

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 100-25 Albert Road, Industrial Estate, Filton, Bristol, Gloucestershire, UK. Dursley, G12 8JY. Tel: 01453 874199 Fax: 01453 881414
 Regional Office: 100-25 Albert Road, Industrial Estate, Filton, Bristol, Gloucestershire, UK. Dursley, G12 8JY. Tel: 01453 874199 Fax: 01453 881414

PHOTO-IONISATION DETECTOR

Exploratory Hole No.	Depth (m)	PID (ppm)	Date Tested	Remarks
PRAIRIE_AUK_TP179	2.00	2.1	09/04/2020	
PRAIRIE_AUK_TP180	0.30	See Remarks	14/04/2020	<0.1ppm
PRAIRIE_AUK_TP181	0.60	See Remarks	09/04/2020	<0.1ppm
PRAIRIE_AUK_TP181	2.50	See Remarks	09/04/2020	<0.1ppm
PRAIRIE_AUK_TP182	0.90	8.2	09/04/2020	
PRAIRIE_AUK_TP182	2.00	0.5	09/04/2020	
PRAIRIE_AUK_TP184	0.30	See Remarks	15/04/2020	<0.1ppm
PRAIRIE_AUK_TP185	4.30	See Remarks	08/04/2020	<0.1ppm
PRAIRIE_AUK_TP186	0.50	5.1	07/04/2020	
PRAIRIE_AUK_TP187	0.50	1.3	20/04/2020	
PRAIRIE_AUK_TP187	1.00	0.2	20/04/2020	
PRAIRIE_AUK_TP188	1.00	1.2	08/04/2020	
PRAIRIE_AUK_TP189	1.60	See Remarks	07/04/2020	<0.1ppm
PRAIRIE_AUK_TP189	3.00	See Remarks	07/04/2020	<0.1ppm
PRAIRIE_AUK_TP190A	1.10	See Remarks	15/04/2020	<0.1ppm

See attached Calibration Certificate for Model No. and any other details

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
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	Calibration Compliant :- YES	Date of Issue :- 05/11/2020	Page No. :- 6 of 6
	Checked By :- <i>LC</i>	Approved By :- <i>[Signature]</i>	AEG Contract No. :- 4251





... everything gas detection

Certificate of Calibration

Customer: Allied Exploration & Geotechnics Ltd

Instrument: MiniRAE 2000

Job: Service, Test & Calibration

Serial number: 110-900192

Fleet Number: N/A

Certificate no: 900192 / 100519

Next calibration due date: 10 May 2020

Tested on: 10 May 2019

Calibrated for: Isobutylene

<u>Applied Gas Concentration:</u>	<u>Cylinder Reference:</u>	<u>Initial Sensor Reading</u>	<u>Final Sensor Reading</u>	<u>Accuracy Limits</u>
Isobutylene: 100 ppm	AGG2641-3-10	95.0 ppm	100.0 ppm	± 2%

The Instrument has been calibrated after Re-Zeroing & Introducing Span Calibration Gas, using gas that is traceable to national standards and has been prepared in accordance with BS EN ISO6145-6:2008

Calibration Engineer: P Lonsdale

Sign: _____



Quality Assessed by (Print): R.L. BAINBRIDGE Sign: _____

In-situ Water Quality Parameter Test Results





ALLIED EXPLORATION GEOTECHNICS LIMITED

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IN-SITU WATER QUALITY PARAMETER MONITORING RESULTS							
Date of Test: 05/05/2020		Operator: D. Portsmouth					
Weather Condition (inc temperature) :				Cool & Dry			
Monitoring Point	Time (hrs)	pH	Temp (°C)	Electrical Conductivity (Actual) (µs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
PRAIRIE_AUK_BH104	15:30:00	8.10	15.10	811.29	309.30	49.79	0.65
	15:35:00	8.10	15.84	824.59	317.10	49.66	0.65
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
PRAIRIE_AUK_BH107	14:15:00	7.55	14.99	1989.10	294.80	77.94	1.60
	14:20:00	7.55	15.47	2039.40	282.30	77.48	1.62
	14:25:00	7.55	16.68	2096.30	283.70	78.03	1.62
	14:30:00	7.55	17.74	2143.70	284.70	78.44	1.62
PRAIRIE_AUK_BH103	12:00:00	8.78	14.49	548.17	189.80	27.56	0.44
	12:35:00	8.77	14.60	520.31	204.30	16.03	0.42
	12:40:00	8.77	14.23	540.24	108.20	19.16	0.44
	12:45:00	8.75	15.08	559.75	221.60	28.07	0.45
	12:50:00	8.73	15.45	562.00	231.60	30.30	0.45
	12:55:00	8.73	15.53	561.84	230.40	28.78	0.45
	13:00:00	8.72	15.86	559.15	226.70	22.54	0.44
Remarks :	BH104 & BH107 - unable to sample via pump due to lack of head. Agreed with Arcadis to sample using a bailer.						
Contract Title: Prairie Site Ground Investigation Works				Client: South Tees Development Corporation			
	Checked By: <i>LC</i>			Approved By: <i>RLW</i>			
	Date Issued: 01/07/2020		Page No.: 1 of 2	AEG Contract No.: 4251			



ALLIED EXPLORATION GEOTECHNICS LIMITED

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Regional Office: Unit 10, Station Development Court, Eastwood, Salford, M6 6LJ, UK. Tel: 01753 536494 Fax: 01753 536495

IN-SITU WATER QUALITY PARAMETER MONITORING RESULTS							
Date of Test:		06/05/2020		Operator:		D. Portsmouth	
Weather Condition (inc temperature) :				Cool/Warm & Dry			
Monitoring Point	Time (hrs)	pH	Temp (°C)	Electrical Conductivity (Actual) (µs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
PRAIRIE_AUK_BH101 (Shallow)	10:10:00	8.52	11.50	1849.80	279.10	40.97	1.62
	10:15:00	8.52	11.62	1854.30	276.40	43.30	1.62
	10:20:00	8.52	11.50	1863.30	280.80	46.55	1.62
PRAIRIE_AUK_BH101 (Deep)	09:40:00	8.31	11.29	1790.40	238.40	47.43	1.57
	09:45:00	8.47	11.20	1795.10	227.30	46.79	1.58
	09:50:00	8.50	11.23	1799.70	233.70	46.34	1.59
	09:55:00	8.51	11.27	1802.10	242.40	46.59	1.59
PRAIRIE_AUK_BH106	08:36:00	9.54	11.22	641.13	124.20	32.09	0.56
	08:40:00	9.53	11.26	644.92	132.80	33.40	0.57
	08:45:00	9.52	11.47	648.52	139.40	34.61	0.57
	08:50:00	9.52	11.66	651.63	145.90	35.53	0.57
PRAIRIE_AUK_BH108 (Shallow)	13:05:00	7.53	11.51	1779.50	345.50	43.80	1.56
	13:10:00	7.56	11.46	1775.70	354.40	44.69	1.56
	13:15:00	7.57	11.46	1775.00	356.70	44.87	1.56
PRAIRIE_AUK_BH108 (Deep)	13:05:00	7.53	11.51	1769.60	345.50	43.80	1.56
	13:10:00	7.56	11.46	1767.70	354.40	44.69	1.56
	13:15:00	7.57	11.46	1765.50	356.70	44.87	1.56
PRAIRIE_AUK_BH110	11:10:00	8.08	11.61	2076.80	333.90	42.01	1.62
	11:15:00	8.12	11.47	2074.70	331.00	43.21	1.62
	11:20:00	8.13	11.43	2075.40	332.10	43.90	1.62
	11:25:00	8.14	11.40	2074.40	337.30	44.55	1.62
Remarks :	n/a						
Contract Title Prairie Site Ground Investigation Works				Client South Tees Development Corporation			
	Checked By: <i>LC</i>		Approved By: <i>DPW</i>			Date Issued: 01/07/2020	
	Page No: 2 of 2		AEG Defined No: 4251				



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IN-SITU WATER QUALITY PARAMETER MONITORING RESULTS							
Date of Test: 16/06/2020			Operator: A. Masterman				
Weather Condition (inc temperature) :				Slightly overcast (15-18°C)			
Monitoring Point	Time (hrs)	pH	Temp (°C)	Electrical Conductivity (Actual) (µs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
PRAIRIE_AUK_BH103	15:00:00	8.71	18.35	457.46	109.2	76.88	0.34
	15:03:00	9.12	14.46	428.58	118.7	32.15	0.34
	15:06:00	9.35	13.40	399.67	289.8	23.49	0.32
	15:09:00	9.67	13.60	333.61	115.0	21.43	0.28
	15:12:00	9.68	13.57	319.10	268.4	20.89	0.26
	15:15:00	9.69	13.28	314.98	295.5	19.20	0.26
Remarks :							
Contract Title: Prairie Site Ground Investigation Works				Client: South Tees Development Corporation			
	Checked By: <i>LC</i>			Approved By: <i>KW</i>			
	Date Issued: 05/11/2020		Page No: 1 of 4	AEG Contract No: 4251			

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Regional Office: 10000 100th Street, Edmonton, Alberta T5A 0A6 (403) 443-2222 Fax: (403) 443-2223

IN-SITU WATER QUALITY PARAMETER MONITORING RESULTS							
Date of Test:		17/06/2020		Operator:		A. Masterman	
Weather Condition (inc. temperature):				Overcast (15-18°C)			
Monitoring Point	Time (hrs)	pH	Temp (°C)	Electrical Conductivity (Actual) (µS)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
PRAIRIE_AUK_BH101 (Deep)	09:36:00	8.58	13.54	1563.90	145.4	34.98	1.30
	09:39:00	8.65	13.40	1573.00	-225.2	29.68	1.31
	09:42:00	8.69	13.50	1578.00	-240.7	27.94	1.31
	09:45:00	8.70	13.62	1582.00	-231.3	25.91	1.31
PRAIRIE_AUK_BH101 (Shallow)	10:33:00	8.48	13.13	1467.00	128.2	32.53	1.24
	10:41:00	8.84	12.92	1468.00	252.6	27.90	1.24
	10:44:00	8.84	12.88	1467.00	285.4	26.02	1.24
	10:47:00	8.85	12.90	1470.00	282.7	24.45	1.24
PRAIRIE_AUK_BH104	12:57:00	8.05	13.36	1222.80	276.0	16.64	1.02
	13:00:00	8.07	13.22	1223.30	316.3	14.79	1.03
	13:03:00	8.07	13.28	1233.60	317.5	14.21	1.03
	13:06:00	8.07	13.54	1238.60	305.7	14.34	1.03
PRAIRIE_AUK_BH105	11:14:00	8.24	13.58	1104.90	361.00	43.11	0.92
	11:17:00	8.27	13.86	1109.30	370.40	42.08	0.92
	11:20:00	8.29	14.06	1113.90	373.40	41.44	0.91
	11:23:00	8.29	14.22	1117.80	372.80	41.15	0.91
PRAIRIE_AUK_BH106	13:47:00	9.20	15.77	1035.40	303.6	30.24	0.82
	13:50:00	9.20	15.94	1040.20	331.2	22.53	0.82
	13:53:00	9.21	16.12	1044.60	341.6	20.67	0.82
PRAIRIE_AUK_BH108 (Deep)	10:00:00	7.42	14.38	2306.60	330.8	64.44	1.88
	10:03:00	7.55	14.54	2309.00	347.9	60.04	1.88
	10:06:00	7.59	14.67	2316.50	356.6	57.82	1.88
	10:09:00	7.61	14.76	2321.30	358.0	56.77	1.88
Remarks:							
Contract Title: Prairie Site Ground Investigation Works				Client: South Tyes Development Corporation			
	Created By: <i>LC</i>			Approved By: <i>AM</i>			
	Date Issued: 05/11/2020		Page No: 2 of 4	ASQ Control No: 4251			

ALLIED EXPLORATION GEOTECHNICS LIMITED

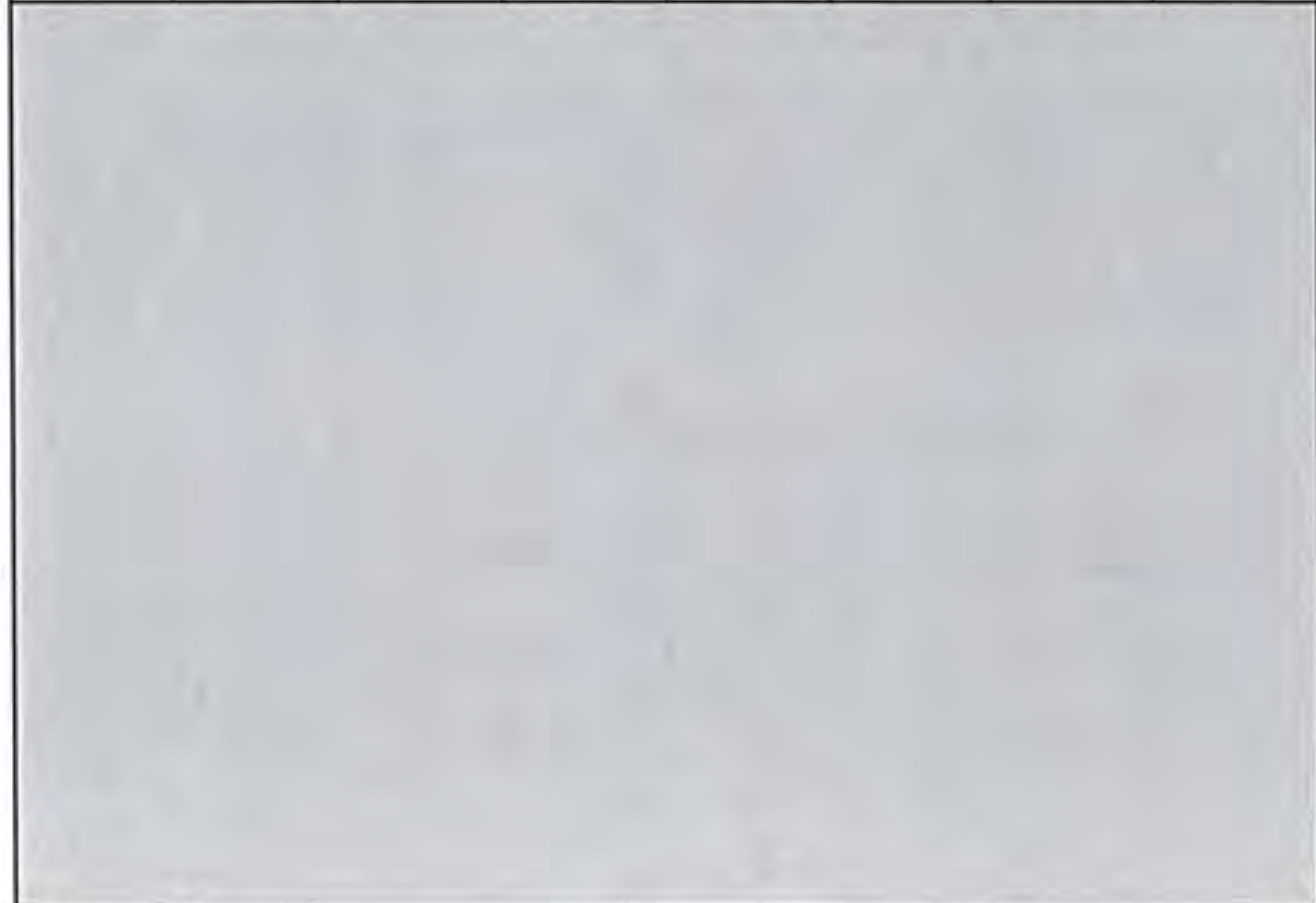
Head Office: 108-25, 26th St Industrial Estate, Peter Park, Chester-le-Street, Co. Durham, DH2 2EG - Tel: 0191 357 4700 Fax: 0191 357 4710
Regional Office: 144-75, Business Development Centre, Easingwold, East Yorkshire, YO21 3SE - Tel: 01753 751 990 Fax: 01753 751 999

IN-SITU WATER QUALITY PARAMETER MONITORING RESULTS

Date of Test: 18/06/2020	Operator: A. Masterman
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Weather Condition (inc temperature) :

Monitoring Point	Time (hrs)	pH	Temp (°C)	Electrical Conductivity (Actual) (µs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
PRAIRIE_AUK_BH108 (Shallow)	08:45:00	7.74	13.87	1704.00	278.00	38.43	1.41
	08:48:00	7.97	13.74	1710.00	314.20	35.71	1.42
	08:51:00	8.02	13.72	1711.90	307.70	33.61	1.42
	08:54:00	8.05	13.76	1713.70	306.30	34.54	1.42
PRAIRIE_AUK_BH110	11:21:00	8.12	14.22	2931.00	246.30	42.36	2.41
	11:24:00	8.11	13.23	2920.00	292.20	41.66	2.45
	11:27:00	8.11	12.99	2915.00	308.20	40.96	2.46



Remarks :

Contract Title: Prairie Site Ground Investigation Works	Client: South Tees Development Corporation
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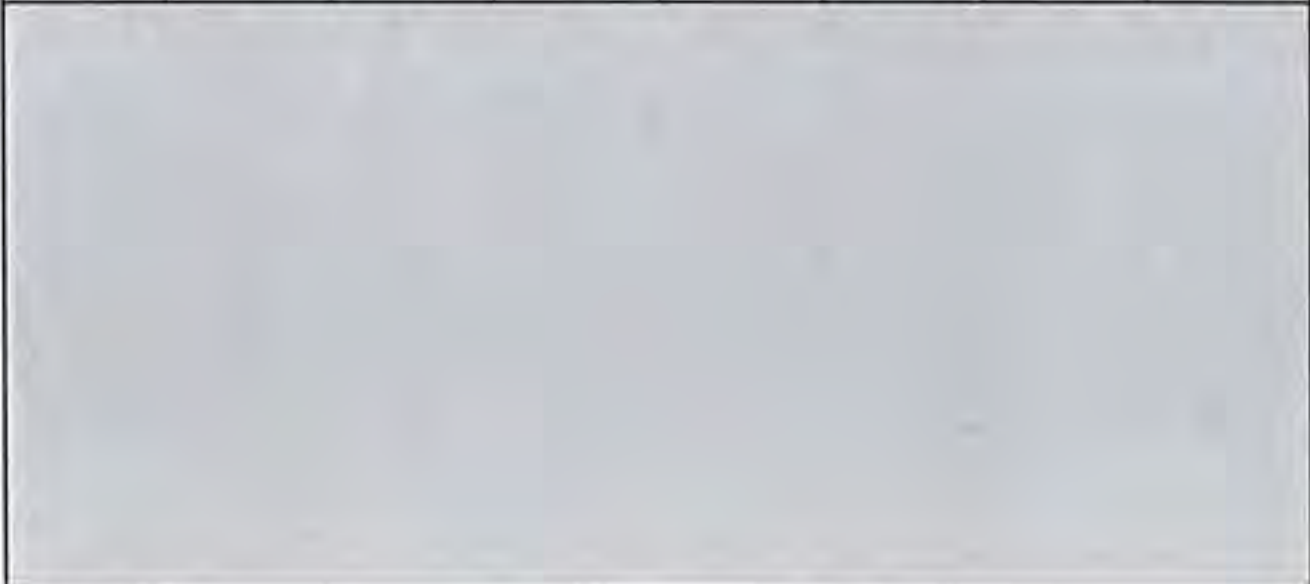
	Checked By: <i>LC</i> Date Issued: 05/11/2020	Approved By: <i>AKW</i> AEG Contract No.: 4251	
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IN-SITU WATER QUALITY PARAMETER MONITORING RESULTS



Date of Test: 18/05/2020		Operator: A. Masternan					
Weather Condition (inc temperature) :		Cloudy (13-14°C)					
Monitoring Point	Time (hrs)	pH	Temp (°C)	Electrical Conductivity (Actual) (µs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
PRAIRIE_AUK_BH102	12:36:00	12.89	12.49	4372.20	-103.90	37.05	3.74
	12:39:00	12.94	12.72	4391.40	-101.20	32.12	3.73
	12:42:00	12.98	12.99	4416.70	-100.00	30.57	3.72
	12:45:00	13.00	13.15	4431.30	-102.60	30.46	3.72
PRAIRIE_AUK_BH107	14:16:00	7.50	11.80	1703.90	280.20	7.95	1.48
	14:19:00	7.40	11.61	1681.40	322.10	7.71	1.47
	14:22:00	7.36	11.52	1667.10	349.10	7.40	1.46
	14:25:00	7.34	11.42	1664.20	360.20	7.36	1.46
PRAIRIE_AUK_BH109	15:33:00	7.17	11.50	3392.80	340.40	35.08	2.99
	15:38:00	7.33	11.89	3727.00	371.70	59.40	3.25
	15:39:00	7.41	11.75	4058.00	380.20	75.67	2.47
	15:42:00	7.78	12.32	3237.90	390.10	88.64	3.38
	15:45:00	7.90	12.72	3948.80	364.20	89.69	2.74



Remarks :			
Contract Title: Prairie Site Ground Investigation Works		Client: South Tees Development Corporation	
	Checked By: <i>LC</i>	Approved By: <i>AW</i>	
Date Issued: 05/11/2020	Page No: 4 of 4	AEG Contract No: 4251	



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IN-SITU WATER QUALITY PARAMETER MONITORING RESULTS							
Date of Test: 30/06/2020		Operator: A. Masterman					
Weather Condition (inc temperature):				Overcast (17°C)			
Monitoring Point	Time (hrs)	pH	Temp (°C)	Electrical Conductivity (Actual) (µs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
PRAIRIE_AUK_BH104	15:34:00	7.69	13.20	1229.00	50.10	7.74	1.01
	15:37:00	7.62	13.26	1120.00	52.60	7.46	0.93
	15:40:00	7.62	13.57	1124.00	53.90	9.52	0.95
	-	-	-	-	-	-	-
Remarks:	PRAIRIE_AUK_BH104 & PRAIRIE_AUK_BH107 - unable to sample using pump due to lack of head. Agreed with Arcadis to sample using a bailer.						
Contract Title: Prairie Site Ground Investigation Works				Client: South Tees Development Corporation			
	Checked By: <i>LC</i>			Approved By: <i>AW</i>			
	Date Issued: 05/11/2020		Page No: 1 of 3	AEG Contract No.: 4251			



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IN-SITU WATER QUALITY PARAMETER MONITORING RESULTS							
Date of Test:		01/07/2020		Operator:		A. Masterman	
Weather Condition (inc temperature):				Overcast (16°C)			
Monitoring Point	Time (hrs)	pH	Temp (°C)	Electrical Conductivity (Actual) (µS)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
PRAIRIE_AUK_BH101 (Deep)	09:21:00	8.85	13.30	2352.00	-305.90	7.85	1.94
	09:24:00	8.80	12.02	1372.00	-296.30	1.64	1.24
	09:27:00	8.66	11.85	1842.00	-294.00	1.24	1.60
	09:30:00	8.64	11.91	1834.00	-292.60	1.10	1.59
PRAIRIE_AUK_BH101 (Shallow)	09:35:00	9.60	12.32	1439.00	-306.00	2.24	1.27
	09:38:00	9.12	12.39	1583.00	-290.00	1.53	1.36
	09:41:00	9.04	12.19	1617.00	-286.00	1.53	1.39
	09:44:00	8.97	12.15	1647.00	-282.00	1.76	1.42
PRAIRIE_AUK_BH102	08:44:00	12.79	13.02	4476.00	-416.39	1.63	3.78
	08:47:00	12.66	12.88	4509.00	-423.30	1.30	3.84
	08:50:00	12.94	12.57	4622.00	-421.00	1.00	3.95
	-	-	-	-	-	-	-
PRAIRIE_AUK_BH103	11:39:00	9.38	12.05	935.30	-212.00	3.13	0.80
	11:42:00	9.39	12.09	840.63	-203.00	1.64	0.72
	11:45:00	9.40	12.14	830.17	-200.00	1.52	0.71
	11:48:00	9.39	12.10	813.60	-199.10	1.29	0.70
PRAIRIE_AUK_BH106	15:31:00	9.98	12.22	886.70	-164.50	2.73	0.75
	15:34:00	9.35	12.08	1274.00	-229.00	2.22	1.10
	15:37:00	9.41	12.00	1272.00	-242.90	1.69	1.10
	15:40:00	9.43	11.98	1272.60	-250.20	1.62	1.10
PRAIRIE_AUK_BH110	10:29:00	7.62	12.70	4057.00	86.80	11.19	3.45
	10:32:00	7.60	12.51	4045.00	129.50	9.43	3.45
	10:35:00	7.60	12.47	4045.00	169.00	8.48	3.45
	10:38:00	7.60	12.35	4026.00	160.60	7.72	3.46
	10:42:00	7.59	12.29	4022.00	266.20	7.31	3.46
Remarks:	N/A						
Contract Title				Client			
Prairie Site Ground Investigation Works				South Tees Development Corporation			
	Created by:			Approved by:			
	<i>LC</i>			<i>AKW</i>			
Date Issued		Page No.		AEG Contract No.			
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ALLIED EXPLORATION GEOTECHNICS LIMITED

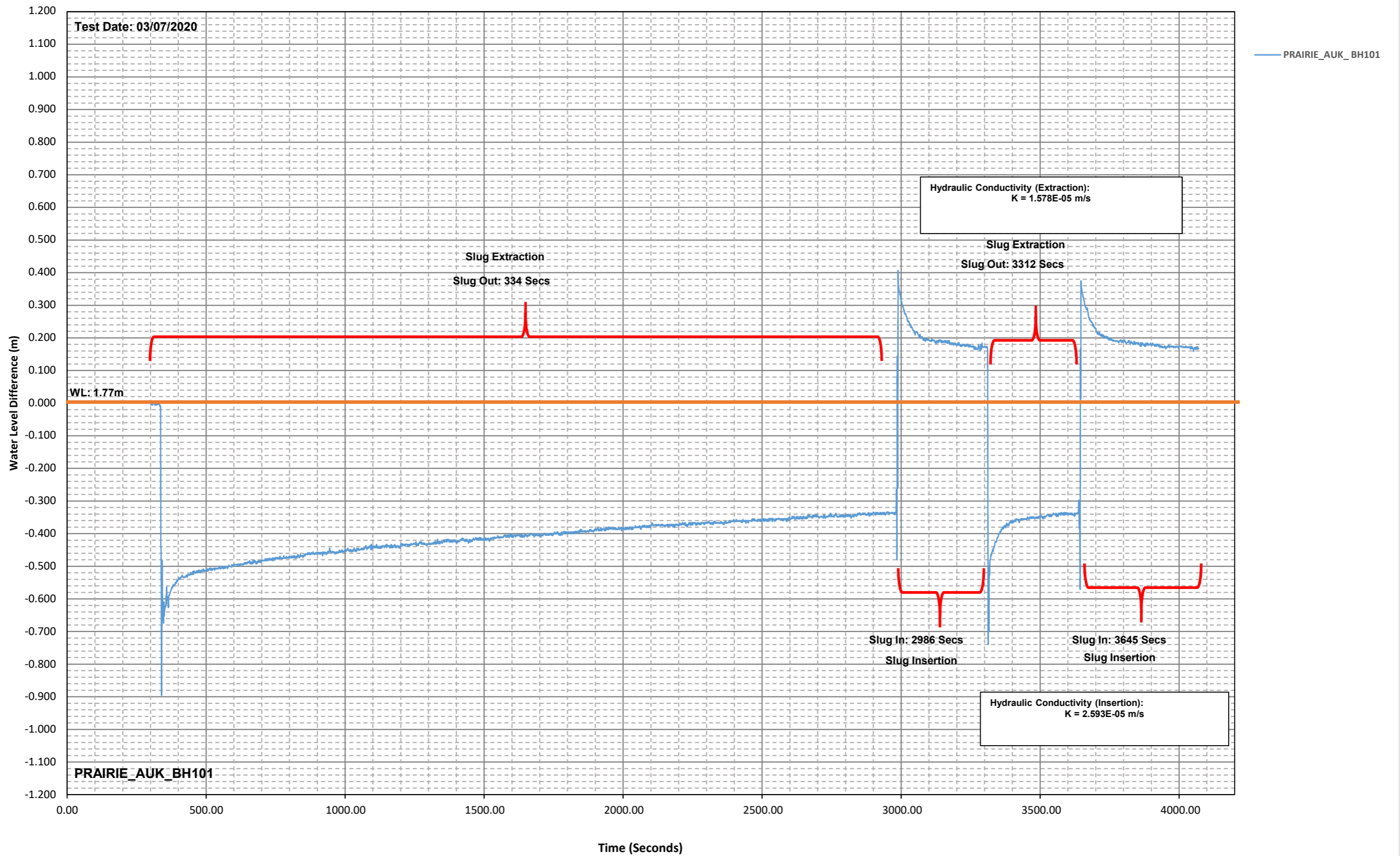
Head Office: 19427 26th Street, Surrey, British Columbia, Canada, V4N 1V6 Tel: (604) 877-8787 Fax: (604) 877-8788
 Branch Office: 100-10000 100th Street, Edmonton, Alberta, T5A 1G6 Tel: (780) 443-1111 Fax: (780) 443-1112

IN-SITU WATER QUALITY PARAMETER MONITORING RESULTS							
Date of Test:		02/07/2020		Operator:		A. Masseran	
Weather Condition (inc temperature):				Overcast/Showers (11°C)			
Monitoring Point	Time (hrs)	pH	Temp (°C)	Electrical Conductivity (Actual) (µS)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
PRAIRIE_AUK_BH105	10:13:00	7.76	11.23	1394.10	-196.80	4.11	1.23
	10:16:00	7.71	11.21	1462.20	-197.00	2.53	1.29
	10:19:00	7.43	11.23	1598.80	-185.50	1.88	1.41
	10:22:00	7.37	11.27	1623.20	-179.50	1.80	1.43
PRAIRIE_AUK_BH107	11:44:00	6.93	12.00	2177.60	9.10	6.25	1.88
	11:47:00	6.94	12.02	2178.60	12.10	7.05	1.88
	11:50:00	6.94	12.17	2188.90	16.60	9.01	1.88
	11:53:00	6.93	12.07	2184.30	-1.50	5.44	1.89
	11:56:00	6.91	11.78	2168.00	-29.50	3.70	1.89
	11:59:00	6.91	11.75	2167.00	-40.30	2.96	1.89
	12:02:00	6.90	11.81	2172.30	-56.30	3.23	1.89
	12:05:00	6.89	11.83	2162.50	-71.50	2.24	1.89
	12:08:00	6.89	11.86	2166.20	-76.90	3.12	1.89
PRAIRIE_AUK_BH108 (Deep)	09:08:00	7.69	11.23	2649.00	-156.90	4.52	2.34
	09:11:00	7.17	11.26	2935.30	-141.70	3.36	2.59
	09:14:00	6.96	11.28	2971.80	-125.70	2.15	2.62
	09:17:00	6.92	11.29	2979.60	-110.20	2.11	2.62
	09:20:00	6.90	11.28	2984.50	-103.90	1.77	2.63
PRAIRIE_AUK_BH108 (Shallow)	09:33:00	7.40	11.84	2368.40	-174.90	20.18	2.06
	09:36:00	7.39	11.63	2400.00	-182.20	16.98	2.10
	09:39:00	7.38	11.84	2402.90	-181.80	17.97	2.10
PRAIRIE_AUK_BH109	13:22:00	6.53	12.15	5418.60	-103.40	6.04	4.69
	13:25:00	6.53	11.67	5378.40	-114.70	5.25	4.69
	13:28:00	6.53	11.52	5344.30	-113.00	4.76	4.68
	13:31:00	6.54	11.45	5312.60	-110.50	4.12	4.66
Remarks:	PRAIRIE_AUK_BH108 (Shallow) - Testing undertaken in container (not in-line)						
Contract File				Client			
Prairie Site Ground Investigation Works				South Tees Development Corporation			
	Drawn By:			Approved By:			
	<i>LC</i>			<i>KW</i>			
Date Issued:		Page No.		Allied Contract No.			
05/11/2020		3 of 3		4251			

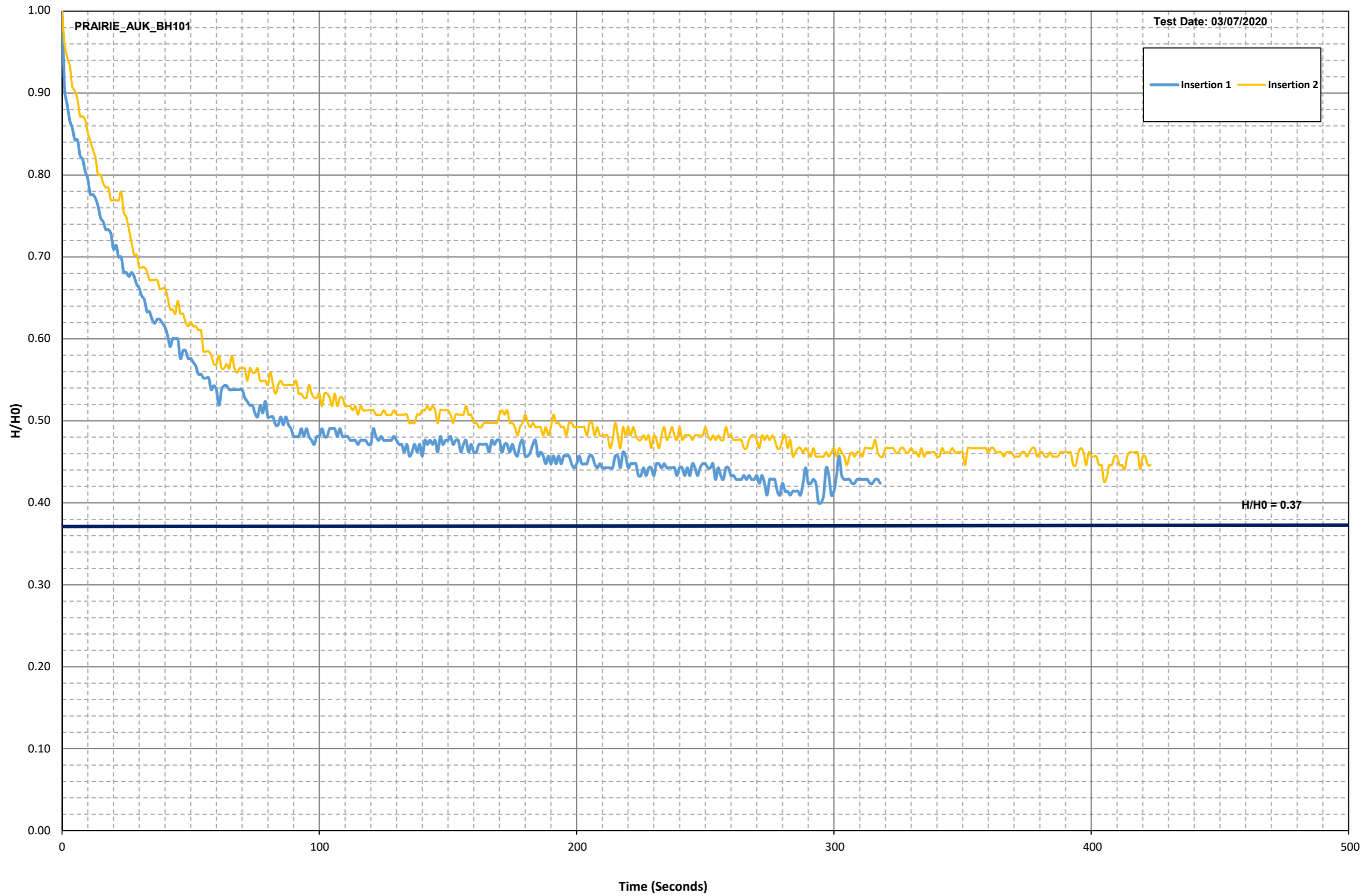
Hydraulic Conductivity: Slug Test Results



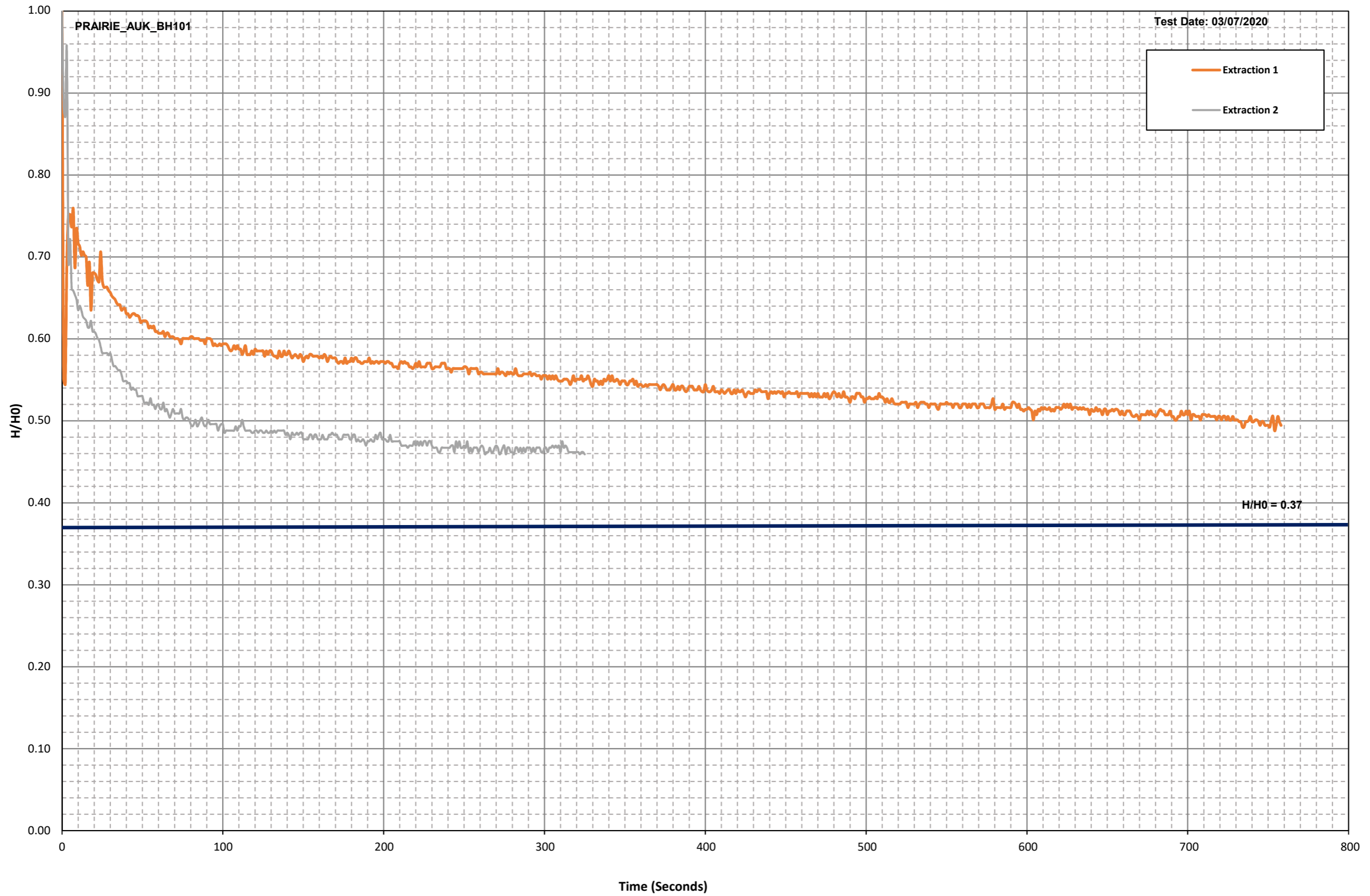
Hydraulic Conductivity: Slug Test



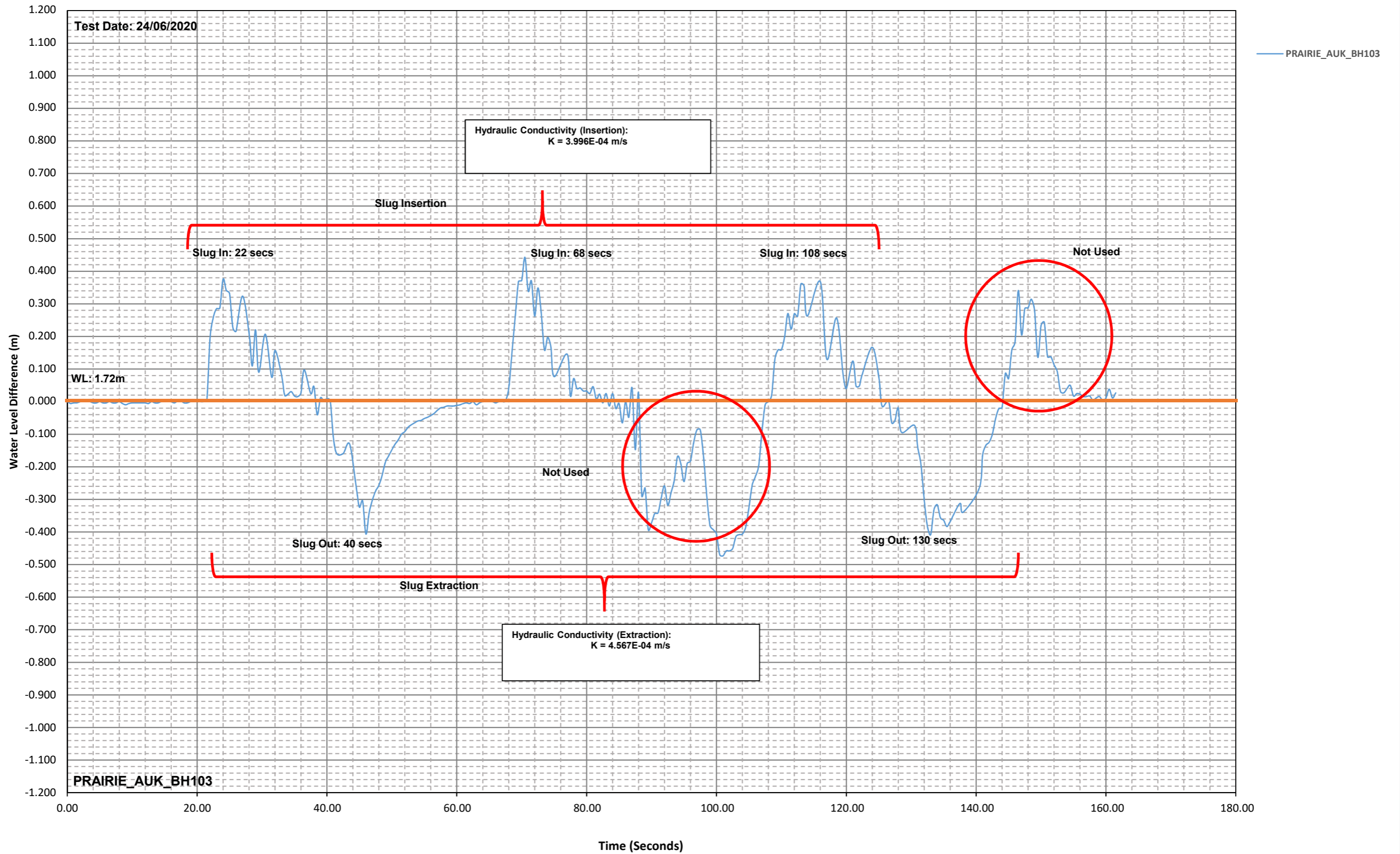
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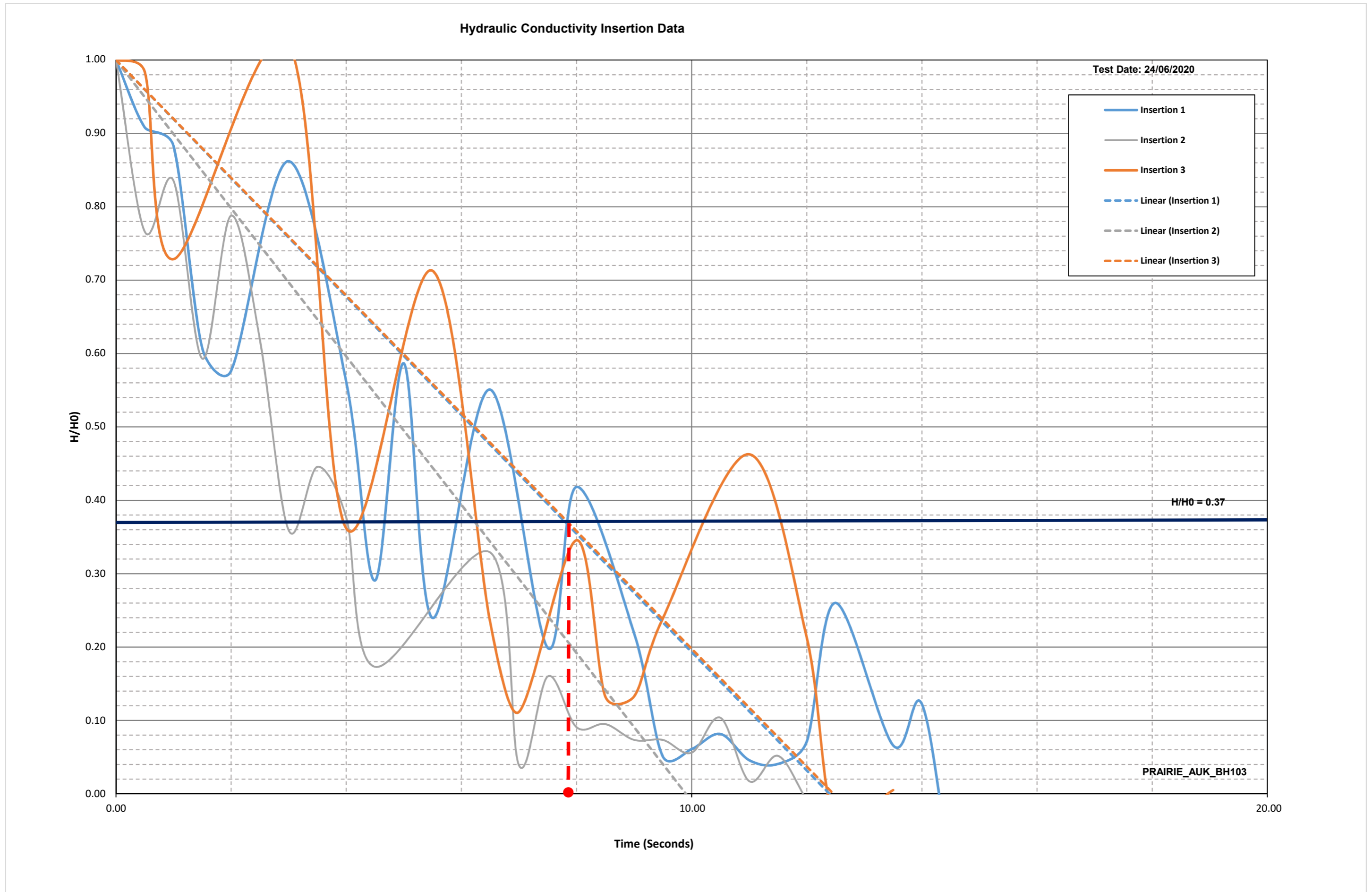


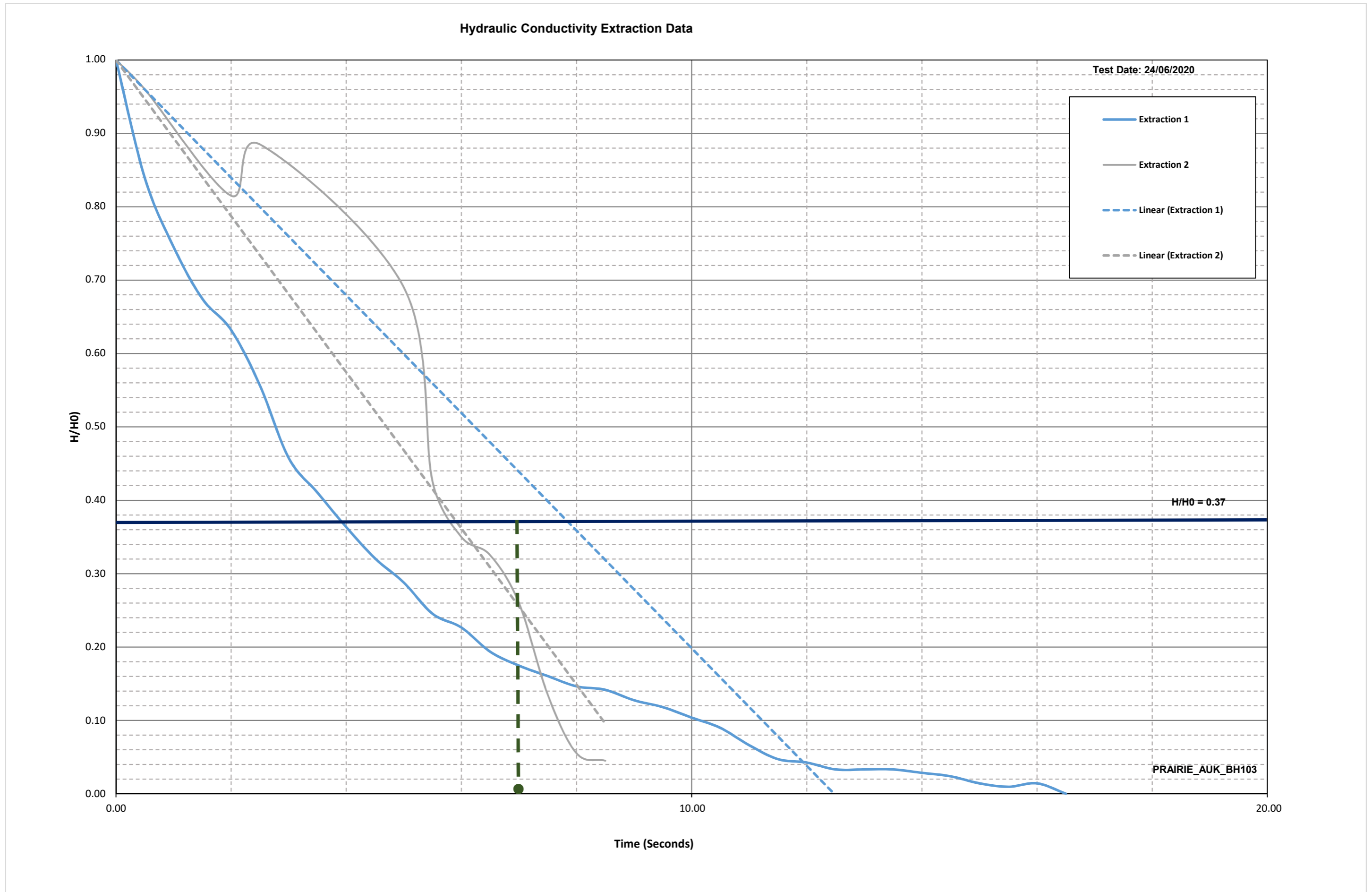
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Hydraulic Conductivity: Slug Test

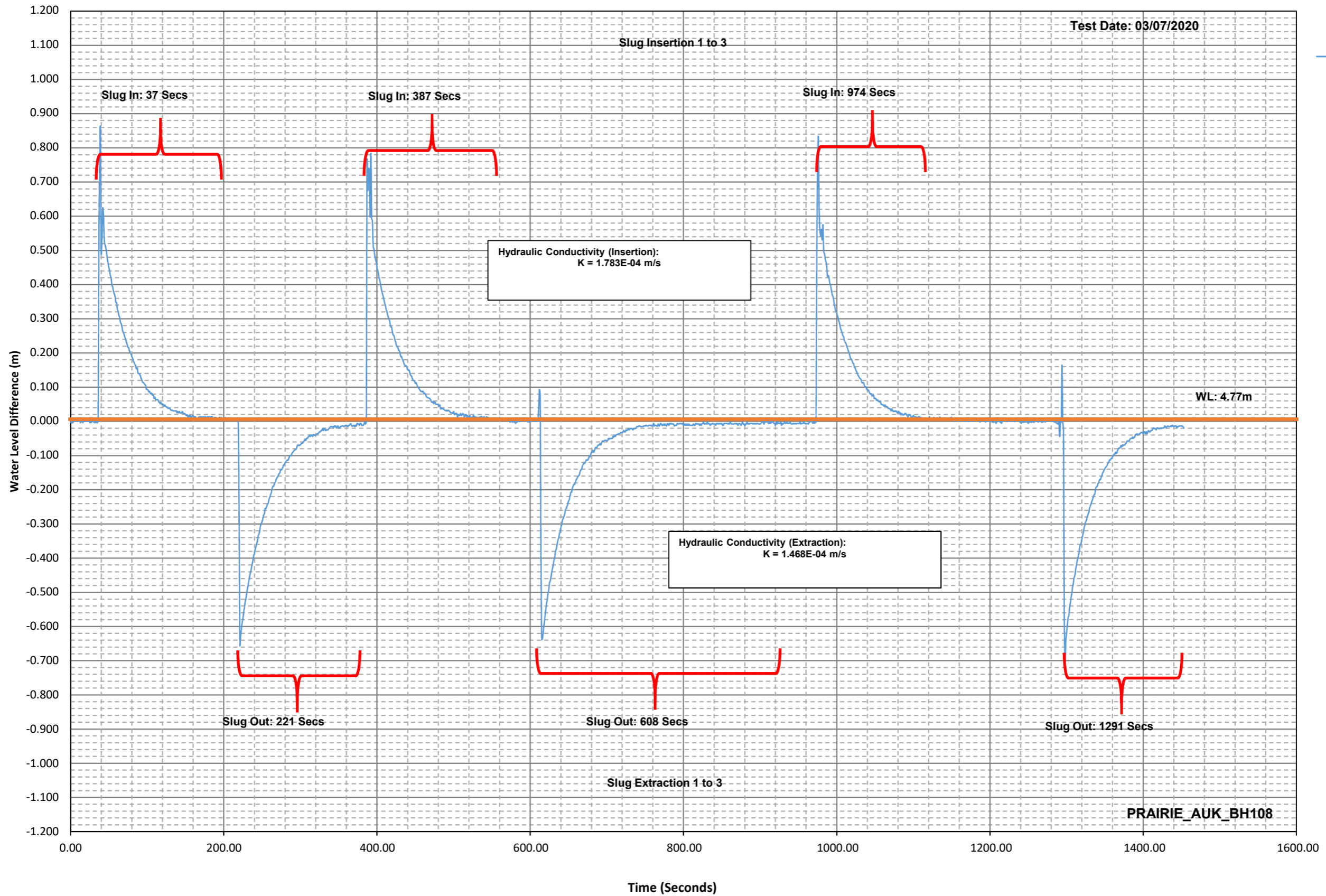




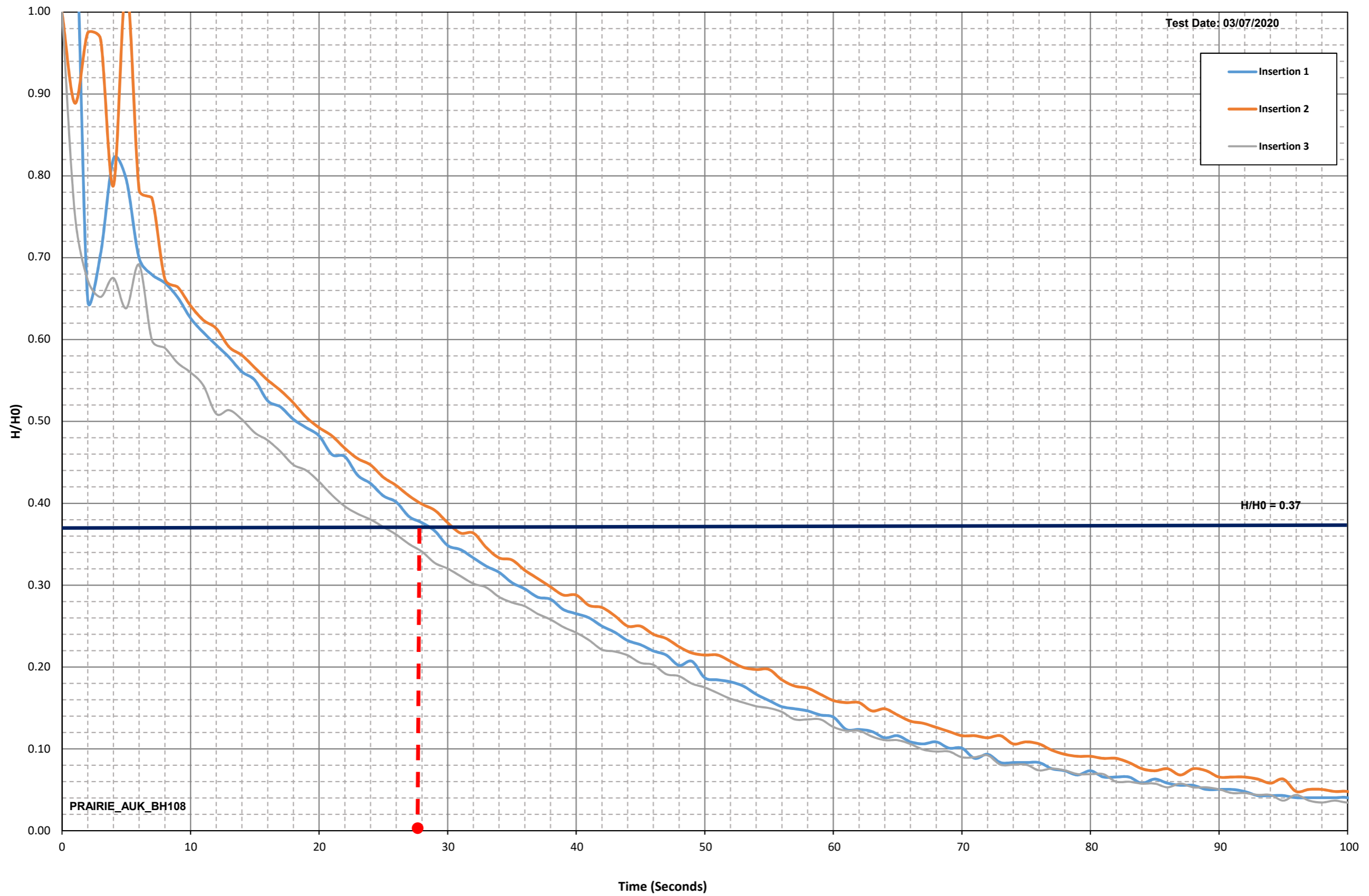


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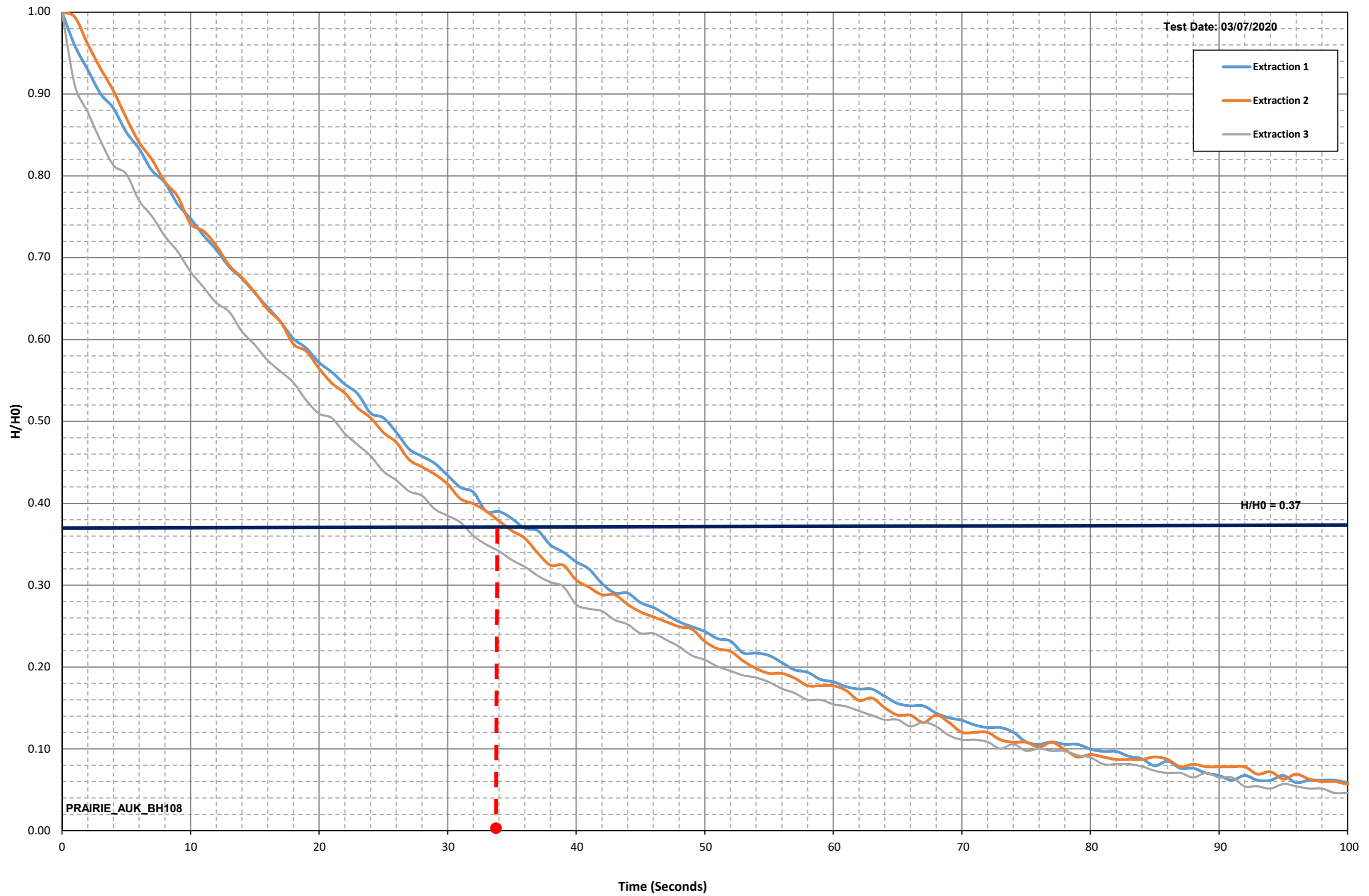
Test Date: 03/07/2020



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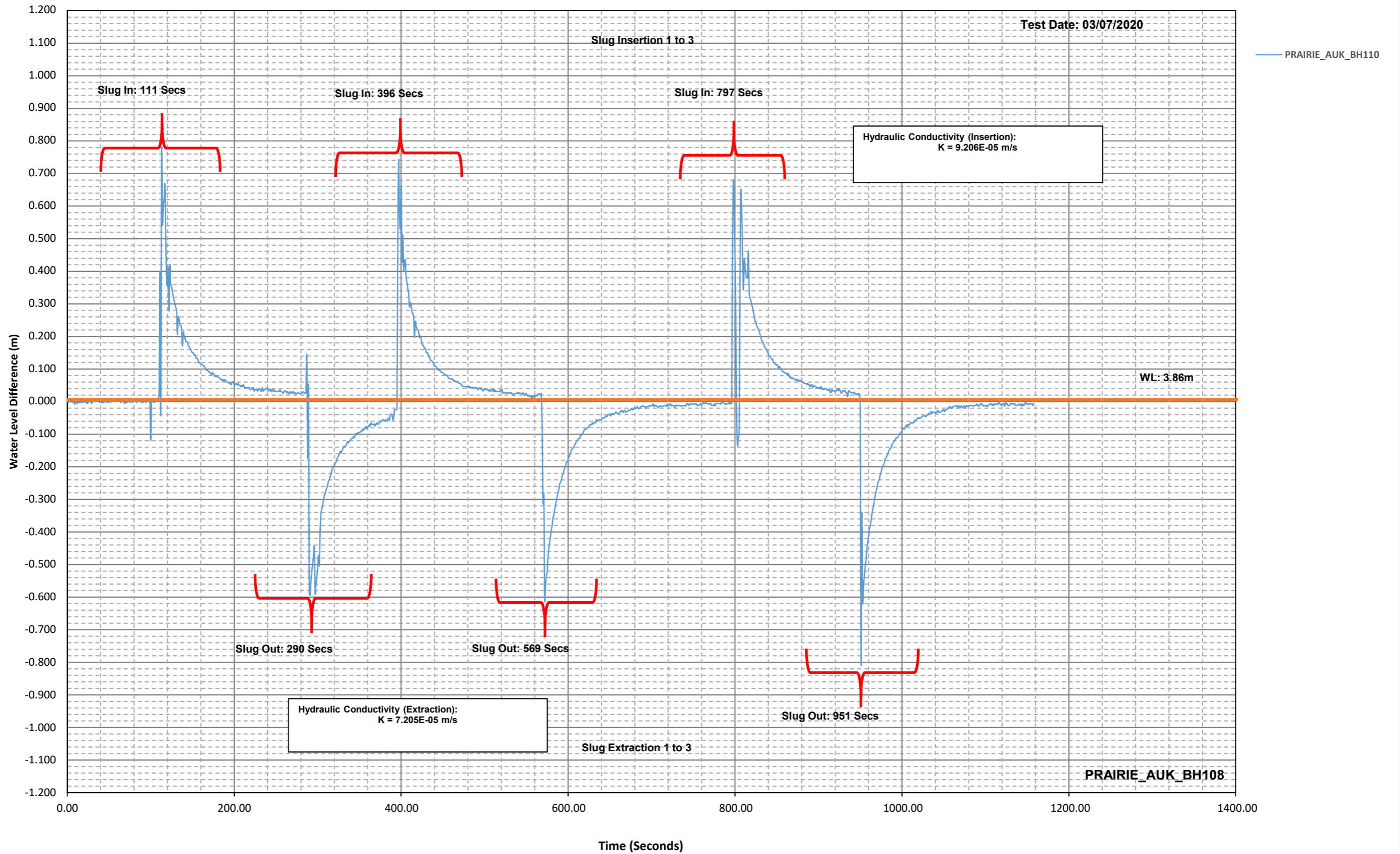


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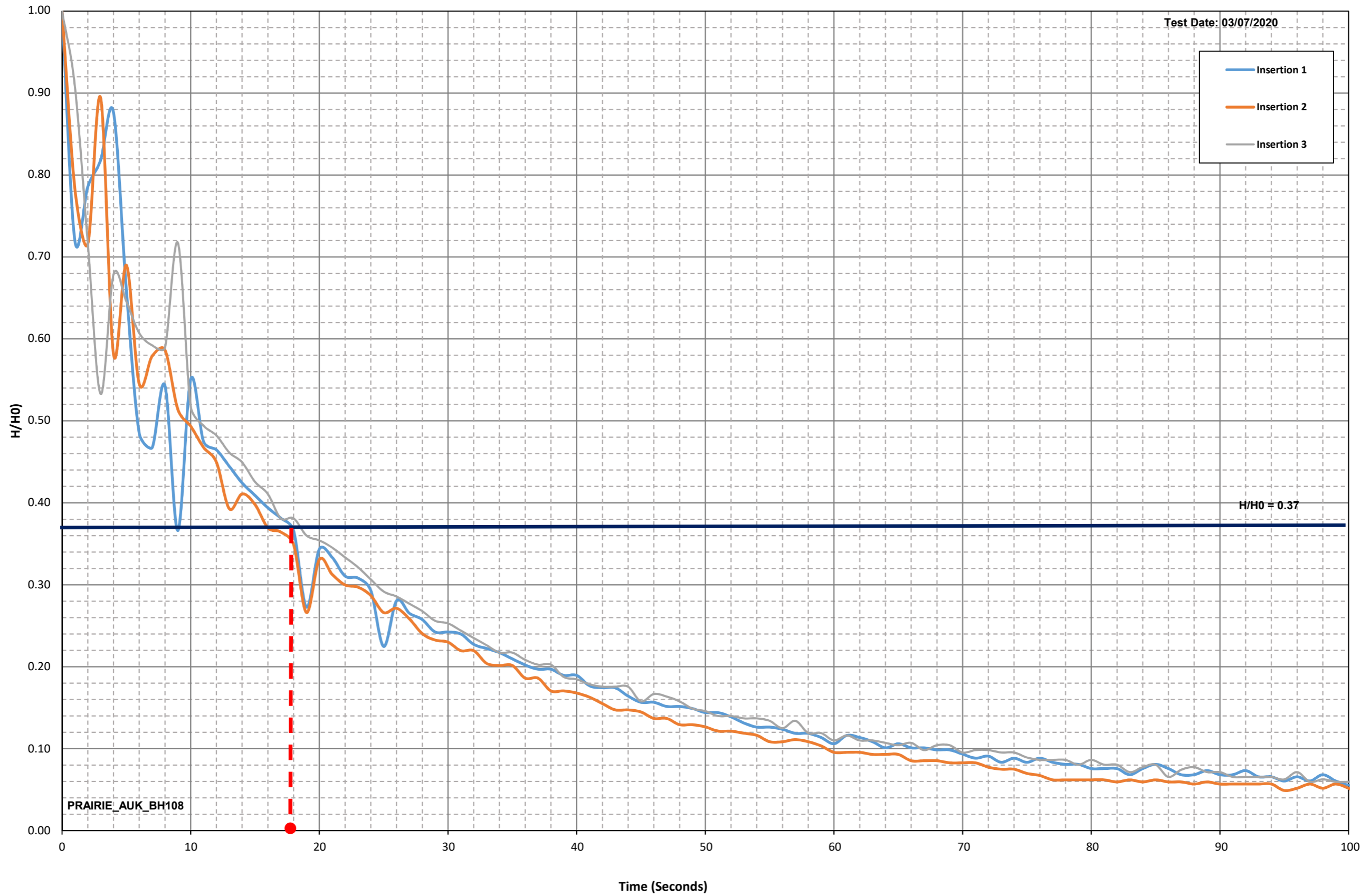


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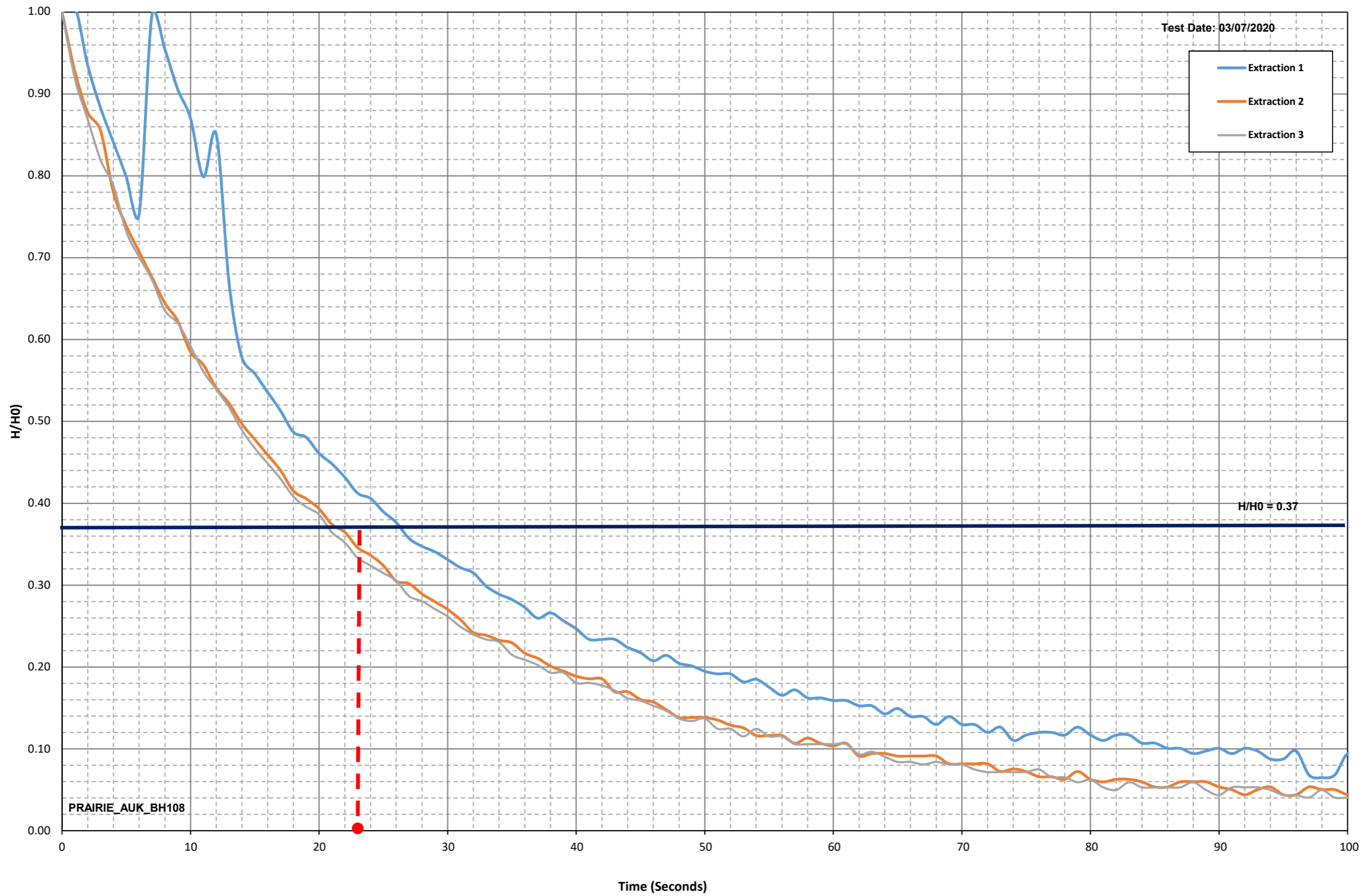
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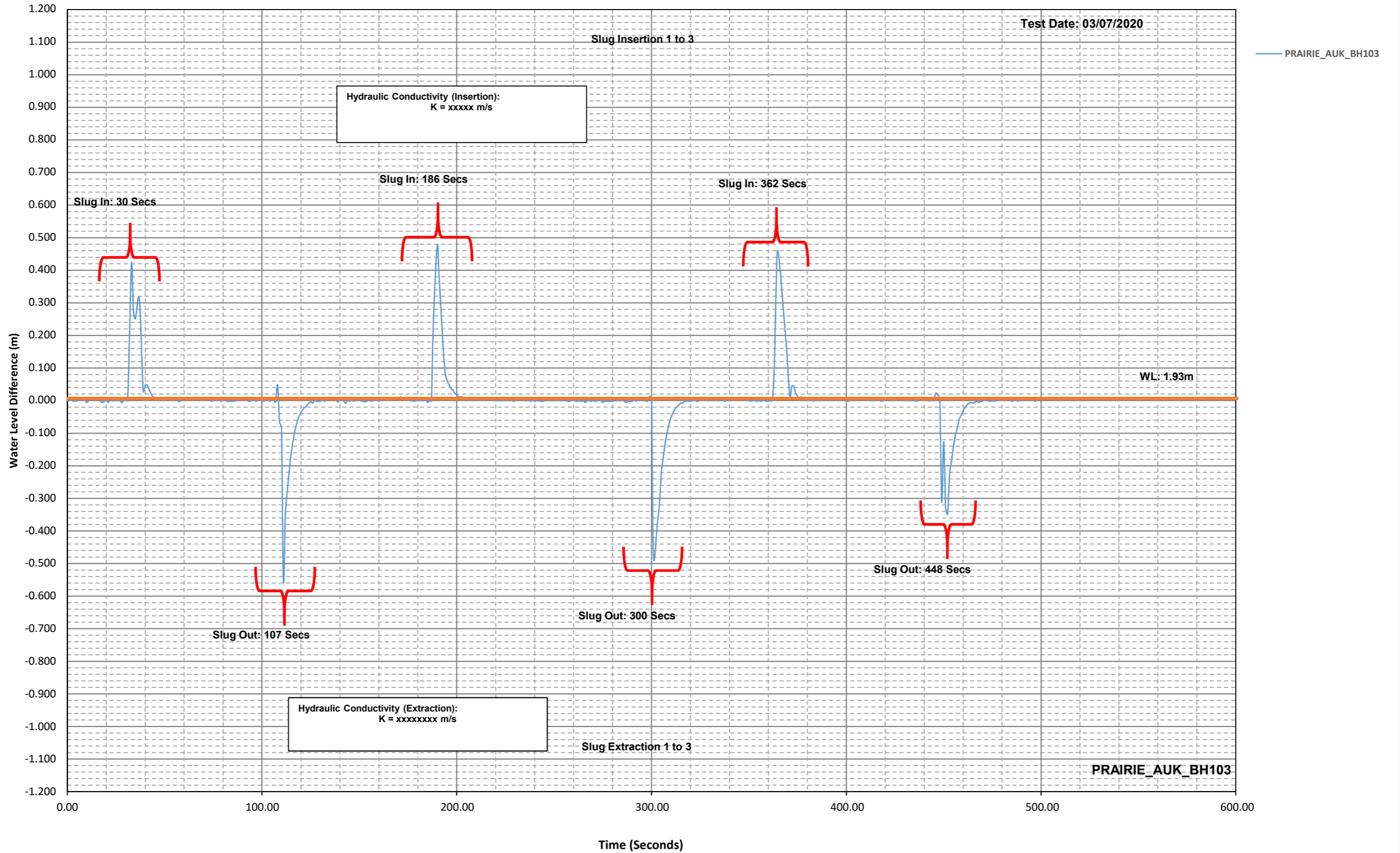


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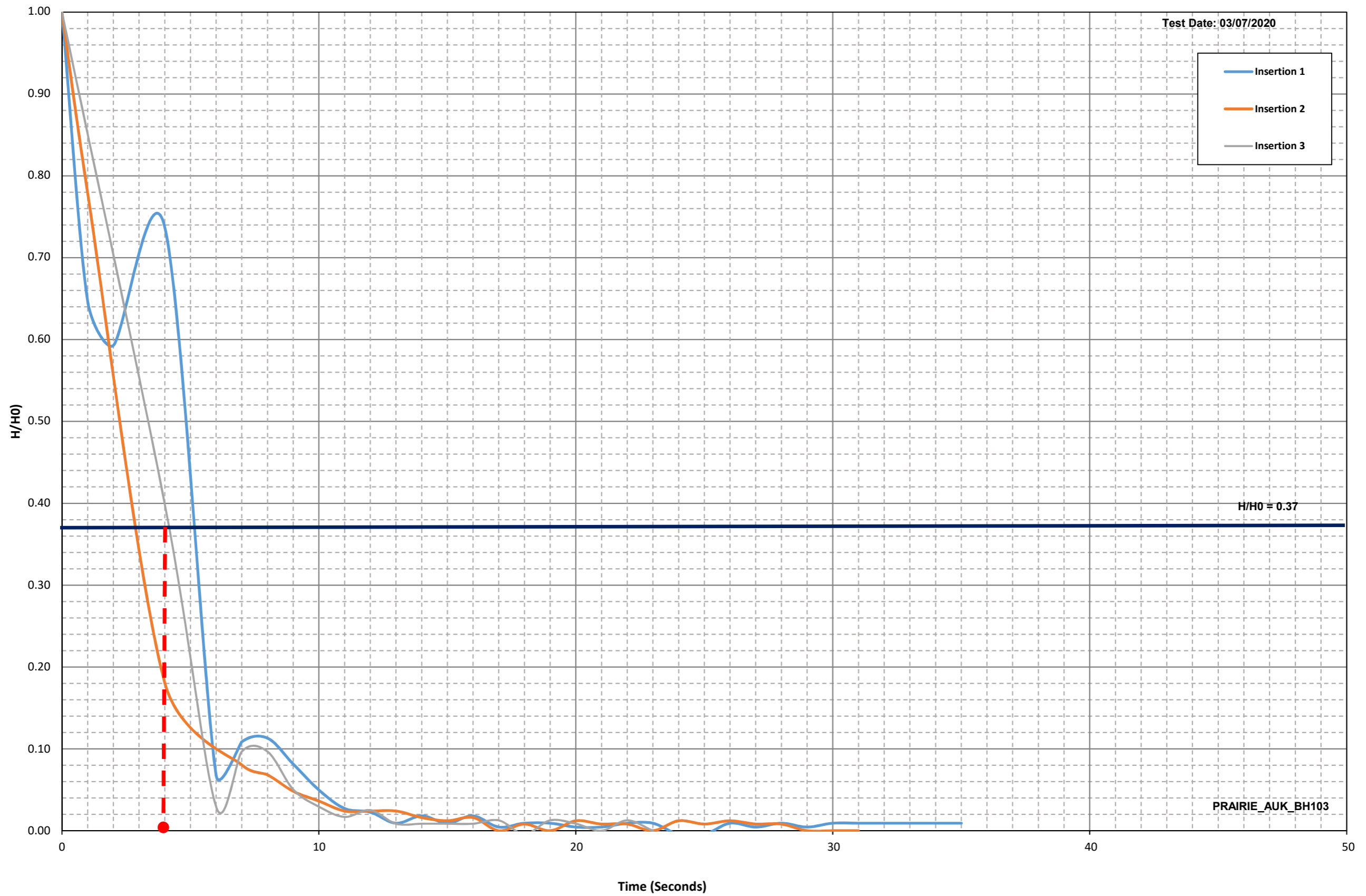


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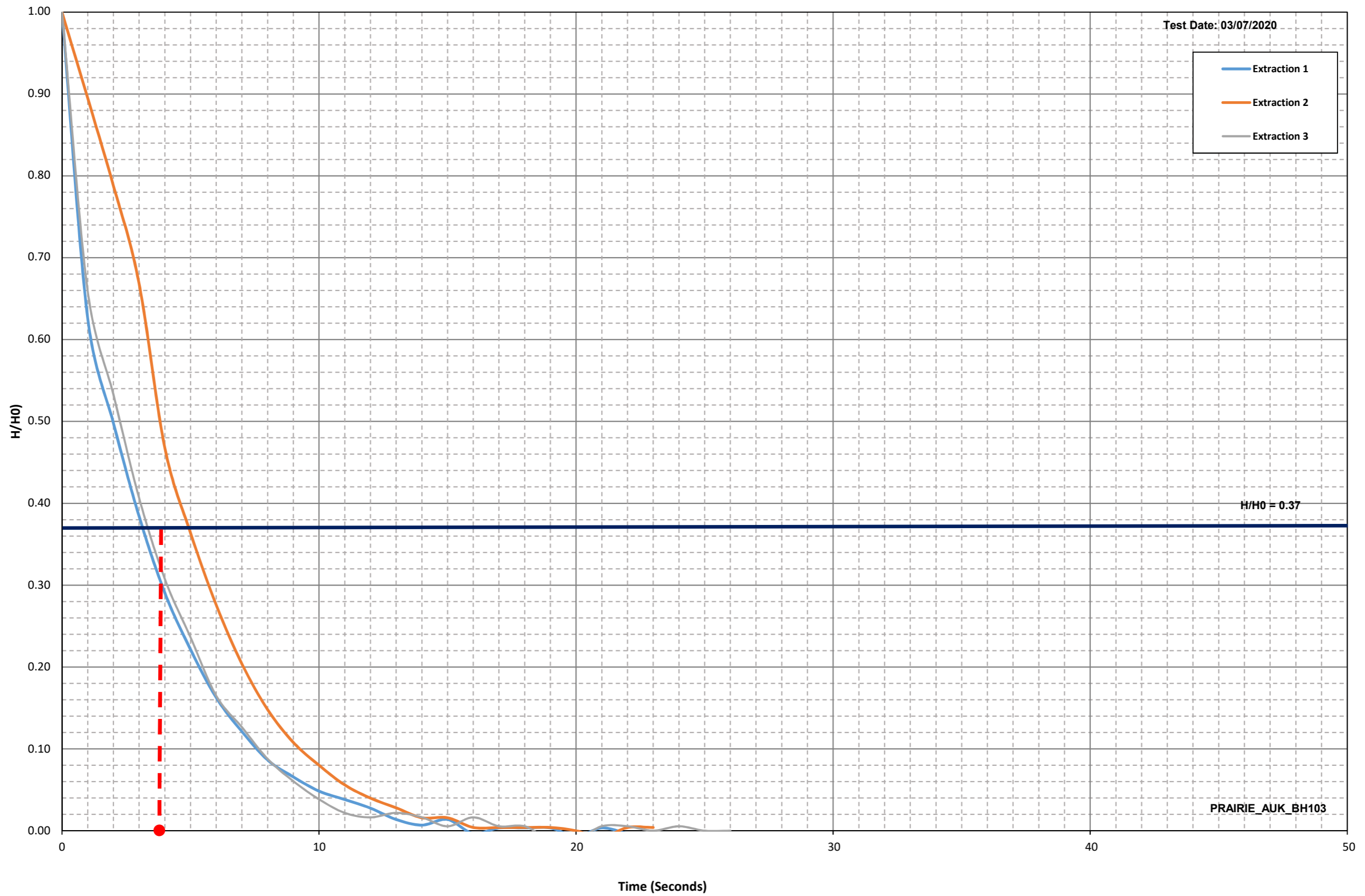
Test Date: 03/07/2020



Hydraulic Conductivity Insertion Data



Hydraulic Conductivity Insertion Extraction Data



Laboratory Report Certificate



ALLIED EXPLORATION & GEOTECHNICS LIMITED

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LABORATORY REPORT CERTIFICATE

Contract Title: Prairie Site Ground Investigation Works **AEG Reference:** 4251

Client: South Tees Development Corporation

We certify that Laboratory testing was carried out on samples from the above contract in accordance with techniques outlined in BS 1377: 1990, BS EN ISO 17892:2014 or other appropriate standards as quoted. The samples were received from April 2020 and the following results, given on the attached enclosures, were obtained.

The tests carried out are indicated in the attached table showing the enclosure number and the total number of pages.

For and on behalf of Allied Exploration & Geotechnics Limited

- Nick Vater (Managing Director)
- Kevin Warriner (HSE & Quality Director)
- Michelle Selkirk (Laboratory Manager)

Signed



Date: 06 November 2020

Tests marked not UKAS accredited in this certificate are not included in the UKAS accreditation schedule for our laboratory. Any opinions and interpretations expressed herein are outside the scope of the laboratory's UKAS accreditation.

Please note the material was derived from samples taken outside the control of the laboratory.

LABORATORY REPORT CERTIFICATE

ENCLOSURES

Enclosure Number	Description	UKAS Accredited	Reference	No. of Pages
0	Laboratory Report Certificate	N/A		3
1	Sample Description Sheets	N/A		11
2	Moisture Content	Yes	BS 1377 Part 2 1990 (BS EN ISO 17892-1:2014)	1
2	Plasticity Index and Moisture Content	Yes	BS 1377 Part 2 1990 (BS EN ISO 17892-1:2014)	8
3	Determination of Particle Density	Yes	BS 1377 Part 2 1990	1
4	Particle Size Distribution Sieving	Yes	BS 1377 Part 2 1990	76
4	Particle Size Distribution Sedimentation	No	BS 1377 Part 2 1990	25
5	Determination of Calorific Value, Organic Matter Content, Sulphate and pH (Tested externally)	No	See DETS certificates	19
6	Determination of Dry Density/Moisture Content Relationship	Yes	BS 1377 Part 4 1990	39
7	Determination of California Bearing Ratio	Yes	BS 1377 Part 4 1990	35
8	Determination of One Dimensional Consolidation Properties	Yes	BS 1377 Part 5 1990	4
9	Shear Strength by Hand Vane	No		1
10	Un drained Shear Strength in Triaxial Cell without Pore Water Pressure Measurement	Yes	BS 1377 Part 7 1990	2
11	Determination of Point Load Index	Yes	ISRM 1985	1
12	Determination of Unconfined Compressive Strength (Tested externally)		ISRM 1985	2
13	Slag Analysis (Tested externally)			20

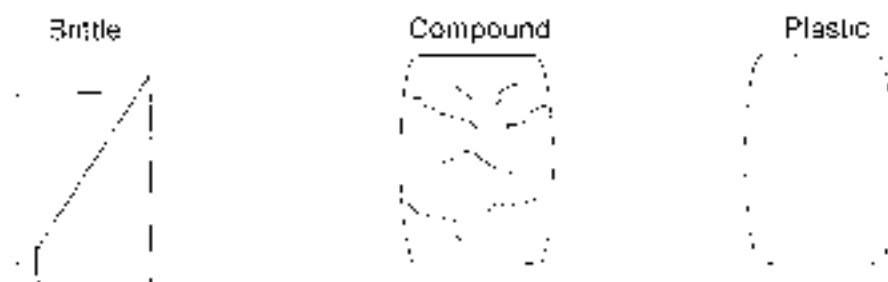
LABORATORY REPORT CERTIFICATE

ABBREVIATIONS

All the abbreviations used on the laboratory certificates are given below.

Br	Brittle	PSD	Particle Size Distribution by sieve analysis
C	Compound	SB	Shear Box
CBR	California Bearing Ratio	SED	Sedimentation Analysis
CDT	Consolidated Drained Triaxial	SO4	Sulphate (total, water extract, groundwater)
CL	Chloride content (water or soil)	CP2	Dry Density/Moisture Content 2.5kg rammer
US	Unsuitable sample for test	CP4	As above using 4.5kg rammer
UUT	Undrained Unconsolidated Triaxial	CPV	As above using vibrating hammer
HSV	Vane Test	CUT	Consolidated Undrained Triaxial
IS	Insufficient sample for test	R	Remoulded
LOI	Loss On Ignition	U	Undisturbed
M	Multi-stage testing	MC	Moisture Content
MCV	Moisture Content Value	PL	Point Load
NAT	Natural preparation method	NMC	Natural (or as received) moisture content
P	Plastic	PFH	Permeability Falling Head Method
OED	Oedometer	PTXL	Permeability in Triaxial Cell
OMC	Optimum Moisture Content	ORG	Organic content
B	Large disturbed (bulk) sample	PD	Particle Density (SS)
J	Small disturbed (jar) sample	PI	Liquid limit, plastic limit and plasticity index

Typical Mode of Failure for Triaxial Testing



Sample Description Sheets




ALLIED EXPLORATION & GEOTECHNICS LIMITED

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Regional Offices: Lincoln, Gloucester, Manchester, Cardiff & Preston. E-mail: sales@allied-eg.com. Tel: 01753 701121 Fax: 01753 701122

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_BH101	3.00	U2	Low strength laminated brown silty CLAY of intermediate plasticity with occasional silt lenses.	MC PI PD UUT
PRAIRIE_AUK_BH101	4.00	J4	Brown slightly sandy CLAY.	SO4
PRAIRIE_AUK_BH101	4.00	B5	Brown silty slightly sandy CLAY	PSD SED
PRAIRIE_AUK_BH101	5.00	U7	Low strength laminated brown silty slightly sandy CLAY of intermediate plasticity.	MC PI UUT
PRAIRIE_AUK_BH101	8.00	U12	Medium strength laminated brown silty slightly sandy CLAY.	UUT
PRAIRIE_AUK_BH101	9.00	J14	Brown slightly sandy CLAY	SO4
PRAIRIE_AUK_BH101	11.00	U18	High strength brown slightly sandy slightly gravelly CLAY of low plasticity.	MC PI PD UUT
PRAIRIE_AUK_BH101	12.50	J21	Brown slightly sandy gravelly CLAY.	MC PI (IS for LL)
PRAIRIE_AUK_BH101	12.50	B22	Brown slightly sandy slightly gravelly CLAY with a medium cobble content.	PSD SED
PRAIRIE_AUK_BH101	17.00	J30	Brown slightly sandy gravelly CLAY.	BRE
PRAIRIE_AUK_BH101	18.00	J33	White and brown slightly sandy GRAVEL.	MC BRE US for PI
PRAIRIE_AUK_BH103	2.50	U2	Medium strength brown slightly sandy CLAY	UUT OED
PRAIRIE_AUK_BH103	2.95	J3	Brown slightly sandy CLAY of high plasticity.	MC PI
PRAIRIE_AUK_BH103	4.50	U8	Medium strength brown slightly sandy CLAY	UUT
PRAIRIE_AUK_BH103	5.50	B12	Brown silty slightly sandy CLAY.	PSD SED
PRAIRIE_AUK_BH103	7.00	U14	Medium strength laminated brown CLAY with occasional silt pockets.	UUT
PRAIRIE_AUK_BH103	8.50	J18	Brown sandy slightly gravelly CLAY of low plasticity.	MC PI
PRAIRIE_AUK_BH103	8.50	B19	Brown slightly sandy slightly gravelly CLAY	PSD SED
PRAIRIE_AUK_BH103	10.00	U21	High strength brown slightly sandy slightly gravelly CLAY	UUT
PRAIRIE_AUK_BH103	13.00	J27	Brown sandy slightly gravelly CLAY of low plasticity	MC PI BRE
PRAIRIE_AUK_BH104	5.50	U2	High strength brown slightly sandy CLAY	UUT

Contract Title - Prairie Site Ground Investigation Works	Client - South Tees Development Corporation
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ALLIED EXPLORATION & GEOTECHNICS LIMITED

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m) ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_BH104	5.95 J3	Brown with grey veining slightly sandy slightly gravelly CLAY of high plasticity.	MC PI BRE
PRAIRIE_AUK_BH104	6.50 U8	High strength brown slightly sandy CLAY.	HSV
PRAIRIE_AUK_BH104	11.00 J13	Brown sandy CLAY of low plasticity.	MC PI BRE
PRAIRIE_AUK_BH104	15.50 C21	Brown slightly sandy gravelly CLAY of low plasticity.	MC PI
PRAIRIE_AUK_BH104	17.50 C23	Brown slightly sandy gravelly CLAY of low plasticity.	MC PI
PRAIRIE_AUK_BH106	5.50 U2	Medium strength brown slightly sandy slightly gravelly CLAY.	UUT BRE QED
PRAIRIE_AUK_BH106	6.95 J3	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_BH106	7.00 B6	Brown slightly sandy slightly gravelly CLAY.	PSD SED
PRAIRIE_AUK_BH106	8.50 U8	Very high strength brown slightly sandy slightly gravelly CLAY.	UUT
PRAIRIE_AUK_BH106	9.50 J10	Grey sandy slightly gravelly CLAY of low plasticity.	MC PI BRE
PRAIRIE_AUK_BH107	3.00 U2	Low strength fissured brown/grey silty CLAY of intermediate plasticity.	MC PI Density UUT
PRAIRIE_AUK_BH107	3.45 J3	Brown CLAY with occasional sand pockets.	BRE
PRAIRIE_AUK_BH107	4.00 B5	Brown CLAY.	CP2 CBR
PRAIRIE_AUK_BH107	5.00 U7	Medium strength laminated brown silty CLAY.	UUT
PRAIRIE_AUK_BH107	7.50 J12	Red brown slightly sandy CLAY of low plasticity.	MC PI BRE
PRAIRIE_AUK_BH107	9.00 J16	Red brown CLAY with bands of white gypsum.	BRE
PRAIRIE_AUK_BH108	2.50 U2	High strength fissured brown CLAY of intermediate plasticity with occasional silt dustings.	MC PI HSV IS for UUT
PRAIRIE_AUK_BH108	2.95 J3	Brown CLAY of high plasticity.	MC PI
PRAIRIE_AUK_BH108	3.50 B5	Brown slightly sandy CLAY.	PSD SED PD
PRAIRIE_AUK_BH108	4.50 U7	Medium strength brown slightly sandy slightly gravelly CLAY becoming high strength with depth.	MC HSV
PRAIRIE_AUK_BH108	5.00 J9	Brown slightly sandy CLAY of low plasticity.	MC PI

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m) ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_BH108	6.50 J12	Brown sandy gravelly CLAY of low plasticity.	MC PI
PRAIRIE_AUK_BH108	7.00 B14	Brown slightly sandy slightly gravelly CLAY	PSD SED BRE
PRAIRIE_AUK_BH108	8.00 J15	Brown sandy CLAY of low plasticity.	MC PI BRE
PRAIRIE_AUK_BH108	8.50 J16	Red brown slightly gravelly SAND. Gravel includes gypsum.	MC PI(HP)
PRAIRIE_AUK_BH108	9.00 J18	Red brown clayey SAND including gypsum.	BRE
PRAIRIE_AUK_BH109	0.50 B4	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity. (Sample has a hydrocarbon odour).	MC PI CBR
PRAIRIE_AUK_BH109	1.20 J16	Medium strength brown silty slightly sandy CLAY becoming high strength with depth. (Sample has a hydrocarbon odour).	MC HSV
PRAIRIE_AUK_BH109	1.65 J7	Brown slightly sandy CLAY of intermediate plasticity. (Sample has a strong hydrocarbon odour).	MC PI
PRAIRIE_AUK_BH109	2.00 B10	Brown slightly sandy slightly gravelly CLAY. (Sample has a strong hydrocarbon odour).	PSD SED CP2 CBR
PRAIRIE_AUK_BH109	3.00 U13	Medium strength brown slightly sandy CLAY.	UUT
PRAIRIE_AUK_BH109	3.45 J14	Brown slightly sandy CLAY of intermediate plasticity.	MC PI US for Density
PRAIRIE_AUK_BH109	5.00 U19	Medium strength brown CLAY becoming high strength with depth.	HSV
PRAIRIE_AUK_BH109	6.00 J22	Blue black MUDSTONE.	MC PI(IS for LL)
PRAIRIE_AUK_BH110	3.00 U2	Low strength laminated brown silty CLAY of intermediate plasticity with occasional sand pockets.	MC PI UUT
PRAIRIE_AUK_BH110	4.00 B5	Brown slightly sandy slightly gravelly CLAY.	PSD SED
PRAIRIE_AUK_BH110	5.00 U6	Medium strength brown silty CLAY of intermediate plasticity.	MC PI UUT
PRAIRIE_AUK_BH110	6.50 B10	Brown slightly sandy slightly gravelly CLAY.	CP2 CBR
PRAIRIE_AUK_BH110	8.00 U12	Medium strength brown CLAY of low plasticity.	MC PI UUT
PRAIRIE_AUK_BH110	9.50 J15	Red brown slightly sandy CLAY of low plasticity.	MC PI
PRAIRIE_AUK_BH110	9.50 B16	Brown slightly sandy slightly gravelly CLAY.	PSD SED
PRAIRIE_AUK_BH110	11.00 U18	Extremely high strength brown slightly sandy slightly gravelly CLAY.	UUT

Contract Title - Prairie Site Ground Investigation Works	Client - South Tees Development Corporation
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	Signed - <i>msene</i>	Name -	Page 3 of 11
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ALLIED EXPLORATION & GEOTECHNICS LIMITED

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m) ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_BH110	11.45 J19	Orange brown sandy slightly gravelly CLAY	BRE
PRAIRIE_AUK_BH110	13.50 J23	Brown slightly sandy slightly gravelly CLAY of low plasticity	MC PI
PRAIRIE_AUK_BH110	15.00 J27	Red brown MUDSTONE with white crystalline inclusions (possible gypsum)	MC BRE US for PI
PRAIRIE_AUK_TP101	0.50 J3	MADE GROUND (Brown slightly sandy gravel including brick fragments)	MC BRE Calorific Value
PRAIRIE_AUK_TP101	0.90 B4	MADE GROUND (Dark brown/black clayey/silty very sandy gravel including slag and brick fragments)	PSD CP2 CBR
PRAIRIE_AUK_TP101	2.50 J10	Grey mottled slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP101	3.00 B11	Brown slightly sandy slightly gravelly CLAY	CBR
PRAIRIE_AUK_TP101	4.40 J14	Brown slightly organic slightly sandy slightly gravelly SILT of very high plasticity	MC PI BRE
PRAIRIE_AUK_TP102	1.50 J6	Brown sandy CLAY of low plasticity	MC PI
PRAIRIE_AUK_TP102	3.00 B6	Brown slightly sandy slightly gravelly CLAY	PSD SED CBR
PRAIRIE_AUK_TP103	0.80 B2	MADE GROUND (Dark grey sandy gravel with a high cobble content. Gravel includes slag, ash, concrete and clinker)	PSD
PRAIRIE_AUK_TP104	2.00 J8	Frable brown slightly sandy CLAY of intermediate plasticity	MC PI BRE
PRAIRIE_AUK_TP105	1.80 J4	Fissured brown slightly sandy slightly gravelly CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP105	2.00 B5	Brown slightly sandy slightly gravelly CLAY	PSD SED CP2 CBR
PRAIRIE_AUK_TP106	1.00 B2	MADE GROUND (Dark grey clayey sandy gravel including ash, slag, ceramic and brick fragments)	PSD
PRAIRIE_AUK_TP106	2.50 J6	Brown slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP106	3.50 J8	Brown slightly sandy CLAY of intermediate plasticity	MC PI
PRAIRIE_AUK_TP107	0.50 J3	Brown sandy slightly gravelly CLAY of intermediate plasticity with sand dustings	MC PI BRE
PRAIRIE_AUK_TP107	1.00 B4	Brown slightly sandy slightly gravelly CLAY	PSD SED CP2 CBR
PRAIRIE_AUK_TP107	2.30 J6	Brown slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP108	0.80 B4	MADE GROUND (Grey slightly clayey sandy gravel with a high cobble content. Gravel includes metal, concrete and slag fragments)	PSD US for CP2

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
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	Signed :- <i>msero</i>	Name :-	Page 4 of 11	
	Date of issue :- 03/11/2020	Certificate No :- SD/4251/4	AEG Contract No :- 4251	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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 Registered Office: Unit 20, Millers Colliery Road, South Tees Development, Redcar, Cleveland, Co. Durham, DL15 2JF. Tel: 01642 836333 Fax: 01642 837475

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP116	3.50	B10	Red brown slightly sandy slightly gravelly CLAY	CP2 CBR
PRAIRIE_AUK_TP117	1.50	J4	MADE GROUND (Grey slightly sandy gravel including slag fragments)	MC
PRAIRIE_AUK_TP117	2.00	B5	MADE GROUND (Brown slightly clayey sandy gravel with a high cobble content and occasional clay pockets. Gravel includes slag fragments)	PSD US for CP2
PRAIRIE_AUK_TP117	3.20	B9	MADE GROUND (Brown clayey sandy gravel with a high cobble content. Gravel includes slag)	PSD
PRAIRIE_AUK_TP116	0.50	J1	MADE GROUND (Grey slightly sandy gravel including slag fragments)	MC
PRAIRIE_AUK_TP116	1.00	B2	MADE GROUND (Brown clayey/silty very sandy gravel including slag fragments)	PSD
PRAIRIE_AUK_TP118	1.50	J4	Brown slightly sandy CLAY/SILT of intermediate plasticity	MC PI ORG
PRAIRIE_AUK_TP118	2.20	J6	Brown CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP118	2.50	B7	Brown slightly sandy CLAY	CP2
PRAIRIE_AUK_TP119	0.50	J1	MADE GROUND (Brown sandy gravel including slag fragments)	MC
PRAIRIE_AUK_TP119	1.00	B2	MADE GROUND (Brown slightly clayey/silty sandy gravel including slag fragments)	PSD
PRAIRIE_AUK_TP119	2.00	B5	MADE GROUND (Brown slightly clayey/silty very sandy gravel including ash and clinker)	PSD CP2 CBR
PRAIRIE_AUK_TP119	2.50	J6	Brown slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP119	3.00	B6	Brown with orange mottling silty CLAY	CP2 CBR
PRAIRIE_AUK_TP120	0.50	J1	MADE GROUND (Brown gravelly sand. Gravel includes slag fragments)	Calorific Value
PRAIRIE_AUK_TP120A0.80		B2	MADE GROUND (Dark brown clayey very sandy gravel including glass and ash)	PSD
PRAIRIE_AUK_TP120A1.50		J4	Brown gravelly SAND	MC PI(NP)
PRAIRIE_AUK_TP120A1.80		B5	Brown sandy CLAY	CP2 CBR
PRAIRIE_AUK_TP121	0.80	B2	MADE GROUND (Dark brown clayey very sandy gravel including slag and concrete fragments)	PSD CP2 CBR
PRAIRIE_AUK_TP123	0.50	B2	MADE GROUND (Grey brown cobbles of bricks)	PSD US for CBR
PRAIRIE_AUK_TP124	1.00	J3	MADE GROUND (Brown slightly sandy gravel with occasional clay pockets. Gravel includes brick fragments)	MC Calorific Value

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
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	Date of issue :- 03/11/2020	Certificate No :- SD/4251/8	AEG Contract No :- 4251	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 107-111 Kings Hill Industrial Estate, Park Road, Thurston, S24 8DQ. Tel: 0114 897 4764 Fax: 0114 897 4751
 Registered Office: 107-111 Kings Hill Industrial Estate, Park Road, Thurston, S24 8DQ. Tel: 0114 897 4764 Fax: 0114 897 4751

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP124	1.50	B4	MADE GROUND (Dark grey clayey very gravelly sand. Gravel includes ash, slag and brick fragments).	PSD CP2
PRAIRIE_AUK_TP124	2.00	J6	Brown with grey mottling slightly sandy CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP126	1.80	B4	MADE GROUND (Grey cobbles of slag and brick)	PSD
PRAIRIE_AUK_TP131	1.00	J3	MADE GROUND (Brown slightly sandy gravel including brick fragments)	MC
PRAIRIE_AUK_TP131	2.60	J7	Brown slightly gravelly CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP131	3.60	J9	Fissured brown slightly silty CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP131	3.80	B10	Brown slightly sandy CLAY.	CP2 CBR
PRAIRIE_AUK_TP132	0.60	J2	MADE GROUND (Brown slightly sandy gravel including slag and brick fragments)	Calorific Value
PRAIRIE_AUK_TP132	2.00	B6	MADE GROUND (Grey sandy gravel with a medium cobble content. Gravel includes concrete, slag and glass fragments)	PSD US for CP2 & CP4
PRAIRIE_AUK_TP134	0.60	B2	MADE GROUND (Dark grey clayey very sandy gravel with a medium cobble content. Gravel includes slag, ash and brick fragments)	PSD
PRAIRIE_AUK_TP134	1.50	J4	Brown CLAY/SILT of intermediate plasticity with occasional silt pockets.	MC PI
PRAIRIE_AUK_TP135	1.00	B3	MADE GROUND (Grey slightly clayey very sandy gravel including slag, concrete and brick fragments)	PSD
PRAIRIE_AUK_TP135	2.00	J7	Brown CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP135	2.70	J9	Brown slightly silty CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP136	1.00	J4	Red brown slightly sandy slightly gravelly SILT of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP137	0.60	J3	MADE GROUND (Grey slightly sandy gravel including slag fragments)	MC
PRAIRIE_AUK_TP137	1.00	B4	MADE GROUND (Brown clayey sandy gravel including ash, clinker, slag and metal fragments)	PSD US for CP2
PRAIRIE_AUK_TP137	2.00	B7	Brown sandy CLAY.	CP2 CBR
PRAIRIE_AUK_TP137	2.60	J8	Brown slightly sandy CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP138	1.00	B2	MADE GROUND (Brown slightly clayey very sandy gravel with a high cobble content. Gravel includes ceramic, ash and brick fragments)	PSD
PRAIRIE_AUK_TP139B0.20		B2	MADE GROUND (Dark grey clayey very sandy gravel including ash, slag and brick fragments)	PSD

Contract Title: Prairie Site Ground Investigation Works	Client: South Tees Development Corporation
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	Signed: <i>m.berne</i>	Name: _____	Page 7 of 11	
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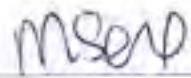

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 20, Broomfield Lane, Farnborough, Hampshire, GU14 7JF, UK. Tel: 01329 413131 Fax: 01329 413132
Regional Offices: London, Gloucester, Manchester, County Down, West Yorkshire, Belfast, Dublin, Cork, Galway, Harrogate, Hull, Plymouth, Reading, Southampton, Telford, Wrexham

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP139B3.00	J4		Brown slightly sandy CLAY of intermediate plasticity	MC PI
PRAIRIE_AUK_TP145 1.00	B3		MADE GROUND (Grey clayey very sandy gravel including ash, concrete and slag fragments)	PSD CP2
PRAIRIE_AUK_TP145 1.90	J5		Grey slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP145 2.40	B6		Brown slightly sandy slightly gravelly CLAY	CP2 CBR
PRAIRIE_AUK_TP145 2.90	J7		Laminated brown CLAY of high plasticity with silt dustings on laminae	MC PI
PRAIRIE_AUK_TP145C1.00	J4		MADE GROUND (Brown gravel) with occasional clay pockets. Gravel includes brick fragments	MC Calorific Value US for PI
PRAIRIE_AUK_TP146C1.30	B6		MADE GROUND (Brown very sandy gravel with occasional clay pockets. Gravel includes brick fragments)	PSD CP2 CBR
PRAIRIE_AUK_TP146C1.70	J7		Fissured brown CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP146C2.30	B8		Brown slightly sandy CLAY	CP2 CBR
PRAIRIE_AUK_TP149 1.00	B2		MADE GROUND (Brown clayey very sandy gravel including slag fragments)	PSD
PRAIRIE_AUK_TP149 1.80	J4		Brown slightly sandy CLAY of intermediate to high plasticity	MC PI BRE
PRAIRIE_AUK_TP149 2.70	B5		Brown silty CLAY	PSD SED CP2 CBR
PRAIRIE_AUK_TP150 0.60	B2		MADE GROUND (Dark grey clayey very sandy gravel with a medium cobble content. Gravel includes slag, ash, concrete, glass, metal and brick fragments)	PSD
PRAIRIE_AUK_TP154 0.60	J1		Grey gravelly SAND	BRE Calorific Value
PRAIRIE_AUK_TP154 1.30	J4		Brown slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP154 1.60	B5		Brown slightly sandy CLAY	CP2
PRAIRIE_AUK_TP154 2.30	J6		Brown slightly sandy CLAY of intermediate plasticity	MC PI
PRAIRIE_AUK_TP155 0.50	B2		MADE GROUND (Dark grey slightly clayey sandy gravel with a medium cobble content. Gravel includes ash, slag and brick fragments)	PSD
PRAIRIE_AUK_TP155 1.20	J4		Brown slightly sandy CLAY of intermediate plasticity	MC PI
PRAIRIE_AUK_TP155 1.60	B5		Brown silty slightly sandy CLAY	PSD SED
PRAIRIE_AUK_TP155A0.70	B4		MADE GROUND (Grey cobbles of concrete with much gravelly clay/silt)	PSD US for CP2 & CBR

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 2nd Floor, 118 South Shields Road, South Shields, Tyne and Wear, NE33 1JG. Tel: 0191 261 9999 Fax: 0191 261 9998
Regional Office: 11th Floor, 100 Broad Street, Birmingham, B4 7HS. Tel: 0121 727 9999 Fax: 0121 727 9998

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP156A1.10	1.10	J5	Brown sandy CLAY of low plasticity	MC PI
PRAIRIE_AUK_TP162	0.70	J1	MADE GROUND (Brown sandy gravel with occasional clay pockets)	BRE Calorific Value
PRAIRIE_AUK_TP162	0.90	B2	MADE GROUND (Brown clayey very sandy gravel including glass, slag and brick fragments)	PSD
PRAIRIE_AUK_TP162	2.50	B6	Brown slightly sandy CLAY of high plasticity	MC PI PSD SED CP2 CBR
PRAIRIE_AUK_TP162	3.10	J7	Fissured brown silty CLAY of high plasticity	MC PI BRE
PRAIRIE_AUK_TP163	0.50	J1	MADE GROUND (Dark brown slightly sandy gravel with occasional clay pockets. Gravel includes brick fragments)	MC US for PI
PRAIRIE_AUK_TP163	0.80	B2	MADE GROUND (Brown clayey very sandy gravel including ash and clinker)	PSD CP2 CBR
PRAIRIE_AUK_TP163	1.60	J4	Grey brown slightly sandy CLAY of intermediate plasticity	MC PI BRE
PRAIRIE_AUK_TP163	1.70	B5	Brown slightly sandy CLAY	CP2 CBR
PRAIRIE_AUK_TP165	1.50	J4	MADE GROUND (Brown slightly sandy gravel including brick fragments)	BRE
PRAIRIE_AUK_TP165	1.80	B5	MADE GROUND (Dark brown slightly clayey/silty sandy gravel and cobbles including brick, slag and concrete fragments)	PSD US for CP4 & CBR
PRAIRIE_AUK_TP165	2.50	J6	MADE GROUND (Brown slightly sandy gravel including brick fragments)	Calorific Value
PRAIRIE_AUK_TP165	2.80	B7	MADE GROUND (Dark grey brown sandy gravel with occasional clay pockets and a medium cobble content. Gravel includes ash, slag and brick fragments)	PSD
PRAIRIE_AUK_TP167	1.80	B4	MADE GROUND (Dark grey slightly clayey/silty sandy gravel with a medium cobble content. Gravel includes slag, brick and concrete fragments)	PSD
PRAIRIE_AUK_TP168	1.40	J6	Fissured brown slightly sandy CLAY	MC
PRAIRIE_AUK_TP168	1.60	B7	Brown slightly sandy CLAY	PSD SED CP2 CBR
PRAIRIE_AUK_TP169	0.80	E2	MADE GROUND (Brown clayey very sandy gravel including ash, slag and brick fragments)	PSD US for CP4
PRAIRIE_AUK_TP172	0.60	B2	MADE GROUND (Dark grey brown cobbles of brick and slag fragments)	PSD US for CP2 & CBR
PRAIRIE_AUK_TP173	0.60	J1	MADE GROUND (Brown slightly sandy gravel including brick fragments)	MC BRE
PRAIRIE_AUK_TP173	0.80	B2	MADE GROUND (Brown very sandy gravel with clay pockets)	PSD SED CP2 CBR
PRAIRIE_AUK_TP174	1.20	J4	Brown slightly sandy CLAY of low to intermediate plasticity with occasional sand pockets	MC PI

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
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ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 21, Watly, 1st Floor, Station Road, South of Chiswick Road, Chiswick, Middlesex, UK. Tel: 0181 874744 Fax: 0181 874745
Regional Office: Unit 10, Riverside Commercial, Essex Road, Essex, UK. Tel: 01727 731111 Fax: 01727 731112

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP175	0.60	B2	MADE GROUND (Grey brown clayey sandy cobbles of brick, slag and concrete fragments).	PSD US for CBR
PRAIRIE_AUK_TP175	1.40	J4	Grey slightly sandy CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP176	0.50	B2	MADE GROUND (Brown clayey sandy gravel including ash and clinker fragments).	PSD
PRAIRIE_AUK_TP176	1.50	J4	Brown slightly organic slightly sandy CLAY.	MC BRE
PRAIRIE_AUK_TP176	2.00	B5	Brown slightly sandy CLAY.	PSD SED CP2 CBR
PRAIRIE_AUK_TP177	0.50	J4	MADE GROUND (Brown slightly sandy clay of high plasticity).	MC PI
PRAIRIE_AUK_TP177	1.80	B7	MADE GROUND (Brown cobbles with much gravel).	PSD US for CP2 & CBR
PRAIRIE_AUK_TP178	0.40	J1	MADE GROUND (Dark brown slightly sandy gravel including brick fragments).	MC BRE Calorific Value
PRAIRIE_AUK_TP178	0.60	B2	MADE GROUND (Brown clayey very sandy gravel including ash, clinker and slag fragments).	PSD CP2 CBR
PRAIRIE_AUK_TP178	1.60	B5	Brown with grey mottling slightly sandy slightly gravelly CLAY of very high plasticity.	MC PI BRE CP2
PRAIRIE_AUK_TP179	0.20	J1	MADE GROUND (Dark brown sandy gravel including brick fragments).	BRE Calorific Value
PRAIRIE_AUK_TP179	0.40	B2	MADE GROUND (Dark grey clayey/silty very gravelly sand with a medium cobble content. Gravel includes ash, clinker, slag and brick fragments).	PSD CP2
PRAIRIE_AUK_TP179	1.70	J5	Brown with grey veining slightly sandy CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP179	1.80	B6	Brown CLAY.	IS for CBR
PRAIRIE_AUK_TP181	0.50	B2	MADE GROUND (Brown very sandy gravel with occasional clay pockets. Gravel includes ash and clinker fragments).	PSD CBR US for CP2
PRAIRIE_AUK_TP181	1.10	B4	MADE GROUND (Brown cobbles of brick and slag fragments).	PSD
PRAIRIE_AUK_TP181	1.80	J5	Grey slightly silty sandy CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP181	2.00	B6	Brown with grey veining slightly sandy CLAY.	CBR
PRAIRIE_AUK_TP182	0.30	J1	MADE GROUND (Dark brown sandy gravel including brick fragments).	Calorific Value
PRAIRIE_AUK_TP182	0.60	B2	MADE GROUND (Dark grey clayey very sandy gravel including slag fragments).	PSD CP2 CBR
PRAIRIE_AUK_TP182	1.30	J4	Fissured brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed - *msoro*

Name - *[Signature]*

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m) ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP182	1.60 B5	Brown with grey veining slightly sandy CLAY (Sample has a strong hydro-carbon odour)	CBR
PRAIRIE_AUK_TP183	0.80 B2	MADE GROUND (Grey cobbles of concrete, slag and brick fragments)	PSD
PRAIRIE_AUK_TP185	3.50 B2	MADE GROUND (Brown slightly sandy slightly gravelly clay. Gravel includes brick and metal fragments)	PSD SED
PRAIRIE_AUK_TP186	0.40 J1	MADE GROUND (Dark brown sandy gravel including brick fragments)	MC BRE Calorific Value
PRAIRIE_AUK_TP188	0.60 B2	MADE GROUND (Dark brown clayey/silty sandy gravel including ash and clinker fragments)	PSD U5 for CP2 & CBR
PRAIRIE_AUK_TP189	0.30 J1	MADE GROUND (Brown slightly sandy gravel)	Calorific Value
PRAIRIE_AUK_TP189	0.50 B2	MADE GROUND (Dark brown clayey/silty very sandy gravel including slag and brick fragments)	PSD CBR
PRAIRIE_AUK_TP189	1.40 J3	Brown slightly sandy CLAY of high plasticity	MC FI BRE
PRAIRIE_AUK_TP189	1.50 B4	Grey brown mottled slightly sandy slightly gravelly CLAY	PSD SED CP2
PRAIRIE_AUK_TP189	2.70 J5	Red brown slightly sandy CLAY of intermediate plasticity	MC FI
PRAIRIE_AUK_TP189	2.90 B6	Brown with grey veining slightly sandy slightly gravelly CLAY	PSD SED CP2

Contract Title - Prairie Site Ground Investigation Works	Client - South Tees Development Corporation
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Moisture Content/Plasticity Index and Moisture Content



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 112 St. Marks Road, London, E6 9JL, UK. Tel: 020 825 14 9191. Fax: 020 825 14 9192.
Regional Office: 1, Mill Lane, Wetherby, West Yorkshire, LS23 7BQ, UK. Tel: 01773 751200. Fax: 01773 751201.

MOISTURE CONTENT CERTIFICATE

BS 1377 - Part 2 - Clause 3.2

Exploratory Hole No.	Sample Depth (m)	Sample ID	Specific Depth (m)	Moisture Content (%)	Date Tested	Remarks
PRAIRIE_AUK_BH101	18.00	J33	18.00	16.6	17/06/2020	
PRAIRIE_AUK_BH108	4.50	U7	4.50	23.7	10/07/2020	
PRAIRIE_AUK_BH109	1.20	U6	1.20	21.8	10/07/2020	
PRAIRIE_AUK_BH110	15.00	J27	15.00	25.1	10/07/2020	
PRAIRIE_AUK_TP101	0.60	J3	0.60	14.4	28/09/2020	
PRAIRIE_AUK_TP115	1.40	J4	1.40	8.3	06/10/2020	
PRAIRIE_AUK_TP117	1.50	J4	1.50	11.8	06/10/2020	
PRAIRIE_AUK_TP118	0.50	J1	0.50	14.3	12/10/2020	
PRAIRIE_AUK_TP119	0.50	J1	0.50	7	19/10/2020	
PRAIRIE_AUK_TP124	1.00	J3	1.00	15.9	28/09/2020	
PRAIRIE_AUK_TP131	1.00	J3	1.00	12.2	29/09/2020	
PRAIRIE_AUK_TP137	0.60	J3	0.60	18	12/10/2020	
PRAIRIE_AUK_TP146C	1.00	J4	1.00	24.4	29/09/2020	
PRAIRIE_AUK_TP161	0.50	J1	0.50	14.6	30/09/2020	
PRAIRIE_AUK_TP168	1.40	J6	1.40	32.8	29/09/2020	
PRAIRIE_AUK_TP171	0.60	J1	0.60	20.9	29/09/2020	
PRAIRIE_AUK_TP176	1.50	J4	1.50	36.2	29/09/2020	
PRAIRIE_AUK_TP179	0.40	J1	0.40	27.7	29/09/2020	
PRAIRIE_AUK_TP182	1.30	J4	1.30	21.8	29/09/2020	
PRAIRIE_AUK_TP189	0.40	J1	0.40	16.1	29/09/2020	

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
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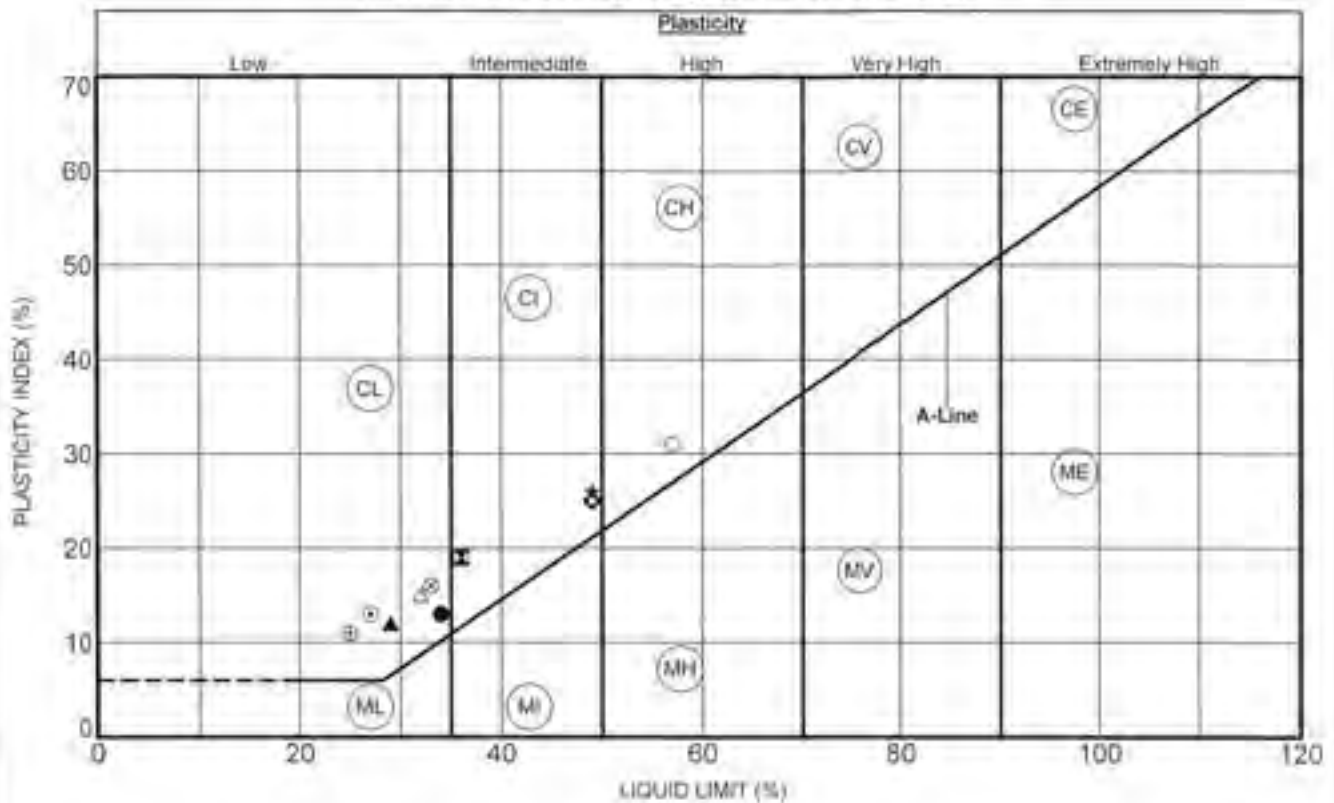
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	Date of Issue :- 02/11/2020	Certificate No :- MC/4251/1	REG Contract No :- 4251	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2.4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I	Preparation Method	+0.425mm (%)	m/c (%)	Date Tested
● PRAIRIE_AUK_BH10417.50	5.00	C23	18.00	34	21	13	-1.07	Air Dried	36.0	7.1	12/10/2020
■ PRAIRIE_AUK_BH1065.95	3.35	J3	5.95	36	17	19	-0.08	Natural		15.5	06/10/2020
▲ PRAIRIE_AUK_BH1069.50	5.00	J10	9.50	29	17	12	-0.10	Natural		15.8	06/10/2020
◆ PRAIRIE_AUK_BH1073.00	7.50	U2	3.35	49	23	26	0.55	Natural		37.3	10/07/2020
○ PRAIRIE_AUK_BH1077.50	5.00	J12	7.50	27	14	13	0.18	Natural		16.3	10/07/2020
● PRAIRIE_AUK_BH1082.50	5.00	U2	2.55	49	24	25	0.07	Natural		25.8	10/07/2020
○ PRAIRIE_AUK_BH1082.95	5.00	J2	2.95	57	26	31	0.13	Natural		30.0	06/10/2020
○ PRAIRIE_AUK_BH1085.00	5.00	J9	5.00	32	17	15	-0.09	Natural		15.6	10/07/2020
○ PRAIRIE_AUK_BH1085.50	5.00	J12	6.50	33	17	16	-0.39	Air Dried	35.0	10.7	10/07/2020 #
○ PRAIRIE_AUK_BH1088.00	5.00	J15	8.00	25	14	11	-0.17	Natural		12.1	06/10/2020

For description of sample please refer to the Laboratory Sample Description Sheet. # = insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :- **Prairie Site Ground Investigation Works**

Client :- **South Tees Development Corporation**



Signed :- *mzone*

Name :-

Page 2 of 8

Date of issue :- 03/11/2020

Certificate No :- PU4251/2

AEG Contract No :- 4251

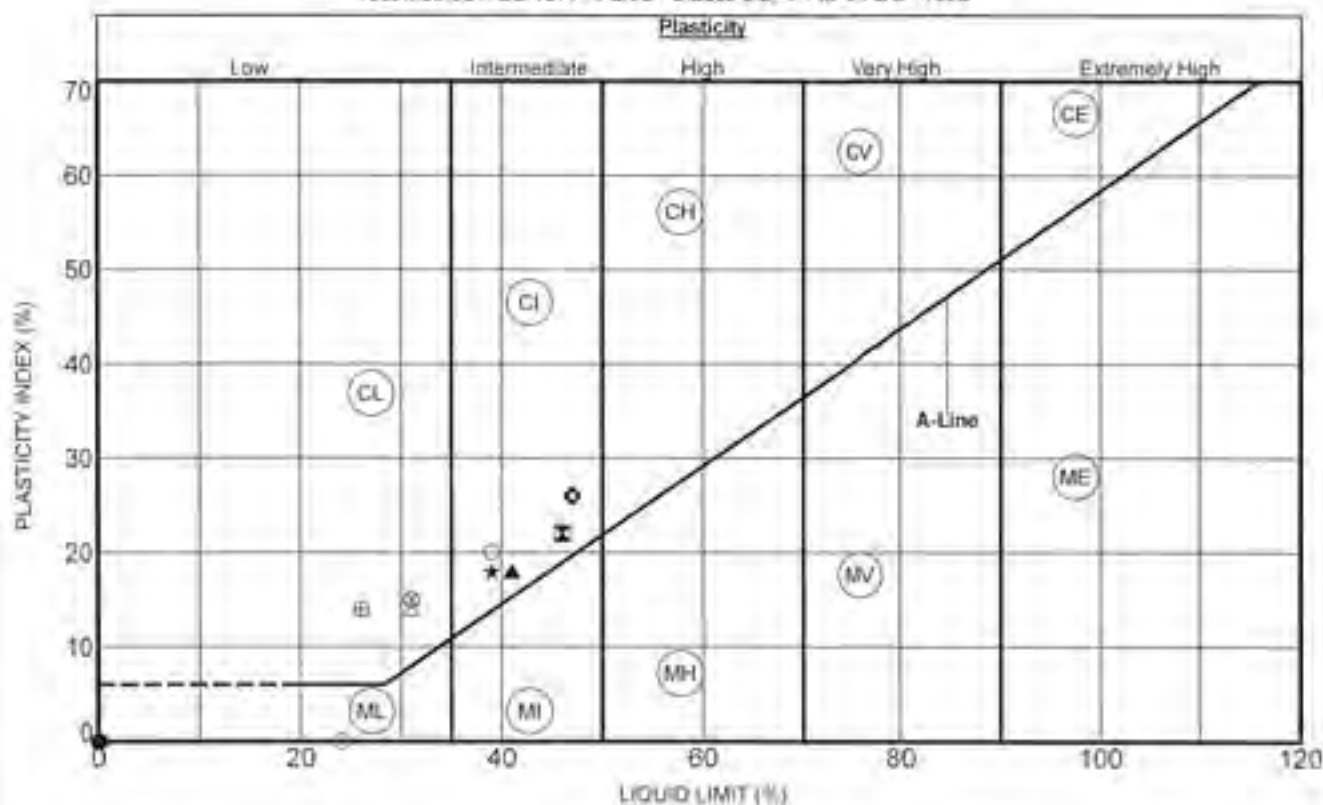


ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method - BS 1377 Part 2 Clause 3.2, 4.1 to 4.4 & 5 - 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_p	Preparation Method	<0.425mm (%)	wc (%)	Date Tested
● PRAIRIE_AUK_BH1088.50	J16	0.50	J16	NP	NP	NP		Natural		15.3	10/07/2020
⊗ PRAIRIE_AUK_BH1090.50	B4	0.50	B4	46	24	22	0.00	Natural		23.9	13/07/2020
▲ PRAIRIE_AUK_BH1091.65	J7	1.65	J7	41	23	18	0.12	Natural		25.1	10/07/2020
★ PRAIRIE_AUK_BH1093.45	J14	3.45	J14	39	21	18	0.11	Natural		23.0	10/07/2020
⊙ PRAIRIE_AUK_BH1095.00	J22	6.00	J22	NA	24			Air Dried	39.0	10.8	10/07/2020
⊙ PRAIRIE_AUK_BH1103.00	U2	3.00	U2	47	21	26	0.31	Natural		29.1	13/07/2020
○ PRAIRIE_AUK_BH1105.00	U6	5.35	U6	39	19	20	0.21	Natural		23.2	10/07/2020
△ PRAIRIE_AUK_BH1108.00	U12	8.35	U12	31	17	14	0.85	Natural		28.9	10/07/2020
▽ PRAIRIE_AUK_BH1109.50	J15	9.50	J15	31	16	15	-0.23	Natural		12.6	10/07/2020
⊖ PRAIRIE_AUK_BH11013.50	J23	13.50	J23	26	12	14	0.04	Natural		12.6	10/07/2020

For description of sample please refer to the Laboratory Sample Description Sheet # = Insufficient for 4 point PI
 # sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title - **Prairie Site Ground Investigation Works**

Client - **South Tees Development Corporation**



Signed: *msore*

Name: _____

Page 3 of 8

Date of issue - 03/11/2020

Certificate No. - P/4251/3

AEG Contract No. - 4251



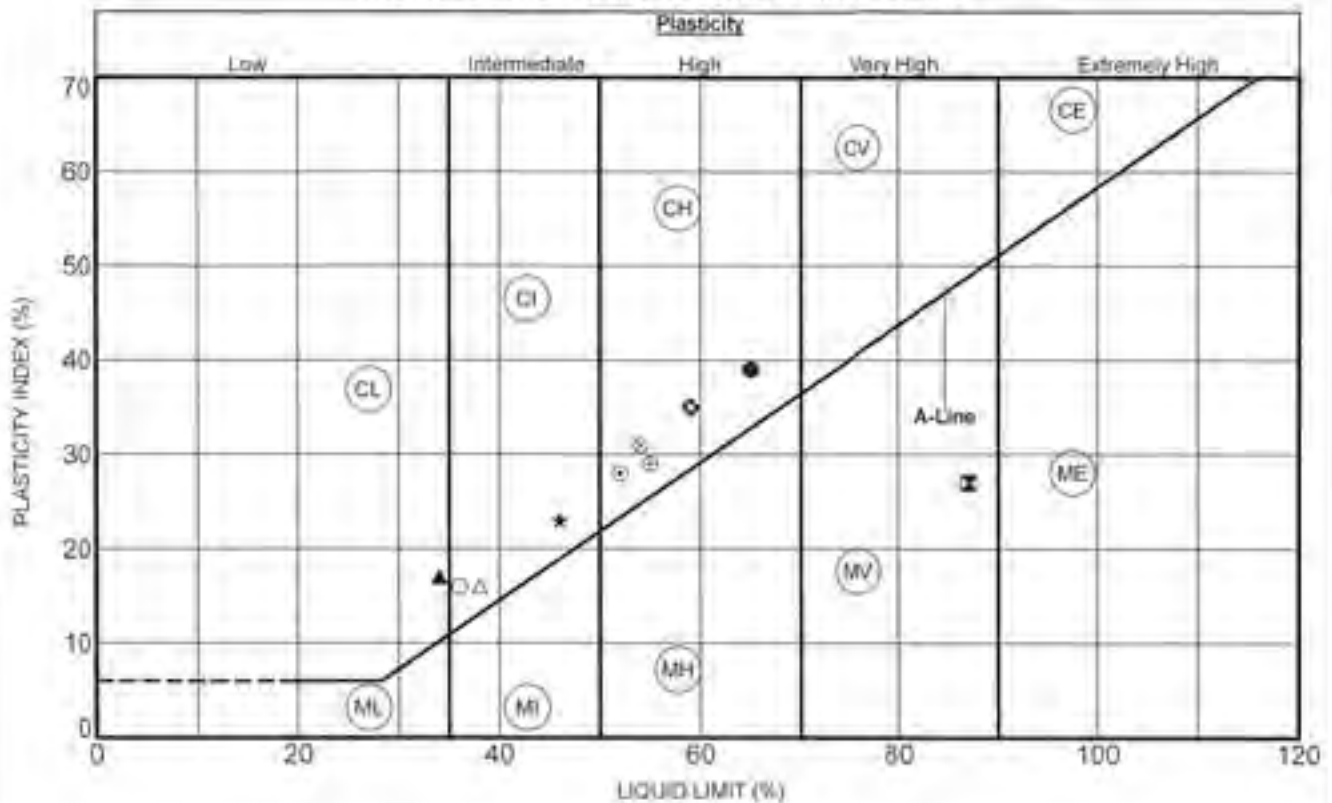
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ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 2nd Floor, Commercial Centre, Fallow Park, Thoresby Road, South Tees, Darlington, Co. Durham, DL1 1BA. Tel: 01781 510000 Fax: 01781 510001
Regional Office: 10th Floor, Business Development Centre, 500, Grand Central, Raffles Quay, Singapore. Tel: 65 6336 1111 Fax: 65 6336 1112

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method - BS 1377 : Part 2 : Clause 3.2.4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I _p	Preparation Method	<0.425mm (%)	w/c (%)	Date Tested
● PRAIRIE_AUK_TP1012.50	5.0	J10	2.50	65	26	39	-0.35	Natural		12.2	28/09/2020
■ PRAIRIE_AUK_TP1014.40	4.0	J14	4.40	87	60	27	1.07	Natural		89.0	28/09/2020 #
▲ PRAIRIE_AUK_TP1021.50	1.50	J6	1.50	34	17	17	0.05	Natural		17.8	06/10/2020 #
★ PRAIRIE_AUK_TP1042.00	2.00	J8	2.00	46	23	23	-0.08	Natural		21.2	28/09/2020 #
⊙ PRAIRIE_AUK_TP1051.80	1.80	J4	1.80	52	24	26	0.22	Natural		30.1	28/09/2020
◇ PRAIRIE_AUK_TP1062.50	2.50	J6	2.50	59	24	35	0.06	Natural		26.2	06/10/2020 #
⊖ PRAIRIE_AUK_TP1063.50	3.50	J8	3.50	36	20	16	-0.23	Natural		16.3	06/10/2020 #
△ PRAIRIE_AUK_TP1070.50	0.50	J3	0.50	38	22	16	-0.02	Natural		21.7	29/09/2020 #
⊗ PRAIRIE_AUK_TP1072.30	2.30	J6	2.30	54	23	31	0.13	Natural		27.1	29/09/2020
⊕ PRAIRIE_AUK_TP1102.50	2.50	J6	2.50	55	26	29	0.24	Natural		32.9	06/10/2020 #

For description of sample please refer to the Laboratory Sample Description Sheet # = Insufficient for 4 point Pi
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
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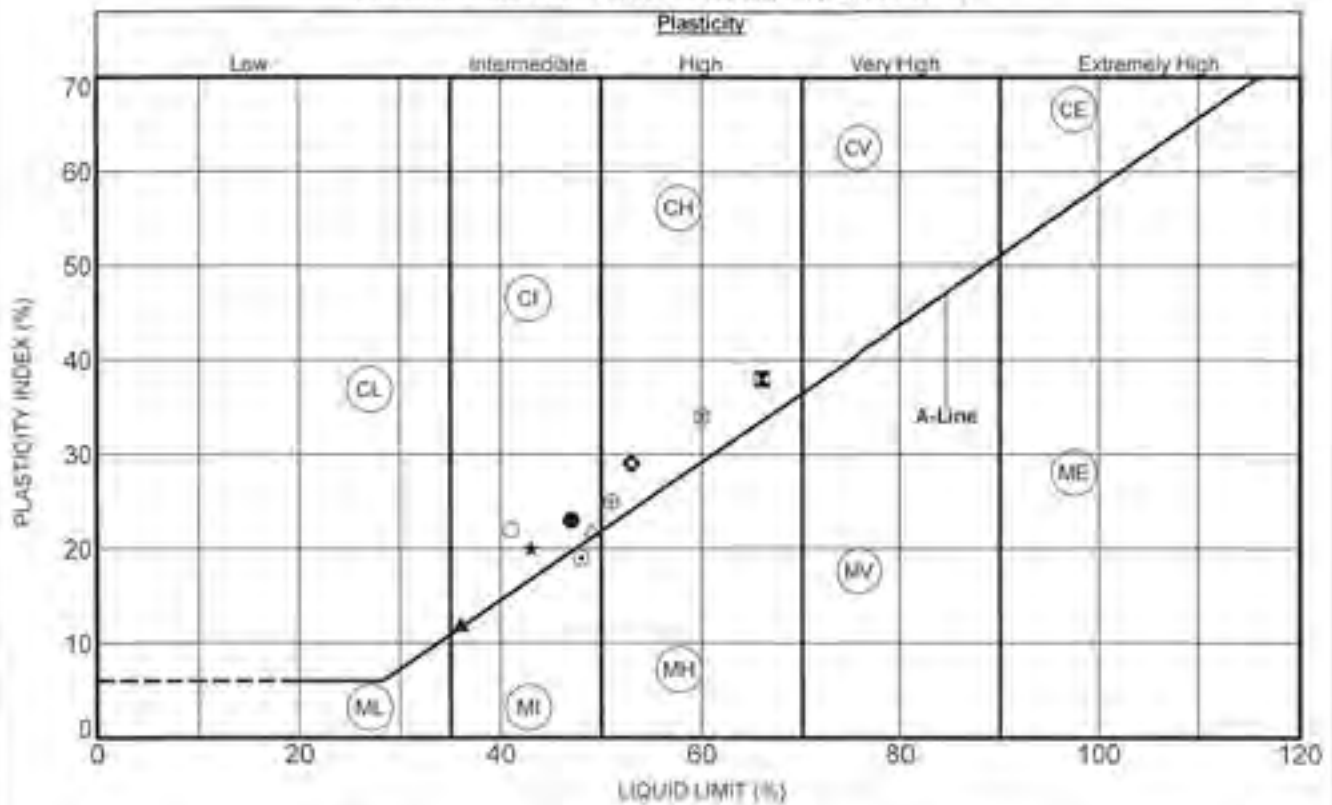
	Signed:- <i>msene</i>	Name:-	Page 4 of 8	
	Date of Issue :- 09/11/2020	Certificate No :- FV4253/4	REG Contract No :- 4251	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: South Tees Development Corporation, Riverside, Middlesbrough, Co. Durham, TS6 7PL. Tel: 01462 433444 Fax: 01462 433445
Regional Office: 10000, Boulevard, Scarborough, (South West) Yorkshire YO11 1BB. Tel: 01753 656744 Fax: 01753 656745

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method - BS 1377 - Part 2 - Clause 3.2, 4.1 to 4.4 & 5 - 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I _p	Preparation Method	<0.425mm (%)	w/c (%)	Date Tested	
● PRAIRIE_AUK_TP112.00	J6	2.00	47	24	23	-0.10	Natural		21.8	06/10/2020	#	
⊠ PRAIRIE_AUK_TP112.70	J9	2.70	66	26	38	0.07	Natural		30.6	06/10/2020		
▲ PRAIRIE_AUK_TP112.00	J10	3.00	36	24	12	0.32	Natural		27.8	06/10/2020		
★ PRAIRIE_AUK_TP112.50	J7	2.50	43	23	20	0.20	Natural		26.9	28/09/2020		
○ PRAIRIE_AUK_TP116.60	J5	1.60	48	29	19	-0.12	Natural		26.8	20/10/2020		
◊ PRAIRIE_AUK_TP116.2.00	J7	2.00	53	24	29	0.03	Air Dried	99.0	24.9	20/10/2020		
○ PRAIRIE_AUK_TP116.3.00	J9	3.00	41	19	22	-0.07	Natural		17.5	20/10/2020		
▽ PRAIRIE_AUK_TP118.1.50	J4	1.50	49	27	22	0.16	Natural		30.6	12/10/2020	#	
⊘ PRAIRIE_AUK_TP118.2.20	J6	2.20	60	26	34	0.23	Natural		33.8	12/10/2020	#	
⊚ PRAIRIE_AUK_TP119.2.50	J6	2.50	51	26	25	0.12	Natural		29.1	06/10/2020	#	

For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title - **Prairie Site Ground Investigation Works**

Client - **South Tees Development Corporation**



Signed - *msene*

Name -

Page 5 of 8

Date of issue
05/11/2020

Certificate No -
PI/4251/5

AEG Contract No -
4251



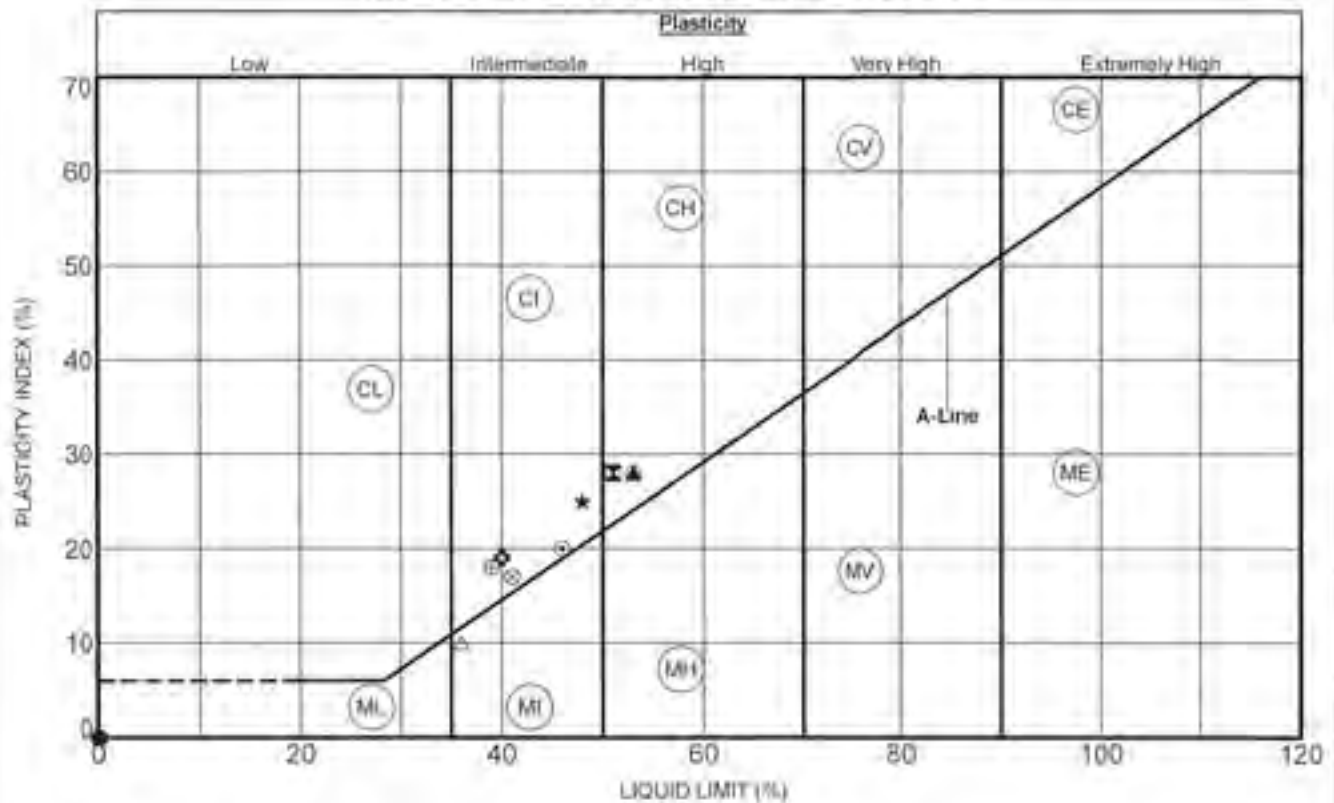
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ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 142/152/154/156/158/160/162/164/166/168/170/172/174/176/178/180/182/184/186/188/190/192/194/196/198/200/202/204/206/208/210/212/214/216/218/220/222/224/226/228/230/232/234/236/238/240/242/244/246/248/250/252/254/256/258/260/262/264/266/268/270/272/274/276/278/280/282/284/286/288/290/292/294/296/298/300/302/304/306/308/310/312/314/316/318/320/322/324/326/328/330/332/334/336/338/340/342/344/346/348/350/352/354/356/358/360/362/364/366/368/370/372/374/376/378/380/382/384/386/388/390/392/394/396/398/400/402/404/406/408/410/412/414/416/418/420/422/424/426/428/430/432/434/436/438/440/442/444/446/448/450/452/454/456/458/460/462/464/466/468/470/472/474/476/478/480/482/484/486/488/490/492/494/496/498/500/502/504/506/508/510/512/514/516/518/520/522/524/526/528/530/532/534/536/538/540/542/544/546/548/550/552/554/556/558/560/562/564/566/568/570/572/574/576/578/580/582/584/586/588/590/592/594/596/598/600/602/604/606/608/610/612/614/616/618/620/622/624/626/628/630/632/634/636/638/640/642/644/646/648/650/652/654/656/658/660/662/664/666/668/670/672/674/676/678/680/682/684/686/688/690/692/694/696/698/700/702/704/706/708/710/712/714/716/718/720/722/724/726/728/730/732/734/736/738/740/742/744/746/748/750/752/754/756/758/760/762/764/766/768/770/772/774/776/778/780/782/784/786/788/790/792/794/796/798/800/802/804/806/808/810/812/814/816/818/820/822/824/826/828/830/832/834/836/838/840/842/844/846/848/850/852/854/856/858/860/862/864/866/868/870/872/874/876/878/880/882/884/886/888/890/892/894/896/898/900/902/904/906/908/910/912/914/916/918/920/922/924/926/928/930/932/934/936/938/940/942/944/946/948/950/952/954/956/958/960/962/964/966/968/970/972/974/976/978/980/982/984/986/988/990/992/994/996/998/1000

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method - BS 1377 - Part 2 - Clause 3.2.4.1 to 4.4 & 5 - 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref	Specific Depth (m)	LL	PL	Pi	I	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested
● PRAIRIE_AUK_TP120A	50	J4	1.50	NP	NP	NP		Natural		16.8	06/10/2020
■ PRAIRIE_AUK_TP124	00	J6	2.00	51	23	28	0.08	Natural		25.1	28/09/2020
▲ PRAIRIE_AUK_TP131	2.60	J7	2.60	53	25	28	0.19	Natural		30.2	28/09/2020
★ PRAIRIE_AUK_TP131	3.60	J9	3.60	48	23	25	0.21	Natural		28.3	28/09/2020
○ PRAIRIE_AUK_TP134	1.50	J4	1.50	46	26	20	-0.09	Natural		24.2	12/10/2020 #
◐ PRAIRIE_AUK_TP135	2.00	J7	2.00	40	21	19	0.15	Natural		23.8	06/10/2020 #
◑ PRAIRIE_AUK_TP135	2.70	J8	2.70	53	25	28	-0.02	Natural		24.5	08/10/2020 #
◒ PRAIRIE_AUK_TP136	1.00	J4	1.00	36	26	10	0.53	Natural		31.3	12/10/2020 #
◓ PRAIRIE_AUK_TP137	2.60	J8	2.60	41	24	17	0.22	Natural		27.8	06/10/2020
◔ PRAIRIE_AUK_TP138	3.00	J4	3.00	39	21	18	0.54	Natural		30.8	05/10/2020

For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point Pi
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
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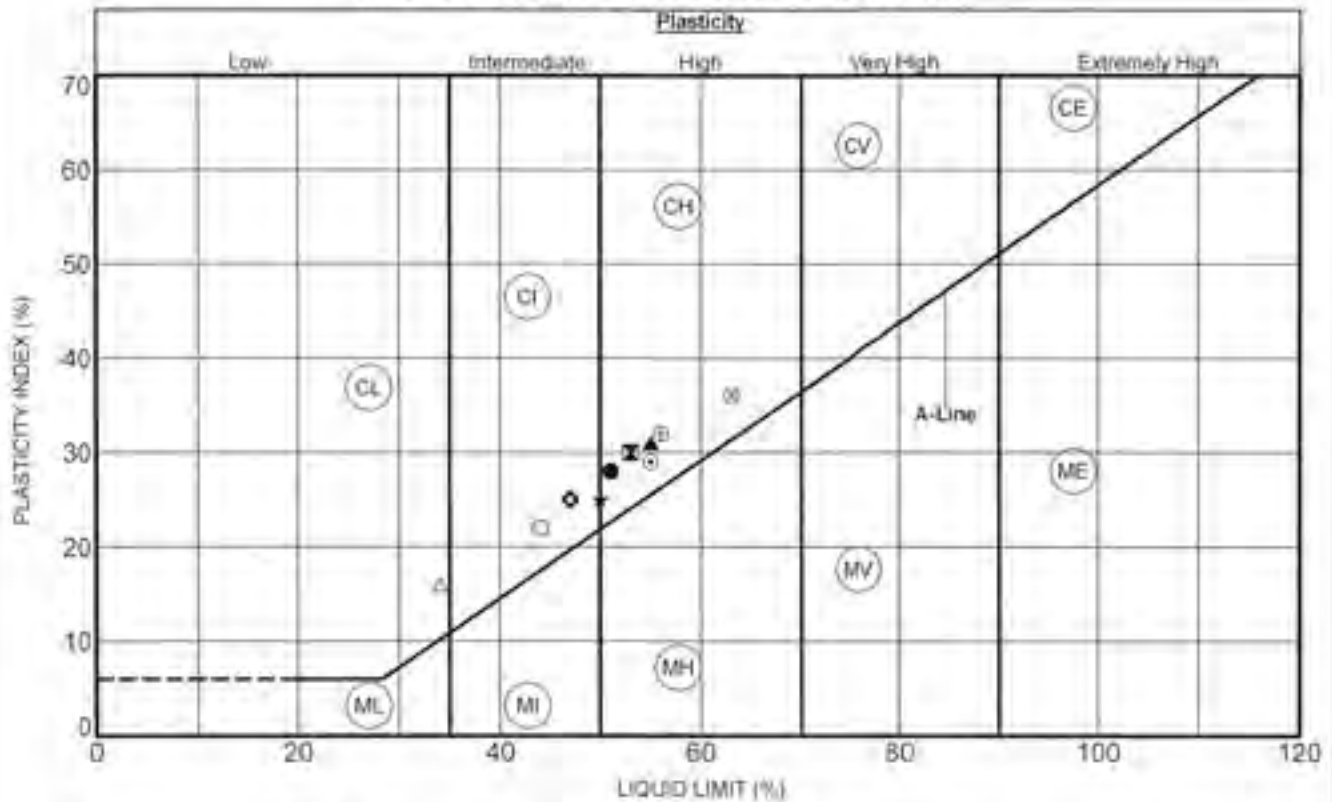
	Signed:- <i>msone</i>	Name:-	Page 6 of 8	
	Date of issue:- 09/11/2020	Certificate No:- PR4251/6	REG Contract No:- 4251	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 100, Westwood Road, Westwood, South Tees, Durham, DA1 1PP, England
 Regional Offices: 100, Westwood Road, Westwood, Durham, DA1 1PP, England Tel: 01712 733 88 Fax: 01712 733 88

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method - BS 1377, Part 2, Clause 3.2, 4.1 to 4.4 & 5, 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I _p	Preparation Method	<0.425mm (%)	w _c (%)	Date Tested
● PRAIRIE_AUK_TP145	1.90	J5	1.90	51	23	28	0.01	Natural		23.4	29/09/2020
⊠ PRAIRIE_AUK_TP145	2.90	J7	2.90	53	23	30	0.24	Natural		30.2	29/09/2020 #
▲ PRAIRIE_AUK_TP146	0.70	J7	1.70	55	24	31	0.09	Natural		28.8	29/09/2020 #
★ PRAIRIE_AUK_TP146	1.80	J4	1.80	50	25	25	0.20	Natural		29.9	06/10/2020 #
○ PRAIRIE_AUK_TP154	1.30	J4	1.30	55	26	29	0.04	Natural		27.2	06/10/2020
◊ PRAIRIE_AUK_TP154	2.30	J6	2.30	47	22	25	0.03	Natural		22.8	05/10/2020
∩ PRAIRIE_AUK_TP155	1.20	J4	1.20	44	22	22	-0.19	Natural		17.8	12/10/2020
△ PRAIRIE_AUK_TP156	1.10	J5	1.10	34	18	16	-0.01	Natural		17.8	06/10/2020 #
⊗ PRAIRIE_AUK_TP162	2.50	B6	2.50	63	27	36	0.19	Natural	96.0	33.7	29/09/2020
⊙ PRAIRIE_AUK_TP162	3.10	J7	3.10	56	24	32	0.28	Natural		33.0	29/09/2020

For description of sample please refer to the Laboratory Sample Description Sheet # = Insufficient for 4 point PI
 if sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title - **Prairie Site Ground Investigation Works**

Client - **South Tees Development Corporation**



Signed - *msone*

Name -

Page 7 of 8

Date of issue - 03/11/2020

Certificate No. - FV4251/T

#EG Contract No. 4251



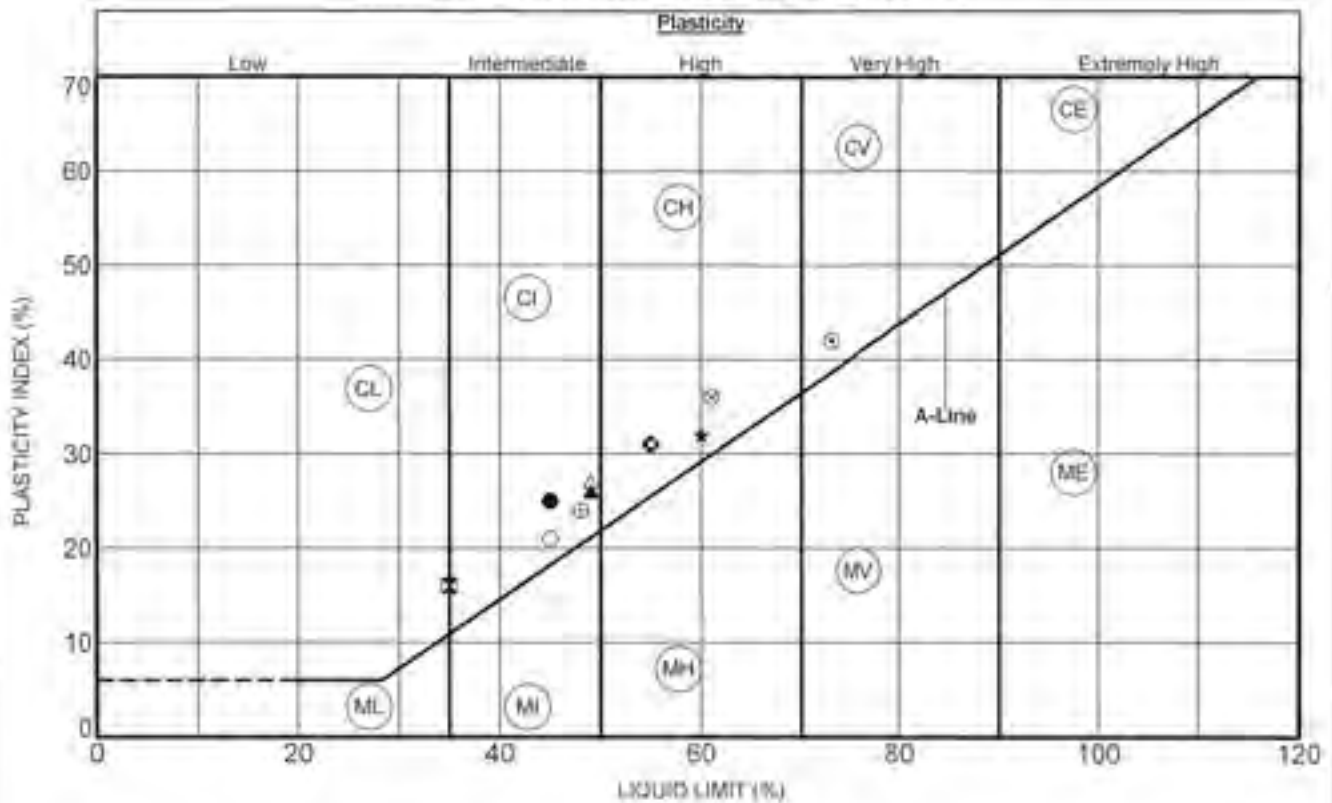
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 24-25 Bickley Road, South Shields, Tyne and Wear, NE33 1JG. Tel: 0191 477 4700 Fax: 0191 477 4710
Regional Office: 101-102, Commercial Road, South Shields, Tyne and Wear, NE33 1JG. Tel: 0191 477 4700 Fax: 0191 477 4710

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method: - BS 1377: Part 2: Clause 3.2.4.1 to 4.4 & 5: 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref	Specific Depth (m)	LL	PL	PI	I _p	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested
● PRAIRIE_AUK_TP1831.60	J4	J4	1.60	45	20	25	0.22	Natural		25.6	29/09/2020
⊠ PRAIRIE_AUK_TP1741.20	J4	J4	1.20	35	19	16	0.41	Natural		25.6	28/09/2020
▲ PRAIRIE_AUK_TP1751.40	J4	J4	1.40	49	23	26	0.08	Natural		25.1	29/09/2020
★ PRAIRIE_AUK_TP1770.90	J4	J4	0.90	60	28	32	0.20	Natural		34.5	28/09/2020
⊙ PRAIRIE_AUK_TP1781.60	B5	B5	1.60	73	31	42	0.43	Natural		49.1	30/09/2020
◆ PRAIRIE_AUK_TP1791.70	J5	J5	1.70	55	24	31	0.23	Natural		31.1	29/09/2020
○ PRAIRIE_AUK_TP1811.80	J5	J5	1.80	45	24	21	-0.04	Natural		23.1	29/09/2020
◊ PRAIRIE_AUK_TP1821.30	J4	J4	1.30	49	22	27	-0.01	Natural		21.8	29/09/2020
⊗ PRAIRIE_AUK_TP1891.40	J3	J3	1.40	61	25	36	0.08	Natural		27.9	29/09/2020
⊕ PRAIRIE_AUK_TP1882.70	J5	J5	2.70	48	24	24	0.16	Natural		27.9	29/09/2020

For description of sample please refer to the Laboratory Sample Description Sheet. # = insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title: - **Prairie Site Ground Investigation Works**

Client: - **South Tees Development Corporation**



Signed: *[Signature]*

Name: -

Page 8 of 8

Date of Issue: - **03/11/2020**

Certificate No: - **PE4251/8**

AEG Contract No: - **4251**



1367

Determination of Particle Density

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, Kettle Industrial Estate, Park Hill, Chatteris, Cambs, UK. Cambs. CB2 3EQ. Tel: 01753 527 400 Fax: 01753 527 401
Regional Office: Unit 20, Business Development Centre, Evershoe, Barnsley, S14 3SL. Tel: 01223 28 288 Fax: 01223 28 289



DETERMINATION OF PARTICLE DENSITY

BS1377 Part 2 : Clause 8.2 : 1990

Exploratory Hole No.	Depth (m)	Sample Type & No.	Specific Depth (m)	Particle Density (Mg/m ³)	Date Tested
PRAIRIE_AUK_BH101	3.00	U2	3.00	2.61	18/06/2020
PRAIRIE_AUK_BH101	11.00	U18	11.00	2.69	18/06/2020
PRAIRIE_AUK_BH108	3.50	B5	3.50	2.61	27/07/2020

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
--	---

	Signed:- <i>msene</i>	Name:-	Page 1 of 1	
	Date of Issue :- 03/11/2020	Certificate No. :- PD/4251/1	AEG Contract No. :- 4251	

Particle Size Distribution Sieving and Sedimentation

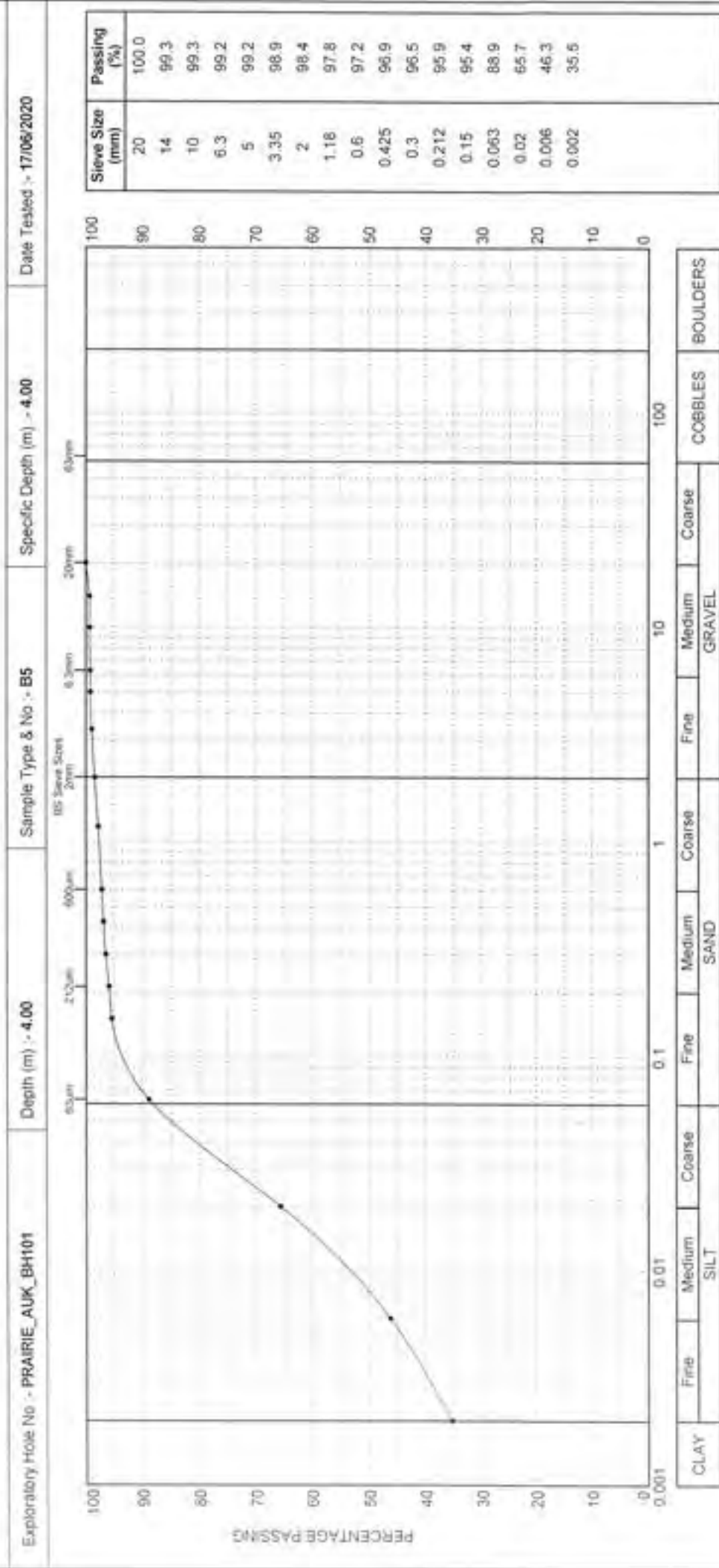


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Regional Offices: Unit 20, Business Development Centre, Farnham Road, Farnham, Surrey, GU14 7AB. Tel: 01251 355 0200 Fax: 01251 352 4710

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990



For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue - 29/06/2020	Certificate No - PSD/4251/PRAIRIE_AUK_BH101/B5/4.00	Signed - <i>M. Sore</i>	Name -	Page 1 of 1
Client - South Tees Development Corporation	Contract Title -	AEG Contract No - 4251		
Client - South Tees Development Corporation		Contract Title - Prairie Site Ground Investigation Works		

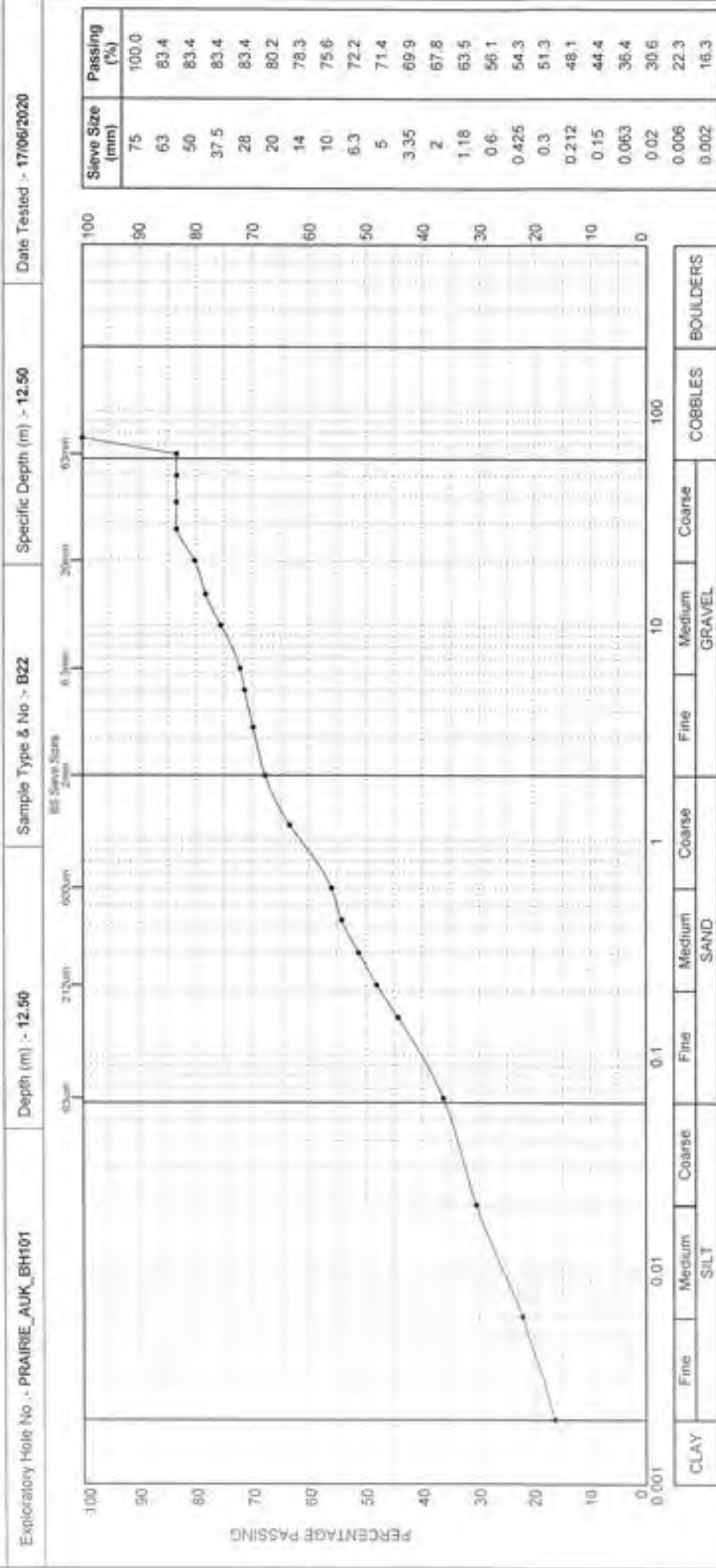


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Regional Office: 25-26a Greenfield Lane, Prairies, Gateshead, Tyne and Wear, NE20 9JH, UK. Tel: 0191 261 4111 Fax: 0191 261 4112

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990



For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :- 29/06/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_BH101/B22/12.50	Signed :- <i>MSore</i>	Name :-
Client :- South Tees Development Corporation	Contract Title :- Prairie Site Ground Investigation Works		
Page 1 of 1		AEG Contract No :- 4251	

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PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

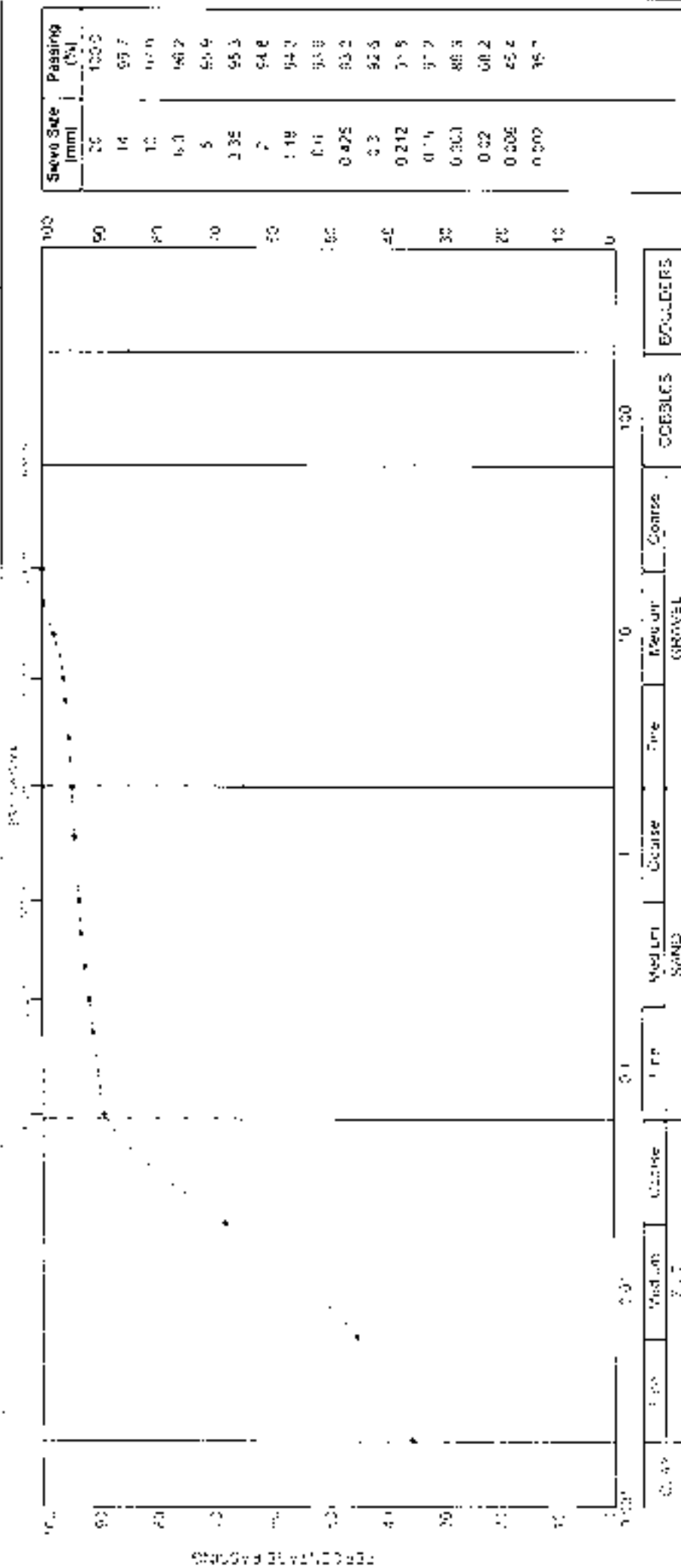
Exploration Project No : PHAANIE_AUK_BH103

Depth (m) : 5.50

Sample Type & No : B12

Specific Depth (m) : 5.50

Date Tested : 16/10/2020



Page 1 of 1

AEG Contract No : 4251

Date of issue : 21/10/2020

Client : Sand Test (Grain) Investigation at Ph...

Contract No : MS04201P45143_AUG_16_13_13_14

Contract Title : Control Test

For use only on sample material from this contract and its derivatives only

Name :

MS04

Printed Date (Grain) Investigation at Ph...

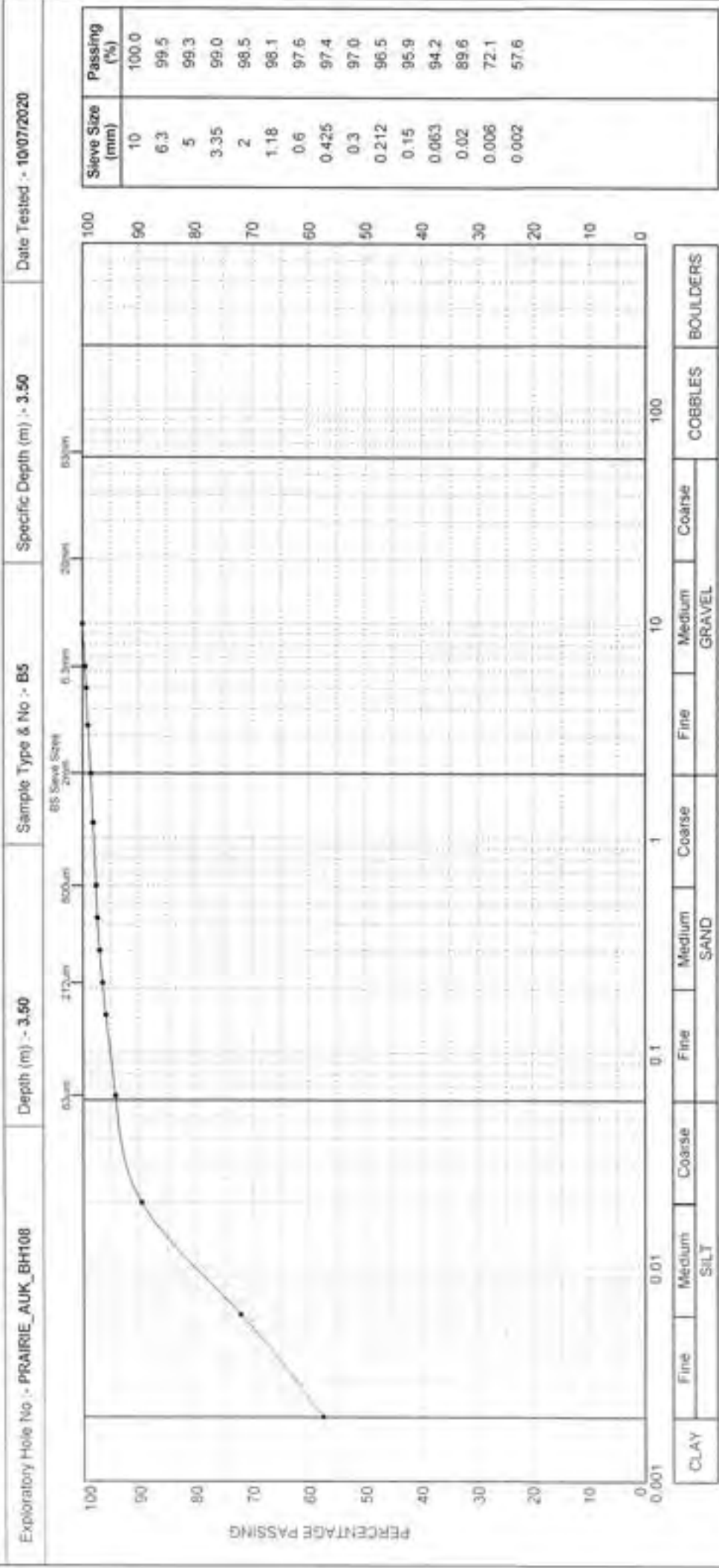


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Regional Office: Unit 25, Baxby, 2nd Industrial Estate, Parkside, Doncaster, DN4 5DG - Tel: 01522 767400 Fax: 01522 767474

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 ; 1990



For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue :- 30/07/2020	Certificate No. :- PSD/4251/PRAIRIE_AUK_BH108/B5/3.50	Signed :- <i>msone</i>	Name :- M. BELKINIK	Page 1 of 1
Client :- South Tees Development Corporation	Contract Title :-	Praine Site Ground Investigation Works		
		AEG Contract No. :- 4251		



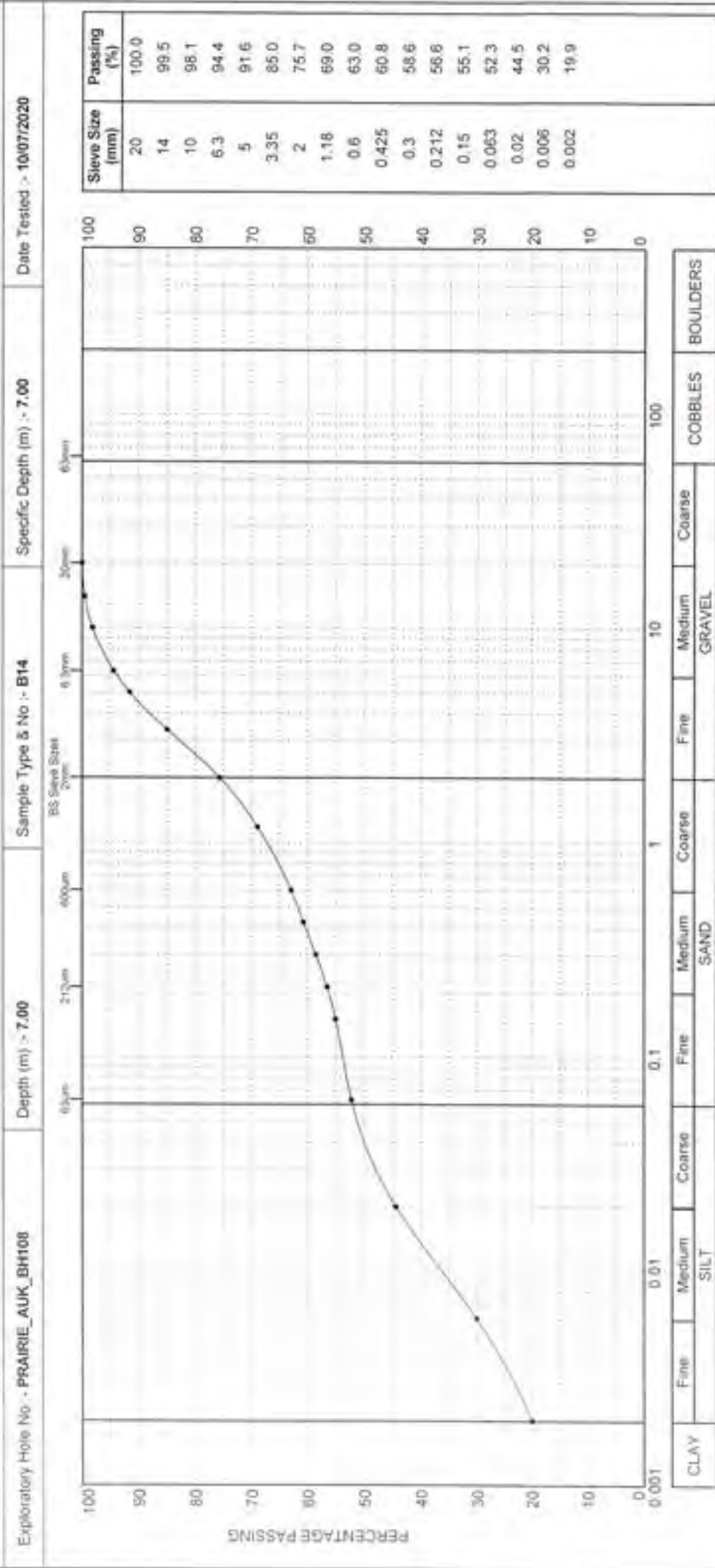
1367

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Office: Unit 21, Riverside Development Centre, Farnham Road, Farnham, Surrey GU14 7AB, UK. Tel: 01253 854400 Fax: 01253 854410
 Registered Office: Unit 21, Riverside Development Centre, Farnham Road, Farnham, Surrey GU14 7AB, UK. Tel: 01253 854400 Fax: 01253 854410

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990



For description of sample please refer to the Laboratory Sample Description Sheet

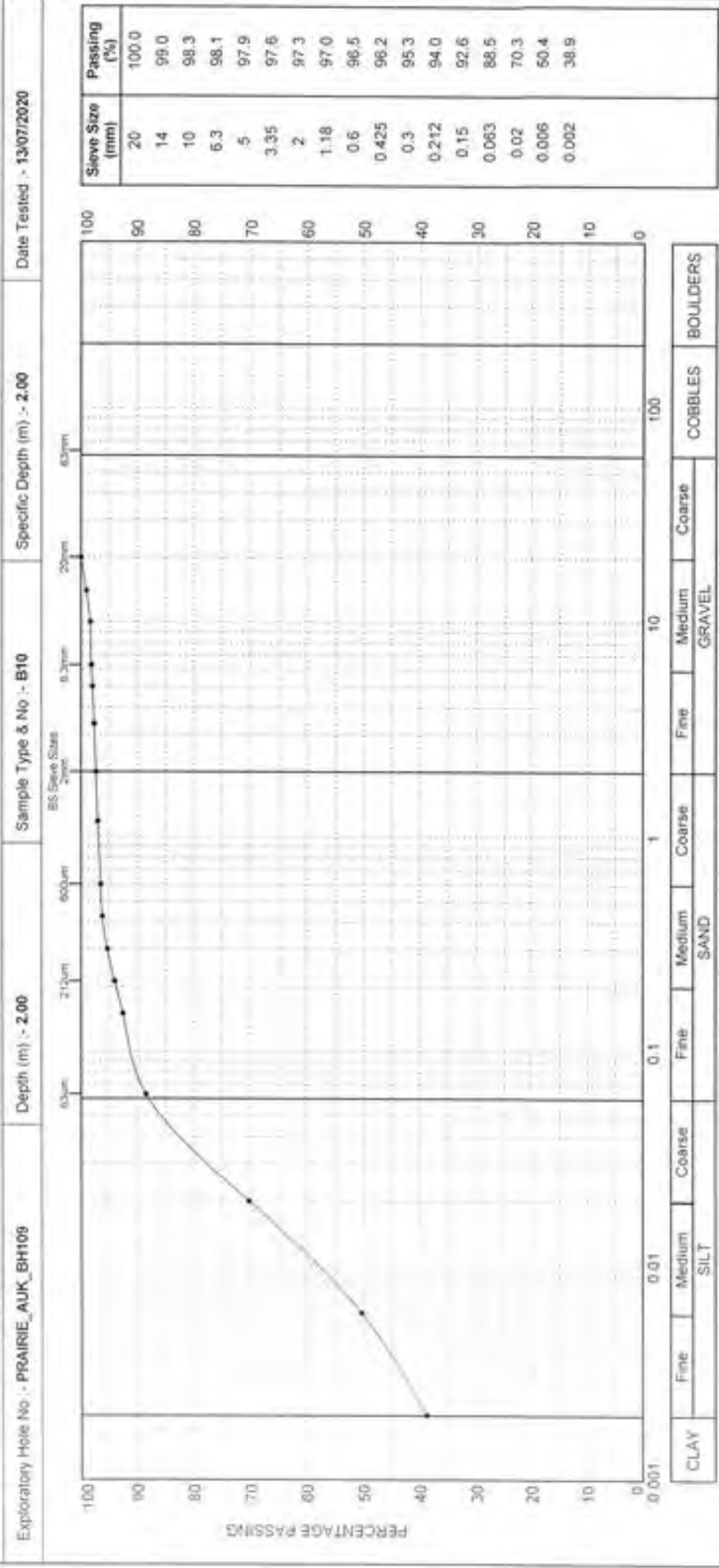
Date of issue :- 30/07/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_BH108/B14/7.00	Signed :- <i>M. Seno</i>	Name :- <i>M. Seno</i>
Client :- South Tees Development Corporation	Contract Title :- Prairie Site Ground Investigation Works		
		Page 1 of 1	
		AEG Contract No :- 4251	

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Regional Office: 10th Floor, 100, The Quadrant, London, W2 2BQ. Tel: 020 8996 9000 Fax: 020 8996 9001

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990



For description of sample please refer to the Laboratory Sample Description Sheet

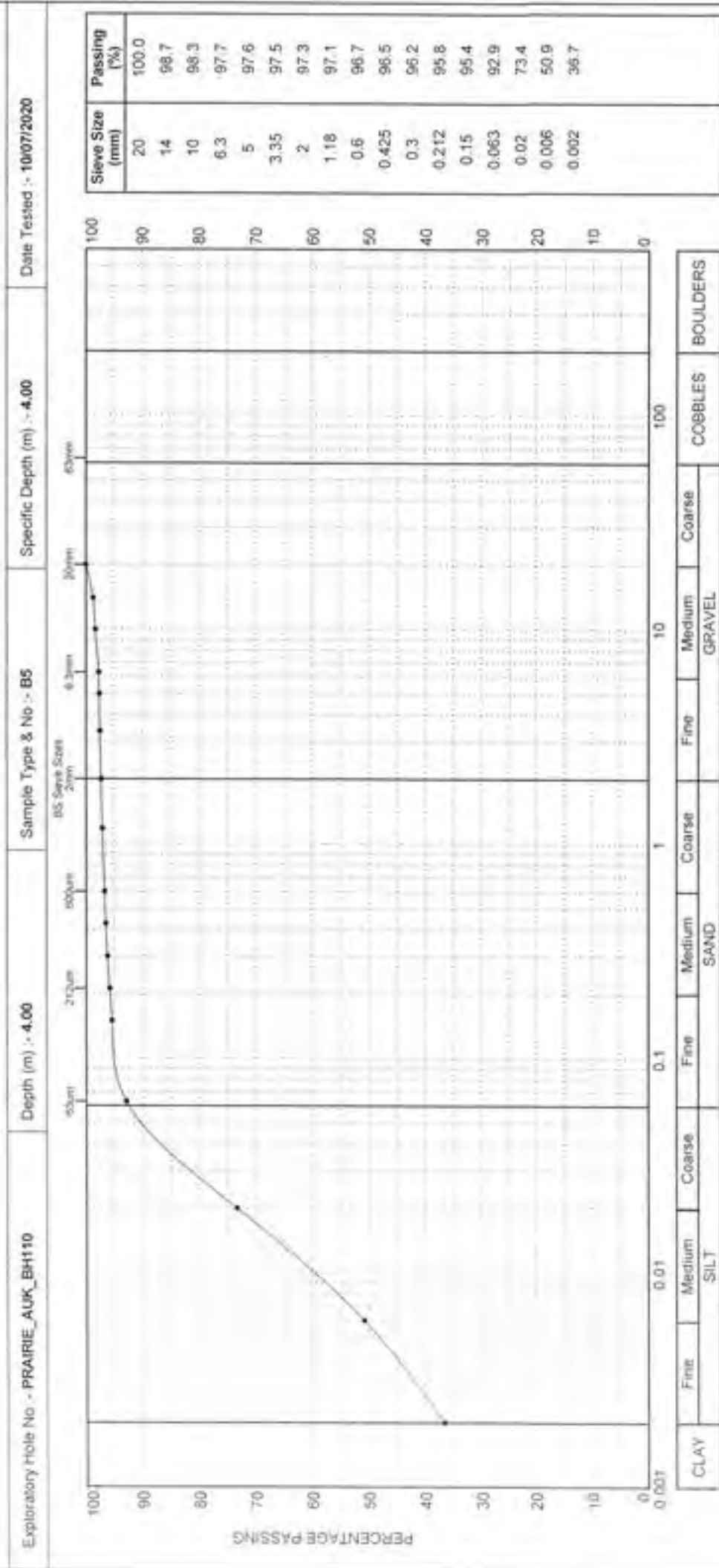
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Client :- South Tees Development Corporation	Contract Title :- Prairie Site Ground Investigation Works		

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Head Office: Unit 11, 11000 Old Dominion Drive, Fairfax, VA 22030, Tel: 703-353-0200 Fax: 703-353-0770
Regional Office: Unit 21, Ebbw Vale Development Centre, Ebbw Vale, South Wales, NP23 5SE, Tel: 01772 730 300 Fax: 01772 730 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990



For description of sample please refer to the Laboratory Sample Description Sheet

Client :- South Tees Development Corporation	Contract Title :-	Contract No. :- 4251	Page 1 of 1
Date of issue :- 30/07/2020	Certificate No. :- PSD/4251/PRAIRIE_AUK_BH110/BS4.00	Signed :- <i>msone</i>	Name :- M. SELKIRK
AFS		UKAS TESTING 1367	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

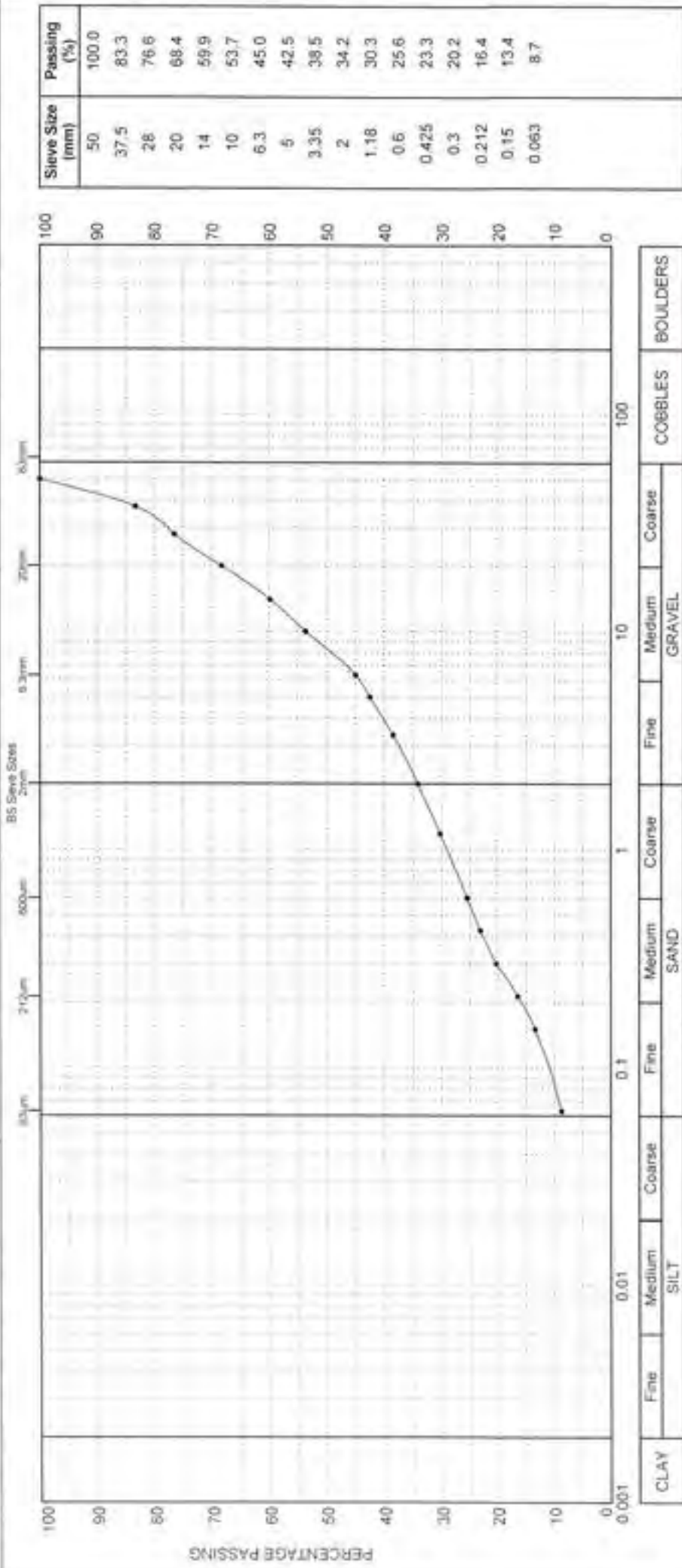
Head Office: Unit 25, Siskin Hill Industrial Estate, Ffos-y-Felin, Neath Port Talbot, South Wales, SA11 2BA. Tel: 01493 544444. Fax: 01493 544445.
Regional Office: Unit 23, Bannerman Development Centre, Ebbw Vale, South Wales, NP23 5JG. Tel: 01495 733333. Fax: 01495 733334.

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No :- PRAIRIE_AUK_TP101 Depth (m) :- 0.90 Sample Type & No :- B4 Specific Depth (m) :- 0.90 Date Tested :- 08/10/2020



For description of sample please refer to the Laboratory Sample Description Sheet

Client :- South Tees Development Corporation	Contract Title :- Prairie Site Ground Investigation Works	Signature :- <i>M. Selkirk</i>	Name :- M. SELKIRK	Page 1 of 1
Date of issue :- 20/10/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_TP101/B4/0.90	Signed :-	AEG Contract No :- 4251	

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PARTICLE SIZE DISTRIBUTION

BS1377 - Part 2 - Clause 9.2 & 9.4 1990

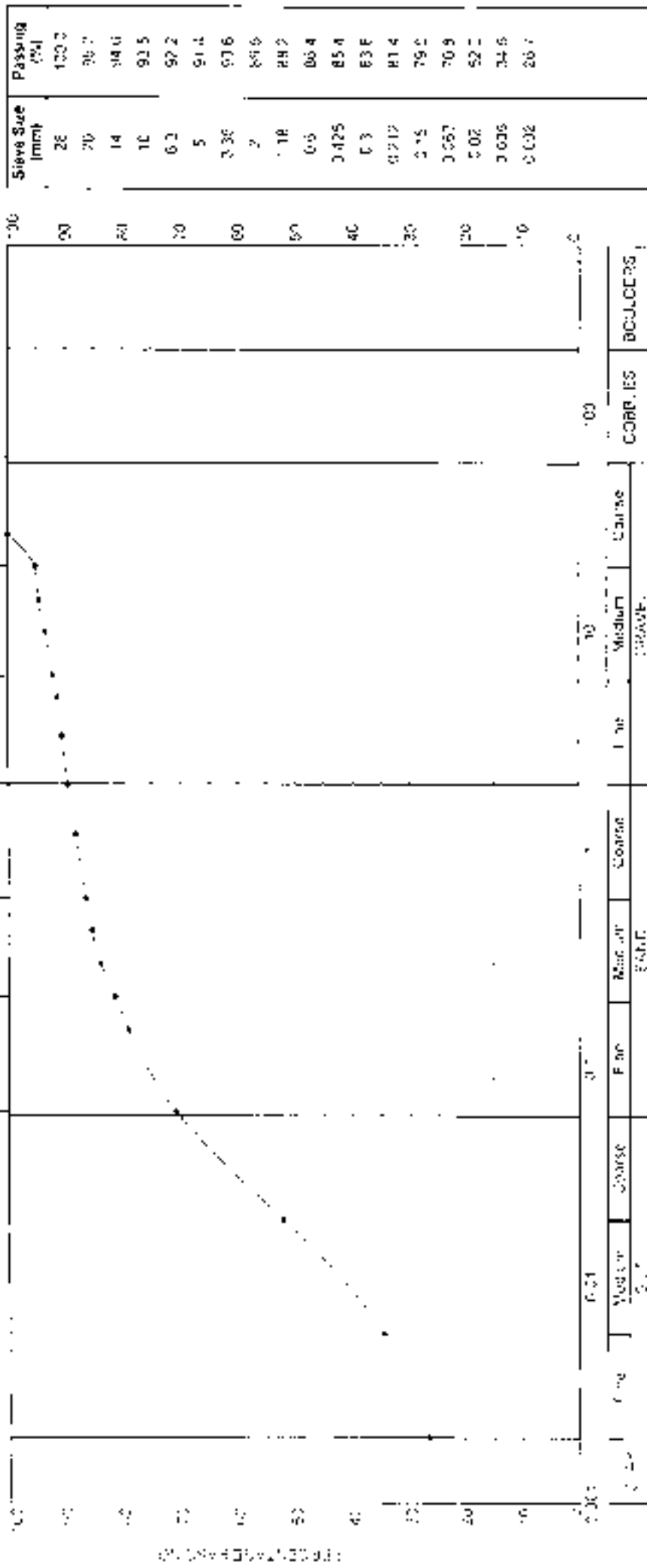
Project Name: PRAIRIE_AUK_TP102

Depth (m): 2.00

Sample Type: % - BS

Specific Depth (m): 2.00

Date Tested: 19/10/2020



Client: AEG

Contract No.: 4251

Contract Name: See Client's Investigation Works

Page 1 of 1

REG. Contract No.: 4251

Name of road: [Redacted] **Depth (m):** [Redacted]

Date: 21/10/2020 **Scale:** 1:50000000 **Source:** MSA

Contract No.: [Redacted] **Contract Name:** [Redacted]

Client: AEG **Contract No.:** 4251

Contract Name: See Client's Investigation Works



1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 22, The Industrial Estate, Mill Hill, Chesham, Bucks, UK. Tel: 01494 603333 Fax: 01494 362474
 Regional Offices: Unit 25, Barnwood Development Centre, Church Road, Gloucestershire, GL1 5SB. Tel: 01172 233333 Fax: 01172 755566

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- PRAIRIE_AUK_TP107	Depth (m) :- 1.00	Sample Type & No :- B4	Specific Depth (m) :- 1.00	Date Tested :- 30/09/2020																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sieve Size (mm)</th> <th>Passing (%)</th> </tr> </thead> <tbody> <tr><td>50</td><td>100.0</td></tr> <tr><td>37.5</td><td>96.3</td></tr> <tr><td>28</td><td>94.8</td></tr> <tr><td>20</td><td>94.8</td></tr> <tr><td>14</td><td>93.9</td></tr> <tr><td>10</td><td>91.9</td></tr> <tr><td>6.3</td><td>89.2</td></tr> <tr><td>5</td><td>87.8</td></tr> <tr><td>3.35</td><td>86.1</td></tr> <tr><td>2</td><td>84.4</td></tr> <tr><td>1.18</td><td>82.9</td></tr> <tr><td>0.6</td><td>81.2</td></tr> <tr><td>0.425</td><td>80.3</td></tr> <tr><td>0.3</td><td>78.9</td></tr> <tr><td>0.212</td><td>77.1</td></tr> <tr><td>0.15</td><td>75.0</td></tr> <tr><td>0.063</td><td>62.5</td></tr> <tr><td>0.02</td><td>51.6</td></tr> <tr><td>0.006</td><td>38.6</td></tr> <tr><td>0.002</td><td>28.3</td></tr> </tbody> </table>					Sieve Size (mm)	Passing (%)	50	100.0	37.5	96.3	28	94.8	20	94.8	14	93.9	10	91.9	6.3	89.2	5	87.8	3.35	86.1	2	84.4	1.18	82.9	0.6	81.2	0.425	80.3	0.3	78.9	0.212	77.1	0.15	75.0	0.063	62.5	0.02	51.6	0.006	38.6	0.002	28.3
Sieve Size (mm)	Passing (%)																																													
50	100.0																																													
37.5	96.3																																													
28	94.8																																													
20	94.8																																													
14	93.9																																													
10	91.9																																													
6.3	89.2																																													
5	87.8																																													
3.35	86.1																																													
2	84.4																																													
1.18	82.9																																													
0.6	81.2																																													
0.425	80.3																																													
0.3	78.9																																													
0.212	77.1																																													
0.15	75.0																																													
0.063	62.5																																													
0.02	51.6																																													
0.006	38.6																																													
0.002	28.3																																													
For description of sample please refer to the Laboratory Sample Description Sheet																																														
Date of issue :- 20/10/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_TP107/B4/1.00	Signed :- <i>MSR</i>	Name :- <i>MSR</i>	Page 1 of 1																																										
Client :- South Tees Development Corporation	Contract Title :-	AEG Contract No :- 4251																																												



ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

RS1377 : Part 2 : Clause 9.2 & 9.4 : 1980
(Test deviating from standard due to insufficient sample mass)

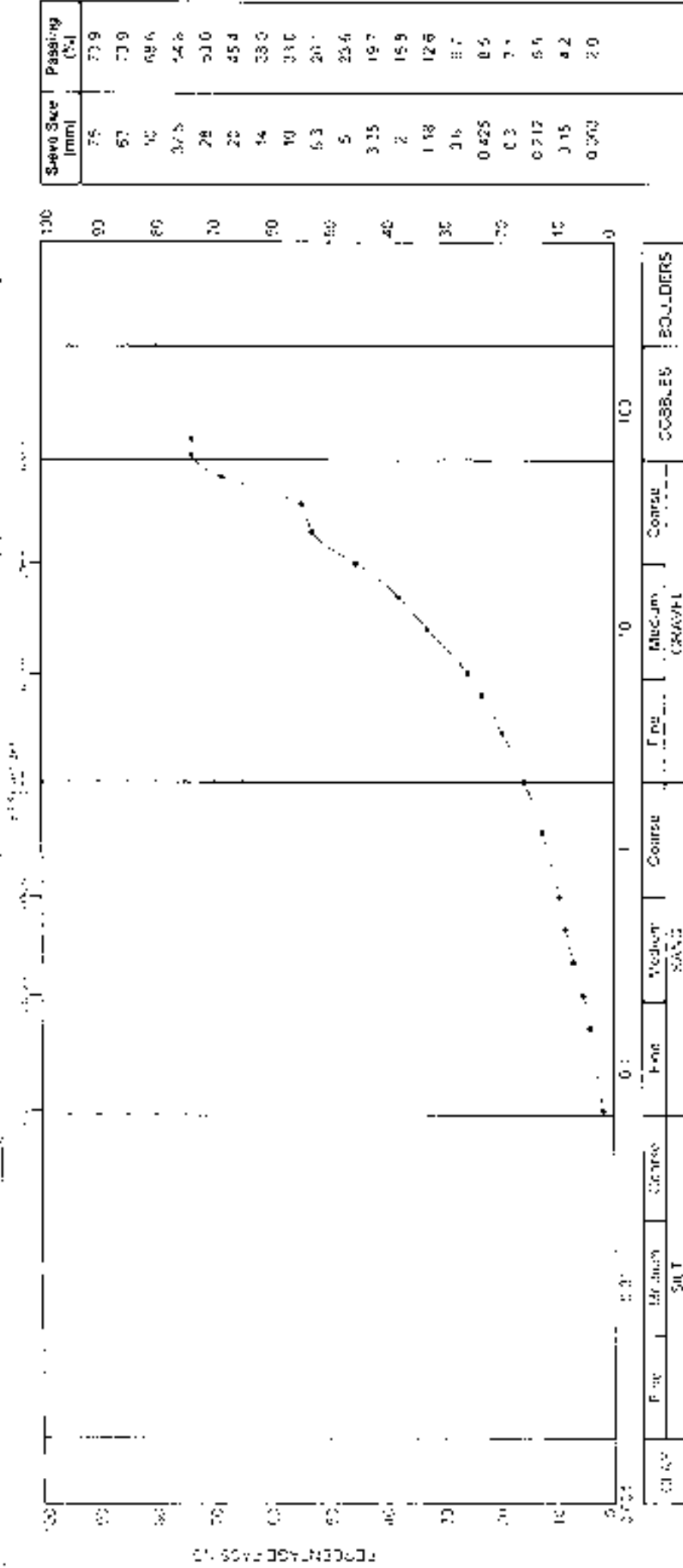
Test Identity File No: **FRAIR E_AUK_TP103**

Exp. No.: **090**

Sample Type & No: **B4**

Specific Depth (m): **0.90**

Date Tested: **30/09/2020**



For test results please refer to the Laboratory Sample Receipt Form

Date of Issue: **30/09/2020**

Client: **South Coast Development Corporation**

Certificate No: **95E-4251-FRAIR E_AUK_TP103-30-09-20**

Contract Title: **Franklin Road Development**

Tested by: **MSO**

Checked by: **MSO**

Approved by: **MSO**

Page 1 of 1

ASIS Contract No: **4251**

Project: **Franklin Road Development**

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

AS1377 - Part 2 - Clauses 9.2 & 9.4 - 1990

(Test deviated from standard due to insufficient sample mass)

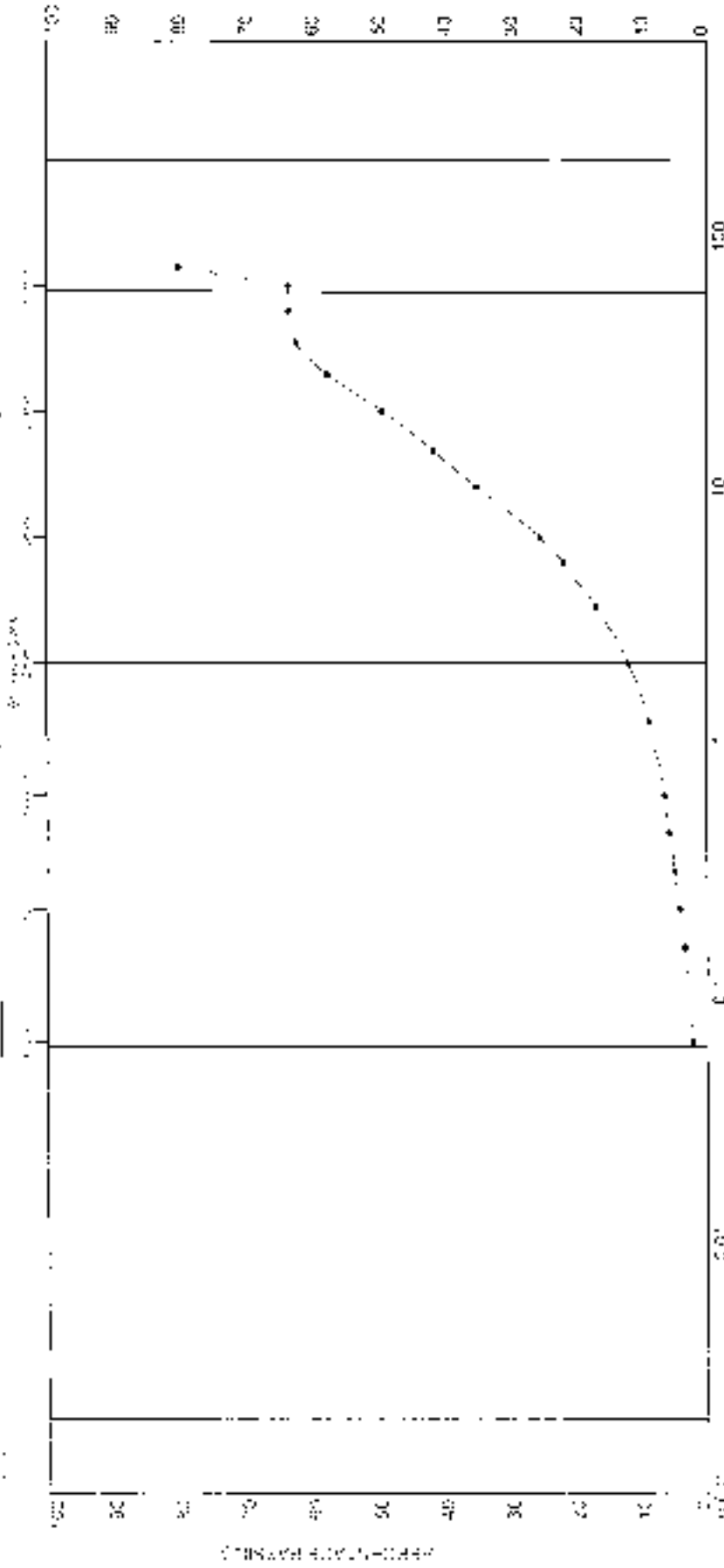
Exploratory Test No: PRAIRIE_AUK_TP108

Depth (m): 1.90

Sample Type & No: BT

Specific Depth (m): 1.90

Curve Test No: 800992020



Coarse	Fine	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	

For test results refer to the report or the data sheet.



Date of Issue: 20/02/2020

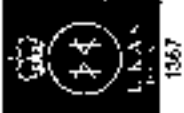
Prepared by: PSE-425 - PRAIRIE_AUK_TP108 8/21/20

Checked by: [Signature]

Drawn by: [Signature]

Project Name: [Signature]

Page 1 of 1



Contract No: 4251

Home Site Ground Investigation Works

Page 1 of 1

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS 1377 - Part 2: Clause 9.2 & 9.4: 1990

(Test deviated from standard due to insufficient sample mass)

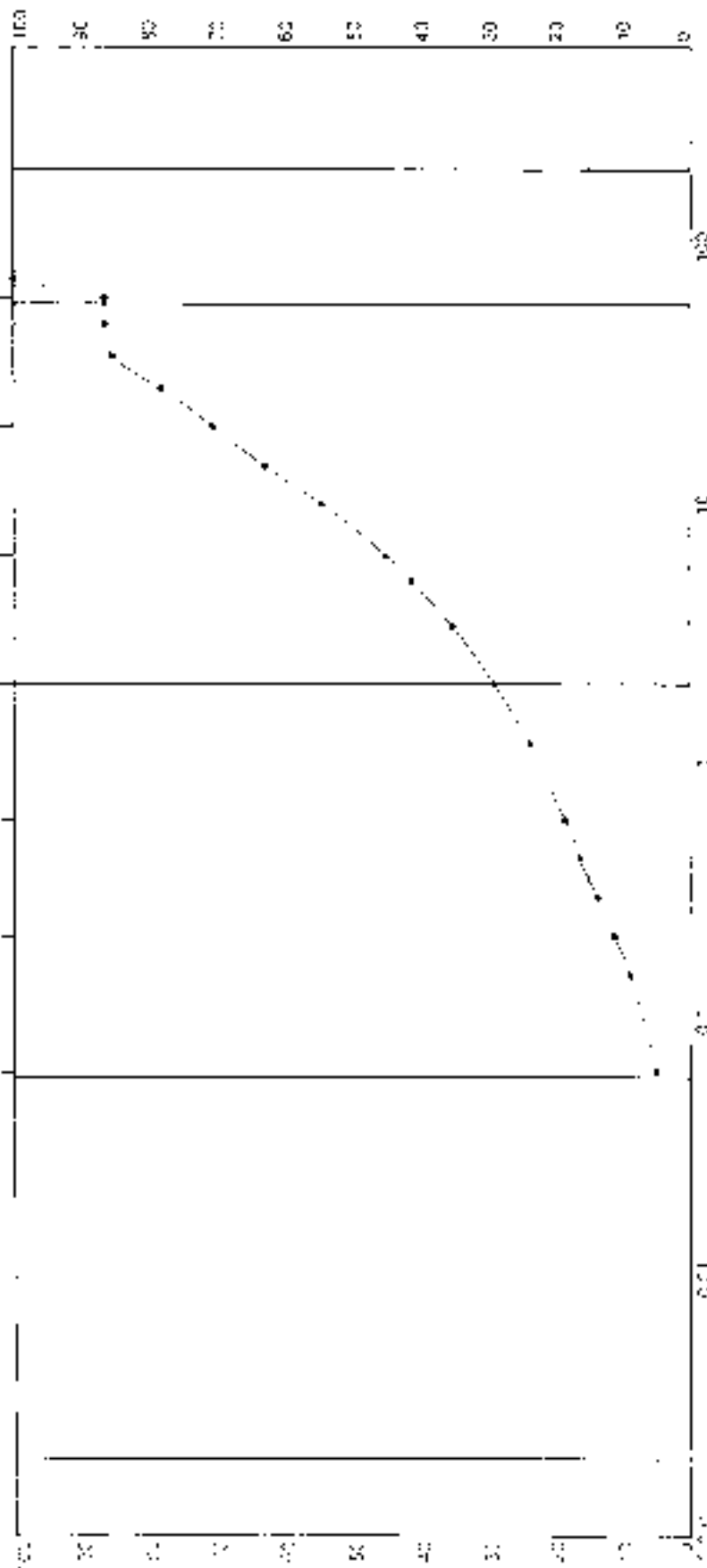
Project No: PRAIRIE_AUG_TP110

Depth: 1.00

Sample Type: B1 - B2

Seeds Depth: 1.00

Date Tested: 16/01/2020



Coarse	Very Coarse	Coarse	Medium	Fine	Medium	Coarse	COCS_ES	COCS_DEFS

For test procedure, refer to BS 1377-2:1990 Part 2: Clause 9.2

Tested by: [Signature]

Date: 16/01/2020

Reference No: PRAIRIE_AUG_TP110 B2-00

Serial: 14310

Name: [Signature]

Page 1 of 1



Client: [Signature]

Contact Title:

Project Site Ground Investigation Works

Attest: [Signature]

4251

1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2.8.3.4 : 1990

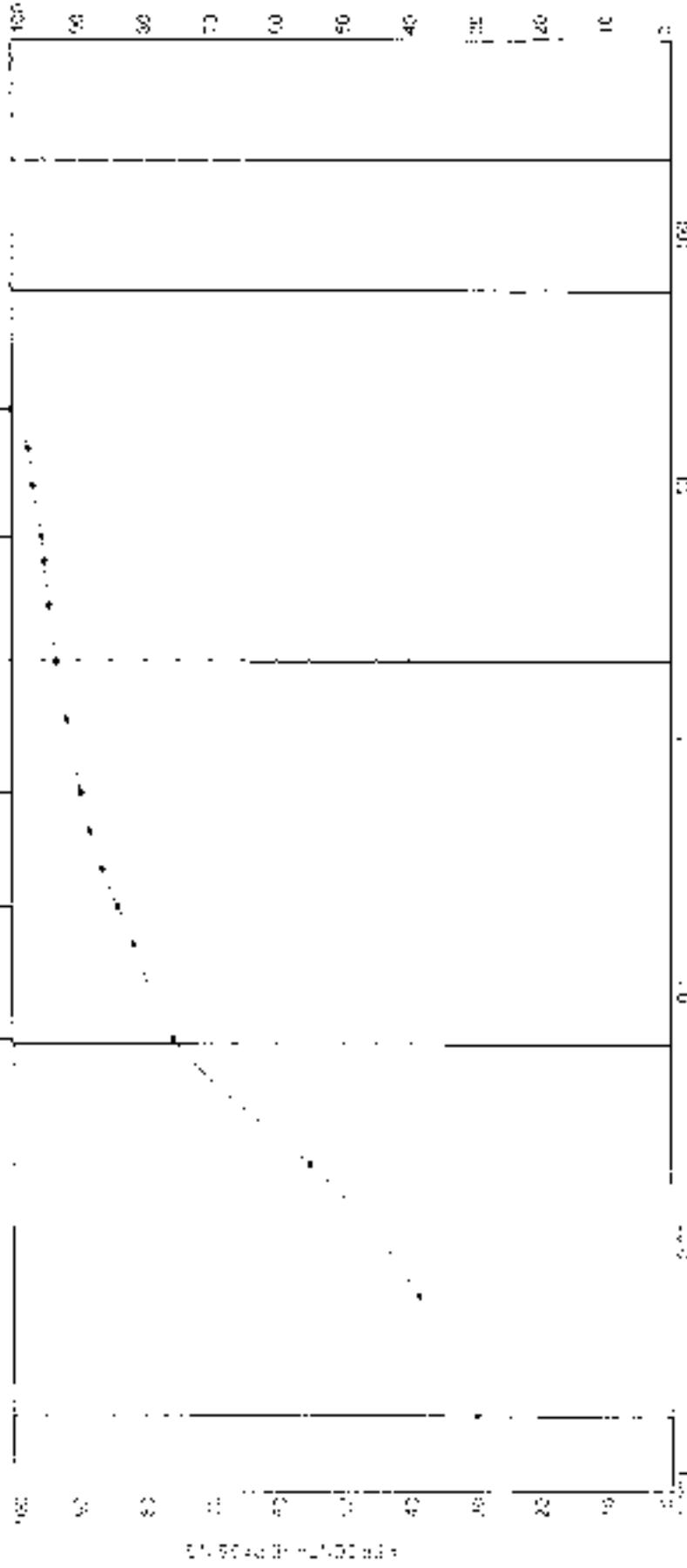
Location: Prairie_Auk_TP110

Depth: 3.00

Sample Type & No: D8

Specific Depth: 3.00

Date Tested: 16/10/2020



Course	Free	Medium	Coarse	COARSE	FINES
0.075	0.0	0.0	0.0	0.0	0.0
0.150	0.0	0.0	0.0	0.0	0.0
0.300	0.0	0.0	0.0	0.0	0.0
0.425	91.7	91.7	91.7	91.7	91.7
0.600	91.7	91.7	91.7	91.7	91.7
0.750	91.7	91.7	91.7	91.7	91.7
1.000	91.7	91.7	91.7	91.7	91.7
1.500	91.7	91.7	91.7	91.7	91.7
2.000	91.7	91.7	91.7	91.7	91.7
2.500	91.7	91.7	91.7	91.7	91.7
3.000	91.7	91.7	91.7	91.7	91.7
3.750	91.7	91.7	91.7	91.7	91.7
4.750	91.7	91.7	91.7	91.7	91.7
6.000	91.7	91.7	91.7	91.7	91.7
7.500	91.7	91.7	91.7	91.7	91.7
9.500	91.7	91.7	91.7	91.7	91.7
12.000	91.7	91.7	91.7	91.7	91.7
15.000	91.7	91.7	91.7	91.7	91.7
19.000	91.7	91.7	91.7	91.7	91.7
24.000	91.7	91.7	91.7	91.7	91.7
30.000	91.7	91.7	91.7	91.7	91.7
37.500	91.7	91.7	91.7	91.7	91.7
47.500	91.7	91.7	91.7	91.7	91.7
60.000	91.7	91.7	91.7	91.7	91.7
75.000	91.7	91.7	91.7	91.7	91.7

Method: BS1377 Part 2, Clause 9.2.8.3.4

Date of test: 16/10/2020
 Client: Prairie Auk TP110
 Site: Prairie Auk TP110
 Scale: 100g
 Method: BS1377 Part 2, Clause 9.2.8.3.4

Operator: M. J. ...
 Checked: M. J. ...
 Signed: M. J. ...
 Name: M. J. ...
 Contract No: 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377, Part 2, Clauses 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

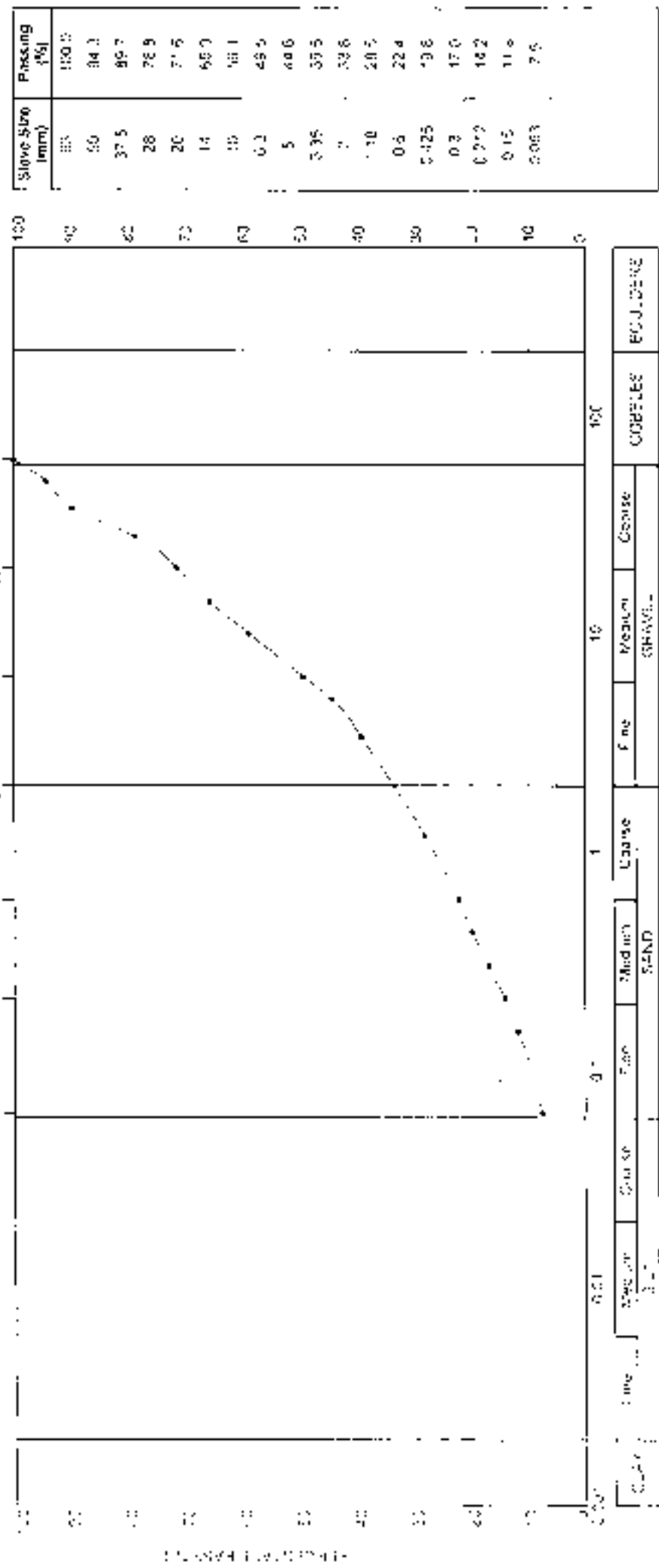
Sample No: **PIRANIE AUK_TP112**

Depth: **1.70**

Sample Type: **So - BS**

Specific Gravity: **1.70**

Date Tested: **19/10/2020**



Coarse	Medium	Fine	Very Fine
75 - 4.75	4.75 - 0.425	0.425 - 0.075	0.075 - 0

By reference to the test procedure, about 100g of sample was used.

Scale of Error: **±0.1%**

Certificate No: **CEG025-FRANIE AUK_TP112-20-20**

Client: **MS&I**

Page 1 of 1



Client: **MS&I**

Certificate No

Scale of Error: **±0.1%**

Page 1 of 1



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ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377: Part 2 - Clause 9.2.8.3.4 1990

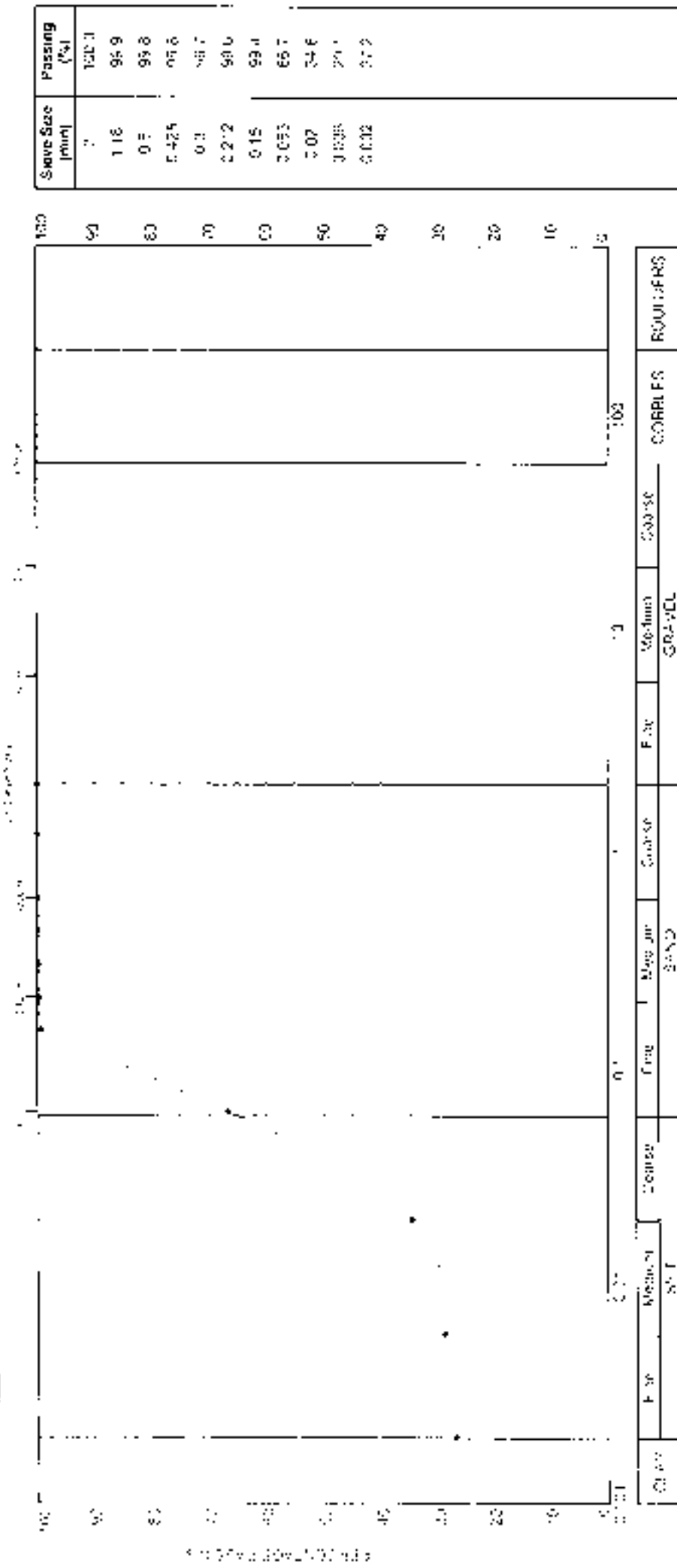
Client: Mr & Mrs - PRAIRIE_AUK_TP112

Depth: 0.320

Sample type & no: B11

Soil Depth: 0.320

Date Tested: 16/10/2020



Course	Sub-Grade	Base	Medium	Course	Course	Course	Course
Sub-Grade	Sub-Grade	Sub-Grade	Sub-Grade	Sub-Grade	Sub-Grade	Sub-Grade	Sub-Grade



Page 1 of 1
 AEG CONTRACT NO - 4251

Site: 10/10/2020
 10/10/2020
 10/10/2020

Contract No: 4251
 Date: 16/10/2020
 Name: MSONO

Site: 10/10/2020
 10/10/2020
 10/10/2020

Site: 10/10/2020
 10/10/2020
 10/10/2020

Site: 10/10/2020
 10/10/2020
 10/10/2020



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Head Office: 2nd Flr, 150-152, Victoria Road, Epsom, Surrey, Middlesex, UK. Tel: 0181-833-0200 Fax: 0181-832-8716
Regional Office: 107-109, Eborac Road, Epsom, Surrey, Middlesex, UK. Tel: 0171-722-3000 Fax: 0171-722-3000

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No - PRAIRIE_AUK_TP114	Depth (m) - 0.40	Sample Type & No - B4	Specific Depth (m) - 0.40	Date Tested - 29/09/2020																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sieve Size (mm)</th> <th>Passing (%)</th> </tr> </thead> <tbody> <tr><td>50</td><td>100.0</td></tr> <tr><td>37.5</td><td>88.3</td></tr> <tr><td>28</td><td>85.6</td></tr> <tr><td>20</td><td>77.0</td></tr> <tr><td>14</td><td>67.9</td></tr> <tr><td>10</td><td>61.9</td></tr> <tr><td>6.3</td><td>54.9</td></tr> <tr><td>5</td><td>49.7</td></tr> <tr><td>3.35</td><td>43.8</td></tr> <tr><td>2</td><td>37.0</td></tr> <tr><td>1.18</td><td>30.8</td></tr> <tr><td>0.6</td><td>24.8</td></tr> <tr><td>0.425</td><td>22.6</td></tr> <tr><td>0.3</td><td>20.1</td></tr> <tr><td>0.212</td><td>17.5</td></tr> <tr><td>0.15</td><td>14.6</td></tr> <tr><td>0.063</td><td>10.9</td></tr> </tbody> </table>					Sieve Size (mm)	Passing (%)	50	100.0	37.5	88.3	28	85.6	20	77.0	14	67.9	10	61.9	6.3	54.9	5	49.7	3.35	43.8	2	37.0	1.18	30.8	0.6	24.8	0.425	22.6	0.3	20.1	0.212	17.5	0.15	14.6	0.063	10.9
Sieve Size (mm)	Passing (%)																																							
50	100.0																																							
37.5	88.3																																							
28	85.6																																							
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14	67.9																																							
10	61.9																																							
6.3	54.9																																							
5	49.7																																							
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0.212	17.5																																							
0.15	14.6																																							
0.063	10.9																																							
For description of sample please refer to the Laboratory Sample Description Sheet																																								
Date of issue - 20/10/2020	Certificate No - PSD/4251/PRAIRIE_AUK_TP114/B4/0.40	Signed - <i>msone</i>	Name - SELKIRK	Page 1 of 1																																				
Client - South Tees Development Corporation	Contract Title -	Contract No -	AEG Contract No - 4251																																					

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 110-111 Oldham Road, Oldham, Greater Manchester, M24 3DQ, UK. Tel: 0161 867 4500 Fax: 0161 361 4710
Regional Offices: 110-111 Oldham Road, Oldham, Greater Manchester, M24 3DQ, UK. Tel: 0161 867 4500 Fax: 0161 361 4710

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No - PRAIRIE_AUK_TP115	Depth (m) - 1.70	Sample Type & No - B5	Specific Depth (m) - 1.70	Date Tested - 14/10/2020																																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sieve Size (mm)</th> <th>Passing (%)</th> </tr> </thead> <tbody> <tr><td>63</td><td>100.0</td></tr> <tr><td>50</td><td>94.3</td></tr> <tr><td>37.5</td><td>94.3</td></tr> <tr><td>28</td><td>93.0</td></tr> <tr><td>20</td><td>87.4</td></tr> <tr><td>14</td><td>78.1</td></tr> <tr><td>10</td><td>59.5</td></tr> <tr><td>6.3</td><td>43.9</td></tr> <tr><td>5</td><td>38.6</td></tr> <tr><td>3.35</td><td>31.9</td></tr> <tr><td>2</td><td>26.0</td></tr> <tr><td>1.18</td><td>21.2</td></tr> <tr><td>0.6</td><td>15.9</td></tr> <tr><td>0.425</td><td>13.8</td></tr> <tr><td>0.3</td><td>11.4</td></tr> <tr><td>0.212</td><td>9.3</td></tr> <tr><td>0.15</td><td>7.6</td></tr> <tr><td>0.075</td><td>4.7</td></tr> </tbody> </table>					Sieve Size (mm)	Passing (%)	63	100.0	50	94.3	37.5	94.3	28	93.0	20	87.4	14	78.1	10	59.5	6.3	43.9	5	38.6	3.35	31.9	2	26.0	1.18	21.2	0.6	15.9	0.425	13.8	0.3	11.4	0.212	9.3	0.15	7.6	0.075	4.7
Sieve Size (mm)	Passing (%)																																									
63	100.0																																									
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0.3	11.4																																									
0.212	9.3																																									
0.15	7.6																																									
0.075	4.7																																									
<p>For description of sample please refer to the Laboratory Sample Description Sheet</p>																																										
Date of issue -> 23/10/2020	Certificate No -> PSD/4251/PRAIRIE_AUK_TP115/B5/1.70	Signed -> <i>msore</i>	Name ->	Page 1 of 1																																						
Client -> South Tees Development Corporation	Contract Title ->	Contract No -> 4251	AEG Contract No ->																																							

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377, Part 2 - Clause 9.2 & 9.3 - 1990

(Test deviated from standard due to insufficient sample mass)

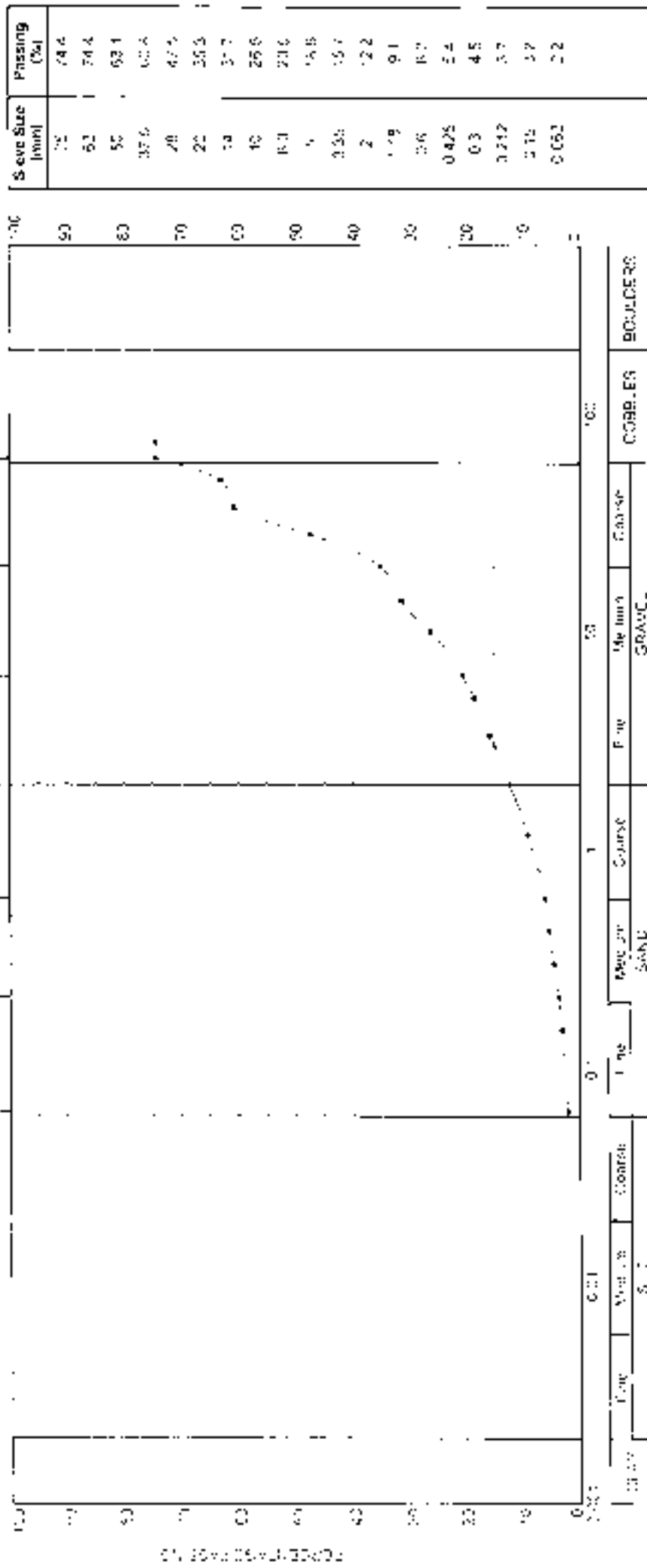
Laboratory File No: PIRAIRIE AUK_IP117

Depth (m): 2.00

Sample type & No: D5

Specific Depth (m): 2.00

Date Tested: 16/10/2020



Coarse	Medium	Fine	Very Fine	Clay-size	BOULDERS	COBBLES	GRAVEL
0.075	0.425	0.75	2.0	75			

Note: All values are percentages unless otherwise stated.



Client Name: SOUTH TIERES ENVIRONMENTAL CONSULTANTS
 Date: 20/10/2020
 Contract No: 4251

Site Name: PIRAIRIE AUK IP117 B2.00
 Signature: *Mason*
 Name: Mason
 Title: Site Ground Investigation Works

Page 1 of 1
 Test Name: 4251



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ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

OS1377 - Part 2 - Clause 9.2 & 9.4 : 1998
(Test deviated from standard due to insufficient sample mass)

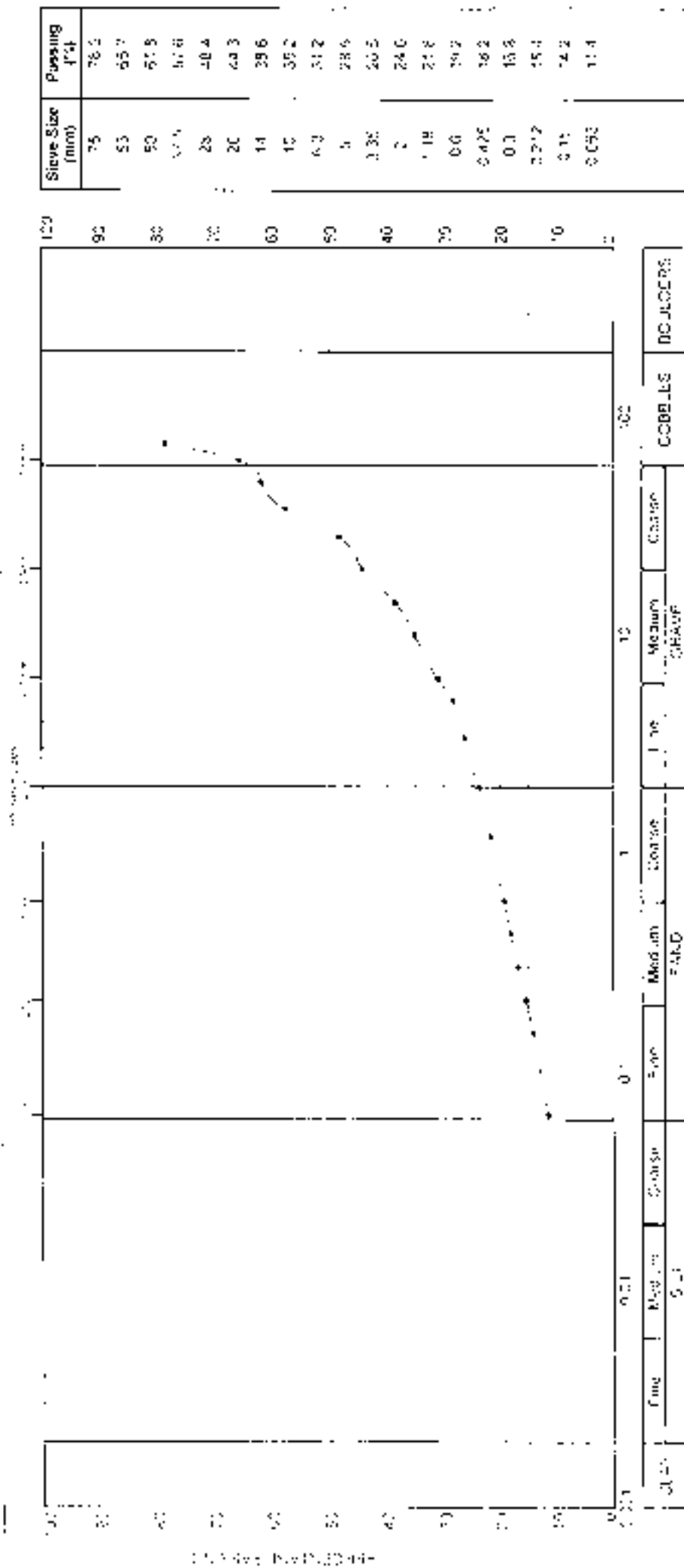
Estimator: MORTON - PRA RIE, AUK_TP117

Density: 2.65

Sample Type: S_u - B9

Spec. for: Drayman - 3.20

Date Tested: 16/10/2020



Client: PSC 225 - FORD RIVER, AUK_TP117 B9320 - 5.3m

Contract No: 4251

Project Name: See General Project Works

Contract Title: *insore*

Client Name: *insore*

Page 1 of 1

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 - Part 2 - Clause 9.2 & 9.4 - 1990

(Test deviated from standard due to insufficient sample mass)

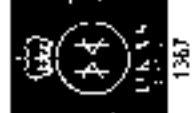
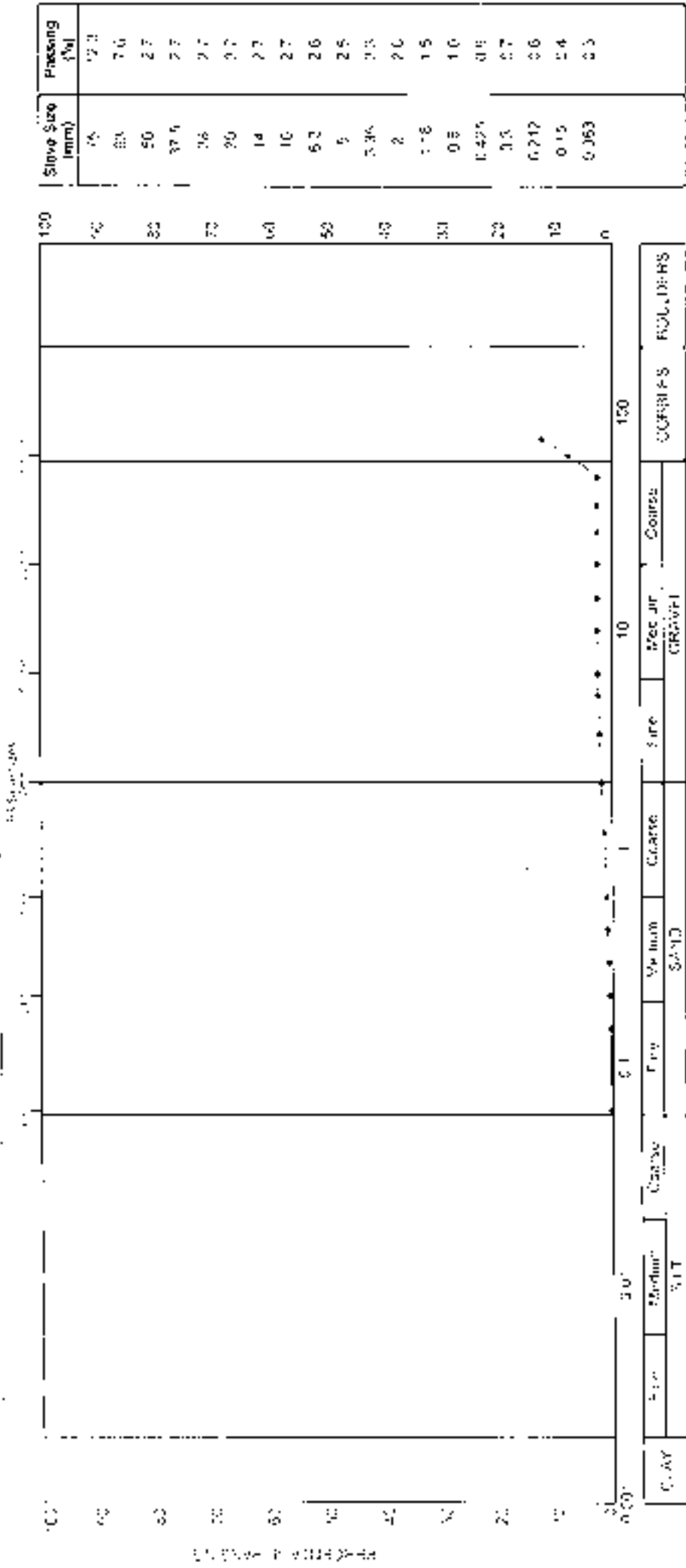
Client Ref: **PRAMIE_AUK_TP123**

Diaper No: **0.50**

Sample Type & No: **BZ**

Specific Depth (m): **0.50**

Date Tested: **28/09/2020**



Page: of 1
AEC Contract No: 4251

Client: **PRAMIE_AUK_TP123**
Contract No: **0.50**

Sample: **BZ**
Specific Depth: **0.50**

Date Tested: **28/09/2020**

Diaper No: **0.50**

Sample Type & No: **BZ**

Client Ref: **PRAMIE_AUK_TP123**

Contract No: **0.50**

Project Name: **PRAMIE_AUK_TP123**

Site: **PRAMIE_AUK_TP123**

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

AS1377 : Part 2, Clause 9.2 & 9.4 : 1998

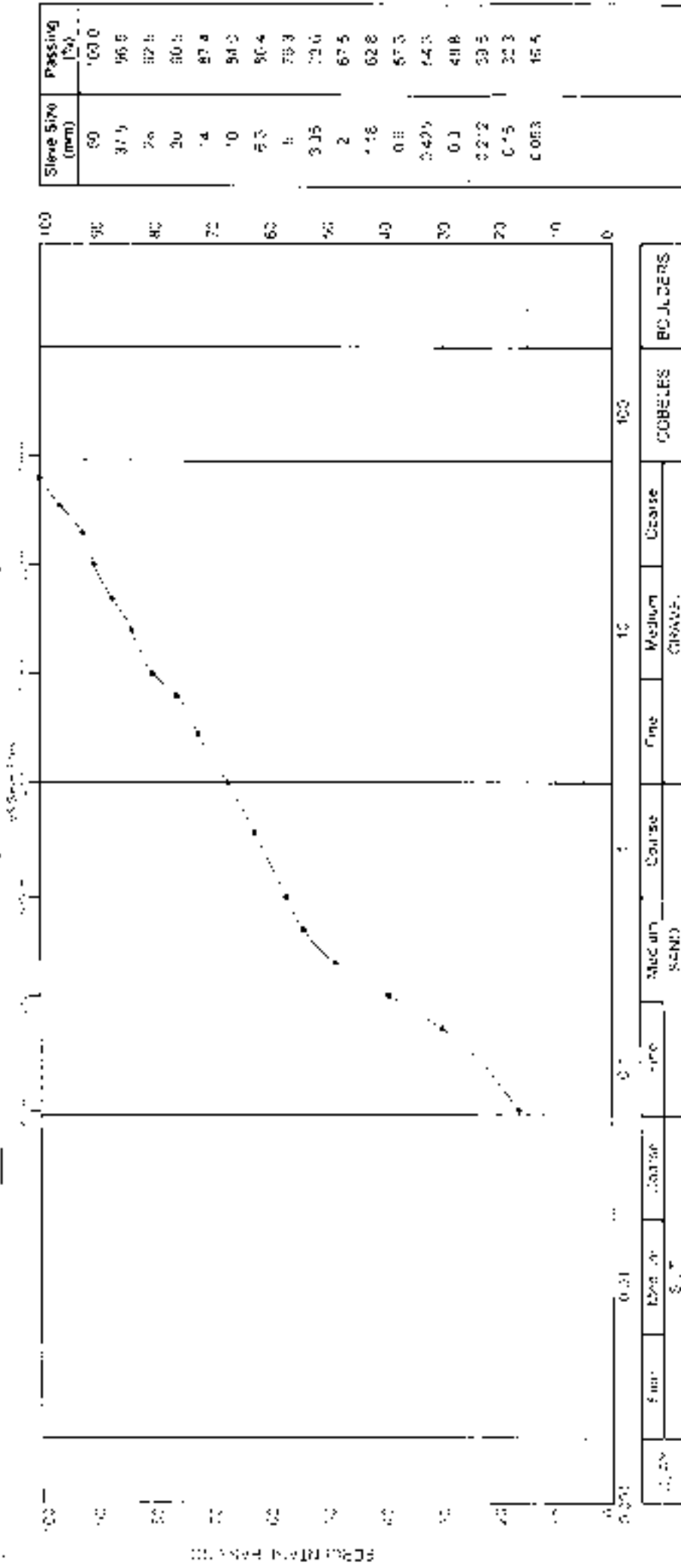
Project Name: PRAIRIE_AUK_TP124

Depth: 1.50

Sample Type: S1 - B4

Spec. Description: 1.50

Date Tested: 28/09/2020



Coarse	Medium	Fine	Coarse	COBBLES	BOULDERS
0.075	0.425	0.75	4.75		




 Certificate No: PSD-251-PRAIRIE
 Date Issued: 28/09/2020
 Issued To: PRAIRIE_AUK_TP124
 Issued By: [Signature]

Sample Name: PRAIRIE_AUK_TP124
 Sample Depth: 1.50
 Sample Type: S1 - B4
 Spec. Description: 1.50
 Date Tested: 28/09/2020

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

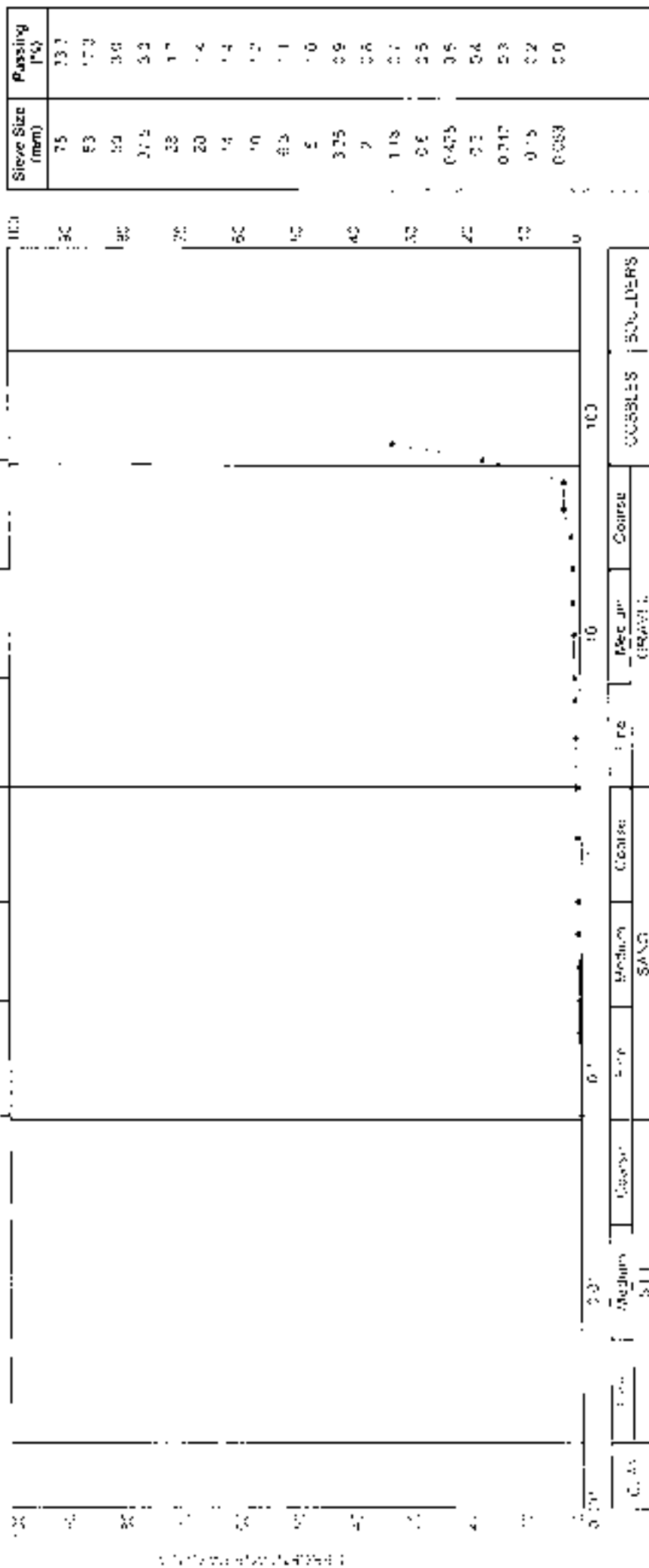
Location: PRAIRIE_AUK_FP120

Depth: 1.80

Sample Type & No: G4

Specific Description: 1.80

Date Tested: 16/01/2020



Course	Medium	Coarse	Per cent Gravels	Course	Cobbles	SOILS
SAND						

For Test Results from the same laboratory, refer to the report from here.

Date of Issue: 22/01/20
Client Name: MASON
Project Name: PRAIRIE_AUK_FP120 - SoneJ - Drain
Scale: 100 : 1
Contract No: 4261

Author: MASON
Checked: MASON
Date: 16/01/20

Page 1 of 1
AEG Contract No: 4261

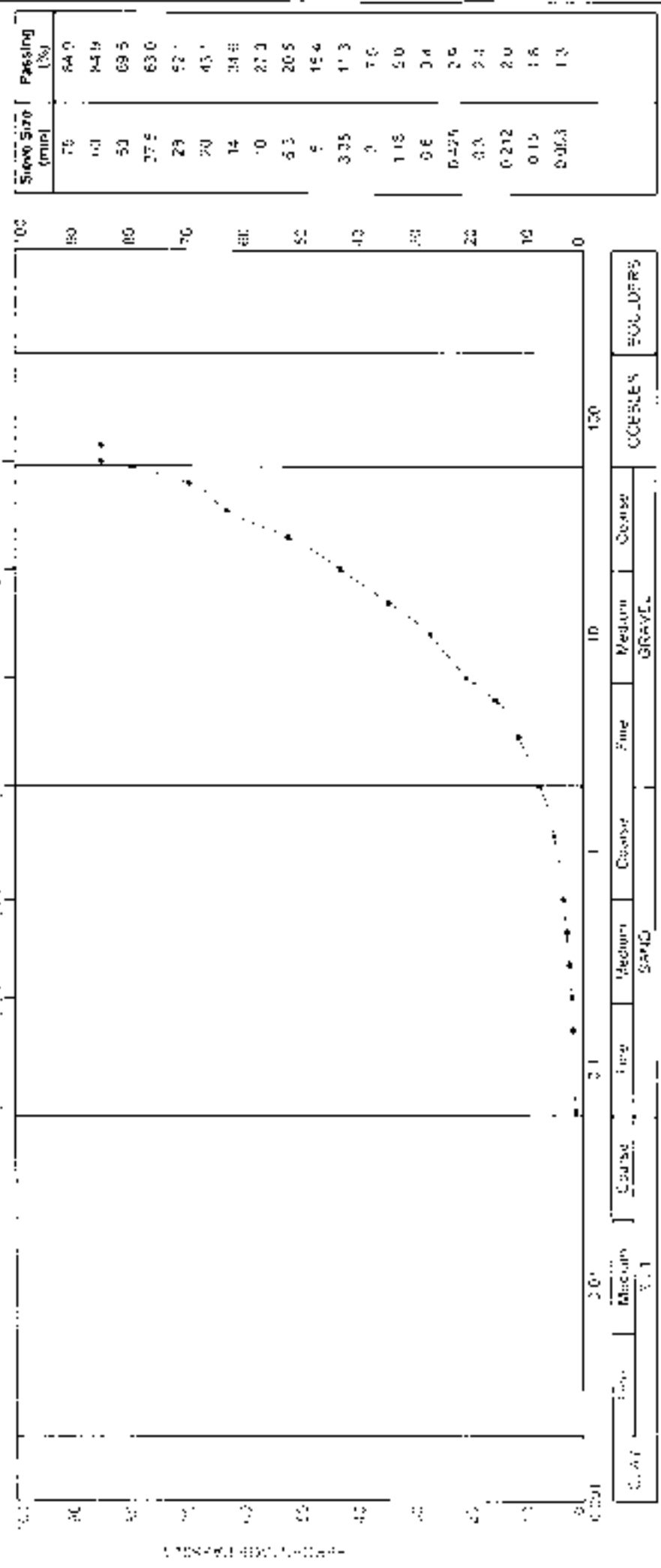


ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

DS4377 - Part 2 - Clause 8.2.8.9.4 : 1980
(Test deviated from standard due to insufficient sample mass)

Exp. No: PISAIRIE_AUX TP132 Depth: 2.00 Sample Type: D8 Specific Depth: 2.00 Date Tested: 30/09/2020



The general method of preparation for the laboratory is as described in the standard.

Date of Issue: 30/10/2020

Client: SOUTH COAST INVESTIGATION CONSULTANTS

Project: PISAIRIE_AUX_TP132_D02_00 - 8 yard

Contract Title: *Contract Title*

Drawn by: *msone*

Checked by: *msone*

Scale: 1:1

Page 1 of 1

AEG
ALLIED EXPLORATION & GEOTECHNICS LIMITED
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS4377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviation from standard due to insufficient sample mass)

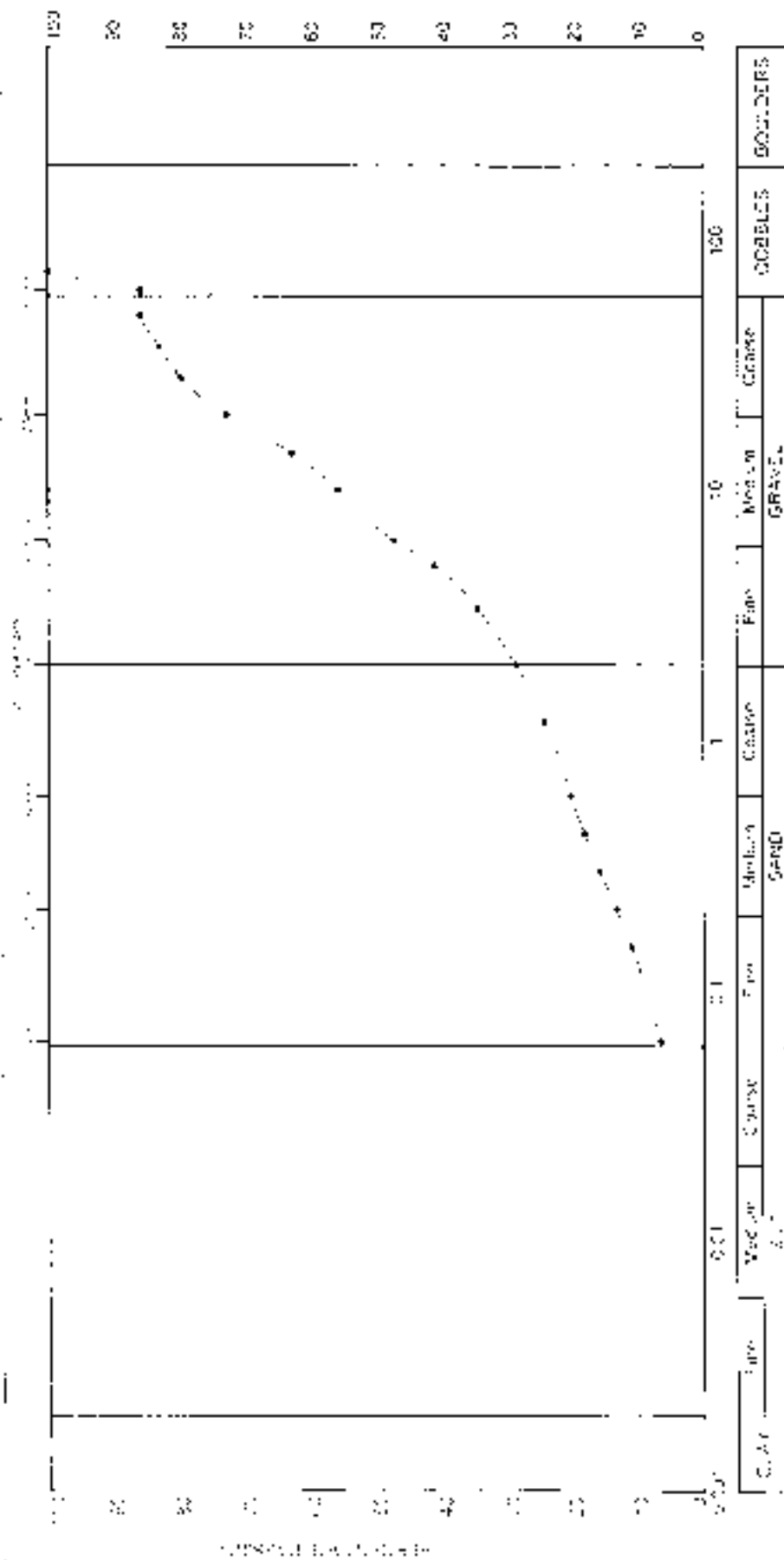
Sample No. : PRAIRIE_AUK_TP134

Depth : 0.80

Sample Type & No. : B2

Soils, Depth (m) : 0.80

Date Tested : 15/10/2020



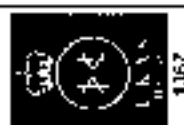
Grain Size	Coarse	Medium	Fine	Coarse	Medium	Coarse	COBBLES	BOULDERS
	SAND			GRAVEL				

Tested by: [Signature] Date: 15/10/2020



Contract No. : 4751
 Date: 15/10/2020
 Project: Prairie Auk TP134

Site: Prairie Auk
 Location: [Signature]
 Project: Investigation on Soils



Page 1 of 1
 AEG Contract No. : 4751

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS 1377 : Part 2 - Plaster B 2 & B 4 : 1990
(Test deviated from standard due to insufficient sample mass)

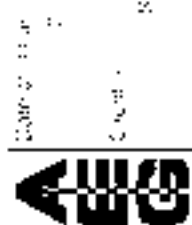
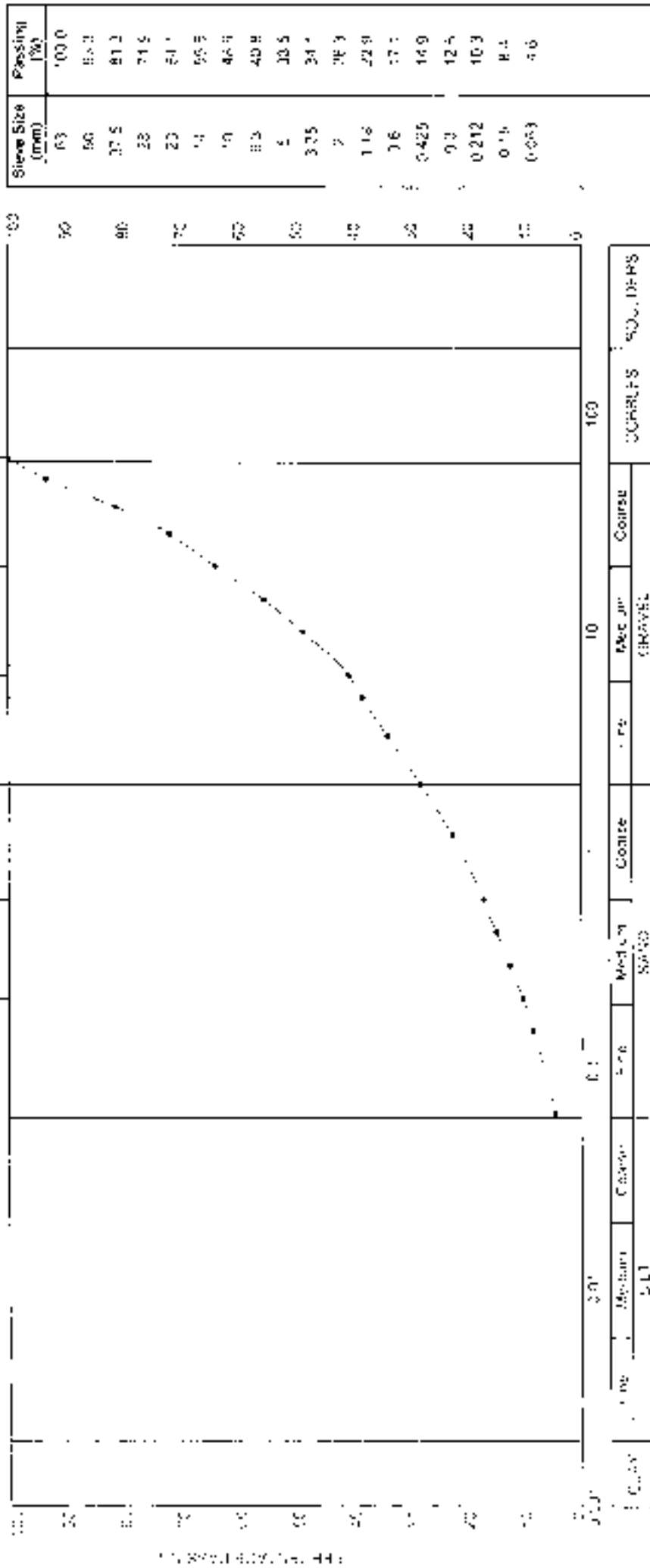
Project No: HIGHLIE_AUG_TP135

Scale: 100

Sample Type & Qty: B3

Specific Gravity: 1.00

Date Tested: 10/10/2020



Client: **Scale 100**
 Scale: **100**
 Scale: **100**

Contract No: **250 425 004186**
 Contract Title: **HIGHLIE_AUG_TP135**
 Name: **MSA**

Page: **1** of **1**
 AEG Contract No: **4251**

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, Millfield Industrial Estate, Fenny Stratford, Bucks. MK16 9JH. Tel: 01494 47000 Fax: 01494 304471
 Regional Office: Unit 25, Millfield Industrial Estate, Fenny Stratford, Bucks. MK16 9JH. Tel: 01494 47000 Fax: 01494 304471

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

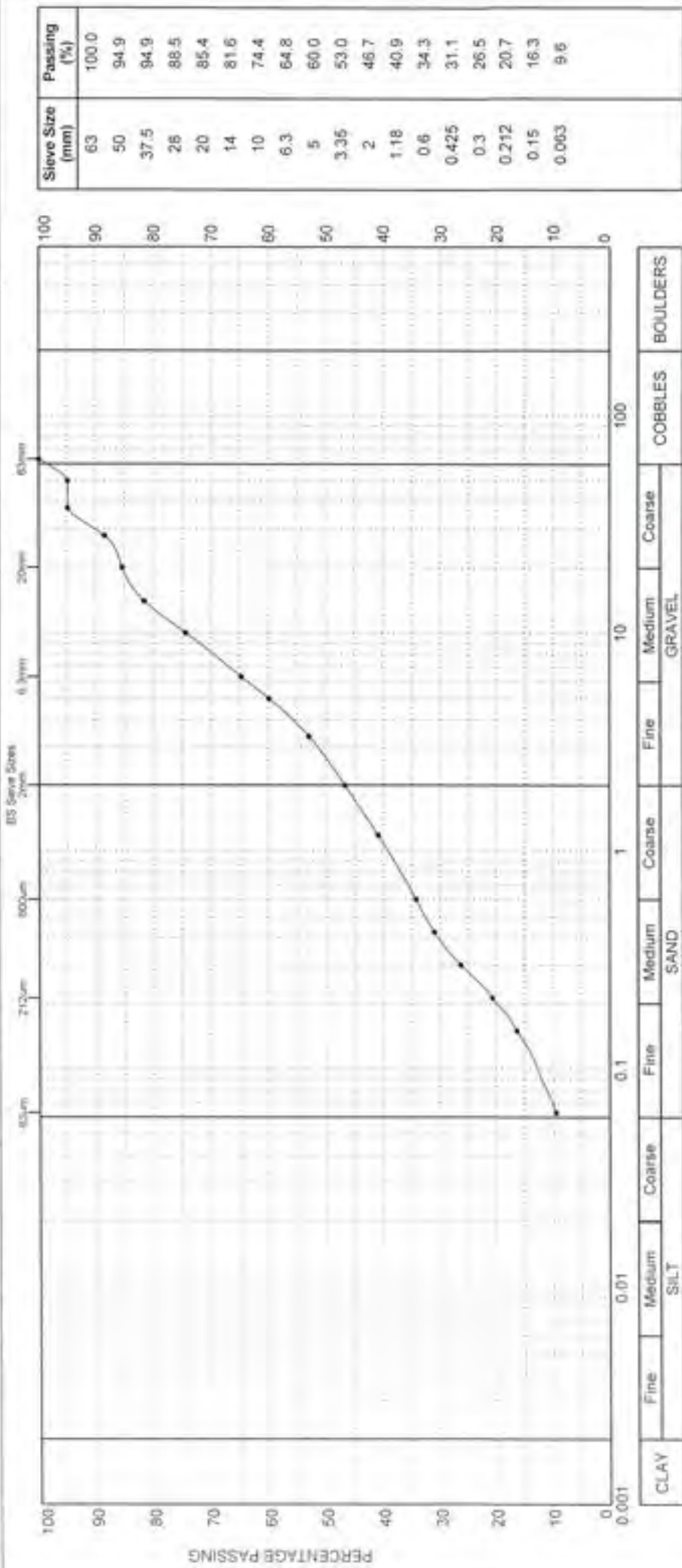
Exploratory Hole No :- PRAIRIE_AUK_TP139B

Depth (m) :- 0.20

Sample Type & No :- B2

Specific Depth (m) :- 0.20

Date Tested :- 14/10/2020



For description of sample please refer to the Laboratory Sample Description Sheet

	Date of issue :- 23/10/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_TP139B/020.20	Signed :- <i>mson</i>	Name :- <i>M. SELKIRK</i>	Page 1 of 1
	Client :- South Tees Development Corporation	Contract Title :- Praine Site Ground Investigation Works	AEG Contract No :- 4251		



ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

051377 - Part 2 - Clause 9.2 & 9.4 - 1990
 (Test deviated from standard due to insufficient sample mass)

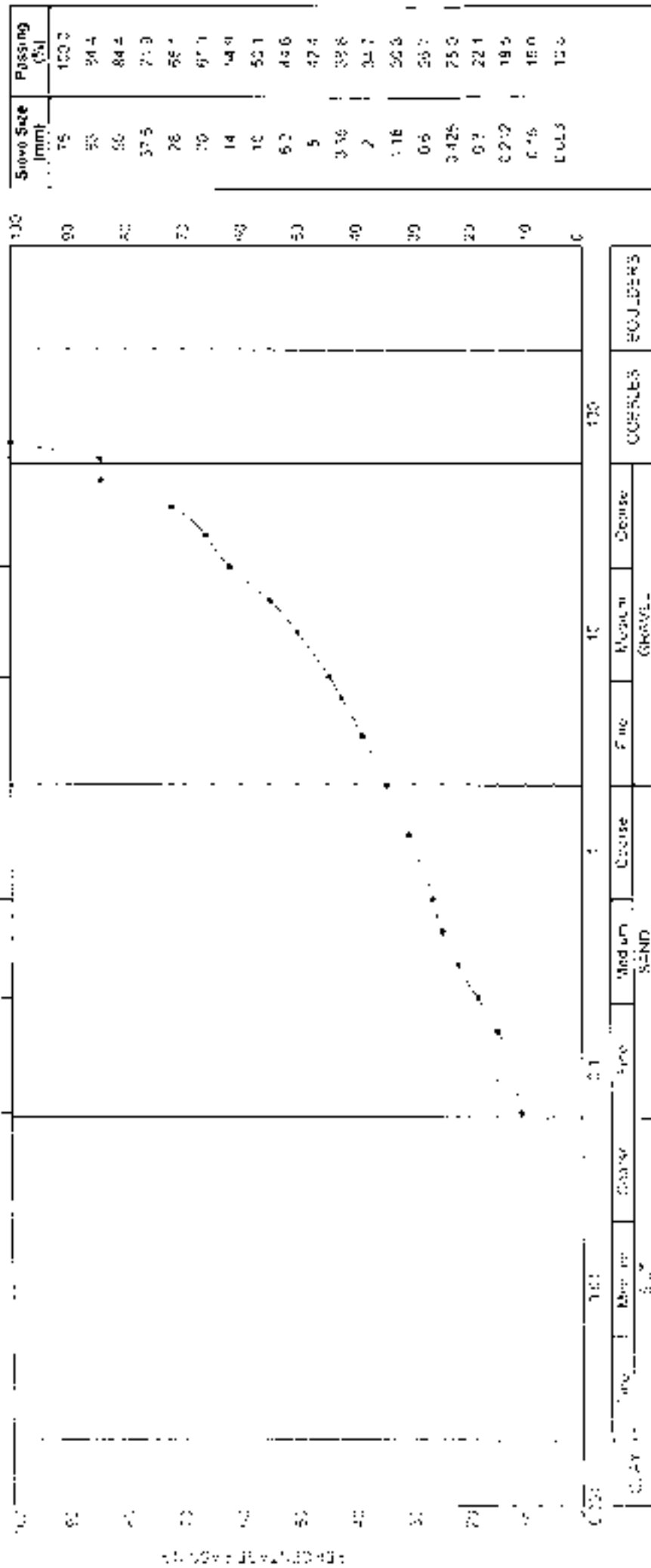
Client: PRINCE AUK TP160

Depth: 0.80

Sample Type & No.: B2

Soil Depth (m): 0.80

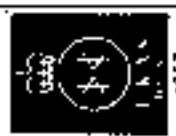
Date Tested: 15/10/2023



Grain Size	Coarse	Medium	Fine	Medium	Coarse	COARSE	FOULERS
Grain Size	SAND			GRAVEL			

Soil Classification: Unconsolidated, loose, fine to medium sand

Drawn: [Signature]
 Checked: [Signature]
 Date: 15/10/2023
 Scale: 1:1
 Project: PRINCE AUK TP160 B2-05C
 Contract Title: [Signature]
 Client: PRINCE AUK TP160



ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

NS1077 - Part 2 - Clause 9.2.4.9.4 - 1990
 (Test deviated from standard due to insufficient sample mass)

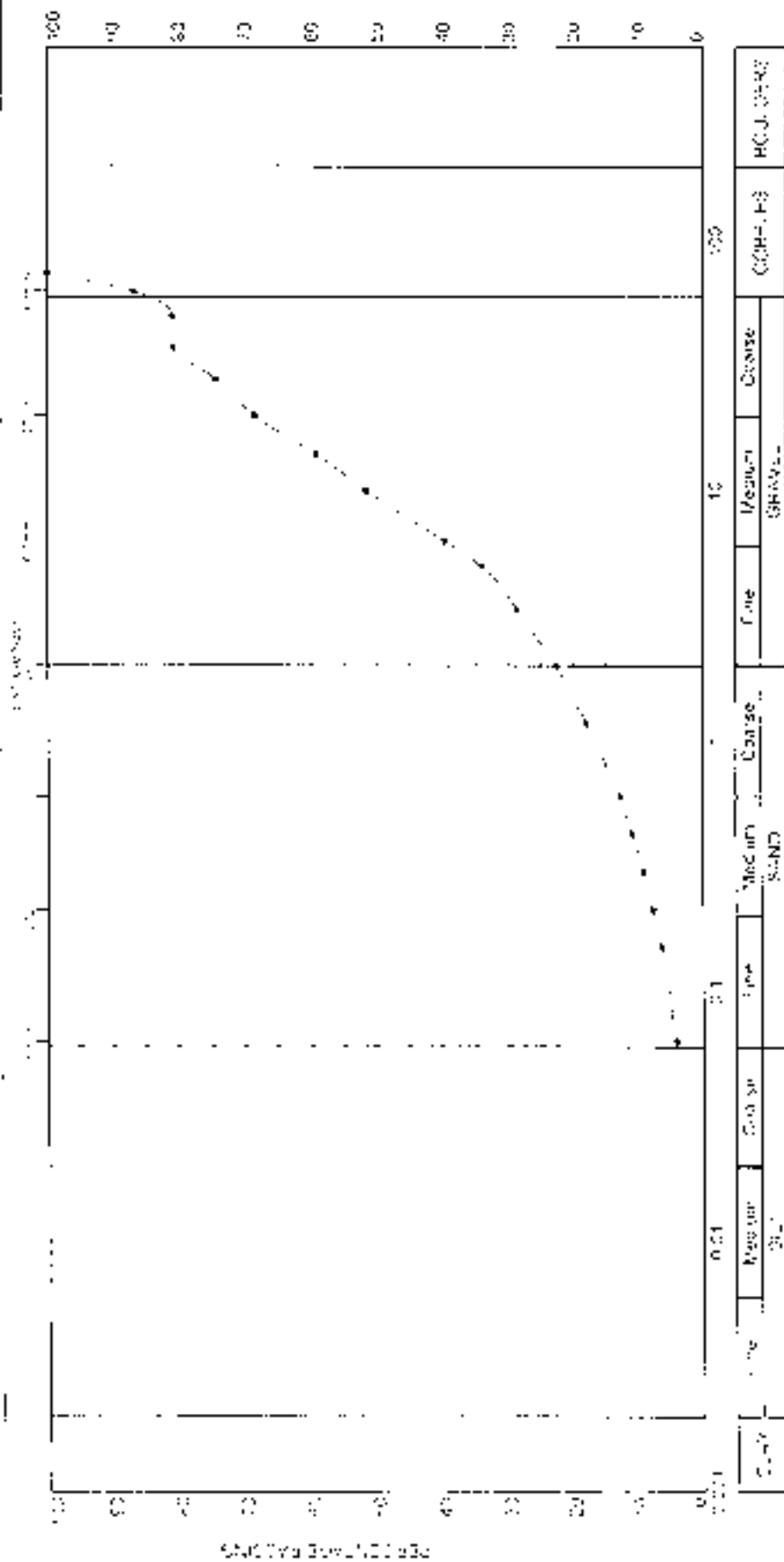
Client Name: **PROAIRIE_AUR_TP155**

Depth (m): **0.50**

Sample Type & No.: **B2**

Specific Depth (m): **0.50**

Date Tested: **19/10/2020**



Coarse	Fine	Medium	Coarse	Coarse	Coarse	Coarse	Coarse

Percentage of sample passing sieve size at 0.075 mm is 100%

Date of Issue: **20/10/2020**
 Client Code No.: **PSD-4251-PROAIRIE_AUR_TP155-B2-0.50**
 Signed: **[Signature]**
 Contract No.: **4251**
 Client: **South West Development Corporation**

Page 1 of 1
 AEG Contract No: **4251**



ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

DS1377 Part 2 Clause 9.2 & 9.4: 1990

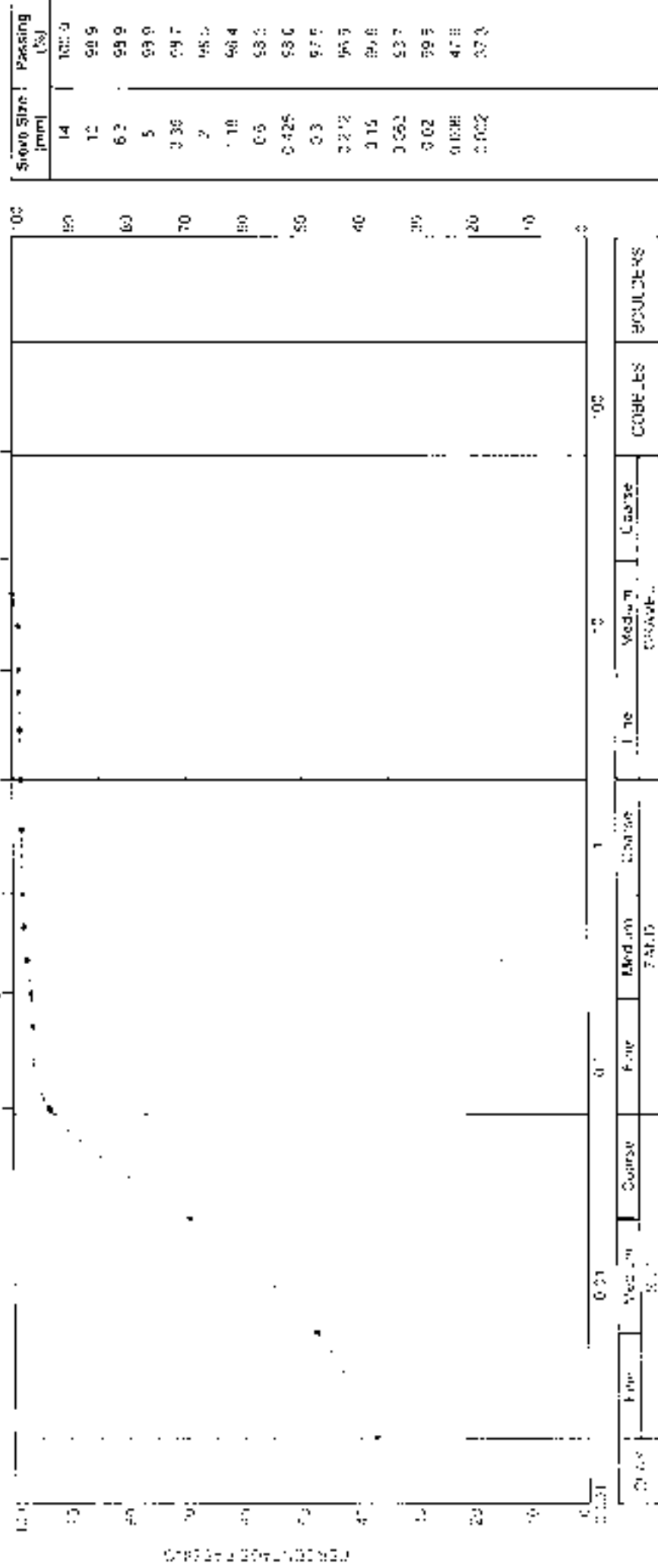
Project Name: **PROAIR AUK TP155**

Depth: **1.60**

Sample Type: **BS**

Specific Depth: **1.60**

Date Test: **14/10/2020**



Date of Issue: 23/10/2020

Client: **PROAIR AUK TP155 BS**

Card Created: 09/04/2020

Site: **MSR**

Name:



Client: **Earthquake Engineering Corporation**

Contact: **MSR**

Due to Site Ground Investigation Works

Page 1 of 1
AEG Contract Ref: 4257



1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

NS1377 Part 2 Clause 9.2 R 9.4 : 1990
 (Test deviated from standard due to insufficient sample mass)

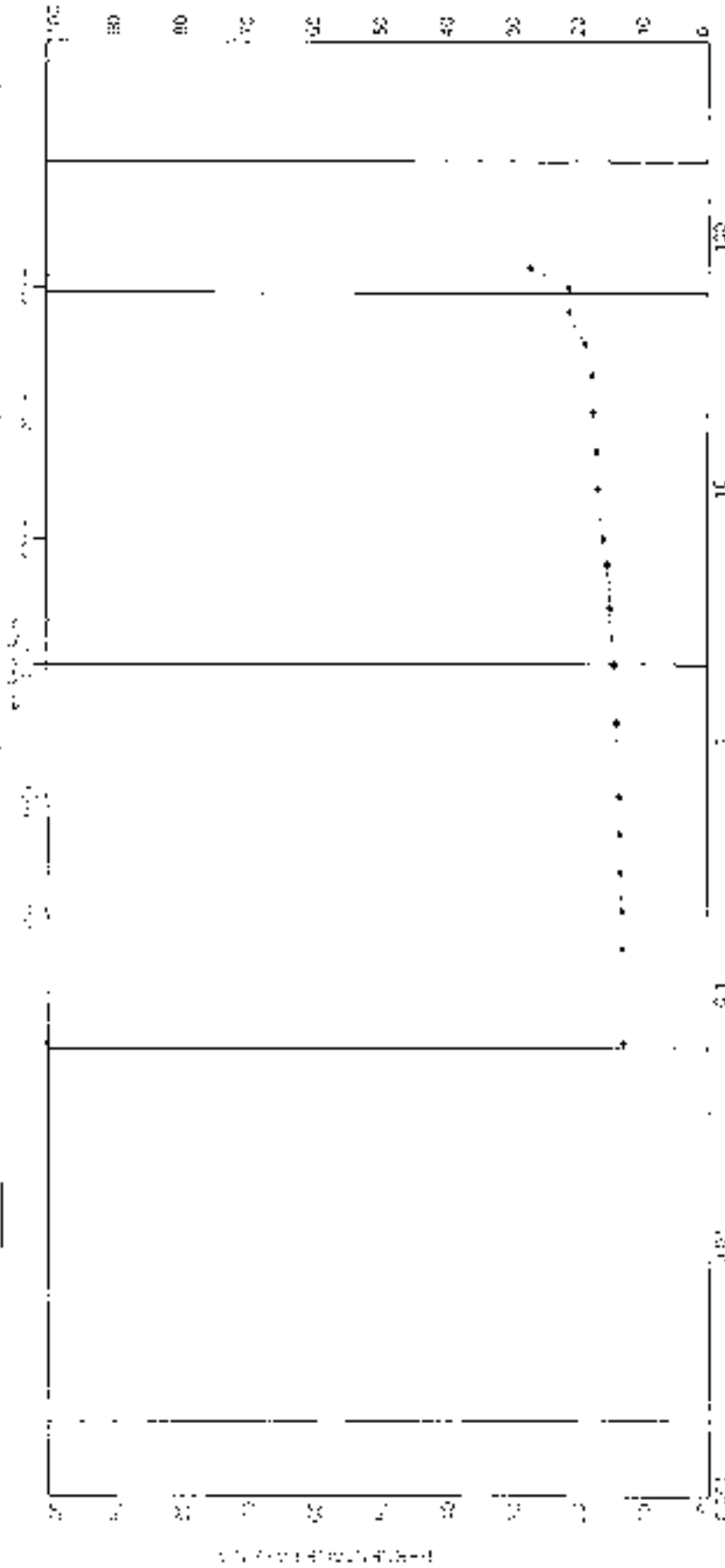
Project Name: PHAHLIA_AUK_TPI36A

Depth: 0.70

Sample Type: S10 - B4


Specific Dependent: 0.70

Date Tested: 15/10/2020



Coarse	Medium	Fine	Coarse	Medium	Fine	Coarse	Medium	Fine	Coarse	Coarse	Coarse	Coarse	Coarse
SAND										GRAVEL			

Notes: 1. This test is performed in accordance with AS/NZS 1592:2002.



Client Name: PHAHLIA_AUK_TPI36A
 Client Address: PHAHLIA AUK TPI36A B4.10 Site
 Client Contact: PHAHLIA AUK TPI36A B4.10 Site
 Client Phone: 0800 888 888
 Client Email: phahlia@allied.co.nz

Test Name: PHAHLIA_AUK_TPI36A
 Test Date: 15/10/2020
 Test Location: PHAHLIA AUK TPI36A B4.10 Site
 Test Operator: PHAHLIA AUK TPI36A B4.10 Site
 Test Result: PHAHLIA AUK TPI36A B4.10 Site



ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 - Part 2 - Clause 9.2 & 9.4 : 1990

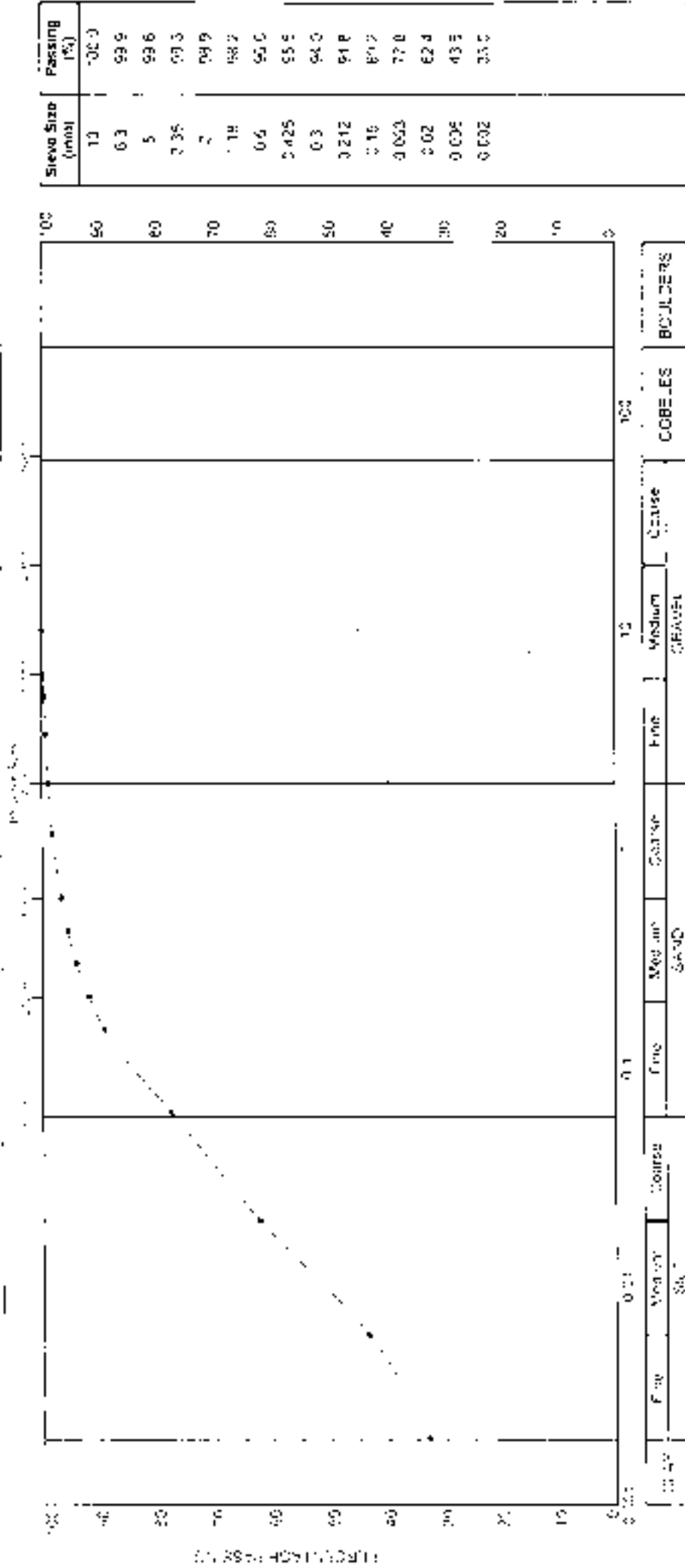
Location: No. 1 PRAIRIE, AUK, TP162

Depth: 2.50

Sample Type & No.: BS

Specific Depth (m): 2.50

Date tested: 20/09/2020



Comments: This percentage is preliminary. Some laboratory error is likely.



Date of Issue: 20/09/2020
 Project No.: PSD-125-1-PR-16-1-AUK-TP162-BS-2-50 - 5 grain
 Client: South Tyneside Council (0161) 4341000

Drawn by: MSOR
 Checked by: MSOR
 Scale: 1:1

Page 1 of 1
 AEG Contract No: 4201



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ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 Part 2 - Clause 9.2 B.9.4 1990

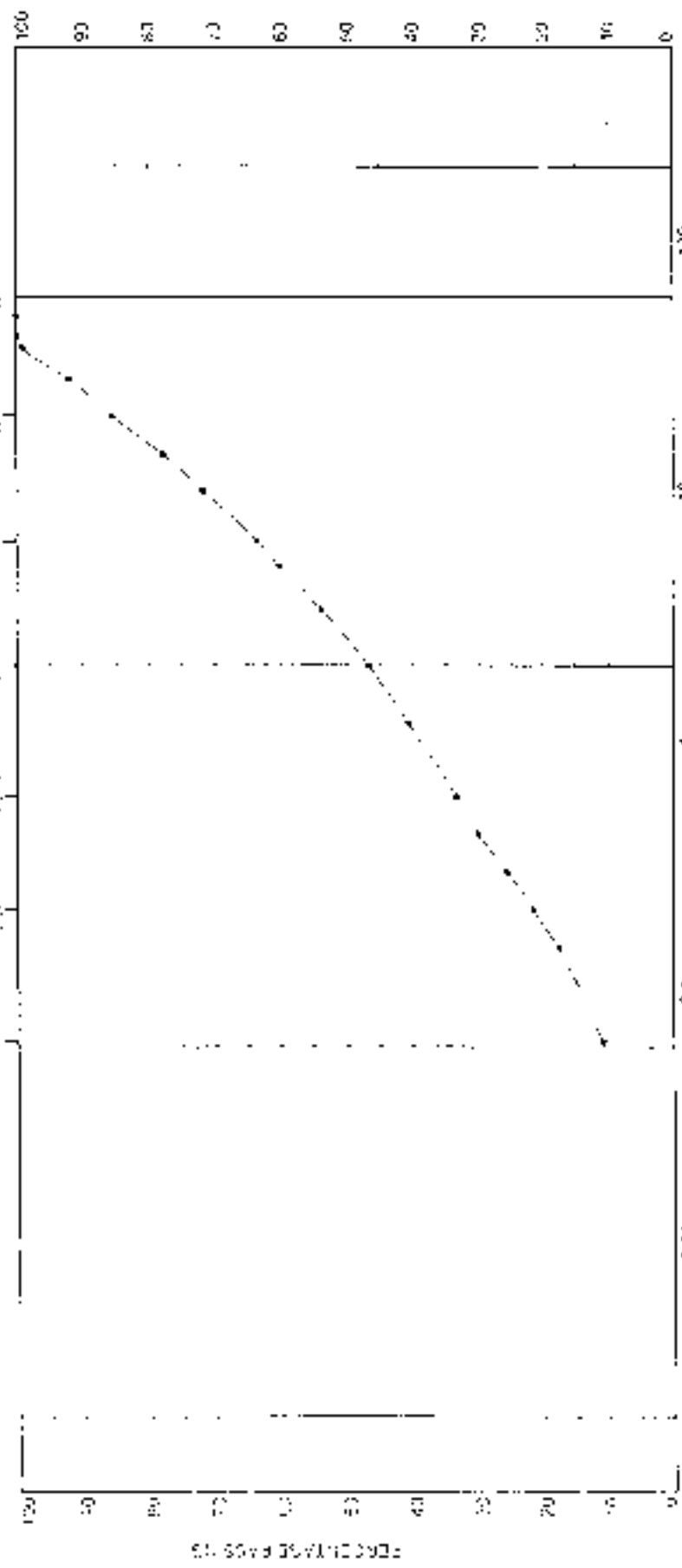
Project Name: PRAIRIE_AUK_IP103

Depth: 0.80

Sample Type & Size: B2

Specific Depth (m): 0.80

Date Tested: 05/10/2020



Grain Size	Coarse	Medium	Fine	Med. to Fine	Coarse	Medium	Fine	Coarse	Coarse	COBBLES	BOULDERS
0.075											
0.15											
0.3											
0.6											
1.18											
2.0											
4.75											
7.5											
15											
30											
60											
106											
200											
425											
850											
1750											
3550											

* For more information please refer to the Laboratory Sample Description Sheet

Date of Issue: 20/10/2020
 Client: AEG
 Project: PRAIRIE_AUK_IP103
 Location: PRAIRIE_AUK_IP103_HZ_030
 Contact Title: *MSR*



Page 1 of 1
 AEG Contract No: 4251

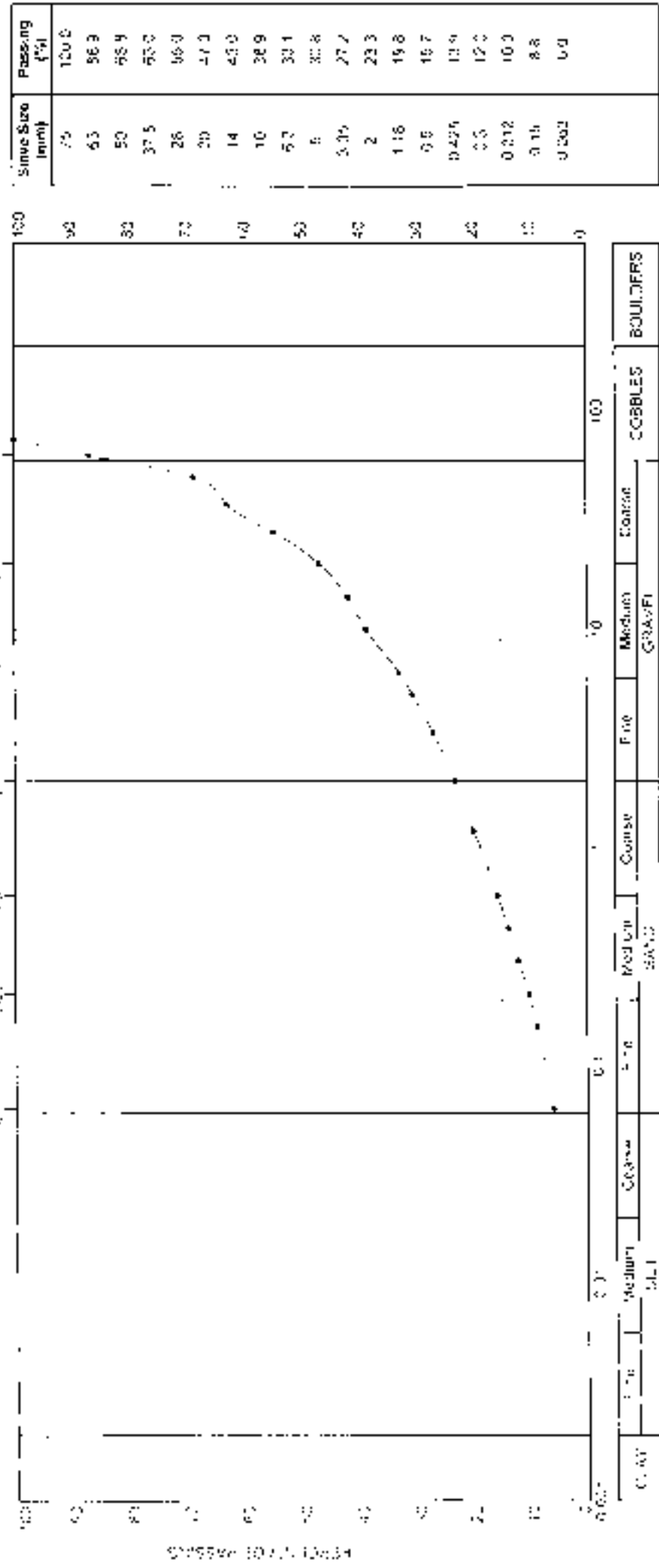
Prime Site Ground Investigation Works

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clauses 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Project No: **FRAIRIE_AUK_1P165** Department: **2.80** Sample type & no: **B7** Specific Depth (m): **2.80** Date Tested: **30/08/2020**



Soil description: **CLAY**



Page 1 of 1
ACGS Contract No: 4251

Date of Issue: 30/08/2020

Contract Title: South Tyneside Development Consultants

Certificate Ref: 95114251 P0423 E AUK 11165 (S.G.18)

Contract Title: _____

Name: *msone*

Project Site Ground Investigation Works



1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 Part 2, Clauses 9.2 & 9.4 : 1990

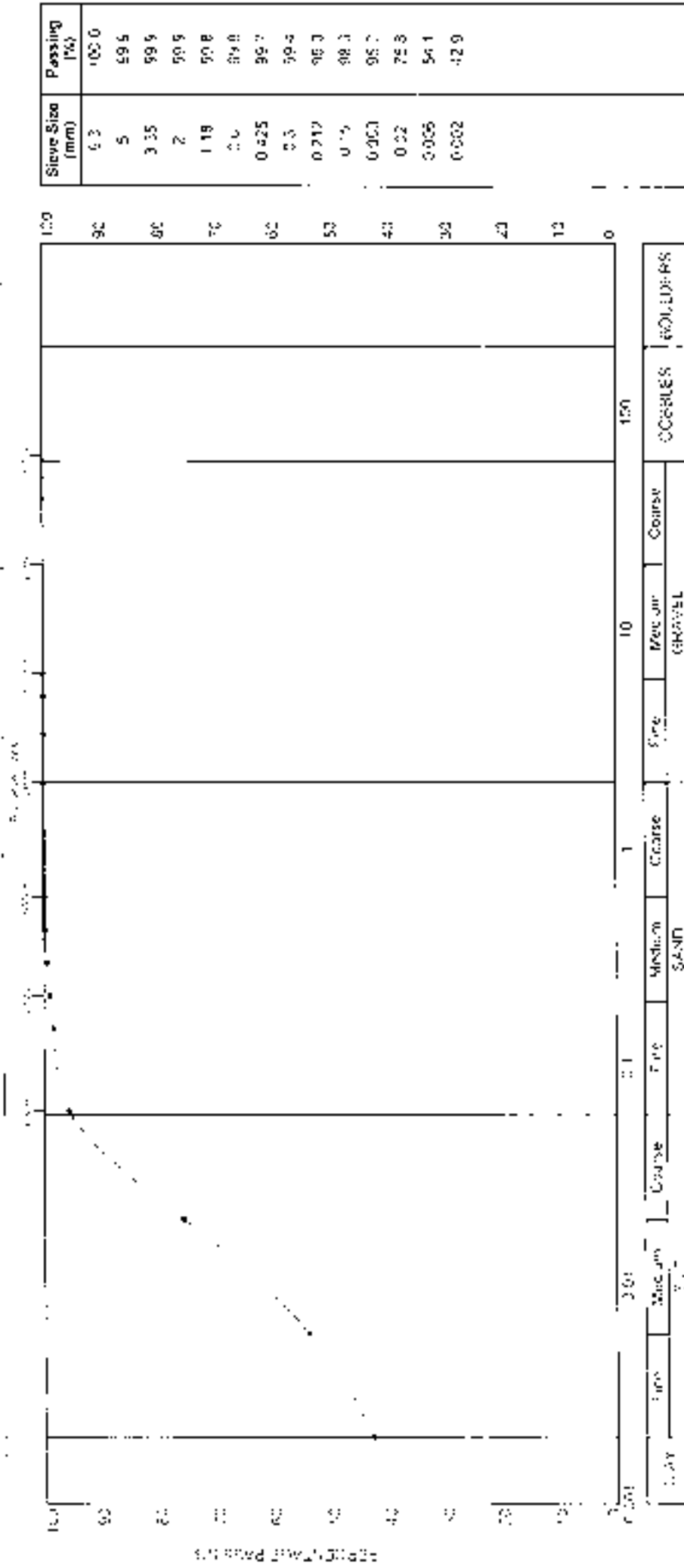
Lot Code / Sample No. : PRAIRIE AUK_TP168

Depth (m) : 1.80

Sample Type & No. : B7

Specific Gravity (m) : 1.60

Date Tested : 30/09/2020



Layer	Top	Bottom	Course	Material	Course	Material	Course	Material	Course	Material	Course	Material

For description of nature of each layer refer to the laboratory report of description sheet

Date of Issue

20/10/2020

Verified by

REGINA/PT/ALPH_AUK_TP168/B7-60 Signed

Name

REGINA

Client

South Tees Development Corporation

Contract Title

Phase 5 to Ground Investigation Stations

Page 1 of 1

AEG Contract No

4251



1967

ALLIED EXPLORATION & GEOTECHNICS LIMITED

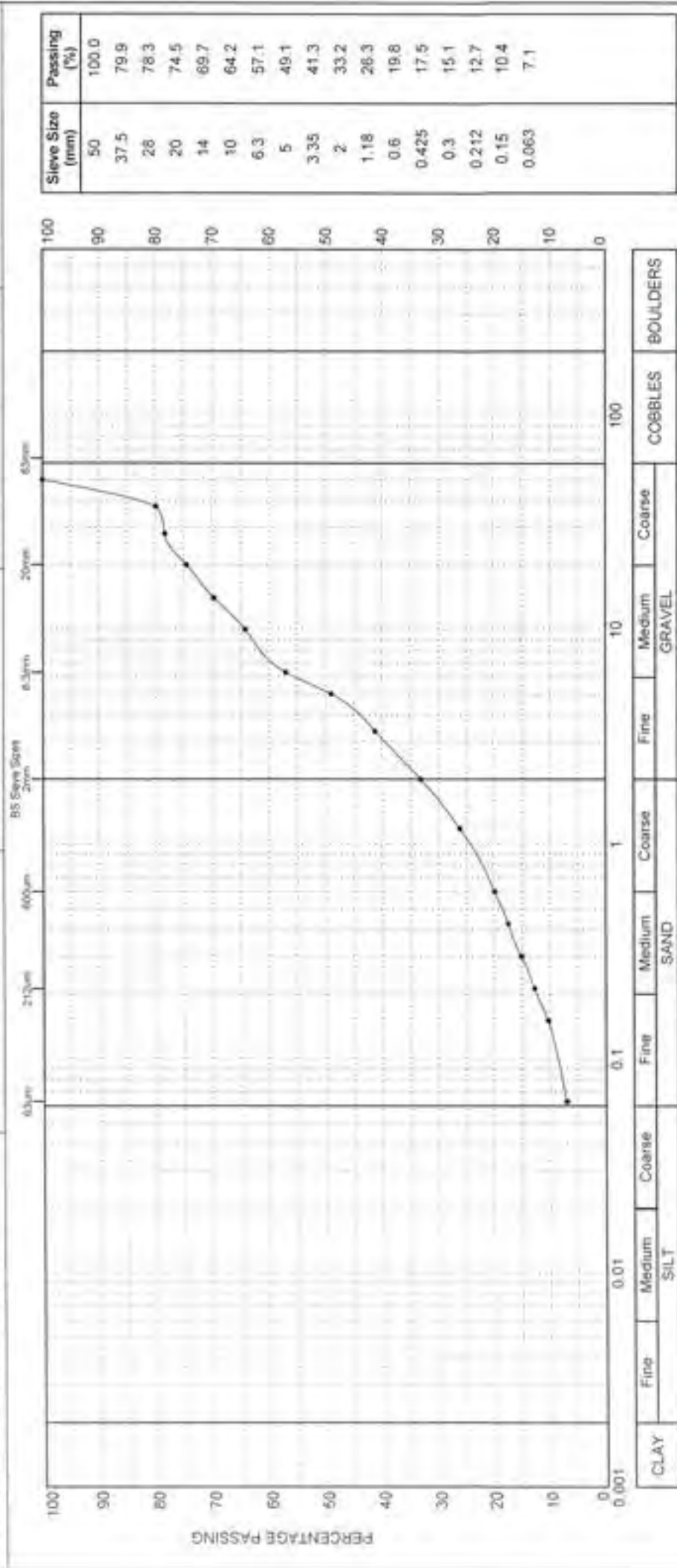
Head Office: 144-20, Salsburgh Drive, Easingwold, East Yorkshire, YO21 3BE. Tel: 01753 755 500 Fax: 01753 755 999
Regional Office: 144-20, Salsburgh Drive, Easingwold, East Yorkshire, YO21 3BE. Tel: 01753 755 500 Fax: 01753 755 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No. - PRAIRIE_AUK_TP169	Depth (m) - 0.80	Date Tested - 29/09/2020
	Sample Type & No. - B2	
	Specific Depth (m) - 0.80	



For description of sample please refer to the Laboratory Sample Description Sheet.

Date of issue - 20/10/2020	Certificate No. - PSD/4251/PRAIRIE_AUK_TP169/B2/0 80	Signed - <i>msone</i>	Name - SELKIRK	Page 1 of 1
Client - South Tees Development Corporation	Contract Title - Prairie Site Ground Investigation Works	AEG Contract No. - 4251		



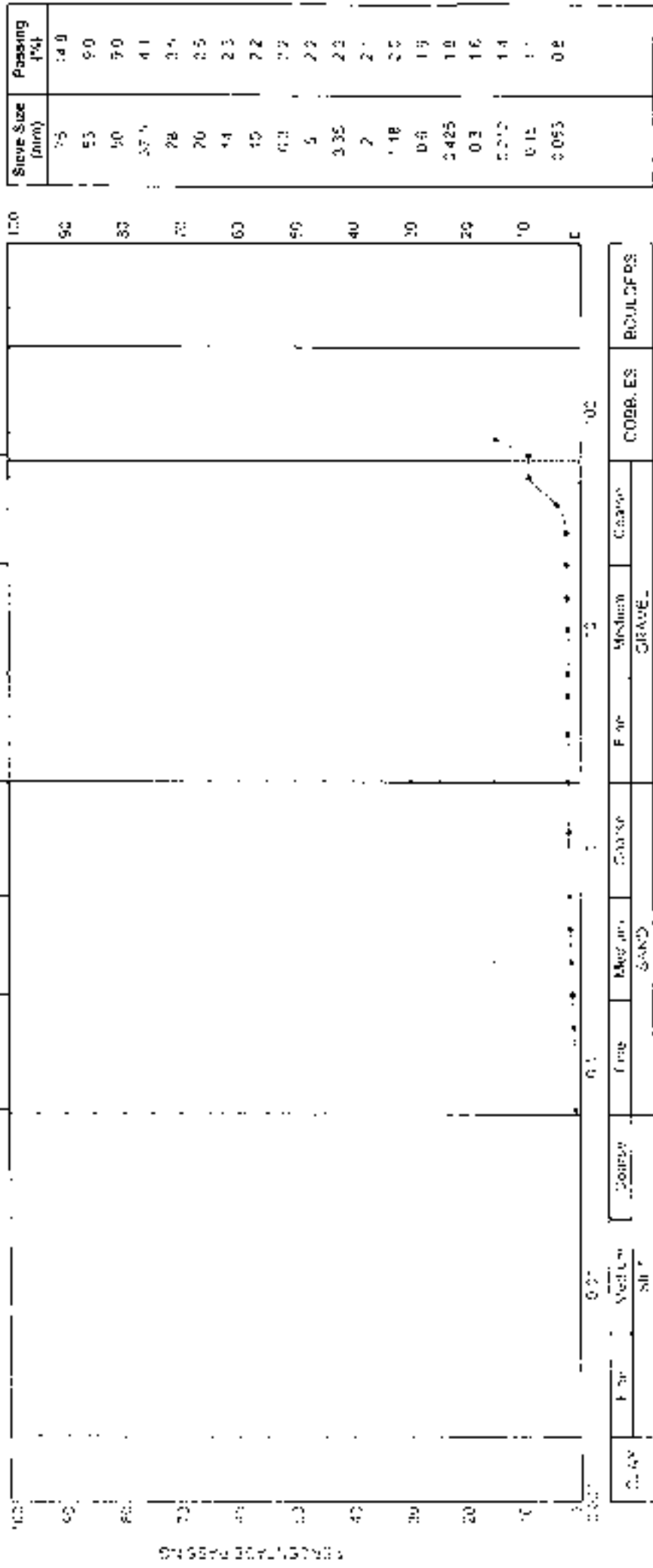
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 - Part 2 : Clauses 9.2 & 9.4 - 1990
 (Test deviated from standard due to insufficient sample mass)

Eng. Order No: **PREMIRE AUK TP172** Exp. No: **060** Sample Type: **6710 - B2** Specific Depth: **0.60** Date Tested: **01/11/2020**



Soil description: **CLAYEY SILT** Reference: **PREMIRE AUK TP172 DS 003** Steel

Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	Coarse	ES	ROULDFOS

Date of Issue: **20/10/2020**

Certificate No.: **MSD 4751 PREMIRE AUK TP172 DS 003**

Client: **Geotechnical Engineering Corporation**

Page 1 of 1

ASG Contact No: **425**

Project Site Ground Investigation Works

Signature: *MSD* Name: _____

1967

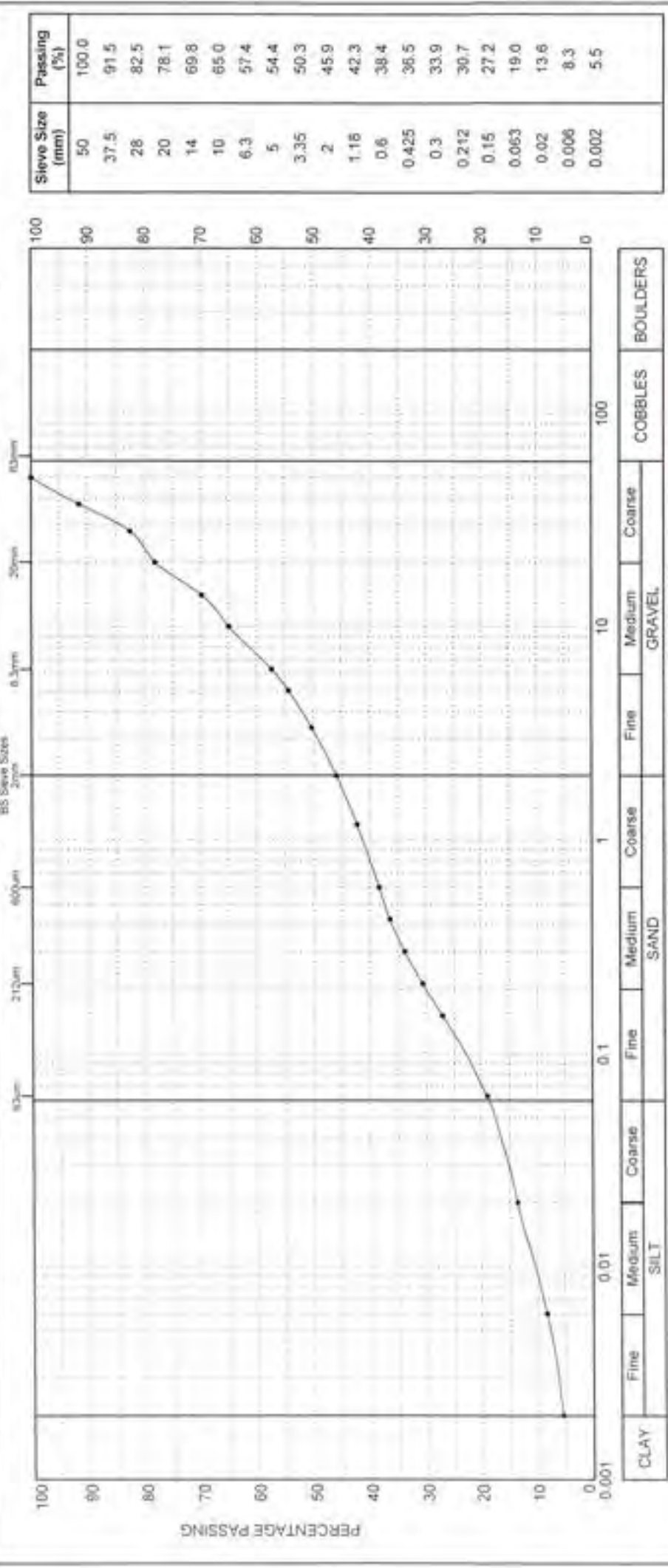
ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 100/110 Greenfield Estate, Park Road, Chester-le-Street, Gateshead, Tyne and Wear, NE12 8JQ. Tel: 0191 357 4700 Fax: 0191 367 4716
Regional Office: 107/105, Blenheim Commercial Centre, Blenheim Road, Macclesfield, Cheshire, SK11 5LJ. Tel: 01753 735 300 Fax: 01753 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- PRAIRIE_AUK_TP173	Depth (m) :- 0.80	Sample Type & No :- B2	Specific Depth (m) :- 0.80	Date Tested :- 30/09/2020
--	-------------------	------------------------	----------------------------	---------------------------



For description of sample please refer to the Laboratory Sample Description Sheet

EG	Date of Issue :- 20/10/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_TP173/B2/0.80	Signed :- <i>msaw</i>	Name :-
Client :- South Tees Development Corporation	Contract Title :-	Praise Site Ground Investigation Works		
				Page 1 of 1
				AEG Contract No :- 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Office: Unit 25, Middle Green, Euxine, Priors Park, Chester-le-Street, Co. Durham, DN4 2SD. Tel: 0191 487 4700 Fax: 0191 267 4710
Regional Office: Unit 25, Euxine, Development Centre, Carver Road, Widdowson, NE71 5B. Tel: 01773 325 320 Fax: 01773 733 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

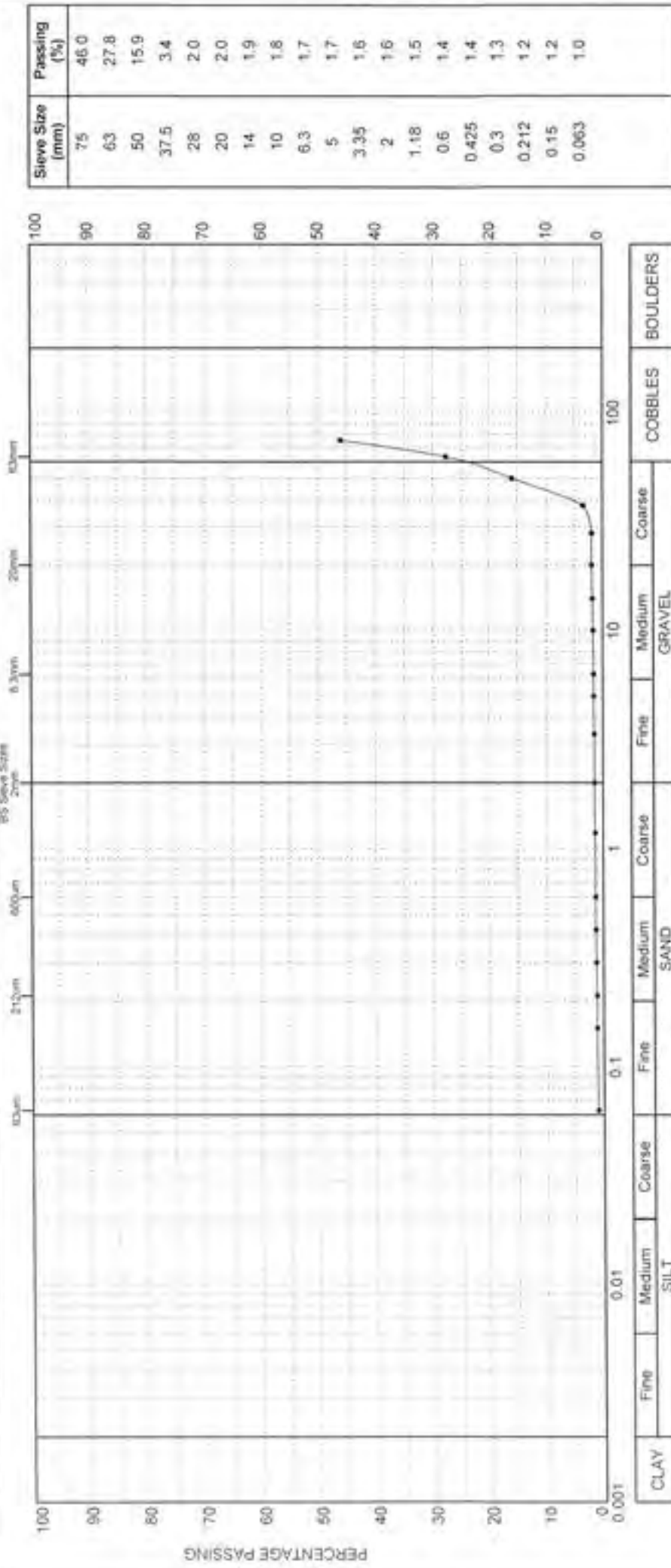
Exploratory Hole No - PRAIRIE_AUK_TP177

Depth (m) - 1.80


Sample Type & No - B7

Specific Depth (m) - 1.80

Date Tested - 30/09/2020



For description of sample please refer to the Laboratory Sample Description Sheet

	Date of issue - 20/10/2020	Certificate No - PSD/4251/PRAIRIE_AUK_TP177/871.80	Signed - <i>msaw</i> Name - <i>MSAW</i>	Page 1 of 1 AEG Contract No - 4251
	Client - South Tees Development Corporation	Contract Title - Prairie Site Ground Investigation Works		

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

NS1377 Part 2 Clause B.2 & 9.4: 1990

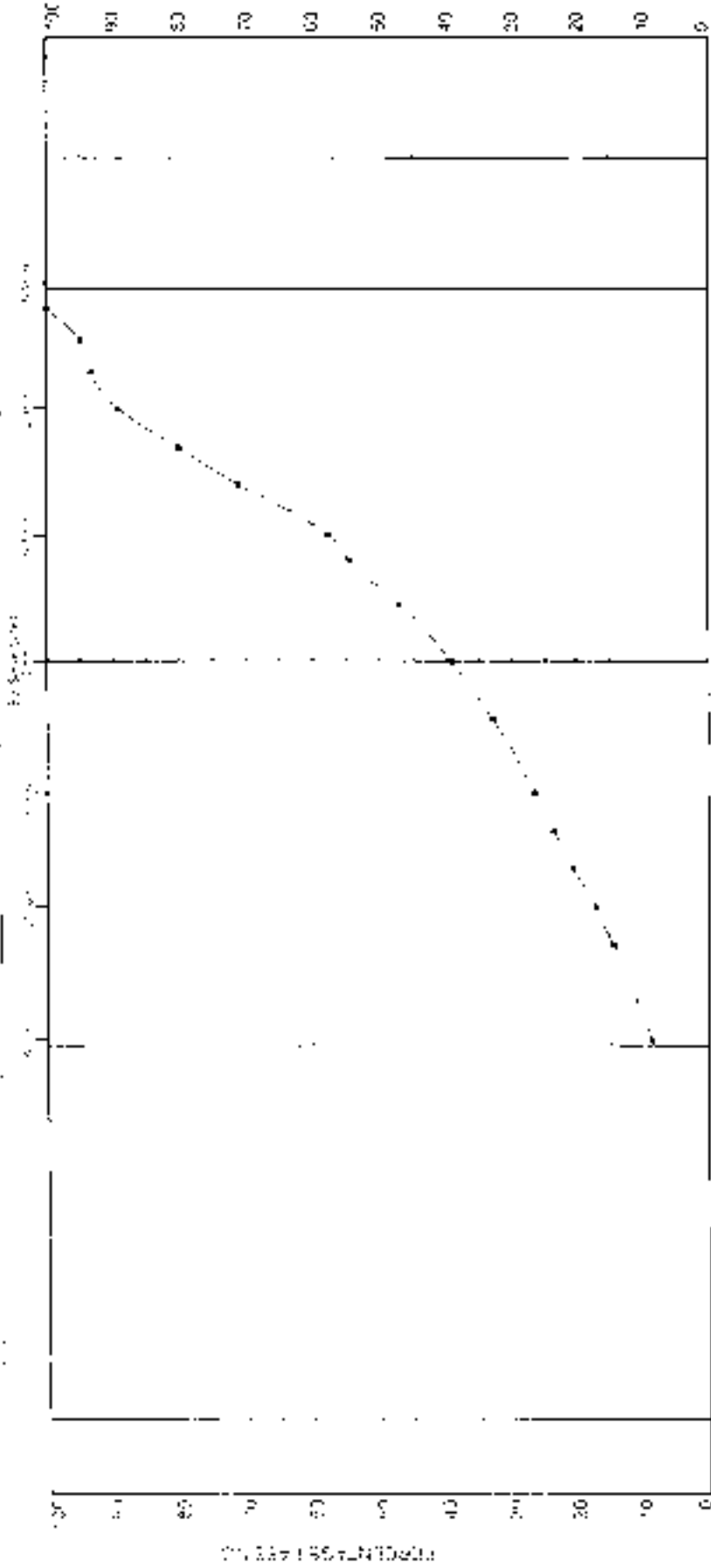
Excavation No. - PHOENIX_AUK_TF178

Depth (m) - 0.60

Sample Type & No. - BZ

Specific Depth (m) - 0.60

Date Tested - 05/10/2020



Grain Size	Coarse	Medium	Fine	Medium	Coarse	COBBLES	FOULDERS
mm	75	42.5	25	15	7.5	4.75	2.5
Percentage	0.0	94.9	80.2	49.2	27.1	14.5	9.6

For description of sample please refer to the laboratory sample description sheet.

Date of Issue

26/10/2020

Conf Case No.

NS1377-1-REMAINING_AUK_TF178B2-050

Signed

MSB

Name



Page 1 of 1

Client

Soil Test Description at Investigation

Contract Title

Flow & Site Ground Investigation Works

AEG Contract No.

4251

1967

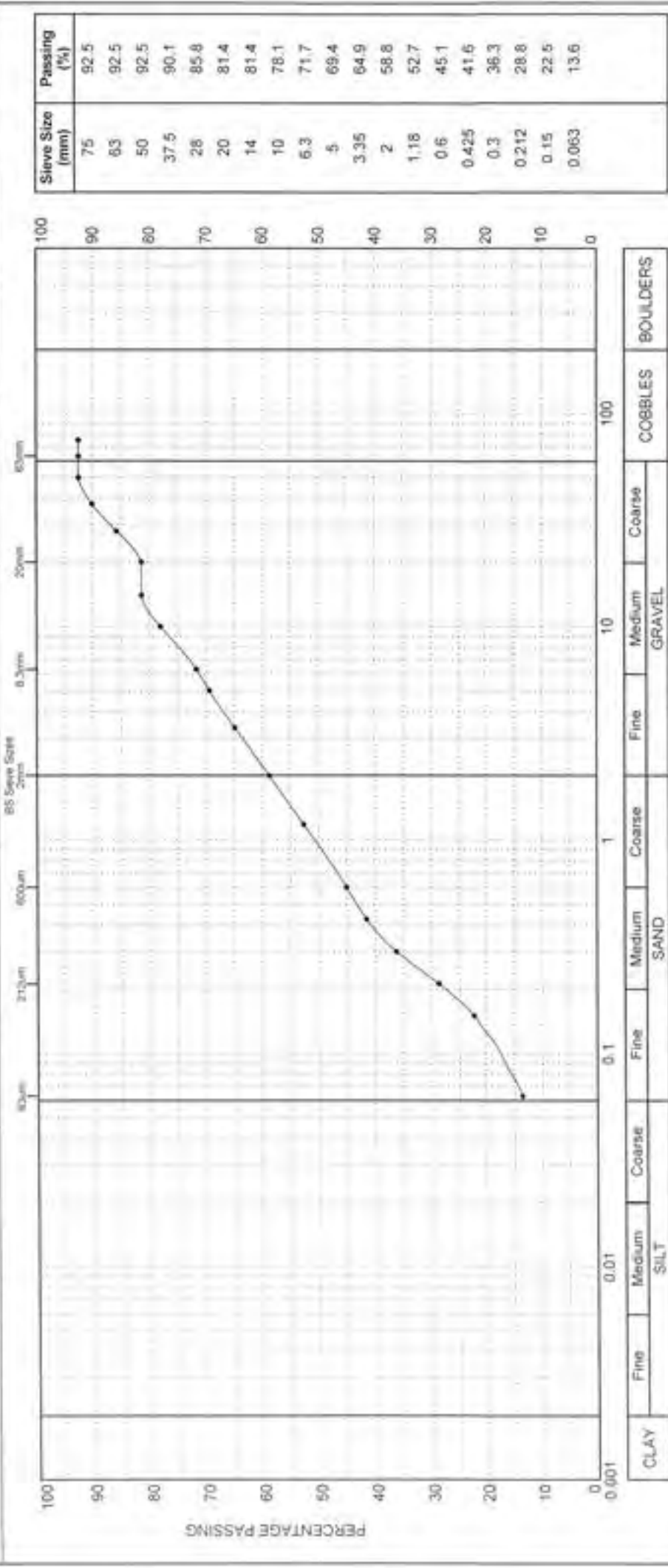
ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, Business Development Centre, Eastern Cheshire, Cheshire, Cheshire, UK. Tel: 01273 353 400 Fax: 01273 363 474
 Regional Office: Unit 25, Business Development Centre, Eastern Cheshire, Cheshire, Cheshire, UK. Tel: 01273 353 400 Fax: 01273 363 474

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- PRAIRIE_AUK_TP179	Depth (m) :- 0.40	Sample Type & No :- B2	Specific Depth (m) :- 0.40	Date Tested :- 30/09/2020
--	-------------------	------------------------	----------------------------	---------------------------



For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue :- 20/10/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_TP179/B2/0.40	Signed :- <i>msore</i>	Name :- <i>SELKIRK</i>	Page 1 of 1
Client :- South Tees Development Corporation	Contract Title :-	Prairie Site Ground Investigation Works	AEG Contract No :- 4251	



ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

NS1377 Part 2 - Clause 9.2 & 9.4: 1990

(Test deviated from standard due to insufficient sample mass)

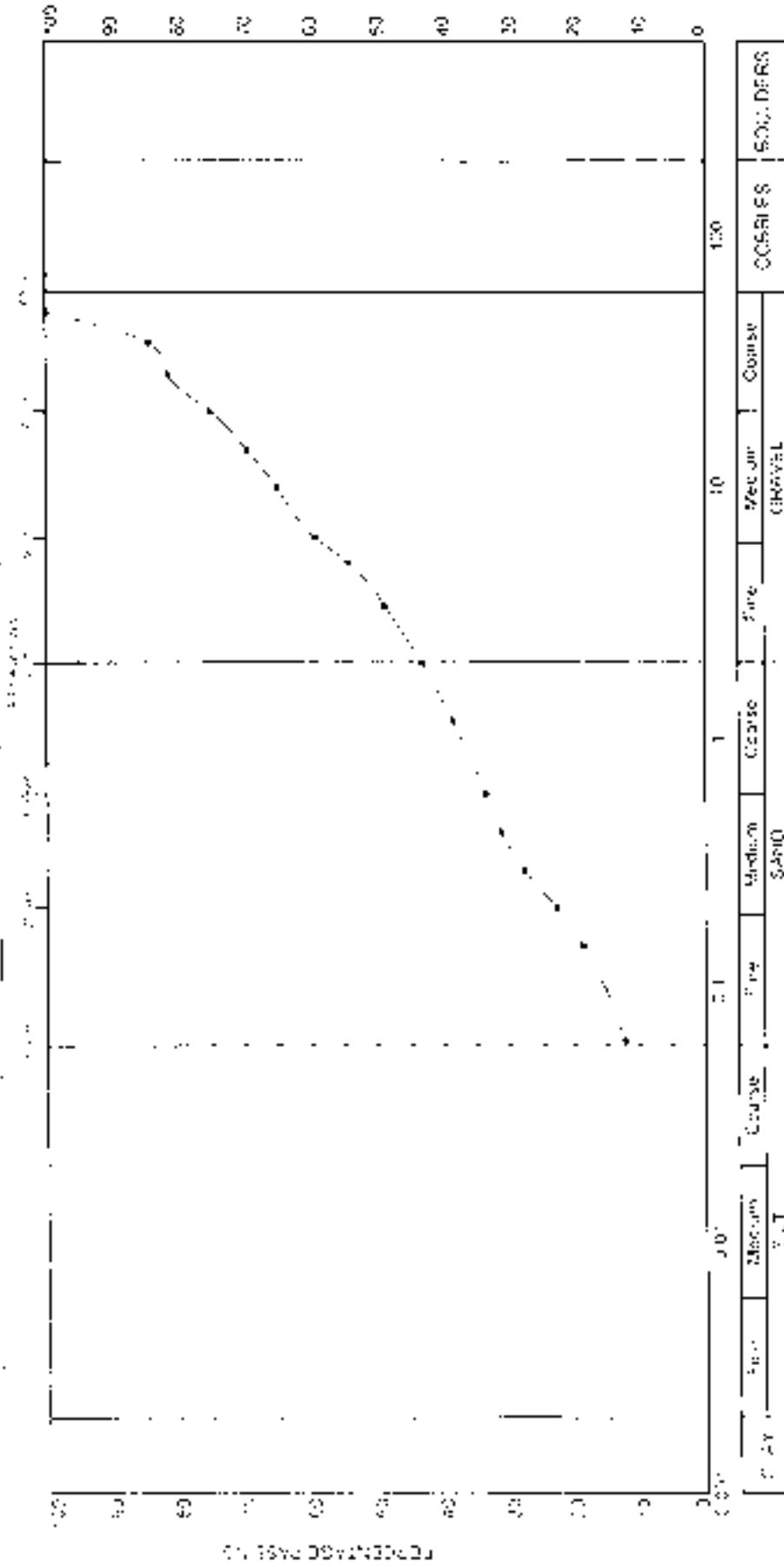
Exploration No: 16 - PRAIRIE_AUK_TM101

Depth (m) 0.50

Sample Type & No.: UZ

Specific Depth (m) 0.50

Date Tested: 02/10/2020



Grain Size	Coarse	Fine	Medium	Coarse	Fine	Secure	Course	COARSE	FINE
Grain Size	Coarse	Medium	Coarse	Fine	Secure	Course	COARSE	FINE	
Grain Size	Coarse	Medium	Coarse	Fine	Secure	Course	COARSE	FINE	

For detailed analysis procedure refer to the laboratory sample description sheet



Date of Issue: 02/10/2020

Prepared by: PRAIRIE_AUK_TM101

Signed: [Signature]

Contract: 165

Client: South West Development Corporation

Project: 429 - PRAIRIE_AUK_TM101

Page: 1 of 1

429 Contract No: 42951

Frame Site Ground Investigation Works



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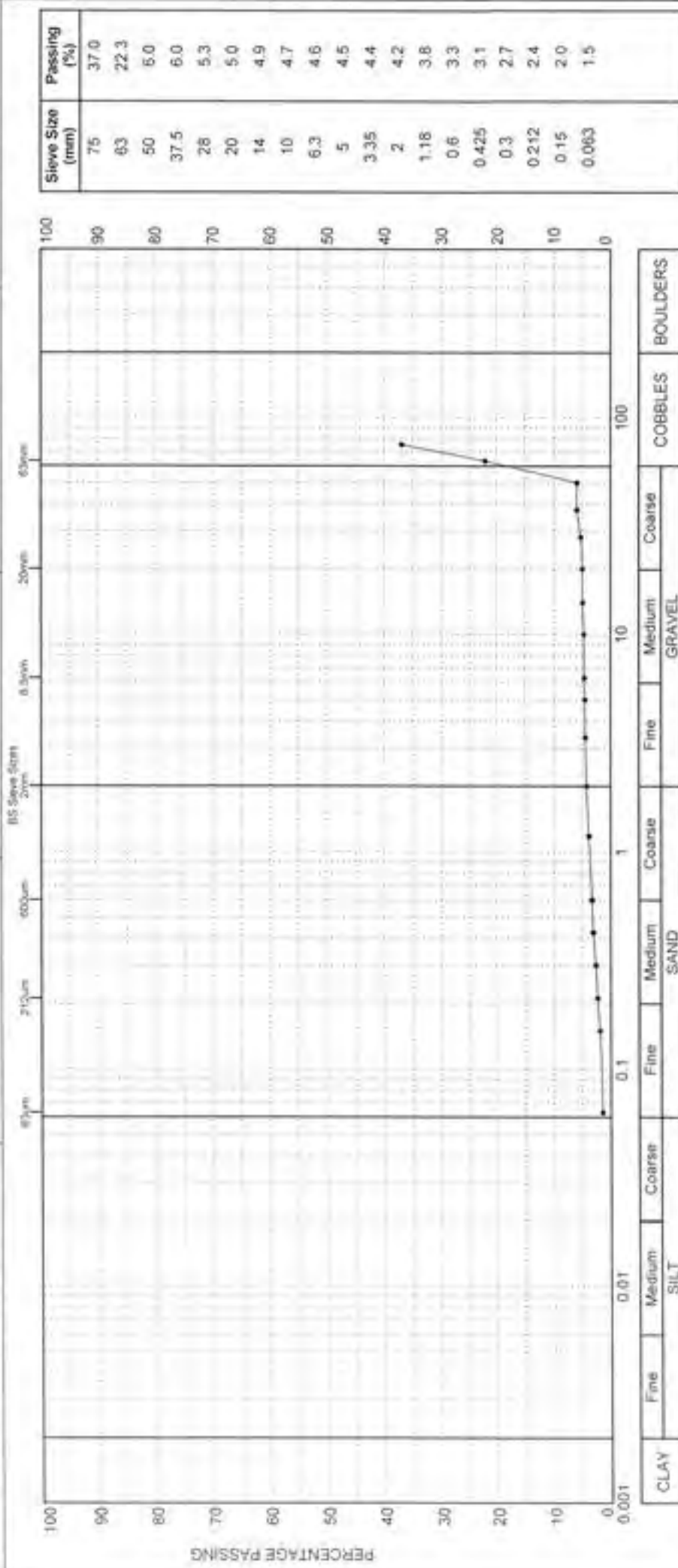
Head Office: Unit 25, Middleport Industrial Estate, Park Road, Chester-le-Street, Co. Durham, DA2 2EG. Tel: 0191 857 4100 Fax: 0191 857 4716
Regional Office: Unit 20, Alnport Development Centre, Easton Wharfedale, Throckmorton, Wetherby, Wetherby, LS23 7JQ. Tel: 01937 535 300 Fax: 01937 535 300

PARTICLE SIZE DISTRIBUTION



BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No. : PRAIRIE_AUK_TP181 Depth (m) :- 1.10 Sample Type & No. :- B4 Specific Depth (m) :- 1.10 Date Tested :- 30/09/2020



For description of sample please refer to the Laboratory Sample Description Sheet

	Date of Issue :- 20/10/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_TP181/B4/1.10	Signed :- <i>M. Saeed</i>	Name :- M. DELKIN	Page 1 of 1
	Client :- South Tees Development Corporation	Contract Title :- Prairie Site Ground Investigation Works	AEG Contract No :- 4251		

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 - Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

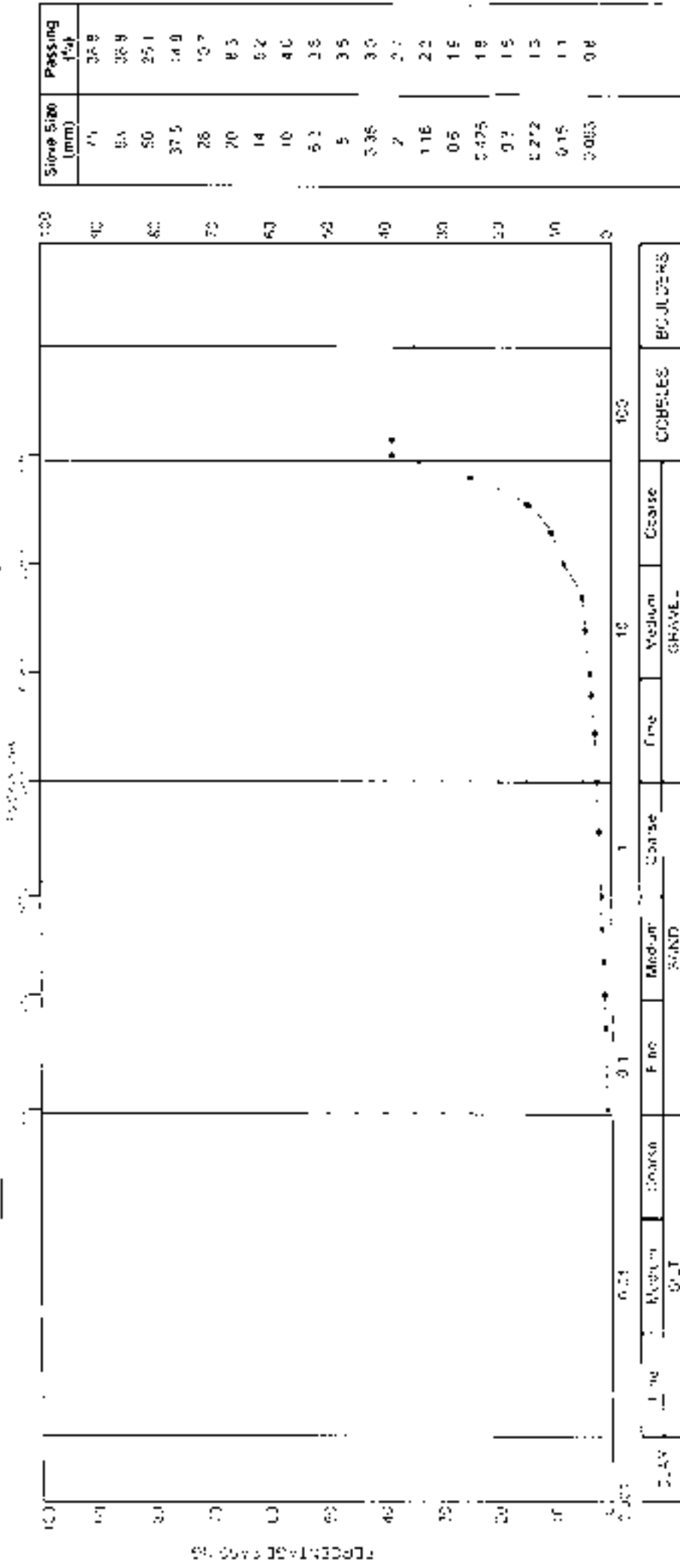
File Path: PRAIRIE_AUK_TP183

Duplicate: 0.00

Sample Type: BZ

Specific Depth (m): 0.00

Date Tested: 30/09/2020



CLAY	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	COBBLES	BOULDERS
SAND			GRAVEL					

* The classification of aggregate based on this test is subject to the performance of the test.

ALLIED

3000 10th Street, Suite 100, Calgary, Alberta T2C 1A9

Phone: (403) 243-8888 Fax: (403) 243-8889

www.alliedeg.com

Page 1 of 1

AFS Contract No: 4251

Project Name: Prairie Site Ground Investigation Works

Client: M&S

Contract No: P50-4251-PR-2-AUK-TP183-BZ-080

Series: M&S

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

OS1077 - Part 2 - Clause 9.2 & 9.4 - 1990

Exp. No. / Job No.: P18-01E AUK_IP185

Depth (m): 3.50

Sample Type & No.: B2

Specific Depth (m): 3.50

Date Tested: 28/09/2020

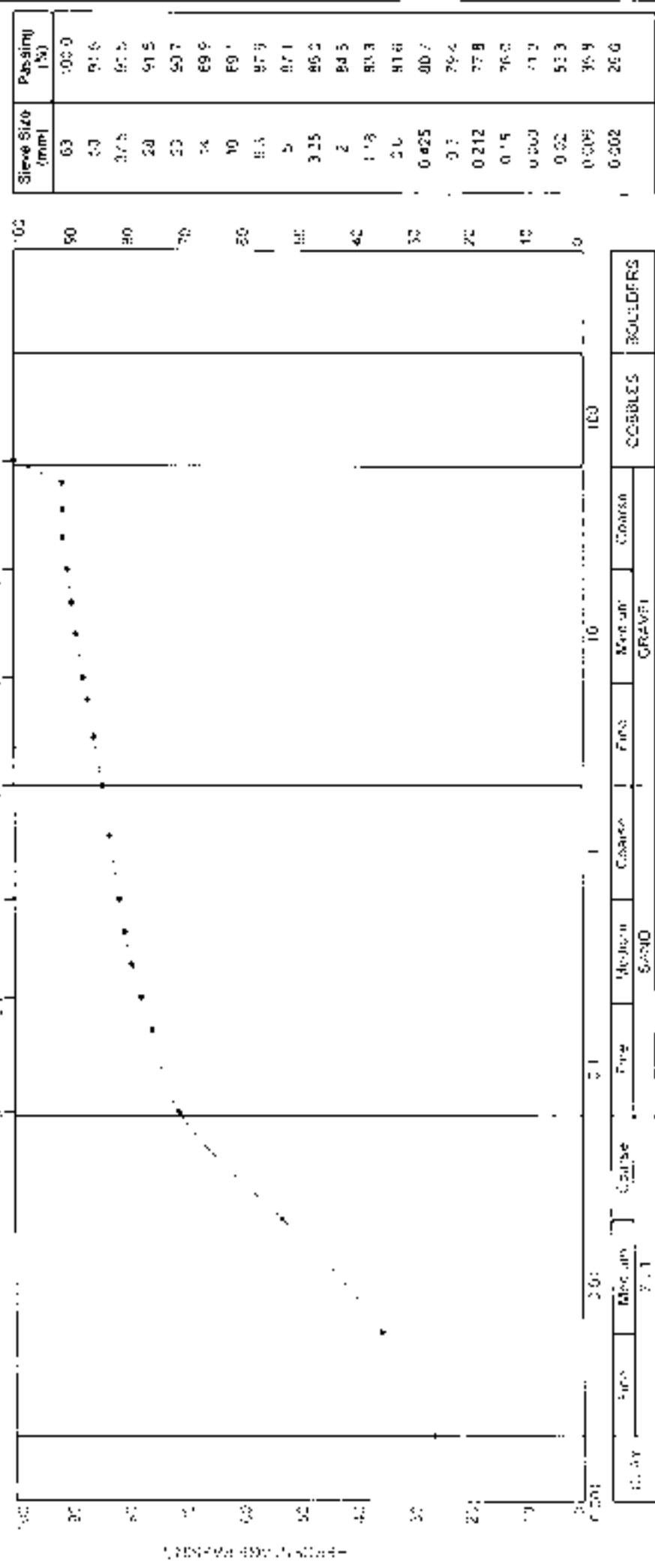


Figure 1: Particle size distribution for the test specimen.



Date of Issue: 28/10/2020

Contract No.: P18-021 - RESURF_AUK_IP185-B2 3.50

Site No.: 5100

Name: _____



Page: 1 of 1

Drawn: South Tiers Design/Project Coordinator

Control Title: _____

Figure Site Ground Investigation Notes

ALL Contract No.: 4251

1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 Part 2, Clause 9.2 & 9.4 : 1990

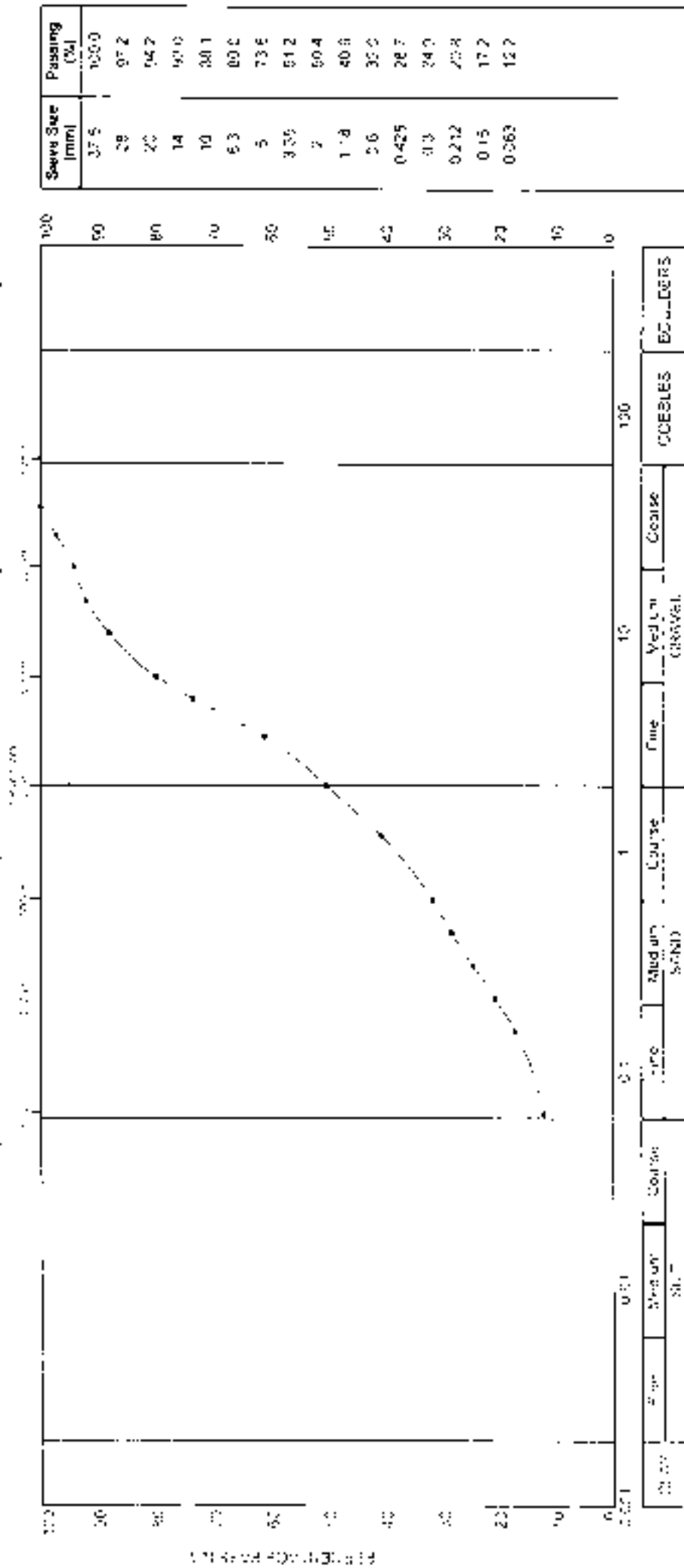
Location: **PROBHE, AUK YP189**

Depth: **0.50**

Soil type: **Sp. No. B2**

Specific Depth: **0.50**

Date tested: **01/10/2020**



Soil: **CLAYEY SILT (CS)** Moisture: **20.1** Liquid Limit: **40** Plasticity Index: **15**
 Classification: **CLAYEY SILT (CS)** **COBBLES** **GRAVEL** **GEOTECHNICAL** **BOUNDARIES**

Preparation of sample: **Hand** Method: **Standard** Test: **Standard**

Client: **Geotechnical Engineering**
 Date: **20/10/2020**
 Project: **HS2 (251) PRO 4.5 AUK YP189 B2.0.50**
 Contact: **01234 56789**

Name: **M. S. M. S.**
 Signed: **M. S. M. S.**
 Name: **...**
 Project: **HS2 (251) PRO 4.5 AUK YP189 B2.0.50**



ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

GS1377 - Part 2 - Clause 9.2 & 9.4 - 1998

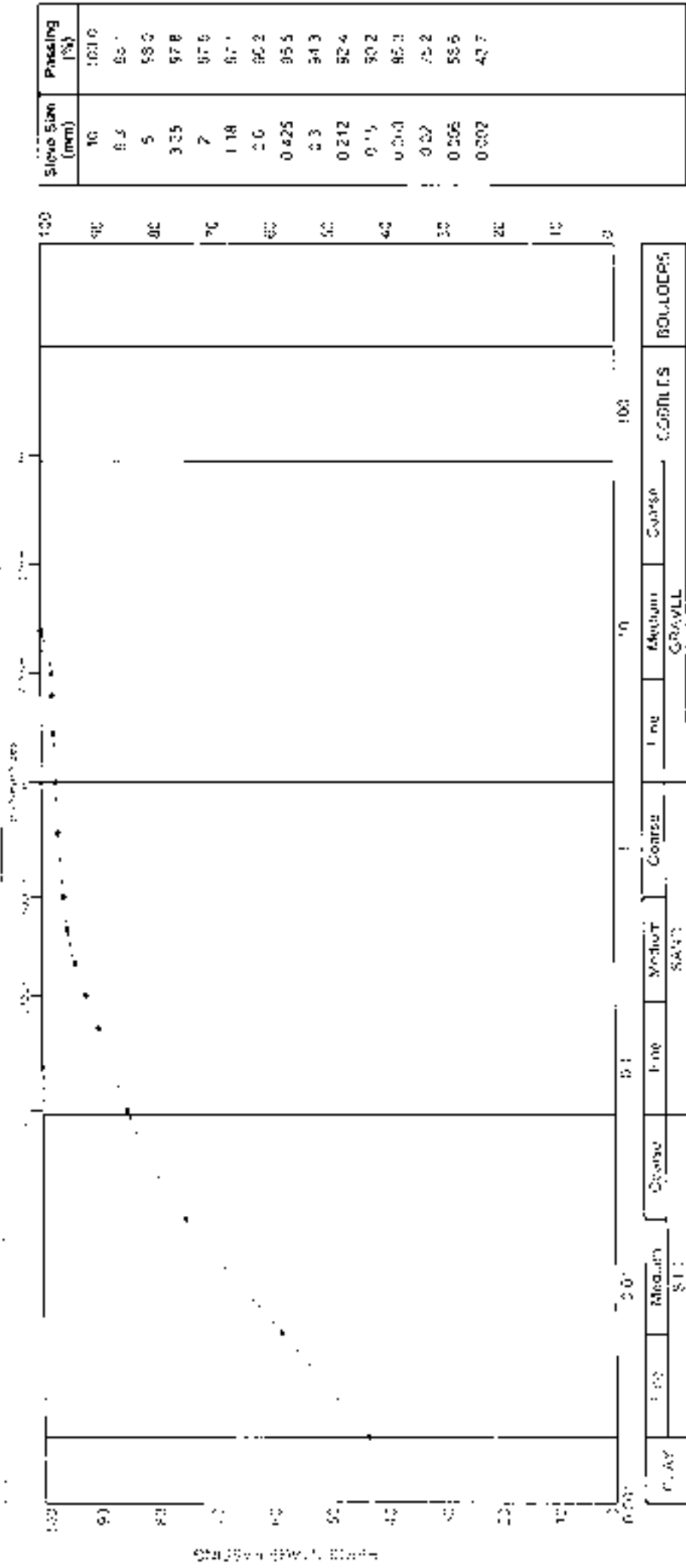
Soil Category Code No: **PRAIR F_AIK_1P189**

Depth (m): **2.90**

Sample Type & No: **B6**

Specific Depth (m): **2.90**

Date Tested: **30/08/2020**



CLAY
 MEDIUM SILT
 COARSE SILT
 FINE SAND
 MEDIUM SAND
 COARSE SAND
 FINE GRAVELL
 MEDIUM GRAVELL
 COARSE GRAVELL
 BOULDER

Soil description: **Medium clay with some laboratory sample description**

Name of client: _____

Soil Name No: _____

03/11/2020

Pages: 1

Name: _____

Page 1 of 1

Client: _____

Soil Test Development Corporation

Contact: T: _____

Project Site Ground Investigation Works

ALG Contract No: 4251



1367

**Determination of Calorific Value,
Organic Matter Content, Sulphate and pH
(Tested Externally)**





DETS

Certificate of Analysis

Certificate Number 20-21273

28-Oct-20

Client Allied Exploration & Geotechnics Limited
Unit 25
Stella Gill Industrial Estate
Pelton Fell
DH2 2RG

Our Reference 20-21273

Client Reference 4251

Order No LA 2399

Contract Title Prairie Site Ground Investigation Works

Description 13 Soil samples.

Date Received 22-Oct-20

Date Started 22-Oct-20

Date Completed 28-Oct-20

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By



Adam Fenwick
Contracts Manager





Summary of Chemical Analysis Soil Samples

Our Ref: 20-21273

Client Ref: 4251

Contract Title: Prairie Site Ground Investigation Works

Lab No	1749354	1749355	1749356	1749357	1749358	1749359	1749360
Sample ID	PR103	PR104	PR104	PR106	PR106	PR108	PR112
Depth	13.00	5.95	11.00	5.50	9.50	8.00	1.00
Other ID	27	3	13	2	10	15	3
Sample Type	3	3	1	3	1	1	1
Sampling Date	09/04/2020	03/04/2020	03/04/2020	06/04/2020	06/04/2020	15/04/2020	22/04/2020
Sampling Time	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Test	Method	LOD	Units
Inorganics			
pH	DETSC 2008#	8.2	pH
Colorific Value	DETSC 5098	1	MU/kg
Organic matter	DETSC 2002#	0.1	%
Sulphate-Aqueous Extract as SO4	DETSC 2076#	10	mg/l
		220	140
		50	610
		8.6	8.2
		8.3	11.7
		8.0	2.2
		120	92

Information in Support of the Analytical Results

Our Ref: 20-21273

Client Ref: 4251

Contract: Prairie Site Ground Investigation Works

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1749354	PRAIRIE_AUK_BH103 13.00 SOIL	03/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1749355	PRAIRIE_AUK_BH104 5.95 SOIL	03/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1749356	PRAIRIE_AUK_BH104 11.00 SOIL	03/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1749357	PRAIRIE_AUK_BH106 5.50 SOIL	06/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1749358	PRAIRIE_AUK_BH106 9.50 SOIL	06/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1749359	PRAIRIE_AUK_BH108 8.00 SOIL	15/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1749360	PRAIRIE_AUK_TP112 1.00 SOIL	22/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1749361	PRAIRIE_AUK_TP115 2.40 SOIL	08/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1749362	PRAIRIE_AUK_TP116 1.50 SOIL	23/04/20	PT 1L	Anions 2:1 (30 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days)	
1749363	PRAIRIE_AUK_TP118 1.50 SOIL	23/04/20	PT 1L	Organic Matter (Manual) (28 days)	
1749364	PRAIRIE_AUK_TP120 0.50 SOIL	20/04/20	PT 1L		
1749365	PRAIRIE_AUK_TP140 1.80 SOIL	09/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1749366	PRAIRIE_AUK_TP154 0.60 SOIL	11/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	

Key: P=Plastic T=Tin

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS3377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C ±/3°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal:

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portions) - 6 months

End of Report



Certificate of Analysis

Certificate Number 20-10974

25-Jun-20

Client Allied Exploration & Geotechnics Limited
Unit 25
Stella Gill Industrial Estate
Pelton Fell
DH2 2RG

Our Reference 20-10974

Client Reference 4251

Order No LA 2358

Contract Title Prairie Site Ground Investigation Works

Description 4 Soil samples.

Date Received 22-Jun-20

Date Started 22-Jun-20

Date Completed 25-Jun-20

Test Procedures Identified by prefix DETSn (details on request)

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "Adam Fenwick".

Adam Fenwick
Contracts Manager



Summary of Chemical Analysis Soil Samples

Our Ref 20-10974

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1687327	1687328	1687329	1687330
	PRAIRIE	PRAIRIE	PRAIRIE	PRAIRIE
	AUK_BH1	AUK_BH1	AUK_BH1	AUK_BH1
Sample ID	01	01	01	01
Depth	4.00	9.00	17.00	18.00
Other ID	4	14	30	33
Sample Type	J	J	I	J
Sampling Date	27/04/2020	27/04/2020	28/04/2020	29/04/2020
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Inorganics							
pH	DETSC 2008#		pH			7.8	8.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1100	270	2400	3000

Information in Support of the Analytical Results

Our Ref: 20-10974

Client Ref: 4251

Contract: Prairie Site Ground Investigation Works

Containers Received & Deviating Samples

Lab No	Sample ID	Date		Containers Received	Holding time exceeded for tests	Inappropriate container for tests
		Sampled				
1687327	PRAIRIE_AUK_BH101 4.00 SOIL	27/04/20		PT 1L	Anions 2:1 (30 days)	
1687328	PRAIRIE_AUK_BH101 5.00 SOIL	27/04/20		PT 1L	Anions 2:1 (30 days)	
1687329	PRAIRIE_AUK_BH101 17.00 SOIL	28/04/20		PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1687330	PRAIRIE_AUK_BH101 18.00 SOIL	29/04/20		PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and Laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers, etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C ± 2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal:

Soils - 1 month, Liquids - 3 weeks, Asbestos (test portion) - 6 months.



DETS

Certificate of Analysis

Certificate Number 20-12672-1

20-Jul-20

Client Allied Exploration & Geotechnics Limited
Unit 25
Stella Gill Industrial Estate
Pelton Fell
DH2 2RG

Our Reference 20-12672-1

Client Reference 4251

Order No LA 2358

Contract Title Prairie Site Ground Investigations Works

Description 7 Soil samples.

Date Received 15-Jul-20

Date Started 15-Jul-20

Date Completed 20-Jul-20

Test Procedures Identified by prefix DETSn (details on request).

Notes **This report supersedes 20-12672, amendments.**

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By



Adam Fenwick
Contracts Manager

Summary of Chemical Analysis Soil Samples

Our Ref 20-12672-1

Client Ref 4251

Contract Title Prairie Site Ground Investigations Works

	1697828	1697829
Lab No		
Sample ID	PRAIRIE_AUK_BH107	PRAIRIE_AUK_BH107
Depth	3.45	7.50
Other ID	3	12
Sample Type	J	J
Sampling Date	24/04/2020	24/04/2020
Sampling Time	n/a	n/a

Test	Method	LOD	Units		
Inorganics					
pH	DETSC 2008#		pH	8.0	7.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	110	250

Summary of Chemical Analysis

Soil Samples

Our Ref 20-12672-1

Client Ref 4251

Contract Title Prairie Site Ground Investigations Works

	1697830	1697831
Lab No	1697830	1697831
Sample ID	PRAIRIE_AUK_BH107	PRAIRIE_AUK_BH108
Depth	9.00	7.00
Other ID	1E	14
Sample Type	J	B
Sampling Date	24/04/2020	15/04/2020
Sampling Time	n/c	n/c

Test	Method	LOD	Units		
Inorganics					
pH	DETSC 2008#		pH	7.9	8.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1700	640

Summary of Chemical Analysis

Soil Samples

Our Ref 20-12672-1

Client Ref 4251

Contract Title Prairie Site Ground Investigations Works

Lab No	1697834
Sample ID	PRAIRIE_AUK_BH110
Depth	15.00
Other ID	27
Sample Type	1
Sampling Date	22/04/2020
Sampling Time	n/a

Test	Method	LOD	Units	
Inorganics				
pH	DETSC 2008#		pH	8.3
Sulphate Aqueous Extract as SO ₄	DETSC 2076#	10	mg/l	2200

Information in Support of the Analytical Results

Our Ref: 20-12672-1
 Client Ref: 4251
 Contract: Prairie Site Ground Investigations Works

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests	Headspace in container for tests
1697828	PRAIRIE_AUK_BH10 7 3.45 SOIL	24/04/20	PT 900ml	Anions 2-1 (30 days), pH + Conductivity (7 days)		
1697829	PRAIRIE_AUK_BH10 7 7.50 SOIL	24/04/20	PT 100ml	Anions 2-1 (30 days), pH + Conductivity (7 days)		
1697830	PRAIRIE_AUK_BH10 7 9.00 SOIL	24/04/20	PT 500ml	Anions 2-1 (30 days), pH + Conductivity (7 days)		
1697831	PRAIRIE_AUK_BH10 8 7.00 SOIL	15/04/20	PT 500ml	Anions 2-1 (30 days), pH + Conductivity (7 days)		
1697832	PRAIRIE_AUK_BH10 8 9.00 SOIL	15/04/20	PT 500ml	Anions 2-1 (30 days), pH + Conductivity (7 days)		
1697833	PRAIRIE_AUK_BH11 0 11.45 SOIL	21/04/20	PT 500ml	Anions 2-1 (30 days), pH + Conductivity (7 days)		
1697834	PRAIRIE_AUK_BH11 0 13.00 SOIL	22/04/20	PT 600ml	Anions 2-1 (30 days), pH + Conductivity (7 days)		

Key: P=Plastic T-Tub

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Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, retained to pass a 425um sieve, in accordance with BS1277.

Organic soil analysis was carried out on an 'as received' sample. Organic results are corrected for moisture and expressed as a dry weight basis.

The Loss on Drying, used to express organic analysis on an air dried basis, is carried out at a temperature of 20°C ± 2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal:

Soils - 1 month, Liquids - 2 weeks, Asbestos (fast potting) - 6 months.



Certificate of Analysis

Certificate Number 20-19447

13-Oct-20

Client Allied Exploration & Geotechnics Limited
Unit 25
Stella Gill Industrial Estate
Pelton Fell
DH2 2RG

Our Reference 20-19447

Client Reference 4251

Order No LA 2399

Contract Title Prairie Site Ground Investigation Works

Description 21 Soil samples.

Date Received 05-Oct-20

Date Started 05-Oct-20

Date Completed 13-Oct-20

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "Adam Fenwick".

Adam Fenwick
Contracts Manager



Summary of Chemical Analysis Soil Samples

Our Ref: 20-19447

Client Ref: 4251

Contract Title: Prairie Site Ground Investigation Works

Lab No	1736075
Sample ID	PRAMM_AJLK TP189
Depth	1.40
Other ID	3
Sample Type	1
Sampling Date	07/04/2020
Sampling Time	n/a

Test	Method	LOD	Units
Inorganics			
pH	DETSC 2008B		pH
Calorific Value	DETSC S008	1	MJ/kg
Organic matter	DETSC 2002B	0.1	%
Sulphate Aqueous Extract as SO4	DETSC 2075B	10	mg/l
			570

Information in Support of the Analytical Results

Our Ref 20-19447

Client Ref 4251

Contract Prairie Site Ground Investigation Works

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	inappropriate container for tests
1738055	PRAIRIE_AUK_TP101 0.40 SOIL	01/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738056	PRAIRIE_AUK_TP101 4.40 SOIL	01/04/20	PT 500ml	Organic Matter (Manual) (28 days)	
1738057	PRAIRIE_AUK_TP104 2.00 SOIL	01/04/20	PT 500ml	Organic Matter (Manual) (28 days)	
1738058	PRAIRIE_AUK_TP107 0.50 SOIL	06/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738059	PRAIRIE_AUK_TP124 1.00 SOIL	08/04/20	PT 500ml		
1738060	PRAIRIE_AUK_TP132 0.50 SOIL	02/04/20	PT 500ml		
1738061	PRAIRIE_AUK_TP146C 1.00 SOIL	14/04/20	PT 500ml		
1738062	PRAIRIE_AUK_TP162 0.70 SOIL	14/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738063	PRAIRIE_AUK_TP162 3.10 SOIL	14/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738064	PRAIRIE_AUK_TP163 1.60 SOIL	14/04/20	PT 500ml	Organic Matter (Manual) (28 days)	
1738065	PRAIRIE_AUK_TP165 1.50 SOIL	15/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738066	PRAIRIE_AUK_TP165 2.50 SOIL	15/04/20	PT 500ml		
1738067	PRAIRIE_AUK_TP173 0.60 SOIL	09/04/20	PT 500ml	Anions 2:1 (30 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days)	
1738068	PRAIRIE_AUK_TP176 1.50 SOIL	07/04/20	PT 500ml	Anions 2:1 (30 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days)	
1738069	PRAIRIE_AUK_TP178 0.40 SOIL	06/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738070	PRAIRIE_AUK_TP178 1.60 SOIL	06/04/20	PT 500ml	Organic Matter (Manual) (28 days)	
1738071	PRAIRIE_AUK_TP179 0.20 SOIL	09/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738072	PRAIRIE_AUK_TP182 0.30 SOIL	09/04/20	PT 500ml		
1738073	PRAIRIE_AUK_TP183 0.40 SOIL	08/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738074	PRAIRIE_AUK_TP189 0.30 SOIL	07/04/20	PT 500ml		
1738075	PRAIRIE_AUK_TP189 1.40 SOIL	07/04/20	PT 500ml	Anions 2:1 (30 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days)	

Key: P-Plastic 1-Tub

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Information in Support of the Analytical Results

Our Ref 20-19447

Client Ref 4251

Contract Prairie Site Ground Investigation Works

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425 μ m sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C \pm 2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal:

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

Determination of Dry Density/Moisture Content Relationship



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 27, Moor Lane Industrial Estate, Haringhey, Leeds, West Yorkshire, LS17 7JG. Tel: 0113 275 4720 Fax: 0113 275 4751
Regional Office: Unit 20, Riverside Development Centre, Easton Green, Bradford, West Yorkshire, BD9 1BB. Tel: 01274 253 288 Fax: 01274 276 989

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 Part 4: 1990

Specimen Identification

Exploratory Hole No - PRAIRIE_AUK_BH107 Depth (m) - 4.00

Sample Type & No - B5

Test Method 2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 17.0

Particle Density (Assumed) = 2.70

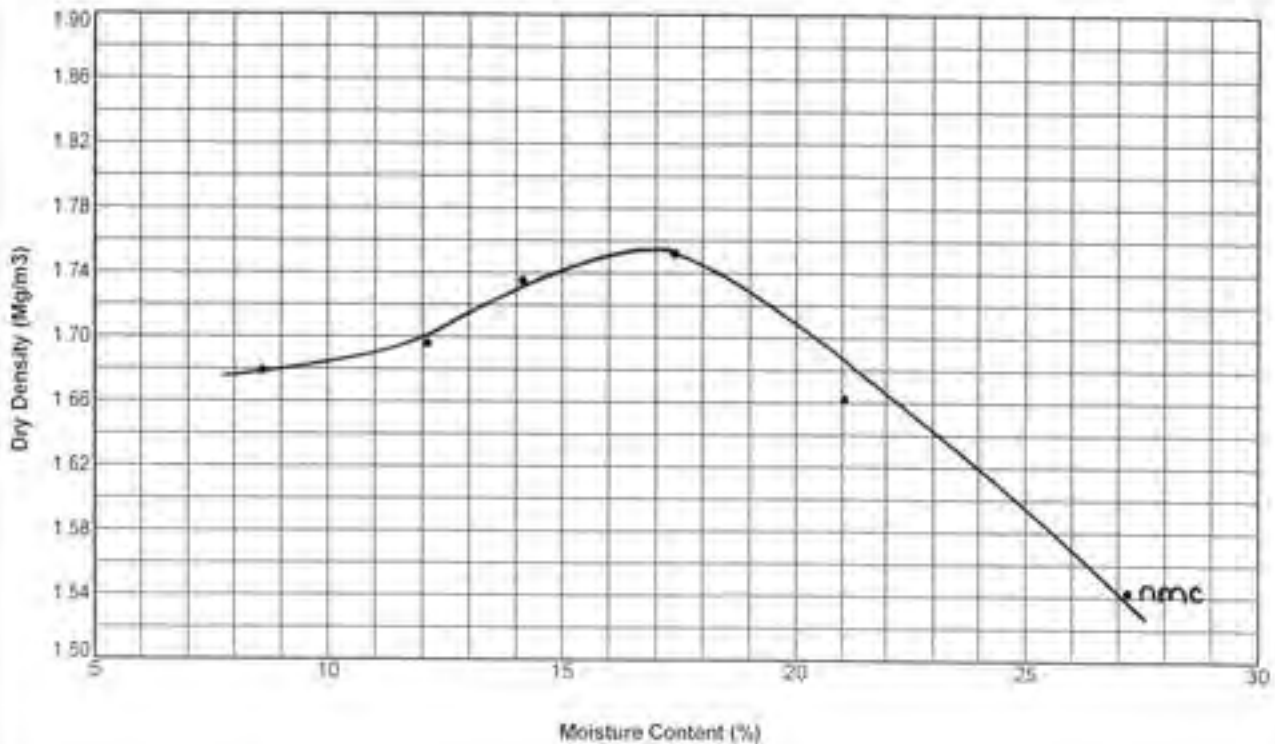
Maximum Dry Density (Mg/m³) = 1.75

Retained on 20mm Sieve (%) = 0.0

Date Tested = 14/07/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contact Title - Prairie Site Ground Investigation Works

Client - South Tees Development Corporation



Signature - *mscho*

Name - *M. Schofield*

Page 1 of 1

Date of issue - 14/07/2020

Certificate No. - COMP42511

AEIG Contact No. - 4251



1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 21, Gower Park Industrial Estate, Potters Park, St Albans, Herts, SG8 5JG. Tel: 01763 207400 Fax: 01763 201421
Regional Office: Unit 20, Business Development Centre, Kilmarnock, Ayrshire, SA11 5SL. Tel: 01752 755300 Fax: 01752 755300

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_BH109 Depth (m) - 2.00

Sample Type & No :- B10

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 18.0

Particle Density (Assumed) = 2.70

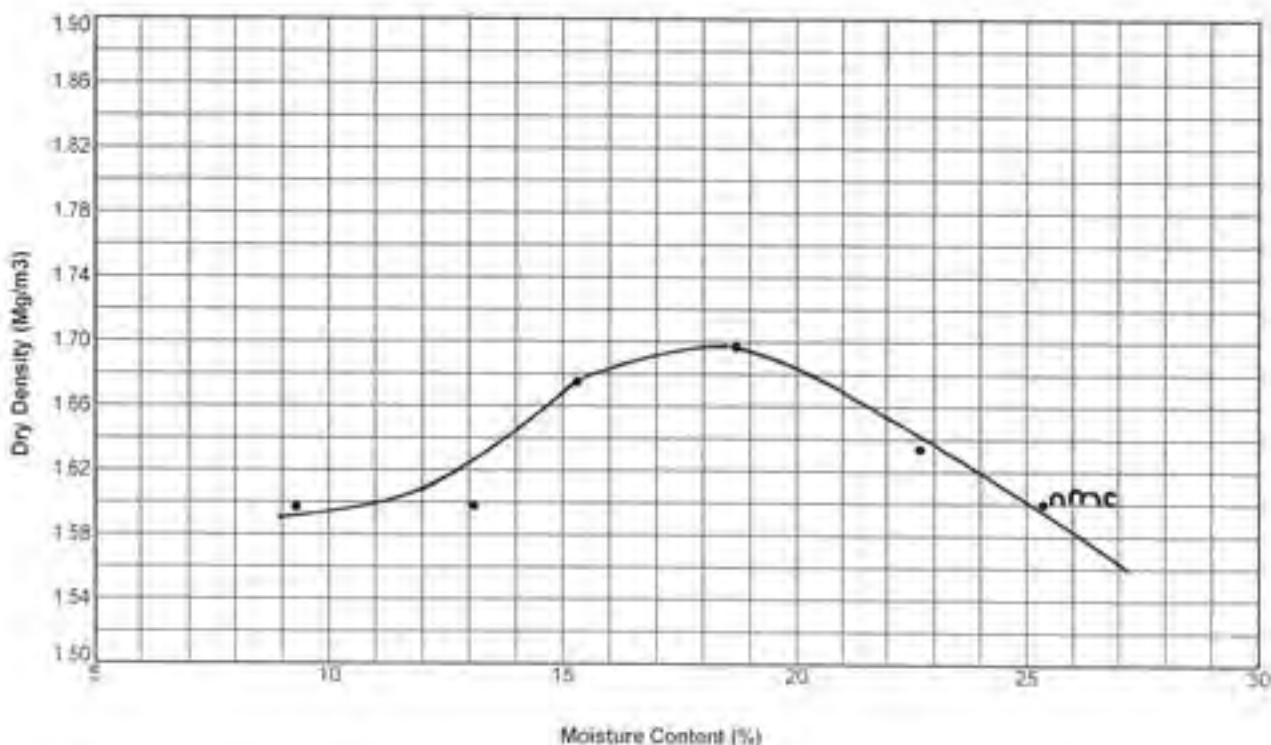
Maximum Dry Density (Mg/m³) = 1.70

Retained on 20mm Sieve (%) = 0.0

Date Tested = 14/07/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

msene

Name :-

JCLN

Page 1 of 1

Date of issue :-

14/07/2020

Certificate No :-

CDMR4251/1

AEG Contract No :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 100th CV Industrial Estate, Potters Field, Clonville, Ayrshire, Co. Durham, DL12 2NS. Tel: 0191 207 4700 Fax: 0191 207 4710
Regional Office: Unit 20, Business Centre, Colton, Darlington, Co. Durham, DL1 1SL. Tel: 01772 755 000 Fax: 01772 755 000

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_BH110 Depth (m) :- 6.50

Sample Type & No :- B10

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 15.0

Particle Density (Assumed) = 2.70

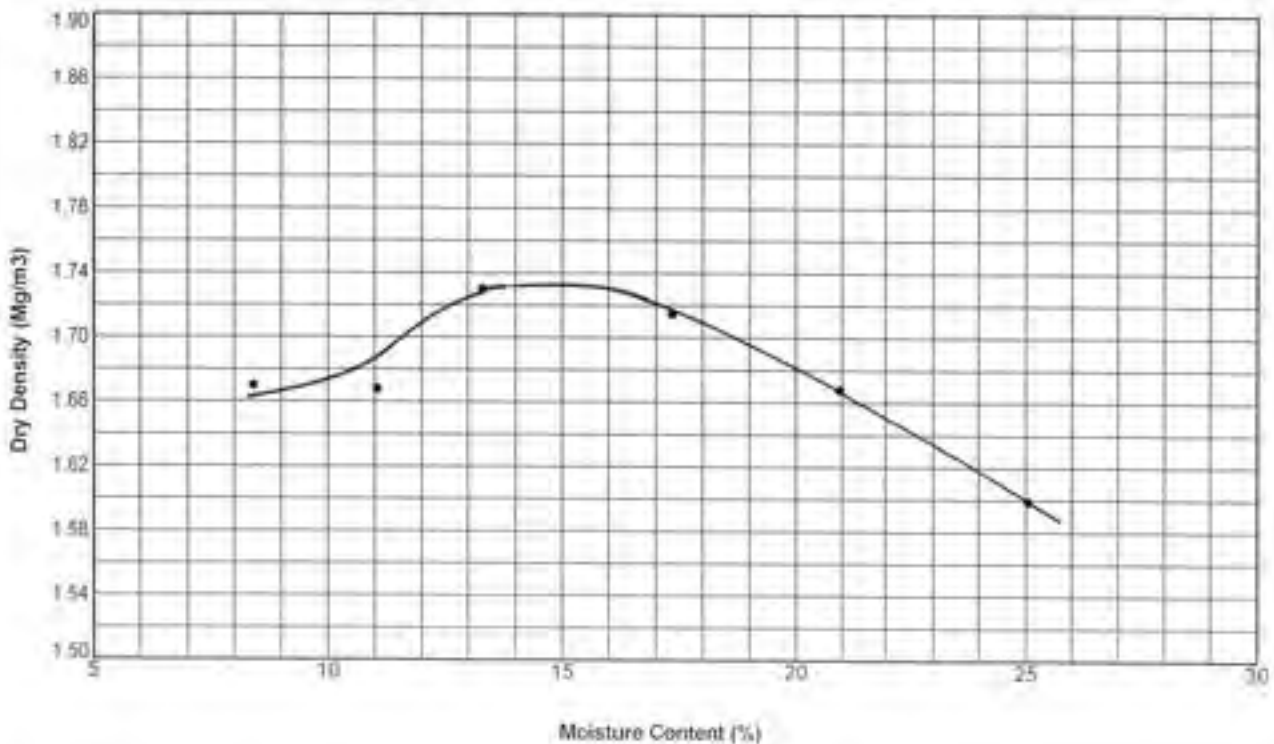
Maximum Dry Density (Mg/m³) = 1.73

Retained on 20mm Sieve (%) = 0.0

Date Tested = 14/07/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

msone

Name :-

MSONE

Page 1 of 1

Date of issue :-

11/07/2020

Certificate No :-

COMB4251/1

REG Contract No :-

4251



1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, Westgate Industrial Estate, Patten Way, Chester-le-Street, Co. Durham, UK, SR9 7LQ. Tel: 0191 261 4100 Fax: 0191 261 4101
Regional Office: Unit 20, Blenheim Development Centre, Euston Wharf, Sunderland, SR1 1BB. Tel: 01753 201360 Fax: 01753 201361

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4 - 1990

Specimen Identification

Exploratory Hole No - PRAIRIE_AUK_TP101 Depth (m) - 0.90

Sample Type & No - B4

Test Method 2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 16.5

Particle Density (Assumed) = 2.55

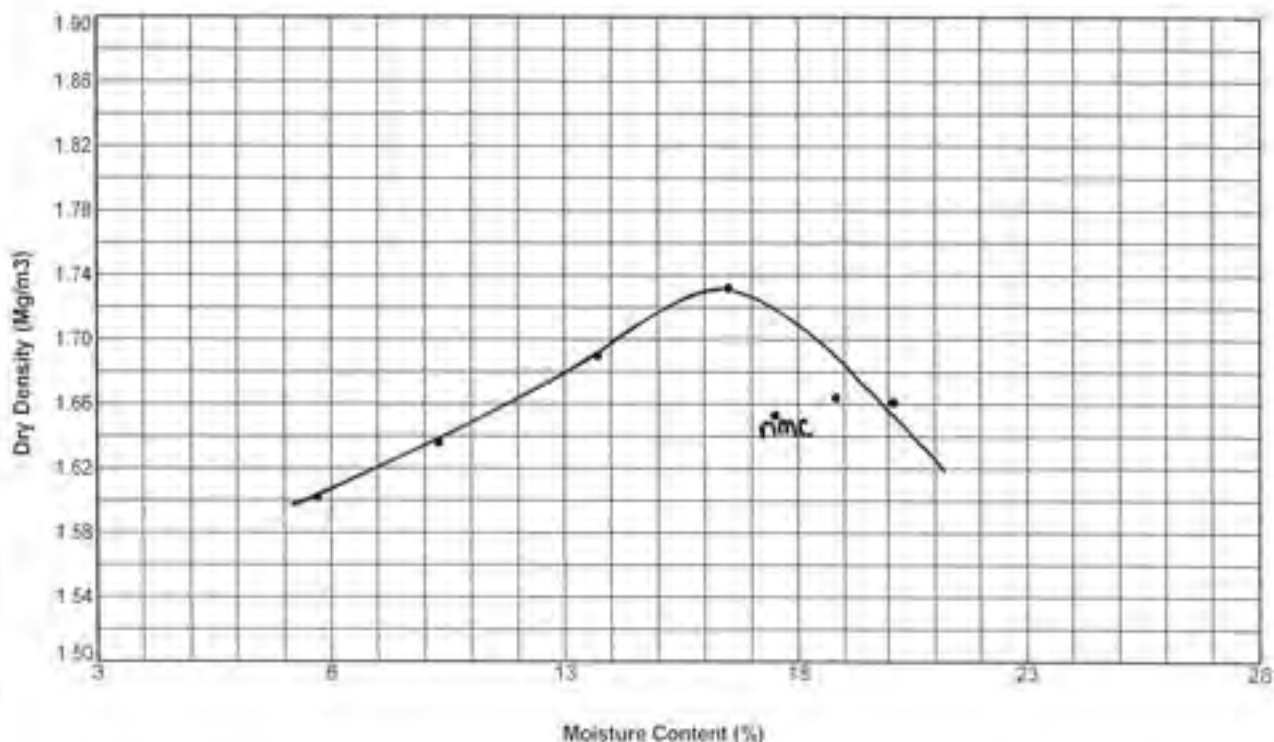
Maximum Dry Density (Mg/m³) = 1.73

Retained on 20mm Sieve (%) = 32.0

Date Tested = 01/10/2020

Retained on 37.5mm Sieve (%) = 17.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title - Prairie Site Ground Investigation Works

Client - South Tees Development Corporation



Signed: *[Signature]*

Name: *[Signature]*

Page 1 of 1

Date of issue - 02/11/2020

Certificate No - COMRA251/1

AEG Contract No - 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 100-21 Area 04, Industrial Estate, Pinner, Pk. Chiswick, Middlesex, The Chiswick, Uxbridge, Midd. Ux. 8111 0JF, 47th Fl., 2001, 2004 7th
Regional Office: Unit 21, Business Development Centre, "Enterprise" Business Park, 161, The Parkway, Uxbridge, Midd. Ux. 8111 0JF, 47th Fl., 2001, 2004 7th

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP BS 1377 - Part 4, 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP105 Depth (m) :- 2.00

Sample Type & No :- B5

Test Method 2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 17.0

Particle Density (Assumed) = 2.65

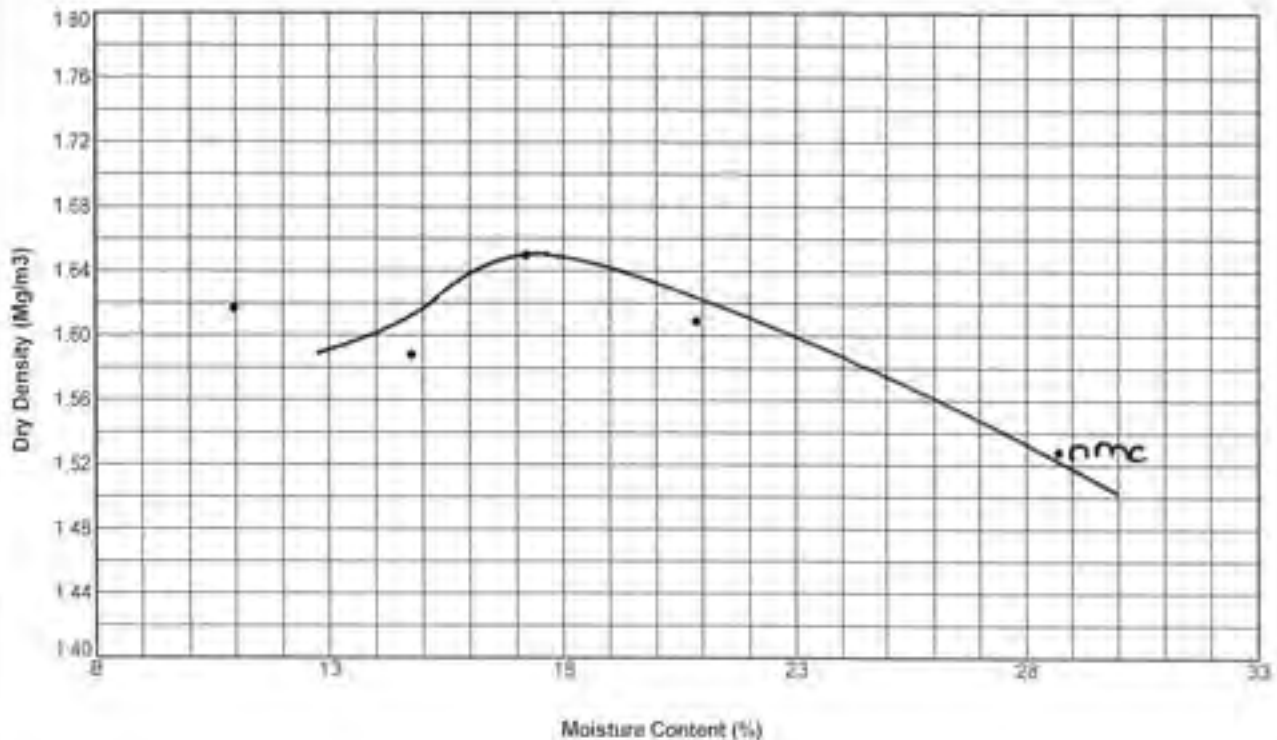
Maximum Dry Density (Mg/m³) = 1.65

Retained on 20mm Sieve (%) = 2.0

Date Tested = 30/09/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tames Development Corporation



Signed :- msene

Name :-

Page 1 of 1

Date of issue
02/11/2020

Certificate No >
COMB/4251/1

AEG Contract No. >
4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, Widdow's Gar Industrial Estate, Widdow's Park, Chester-le-Street, Co. Durham, DA2 2JG. Tel: 0191 287 8796 Fax: 0191 687 1160
Regional Office: Unit 20, Seabank Development Centre, Easton-le-Moors, Barnsley, S71 5NL. Tel: 01223 101 386 Fax: 01223 110 388

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP BS 1377 - Part 4 : 1990

Specimen Identification

Exploratory Hole No - PRAIRIE_AUK_TP107 Depth (m) - 1.00

Sample Type & No - B4

Test Method 2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 17.5

Particle Density (Assumed) = 2.70

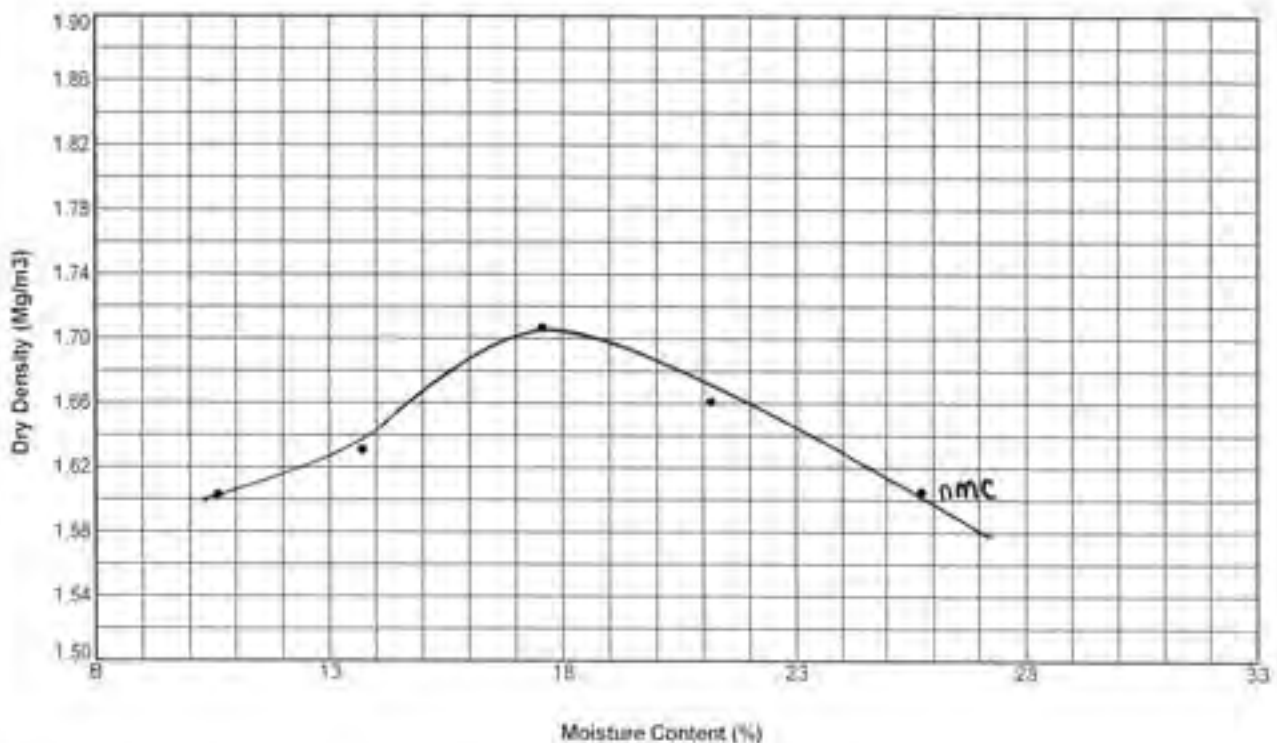
Maximum Dry Density (Mg/m³) = 1.71

Retained on 20mm Sieve (%) = 5.0

Date Tested = 30/09/2020

Retained on 37.5mm Sieve (%) = 4.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title:- **Prairie Site Ground Investigation Works**

Client:- **South Tees Development Corporation**

Signed:- *mserp*
Date of issue: 02/11/2020

Name:- *[Signature]*
Certificate No:- COMP42511

Page 1 of 1
AEG Contract No:- 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 21, Bally's, 28-30, Victoria Road, Victoria Park, Chorley, Greater Manchester, UK. Darnley, Lancashire, UK. Tel: 01257 374100 Fax: 01257 374110
Regional Offices: Unit 20, Business Development Centre, The Vale, Warrington, Cheshire, UK. Tel: 01925 721111 Fax: 01925 721112

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 Part 4: 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP110 Depth (m) :- 3.00

Sample Type & No :- B8

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 21.0

Particle Density (Assumed) = 2.65

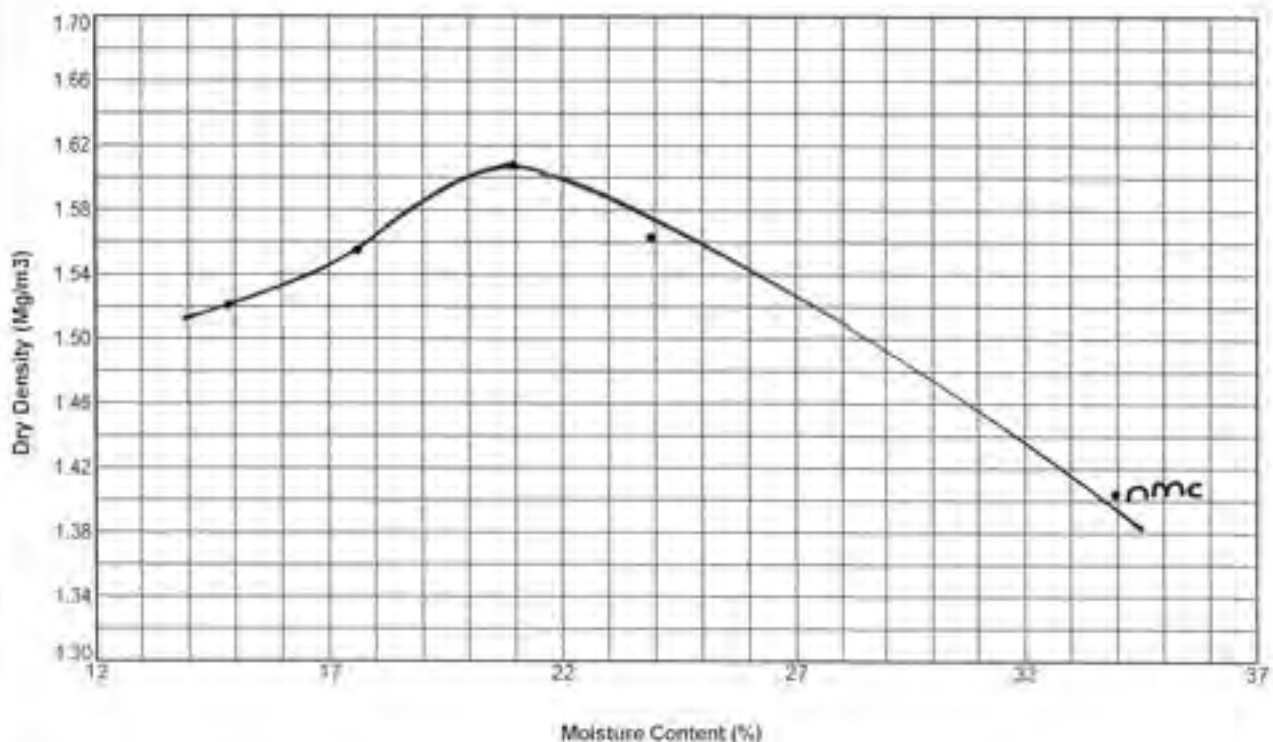
Maximum Dry Density (Mg/m³) = 1.60

Retained on 20mm Sieve (%) = 0.0

Date Tested = 16/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :- msene

Name :- M. SENE

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Date of Issue :- 02/11/2020

Certificate No. :- GOMR/4251/1

AEG Contract No. :- 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP BS 1377 - Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP112 Depth (m) :- 1.70

Sample Type & No :- B5

Test Method 2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 20.5

Particle Density (Assumed) = 2.35

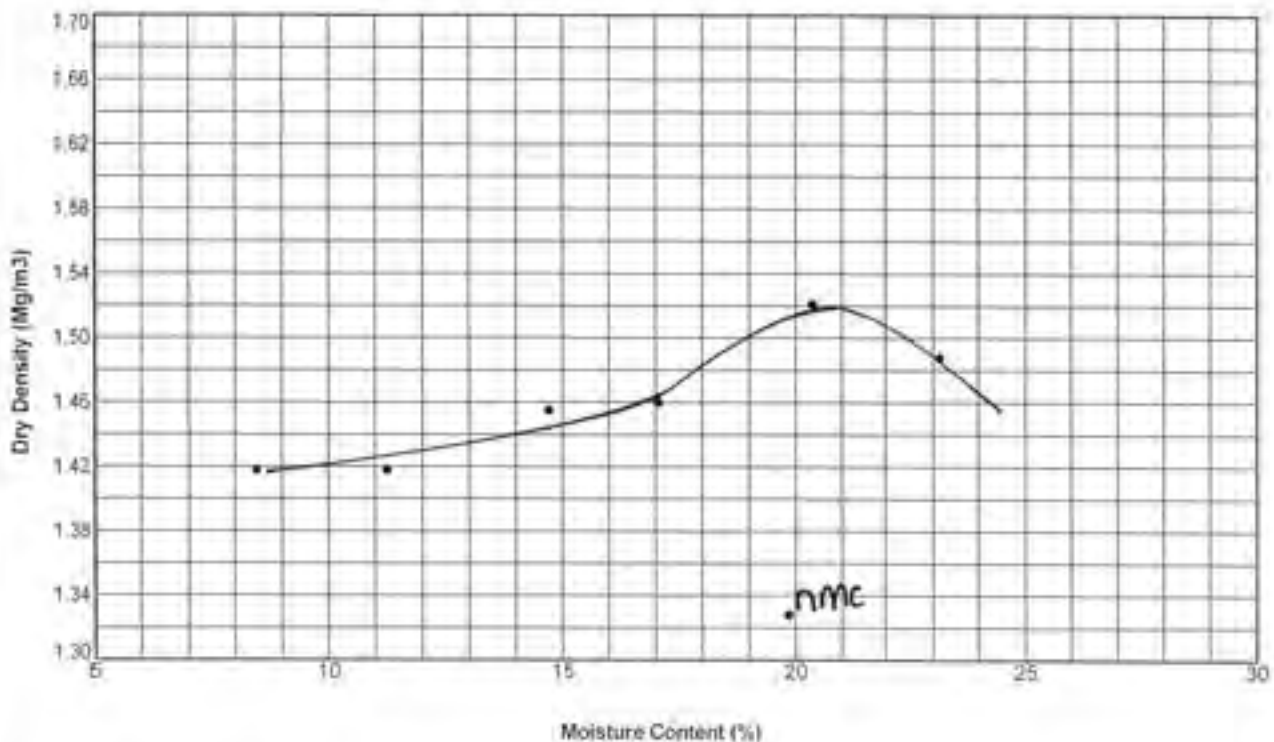
Maximum Dry Density (Mg/m³) = 1.52

Retained on 20mm Sieve (%) = 28.0

Date Tested = 19/10/2020

Retained on 37.5mm Sieve (%) = 10.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- **Prairie Site Ground Investigation Works**

Client :- **South Tees Development Corporation**



Signed :- *msene*

Name :- *[Signature]*

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Date of issue :- 02/11/2020

Certificate No :- COMP4251/1

AEG Contract No :- 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

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Regional Office: Unit 21, Broomfield Industrial Estate, Filton, Glos. Cheltenham Road, Stroud, Glos. GL5 2JG. Tel: 01292 381428 Fax: 01292 357475

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4: 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP112 Depth (m) :- 3.20

Sample Type & No :- B11

Test Method

2.5kg Compaction

Separate Samples

Test Results

Optimum Moisture Content (%) = 16.5

Particle Density (Assumed) = 2.65

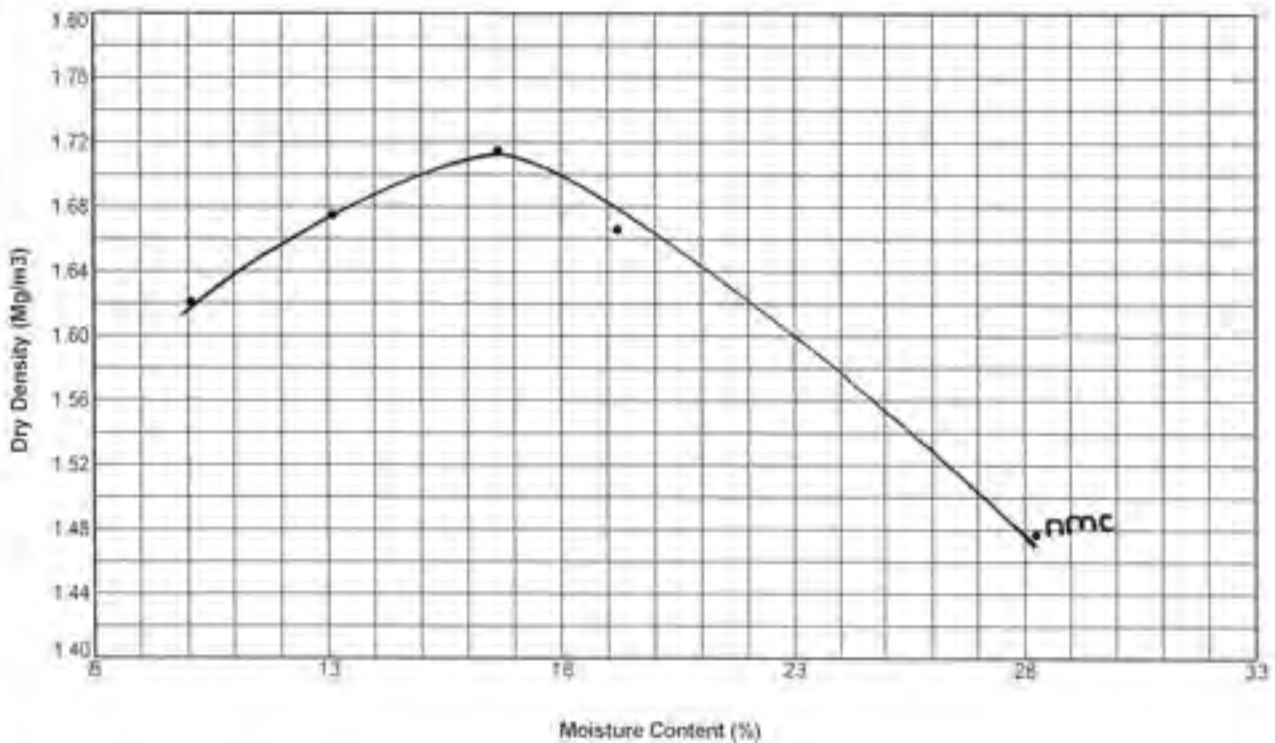
Maximum Dry Density (Mg/m³) = 1.70

Retained on 20mm Sieve (%) = 0.0

Date Tested = 16/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed - *mshoe*

Name :-

Page 1 of 1

Date of issue :-
02/11/2020

Certificate No :-
COMP/4251/1

AEG Contract No :-
4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 21, Millers Hill, Barnsley, Yorkshire, S70 2BA, England. Tel: 01225 347400 Fax: 01225 307410
Regional Office: Unit 20, Riverside Development Centre, Barnsley, Yorkshire, S70 2BA, England. Tel: 01225 347400 Fax: 01225 307410

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP113 Depth (m) - 2.80

Sample Type & No :- B8

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 19.5

Particle Density (Assumed) = 2.75

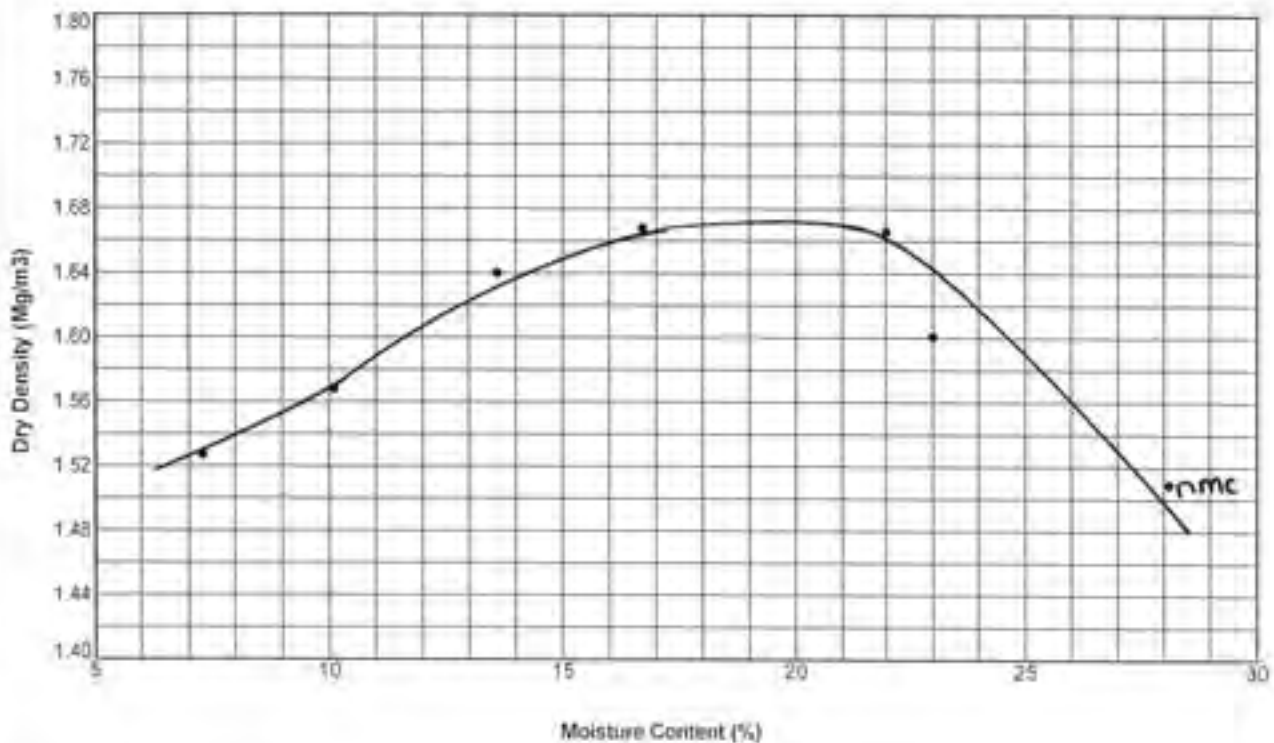
Maximum Dry Density (Mg/m³) = 1.67

Retained on 20mm Sieve (%) = 0.0

Date Tested = 30/09/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :- *msene*

Name :-

Page 1 of 1

Date of issue :-
02/11/2020

Certificate No :-
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AEG Contract No :-
4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Lifford House 24 Victoria Street, Chester, Cheshire, Cheshire, CH1 1JF, UK. Tel: 01244 531 470 Fax: 01244 531 475
Regional Office: 27, Sowerby Road, South Tees Development Corporation, South Tees, Middlesbrough, Cleveland, YO21 2EL, UK. Tel: 01642 751 444 Fax: 01642 751 450

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4: 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP116 Depth (m) :- 2.50

Sample Type & No :- B8

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 20.0

Particle Density (Assumed) = 2.65

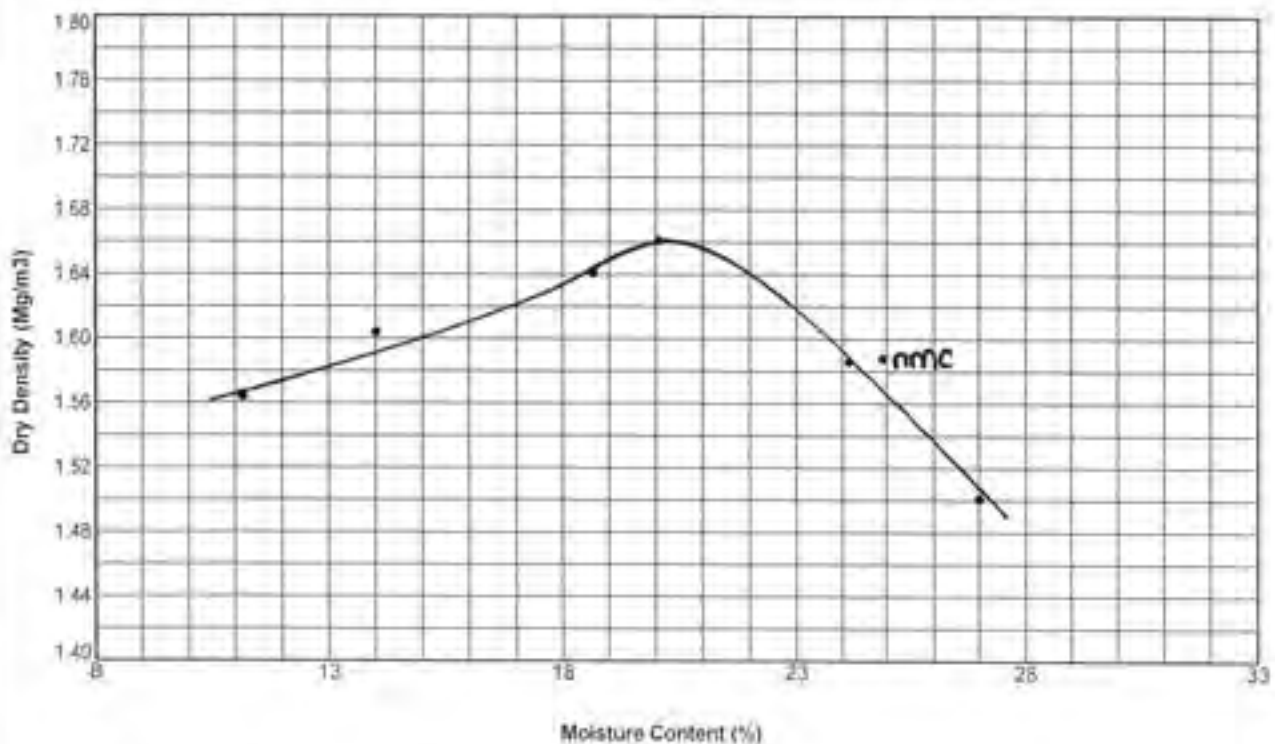
Maximum Dry Density (Mg/m³) = 1.65

Retained on 20mm Sieve (%) = 0.0

Date Tested = 16/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

[Signature]

Name :-

[Signature]

Page 1 of 1

Date of Issue :-

02/11/2020

Certificate No.:-

COMPM251/1

AEG Contract No. :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 21, Mill Lane, Fillingham, Boston, Lincolnshire, England, Lincs, UK. DN24 9JG. Tel: 01509 885111 Fax: 01509 885112
Regional Office: Unit 20, Sycamore, Development Centre, Station Wharf, Rufford, Merseyside, UK. L35 9EF. Tel: 0151 272 1100 Fax: 0151 272 1101

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4 : 1990

Specimen Identification

Exploratory Hole No - PRAIRIE_AUK_TP116 Depth (m) - 3.50

Sample Type & No - B10

Test Method

2.5kg Compaction

Separate Samples

Test Results

Optimum Moisture Content (%) = 14.0

Particle Density (Assumed) = 2.65

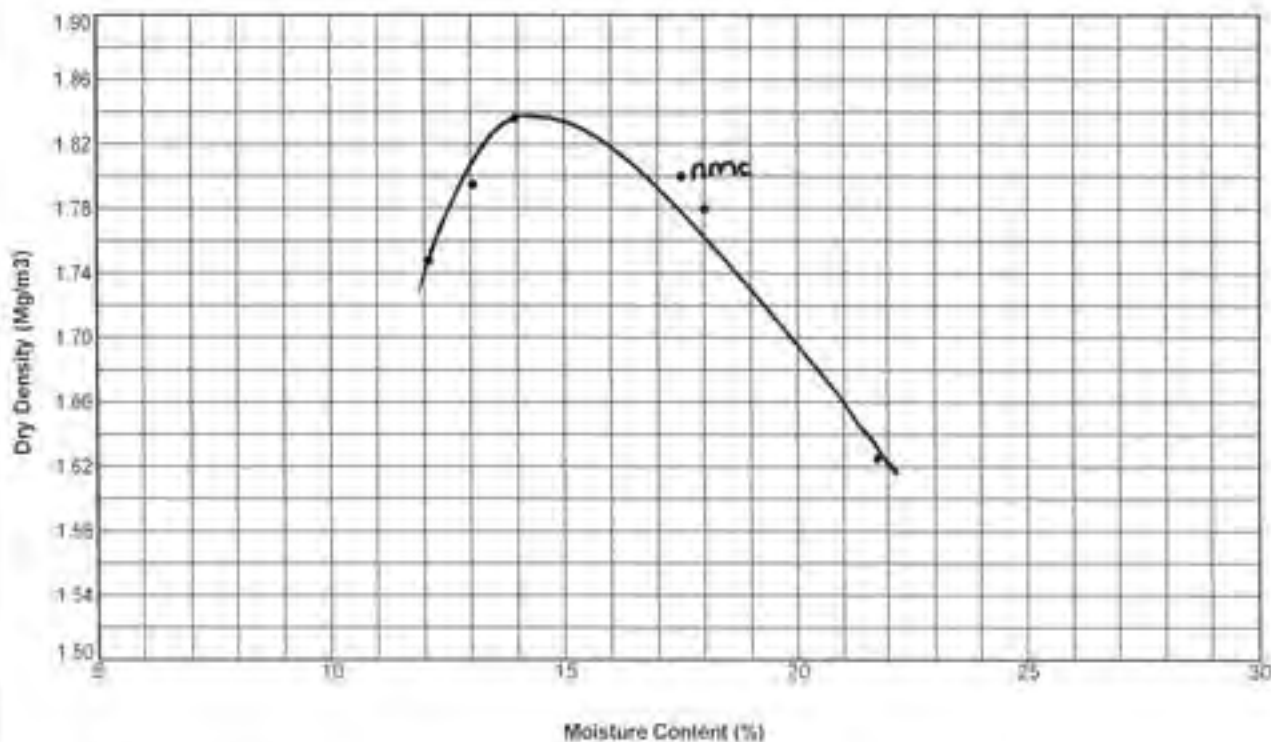
Maximum Dry Density (Mg/m³) = 1.85

Retained on 20mm Sieve (%) = 3.2

Date Tested = 19/10/2020

Retained on 37.5mm Sieve (%) = 1.8

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

msene

Name :-

CLAYTON

Page 1 of 1

Date of Issue :-

02/11/2020

Certificate No :-

COMR/4251/1

WEG Contract No :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, Sevinge, 24 Industrial Estate, Evesham, Warwickshire, CV22 6JG, UK. Tel: 01454 302 470 Fax: 01454 302 471
 Regional Office: Unit 20, Business Development Centre, Kearsley Road, Todmorden, West Yorkshire, BD9 7SL. Tel: 01707 75 700 Fax: 01707 750 300

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No - PRAIRIE_AUK_TP118 Depth (m) :- 2.50

Sample Type & No :- B7

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 23.5

Particle Density (Assumed) = 2.65

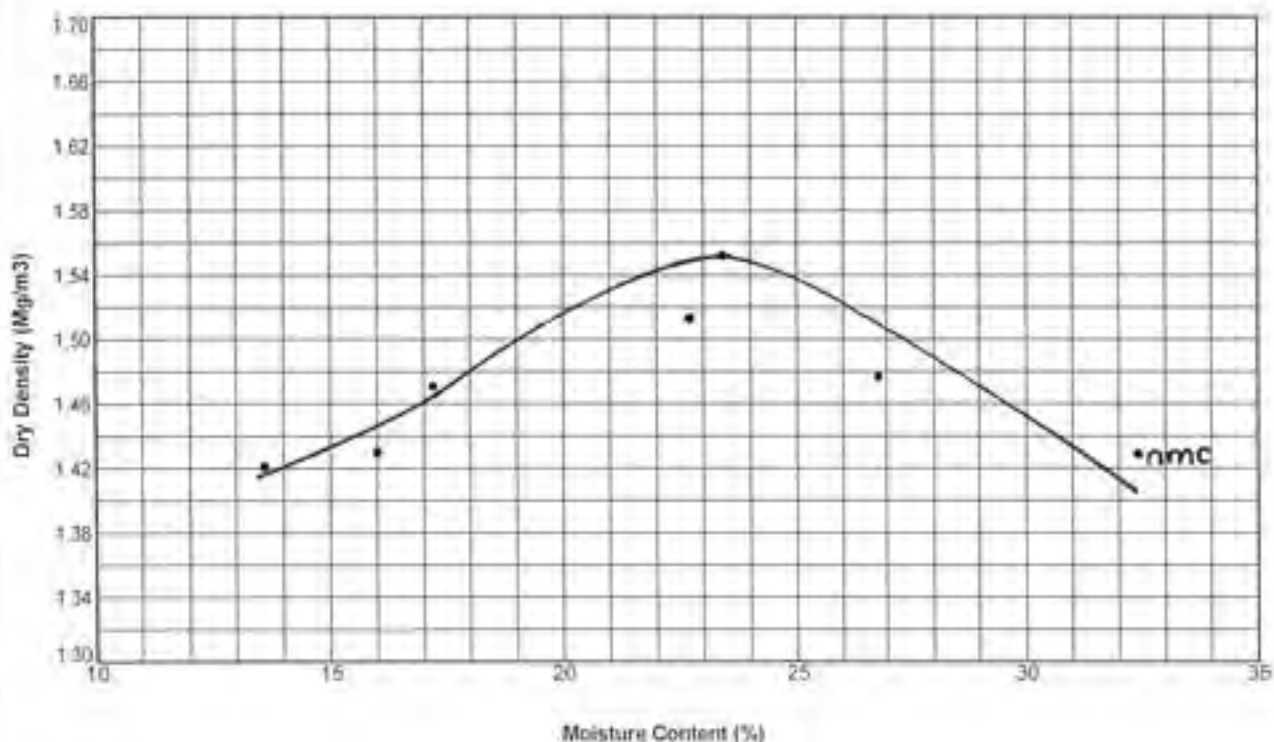
Maximum Dry Density (Mg/m³) = 1.55

Retained on 20mm Sieve (%) = 0.0

Date Tested = 19/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed *msene*

Name - *SELKIRK*

Page 1 of 1

Date of issue :-
02/11/2020

Certificate No. :-
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AEG Contract No. :-
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ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office Unit 25 (1995) Juddoakley Road, Fulford Park, Doncaster, DN2 2SQ - Tel: 0113 5074700 Fax: 0113 5074710
Regional Office Unit 12 Business Centre, Gillingham, Dorset, DT9 9SL - Tel: 01722 276300 Fax: 01722 276301

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377: Part 4: 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP119 Depth (m) :- 2.00

Sample Type & No :- B5

Test Method 2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 18.5

Particle Density (Assumed) = 2.85

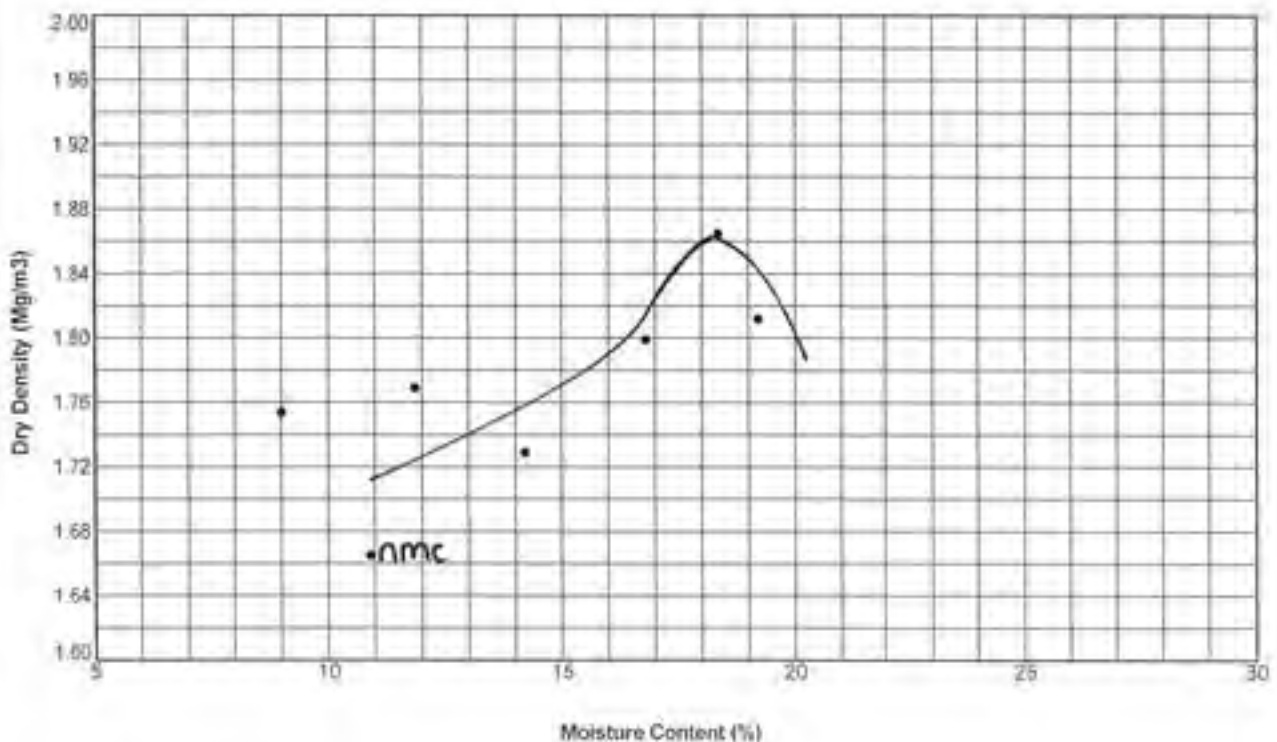
Maximum Dry Density (Mg/m³) = 1.87

Retained on 20mm Sieve (%) = 17.0

Date Tested = 19/10/2020

Retained on 37.5mm Sieve (%) = 9.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation



Signed :- *msene*

Name :- *[Signature]*

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Date of issue :- 02/11/2020

Certificate No :- COMR/4251/1

AEG Contract No :- 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Via 25 Males Dr Industrial Estate, Farnborough, Hampshire, GU14 0JF. Tel: 0114 287 4399 Fax: 0114 207 4751
Regional Office: Unit 20, Business Development Centre, Southampton, Hampshire, SO11 5BQ. Tel: 01703 225 282 Fax: 01703 225 289

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4: 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP119 Depth (m) :- 3.00

Sample Type & No :- B8

Test Method 2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 23.5

Particle Density (Assumed) = 2.70

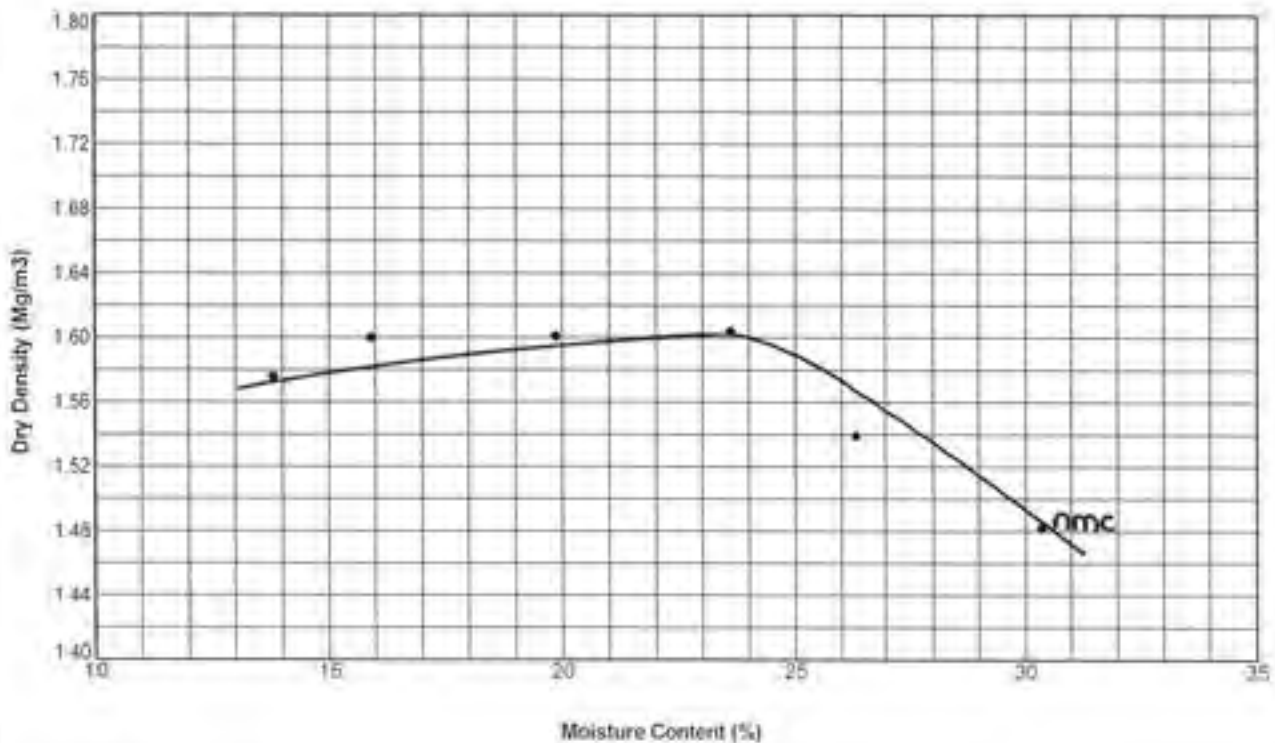
Maximum Dry Density (Mg/m³) = 1.60

Retained on 20mm Sieve (%) = 0.0

Date Tested = 16/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation



Signed - *mson*

Name -

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Date of issue - 02/11/2020

Certificate No - GDMR/4251/1

AEG Contract No - 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Astra 58 Industrial Estate, Park Road, Cross-in-Hand, Co. Durham, DA2 2DZ. Tel: 0191 387 4700 Fax: 0191 387 4710
Regional Office: Unit 25, Sidwell Development Centre, Euston Street, Stockton, SS1 5BL. Tel: 01713 723 200 Fax: 01713 723 300

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP BS 1377 - Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP120 Depth (m) :- 1.80

Sample Type & No :- B5

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 20.0

Particle Density (Assumed) = 2.65

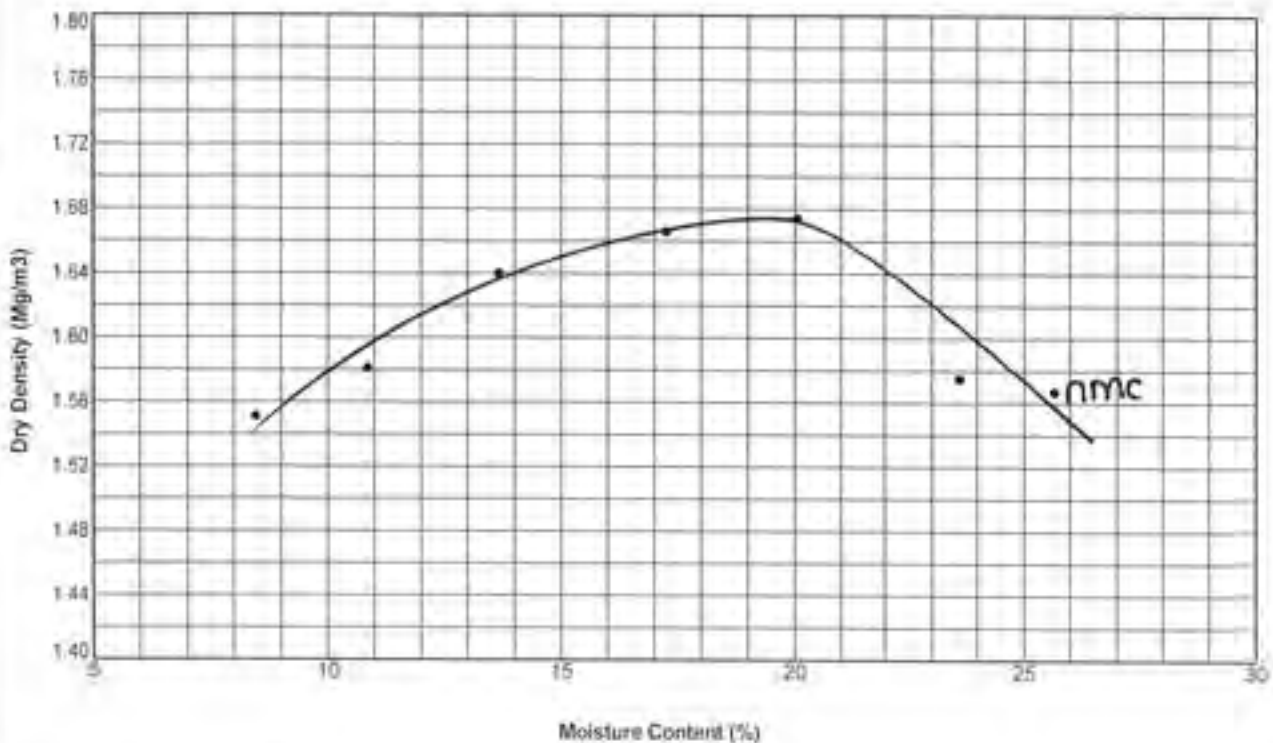
Maximum Dry Density (Mg/m³) = 1.67

Retained on 20mm Sieve (%) = 0.0

Date Tested = 15/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

msone

Name :-

MSONE

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Date of issue :-

02/11/2020

Certificate No :-

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AEG Contract No :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

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Regional Offices: 1st Flr 27, Roke Rd, Industrial Estate, Thess Valley, Cleveland, Co. Durham, DL22 9JG, UK. Tel: 01773 751 288 Fax: 01773 751 284

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4: 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP121 Depth (m) :- 0.80

Sample Type & No :- B2

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 14.0

Particle Density (Assumed) = 2.75

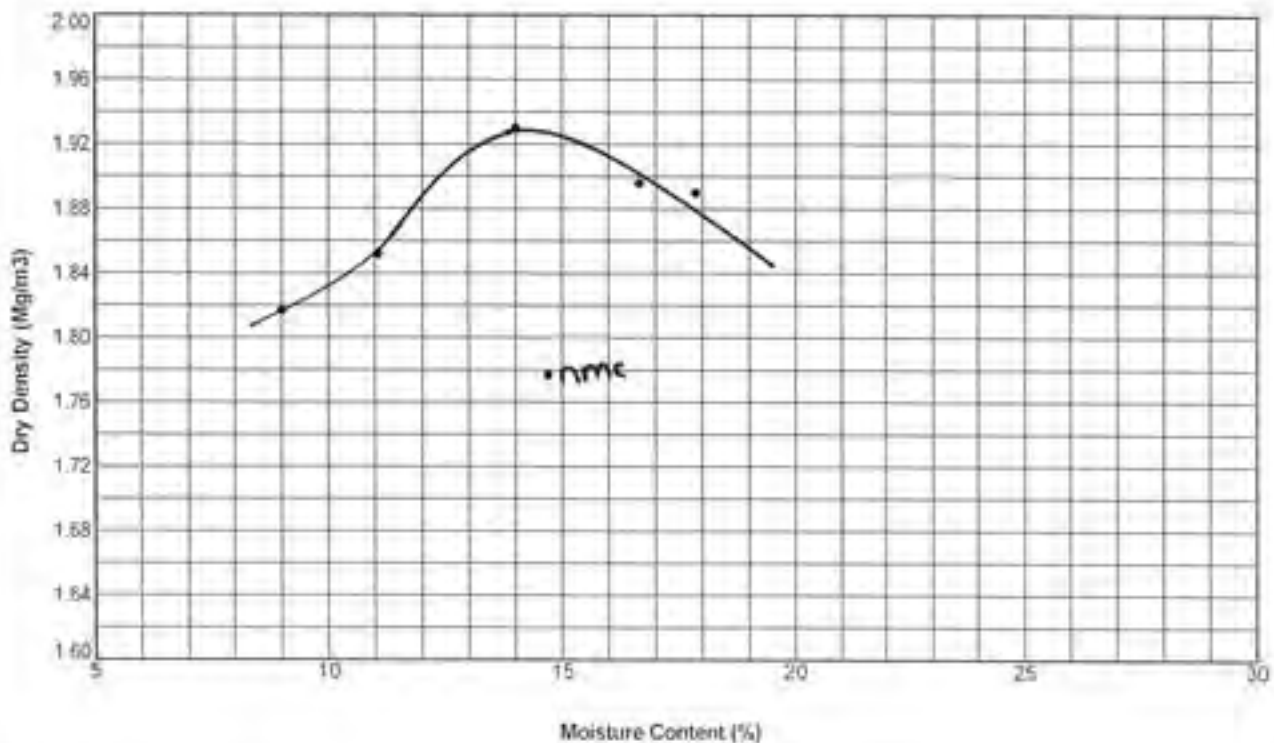
Maximum Dry Density (Mg/m³) = 1.93

Retained on 20mm Sieve (%) = 1.0

Date Tested = 01/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

msone

Name :-

MSONE

Page 1 of 1

Date of issue :-

02/11/2020

Certificate No :-

COMP4251/1

AEG Contract No :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 20, Balfour Industrial Estate, Wigan Road, Chorley, Lancashire, UK. DUNSMUIR, Unit 10, 11th Floor, 100, Market Street, Manchester, M1 1PU. Tel: 01252 755 337 Fax: 01252 755 367
Regional Office: Unit 10, Balfour Industrial Estate, Wigan Road, Chorley, Lancashire, UK. DUNSMUIR, Unit 10, 11th Floor, 100, Market Street, Manchester, M1 1PU. Tel: 01252 755 337 Fax: 01252 755 367

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 / Part 4 : 1990

Specimen Identification

Exploratory Hole No - PRAIRIE_AUK_TP131 Depth (m) :- 3.80

Sample Type & No :- B10

Test Method

2.5kg Compaction

Separate Samples

Test Results

Optimum Moisture Content (%) = 21.0

Particle Density (Assumed) = 2.75

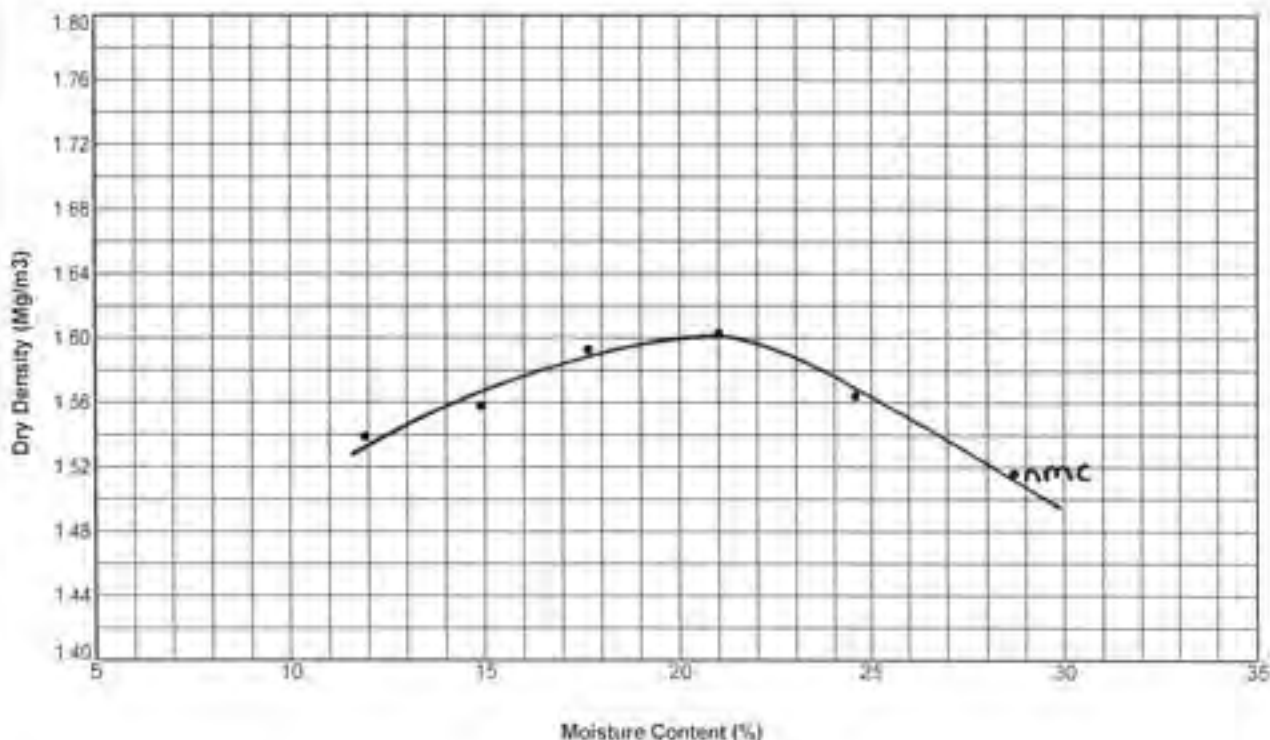
Maximum Dry Density (Mg/m³) = 1.60

Retained on 20mm Sieve (%) = 0.0

Date Tested = 01/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed -

msene

Name :-

Page 1 of 1

Date of Issue

02/11/2020

Certificate No:-

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AEG Contract No. :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 75, Brook 125 Industrial Estate, Polesworth, Coventry, CV3 2PL. Tel: 01203 627470 Fax: 01203 627471
Regional Office: Unit 22, Business Development Centre, Gosport Wharf, Southampton, SO1 9SL. Tel: 0703 731 88 Fax: 01703 731 88

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP137 Depth (m) :- 2.00

Sample Type & No :- B7

Test Method

2.5kg Compaction

Separate Samples

Test Results

Optimum Moisture Content (%) = 17.0

Particle Density (Assumed) = 2.65

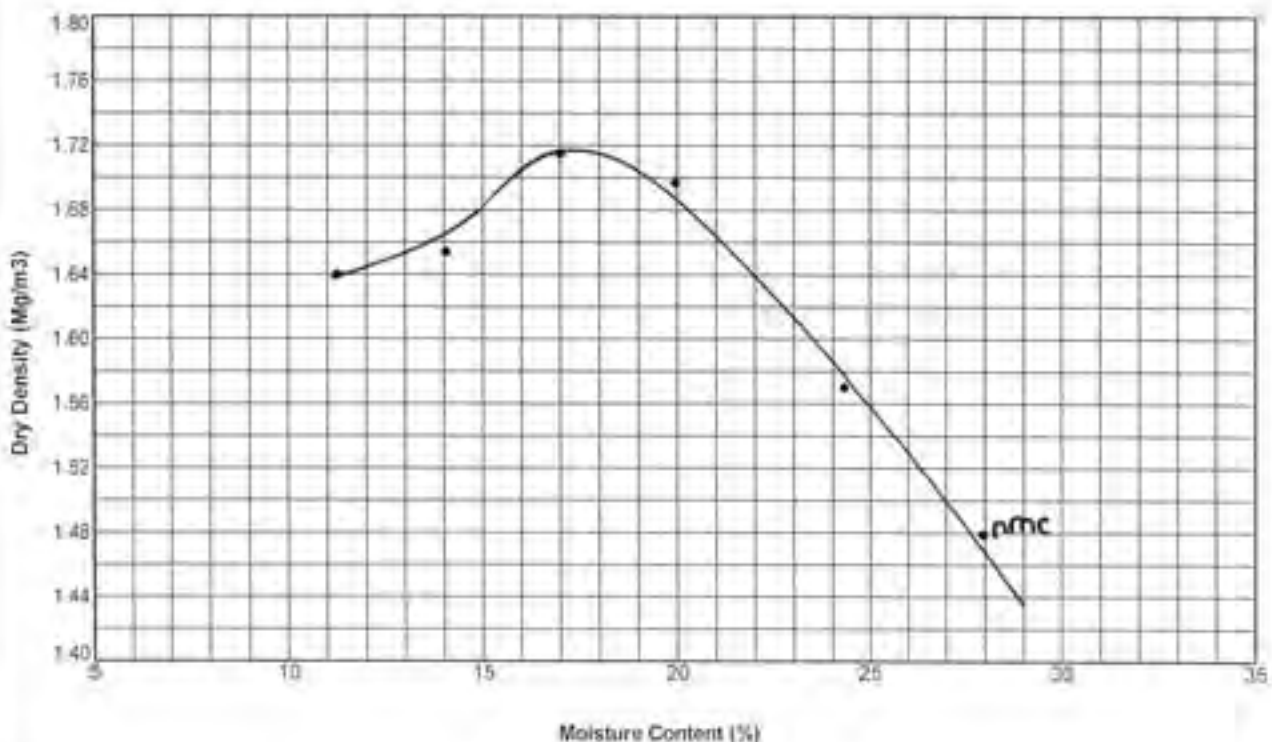
Maximum Dry Density (Mg/m³) = 1.70

Retained on 20mm Sieve (%) = 0.0

Date Tested = 15/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

m.sone

Name :-

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Date of issue :-

02/11/2020

Certificate No :-

COMP/4251/1

AEG Contract No :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, 26/27, Old Industrial Estate, Green Park, Chesham-Bosch, Ch. District, GPO 202, Tel: 01494 267470/2674713
Regional Office: Unit 21, Salsford, Development Centre, Salsford Road, Stockton, ES1 1BA, Tel: 01727 425 200 Fax: 01727 215 264

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP145 Depth (m) :- 1.00

Sample Type & No :- B3

Test Method 2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 17.5

Particle Density (Assumed) = 2.55

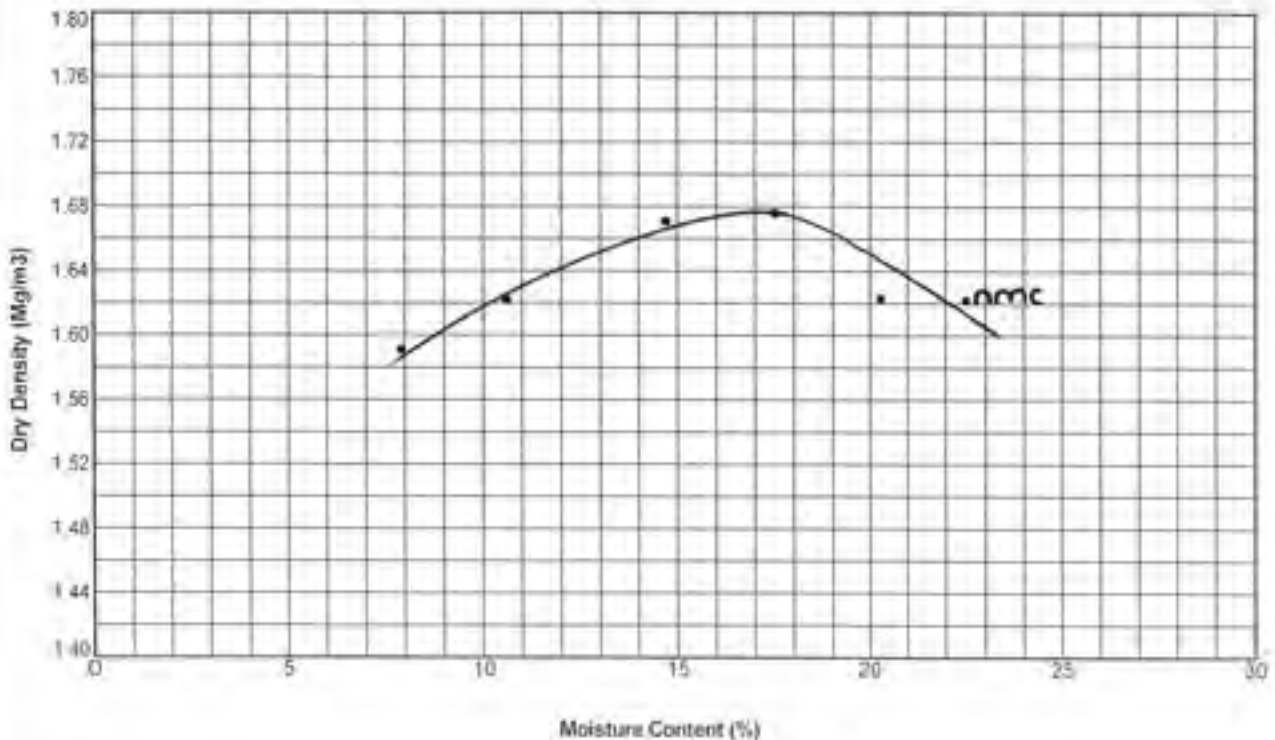
Maximum Dry Density (Mg/m³) = 1.68

Retained on 20mm Sieve (%) = 19.0

Date Tested = 29/09/2020

Retained on 37.5mm Sieve (%) = 5.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation



Signed - *msone*

Name - *msone*

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Date of issue - 02/11/2020

Certificate No - COMB/425111

AEG Contract No - 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 1st & 2nd Floors, 146, Victoria Street, Ipswich, Suffolk, IP1 1JF, UK. Tel: 01473 285473 Fax: 01473 287478
Regional Office: 1st & 2nd Floors, 100, Commercial Centre, Cannon Wharf, Southampton, SO1 1W, UK. Tel: 01703 031983 Fax: 01703 210900

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4 - 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP145 Depth (m) :- 2.40

Sample Type & No :- B6

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 21.0

Particle Density (Assumed) = 2.70

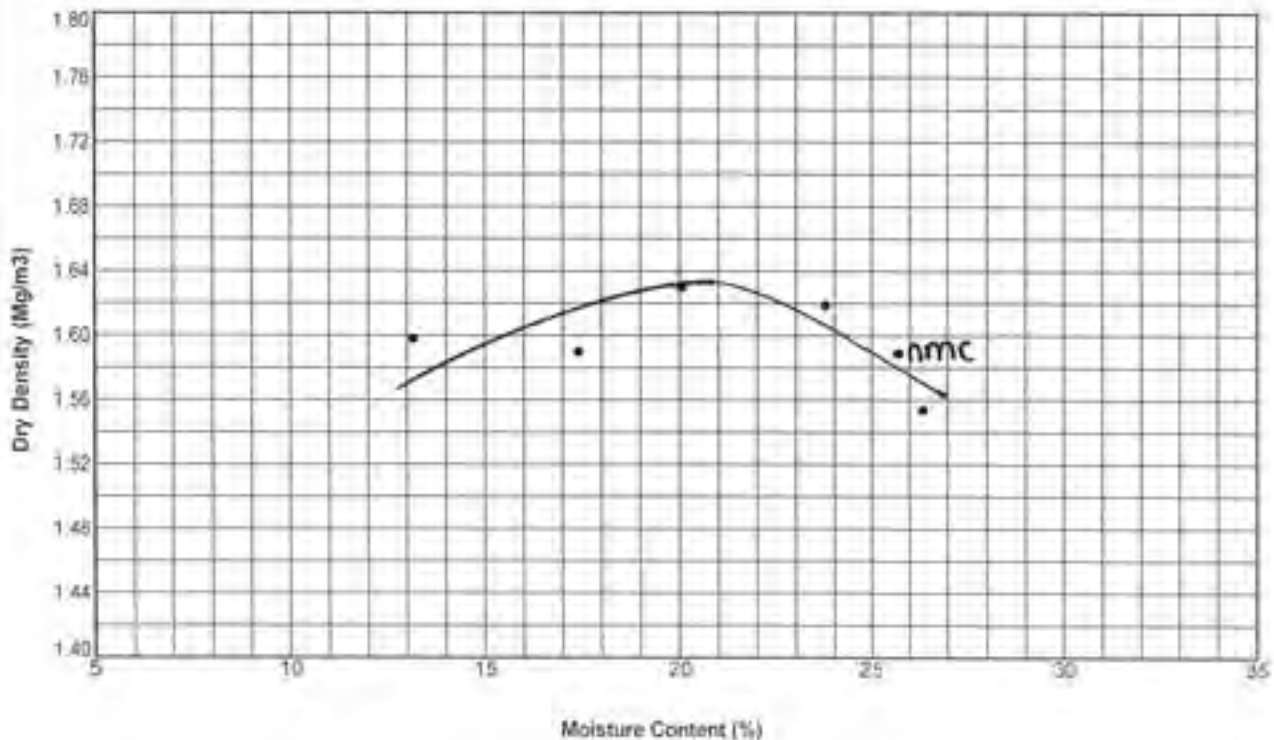
Maximum Dry Density (Mg/m³) = 1.63

Retained on 20mm Sieve (%) = 0.0

Date Tested = 30/09/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

msene

Name :-

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Date of issue :-

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Certificate No :-

COMP/4251/T

AEG Contract No :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 21, Broomfield Industrial Estate, Poles Road, Chatteris, Cambs, Cambridgeshire, UK. Tel: 01455 507414 Fax: 01455 511474
Regional Office: Unit 21, Broomfield Industrial Estate, Poles Road, Chatteris, Cambridgeshire, UK. Tel: 01455 507414 Fax: 01455 511474

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP146 Depth (m) :- 1.30

Sample Type & No :- B6

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 17.5

Particle Density (Assumed) = 2.65

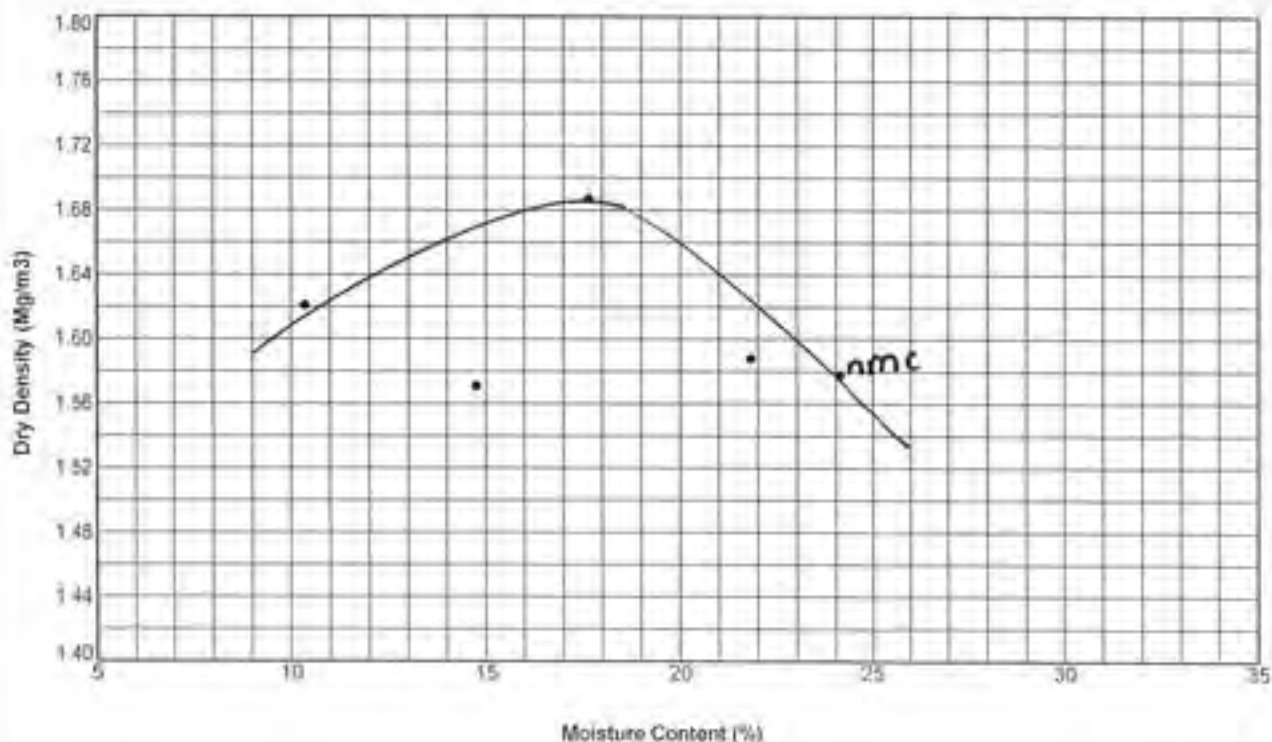
Maximum Dry Density (Mg/m³) = 1.69

Retained on 20mm Sieve (%) = 14.0

Date Tested = 02/10/2020

Retained on 37.5mm Sieve (%) = 6.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :- *msone*

Name :-

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Date of issue :-

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Certificate No :-

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AEG Contract No :-

4251



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ALLIED EXPLORATION & GEOTECHNICS LIMITED

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Regional Office: Unit 26, Buntingford Development Centre, Canon Wharf, Buntingford, Cambs, UK. Tel: 01753 755265 Fax: 01753 755266

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP146 Depth (m) :- 2.30

Sample Type & No :- B8

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 18.5

Particle Density (Assumed) = 2.70

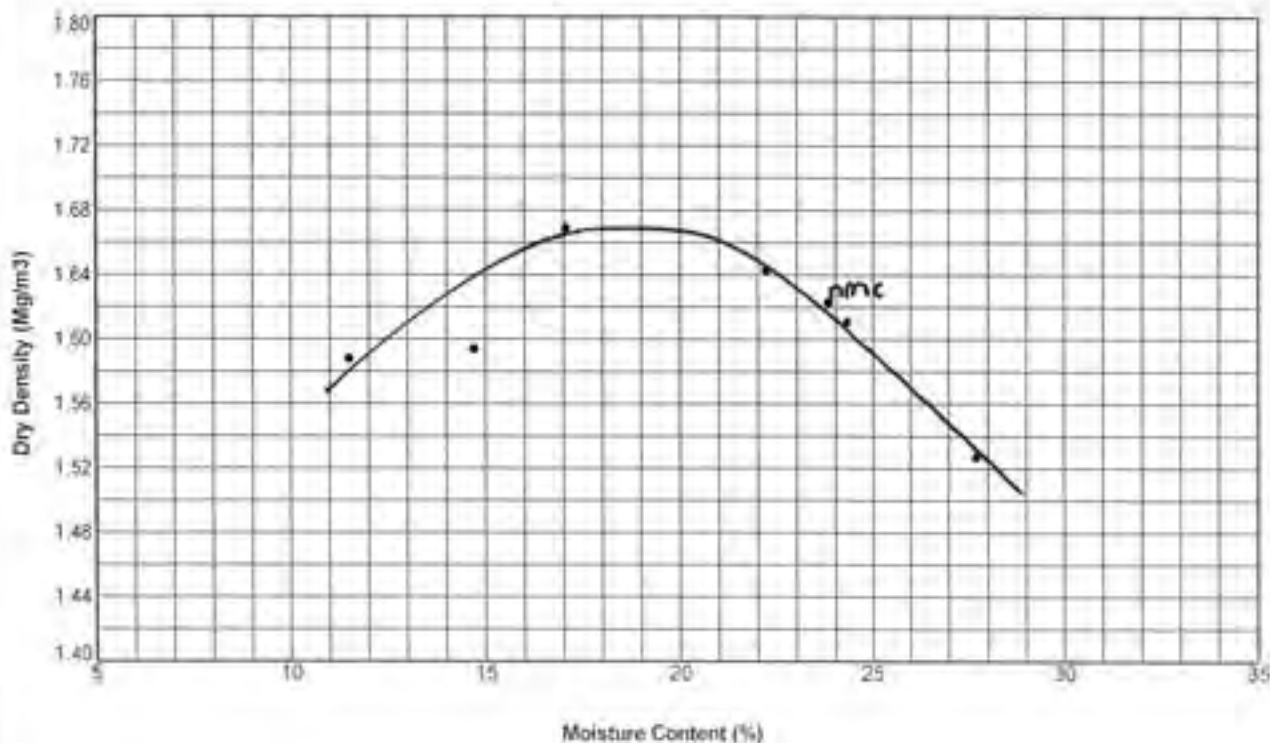
Maximum Dry Density (Mg/m³) = 1.67

Retained on 20mm Sieve (%) = 0.0

Date Tested = 01/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed: *msone*

Name :-

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Date of issue :-
02/11/2020

Certificate No :-
COMPI425111

REG Contract No :-
4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, Rye Hill Industrial Estate, Rye, East Sussex, TN31 2JG. Tel: 01323 810444 Fax: 01323 811419
Regional Office: Unit 20, Broomfield, Broomfield, London, Greater London, SE14 5LJ. Tel: 01753 725746 Fax: 01753 725755

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP149 Depth (m) :- 2.20

Sample Type & No :- B5

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 22.5

Particle Density (Assumed) = 2.70

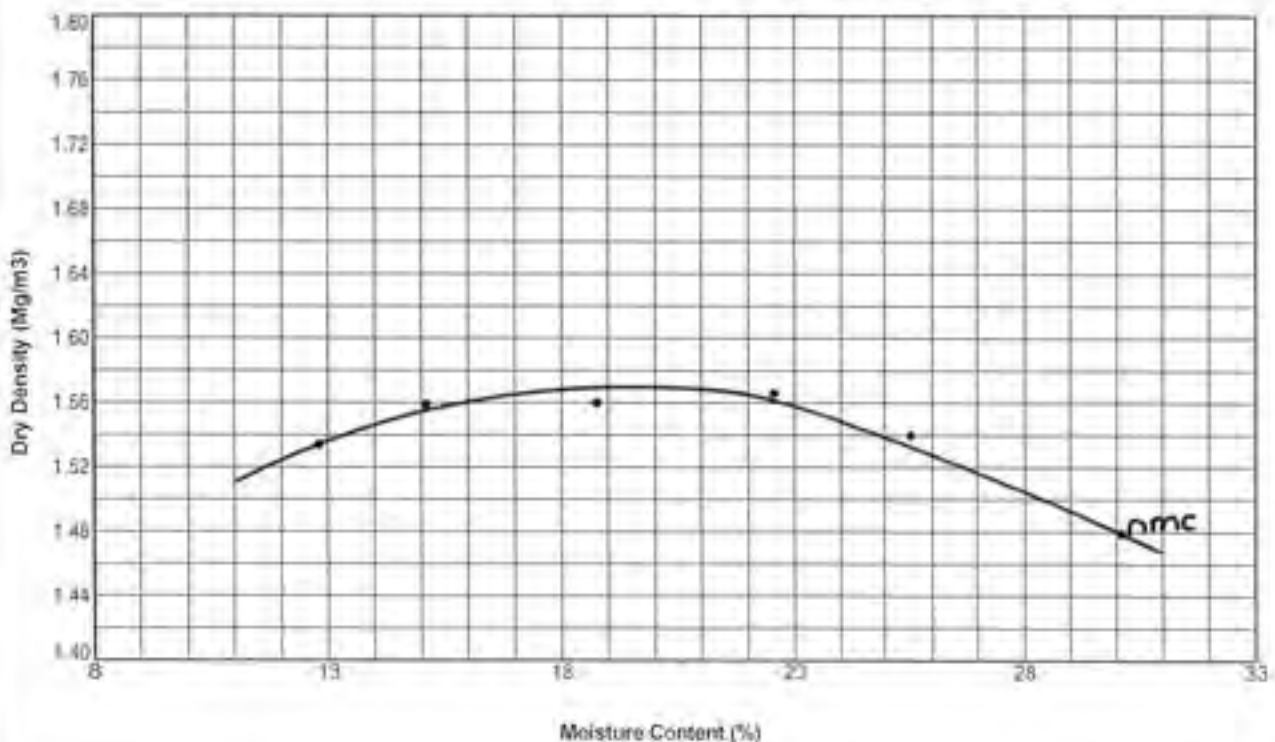
Maximum Dry Density (Mg/m³) = 1.57

Retained on 20mm Sieve (%) = 0.0

Date Tested = 16/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :- *msene*

Name :-

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Date of Issue :-
02/11/2020

Certificate No :-
COMP/4251/1

AEG Contract No. :-
4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 MIRA, Gas Industrial Estate, Filton Park, Gloucester Road, Ch. Dursley, G12 2PS - Tel: 01453 501476 Fax: 01453 501475
Regional Office Unit 25 Business Centre, South Shields, South Shields, NE11 5SL - Tel: 01773 276 300 Fax: 01773 276 999

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377, Part 4 : 1990

Specimen Identification

Exploratory Hole No - PRAIRIE_AUK_TP154 Depth (m) - 1.60

Sample Type & No - B5

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 24.0

Particle Density (Assumed) = 2.70

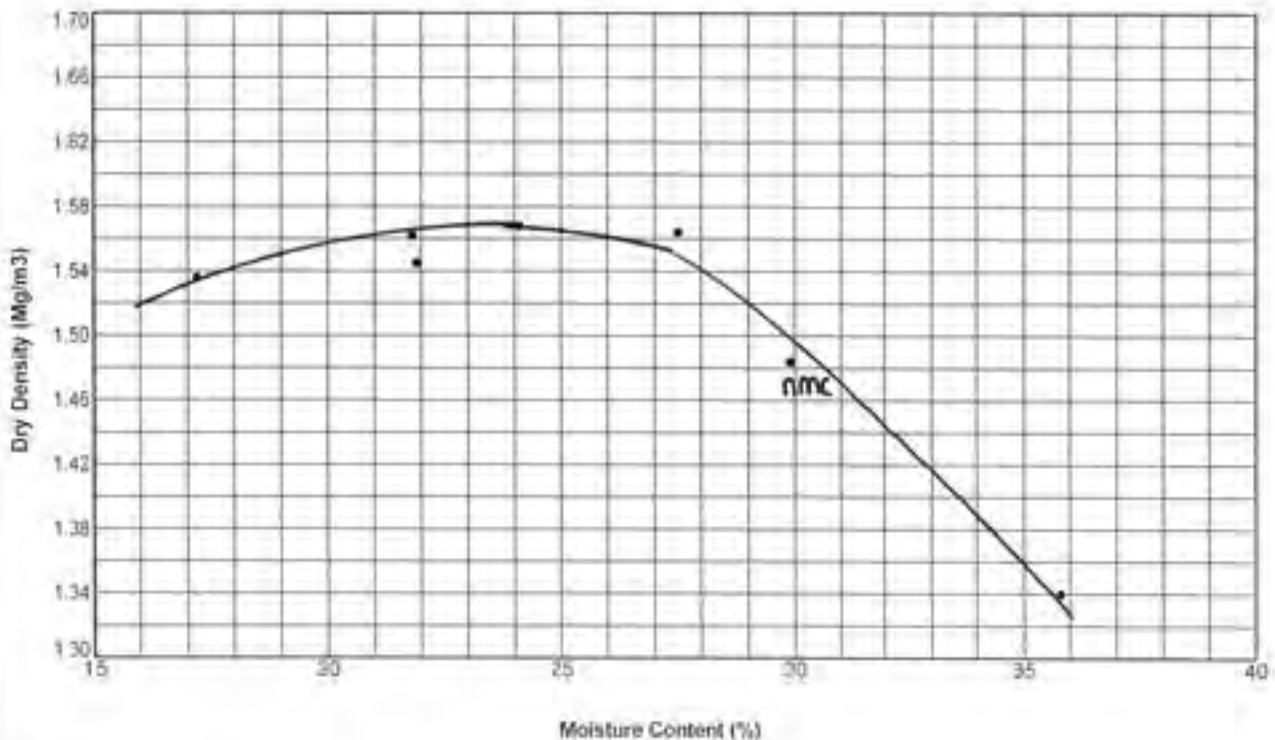
Maximum Dry Density (Mg/m³) = 1.57

Retained on 20mm Sieve (%) = 0.0

Date Tested = 20/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed: - *msc*

Name: - [Signature]

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Date of issue - 02/11/2020

Certificate No - COMR/4251/T

AEG Contract No - 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 27, 100th (ex-Bellway) Estate, Millway Park, Chesham, Bucks, UK. Contact: 01494 550000 - Fax: 01494 550001 Email: info@allied-eg.co.uk
Regional Office: Unit 25, Business Development Centre, Kingswood Park, Slough, Bucks, UK. Contact: 01753 550000 - Fax: 01753 550001 Email: info@allied-eg.co.uk

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP162 Depth (m) :- 2.50

Sample Type & No :- B6

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 21.0

Particle Density (Assumed) = 2.75

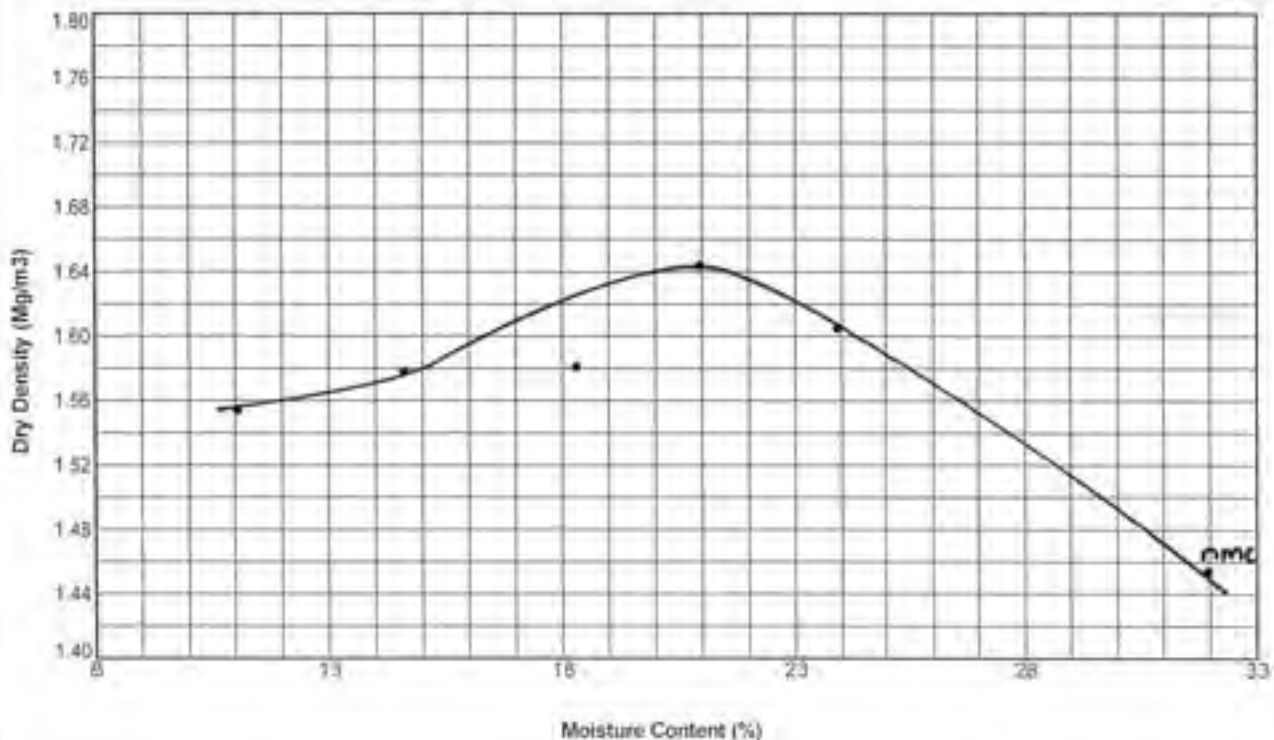
Maximum Dry Density (Mg/m³) = 1.64

Retained on 20mm Sieve (%) = 0.0

Date Tested = 29/09/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

msene

Name :-

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Date of issue :-

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Certificate No :-

COMP/4251/1

AEG Contract No :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, Brierley Industrial Estate, Fyfe Road, Consett, Co. Durham, DL23 1ND. Tel: 0191 387 4279 Fax: 0191 387 4713
Regional Office: LINCOS Business Development Centre, Exploration, Broomby, B'n'G, Tel: 01752 751465 Fax: 01752 751368

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377: Part 4: 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP163 Depth (m) :- 0.80

Sample Type & No :- B2

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 18.0

Particle Density (Assumed) = 1.70

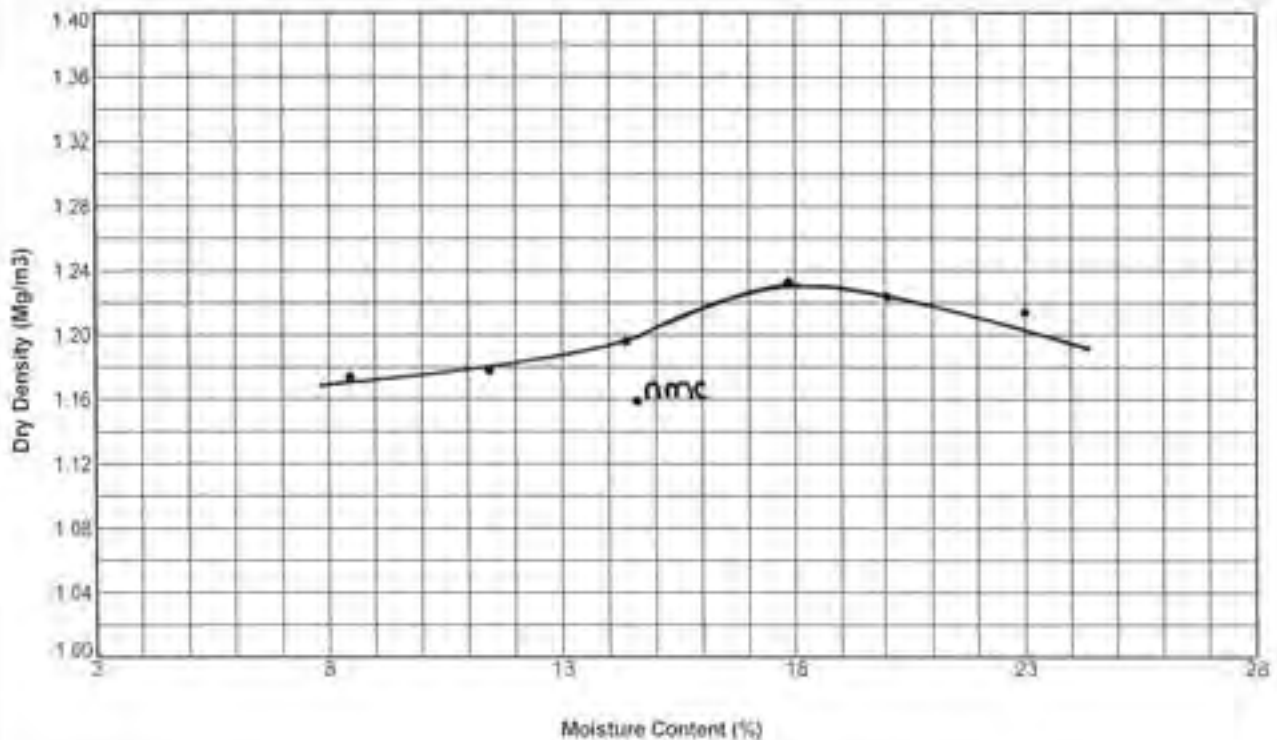
Maximum Dry Density (Mg/m³) = 1.23

Retained on 20mm Sieve (%) = 14.0

Date Tested = 05/10/2020

Retained on 37.5mm Sieve (%) = 1.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- **Prairie Site Ground Investigation Works**

Client :- **South Tees Development Corporation**



Signed - *msene*

Name :-

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Date of issue :- 02/11/2020

Certificate No :- 00MR/4251/1

AEG Contract No :- 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 22, South 2nd Industrial Estate, Millers Hill, Chesham, Bucks., UK. Bucks, MK36 9NS. Tel: 01494 381470 Fax: 01494 381471
 Registered Office: Unit 25, Science Development Centre, Kingswood, Bristol, UK. Tel: 01173 751100 Fax: 01173 751101

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP168 Depth (m) :- 1.60

Sample Type & No :- B7

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 24.0

Particle Density (Assumed) = 2.70

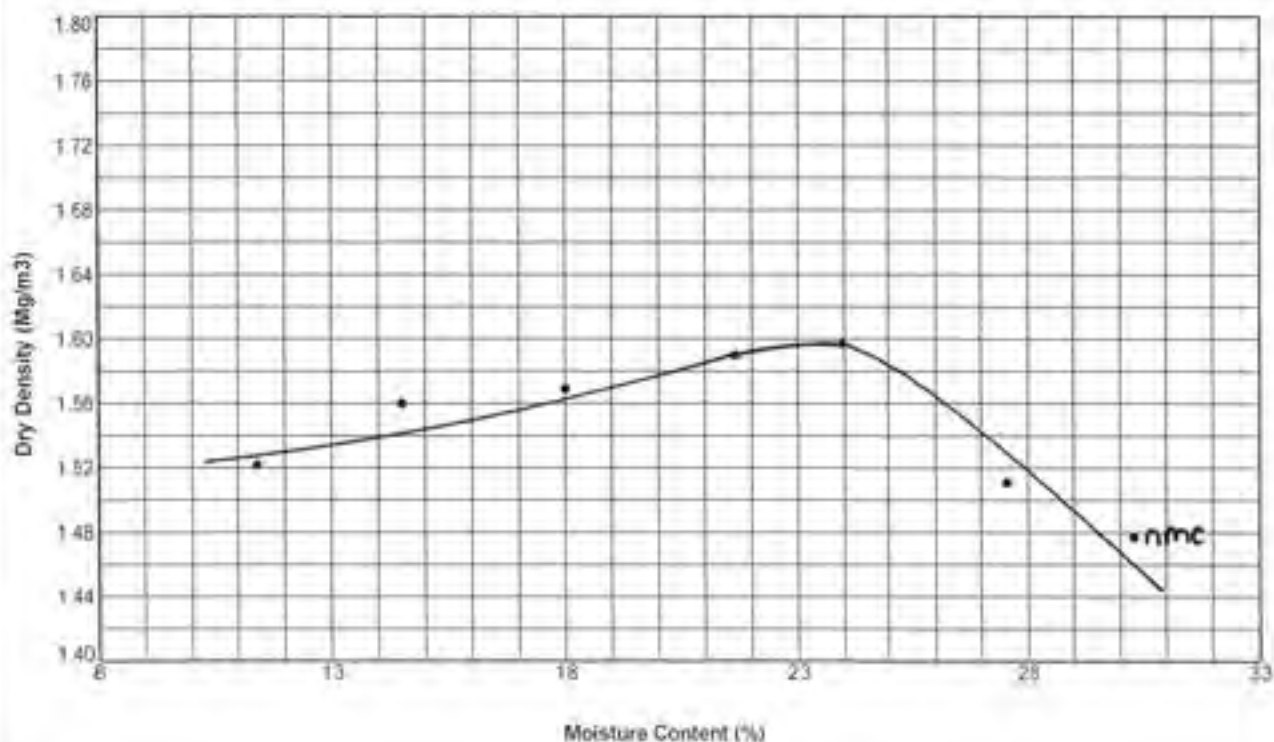
Maximum Dry Density (Mg/m³) = 1.60

Retained on 20mm Sieve (%) = 0.0

Date Tested = 01/10/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed -

msone

Name :-

msone

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Date of issue -

02/11/2020

Certificate No.:-

DOMP4251/1

AEG Contract No. :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, Belfry, Old Victoria Works, Water Park, Chorleywood, Co. Derby, DE42 2JG. Tel: 0115 967 4700 Fax: 0115 967 4711
 Regional Office: Unit 21, Riverside Development Centre, Eastern Wood, Blidworth, R61 9BL. Tel: 0115 755 2000 Fax: 0115 755 2001

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No - PRAIRIE_AUK_TP173 Depth (m) - 0.80

Sample Type & No - B2

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 18.0

Particle Density (Assumed) = 2.55

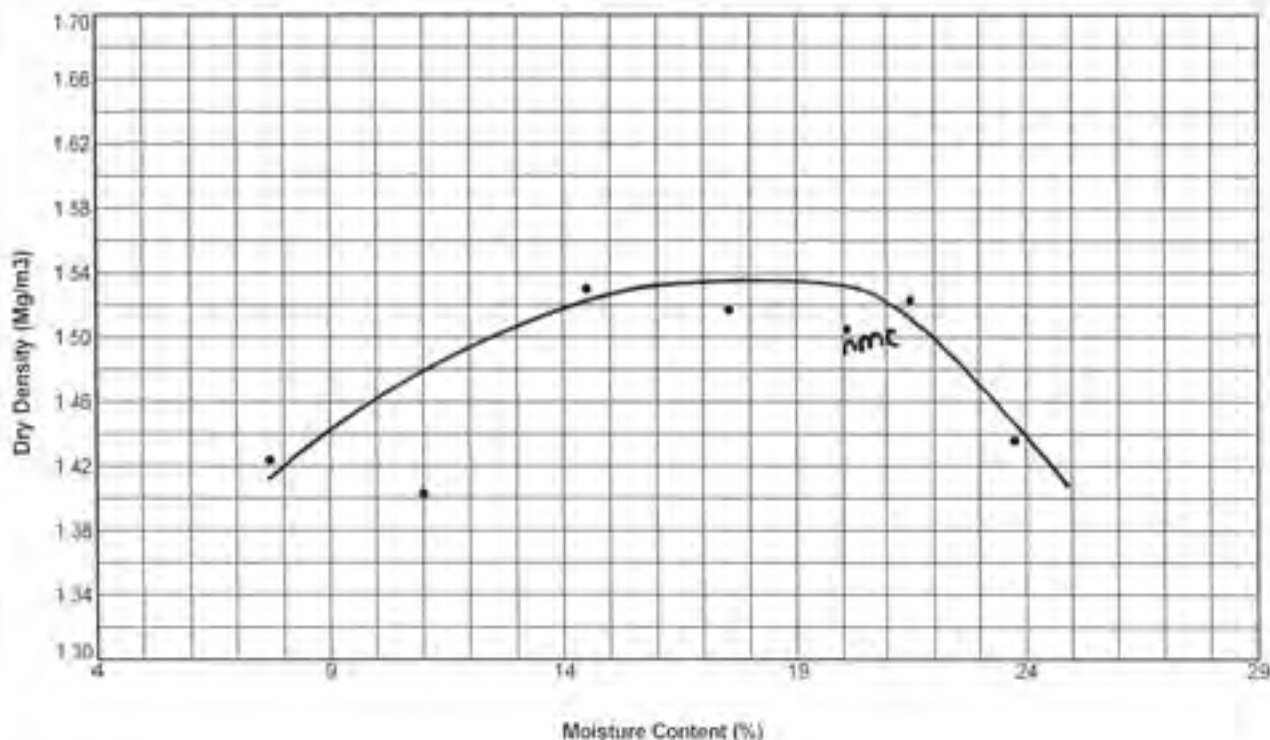
Maximum Dry Density (Mg/m³) = 1.53

Retained on 20mm Sieve (%) = 22.0

Date Tested = 30/09/2020

Retained on 37.5mm Sieve (%) = 8.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title -

Prairie Site Ground Investigation Works

Client -

South Tees Development Corporation



Signed - *msene*

Name -

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Date of issue -
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Certificate No -
COMP4251/1

AEG Contract No -
4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 21 Waterhill Industrial Estate, Park Road, Chesterfield, Derbyshire, S40 2NS. Tel: 01274 862408 Fax: 01274 862411
Regional Office: Unit 25, Business Development Centre, "Kingsmead" Southway, Barnsley, S70 2BQ. Tel: 01227 75336 Fax: 01227 719999

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP176 Depth (m) :- 2.00

Sample Type & No :- B5

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 18.0

Particle Density (Assumed) = 2.70

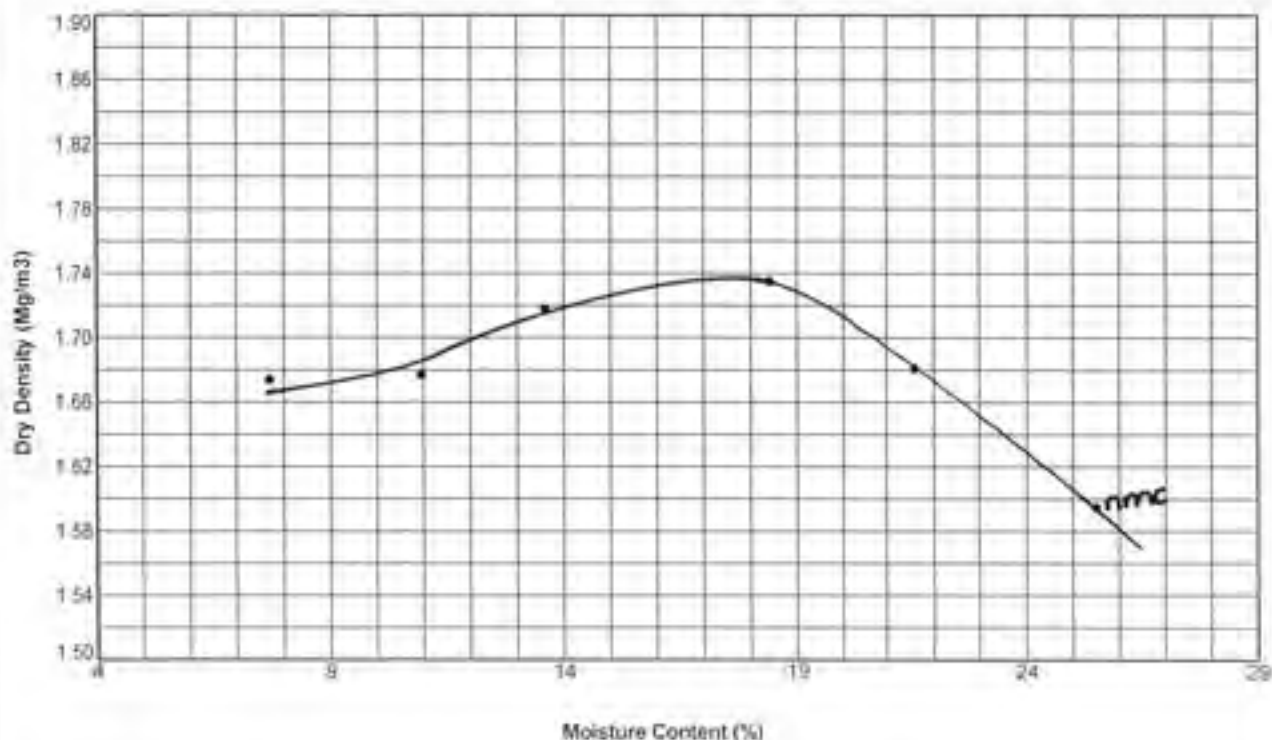
Maximum Dry Density (Mg/m³) = 1.74

Retained on 20mm Sieve (%) = 0.0

Date Tested = 29/09/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

msene

Name :-

[Signature]

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Date of Issue :-

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AEG Contract No :-

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25, Brook Industrial Estate, Park Road, Chester-le-Street, Co. Durham, DL3 5JF. Tel: 0191 457 4768 Fax: 0191 457 4115
Regional Office: Unit 25, Business Centre, Cumbrian Way, Macclesfield, Cheshire, SK11 7JF. Tel: 01625 765 500 Fax: 01625 751286

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP178 Depth (m) :- 0.60

Sample Type & No :- B2

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 21.7

Particle Density (Assumed) = 2.00

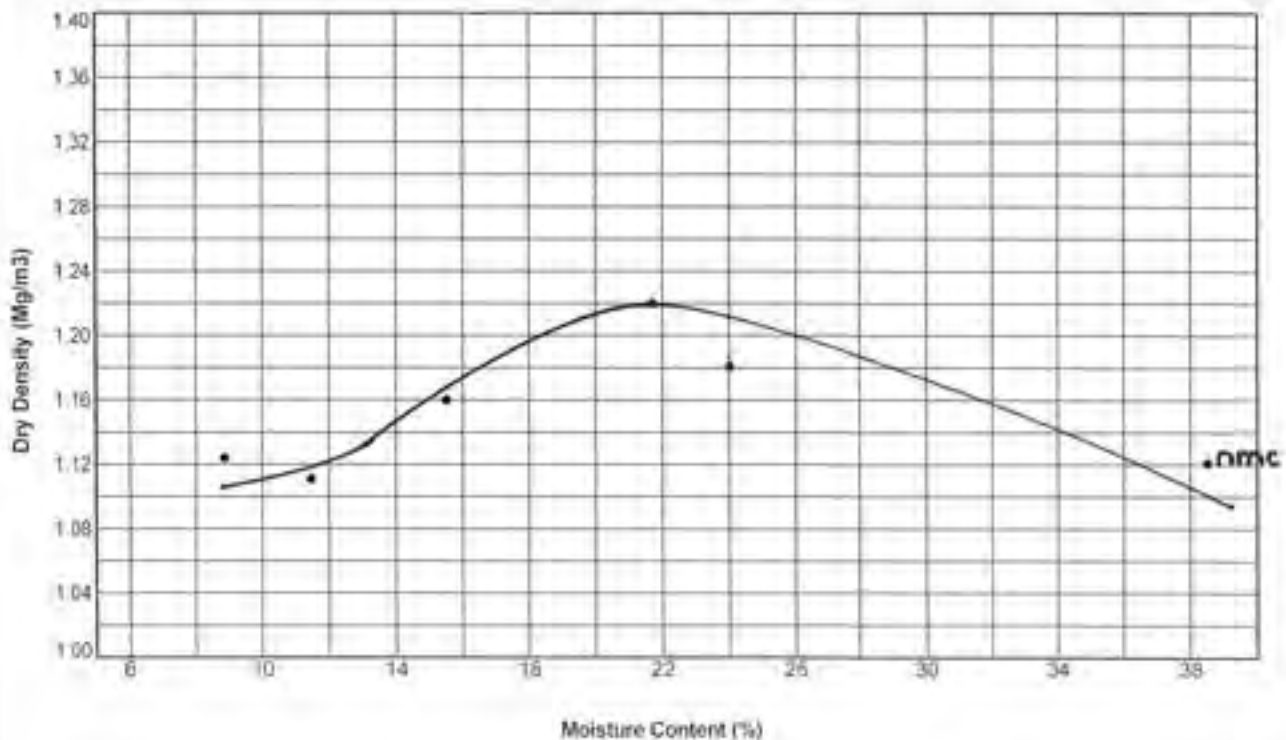
Maximum Dry Density (Mg/m³) = 1.22

Retained on 20mm Sieve (%) = 11.0

Date Tested = 05/10/2020

Retained on 37.5mm Sieve (%) = 5.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

msene

Name :-

[Signature]

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Date of issue :-

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Certificate No :-

COMB4251/1

AEG Contract No :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 21, West of Industrial Estate, Furness Road, Cockerham, Preston, Lancashire, PR1 0JG. Tel: 01773 600 610 Fax: 01773 601 411
Regional Office: 1, Moorfield Business Development Centre, "Kilnsey Wharf", Southtown, Barnsley, S70 2JF. Tel: 01225 721330 Fax: 01225 721331

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP178 Depth (m) :- 1.60

Sample Type & No :- B5

Test Method 2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 24.0

Particle Density (Assumed) = 2.40

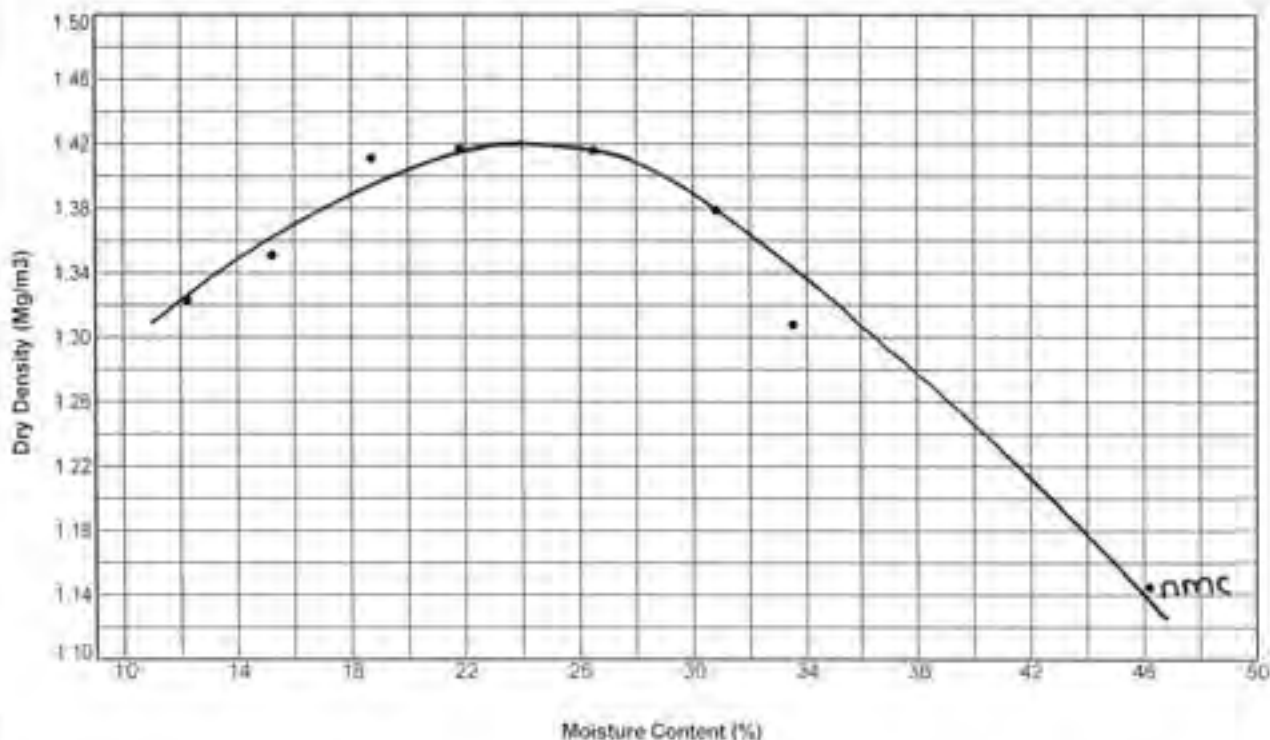
Maximum Dry Density (Mg/m³) = 1.42

Retained on 20mm Sieve (%) = 0.0

Date Tested = 30/09/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation



Signed - *msene*

Name :-

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AEG Contract No :- 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 23 (over) Commercial Centre, West Park, Stretton-le-Bone, Co. Durham, DH2 2PL - BA 0191 387 4210 Fax: 0191 387 4710
Regional Office: Unit 23, (over) Commercial Centre, West Park, Stretton-le-Bone, Co. Durham, DH2 2PL - Tel: 0122 725 381 Fax: 01223 176 888

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 Part 4 : 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP179 Depth (m) :- 0.40

Sample Type & No :- B2

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 16.0

Particle Density (Assumed) = 2.05

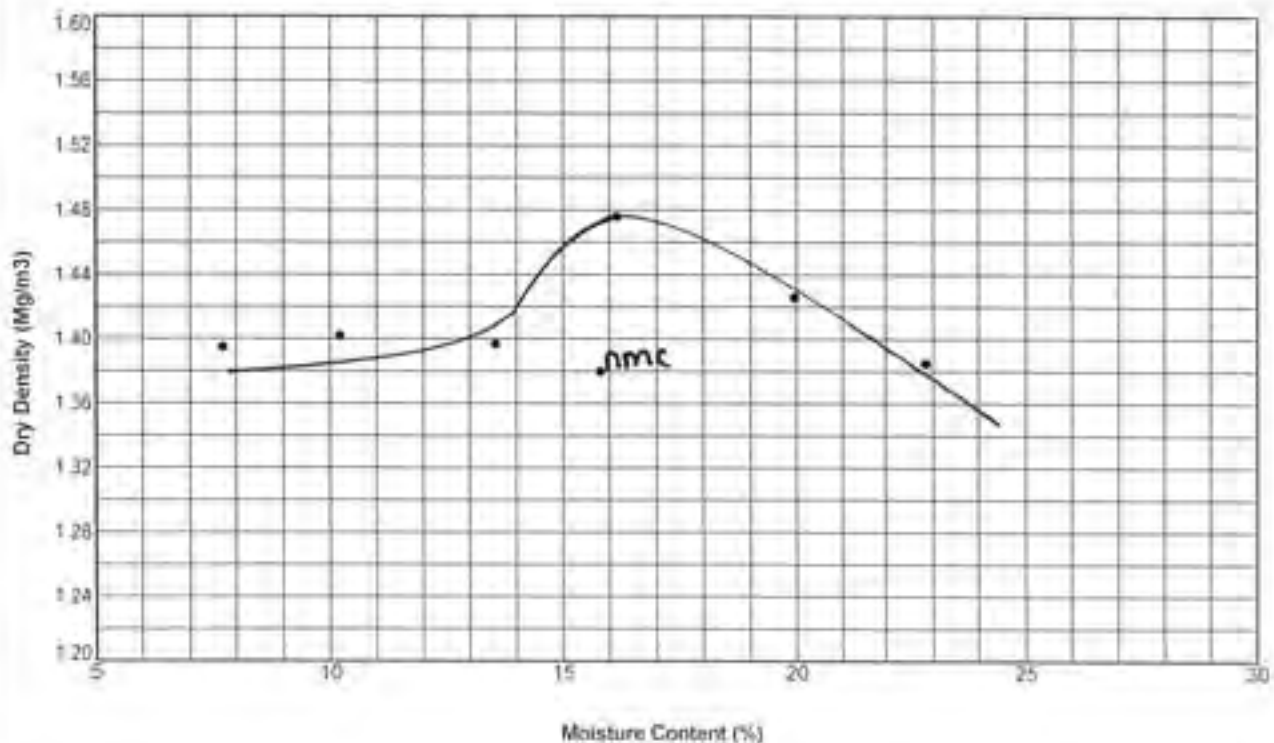
Maximum Dry Density (Mg/m³) = 1.48

Retained on 20mm Sieve (%) = 19.0

Date Tested = 30/09/2020

Retained on 37.5mm Sieve (%) = 10.0

Remarks ::



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :- *msene*

Name :-

Msene

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Date of issue :-
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COMP/4251/1

AEG Contract No :-
4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

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Regional Office: Unit 25, Stannard Development Centre, "Kings Wood", Heslerton, BA1 5LQ. Tel: 01753 371341 Fax: 01753 371342

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 - Part 4 : 1990

Specimen Identification

Exploratory Hole No - PRAIRIE_AUK_TP189 Depth (m) - 1.50

Sample Type & No - B4

Test Method 2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 21.0

Particle Density (Assumed) = 2.65

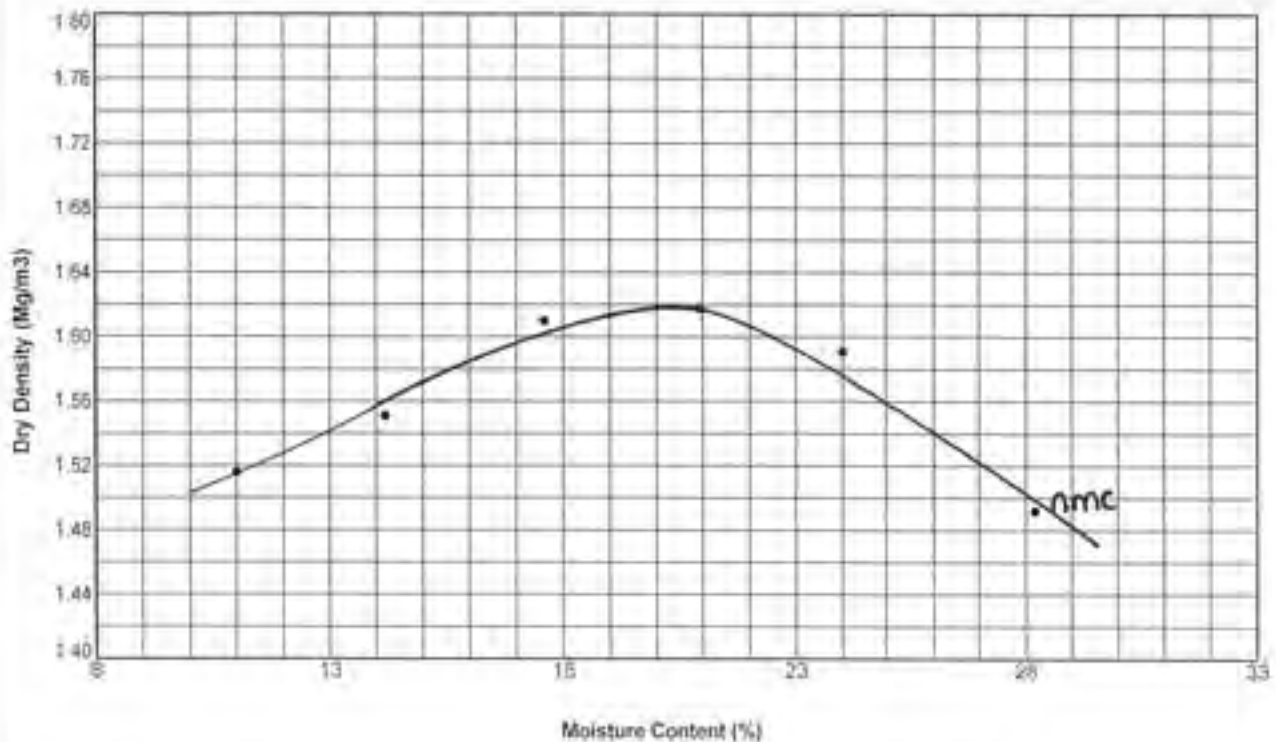
Maximum Dry Density (Mg/m³) = 1.62

Retained on 20mm Sieve (%) = 0.0

Date Tested = 30/09/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title - Prairie Site Ground Investigation Works

Client - South Tees Development Corporation



Signed - *mserle*

Name - *M. Serle*

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Date of issue - 02/11/2020

Certificate No - COMP/4251/1

AEG Contract No - 4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 21, The Old School House, High Road, Chesham, Bucks., UK. Dunstable: (01462) 430000. Tel: 0117 327 4700 Fax: 0117 327 4710
Regional Offices: Unit 21, The Old School House, High Road, Chesham, Bucks., UK. Tel: 0117 327 4700 Fax: 0117 327 4710

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 Part 4: 1990

Specimen Identification

Exploratory Hole No :- PRAIRIE_AUK_TP189 Depth (m) :- 2.90

Sample Type & No :- B6

Test Method

2.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = 21.5

Particle Density (Assumed) = 2.70

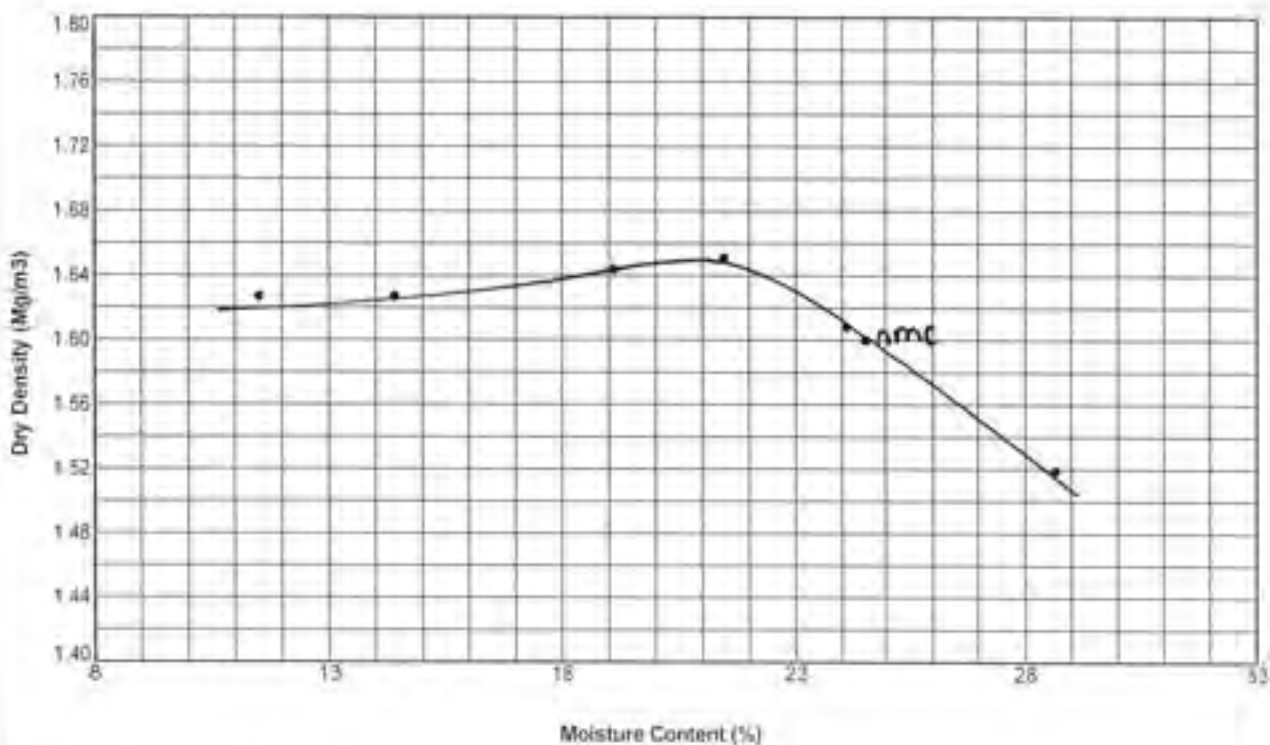
Maximum Dry Density (Mg/m³) = 1.65

Retained on 20mm Sieve (%) = 0.0

Date Tested = 30/09/2020

Retained on 37.5mm Sieve (%) = 0.0

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :

msene

Name :-

msene

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Date of Issue :-

02/11/2020

Certificate No

COMPM251/1

AEG Contract No :-

4251



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office Unit 25, South Quay Business Park, South Quay, South Shields, Co. Durham, County, NE3 2JF. Tel: 0191 261 8111
Regional Office Unit 25, Business Development Centre, Kilmarnock, Ayrshire, PA1 5GJ. Tel: 01812 524 888 Fax: 01812 524 889

ATTEMPTED AND ABORTED TESTING

Exploratory Hole No.	Sample Depth (m)	Sample ID	Test Type	Retained on 20mm (%)	Retained on 37.5mm (%)	Remarks
PRAIRIE_AJK_TP109	0.90	B4	2.5kg Compaction	55.0	45.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP110	1.00	B2	2.5kg Compaction	29.0	15.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP111	1.00	B5	2.5kg Compaction	48.0	37.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP113	1.80	B6	2.5kg Compaction	86.0	40.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP114	0.40	B4	2.5kg Compaction	23.0	12.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP117	2.00	B5	2.5kg Compaction	65.0	39.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP132	2.00	B6	2.5kg Compaction	57.0	37.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP137	1.00	B4	2.5kg Compaction	38.0	6.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP155A	0.70	B4	2.5kg Compaction	82.0	81.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP164	1.80	B5	4.5kg Compaction	64.0	51.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP169	0.80	B2	4.5kg Compaction	25.0	20.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP172	0.60	B2	2.5kg Compaction	97.0	96.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP177	1.80	B7	2.5kg Compaction	88.0	97.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP181	0.50	B2	2.5kg Compaction	25.0	16.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AJK_TP188	0.60	B2	2.5kg Compaction	39.0	8.0	Test Unsuitable due to excessive coarse material.

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
---	--

	Signed :- <i>[Signature]</i>		Page 1 of 1
	Date of Issue :- 03/11/2020	Certificate No :- USCR/M251/F	AEIG Contract No :- 4251

Determination of California Bearing Ratio



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Head Office: Unit 21 South Gate Industrial Estate, Priory Way, Chorleywood, Essex, Dunmow, CO9 2SD. Tel: 01992 387 438 Fax: 01992 387 439
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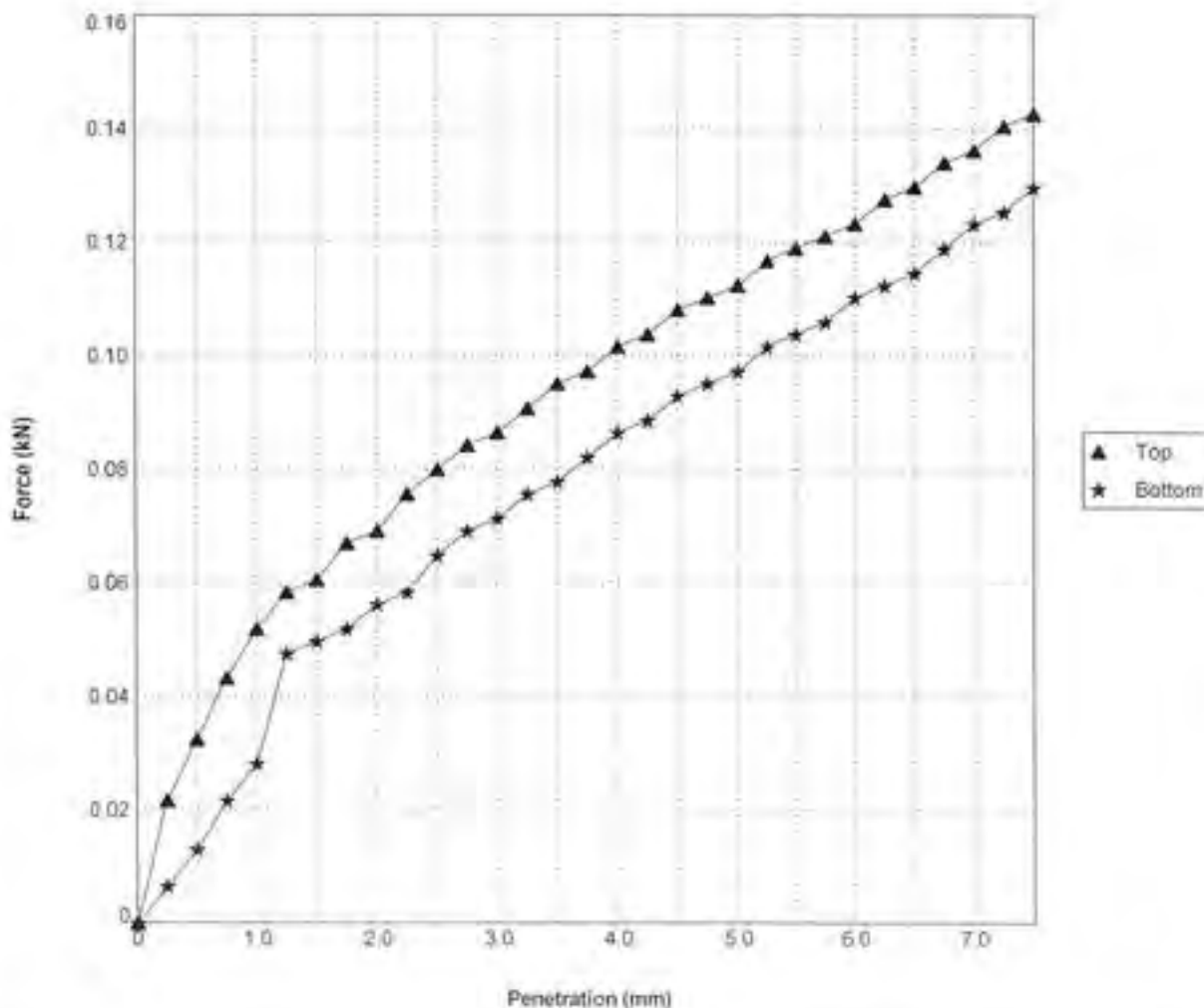
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 - Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_BH107** Sample No.- **B5**

Depth (m)- **4.00**

"As Received" Moisture Content (%) :	27.4	Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 27.1 / Bottom 27.7
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	1.96
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.54
Date Tested :	14/07/2020	CBR Value (%) :	Top 0.6 / Bottom 0.5
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- **Prairie Site Ground Investigation Works**

Client :- **South Tees Development Corporation**



Signed :- *msone*

Name :- *M. BELKIRK*

Page 1 of 1

Date of issue :- **31.07.2020**

Certificate No. :- **CBR/4251/PRAIRIE_AUK_BH107/B5/4 001**

AEG Contract No. :- **4251**



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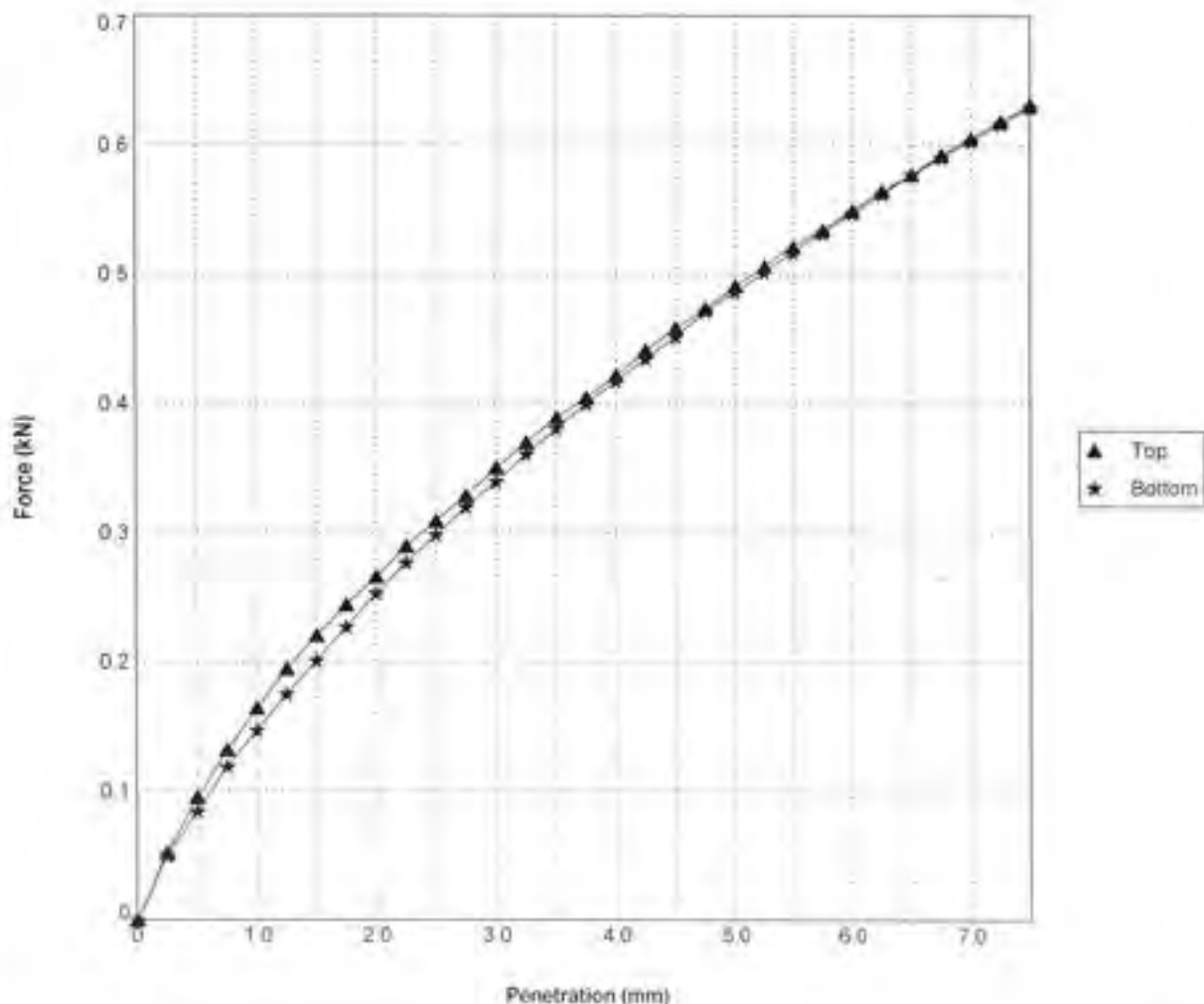
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 - Part 4 - 1990 and Part 2 - Clause 3.2 - 1990

Exploratory Hole No. - PRAIRIE_AUK_BH109 Sample No. - B4

Depth (m) - 0.50

"As Received" Moisture Content (%) :	23.8	Surcharge (Kg) :	6
Retained on 20mm (%) :	1.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 23.3 / Bottom 24.2
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	2.00
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.61
Date Tested :	14/07/2020	CBR Value (%) :	Top 2.5 / Bottom 2.4
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation



Signed :- *msone*

Name :- M. J. CLARKE

Page 1 of 1

Date of issue :- 31/07/2020

Certificate No. :- CBR/4351/PRAIRIE_AUK_BH109/B4/0.50/1

AEG Contract No. :- 4251



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 Regional Office: Unit 21, Business Development Centre, Eastern Wharf, Gosport, H01 5BL, Tel: 01703 735 305 Fax: 01703 735 300

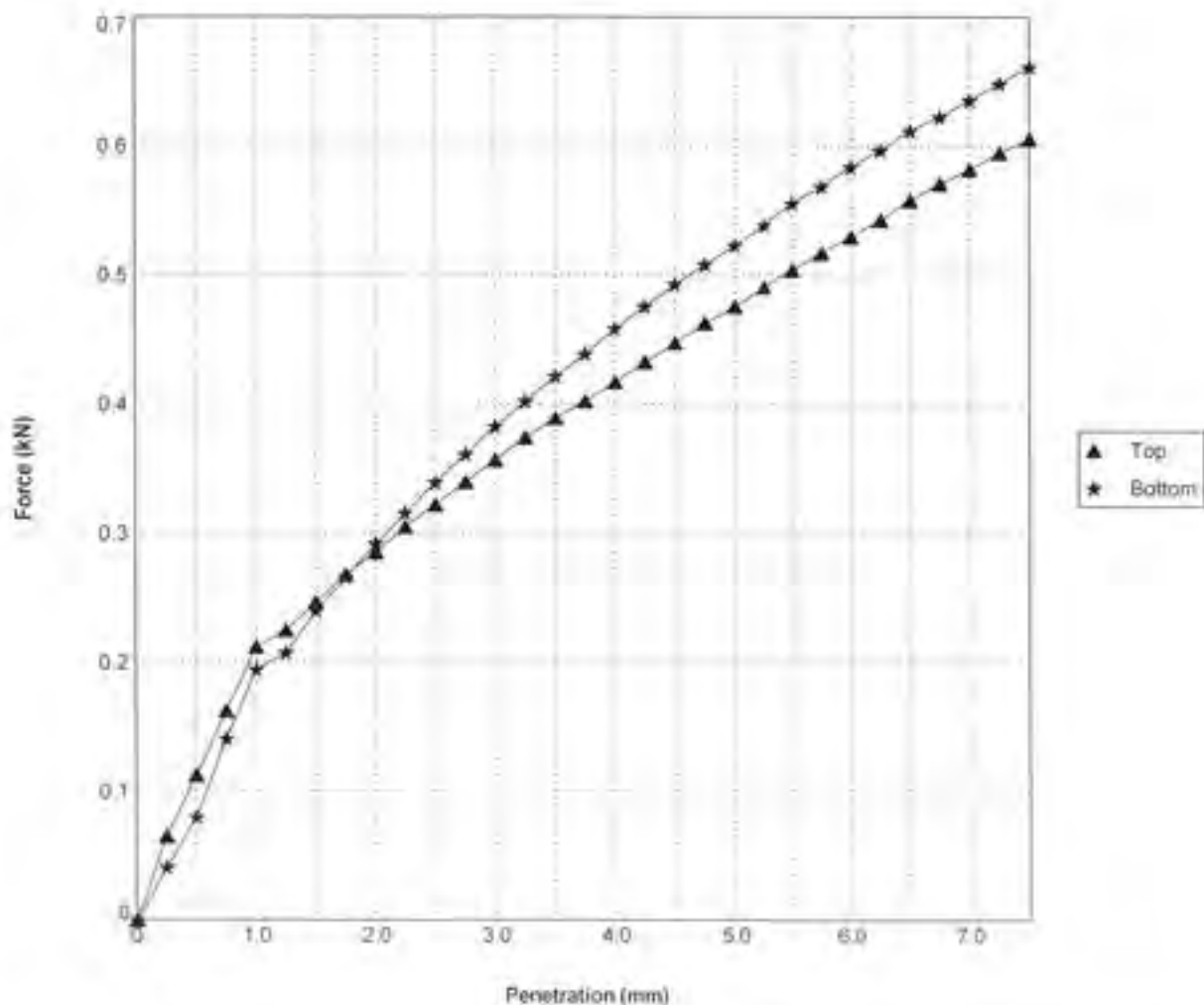
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_BH109** Sample No - **B10**

Depth (m) - **2.00**

"As Received" Moisture Content (%) :	24.5	Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 24.9 / Bottom 24.0
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	2.00
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.60
Date Tested :	14/07/2020	CBR Value (%) :	Top 2.4 / Bottom 2.6
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title - **Prairie Site Ground Investigation Works**

Client - **South Tees Development Corporation**



Signed - *msene*

Name - *M. SENE*

Page 1 of 1

Date of issue - **31/07/2020**

Certificate No - **CBR/4251/PRAIRIE_AUK_BH109/B10/2.00/1**

AEG Contract No - **4251**



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Regional Office: Unit 20, Business Development Centre, Station Street, Buxton, Derbyshire, SK15 1BS, UK. Tel: 01752 755300 Fax: 01752 755300

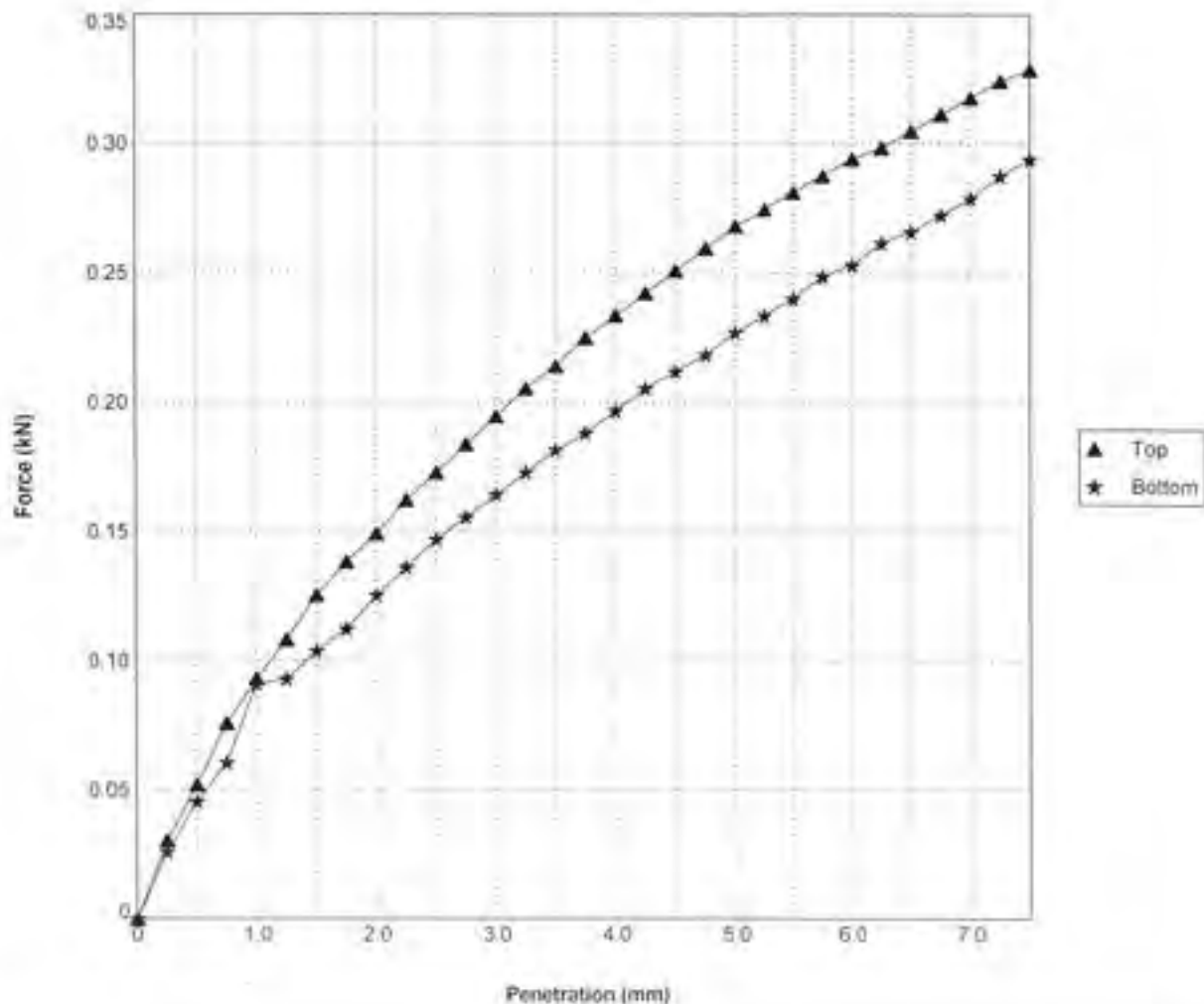
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 - Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_BH110** Sample No.- **B10**

Depth (m)- **6.50**

"As Received" Moisture Content (%) :	25.9	Surcharge (Kg) :	5
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 25.6 / Bottom 26.2
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	1.97
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.57
Date Tested :	14/07/2020	CBR Value (%) :	Top 1.3 / Bottom 1.1
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title - **Prairie Site Ground Investigation Works**

Client - **South Tees Development Corporation**



Signed - *msone*

Name - *M SOLARI*

Page 1 of 1

Date of issue - **31/07/2020**

Certificate No - **CBR4251/PRAIRIE_AUK_BH110/B10-5.50/1**

AEG Contract No. - **4251**



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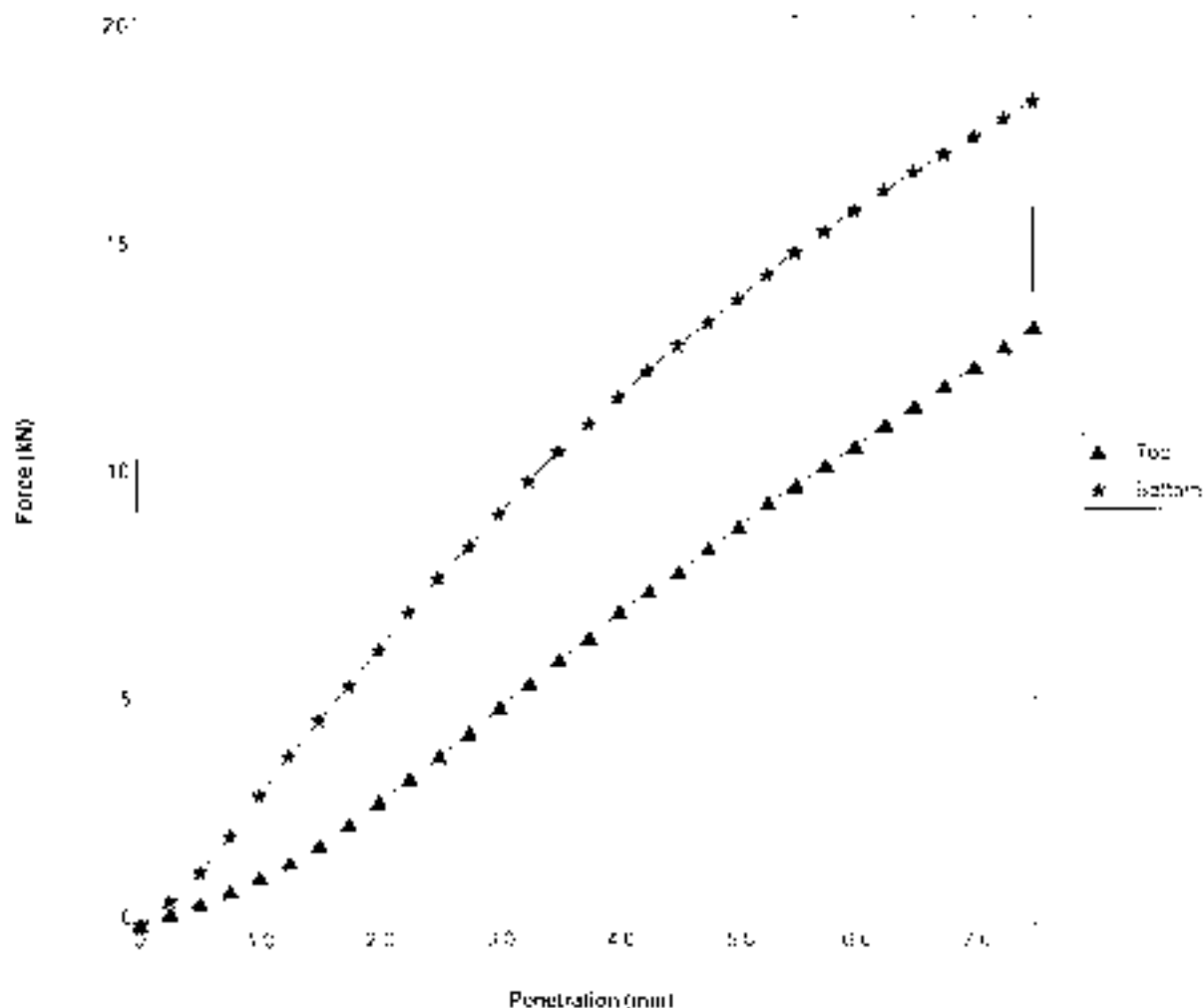
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No - **PRAIRIE_AUK_TP101** Sample No - **B4**

Depth (m) - **0.90**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	32.0	Seating Load (N)	Top 250 / Bottom 250
Corrector Needed	No	Test Moisture Content (%)	Top 17 / Bottom 16
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.94
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.67
Date Tested	01/10/2020	CBR Value (%)	Top 44 / Bottom 69
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Ref: _____

Prairie Site Ground Investigation Works

Client:

South Tees Development Corporation



Figure

Date Issued

msone

01/10/2020

Name:

Test Method:

BS 1377:1990 Part 4:1990 and Part 2:1990 Clause 3.2:1990

Page 1 of 1

Allied Com No:

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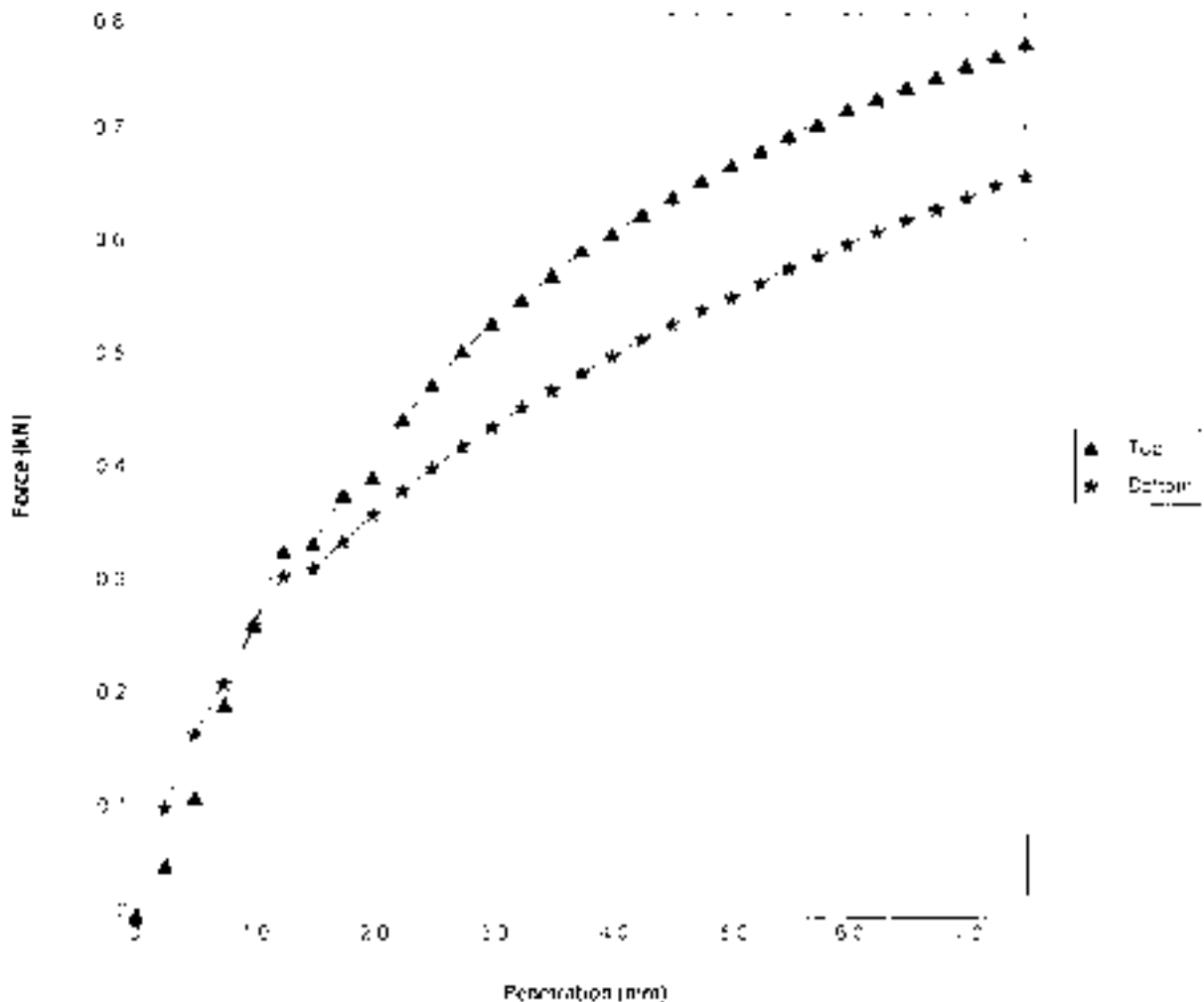
Registered in England No. 02032926, Registered Office: 100, Victoria Road, South Shields, Tyne and Wear, NE33 1JG, United Kingdom

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.3: 1990

Exploratory Hole No - **PRAIRIE_AUK_TP101** Sample No - **B11** Depth (m) - **3.00**

"As Received" Moisture Content (%)		Surcharge (kg)	8
Retained on 20mm (%)	0.2	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 28 / Bottom 28
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.95
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.52
Date Tested	30/09/2020	CBR Value (%)	Top 3.6 / Bottom 3.0
Preparation Method	2.5kg Compaction		
Remarks			



For details of all samples please refer to the Laboratory Sample Description Sheet

Contract Title

Prairie Site Ground Investigation Works

South Tees Development Corporation



Signature: *[Handwritten Signature]*
Date of Issue: 22/10/2020

Name: _____
Certificate No: _____
CBR 4251 PRAIRIE_AUK_TP101R113011

Job No: _____
AEG Certificate No: **4251**



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Regional Office: Unit 20, Business Development Centre, Epsom Road, Slough, Bucks, UK, Tel: 01753 535300 Fax: 01753 735300

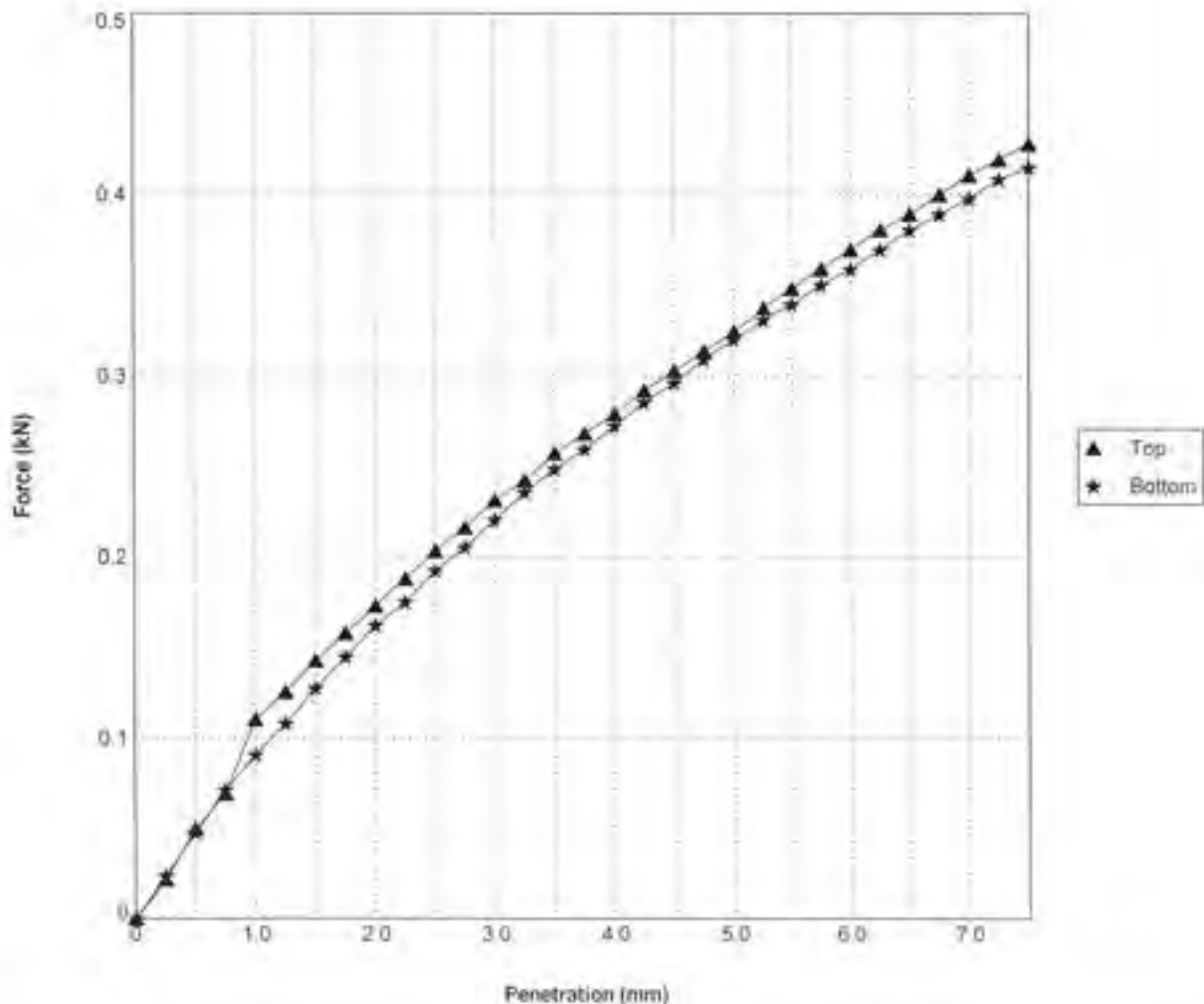
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377: Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No. - **PRAIRIE_AUK_TP102** Sample No. - **B8**

Depth (m) - **2.00**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	5.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 22 / Bottom 23
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	2.02
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.65
Date Tested :	19/10/2020	CBR Value (%) :	Top 1.6 / Bottom 1.6
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- **Prairie Site Ground Investigation Works**

Client :- **South Tees Development Corporation**



Signed :- *mserp*

Name :- *M. Serp*

Page 1 of 1

Date of issue :- **30/10/2020**

Certificate No. :- **CBR/4251/PRAIRIE_AUK_TP102/B8/2.00/1**

AEG Contract No. :- **4251**

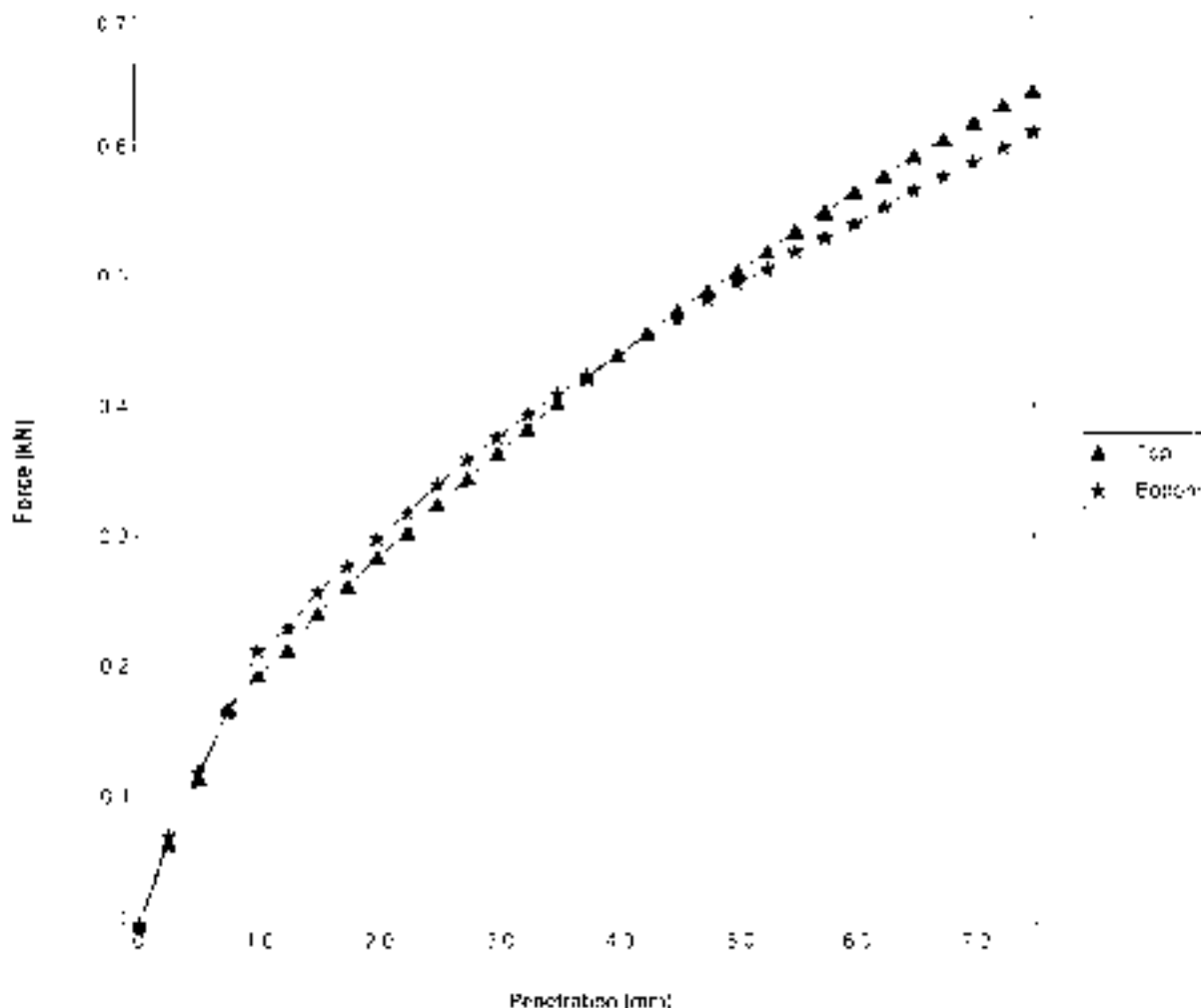


DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 7: Clause 3.2: 1990

Exploratory Hole No - **PRAIRIE_AUK_TP105** Sample No - **B5** Depth (m) - **2.00**

*As Received Moisture Content (%)		Surcharge (Kg)	5
Retained on 20mm (%)	2.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 27 / Bottom 27
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.95
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.53
Date Tested	30/09/2020	CBR Value (%)	Top 2.5 / Bottom 2.6
Preparation Method	2.5kg Compaction		
Remarks			



For coverage of sample please refer to the Laboratory Sample Description Sheet

Contract Title

Prairie Site Ground Investigation Works

Client

South Tees Development Corporation



Site No: **msaw**
 Date of Issue: **30/09/2020**

Name

Page No. 1

Client Reference

ASD Reference

CPR 4-102 PRAIRIE_AUK_TP105 B5-20

4251



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100, Garsington Road, Oxford, OX4 2DQ, UK. Tel: 01865 206200. Fax: 01865 206201. Email: sales@allied-geotech.co.uk

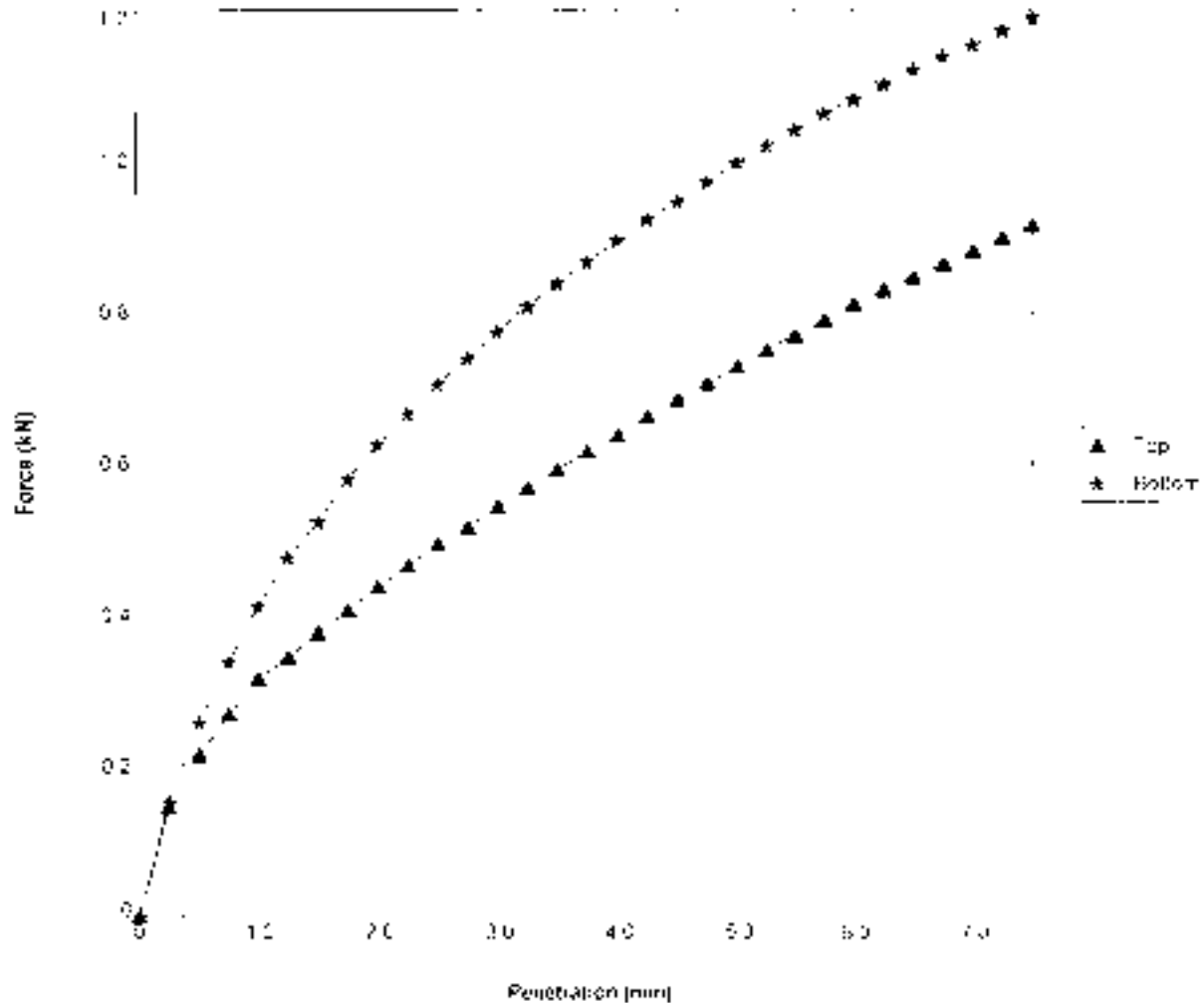
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No - PRAIRIE_AUK_TP107 Sample No - B4

Depth (m) - 1.00

As Received Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	5.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 25 / Bottom 24
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	2.00
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.51
Date Tested	30/09/2020	CBR Value (%)	Top 3.7 / Bottom 5.3
Preparation Method	2.5kg Compaction		
Remarks			



For detailed point of sale please refer to the Laboratory Sample Description Sheet

Contract Ref:

Prairie Site Ground Investigation Works

Client:

South Tees Development Corporation



Signed:

Date of Issue:

[Signature]

30/09/2020

Name:

Certificate No:

CEP-001 PRAIRIE_AUK_TP107 B4 (01)

Page 1 of 1

APN Contract No.:

4251



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Regional Office: Unit 10, Riverside Development Centre, Easton Wharf, Rutland, MK15 1BL. Tel: 01727 755 300 Fax: 01727 755 300

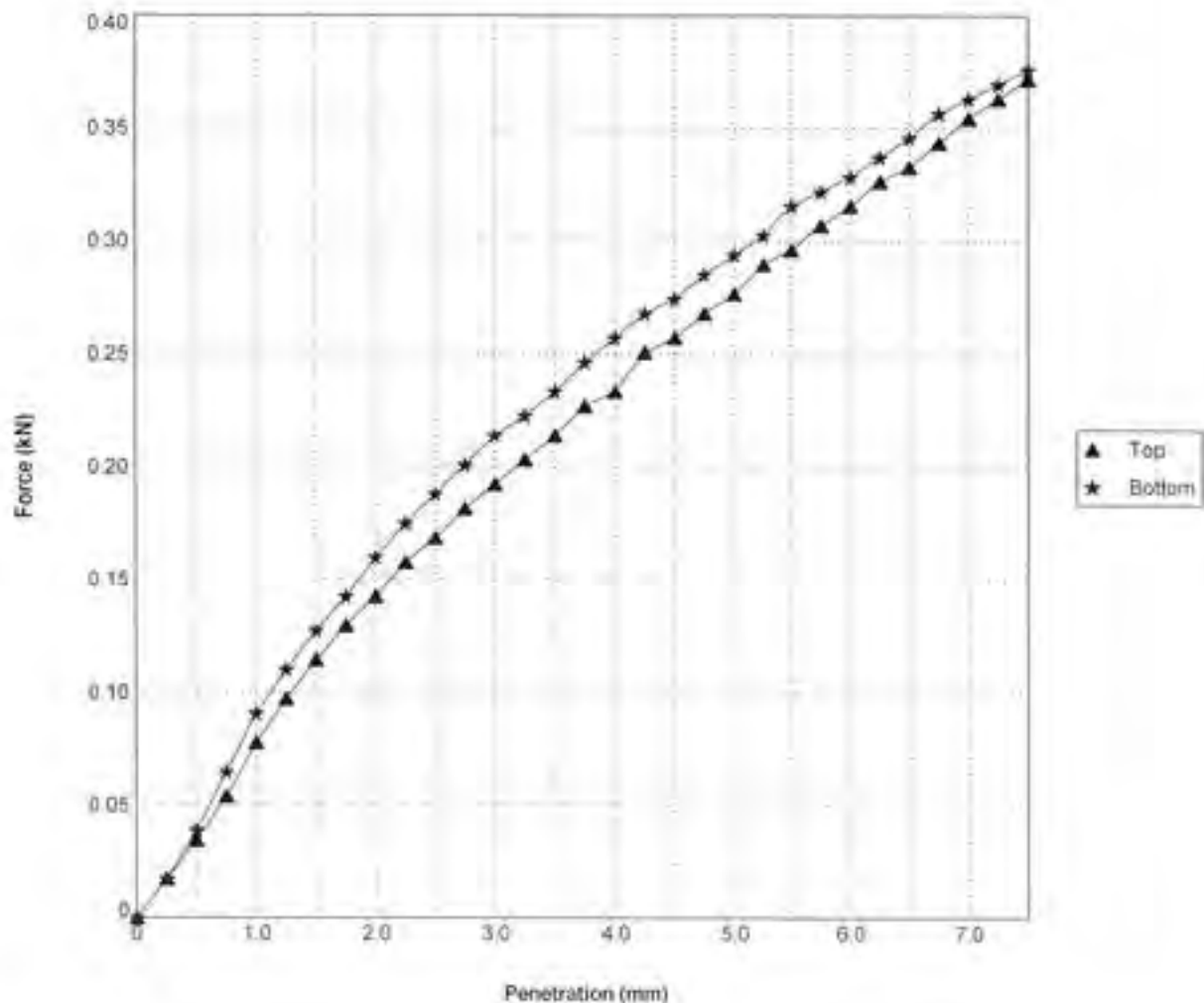
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP110** Sample No - **B8**

Depth (m) - **3.00**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 31 / Bottom 31
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	2.27
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.73
Date Tested :	16/10/2020	CBR Value (%) :	Top 1.4 / Bottom 1.5
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- **Prairie Site Ground Investigation Works**

Client :- **South Tees Development Corporation**



Signed - *msore*

Name - *msore*

Page 1 of 1

Date of issue - **30/10/2020**

Certificate No - **CBR/4251/PRAIRIE_AUK_TP110/B8/3 00/1**

AEG Contract No - **4251**



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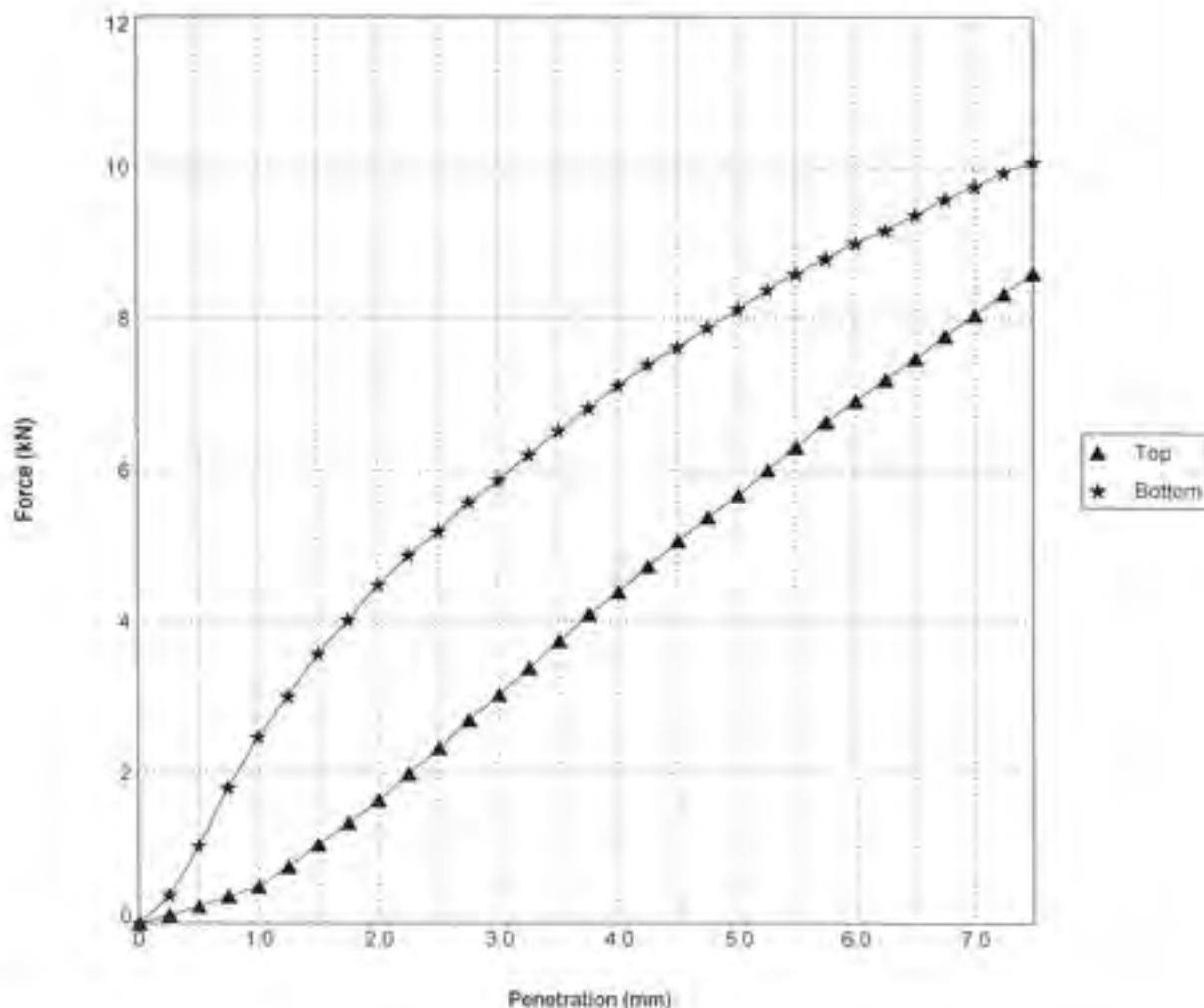
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No. - PRAIRIE_AUK_TP112 Sample No. - B5

Depth (m) - 1.70

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	28.0	Seating Load (N) :	Top 250 / Bottom 250
Correction Needed :	No	Test Moisture Content (%) :	Top 20 / Bottom 18
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	1.65
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.39
Date Tested :	19/10/2020	CBR Value (%) :	Top 28 / Bottom 41
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation



Signed :- *msore*

Name :-

Page 1 of 1

Date of issue :- 30/10/2020

Certificate No :- CBR/4251/PRAIRIE_AUK_TP112/B5/1.70/1

AEG Contract No :- 4251



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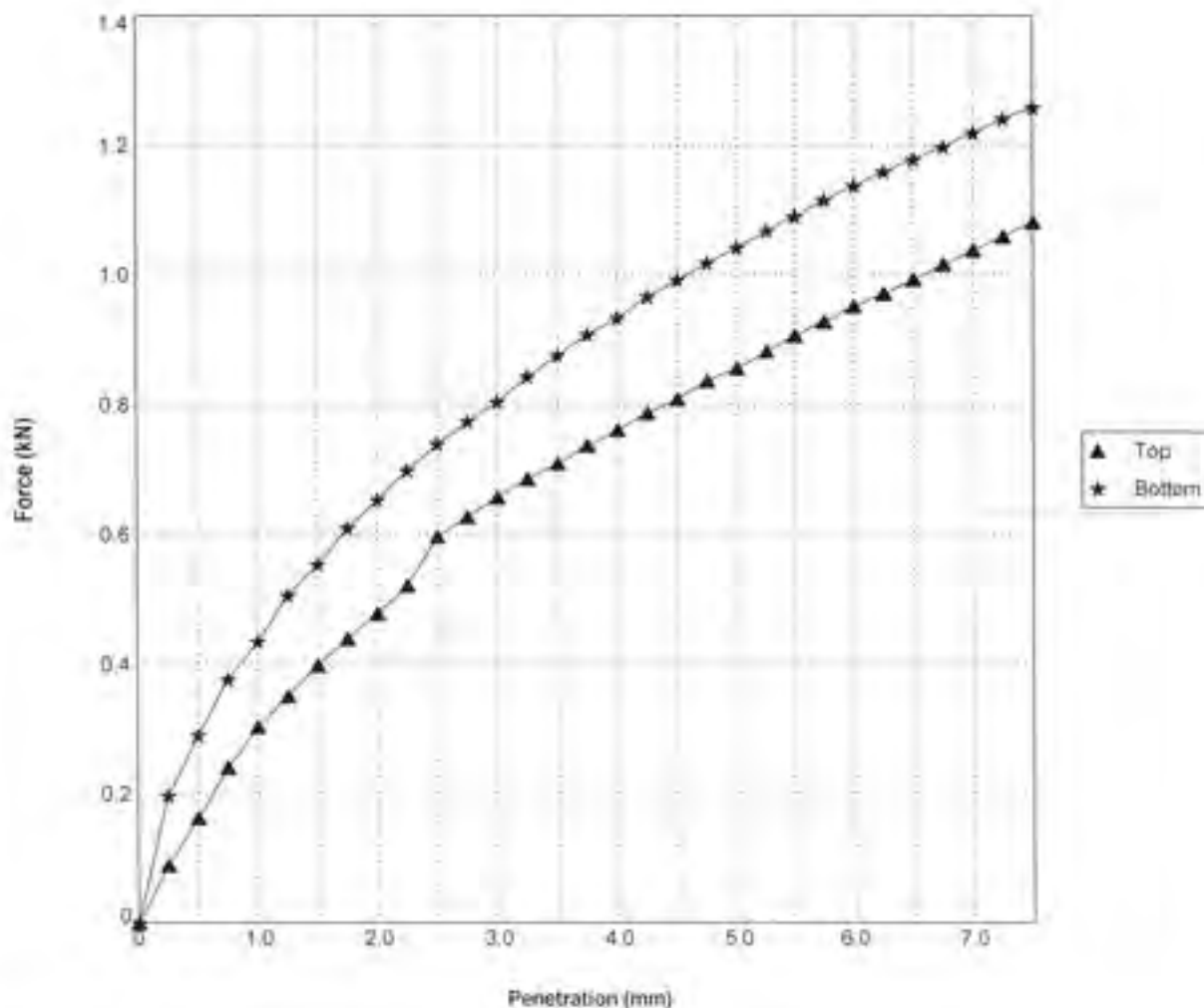
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No. - PRAIRIE_AUK_TP116 Sample No. - B8

Depth (m) - 2.50

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 50 / Bottom 50
Correction Needed :	No	Test Moisture Content (%) :	Top 24 / Bottom 24
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	1.98
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.60
Date Tested :	16/10/2020	CBR Value (%) :	Top 4.5 / Bottom 5.6
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- **Prairie Site Ground Investigation Works**

Client :- **South Tees Development Corporation**

Signed :- *msone*
Date of issue :- 30/10/2020

Name :-
Certificate No :- CBR/4251/PRAIRIE_AUK_TP116/B5/2 50/1

Page 1 of 1
AEG Contract No :- **4251**



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Regional Office: Unit 20, Business Development Centre, Eastern Wharf, Blakesburg, B81 5BL - Tel: 01773 735 300 Fax: 01773 733307

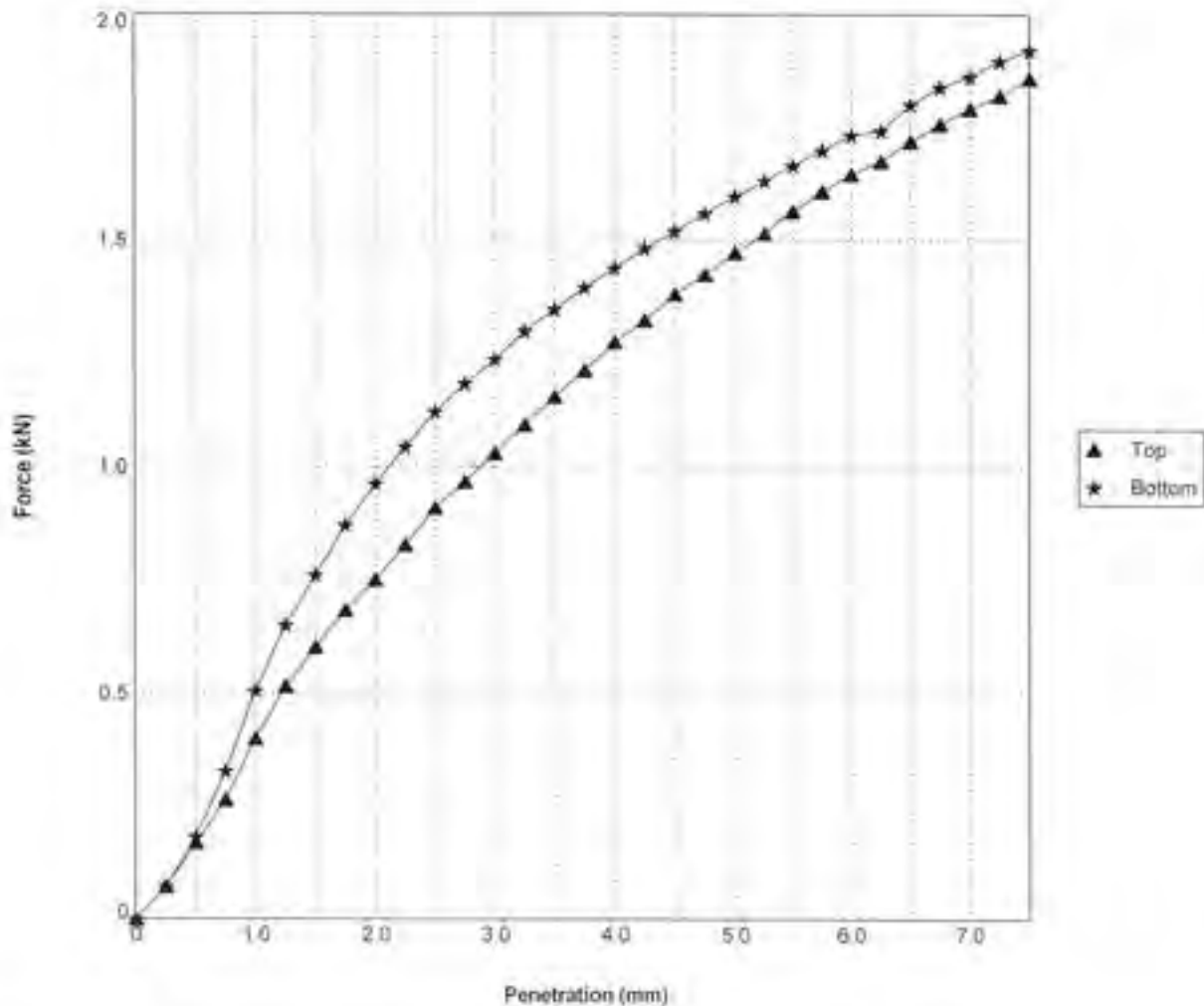
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No.- **PRAIRIE_AUK_TP116** Sample No.- **B10**

Depth (m)- **3.50**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	3.2	Seating Load (N) :	Top 50 / Bottom 50
Correction Needed :	No	Test Moisture Content (%) :	Top 17 / Bottom 17
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	2.12
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.81
Date Tested :	19/10/2020	CBR Value (%) :	Top 7.4 / Bottom 8.5
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
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	Signed :- <i>msero</i>	Name :-	Page 1 of 1	
	Date of issue :- 09/10/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_TP116/B10/3/501	AEG Contract No :- 4251	

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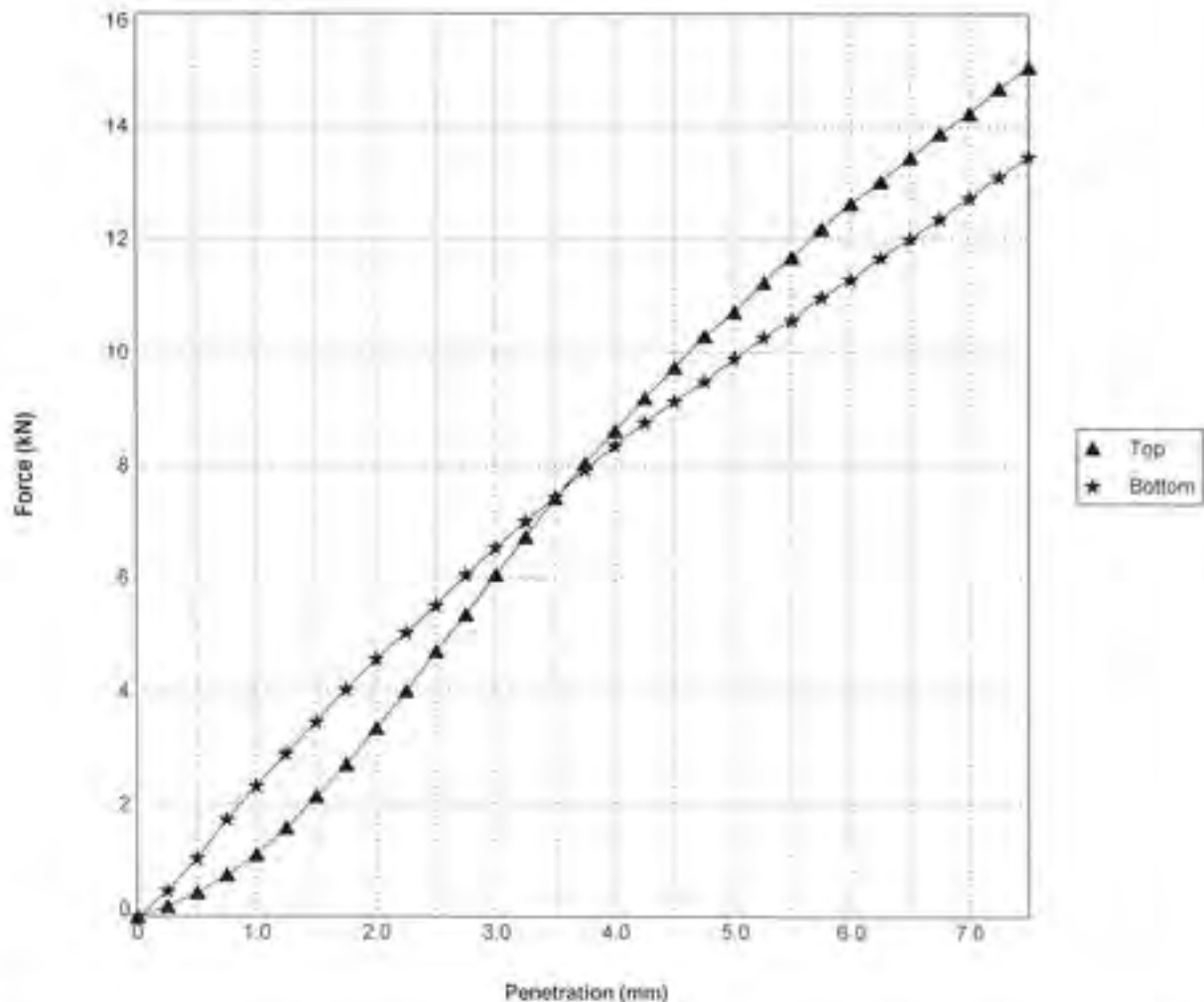
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 - Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No. - **PRAIRIE_AUK_TP119** Sample No. - **B5**

Depth (m) - **2.00**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	17.0	Seating Load (N) :	Top 250 / Bottom 250
Correction Needed :	No	Test Moisture Content (%) :	Top 11 / Bottom 12
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	1.90
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.71
Date Tested :	19/10/2020	CBR Value (%) :	Top 54 / Bottom 50
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- **Prairie Site Ground Investigation Works**

Client :- **South Tees Development Corporation**



Signed :- *msene*

Name :-

Page 1 of 1

Date of issue :-
30/10/2020

Certificate No. :-
CBR/4251/PRAIRIE_AUK_TP119/BS/2 00/1

AEG Contract No. :-
4251



1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Lion Works, 100, Victoria Road, Chester-le-Street, Co. Durham, DL2 2BG - Tel: 0191 357 4100 Fax: 0191 357 4101
Regional Office: Unit 20, Business Development Centre, Eamon Wharf, Blackburn, BB1 5BB - Tel: 01752 725 285 Fax: 01752 735 999

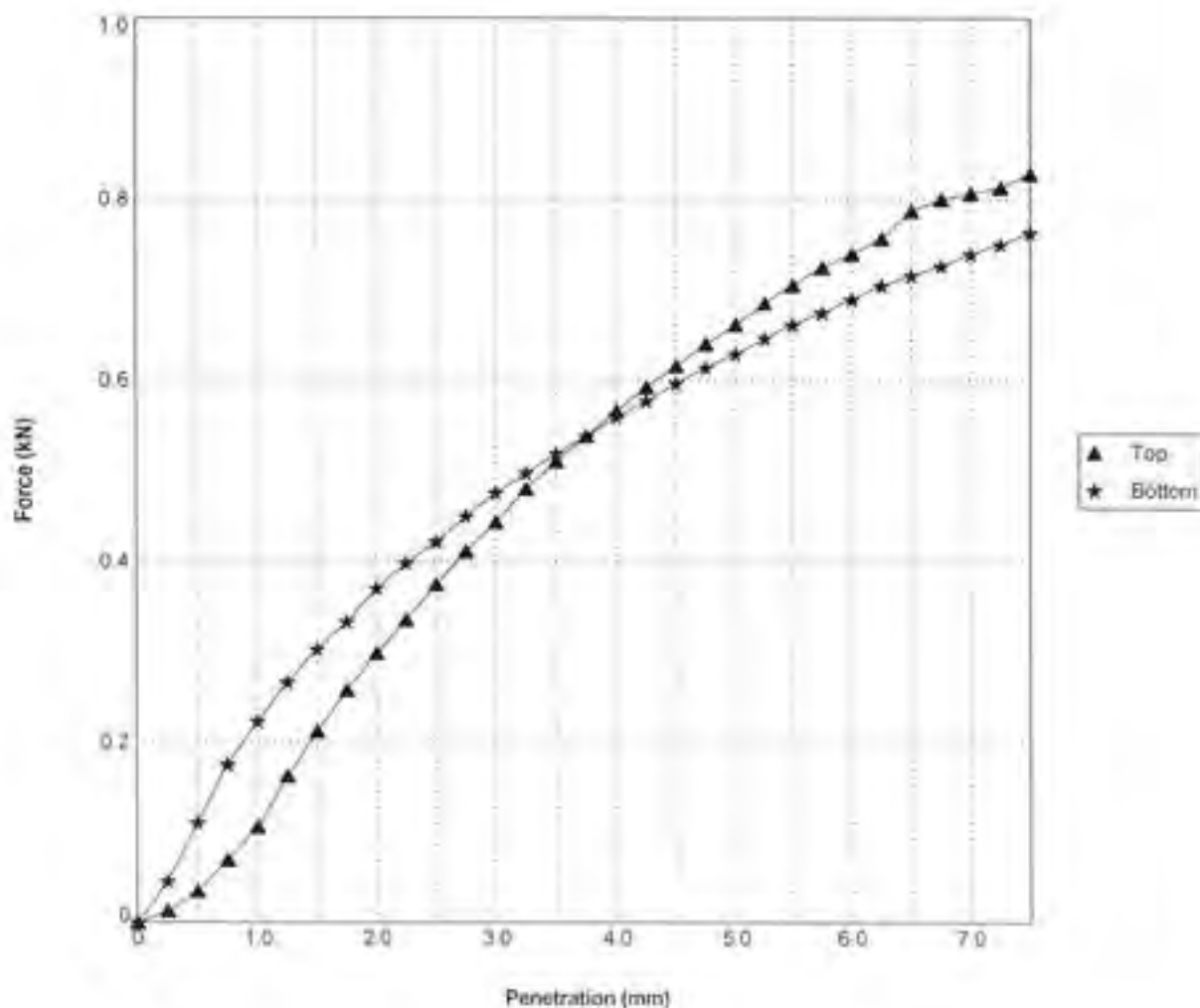
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_TP119** Sample No. - **B8**

Depth (m)- **3.00**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	Yes	Test Moisture Content (%) :	Top 28 / Bottom 29
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	1.93
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.50
Date Tested :	16/10/2020	CBR Value (%) :	Top 3.5 / Bottom 3.2
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- **Prairie Site Ground Investigation Works**

Client :- **South Tees Development Corporation**



Signed :- *msero*

Name :-

Page 1 of 1

Date of issue :- **30/10/2020**

Certificate No :- **CBR/4251/PRAIRIE_AUK_TP119/B8/3 00/1**

AEG Contract No. :- **4251**



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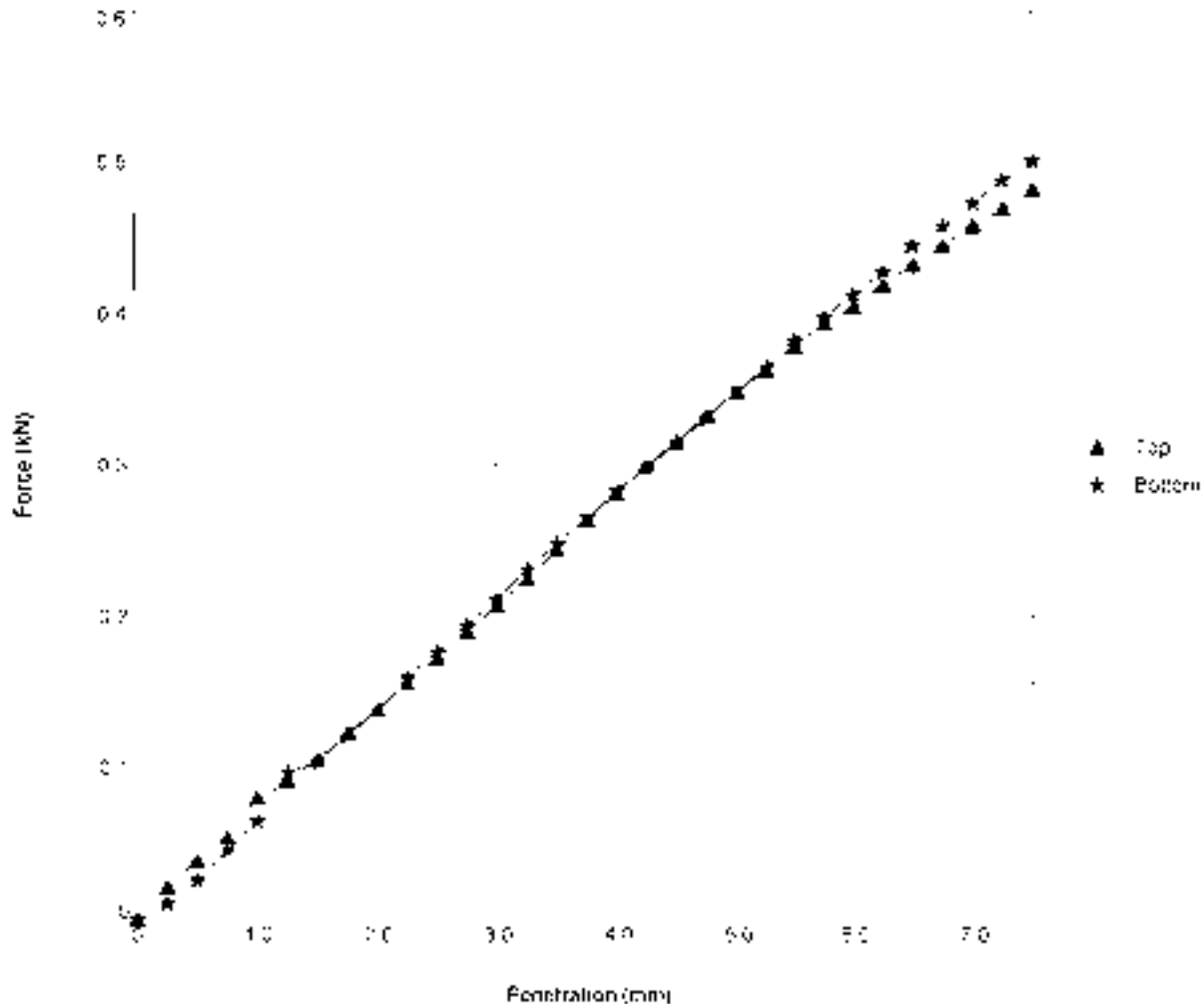
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1992

Exploratory Hole No - PRAIRIE_AUK_TP120A Sample No - 65

Depth (m) - 1.60

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 26 / Bottom 25
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.96
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.57
Date Tested	15/10/2020	CBR Value (%)	Top 1.7 / Bottom 1.5
Preparation Method	2.5kg Compaction		
Remarks			



For use only in the sample log, use hole log, the Laboratory Log and Description Sheet

Contract Title -

Prairie Site Ground Investigation Works

Client -

South Tees Development Corporation



Signed

[Handwritten signature]

Name

Page 1 of 1

Date of Issue -

15/10/2020

Method of Issue -

CBR 401 PRAIRIE_AUK_TP120A B11 1514

APR Control No

4251



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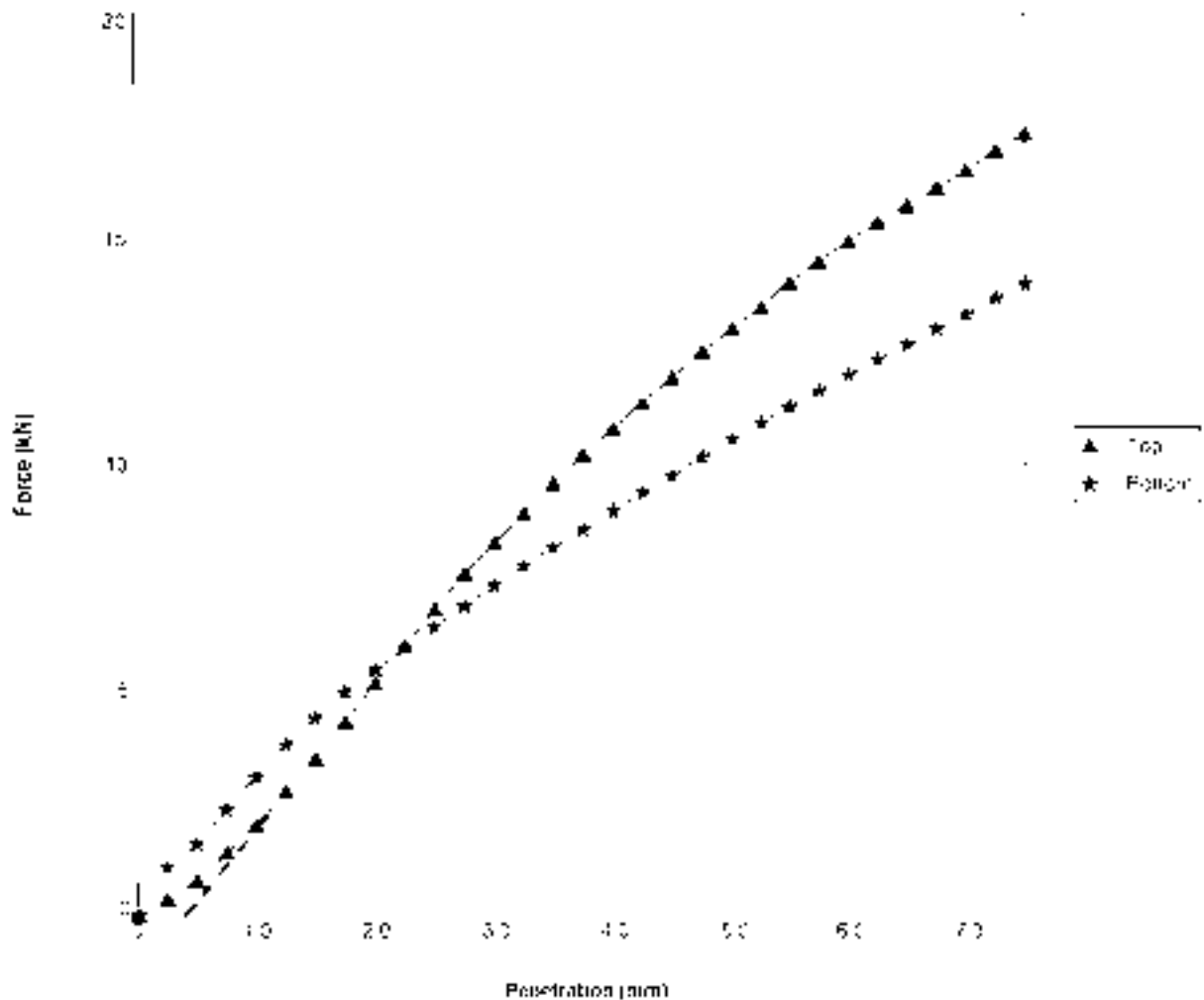
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BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No - **PRAIRIE_AUK_TP121** Sample No - **B2** Depth (m) - **0.80**

"As Received" Moisture Content (%)		Surcharge (Kg)	5
Retained on 20mm: (%)	1.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	Yes	Test Moisture Content (%)	Top 14 / Bottom 15
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	2.04
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.78
Date Tested	01/10/2020	CBR Value (%)	Top 70 / Bottom 53
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title -

Prairie Site Ground Investigation Works

South Tees Development Corporation



Signature: *msae*
 Date of Issue: 23/10/2020

Form: _____
 Contract No.: _____
 Job No: 4251 (PRAIRIE_AUK_TP121) (B2) (K1)

Project No.: _____
 AEG Contract No.: **4251**



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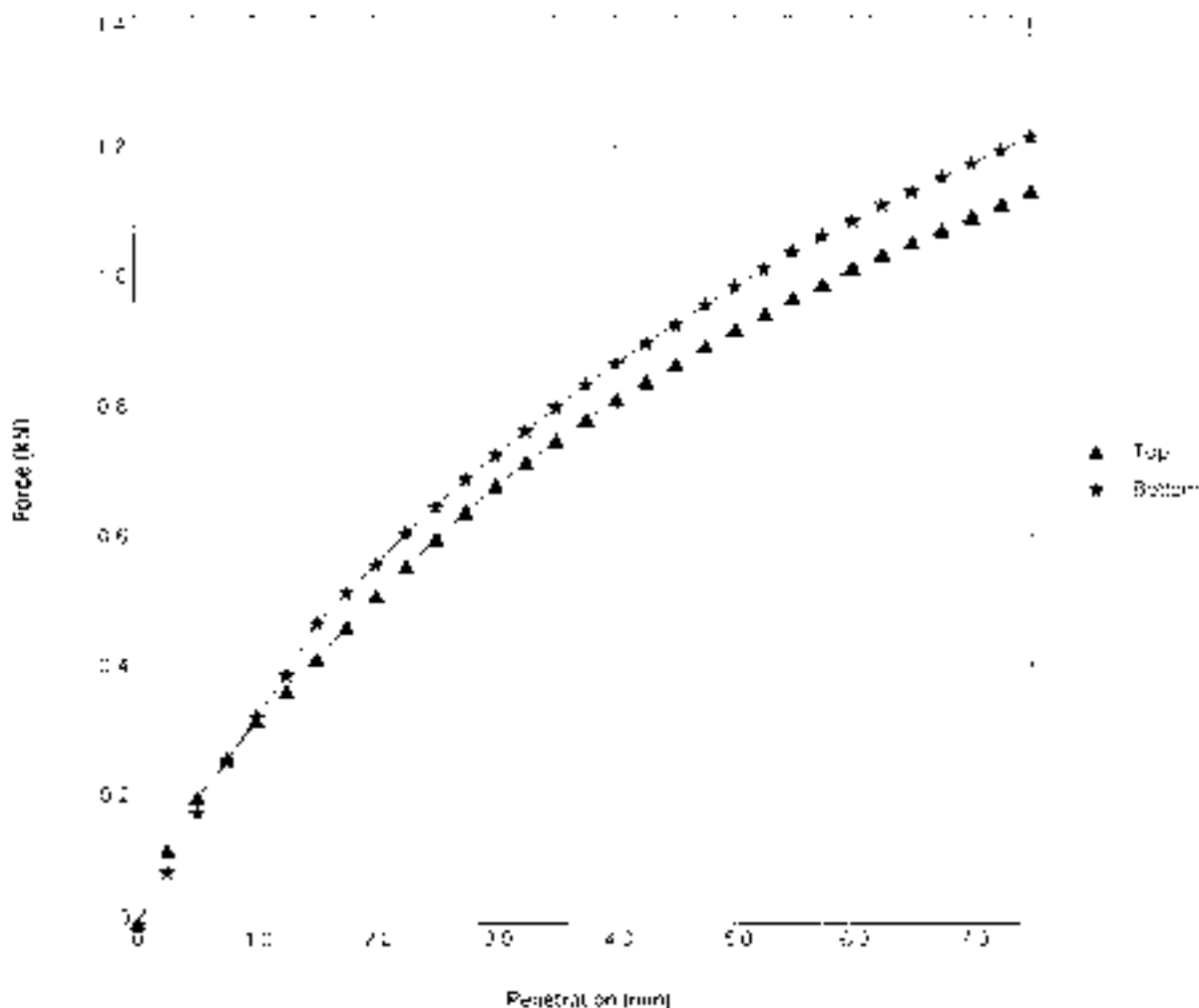
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.7: 1990

Exploratory Hole No - PRAIRIE_AUK_TP131 Sample No - B10

Depth Int: 3.60

"As Received" Moisture Content (%)		Surcharge (Kg)	9
Retained on 20mm (%)	0.0	Sealing Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 28 / Bottom 27
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.93
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.52
Date Tested	01/10/2020	CBR Value (%)	Top 4.6 / Bottom 4.9
Preparation Method	2.5kg Compaction		
Remarks			



For description of test, please refer to the Laboratory Sample Order form Sheet

Customer File

Prairie Site Ground Investigation Works

South Tees Development Corporation



Serial

meane

Name

Date Test

Date of Issue

01/10/2020

Customer Ref

CBR40131RA1E_AUK_TP131_B10_3.60

ACR Control No

4251



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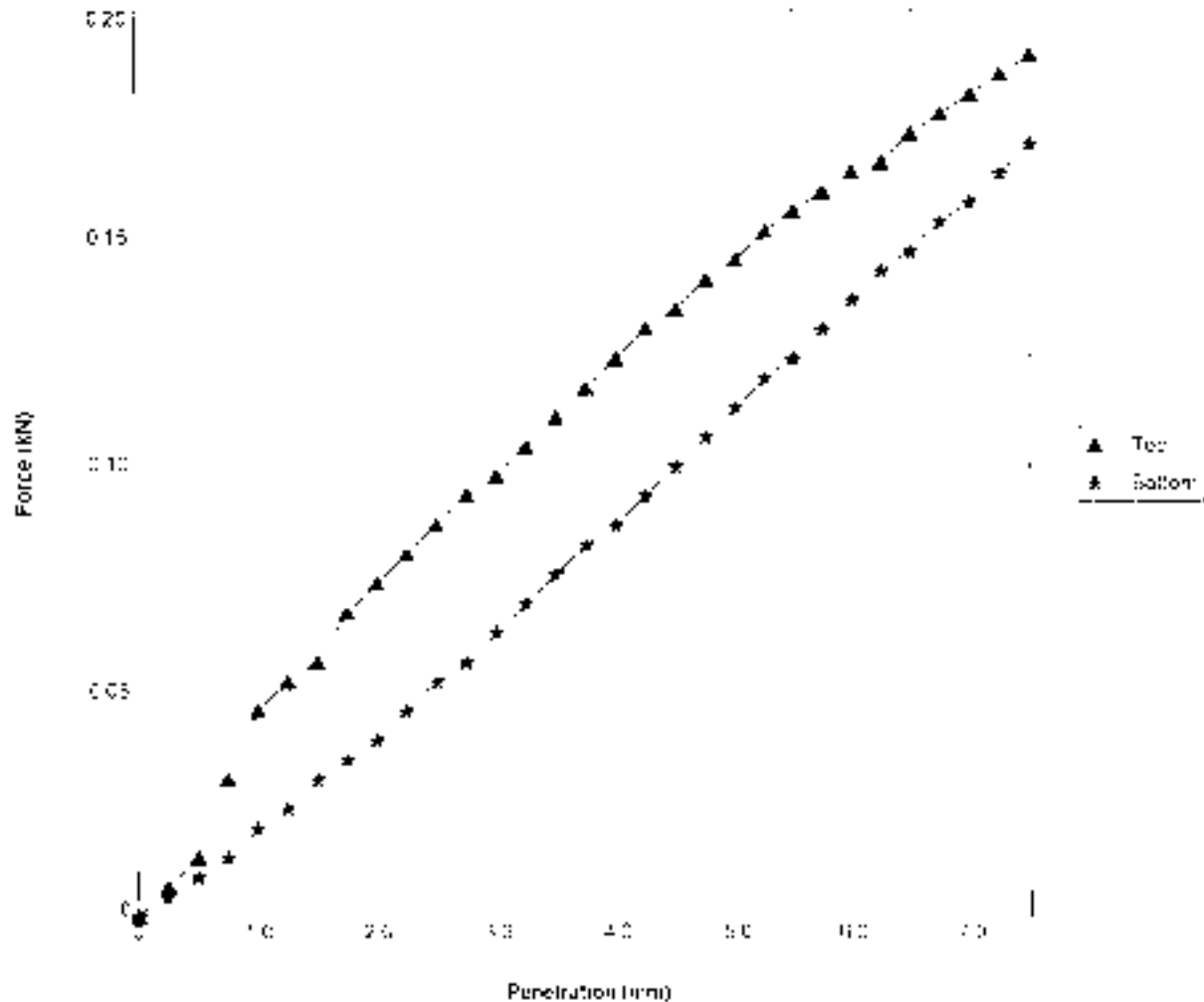
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No - PRAIRIE_AUK_TP137 Sample No - B7

Depth (m) - 2.00

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 28 / Bottom 27
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.92
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.51
Date Tested	15/10/2020	CBR Value (%)	Top 0.72 / Bottom 0.58
Preparation Method	2.5kg Compaction		
Remarks			



For full details of sample, please refer to the Laboratory Sample Description sheet

Company Name

Prairie Site Ground Investigation Works

Client

South Tees Development Corporation



Project

Date of Issue

21/10/2020

msw

Name

Investigator

1004/2019-2020 - AUK TP137 - 15/10/2020

Page 1 of 1

As per Contract No.:

4251



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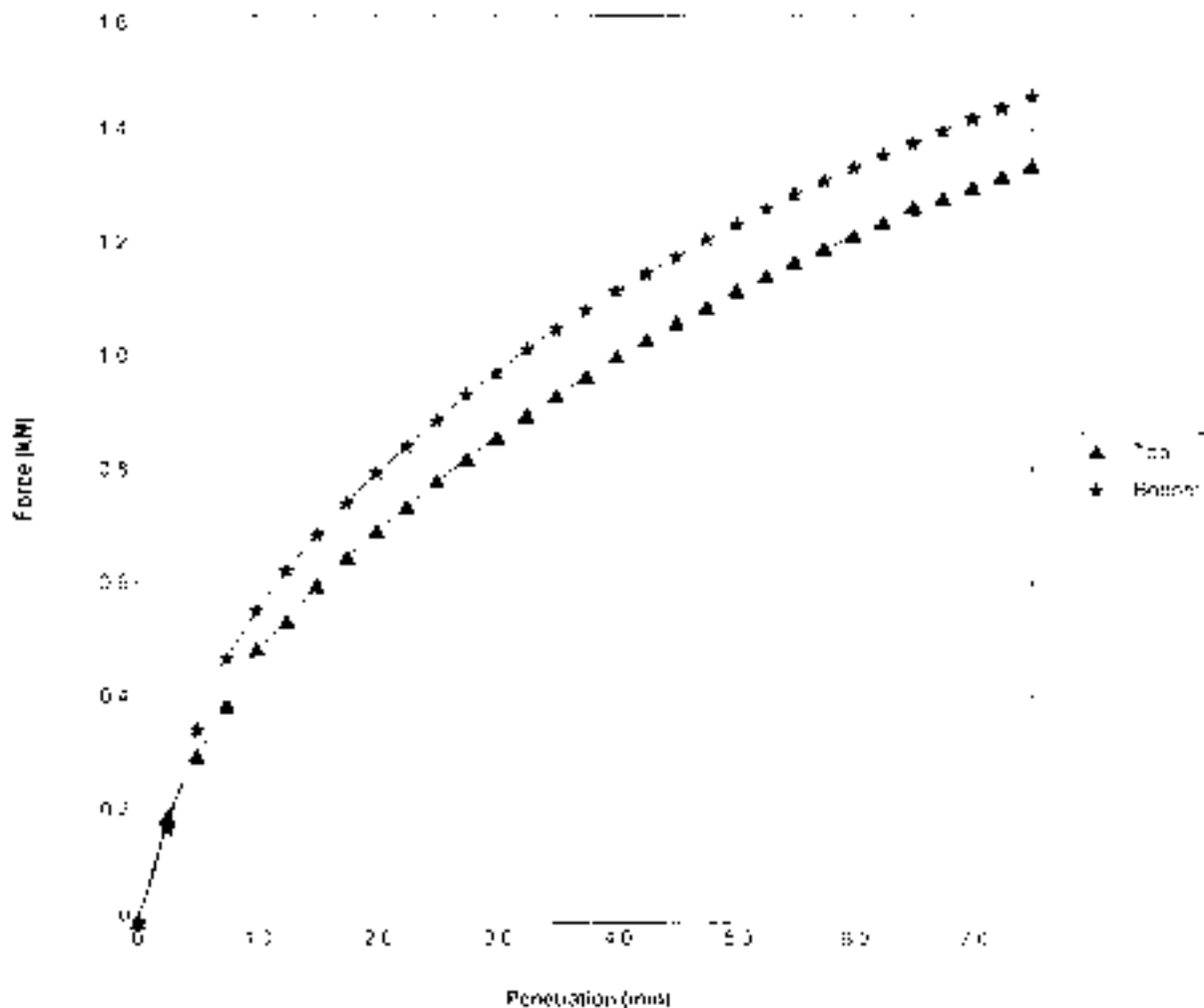
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DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause A2: 1990

Exploratory Hole No. **PRAIRIE_AUK TP145** Sample No. - **B6** Depth (m) - **2.40**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Sealing Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 24 / Bottom 25
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	2.09
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.08
Date Tested	30/09/2020	CBR Value (%)	Top 5.9 / Bottom 6.7
Preparation Method	2.5kg Compaction		
Remarks			



For determination of sample moisture refer to the Laboratory Sample Description Sheet

Contract Title:

Prairie Site Ground Investigation Works

Client:

South Tees Development Corporation



Agreed:

M. Sore

Page 1 of 1

Date of Issue:

29/10/2020

Call Reference:

0094281774-905-AUK-TP145-05-0401

Accession No:

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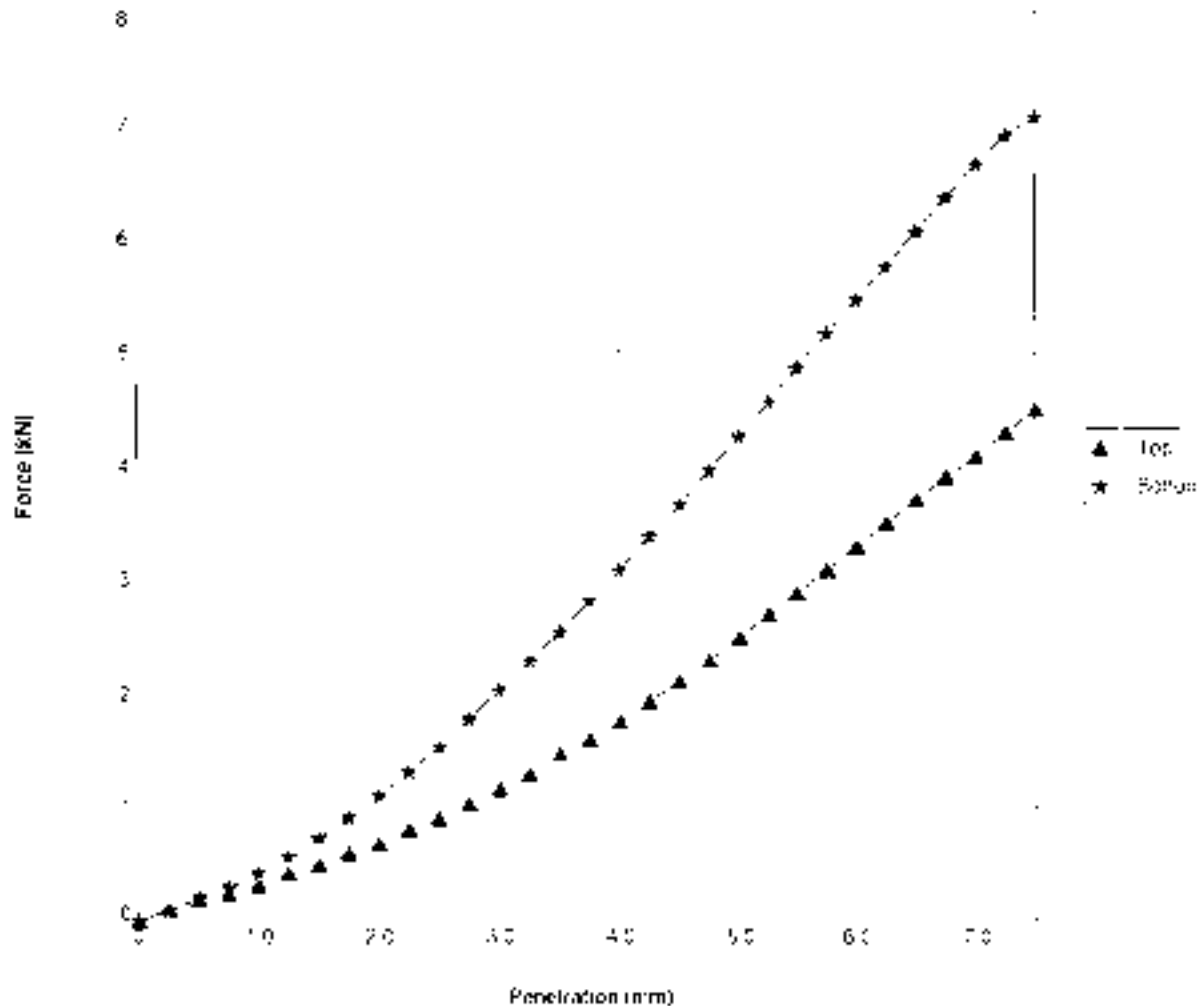
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No - PRAIRIE_AUK_TP146CSample No **B6**

Depth (m): **1.30**

"As Received" Moisture Content (%)		Surcharge (Kg)	5
Retained on 20mm (%)	14.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	No	Test Moisture Content (%)	Top 24 / Bottom 24
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.98
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.60
Date Tested	02/10/2020	CBR Value (%)	Top 13 / Bottom 21
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title

Prairie Site Ground Investigation Works

Client

Sixth Tees Development Corporation



Signed

M. S. ...

Name

Page 1 of 1

Date of Issue

02/10/2020

Drawn by

CBR 401 PRAIRIE_AUK_TP146C (B6) (1)

Test Reference

4251



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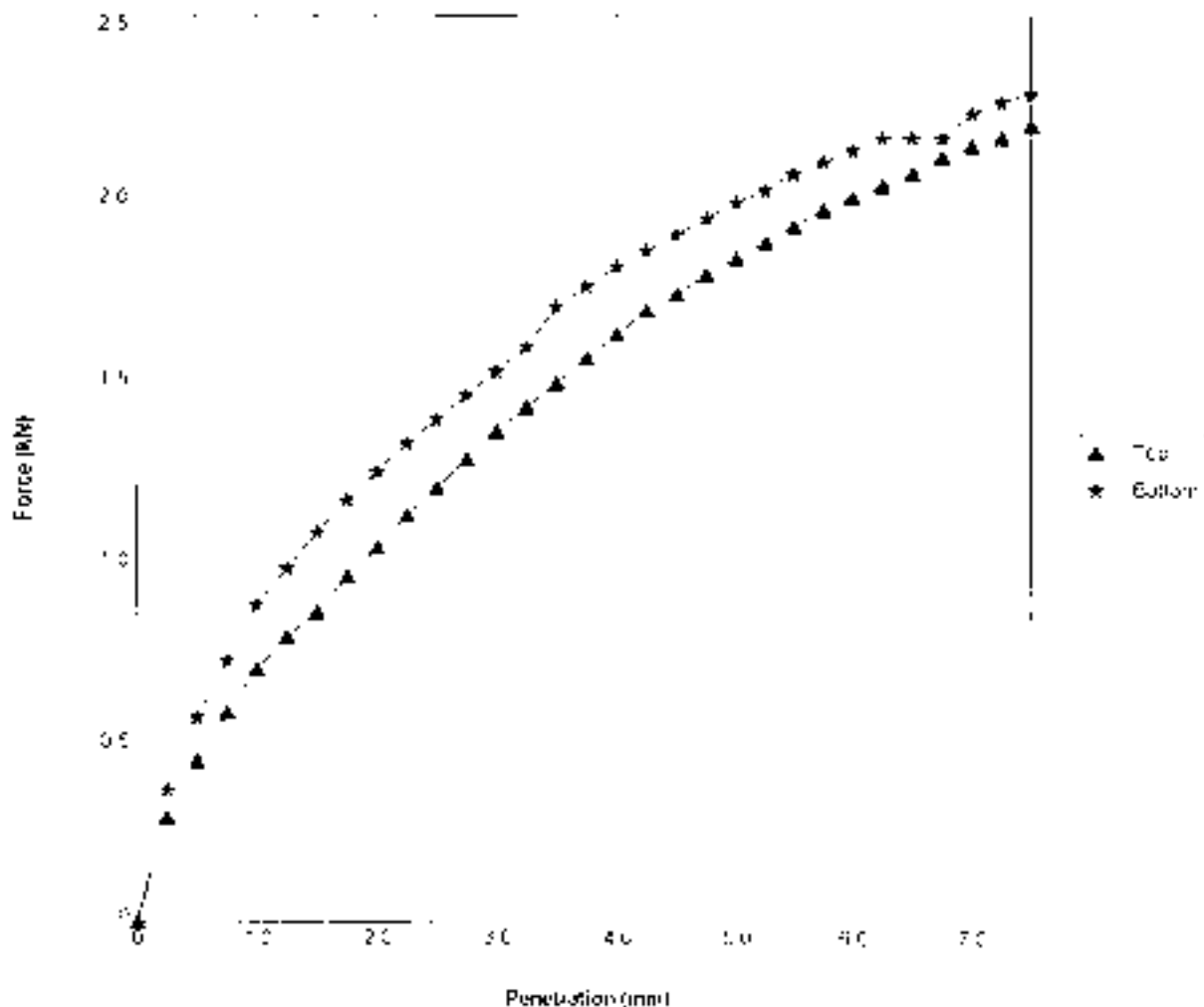
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No. **PRAIRIE AUK TP146C** Sample No. - **B8**

Depth (m): **2.30**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (Ni)	Top 50 / Bottom 50
Correction Needed	No	Test Moisture Content (%)	Top 23 / Bottom 23
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	2.30
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.63
Date Tested	01/10/2020	CBR Value (%)	Top 5.2 / Bottom 10
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title

Prairie Site Ground Investigation Works

South Trees Development Corporation



Report No.

ms04

Date of Issue

03/10/2020

Drawn by

Checked by

00740-146A-TP146C-SUB-002-01

Scale

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Page 1 of 1



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ALLIED EXPLORATION & GEOTECHNICS LIMITED

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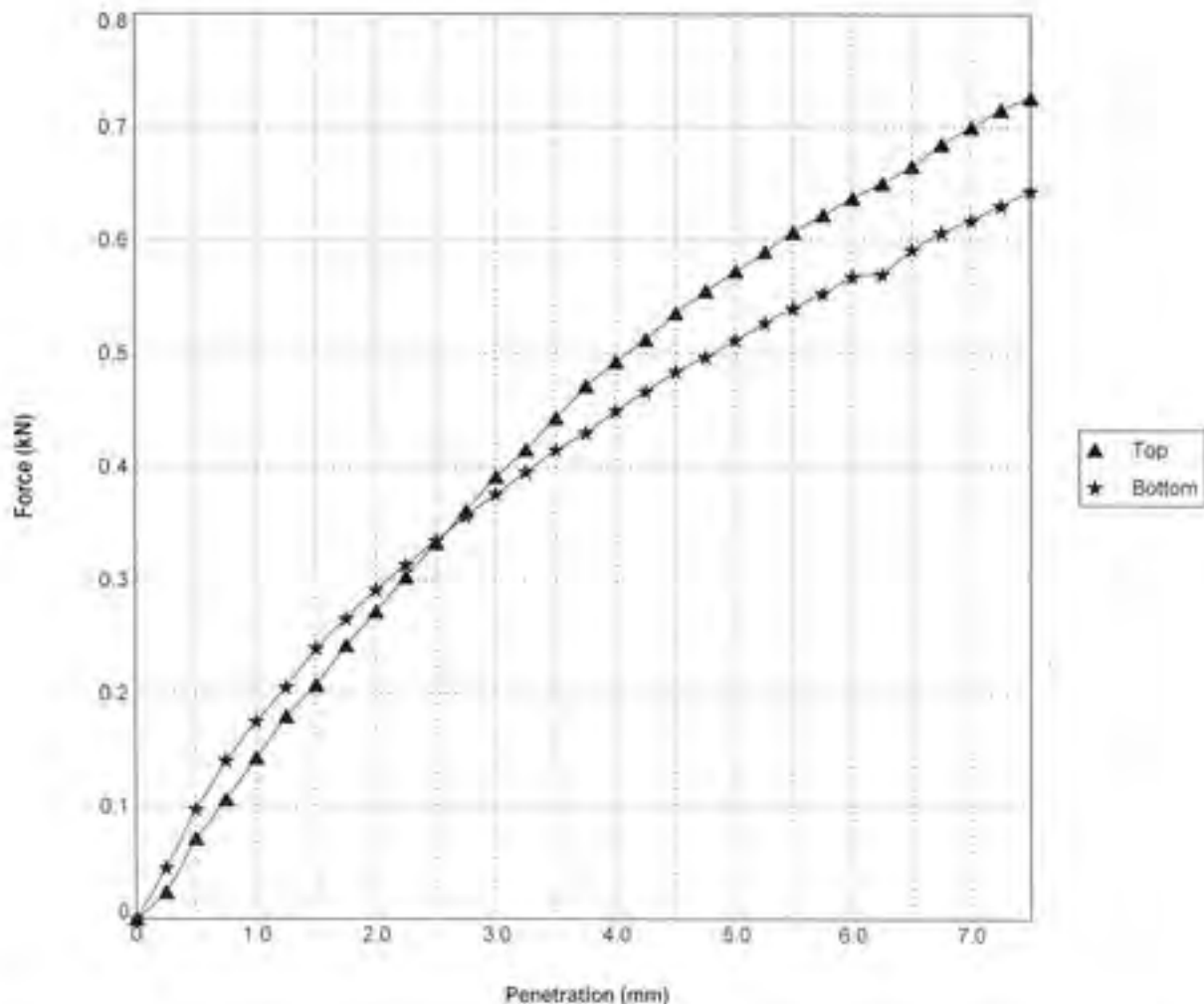
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No. - PRAIRIE_AUK_TP149 Sample No. - B5

Depth (m) - 2.20

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 29 / Bottom 30
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	1.92
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.49
Date Tested :	16/10/2020	CBR Value (%) :	Top 2.9 / Bottom 2.6
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation



Signed :- *msere*

Name :-

Page 1 of 1

Date of issue :- 30/10/2020

Certificate No. :- CBR/4251/PRAIRIE_AUK_TP149/B5/2.20/1

AEG Contract No. :- 4251



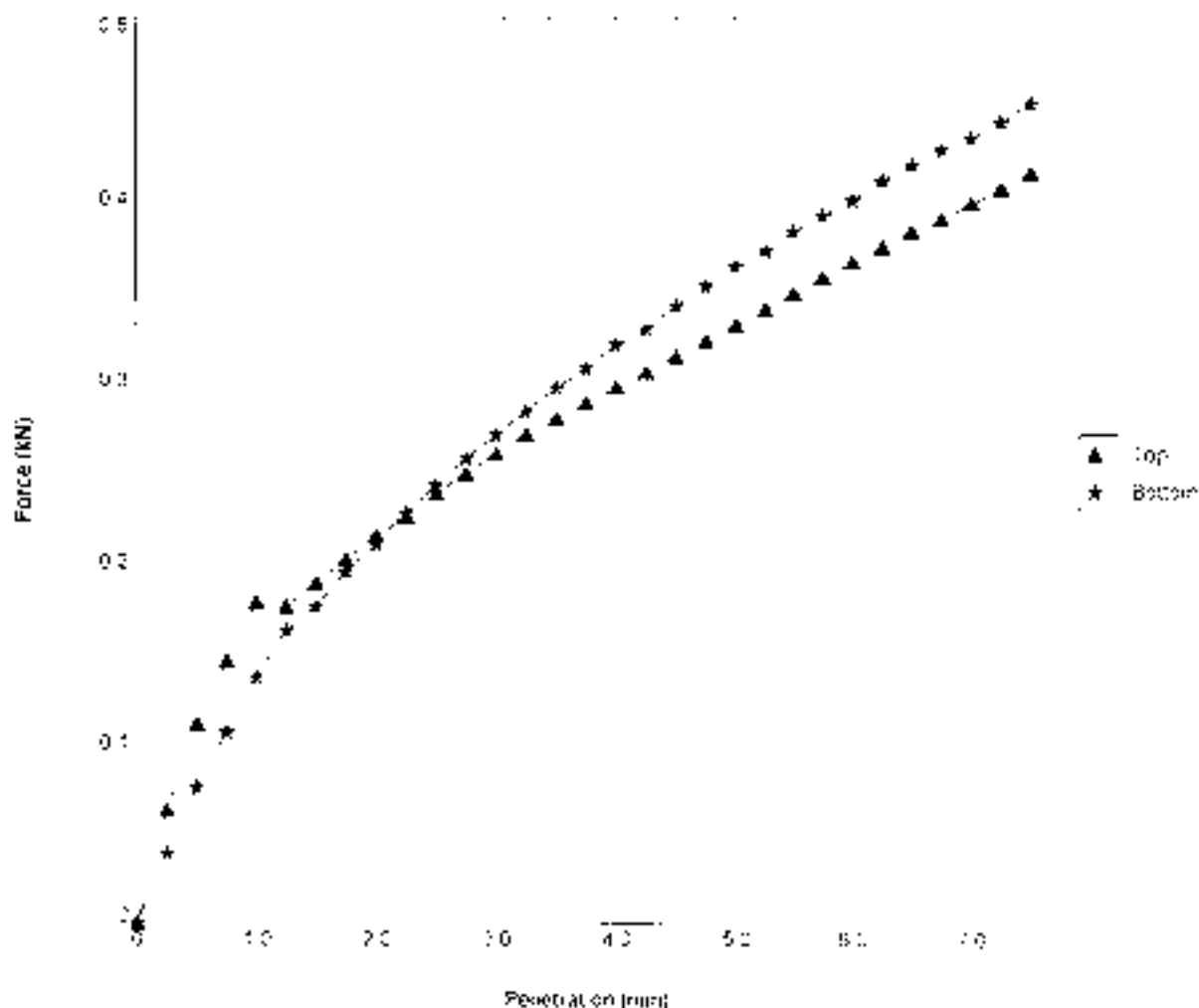
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DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 12: 1990

Exploratory Hole No - PRAIRIE_ADK_TP152 Sample No - B6 Depth (m) - 2.50

"As Received" Moisture Content (%)		Surcharge (Kg)	5
Retained on 20mm (%)	0.0	Sealing Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 31 / Bottom 30
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.90
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.45
Date Tested	29/09/2020	CBR Value (%)	Top 1.8 / Bottom 1.8
Preparation Method	2.5kg Compaction		
Remarks			



For description of symbols and procedure refer to the Laboratory Sample Description Sheet

Contract Title -

Prairie Site Ground Investigation Works

Client -

Southern Cross Development Corporation



Supervisor

M. Moore

Date of Issue -

09/10/2020

Form

Certificate No. -

JBR-4251 PRAIRIE_ADK_TP152 - B6

Allied Reference No. -

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Page 1 of 1



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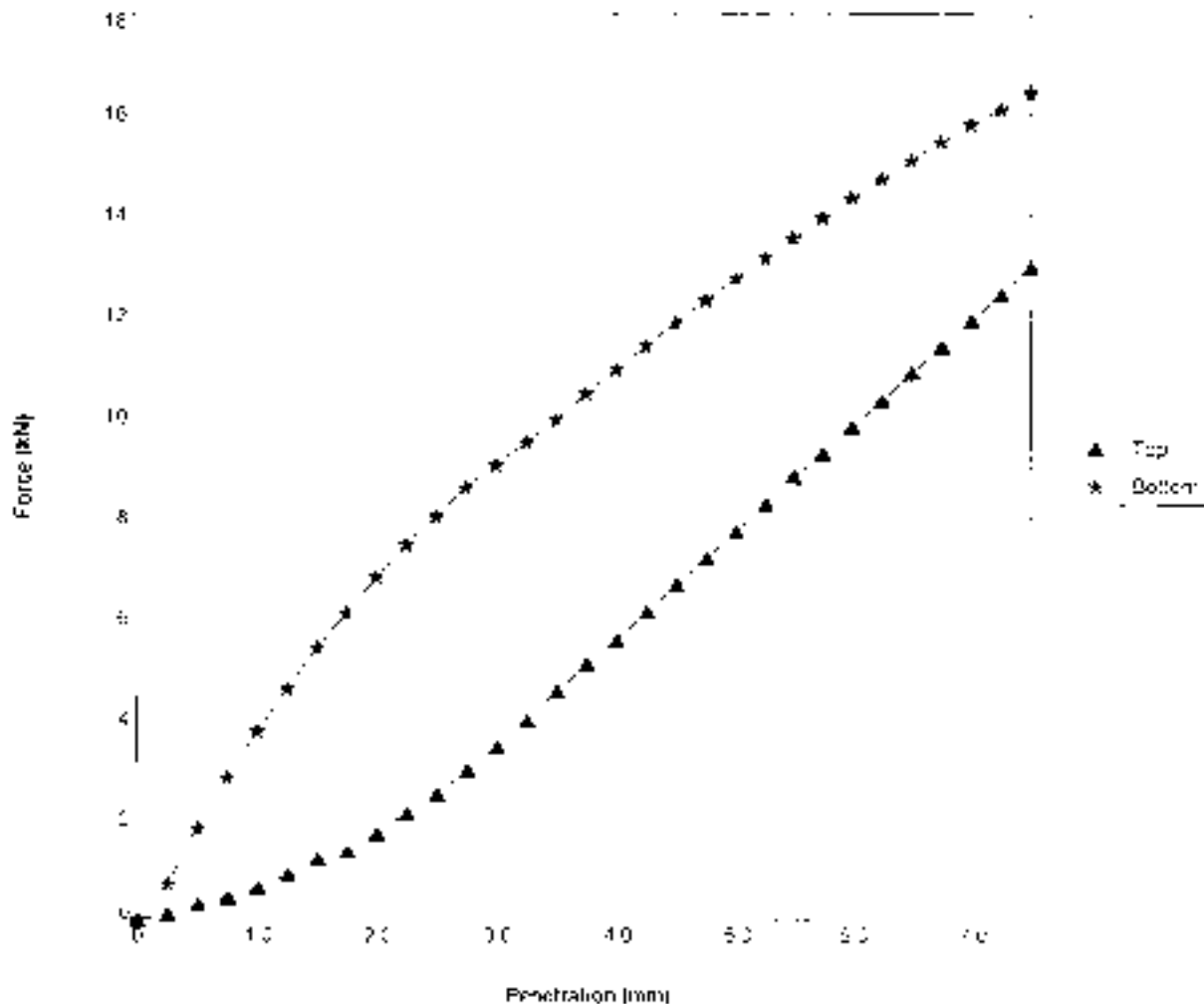
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No - PRAIRIE_AUK_TP163 Sample No - B2

Depth (m) - 0.80

"As Received" Moisture Content (%)		Surcharge (Kg)	5
Retained on 20mm (%)	14.0	Sealing Load (N)	Top 50 / Bottom 50
Correction Needed	No	Test Moisture Content (%)	Top 14 / Bottom 14
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.37
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.20
Date Tested	05/10/2020	CBR Value (%)	Top 39 / Bottom 64
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description sheet

Contract Title

Prairie Site Ground Investigation Works

Client

South Tees Development Corporation



Signed

msaw

Name

Page 1 of 1

Date Issued

04/10/2020

Certificate No.

CBR4201/PRAIRIE_AUK_TP163/B2/0200

AEG Certificate No.

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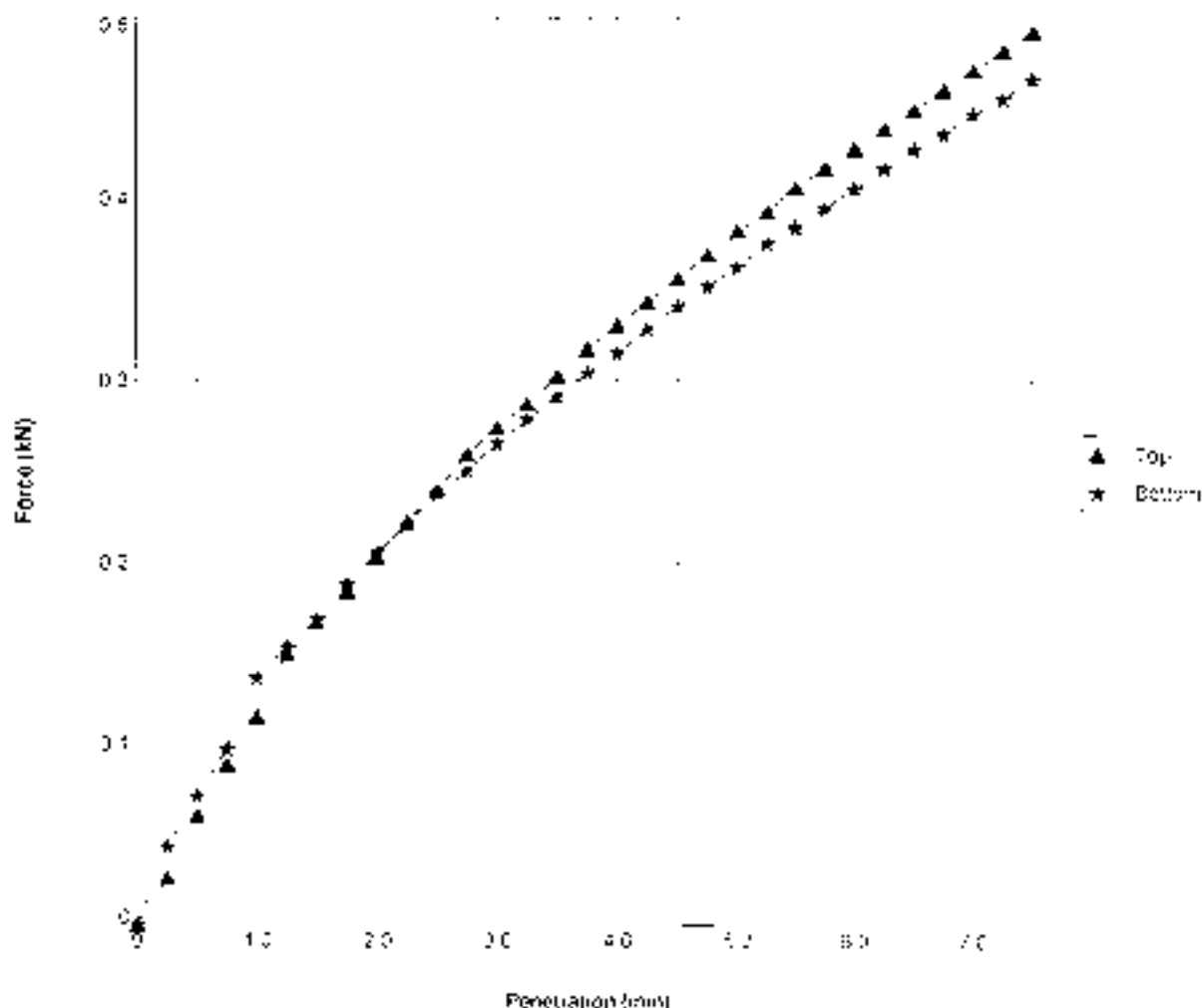
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No - PRAIRIE_AUK_TP163 Sample No - B5

Depth (m)- 1.70

As Received Moisture Content (%)		Surcharge (Kg)	5
Retained on 20mm (%)	0.0	Sealing Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 27 / Bottom 27
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.99
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.57
Date Tested	01/10/2020	CBR Value (%)	Top 1.9 / Bottom 1.8
Preparation Method	2.5kg Compaction		
Remarks			



For determination of sample please refer to the Laboratory Sample Description Sheet

Manufacturer -

Frame Site Ground Investigation Works

Client -

South Tees Development Corporation



Signed

Date Tested

01/10/2020

Name

Geotechnical

CPN 4251 PRAIRIE_AUK_TP163 B5 1.70

Signature

AEG Reference No.

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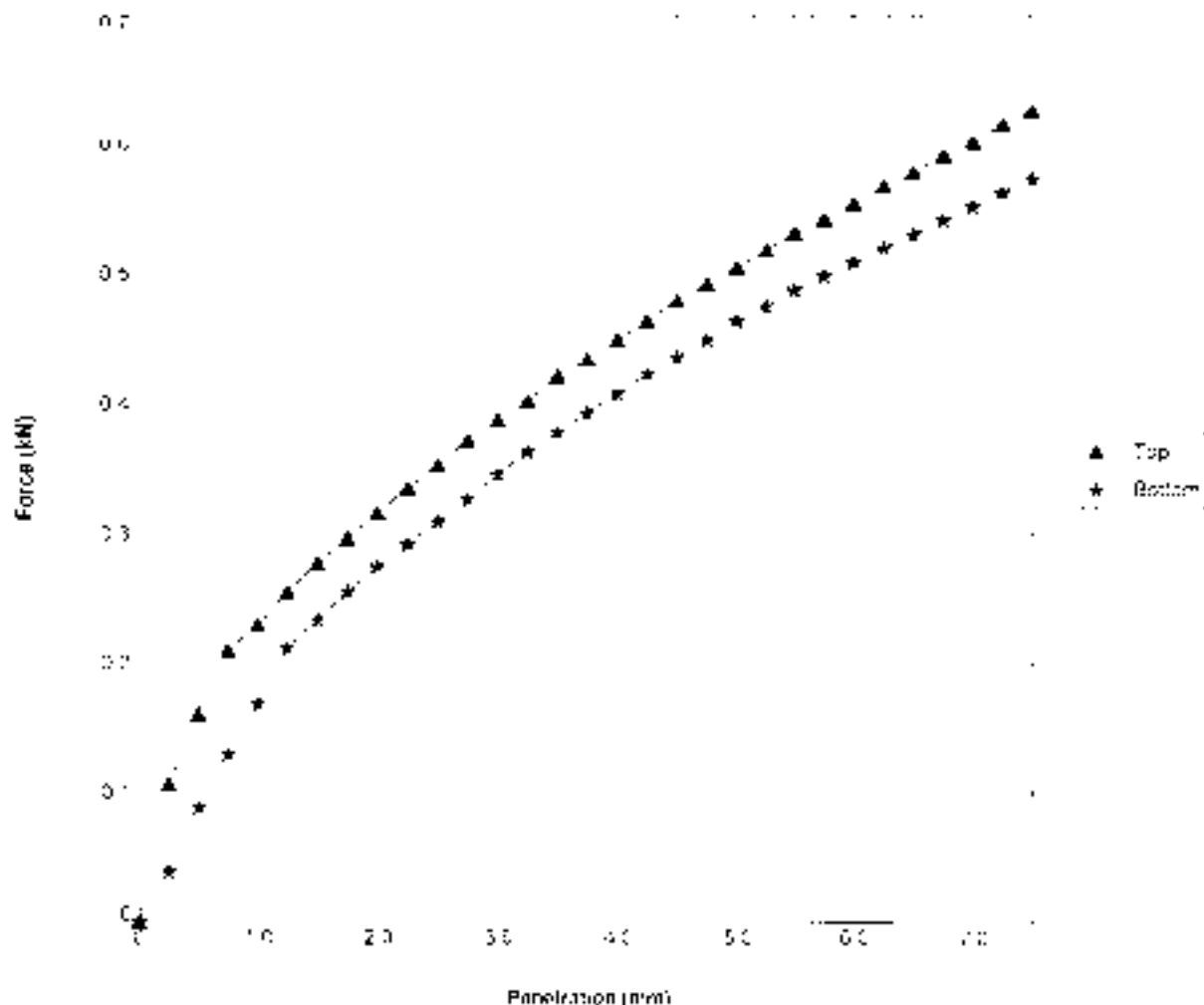
1000 Lakeside Drive, Suite 200, Scarborough, Ontario, Canada M1S 2Z2

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.9: 1990

Exploratory Hole No - PRAIRIE_AUK_TP168 Sample No - B7 Depth (m) - 1.60

As Received Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Sealing Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 29 / Bottom 33
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.92
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.48
Date Tested	30/09/2020	CBR Value (%)	Top 2.7 / Bottom 2.3
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description sheet.

Company Name -

Prairie Site Ground Investigation Works

Client -

South Tees Development Corporation



Signed

msone

Date of Issue

29/10/2020

Name

Customer Title

MR DAVID PRAIRIE AUK TP168 B7 (1.60)

Project Ref

ACB Contract No

4251



1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

REGISTRATION NUMBER: 2009010174 (LIMITED LIABILITY COMPANY) (INCORPORATED IN GREAT BRITAIN)

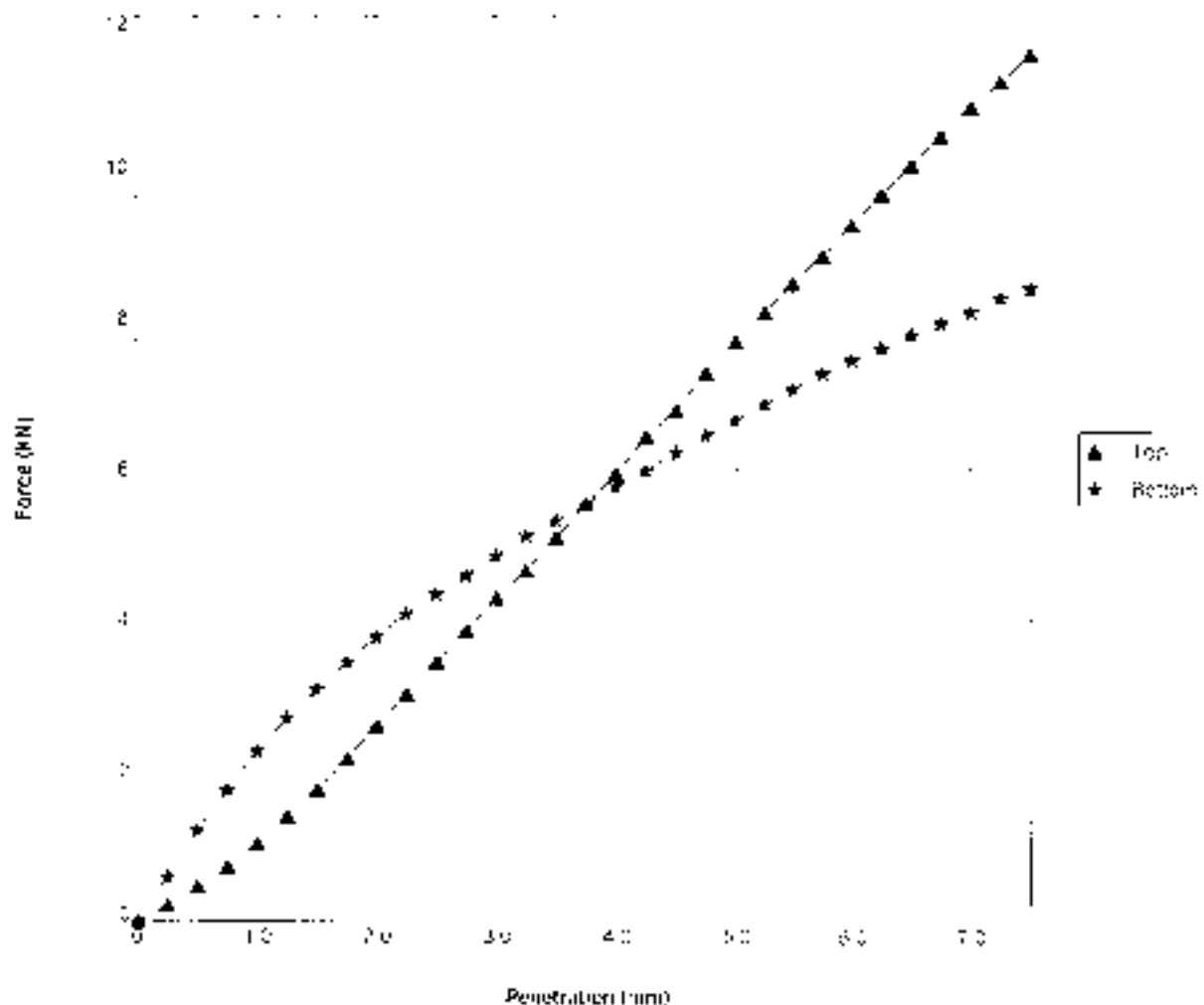
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.7: 1990

Exploratory Hole No - PRAIRIE AUX TP173 Sample No - B2

Depth (m) - 0.80

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	22.0	Sealing Load (N)	Top 250 / Bottom 250
Correction Needed	No	Test Moisture Content (%)	Top 20 / Bottom 20
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.77
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.48
Date Tested :	30/09/2020	CBR Value (%)	Top 39 / Bottom 33
Preparation Method	2.5kg Compaction		
Remarks			



For verification of sample phase refer to the Laboratory Sample Description Sheet

Contract File:

Prairie Site Ground Investigation Works

Location:

South Tees Development Corporation



Signature: *[Handwritten Signature]*
 Date of Issue: 30/10/2020

Name: *[Handwritten Name]*
 Job Title: CDR/2017 PRAIRIE AUX TP173/20/2017

Page 1 of 1

LAB ID/Job No: 4251



1357

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Method: BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

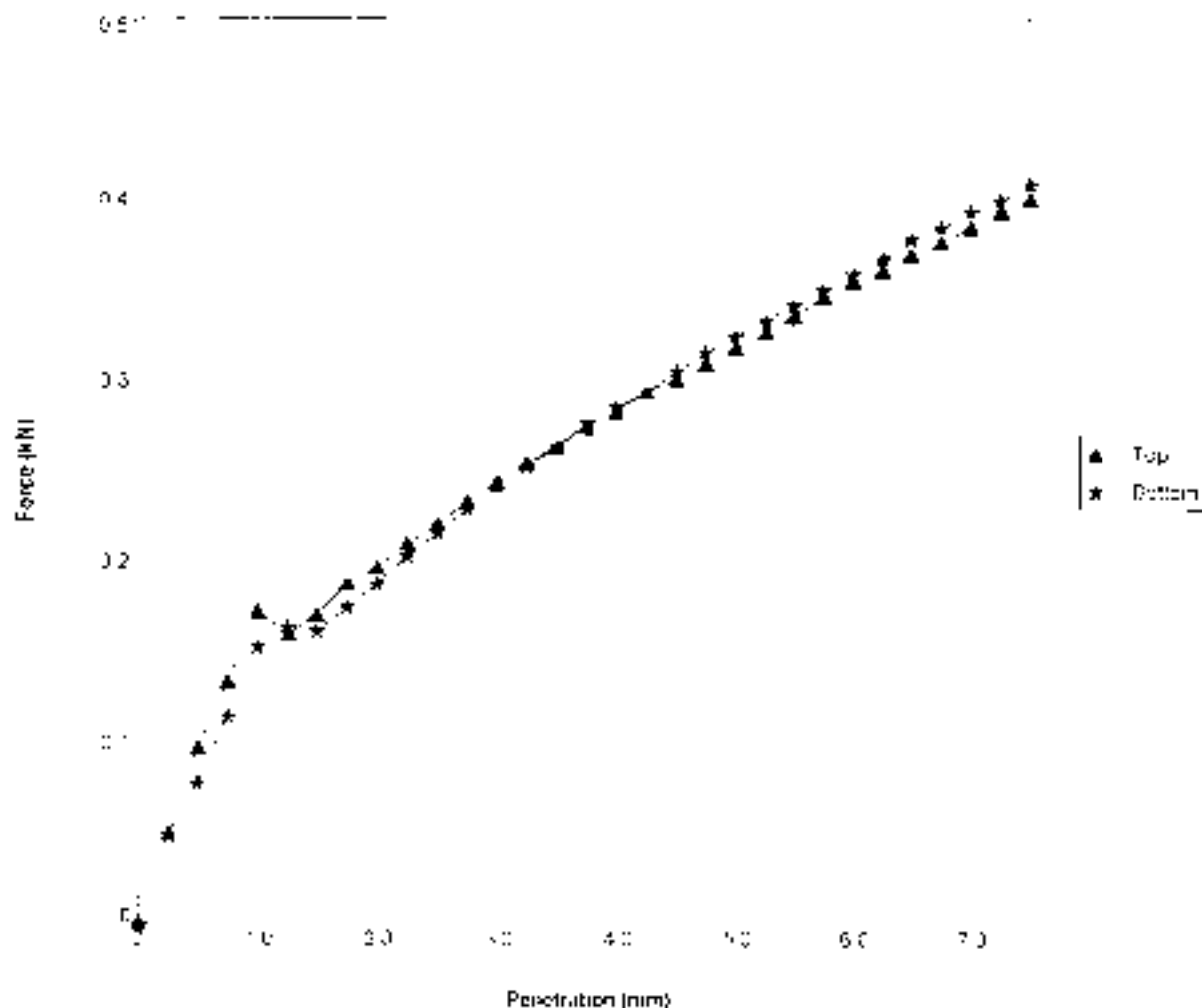
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No - PRAIRIE_AUK_TP176 Sample No - B5

Depth (m) - 2.00

"As Received" Moisture Content (%)		Surcharge (Kg)	8
Retained on 20mm (%)	0.0	Sealing Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 26 / Bottom 25
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.97
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.55
Date Tested	29/09/2020	CBR Value (%)	Top 1.7 / Bottom 1.6
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title

Prairie Site Ground Investigation Works

Client

South Tynes Development Corporation



Author

msene

Name

Page 1 of 1

Date of Issue

23/10/2020

Client Ref No

Contract Ref: PRAIRIE_AUK_TP176/B5/02

Associated File No

4251



1357

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Registered in England No. 02062097 Registered Office: 100, Victoria Road, Basingstoke, Hampshire, RG24 0JH

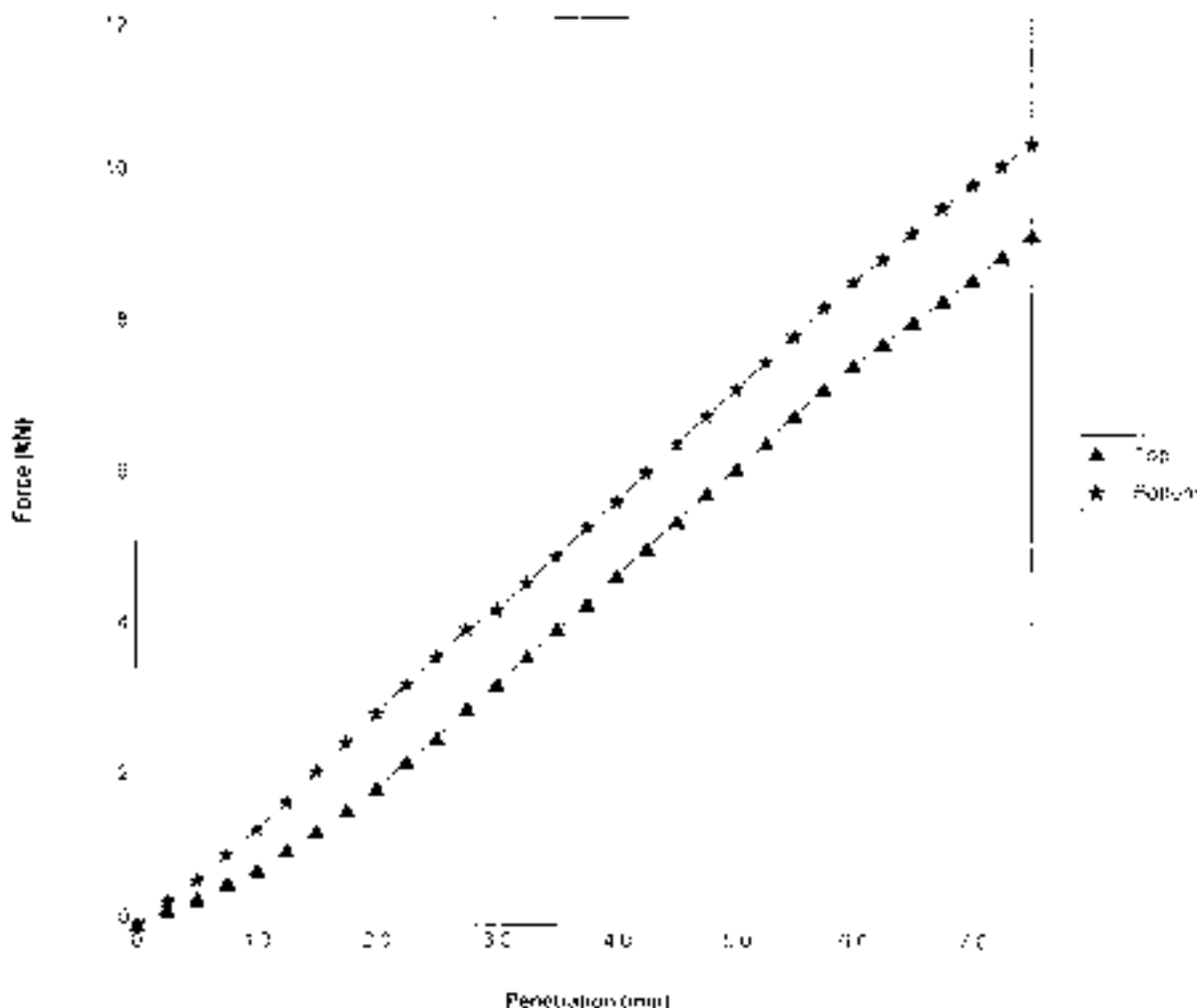
DÉTERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.7: 1990

Exploratory Hole No - **PRAIRIE_AUK_TP178** Sample No - **82**

Depth (m) - **0.60**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	11.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	No	Test Moisture Content (%)	Top 33 / Bottom 34
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.57
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.22
Date Tested	05/10/2020	CBR Value (%)	Top 30 / Bottom 35
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet.

Contract Title:

Prairie Site Ground Investigation Works

South Fore Development Corporation



Signed:

msere

Date:

Sup No:

Contract No:

05/10/2020

Certificate No:

001400104-00-AUK-TP178-00-001

Accession No:

4251



1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

100, 201st Street, Scarborough, Ontario M1B 2Y7, Canada

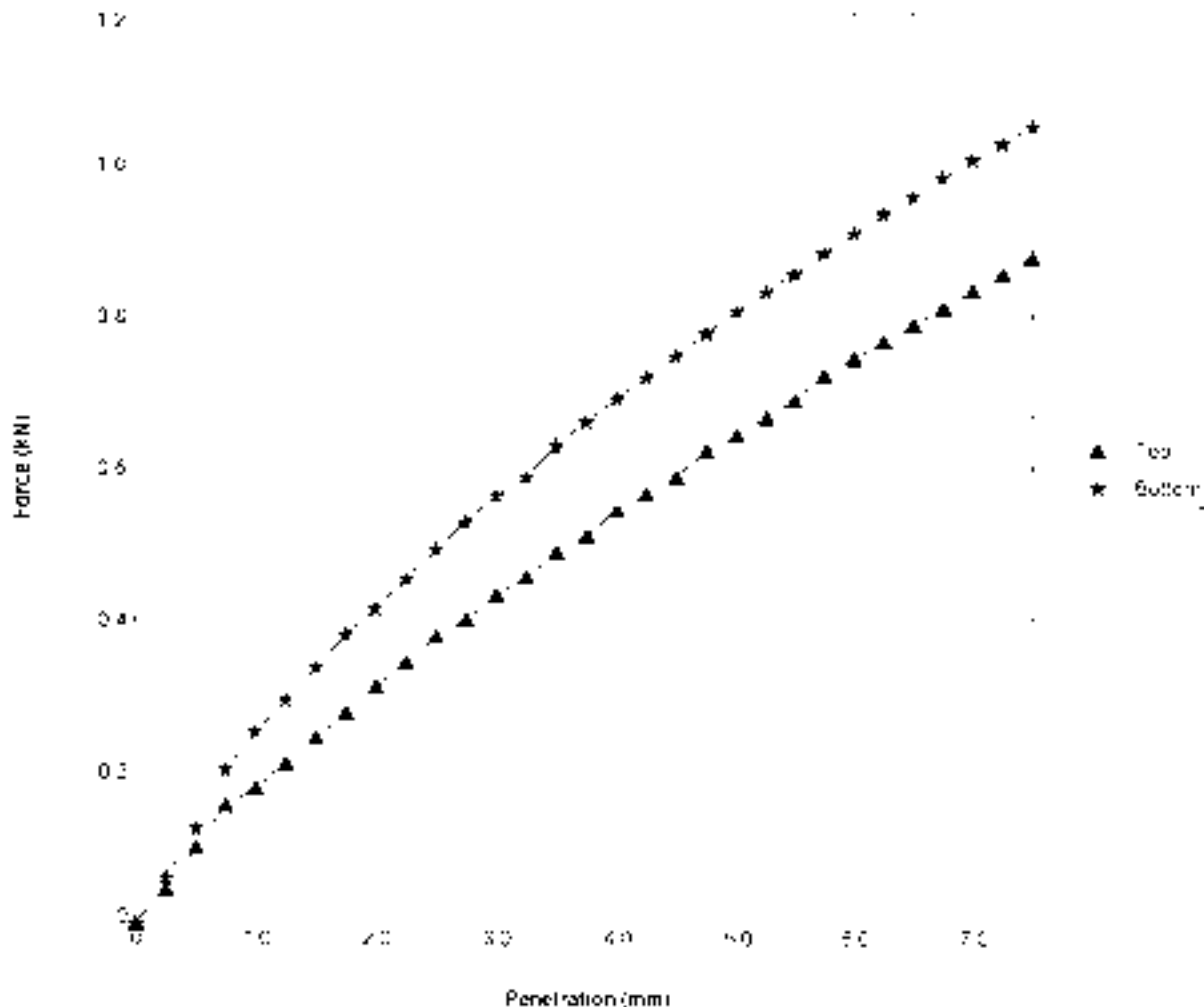
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 7: Clause 3.2: 1990

Exploratory Hole No - PRAIRIE_AUK_TP181 Sample No - B6

Depth (m) - 2.00

"As Received" Moisture Content (%)		Surcharge (Kg)	3
Retained on 20mm (%)	0.0	Sealing Load (kN)	Top 50 / Bottom 50
Correction Needed	No	Test Moisture Content (%)	Top 23 / Bottom 23
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	2.04
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.65
Date Tested	02/10/2020	GBR Value (%)	Top 3.2 / Bottom 4.0
Preparation Method	2.5kg Compaction		
Remarks			



Each sample of soil used here refers to the Laboratory Sample Description Sheet

Contract No:

Prairie Site Ground Investigation Works

Client:

South Tees Development Corporation



By:

District Engineer

02/10/2020

For:

Compaction Test

GBR 4251 PRAIRIE_AUK_TP181 B6 (0.1)

Accepted:

AEG Contract No:

4251



1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Registered Office: 10, The Quadrant, South Tees, Middlesbrough, Cleveland, North Yorkshire, YO21 2JF

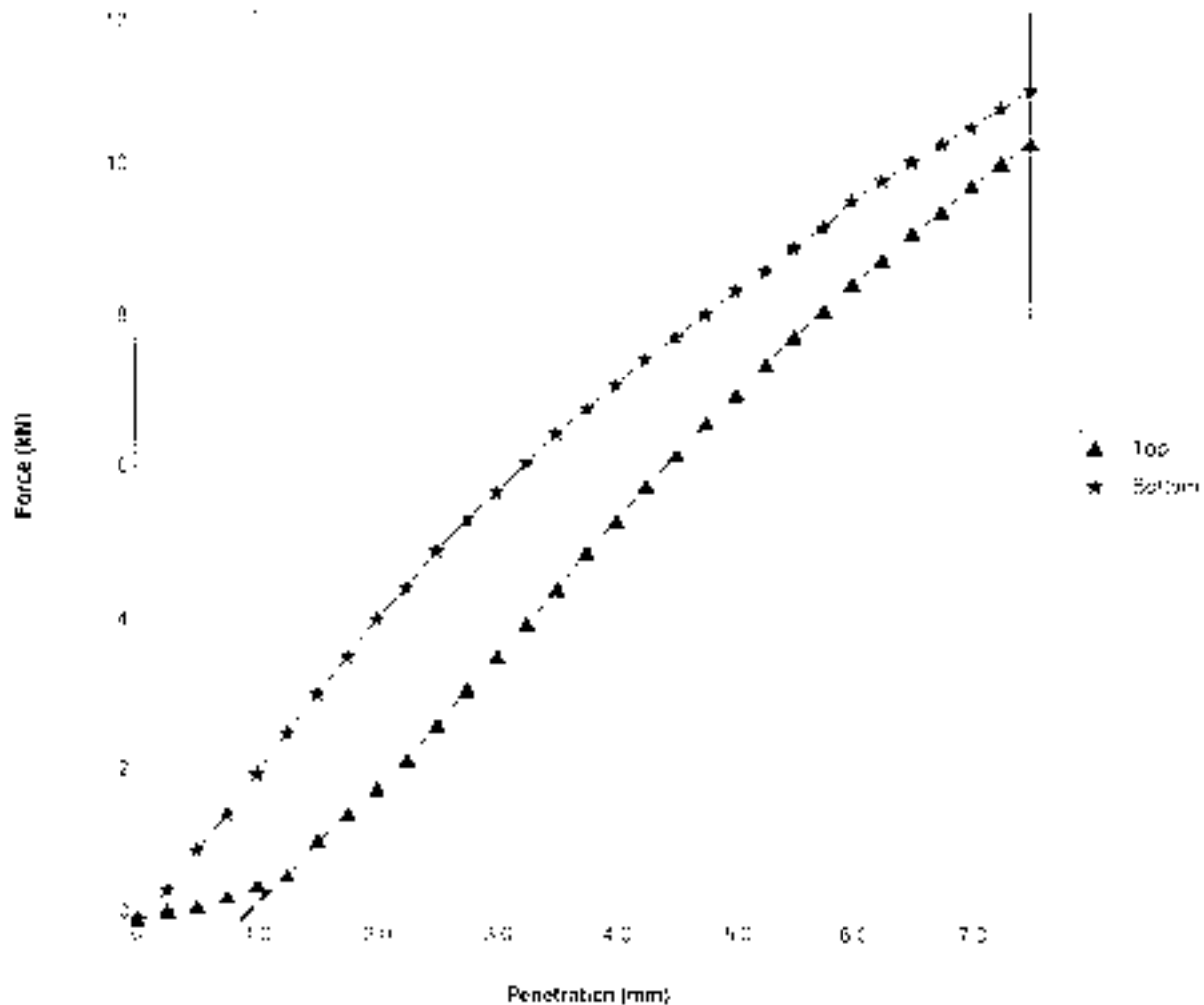
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No - PRAIRIE_AUK_TP182 Sample No - B2

Depth (m) - 0.60

"As Received" Moisture Content (%)		Surcharge (Kg)	10
Retained on 20mm (%)	17.0	Seating Load (N)	Top 250 / Bottom: 250
Correction Needed	Yes	Test Moisture Content (%)	Top 16 / Bottom 16
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	1.48
Swelling (mm)	N/A	Dry Density (Mg/m ³)	1.28
Date Tested	25/09/2020	CBR Value (%)	Top 40 / Bottom 42
Preparation Method	2.5kg Compaction		
Remarks			



For identification of sample, please refer to the Laboratory Sample Description Sheet

Contract Title -

Prairie Site Ground Investigation Works

Client -

South Tees Development Corporation



Signature: *msere*
 Date of Issue: 25/09/2020

Name: _____
 Certificate No: 4251
 CBR: 40% (Top) / 42% (Bottom)

Page 1 of 1

APG Certificate No: 4251



1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 120, Victoria Road, South Shields, Tyne and Wear, NE33 1JG, UK
 Telephone: 0191 275 4400 Fax: 0191 275 4401 E-mail: sales@allied-eg.co.uk

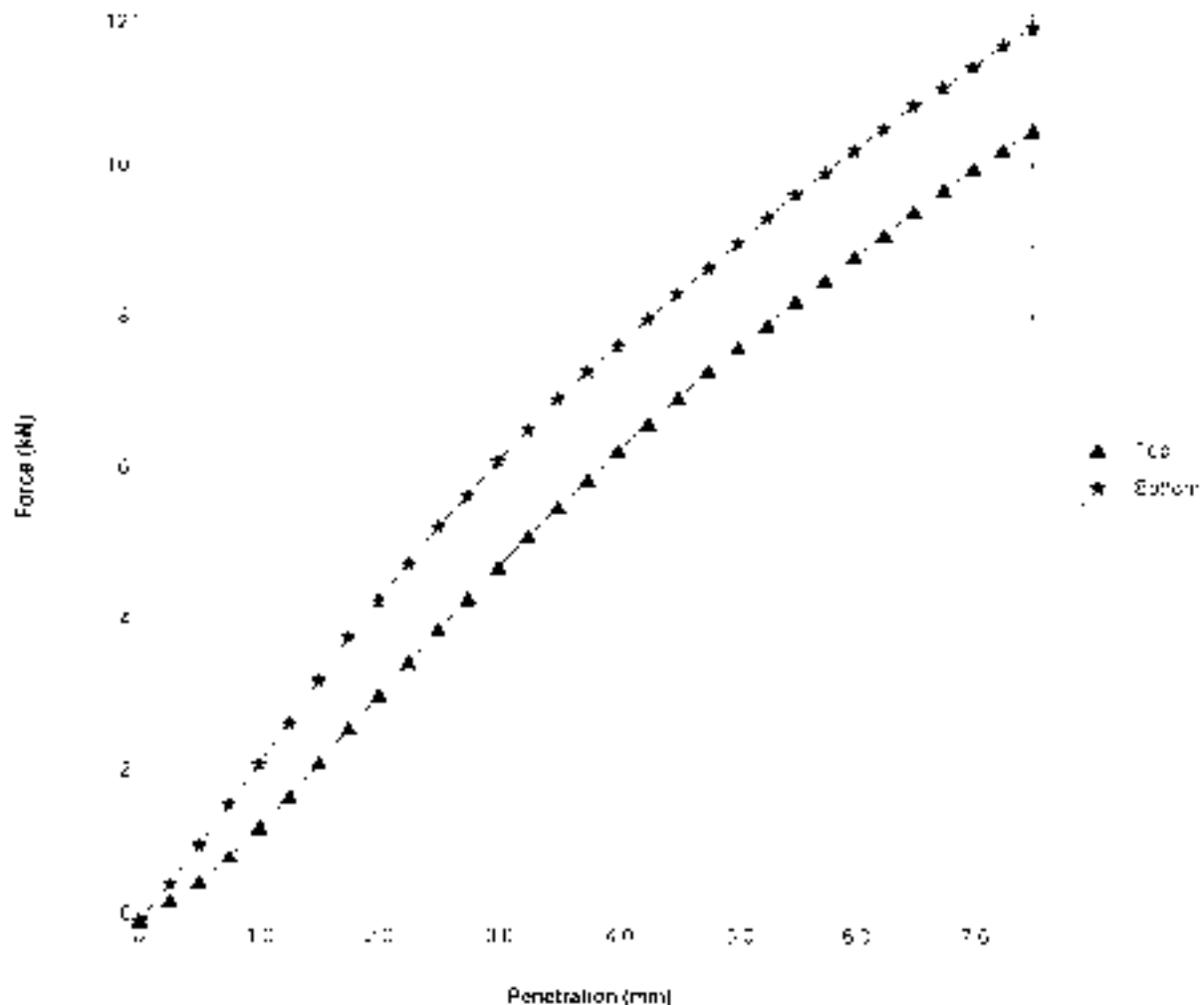
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4: 1990 and Part 2: Clause 3.2: 1990

Exploratory Hole No - PRAIRIE_AUK_TP189 Sample No - 82

Depth (m) 0.50

"As Received" Moisture Content (%)		Surcharge (Kg)	0
Retained on 20mm (%)	6.0	Sealing Load (N)	Top 250 / Bottom 250
Correction Needed	No	Test Moisture Content (%)	Top 17 / Bottom 17
Soaking Time (Days)	N/A	Bulk Density (Mg/m ³)	2.55
Swelling (mm)	N/A	Dry Density (Mg/m ³)	2.18
Date Tested	01/10/2020	CBR Value (%)	Top 38 / Bottom 45
Preparation Method	2.5kg Compaction		
Remarks			



Please refer to the Laboratory Sample Description Sheet for a full description of sample(s) used in this test.

Contract Ref:

Prairie Site Ground Investigation Works

Client:

South Tees Development Corporation



Signed: *msore*
 Job: Client:
 28/10/2020

Name:
 Job Title: N/A
 CBR45 (PRAIRIE_AUK_TP189) 4251

Page 1 of 1
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 4251



Determination of One Dimensional Consolidation Properties



ALLIED EXPLORATION & GEOTECHNICS LIMITED

(INCORPORATED IN ENGLAND) (REGISTERED OFFICE) 10, THE SQUARE, BARNET, Herts, EN4 3DF



ONE DIMENSIONAL CONSOLIDATION PROPERTIES

BS 1377 : PART 5 : 1990 : CLAUSE 3

Exploratory Hole No	PRAIRIE_AUK_BH103	Sample	U2	Depth (m)	2.50m
Specimen Type	Undisturbed	Orientation	Vertical	Specific Depth (m)	2.55m
	INITIAL	FINAL			
Height:	18.7	16.4	mm	Particle Density (Assumed):	2.70
Diameter:	74.74	74.74	mm	Degree of Saturation (%)	98.2
Moisture Content	30.0	25.6	%	Test Duration (Days)	6
Wet Density	1.92	2.07	Mg/m ³	Date Tested	07/10/2000
Dry Density	1.43	1.65	Mg/m ³		

Square Root of Time Fitting Method				
Pressure Range kN/m ²	M _v m ² /MN	C _v m ² /yr	Temp C	Voids Ratio
Initial				0.825
0 - 50	0.828	.	21	0.749
50 - 100	0.438	2.25	21	0.711
100 - 50	0.056	Swelling	20	0.716
50 - 100	0.056	3.34	20	0.710
100 - 200	0.289	2.13	20	0.661
200 - 400	0.191	1.67	20	0.592

For sample description please refer to the Laboratory Sample Description Sheet

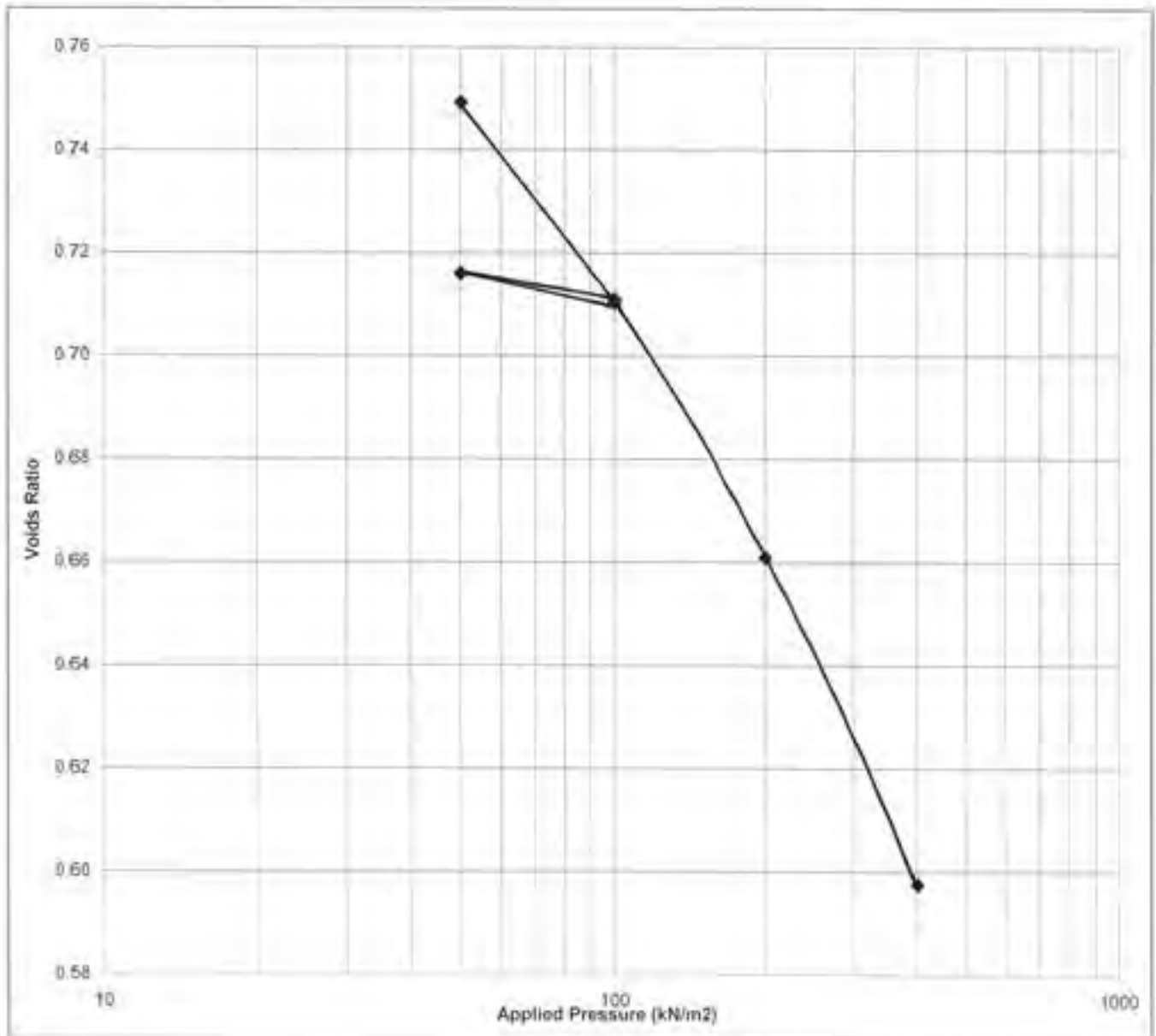
Contract Title Prairie Site Ground Investigation Works		Client South Tees Development Corporation	
	Signed <i>msene</i>	Name M. SELKIRK	Page 1 of 2
	Date of Issue 18/11/2000	Contract No. 4251:A	REG. Contract No. 4251
			 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Allied Geotech Ltd 25 South 24 Industrial Estate, Park Road, Chester-le-Street, Co. Durham, DL10 1BQ, UK. Tel: 0191 261 6100 Fax: 0191 261 6101
 Registered Office: 101 St. Edwards Development Centre, 25 Park Road, Blaydon, NE1 4BL, UK. Tel: 0191 261 6100 Fax: 0191 261 6101

ONE DIMENSIONAL CONSOLIDATION PROPERTIES BS 1377 : PART 5 : 1990 : CLAUSE 3

Exploratory Hole No	PRAIRIE_AUK_BH103	Sample	U2	Depth (m)	2.50m
Specimen Type	Undisturbed	Orientation	Vertical	Specific Depth (m)	2.55m



Contract Title: Prairie Site Ground Investigation Works	Client: South Tees Development Corporation
--	---

	Signed: <i>M. Selkirk</i>	Name: M. SELKIRK	Page 2 of 2	
	Date of Issue: 18/10/2020	Certificate No: 4251/A	AEG Contract No: 4251	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

100, The Quadrant, South Shields, Tyne and Wear, NE33 1JN



ONE DIMENSIONAL CONSOLIDATION PROPERTIES

BS 1377 : PART 5 : 1990 : CLAUSE 3

Exploratory Hole No	PRAIRIE_AUK_BH106	Sample	U2	Depth (m)	5.50m
Specimen Type	Undisturbed	Orientation	Vertical	Specific Depth (m)	5.50m
	INITIAL	FINAL			
Height:	18.6	16.7	mm	Particle Density (Assumed)	2.70
Diameter:	74.91	74.91	mm	Degree of Saturation (%)	99.5
Moisture Content	22.4	18.5	%	Test Duration (Days)	6
Wet Density	2.06	2.24	Mg/m ³	Date Tested	07/10/2020
Dry Density	1.68	1.89	Mg/m ³		

Square Root of Time Fitting Method				
Pressure Range kN/m ²	M _v m ² /MN	C _v m ² /yr	Temp C	Voids Ratio
Initial				0.603
0 - 100	0.374	.	21	0.548
100 - 200	0.120	7.80	21	0.520
200 - 100	0.012	Swelling	20	0.522
100 - 200	0.018	13.47	20	0.519
200 - 400	0.119	6.40	20	0.483
400 - 800	0.070	8.83	20	0.441

For sample description please refer to the Laboratory Sample Description Sheet

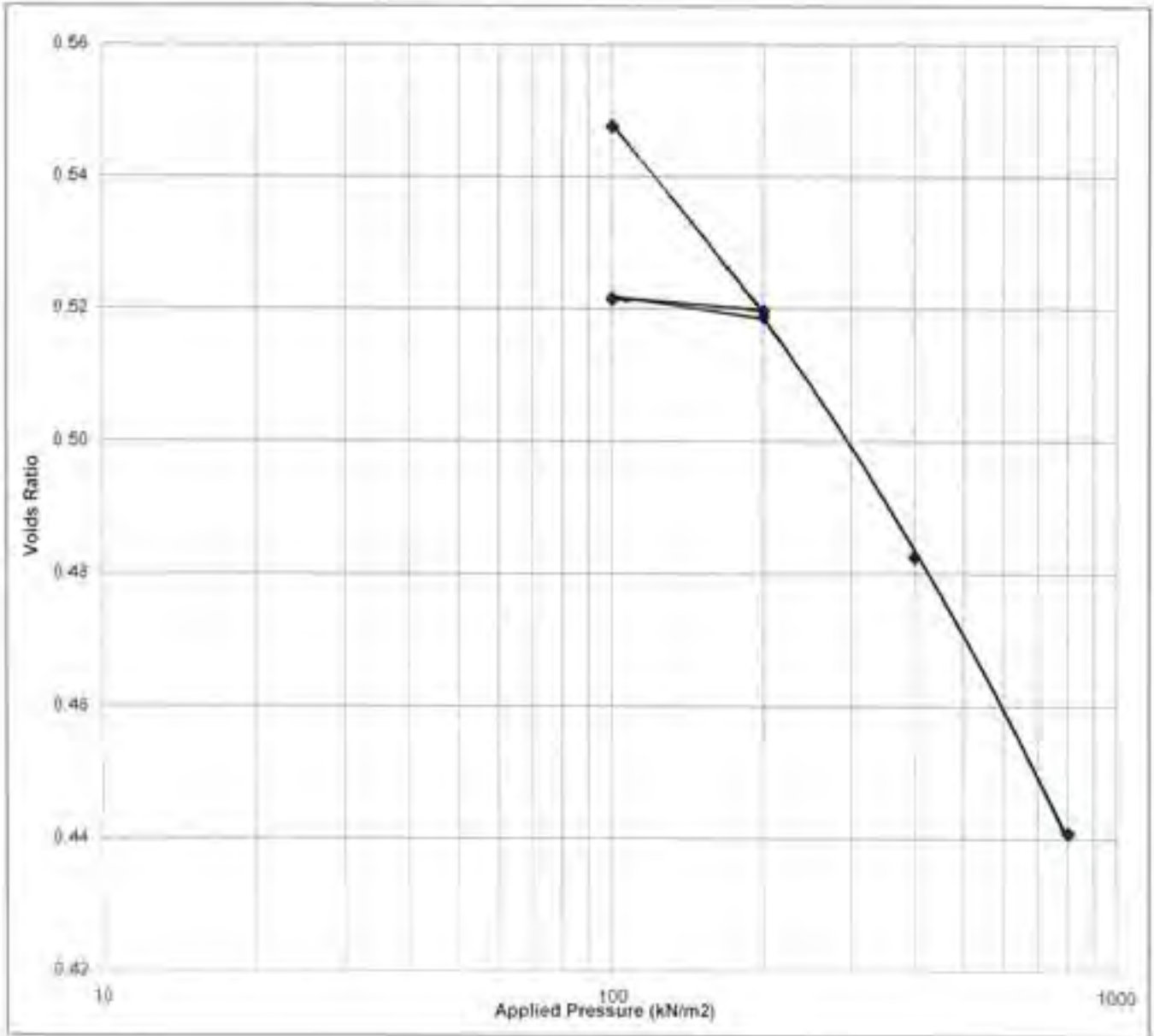
Contract Title		Client	
Prairie Site Ground Investigation Works		South Tees Development Corporation	
	Signed	Name	Page 1 of 2
	<i>M. Selkirk</i>	M. SELKIRK	
Date of Issue	Contract No.	AGS Contract No.	
10/10/2020	4251-B	4251	 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED



Head Office: Unit 25, 26 & 27, The Parkway, Southport, Merseyside, L35 5EF. Tel: 01757 506400 Fax: 01757 506401
Regional Offices: 100, 101 & 102, The Gateway, Southport, Merseyside, L35 5EF. Tel: 01757 506400 Fax: 01757 506401

ONE DIMENSIONAL CONSOLIDATION PROPERTIES BS 1377 : PART 5 : 1990 : CLAUSE 3

Exploratory Hole No	PRAIRIE_AUK_BH106	Sample	U2	Depth (m)	5.50m
Specimen Type	Undisturbed	Orientation	Vertical	Specific Depth (m)	5.50m



Contract Title: Prairie Site Ground Investigation Works	Client: South Tees Development Corporation
---	--

	Signed: <i>M. Selkirk</i>	Name: M. SELKIRK	Page 2 of 2	 1367
	Date of Issue: 18/10/2020	Certificate No: 4251/B	AEG Contract No: 4251	

Shear Strength by Hand Vane



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 15, South of Bourke Street, 1000 Park Road, Warrington, Cheshire, WA1 1RT, UK. Tel: 01925 720200 Fax: 01925 720201
Regional Office: Unit 20, Garsington Road, Oxford, OX4 2DQ, UK. Tel: 01865 206000 Fax: 01865 206001

DETERMINATION OF SHEAR STRENGTH BY HAND VANE

Exploratory Hole No.	Sample Depth (m)	Sample ID	Specific Depth (m)	Vane Shear Strength (kPa)	Remarks
PRAIRIE_AUK_BH104	8.50	U8	8.50	>130	Reading exceeded apparatus limits
PRAIRIE_AUK_BH104	8.50	U8	8.95	>130	Reading exceeded apparatus limits
PRAIRIE_AUK_BH103	2.50	U2	2.50	109	
PRAIRIE_AUK_BH103	2.50	U2	2.95	94	
PRAIRIE_AUK_BH103	4.50	U7	4.50	65	
PRAIRIE_AUK_BH103	4.50	U7	4.95	87	
PRAIRIE_AUK_BH103	1.20	U6	1.20	41	
PRAIRIE_AUK_BH103	1.20	U6	1.65	>130	Reading exceeded apparatus limits
PRAIRIE_AUK_BH103	5.00	U19	5.00	42	
PRAIRIE_AUK_BH103	5.00	U19	5.45	62	

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
---	--

	Signed :- <i>msene</i>	Name :-	Page 1 of 1	
	Date of issue :- 03/11/2020	Certificate No :- HSV/4251/1	AEG Contract No :- 4251	

**Undrained Shear Strength in Triaxial Cell
without Pore Water Pressure Measurement**



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: 04333 Bury Gate, Middlesbrough, Teesside, Cleveland, North Yorkshire, YO21 2JL, UK. Tel: 01709 361400 Fax: 01709 361415
Regional Offices: 100-125 Industrial Development Centre, Darlington, North Yorkshire, YO19 6JF, UK. Tel: 01709 756100 Fax: 01709 756109

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

BS 1377 - Part 7, Clauses 8 & 9 : 1990 Part 2 Clause 3.2

Exploratory Hole	Sample ID Depth (m)	Sample Type	Specific Depth (m)	Diameter (mm)	Length (mm)	Prep Method	Stage No.	Initial Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Membrane Thickness (mm)	Membrane Correction (kPa)	Cell Pressure (kPa)	Corrected Deviator Stress (kPa)	Failure Strain (%)	Mode of Failure	Cu (kPa)	Date Tested
PRAIRIE_AUK_BH101	3.00	U2	3.02	103.6	209.5	UNDISTURBED	1	32.7	1.95	1.47	0.3	1.10	60	52	20.0	F	26	17/06/2020
PRAIRIE_AUK_BH101	5.00	U1	5.18	104.0	211.0	UNDISTURBED	1	32.9	1.93	1.46	0.3	0.79	80	83	13.0	F	32	17/06/2020
PRAIRIE_AUK_BH101	8.00	U12	8.01	103.0	210.0	UNDISTURBED	1	27.3	1.98	1.55	0.4	0.94	110	97	11.0	BR	43	17/06/2020
PRAIRIE_AUK_BH101	11.00	U16	11.01	104.7	210.7	UNDISTURBED	1	16.1	2.19	1.89	0.9	0.85	140	251	14.5	F	125	17/06/2020
PRAIRIE_AUK_BH103	3.50	U2	2.80	103.5	210.4	UNDISTURBED	1	31.1	1.94	1.48	0.3	1.10	50	94	20.0	F	42	06/10/2020
PRAIRIE_AUK_BH103	4.50	U5	4.56	103.7	211.0	UNDISTURBED	1	25.4	1.97	1.56	0.4	0.88	100	147	10.0	C	74	06/10/2020
PRAIRIE_AUK_BH100	7.00	U14	7.02	102.9	210.8	UNDISTURBED	1	27.4	1.97	1.55	0.3	0.43	150	106	8.0	BR	53	06/10/2020
PRAIRIE_AUK_BH103	18.00	U21	10.25	103.5	211.7	UNDISTURBED	1	17.2	2.07	1.77	0.3	0.92	200	185	16.0	C	93	06/10/2020
PRAIRIE_AUK_BH104	5.60	U2	5.53	101.8	211.5	UNDISTURBED	1	25.8	1.92	1.53	0.4	0.58	110	230	8.0	BR	115	06/10/2020
PRAIRIE_AUK_BH100	5.50	U2	5.57	103.3	210.1	UNDISTURBED	1	23.0	2.06	1.68	0.3	1.08	110	136	19.5	C	68	06/10/2020
PRAIRIE_AUK_BH100	6.50	U6	8.60	104.6	211.2	UNDISTURBED	1	14.3	2.25	1.97	0.4	1.24	175	502	16.5	C	251	06/10/2020
PRAIRIE_AUK_BH101	3.30	U2	3.00	102.6	212.7	UNDISTURBED	1	29.9	1.95	1.50	0.4	1.36	60	51	16.0	F	25	10/07/2020
PRAIRIE_AUK_BH107	5.00	U7	5.06	103.4	211.1	UNDISTURBED	1	23.6	2.05	1.66	0.3	1.01	100	134	18.0	BR	67	13/07/2020
PRAIRIE_AUK_BH109	3.80	U13	5.05	103.2	211.2	UNDISTURBED	1	23.6	2.04	1.65	0.3	0.82	60	142	13.5	BR	71	13/07/2020
PRAIRIE_AUK_BH110	4.80	U2	3.03	103.1	211.1	UNDISTURBED	1	30.4	1.91	1.47	0.3	0.85	60	71	10.0	BR	36	13/07/2020

For description of sample please refer to the Laboratory Sample Description Sheet. Please note the rate of strain was 2% per minute and the orientation of the test specimen was vertical. Latex membrane used.



Date of Issue : 23/10/2020

Certificate No : TXL/4251/1

Signed : *MSOR*

Name : *MSOR*

Page 1 of 2



Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

10000 100th Street, Edmonton, Alberta T5A 0C6, Canada
 Tel: (780) 443-2222 Fax: (780) 443-2223

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

BS 1377 Part 3: Clauses 8.8 & 9 1990 Part 2 Clause 3.2

Experiment No.	Sample ID	Specimen Depth (mm)	Diameter (mm)	Length (mm)	Prep Method	Slope (%)	Moisture Content (%)	Soil Description	Dr. Density (kg/m ³)	Sk. Density (kg/m ³)	Membrane Thickness (mm)	Membrane Correction (%)	Cell Pressure (kPa)	Corrected Deviator Stress (kPa)	Failure Strain (%)	Mode of Failure	Failure Angle (°)	Date Tested
1	10000-100-1	840	100.7	210.6	Hand Compacted	1	64.2	Clay	1.54	2.06	0.3	0.60	100	105	12.5	C	52	10/07/2020
2	10000-100-2	805	100.6	212.2	Hand Compacted	1	39.1	Sand	1.79	2.15	0.2	1.09	160	144	19.5	C	72	10/07/2020
3	10000-100-3	1100	100.9	211.0	Hand Compacted	1	10.4	Clay	2.29	2.33	0.7	2.54	220	782	20.0	C	39	10/07/2020

Note: All specimens of same phase refer to the Laboratory Sample Description Sheet. Please note the rate of strain was 2% per minute and the orientation of the test specimen was vertical. Later than the time and



10/07/2020

Site Code No.

AL 42612

Signed

Mason

Name

Page 2 of 2

South Trust Development Corporation

Contact No.

Praxis Site Ground Investigation Works

AEG Contract No.

4261

1367

Determination of Point Load Index

ALLIED EXPLORATION & GEOTECHNICS LIMITED



Head Office: Unit 21, West of Alton Road, Alton, Hampshire, UK. Contact: 01493 507400 Fax: 01493 507404
Regional Office: Unit 25, Bicknham (Hampshire) Road, Bicknham, Hampshire, UK. Contact: 01493 507400 Fax: 01493 507404

POINT LOAD STRENGTH INDEX

ISRM : 1985

Exploratory Hole No	Depth (m)	Type/Orientation	Width (mm)	Platen Separation (mm)+	Failure Load (kN)*	De ² (mm ²)	Point Load (IS) (MPa)	Size Factor	Point Load Index (IS50) (MPa)	Type	Date Tested
WPA01E_A(ie_04110)	7.70	Vertical	65.5	58.4	0.4	8365.0	0.06	1.23	0.078	Sandstone	17/05/2020

NOTES: - *Tested specimen measured using calibrated vernier calipers - #-Invalid Failure (Did not pass through both points) :-Top soft to register a reading

	Date of issue :- 25/05/2020	Certificate No :- PL425111	Signed :- <i>msae</i>	Name :- <i>msae</i>	Page 1 of 1
	Client :- South Tees Development Corporation	Contract Title :- Praise Site Ground Investigation Works	AEG Contract No :- 4251		

**Determination of Unconfined Compressive Strength
(Tested Externally)**

