

Miss T. Maund  
Thyme Cottage  
Loraine  
Treloyhan  
St. Ives  
Cornwall  
TR26 2AP

Our Ref: NI.53561

Date 15/05/2012

Dear Sir/Madam

### Drilling Investigation Report

Aucklands, St. Ives Road, St. Ives, Cornwall

## **INTRODUCTION**

Further to your request, we are pleased to present our Drilling Investigation Report for the above property.

## **PREVIOUS WORK**

This report follows our Basic Mining Search (Ref: 53078) of February 2012. In that report, it was concluded:

The property lies within the Wheal Margery mining sett, which at one time may have been part of Trelyon Consols. According to our records, a lode outcrop is shown to pass through the southern part of the property area, at surface. It is not known by ourselves whether the lode has been worked or not.

An unnamed lode is indicated to pass through the northern part of the property area, at an undefined elevation of plot. Also a crosscourse is recorded to pass through the eastern part of the dwelling, at an undefined elevation plot. It is not known if either this lode or crosscourse has been worked at surface in the past.

## **SCOPE OF WORK**

This Drilling Investigation Report has been carried out in order to clarify, within the scope of the work, the presence or otherwise of any significant mining or other excavation features in the area of the dwelling only. At the clients request we were not requested to investigate lode recorded at surface through the garden area.

## **THE SITE**

The site is located off the western side of St. Ives Road, in St. Ives. The property comprised of a dwelling with a separate garage to the south. Gardens were depicted to the rear, front and side of the dwelling. The dwelling was slightly raised to the road.

The site investigation was carried out on the 10<sup>th</sup> and 11<sup>th</sup> April 2012, during dry and wet weather conditions.

## **SITE INVESTIGATION**

Investigation was carried out by means of rotary percussion open-hole drilling.

The drilling was undertaken using a Holman Unitrak drilling rig, carried out by Messrs Groundsearch. The operation was carried out using down-the-hole type hammer percussion drilling, using a 100mm diameter bit and a compressor. The compressed air returns the drill flush material to the surface, and this is examined and interpreted by ourselves.

It is considered that this method of drilling is amenable and appropriate for the identification of surface and near surface mining features, areas of voids or suspect soft, natural or man-made ground conditions. It should however be realised that, unlike core drilling in which full or partial core recovery is undertaken, the exact nature of the ground drilled cannot be examined and therefore the observed depths as detailed in the report are approximate. However, the fine dust and chippings returned via the compressed air flushing, combined with the observations of drilling rate provide sufficient information to provide a reasonable interpretation of ground conditions encountered.

The drill hole locations are shown on the attached 1:100 Site Investigation Plan and the drilling observations are shown on the attached log sheets.

7 No. inclined boreholes were carried out in the immediate dwelling area.

## **RESULTS**

It can be seen from the borehole logs that the ground conditions commenced with a layer of topsoil. Below this at a depth of approximately 0.2 metres below the existing surface, there was a natural, brown, earthy, sandy clay. Beneath this, at a depth of approximately 1.0 metres below the existing surface, there was a moderately weak to moderately strong, red/brown shale. At a depth of approximately 2.5 metres below the existing surface there was a moderately weak to moderately strong, moderately to highly weathered brown shale (at the front of the dwelling), at the rear of the dwelling this horizon was stronger as the shale was interbedded with greenstone.

No evidence of any backfilled or other, mining or other significant mining features were intersected by the drilling in the immediate dwelling area. No evidence of any lodes or other mineralised structures was intersected by the drilling. No groundwater was encountered by the drilling.

## **CONCLUSIONS**

With regard to the mining related aspects, the dwelling is considered to be acceptably free from mining related settlement or subsidence risk and is considered to be suitable for a purchase, loan or insurance decision in this respect.

## **LIMITATIONS**

The above observations and interpretation has been made based upon a number of borehole locations achieved within the time allowed. As with any mineralised area where mining features are encountered, the possibility of their existing additional localised deeper slots or extensions of discovered mining features cannot be totally overruled. It must also be accepted that ground conditions may vary outside the area covered by the boreholes, for which Mining Searches UK cannot be held responsible.

This report should not be considered to be an environmental or contaminated land survey.

No liability will be held by us to any persons not party to the commissioning of this report.

We trust the above is of assistance, and assure you of our best attention to any future requirements. Please do not hesitate to contact us should you have any query, or require any further assistance.

Yours faithfully

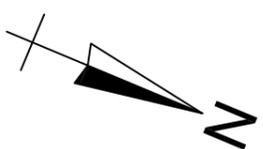
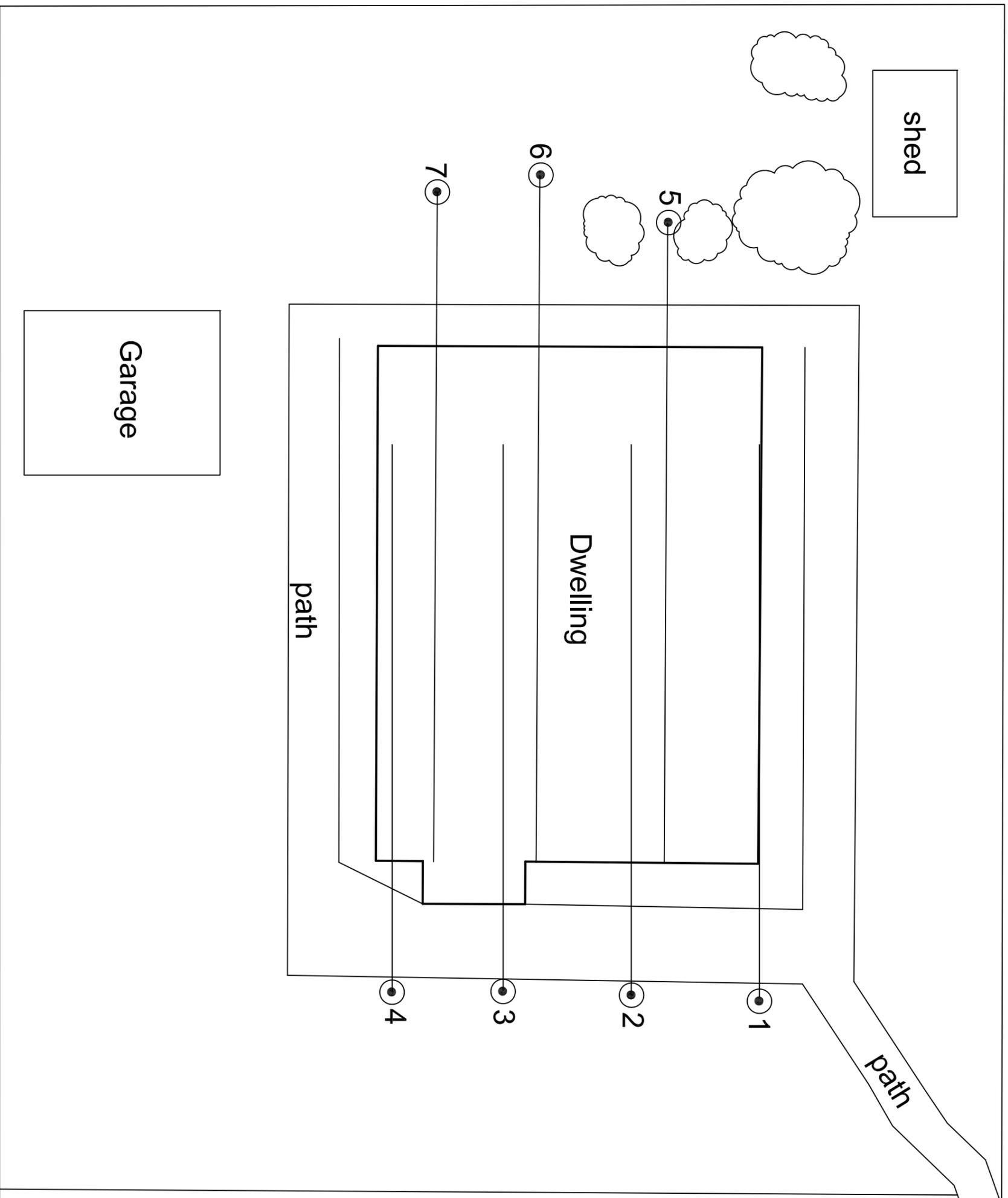
N. V. Ingerson  
Geologist

MINING SEACRHES UK

Attached:

1:100 Site Investigation Plan

1:50 Drill Logs



Plan based on site measurements, with added site observations.

Refer to Report No. 53561 of May 2012 for description and drill logs.

 Inclined/vertical drill hole with reference number.

			
Auckland, St. Ives Road, St. Ives, Cornwall.			
Client - Miss T. Maund & Mr D. Honey			
<b>Plan - Drill Hole Locations</b>			
SIZE A4	DWG NO. 53561/1	REV	
SCALE 1:100	NI	DATE 09/05/12	



Project  
Aucklands, St. Ives Road, St. Ives, Cornwall.

Job No. 53561	Date 10/04/2012	Ground Level (m)	Co-Ordinates
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CLIENT Miss T. Maund & Mr. D. Honey	DRILL HOLE No BH1	Sheet 1 of 1
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SAMPLES & TESTS			STRATA				
Depth	Type No.	Test Result	Water	Reduced Level	Legend	Drill length (thickness)	DESCRIPTION
						0.20	RDR, CH, GF, GR - Soft, brown TOPSOIL
						1.00	MDR, CH, GF, GR - Brown, earthy, SANDY CLAY
						(1.50)	MDR, CH, GF, GR - Moderately weak to moderately strong, red SHALE
						2.50	MDR, CH, GF, GR - Moderately weak to moderately strong, moderately to highly weathered, brown SHALE
						(21.00)	
						23.50	

RDR Rapid Drilling Rate MHDR Moderately High Drilling Rate MDR Moderate Drilling Rate MSDR Moderately Slow Drilling Rate SDR Slow Drilling Rate J Drill Bit Jamming	CH Constant Hammering IH Intermittent Hammering OH Occasional Hammering L/NH Little or No Hammering NH No Hammering	GR Good Returns MR Moderate Returns OC Occasional Returns PR Poor Returns NR No Returns	GF Good Flush PF Poor Flush NF No Flush	General Remarks  45°
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All dimension in metres Scale 1:50	Contractor GroundSearch	Method/ Plant used Holman Unitrak	Logged By NI
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CLIENT Miss T. Maund & Mr. D. Honey	DRILL HOLE No BH2	Sheet 1 of 1
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SAMPLES & TESTS			STRATA				
Depth	Type No.	Test Result	Water	Reduced Level	Legend	Drill length (thickness)	DESCRIPTION
						0.20	RDR, CH, GF, GR - Soft, brown TOPSOIL
						1.00	MDR, CH, GF, GR - Brown, earthy, SANDY CLAY
						(1.50)	MDR, CH, GF, GR - Moderately weak to moderately strong, red SHALE
						2.50	MDR, CH, GF, GR - Moderately weak to moderately strong, moderately to highly weathered, brown SHALE
						(21.00)	
						23.50	

RDR Rapid Drilling Rate MHDR Moderately High Drilling Rate MDR Moderate Drilling Rate MSDR Moderately Slow Drilling Rate SDR Slow Drilling Rate J Drill Bit Jamming	CH Constant Hammering IH Intermittent Hammering OH Occasional Hammering L/NH Little or No Hammering NH No Hammering	GR Good Returns MR Moderate Returns OC Occasional Returns PR Poor Returns NR No Returns	GF Good Flush PF Poor Flush NF No Flush	General Remarks  45°
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All dimension in metres Scale 1:50	Contractor GroundSearch	Method/ Plant used Holman Unitrak	Logged By NI
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SAMPLES & TESTS			STRATA				
Depth	Type No.	Test Result	Water	Reduced Level	Legend	Drill length (thickness)	DESCRIPTION
						0.20	RDR, CH, GF, GR - Soft, brown TOPSOIL
						1.00	MDR, CH, GF, GR - Brown, earthy, SANDY CLAY
						(1.50)	MDR, CH, GF, GR - Moderately weak to moderately strong, red SHALE
						2.50	
						(21.00)	MDR, CH, GF, GR - Moderately weak to moderately strong, moderately to highly weathered, buff/ brown SHALE
						23.50	

RDR Rapid Drilling Rate MHDR Moderately High Drilling Rate MDR Moderate Drilling Rate MSDR Moderately Slow Drilling Rate SDR Slow Drilling Rate J Drill Bit Jamming	CH Constant Hammering IH Intermittent Hammering OH Occasional Hammering L/NH Little or No Hammering NH No Hammering	GR Good Returns MR Moderate Returns OC Occasional Returns PR Poor Returns NR No Returns	GF Good Flush PF Poor Flush NF No Flush	General Remarks  45°
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All dimension in metres Scale 1:50	Contractor GroundSearch	Method/ Plant used Holman Unitrak	Logged By NI
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SAMPLES & TESTS			STRATA				
Depth	Type No.	Test Result	Water	Reduced Level	Legend	Drill length (thickness)	DESCRIPTION
						0.20	RDR, CH, GF, GR - Soft, brown TOPSOIL
						1.30	MDR, CH, GF, GR - Brown, earthy, SANDY CLAY
						(2.70)	MDR, CH, GF, GR - Moderately weak to moderately strong, brown SHALE
						4.00	
						(19.50)	MDR, CH, GF, GR - Moderately strong, moderately weathered, brown SHALE
						23.50	

RDR Rapid Drilling Rate MHDR Moderately High Drilling Rate MDR Moderate Drilling Rate MSDR Moderately Slow Drilling Rate SDR Slow Drilling Rate J Drill Bit Jamming	CH Constant Hammering IH Intermittent Hammering OH Occasional Hammering L/NH Little or No Hammering NH No Hammering	GR Good Returns MR Moderate Returns OC Occasional Returns PR Poor Returns NR No Returns	GF Good Flush PF Poor Flush NF No Flush	General Remarks  45°
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All dimension in metres Scale 1:50	Contractor GroundSearch	Method/ Plant used Holman Unitrak	Logged By NI
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Mining Searches

Ground Investigation - Contamination Land Surveys

Project  
Aucklands, St. Ives Road, St. Ives, Cornwall.

Job No. 53561	Date 10/04/2012	Ground Level (m)	Co-Ordinates
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CLIENT Miss T. Maund & Mr. D. Honey	DRILL HOLE No BH5	Sheet 1 of 1
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SAMPLES & TESTS			STRATA				
Depth	Type No.	Test Result	Water	Reduced Level	Legend	Drill length (thickness)	DESCRIPTION
						0.20	RDR, CH, GF, GR - Soft, brown TOPSOIL
						1.00	MDR, CH, GF, GR - Brown, earthy, SANDY CLAY
						(1.50)	MDR, CH, GF, GR - Moderately strong, buff SHALE
						2.50	MSDR, CH, GF, GR - Very strong, light grey GREENSTONE/ METAMORPHOSED SHALE
						(21.00)	
						23.50	

RDR Rapid Drilling Rate MHDR Moderately High Drilling Rate MDR Moderate Drilling Rate MSDR Moderately Slow Drilling Rate SDR Slow Drilling Rate J Drill Bit Jamming	CH Constant Hammering IH Intermittent Hammering OH Occasional Hammering L/NH Little or No Hammering NH No Hammering	GR Good Returns MR Moderate Returns OC Occasional Returns PR Poor Returns NR No Returns	GF Good Flush PF Poor Flush NF No Flush	General Remarks  45°
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Job No. 53561      Date 10/04/2012      Ground Level (m)      Co-Ordinates

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SAMPLES & TESTS			Water	STRATA			
Depth	Type No.	Test Result		Reduced Level	Legend	Drill length (thickness)	DESCRIPTION
						0.20	RDR, CH, GF, GR - Soft, brown TOPSOIL
						1.00	MDR, CH, GF, GR - Brown, earthy, SANDY CLAY
						(1.50)	MDR, CH, GF, GR - Moderately weak to moderately strong, red SHALE
						2.50	MDR, CH, GF, GR - Moderately weak to moderately strong, moderately to highly weathered, brown SHALE
						(21.00)	
						23.50	

RDR Rapid Drilling Rate MHDR Moderately High Drilling Rate MDR Moderate Drilling Rate MSDR Moderately Slow Drilling Rate SDR Slow Drilling Rate J Drill Bit Jamming	CH Constant Hammering IH Intermittent Hammering OH Occasional Hammering L/NH Little or No Hammering NH No Hammering	GR Good Returns MR Moderate Returns OC Occasional Returns PR Poor Returns NR No Returns	GF Good Flush PF Poor Flush NF No Flush	General Remarks  45°
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All dimension in metres Scale 1:50      Contractor GroundSearch      Method/ Plant used Holman Unitrak      Logged By NI



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SAMPLES & TESTS			STRATA				
Depth	Type No.	Test Result	Water	Reduced Level	Legend	Drill length (thickness)	DESCRIPTION
						0.20	RDR, CH, GF, GR - Soft, brown TOPSOIL
						1.00	MDR, CH, GF, GR - Brown, earthy, SANDY CLAY
						(1.50)	MDR, CH, GF, GR - Moderately weak buff SHALE
						2.50	MDR, CH, GF, GR - Moderately strong, buff SHALE
						(21.00)	
						23.50	

RDR Rapid Drilling Rate MHDR Moderately High Drilling Rate MDR Moderate Drilling Rate MSDR Moderately Slow Drilling Rate SDR Slow Drilling Rate J Drill Bit Jamming	CH Constant Hammering IH Intermittent Hammering OH Occasional Hammering L/NH Little or No Hammering NH No Hammering	GR Good Returns MR Moderate Returns OC Occasional Returns PR Poor Returns NR No Returns	GF Good Flush PF Poor Flush NF No Flush	General Remarks  45°
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