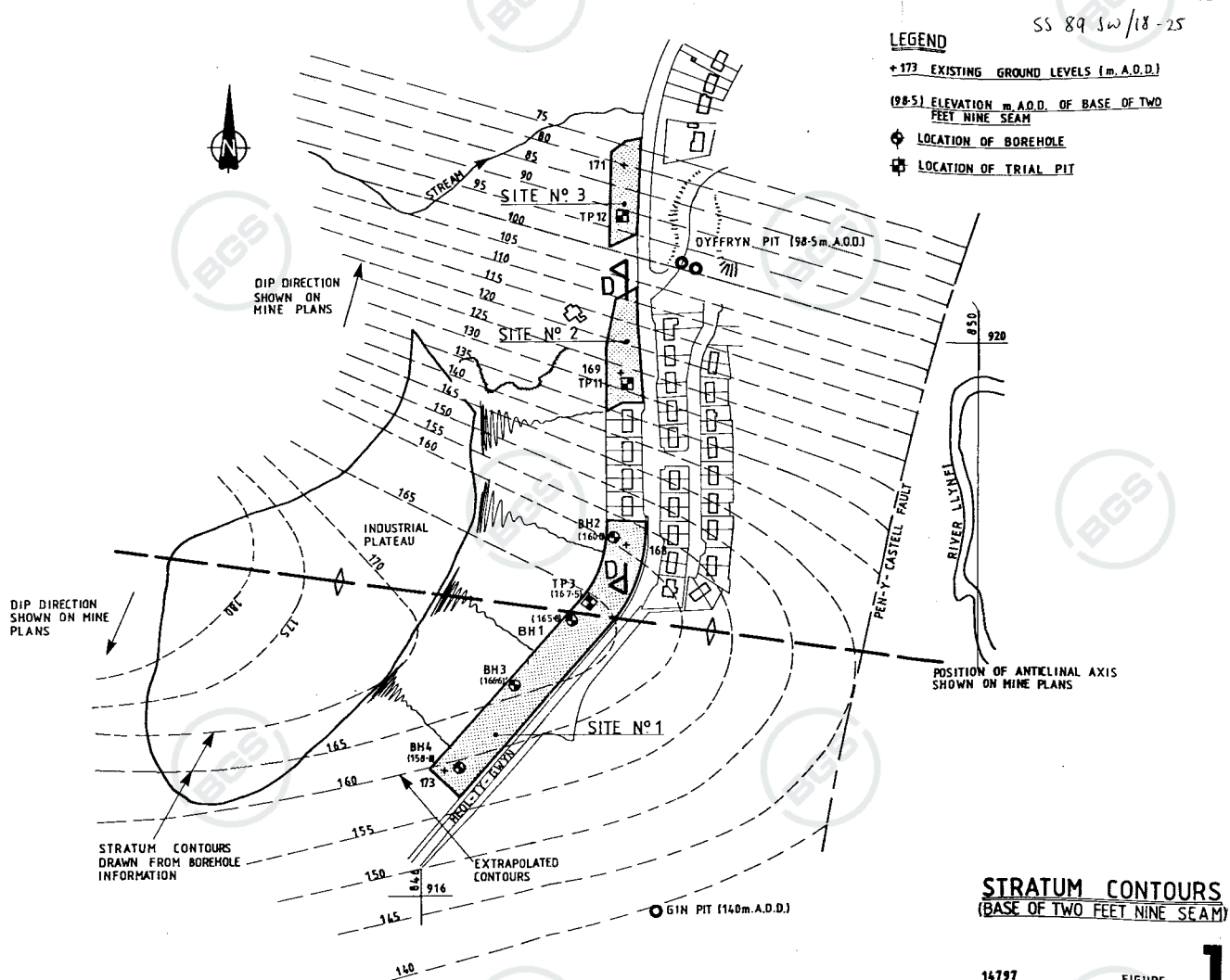
TYPE OF BORING

0.0-6.74 Rotary dry drilling
6.74 - 12.70 Rotary water flush
DIAMETER OF BORING
0.0 - 6.80 90mm
6.80 - 9.55 86mm
9.55 - 12.70 76mm

CASING TUBES

0.0 - 6.80 90mm
6.80 - 9.80 84mm

BOREHOLE 2



Scale - 1:2500

SS 89 SW / ~~SS89SW20~~ 20

TRIAL PIT 3

Ground Level 169.2 mAOD

Depth (m)

Stratum

0.00 - 0.05

Turf and topsoil.

0.05 - 0.20

Firm light grey CLAY with some gravel of mudstone and sandstone.

0.20 - 1.70

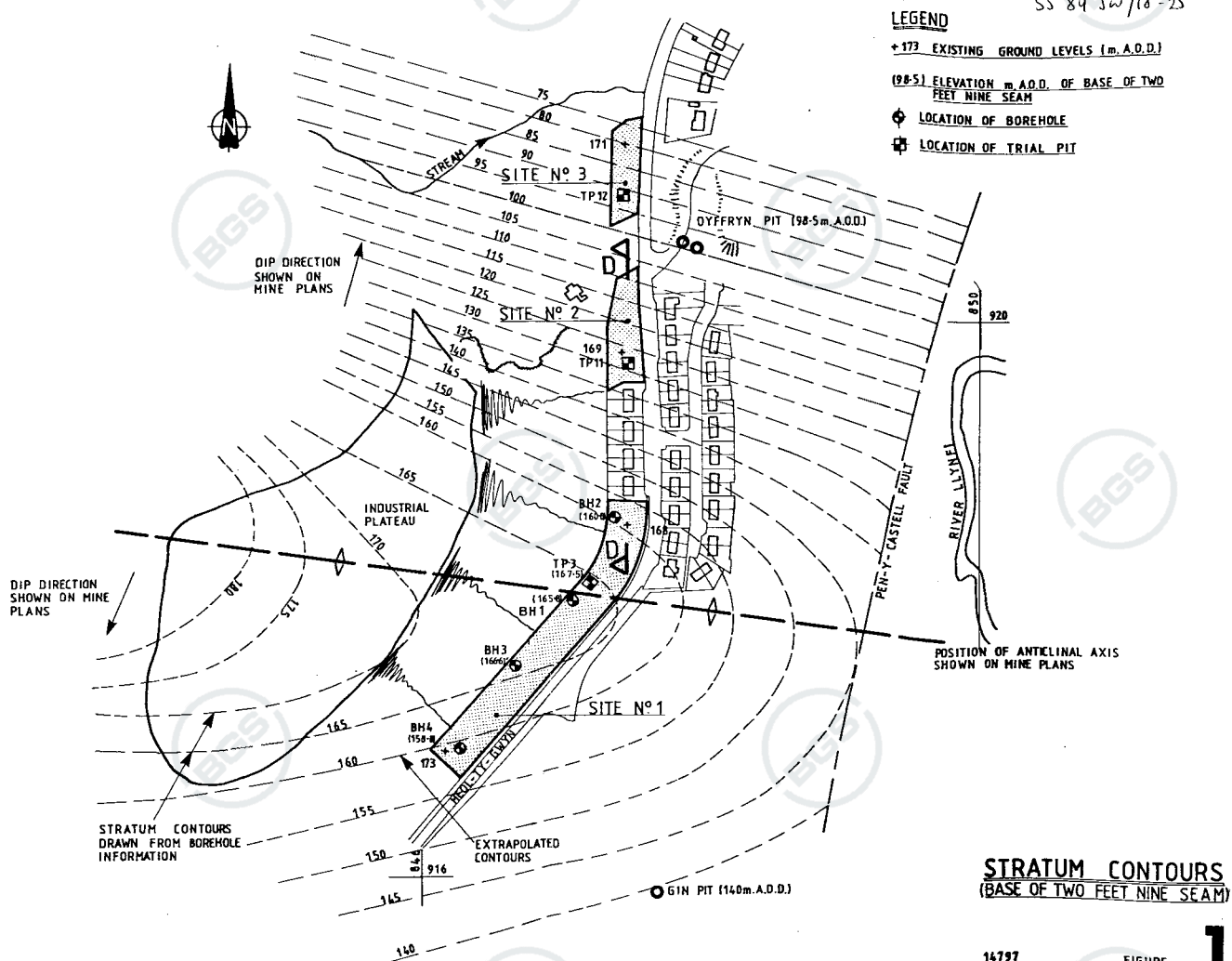
Weak black very closely cleated moderately weathered COAL; iron stained cleat surfaces; a 5mm sub-horizontal band of soft light grey soapy clay at about 1m depth (shear zone); several cleat directions developed, coal is much fractured and disturbed.

1.70 - 1.80

Strong grey thinly bedded medium to coarse grained slightly weathered SANDSTONE; from small area exposed dip of sandstone measured is 310/55.

Notes:

1. Sides of pit stable.
2. Slight groundwater seepage from north end at 1.2m depth.
3. Strong sandstone prevented further excavation.



Scale - 1:2500



CVE ARUP & PARTNERS

SS 89 SW/21

RECORD OF BOREHOLE 4 Sheet 1 of 2

APPENDIX	A
JOB NO	14797
MADE BY	TG
DATE MADE	Oct.85

DAILY PROGRESS	DEPTH TO WATER	DEPTHS OF CASING	SAMPLES		LEG- END	DEPTH	REDUCED LEVEL	DESCRIPTION OF STRATA
			FROM	TO				
								Ground Level 173.2 mAOD
24.10.85			0.00	2.00				0.0-0.1 Turf and topsoil
			Dry core drilling - full recovery					Stiff grey-brown gravelly (mudstone and sandstone) sandy SILT with occasional cobbles of sandstone (FILL)
24.10.85		2.45						
25.10.85	1.80	(98)				2.00	171.20	
			2.00	3.40	32			Recovered as 0.45m very soft dark brown organic sandy SILT with rootlets and rotten twigs, some gravel of coal and sandstone cobbles (FILL) Position of base of fill uncertain.
						3.40	169.80	
			3.40	4.92	20			Very stiff grey-brown gravelly sandy SILT with some clay and frequent cobbles and boulders of sandstone (GLACIAL TILL) Low recovery due to water flush drilling.
			4.92	5.32	50			
			5.32	6.44	36			
			6.44	7.96	33			
5.10.85		4.92						
9.10.85	1.80	(98)	7.96	8.47	49			
			8.47	9.71	32			
						9.71	163.49	

See sheet 2 for details

REMARKS

1. Water struck at 2.0m depth.
2. Full water flush returns 2.0 - 11.9m.
3. Water flush lost at 11.9m.
4. Borehole collapsing 10.9 - 14.27m
5. Borehole backfilled with cement - bentonite plug from 10.9 - 9.0m, cement grout 9.0 - 5.0m, gravel and clay 5.0m to ground surface.

TYPE OF BORING

0.0 - 2.00 Rotary dry drilling
2.00 - 14.27 Rotary water flush

DIAMETER OF BORING

0.0 - 4.92 96mm
4.92 - 10.91 86mm
10.91 - 14.27 76mm

CASING TUBES

0.0 - 4.92 96mm
4.92 - 10.91 84mm

BOREHOLE 4

OVE ARUP & PARTNERS

SS 89 SW / 21

RECORD OF BOREHOLE 4 Sheet 2 of 2

APPENDIX	A
JOB NO	14797
MADE BY	TG
DATE MADE	Oct. 85

DAILY PROGRESS	DEPTH TO WATER	DEPTHS OF CASING	SAMPLES			LEG- END	DEPTH	REDUCED LEVEL	DESCRIPTION OF STRATA
			DEPTH		TYPE				
			FROM	TO					
									Ground Level 173.2 mAOB
26.10.85									Recovered as angular gravel of grey silty MUDSTONE with iron-stained surfaces, some fragments of iron-stone. (Probably disturbed by collapse of old workings)
			9.71	11.23	26				
							11.23	161.97	
									No recovery (OLD WORKINGS) Driller reported very loose ground, no void encountered
	Lost water flush at 11.90		11.23	12.75	0				
							12.75	160.45	
									Recovered as angular gravel of grey silty mudstone, sandstone; fragments of rotten timber; 0.28m waterlogged timber (cored through inclined pit Prop); and some soft grey gravelly clay (completely weathered seat earth) (OLD WORKINGS)
		4.92 (98)	12.75	14.27	26				
		10.91 (84)							
26.10.85							14.27	158.93	Borehole complete at 14.27m depth.

REMARKS

1. Water struck at 2.0m depth.
2. Full water flush returns 2.0 - 11.9m.
3. Water flush lost at 11.9m.
4. Borehole collapsing 10.9 - 14.27m
5. Borehole backfilled with cement - bentonite plug from 10.9 - 9.0m, cement grout 9.0 - 5.0m, gravel and clay 5.0m to ground surface.

TYPE OF BORING

0.0 - 2.00 Rotary dry drilling
2.00 - 14.27 Rotary water flush

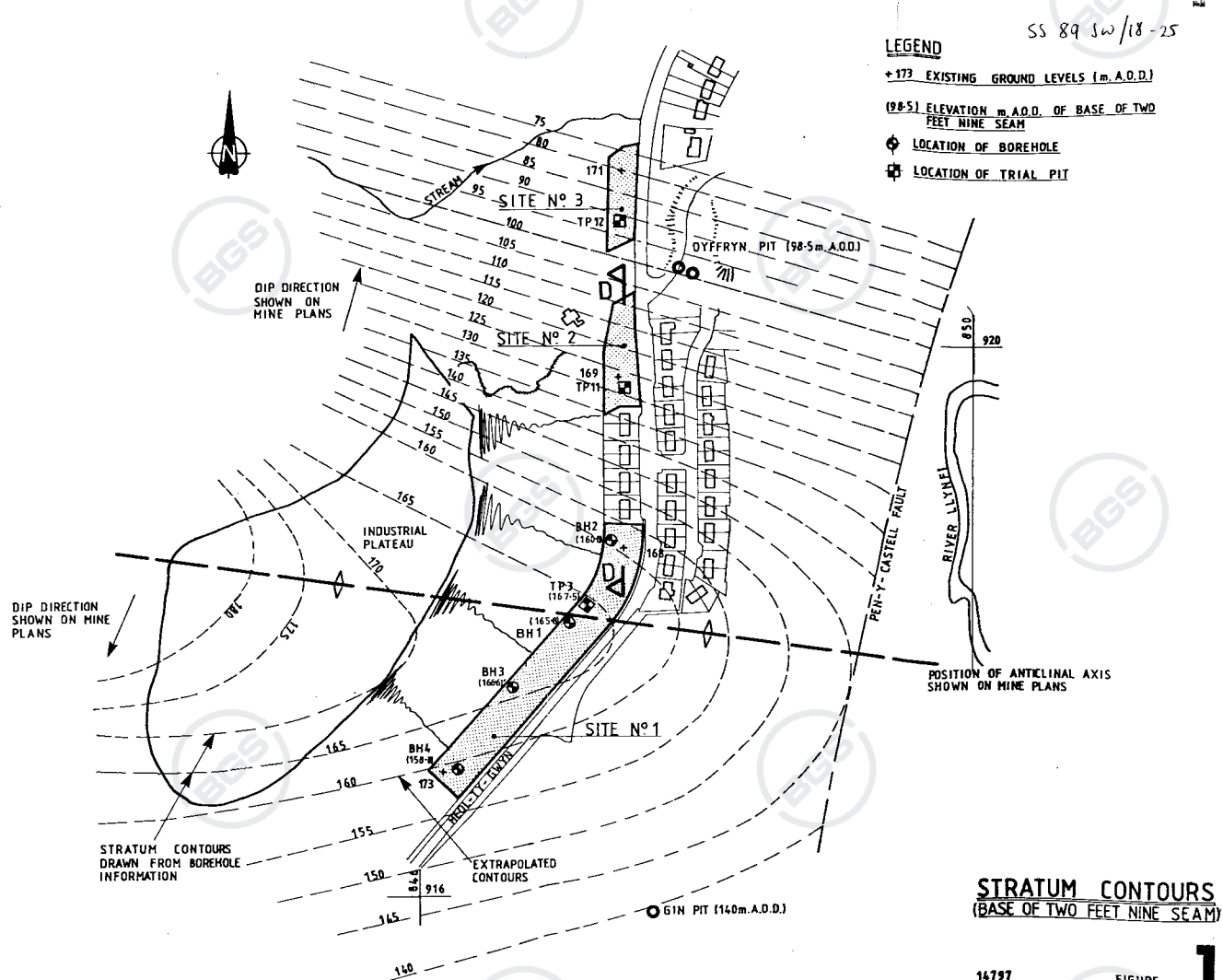
DIAMETER OF BORING

DIAMETER OF BOLLING	
0.0 - 4.92	98mm
4.92 - 10.91	86mm
10.91 - 14.27	76mm

CASING TUBES

0.0 - 4.92 98mm
4.92 - 10.91 84mm

BOREHOLE 4



SS 89 SW/22.

TRIAL PIT TP11

Ground Level 169.1 mAOD

Depth (m)

Stratum

0.00 - 0.10

Turf and topsoil

0.10 - 0.15

Tarmac

0.15 - 0.40

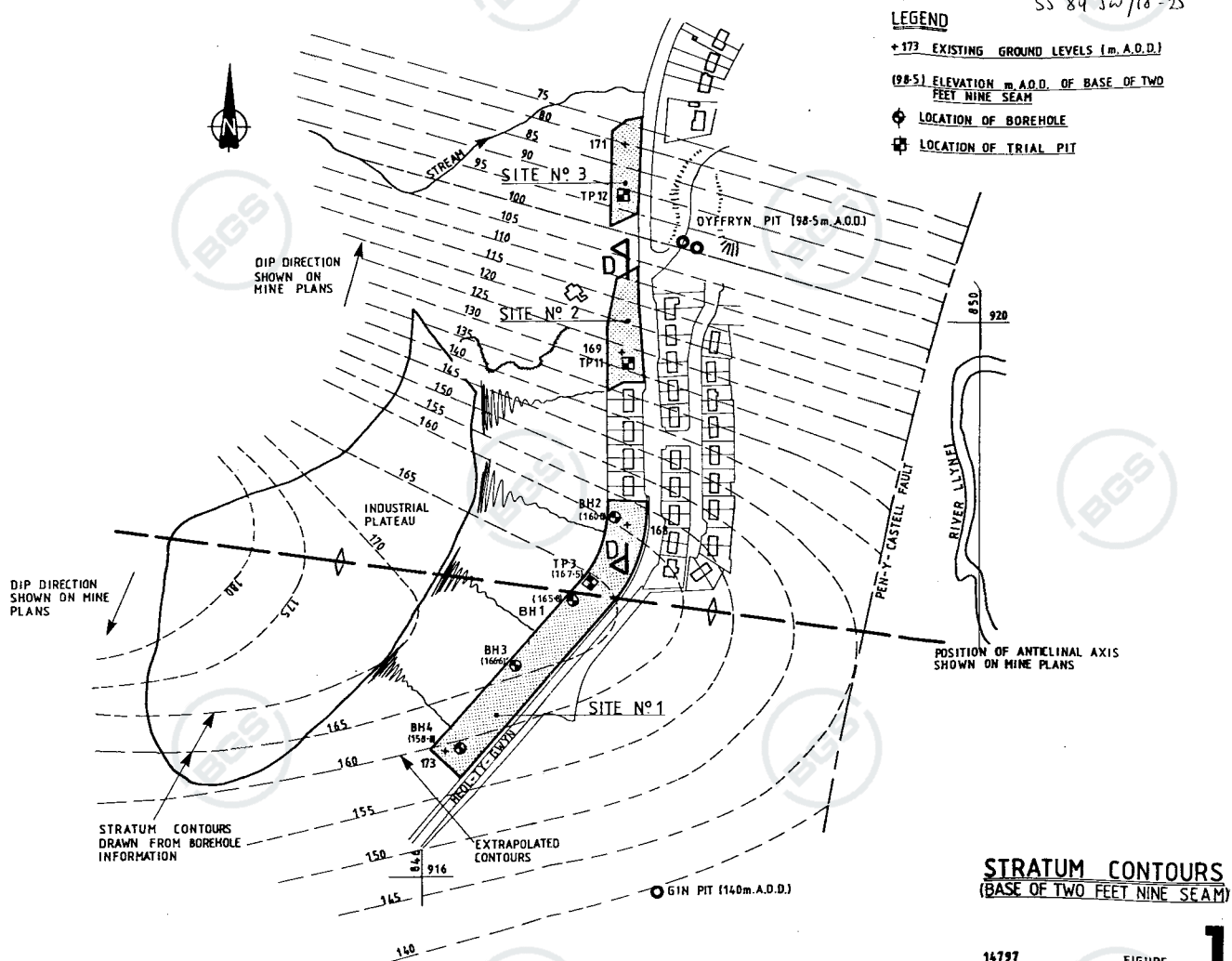
Dense grey and yellow gravelly SAND (FILL)

0.40 - 1.30

Very weak grey very thinly bedded highly
weathered MUDSTONE with frequent ironstone
nodules.

Notes:

1. Sides of pit stable
2. No groundwater seepages encountered
3. Trial pit completed to instruction



OVE ARUP & PARTNERS

SS 89 SW/24

RECORD OF BOREHOLE 3 Sheet 1 of 2

APPENDIX	A
JOB NO	14797
MADE BY	TG
DATE MADE	Oct. 85

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REMARKS

1. Full water flush return 4.34 - 12.14m.
2. Borehole backfilled with gravel and clay, 12.14-4.00m, cement grout plug 4.00 - 2.00m, gravel and clay 2.00 to ground surface.

TYPE OF BORING

0.0-4.34 Rotary dry drilling
4.34 - 12.14 Rotary water flush
DIAMETER OF BORING

0.0 - 4.44 98mm
4.44 - 12.14 86mm

CASING TUBES

0.00 - 4.44	98mm
4.44 - 9.20	84mm

BOREHOLE 3

OVE ARUP & PARTNERS

SS 89 Sw/24

RECORD OF BOREHOLE 3 Sheet 2 of 2

APPENDIX	A
JOB NO	14797
MADE BY	TG
DATE MADE	Oct. 85

DAILY PROGRESS	DEPTH TO WATER	DEPTHS OF CASING	SAMPLES		LEG- END	DEPTH	REDUCED LEVEL	DESCRIPTION OF STRATA	
			DEPTH						TYPE
			FROM	TO					
								Ground Level 171.1 MADD	
								Strong grey very closely jointed fresh sandy SILTSTONE: very closely spaced black highly polished and striated discontinuity surfaces (FRACTURE ZONE); disturbed by drilling and recovered as angular gravel and cobbles; moderately weak, moderately weathered zone at 10.9 - 11.0m depth.	
			10.31	11.11	100 (0)				
		4.44 (98)	11.11	12.14	100 (12)			Borehole complete at 12.14m depth.	
24.10.85		9.20 (84)				12.14	158.96		

REMARKS

1. Full water flush return 4.34 - 12.14m.
2. Borehole backfilled with gravel and clay, 12.14-4.00m, cement grout plug 4.00 - 2.00m, gravel and clay 2.00 to ground surface.

TYPE OF BORING

0.0-4.34 Rotary dry drilling
4.34 - 12.14 Rotary water flush
DIAMETER OF BORING
0.0 - 4.44 96mm
4.44 - 12.14 86mm

CASING TUBES

0.00 - 4.44	96mm
4.44 - 9.20	84mm

BOREHOLE 3



Norwest Holst Soil Engineering Ltd.										Borehole No.
BOREHOLE LOG										1
Contract No. F4222		Location Maesteg Ty Gwyn		Sheet 1 of 3						
Client Ogwr Borough Council		SS 89 SW 27		Chainage						
Method of Boring Percussion		SS 8444 9179		Ground Level						
Diameter of Borehole 150mm				Date 13.6.79 - 15.6.79						
Description of Strata	Legend	Depth Below G.L. (m)	Thickness of Strata (m)	Type of sample	C kN/m ²	φ deg	m.c. %	γ Mg/m ³	N	
MADEGROUND: Colliery waste-angular fragments of dark grey laminated shaly mudstone with firm grey clay matrix.				0.50 	30	18	8	2.18		
				2.00 					27	
				3.50 	25	20	9	2.10		
				5.00 					29	
				6.50 	35	18	9	2.03		
				8.00 					32	
		9.00	9.00							
MADEGROUND: Angular fragments of red burnt mudstone with firm brown clay.				9.50 	25	30	8	2.02		
Key		Remarks (Observations of Ground Water etc.)								
□ Undisturbed Sample φ Angle of Friction		Water struck at 22.25m.								
○ Disturbed Sample m.c. Moisture Content										
△ Water Sample γ Bulk Density										
I Penetration Test N S.P.T. Value										



Norwest Holst Soil Engineering Ltd. BOREHOLE LOG

Borehole No.

1

Contract No.F4222.....
LocationMaesteg Ty Gwyn.....
ClientAgwr. Borough Council.....
Method of BoringPercussion.....
Diameter of Borehole150mm.....

SS 89 SW 27

Sheet....2...of.....3.....
Chainage
Ground Level
Date ..13.6.79 - 15.6.79.....

Description of Strata	Legend	Depth Below G.L. (m)	Thickness of Strata(m)	Type of sample	C kN/m ²	φ deg	m.c. %	γ Mg/m ³	N
MADEGROUND: angular fragments of red burnt mudstone with firm brown clay.				11.00 I					45
		11.95	2.95						
MADEGROUND: colliery waste: angular fragments of dark grey laminated shaly mudstone with firm grey clay matrix containing fine gravel and coal fragments.				12.50 I	125	20	12	2.03	
				14.00 I					39
				15.50 I	45	28	6	2.00	
				17.00 I					38
				18.50 I	60	20	10	1.98	
Key		Remarks (Observations of Ground Water etc.)							
□ Undisturbed Sample φ Angle of Friction									
○ Disturbed Sample m.c. Moisture Content									
△ Water Sample γ Bulk Density									
I Penetration Test N S.P.T. Value									



Norwest Holst Soil Engineering Ltd. BOREHOLE LOG

Borehole No.
1

Contract No. F4222
Location Maesteg Ty Gwyn
Client Ogwr Borough Council
Method of Boring Percussion
Diameter of Borehole 150mm

SS 89 SW 27

Sheet 3 of 3
Chainage
Ground Level
Date 13.6.79 - 15.6.79

Description of Strata	Legend	Depth Below G.L. (m)	Thickness of Strata(m)	Type of sample	C kN/m ²	φ deg	m.c. %	γ Mg/m ³	N
MADEGROUND: Colliery waste: angular fragments of dark grey laminated shaly mudstone with firm grey clay matrix containing fine gravel and coal fragments.		20.00		I					47
		21.50		I	95	23	7	2.38	
		22.25	10.30						
Weathered grey laminated MUDSTONE.		23.00		I					63 for 150mm
		24.50		I					40 for 25mm
		25.00							
Key ☐ Undisturbed Sample φ Angle of Friction ☐ Disturbed Sample m.c. Moisture Content <input type="triangle"/> Water Sample γ Bulk Density <input type="I"/> Penetration Test N S.P.T. Value		Remarks (Observations of Ground Water etc.)							



Norwest Holst Soil Engineering Ltd. BOREHOLE LOG

Borehole No.

3

Contract No. F4222

Location Maesteg Ty Gwyn

Client Ogwr Borough Council

Method of Boring Percussion

Diameter of Borehole 150mm

SS 89 SW 29

SS 8454 9165

Sheet 1 of 2

Chainage

Ground Level

Date 18.6.79

Description of Strata	Legend	Depth Below G.L. (m)	Thickness of Strata(m)	Type of sample	C kN/m ²	φ deg	m.c. %	γ Mg/m ³	N
MADEGROUND: Dark brown clay with ash, gravel, glass, brick and boulders				0.50 1					45 for 300mm
				2.00 1					35
		3.40	3.40	3.00 1					
MADEGROUND: Colliery waste-angular fragments of dark grey laminated shaly mudstone with firm grey-brown clay matrix.				3.00 1	60	10	7	1.79	
				5.00 1	25	30	8	1.86	
				6.50 1	40	26	9	2.08	
				8.00 1	80	10	7	1.97	
				9.50 1					27

Key

- Undisturbed Sample
- Disturbed Sample
- △ Water Sample
- I Penetration Test
- φ Angle of Friction
- m.c. Moisture Content
- γ Bulk Density
- N S.P.T. Value

Remarks (Observations of Ground Water etc.)

Water struck at 12.00m.



Norwest Holst Soil Engineering Ltd.							Borehole No.		
BOREHOLE LOG							3		
Contract No. F4222							Sheet 2 of 2		
Location Maesteg Ty Gwyn							Chainage		
Client Ogwr Borough Council							Ground Level		
Method of Boring Percussion							Date 18.6.79 - 19.6.79		
Diameter of Borehole 150mm									
Description of Strata	Legend	Depth Below G.L. (m)	Thickness of Strata (m)	Type of sample	C kN/m ²	φ deg	m.c. %	γ Mg/m ³	N
MADEGROUND: Colliery waste-angular fragments of dark grey laminated shaly mudstone with firm grey-brown clay matrix.		11.90	8.50	11.00	80	17	8	2.31	
MADEGROUND: Firm grey-brown stony clay with iron ore waste.		13.25	1.35	12.50					50
MADEGROUND: Stiff grey-brown very stony clay.		18.75	5.50	14.00					66 for 300mm
Dark grey laminated shaly MUDSTONE.		20.00		15.50					65
				17.00					66
				18.50	No Recovery				
Key		Remarks (Observations of Ground Water etc.)							
□ Undisturbed Sample		φ Angle of Friction							
○ Disturbed Sample		m.c. Moisture Content							
△ Water Sample		γ Bulk Density							
I Penetration Test		N S.P.T. Value							



Norwest Holst Soil Engineering Ltd. BOREHOLE LOG

Borehole No.

4

Contract No. F4222

Location Maesteg Ty Gwyn

Client Ogwr Borough Council

Method of Boring Percussion

Diameter of Borehole 150mm

SS 89 SW 30

SS 8454 9171

Sheet 1 of 2

Chainage

Ground Level

Date 20.6.79 - 21.6.79

Description of Strata	Legend	Depth Below G.L. (m)	Thickness of Strata(m)	Type of sample	C kN/m ²	φ deg	m.c. %	γ Mg/m ³	N
MADEGROUND: Colliery waste-angular fragments of dark grey laminated shaly mudstone with firm grey clay and very large boulders.				0.50 					38 for 300mm
				2.00 					50 for 75mm
MADEGROUND: Colliery waste:- angular fragments of dark grey shaly mudstone with stiff clay matrix.		3.50	3.50	3.50 	40	20	8	2.10	
				5.00 					28
				6.50 	35	30	7	2.16	
				8.00 					36
				9.50 	56	16	9.0	2.22	
Key □ Undisturbed Sample φ Angle of Friction ○ Disturbed Sample m.c. Moisture Content △ Water Sample γ Bulk Density └ Penetration Test N S P T Value		Remarks (Observations of Ground Water etc.) Water struck at 13.00m.							



Norwest Holst Soil Engineering Ltd.							Borehole No.		
BOREHOLE LOG							4		
Contract No. F4222				Sheet 2 of 2					
Location Maesteg Ty Gwyn				Chainage					
Client Ogwr Borough Council		SS 89SW 30		Ground Level					
Method of Boring Percussion				Date 20.6.79 - 21.6.79					
Diameter of Borehole 150mm									
Description of Strata	Legend	Depth Below G.L. (m)	Thickness of Strata (m)	Type of sample	C _u kN/m ²	φ deg	m.c. %	γ Mg/m ³	N
See Previous sheet		10.25	6.75						
Completely weathered grey/brown clayey MUDSTONE.				11.00					49
				12.50	85	10	9	2.27	
		13.35	3.10						
Highly weathered grey MUDSTONE.				14.00					50
				14.70					
Weathered grey MUDSTONE.			1.35						
				15.50	No Recovery				
				17.00					
		17.25							80 for 225mm
Key		Remarks (Observations of Ground Water etc.)							
□ Undisturbed Sample		φ Angle of Friction							
○ Disturbed Sample		m.c. Moisture Content							
△ Water Sample		γ Bulk Density							
I Penetration Test		N S.P.T. Value							



Norwest Holst Soil Engineering Ltd. BOREHOLE LOG

Borehole No.
5

Contract No. F4222

Location Maesteg Ty Gwyn

Client Ogwr Borough Council

Method of Boring Percussion

Diameter of Borehole 150mm

SS 89 SW 31

SS 8462 9174

Sheet 1 of 1

Chainage

Ground Level

Date 22.6.79

Description of Strata	Legend	Depth Below G.L. (m)	Thickness of Strata(m)	Type of sample	C kN/m ²	φ deg	m.c. %	γ Mg/m ³	N
Firm grey shaly CLAY with large boulders.				0.50 I					34
				2.00 I					44
				3.50 □					
Stiff to firm dark grey and brown mottled silty CLAY.		3.75	3.75	□	26	0	31	2.01	
				5.00 □	57	6	11	1.89	
				6.45 □					
Sandstone BOULDER.		6.45	2.70						
				7.20 □					
Stiff dark grey and brown silty CLAY with occasional coal fragments		7.20	0.75						
				8.00 □	90	13	11	2.19	
				9.50 □	87	0	12	2.23	
				10.00 □					
Key □ Undisturbed Sample ○ Disturbed Sample △ Water Sample I Penetration Test φ Angle of Friction m.c. Moisture Content γ Bulk Density N S.P.T. Value		Remarks (Observations of Ground Water etc.) Water struck at 2.75m rising to 2.35m.							



Norwest Holst Soil Engineering Ltd.							Borehole No.		
BOREHOLE LOG							6		
Contract No. F4222		Location Maesteg Ty Gwyn		Sheet 1 of 1					
Client Ogwr Borough Council		Method of Boring Percussion		Chainage					
Diameter of Borehole 150mm		SS 84 75 9197		Ground Level					
		SS 89 SW 32		Date 26.6.79					
Description of Strata	Legend	Depth Below G.L. (m)	Thickness of Strata (m)	Type of sample	C kN/m ²	φ deg	m.c. %	γ Mg/m ³	N
MADEGROUND: Dark brown clay with gravel, sandstone cobbles and boulders.		1.80	1.80	0.50 					27
Stiff brown and grey mottled shaly CLAY.		3.90	2.10	2.00 	65	13	11	2.04	
COAL		4.10	0.20	3.50 	110	23	10	2.09	
Completely weathered brown clayey MUDSTONE.		5.45	1.35	5.00 	73	33	8	1.89	
Highly weathered grey MUDSTONE.		6.75	1.30	6.50 	70	27	8	1.88	
Hard black laminated MUDSTONE.		7.00							
Key □ Undisturbed Sample ○ Disturbed Sample △ Water Sample I Penetration Test φ Angle of Friction m.c. Moisture Content γ Bulk Density N S.P.T. Value					Remarks (Observations of Ground Water etc.) Borehole dry.				