



manalta coal ltd.
line creek mine

November 27, 1998

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Barry:

Please find attached a copy of the Mt. Michael Geology Report covering the drilling that was carried out in 1996.

This report contains all of the raw data collected during this program and the cross-sections created using Line Creek's MEDS modeling software.

My apologies for the tardiness of this report, but other work commitments and the low priority attached to this project at Line Creek prevented this work from being completed any sooner.

If you have any questions, please call me.

Yours truly,

Ted Hannah, P.Geol.
MANALTA COAL LTD.
Line Creek Mine



860

Mount Michael Project
Southeastern British Columbia
1998 Geological Report

B.C. Coal Licenses

285, 286, 289, 290, 291, & 304

Held By:
Manalta Coal Ltd.

Operated By:
Line Creek Mine

Submitted: November, 1998

Report By: Jason Halko

Supervised By: Ted Hannah, P.Geol.
Sr. Geologist, Line Creek Mine

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MOUNT MICHAEL

1.0 SUMMARY

The Mount Michael Project area lies within the Upper Elk Coalfield in the Rocky Mountains of southeastern British Columbia. The name refers to the ridge that is between the Line Creek Project and the Saddle Project, encompassed by B.C. Coal Licences 285, 286, 289, 290, 291 and 304. It is two kilometers north of Manalta's Line Creek open pit mine development. A coal preparation plant and railway loading facility are 9.5 kilometers further away on the mine hauling road. From the plant site, it is approximately 27 kilometers to the town of Sparwood and 1150 kilometers to the Vancouver area coal ports.

In regional geological terms, the Horseshoe Ridge, Saddle and Mt. Michael projects are located on the eastern limb of the Fording Syncline. The Line Creek development is on the western limb of this syncline on the opposite side of Line Creek from Horseshoe Ridge. The surface topography follows the geological structure with some dip slopes on the synclinal limbs.

On Mount Michael there exists the entire early Cretaceous coal bearing Mist Mountain Formation of the Kootenay Group, plus it is repeated below the main package due to thrust faulting.

Work to date on Mt. Michael has consisted of some bulldozer trenching of the lower repeated package, which was re-examined in a reconnaissance manner in

1978 (reported in 1979) by Crows Nest Resources Limited. During the fall of 1980 a program of surface geological mapping and hand trenching was carried out on the west slopes of Mt. Michael. In 1981 a program of detailed geological mapping and extensive hand trenching was carried out. To date there have been 118 hand trenches dug, totaling over 775 meters in length. In 1996, 6 helicopter diamond drill holes, totaling 2477 meters were drilled on Mt. Michael, distributed along the entire length of the ridge.

From the data collected to date, 43 meters of coal lie within a 264 meter stratigraphic section under the western slopes of Mt. Michael. Additional exploration is required to fully evaluate the geometry, resource potential and structural complexity of the area.

2.0 INTRODUCTION

2.1 Location and Physiography

The Mount Michael licences are located 12 km southeast of Elkford in the Upper Elk Coalfield of southeastern B.C. They are centered at approximately 114° 45' 30" west longitude, 49° 58' north latitude (NTS Map Sheet 82G/15 Tornado Mountain). (Figure No.1) These licences (285, 290, 291, 304 and parts of 286 and 289) cover an area of 944 hectares.

In elevation, the property varies between 1800m and 2475m. A north trending ridge is the main physiographic feature, with a steep, east facing

slope and a more moderate west facing slope. The eastern slope has very little tree cover and has several avalanche chutes. Outcrop is fairly abundant, with some sandstone beds being exposed laterally over several hundred meters. Vegetation on the western slope varies from moderately thick spruce forest at the valley bottom to sub-alpine shrubs and grasses near the ridge top. Outcrop is rare on the lower slopes but becomes increasingly more common near the top of the ridge.

2.2 Access

Currently, only the lower elevations on Mt. Michael can be reached by vehicular traffic. On the east side, the Ewin Pass access road traverses across the lower part of the slope from Line Creek to Ewin Pass. On the west side an old fire access road along Dry Creek allows four-wheel drive access to the bottom of the west slope from the Fording Highway.

During the 1996 drilling program, a helicopter and heliportable rig were used to gain access to the top of the ridge.

3.0 SUMMARY OF WORK DONE

3.1 Previous Work

Prior to 1981, limited work had been completed on the Mt. Michael licenses. The Geological Survey of Canada published a geological report by R. A. Price (1961) which included the Mt. Michael project area. This

study by Price and subsequent report showed that the Mt. Michael area contained Jurassic/Cretaceous coal-bearing strata.

Prior to 1978, Crows Nest Industries explored the lower part of the eastern slope by bulldozer trenching while in the process of building the Ewin Pass access road. N. Elphinstone also covered the area briefly in the report on this reconnaissance in 1951.

John Fisher (1978) mapped the eastern slope as part of his reconnaissance mapping of the North Central Block for Crows Nest Resources Limited. He measured several stratigraphic sections and coal seams along the east slope. The west side of the ridge was reviewed briefly and one stratigraphic section was measured. The geology was plotted on 1:5,000 air photo blow-ups. Mr. Fisher made special note of a 6-meter thick seam seen roughly paralleling the top of the ridge, which he tentatively identified as the Number 7 seam. In his report he recommended examining that seam and several others in detail as they occurred in a dip slope situation.

In 1980, a four week program of field mapping at 1:5,000 scale and manual trenching of ten coal seams was carried out. This was reported in a report entitled Mount Michael, South Eastern British Columbia, 1980 Geological Report.

In 1981 a total of 600 hectares were mapped at 1:2,000 and 1:5,000 scale. Also, 108 hand trenches totaling 759 meters were dug through

selected coal seams. These coal seams were subsequently described in detail and sampled. True thickness stratigraphic sections of the trench logs were drawn up. As well, nine air photo targets were established and their locations surveyed in. This information was compiled in a report entitled Mount Michael Project, South Eastern British Columbia, 1981 Geological Report.

3.2 Scope and Objectives of the 1996 Program

The 1996 exploration program on Mt. Michael was planned to further explore the B.C. Coal Licenses 285, 286, 289, 290, 291 and 304.

The objective of the program was to determine the subsurface stratigraphy of Mt. Michael in order to compare it's mining potential with other key long term exploration targets at Line Creek.

3.3 Work Completed in 1996

- 6 helicopter diamond drill holes totaling 2,477 meters were drilled on the ridge of Mt Michael. For the drill hole summary see Figure No. 2. The U.T.M. co-ordinates of the 6 drill holes were determined using a Global Positioning System (GPS) (Figure No. 3). The Geology map at 1:5,000 scale, shows the drill hole locations (Appendix I). Drillhole seam intersections are located within Appendix II.

- All geophysical logging was completed through the drill rods. On each hole, gamma, density and deviation runs were completed (Appendix III).
- The core recovered from the 6 diamond drill holes were geologically logged at Manalta's Line Creek Mine. Core descriptions may be found in Appendix IV.
- Coal quality was determined as follows: Proximate analyses were completed on raw incremental samples and on clean composite samples at the Line Creek Lab. (Appendix V) Petrographic analysis was completed on selected samples by CANMET. (Appendix VI)
- A pre-1996 Medsystem Mine Modeling Software (MEDS) geological model already existed for the Mt. Michael Property based upon field mapping and extrapolations from the surrounding areas. The project area was remodeled in 1998 based upon the 1996 drilling. Updated cross sections at 1:5,000 scale can be found in Appendix VII.

4.0 GEOLOGY

4.1 Regional Stratigraphy

This report follows the stratigraphic nomenclature proposed by D. W. Gibson of the Geological Survey of Canada in 1979. Figure No. 4

illustrates the stratigraphic nomenclature, as proposed by Gibson, for the Jurassic/Cretaceous strata investigated.

Withdrawal of the Fernie Sea northeastward and deposition of the Kootenay Group strata were initiated by an epirogenetic uplift of the source area on the southwest during an early phase of the Columbian Orogeny in late Jurassic time.

Kootenay Group strata, a thick sequence of clastic sediments, represent a delta pro-gradation northeastward, an environment favorable for coal deposition. It is a transition from a marine (underlying shales of the Fernie Formation) to a fully alluvial (overlying conglomerates and coarse sandstones of the Blairmore Group) terrestrial environment.

Coal is present throughout the Kootenay Group strata, although all technically economic seams occur in the Mist Mountain Formation. The Moose Mountain Member of the Morrissey Formation and the Elk Formation lie respectively under and over the main coal bearing formation. Prior to 1979 these stratigraphic units were called the Moose Mountain, Coal Bearing and Elk Members of the Kootenay Formation.

The Moose Mountain Member is a resistant, generally cliff-forming unit comprised of massive, medium to coarse-grained, medium-gray weathering sandstone. There are commonly two coal horizons within this sandstone, but their small thickness (rarely over one meter) and the overlying massive sandstone make them unattractive for economic

consideration. The distinctive nature and prominence of this unit makes it an easily traceable marker horizon throughout the Crows Nest Coalfield of southeastern B.C.

The Mist Mountain Formation is the main coal-bearing unit of the Kootenay Group. It overlies the Moose Mountain Member with an abrupt but conformable contact.

It is comprised of a generally recessive, interbedded sequence of brownish tinted sandstones, gray to brown siltstones, gray and black shales, gray mudstones and coal seams. In the Elk Coalfield this formation ranges in thickness between 400 meters and 660 meters. The coal seams attain a maximum individual thickness of over 10 meters and a lateral extent of several kilometers.

The Elk Formation lies conformably but abruptly over the Mist Mountain Formation. It consists of an interbedded sequence of cliff forming sandstones, shales and siltstones and thin (less than 1 m), sporadic coal seams.

The exact base of the Elk Formation is somewhat arbitrary as it is defined as being "the base of the first major sandstone or conglomerate above the uppermost major coal seam in the Mist Mountain formation" (Gibson, 1979). Therefore the stratigraphic position of the Mist Mountain-Elk formational contact may vary slightly between project areas.

4.2 Regional Structure

The Mount Michael project area is affected by two main structural elements, the Fording Thrust Fault and the Fording Syncline.

The Fording Thrust has caused a repeat of the coal bearing Kootenay Group strata. The Fording Thrust and sequences of the lower plates outcrop along the steep east facing slopes and dip westward under the uppermost plate.

The northerly plunging Fording Syncline dominates the upper plate structures. Dry Creek is the surface expression of the synclinal axis with coal licences on the west limb (Burnt Ridge) being held by Fording Coal Ltd. The west facing slopes of the project area are the surface expression of the east limb of this syncline. This so-called dip slope situation is favorable for open pit mine development.

4.3 Mt. Michael Geology

In 1981 the surface outcropping of the Fording Thrust was located on the east slope of Mt. Michael. Kootenay Group strata, which occur below the thrust, are repeated in the upper plate. Near the southern half of the property Moose Mountain sandstone has been thrust over Elk Formation strata, indicating a vertical displacement of 400 to 600 meters along the fault.

Within the upper plate, trenching, mapping and drilling have revealed 10 to 12 coal seams, ranging between 1.5 and 7.2 meters in thickness. The identified coal seams include 2, 3LA, 4, 5L, 7U, 7L, 8M, 8U, 8L, 8R, 10A and 10L. To facilitate modeling, feature codes have been designated to each of the seams, a description of which is presented in Figure No. 5. The aggregate thickness of these seams is 43 meters within a 264 meter stratigraphic section. This coal thickness does not include Seam 10, which occurs just above the Fording Thrust at the north and south ends of the property. This seam, which in trench MS-5 is has a true thickness of greater than 20 meters, has a strike length of over 2,000 meters but has been truncated by the thrust fault in the central portion of the property. A 150 to 200 meter section of recessive shales, siltstones and mudstones with only minor (i.e., less than 1.0 meter) coal seams separates Seam 10 from the rest of the major coal seams.

In the northern portion of the Mt. Michael property there is strong evidence for thrust faulting. Drill hole MM96-05 reveals repeated coal seams which leads us to this conclusion.

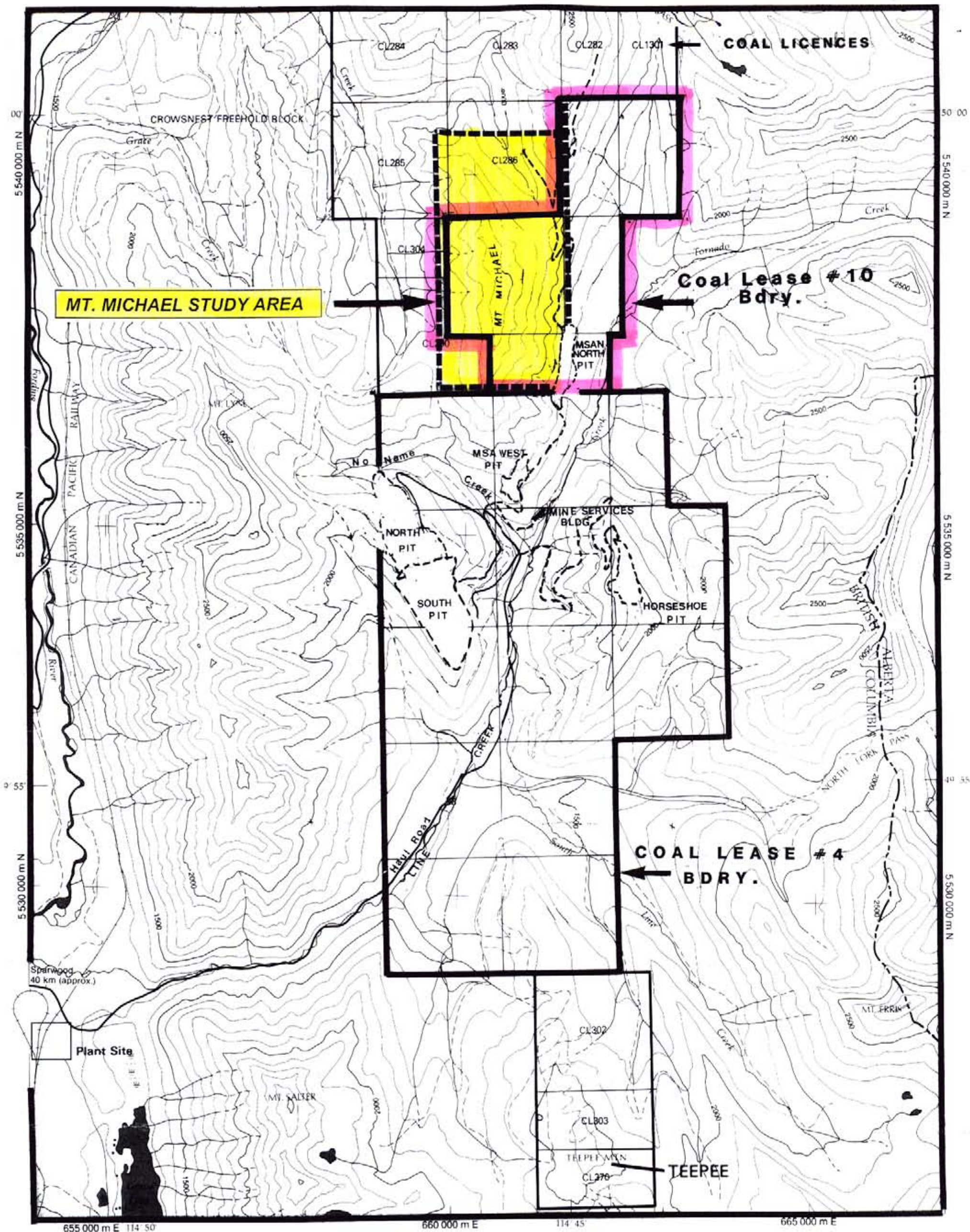
The dip in the east limb of the Fording Syncline on Mt. Michael generally decreases as one moves from the south to north. As well, the stratigraphic sequence gets thinner as you proceed north.

Because of the dip-slope situation, fault repeating and thinning stratigraphic sequence, Mt. Michael deserves further detailed exploration to reveal its future economic potential.

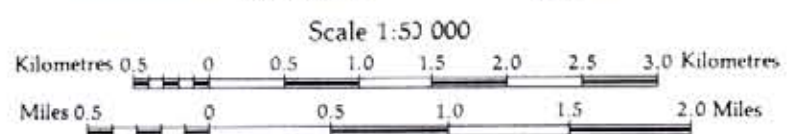
Bibliography

Hannah, T. Sharma, A. (1996) – Assessment Report for Saddle Surface Geophysics Project, 1996, Line Creek Resources Ltd.

White, A.M. (1982) – Mount Michael Project, South Eastern British Columbia, 1981 Geological Report, Crows Nest Resources Limited, Internal Report



Reference map produced by the Survey and Mapping Branch, Department of Energy, Mines and Resources in 1973 and updated from 1979 Province of British Columbia 1:100,000 mapping. Metric contours were manually interpolated.



Contour Interval 100m
 Transverse Mercator Projection
 Universal Transverse Mercator Grid Zone II

- Legend**
- Road: Highway, Main road
 - Road: Loose surface, Dry weather
 - Track or trail
 - Railway
 - River
 - Stream
 - Contours
 - Licence boundary
 - Licence group boundary
 - Study Area

LINE CREEK

INDEX MAP
 MT. MICHAEL STUDY AREA

Own by J.Halko	Date SEPTEMBER 1998
Drawn by	File no.

Mt. Michael Drill-hole Summary

<u>Drill-hole #</u>	<u>Total Depth</u> (Meters)	<u>Logs Run</u>	<u>Seams Intersected</u>	<u>Date Drilled</u>
MM96-01	400	G, D, Dev	3LA, 4, 5L, 7U, 7L, 8M, 8U, 8L, 8R, 10A, 10L, CO	2-Aug-96
MM96-02	207	G, D, Dev	7L, 8M, 8U, 8L, 8R, 10A, 10L, CO	6-Aug-96
MM96-03	430	G, D, Dev	3LA, 4, 7U, 7L, 8M, 8U, 8L, 8R, 10A	4-Aug-96
MM96-04	487.7	G, D, Dev	3LA, 4, 5L, 7U, 7L, 8U, 8L, 8R, 10A, CO	14-Aug-96
MM96-05	639.2	G, D, Dev	3LA, 4, 5L, 7U, 7L, 8U, 8L, 8R, 8M, 10A	19-Aug-96
MM96-06	313	G, D, Dev	8M, 8U, 8R, 10A, CO	20-Aug-96

Total: 2476.9

where: G = Gamma Log
D = Density Log
Dev = Deviation Log

Mt. Michael Survey Data

<u>Hole Number</u>	<u>Northing</u> (U.T.M.)	<u>Easting</u> (U.T.M)	<u>Elevation</u> (Meters)	<u>Angle</u> (Degrees From Horizontal)	<u>Azimuth</u> (Degrees)
MM96-01	5539167.5	659934.9	2395.9	60	90
MM96-02	5539216.8	660095.6	2457.5	60	90
MM96-03	5538139.3	660101.8	2333.3	60	90
MM96-04	5537518.9	660314.4	2389.3	60	90
MM96-05	5540101.8	659319.6	2189.7	60	90
MM96-06	5538187.6	660358.2	2446.9	60	90

Figure No. 3

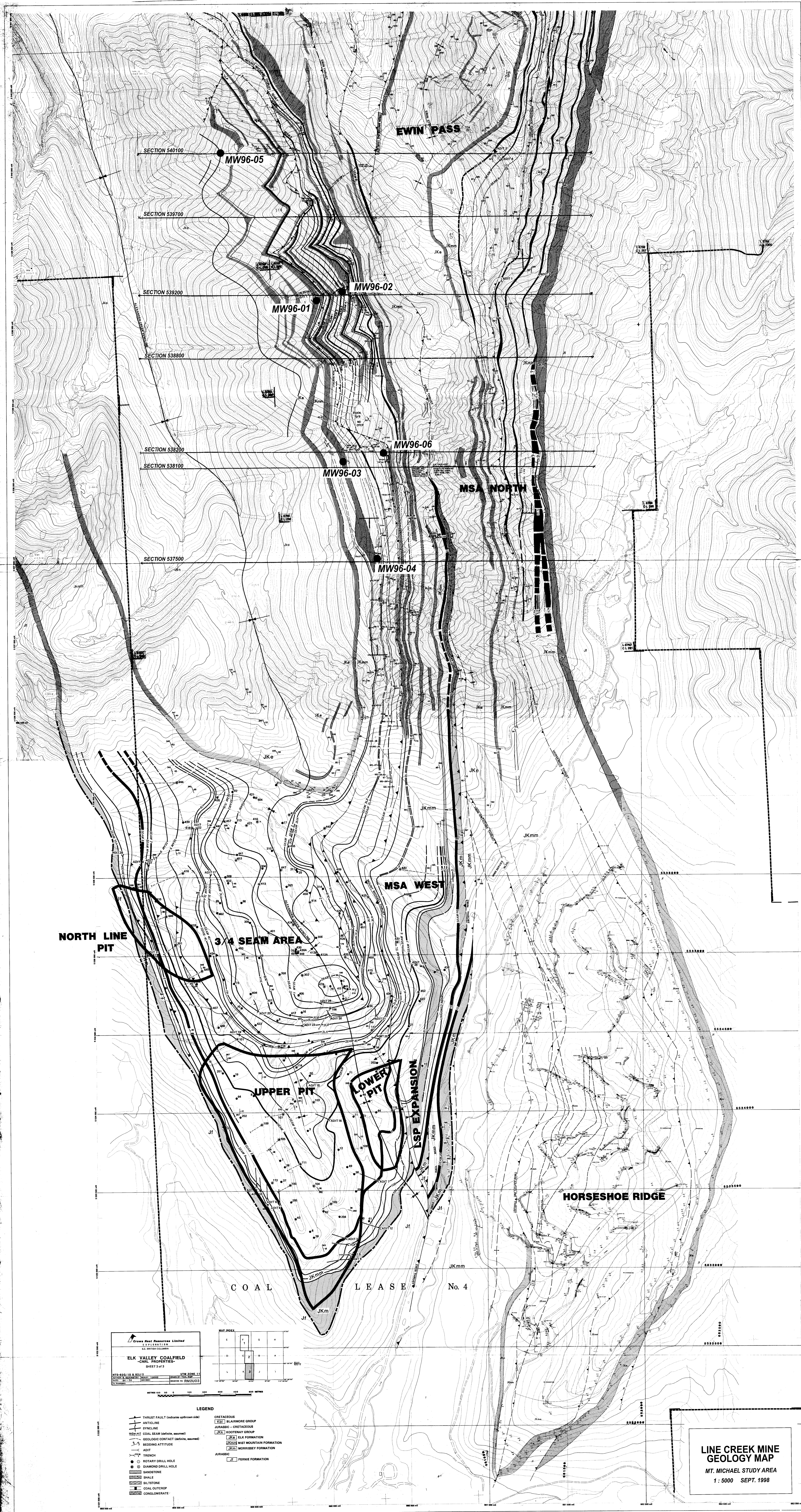
NORRIS 1959 AB	NEWMARCH 1953 BC	PRICE 1962,66 BC	JANSA 1972 AB & BC	GIBSON 1977 AB & BC	GIBSON 1979 AB & BC	THIS REPORT MT. MICHAEL
CADOMIN FM	CADOMIN FM	CADOMIN FM	CADOMIN FM	CADOMIN FM	CADOMIN FM	
	ELK FM		ELK MBR	POCATERRA CREEK MBR	POCATERRA CREEK MBR	POCATERRA CREEK MBR
		MUTZ MBR		ELK MBR	ELK FM	ELK FM
MUTZ MBR						
	KOOTENAY FM					
HILLCREST MBR		HILLCREST MBR	COAL BEARING MBR		MIST MOUNTAIN FM	MIST MOUNTAIN FM
ADANAC MBR		ADANAC MBR				
MOOSE MTN MBR	BASAL KOOTE MAY SAND	MOOSE MTN MBR	MOOSE MTN MBR	BASAL SS MBR	MOOSE MTN MBR	MOOSE MTN MBR
			UNIT 2	UNIT A	WEARY RIDGE MBR	WEARY RIDGE MBR
			UNIT 1	UNIT B		
			SS 50%	SS 100%	SS 100%	
FERNIE FM	FERNIE FM	FERNIE FM	FERNIE FM	FERNIE FM	FERNIE FM	FERNIE FM

FIG. No. 4

Mt Michael Coal Seam Number/Feature Code

<u>Coal Seam</u>	<u>Meds Feature Code</u>
2	13
3LA	29
4	33
5L	40
7U	57
7L	59
8M	62
8U	63
8L	67
8R	69
10A	85
10L	87

Figure No. 5

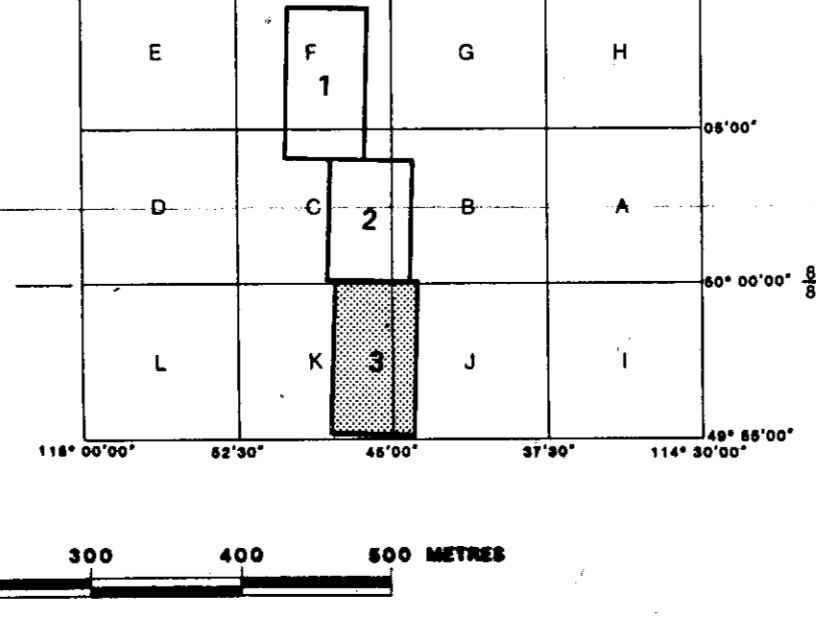


Crows Nest Resources Limited
 ELK VALLEY COALFIELD
 SHEET 3 of 3

MTM 88/18 & 88/23
 PROJECT & MONITORING POINTS
 DATE: 04/98
 DRAWN BY: RM2UD/3

UTM ZONE 41
 1000000 1000000
 1000000 1000000

METRES 0 100 200 300 400 500 600



- LEGEND**
- THRUST FAULT (indicates upstream side)
 - ANTICLINE
 - SYNCLINE
 - COAL SEAM (width, assumed)
 - GEOLOGIC CONTACT (width, assumed)
 - BEDDING ATTITUDE
 - ADIT
 - TRENCH
 - ROTARY DRILL HOLE
 - DIAMOND DRILL HOLE
 - SANDSTONE
 - SHALE
 - SILTSTONE
 - COAL OUTCROP
 - CONGLOMERATE

- CRETACEOUS
- BLAIRMORE GROUP
- JURASSIC - CRETACEOUS
- KOOTENAY GROUP
- ELK FORMATION
- MIST MOUNTAIN FORMATION
- MORRISSEY FORMATION
- JURASSIC
- FERRIE FORMATION

**LINE CREEK MINE
 GEOLOGY MAP**
 MT. MICHAEL STUDY AREA
 1:5000 SEPT. 1998

Coal Seam Intersections

PROJECT:
HOLE:
EAST:
NORTH:
ELEVATION:
PLUNGE:

Mt Michael
MM-96-01
659934.9
5539167.5
2395.9
60°/090°

DATE DRILLED:

Aug 2/96

(site P1)

LITHOLOGY DATA						DEVIATION DATA				
HORIZON	SEAM	M-B-T CODE	TOP	BASE	THICK	DEPTH		THICK	AZIMUTH	INCLINATION (FROM HORIZ)
A SEAM	SEAM	CODE	TOP	BASE	THICK	FROM	TO			
MS	303	5	0.0	23.7	23.7					
3LA	29	4	23.7	25.4	1.7					
MS	303	5	25.4	26.4	1.0					
3LA	29	4	26.4	27.2	0.8					
MS	303	5	27.2	30.5	3.3					
3LA	29	4	30.5	31.3	0.8					
MS	29	5	31.3	32.2	0.9					
3LA	29	4	32.2	34.1	1.9					
MS	29	5	34.1	34.4	0.3					
3LA	29	4	34.4	35.2	0.8					
MS	303	5	35.2	49.7	14.5					
SS	301	5	49.7	56.3	6.6					
MS	303	5	56.3	60.2	3.9					
4	33	4	60.2	66.1	5.9					
MS	303	5	66.1	68.4	2.3					
CO	91	4	68.4	69.2	0.8					
MS	303	5	69.2	76.5	7.3					
SS	301	5	76.5	81.2	4.7					
MS	303	5	81.2	82.3	1.1					
CO	2	4	82.3	83.5	1.2					
MS	303	5	83.5	109.8	26.3					
70	57	4	109.8	111.3	1.5					
MS	303	5	111.3	115.5	4.2					
71	59	4	115.5	118.2	2.7					
MS	303	5	118.2	121.1	2.9					
SS	301	5	121.1	123.1	2.0					
MS	303	5	123.1	126.7	3.6					
SS	301	5	126.7	128.3	1.6					
MS	303	5	128.3	134.3	6.0					
SS	301	5	134.3	136.1	1.8					
MS	303	5	136.1	140.6	4.5					
8A	62	4	140.6	145.7	5.1					
MS	303	5	145.7	157.6	11.9					
8U	63	4	157.6	164.3	6.7					
MS	303	5	164.3	167.0	2.7					
8L	67	4	167.0	169.3	2.3					
MS	303	5	169.3	171.2	1.9					

NOTE:

A SEAM - ALPHA-NUMERIC SEAM NAME
SEAM - INTEGER SEAM (COMPUTER SEAM CODE)

Coal Seam Intersections

PROJECT:
HOLE:
EAST:
NORTH:
ELEVATION:
PLUNGE:

Mt. Michael
MM-96-01
659934.9
553916715
2395.9
60°/090°

DATE DRILLED:

Aug 2/86

(site P1)

LITHOLOGY DATA						DEVIATION DATA				
HORIZON	SEAM	M-B-T CODE	TOP	BASE	THICK	DEPTH		THICK	AZIMUTH	INCLINATION (FROM HORIZ)
A SEAM	SEAM	CODE	TOP	BASE	THICK	FROM	TO	THICK	AZIMUTH	INCLINATION (FROM HORIZ)
MS	303	5	0.0	23.7	23.7					
3LA	29	4	23.7	25.4	1.7					
MS	303	5	25.4	26.4	1.0					
3LA	29	4	26.4	27.2	0.8					
MS	303	5	27.2	30.5	3.3					
3LA	29	4	30.5	31.3	0.8					
MS	29	5	31.3	32.2	0.9					
3LA	29	4	32.2	34.1	1.9					
MS	29	5	34.1	34.4	0.3					
3LA	29	4	34.4	35.2	0.8					
MS	303	5	35.2	49.7	14.5					
SS	301	5	49.7	56.3	6.6					
MS	303	5	56.3	60.2	3.9					
4	33	4	60.2	66.1	5.9					
MS	303	5	66.1	68.4	2.3					
CO	91	4	68.4	69.2	0.8					
MS	303	5	69.2	76.5	7.3					
SS	301	5	76.5	81.2	4.7					
MS	303	5	81.2	82.3	1.1					
CO	2	4	82.3	83.5	1.2					
MS	303	5	83.5	109.8	26.3					
7U	57	4	109.8	111.3	1.5					
MS	303	5	111.3	115.5	4.2					
7L	59	4	115.5	118.2	2.7					
MS	303	5	118.2	121.1	2.9					
SS	301	5	121.1	123.1	2.0					
MS	303	5	123.1	126.7	3.6					
SS	301	5	126.7	128.3	1.6					
MS	303	5	128.3	134.3	6.0					
SS	301	5	134.3	136.1	1.8					
MS	303	5	136.1	140.6	4.5					
8A	62	4	140.6	145.7	5.1					
MS	303	5	145.7	157.6	11.9					
8U	63	4	157.6	164.3	6.7					
MS	303	5	164.3	167.0	2.7					
8L	67	4	167.0	169.3	2.3					
MS	303	5	169.3	171.2	1.9					

NOTE:

A SEAM - ALPHA-NUMERIC SEAM NAME
SEAM - INTEGER SEAM (COMPUTER SEAM CODE)

Coal Seam Intersections

PROJECT: _____
 HOLE: _____
 EAST: _____
 NORTH: _____
 ELEVATION: _____
 PLUNGE: _____

DATE DRILLED: _____

(site P1 cont')

LITHOLOGY DATA						DEVIATION DATA				
HORIZON A SEAM	SEAM	M.B.T.	TOP	BASE	THICK	DEPTH		THICK	MINE GRID ADJUST. AZIMUTH	INCL. (FROM HORIZON)
						FROM	TO			
8L	67	4	171.2	173.7	2.5					
MS	303	5	173.7	174.8	1.1					
8L	67	4	174.8	175.9	1.1					
MS	303	5	175.9	178.9	3.0					
SS	301	5	178.9	180.0	1.1					
MS	303	5	180.0	184.0	4.0					
SS	301	5	184.0	186.5	2.5					
MS	303	5	186.5	191.4	4.9					
SS	301	5	191.4	194.7	3.3					
MS	303	5	194.7	195.6	0.9					
8R	69	4	195.6	199.8	4.2					
MS	303	5	199.8	207.5	7.7					
CO	7	4	207.5	210.2	2.7					
MS	303	5	210.2	241.9	31.7					
10A	85	4	241.9	246.5	4.6					
MS	85	5	246.5	247.0	0.5					
10A	85	4	247.0	248.9	1.9					
MS	303	5	248.9	252.1	3.2					
10L	87	4	252.1	252.7	0.6					
MS	303	5	252.7	261.3	8.6					
MMST	300	5	261.3	265.1	3.8					
MS	303	5	265.1	266.5	1.4					
MMST	300	5	266.5	271.6	5.1					
MS	303	5	271.6	276.1	4.5					
CO	91	4	276.1	277.0	0.9					
MS	303	5	277.0	281.1	4.1					
CO	91	4	281.1	281.7	0.6					
MS	303	5	281.7	287.4	5.7					
MMST	300	5	287.4	321.0	33.6					
MS	303	5	321.0	326.0	5.0					
MMST	-300	5	326.0	343.0	17.0					
MS	303	5	343.0	350.2	7.2					
CO	91	4	350.2	350.7	0.5					
MS	303	5	350.7	352.0	1.3					
MMST	300	5	352.0	370.6	18.6					

Note:

A Seam - Alphanumeric seam name
 Seam - Integer seam (computer seam code)

DRILLSUM.XLS
 961015 / jmb

Coal Seam Intersections

PROJECT: Mt Michael
 HOLE: MM-96-03
 EAST: 660101.8
 NORTH: 5538139.3
 ELEVATION: 2333.3
 PLUNGE: 60°/090

DATE DRILLED: Aug 4/96

(SITE P3)

LITHOLOGY DATA						DEVIATION DATA				
HORIZON	SEAM	M&B-T CODE	TOP	BASE	THICK.	DEPTH		THICK.	AZIMUTH	INCLINATION (FROM HORIZ.)
A SEAM	SEAM	CODE	TOP	BASE	THICK.	FROM	TO	THICK.	AZIMUTH	INCLINATION (FROM HORIZ.)
MS	303	5	0.0	6.8	6.8					
SS	301	5	6.8	34.1	27.3					
MS	303	5	34.1	36.7	2.6					
L	13	4	36.7	41.6	4.9					
MS	303	5	41.6	60.1	18.5					
SS	301	5	60.1	74.5	14.4					
3LA	29	4	74.5	76.9	2.4					
MS	303	5	76.9	79.3	2.4					
3LA	29	4	79.3	80.4	1.1					
MS	303	5	80.4	90.2	9.8					
3LA	29	4	90.2	91.0	0.8					
MS	303	5	91.0	96.2	5.2					
3LA	29	4	96.2	97.2	1.0					
MS	303	5	97.2	99.9	2.7					
SS	301	5	99.9	119.9	20					
4	33	4	123.5	124.9	1.4					
MS	33	5	124.9	125.1	0.2					
4	33	4	125.1	126.9	1.8					
MS	33	5	126.9	127.2	0.3					
4	33	4	127.2	127.9	0.7					
MS	303	5	127.9	155.0	27.1					
SS	301	5	155.0	158.4	3.4					
MS	303	5	158.4	160.3	1.9					
FU	57	4	160.3	161.4	1.1					
MS	303	5	161.4	166.3	4.9					
7L	59	4	166.3	168.3	2.0					
MS	303	5	168.3	190.3	22.0					
SS	301	5	190.3	191.3	1.0					
MS	303	5	191.3	202.8	11.5					
8M	62	4	202.8	207.1	4.3					
MS	303	5	207.1	216.3	9.2					
8U	63	4	216.3	219.6	3.3					
MS	303	5	219.6	225.6	6.0					
SS	301	5	225.6	231.7	6.1					
MS	303	5	231.7	234.4	2.7					
SS	301	5	234.4	236.8	2.4					
MS	303	5	236.8	238.7	1.9					

NOTE:
 A SEAM - ALPHA-NUMERIC SEAM NAME

Coal Seam Intersections

PROJECT: _____
 HOLE: _____
 EAST: _____
 NORTH: _____
 ELEVATION: _____
 PLUNGE: _____

DATE DRILLED: _____

(SITE P3 cont')

LITHOLOGY DATA						DEVIATION DATA				
HORIZON A SEAM	SEAM	M.B.T.	TOP	BASE	THICK	DEPTH		THICK	MINE GRID ADJUST. AZIMUTH	INCL. (FROM HORIZON)
						FROM	TO			
8L	67	4	238.7	239.5	0.8					
MS	303	5	239.5	243.2	3.7					
SS	301	5	243.2	245.0	1.8					
MS	303	5	245.0	246.6	1.6					
8R	69	4	246.6	249.9	3.3					
MS	303	5	249.9	255.2	5.3					
SS	301	5	255.2	259.9	4.7					
MS	303	5	259.9	264.9	5.0					
SS	301	5	264.9	269.8	4.9					
MS	303	5	269.8	281.6	11.8					
SS	301	5	281.6	286.7	5.1					
MS	303	5	286.7	305.6	18.9					
10A	85	4	305.6	306.3	0.7					
MS	85	5	306.3	306.6	0.3					
10A	85	4	306.6	309.7	3.1					
MS	85	5	309.7	310.6	0.9					
10A	85	4	310.6	314.1	3.5					
MS	303	5	314.1	316.2	2.1					
10A	85	4	316.2	316.8	0.6					
MS	85	5	316.8	317.4	0.6					
10A	85	4	317.4	318.9	1.5					
MS	303	5	318.9	320.8	1.9					
10A	85	4	320.8	325.1	4.3					
MS	303	5	325.1	338.1	13.0					
SS	301	5	338.1	340.1	2.0					
MS	303	5	340.1	345.4	5.3					
MMST	300	5	345.4	361.0	15.6					
MS	303	5	361.0	363.8	2.8					
SS	301	5	363.8	366.9	3.1					
MS	303	5	366.9	382.8	15.9					
SS	301	5	382.8	395.8	13.0					
MS	303	5	395.8	424.8	29.0					
SS	301	5	424.8	430.0	5.2					

Note:

A Seam - Alpha numeric seam name
 Seam - Integer seam (computer seam code)

DRILLSUM.XLS
 961015 jmb

Coal Seam Intersections

Aug 14/96

PROJECT: Mt. MICHAEL
 HOLE: MM96-04
 EAST: 660314.4
 NORTH: 5537518.9
 ELEVATION: 2389.3
 PLUNGE: -60/090

DATE DRILLED: _____

LITHOLOGY DATA						DEVIATION DATA				
HORIZON	SEAM	M-B-T CODE	TOP	BASE	THICK	DEPTH		THICK	AZIMUTH	INCLINATION (FROM HORIZ)
A SEAM	SEAM	CODE	TOP	BASE	THICK	FROM	TO	THICK	AZIMUTH	INCLINATION (FROM HORIZ)
MS	303	5	0.0	30.3	30.3					
3LA	29	4	30.3	32.7	2.4					
MS	303	5	32.7	44.0	11.3					
3LA	29	4	44.0	45.9	1.9					
MS	303	5	45.9	47.0	1.1					
3LA	29	4	47.0	47.5	0.5					
MS	303	5	47.5	67.8	20.3					
3LA	29	4	67.8	68.9	1.1					
MS	303	5	68.9	72.2	3.3					
3LA	29	4	72.2	75.7	3.5					
MS	303	5	75.7	86.1	10.4					
3LA	29	4	86.1	88.8	2.7					
MS	303	5	88.8	89.3	0.5					
3LA	29	4	89.3	91.3	2.0					
MS	303	5	91.3	139.0	47.7					
SS	301	5	139.0	157.3	18.3					
MS	303	5	157.3	162.3	5.0					
4	33	4	162.3	162.9	0.6					
MS	303	5	162.9	168.3	5.4					
SL	40	4	168.3	169.2	0.9					
MS	303	5	169.2	170.4	1.2					
SL	40	4	170.4	172.2	1.8					
MS	303	5	172.2	174.9	2.7					
SS	301	5	174.9	177.3	2.4					
MS	303	5	177.3	215.6	38.3					
7U	57	4	215.6	216.0	0.4					
MS	303	5	216.0	219.6	3.6					
7L	59	4	219.6	220.5	0.9					
MS	303	5	220.5	220.7	0.2					
7L	59	4	220.7	221.3	0.6					
MS	303	5	221.3	249.5	28.2					
SS	301	5	249.5	256.7	7.2					
MS	303	5	256.7	268.9	12.2					
SS	301	5	268.9	280.8	11.9					
MS	303	5	280.8	290.2	9.4					
8U	63	4	290.2	295.9	5.7					
MS	303	5	295.9	297.3	1.4					

NOTE:
 A SEAM - ALPHA-NUMERIC SEAM NAME

21

Coal Seam Intersections

PROJECT: MT MICHAEL
 HOLE: MM96-05
 EAST: 659319.6
 NORTH: 5540101.8
 ELEVATION: 2189.7
 PLUNGE: -60/090

DATE DRILLED: Aug 19/96

LITHOLOGY DATA						DEVIATION DATA				
HORIZON	SEAM	M-B-T CODE	TOP	BASE	THICK	DEPTH		THICK	AZIMUTH	INCLINATION (FROM HORIZ)
A SEAM	SEAM	CODE	TOP	BASE	THICK	FROM	TO	THICK	AZIMUTH	(FROM HORIZ)
MS	303	5	0.0	34.9	34.9					
3LA	29	4	34.9	37.1	2.2					
MS	303	5	37.1	44.5	7.4					
SS	301	5	44.5	47.8	3.3					
MS	303	5	47.8	64.8	17.0					
4	33	4	64.8	66.1	1.3					
MS	303	5	66.1	74.3	8.2					
4	33	4	74.3	75.3	1.0					
MS	303	5	75.3	85.1	9.8					
CO	91	4	85.1	85.6	0.5					
MS	303	5	85.6	87.2	1.6					
SS	301	5	87.2	90.0	2.8					
MS	303	5	90.0	100.6	10.6					
SL	40	4	100.6	102.3	1.7					
MS	303	5	102.3	140.4	38.1					
CO	91	4	140.4	141.9	1.5					
MS	303	5	141.9	142.3	0.4					
70	57	4	142.3	143.9	1.6					
MS	303	5	143.9	147.4	3.5					
7L	59	4	147.4	148.6	1.2					
MS	303	5	148.6	162.3	13.7					
CO	91	4	162.3	163.3	1.0					
MS	303	5	163.3	180.0	16.7					
CO	91	4	180.0	181.5	1.5					
MS	303	5	181.5	181.8	0.3					
CO	91	4	181.8	182.5	0.7					
MS	303	5	182.5	218.3	35.8					
8U	63	4	218.3	224.1	5.8					
MS	303	5	224.1	226.5	2.4					
4L	67	4	226.5	227.0	0.5					
MS	303	5	227.0	230.2	3.2					
8R	69	4	230.2	231.8	1.6					
MS	303	5	231.8	282.3	50.5					
FLT	200	5	282.3	282.3	0.0					
MS	303	5	282.3	296.1	13.84					
8M	62	4	296.1	299.4	3.3					
MS	303	5	299.4	309.0	9.6					

NOTE:
A SEAM - ALPHA-NUMERIC SEAM NAME

Coal Seam Intersections

PROJECT: MT MICHAEL
 HOLE: MM96-05
 EAST: 659319.6
 NORTH: 5540101.8
 ELEVATION: 2189.7
 PLUNGE: -60/090

DATE DRILLED: Aug 19/96

LITHOLOGY DATA						DEVIATION DATA				
HORIZON	SEAM	MSE-T CODE	TOP	BASE	THICK	DEPTH		THICK	AZIMUTH	INCLINATION (FROM HORIZ)
A SEAM	SEAM	CODE	TOP	BASE	THICK	FROM	TO			
8U	63	4	309.0	312.7	3.7					
MS	303	5	312.7	314.6	1.9					
8L	67	4	314.6	318.7	4.1					
MS	303	5	318.7	321.7	3.0					
8L	67	4	321.7	323.3	1.6					
FLT	200	5	323.3	323.3	0.0					
MS	303	5	323.3	333.1	9.8					
SS	301	5	333.1	337.8	4.7					
MS	303	5	337.8	344.5	6.7					
7U	57	4	344.5	347.3	2.8					
MS	303	5	347.3	351.9	4.6					
7L	59	4	351.9	356.6	4.7					
MS	303	5	356.6	373.4	16.8					
CO	91	4	373.4	377.3	3.9					
MS	303	5	377.3	380.3	3.0					
SS	301	5	380.3	382.8	2.5					
MS	303	5	382.8	385.9	3.1					
CO	91	4	385.9	386.6	0.7					
MS	303	5	386.6	386.9	0.3					
CO	91	4	386.9	387.3	0.4					
MS	303	5	387.3	400.4	13.1					
8M	62	4	400.4	402.5	2.1					
MS	303	5	402.5	409.2	6.7					
8U	63	4	409.2	415.8	6.6					
MS	303	5	415.8	417.2	1.4					
SS	301	5	417.2	420.2	3.0					
MS	303	5	420.2	423.8	3.6					
SS	301	5	423.8	425.3	1.5					
MS	303	5	425.3	428.4	3.1					
8L	67	4	428.4	429.6	1.2					
MS	303	5	429.6	437.4	7.8					
8R	69	4	437.4	438.9	1.5					
MS	303	5	438.9	472.4	33.5					
10A	85	4	472.4	473.4	1.0					
MS	303	5	473.4	474.4	1.0					
10A	85	4	474.4	476.7	2.3					
MS	303	5	476.7	478.6	1.9					

NOTE:

Coal Seam Intersections

Aug 20/96

PROJECT:
HOLE:
EAST:
NORTH:
ELEVATION:
PLUNGE:

MT MICHAEL
MM96-06
660358.2
5538187.6
2446.9
-60/090

DATE DRILLED:

LITHOLOGY DATA						DEVIATION DATA				
HORIZON	SEAM	MB-T CODE	TOP	BASE	THICK	DEPTH		THICK	AZIMUTH	INCLINATION (FROM HORIZ)
A SEAM	SEAM	CODE	TOP	BASE	THICK	FROM	TO	THICK	AZIMUTH	INCLINATION (FROM HORIZ)
MS	303	5	0.0	11.9	11.9					
SM	62	4	11.9	13.6	1.7					
MS	303	-5	13.6	22.1	8.5					
8U	63	4	22.1	22.8	0.7					
MS	303	5	22.8	24.2	1.4					
8U	63	4	24.2	25.2	1.0					
MS	303	5	25.2	51.8	26.6					
8R	69	4	51.8	54.0	2.2					
MS	303	5	54.0	62.0	8.0					
SS	301	5	62.0	63.5	1.5					
MS	303	5	63.5	73.4	9.9					
SS	301	5	73.4	78.1	4.7					
MS	303	5	78.1	92.7	14.6					
10A	85	4	92.7	95.0	2.3					
MS	303	5	95.0	95.8	0.8					
10A	85	4	95.8	97.6	1.8					
MS	303	5	97.6	123.3	25.7					
FLT	200	5	123.3	123.3	0.0					
10A	85	4	123.3	124.2	0.9					
MS	303	5	124.2	124.4	0.2					
10A	85	4	124.4	124.7	0.3					
MS	303	5	124.7	140.9	16.2					
SS	301	5	140.9	152.1	11.2					
MS	303	5	152.1	166.7	16.6					
SS	301	5	166.7	169.8	1.1					
MS	303	5	169.8	173.1	3.3					
SS	301	5	173.1	174.1	1.0					
MS	303	5	174.1	226.8	52.7					
CO	91	4	226.8	227.3	0.5					
MS	303	5	227.3	251.0	23.7					
SS	301	5	251.0	252.1	1.1					
MS	303	5	252.1	257.0	4.9					
CG	91	4	257.0	257.4	0.4					
MS	303	5	257.4	258.0	0.6					
CO	91	4	258.0	259.8	1.8					
MS	303	5	259.8	261.5	1.7					
CO	91	4	261.5	262.1	0.6					

NOTE:
8 SEAM - 81 DIA NUMERIC SEAM NAME



CORE DESCRIPTION

AREA Mt. Michel DATE 11/11/96 BEGIN PI END PI HOLE NO. MM96D-01 MM96-PI

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

SARAH / KARI

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
1	3.3m	3.3	4.2													SH		dark grey massive, broken
		4.2	5.7													SS	SH	fine to medium grained, most grey with shale rip up clasts throughout broken rare coaly rip-up clasts
		5.7	6.85															
		6.85	7.85													SH	SS	interbedded massive dark grey shale and finer laminated grey fine grained (most grey) & chalc. broken

MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

AREA	DATE	BEGIN	END	HOLE NO.	MM 95 P1
------	------	-------	-----	----------	----------

HOLE PARTICULARS

LOCATION	NORTHING: (m)		LOGGING		PRE-CORE INFORMATION		EXAMINATION	
	EASTING: (m)		LOGS RUN		CASING LENGTH	(m)	LOG USED	
ELEVATION	HOLE BEARING (AZ)		LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
TOTAL DEPTH	HOLE ANGLE (°)		OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)	
					WATER LEVEL	(m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
2	7.9	7.85	8.7				B	8.25	70°										
		8.7	10.0															SS	Fine to Med Sandstone med grey parallel laminated rare shale laminae
		10	10.3															SS Co	Med to coarse Sandstone med grey broken coal Spar & laminae throughout
		10.3	11.1															Co	dull (bright) coal very broken
																		SH	black shale with coal spar + 10cm coaly shale at 11.6m

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

PLGEOFORMCOREDESC.FOR (and 920717 (3))

HOLE NO. P1

CORE DESCRIPTION

AREA

DATE

BEGIN
END

HOLE NO.

mm96-P1

PAGE

3

OF

HOLE PARTICULARS

LOCATION	NORTHING: (m)		LOGGING		PRE-CORE INFORMATION			EXAMINATION	
	EASTING: (m)		LOGS RUN	LOGGED BY	CASING LENGTH			LOG USED	
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS		OVERBURDEN DEPTH			NO. OF SEAMS SAMPLED	
TOTAL DEPTH	HOLE ANGLE (°)				OVERBURDEN TYPE			EXAMINER (S)	
					WATER LEVEL			DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		11.1	12.2								10							
3	12.2	12.2	15.4													SH	ZS	dark grey shale with mod grey silty zone wavy to ripple cross laminated - most common in top 20cm 10cm brecciated zone at 11.65m - very red stained coaly bedding planes
																SH		Black shale with coal spar in top 1m broken coaly bedding planes

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

GEOFORMCOREDESC FOR 892017 (3)

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
TOTAL DEPTH	HOLE ANGLE (°)			OVERBURDEN TYPE	EXAMINER (S)
				WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
1	15.4	17.1																
4	16.5															SH	ZS	massive black shale with beds of interbedded shale & med gray siltstone laminae = ripple cross to convolute locally bedding planes
		17.1	20.0													SH		massive black shale with rare coal spar
		20.0	20.5			B	20.3	62°								SS	SH	Parallel to Ffract laminated very fine sandstone (med gray) and black shale

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

PROJECT	DATE	BEGIN	HOLE NO.
AREA		END	MM 96 PI

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		20.5	20.5															
5	23-1	22-15	23-5															Drill (bright) coal broken to shatter
																		35 SH mod grey siltstone with black shale laminae → closer to convolute laminae FeO stained
		23-5	26-2			B	2.5	65°										SH 25 dark grey shale with mod grey siltstone parallel to wavy laminae
		26-2	26-7															SH CO black coaly shale

MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

PROJECT AREA	DATE	BEGIN	END	HOLE NO.	mm 96 P1
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HOLE PARTICULARS

LOCATION	NORTHING: (m)		LOGS RUN		PRE-CORE INFORMATION		EXAMINATION	
	EASTING: (m)		LOGGED BY	CASING LENGTH (m)	OVERBURDEN DEPTH (m)	LOG USED	NO. OF SEAMS SAMPLED	
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)		DATE	
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL (m)				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		26.7	27.9								9					SS	SH	mod grey very fine sandstone interbedded with black shale parallel to wavy bedding
		27.9	28.1													SH		Black carbon shale
6	28.1	28.1	28.1													Co		Dull (bright) coal small bands (5mm) of carb. slab thru out top 50cm 15cm silstone @ 28.65m grades into carb slab at base broken

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: 432 (m)			LOGS RUN	CASING LENGTH (m)		LOG USED
	EASTING: (m)				LOGGED BY		
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL (m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		30.4	31.0													35	SH	light grey siltstone with coal spar + black shade laminae shale more common in top 30cm
7	33.6	31.0	33.6													60		Bright +. Dull coal Broken 5 cm carb shale @ 33.1 10 cm " " @ 35.5
8	39.3	36.6	48.2													5H		Massive Black shale coaly bedding planes rare bands med grey shab
9	43.6																	

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

PROJECT AREA	DATE	BEGIN	END	HOLE NO.	mm-96-p1
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
10	18.2	18.2	19.8				B	19m	57°							SS	SH	parallel laminated med gray, very fine sandstone with black shale laminae. calcite veins thru out - ^{micro} fractures. light FeO staining. shale content increases toward base. broken
		19.8	53.4													SH		black shale, v. fine sandstone laminae common in top metre. calcite veins thru out shale massive at base broken

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. 171

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED					
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED					
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)					
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE					

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAG.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
11	53.3	53.1	54				B	53.6	1.6°	R3	3				SS	SH	fine sandstone, med grey parallel laminated with some shale laminae calcite veins infilling micro fractures	
		54.0	54.9				J	54.2	5°						SS		Fine sandstone, med grey parallel laminated calc spar in bottom 20cm calcite infilling micro fractures 20cm grey shale @ 54.5m	
		54.9	55.9												SH	ZS	interbedded black shale & laminated sh/sand shale	

MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ #/m	RQD %				MAIN	MINOR	AMPLIFIED
																		1cm calc vein @ 55.05m
		55.9	57.4														SS	Med gray fine sandstone with coal spar thru out broken
12	58.0	57.4	60.1														SH	Black shale - massive rare calcite veins
		60.1	63.2														CO SH	Interbedded shaled coal & coaly shab- black beds ~ 10-30cm
13	63.4																	

* MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		63.2	66.9											4		CO		dull (bright) coal broken to shattered
		66.9	68													SH		Black shale with coal spar throughout.
		68	69.4													SH	ZS	Grey-black shale with siltstone laminae throughout
14	69.4	69.4	69.4													CO		Dull (bright) coal very broken
		69.8	73.7				B	72.4	67		3					SH	ZS	Black shale w/ rare coal wisps with laminated siltstone + shale bands.

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
TOTAL DEPTH	HOLE ANGLE (°)			OVERBURDEN TYPE	EXAMINER (S)
				WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	ROD %				MAJ	MINOR	AMPLIFIED
15	74.1	73.7	74.5													25	mod grey siltstone with occasional shale laminae calcite veining common. bad caving at base.	
16	78.3	74.5	83.3			J	82.3	82°								5H	25	Intabedded massive black shale and interstratified shale and siltstone Beds 5-50cm calcite veins throughout rare coaly wisps in shale
17	82.8	83.3	84.1													CO		Dull (bright) coal broken

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		86.1	86.5													SH		Black shale with coal Spar thru out
		86.5	87.1													SH	SS	Fining up unit - Fine sandstone (mineral) with shale grading up to shale, ss content lessening coaly bedding planes
		87.1	87.7				B	87.4	62	R3	7					SH		Massive black shale calcite veins thru out rare coal bands (<1cm)
18	87.4						J	94.8	17°	R2								
19	92.4						I	95.8	65°	R2								
20	87.2																	

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.	P1
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
TOTAL DEPTH	HOLE ANGLE (°)			OVERBURDEN TYPE	EXAMINER (S)
				WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
21	101.7	101.7	101.7													SH	25	interbedded black shale (massive) & med grey siltstone (laminated to floor laminated with shale) calcite veins thru out
22	106.6																	
		109.7	110.1														CO	bright to dull coal v broken
23	112.1	110.1	113.4														SH	CO Black shale with coal bands (up to 2cm) thru out

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		113.4	116.2													SH	ZS	black shale with grey siltstone laminae
		116.2	116.7													CO		skull coal shatterd
		116.7	120.6													SH	CO	black shale with coal bands (~2cm) thru out
21	117.3	120.6	123													SH	ZS	interbedded black shale + laminated shale/siltstone calcite thru out 1cm coal @ 121.6m

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	ROD %				MAIN	MINOR	AMPLIFIED
25	123	123	126.3												SH		Black shale with early bands (<2cm) calcite veins thru out.	
26	127.5	126.3	128.3												ZS SH		dark gray siltstone with black shale dispersed thru out numerous calcite veins	
		128.3	130.5												SH		Black shale with coal wisps/bands (<5cm) thru out numerous calcite veins	

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE▲		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
		130.5	132				B	131.5	67°	PS	6								
	131.7						A	131.0	56°										
		132	133.9																

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS			LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)		LOGS RUN		CASING LENGTH (m)		LOG USED	
	EASTING: (m)		LOGGED BY		OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ)	OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH		HOLE ANGLE (°)			WATER LEVEL (m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		1339	1342													SS	ZS	coarsening upwards unit - shale at base, grading to clayey siltstone then fine sandstone rare chert rare cross lamination
28	136.2	1362	138.3													SH		Black shale with carbonaceous bedding planes occasional calcite infilled fractures
		133.3	140.5				B	139	60°	R3-A4	3					SS	ZS	coarsening upwards unit as described at 133.9m occasional calcite infilled fractures
							I	140	26°									

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.	P1
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPIYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
29	141.1	140.5	141.2										SM		CO		Dull + bright coal broken	
		141.2	147.5												SH	CO	Black shale with coal bands + wisps thru out broken	
30	149.9	147.5	153.5												SH	SS	dark grey shale with bands + laminae of fine sandstone thru out occasional calc. infilled Rockup 7cm shallow coal @ 151.3m	

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.	P1
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)*		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE [▲]		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		1535	1562													SH	CO	Black Shale with bands + wisps of coal thru out
31	1543																	Coal - 5cm @ 153.85m 10cm @ 154.4m
		1567	1568															shattered coal
		1568	1594															massive black shale
32	162.5	1594	165.5										84					dull & bright coal bedded
		1655	1685															massive black shale coaly bedding planes

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING: _____ (m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		168.5	171.1													CO		dull + bright coal broken
33	171.1	171.1	171.7													SH		black shale with 20cm coal @ 171.5m base = sandy shale
		171.7	175.1													CO		dull + bright coal broken
34	177.8	175.1	179													SH		Black shale with carbonaceous bedding planes + occasional small tilted fractures.

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.	P1
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJN	MINOR	AMPLIFIED
		179	180.6													25		mod grey siltstone with numerous calcite (filled) fractures. gradational basal contact
35	182.1	180	182.3													SH		massive black shale broken
		182.3	182.9										82			CO		bright dull coal very broken
		182.9	183.5													SH		massive blk shale

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PJ

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		1835	1861													SS	SH	med grey fine sandstone in part fissile laminated with black shale occasional band of shale
		1861	1904													SH		massive black shale rare calcite filled fractures
37	191	1904	192			B	191.5	86°		6						SH	SS	interbedded massive black shale & laminated fine sandstone shale - laminae parallel to fissure occasional calcite filled fracture

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	LOGGED BY	CASING LENGTH (m)	OVERBURDEN DEPTH (m)	LOG USED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)	NO. OF SEAMS SAMPLED	DATE	
TOTAL DEPTH	HOLE ANGLE (°)						

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		192	192.5													SS		mod. grey fine sandstone calcite filled fractures thru out
		192.5	195.4													SH SS		interbedded shrb & fine sandstone/shrb asst 190.4 m. soft sediment deformation @ 193m
		195.4	196.0													SH		massive black shale
38	196.3	196	199.3										BR		CO			bright & dull broken

MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.	P1
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
		202.3	202.3																
		202.3	207.6			J	205.8	61°								SH			Mod. Grey Fine Sandstone ripple cross laminated with black shale laminae thin out
39	203.1					J	204.9	62°	R3	4									Black shale mainly massive with some blebs of fine sandstone
		207.6	208.9																Dull & bright broken
40	207.8								R3	3									
		208.9	209.2													SS	SH		Mod grey fine sandstone with shale laminae thin out grad sub to striae

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	ELEVATION	HOLE BEARING (AZ)	TOTAL DEPTH	HOLE ANGLE (°)	LOGS RUN	LOGGED BY	OTHER TESTS	CASING LENGTH (m)	OVERBURDEN DEPTH (m)	OVERBURDEN TYPE	WATER LEVEL (m)	LOG USED	NO. OF SEAMS SAMPLED	EXAMINER (S)	DATE
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BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
		2096	2175																
41	213-1																SH	CO	Block shale with coal spar throughout
42	217-2						B	216.2	50°	R2-R3	4								
		217-5	218.4				B	218	55°		3						SS		Med grey fine to very fine sandstone occasional calcite filled fracture parallel bedding
		218.4	219.8																
43	221-9						B	225.9	72°	R3	3						SH		Massive Block shale coal - 1cm @ 218.5m
44	226-7						B	228.3	64°	R2	2								2cm @ 219.2m
45	230-8						J	227.4	106°	R1-R2	3								also rare coal spar & coaly bedding planes
46	236-2						B	234.8	57°		3								rare calcite

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

24 LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
		238.8	211.9													SH	CO	Massive black shale with common coal bands + coal spots	
47	241.1																		
		241.9	218.3											10A		CO		Dull + bright coal broken	
		248.3	254.1													SH	CO	Interbedded massive black shale & coal	
48	250.9																		
		252.4	257															CO	Sheared dull + bright coal

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.	P1
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	ELEVATION	HOLE BEARING (AZ)	HOLE ANGLE (°)	LOGS RUN	LOGGED BY	OTHER TESTS	CASING LENGTH (m)	OVERBURDEN DEPTH (m)	OVERBURDEN TYPE	WATER LEVEL (m)	LOG USED	NO. OF SEAMS SAMPLED	EXAMINER (S)	DATE
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BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		253	254.5													SH	CC	interbedded massive black shale & coal gradational over contact.
49	255.2	254.5	256.1													2S		massive dark grey siltstone with rare coal spot.
		256.1	261.4				B	257	42		3					3S	SS	Interbedded massive dark grey siltstone and med grey fine sandstone - parallel bedded to interbedded with siltstone
50	259.4	260	263.0				B	261.3	46°	R 3								

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P1**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
51	263.9	261.4	261.5				D	265.9	56°		4			MMT		SS		Mod grey Fine to Medium grained sandstone Parallel bedded to ripple cross laminated. Rare coal spar + rip up cherts (shale)
52	268.2	268.5	271.4				J	265.9	52°	RS	5					SS		Mod grey Fine to Medium grained sandstone with numerous coal spar & rip up cherts (shale) carbonaceous bedding planes sandstone parallel bedded

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: _____ (m)	LOGS RUN		CASING LENGTH	_____ (m)	LOG USED			
	EASTING: _____ (m)	LOGGED BY		OVERBURDEN DEPTH	_____ (m)	NO. OF SEAMS SAMPLED			
ELEVATION	_____	HOLE BEARING (AZ°)	_____	OTHER	_____	EXAMINER (S)			
TOTAL DEPTH	_____	HOLE ANGLE (°)	_____	TESTS	_____	WATER LEVEL	_____ (m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO	TYPE	DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m				RQD %	MAIN	MINOR
		271.4	272.2												SH	SS	interbedded massive black shale & med grey very fine sandstone
		272.2	275.9				S	273.5	59°						SH		massive black shale
53	272.7														CO		dull (bright) coal broken to powder
		275.9	277.1														
54	277.1	277.1	280.8												SH	SS	massive dark grey shale with occasional thin laminated shale + siltstone occasional calc. in part / fractures + coal spec.

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE Δ		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJN	MINOR	AMPLIFIED
55	2813	2808	2816													CO		bright dull coal broken
		2816	2822													SH	CO	interbedded massive black sh. & coal
		2822	2858													ZS	SS	Sparry siltstone & very fine sandstone mod. grey rare coal brch soft sediment deformational bars
55	2856	2838	2863													SH	ZS	massive black shale with bands of mod grey siltstone. Rip up clasts + burrowing in siltstone

MEASURED FROM THE HORIZONTAL PLANE

Δ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P1**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN		CASING LENGTH (m)		LOG USED	
	EASTING: (m)		LOGGED BY		OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED	
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)				WATER LEVEL (m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		288.3	290.3				B	290	13°		5				SS		Med grey fine to very fine sandstone. Soft sediment deformation at top of shale infilled burrows between 289.4 + 289.9m	
57	290.3	290.5	305.2							R2-R3					SS	SH	Fine med grey sandstone with dark grey shale. knice thin out parallel bedded / laminated to wavy laminated. Rare calcareous bedding plus + calcite filled fractures	
58	291.3						J	293.3	46°	R5	5							
							J	301.9	41°									
59	298.5						T	300.7	42°									
60	302.9						B	303.5	53°	R3								

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)*		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
61	307.1	305.2	305.8													SH		dark grey shale, massive
		305.8	305.2													SS		Medium to coarse sandstone med grey with coal spar thru out. Rare clay bands (1cm) + shale bands
		310.2	310.7													ZS	SS	Fining up unit - coarse sandstone - med grey to dark grey - silty sand
62	311.7	307	32.2													SS	ZS	Fining up unit as described at 310.2m - rare coal spar

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		312.2	315.5													SS		Med grey fine sandstone with coal seam throughout
63	316.1	315.5	316.4													SS	SH	interbedded! med grey parallel laminated fine sandstone of dark grey shale
64	320.4	316.4	320.8													SS		Med grey medium to waxy coarse sandstone with coal seam throughout + carbonaceous bedding planes
65	321.5	320.8	335.5			J	330.1	48°								SH		dark grey shale with occasional bands of more coarse laminated

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS			LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	LOGGED BY	CASING LENGTH (m)	OVERBURDEN DEPTH (m)	LOG USED	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS		OVERBURDEN TYPE	EXAMINER (S)		
TOTAL DEPTH	HOLE ANGLE (°)				WATER LEVEL (m)	DATE		

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJN	MINOR	AMPLIFIED
66	328.7															SH		cont.
67	333.4																	
		335.5	339.2				B	338	71°	R3	7					SS	SH	interbedded med grey fine to medium siltstone with coal streaks & black shale with coal spar
68	338.8						B	339.6	55°									
								340.7	48°									
		339.2	342.7				B	343.7	44°	R3	4					SS		med dark grey fine to medium siltstone with coal spar throughout. 3 cm sheared coal @ 241.9m

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.	P1
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	LOGGED BY	CASING LENGTH (m)	LOG USED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN DEPTH (m)	OVERBURDEN TYPE	NO. OF SEAMS SAMPLED	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	WATER LEVEL (m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION				
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED		
70	346.5	342.7	348.4													SH	ZS	interbedded massive black shale & inter laminated black shale + mod grey siltstone parallel to wavy laminar rare calcite filled fractures		
		348.4	350.4															SH	ZS	interbedded stony silt & mod grey siltstone - 10-20 cm bedding
71	350.8	350.4	351.4			J	353.7	38°	R.S	3								SH	ZS	dark grey shale with siltstone (fine) beds thin out
						B	354.7	116°												

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)*		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
		351.4	355.1																
72	355.1	355.1	356.7			B	355.3	43		4						SS			mod grey fine sandstone parallel bedded with coal seams + disseminated shale thru out
						S	355.4	120°	R3							SS	SS		dark grey siltstone grades down to fine mod grey sandstone in basal 40cm parallel bedded
		356.7	358.4			R	356.9	43°		4						SS	SS		mod grey parallel bedded fine sandstone grading into dark grey siltstone in top 20 cm
						R	359.1	39°											

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		358.4	359.2													SS		dark grey fine to very fine sandstone with coal speck throughout.
73	359.2	359.2	360.8													ZS		dark grey siltstone parallel bedded - some fine sandstone bands thru out
74	363.7	360.8	366.3													SS	ZS	Interbedded dark grey siltstone & medium grey parallel bedded siltstone.
		366.3	365.6													SH		massive dark grey shale cap siltstone beds

MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: _____ (m)	EASTING: _____ (m)		LOGS RUN	CASING LENGTH _____ (m)	OVERBURDEN DEPTH _____ (m)	OVERBURDEN TYPE	LOG USED	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ) _____			OTHER TESTS	WATER LEVEL _____ (m)			EXAMINER (S)	DATE
TOTAL DEPTH	HOLE ANGLE (°) _____								

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		AMPLIFIED
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	
75	368.1	365.6	369.7				J	368	65	R3	5				SS		mod grey fine - medium sandstone parallel bedded rare shale beds ripple class (shale) @ 367.2 - 367.4m	
		369.7	370.3												SS		dark grey medium sandstone with con. sand & sh. 1.5m thick	
76	372.7	370.3	382.3				J	373.5	110°	R3	3				SH	SS	rippled grey limestone sh. 1.5m thick	
77	377.1						J	377.7	142°	R4	3							
78	381.6																	

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

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 rev'd 9/20/17 (3)

HOLE NO. **P1**

377.8
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CORE DESCRIPTION

HOLE PARTICULARS			LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	LOGGED BY	CASING LENGTH (m)	OVERBURDEN DEPTH (m)	LOG USED	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS		OVERBURDEN TYPE	WATER LEVEL (m)	EXAMINER (S)	DATE
TOTAL DEPTH	HOLE ANGLE (°)							

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A			SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %	MAIN				MINOR	AMPLIFIED	
		382.3	383				B	383.3	68°	R3	5					SS		fine-medium mod-dark grey sandstone with coal spor. thin out.	
		383	384.1				B	384.2	60°	R3	4					SH	SS	dark grey. fine to med. gr. sh. (mod. to med. sh.) with small coal spots. thin out.	
79	385.8	384.6	387.1				B	385.2	78°							SS		Medium to coarse med. grey sandstone with coal thin out.	

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P1

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION		NORTHING: (m)	LOGS RUN	CASING LENGTH (m)		LOG USED			
		EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED			
ELEVATION		HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)			
TOTAL DEPTH	405.1 m	HOLE ANGLE (°)		WATER LEVEL (m)		DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
80	390.3	387.4	391.8													SH		Black shale - massive with coaly partings
		391.8	393.5													ZS SH		ripp coarse laminated red grey siltstone with dark grey shale
81	394.8	393.5	398.8													SH		Black shale massive - occasional chert
82	399.3	398.8	405.1													SH ZS		interbedded with red mudstone - massive
83	406.0																	

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE 405.1 = TD.

HOLE NO.

DXPLGEOFORMCOREDESCR FOR revised 920717 (j)

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN		CASING LENGTH	(m)	LOG USED
	EASTING: (m)		LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)		OTHER		OVERBURDEN TYPE		EXAMBER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS		WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
1	2.1m	2.1	5.2	88	2.1	5.1	J	2.4	39							SST		light grey sandstone with occasional traces of coal.
					5.1	7.1										SLT SST		med. grey siltstone with some fine sandstone interbedded and one small coal seam.
2	6.2	5.2	8.2	93	7.1	11.9	J	10.2	29							SST SLT		light to med. grey fine sandstone, interbedded with siltstone. Near base, the sandstone is brownish.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

• XPLG/OIGRAMCOREDESC FOR
REVISED 9/20/17 (JH)

HOLE NO.

P2

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTII		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
3	10.3	8.2	11.3	94														
		11.3	14.3	1.8	11.9	14.6												Missing coal
					14.6	23.5												
4	14.4	14.3	17.4	81			B	18.7	54									SST SLT med grey, fine sandstone with dark grey siltstone interbedded
		17.4	20.4	92			J	21.36										
5	19.4	20.4	23.5	98														
6	23.5	23.5	26.5	92	23.5	44.4												
		26.5	29.6	98														

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION		
LOCATION	NORTHING:	(m)		LOGS RUN				CASING LENGTH	(m)	LOG USED	
	EASTING:	(m)		LOGGED BY				OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION	HOLE BEARING (AZ)			OTHER				OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)			TESTS				WATER LEVEL	(m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
7	27.3	29.6	32.6	99			J	30.8	32									
8	31.7	32.6	35.7	97			B	34.6	54									
9	35.9	35.7	38.7	89			J	36.2	27									
		38.7	41.8	93			J	39.4	30									
10	40.1	41.8	44.8	93														
11	44	44.8	47.9	99	44.4	48.2	B	45.4	59						SST	SLT	fine grained, light grey sandstone interbedded with siltstone.	
12	48.2	47.9	50.9	97														

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P2**

AREA

DATE

BEGIN

END

HOLE NO.

MM-P2-96

PAGE

4

OF

13

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

AS LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY		
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
TOTAL DEPTH	HOLE ANGLE (°)			OVERBURDEN TYPE	EXAMINER (S)
				WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION				
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED		
		50.9	53.9		48.2	51.2														
							B	51.2	47											dark grey shale with some light grey fine grained sandstone
					51.2	54.3														med grey siltstone with light grey sandstone interbedded
13	52.4	53.9	66.1	0																
14	Missing																			
15	Missing				54.3	66.1														Missing coal

* MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

P2

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: _____ (m)		LOGS RUN	LOGGED BY	CASING LENGTH	(m)	LOG USED		
	EASTING: _____ (m)				OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED		
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)			
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL	(m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
16	66.4	66.1	69.2	81	66.1	69										SH	Co	dark grey shale with coal interbedded throughout
17	70.5	69.2	72.2	52	69	73.9										Co		Missing coal
		72.2	78.3	99	73.9	75.6										SH	Co	dark grey shale with coal interbedded
18	77	78.3	81.4	95	75.6	85.3	J	77.6	36							SST		med grained, light grey sandstone

*MEASURED FROM THE HORIZONTAL PLANE Δ ANGLE MEASURED FROM AXIS OF CORE

ATLCOFORMINGCOREDESC FOR CORE 920712 (10)

HOLE NO. P2

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)	LOGS RUN	CASING LENGTH _____ (m)	LOG USED
	EASTING: _____ (m)			
ELEVATION	HOLE BEARING (AZ) _____	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°) _____		WATER LEVEL _____ (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
19	81.5	81.4	84.4	95	85.3	96.3	J	84.7	51										
		84.4	87.5	89			B	85.9	54										
20	86.4	87.5	90.2	95															
21	90.4	90.2	93.3	99															
22	94.6	93.3	96.3	94	96.3	97.5	J	95.4	58										
		96.3	101.2	40	97.5	101.9													

*MEASURED FROM THE HORIZONTAL PLANE Δ ANGLE MEASURED FROM AXIS OF CORE

APPLICABLE TO CORE DESC FOR
 (REVISED 9/20/73)

HOLE NO. **P2**

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION	
LOCATION	NORTHING: (m)		ELEVATION	LOGS RUN	OTHER TESTS	CASING LENGTH (m)	LOG USED	NO. OF SEAMS SAMPLED		
	EASTING: (m)			LOGGED BY		OVERBURDEN DEPTH (m)		EXAMINER (S)		
TOTAL DEPTH		HOLE BEARING (AZ)	HOLE ANGLE (°)		OVERBURDEN TYPE	WATER LEVEL (m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
23	Missing				101.9	107.3										SH	SST	hard gray shale interbedded with fine sandstone and coal
24	103.6	101.2	105.8	118	107.3	115.1	B	114.7	57									
25	107.9	105.6	108.2	71														
		108.2	111.3	96	115.1	115.8										Co		Missing coal
26	111.9	111.3	114.3	118														
		114.3	114.9	0														
		114.9	118	72			SS	116.4	37									

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P2**

U.S. GEOLOGICAL SURVEY, BUREAU OF MINERAL RESOURCES, WASHINGTON, D.C. 20508

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER	OVERBURDEN TYPE	EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO	DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
28	117.7	119	121	84	115.6	143.4	B	119.7	190						SH	SST	Dark to dark grey shale interbedded with small beds of sandstone
29	121.8	121	124.1	97			B	121.7	45								
30	126	124.1	127.1	95													
		127.1	130.1	96			J	128.6	59								
31	130.2	130.1	133.2	99			J	130.8	36								
32	134.6	133.2	136.7	99													

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION	
LOCATION	NORTHING:	(m)		LOGS RUN		CASING LENGTH	(m)		LOG USED	
	EASTING:	(m)		LOGGED BY		OVERBURDEN DEPTH	(m)		NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ)		OTHER		OVERBURDEN TYPE			EXAMINER (S)	
TOTAL DEPTH		HOLE ANGLE (°)		TESTS		WATER LEVEL	(m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOMYS DEPTH		TYPE	DIP ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
33	138.9	136.2	139.3	94			SS	140.9	11.88									
		139.3	142.3	98														
34	143.3	142.3	145.4	32	143.4	147.2										Co		Missing coal
		145.4	148.4	37	147.2	149.1										SH	SST	Black shale, interbedded with some light grey sandstone
35	148.9	148.4	151.5	56	149.1	150.8										Co		Missing coal

* MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P2**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
36	153.7	151.5	154.5	98	150.6	158.1	J	154.8	67							SH	SST	Black shale with small bands of fine sandstone
		154.5	157.6	95														
37	157.9	157.6	160.6	98			B	161.1	56									
							B	161.6	90									
38	162.3	160.6	162.5	95	158.1	166.1										SLT	SST	Dark siltstone with some fine grained sandstone interbedded
		162.5	165.5	97														

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. 12

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE▲		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
39	166.6	165.5	168.6	99	166.1	169.9	D	166.6	154						SST	C6	Thin coarse sandstone with small bands of coal interbedded	
		168.6	169.8	93			B	168.6	90									
40	170.9	169.8	172.8	98	169.9	173.2									SST	SST	Dark grey siltstone interbedded with significant amounts of sandstone.	
41	175.2	172.8	175.9	99														
					173.2	177.9									SST	SST	Coarse grey sandstone, interbedded with a little black siltstone	

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P2

XPLGEOFORMCOREDESC.FOR
v.04 920717 (jb)

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING:	(m)		LOGS RUN		CASING LENGTH	(m)	LOG USED	
	EASTING:	(m)		LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ°)		OTHER		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH		HOLE ANGLE (°)		TESTS		WATER LEVEL	(m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE▲		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJN	MINOR	AMPLIFIED
							B	176.6	56									
		175.9	176.9	66	177.9	178.9										Co		Missing coal
42	180.1	178.9	181.9	96	178.9	183.4	J	181.1	64							SH	SST	Bed slab interbedded with a fine grained light grey sandstone.
43	184.6	181.9	185.0	97														
		185.0	186.1	97			B	186.1	54									
							J	187.5	61									

MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P2

(PLCCOFORMCOREDESC.FOR - Last 920717 (1.7))

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
44	188.7	188.1	191.1	96														
45	193.2	191.1	194.2	99	193.4	207.9	J	194.6	44							SST	Co	A coarse light grey sandstone interbedded with little traces of coal (5cm)
		194.2	197.2	99			B	195.9	58									
46	197.5	197.2	200.3	99														
47	201.9	200.3	203.3	99														
48		203.3	206.3	99														
		206.3	207.9	50														

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P2

CORE DESCRIPTION

HOLE PARTICULARS			LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)		LOGS RUN		CASING LENGTH (m)		LOG USED	
	EASTING: (m)		LOGGED BY		OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ)	OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH	430m	HOLE ANGLE (°)			WATER LEVEL (m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GBO TECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
1	3.3m	3.3m	4.6m				B	6.7m	81°							SS	SS	interbedded dark grey siltstone & very fine sandstone rubble
		4.6	6.1															MISSING
		6.1	7.4													SS	SS	Flaser laminated mod. grey fine sandstone & chert grey siltstone
2	8.3	7.4	10.7													SS		mod grey fine sandstone usually bedded. Rare microp. cherts (chert) mod gravel at base

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PB

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION		NORTHING: (m)	LOGS RUN		CASING LENGTH (m)		LOG USED		
		EASTING: (m)	LOGGED BY		OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED		
ELEVATION		HOLE BEARING (AZ)	OTHER		OVERBURDEN TYPE		EXAMINER (S)		
TOTAL DEPTH		HOLE ANGLE (°)	TESTS		WATER LEVEL (m)		DATE		

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
3	12.9	10.7	13.7				B	14.3	43°	R3	6				SS		Med grey medium grained sandstone with coal spor & early bedding planes thru out	
							S	14.2	39°									
4	17.5	13.7	28.6		B	B	19.9	76°							SS		Med - Coarse grained light grey sandstone - fines c/w	
5	21.6					B	24.1	63°	R3-R1	4							wealthy bedded rare coal spor heat affected.	
6	27.8					S	28.8	51°	R3-R11	4								
						B	27.9	55°										
		28.6	31.3														med grey medium grained sandstone wealthy bedded heat affected	

MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

(PLEASE FORM CORE DESC. FOR AND 920717 (3))

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ')	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)*		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
7	370	36.3	36.8												SS		Fine grained Sandstone - white to salmon pink in colour - heat affected weakly bedded	
8	380	36.8	38.1												ZS		Salmon pink siltstone with occasional fine sandstone beds + kinnie heat affected	
		38.1	38.4									24		CO		Burnt Coal or Clinker red-brown to Salmon Pink		

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOCATION	NORTHING: _____ (m)		LOGGING		PRE-CORE INFORMATION		EXAMINATION	
	EASTING: _____ (m)		LOGS RUN	LOGGED BY	CASING LENGTH _____ (m)	LOG USED	NO. OF SEAMS SAMPLED	
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS		OVERBURDEN DEPTH _____ (m)	EXAMINER (S)		
TOTAL DEPTH	HOLE ANGLE (°)				OVERBURDEN TYPE	WATER LEVEL _____ (m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJN	MINOR	AMPLIFIED
	38.4	39.3														SH		White shale, massive heat affected
	39.3	43.5														ZS		White to orange-pink shale heat affected. 10cm clinker @ 44.4m
	43.5	44.6														SH	ZS	Orange, pink shale + trilobes Rubble. heat affected.
9	44.6	45.9											2L		Co		Clinker - black to red brown brunt coal	

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE▲		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
10		18.9	18.5													SH	CO	Pink to black shale with calc. interbeds rubble. heat affected
		18.5	19.3													SH?		Altered ? silt - clay with clasts of chert + rubble throughout - heat affected
		19.3	19.8													SS?		red-brown ? siltstone rubble - heat affected
		19.8	20.5													SH		black shale in part (heat) to clay (S at 18.5m heat affected)

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	LOGS RUN		CASING LENGTH (m)	LOG USED				
	EASTING: (m)	LOGGED BY		OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED				
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS		OVERBURDEN TYPE	EXAMINER (S)				
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL (m)	DATE				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
11	50.5	50.5	53.3						R2	8					SH		black shale with cony bedding planes	
12	55m	53.3	54.5			B	53.9	60°	R2	sample of fractured 10"					SH	25/55	light grey sandstone in basal 20cm grading up to dark grey shale with siltstone laminae	
13	58.5	57.5	58.6						R3-R4	1					SH		dark grey shale very broken rare band of shale altered to clay	
		58.6	62.8			B	69.0	49°							SH	25	dark grey shale with siltstone nests - ripple cross laminated - a laminae rare noble filled	
						J	69.0	47°										
							59.0											

MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

XPLGCOFORM/COREDESC.FOR v10ed 220717 (3)

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE [▲]		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
14	630	628	676				B	65m	61		4				25	55	mod. grey siltstone with beds + laminae of fine to very fine sandstone. Sandstone more prominent toward base.	
15	676	676	716														predom. siltstone & ripple cross laminated fine sandstone + siltstone	
16	716	716	771												SH		black shale. 5cm cinder at top of unit	

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

* Box 15 Dropped on flight *

PROJECT	1117 Michael	DATE	BEGIN		HOLE NO.	mm-P3-96
AREA			END			

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
	72m	74.8														ZS	SH	dark grey siltstone with beds grey shale broken altered to clay @ 73.2m
	74.8	75.2														CO		bright + dull coal broken
17	76m	77.3														SH	CO	black shale with coal wisps & bedding planes 4cm clayey coal @ 75.8m
	77.3	77.6														3LA	CO	dull + bright coal
	77.6	77.8														SH		black shale with coal seam

MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN		CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY		OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER		OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
18	80.3	77.8	79.3													CO		Drill + bright coal - stony in part
		79.3	81.1													CO	SH	Interbedded coal - drill + bright - # black shale with coal spar.
19	84.8	81.1	85.9			B	82.7	66°	23	3						SH		black shale with coaly bedding planes 7cm streak coal @ 82.2m
		85.9	88.7			B	88m	55°	5							2S	SS	dark grey siltstone with beds + laminae of fine sandstone - ripple cross laminated to finer bedded

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

JOB NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
21	93.4	93.1	94.8													SS	SH	med grey very fine structure ripple cross lam. med to fine laminated with silt number of calcite, silt fractures
		94.8	95.6													SH		massive black shale
		95.6	96.5													SH	CO	interbedded coal + black shale - massive
		96.5	98.3										3LA			CO		dull + bright friable broken

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

R3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)	LOGS RUN	CASING LENGTH _____ (m)	LOG USED
	EASTING: _____ (m)	LOGGED BY	OVERBURDEN DEPTH _____ (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ) ^o	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE () ^a	TESTS	WATER LEVEL _____ (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS #	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
22	98.3	98.3	99.1						R2-R3	4						SH		massive black shaly coaly at top
		99.1	100.3			B	99.3	44°								SH	SS	black shale interbedded with med grey fine sandstone - ripple cross laminated to flaser laminated.
		100.3	120.4			B	115	51°		3						ZS	SH/SS	med grey siltstone with fine sandstone laminae + beds black shale.
23	103					B	102.8	60°	R2	4								sandstone / siltstone ripple cross laminated calcite filled
24	107					J	102.8	45°	R3	4								fractures thin cut more spray toward base.
25	111.3					J	112.7	54°	R3	3								
26	115.8					B	117.5	48°	R3	3								
27	119.9					B	123.6	48°	R2-R3	6								

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. R3

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING:	(m)		LOGS RUN		CASING LENGTH	(m)	LOG USED	
	EASTING:	(m)		LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ)		OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH		HOLE ANGLE (°)				WATER LEVEL	(m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		120.4	122.2													SH		Black shale with Condy Bedding Planes 10cm coal @ 121.5m
28	121	122.2	121.4													SH	2S	Grey-black shale with mod grey silty shale beds thru out
		121.4	125.6										4			CO		Dull + bright coal broken
		125.6	125.8													SH		Black shale with coal wisps

*MEASURED FROM THE HORIZONTAL PLANE. Δ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION		OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE BEARING (AZ°)	TESTS	WATER LEVEL (m)	DATE
	HOLE ANGLE (°)			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	ROD %				MAIN	MINOR	AMPLIFIED
20	88.7	88.7	90.7													SH	25	black shale with siltstone (med gray) kn. no. - bands thru out
		90.7	91.6										31A			CO		Gradational top contact - 20cm stony coal Dull + bright coal
		91.6	93.1													SH	25	black shale with rare coal wisps + interbeds of cross laminated med gray siltstone to very fine sandstone

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION	
LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED				
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED				
ELEVATION		HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE		EXAMINER (S)				
TOTAL DEPTH		HOLE ANGLE (°)	TESTS	WATER LEVEL	(m)	DATE				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		1258	126.4										4		CO		Dull + bright coal	
		126.4	126.6												SH		Massive black shale	
		126.6	127.6										4		CO		Dull + bright coal	
		127.6	127.9												SH		massive black shale	
29	128.2	127.9	128.7										4		CO		Dull + bright coal	
		128.7	132												SH	25	Black shale with coal weep + ripple cross laminated silty sh. beds. 2-3cm fine inclusions 1cm's new bar	

MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		132	131.0				B	132.5	70°	R3	4					SS	SH	mod. grey ripple cross laminated fine sandstone with beds dark grey shale
30	130.5																	
		134.1	135.9				B	134.1	48°							SH	CO	Black shale with 1-2cm coal bands thru out Rare siltstone laminae
							S	135.5	52°									
		135.9	136.3															
		136.3	140.2				B	137.6	59°	R3-R4	3					SH	SS	Black shale with beds of mod grey siltstone calcite filled fractures thin
31	137.8						S	140.0	18°									

MEASURED FROM THE HORIZONTAL PLANE. * A ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: <u>33</u> (m)	LOGS RUN		CASING LENGTH	(m)	LOG USED			
	EASTING: (m)	LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED			
ELEVATION		HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)			
TOTAL DEPTH		HOLE ANGLE (°)		WATER LEVEL	(m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION				
		FROM	TO	RECOVERY (m) %	FROM	TO	TYPE	DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m				RQD %	MAIN	MINOR	AMPLIFIED	
<u>32</u>	<u>1107</u>	<u>1109</u>	<u>1113</u>																
		<u>1113</u>	<u>1115</u>			<u>B</u>	<u>142.5</u>	<u>50°</u>	<u>R2-R3</u>	<u>4</u>									
						<u>S</u>	<u>143.3</u>	<u>132°</u>											
		<u>1115</u>	<u>1152</u>																
<u>33</u>	<u>1152</u>	<u>1152</u>	<u>1172</u>			<u>B</u>	<u>1155</u>	<u>76</u>	<u>R3</u>	<u>2</u>									

MEASURED FROM THE HORIZONTAL PLANE. A. ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOMYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
34	119.3	147.2	150.7													ZS	SH	mod. grey cross laminated siltstone with dark grey shale beds calcite filled fractures thru out	
		150.7	153.6														SS	SH	mod grey fine sandstone calcite coated in top 10cm, rest is ripple cross laminated with dark grey shale beds
35	153.7	153.6	155.6														ZS	SS	dark grey siltstone ripple cross laminated with mod grey fine sandstone

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

1.2

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	EASTING: (m)	ELEVATION	LOGS RUN	CASING LENGTH (m)	LOG USED	TOTAL DEPTH	LOGGED BY	NO. OF SEAMS SAMPLED
				OTHER TESTS	OVERBURDEN DEPTH (m)	EXAMINER (S)			
					OVERBURDEN TYPE	DATE			
					WATER LEVEL (m)				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE ^A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		155.6	157.9				B	150.0	158°							SS		Mod grey Fine-Medium sandstone, parallel bedded
36	158.1	157.9	159.3				B	159.9	48°	R3	3					SS		Mod grey Medium Grained sandstone with coal speck thru out.
		159.3	161.3													SH		Massive black shale
		161.3	162.1										7U			SH	CO	Interbedded massive black shale & bright + dull coal coal 10-30cm beds, broken

*MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ #/m	RQD %				MAIN	MINOR	AMPLIFIED
		162.1	165.0													SH		Black shale with coal streaks throughout
37	162.4																	
		165.0	167.0				B	166.8	42°							25	SH	mod grey siltstone with bands + rare lenses of black shale thru out
38	166.7						T	166.8	38°									
		167	169.2											7L		CO		Dull + bright coal, broken 5cm shale @ 167.25m
		169.2	169.5													SH	CO	Massive black shale with 10cm coal at base - broken

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE ^A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
39	171.0	169.6	178.1												ZS	SH	Interbedded + interminated dark grey siltstone + dark grey shale	
40	175.3																Some ripple cross lamination in siltstone, beds from 1cm to 50cm visible fractures.	
41	179.6	178.1	180.8													SH	massive dark grey shale with fine siltstone laminae. Siltstone more predominant in lower 1-5 m.	
42	183.9	180.8	181.4													ZS	SS	Interbedded + interminated med grey siltstone + fine-very fine sandstone - some conc laminae

*MEASURED FROM THE HORIZONTAL PLANE

^A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

1 LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		186.4	186.8													SH		Massive black shale very carbonaceous rare coal spots
		186.8	187.5													ZS	SH	Interbedded med. gray ripple cross laminated siltstone & very carbonaceous black shale
		187.5	196.1													SS	ZS	Interbedded + inter laminated med. gray siltstone + mudstone + med. gray siltstone - ripple cross laminated to floor lim. red. rare sh. part - fine silty fin. - silty calc.
13	188.5						B	188.5	85°	R3	2							
44	192.8						B	193.1	61°									
							B	194.1	57°	R3	2							

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASEING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
15	197.2	196.1	199.6				B	198	106°	R3	5				25	SH	mod gray siltstone - ripple cross laminated with dark gray shale interbeds	
		199.6	200.2													SH	massive black shale rare coal spar + calcite filled fractures	
		200.2	201.4				J	201.0	38°						25	SH	mod gray siltstone + black shale interbedded Rare calcite filled fractures	

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING				PRE-CORE INFORMATION				EXAMINATION			
LOCATION		NORTHING: _____ (m)	LOGS RUN		CASING LENGTH _____ (m)		LOG USED		EASTING: _____ (m)		OVERBURDEN DEPTH _____ (m)		NO. OF SEAMS SAMPLED		
ELEVATION _____		HOLE BEARING (AZ) _____		LOGGED BY _____		OVERBURDEN TYPE _____		EXAMINER (S) _____		OTHER TESTS _____		WATER LEVEL _____ (m)		DATE _____	
TOTAL DEPTH _____		HOLE ANGLE (°) _____													

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
46	201.7	201.4	203.9												SH		Black shale with coaly bedding planes thru out + coal beds - 1cm starting at 202.8m	
47	206.2	203.9	206.1										SM		CO		Dull + bright coal - broken to rubble	
48	210.6	206.4	207.6												SH		light gray shale with micaceous partings thru out 20cm horizontally @ 206.5m	
		207.6	210.9												SH	SS	cherty gray shale with mod gray siltstone laminae thru out	

*MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P3**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER	OVERBURDEN TYPE	EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		209	211.5				B	21	1							35	SH	med grey siltstone, with dark grey shale beds + laminae - more common near top of unit - some moderate bedding
19	215	211.5	216.5				B	213.0	85°							25	SS	dark grey siltstone with med grey fine sandstone laminae thru out. Sandstone increases towards base of unit
		216.5	217.1				B	216.3	69°	R.3	2					SH		Massive black shale. carbon content increasing down section

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: <u>132</u> (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: _____ (m)			
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°) <u>10</u>		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
50	219.8	219.4	220.5																Dull bright coal broken
		220.5	222.2																Black shale with coal spor. at top & increasing siltstone content towards base.
51	224.0	222.2	224.4																mod gray siltstone with thin of black shale + mod gray siltstone throughout
		224.4	226.3																Black shale with coal bedding planes & some silty beds

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: <u>226.3</u> (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: <u>227.9</u> (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°) <u>10</u>		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
		226.3	227.9																
52	228.3	227.9	232.4			B	228.7	28°		7						SS	SS	light grey fine to very fine sandstone flaser laminated with dark grey siltstone. Siltstone content increasing towards base	
										R3	5								
53	232.4	232.4	235.0			B	233.9	36°		R2-R3	5								
						S	233.8	69°											

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		235.0	235.4													SS	ZS	Floer bedded med gray clay siltstone + shaly gray siltstone (caliche filled) structures at base
		235.4	236.1													ZS		Dark gray massive siltstone
		236.1	236.8													SH	CO	Carbonaceous shale with coal spar + coal beds (1-2cm) thru out
54	236.8	236.8	238.2			J	238.0	20°								ZS	SS	dark gray siltstone with med gray fine sandstone base thru out. Rare coal spar

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION		HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH		HOLE ANGLE (°)	TESTS	WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		258.2	259.4													SH		Black shale with coaly bedding planes + fine coal part
		259.4	210.2											81		CO		Dull + bright coal broken
55	241	210.2	212.3													SH		Black shale with rare siltstone laminae
56	215.4	212.3	215.8													SS	25PH	med grey + fine sandstone. fine laminated with siltstone hor stab.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: 3000 (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION		OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH		TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
	215.8	217.4														SH		massive black shale Carbon content increasing toward base. coaly bed planes + tab con. spec.
	217.4	219.1											8R			CO SH		interbedded coaly shale + massive blk shale
57	219.5	219.8											8R			CO		Dull + Bright Coal
	219.8	250.2														2S SH		interlaminated med grey siltstone + chalk grey shale
	250.2	251											8R					shaly coal with 20cm clay coal at base.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
ELEVATION	HOLE BEARING (AZ)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
TOTAL DEPTH	HOLE ANGLE (°)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
				WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		251	253.1													SH		Black shale with cony bedding planes
58	253.7	253.1	257.3													SS	SS	dark grey siltstone with med grey fine sandstone beds
		257.3	257.6													SS	SS	fining up cont. med grey fine sandstone at base of cont grey siltstone to dark grey shale
59	258.3	257.6	260.7			B	260.1	39°	R3-R4	2						SS		med grey very fine to fine sandstone parallel bedded to cross laminated
						J	260.1	33°										

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PB

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION	
LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED				
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED				
ELEVATION		HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)				
TOTAL DEPTH		HOLE ANGLE (°)		WATER LEVEL	(m)	DATE				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE ^A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		262.4	262.4												25	SS	Dark grey siltstone with occasional beds of medium grained cross-laminated siltstone (2cm)	
		267.4	266.7												25	SS	Interbedded medium sandstone + dark grey siltstone. Sandstone - medium grained at top, fine grained at base - cross laminated. Some rip-up clasts (siltstone) at base of sandstone beds.	
G1	267.2	265.7	267.9												SS		Med grey fine - medium grained parallel bedded sandstone. rock siltstone rip-up. etc	

*MEASURED FROM THE HORIZONTAL PLANE. ^A ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
		267.9	269.8													SS	SS	Finng up unit - Rippled cross laminated dark grey siltstone at top - very fine sandstone + fine sandstone at base
		269.8	270.5													SS		Med grey warty bedded sandstone - medium grained with 10cm coarse grains at base with coal spot
62	274.8	270.5	278.3				R	213.7	74°	R	3					SS	SS	Interbedded dark grey siltstone + rippled cross laminated siltstone fine sandstone + rare mudgrey fine sandstone beds.
63	276.2																	

* MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)	LOGS RUN	CASING LENGTH _____ (m)	LOG USED
	EASTING: _____ (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL _____ (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		279.3	280.7													SS	25	Fining up unit - ripple cross laminated siltstone to fine sandstone. Rip-up clasts (siltstone) in base
34	280.8	280.7	281.3													SS	25	Fining up unit as at 279.3m ripple clasts rare
		281.3	282.1			B	281.5	50°		4						SS	25	Interbedded med gray fine-medium grained sandstone with siltstone ripple clasts & coal gray siltstone

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P3**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: 932 (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		282.1	286.1													SS		Mod. grey medium sandstone usually parallel bedded with silty rip-up clasts & coal speck throughout
		286.1	285.2													CONG		Mod. grey granule conglomerate with medium sandstone matrix. Matrix supported coal speck throughout. ? chert, quartz & shale granules
65	285.2	285.2	287.4			B	285.9	57°	1.5	8						SS		Mod. grey coarse grained sandstone with coal speck throughout.
						J	289.2	59°	1.3	6								

* MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: 322 (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
66	289.6	287.4	289.9			B J	289.9	18°	R3	4					SS	ZS	Interbedded dark grey siltstone partly finer laminated siltstone med grey fine sandstone	
		289.9	293.0				293.0	57°	R3	3					ZS		dark grey siltstone with med. med grey fine sandstone laminae	
67	294.0	293.0	298.6			B J	297.5	61°	R2-R3	3					ZS	ZS	Interbedded dark grey siltstone & ripple crest laminated med grey fine sandstone - finer lamination part	
68	298.5					B J	299.1	78°	R3	3								
							299.2	41°										

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)		LOGS RUN	CASING LENGTH _____ (m)	LOG USED
	EASTING: _____ (m)				
ELEVATION	HOLE BEARING (AZ) _____		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°) _____			WATER LEVEL _____ (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
	297.6	300.1														ZS		dark gray siltstone with rare med gray fine sandstone kimberlite
	300.1	300.5														SS		med. gray very fine grained sandstone weakly bedded calcite filled fractures thin out
	300.5	302.9														ZS	SH	dark gray siltstone with beds of med. gray fine sandstone + dark gray shale
69	302.9	302.9	306.1													SH	ZS	Dark gray to black shale with occasional siltstone beds

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
ELEVATION	HOLE BEARING (AZ)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
TOTAL DEPTH	HOLE ANGLE (°)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
				WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		306.1	306.7													SH	CO	interbedded carbonaceous shale & dull/bright coal
70	307.2	306.7	307.4											KA		CO		Dull + Bright coal
		307.4	311.5													SH	CO	interbedded black shale with coal part & coal-dull
71	311.5	311.5	314.1											KA		CO		Dull + bright coal
		314.1	315.1													SH	CO	interbedded black shale with coal part & dull + bright coal

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. F3

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION		NORTHING: (m)	LOGS RUN	CASING LENGTH (m)		LOG USED			
		EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED			
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE		EXAMINER (S)				
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)		DATE				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE			SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %	MAIN				MINOR	AMPLIFIED	
72	315.6	315.1	315.8														SH	CO	Block shale with coal spar coal bands
		315.8	318.3														SH		Massive black shale with numerous calcite filled fractures. More coal toward base.
		318.3	319.2											COA			CO		Dull bright coal - broken
		319.2	320.2														SH	CO	interbedded black shale with coal spar & coal

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION	
LOCATION	NORTHING:	(m)		LOGS RUN		CASING LENGTH	(m)	LOG USED		
	EASTING:	(m)		LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED		
ELEVATION		HOLE BEARING (AZ)		OTHER		OVERBURDEN TYPE		EXAMINER (S)		
TOTAL DEPTH		HOLE ANGLE (°)		TESTS		WATER LEVEL	(m)	DATE		

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAJN	MINOR	AMPLIFIED
73	320.2	320.2	321.9				321.0	48°	R2	3					SH		Black shale with coaly bedding planes	
		321.9	321.8						R2-R3	3				OL	CO		Dull + Bright coal	
74	321.1	321.8	326.9			J	326.3	43°							SH	CO	Interbedded black shale with coal spor & coal	
						B	326.8	52°										
75	328.5	328.9	331.0			B	330.4	60°	R3	4					ZS	SS	dark grey massive siltstone with occasional med grey fine sandstone bed	
76	333.0					B	335.7	54°	R3	3							Rare black shale beds	

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: <u>332</u> (m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING: _____ (m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		331.1	335.6													SS		Med grey fine grained sandstone, wavy cross laminated
77	337.3	335.8	337.8													SS		Dark grey siltstone with rare fine sandstone laminae
		337.8	339.7													SS	SS	Dark grey siltstone + med grey very fine to fine sandstone - interbedded + intercalated - cross beds to flaser beds
78	341.9	339.7	346.8			J	343.3	33°								SS	SS	Med grey ripple cross laminated fine sandstone with med grey siltstone beds
79	346.6					B	343.3	45°										

* MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: <u>322</u> (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: <u>322</u> (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

LOG NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
		3168	3177																
80	350.6	3177	3195				B	353.5	63°	R3	4			MMSS			SS		Mod grey fine sandstone fines laminated with clay grey siltstone
81	355.1						J	356.9	39°	R3	5						SS		Mod grey medium sandstone cross bedded 12cm siltstone @ 350.2m occasional calcite filled fracture very rare shales laminar. At 352m, coal spec become common
82	359.4						B	358.9	45°	R3	4								
		359.5	362.0														SS		Mod grey fine sandstone weakly bedded, rare sin up clasts mod siltstone in lower section

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: <u> </u> (m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING: <u> </u> (m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		3620	3624													S#1		massive black shale
		3624	3629													S#		mod grey fine sandstone weakly bedded
83	364	3629	3645													S#		massive black shale grades to siltstone in basal 20cm
		3645	3677															mod grey medium sandstone - coarse up - fine at base coal streak thru out cores medium to weakly bedded

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

NO.	LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
		EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
	ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
	TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION	
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR
84	368.3	371.7	371.9				B	371.2	160°	R2	4				SS	SS	Fining up unit - Fine med grey sandstone at base then dark grey siltstone with fine sandstone laminae
85	372.7	371.9	373.0				J	371.5	48°						SH		massive black shale
86	377.1	373.0	380.5				B	373.8	35°	R3	5				SS	SS	dark grey siltstone with med grey fine to very fine sandstone beds
87	381.3	380.5	385.6				B	385m	73°	R3	3				SS		med grey fine sandstone parallel to ripple cross laminat.

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
88	385.9	385.6	386.7													SS	SS	dark grey siltstone with lam beds mod grey fine sandstone
		386.7	388.6													SS		mod grey fine sandstone ripple cross laminated 50cm dark grey siltstone at 387-3m
		388.6	390.2													SS	SH	mod grey fine sandstone with conch strat lamine thin bed.
89	390.3	390.2	391.7															dark grey siltstone massive

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: 4300 (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)				
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		391.7	393.9													SS	25	light grey sandstone - fine parallel to cross laminated with occasional dark grey albstone beds
90	396.7	393.9	396.9													SH		Massive black shale
		396.9	399.2													SS		Med grey medium sandstone with coal spur thru out + rare rip up chds (shals)
		397.2	398.7													SH		Massive black shale grades into coal below

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P3

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	HOLE ANGLE (°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH			TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
91	399.1	398.7	401.5													75		dark grey siltstone massive	
92	402.2	401.5	407.1			B	402.2	16°										massive black shale	
		407.1	408															75	dark grey siltstone with fine siltstone laminae
93	408.5	408	410.6															5H	Black shale with low bedded med grey siltstone.
94	413	410.6	416.7			B	410.6	47°										35	grey-black siltstone with thin med grey fine siltstone carb.

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. 12

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION	
LOCATION	NORTHING: (m)			LOGS RUN			CASING LENGTH (m)	LOG USED		
	EASTING: (m)			LOGGED BY			OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED		
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)			
TOTAL DEPTH	HOLE ANGLE (°)				WATER LEVEL (m)		DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
95	417.4	425.8					B	47.5	17°		4					ZS	SS	dark grey siltstone + mod grey fine sandstone - coarse laminated, indistinct
96	421.9																	
97	426.3	428.2															SS	mod grey medium sandstone with calc spar
98	430.4	430.4															SS	ZS interbedded mod grey medium sandstone + calc grey siltstone
		430.4	431.6														SS	ZS friable, coarse laminated mod grey fine sandstone + calc grey siltstone + coarse siltstone

* MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION	
LOCATION	NORTHING: (m)	LOGS RUN		CASING LENGTH (m)	LOG USED	OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED		
	EASTING: (m)	LOGGED BY		OVERBURDEN TYPE		EXAMINER (S)		DATE		
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS		WATER LEVEL (m)						
TOTAL DEPTH	HOLE ANGLE (°)									

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE ^A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
1	3.0	3.0	5.6				S	3.6	23°	R3	6*				SS	SS	mod gray very fine sandstone and siltstone ripple cross laminated. heat affected - pink coloration	
2	6.9						B	4.8	57°								* SHATTERED THROUGHOUT	
		5.6	7.6				B	8.2	70°	R3	6				SS	SS	dark gray siltstone with fine bands mod gray fine sandstone thru out. Pink-red hard affected	
							J	9.1	29°									
		7.6	15.7				B	13.9	58°	R3	16*				SS		Mod gray fine - medium grained sandstone heat affected - pink-red coloration	
3	11.2						B	16.6	54°	R3	16*						parallel bedded. broken	
4	15.5																* SHATTERED.	

*MEASURED FROM THE HORIZONTAL PLANE

^A ANGLE MEASURED FROM AXIS OF CORE

* SHATTERED.

HOLE NO. **PL**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)	LOGS RUN	CASING LENGTH _____ (m)	LOG USED
	EASTING: _____ (m)	LOGGED BY	OVERBURDEN DEPTH _____ (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ) _____	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°) _____	TESTS	WATER LEVEL _____ (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
	27.5	28.4														ZS		pink-grey to white-grey siltstone - heat affected 10cm clayey shale at 27.7m
	28.4	30.7														SH		black shale, heat affected at top. Rare thin siltstone beds broken
	30.7	33.2														CO		oxidised coal very broken
	33.2	35.1														SH		black shale with coal spar & conch. bedding planes 10cm coal at 33m 15cm coal at 34.6m 4 cm coal at 34.8m
9	35.8																	

MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. 1

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE ▲		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
10	38.1	35.1	43.1													SH	25	Black shale with thin beds of mod grey siltstone thru out 10cm coal at 36.4m
11	42.3	43.1	44.8													SH	CO	Black shale with coal speck + coal beds thru out 4cm @ 43.8m coal 30cm coal at 44.1m base grades into coal
11	42.3	44.8	46.2													CO		Coal - dull + bright broken
12	46.3	46.2	46.4													SH		Black shale with coal speck

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

1.7

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		46.4	47.1													CO		very broken coal - dull + bright stony at base
		47.1	47.5													SH		black shale with coal bedding planes.
		47.5	48.1													CO		broken - dull + bright stony at base
		48.1	49.1													SH (CO)		black shale with coal spr. + coal beds - silty at base 10 cm coal @ 48.3 m
		49.1	50.2				B	19.5	71°		6					SS	SS	med gray siltstone + fine sandstone finer bedding + silty burrowing grades down to black shale.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE▲		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		50.2	50.5													CO		Dull + bright coal broken
		50.5	53.3				J	47.0	48°							SH		Black shale with coaly bedding planes, rare coal spar & thin coal bands thru out. rare silstone laminae
13	50.6						B	53.7	56°	R2-R3	6							coal- 10cm at 51m 5cm at 53m 5cm at 54.8m 15cm at 55.2m 10cm at 55.5m
		57.3	57.9													CO		Dull coal, stony at base

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)
ELEVATION	HOLE BEARING (AZ')	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. # / m	RQD %				MAIN	MINOR	AMPLIFIED
15	58.5	57.9	59.6												SH	CO	Black shale with coal part + coal beds thru out rare siltstone laminae grades up into coal above	
		59.6	61.6												SS	SS	med gray fine to very fine sandstone + siltstone - floor bedded. 50cm massive siltstone @ 60.5m	
16	62.6	61.6	62.9												SH		Black shale with coal beds 5cm @ 62.4m	

MEASURED FROM THE HORIZONTAL PLANE.

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)		LOGS RUN	CASING LENGTH _____ (m)	LOG USED
	EASTING: _____ (m)				
ELEVATION	HOLE BEARING (AZ) _____		OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°) _____		TESTS	WATER LEVEL _____ (m)	DATE

LOG NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		629	639												25	55	dark grey siltstone with occasional mudstone fine sandstone laminations thin out	
		639	637												54	00	interbedded black shale + dull bright coal - coal in 15cm bands	
		637	655				B	64m	71°		1				55	25	medium fine sandstone weakly floor bedded with dark grey siltstone quite in fracture planes	
		655	657														CAVE IN	

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)		LOGS RUN	CASING LENGTH _____ (m)	LOG USED
	EASTING: _____ (m)				
ELEVATION	HOLE BEARING (AZ) _____		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°) _____				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		657	664													75	SH	dark grey siltstone with shale laminae
		664	672													80		Dull, very shaly + broken
1+	67.2	67.2	686													81		massive block str.
		686	70.4													75	SS	mod grey siltstone grading down to very fine sandstone - massive, intensely fractured zone at 69-69.4m - calcite filled

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. _____

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
18	70.9	70.4	70.6													SH		Massive black shale
		72.6	74.6													SS	ZS	mod-light grey fine sandstone with siltstone laminar throughout siltstone content increases toward base & top of unit 10cm conchoidal bedding at 73.5m
		74.6	75.1													CO		Dull + bright coal - broken
19	75.4	75.1	75.6													SH		Black Carbonaceous shale - massive

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: <u>33</u> (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: <u>33</u> (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		75.6	86.8															
20	79.9						B	81.6	156°	R3	5					SH		dark grey shale with fine silty shale laminae
21	84.2						B	84.3	35°	R3	5							interbedded with black shale with sandy bands. coal - 5cm at 78.2m 15cm at 81.65m 10cm at 82.1m 10cm at 86.25
		86.8	89.7															
22	89.7	89.7	91.8				B	92.8	55°	R3	4					CO	SH	Dull+ (bright) coal, stony at top. broken to shreds. Interbedded dull+ bright coal + black carbonaceous shale

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION		
LOCATION	NORTHING:	(m)		LOGS RUN			CASING LENGTH	(m)	LOG USED	
	EASTING:	(m)		LOGGED BY			OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ)		OTHER TESTS			OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH		HOLE ANGLE (°)					WATER LEVEL	(m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJN	MINOR	AMPLIFIED
		91.8	91.9													SS		mod grey fine sandstone with shaly wisps thru out
		91.9	93.4													SH	SS	dark grey shale with thin bands mod grey fine sandstone thru out
23	93.7	93.4	91.4													SS	75	mod grey very fine sandstone and dark grey siltstone massive siltstone - red, then cross to wavy laminar some conchoidal bedding of time

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		96.4	96.4													SS		mod. grey fine sandstone weakly parallel bedded occasional calcite filled fracture
24	98.2	96.4	91.3			B	99m	59°		3						SS	SS	mod. light grey fine sandstone fine, laminated with dark grey siltstone. occasional calcite filled fracture thru out
		91.3	92.3															mod. grey fine sandstone weakly parallel bedded with coal seam thru out

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)		OTHER	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE			SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %	MAIN				MINOR	AMPLIFIED		
		92.3	92.6														00		Dark coal stony at top + base	
		100.3	100.6															25	55	dark gray siltstone with fine sandstone laminae thru out with coal spar & conly bedding planes.
25	100.5	100.5	100.1															55	light gray fine sandstone with shaly wisps thru out + coal spar at top.	

*MEASURED FROM THE HORIZONTAL PLANE .

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		106.2	121.2				B	10m	76°	R3	3					SH		
26	106.8						B	108.4	61°	R3	5							
27	111.3						B	114.0	69°	R3	6							
28	115.6						J	118.8	45°	R3	4							
29	121.3																	
		121.2	121.6															
30	124.2						B	126.0	48°	R3	6					SH		

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE A			SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	ROD %	MAIN				MINOR	AMPLIFIED	
		121.6	125.5				=	122.9	130°								SS	ZS	mod-light gray fine sandstone - (base knitted) with dark gray siltstone. Siltstone content increases toward top + base of unit
		125.5	126.2														ZS	SS	dark gray siltstone to fine sandstone with rare coal spar. 5cm coal at 125.8m
		126.2	127.8														SS	ZS	light-mod gray fine sandstone with dark gray siltstone. Wavy to concave bedding, massive some bioturbation

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION		
LOCATION	NORTHING: <u> </u>	(m)		LOGS RUN			CASING LENGTH	(m)	LOG USED	
	EASTING: <u> </u>	(m)		LOGGED BY			OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION	<u> </u>	HOLE BEARING (AZ°)	<u> </u>	OTHER TESTS			OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH	<u> </u>	HOLE ANGLE (°)	<u> </u>			WATER LEVEL	(m)	DATE		

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
31	127.8	127.6	128.2													SH	25	Black shale with rare siltstone laminae causing down to siltstone
		128.2	129.5													SS	25	light gray fine sandstone flaser bedded with dark gray siltstone occasional white filled fractures.
		129.5	132.3													SH	25	Finning up Unit - mod gray siltstone to dark gray shale
32	132.5	132.3	133.8			B	133	72°		4						SS		Mod gray fine sandstone flaser bedded at top: weak bedded

*MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS			LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)		LOG USED			
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)			
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)		DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		1338	1341													SH		Massive black shale
		1341	1348													SS	ZS	mod grey fine sandstone with chert grey siltstone - flaser bedded
		1348	1388													SH	ZS	Dak grey shale with thin siltstone laminae thru out
33	1369	1388	1582			J	145.5	10°								SS	ZS	Mod grey fine sandstone flaser to conglute bedded, with beds dark grey siltstone occasional calcite filled fractures thru out
34	141.2																	
35	145.7																	
36	150.1																	
37	154.5																	

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

1-7

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: _____ (m)			
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

LOG NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		158.2	159.5													SH		Massive black shale
38	159.1	159.5	160													CO		Bright + Dull sheared
		160	163.1													SH		Black shale with coal spar + coaly bed planes 20cm shaly coal at 161.2
38	163.5	163.1	163.8													CO		Dull (bright) coal - broken
		163.8	164.3													SH CO		Black shale with coaly wisps + 10cm coal at 164.1m

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: 32	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED			
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED			
ELEVATION		HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)			
TOTAL DEPTH		HOLE ANGLE (°)		WATER LEVEL	(m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		1663	1668													SS		Med gray fine-medium sandstone with silty wisps.
		1668	1687				J	166.5	24°							ZS	SH	dark gray siltstone with med gray fine sandstone laminae
40	1673						B	170.0	62°	R2-R3	H							thin out grades to shale at base
		1687	1699													CO		Dull coal, stony in part broken
		1699	171													SH		Massive black shale grading into coal below

*MEASURED FROM THE HORIZONTAL PLANE. A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	EASTING: (m)	ELEVATION	LOGS RUN	CASING LENGTH (m)	LOG USED	NO. OF SEAMS SAMPLED		
			HOLE BEARING (AZ)	LOGGED BY	OVERBURDEN DEPTH (m)				
TOTAL DEPTH			HOLE ANGLE (°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)			
					WATER LEVEL (m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
		171	171.7													SH	CO	interbedded shaly coal + coal + black shale
41	171.9	171.7	175.5													SS	SS	med gray siltstone interbedded with wavy-to-fine laminated siltstone + fine sandstone calcite filled fractures thru out
42	176.6	175.5	178.1													SS (25)		light gray fine sandstone weakly bedded, rare finer brown calcite filled fractures thru out.

*MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION	
LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED				
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED				
ELEVATION		HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE		EXAMINER (S)				
TOTAL DEPTH		HOLE ANGLE (°)	TESTS	WATER LEVEL	(m)	DATE				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
43	181.0m	181.1	181.1				J	181.1	144°	R2-R3	5				25	54	Grey-black intermixed shale + siltstone with fine sandstone beds. Carbonaceous bedding planes. Below 181m not core spec + wisps = predominantly shale (at) 183m.	
44	185.6	184.1	190.1				B J	188.5 189.4	61° 28°	R3	5				25	25	Interbedded coarse laminated light grey fine sandstone & mainly bedded siltstone calc. filled fractures thru out	

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)	LOGS RUN	CASING LENGTH _____ (m)	LOG USED
	EASTING: _____ (m)			
ELEVATION		OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH		TESTS	WATER LEVEL _____ (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
45	190.1	190.1	193.3													SH		Black shale with coaly bedding planes
		193.3	199.2			B	197.3	47°								25	55	dark grey siltstone wavy to convoluted bedded with med grey fine sandstone
46	191.5					B	196.2	58°	R3	4								grey fine sandstone
47	198.9					B	199.7	58	R3	6								Base staly bands 20cm zone brown grey siltstone at 196.8 - intense calcite filled fractures.
		199.2	202			J	200.5	30°										light grey siltstone with oblique wisps siltstone thru oil. Some predominantly silty zone
						B	200.6	77°										

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. _____

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO	TYPE	DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m				RQD %	MAIN	MINOR
		202	202.6											SS	25	Fining up unit - massive med gray fine sandstone at base, interbedded sandstone + siltstone + massive siltstone at top.	
18	203.3	202.6	209											25	SS	Interbedded clay gray siltstone with sandstone bands & med gray fine sandstone with siltstone laminae + blocks.	
19	207.6						S	245.9	23°								
							B	245.3	62°								
		209	210.7											SS	25	Block cross laminated dark gray siltstone + med gray fine sandstone	

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
50	212.1	210.7	212.6												SS	SS	interbedded med grey fine sandstone - parallel to cross laminae & dark grey siltstone	
		212.6	216.2												SH	SS	black shale with siltstone bed - coal spar	
		216.2	216.6												CO		dull + bright sheared coal sharp contacts	
51	216.6	216.6	217.9												SH		massive black shale with fine silt laminae	
		217.9	218.6			B	218.3	62°		4					SS	SS	dark grey siltstone + med grey fine sandstone - parallel laminated to carbonate bedding.	

*MEASURED FROM THE HORIZONTAL PLANE.

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

COR NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		218.6	220.1													SH		Black shale with coal sp. + silts. + limon.
52	220.8	220.1	221.6															Dull (bright) coal stony in part. 221.0 = 10 cm shale bed
		221.6	222.2													SH	CO	Interbedded black shale + dull bright coal
53	225.3	222.9	224.0			J	223.9	35°								SS		Med to light grey fine sandstone - weakly bedded, occasional calc. cut filler fracture.
						B	223.8	85°										
						B	227.9	56°	83	5								

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.	
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

COR NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
54	229.6	227.0	231.3													SH	SS	interbedded dark grey shale + siltstone
		231.3	232.1													SS		light grey fine sandstone weakly bedded calcite filled fractures thru out
		232.1	234.5													SS	SS	dark grey siltstone with fine sandstone laminae + thin beds thru out
		234.5	237.8													SS		med grey sandstone - fine - wavy bedding calcite filled fractures thru out

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN		CASING LENGTH (m)		LOG USED	
	EASTING: (m)		LOGGED BY		OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED	
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)				WATER LEVEL (m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO	TYPE	DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m				RQD %	MAIN	MINOR	AMPLIFIED
		239.8	244.5				B	239.8	44°									
56	238.4						B	246.3	49°	R3	5				SS		dark grey siltstone	
57	212.7																predominantly massive	
																	fine shale + sandstone	
																	laminar. rare calcite (nile)	
																	fractures.	
		244.5	248.5				B	249.	52°	R3	2							
58	217.2						B	248.1	51°	R3	3				SS	SS	med to dark grey ripple	
																	cross laminated fine sandstone	
																	& siltstone	
		248.5	253.5				B	254.4	36°	R2-R3	5						Inter-bedded - med grey	
59	251.8						B	254.2	46°	R3	5						coarse sandstone with conc corr	
60	256						B	258.4	61								& cross laminated fine-medium	
																	sandstone	

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)*			WATER LEVEL (m)	DATE

HOLE NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE			SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION				
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %	MAIN				MINOR	AMPLIFIED			
61	260	257.5	262.6			J	259.3	120°								SS		mod. gray fine medium sandstone parallel to cross laminated.			
						J	261.4	46°													
						B	261.3	68°													
		262.6	263.5															SS	med. to fine sandstone with con. silt. thin out		
		263.5	265.7																SS	SS	dark gray very fine sandstone to silt. fine, weakly bedded with various calc. in situ.

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m %)	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
63	268.3	267.7	269.1													SS		mod grey fine - medium sandstone - fines upwash (wide cross laminated) with rare coal streak + 1.0 up close to base (parting) rare vertical fractures in this unit probably beds,
		269.1	269.4															Dark grey siltstone
64	272.6	269.4	270.8													SS		Fine up unit - mod grey medium sandstone thin to granular at base coal streak thin at

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN		CASING LENGTH (m)		LOG USED	
	EASTING: (m)		LOGGED BY		OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED	
ELEVATION	HOLE BEARING (AZ)		OTHER		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)		TESTS		WATER LEVEL (m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPIYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m %)	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
65	276.7	270.8	280.5			B	275.5	53°		3					SS		Med grey medium-course sandstone, weakly parallel bedded. Becoming coarser from top 276m	
						B	277.8	48°										
						JS	277.9	21°										
66	281.3	280.5	281.8												SS		Med-dark grey-fine-medium grained sandstone, weakly bedded. Bare coal spots & many bedding planes.	
67	285.4	281.8	286.2												SS		Dark grey siltstone with coarse, very fine sandstone laminae. red calcite filled fractures & some burrowing in base	

*MEASURED FROM THE HORIZONTAL PLANE.

^ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.	
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN		CASING LENGTH	(m)	LOG USED	
	EASTING:	(m)	LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION			HOLE BEARING (AZ)		OTHER TESTS		EXAMINER (S)	
TOTAL DEPTH			HOLE ANGLE (°)		WATER LEVEL	(m)	DATE	

DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
	FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
	2830	2870																
68	287.3	290.9				B	290.8	43°	R9-13	4					SH	CO	Dark gray shale with occasional bitou laminae 20cm dull to shiny coal at 290.2m	
69	293.5	296.8				B	290.7	46°										Dull + bright coal broken to shreds
	296.8	298.2													SH			Black shale with conchoidal shiny pieces + fine coal some broken

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: <u> </u> (m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING: <u> </u> (m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
		2882	2990													CO	SH	interbedded dark shaly and silty coal - broken to shored.
70	297.3	2990	3014													SH		dark silty with coal thin shales and occasional 1-3cm coal beds - dull + bright
71	301.6	3014	3046													CO		dull + bright, broken to shored. show at top & base.

*MEASURED FROM THE HORIZONTAL PLANE. A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
	FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
72 305.7	304.6	309.2				B	307m	71°	R3	5					25	35	mod. gray siltstone with very fine structure - shaly beds/laminar thin cut. ripple cross laminated to bioturbated
	309.4	309.7				B	308.0	50°	R3	5					25	clay	Salmon pink massive siltstone & grey-brown clay !! driller - heat affected. ... track?
73 310.2	309.7	311.8				B	311.3	78°	R3	4					24	25	dark gray shaly with mod. gray siltstone + fine structure beds. (unstable) thin cut. 20cm with micio fractures thru. rad at 310.8m

MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

(PLGEOPFORM/COREDESC FOR 16ed 920711 (7))

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
TOTAL DEPTH	HOLE ANGLE (°)			OVERBURDEN TYPE	EXAMINER (S)
				WATER LEVEL (m)	DATE

NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO	TYPE	DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m				RQD %	MAIN	MINOR	AMPLIFIED
		311.8	303.0				B	313.2	153°	R3	5							
74	311.6						S	314.7	13°	R3	7				SH		Black shale with rare silty bands broken	
75	319.3						G	322.3	54°									
		328.0	328.3															
76	328.8						B	327.8	47°	R2-R3	7				SS		Dark grey siltstone with med. grey f. siltstone bands (also known) throughout rare shaly beds some coaly bedding areas	
77	328.3	328.3	328.2				B	329.1	49°								Med grey f. to very fine siltstone weakly ch. bedded, rare fines. l. with calc. grey siltstone	

MEASURED FROM THE HORIZONTAL PLANE. A. ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: <u>4324</u> (m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING: <u>337.0</u> (m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°) <u>10</u>	TESTS	WATER LEVEL	(m)	DATE

NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINORS	AMPLIFIED	
		337.2	337.7				B	337.0	55°							SH	25	Mod. gray siltstone fine down to black shale with silty bands & massive shale at base some coaly bedding planes	
78	332.6																		
79	336.9																		
		337.7	338.3														CO	SH	interbedded coal-shale, bright - broken to sheared & black shale
		338.3	338.0				J	339.1	22°								SH	CO	Black shale with coaly bands + rare silty laminae coal - 12 cm at 339.0m 6cm at 339.9m

*MEASURED FROM THE HORIZONTAL PLANE.

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: <u> </u> (m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING: <u> </u> (m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
82	319.9	318	320.6				B	352.6	48°	R3	4								
83	351.1	350.6	350				B	357.8	62°	R3	4								
84	358.5						B	360.0	71°	R3	4								

*MEASURED FROM THE HORIZONTAL PLANE. Δ ANGLE MEASURED FROM AXIS OF CORE

bedding planes

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS			LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	LOGGED BY	CASING LENGTH (m)	LOG USED		
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS		OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED		
TOTAL DEPTH	HOLE ANGLE (°)				OVERBURDEN TYPE	EXAMINER (S)		
					WATER LEVEL (m)	DATE		

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO	DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
		365	366.1				B	264.5	161°	R3	3							
							B	366.7	45°	R3	3							dark grey siltstone with mod grey fine to very fine sandstone beds + laminae
		365	357.6				B	367m	61°	R3	3							mod. grey fine sandstone parallel bedded
86	367.4																	
		367.6	370.9				B	371.0	60°	R3	6							mod grey fine sandstone parallel bedded with shale on bedding planes
		370.9	373.1				B	373.1	56°	R3	4							
87	371.7						B	374.0	55°	"	"							mod grey fine to medium sandstone with coal seam thru out.

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: <u> </u> (m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING: <u> </u> (m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		373.2	375.8													SS		mod grey medium sandstone with shaly rip up clasts + occasional coal spn thru out parallel bedding, some craly bedding planes
88	374.5m																	
		375.8	376.8													25	SS	Dark grey siltstone with mod grey fine sandstone laminae (upto 1cm) thru out
		376.8	381.5															
89	380.1															SS		mod grey fine to medium sandstone with coal spn thru out & carbonaceous harding planes.

*MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

COR. NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS. DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		3815	3816				B	382.4	72°	R3	4					25	55	dark grey siltstone with beds/laminae of mod grey fine sandstone thru out rare stally beds.
90	381.5						J	382.4	09°									
		3856	3865													31	25	Black shale with mod grey siltstone laminae thru out
		3865	391.4				B	391.4	60°	R3	5					25	35	Dark grey siltstone with rare sandstone laminae interbedded
91	388.8						B	391.4	57°	R3	4							with cross laminated mod grey sandstone & dark grey siltstone
92	393.1						B	395.8	58°	R3	5							

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	EASTING: (m)	LOGS RUN	LOGGED BY	CASING LENGTH (m)	LOG USED
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN DEPTH (m)	OVERBURDEN TYPE	NO. OF SEAMS SAMPLED	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	WATER LEVEL (m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		394.9	397.6												SS		Med-light grey, medium sandstone, parallel bedded with early bedding planes, coal spor thin out. Shaly rip up clasts common in basal 70cm.	
A3 94	397.7 402.1	397.6	403.9												25	SS	Dark grey siltstone with med. fine sandstone cross laminated beds + minor thin out 5cm shaly coal at 399.7m. Fractured zone - calcite filled at 399.6-399.7m. rare shaly beds.	

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO	DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
95	1065	4039	4121											SH	25	Black shale with mod grey siltstone laminae thru out. Rare coal spar + carbonaceous bedding plus	
96	410.9	4121	4135											SH	00	interbedded black shale & coal - dull (+ bright) to shiny broken	
97	415.1	4133	4157			B	4145	59°		5				2S	5S SH	dark grey siltstone with beds of ind grey fine sandstone & dark grey fine rare coal spar & carbonaceous bedding planes	

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION		NORTHING: (m)	LOGS RUN		CASING LENGTH (m)	LOG USED			
		EASTING: (m)	LOGGED BY		OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED			
ELEVATION	HOLE BEARING (AZ)	OTHER		OVERBURDEN TYPE	EXAMINER (S)				
TOTAL DEPTH	HOLE ANGLE (°)	TESTS		WATER LEVEL (m)	DATE				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRACFREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		1157	1170													55	25	Med grey fine to very fine sandstone with dark grey siltstone + rare silt. bed weakly bedded. Pale coal spar.
48	119.5	1174	1209			B	422.7	18°	R3	4						51	25	Black shale with dark grey siltstone laminae thin out. Some coaly bedding planes & rare coal spar.
99	121.2	1209	1216			B S	425.7 425.9	61° 37°								25	85	Dark grey siltstone with med grey fine sandstone laminae thin out - very to core laminated.

MEASURED FROM THE HORIZONTAL PLANE. ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

SOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		424.6	420.5				B	423m	79°		5					54	25	dark grey shale with silty parting & carbonaceous banding planes and 10cm med. grey fine sandstone at 425.7m & 426.9m. Rare coal seam 10cm staly coal at 428.6m
100	428.5						J	429.7	19°									
		430.5	432.5													55	20	med grey fine sandstone, weakly cross laminated with dark grey siltstone beds & some thinning. Occasional calcite filled fracture.

*MEASURED FROM THE HORIZONTAL PLANE .

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
101	433-2	428-5	431-7													SH	SS	Black shale with dark grey siltstone laminae thru out. Rare calcite filled fractures.
		431-7	437-4													SH		Massive black shale with occasional carbonaceous bedding planes.
102	437-4	437-4	439-2													SH (C)		Black shale with rare coal spar & shaly coal beds broken, heavy core loss.

*MEASURED FROM THE HORIZONTAL PLANE.

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)*		TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE ^A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		439.2	440.9													75		Dark grey siltstone with occasional coal spur of 5cm sheared coal at 438.6m + 5cm coal at 440.7m
103	442.0	440.9	442.6													SH (C)		Interbedded black shale with coal spur of coal - dull to shiny.
104	446.5	442.6	447.1													SH		Black shale with occasional siltstone laminae + coal spur. 4cm sheared coal at 443.5m

*MEASURED FROM THE HORIZONTAL PLANE.

^A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION		HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH		HOLE ANGLE (°)*	TESTS	WATER LEVEL	(m)	DATE

SOFT NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		1454	1478													SS	25	Mod. grey fine sandstone ripple cross laminated with dark grey siltstone - rare flaser bedding.
105	147.1	1478	153.6			B	448.7	72°								SH	25	dark grey shale with numerous siltstone laminae + rare fine sandstone laminae + beds.
		1536	159.7			B	459.2	60°		4						25	SS	dark grey siltstone with mod. grey sandstone + dark grey shale bands thin and rare calcite filled fracture.
106	157.4					S	462.3	47°	R3	4						(SH)		
107	159.6					B	461.3	71°										

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEO TECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
1	3.5m	3.5	5.2	100	3.5	6.3	B	5.9	67						SST	SLT	Light grey, fine grained sandstone interbedded with a little black siltstone	
2	8	5.2	8.2	88			J	11.3	12									
					6.3	8	B	12.2	60						SST		Fine grained sandstone, tan/brown color, shaly/very badly	
3	12.4	8.2	11.3	98			J	15.1	31									
		11.3	14.3	99	8	17.5									SST		Fine grained light grey sandstone interbedded with dark grey/black siltstone.	

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
4	16.6	14.3	17.4	97	17.5	20	J	21.6	42							SST	G	A coarse, light grey sandstone interbedded with small bands of coal (0.5cm)
		17.4	20.4	67														
5	22.3				20	20.7	T	22.5	50									
		20.4	23.5	81			B	23.6	51									Black shale with some evidence of coal.
		23.5	26.5	99	20.7	25.3												Light grey sandstone interbedded with black siltstone. As you approach the base of this section, the sandstone becomes coarser.

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
9	39.9	35.7	38.7	51	32.6	35										SH	G	Black shale interbedded with small bands of coal.
		38.7	41.8	100														
10	44.3	41.8	44.8	100	35	37.2												Mining coal
		44.8	47.9	99	37.2	40.1	J	44.4	12									
							J	44.8	27									
							B	48.3	66									

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE▲		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
11	48.6	47.9	50.9	100	48.1	48.3										SST	SH	Light grey sandstone, varying from med. to coarse grained, interbedded with dark grey shale.	
					48.3	49.3	J	50	28										
							SS	52	65								SH	Co	Med grey shale, interbedded with wobbly bands of coal.
		50.9	53.9	93			B	50.8	67										
12	52.9	53.9	57	98			F	57.3	19										
							J	59.7	14										

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)
ELEVATION	HOLE BEARING (AZ')	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
13	57.2	57	60	108			J	60.7	122									
14	61.5				49.3	61.5										SST	SLT	Med grey, fine grained sandstone interbedded with dark grey siltstone
		60	63.1	78	61.5	62.2										Co		Missing coal
		63.1	66.1	68	62.2	64.6										SH	Co	Dark grey shale interbedded with thin small seams of coal. (10cm)

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION						
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED				
					64.6	65.4																
15	66.1	66.1	69.2	90			B	69.1	58										Co	Misruny coal		
					65.4	70.5	J	69	35													
16	70.5	69.2	72.2	99																SH Co	Med grey shale interbedded with stringers of coal.	
					70.5	74.1	SS	72.1	51												SS SLT	Med grey, fine grained sandstone interbedded with dark grey siltstone.
							J	72.8	26													

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)
ELEVATION	HOLE BEARING (AZ)*	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)*		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		JOINT ANGLE [▲]		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO	TYPE	DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m				RQD %	MAJ	MINOR	AMPLIFIED
17	Missing	72.2	75.3	64	74.1	75.3												Missing coal
18	78.9	75.3	78.3	100	75.3	78.5	J	77.6	30									light grey, med grained sandstone
		78.3	81.4	98			B	77.3	59									
19	83.3				78.5	80												Dark grey shale interbedded with stringers of coal.
		81.4	84.4	98														
					80	84.1												
		84.4	87.5	86														Med grey, fine grained sandstone interbedded with dark grey siltstone and some coal near the base.

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ #/m	RQD %				MAIN	MINOR	AMPLIFIED
20	87.5	87.5	90.5	100														
					84.1	84.9	B	89.7	62							5H	Co	Very dark shale interbedded with some coal.
					84.9	85.4										Co		Missing coal
					85.4	90.2										SST	Co	Med to coarse grained, light grey sandstone interbedded with small bands of coal.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED	
					90.2	91.3													
21	91.6	90.5	93.6	100	91.3	92.9													SH SST ... Red grey/black shale interbedded with coarse grained sandstone
							J	95.2	26										SST Co Light grey, med grained sandstone interbedded with small bands of coal (0.5cm)
		93.6	96.6	100			B	98.8	62										Co Coal, med very shiny, and it is very fractured

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. 1P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
22	95.9	96.6	99.7	100	93.8	99.7										SH	SST	Dark grey/black shale interbedded with fine grained, light grey sandstone
23	Missing	99.7	102.7	3	99.7	100.1	J	102.8	26							SH	Co	Dark grey/black shale interbedded with small bands of coal.
					100.1	102.2	B	102.2	61							Co		Missing coal
24	105.1	102.7	105.7	100	102.2	104.5										SST	SH	Med grained, med grey sandstone interbedded with dark grey shale.

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
					104.5	105.3													
25	109.5	105.8	108.8	100			J	111.3	21								Co	SH	One small shiny coal seam interbedded with dark grey shale.
26	113.7	108.8	111.9	100			J	111.2	34								SH	Co	Dark grey shale interbedded with a few bands of coal (5cm)
		111.9	114.9	100			J	111.9	40										
27	118	114.9	117.9	100															
		117.9	121	97			J	115.5	12										

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		JOINT ANGLE ^A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO	TYPE	DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m				RQD %	MAIN	MINOR
28	122.2	121	124.1	95	122	126.6	J	122.1	92						SST	SLT	Med grey, fine grained sandstone interbedded with dark siltstone.
29	126.8	124.1	127.1	99	126.6	139.3	J	124.4	24						SH	SST	Dark grey / black shale interbedded with fine grained sandstone.
		127.1	130.1	92			B	127.3	61								
30	131.7	130.1	133.7	100	131.3	139.9									Co		Minerally coal.
		133.2	136.2	97													
31	135.5																

*MEASURED FROM THE HORIZONTAL PLANE

^A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
32	139.9	136.2	139.3	99	139.9	141.1										SH	Co	Black shale interbedded with a shaly coal.	
		139.3	142.3	38	141.1	143.8	B	140.8	55								Co	Missing coal	
33	144.5	142.3	145.4	52	143.8	147.1											SH	Co	Black shale interbedded with coal.
		145.4	148.4	55	147.1	149.4	J	151.5	26								Co	Missing coal	
34	149.4	146.4	151.5	68	149.4	153.4	B	152.7	61								SST	SLT	Med grey, fine grained sandstone interbedded with dark grey shale.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE▲		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
35	153.9	151.5	154.5	98	153.4	154.2										SH	Co	Black/dark grey shale interbedded with a small seam of coal (10cm) at the base.
		154.6	157.6	97	154.2	156.7	SS	161.1	42							SS	SLT	Light gray, med grained sandstone interbedded with dark grey siltstone
		157.6	160.6	92	156.7	162.1	B	161.9	50							SH		Black shale
36	158.5	160.6	163.7	62	162.1	163										Co		Missing coal.
		163.7	166.7	100														

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.	PS
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CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ')		OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
37	162.8				163	171.7										SH	SST	Black shak interbedded with a fine grained, light grey sandstone and some coal near the base.
38	167.3				171.7	172.4										G		Missing coal
39	Missing				172.4	172.8										SH		Black shale
					172.8	175.4										SST	SH	Med grey/tan, med. grained sandstone interbedded with a dark grey shale.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITRO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
40	175.9	175.9	178.9	91	175.4	176.2	B	178	86							G		Missing coal
					176.2	180	J	178.7	36							SH	ss/Co	Dark grey shale interbedded with fine grained sandstone and stringers of coal.
		178.9	181.9	32														
41	Missing				180	181.9												Missing coal
42	184.4				181.9	184.4												Seam of band, string coal
		181.9	185	94														

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **PS**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
		185	188.1	98														
43	188.8						B	188.9	52									
		188.1	191.1	100			J	189.6	32									
							J	190.9	24									
		191.1	194.2	100														
		194.2	197.2	100														
		197.2	200.3	100			SS	197.7	56									

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
46	201.7	200.3	203.3	100														
					184.4	218.5												
		203.3	206.3	98														
47	206.2						J	200.2	28									
		206.3	209.4	100														
48	210.6						J	210.8	12									
		209.4	212.4	100			J	213.4	24									

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED			
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED			
ELEVATION		HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE		EXAMINER (\$)			
TOTAL DEPTH		HOLE ANGLE (°)		WATER LEVEL	(m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
49	214.7	212.4	215.5	98														
		215.5	218.5	98														
50	Missing	218.5	221.6	0	218.5	224									Co			Missing coal
51	Missing	221.6	224.6	20	224	225.9									5H	Co		Dark grey shale interbedded with small bands of coal.
							B	227.6	52									
		224.6	227.7	69	225.9	226.8									Co			Missing coal

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS			LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)		LOGS RUN		CASING LENGTH (m)		LOG USED	
	EASTING: (m)		LOGGED BY		OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ)	OTHER		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH		HOLE ANGLE (°)	TESTS		WATER LEVEL (m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
					226.8	227.7										SH	Co	Dark grey shale interbedded with small bands of coal (5cm)
		227.7	230.7	69														
					227.7	227.9												Missing coal
52	227.9				227.9	229.5	B	229.9	58							SH	SST/Co	Med grey shale interbedded with a med granular sandstone and small bands of coal.
					230.5	231.4												Missing coal

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJN	MINOR	AMPLIFIED
53	232.7				230.5	236.3	J	230.9	132							SST	SLT	Med grained light grey SST interbedded with small amounts of siltstone.
		230.7	233.8	81			J	234.7	23									
		233.8	236.8	100			J	236.2	12									
54	237																	
		236.8	239.9	100			J	239.6	11									
		239.9	242.9	100	236.3	244.3	J	240.5	62							SH	SST	Dark grey shale interbedded with fine grained sandstone.

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY:	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)		OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
55	241.6	242.9	245.9	94	244.2	245.7	B	245	154							SST	SLT	Med grained, light gray sandstone interbedded with siltstone.
56	246	245.9	249	99			SS	248.5	45									
							J	2498	22									
57	250.1	249	252.1	100			B	254.7	59									

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
58	254.7	252.1	255.1	97			B	258.5	173									
		255.1	258.2	100			J	258.9	27									
					245.7	264.3												
59	259.1	258.2	261.2	95			J	261.4	20									
		261.2	264.3	100			SS	261.4	30									
		264.3	267.3	100														

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)			LOGS RUN		CASING LENGTH (m)		LOG USED	
	EASTING: (m)			LOGGED BY		OVERBURDEN DEPTH (m)		NO. OF SEAMS SAMPLED	
ELEVATION	HOLE BEARING (A2°)		OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)		
TOTAL DEPTH	HOLE ANGLE (°)				WATER LEVEL (m)		DATE		

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
60	263.6	267.3	270.4	91														
61	268				264.3	268.4	B	269.8	69							SST	SH	Med. grained, light grey sandstone, interbedded with dark grey shale.
		270.4	273.4	84														
62	273	273.4	276.5	96	266.4	274.5										SH	SST	Blk/dk grey shale interbedded with med grained sandstone.
							J	274.4	12									

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P5**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS-SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
					274.5	276.1										SST	SH	Med grained, med gray sandstone interbedded with dark gray shale.
63	277.4	276.5	279.5	71	276.1	277.2										SH	Co	Dark gray/black shale interbedded with small bands of coal (5cm)
					277.2	277.8										SST	SLT	Med grained, light gray sandstone, interbedded with siltstone.

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
					277.8	280.3												
64	282.4	279.5	282.5	107			SS	283.3	26									SH SS/Co. Black shale interbedded with fine grained sandstone and small bands of coal. (5cm)
		282.5	285.6	99	280.3	280.7	SS	283.3	69									
65	286.8						B	286.1	59									Co A stringer of dull and shiny coal.
		285.6	288.6	98			SS	288.9	28									
							SS	288.9	85									

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN		CASING LENGTH (m)		LOG USED	
	EASTING: (m)		LOGGED BY		OVERBURDEN DEPTH (m)		NO-OF SEAMS SAMPLED	
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)*				WATER LEVEL (m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJN	MINOR	AMPLIFIED
66	291.3	288.6	291.7	100	290.7	292.4										SH	SST	Dark grey shale interbedded with a little fine sandstone.
		291.7	294.7	99	292.4	294.4										SST	SH/Co	Med grained sandstone interbedded with shale and one 3cm band of coal near the top.

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	EASTING: (m)	ELEVATION	LOGS RUN	CASING LENGTH (m)	LOG USED	LOGS RUN	LOG USED	LOG USED
TOTAL DEPTH	HOLE BEARING (AZ)	HOLE ANGLE (°)	OTHER TESTS	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED	OTHER TESTS	EXAMINER (S)	DATE
					OVERBURDEN TYPE				
					WATER LEVEL (m)				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
67	Missing	294.7	297.8	25	294.4	294.7										SH	Co	Black shale interbedded with coal.
					294.7	295.4	B	304.6	69							Co	SH	A dull string of coal with a little shale near the base.
68	299.9	297.8	300.6	65			J	304.6	22									
		300.6	303.9	100	295.4	306.8										SH	SST	Black shale interbedded with small amounts of fine sandstone
69	304.4	303.9	306.9	99														

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE [▲]		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
70	Missing	309.9	309.9	61															
					309.9	312.6											Co		Missing coal
		309.9	313	14													Co		Dull coal, shattered badly
					312.6	313.9													
		313	316.1	32															
71	313.7				313.9	318.7											Co		Missing coal
		316.1	319.1	13													Co	SH	Dull coal interbedded with shale.
					318.7	319.1													

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
72	319.7	319.1	322.2	85	319.1	321.1	J	319.7	120							SLT	SST	Dark grey siltstone interbedded with fine grained sandstone.
					321.1	322.8										Co		Minerally coal
73	324.4	322.2	325.2	83			B	325.4	72									
					322.8	331.3										SST	SH	Med grained sandstone interbedded with dark grey shales.
74	329																	
		328.3	331.3	100														

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS-SAMPLED
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
75	333.5	331.3	334.4	99	331.3	332.4	J	330.3	77							SH	SST	Dark grey/black shale interbedded with SST	
							B	335.6	72										
		334.4	337.4	100	332.4	335.9											SST	SST	Light grey, med grained sandstone interbedded with dark grey siltstone.
76	337.7																		
		337.4	340.5	100	335.9	338.7											SH	SST	Dark grey/black shale interbedded with fine grained sandstone.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO-OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
79	Missing				350	351.7										SST	SLT	Fine grained, light gray sandstone interbedded with dark siltstone, @ 350.7m - there are calcite filled fractures.
		349.6	352.7	64														
		352.7	355.7	0														
80	358.5	355.7	358.7	64														
					351.7	356										Co		Missing coal.
		358.7	361.8	99														

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED			
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED			
ELEVATION		HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE		EXAMINER (S)			
TOTAL DEPTH		HOLE ANGLE (°)	TESTS	WATER LEVEL	(m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
81	362.9	361.8	364.8	100			B	367.2	118.4									
82	367.7	364.8	367.9	98	356	371.1	B	371.3	82							SST	SLT	Light to med gray, fine grained sandstone interbedded with dark siltstone.
83	371.9	367.9	370.9	100	371.1	372.9										SH	SST	Dark gray shale interbedded with small amounts of sandstone.
		370.9	373.9	63														
		373.9	377	11														

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED			
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED			
ELEVATION		HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE		EXAMINER (S)			
TOTAL DEPTH		HOLE ANGLE (°)		WATER LEVEL	(m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
84	Missing	377	380	98	372.9	376.7										G		Missing coal.
85	380.5	380	383.1	100														
86	384.9	383.1	386.2	70	376.7	385.3										SH	SS	Black shale interbedded with small amounts of fine grained sandstone.
					385.3	386.9										G		Missing coal.

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
67	388.6	388.2	389.2	94	388.9	391.1										SH Co.	Black shale interbedded with two small seams of coal (7cm) near the base	
		389.2	392.3	92														
					391.1	391.1										SS	A very small section of heavily fractured sandstone filled with calcite.	
68	393.3	392.3	395.3	100			J	393.5	25									
		395.3	398.4	100	391.1	398.4	B	394.8	50							SH SS	Dark grey shale interbedded with fine grained sandstone throughout @ 394.8 in a section of calcite filled fractures	
							SS	395.3	51									

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	EASTING: (m)	ELEVATION	LOGS RUN	CASING LENGTH (m)	LOG USED	TOTAL DEPTH	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
			HOLE BEARING (AZ)	LOGGED BY	OVERBURDEN TYPE	EXAMINER (S)			
			HOLE ANGLE (°)	OTHER TESTS	WATER LEVEL (m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAJN	MINOR	AMPLIFIED
89	397.4	398.4	401.4	44	398.4	399.7	B	397.5	1153						SST	Co	Light grey, fine grained sandstone interbedded with a small, highly fractured seam of coal 0.46m.	
		401.4	404.5	10														
					399.7	400.9									SST	SST	Fine grained, light grey sandstone interbedded with dark grey siltstone.	
					400.9	404.9									Co	SH	a shiny, shaly coal interbedded with dark shale.	

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
91	406.3	404.5	407.5	93	404.9	408.5	SS	407.7	11.56						SST	S14	Med grained and grey sandstone, interbedded with dark grey shale throughout.	
92	Missing	407.5	410.6	33	406.5	415									G		Missing coal.	
		410.6	413.6	0														
93	416.7	413.6	416.7	55	415	419.9	B	416.9	60						SST	S17	Dark to med grey sandstone interbedded with dark grey shale.	
		416.7	419.7	99														
94	421.2	419.7	422.9	100			B	423.5	60									
							S	424.1	2.5									

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
95	425.6	422.8	425.8	97														
					427.8	427.5	B	427.3	61							SH	SST	Black shale interbedded with med grained, tan sandstone.
		425.8	428.9	86			T	427.3	21									
96	430.3	428.9	431.9	100	427.5	428.9	SS	429.5	34							Lo	SH	A dull spotted coal seam interbedded with a little shale.
					428.9	434	SS	430.1	46							SH	SST	Dark grey shale interbedded with fine grained light grey sandstone. @ 439.2m there is a lot of SS
							SS	433.7	29									

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING				PRE-CORE INFORMATION				EXAMINATION			
LOCATION		NORTHING: (m)		LOGS RUN		CASING LENGTH	(m)	LOG USED		OVERBURDEN DEPTH		(m)	NO-OF-SEAMS SAMPLED		
		EASTING: (m)		LOGGED BY		OVERBURDEN TYPE		EXAMINER (S)		WATER LEVEL		(m)	DATE		
ELEVATION		HOLE BEARING (AZ)		OTHER TESTS											
TOTAL DEPTH		HOLE ANGLE (°)													

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
97	434.6	431.9	434.9	100	434	434.9										SST	SST	Light grey sandstone much of which interbedded with black shale.
		434.9	437.9	50														
98	439	437.9	441	100	434.9	436.5										SST	SST	Black shale interbedded with one 5cm portion of fine sandstone
					436.5	436.1	B	445	61							Co		Missing coal
99	443.1	441	444.1	100														
100	447.5	444.1	447.1	100	438.1	450.9										SST	Co	Black shale interbedded with a shaly coal. There are no more at the top.
		447.1	450.2	100														

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MDR	AMPLIFIED
105	470.5	468.5	471.5	79	451.4	467.4										SH	SST	Black shale interbedded with very small amounts of sandstone
		471.5	474.6	0	467.4	467.9										Co		Shiny coal
106	475.5	474.6	477.6	57	467.9	475.8										Co		Shiny coal
					475.8	477.5										Co	SH	A black, shiny coal interbedded with significant amounts of shale.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. PS

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION		
LOCATION	NORTHING:	(m)		LOGS RUN				CASING LENGTH	(m)	LOG USED	
	EASTING:	(m)		LOGGED BY				OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION	HOLE BEARING (AZ)			OTHER				OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)			TESTS				WATER LEVEL	(m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
107	Missing	477.6	480.7	0														
		480.7	483.7	0														
108	485.4	483.7	486.2	30	477.5	485.2									Co		Missing coal	
		486.2	488.3	34	485.2	487.2	B	487.2	56						SH Co		Black shaly, interbedded with small bands of shiny coal.	
109	Missing	488.3	491	0														
		491	494.1	0														

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: _____ (m)	LOGS RUN	CASING LENGTH _____ (m)	LOG USED
	EASTING: _____ (m)	LOGGED BY _____	OVERBURDEN DEPTH _____ (m)	NO. OF SEAMS SAMPLED
ELEVATION _____	HOLE BEARING (AZ) _____	OTHER _____	OVERBURDEN TYPE _____	EXAMINER (S) _____
TOTAL DEPTH _____	HOLE ANGLE (°) _____	TESTS _____	WATER LEVEL _____ (m)	DATE _____

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION				
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED		
113	507.1	506.9	506.1	91			S	507.8	1145											
					495.8	506.1											SH	SST	Dark grey shale interbedded with some fine grained sandstone.	
		506.1	511.1	81																
114	512.1	511.1	514.2	84	506.1	506.3											Co		One small seam of shiny coal.	
							B	514.3	58											
					506.3	514.5														
115	517	514.2	517.2	64														SH	Co	Dark grey shale interbedded with small bands of coal.
		517.2	520.3	97																
					514.5	515.5														Missing coal

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO-OF-SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
116	521.4	5203	5233	93	515.5	519.7	B	5206	63							SH	Co.	Dark grey shale interbedded with small bands and one small seam (0.3m) of shiny coal.
							J	5244	22									
117	526.1	5233	5264	100														
		5264	5294	95														
118	530.2	529.4	532.5	99														
		532.5	535.5	100														
119	534.5	535.5	538.6	96														

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
123	552	550.8	553.8	100	549.3	551.9	J	553.8	22							SH	SST	Black shale interbedded with a very little amount of fine sandstone.
124	556.2	553.8	556.9	100			B	558.2	55							SST	Co	Light grey, coarse sandstone interbedded with small bands of coal (1cm)
125	560.6	556.9	559.9	100			J	561.3	36									
126	566.2	559.9	562.9	97														
		562.9	566	100														

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS		LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m) EASTING: (m)	LOGS RUN		CASING LENGTH (m)		LOG USED	
ELEVATION	HOLE BEARING (AZ)	LOGGED BY		OVERBURDEN DEPTH (m)		NO-OF-SEAMS SAMPLED	
TOTAL DEPTH	HOLE ANGLE (°)	OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)	
				WATER LEVEL (m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		AMPLIFIED
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	
		566	569.1	97	555.1	566.3										514	551	Black. Dk. interbedded with a little fine grained sandstone.
		569.1	572.1	90	566.3	567.4										551	514	Med to coarse, gray sandstone interbedded with black shale near the base.
	127	569.6			567.4	569.1	B	567.2	76							60	514	A dull coal seam interbedded with quite a bit of shale.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING				PRE-CORE INFORMATION				EXAMINATION			
LOCATION		NORTHING:	(m)	LOGS RUN		CASING LENGTH		(m)	LOG USED						
		EASTING:	(m)	LOGGED BY		OVERBURDEN DEPTH		(m)	NO-OF-SEAMS SAMPLED						
ELEVATION		HOLE BEARING (AZ)		OTHER		OVERBURDEN TYPE		EXAMINER (S)							
TOTAL DEPTH		HOLE ANGLE (°)		TESTS		WATER LEVEL		(m)	DATE						

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
128	574.2	572.1	575.2	100	579.1	573.5										SH	Co	Black shale interbedded with small, dirty seams of coal.
129	576.4	575.2	576.2	100			B	576.2	67									
							SS	578.5	44									
		578.2	581.3	88	573.5	574.3										SS	SLT	Med grey and grained sandstone interbedded with a dark siltstone throughout.
130	583.4						J	586.2	27									
		581.3	584.3	94														
		584.3	587.3	100			B	583.9	66									
131	587.4						J	589.3	32									
		587.3	590.4	100														

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED					
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO.-OF-SEAMS SAMPLED					
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)					
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE					

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
132	591.9	590.4	593.9	100			J	594.2	11.76									
		593.4	594.7	100			J	595.5	2.9									
133	596.3	594.7	596.5	100			J	597	3.8									
		596.5	599.5	100			B	597.8	6.4									
134	600.9	599.5	602.6	98			SS	605.4	13									
135	605.4	602.6	605.6	100			SS	605.4	4.7									
		605.6	607.2	96														

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. 135

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN		CASING LENGTH	(m)	LOG USED	
	EASTING:	(m)	LOGGED BY		OVERBURDEN DEPTH	(m)	NO-OF-SEAMS SAMPLED	
ELEVATION			HOLE BEARING (AZ°)		OTHER		EXAMINER (S)	
TOTAL DEPTH			HOLE ANGLE (°)		TESTS		DATE	
					OVERBURDEN TYPE			
					WATER LEVEL	(m)		

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPIYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
136	609.7	607.2	610.2	10														@ 606.2m the SS. is in an arch 120° 40
137	614.1	610.2	611.7	86	574.3	610.4												Black shale interbedded with the odd section of sandstone.
		611.7	614.8	98														
		614.8	617.8	98	610.4	615.6												
138	618.5	617.8	620.9	100			J	620.9	2.2									Black shale interbedded with small rooms of coal (15cm) to bands of coal (0.5cm)
							B	621.2	68									

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN		CASING LENGTH	(m)	LOG USED	
	EASTING:	(m)	LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION			HOLE BEARING (AZ)		OTHER		OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH			HOLE ANGLE (°)		TESTS		WATER LEVEL	(m) DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
139	622.9	620.9	623.9	100	615.6	623	J	625.1	34							SH	SST	Black shale interbedded with the odd section of fine sandstone.
		623.9	626.9	100			B	626.5	66									
		626.9	630	100														
140	627.4				623	635.4										SST	SH	Light grey, fine grained sandstone interbedded with a fair amount of black shale.
		630	633.1	100														
							B	634.9	71									
							J	636.8	22									
					635.4	639.2												
142	636.2	636.1	639.2	95			B	638.2	55							SST		Light grey, coarse sandstone.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P5

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. # / m	RQD %				MAIN	MINOR	AMPLIFIED
1	6.1m	6.1	7.6	88	6.1	13.7										SLT	SST	Dark grey siltstone interbedded with light grey fine grained sandstone
2	10.5	7.6	10.7	79	13.7	15.4										Co		Missing coal
		10.7	13.7	61														
3	15.7				15.4	16.2	B	17.4	67							SH	Co	about half and half
		13.7	16.8	57			J	17.7	28									
		16.8	19.8	91														

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P6

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION		
LOCATION	NORTHING:	(m)		LOGS RUN				CASING LENGTH	(m)	LOG USED	
	EASTING:	(m)		LOGGED BY				OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION	HOLE BEARING (AZ°)			OTHER				OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH	HOLE ANGLE (°)			TESTS				WATER LEVEL	(m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
4	19.9	19.8	22.9	90	16.2	22.9										SLT	SST	Light grey siltstone interbedded with fine grained sandstone.	
5	24.2	22.9	25.9	40	22.9	24.2										Co		Missing coal	
					24.2	25.5	J	24.4	30								SST	SLT	Fine grained sandstone; light grey, interbedded with some dark grey siltstone interbedded.
6	28.1	25.9	28.9	69			J	28.7	27										
		28.9	32	92	25.5	26.5	B	28.7	90							Co		Missing coal	

*MEASURED FROM THE HORIZONTAL PLANE

A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P6

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
7	32.3	32	35.1	97	26.5	32.3	B	35.1	46							SCT	SH	Orange and grey siltstone interbedded with dark grey shale.	
8	36.1	35.1	38.1	99	32.3	39.8										SST	Co	Med. grained light grey sandstone interbedded with small bands of coal (5cm)	
9	40.9	38.1	41.1	95															
					39.8	40.5												Co	a dull seam of coal.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P6**

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION		NORTHING: (m)	LOGS RUN		CASING LENGTH	(m)	LOG USED		
		EASTING: (m)	LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED		
ELEVATION		HOLE BEARING (AZ)	OTHER		OVERBURDEN TYPE		EXAMINER (S)		
TOTAL DEPTH		HOLE ANGLE (°)	TESTS		WATER LEVEL	(m)	DATE		

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
					40.5	44.3	B	44.5	90							SLT	Co	Grey siltstone interbedded with small sections of coal (2cm)
10	45.1	41.1	44.2	98														
		44.2	47.2	98	44.3	45.1										ST		Fine grained, light grey sandstone
		47.2	50.3	97														
					45.1	50.3										SLT	Co	Dark grey siltstone interbedded with some coal near the base (10cm) & shattered last .5m
11	49.5	50.3	53.3				B	51.2	49									

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE ^A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
					50.3	52.4										SST	SLT	Fine grained, light grey sandstone interbedded with siltstone.
12	Missing	53.3	56.4	65	52.4	54.6	B	57.3	90							Co		Missing coal
					54.6	57.2	J	57.3	49							SLT	Co	Dark grey siltstone interbedded with small seams of coal.
13	58.2	56.4	59.4	97			J	60.8	37									
14	62.4	59.4	62.5	99	57.2	66.9										SH	SST	Light grey shale interbedded with a coarse grained, orange sandstone
		62.5	65.5	97														

*MEASURED FROM THE HORIZONTAL PLANE

^A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P6**

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION		NORTHING:	(m)	LOGS RUN		CASING LENGTH	(m)	LOG USED	
		EASTING:	(m)	LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ°)		OTHER		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH		HOLE ANGLE (°)*		TESTS		WATER LEVEL	(m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	ROD %				MAIN	MINOR	AMPLIFIED
15	66.9	65.5	66.6	98			J	68.6	79									
							J	68.6	48									
16	71.1	68.6	71.6	99	66.9	74.1	B	71.1	51						SST			Fine grained, light grey sandstone
		71.6	74.7	99			J	71.3	42									
17	75.4	74.7	77.7	99	74.1	79.1	B	77.6	71						SST	Co		Very coarse, light grey sandstone interbedded with small pockets of coal (.5cm)
18	79.9	77.7	80.8	96														
		80	83.8		79.1	80									SST			Dark grey shale

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P6

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING:	(m)		LOGS RUN	CASING LENGTH	(m)		LOG USED	
	EASTING:	(m)		LOGGED BY	OVERBURDEN DEPTH	(m)		NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ°)		OTHER	OVERBURDEN TYPE			EXAMINER (S)	
TOTAL DEPTH		HOLE ANGLE (°)		TESTS	WATER LEVEL	(m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
22	Missing	96	99	4	92.9	98.9	B	100	114.8										Missing coal
		99	102.1	99	98.9	106.6													Dark grey shale interbedded with small seams of coal 10-20cm
23	102.1	102.1	105.2	97			B	109.1	50										
24	106.7	105.2	108.2	96			J	110.8	19										
							J	110.8	39										
25	111.1	108.2	111.3	97	106.6	114.3													Dark grey siltstone interbedded with light grey sandstone.
		111.3	114.3	96															

*MEASURED FROM THE HORIZONTAL PLANE A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P6**

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING				PRE-CORE INFORMATION				EXAMINATION			
LOCATION		NORTHING:	(m)	LOGS RUN		CASING LENGTH		(m)	LOG USED						
		EASTING:	(m)	LOGGED BY		OVERBURDEN DEPTH		(m)	NO. OF SEAMS SAMPLED						
ELEVATION		HOLE BEARING (AZ°)		OTHER TESTS		OVERBURDEN TYPE		EXAMINER (S)							
TOTAL DEPTH		HOLE ANGLE (°)				WATER LEVEL		(m)	DATE						

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC. FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED	
26	115.1	114.3	117.3	99	114.3	119.4	J	115.4	1147							SST	Co	Light grey fine grained sandstone with small traces of coal.	
27	119.4	117.3	120.4	99			B	1153	49										
					119.4	120.4											Co	SH	Coal stringer with some shale near
		120.4	123.4	98															
28	123.7	123.4	126.5	24	120.4	123.9											SLT	SST	Light grey siltstone interbedded with fine sandstone
		126.5	129.5	98															
					123.9	126.2											Co		Minor coal

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P6**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)		LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
29	128.2	129.5	132.6	96	126.2	136.3										SLT	SST	Med. grey siltstone interbedded with fine grained sandstone
		132.6	135.6	96														
30	132.3				136.3	141.6	B	134.2	59							SST	SLT	Light grey fine grained sandstone interbedded with small traces of siltstone
31	136.6	135.6	138.7	99			J	135.4	39									
		138.7	141.7	99														
32	140.6																	
		141.7	144.8															

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P6

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ')	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE [▲]		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
33	144.9	144.8	147.8	92	141.6	153.4	B	145.9	73						SST	Co	Light grey, coarse sandstone interbedded with small bands of coal (0.5m)	
34	149.8	147.8	150.9	91			SS	155.4	69									
35	153.7	150.9	153.9	>100	153.4	164.7									SLT	SST	Dark grey siltstone interbedded with a fine grained, med grey sandstone.	
36	158.1	153.9	156.9	99			B	110.7	42									
		156.9	160	97			SS	110.5	44									

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P6**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ)*	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)*	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
37	162.4	160	163.1	99	164.7	179.6	B	166.1	161							SST	SAT	Fine to med grained light grey sandstone
		163.1	166.1	99			J	166.4	28									
							J	165.9	34									
38	166.5	166.1	169.2	97			SS	173.1	13									
		169.2	172.2	98														
39	171.3																	
		172.2	175.3	99														
							B	178.2	68									
40	175.3	175.3	178.3	99														
		178.3	181.4	99														

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO.

P6

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION	
LOCATION	NORTHING:	(m)		LOGS RUN		CASING LENGTH	(m)		LOG USED	
	EASTING:	(m)		LOGGED BY		OVERBURDEN DEPTH	(m)		NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ°)		OTHER		OVERBURDEN TYPE			EXAMINER (S)	
TOTAL DEPTH		HOLE ANGLE (°)		TESTS		WATER LEVEL	(m)		DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE▲		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
41	179.7	181.4	184.4	94	179.6	183.6										SCT	SST	Dark to med grey siltstone interbedded with light grey med. grained sandstone.
42	183.9																	
		184.4	187.5	98	183.8	185.1												Coal.
43	188.1						B	191.2	58									
		187.5	190.5	99			J	192.2	32									
					185.1	195.8												
44	192.9	190.5	193.5	89														SCT SST Dark grey siltstone interbedded with fine grained light grey sandstone.

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P6**

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)		OTHER	OVERBURDEN TYPE		EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		TESTS	WATER LEVEL	(m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
		193.5	196.6	91	195.8	196.5													
45	197.2						SS	198.7	54										Coal stringers
		196.6	199.6	98			B	200.6	63										
46	201.3	199.6	202.7	99															
					196.5	227.3	B	203.7	59										
47	205.7	202.7	205.7	99			J	204.6	11										Dark grey shale interbedded with a light grey, fine grained sandstone.
		205.7	208.8	99			B	209.2	60										

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P6

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION			EXAMINATION	
LOCATION	NORTHING: (m)	EASTING: (m)		LOGS RUN	CASING LENGTH (m)	LOG USED		NO. OF SEAMS SAMPLED		
ELEVATION	HOLE BEARING (AZ)		OTHER TESTS	OVERBURDEN DEPTH (m)	OVERBURDEN TYPE		EXAMINER (S)		DATE	
TOTAL DEPTH	HOLE ANGLE (°)			WATER LEVEL (m)						

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
48	210.1	208.7	211.8	98			SS	213.9	115.9									
		211.8	214.9	91														
49	214.7	214.9	217.9	99														
		217.9	220.9	99														
50	219.4	220.9	224	100														
		224	227.1	98	227.3	228												Actual, shattered coal.
51	223.4	227.1	230.1	100														

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING:	(m)		LOGS RUN		CASING LENGTH	(m)	LOG USED	
	EASTING:	(m)		LOGGED BY		OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED	
ELEVATION		HOLE BEARING (AZ°)		OTHER		OVERBURDEN TYPE		EXAMINER (S)	
TOTAL DEPTH		HOLE ANGLE (°)		TESTS		WATER LEVEL	(m)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
52	226.6	230.1	233.2	96			B	233.9	1145									
53	231.9	233.2	236.2	100			J	233.8	30									
							J	234.1	35									
54	236.2	236.2	239.3	99														
55	240.8	239.3	242.3	99			B	242.9	62									
56	245.1	242.3	245.4	99														

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. **P6**

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	EASTING: (m)	ELEVATION	LOGS RUN	LOGGED BY	CASING LENGTH (m)	OVERBURDEN DEPTH (m)	LOG USED	NO. OF SEAMS SAMPLED
TOTAL DEPTH	HOLE BEARING (AZ)	HOLE ANGLE (°)	OTHER TESTS	OTHER TESTS	OVERBURDEN TYPE	WATER LEVEL (m)	EXAMINER (S)	DATE	

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPIYS DEPTH		TYPE	JOINT ANGLE A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
57	249.4	245.4	248.4	99			J	247.4	36										
					214.0	251.7											SH	SST	Dark grey shale interbedded with light grey fine grained sandstone.
		241.4	251.5	100			B	252.1	59								SST		Light grey/white, med grained sandstone.
					251.7	252.9	J	252.3	28										
58	253.9	251.5	254.5	99			J	255	11										
					252.9	257.6											SH	Co	Dark grey shale interbedded with small amounts of coal. The shale is shattered.

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P6

CORE DESCRIPTION

HOLE PARTICULARS				LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING:	(m)	LOGS RUN	CASING LENGTH	(m)	LOG USED			
	EASTING:	(m)	LOGGED BY	OVERBURDEN DEPTH	(m)	NO. OF SEAMS SAMPLED			
ELEVATION		HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE		EXAMINER (S)			
TOTAL DEPTH		HOLE ANGLE (°)	TESTS	WATER LEVEL	(m)	DATE			

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION			
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED	
59	257.8	254.5	257.6	100															
					257.6	258.1											Co		Flattened, string coal
		257.6	260.6	83															
60	262.5	260.6	263.7	97	258.1	261.4											SH	Co	Dark grey shale interbedded with small traces of coal.
		263.7	266.7	97			B	266.4	64										
					261.4	263.7	J	266.7	30								Co		Coal
		266.7	269.7	96	263.7	273.6	J	268	35								SH	SST	Dark grey shale interbedded with sandstone

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P6

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)			
ELEVATION	HOLE BEARING (AZ°)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE ^A		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAJ	MINOR	AMPLIFIED
62	271.4	269.7	272.8	100	273.6	274.3										Co		Coal
63	275.8	272.8	275.8	99														
		275.8	276.9	96	274.3	281.1										SH	SST	Dark grey shale with a small amount of fine grained sandstone interbedded
64	280.3	276.9	281.9	100			B	281	61									
					281.1	282.5	J	282.9	30							SST	SH/Co	Light grey, med grained sandstone, interbedded with shale and a little coal.

*MEASURED FROM THE HORIZONTAL PLANE

^A ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P6

CORE DESCRIPTION

HOLE PARTICULARS

LOGGING

PRE-CORE INFORMATION

EXAMINATION

LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED
ELEVATION	HOLE BEARING (AZ°)	OTHER	OVERBURDEN TYPE	EXAMINER (S)
TOTAL DEPTH	HOLE ANGLE (°)	TESTS	WATER LEVEL (m)	DATE

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
65	294.5	281.9	284.9	99			J	287.3	55									
		284.9	288	100		282.5	B	287.5	54							SST	SH	Fine grained light gray sandstone interbedded with a little bit of shale.
66	288.9	288	291.1	98			J	290.7	12									
							J	290.7	48									
67	293.2	291.1	294.1	100			B	296.8	59									
		294.1	297.2	100														
68	297.6	297.2	300.2	90			SS	299.7	8									

*MEASURED FROM THE HORIZONTAL PLANE

▲ ANGLE MEASURED FROM AXIS OF CORE

HOLE NO. P6

CORE DESCRIPTION

HOLE PARTICULARS			LOGGING		PRE-CORE INFORMATION		EXAMINATION	
LOCATION	NORTHING: (m)	LOGS RUN	CASING LENGTH (m)	LOG USED				
	EASTING: (m)	LOGGED BY	OVERBURDEN DEPTH (m)	NO. OF SEAMS SAMPLED				
ELEVATION	HOLE BEARING (AZ)	OTHER TESTS	OVERBURDEN TYPE	EXAMINER (S)				
TOTAL DEPTH	HOLE ANGLE (°)		WATER LEVEL (m)	DATE				

BOX NO.	DEPTH AT TOP OF BOX	MARKER BLOCKS			GEOPHYS DEPTH		TYPE	JOINT ANGLE		SUMMARY GEOTECH			SAMPLE NO.	SEAM NAME	SEAM RECOVERY	LITHO DESCRIPTION		
		FROM	TO	RECOVERY (m) %	FROM	TO		DEPTH	ANGLE	HARDNESS	FRAC.FREQ. #/m	RQD %				MAIN	MINOR	AMPLIFIED
69	302.3	300.2	303.3	100														
		303.3	306.3	100			B	307.3	61									
70	306.3	306.3	309.4	97	297.6	315.5										SH	SST	Dark grey shale interbedded with a fine, light grey sandstone as you get closer to the base.
71	310.7	309.4	312.4	100			B	313.	56									
		312.4	315.5	100														

*MEASURED FROM THE HORIZONTAL PLANE ▲ ANGLE MEASURED FROM AXIS OF CORE

TOTAL ANALYSIS SHEET

AREA: MM 96D-01

SAMPLE TYPE: Coal.

SAMPLE ID	LAB #	INTERVAL	ASH	FSI	R/M	V/M	% Lt	C/V	Sul
MM96D-01	9-190	20.50-22.26	5.9	2.0	.48	30.33	56	7638	.98
	9-191	22.25-26.42	33.3	2.0	.28	27.43	89	5437	1.21
	9-192	28.49 28.89	34.0	2.0	.17	22.31	95	5312	.69
	9-193	28.89 29.14	85.6	0.0	~	~	79	~	.35
	9-194	29.14 29.95	17.9	2.5	.27	26.67	92	6653	.74
	9-195	31.87 34.63	27.4	5.0	.32	27.11	94	5817	.55
	9-196	47.4 48.1	5.3	7.5	.28	31.99	94	7874	1.16
	9-197	62.25 62.96	8.5	6.5	.26	30.20	91	7537	.66
	9-198	62.96 63.60	59.1	1.0	.22	15.58	94	3110	.34
	9-199	63.60 68.50	12.5	3.5	.21	28.79	89	7110	.61
	9-200	69.6 69.97	17.3	2.0	.18	24.38	91	6826	.77
	9-201	84.27 85.07	5.7	5.0	.33	29.15	85	7770	1.25
	9-202	115.57 116.80	9.8	5.5	.16	28.57	88	7242	.78
	9-203	114.23 144.2	19.6	4.5	.18	25.03	89	6509	.67
	9-204	156.2 156.76	23.6	4.0	.18	23.81	86	6165	.56
	9-205	159.4 165.5	16.7	2.0	.17	25.44	92	6758	.50
	9-206	168.44 169.4	25.4	5.0	.23	23.83	93	6070	.78
	9-207	171.5 171.8	31.2	2.0	.23	21.86	91	5425	.42
	9-208	174.4 175.15	17.6	5.5	.21	25.76	88	6697	.95

TOTAL ANALYSIS SHEET

AREA: *MM 96 D-03*

SAMPLE TYPE: *CORE*

SAMPLE ID	LAB #	INTERVAL	ASH	FSI	R/M	V/M	% Lt	CV	Sul
<i>96D-03</i>	<i>9-244</i>	<i>74.75-75.25</i>	<i>27.6</i>	<i>6.0</i>	<i>0.58</i>	<i>24.00</i>	<i>90</i>	<i>5838</i>	<i>0.86</i>
<i>↑</i>	<i>9-245</i>	<i>77.2-78.6</i>	<i>27.2</i>	<i>6.0</i>	<i>0.23</i>	<i>28.22</i>	<i>91</i>	<i>5738</i>	<i>0.59</i>
<i>↓</i>	<i>9-246</i>	<i>79.6-81.0</i>	<i>21.7</i>	<i>4.0</i>	<i>0.50</i>	<i>24.27</i>	<i>96</i>	<i>6403</i>	<i>0.69</i>
	<i>9-247</i>	<i>90.7-91.6</i>	<i>23.6</i>	<i>6.5</i>	<i>0.46</i>	<i>24.47</i>	<i>98</i>	<i>6287</i>	<i>0.95</i>
	<i>9-248</i>	<i>96.8-97.8</i>	<i>9.9</i>	<i>7.5</i>	<i>0.40</i>	<i>28.90</i>	<i>96</i>	<i>7462</i>	<i>1.01</i>
<i>↑</i>	<i>9-249</i>	<i>124.2-127.6</i>	<i>27.8</i>	<i>6.0</i>	<i>0.33</i>	<i>23.62</i>	<i>97</i>	<i>5837</i>	<i>0.65</i>
	<i>9-250</i>	<i>127.6-127.85</i>	<i>87.7</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
<i>↓</i>	<i>9-251</i>	<i>127.85-122.75</i>	<i>31.8</i>	<i>2.5</i>	<i>0.30</i>	<i>21.26</i>	<i>91</i>	<i>5707</i>	<i>0.71</i>
	<i>9-252</i>	<i>141.3-162.6</i>	<i>33.9</i>	<i>6.5</i>	<i>0.38</i>	<i>21.33</i>	<i>92</i>	<i>5346</i>	<i>0.78</i>
	<i>9-253</i>	<i>166.4-169.25</i>	<i>11.6</i>	<i>7.0</i>	<i>0.48</i>	<i>29.01</i>	<i>88</i>	<i>7162</i>	<i>0.84</i>
	<i>9-254</i>	<i>203.4-206.4</i>	<i>8.3</i>	<i>7.5</i>	<i>0.47</i>	<i>28.69</i>	<i>87</i>	<i>7584</i>	<i>0.61</i>
	<i>9-255</i>	<i>216.9-220.4</i>	<i>22.0</i>	<i>7.0</i>	<i>0.47</i>	<i>23.71</i>	<i>87</i>	<i>6364</i>	<i>0.65</i>
	<i>9-256</i>	<i>237.4-240.2</i>	<i>27.8</i>	<i>6.5</i>	<i>0.29</i>	<i>22.01</i>	<i>91</i>	<i>5841</i>	<i>1.38</i>
<i>↑</i>	<i>9-257</i>	<i>247.4-249.9</i>	<i>30.3</i>	<i>6.5</i>	<i>0.42</i>	<i>21.83</i>	<i>94</i>	<i>5655</i>	<i>1.16</i>
<i>↓</i>	<i>9-258</i>	<i>249.85-250.25</i>	<i>88.5</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
<i>↓</i>	<i>9-259</i>	<i>250.25 (-250.0)</i>	<i>18.2</i>	<i>8.0</i>	<i>0.36</i>	<i>27.61</i>	<i>90</i>	<i>6831</i>	<i>1.36</i>
<i>↑</i>	<i>9-260</i>	<i>306.0-306.4</i>	<i>33.4</i>	<i>7.0</i>	<i>0.41</i>	<i>21.80</i>	<i>92</i>	<i>5527</i>	<i>0.86</i>
<i>↑</i>	<i>9-261</i>	<i>306.4-306.6</i>	<i>84.1</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
<i>↓</i>	<i>9-262</i>	<i>306.6-306.5</i>	<i>26.3</i>	<i>6.5</i>	<i>0.36</i>	<i>23.74</i>	<i>91</i>	<i>6534</i>	<i>0.52</i>

TOTAL ANALYSIS SHEET

AREA: *mm 96D-04*

SAMPLE TYPE: *CORE*

SAMPLE ID	LAB #	INTERVAL	ASH	FSI	R/M	V/M	% Lt	GV	Sul
96D-04	9-225	315.2-352.0	20.9	0.0	2.35	27.20	5	4519	.32
	9-226	44.2-46.63	6.0	7.0	0.49	31.68	83	7762	.63
▷	9-227	58.9-59.15	89.0	-	-	-	-	-	-
	9-228	66.5-67.08	6.0	8.5	0.39	30.96	92	7740	1.71
↑	9-229	86.8-87.65	9.8	5.5	0.51	27.69	91	7417	.71
	9-230	89.65-89.8	89.8	-	-	-	-	-	-
↓	9-231	89.8-91.7	27.3	6.0	0.35	25.68	89	5178	.84
	9-232	109.84-111.60	16.1	7.0	0.49	26.51	90	6875	.85
	9-233	220-221.8	25.0	7.0	0.30	24.24	72	6126	.96
	9-234	290.1-290.5	43.4	5.5	0.35	18.63	90	4629	.65
	9-235	290.9-296.8	28.4	3.5	0.39	21.61	90	5823	.49
	9-236	298.2-299.75	11.7	4.5	0.38	23.33	93	7343	.53
↑↑	9-237	301.0-302.9	19.8	4.5	0.30	22.67	86	6610	.46
	9-238	302.9-303.1	72.5	-	-	-	-	-	-
↓	9-239	303.1-304.0	24.7	5.0	0.41	25.74	94	6177	.48
	9-240	304.0-304.2	66.6	1.0	-	-	-	-	-
↓	9-241	304.2-305.3	48.8	3.0	0.19	16.85	94	4092	.38
	9-242	437.9-438.2	38.5	1.5	0.25	19.41	95	4940	.58
	9-243	441.5-442.0	33.4	2.5	0.21	17.84	94	5252	.57

TOTAL ANALYSIS SHEET

AREA:

SAMPLE TYPE: Core M.M.D

SAMPLE ID	LAB #	INTERVAL	ASH	FSI	R/M	V/M	% Lt	CV	Su
9605	9-343	34.9-37.3	14.3	7.0	0.35	34.29	74	6954	54
	9-344	61.6-62.5	35.1	6.5	0.40	23.49	70	5354	74
	9-345	64.9-65.8	5.4	7.5	0.29	32.84	82	7445	66
	9-346	73.9-75.3	13.7	7.5	0.11	31.06	82	7222	87
	9-347	85.0-85.6	9.1	7.5	0.15	34.80	86	7655	101
	9-348	100.2-101.9	16.5	7.5	0.16	30.17	85	6998	103
	9-349	139.3-140.0	34.0	6.5	0.17	24.93	82	5430	67
↑	9-350	141.2-142.7	31.0	6.5	0.22	25.26	84	5701	43
	9-351	142.7-142.9	71.8	-	-	-	-	-	-
↓	9-352	142.9-143.7	14.3	7.5	0.32	30.97	81	7196	53 53
↑	9-353	147.7-148.45	12.2	7.5	0.27	31.03	84	7275	86 86
	9-354	148.45-148.95	78.9	-	-	-	-	-	-
↓	9-355	148.95-149.45	48.5	1.5	0.25	40.33	86	4127	158
	9-356	162.0-162.9	10.1	7.5	0.18	30.71	89	7508	101
	9-357	171.5-172.3	27.3	6.5	0.18	25.15	92	6049	113
	9-358	175.3-176.3	15.5	2.5	0.13	26.59	89	7058	76
↑	9-359	179.8-181.3	12.0	7.0	0.24	29.91	89	7286	65
	9-360	181.3-181.6	76.8	-	-	-	-	-	-
↓	9-361	181.6-181.7	29.3	6.5	0.14	24.01	90	5737	97

TOTAL ANALYSIS SHEET

AREA:

SAMPLE TYPE: Core HDD

SAMPLE ID	LAB #	INTERVAL	ASH	FSI	R/M	VIM	% Lt	CV	Sul
9605	9-362	⁵⁵ 218.4-223.9	18.0	7.0	0.27	28.08	80 80	6784	.47
	9-363	224.7-225.7	21.9	6.5	0.35	25.57	90	7481	.78
	9-364	230.2-231.3	15.2	7.5	0.23	34.4 34.4	88	7057	1.05
	9-365	^{3.3} 295.6-298.9	7.7	7.5	0.26	28.35	90	7718	.75
	9-366	^{4.6} 308.7-313.3	16.6	7.5	0.21	26.78	90	6867	.51
	9-367	^{3.0} 315.6-318.6	16.2	7.5	0.22	26.72	91	6969	.48
	9-368	321.3-322.9	10.6	8.0	0.25	28.69	90 91	7438	1.11
	9-369	343.8-346.6	15.2	7.0	0.21	24.23	93	7067	.63
	9-370	^{4.8} 351.4-356.2	12.7	7.5	0.14	24.76	92	7232	.64
	9-371	^{4.5} 376.3-376.8	10.8	7.5	0.15	25.74	90	7484	.81
	9-372	385.1-387.0	36.9	6.5	0.11	19.46	92	5116	.93
	9-373	400.0-401.6	3.3	8.0	0.28	29.94	90	8127	1.02
	9-374	408.6-414.8	5.0	8.5	0.16	28.80	92	8026	.89
	9-375	436.4-438.2	12.8	8.0	0.22	26.45	92	7255	1.21
	9-376	471.5-475.9	29.1	2.5	0.14	20.04	90	5638	.43
	9-377	^{1 of 2} 477.5-485.1	17.9	3.5	0.24	22.87	94	6686	.39
	9-378	^{2 of 2} 477.5-485.1	33.2	2.5	.26	18.25	97	5434	.33
	9-379	^{10% 0.9} 487.4-488.3	15.7	2.5	.26	20.77	88 90	6967	.42
	9-380	^{0.5} 488.3-488.8	83.6	0.0	—	—	—	—	—

CORE REC.

70

70

75

60

75

80

70

70

TOTAL ANALYSIS SHEET

AREA:

SAMPLE TYPE: *Core MMD*

SAMPLE ID	LAB #	INTERVAL	ASH	FSI	R/M	VIM	% Lt	CV	Sul
9605	9-381	488.8-495.8 1 of 2	22.3	3.5	.21	20.29	94	6394	.37
	9-382	488.8-495.8 2 of 2	27.4	6.5	.18	20.96	93	5818	.42
	9-383	514.5-515.6	35.4	1.0 0.0	.24	18.74	91	4997	.54
9606	9-384	13.7-14.7	6.3	0.0	.51	28.52	14	6919	.88
	9-385	23.2-24.5	23.1	0.0	.35	21.31	83	6020	.86
	9-386	25.3-26.6	26.3	7.0	.34	22.75	70	5695	.79
	9-387	52.5-54.4	24.4	3.5	.18	25.46	82	6046	3.1 3.1
	9-388	^{5.4} 92.9-98.3	33.2	2.5	.15	19.36	92	5384	.45
	9-389	123.9-125.0	33.7	6.5	.11	20.38	86	5387	.72
	9-390	125.0-125.6	65.7	1.0	-	-	-	-	-
	9-391	125.6-126.3	30.0	7.0	.08	24.13	89	5552	.74

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CANMET Energy Technology Centre

Coal Petrography

LINE CREEK 55

Project Number

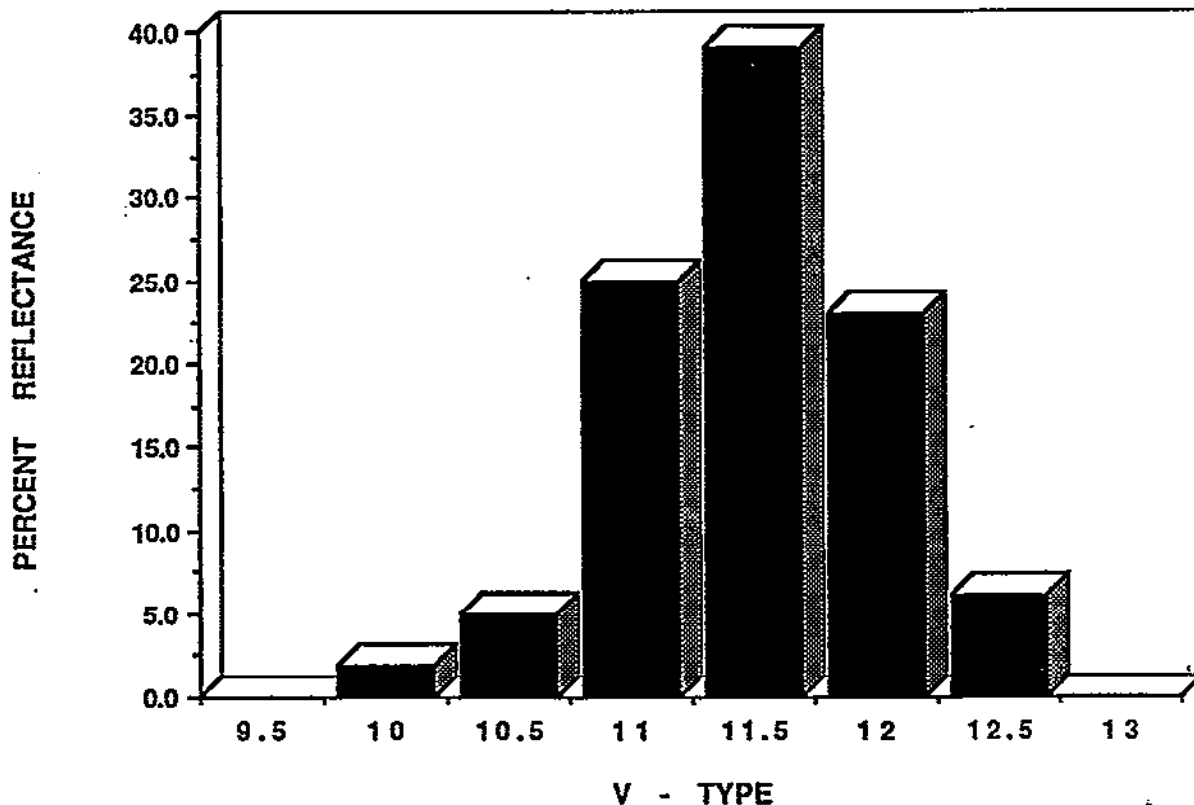
03-3-0/11- Job No. 3215 R

Coal Index No.	15008	15009	15010	15011	15012	15013	15014
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	9605	9605E	9605	9605	9605A	9605	9604A
	9-377	9-379,9-3	9-371	9-362	9-350,9-3	9-366	9-229,9-2
	FLOAT AT	80	FLOAT AT	FLOY AT	51	FLOAT AT	30

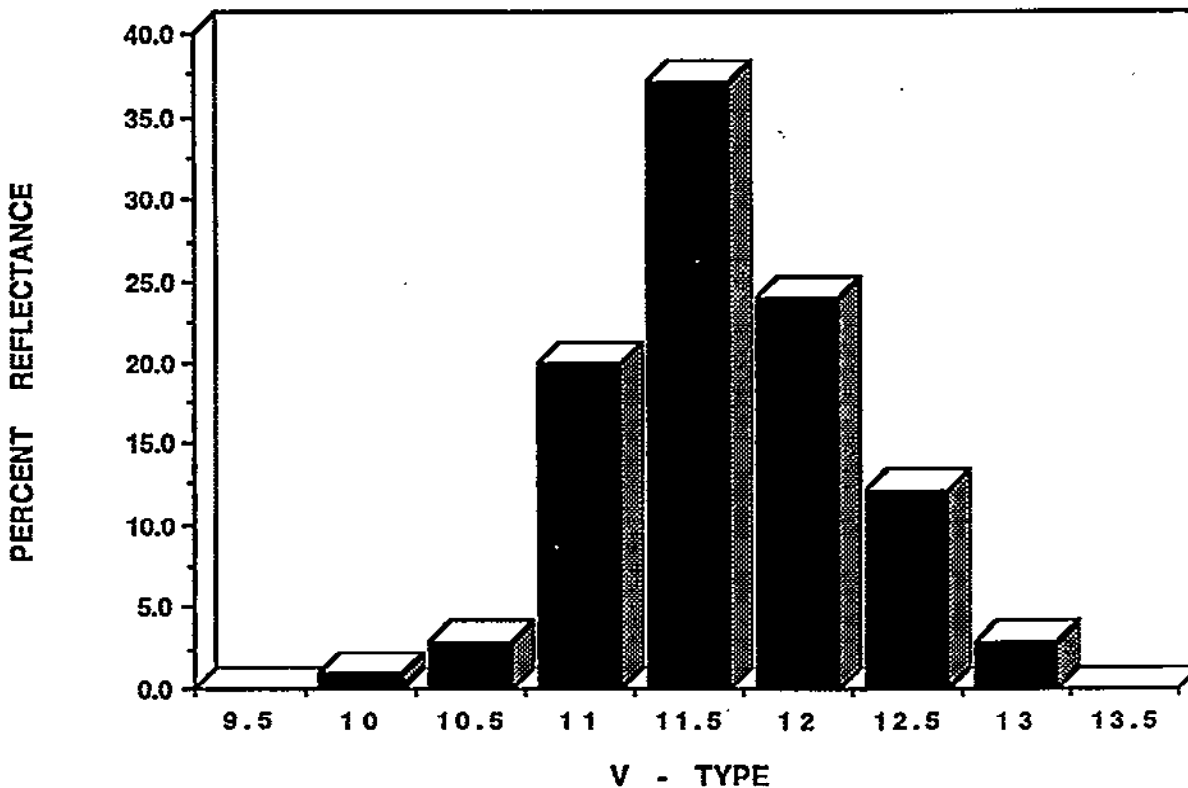
Petrographic Indices

Mean Ro	1.17	1.19	1.10	0.96	0.97	1.03	1.02
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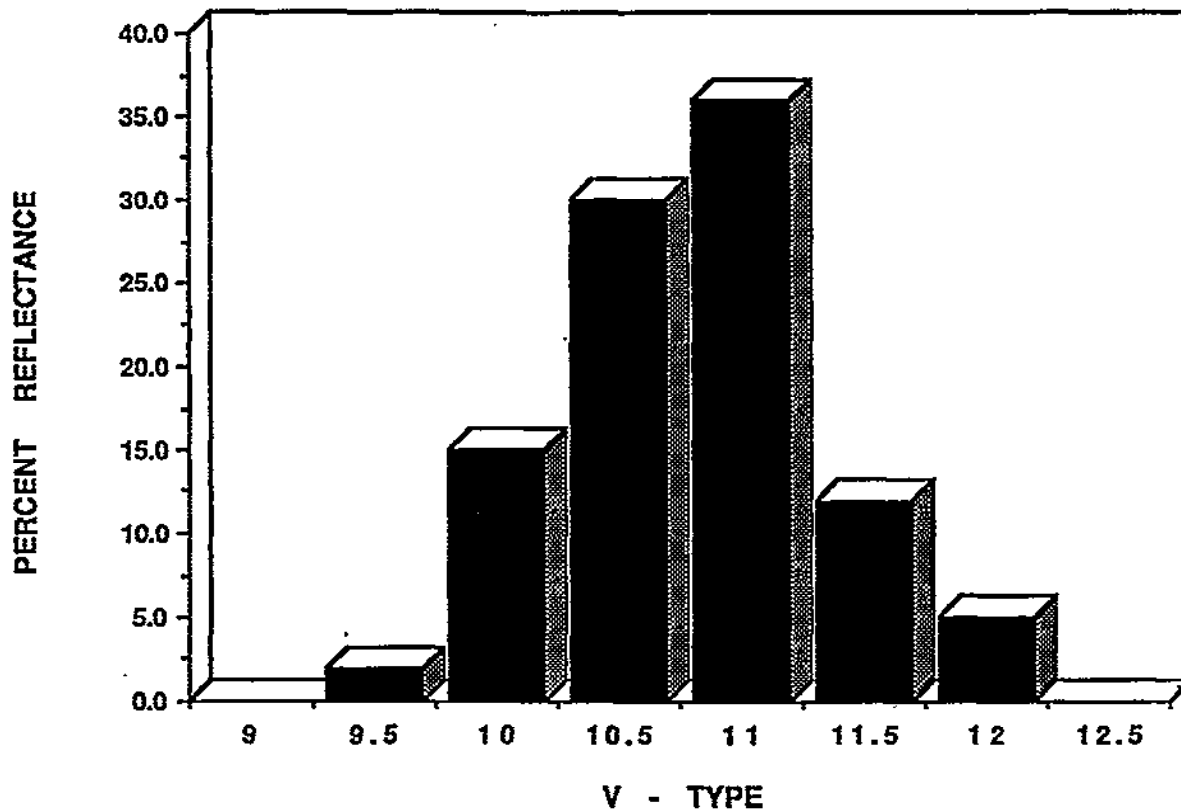
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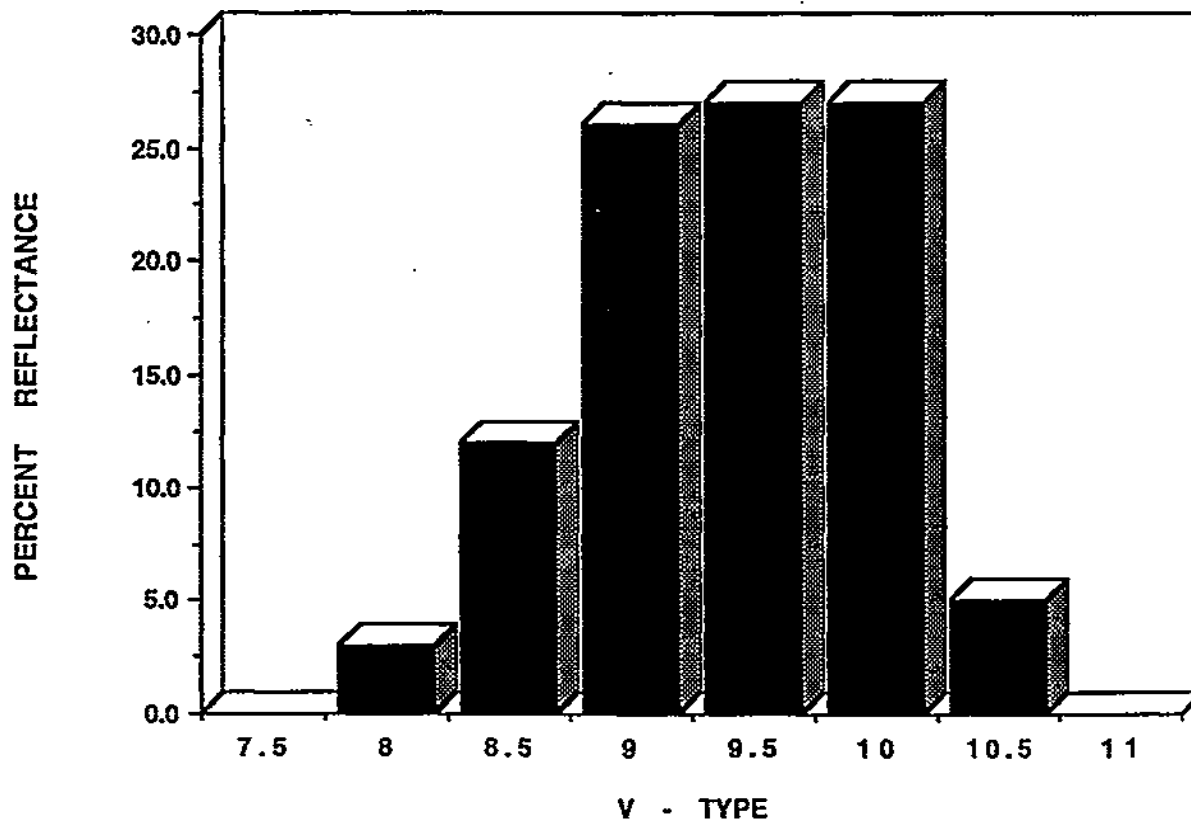
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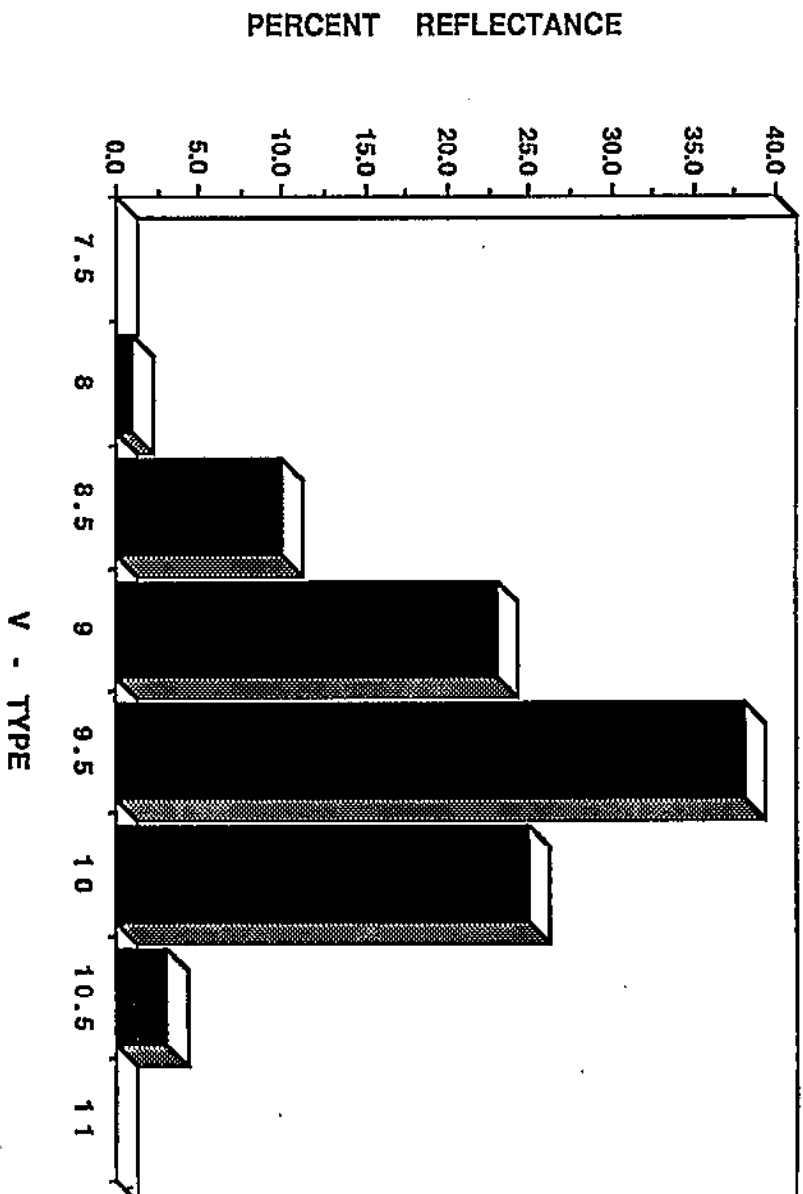
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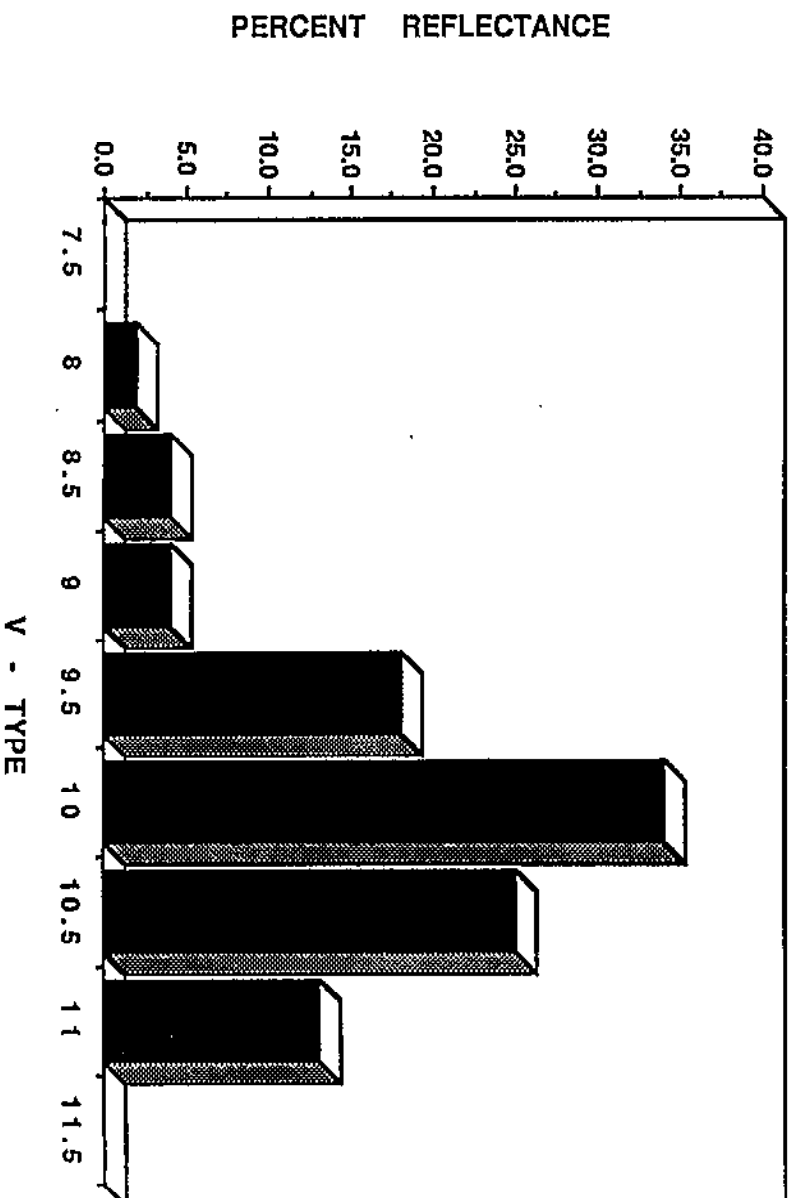
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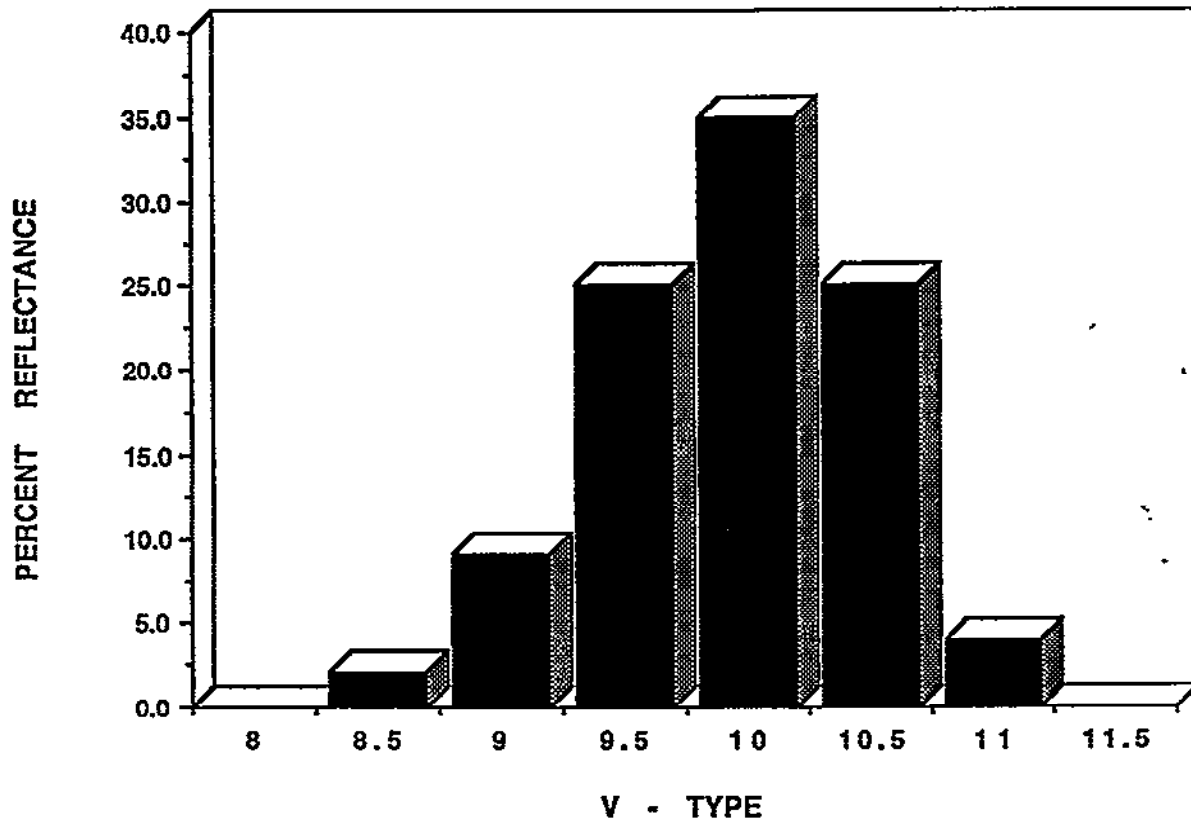
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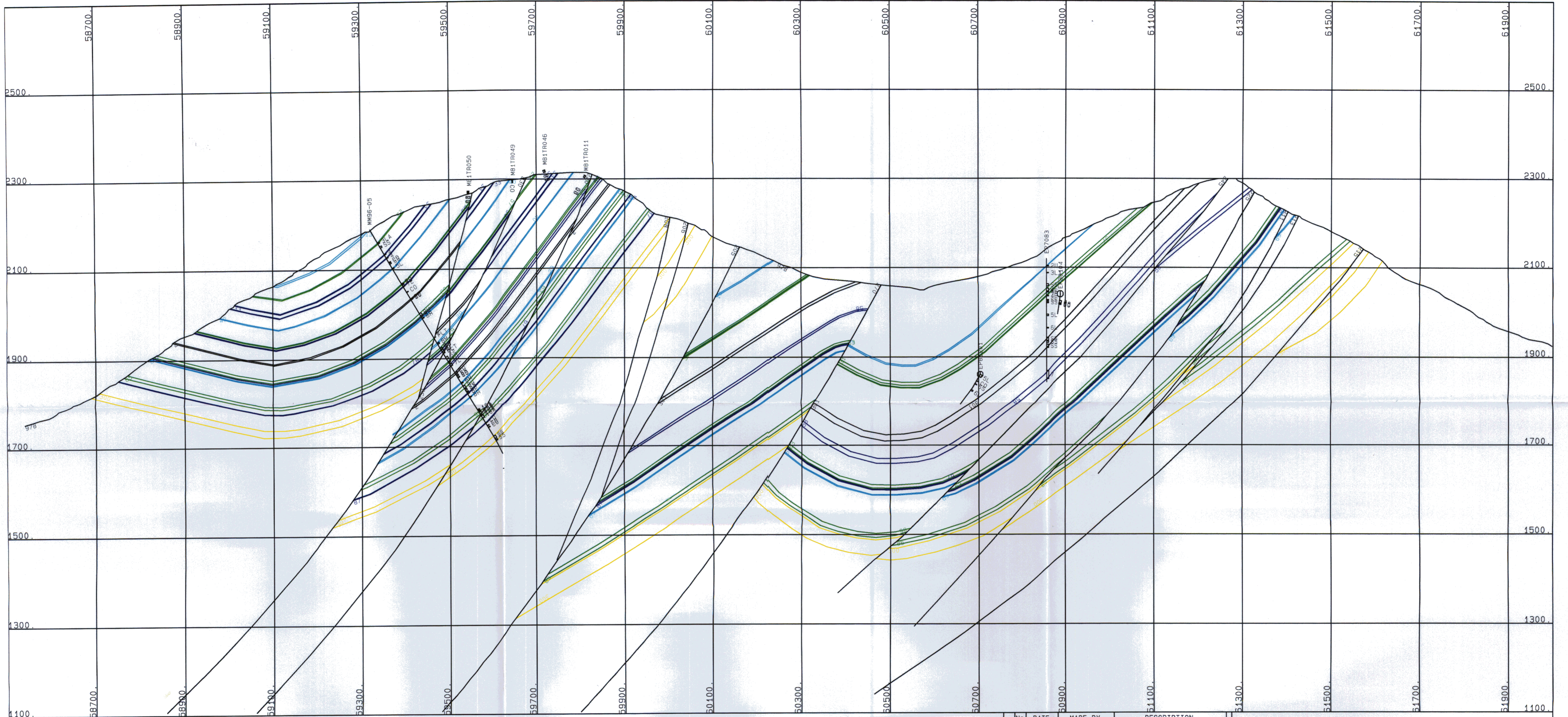


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VITRINITE REFLECTOGRAM OF LAB. #15014
LINE CREEK #55 9604A 9-229, 230, 231

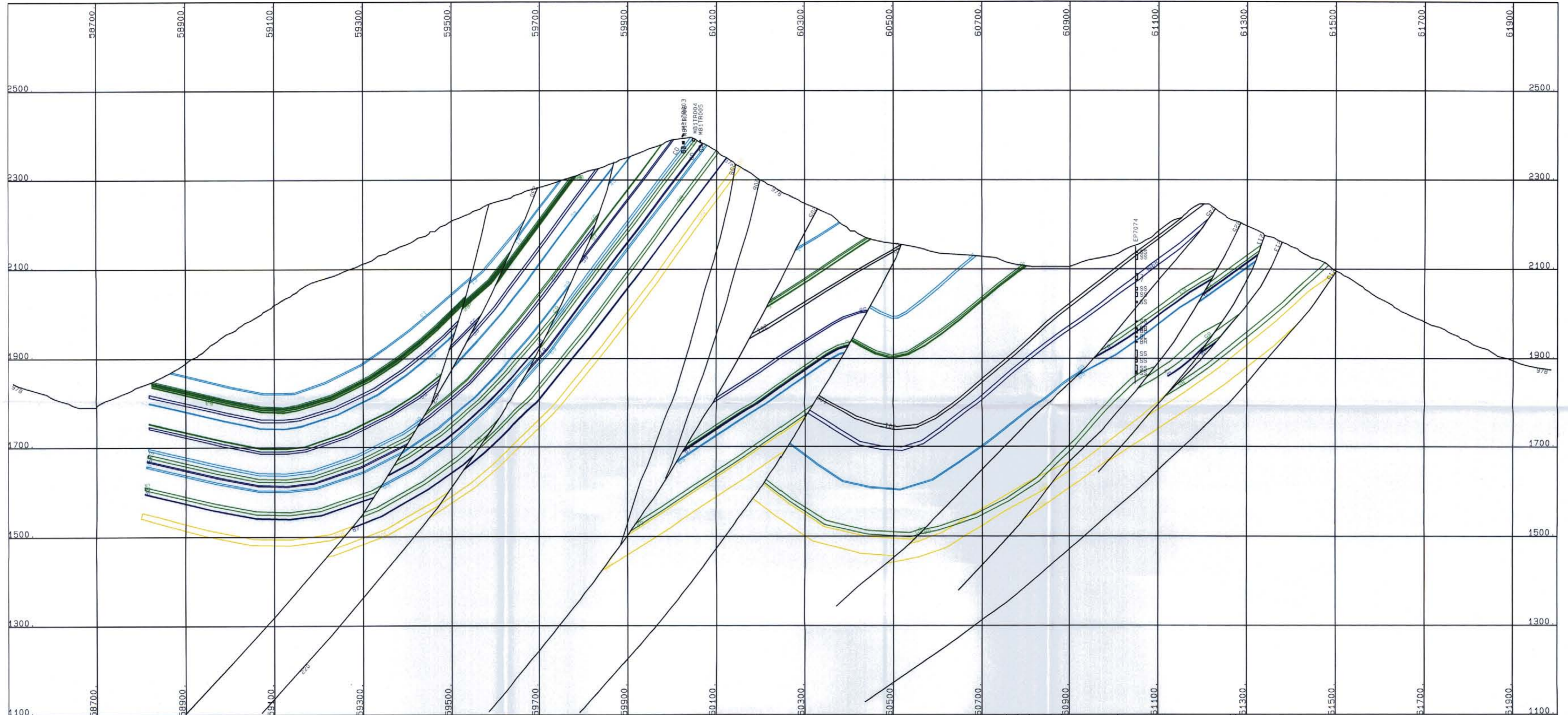




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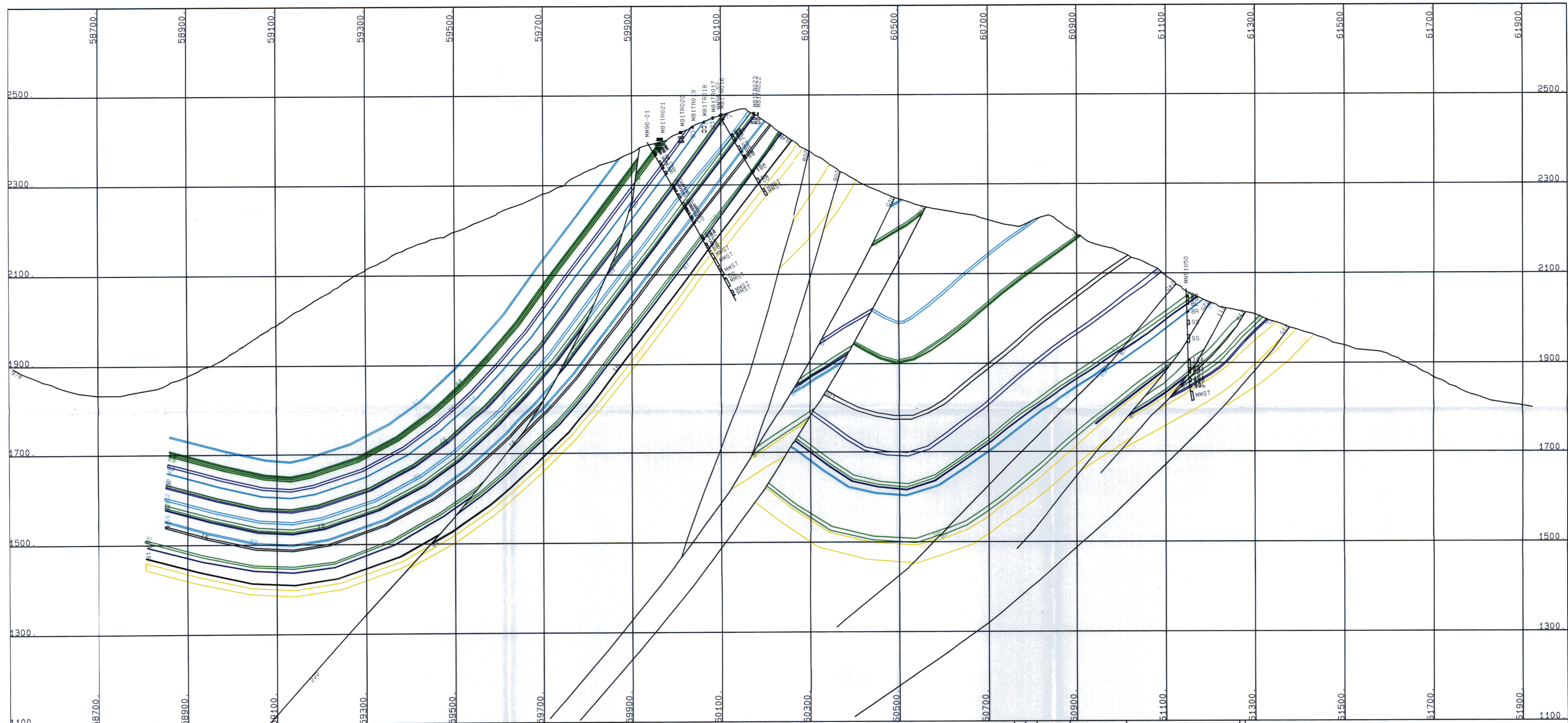


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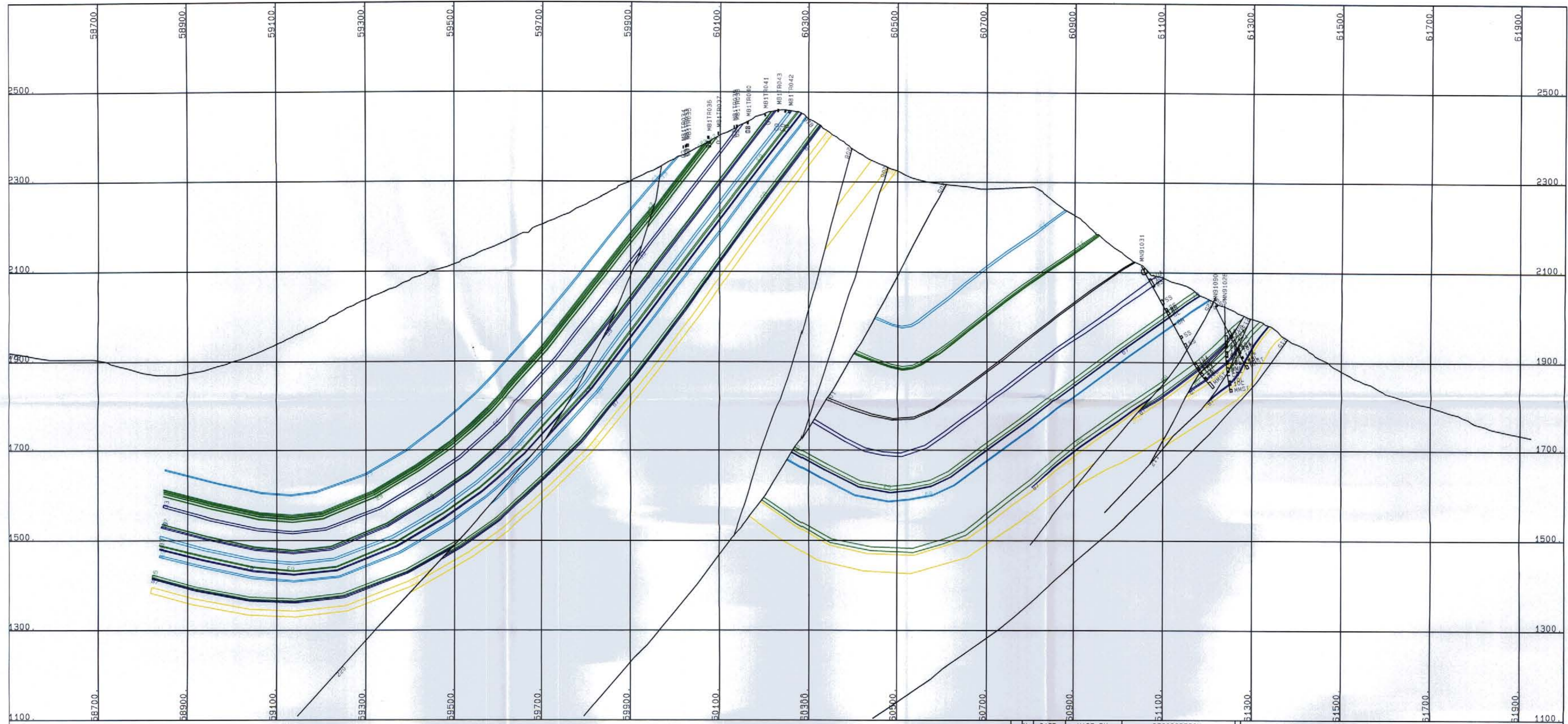
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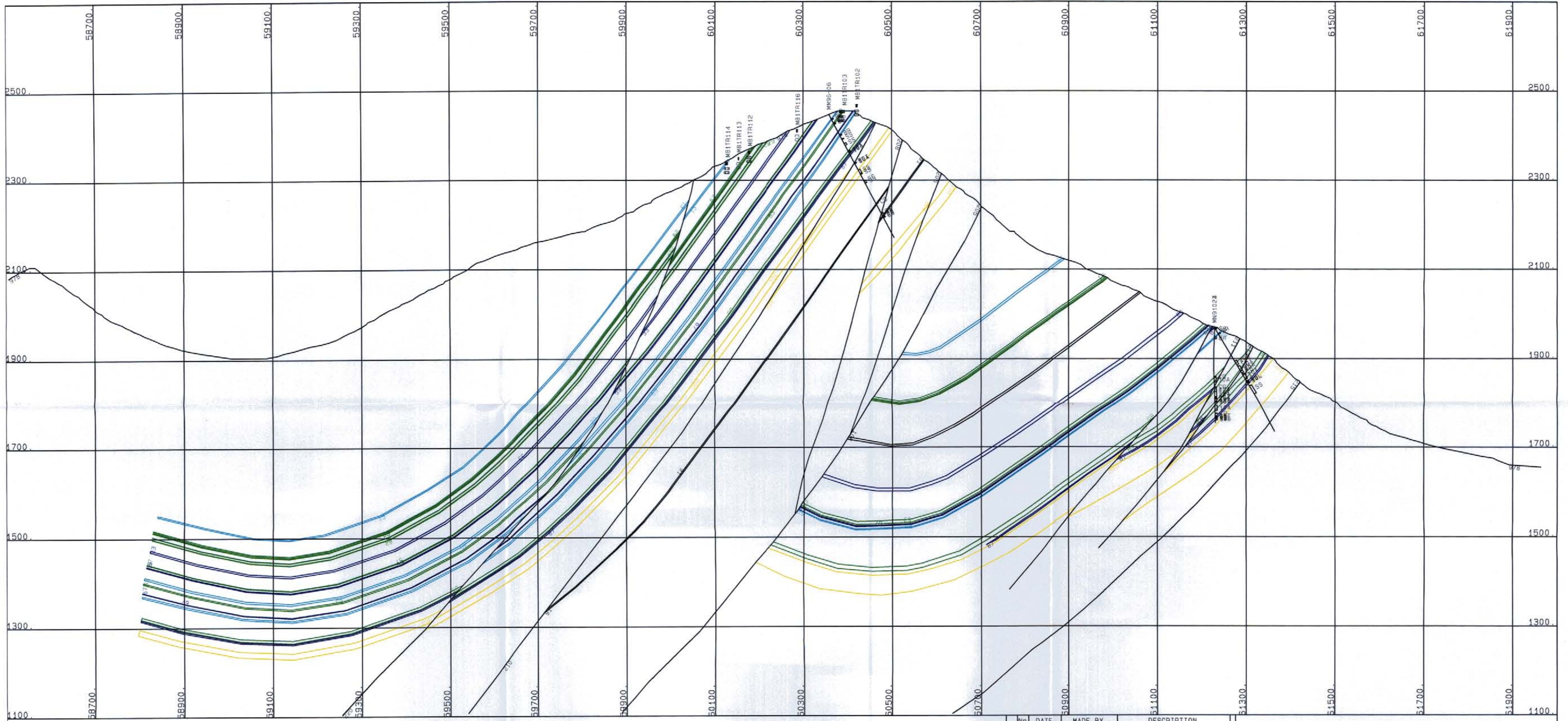


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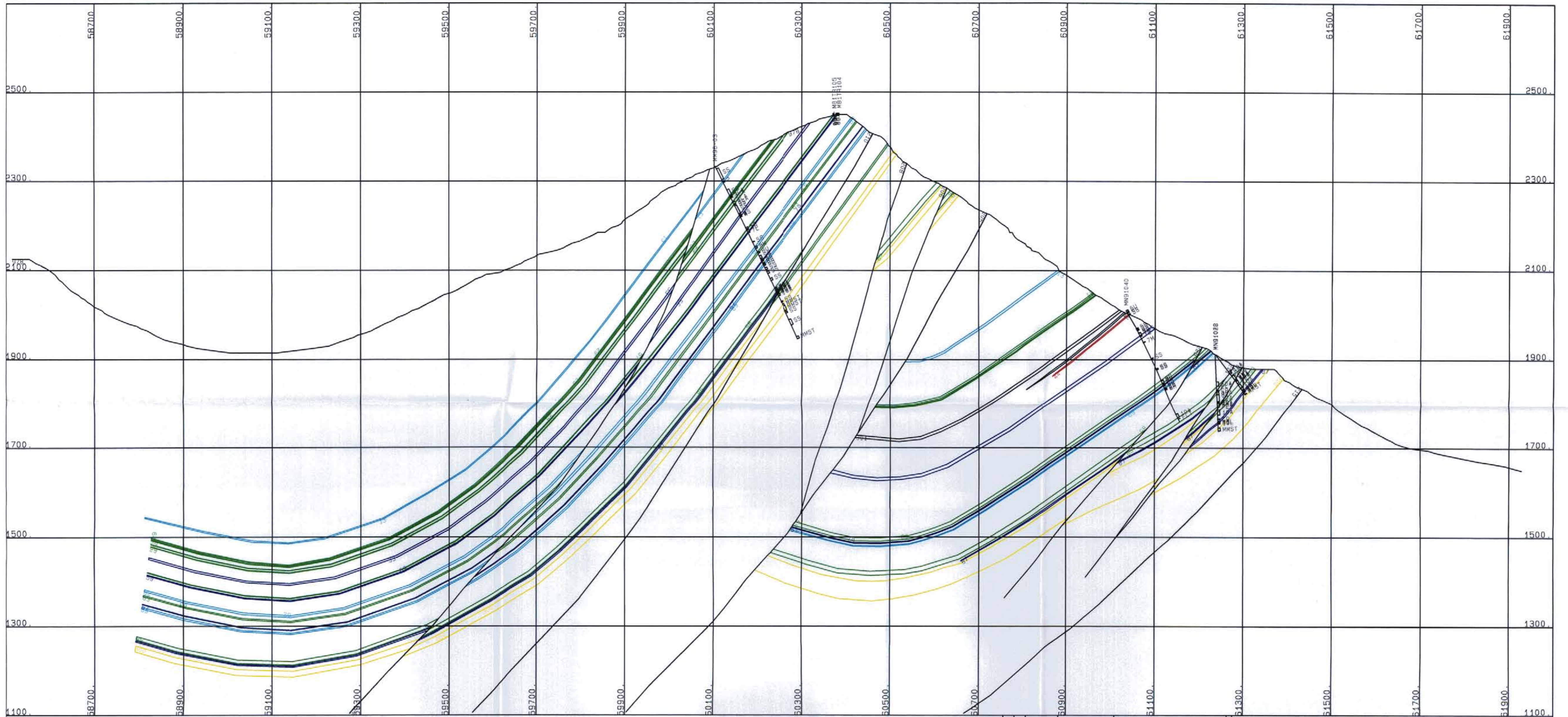
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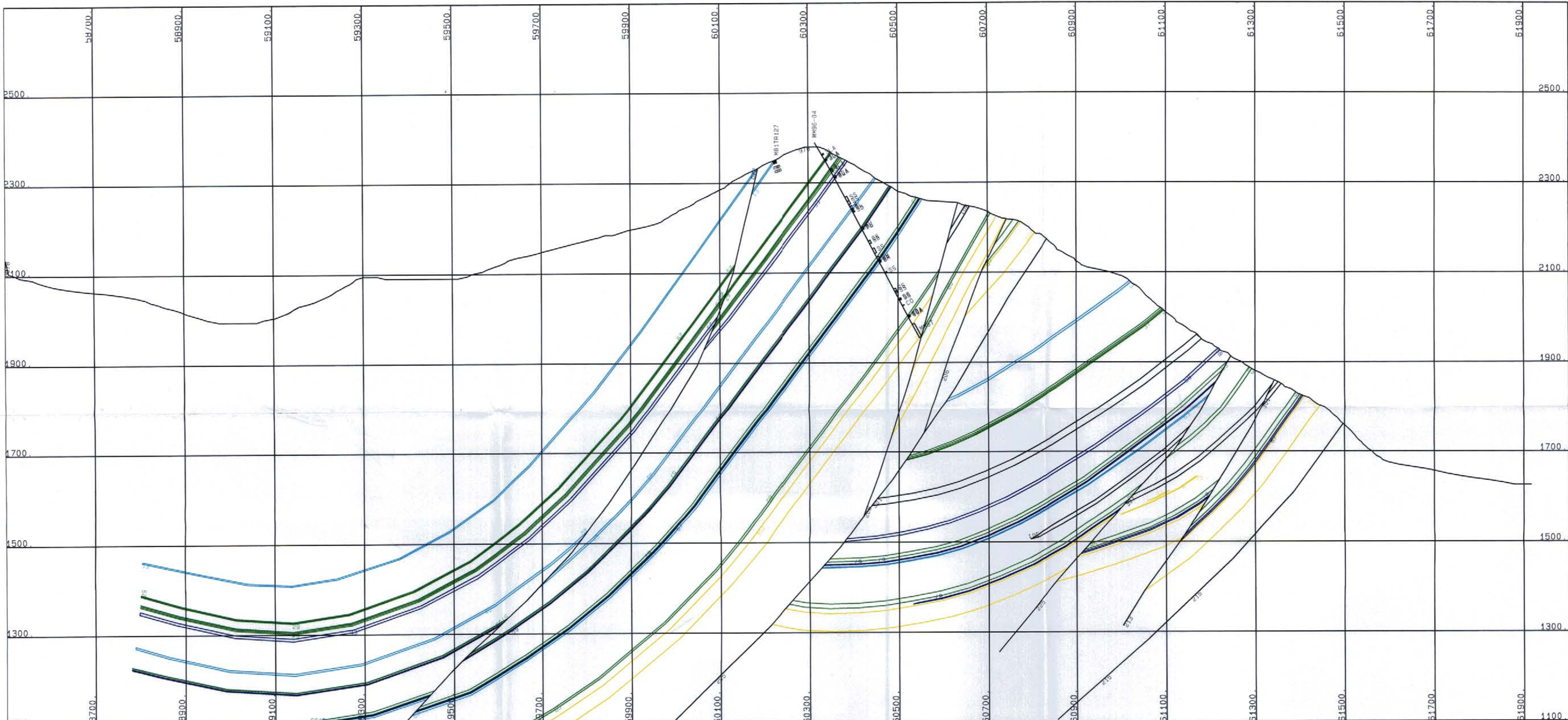
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