MERRITT DRILL HOLE #/-

INCOMPLETE

16100

Merritt Diamond-drilling

Log of Hole No. 1 Cont'd.

Correction

Description

Thickness	Depth
-----------	-------

161

Shale (dark, sondy in part)	Actual -	3*	10"	
Shale (dark, sandy in part, crushed)	T		27	
Saudstone (light gros, livey)	19	-31	37	
Shale black, broken, slickensided)	¥9	1.	+-	
Shale (fractured, limey) " " "	Ħ	4	9 ¹¹	900* 0*

"Joseph T. Mandy" Sining Engineer COPY OF LOG OF NU. 11 HOLE, DIAMOND VILL DULLINTES.

Location near centre of N. ... quarter section 14, Tp. 91 Elevation of surface, 1976.47 Started march 30th, 1999.

	Thio	kness	Dept	<u>h</u>
Sand and clay Coarse gravel with clay and sand Sand Coarse gravel Clay and gravel	16 10* 4 64	7" 0 4 2 BEDR(86 1 27 31 96 OCK	7" 11 11
Conglomerate Sandy shale Coarse sundstone Conglomerate Light sandy shale Light sandy shale Conglomerate Light sandy shale Dark sandy shale	5 4 8 1 7 3 :.10 1 5	4 0 3 2 8 1 0 	101 105 113 114 122 126 136 137 138	5 5 8 8 4 2 2 8 7 2
Dark sandy shale Conglomerate Sandstone Sandy shale Conglomerate Light santy shale Conglomerate Dark brown shale with coal markings Sandy shale	0 : 1 5 2 1 3	6 11 7 2 2 0 10 3 0	143 144 151 156 158 160 161 164	ප 7 2 2 ි 3
Sondstone Sandy shale Conglomerate Sandy shale Sandy shale (dip 20 degrees) Conglomerate Dark sandy shale Conglomerate Sandy shale	2 1 2 5 1 5	0 9 3 6 0 0 0 6 6	166 168 170 175 176 177 190 185	0 3 9
Conglomerate Dark sandy shale with coal marks Sandstone Dark sandy shale Conglomerate	·• 1 3 1 1	0	191	9
Dark sandy shale Conglomerate Dark sandy shale Sandstone (dip 47 degrees)	1 3 1 5	• • •	196	9
Sandy shale Dark sandy shale with coal marks	5 •• ² 6	ہٰ O	206 208	1 1
Dark sonay shile	14	4	228	5

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	Thic	kne ss	Dep	th
Sandstone	1			
Dark sandy shale	5		234	5
Light sendy shale	. 3		•	
Dark sandy shale	22			
Sandstone (dip 38 degrees)	2		241	5
Light sandy shale (dip 30 degrees)	3	3	244	8
Dark sandy shale	2		.	_
Sandy shale	8		254	8
Dark sindy shale	3		والمراجعة المراجعة	~
Light sandy shale	. 5	* *	. 262	8
Sandstone (dip 22 degrees)	8	•	0.00	^
Dark sandy shale	9	6	083	2
Sandstone (dip 14 degrees)	9			
Li ht sandy shale (dip 14 degrees)	8 5		18 A D	~
Dark sandy shale	с Г. н.	•	302	
- CO 1	·• + 2	9 5	303	11
Dark brown shale		Ð	319	
Dark sanay shale	13		9 1 8	4
Sandstone	- -			
Sandy shale	1 2 8		. 330	0
Sandstone (dip 15 degrees)	13	в	3 UUU	0
Derk sandy shale		6		
Sandstone	1	ŏ		
Sandy shale Sandstone	ĩ	0		
wark sandy shule	. 5		. 353	4
Sandstone	2			
Sandy shale	4			
Dark sandy shale	6			
Sandstone	i	6		
Dark sandy shale	2 1 5 2 4 6 1	3		
Sandstone	4		. 372	1
Conclomerate	2		•	
Sandy shale	2 4			
Conclowerate	2	3		
Sandstone	.11	9	. 392	1
Conglomerate	2			
Sandstone	2 6			
Light sandy shale	6			
Sandstone	2			
Coarse conglomerate	16		. 419	
Jark sandy chale (dip 15 degrees)	89	8	427	9
Sandstone	2			
Dark sandy shale (dip 27-38 degrees)	6			~
Sandstone (dip 33-20 degrees) Light sandy shale	11	* *	• 446	9
	ie ⊖ 19			
Dark sandy shale	7			
Conclomerate	1 3			
Dark shale with coal marks	ා • 4	^	. 469	9
	•• 4 2	0 10	• 202	y
Dark sond shale	E.	⊌ليك		

16)

LOG OF NO. 11 HOLE Cont 'd.

· · · · · · · · · · · · · · · · · · ·	Thi	okness	Dept	h
COAL	. 1	41		
COAL, bony		3		
COAL . bony	2	4) 2		
	•	4	472	1
Dark brown sendy shale	2	3		
COAL	• 1	9 10		
COAL	- h -	61		
Bark brown shale		7∄		-
00 L	13	6	479	. 7
Dark brown shale, coul markings COAL	3	4 7	462	11
Derk brown shale occasional coal streaks	9	3		
COAL		2		
Dark brown shale		4 4		
COAL Brown shale		2		
		6		
Brown shale		6		
Light sandy shale (dip 20 degrees)	14	3		
Sandstone Light sandy shale	9 8	10		
CO T ***********************************	-	- อี		
Sandy shale	1	_		
COAL	38	3 9	568	
Light sandy shale Sendstone	11	29	000	
Light sandy shale	5			
Sandstone (din 25 degrees)	18	-		
Light sandy shale (dip 18 do rees)		9	610	4
COL 6'5" COL bony 6"	.13	2	63 8	3
COAL 6'3"				
Dark brown shale	3	6		
COAL Dark brown shale	3 7 2	8		
Light sandy shale	2			
Sandstone	. 1	-		
Light sandy shale	2	6 10	46 0	9
COAL Light sendy shale	8	4	000	8
Dark sandy shale	2	-		
Sandstone	32	6		
Dark sandy shale	5			
00/L 1* 10") COAL, bony 2")				
COAL 9")	. 2	9	709	4
Dark sandy shale	6	9		
Light sendy shale	9			

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LOG OF NO. 11 HOLE Cont'd.

	Thick	ness	Depti	1
Sandstone Light sandy shale	5 2			
Sandstone	11	6		
Sandstone Light sandy shale	2 3	• • •	750	7

Original log apparently signed by Alfred T. wall, Benjamin Browitt, and N.L. Minmler.

Merritt Drilling

PROGRESS REPORT - Feb. 16 - 17th.

Feb. 16th - Day Shift: Cored 890 - 900 Night Shift " 900 - 910 Graveyard " 910 - 915 Feb. 17th - Day Shift: Cored 915 - 920; 920 - 924

Pump trouble remedied.

A new type of bit was tried on Feb. 17th. This has the water holes entering the inner surface of the bit about 4" up from the cutting edge, the object being to allow a build-up of pressure if the bit become: blocked. The block at 924' was quite definite; the pressure increase caused the overflow valve on the pump to release. However this cannot detect blockage and grinding in the core-tube, because the mud circuit does not pass throu h the tube.

The "Altamud" system appears to accomplish its chief purpose of preventing caving, though it is doubtful if it affects core recovery one way or the other. The use of "Altamud" slows up drilling to some extent because of more frequent break-downs of pumping equipment, difficulty of handling muchdy rods, and the necessity of periodically diluting or replacing the mud circuit. The mud has not been found a serious hindrance in examining the core.

Mr. Johnson expects trouble with the drill rig if this hole is continued to 1500'. According to him, he was told to make the set-up for a 600' hole, which he did. The foundations were laid on frozen ground and no mud-sills laid to anchor it. Now, with the ground thawing, and with over twice the string of rods that he filured on, Mr. Johnson is doubtful about the foundations holding.

Attached hereto is the log from 900' to 924'.

W.H. White, Assoc. Mining Engineer.

Merritt Diamond-Drilling

Progress deport - Feb. 12th - Feb. 16th (Noon)

Feb. 1.th - Day shift	- cor d 801 - 811.
<u>21 mt</u> "	- " 811 - 821.
Graveyard	- " 81 - 831; 831 - 834.
Feb. 14th - Day shift	- " 834 - 836; 836 - 840; 840 - 850
Nicht "	- ° 850 - 8 56; 856 - 864.
Graveyard	- " 864 - 869
Feb. 15th - Day shift	- Thickening mud to stop caving above 864.
	Rods down to 6" of bottom. Cored 869 - 878.
Night "	- Cored 878 - 886.
Graveyard	- " 886 - 890
Feb. 16th - Day shift	- " 890 - 900.
Feb. 16th handed ove	to V.A. Shite.

"Joseph T. Landy"

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Mining Angineer



PROGRESS REPORT MERRITT D.D.H. #4. July 2 - July 4

July 2

Morning shift: Afternoon shift: Graveyard shift:

Coring	481	-	501
Coring	501	-	520
Coring	520		530

July 3

Morning shift: Afternoon shift: Graveyard shift: Coring 530 - 546 Coring 546 - 556 Coring 556 - 569

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July 4

Morning shift to noon:

Cored to 572'

"J.M. Black"

Asst. Mining Engineer

4 July 46

PROGREMS REPORT MERRITT D.D.H. No. 4, June 28 - July 2

June 28

Morning shift: Afternoon ": Graveyard ":

June 29

Morning shift: Afternoon ": Graveyard ":

June 30

Morning shift: Afternoon ": Graveyard ":

Morning shift: Afternoon ": Graveyard ":

Morning shift:

Coring 380 - 395 " 395 - 411 " 411 - 431

Fishing for bit Coring 431 - 436 " 436 - 447

Coring 447 - 459 " 459 - 472 Not working

July 1

Not working Coring 472 - 481

July 2

Cored to 491 at noon

161

"J.M. Black"

Asst. Mining Engineer

2 July 46

ROGRESS REPORT MERRIAT D.D.H. No. 4. June 26 - June 28

June 26

Morning shift: Afternoon shift: Graveyard shift:

Coring 277 - 296 Coring 296 - 311 Coring 311 - 334 .

Morning shift: Afternoon shift: Graveyard shift:

June 27

Coring 334 - 341 Coring 341 - 361 Coring 361 - 379

June 28

Morning shift to noon

Cored to 385'

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"J.M. Black"

Asst. Mining Engineer

28 June 46

PROGREES REPORT SERRIFT D.D.H. No. 4, June 24 - June 26

<u>June 24</u>

Morning shift: Afternoon shift: Graveyard shift:

Morning shift: Afternoon shift:

Graveyard shift:

Coring 207 - 217

Corin₍₎ **217 -** 245 Corin₍₎ 245 - 263 Corin₍₎ 263 - 277

Coring 186 - 195 Coring 195 - 207

June 26

June 25

Morning shift to noon:

Cored to 286

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"J.M. Black"

Asst. Mining Engineer

26 June 46

Merritt Diamond-Drilling

Progress Peport Feb. 9th - Feb. 12th

Feb. Oth - Day shift - Engine arrived by express. Installing engine; running-in engine.

" " Hight shift - Drilling; cored 698 - 708

" " <u>Graveyard</u> - Cored 708 - 718

- Feb. 10th Day shift Gored 718 728. Note - Core loss between 708 - 728 thought possibly due to wash at grinding edge of mud bit. Dropped Altamud circulation and resumed water circulation test for improved core recovery.
- " "<u>Hight shift</u> Cored 728 730; 736 746. <u>Note</u> - Noted caving t 682" after last core gull.
- " " <u>Graveyard</u> Sroke brachandle bolt when letting rods down.

<u>Feb. 11th - Day shift</u> - Repairing brake h adde. Freparing mud circulation for <u>resuming</u> Altemud circulation. Drilling.

- " " " dight shift Core 746 758; 756 766.
- " " <u>Graveyard</u> dods plugged in hole 8' from bottom.

Feb. 12th - Jay shift - Jored 766 - 773

- " " <u>Hight shift</u> Jored 773 791
- " " Graveyard Cored 791 801.

"Joseph T. Lanay"

Minieg Angiaeer

Merritt, B.C.

Log of D.D.H. #6. Drilled August 1946.

Located approx. 680* N 42° 30* E (True) from Hole #4 Elevation approx. 1985*

Core examined October 4, 1946

Overburden

210 6"

Shale, sandy	Со 2'	6"	Missing	Depth 213
Shale and sandstone	21			215
Sandstone, grey, fine grained few shaly beds	41	6 11		2191 67
Shale, sandy, grey	51	-		225*
Sanustone, light, fine grained	J	0		660
Dip 15-20	91			234'
Shale, grey, sandy	41			2381
Sandstone, light, fine grained, massive	51	0#		243 97
Sandstone and shale, interbed ed	U	0		670 0
Dip 5-10	5*	31		2491
Sandstone, massive, few shaly beds	U	U		6/20 ·
254-255 grading to very coarse	71			256 *
at base	4			200
Shale, grey sandy with sandy interbeds	41			2601
Shale, dark, few sandy beds	10"			270
Coal	TO	6"		270 8"
Shale sandy	1*	-		272*
Sandstone, grey, massive, few shaly	4	•		67165
beds	31			2751
Sandstone, grading down to shale	5*			2801
Sandstone, fine at top grading down to	v			200
coarse and ma sive at base	91			289*
Conglomerate	ĩ.			2901
Sandstone, light, massive, medium to	–			200
coarse with conglomerate beds	24'			314
Shale, dark, some sandy beds, abundant	N-2			OT T
coal partings at 325'	12'			326*
Shale, with many sandy interbeds				331'
Coaly partings	Ŭ	6 *		331 6"
Sandstone, grey thin bedded, fine graine	ħ.	Ŭ.		
Dips 5-10°	21	6"		3 3 4'
Coal partings	ĩ	•		3351
Shale, grey, sandy	21			337 1
Shale, broken and slickensided, some	~			
coal partings	61			343!
Shale, dark with coal partings	ě,			351
Shale grey and getting very sandy at	0			002
base	5*			356 •
Shale, grey	21			3581
Shale, dark, with coal partings	Ĩ†	31		3591 31
Sandstone, light, medium grained, few		-		UUU U
coal streaks	71	9"		3671
	1	•		

at 370-71, 375-76, 404-05 68' 435' Sandstone, light medium grain, few	Conglomerate, light, mostly fine grain, some medium fairly coarse at 370-71 575-76 404-05	601			435 *
coal partings10' 9"445' 9"Sandstone, light, fine grain1' 3"447'Shale, dark few coal partings1' 6"448' 6"Coal and shale1' 6"448' 6"Shale, dark, broken2'1' 6"Shale, grey with coal partings1' 6"452'Shale, grey with coal partings1'6" 453'Coal, 4" bone in 2 seams2'455'Shale with 4" coal1'456'Coal with 7" bone in 6 seams3'459'Coal with 9" bone in 7 seams1p 10°2' 6"Shale with abundant coal partings3' 6"461' 6"		00.			400*
Sandstone, light, fine grain1' 3"447'Shale, dark few coal partings1' 6"448' 6"Coal and shale1' 6"450'Shale, dark, broken2'1' 6"Shale, grey with coal partings1'6"Coal, 4" bone in 2 seams2'455'Shale with 4" coal1'456'Coal with 7" bone in 6 seams3'459'Coal with 9" bone in 7 seamsDip 10°2' 6"Shale with abundant coal partings3' 6"461' 6"		101	0.11		4451 08
Shale, dark few coal partings1'6"448'6"Coal and shale1'6"450'Shale, dark, broken2'1'6"452'Shale, grey with coal partings1'6"453'Coal, 4" bone in 2 seams2'455'Shale with 4" coal1'456'Coal with 7" bone in 6 seams3'459'Coal with 9" bone in 7 seamsDip 10°2'6"Shale with abundant coal partings3'6"461'6"			-		···· ··· ·
Shale, dark few coal partings1'6"448'6"Coal and shale1'6"450'Shale, dark, broken2'1'6"452'Shale, grey with coal partings1'6"452'Coal, 4" bone in 2 seams2'455'Shale with 4" coal1'456'Coal with 7" bone in 6 seams3'459'Coal with 9" bone in 7 seamsDip 10°2'6"Shale with abundant coal partings3'6"461'6"	Sandstone, light, fine grain	1'	3"		447°
Coal and shale1'6"450'Shale, dark, broken2'1'6"452'Shale, grey with coal partings1'6"453'Coal, 4" bone in 2 seams2'455'Shale with 4" coal1'456'Coal with 7" bone in 6 seams3'459'Coal with 9" bone in 7 seamsDip 10°2'6"461'6"Shale with abundant coal partings3'6"465'		1'	6 *		448' 6"
Shale, grey with coal partings1'6"453'Coal, 4" bone in 2 seams2'455'Shale with 4" coal1'456'Coal with 7" bone in 6 seams3'459'Coal with 9" bone in 7 seamsDip 10°2' 6"Shale with abundant coal partings3' 6"461' 6"	Coal and shale	11	6"		450'
Coal, 4" bone in 2 seams2'455'Shale with 4" coal1'456'Coal with 7" bone in 6 seams3'459'Coal with 9" bone in 7 seamsDip 10°2' 6"461' 6"Shale with abundant coal partings3' 6"465'	Shale, dark, broken	21		1' 6"	4521
Coal, 4" bone in 2 seams2'455'Shale with 4" coal1'456'Coal with 7" bone in 6 seams3'459'Coal with 9" bone in 7 seamsDip 10°2' 6"461' 6"Shale with abundant coal partings3' 6"465'	Shale, grey with coal partings	1'		6 #	453*
Shale with 4" coal1'456'Coal with 7" bone in 6 seams3'459'Coal with 9" bone in 7 seamsDip 10°2' 6"461' 6"Shale with abundant coal partings3' 6"465'					455'
Coal with 7" bone in 6 seams3"459"Coal with 9" bone in 7 seams Dip 10°2" 6"461" 6"Shale with abundant coal partings3' 6"465"		1'			456'
Shale with abundant coal partings 3' 6" 465'	Coal with 7" bone in 6 seams				4591
Shale with abundant coal partings 3' 6" 465'	Coal with 9" bone in 7 seams Dip 10°	2*	6"		461 6"
		4*			469*

J.M. Black

Asst. Mini g Engineer.

367*

MERRITT DRILL HOLE #3

Graveyard Shift	Coring 1165' - 1175'
Morning Shift	Coring 1175' - 1186'
Afternoon Shift	Coring 1186' - 1192'

June 14

Graveyard Shift	Coring 1192' - 1197'
Morning Shift	Coring 1192' - 1197' Coring 1197' - 1206'
Afternoon Shift	Coring 1206! - 1216!

June 15

Graveyard Shift	Coring 1216' - 1226'
Morning Shift	Coring 1226' - 1236'
Afternaon Shift	Shut down

June 16

Graveyard ShiftShut downMorning ShiftShut downAfternoon ShiftCoring 1236! - 1246!

Depth at 8:00 A.M. June 17th was 1258'

Dr. J. Black has taken over here.

At a depth of 1225' a coal seam with a thickness of 1' 4" was encountered (bony coal) This seam may allow us to make a tentative correlation with the No. 1 hole on the Indian Reserve (1225' in hole No. 3 being equivalent 550' in the Indian Reserve hole) I am bringing the graphic logs with me and will discuss the matter with you.

> "C.B. Newmarch" Asst. Mining Engineer.

Graveyard shift:	Coring 1083' - 1099'	
Morning Shift :	Coring 1099' - 1108'	
Afternoon Shift:	Coring 1108' - 1114'	

<u>June 11</u>

Graveyard Shift:	Coring	1114*	-	11231
Morning Shift:	Coring	1123	-	11351
Afternoon Shift:	Coring	11351	-	1140'

June 12

Graveyard Shift:	Coring	1140'	-	1150'
Morning Shift :	Coring	11501		11541
Afternaon Shift:	Coring	11541	-	1165

Depth at 8:00 A.M. June 13 was 1175'

Section is mostly sandstone with a little carbonaceous shale.

"Charles B. Newmarch"

Asst. Mining Engineer

Graveyard Shift:	Coring	1018	-	1014
Morning Shift :	Coring	1014'	-	1024
Afternoon Shift:	Coring	1024	-	1034

June 6

Graveyard Shift:	Coring 1034' - 1045'
Morning Shift:	Coring 1045' - 1063'
Afternoon Shift:	Shut down waiting for drill rods

June 7

Graveyard Shift:	Shut	down	waiting	for	drill	rods
Morning Shift :	11	11	T1	n	Ħ	11
Afternoon Shift:	11	11	H	Ħ	11	n

June 8

Graveyard Shift:	Shut down	11	*	11	11
Morning Shift :	11 11	11	· • •	Ħ	Ħ
Afternoon -hift:	Coring 1063!		1068'		

June 9

Graveyard Shift:	Coring 1068*		1073
Morning Shift :	Coring 1073'	-	10831
Afternoon Shift;	Coring 1083'	-	10931

Depth at 8:00 A.M. June 10 was 1099' No coal to date.

"C.B. Newmarch"

X

Asst. Mining Engineer.

161

Will core to 1123 and advise C.B.N.

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Graveyard Shift:	Coring 939! - 946!
Morning Shift :	Coring 946' - 956'
Afternoon Shift:	Shut down.

June 2

Graveyard Shift:	Shut	down	•
Morning Shift :	11	11	
Afternoon Shift:	11	11	

Depth at 11:00 A.M. June 3 was 977'

No coal to date.

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"C.B. Newmarch"

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Asst. Mining Engineer.

Graveyard Shift:	Coring	9561	-	9631
Morning Shift :	Coring Coring			
Afternoon Shift:	Coring	977	÷.	9871

June 4

Graveyard Shift:	Coring 987' - 1002'
Morning Shift:	Coring 1002' - 1003'
Afternoon Shift:	Mixing mud and coring 1003' - 1008'

Depth at 11:30 A.M. June 5 was 1024'

Now coring conglomerate and sandy shale.

"Charles B. Newmarch"

Asst. Mining Engineer.

7

Graveyard Shift:	Coring 1246! - 1258
Morning Shift:	Coring 1258' -
Afternoon Shift:	Coring 1258 -

June 18

Graveyard Shift: Drilling stopped here

Coring 1258' - 1270'

June 19

First drill used, is being set up on #4 site

"J.M. Black"

Asst. Mining Engineer

19 June 46

161

<u>May 30</u>

Graveyard Shift:	Coring	8801	-	8901
Morning Shift :	Coring			
Afternoon Shift:	Coring	911'	-	9221

<u>May 31</u>

Graveyard Shift:	Coring	9221	-	9321
Morning Shift:	Coring	9321	-	9341
Afternoon Shift:	Coring	9341		939 !

Depth at 11:00 A.M. June 1st was 956' The section remain unchanged; no coal to date.

"Charles B. Newmarch"

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Asst. Mining Engineer

<u>May 28</u>

Graveyard Shift:	Coring	8301	-	840*
Morning Shift :	Coring	8401	-	8501
Afternoon Shift:	Coring	8501	-	8551

May 29

Graveyard Shift:	Coring	8551	-	8601
Morning Shift :	Coring			
Afternoon Shift:	Coring	8701	-	8801

Depth at 12:30 P.M. May 30 was 911' Coring is now continuing without unusual difficulty at about 30 feet per day.

"C.B. Newmarch"

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161

Asst. Mining Engineer.

<u>May 26</u>

Graveyard Shift: Shut down Morning Shift : Coring 800! - 805! Afternoon Shift: Coring 805! - 812!

May 27

Graveyard Shift:	Coring	812*		817'
Morning Shift :	Coring	817'	-	\$20T
Afternoon Shift:	Coring	8201	-	8301

Depth at 12:00 P.M. May 28 was 850*

"C.B. Newmarch"

Asst. Mining Engineer

<u>May 21</u>

Graveyard	Shift:	Coring	6881	-	6981
Morning	Shift:	Coring	6981	-	708
Afternoon	Shift:	Coring	7081	-	714

May 22

Graveyard	Shift:	Coring	714'	-	7231
Morning	Shift:	Coring	7231	-	7351
Afternoon	Shift:	Coring	7351	-	7571

<u>May 23</u>

Graveyard Shift:	Coring			
Morning Shift :	Coring Coring	7671	-	111
Afternoon Shift:	Coring	7771	-	7891.

May 24

Graveyard Shift:	Coring 789' - 800'
Morning Shift :	Shut down
Afternoon Shift:	Shut down.

<u>May 25</u>

Graveyard Shift:	\mathtt{Shut}	down.
Morning Shift :	\mathtt{Shut}	down.
Afternoon Shift:	\mathbf{Shut}	down.

Note: Will resume coring at 8:00 A.M. May 26

"C.B. Newmarch"

Asst. Mining Engineer.

May 24, 1946

<u>May 18</u>

Graveyard	Shift:	Coring Coring	561'	-	571'
Morning	Shift:	Coring	5711	-	5821
Afternoon	Shift:	Coring	5821		5981.

<u>May 19</u>

Graveyard Shift:	Coring 598	-	614'
Morning Shift :	Coring 614		
Afternoon Shift:	Coring 633		6531.

<u>May 20</u>

Graveyard	Shift:	Coring	6531		671'
Morning	Shift:	Coring	671'	-	6811
Afternoon	Shift:	Coring	681'	-	6881.

Total depth at 4:00 p.m. May 21 was 708'.

"C.B. Newmarch"

Asst. Mining Engineer.

<u>May 16</u>

Graveyard Shift:	Coring	512*	to	516*
Morning Shift :	Coring	516'	to	521'
Afternoon Shift:	Coring	521'	to	529 '

<u>May 17</u>

Graveyard Shift: Coring 529' to 539' Morning Shift : Coring 539' to 549' Afternoon Shift: Coring 549' to 561'

Total Depth at 5:00 P.M. May 18 was 590' No coal encountered during the week.

"C.B. Newmarch"

Asst. Mining Engineer

PROGRESS REPORT Merritt Drill Hole No. 3. May 14 - 15

<u>May 14</u>

Graveyard Shift:	reaming hole		
Morning Shift :	Running 420	of casing	
Afternoon Shift:	running casi	ng	

<u>May 15</u>

Graveyard Shift:	running casing
Morning Shift :	Setting casing at 498' and cored 499' - 502'
Afternoon Shift:	cored 502' to 512'

Total depth at 5:00 P.M. May 16 was 521'

"C.B. Newmarch"

Asst. Mining Engineer.

PROGRESS REPORT - MERRITT DRILL HOLE #3 - May 11th to 13th.

- May 11th: Morning Shift: Cored 449' to 459' Afternoon Shift: Shut down.
- May 12th: Graveyard Shift: Shut down. Morning Shift : Shut down Afternoon Shift: Cored 459' to 467'
- May 13th: Graveyard Shift: Cored 467' to 479' Morning Shift : Cored 479' to 489' Afternoon Shift: Cored 489' to 499'

Decision made to case hole to 450' to shut off artesian watter encountered from 430' to 450'.

"C.B. Newmarch"

Asst. Mining Engineer

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PROGRESS REPORT - MERRITT HOLE #3 - MAY 8th to 10th

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- May 8th Night Shift: Sank casing easily to 140 feet which appears to be the bottom of the caved area which caused the trouble. If more trouble develops later on the casing can be sunk farther. Graveyard : Cored 365' to 387'
- May 9th Day Shift : Cored 387' to 405' Night Shift: Cored 405' to 416' Graveyard : Cored 416' to 430'
- May 10th Day Shift : Cored 430' to 449' Night Shift: Pump trouble - Hole making water Graveyard : Not working
- May 11th Day Shift only: Repaired Pump. Cored 449'-459'

Note: Mr. Newmarch has taken over here at this point.

"W.H. White"

Assoc. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE #3 - May 6th to 8th.

- May 5th: Night Shift: 318' to 326' Graveyard : 326' to 345'
- May 7th: Day Shift : 345' to 355' Night Shift: 355' to 365' Caving trouble. Graveyard : Caving below the casing, set at 40' resulted in the casing breaking off near the bottom and dropping to 100' in the caved hole. This was recovered and new casing run in to 100'.
- May 8th: Day Shift : Decision made to case the hole down to solid ground, which, on account of the friable nature of the sandstones and conglome ates, may have to go to bottom (365')

"Wm. H. White"

Assoc. Mining Engineer

PROGRESS REPORT- MERRITT DRILL HOLE #3 - May 4th - 6th.

May 4th - Night Shift: Cored 202' to 222' Graveyard : Cored 222' to 232' (Engine trouble)
May 5th - Day Shift : Cored 233' to 253' Night Shift: Cored 253' to 274' Graveyard : Cored 274' to 297'
May 6th - Day Shift : Cored 297' to 318'

"Wm. H. White"

Assoc. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE #3 - May 2nd to May 4th.

May 2nd: Night Shift: Cored 90' to 120' May 3rd: Day Shift: Cored 120' to 146' Night Shift: Cored 146' to 166' Graveyard: Cored 166' to 193' May 4th: Day Shift: Cored 193' to 202'

"Wm. H. White"

Assoc. Mining Engineer

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PROGRESS REPORT - #3 HOLE, MERRITT, B.C. Apr. 29th to May 2nd.

April 29th:	Day Shift only:	Set up completed and hole collared.
April 30th:	Day Shift :	Drove 4" pipe to depth of 11 feet in stream wash, encountering decomposed rock at 7 feet.
	Night Shift:	Drilling casing down.
May 1st:	Day Shift:	Drilled casing down to 40 feet in decomposed bedrock. Cored 40* to 50* in decomposed sandy shale
	Night Shift:	Cored 50* to 70*
May 2nd:	Day Shift:	Cored 70' to 90'.

"Wm. H. White"

Assoc. Mining Engineer



LOG OF MERRITT D.D.H. #5

.

SANDSTONE,	dark and light, thin bedded, upper part broken, dip 30	10º 0"	-	5301 0"
SANDSTONE,	light and dark broken, dip 25-30°	5 0"	-	5351 0"
SANDSTONE,	light, coarse, massive, fine at			
	540', conglomerate at 543', dip 35°	15' 0" 1		
SANDSTONE,	coarse, broken	51 0" 31	0#	5551 0"

J.M. Black

Asst. Mining Engineer

LOG OF #5. D.D.H. MERRITT, B.C.

SHALE, sandy, few coal partings, dip 50	81	0n		-	451'	0"
SANDSTONE, light and dark, medium and fine grain		~ *	~ •	. .		~ *
few shaly beds, dip 5-20°					470	
SHALE, sandy, many leaf impressions, dip 10°	61	0"		3"	4761	0"
SHALE, few sandy beds, many coal partings two					_	
1" seams coal, broken and slickensided	- 51	0#	21	0"	481'	0"
SHALE, and coal borken, probable loss of coal						
51 - 61	91	0"	71	0"	4901	0"
SANDSTONE, medium grain, few shale beds	51	0# 0#	•	3#	4931	0"
SHALE, sandy, much broken	21	6#		-	4951	6"
SANDSTONE, fine grained, broken	31	0n		311	4981	6#
SHALE, dark	í'	0"		-	4991	6"
SANDSTONE, dark and light, fine grained, thin						
bedded, broken, dips to 35°	41	6"		3#	504	0"
SANDSTONE, grey, massive, medium grained	41	61		-	4081	6"
SANDSTONE, thin bedded, fine grained, dip 25°	41	6"			5131	
SHALE, sandy		61			5151	
SaNDSTONE, dark, fine grained, some shale beds,		-				
broken	41	6#			5201	0 n

J.M. Black

Asst. Mining Engineer

29 July 46

LCG OF DRILL HOLE #5. MERRITT, B.C.

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				3107	6#
	21	0#	-	73.04	
SHALE, grey	21	6"		3161	
SHALE, grey, broken, little mud	- 21	0"	2		
SHALE, sandy, coal partings 317'	T .	0	-	317"	0"
SANDSTONE, shaly, fine grain, dip 5-10° few coal		<i>/</i>		7001	<i>(</i> n
partings	12*		+	329!	
SANDSTONE, light, medium grained		0"		3361	
SANDSTONE, light, medium grained SANDSTONE, shaly, dip 15	41	0"	-	3401	6#
SANDSTONE, light and dark, medium and fine grain,					
dip 120		0"	-	3421	
SHALE, sandy, coal partings 344'	21	6#	3#	3451	0#
SANDSTONE, fine and medium		6#		3461	6#
SANDSTONE, light, massive coarse, very coarse				•	
352 - 56	101	61	210"	3571	0#
$\frac{992}{100} = \frac{90}{100}$		0"		3621	0 ⁿ
SHALE, sandy, dip 10°	51	0n		3641	
SANDSTONE, few shaly beas, fine grained	21	6"	- 2 H	3671	6.11
SANDSTONE, coarse, lowest 6" fine grained	2.	0"	2.0		
SANDSTONE, light, coarse massive, dip 13°	27	0	0"	394	
SANDSTONE, light, coarse massive		61		403	
SANDSTONE, shaly		0*		4051	
SANDSTONE, shaly, poorly sorted, few coal patting		0"		4121	
SHALE, with abundant coal partings	1'	6#			
COAL, (2 ⁺ bone 2 seams), dip 13 ⁰		6#		415	
COAL, (5" bone 5 seams)	21	0"		417'	0"
COAL, (1" bone 1 seam)	21	0"	9"	4191	0"
COAL, (4" bone 3 seams)	21	0#	1' 3"	421	0"
SHALE, with abundant coal partings 2" coal		0"		4231	
SANDSTONE, shaly, dip 10°		0Ħ			
CONGLOMERATE, few sandy beds, very coarse at base				4411	
UNWILDMERALE, IEW Sandy Doub, Very coalse at Dase	- <u>_</u> i+	31	-		Ó#
SHALE, black, fissile, broken, few coal partings	- -	/	_	77/	~

J.M. Black

Asst. Mining Engineer

27 July 46

51	0#		-	2891	0"
Ļ٢.	9*		3"	2931	9*
L†	311		-	2951	<u>Он</u>
31	6"	11	0"	2981	6"
ʆ.	01			3021	6"
				2	
51	6"		6"	3061	011
				•	
L1 -	6"		6"	310'	6"
FL3F 5	7 T T T	1 9 n 1 9 n 1 3 n 1 6 n 1 0 n 1 0 n 1 6 n 1 6 n 1 6 n 1 6 n 1 6 n	1 911 1 311 1 611 11 1 011 1 611	1 91 31 1 31 - 1 61 11 1 01 - 1 61 61	1 9" 3" 2931 1 3" 2951 1 3" 2951 1 6" 11 0" 2981 1 0" 2981 3021 1 6" 6" 3061

J.M. Black

Asst. Mining Engineer

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25 July 46

Elevation 1975', approximately 471' N 28° W from Hole #1. Started July 18, 1946.

Clay and boulders

1781

	Thickness	Core <u>Missing</u>	Depth
SANDSTONE, light, medium to course			
grain dip 10 ⁰ , few shaly beds	41 01		1827 0"
SANDSTONE, light, medium to course,	4 • 0 ··		102. 0.
massive, getting shaly			
towards base	81 01		190' 0"
SHALE, dark, many coal partings,			
some pyrite 9") COAL. 4")	21 01	11"	1001 08
COAL, 4") SHALE, with many coal partings	2 · 0"	T T	192† 0" 1 92† 6"
COAL, with little shale	61	-	1931 0
SHALE, with many coal partings	4"	-	1931 4"
SHALE, dark grey with few coal paris		8"	2001 0"
SHALE, mud, and coal particles	21 0"	11 6#	2021 0"
SHALE, dark grey, few coal partings	,		
few sendy beds, dip 5° - 10°	51 01	3"	2071 0"
SHALE, dark grey	21 3"	-	2091 31
SANDSTONE, light, medium to fine gra	ain,	(m	
massive, shaly at 212'.	71 91	6 ⁿ	217 0"
SANDSTONE, light, medium grain	9† 0"	6"	2261 0"
SANDSTONE, light massive, medium to course	10'2"	-	236 2"
SHALE, dark grey, few coal partings	10.5	-	290.2
sandy towards base	4! 10"	3#	2411 0"
SANDSTONE, light, medium grained, fer			
shale beds	31 0"	-	244 [†] 0"
SHALE, dark grey	21 0#	3"	2461 0"
SHALE, dark grey mud seam 249' 6"	41 6"	3"	2501 6"
SANDSTONF, light grey, fine-medium			
grain, massive	51 6"	-	256" 0"
SANDSTONE, light and dark, few shale) (H		
beds dip 10°	51 61	***	261 6"
SHALE, dark and medium grey, few same beds, dip 0° - 20°	141 6"	6"	2761 0"
SHALE, dark, broken at 277'	21 61	-	2781 6"
MUD, shale, coal	1' 0"	6"	279 6
SHALE, dark	31 6"	-	2831 0"
	e =		-

PROGRESS REPORT, MERRITT D.D.H. #5, July 29-30

July 29

Morning shift Afternoon Graveyard Coring to 530 Coring to 550 Reaming out to 550

<u>July 30</u>

Morning shift to 10 a.m.

555

J.M. Black

Asst. Mining Engineer

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PROGRESS REPORT, MERRITT D.D.H. #5. July 27-29

July 27

Morning shift Afternoon Graveyard

Morning shift Afternoon Graveyard Coring to 451 Coring to 470 Coring to 481

Coring to 493 Coring to 503 Coring to 513

July 29

July 28

Morning to 10 s.m.

Coring to 520

J.M. Black

Asst. Mining Engineer

PROGRESS REPORT MERRITT D.D.H. #5. July 25-27

July 25

Morning shift Afternoon Graveyard Coring to 327 Coring to 357 Coring to 374

July 26

Morning shift Afternoon Graveyard Coring to 395 Coring to 417 Coring to 439

July 27

Morning to 10 a.m.

Coring to 443

J.M. Black

Asst. Mining Engineer

PROGRESS REPORT MERRITT D.D.H. #5, July 23-25

July 23

Morning shift: Afternoon Graveyard

Coring to 194 Coring to 217 Coring to 246

July 24

Morning shift Afternoon Graveyard Coring to 266 Coring to 283 Coring to 302

July 25

Morning to noon

Coring to 311

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J.M. Black Asst. Min. Engr.

PROGRESS REPORT MERRITT D.D.H. #5. July 17 - 23.

July 17

Setting up.

<u>July 18</u>

Till 2 p.m. completing set up.	
Afternoon shift	Casing to 30
Graveyard shift	Casing to 60

July 19

Morning shift Afternoon shift Casing to 80 Casing to 110

Casing to 140

July 20

Morning shift Afternoon not drilling

July 21

Morning not drilling Afternoon shift

Casing to 160

July 22

Morning shift Afternoon shift Casing to 170 Casing to 175 Bedrock 178

July 23

Morning to noon

Coring to 182

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J.M. Black

Asst. Mining Engineer

SHALE, grey, sandy, cross-bedded sandstone streaks	21	6 ^Ħ	726 8"	
SHALE, black, compact	1*	4"	728 0"	
SHALE, grey, sendy, with sand lenses		6"	746* 6*	
SANDSTONE, shaly, shale streaks dipping at high angles,		-		
vertical channeling	19'	6 n	7661 0*	
SHALE, sandy, with sand streaks	71	0*	773' 0"	
SANDSTONE, grey, poorly sized, with shaly streaks	•	-	•	
dipping at high angles	29	0"	802 0*	
SHALE, grey, sendy		8"	804' 8"	
SANDSTONE, shaly streaks at high angles		4.11	811 0"	
SANDSTONE, light grey, coarse, poorly sorted		9"	813' 9"	
SHALE, grey, sandy		8"	820 0 0*	
SANDSTONE, light grey, coarse		Ő n	8231 0*	
CONGLOMERATE, med, to coarse, with few sand lenses	26 !	0"	849 0"	
SANDSTONE, grey, coarse, cross-bedded	6 †	0"	857* 0"	
LE, black, coal marks	21		8591 07	
SHALE, black, coal marks and soft black mud	4'	0")		
OOAL	0!	6")	862* 6"	
SHALE, dark grey, compact		67	8791 0"	
SHALE, grey, sandy	4'		883' 0"	
SHALE, dark grey, compact		0"	888* 0*	
SHALE, grey, sandy, with sand streaks		0"	890! 0"	
SANDSTONE, coarse, cross-bedded, shale streaks		0 **	8931 0"	
SHALE, dark grey, fractured	71	07	9001 01	

Remainder of log is on file at Victoria

"Wm. H. White"

Assoc. Mining Engineer

10/Mar/46

SANDSTONE, fine grained 1 6" 375 0" CONGLOMERATE, fine 0* 8* 375* 8" 1 0" SANDSTONE, fine grained 376 8" 21 0" SHALE, light grey, sandy 378 8" 71 4" SANDSTONE, light grey, coarse, few shaly streaks 450 0" 11' SHALE, dark grey, sundy, sand streaks, coal marks 51 " 461' 51" 31 <u>3</u>[" COAL, with 12" shale parting 464 9 SHALE, dark grey, coal streaks 11 74* 466 43 # . i.e. 1* <u> 20 I</u> <u>103"</u> 468 3" Cel 1 SHALE 01 3# 468 6# shale <u>5</u>† COAL, with 2" shale parting 474 4" 10" cort -01 SHALE, black 97 475' 1" stab Q* 4" 475 COAL 3" Copl 0 SHALE, black 4" 475 8" 01 9" 476 5" COAL SHALE, black 476 61 " 64 01 12" \mathcal{O} 01 2¥" 476 19" 5 9* SHALE, black, coal marks and several 1" coal seams 1" 485' 10" 0* 4861 8" COAL 10" 1 SHALE, black, coal marks 6* 488 2" 1' 6" COAL, boney 489 8" 01 SHALE, black, coal streaks 11 490 8* 491' 4" 01 8" COAL 10 SHALE, black, fissile, leaf molds, coal marks 8" 502 0" ~ <u>0'</u> 6" 502 6" COAL 5071 0" 41.6" SHALE, grey, somewhat sandy 1' 0" SANDSTONE, coarse, poorly sorted 508 0" SHALE, dark grey to black, fractured and sheared 7 0" 515 0" SANDSTONE, grey, med, grained with shaly and fine 321 6" 547 6" sand streaks. Dip 18° 3' 0" SHALE, black, coal marks 550' 6" 4' 10" 555' 4" COAL SHALE, black 556 6" 1' 2" 4' <u>561'</u> 0" 6" OL. some boney streaks 61 0 " SHALE, black, fissile, coal marks, leaf molds 0# 567 61 573' 0" ANDSTONE, shaly 0# SANDSTONE, light grey, medium grained with a few coarse 701 0" streaks, carbonized twigs 643' 0" 31 6" 646' 6" SHALE, black, compact, coal marks 4 COAL, in part boney 0" 650' 6" SHALE, black, coal streaks 1' 6521 0" 6" 01 652' 10" 10" COAL, boney 31 6561 07 SHALE, dark grey, sandy, fractured 2# 657* 6* 1' 6" SANDSTONE, dark grey, shaly SHALE, grey, sandy, with many sand lenses, much fr ctured and high core loss 9' 6" 667' 0" 21 0" SANDSTONE, coarse, poorly sorted 669' 0" 0" SHALE, dark grey, sandy, fractured /91 688 0" 10' SANDSTONE, grey shaly 0" 698 0" Dip 100 10* 0" 708' 0" SANDSTONE, grey, coarse SANDSTONE, med. to fine grained with shaly streaks 31 711* 10* 10" 61 718' 0" SHALE, dark grey, with sandy streak 2" 31 8" 721' 8" SANDSTONE, shaly streaks . DIP 8º 2' 6" 724 2" SHALE, black, fractured

72.2

Merritt Diamond Drilling

Log of hole #1

(Located on NW quarter Sec. 14, Tp. 91, 378' N 35⁰ E from Diamond Vale Hole #11) (Elevation 1986')

Boulder lay	102*		102'	0"
SANDSTONE, grey, med. to coarse grain, with shaly				•
streaks	14	0"	116'	0"
		6"	122'	
SHALE, dark, sandy		0"	127'	
SANDSTONE, very coarse, poorly sorted, shalp streaks		6"		
SHALE, grey, sondy			131	
SANDSTONE, grey, coarse, coal marks	21		133	
COAL, bony	-	10"	134	
SHALE, dark, fissile, coal marks	I	-	136	
SANDSTONE, grey coarse, some fine sand and shaly streaks		0"	147	
ALE, black, leaf molds, few sandy streaks		0"	156	
WINDSTONE, shaly, finely bedded		6"	158'	
SHALE, dark to black, coal marks		0"	161'	
SHALE, dark, sandy	1'	0"	162'	8"
SADDSTOVE, med. grain, with few shaly streaks		8"	167'	4"
SHALE, sandy, grey	21	67	169'	10"
SANDSTONE, med. grain, shaly streaks, coal marks		2"	1731	
SHALE, black, coal marks, much fractured	71		180'	
SANDSTONE, light grey, coarse		8"	183'	
SHALE, grey, sandy		6"	189'	
SANDSTOLE, grey, coarse, poorly sorted		10"	2001	
SHALE, dark grey, slightly sondy <u>Dip 250</u>		ō"	209'	
SANDSTONE, shaly Dip 150		6"	213'	
		6"	220*	
SHALE, dark grey, sandy, fractured	0.	0	220.	0
SANDSTONE, med. to coarse, poorly sorted, few fine sand	101	0.11	0201	
and shaly streaks		0"	239	-
SHALE, black, compact, leaf molds		6"	252	
<u>0041</u>		8"	253*	
SHALE, black, much fractured		10"		
MDSTONE, fine grain, shaly Dip 140		0"	266 '	0"
MANDSTONE, very coarse poorly sorted with some irregular	_			
fine conglomerate bands, Abrupt contact below		0"	280	
SHALE, black, fractured	3		283*	
COAL	01	4출"	283†	
SHALE, black, fissile, leaf molds	31	-	292	
SANDSTONE, med. to fine grained, somewhat shaly	81	0"	300*	6 "
SHALE, dark, fractured	4'	0"	304'	6*
SANDSTONE, grey, shaly, coal marks	31	0"	3071	6"
SHALE, grey to black, fractured, 🚽 coal seam	61	6"	314'	0"
SANDSTONE, shaly, dark grey	4"	6 "	318'	
SANDSTONE, light grey, coarse, poorly sorted, irregular				
conglomerate streaks	12*	0"	330	67
CONGLOMERATE, fine		9"	331'	
SANDSTONE, light grey, coarse, friable, poorly sorted		ŏ"	3581	
SHALE, dark, sandy, with fine sand streaks Dip 14		9"	364'	
SAUDSTOPH anow modium angined shely streaks		ő"	368'	
SANDSTONE, grey, medium grained, shaly streaks		v	000	U U
CONGLOMERATE, fine, with coarse sand streaks and 2"	F	0.11	7777	a #
streak of sandy shale	5'	0"	373	0
				L
			61	
			VI	
		•	-	
			-	

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Log of Merritt Drill hole #1 - 964'-995'

Breccia, fragments of	shale and vol-					
•	canics	4'	0"	-	968'	07
Conglomerate, soft, mu	ddy, coaly shale					
	streaks	1'	8"	-	9691	87
Breccia, large volcani	c fragments with					
		61	4"	-	976*	0"
		21	0"		9781	0"
	ritic	7*	0"	5	9851	077
Greenstone, fine-grain	ed. somewhat					
brecciated	•	31	6"		988*	6"
Shale, compact, indurs	ted	1'	0"		9891	6 "
·	ritic	5*	6"		995'	0 "
Breccia, large volcani muddy cement. Rock Felsite, light grey, f Greenstone, fine-grain chlo Greenstone, fine-grain	streaks c fragments with soft and friable ine grained. dark green, writic ded, somewhat ted somewhat porphy-	61 21 71 31 11	4." 0" 0" 6"	•	976* 978* 985* 988* 989*	0" 0" 6"

END OF HOLE #1

•

"Wm. H. White"

William H. White Assoc. Mining Engineer

MERRITT DRILL HOLE #1 - LOG 924' to 964!

SHALE, grey, badly fractures Abrupt, Irregular Contact, Dip 350	31	4"	1'	27	927† 4"
SANDSTONE, grey, fine even-grained	01	-8"			9261 0"
SANDSTONE, grey, fine even-grained,		- 1			anat at
Scattered grains of sulphide		0"	1*	9"	<u>932 ° 0 "</u>
SHALE, grey, compact, somewhat sandy		11"			932 11
SANDSTONE, grey, fine even-grained. Dip 290	-	1"			933' 0"
SHALE, grey, compact, sandy	31	10"			936* 1 0 "
SHALE, grey, compact, sandy. Fine sand					
streaks Dip 230, Seam of carbonate.		2"			938 0"
SHALE, grey, compact, sandy		11"			938' 11"
SANDSTONE, coarse, poorly sorted	0"	1"			939 * 0 7
SMALE, grey, compact, sandy. Fine sand seams	- •				
Dip 31°	3	0"			942' 0"
SHALE, grey, compact, numerous sand seams					
Dip 290	71		1*	0*	949* 6"
Smalle, dark, badly fractured		6"	-		952 0"
SHALE, black, coal marks, badly sheared	1'	10#	0*	10"	953' 10"
MUD or GOUGE SEAM, containing fragments of					
shale and a 2" seam of crushed COAL	01				954 3"
BRECCIA, coarse fragments, sand cement.	21	9"	01	6"	<u>957' 0"</u>
MUD or GOUGE SEAM, containing fragments of					
breccia and fine flakes of shale	1'	0"			
COAL, about 1" of bony fragments and some		/	- 1 - 1		
coal mud recovered	0'			10"	
MUD or GOUGE SEAM, as above		67			<u>960* 0"</u>
SHALE, ground up, containing some coal fines	0*	10"	0.	4 [#]	960' 10"
DIORITE, medium coarse grained, containing					
biotite and horneblende; Sheared	~ •				
contact with shale dips 45°	01		.		961' 6"
SHALE, dark, badly sheared	0"	6 "	0 *	1"	962° 0"
CONGLOMERATE, poorly sorted with coarse	. +	~ **	~ •	~ **	
sand lenses	21	0"	01	2"	964 0"

Mote: Diorite logged at 961' is thought to be a boulder.

"Wm. H. White"

William 4. White Assoc. Mining Engineer.

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I have checked back over the last hundred feet of Mandy's logging and find it similar to my own, possibly a bit more meticulous. However, there are minor differences. That which he logs as shale is in places arenaceous to the extent that under the glass individual grains can be seen. This material, which is dark, but not black in appearance may be what is referred to as "sandy shale" in the log of hole #11. Mandy's "sandy shale" is that in which sand streaks are quite evident to the naded eye. At present I am logging the slightly arenaceous shale as "Grey" or "dark", reserving the term "black" for the argillaceous shale. Another point: material which Mandy describes as "limey" is that containing patches and stringers of carbonate. In log ing I am following the usual practise of tabulating the core missing in a separate column, where possible assigning the loss to its proper place in the section.

The textural features of these sediments indicates a variable environment of deposition such as would obtain in a periodically flooding river at grade or delta. Cross-bedding, abrupt changes in grain size, poorly sorted sands, abrupt contacts between sandstone and shale, and much evidence of channelling characterize the material. Probably the beds are quite lenticular, and correlation of individual horizons in these lower measures correspondingly difficult.

TrilCl	KNESS		DEPTH	1
· · · · ·		SSING		_
SHALE, dark, soft, slickensided partings, 10'	0" 51	07	910'	0"
carbonate stringers.				
Abrupt irregular contact				
SANDSTONE, light, coarse-grained	4" 1" 5"		910'	4"
SHALE, dark, finely cross-bedded	1"		910'	5*
SANDSTONE, light grey, coarse, cross-bedded	5"		910'	
Cross-bedding dips 700	-			
SHALE, dark with intercalated seams of fine 1'	0"		911'	10"
sand.				
SANDSTONE, light grey, coarse (about 1mm.) 2'	0"	7	913*	10"
with some grains of shale.	-			
Abrupt contact.				
SHALE, black with a few fine-grained sand 1'	2"	7"	915'	0"
streaks interbedded.				
SHALE, black, compact, wavy bedding with				
average dip 45 degrees 3'	5"		918*	5"
			918'	-
COAL, bony, bright partings, friable SHALE, black, much fractured, slickensided 1'	347)	2"	919'	
fragments.	- 4			
SHALE, black with a few sandy streaks and				
wavy bedding dipping about 45 degrees4	2" 21	3"	924'	0"
a state and the second se		-		

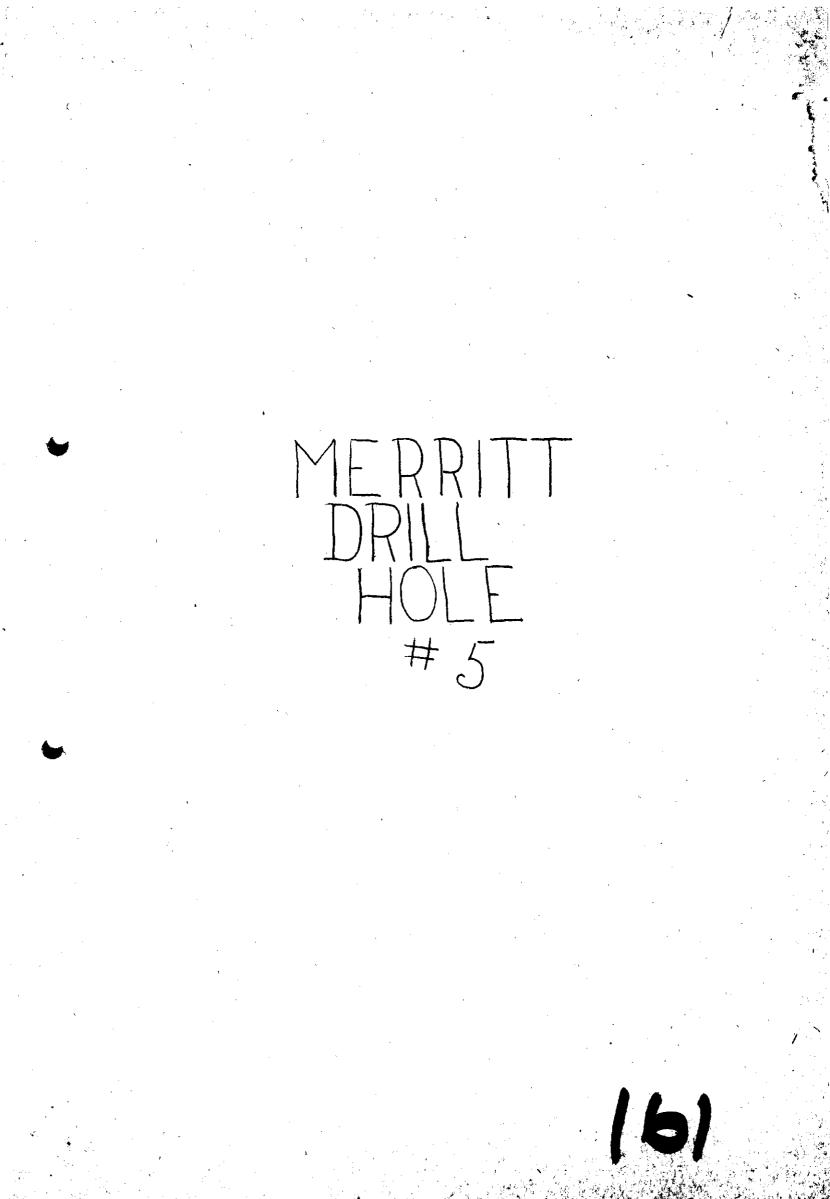
Merritt Diamond-drilling

Log of Hole Mo. 1 cont'd.

Description	Thickness	Depth
Shaly sandstone (shale streaks vertical		
and steep angles cross bedding		
coaly marks, liney, fractured,		
slickensided.)	10 * 0*	<u>811' 0"</u>
Sandstone (coarse; coaly fractures) Actual	2*4*	
Shale (black, pa t sendy, broken,		
coaly marks)	4*2*	
Sundstone (coarse Sandstone to fine		
ao "Stares ave 1	1*0"	<u>821' 0"</u>
Sandstone ("	0*8*	
AGLA NOT PL	217*	
	4.4.	
Conglomerate to breccia (coarse,	612"	831' 0"
dark green, soft) " Conglomerate to bree ia (coarse,	0.2	001. 0
greenish, broken, soft) "	218"	834 0"
Conglomerate to breccia (coarse,	2°0	004 0
greenish, broken, soft) "	1'0"	836 * 0*
Conglomerate (very coarse: soft.	* •	
broken at end; mud seams)	313"	840 0"
Conglomerate "" " " " " "	2'1"	
Mud from conclomerate (bit plugged		
and core probably weshed)	0*4*	850 0"
Sandstone (grey, coarse, fractured,		
slickensided)	4*4*	
Shale (black, broken, fractured		
slichen) "	○*6 *	8 56' 0"
Sandstone (fractured, slicaensided) "	0'11"	
Shale (black, broken)	1*8*	
Shale (muddy, very soft)	1'8"	
Shale (coaly, muddy, very soft)	015"	
Suare (prown, porson, sore)	7,8 .	<u>864° 0"</u>
Note 8º cave in hole from 856 - 864		
And t ickened to remedy this.		
Shale (fairly compact, black, in part	4*8"	869 0"
DF01,C11	610"	008.0
Shale (black, soft, broken) "Shale (black, compact, fracture	0.0	
slic enside)	2 *0"	878' 0"
Shale (black, part sandy, fairly	N V	
compact) "	713"	
Shale (black, broken) "	018"	886 0"
Shale (black, fairly compact,		Contraction of the second second
slickensided) "	316"	
Shale (very soft, broken) "	0'5"	890 ° 0"
Shale (compact in part, in part broken,		
fractured , coaly marks, slic ens)	1 0* 0	900 * 0"
Handed over to w.h. white		

"Joseph T. Jandy" Mining angineer

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Merritt Diemond-Drilling

Log of Hole Ho. 1 (contd)

Description	1ckness	Depth
Sandstone (grey; coal; marks, shale streaks) Bed dip - 120	10' 0"	<u>708 0"</u>
Sandy shale (coaly marks, compact		
sotual 1º 8"	2* 6*(1	7)
Shale (dark, part sandy, coaly streams)		
Actual 3' 2"	5' 6"(?	?)
(Note - grinding in core tube)		
Shale (black; coaly streaks, soft, broken)		• · · • •
Shelv nondetono (grow) " 31 ou	2" 0"(?) <u>718' 0"</u>
and a support (With 1 2 Co	31 9"	
	04 67	
Shale (dark grey, fracture) crushed,	51 0 8	
broken, slicensided) Actual 5' 4"	51 9.1	7.81 0"
	81 0" 91 0"	736 0"
Shale (" " compact) Shale (" " broken)	9' 0" 1' 0"	7451 0"
Sandy shale (sandy pockets; coaly marks; shale	T · 0-	746 0"
streaks vertical and steep angles.		
cross-bedding; limey, fractured		
slic ensided)	10* 0"	756 0"
Shaly sandstone (" " ")	10º 0"	768 04
Shaly sandstone ("""broken)		7681 4"
Shaly sandstone (""""	** *	
Actual 1* 8"	4 8"	7731 0"
Shaly sandstone (" ")	10º 0"	783' 0"
Shaly sandstone ("")	81 01	791 0"
Shaly san stone ("")	41 67	7951 61
Shaly sandstone (" ")	51 67	801 0"

"Joseph T. Mandy" Mining angineer

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Progress Report - Merritt Diamond Drilling

Feb. 22nd. to 24th.

Feb. 22nd: Pulling Casing (Day Shift only - 8 men)

<u>Feb. 23rd</u>: Pulling stand pipe and preparing for move (One shift - 7 men) <u>Feb. 24th</u>: Not working.

William H. White

Assoc. Mining Engineer

Progress Report - Merritt Diamond Drill Hole #1

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Feb. 19th to Feb. 21st.

- Feb. 19th: Night Shift: Cored 964'-968'; 968'-978' Graveyard Shift: Cored 978'-988'
- Feb. 20th: Day Shift: Cored 988'-995' END OF HOLE Night Shift: Pulling rods and casing
- Feb. 21st: Day Shift: Fulling casing (8 men) No night shift.

PROGRESS REPORT, MERRITT D.D. HOLE #1 - Feb. 17th to 19th

Feb. 17th: Night Shift: Cored 924 - 928; 928 - 932. Graveyard : 932 - 942

Feb. 18th: Day Shift : Cored 942 - 952 Night " : " 952 - 957 Graveyard : " 957 - 960

Feb. 19th: Day Shift : Cored 960 - 964; drilling.

Progress is slow due to blocky ground and short pulls, but core recovery is satisfactory.

"Wm. H. White"

William H. White Assoc. Mining Engineer

FINAL PROGRESS REPORT - MERRITT DRILL HOLE #2 - April 15 - 17th

April 15th - Night Shift: 893' to 903'

April 16th - Day Shift : 903' to 913' Night Shift: 913' to 923'

April 17th - Day Shift : 923' to 937' Night Shift: 937' to 944'. Pulled rods in 10's.

HOLE COMPLETED

Assoc. Mining Engineer.

PROGRESS REPORT - MERRITT DRILL HOLE #2 - April 12th to 15th

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April 12th:Night Shift:Cored 831' to 838'April 13th:Day Shift:Cored 838' to 848'April 13th:Day Shift:Cored 848' to 858'April 14th:Day Shift:Cored 858' to 870'April 14th:Day Shift:Cored 858' to 879'April 15th:Day Shift:Cored 879' to 893'

"Wm. H. White"

Assoc. Mining Angineer.

PROGRESS REPORT - MERRITT DRILL HOLE #2

Acril 10th to 12th

April 10th - Night Shift: Cored 764' to 784' Graveyard : Cored 784' to 801' April 11th - Day Shift : Cored 801' to 811' Night Shift: Cored 811' to 818' Graveyard : Not working April 12th - Day Shift : Cored 818' to 831'

Note: Due to labor shortage, work will continue temporarily on a basis of two ton-hour shifts per day.

"Wm. H. White"

Assoc. Minin; angineer

PROGRESS REPORT - MERGITT DRILL HOLE #2 - April 8th to 10th

 April 8th.
 - Night Shift:
 680' to 700'

 Graveyard
 : 70 ' to 716'

 April 9th.
 - Day Shift:
 716' to 726'

 Night Shift:
 726' to 737'

 Graveyard:
 737' to 752'

 April 10th.
 - Day Shift:
 752' to 764'

Assoc. Mining Engineer

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PROGREED REPORT - MERRITT DRILL HOLD #2 - April 7th. - 8th.

April 7th. - Day Shift : Cored 632' to 638' Night Shift : Cored 638' to 647' Graveyard : Cored 647' to 667' April 8th. - Day Shift : Cored 667' to 680'

> "Wm. H. White" Assoc. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE #2 - April 3rd. to 6th.

April	3rd.	-	Night Shift: Graveyard :	Cored Cored			
April	4th.	-	Day Shift : Night Shift: Graveyard :	Cored Cored Cored	510'	to	523'
April	5th.	-	Day Shift : Night Shift: Graveyard :	Cored Cored Cored	5 53'	to	5681
April	6th.	**	Day Shift : Night Shift: Graveyard :	Cored Cored Cored	593'	to	613'

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"Mm. H. White"

Assoc. Mining Engineer

PROGRESS REPORT - ERRITT DRILL HOLE #2 - April 1st. to 3 rd.

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April 1st	Day Shift: Nicht Shift:	Cored 387' to 405' Cored 405' to 426'	
April 2nd		Cored 426' to 430' Mixed fresh mud, Cored 430' to 436' Cored 436' to 456'	•
April 3rd	Day Shift:	Jored 456' to 472'	

"W.H. White"

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Assoc. Lining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE #2 - Mar. 30th to Mar. 31st.

- Mar. 30th : Day Shift: Cored 326' to 346' Night Shift: Cored 346' to 375'
- Mar. 31st: Day Shift: Cored 375' to 387' Night Shift: Not working

"Wm. H. White" Assoc. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE #2 - 27th Mar. to 29th Mar.

Mar. 27th - Night Shift: Cored 253' to 274'
Mar. 28th - Day Shift: Cored 274' to 289'
Night Shift: Cored 289' to 295' (Got rods stuck in hole)
Mar. 29th - Day Shift: Cored 296' to 302' (Pump trouble remedied)
Night Shift: Cored 302' to 326'

"Wm. H. White" Assoc. Mining Engineer.

PROGRESS REPORT - MERRITT DRILL HOLE #2 - Mar. 25th to Mar. 27th.

Mar. 25th - Day Shift: Pulled casing and confirmed BEDROCK at 203* Drove pipe to 203*.

> Nicht Shift: Drilled casing down to 213' in loose and broken sandstone.

Mar. 26th - Day Shift: Cored 211 - 217'. Rearranged drilling setup.

> Night Shift: Setting up equipment for using mud. Cored 217 - 224

Mar. 27th - Day Shift: Cored 224 to 243' up to 6 PM.

Note: Starting Mar. 27th two 12 hour shifts per day will operate.

Assoc. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE #2 - Mar. 20th to Mar. 24th.

Mar. 20th - Day Shift only: Washing sand and gravel out of pipe Drilling casing to 195' in sand and fine gravel.

Mar. 21st - Day Shift: Driving pipe to 193' where it was stopped by a layer of larger boulders.

> Night Shift:Washing sand out of pipe, trying to chop boulders ahead of pipe.

Mar. 22nd - Day Shift: Drilling casing down to 202' in fine sand with large boulders, some of which were shale with coal streaks.

> Night Shift:Attempted to blast thru casing but had a misfire probably due to hole caving and shorting leads when casing was drawn back. Remainder of shift spent chopping out the hole again.

Mar, 23rd - Day Shift: Drove pipe to 198'

Night Shift: Drilled casing ahead to 208^{*}. In the last five feet the ground was hard and smooth with fine grey clayey mud cuttings coming back - indicates either bedrock or a clay hard-pan.

Mar. 24th - Neither shift working.

Note: Progress of 123', from depth 75' to 198' required 24 shifts, exclusive of time wasted on testing Blanc Method.

> Progress of the last 12' required 6 shifts. The slow advance has been due to the hole caving ahead of the pipe and the necessity in consequence of frequent chopping.

"W.H. White"

Assoc. Mining Engineer.

PROGRESS REPORT - MERITT DRILL NOLE #2 - Mar. 15th. to 19 th.

Mar. 15th. - Day Shift of 6 men Installing mud equipment for 'Blanc Method' No progress. Mar. 16t . - Day Shift of 6 men Installing mud equipment and testing 'Blanc Method'. No progress. Mar. 17t . - Day Shift of 5 men Testing 'Blanc Method' No progress. Mar. 18th. - Day Shift of 5 men Most of the day spent removing mud equipment preparing to resume driving operations, and in jaring the pipe losse. During the last two hours of the shift the pipe was driven 2 feet, in ground that had been drilled before the Blanc experiment was made. Mar. 19th. - Day Shift of 5 men

Note: Due to the difficulty of turning the pipe while driving, and the shorta e of crew it is possible only to run one shift per day.

"W.H. White"

Assoc. Mining Engineer.

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Pipe driven to 186' in coarse sand and gravel.

PROGRESS REPORT - MERRITT DRILL HOLE #2 - Mar. 12th to 14th

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Mar. 12th. - Day Shift: Drilled casing to 177 feet. Drilled core barrel down to 181 f et in coarse gravel. Night Shift: Re-threaded 4" casing to be used as standpipe.

Mar. 13th. - Day Shift: demoved all casing; fixed waterline which was frozen; and prepared to resume driving pipe. Night Shift: Not working (3 men off sick)

Mar. 14th. - Day Shift: Drove 4" pipe to 178 feet (4-man crew) Night Shift: Not working.

"Wm. H. White"

Assoc. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE #2 - MAR. 10th and 11th.

Mar. 10th - Day Shift : Drove pipe to 164' in sand. Night Shift: Not working.

Mar. 11th - Day Shift: Drilled casing down to 170' Gravel Drilled core-barrel down to 175' "

Night Shift: Drilled core-barrel down to 177' "

"W.h. White"

Assoc. Mining Engineer.

Merritt Diamond Drill Hole #2

Progress Report - Mar. 7th to Mar. 9th. inclusive

Mar. 7th - Day Shift - Changed pump in forenoon. Drilled to 132' and blasted - boulder clay.
Night Shift - Drove pipe to 132'.
Mar. 8th - Day Shift - Drove pipe to 138' - Boulder clay. Night Shift - Drove pipe to 149' - Boulder clay.
Mar. 9th - Day Shift - Drove pipe to 159' - Material is medium to coarse sand with some pebbles. (7 men required on this shift to turn pipe while driving; the sand seems to bind the pipe)
Night Shift - Not working.

"Wm. H. White"

Assoc. Mining Engineer.

Progress Report - Merritt Drill Hole #2 - March 4th to March 6th.

Mar. 4th. - Day Shift Night " Drove pipe to 76' in clay (depth 75' at noon) " 86' " " " 66' " " "

 Mar. 5th. - Day Shift Night " Drove pipe to 96' in clay and gravel

 Mar. 6th. - Day Shift

 Drove pipe to 116' in clay, some boulders. Drilled to 126' in clay and gravel

 Night " Driving pipe to 126'

"Wm. H. White"

Assoc. Mining Engineer

PROGRESS REPORT of MERRITT DRILL HOLE #2

27/Feb. to 3/March

- 27/Feb. Day Shift: Collared Hole #2 Night Shift: Drove 6" pipe - Depth 30' in clay
 28/Feb. - Day Shift: Driving 4" pipe Night Shift: " - Depth 45' in boulder clay
 1/Mar. - Day Shift: Driving 4" pipe Night Shift: " - Depth 55' in boulders and gravel beds.
 2/Mar. - Day Shift: Driving 4" pipe- Depth 65' in coarse sand Night Shift: No working
 - 3/Mar. Day Shift: Not working Night Shift: Driving 4" pipe

"Wm. H. White" Assoc. Mining Engineer

GRESS REPORT MERRITT D.D.H. No. 4. June 19 - June 24

June 19

Setting up drill.

June 20

Till noon completing set up. Aorning shift: Afternoon shift: Graveyard shift:

June 21

Morning shift: Afternoon shift: Graveyard shift:

June 22

Morning shift:

Afternoon shift: Graveyard shift:

June 23

Morning shift: Afternoon shift: Graveyard shift:

Casing to 15' Casing to 35 Casing to 60

Casing to 90' Jasin to 120 Casing to 150

Casing to 160, lost bit and fished for it till end of saift. Not working Not working

Not working Casing to 170 Casing to 181 - bedrock Coring 181 - 186

June 24

Morning shift noon.

Drilling to 190 had trouble with pump.

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"J.J. Jlack"

sst. dining addinger

29 June 46



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LOG OF DRILL HOLE #5, MERRITT, B.C.

Elevation 1975', approximately 471' N 28° W from Hole #1. Started July 18, 1946.

Clay and boulders

178'

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	Thickne	Core ss <u>Missing</u>	Depth
SANDSTONE, light, medium to coarse grain dip 10°, few shaly beds	4' 0'		182' 0"
SANDSTONE, light, medium to coarse, massive, getting shaly			102 0
towards base SHALE, dark, many coal partings, some pyrite 9")	81 01	-	190' 0"
COAL, 4") SHALE, with many coal partings	2' 0' 6'		192' 0" 192' 6"
COAL, with little shale SHALE, with many coal partings	6' 4'	' -	193' 0" 193' 4"
SHALE, dark grey with few coal partings SHALE, mud, and coal particles	61 87 21 01	' 8"	200 ' 0"
SHALE, dark grey, few coal partings, few sandy beds, dip 5° - 10°	51 01		207 0"
SHALE, dark grey SANDSTONE, light, medium to fine grain,	2' 3'		2091 3"
massive, shaly at 212'. SANDSTONE, light, medium grain	71 91 91 01	•	217' 0" 226' 0"
SANDSTONE, light massive, medium to coarse	10' 2'	-	236 ' 2"
SHALE, dark grey, few coal partings sandy towards base	4' 10	n 3 n	241' 0"
SANDSTONE, light, medium grained, few shale beds	31 01		244' 0"
SHALE, dark grey SHALE, dark grey mud seam 249' 6" SANDSTONE, light grey, fine-medium	2' 0" 4' 6"	+	246' 0" 250' 6"
SANDSTONE, light grey, line-medium grain, massive SANDSTONE, light and dark, few shale	5* 6*	-	256' 0"
beds dip 10° SHALE, dark and medium grey, few sandy	51 61	_	261' 6"
beds, dip 0° - 20° SHALE, dark, broken at 277'	14' 6" 2' 6"	-	2761 0" 2781 6"
MUD, shale, coal SHALE, dark	1' 0" 3' 6"	6*	279' 6" 283' 0"

61	0"	-	289'	0"
41	9#	3"	2931	911
1'	3"	-	295'	07
3'	6 **	l' 0"	298'	6 "
4'	0"	-	302'	67
31	6 11	8 n	306'	0"
4'	6"	6"	310'	6 **
	41 11 31 41 31	6 ° 0 ° 4 ° 9 ° 1 ° 3 ° 3 ° 6 ° 4 ° 0 ° 3 ° 6 ° 3 ° 6 °	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4' 9" 3" 293' 1' 3" - 295' 3' 6" 1' 0" 298' 4' 0" - 302' 3' 6" 8" 306'

J.M. Black

Asst. Mining Engineer

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25 July 46

LOG OF DRILL HOLE #5, MERRITT, B.C.

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				310'	6 **
SHALE, grey - 2	34	0"	-	312	
SHALE, grey, broken, little mud 3	51	6 🖬	3"	316'	0"
SHALE, sandy, coal partings 317'	1	0"	-	317'	0 **
SANDSTONE, shaly, fine grain, dip					
	31	6"	-	329'	6 **
SANDSTONE, light, medium_grained 7	7 1	0 *	6 "	3361	6 "
SANDSTONE, shaly, dip 150 4	Lt.	0"	-	340'	6 "
SANDSTONE, light and dark, medium and					
fine grain, dip 120 2	31	0 "	-	342'	6 **
SHALE, sandy, coal partings 344' 2	31	6 7	3"	345'	0"
	.*	6 "	-	346'	6"
SANDSTONE, light, massive coarse, very coar	se	3			
		6 **	21 01	3571	0"
SHALE, sandy, dip 10° 5	5+	0 "		3621	0 **
	31	0 **	-	364'	0"
SANDSTONE, coarse, lowest 6" fine grained 3	51	6 *	3"	367'	6 *
SANDSTONE, light, coarse massive, dip 13027	1	0#	6 *	394	6 "
		6#		403	0 "
SANDSTONE, shaly 2	31	0#	-	405	0"
SANDSTONE, shaly, poorly sorted, few coal					
partings 7	1	0"	-	412'	0 **
	. *	6 *	-	413'	6#
COAL, $(2\frac{1}{2}$ " bone 2 seams), dip 130 1	-	6"	3"	415'	0 "
	31	0"	6 **	417'	0"
COAL, (1" bone 1 seam) 2	21	0"	9*	419'	0 "
	;+	0"	1' 3"	481'	0#
SHALE, with abundant coal partings 2"					
coal 2	31	0"	9#	4231	0#
SANDSTONE, shaly, dip 10° 1	. †	0"	-	424'	0"
CONGLOMERATE, few sandy beds, very					
coarse at base 17	1	9"	6"	441'	9 n
SHALE, black, fissile, broken, few coal					
partings 1	. *	3"	-	443'	0 "

J.M. Black

Asst. Mining Engineer

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27 July 46

LOG OF #5, D.D.H. MERRITT, B.C.

SHALE, sandy, few coal partings, dip 50	81	0"	-	451'	0#
SANDSTONE, light and dark, medium and fine					
grain few shaly beds, dip 5-200	19'	0#	21 0"	470'	0#
SHALE, sandy, many leaf impressions,					
dip 18 ⁰	61	0 "	3"	476'	0#
SHALE, few sandy beds, many coal partings					
two 1" seams coal, broken and					
slickensided	51	0 "	21 0"	481'	0"
SHALE, and coal broken, probable loss					
of coal 5' - 6'	91	0"	71 0"	490'	0"
SANDSTONE, medium grain, few shale beds	31	0"	3"	4931	+
SHALE, sandy, much broken	21	6"	-	495	
SANDSTONE, fine grained, broken		0#	3"	4981	
SHALE, dark	-	0#	_	499'	
SANDSTONE, dark and light, fine grained,	-	•	•		-
thin bedded, broken, dips to 35°	41	6"	3"	504'	0"
SANDSTONE, grey, massive, medium grained	-	6"	-	508'	-
SANDSTONE, thin bedded, fine grained,	-	•		000	Ŭ
dip 25°	41	6#	-	513'	01
SHALE, sandy		6"	_	515'	-
SANDSTONE, dark, fine grained, some shale	~	0	-	040	0
beds, broken	⊿ †	6#	_	520 '	0#
bods, proven	-1	0	-	000	U

J.M. Black

Asst. Mining Engineer

29 July 46

LOG OF MERRITT D.D.H. #5

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SANDSTONE,	dark and light, thin bedded,	101			SRAT	0.11
CANDOMONIE	upper part broken, dip 300	10'	0"	-	530 '	0"
SANDSIONE,	light and dark broken, dip 25-30°	51	0#	-	5351	0#
SANDSTONE.	light, coarse, massive, fine	U	Ŷ	_	000	v
,	at 540', conglomerate at					
	543', dip 350	15'	-	l' 0"	5 50 '	-
SANDSTONE,	coarse, broken	5*	0 "	31 0"	5551	0#

J.M. Black

Asst. Mining Engineer

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Ended July 30, 1946.

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LOG OF DRILL HOLE #5, MERRITT, B.C.

Elevation 1975', approximately 471' N 28° V from Hole #1. Started July 18, 1946.

Clay and bould rs

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178*

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	Thickn	Core ess <u>Missing</u>	Depth
SANDSTONE, light, medium to coarse			
grain dip 10°, few shaly beds	4'0	11 	182' 0"
SANDSTONE, light, medium to coarse,			
massive, getting shaly towards base	8' 0		190 ' 0 "
SHALE, dark, many coal partings,			200 0
some pyrite 9")			
COAL, 4")	21 0		192' 0"
SHALE, with many coal partings	6	·r 🗕	192' 6"
COAL, with little shale	6		193' 0"
SHALE, with many coal partings	4		193' 4"
SHALE, dark grey with few coal partings	618		200 0"
SHALE, mud, and coal particles	21 0	" 1'6"	2021 0"
SHALE, dark grey, few coal partings,			
few sandy beds, dip 50 - 100	51 0	-	2071 0"
SHALE, dark grey	2' 3	11	2091 3"
SANDSTONE, light, medium to fine grain,			
massive, shaly at 212'.	719	" 6"	217' 0"
SANDSTONE, light, medium grain	9' 0	" 6"	226 ° 0"
SANDSTONE, light massive, medium to			
coarse	10' 2	ff	236' 2"
SHALE, dark grey, few coal partings			
sandy towards base	4'1	0" 3"	241' 0"
SANDSTONE, light, medium grained, few			
shale beds	3'0	17 🕳	244' 0"
SHALE, dark grey	21 0	n 3"	246 0"
SHALE, dark grey mud seam 249' 6"	4 6		250 6"
SANDSTONE, light grey, fine-medium		-	
grain, massive	516	**	256 0"
SANDSTONE, light and dark, few shale			
beds dip 10°	5' 6	m _	261' 6"
SHALE, dark and medium Grey, few sandy	•••		
beds, dip 0° - 20°	14' 6	" 6"	276' 0"
SHALE, dark, broken at 277'	216		278 6"
MUD, shale, coal	ĩ' 0		279' 6"
SHALE, dark	31 6		2831 0"
and an approximately a second se	~ ~	-	

SHALE, medium to dark grey, fractured SANDSTONE, dark and light, medium to	61	0"	•	289* 0"
fine grain, dip 250	4 •	9 11	3"	2931 9"
SHALE, dark	1*	3"	-	2951 0"
SANDSTONE, medium grain thin bedded	31	6 "	1* 0"	2981 6"
SANDSTONE, coarse, massive	41	0"	-	3021 6"
SANDSTONE, grey, medium to fine grain				
broken at 503' 6", dip 30°	31	6 "	6 "	306* 0*
SHALE, dark grey some sandy beds coal				
partings at 306' 6"	4	6"	6"	310† 6"

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				310*	6"
SHALE, grey	21	0"	-	312*	
SHALE, grey, broken, little mud		ő #	3"	316'	
SHALE, sandy, coal partings 317'		0"	-	317*	
SADDSTONE, shaly, fine grain, dip	-	•••			·
5-10° few coal partings	12'	6 "	-	329'	6 "
SANDSTONE, light, medium grained		0"	6*	3361	
SANDSTONE, shaly, dip 150		õ"	-	340'	
SANDSTONE, light and dark, medium and	-	·		.	•
fine grain, dip 120	21	0"	-	342*	67
SHALE, sandy, coal partings 344		6 7	3"	345'	
SANDSTONE, fine and medium		6"	-	346'	
SANDSTONE, light, massive coarse, very	coars	e			-
352 - 56	10*		21 07	357*	0"
SHALE, sandy, dip 10 ⁰		Ō "		3621	
SANDSTONE, few shaly beds, fine grained	21		-	3641	-
SANDSTUNE, coarse, lowest 6" fine graine	ed 3'	6*	3"	367*	67
SANDSTONE, light, coarse massive, dip 13	30271	0"	6*	394*	
SANDSTONE, light, coarse massive	8*	6#	-	403	0"
SANDSTONE, shaly	21	0"	-	405	0.11
SANDSTONE, shaly, poorly sorted, few cos	1				
partings	71	0"	-	412	0"
SHALE, with abundant coal partings	1'	6*	+	413*	6"
COAL, (2 ¹) bone 2 seams), dip 13 ⁰	1,	6"	3*	415*	0*
COAL, (5 ^m bone 5 seams)		0"	6 "	417	0"
COAL, (1" bone 1 seam)		0"	9"	419'	0"
COAL, (4" bone 3 seams)	21	0"	1' 3"	421'	0"
SHALE, with abundant coal partings 2"					
coal		0"	9"	423	0"
SAMDSTONE, shaly, dip 10°	1'	0 **	-	424	0 "
CONGLOME CATE, few sandy beds, very					
coarse at base	17"	9"	6"	441	9 m
SHALE, black, fissile, broken, few coal					
partings	1'	3"	*	4 43 *	0 "

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LOG OF #5. D.D.H. MERRITT, B.C.

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SHALE, sandy, few coal partings, dip 50	81	0"	-	45 1' 0"
SANDSTONE, light and dark, medium and fine) 191	01	21 07	470 * 0*
	La.	0	200	#10* V
SHALE, sandy, many leaf impressions, dip 18°	61	0"	3*	4761 0"
SHALE, few sandy beds, many coal partings		-		
two 1" seams coal, broken and				
slickensided	51	0"	2* 0"	481 ' 0"
SHALE, and coal broken, probable loss	- 4			
of coal 5' - 6'		0"	7* 0*	490 0"
SANDSTONE, medium grain, few shale beds	31	0"	3"	4931 0"
SHALE, sandy, much broken	2*	6"		495 6"
SAMDSTONE, fine grained, broken	3†	0.**	3"	498 6"
SHALE. dark	1*	0"	-	499 6"
SANDSTONE, dark and light, fine grained,				
thin bedded, broken, dips to 35°	4 !	6"	3"	504* 0*
SANDSTONE, grey, massive, nedium grained		6"	-	5081 6"
SANDSTONE, thin bedded, fine grained,	-	5		
dip 25°	1	67	-	513' 0"
		67	_	515 6"
SHALE, sandy	6 1	0	-	
SANDSTONE, dark, fine crained, some shale	a t	6 "	-	520 * 0 *
beds, broken	*	0	-	000 0

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LOG OF MERRITT D.D.H. #5

SANDSTONE,	dark and light, thin bedded, upper part broken, dip 30°	10†	07	-	530 *	01
SANDSTONE.	light and dark broken, dip		•			•
······································	25-300	5*	0"	-	535'	0"
SANDSTONE,	light, coarse, massive, fine					
	at 540', conglomerate at					
	543', dip 350	15*	07	1' 0"	550 *	
S JIDSTONE,	coarse, broken	51	0	31 07	5551	0"

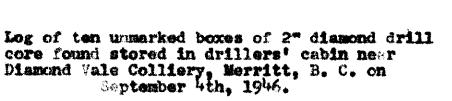
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Ended July 30, 1946.

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Material,	Thickness. Ft. Ins.	Pept Ft. 210	
Gray shale	5 0.	215	
Course white sandstone		219	
Gray shale		225	
Fine white sandstone		234	
Dark gray shale		236	
Interbedded shale and sandstone	13 6.	250	
Course white sandstone	6 0.	256	
Dark gray shale		270	
Coal		270	
Gray shale	1 8.	272	
Interbedded shale and sandstone		275	
Dark shale	•••• 5 0.	280	
Dark and light gray shale	1 0.	281	
Course sandstone and fins conglomera		315	
bark gray shale	11 0.	326	4
Interbodded light and dark gray shal	e11 0.	337	(
Black shale	3 0.	340	Ç
Black shale intermixed with dirty co		342	E O
Black shale with fine coal streaks		347	0
Gray shale		348	0,
Dark shale		356	O.
Gray shale		358	G
Dark shale		359	6.
Course white sandstone		404	0.
Fine to medium, white conglomerate		448	0.
Course to medium grain sandstone Coal		450	2.
Gray and black shale	•••• 1 3.	+20 4⊴2	.
Goal		- 453 -	2
"Bone"		223	5.)
Coalessa			<u> </u>
"Bone" and dirty coal		455	11 COAL
Coal		153 155 155 155 155	I. SEAM
"Bone"		458	31
Coal		459	្ឋី ។
Coaly shale			ŏ.
Dark shale	5 0.	469	ö.
Mark in core boxFINIS		~ <i>•</i>	-

"No. 6 Hole J.P.N."

Thickness	Depth of Bottom	
4.0"	4641 91	COAL
21 10m	467 7	Dark sandy shale
<u>1' 43</u> *	<u>468 113</u>	* COAL
3#	469* 25*	COAL, boney
21 45*	<u>471 7*</u>	COAL
2"	471 9"	COAL, boney
4"	472 1*	COAL

Thin coal layers in shale from 482' 11" to 494' 3"

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61 5*	616' 9"	COAL
6*	617* 3*	COAL, boney
61 31	623* 6*	COAL

1' 10"	706 7*	COAL
2"	706 9*	COAL, boney
9*	707* 6*	COAL

¥

Th ickness	Depth to Bottom	
31 31"		COAL, with 14" shale parting
$\frac{1}{1}, \frac{1}{10}, \frac{1}{$	466 42."	
1 109	468* 3*	
V* 3"	468 6	
<u>5" 10"</u>	474+ 4**	COAL. with 2" shale parting Thin coal layers in shale to 502; 6" depth.
41 107	5551 4"	COAL
1 2"	556 6"	
41 6=	561' 0"	COAL, some boney streaks
41 O#		COAL. in part boney
1' 6*	652 0"	
0' 10"		COAL, boney
3* 2*	6561 0"	SHALE, dark grey, sandy, fractured

MERRITT DRILL HOLE #2

21	8=	6541	<u>0"</u>	COAL.	bright.	hard.	with t	WO-Way	cleat	
01	4#	6541	4*	COAL						
0	3*	6541	7*	SHALE						
01	3*	654	10*	COAL						
0	1"	654	11"	SHALE						
01	3"	6551	24	COAL						
0	2*	655	414	SHALE						
1'	8"	6571	0"	COAL.	bright.	hard.	narrov	streal	rs of bone	
01	9"	657'	91	SHALE,	grey,	sandy				
21	2*	659*	11 ⁿ	COAL.	boney.	with nu	merous	t in s	streaks of	shale

MERRITT DRILL HOLE #4

.

] †	0"	367' 3" COAL
—	0" 4*	368' 7" SHALE. dark with coal partings
31	3"	371' 10" COAL
	3"	372' 1" SHALE, boney 372' 4" COAL
	2*	372' 4" COAL 372' 5" SHALE, boney
4+	6*	377' O" COAL, 4 shaly seams totalling 6"
21	0*	459 On COAL, and boney shale. (5" coal core, 1'3" core
		missing)
<u>1'</u>	10"	460' 10" COAL, and shale, (4" coal 8" shale core, 10" core missing)
		161

hickness	Depth of Bottom	
4.0*	464+ 9"	COAL
2' 10"	467 7	Dark sandy shale
1 43	468 11	S" COAL
3#	469 24	COAL, boney
21 4.	471 7	COAL
2*	471 9"	COAL, boney
411	472 1*	

Thin coal layers in shale from 482' 11" to 494' 3"

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61 5*	6161	9#	COAL
6*	617	34	COAL, boney
61 31	623* (6*	COAL

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<u>1" 10"</u>	706 7*	COAL
2"	706 9*	COAL. boney
91	707* 6*	COAL

MEHRITT DRILL HOLE

Thiokness	Depth to Bottom	
31 3àn	4641 9"	COAL, with 12" shale parting
1 74	466V 45"	SHALE, dark grey, coal streaks
1º 10à"	4681 3	COAL
01 3*	4681 6"	SHALE
5* 10*	474* 4*	COAL, with 2" shale parting
		Thin coal layers in shale to 502 * 6" depth.
4* 10*	5551 4"	COAL
14 54	5561 6"	
41 6*	561 * 0*	COAL, some boney streaks
41 0"	6501 6*	COAL. in part boney
11. 64	6521 0*	
0* 10*	652* 10*	COAL boney
31 2"	656* 0*	SIMLE, dark grey, sandy, fractured
•		MERRITT DRILL HOLE 2
21 8"	6541 O"	COaL bright, hard, with two-way cleat
OT 4*	654* 4*	COAL,
01 3"	654 7"	SHALE B
01 31	654ª 10ª	COAL
<u>61 14</u>	654* 11*	
01 3"	6551 2"	COAL
01 2"	6551 4"	
11 8"	6571 0"	COAL, bright, hard, narrow streaks of bone
01 9#	6571 91	SHALE, grey, sandy
21 2"	6591 11"	
21 2"		COAL, boney, with numerous thin streaks of shale

MECHITT DRILL HOLE #4

11	0"	3671	3"	C0/L
17	4 ⁿ	3681	70	SHALE, dark with coal partings
- 21	3"	3711	10"	
•	3"	372*	1"	SHALE, boney
	<u>311</u> 911	3721	and the second s	<u>C0/,L</u>
	2"	372	64	SHULE, boney
<u>41</u>	0"	217	0"	CO/L. 4 shaly seems totalling 6"

2 0" 459 0" COAL and boney shale. (5" coal core, 1'3" core missing) 1 10" 460 10" COAL, and shale, (4" coal 8" shale core, 10" core missing)

Thiokness	Depth Botte	of L		
41 0*	464*	9"	COAL	
51 10 ⁴	4671	70		sandy shale
1 48"	4681	il."	COAL	
311	4691	2:4"	COAL.	boney
21 44	471 *	7*	COAL	•
2**	471	911	COAL.	boney
4*	4721	74	COAL	n -

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Thin coal layers in shale from 482' 11" to 494' 3"

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61 51	616 •	9*	COAL	
6*	617	3*	and the second se	boney
61 39	6231	6*	COAL	

1 10"	7061	7"	CO/(L	
2*	706	9#	COAL.	boney
	707	6"	CO/T	

ć

Th ickness	Depth to Bottom	
3' 3 ¹ / ₃ " 1' 7 ¹ / ₂ " 1' 10 ¹ / ₃ " 0' 3" 5' 10"	466* 4 5 * 468* 3* 468* 6*	COAL
41 101 11 21 41 67	5551 4* 5561 6* 5611 0"	SHALE, black
41 08 11 68 01 108 31 28	652' 0" 652' 10*	<u>COAL. in part boney</u> SHALE, black, coal streaks <u>COAL. boney</u> SHALE, dark grey, sandy, fractured

MERRITT DRILL HOLE #2

21	8*	6541 0"	COAL.	bright, hard, with two-way cleat
0*	4#	6541 4#	COAL	
01	3*	6541 7*	SHALE	r
<u> </u>	3*	654 10	COAL	
01	1*	6541 11	" SHALE	
<u>0†</u>	3"	6551 2"	COAL	
01		65 51 4"	SHATE	
<u>1'</u>	81	<u> </u>	COAL,	bright, hard, narrow streaks of bone
01	9"	6571 9"	SHALE,	, grey, sandy
<u>21</u>	2*	659 11	" COAL	boney, with numerous thin streaks of shale

MERRITT DRILL HOLE #4

1+	0*	367*	3"	COAL
17	4#	3681	7*	SHALE, dark with coal partings
3*		371'	10"	COAL
	3"	372'	14	SHALE, boney
	_3*	372'	44	COAL
	2*	372'	61	SHALE, boney
41	6*	<u> </u>	0*	COAL, 4 shaly seams totalling 6"
21	0"	4591	0#	COAL, and boney shale. (5" coal core, 1'3" core
				missing)
11	10"	4601	10"	COAL, and shale, (4" coal 8" shale core, 10" core
				missing)

Merritt Diamond Drilling

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Log of Hole #1

(Located on NW quarter Sec. 14, Tp. 91, 378' N 35° E from Diamond Vale Hole #11) (Elevation 1986') Started January 7, 1946

	Thick	ness	Dept	<u>h</u>
Boulder Clay	102'		102'	01
SANDSTONE, grey, med. to coarse grain, with shaly			202	Ŭ
streaks	14'	0#	116'	0"
SHALE, dark, sandy		6"	122'	
SANDSTONE, very coarse, poorly sorted, shaly streaks	5*	0"	127'	6"
SHALE, grey, sandy	31	6 ⁿ	131"	0"
SANDSTONE, grey, coarse, coal marks	21	10"	133'	10"
COAL, bony	0'	10"	134'	8"
SHALE, dark, fissile, coal marks		6 *	136'	
SANDSTONE, grey coarse, some fine sand and shaly stre				
SHALE, black, leaf molds, few sandy streaks		0"	156'	
SANDSTONE, shaly, finely bedded		6*	158'	
SHALE, dark to black, coal marks	-	0"	161'	-
SHALE, dark, sandy		0#	162'	_
SANDSTONE, med. grain, with few shaly streaks		81	167'	
SHALE, sandy, grey		6 **	169'	
SANDSTONE, med. grain, shaly streaks, coal marks			173'	-
SHALE, black, coal marks, much fractured		0"	180'	-
SANDSTONE, light grey, coarse		8"	183'	
SHALE, grey, sandy	-	61	189'	
SANDSTONE, grey coarse, poorly sorted			200'	
SHALE, dark grey, slightly sandy Dip 250	-	0"	2091	+
SANDSTONE, shaly Dip 15°			213'	
SHALE, dark grey, sandy, fractured		6*	220 '	0"
SANDSTONE, med. to coarse, poorly sorted, few fine sa and shaly streaks		0#	2391	0.11
SHALE, black, compact, leaf molds	_	-	2521	-
COAL			2521	
SHALE, black, much fractured		-	2621	
SANDSTONE, fine grain, shaly Dip 14°		0"	266	-
SANDSTONE, very coarse poorly sorted with some		v	200	U
irregular fine conglomerate bands. Abrupt	-			
contact below		0"	2801	0"
SHALE, black, fractured		11-1		
COAL,			283'	
SHALE, black fissile, leaf molds		0"	2921	
SANDSTONE, med. to fine grained, somewhat shaly		ŏ"	300'	
SHALE, dark fractured			304'	
SANDSTONE, grey, shaly, coal marks			3071	
SHALE, grey to black, fractured, 1" coal seam		6"	314'	
SANDSTONE, shaly, dark grey		6"	318'	
SANDSTONE, light grey, coarse, poorly sorted,				
irregular conglomerate streaks	12'	0 "	330'	6"
_				

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CONGLOMERATE, fine		9#	331'	3"
SANDSTONE, light grey, coarse, friable, poorly sorted	27 '	0"	358 '	3#
SHALE, dark, sandy, with fine sand streaks Dip 14°	51	9#	364'	0"
SANDSTONE, grey, medium grained, shaly streaks	41	6 **	368'	
CONGLOMERATE, fine, with coarse sand streaks and 2"	-	•	000	Ŷ
	F !	0.11	77 17 17 1	6 11
streak of sandy shale	51	-	373	
SANDSTONE, fine grained	1'	67	3751	-
CONGLOMERATE, fine	0'	8"	375'	
SANDSTONE, fine grained	1'	0#	3761	8*
SHALE, light grey, sandy	21	011	3781	8"
SANDSTONE, light grey, coarse, few shaly streaks	77 *	4"	450 '	0 **
SHALE, dark grey, sandy, sand streaks, coal marks		51 "	461'	T .
COAL, with 11 shale parting	<u>-</u> 3'		464'	~
SHALE, dark grey, coal streaks		721	466	~
COAL		10늉"		
SHALE	-	3"	468'	
COAL, with 2" shale parting		10"	4741	_
SHALE, black	01	9#	475 '	1"
COAL	0'	3"	475 '	4".
SHALE, black	01	4"	4751	8"
COAL,	0.1	9#	4761	5"
SHALE, black		11/2 "	4761	
COAL		2 <u>7</u> "	4761	
SHALE, black, coal marks and several $\frac{1}{2}$ " coal seams		1"	4851	
COAL		10"	486'	
SHALE, black, coal marks		6#	4881	
COAL, boney	1'		489 '	
SHALE, black, coal streaks		0"	4 90'	-
COAL	0 *	8"	491'	4"
SHALE, black, fissile, leaf molds, coal marks	10'	8"	502'	0"
COAL	01	6"	5021	6 **
SHALE, grey, somewhat sandy	4'	67	507'	0"
SANDSTONE, coarse, poorly sorted	ī'		508'	-
SHALE, dark grey to black, fractured and sheared		ŏ*	515'	-
	•	v	010	0
SANDSTONE, grey, med. grained with shaly and fine	791	6#	547'	c 11
sand streaks. Dip 180	-			
SHALE, black, coal marks		0"	550'	
COAL		10"	555°	
SHALE, black		2*		
COAL, some boney streaks		6#		0 "
SHALE, black, fissile, coal marks, leaf molds		0 **		0#
SANDSTONE, shaly	61	0"	5731	0#
SANDSTONE, light grey, medium grained with a few				
coarse streaks, carbonized twigs	70 *	0"	643'	0#
SHALE, black, compact, coal marks		6 "	646'	
COAL, in part boney		0"	650 1	
		6#		
SHALE, black, coal streaks		-	652'	
COAL, boney		10"	6521	
SHALE, dark grey, sandy, fractured		2"	656'	
SANDSTONE, dark grey, shaly	1'	6 "	6571	6"
SHALE, grey, sandy, with many sand lenses, much				
fractured and high core loss	91	6#	667 '	0 *
-				

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SANDSTONE, coarse, poorly sorted SHALE, dark grey, sandy, fractured SANDSTONE, grey shaly <u>Dip 10^o</u> SANDSTONE, grey, coarse SANDSTONE, med. to fine grained with shaly streaks SHALE, dark grey, with sandy streak SANDSTONE, shaly streaks <u>Dip 8^o</u> SHALE, black, fractured SHALE, grey, sandy, cross-bedded sandstone streaks SHALE, black, compact SHALE, grey, sandy, with sand lenses SANDSTONE, shaly, shale streaks dipping at high	19' 10' 10' 3' 5' 2' 2' 1'	0" 0" 0" 10" 2" 8" 6" 6" 4" 6"	669' 688' 698' 708' 711' 728' 721' 724' 726' 728' 728' 746'	0" 0" 10" 8" 2" 8" 0"
angles, vertical channeling	19'		766 '	
SHALE, sandy, with sand streaks	71	0"	7731	0"
SANDSTONE, grey, poorly sized, with shaly streaks dipping at high angles	291	0#	802*	0.11
SHALE, grey, sandy	ລະ. 21	-	804	
SANDSTONE, shaly streaks at high angles		4"	811'	
SANDSTONE, light grey, coarse, poorly sorted		<u>-</u> 9"	813'	
SHALE, grey, sandy		3"	820 1	
SANDSTONE, light grey, coarse		0"	8231	-
CONGLOMERATE, med. to coarse, with few sand lenses	26'		849'	
SANDSTONE, grey, coarse, cross-bedded		0Ħ	857	
SHALE, black, coal marks	21	0 11	8591	0"
SHALE, black, coal marks and soft black mud	4'	0")		
COAL,	0*	6")	862'	6 "
SHALÉ, dark grey, compact	16'	6 **	8791	0#
SHALE, grey, sandy		0 **	8831	
SHALE, dark grey, compact		0"	888'	
SHALE, grey, sandy, with sand streaks		077	89 0'	
SANDSTONE, coarse, cross-bedded, shale streaks		0"	8931	
SHALE, dark grey, fractured	71	01	900'	0 **
SHALE, dark, soft, slickensided partings, carbonate				~ **
stringers. Abrupt irregular contact	10'	0#	910'	
SANDSTONE, light, coarse-grained		4"	910'	
SHALE, dark, finely cross-bedded		l"	9 10'	o
SANDSTONE, light grey, coarse, cross-bedded		E 11	0101	10#
Cross-bedding dips 700	- •	5"	910'	
SHALE, dark with intercalated seams of fine sand	Т.	0"	911'	10
SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact.	21	0"	913'	10"
SHALE, black with a few fine-grained sand streaks		-		
interbedded.	1'	2#	915'	0 **
SHALE, black, compact, wavy bedding with average dip				
45 degrees	31	5"	918'	5"
COAL, bony, bright partings, friable		1불")	918†	6불 "
SHALE, black, much fractured, slickensided fragments	1'	3날*)	919'	10 <u>"</u>
SHALE, black with a few sandy streaks and wavy bedding				
dipping about 45 degrees	4	2"	924'	0"
SHALE, grey, badly fractured. Abrupt, Irregular				
Contact, Dip 350	-	4 ¹¹	9271	
SANDSTONE, grey, fine even-grained	01	8"	9281	0"

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SANDSTONE, grey, fine even-grined. Scattered			
grains of sulphide	4'	0"	9321 0"
SHALE, grey, compact, somewhat sandy	01	11"	<u>932' 11"</u>
SANDSTONE, grey, fine even-grained. Dip 290	0 *	1"	933* 0*
SHALE, grey, compact, sandy	3†	10"	936' 10"
SHALE, grey, compact, sandy. Fine sand streaks Dip 23°			
Seam of carbonate	1'	2"	938! 0"
SHALE, grey, compact, sandy	-	11"	
SANDSTONE, coarse, poorly sorted	-	1"	9391 0"
SHALE, grey, compact, sandy. Fine sand seams Dip 310		0"	9421 0"
SHALE, grey, compact, numerous sand seams Dip 290	-	6 *	9491 6"
SHALE, dark, badly fractured		6 "	<u>952' 0"</u>
SHALE, black, coal marks, badly sheared	1.	10"	9531 10"
MUD or GOUGE SEAM, containing fragments of shale and			
a $\frac{1}{4}$ " seam of crushed COAL .	-	5"	954' 3"
BRECCIA, coarse fragments, sand cement	21	9#	<u>957' 0"</u>
MUD or GOUGE SEAM, containing fragments of breccia			
and fine flakes of shale	1'	0"	
COAL, about 1" of bony fragments and some coal mud			
recovered	-	+	958 6"
MUD or GOUGE SEAM, as above		6 **	
SHALE, ground up, containing some coal fines	0"	10"	960' 10"
DIORITE, medium coarse grained, containing biotite and			
horneblende. Sheared contact with shale		~ "	
dips 45 ⁰	-	8"	961' 6"
SHALE, dark, badly sheared		6"	
CONGLOMERATE, poorly sorted with coarse sand lenses		01	9641 0"
BRECCIA, fragments of shale and volcanics	_	0"	
CONGLOMERATE, soft, muddy, coaly shale streaks	Τ.	8#	9691 8"
BRECCIA, large volcanic fragments with muddy cement.	<i>.</i>	A 19	0761 07
Rock soft and friable	-	4" 0"	976' 0" 978' 0"
FELSITE, light grey, fine grained.		0#	<u>9781 011</u> 9851 011
GREENSTONE, fine-grained, dark green, chloritic	-	6"	
GREENSTONE, fine-grained, somewhat brecciated		0 n 0	<u>9881 6"</u> 9891 6"
SHALE, compact, indurated	_	6#	995 0"
GREENSTONE, pillowed, somewhat porphyritic	0.	0	990° U"

END OF HOLE #1

"Wm. H. White"

Assoc. Mining Engineer.

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Merritt Diamond Drilling

Log of Lole #1

(Located on NW quarter Sec. 14, Tp. 91, 378' N 35° E from Diamond Vale Hole #11) (Elevation 1986') Started January 7, 1946

	Thick	n e 98	Dept	h
Boulder Clay	102*		102.	07
SANDSTORE, grey, med, to coarse grain, with shaly				
streaks	34*	0"	116*	07
SHALE, dark, sandy		6"		-
SANDSTORE, very coarce, poorly sorted, shaly streaks		ŏ"	1271	
SHALE grey sandy		6"	131*	
SAUDSTONE, grey, coarse, coal marks		10"		
COL bony		10"		
SHALE, dark, fissile, coul marks		6*	136,	
SANDSTONE, grey coarse, some fine sund and shaly str			147*	
SHALE, black, leaf molds, few sandy streaks		07	156*	- +-
SANDSTONE, shaly, finely bedded		6"		
SHALE, dark to black, coal marks		Õ7		
SHALE, dark, sandy		0"		
SANDSTONE, med. grain, with few shaly streaks		8"		4"
SHALE, sandy, grey		6"	169*	10"
SANDSTONE, med. grain, shaly streaks, coal marks	3*	2"		
SHALL, black, coal marks, much fractured		0"		Õ#
GANDSTONE, light Grey, coarse	3*	8"	183*	8"
SHALE, grey, sendy	5*	6"	189*	27
SANDSTONE, grey coarse, poorly sorted	10*	10"	200*	0*
SILLE, dark grey, slightly sandy Dip 250	91	07	209*	0*
SAMDSTONE, shaly Dip 15°	4	6"	213	6"
SHALE, dark grey, sandy, fractured	61	6 ⁿ	220	0"
SANDSTONE, med. to coarse, poorly sorted, few fine s	and			
and shaly streaks	19*	0"	2391	0"
SHALE, black, compact, leaf molds		6"		6 "
		8"		
SHILE, black, much fractured	-	10"		
SANDSTONE, fine grain, shaly Dip 14°	41	0"	266 •	0"
SANDSTONE, very coarse poorly sorted with some				
irregular fine conglomerate bandsbrup				
contact below		0"	280	
SHALE, black, fractured		1章"	283	1047
COAL		44 "	283	
SHALE, black fissile, leaf molds		0*	292	+
SANDSTONE, med. to fine grained, somewhat shaly		0"		
SHALE, dark fractured		0"		
SaldDJTONE, grey, shaly, coal marks		0"		-
SEALE, grey to black, fractured, 2" coal seam		6*		
SADST ME, shaly, dark (rey	4	6"	318*	6 7
SAUDSTONE, 11 ht grey, coarse, poorly sorted,	6 00 4	~ r	*****	.
irregular conglomerate streaks	12	0"	330*	07

CONGLOMERATE, fine	01 9"	331 * 3"
SANDSTONE, 11 ht grey, coarse, friable, peerly sorted		
CHAFT don't apply with the and at the local of the 140		
SHALE, dark, sandy, with fine sand streaks Dip 14	51 9"	
SAMDSTOME, grey, medium grained, shaly streaks	4' 6"	368° 6*
CONGLOMERATE, fine, with coarse sand streaks and 2"		
streak of sandy shale	51 0"	373* 6*
SAUDSTONE, fine grained	Ĩ* 6"	
CONGLOMERATE, fine	01 8"	
SANDSTONE, fine grained	1. 04	
SHALE, light groy, sandy	2* 0*	
SANDOTONE, light grey, coarse, few shaly streaks	71* 4*	450 0*
SHALE, dark grey, sandy, sand streaks, coal marks	11' 51"	461* 51*
COAL, with 12" shale parting	3* 31"	
SHALE, dark grey, coal stroaks	1 7 7	
COAL		
	1. 104	* 468* 3*
SHALE	01 34	468* 6*
COAL, with 2" shele parting	<u>5* 10"</u>	
SHALE, black	01 94	475 1"
	0* 3"	475* 4*
SHALE, black	0 44	
COAL	01 9 "	476* 5"
SHALE, black	0 1 1	
COAL	01 21 "	
SHALE, black, coal marks and several to coal seams	91 14	485' 10"
COAL	01 10"	4861 8"
SHALE, black, coal marks	11 94	488* 2*
COAL, boney	1' 6"	
SHALE, black, coal streaks	11 0#	
COSL	01 8"	
		491' 4"
SHALE, black, fissile, leaf molds, coal marks	10' 8"	502* 0*
COAL	0 6"	
SHALE, grey, somewhat sandy	4 6"	
SANDSTONE, coarse, poorly sorted	1* 0"	508º 0*
SHALE, dark grey to black, fractured and sheared	71 07	515* 0*
SANDSTONE, grey, med. grained with shaly and fine	• •	
sand streaks. Dip 180	32* 6*	547* 6*
SHALE, black, coal marks		550* 6*
COAL	<u>4' 10''</u>	<u>505* 4"</u>
SHALE, black	1* 2*	
COAL, some boney streaks	4 6"	561 0*
SHALE, black, fissile, coal marks, leaf molds	6 0 0	567 0*
SAMDSTONE, shaly	61 07	
SANDSTONE, light grey, medium grained with a few		
acarsa strasis, narhantesa teles	70* 0*	643* 0*
COarse streaks, carbonized twigs		
SHALE, black, compact, coal marks	3* 6*	
CO.L. in part boney	41 07	650 6"
SHALE, black, coal streaks	1 6"	
COAL. boney	0* 10*	652* 10"
SHALE, dark grey, sandy, frotured	31 2"	
SANDSTONE, dark grey, shaly	1* 8*	
SHALE, grey, sundy, with many sand lenses, much		
fractured and high core loss	9* 6*	667* 0*
AT ALANTAN CUR UTER ANTO TADD	9° Q''	997 - Q"
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ALTDSTONE, coarse, poorly sorted20 ° 669° 0°SHALE, ark grey, studyPin 10°10° 0°SAUDSTONE, grey, studyPin 10°10° 0°SAUDSTONE, grey, ocarse0° 0°SAUDSTONE, grey, ocarse0° 0°SAUDSTONE, med. to fine grained with shaly streaks0° 0°SAUDSTONE, med. to fine grained with shaly streaks0° 0°SAUDSTONE, med. to fine grained with shaly streaks0° 0°SAUDSTONE, shal st.eaks0° 0°SHALE, black, fractured2° 0°SHALE, black, compact1° 4°SHALE, black, compact1° 4°SHALE, grey, sandy, with sand lenses18° 6°SHALE, grey, sandy, with sand streaks1° 6°SHALE, grey, sandy, with sand streaks1° 6°SHALE, grey, sandy5° 0°SHALE, grey, sandy5° 0°SHALE, grey, sandy5° 0°SHALE, grey, sandy5° 0°SAUDSTONE, black grey, coarse, poorly sorted2° 0°SAUDSTONE, black grey, coarse, poorly sorted2° 0°SAUDSTONE, black grey, coarse, oros-bedded8° 0°SAUDSTONE, black, coal marks2° 0°SAUDSTONE, grey, coarse, cross-bedded8° 0°SAUDSTONE, grey, coarse, cross-bedded8° 0°SHALE, black, coal marks2° 0°SHALE, dark grey, compact10° 0°SHALE, black, coal marks2° 0°SHALE, black, coal marks2° 0°SHALE, dark grey, compact10° 0°SHALE, dark grey, compact10° 0°SHALE, dark grey, compact10° 0°SHALE, dark gr
SHALE, jark grey, shady, fractured19'0"686'0"SANDSTONE, grey, ohalyDip 10"10'0"696'0"SANDSTONE, grey, ocarse10'0"708'0"SANDSTONE, med, to fine grained with shaly streaks3'10"711'10SANDSTONE, shal st.enksDip 6"3'8"SANDSTONE, shal st.enksDip 6"3'8"SHALE, black, fractured2'6"724'8"SHALE, black, compact1'4"726'8"SHALE, black, compact1'4"726'8"SHALE, black, compact1'4"726'8"SHALE, black, compact1'4"726'8"SHALE, black, compact1'4"728'0"SHALE, stady, with sund lenses1'4"728'0"SHALE, stady, with sund lenses1'4"728'0"SHALE, stady, with sund streaks7'0"773'0"SHALE, grey, sandy2'0"802'0"SHALE, grey, sandy2'0"802'0"SHALE, grey, sandy2'0"8'8'8'8'SHALE, grey, sandy2'0"8'8'8'8'8''SHALE, grey, coarse, poorly sorted2'9"8'8'8''0"SHALE, black, coal marks2'0"8'0"SHALE, black, coal marks2'0"8'0"SHALE, dark grey, coarse, oros-bedded2'0"8'1"SHALE, dark grey, sundy, with sand streaks5'0"8'0"SHALE, black, coal marks5'0"8'1"SHALE, black, coal marks5'0"8'1"SHALE, dark grey, coarse, oros-bedded8'0"SHALE, dark grey, sundy, with sand streaks5'0"
SAIDSTONE, grey shelyD1010°0°668°0°SAIDSTONE, grey, ocarse10°0°708°0°708°0°SAIDSTONE, med. to fine grained with shaly streaks3°10°711°10SAIDSTONE, med. to fine grained with shaly streaks3°0°711°10SAIDSTONE, shall st.esksD106°2°711°10SAIDSTONE, shall, st.esksD106°2°711°10SAIDSTONE, shaly, oross-bedded sandstone streaks2°6°724°2°SHALE, black, compact1°4°728°0°711°10SHALE, grey, sandy, oross-bedded sandstone streaks2°6°726°8°SHALE, grey, sandy, with sand streaks18°6°746°6°SAIDSTONE, shaly, shale streaks19°6°766°775°775°SAIDSTONE, sendystreaks at high angles2°6°802°0°SAIDSTONE, light grey, coarse, poorly sorted2°9°813°9°SAIDSTONE, light grey, coarse, oross-bedded8°6°869°0°SAIDSTONE, jight grey, coarse, oross-bedded8°6°662°0°SAIDSTONE, jight grey, coarse, oross-bedded8°668°0°SAIDSTONE, jight grey, compact16°662°0°SHALE, black, coal marks2°0°668°0°SHALE, dark grey, sandy10°16°668°0°SHALE, black, coal marks10°16°
SALDETONE, grey, coarse10° 0° 708° 0°SALDETONE, med. to fine grained with shaly streaks3° 10° 711° 10SALDETONE, shal streaks210 6°SHALE, dark grey, with sandy streak3° 6° 721° 8°SHALE, lack, fractured2° 6° 726° 8°SHALE, black, compact1° 4° 728° 0°SHALE, black, compact1° 4° 726° 0°SHALE, sendy, with sand lenses1° 4° 726° 0°SHALE, sendy, with sand lenses18° 6° 746° 6°SHALE, sendy, with sand streaks19° 6° 766° 0°SHALE, sendy, with sand streaks70° 773° 0°SHALE, grey, sandy2° 8° 716° 0°SHALE, sendy, with sand streaks2° 0° 802° 0°SHALE, grey, sandy2° 8° 804° 8°SHADSTONE, grey, poorly sized, with shaly streaks2° 0° 802° 0°SHALE, grey, sandy2° 8° 804° 8°SHADSTONE, light grey, coarse, poorly sorted2° 9° 813° 9°SHALE, grey, sandy6° 3° 820° 0°SANDSTONE, light grey, coarse, oross-bedded8° 0° 859° 0°SHALE, black, coal marks2° 0° 862° 0°SHALE, black, coal marks2° 0° 868° 0°SHALE, dark grey, compact10° 6° 662° 6°SHALE, dark grey, compact5° 0° 668° 0°SHALE, dark grey, sondy with sand streaks2° 0° 809° 0°SHALE, dark grey, fractured7° 0° 900° 0°SHALE, dark grey, coarse, cross-bedded7° 0° 900° 0°SHALE, dark finely oross-bedded7° 0° 900° 0°SHALE, dark grey, coarse, cross-bedded1° 0° 910° 0°SHALE, dark finely oross-bedded1° 0° 910° 0°SHALE, dark fi
SANDSTONE, med, to fine grained with shaly streaks3' 10" 711' 10SHALE, dark grey, with sandy streak6' 2 " 718' 0"SANDSTONE, shal steaks10 6'SHALE, black, frectured2' 6" 726' 8"SHALE, black, frectured1' 4" 728' 0"SHALE, black, compact1' 4" 728' 0"SHALE, grey, sandy, with sand lenses1' 4" 728' 0"SHALE, grey, sandy, with sand lenses18' 6" 746' 6"SHALE, sendy, with sand streaks19' 6" 766' 0"SHALE, sendy, with sand streaks7' 0" 773' 0"SHALE, sendy, with sand streaks2' 0" 802' 0"SHALE, grey, sandy2' 8" 804' 8"SHALE, grey, sandy2' 8" 804' 8"SHALE, grey, sandy2' 8" 804' 8"SHALE, grey, sandy6' 3" 820' 0"SHALE, grey, sandy6' 8' 821' 0"SHALE, grey, sandy6' 8' 821' 0"SHALE, grey, sandy6' 8' 820' 0"SHALE, grey, sandy6' 8' 820' 0"SHALE, black, coal marks2' 0" 863' 0"SHALE, black, coal marks2' 0" 865' 0"SHALE, dark grey, compact10' 6' 6' 879' 0"SHALE, dark grey, compact5' 0" 868' 0"SHALE, da
Shile, dark grey, with sandy streak6* 2 * 716* 0*SAIDSTONE, shal st eaks10 23* 6* 724* 2*SHALE, black, fractured2* 6* 724* 2*SHALE, black, compact1* 4* 728* 0*SHALE, grey, sandy, with sand lenses1* 4* 728* 0*SHALE, black, compact1* 4* 728* 0*SHALE, start, shaly, shale streaks dipping at high19* 6* 746* 0*SHALE, sendy, with sand lenses19* 6* 766* 0*SHALE, sendy, with sand streaks7* 0* 773* 0*SHALE, sendy, with sand streaks7* 0* 773* 0*SHALE, grey, poorly sized, with shaly streaks10* 6* 766* 0*SHALE, grey, sandy2* 8* 804* 8*SHDSTONE, light grey, coarse, poorly sorted2* 9* 813* 9*SHALE, grey, sandy2* 8* 804* 8*SHDSTONE, light grey, coarse, poorly sorted2* 9* 813* 9*SHALE, grey, sandy6* 3* 620* 0*SHDSTONE, grey, coarse, oross-bodded8* 0* 85* 0*SHALE, black, coal marks2* 0* 859* 0*SHALE, black, coal marks2* 0* 859* 0*SHALE, dark grey, compact10* 6* 879* 0*SHALE, dark grey, compact5* 0* 868* 0*SHALE, dark grey, compact5* 0* 868* 0*SHALE, dark grey, sondy, with sand streaks5* 0* 868* 0*SHALE, dark grey, sondy4* 0* 869* 0*SHALE, dark grey, fractured7* 0* 900* 0*SHALE, dark grey, coarse, cross-bedded5* 0* 868* 0*SHALE, dark grey, coarse, streaks5* 0* 868* 0*SHALE, dark grey, coarse, cross-bedded1* 0* 910* 0*SHALE, dark finely orose-bedded1* 910*
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SHALE, black, fractured2* 6* 724* 2*SHALE, black, compact1* 4* 728* 0*SHALE, black, compact1* 4* 728* 0*SHALE, black, compact1* 4* 728* 0*SHALE, grey, sandy, with sand lenses18* 6* 746* 6*SUBJETONE, shaly, shale streaks dipping at high19* 6* 766* 0*SHALE, sendy, with sand streaks7* 0* 773* 0*SHALE, sendy, with sand streaks7* 0* 773* 0*SHALE, sendy, with sand streaks7* 0* 773* 0*SHALE, grey, poorly sized, with shaly streaks2* 0* 802* 0*SHALE, grey, sandy2* 8* 804* 8*SANDSTONE, shaly streaks at high angles2* 0* 802* 0*SANDSTONE, light grey, coarse, poorly sorted2* 9* 813* 9*SHALE, black, coal marks3* 0* 823* 0*CONCIOMERATE, med, to coarse, with few sand lenses8* 0* 85* 0*SHALE, black, coal marks2* 0* 8659* 0*SHALE, black, coal marks2* 0* 8659* 0*SHALE, dark grey, compact16* 6* 679* 0*SHALE, dark grey, sandy4* 0*SHALE, grey, sandy5* 0* 868* 0*SHALE, dark grey, sandy with sand streaks5* 0* 869* 0*
SHALE, grey, sandy, cross-bedded sandstone streaks2* 6*726* 8*SHALE, black, compact1* 4*722* 0*SHALE, grey, sandy, with sand lenses18* 6*746* 6*SHALE, sendy, with sand streaks dipping at high angles, vertical chanseling19* 6*766* 0*SHALE, sendy, with sand streaks7* 0*773* 0*SHALE, sendy, with sand streaks7* 0*773* 0*SHALE, sendy, with sand streaks2* 0*802* 0*SHALE, grey, sandy2* 8*8* 004* 8*SANDSTONE, grey, poorly sized, with shaly streaks2* 8*dipping at high angles2* 8*SANDSTONE, shaly streaks at high angles2* 8*SANDSTONE, light grey, coarse, poorly sorted2* 9*SANDSTONE, light grey, coarse, poorly sorted2* 9*SANDSTONE, light grey, coarse, with few sand lenses2* 0*SANDSTONE, grey, coarse, cross-bedded3* 0*SHALE, black, coal marks2* 0*SHALE, black, coal marks2* 0*SHALE, dark grey, compact16* 6*SHALE, grey, sandy4* 0*GOAL,0* 0*SHALE, dark grey, compact10* 6*SHALE, dark grey, fractured7* 0*SHALE, dark grey, fractured7* 0*SHALE, dark grey, fractured10* 0*SHALE, dark, soft, slickensided partings, carbonate stringers, sbrupt irregular contact10* 0*SHALE, dark, finely oross-bedded1* 0*SHALE, dark, finely oross-bedded1* 0*SHALE, dark, finely oross-bedded1* 0*SHALE, dark, finely oross
SHALE, grey, sandy, oross-bedded sandstone streaks2* 6*726* 8*SHALE, black, compact1* 4*728* 0*SHALE, grey, sandy, with sand lenses10* 6*746* 6*SHALE, grey, sandy, with sand streaks19* 6*746* 0*SHALE, sendy, with sand streaks7* 0*773* 0*SHALE, sendy, with sand streaks7* 0*773* 0*SHALE, grey, sandy2* 8*802* 0*SHALE, grey, sandy2* 8*802* 0*SHALE, grey, sandy2* 8*804* 8*SANDSTONE, shaly streaks at high angles2* 9*802* 0*SANDSTONE, shaly streaks at high angles2* 9*813* 9*SANDSTONE, light grey, coarse, poorly sorted2* 9*813* 9*SANDSTONE, light grey, coarse, oross-bedded8* 0*82* 0*SANDSTONE, light grey, coarse, oross-bedded8* 0*849* 0*SHALE, black, coal marks2* 0*859* 0*SHALE, dark grey, compact10* 6*679* 0*SHALE, dark grey, compact5* 0*882* 0*SHALE, dark grey, compact5* 0*893* 0*SHALE, dark grey, sandy4* 0*10* 6*SHALE, dark grey, sandy5* 0*893* 0*SHALE, dark grey, fractured7* 0*900* 0*SHALE, dark grey, fractured7* 0*910* 0*SHALE, dark grey, coarse, cross-bedded7* 0*900* 0*SHALE, dark grey, coarse, cross-bedded7* 0*910* 0*SHALE, dark grey, coarse, cross-bedded7* 0*910* 0*SHALE, dark grey, coarse, cross-bedded7
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SHALE, grey, sondy, with sand streaks 2* 0* 890* 0* SANDSTONE, coarse, cross-bedded, shale streaks 3* 0* 893* 0* SHALE, dark grey, fractured 7* 0* 900* 0* SHALE, dark, soft, slickensided partings, carbonate 7* 0* 900* 0* SHALE, dark, soft, slickensided partings, carbonate 10* 0* 910* 0* SHALE, dark, finely course-grained 4* 910* 0* SHALE, dark, finely cross-bedded 1* 0* 910* 0* SHALE, dark, finely cross-bedded 1* 910* 5* SANDSTONE, light grey, coarse, cross-bedded 5* 910* 10 SHALE, dark with intercalated seams of fine sand 1* 0* 911* 10 SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact. 2* 0* 913* 10 SHALE, black with a few fine-grained sand streaks 2* 0* 913* 10
SHALE, grey, sondy, with sand streaks 2* 0* 890* 0* SANDSTONE, coarse, cross-bedded, shale streaks 3* 0* 893* 0* SHALE, dark grey, fractured 7* 0* 900* 0* SHALE, dark, soft, slickensided partings, carbonate 7* 0* 900* 0* SHALE, dark, soft, slickensided partings, carbonate 10* 0* 910* 0* SHALE, dark, finely course-grained 4* 910* 0* SHALE, dark, finely cross-bedded 1* 0* 910* 0* SHALE, dark, finely cross-bedded 1* 910* 5* SANDSTONE, light grey, coarse, cross-bedded 5* 910* 10 SHALE, dark with intercalated seams of fine sand 1* 0* 911* 10 SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact. 2* 0* 913* 10 SHALE, black with a few fine-grained sand streaks 2* 0* 913* 10
SANDSTONE, coarse, cross-bedded, shale streaks3' 0"893' 0"SHALE, dark grey, fractured7' 0"900' 0"SHALE, dark, soft, slickensided partings, carbonate10' 0"910' 0"SHALE, dark, soft, slickensided partings, carbonate10' 0"910' 0"SANDSTONE, light, coarse-grained4"910' 4"SHALE, dark, finely oross-bedded1"910' 5"SANDSTONE, light grey, coarse, cross-bedded5"910' 10SHALE, dark with intercalated seams of fine sand1' 0"911' 10SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact.2' 0"913' 10SHALE, black with a few fine-grained sand streaks2' 0"913' 10
SHALE, dark grey, fractured7' 0"900' 0"SHALE, dark, soft, slickensided partings, carbonatestringers. Abrupt irregular contact10' 0"910' 0"SANDSTONE, light, coarse-grained4"910' 4"SHALE, dark, finely oross-bedded1"910' 5"SANDSTONE, light grey, coarse, cross-bedded5"910' 10SHALE, dark with intercalated seams of fine sand1' 0"911' 10SHALE, dark with intercalated seams of fine sand1' 0"911' 10SHALE, dark with intercalated seams of fine sand1' 0"911' 10SHALE, black with a few fine-grained sand streaks2' 0"913' 10
SHALE, dark, soft, slickensided partings, carbonate stringers. Abrupt irregular contact10° 0"910° 0"SANDSTONE, light, course-grained4"910° 4"SHALE, dark, finely oross-bedded1"910° 5"SANDSTONE, light grey, coarse, cross-bedded5"910° 10SHALE, dark with intercalated seams of fine sand1° 0"911° 10SHALE, dark with intercalated seams of fine sand1° 0"911° 10SHALE, dark with intercalated seams of fine sand1° 0"911° 10SHALE, dark with intercalated seams of fine sand1° 0"911° 10SHALE, black with a few fine-grained sand streaks2° 0"913° 10
stringers. Abrupt irregular contact 10° 0" 910° 0" SANDSTONE, light, coarse-grained 4" 910° 4" SHALE, dark, finely oross-bedded 1" 910° 5" SANDSTONE, light grey, coarse, cross-bedded Cross-bedding dis 700 5" 910° 10 SHALE, dark with intercalated seams of fine sand 1° 0" 911° 10 SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact. 2° 0" 913° 10 SHALE, black with a few fine-grained sand streaks
SANDSTONE, light, course-grained 4" 910' 4" SHALE, dark, finely oross-bedded 1" 910' 5" SANDSTONE, light grey, coarse, cross-bedded Cross-bedding dis 700 5" 910' 10 SHALE, dark with intercalated seams of fine sand 1' 0" 911' 10 SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact. 2' 0" 913' 10 SHALE, black with a few fine-grained sand streaks
SHALE, dark, finely oross-bedded 1" 910' 5" SANDSTONE, light grey, coarse, cross-bedded 5" 910' 10 SHALE, dark with intercalated seams of fine sand 1' 0" 911' 10 SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact. 2' 0" 913' 10 SHALE, black with a few fine-grained sand streaks
SANDSTONE, light grey, coarse, cross-bedded Cross-bedding dis 700 5" 910' 10 SHALE, dark with intercalated seams of fine sand 1' 0" 911' 10 SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact. 2' 0" 913' 10 SHALE, black with a few fine-grained sand streaks
SANDSTONE, 11ght grey, coarse, cross-bedded Cross-bedding dis 700 5" 910' 10 SHALE, dark with intercalated seams of fine sand 1' 0" 911' 10 SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact. 2' 0" 913' 10 SHALE, black with a few fine-grained sand streaks
Cross-bedding dis 700 5" 910' 10 SHALE, dark with intercalated seams of fine sand 1' 0" 911' 10 SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact. 2' 0" 913' 10 SHALE, black with a few fine-grained sand streaks
SHALE, dark with intercalated seams of fine sand 1' 0" 911' 10 SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact. 2' 0" 913' 10 SHALE, black with a few fine-grained sand streaks
SANDSTONE, light grey, coarse (about 1 mm.) with some grains of shale. Abrupt contact. 2* 0" 913* 10 SHALE, black with a few fine-grained sand streaks
grains of shale. Abrupt contact. 2* 0" 913* 10 SHALE, black with a few fine-grained sand streaks
SHALE, black with a few fine-grained sand streaks
interbedded. 1* 2* 915* 0*
SHALE, black, compact, wavy bedding with average dip
45 degrees 31 5" 918' 5"
COAL, bony, bright partings, friable 11") 918' 61
SHALE, black, much fractured, slickensided fragments 1' 3') 919' 10
SHALE, black with a few sandy streaks and wavy bedding
SHALE, black with a few sandy streaks and wavy bedding dipping about 45 degrees 4* 2" 924* 0"
SHALE, black with a few sandy streaks and wavy bedding dipping about 45 degrees SHALE, grey, badly fractured, Abrupt, Irregular
SHALE, black with a few sandy streaks and wavy bedding dipping about 45 degrees SHALE, grey, badly fractured, Abrupt, Irregular Contact. Dip 359
SHALE, black with a few sandy streaks and wavy bedding dipping about 45 degrees SHALE, grey, badly fractured, Abrupt, Irregular

SANDSTONE, grey, fine even-grined. Scattered	•		×
grains of sulphide		0"	932 0*
SHALE, grey, compact, somewhat sandy		11"	932 11"
SANDSTOLE, grey, fine even-grained, Dip 290	·0*	1"	9331 0*
SHALE, Srey, compact, sandy		10"	936 10"
SHALE, grey, compact, sandy. Fine sand streaks Dip 130	F.,		
Beam of carbonate		2"	938° 0°
SHALE, grey, compact, sandy	01	11"	938* 11*
S GOSTORE, coarse, poorly sorted		1#	939* 0*
SHALE, grey, compact, sendy. Fine sand seams Dip 310	-3+	Õ"	942 0*
SHALE, grey, compact, numerous sand seams Dio 290		6"	949* 6*
SHALE, dark, badly fr ctured		6"	
SHALE, black, coal marks, badly sheared		10"	
MUD or GOUGE SHAM, containing fragments of shale and	-		
a t" seam of crushed COAL	01	5"	954 3"
BRECCIA, coarse fragments, sand coment	-	9"	957 0"
MUD or COUCE SEAM, containing fragments of breccia		•	
and fine flakes of shale	11	0"	
COAL, about 1" of bony fragments and some coal mud		•	
recovered	01	6"	956 6"
MUD or COUCE SEAM, as above		<u> </u>	960 0
SHALE, ground up, containing some coal fines		10"	960 10*
DIORITE, medium coarse grained, containing biotite and	7		
horasblende, Sheared contact with shale			,
dips 45°	01	8"	961 6"
SHALE, dark, badly sheared		6"	
CONCLOMERATE, poorly sorted with coarse sand lenses		0"	
BRECCIA, fragments of shale and volcanics			968 0"
CONGLOMERATE, soft, muddy, cosly shale stpeaks		8"	969* 8*
BRECCIA, large volcanic fragments with muddy cement.	,	.	
Rock soft and friable	61	4*	976* 0*
FELSITE, light grey, fine grained,		ō*	9781 0"
GREENSTONE, fine-grained, dark green, chloritic		0"	185° 0"
GREENSTONE, fine-grained, somewhat brecolated		6"	VEBY 6W
GEALE, co pact, indurated		<u>0</u> #	989* 6*
CREENSTONE, pillowed, somewhat porphyritic		ĕ	995 0"
· · · · · · · · · · · · · · · · · · ·	-	-	

END OF HOLE #1

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Assoc. Mining Engineer.

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Merritt Diamond Drilling

Log of Hole #1

(Located on NW quarter Sec. 14, Tp. 91, 378' N 35⁹ E from Diamond Vale Hole #11) (Elevation 1986')

Bass Ann Sam				_
Boulder lay	102*		102'	07
SANDSTONE, grey, med. to coarse grain, with shaly streaks	141	0"	116'	0.7
SHALE, dark, sandy		6"	122'	
SANDSTONE, very coarse, poorly sorted, shal, streaks	5*	õ"	127*	
SHALE, grey, s ndy	31	6"	131 *	
SANDSTONE, grey, coarse, coal marks		10"	133*	
COAL, DONY	0*	10"	134'	
SHALE, dark, fissile, coal marks	1	6*	136	
SANDSTONE, grey coarse, some fine sand and shaly streaks	11,		147*	
SHALE, black, leaf molds, few sandy streaks		0"	156*	
SANDSTONE, shaly, finely bedded SHALE, dark to black, coal marks		6*	158*	
SHALE, dark, sandy	3. 1'	0"	161*	
SADSTONE, mod. grain, with few shaly streaks	4*		162'	
SHALE, sandy, grey	-	6*	1691	
SANDSTONE, med. grain, shaly streaks, coal marks		2"	173	
SHALE, black, coal marks, much fractured		õ =	1801	-
Saupstone, light grey, coarse		ě"	183*	
Silling grey, sondy	51	6"	189'	
SANDSTOUE, grey, coarse, poorly sorted		10"	2 00*	0"
SHALE, dark grey, slightly sondy Dip 25°		0"	2091	
SANDSTONE, shaly Dip 150		6"	213*	
SHALE, dark grey, sandy, fristured	6 '	6*	220 *	0
SAMDSTORE, med. to coarse, poorly sorted, few fine sand and shaly streaks	101	0"		~ =
SHALE, black, compact, leaf molds		6"	239† 252†	-
SOAL			253*	
SHALE, black, much fractured	ět			
SANDSTONE, fine grain, shaly Dip 140	- <u>4</u> +		2661	
SANDSTONE, very coarse poorly sorted with some irregular				÷
fine conclomerate bands, Abrupt contact below			280	
SHALE, black, fractured	3		283	
SOAL SHATE block floatlo loof molda	01	4"	283	
SHALE, black, fissile, leaf molds SANDSTONE, med. to fine grained, somewhat shaly	9† 8†		292	
SHALE, dark, fractured	81	0# 0"	300° 304°	
SANDSTORE, grey, shaly, coal marks		0"	304	
SHALE, grey to black, fractured, 1" coal seam	Ğ1		314*	
SANDSTONE, shaly, dark grey		6*	318*	
SANDSTONE, light grey, coarse, poorly sorted, irregular	-	÷		-
conglomerate streaks	12*	0"	330*	6*
CONCLOMENATE, fine SANDSTONE, light grey, coarse, friable, poorly sorted		9*	331*	
SANDSTONE, light grey, coarse, friable, poorly sorted		0"	358*	
Suche, dark, sandy, with fine sond streaks bip 14		9"	364'	
SANDSTONE, grey, medium grained, shaly streaks	4'	6*	368'	67
CONCLOUERATE, fine, with coarse sand streaks and 2" streak of sandy shale	1 21 1		an 12 \$	
GOLOUD VI DOHUY DIHLU	91	0"	373*	Ü"

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SANDSTONE, fine grained 1 6" 3751 07 CONGLOMERATE, fine SANDSTONE, fine grained 01 8* 375+ 8" 1 0" 3761 8" SHALE, light grey, sandy 21 0" 378 8" SANDSTORE, light grey, coarse, few shaly streaks 71 4" 450 0 0* SHALE, dark grey, sandy, and streaks, coal marks 11' 51" 461 81" COAL, with 15" shale parting 31 34" 464 9 SHALE, dark grey, coal streaks 466 44* 00 L 11 101" 468 34 SHALE DT 468 8" 5# COAL, with 2" shale parting 51 10" 474 4" SHALE, black 01 9* 4751 1* •و COAL 5* **4**# 475* SHALE, black 01 4* 475 8" 01 COAL 9 ** 57 476+ SHALE, black 0* 11" 476' 64" 01 COAL . 15 2 476 94 1* 91 SHALE, black, coal marks and several 1" coal seams 485* 10* Ø۴ COAL 1861 8" 10" SHALE, black, coal marks 11 67 486 2* COAL. boney 1* 6" 4891 8" SHALE, black, coal streaks 1 0* 490 8* 01 8" 4* 491 COAL 201 8" SHALL, black, fissile, leaf molds, coal marks 502 0" 01 6" COAL 502 8" SHALE, grey, somewhat sandy 4 6* 5071 0. 17 0" SANDSTONE, coarse, poorly sorted 5081 O" SHALE, dark grey to black, fractured and sheared 71.0" 15º 0" SANDSTORE, grey, med, grained with shaly and fine sand streaks. Dip 189 32* 6* 547* 6* SHALE, black, coal marks 3' 0" 550' 6" COAL 4' 10" 555* 4" 11 8* SHALE, black 556 V 87 861 0" 41 O.L. some boney stroaks 8" 6T black, fissile, coul marks, leaf molds 0* 0.* SHALE 5671 SANDSTONE, shaly 6 0* 873* 0* SANDSTONE, light grey, medium grained with a few oparse streaks, carbonized twigs 70* 0* 643* 0* SHALE, black, compact, coal marks 31 6* 6461 6" COAL, in part boney 4* 0" 660' 6" 17 SHALE, black, coal streaks 658 0" 6 * COAL boney 0* 10* 658* 10" dark grey, sandy, fractured 31 2* SHALS 656 0* SANDSTONE, dark grey, shaly 11 6" 657* 6* SHALE, grey, sandy, with many sand lenses, much fr etured and high core loss 91 6* 6671 0" SANDSTONE, coarse, poorly sorted 21 0* 669* 0* 91 0* 686* O* ? SHALE, dark grey, sandy, fractured 10* 0* SANDSTONE, grey shaly Dip 10" 6981 0" 10 0" 708* 0* SANDSTONE, grey, coarse SANDSTONE, med. to fine grained with shaly streaks 3* 10* 711* 10* SHALE, dark grey, with sandy streak 61 2* 718' 0" SANDSTONE, shaly streaks DIP 6 3* 8* 721* 8" 21 6* SHALE, black, fractured 724 2*

SHALE, grey, sandy, cross-bedded sandstone streaks SHALE, black, compact	21	6" 4"	726 ⁺ 728 ⁺	
SHALE, grey, sandy, with sand lenses	79.	6"	746*	0 -
SANDSTONE, shaly, shale streaks dipping at high angles,				
vertical channeling	19*	6*	766*	0*
SHALS, sandy, with sand streaks		0.	7731	
SANDSTONE, grey, poorly sized, with shaly streaks	# -	4	110	¥
dipping at high angles		0"	1208	
SHALE, grey, sendy	81	8"	804*	8*
SANDSTONE, shaly streaks at high angles	6.*	4*	811*	0*
SANDSTONE, light grey, coarse, poorly sorted		§*	813'	
		Š *	620'	
SHALE, grey, sandy				
SANDSTONE, light grey, coarse		0"	8231	
CONGLOMERATE, med. to coarse, with few send lenses	267	0"	8491	0"
SANDSTONE, grey, coarse, cross-bedded	61	0"	857*	0*
SHALE, black, coal marks		Õ*.	859*	
SHALE, black, coal marks and soft black mud	2 4	ŏ*)	~~~	¥
			04 0 t	
COAL		6")	8621	
SHALE, dark grey, compact		6"	8791	-0 -
SHALE, grey, sandy	- 47	0"	8831	0"
SHALE, dark grey, compact	<u>8</u> ‡	0"	888*	0*
SHALE, groy, sandy, with sand streaks	2*	õ"	890*	
CINDEPOND	31		893	
SANDSTONE, coarse, cross-bedded, shale streaks				
SHALS, dark grey, fractured	71	0*	900*	0"

Remainder of log is on file at Victoria

"Wm. H. White"

Assoc. Mining Engineer

10/Mar/46

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I have checked back over the last hundred feet of Mandy's gging and find it similar to my own, possibly a bit more meticulous. overe, there are minor differences. That which he logs as shale is in places arenaceous to the extent that under the glass individual grains can be seen. This material, which is dark, but not black in appearance may be what is referred to as "sendy shale" in the log of hole #11. Mandy's "sandy shale" is that in which sand streaks are quite evident to the newed eye. At present I am logging the slightly arenaceous shale as "Grey" or "dark", reserving the term "black" for the argillaceous shale. Another point: material which Mandy describes as "limey" is that containing patches and stringers of carbonate. In log ing I am following the usual profiles of tabulating the core missing in a separate column, where possible assigning the loss to its proper place in the section.

The textural features of these sediments indicates a variable environment of deposition such as would obtain in a periodically flooding river at grade or delta. Cross-bedding, abrupt changes in grain size, poorly sorted sands, abrupt contacts between sandstone and shale, and much evidence of channelling characterize the material. Probably the beds are quite lenticular, and correlation of individual horizons in these lower measures correspondingly difficult.

	THIC	(NE95	MISSING	DEPTH	l.
SHALE, dark, soft, slickensided partings, carbonate stringers.	10*		5 0	370	°0"
Abrupt irregular contact SANDSTONE, light, coarse-grained SHALE, dark, finely cross-bedded SANDSTOME, light grey, coarse, cross-bedd	ed 🗄	4" 1" 5"		910* 910* 910*	5*
Cross-bedding dips 700 SHALE, dark with intercalated seams of fin- sand.	e 1†			911*	
SANDSTONE, light grey, coarse (about 1mm. with some grains of shale. Abrupt contact.			7*	913*	
SHILE, black with a few fine-grained sand streaks interbedded.	1,	2"	7*	915'	0"
SHALE, black, compact, wavy bedding with average dip 45 degrees COAL, bony, bright partings, friable	3*			918' 918'	
COAL, bony, bright partings, friable SHALE, black, much fractured, slickenside fragments.		3番**)	2*	919'	
SHUE, black with a few sandy streaks and wavy bedding dipping about 45 degree		1 21	21 3"	9241	0"

MERRITT DRILL HOLE #1 - LOG 984' to 964!

SHALE, grey, badly fractures	3*	' 4"	1*	2*	927* 4"
Abrupt, Irregular Contact, Dip 350					
SANDSTONK. grev. fine even+grained	0*	8 7			928* 0"
SANDSTORE, grey, fine even-grained,		-			
Scattered grains of sulphide	41	0"	1*	9*	958 0 "
SHALE, grey, compact, somewhat sendy	-ō*	1 1 "	-	-	939 11V
SANDSTONE, grey, fine even-grained. Dip 290	01	-17			935 0"
SHALE, grey, compact, sandy		10"			936' 10"
SHALE grey compact, sandy. Fine sand	•				
streaks Dip 23°. Seam of carbonate.	. 1 +	8"			9381 0"
		11"			938* 11"
SHALE, grey, compact, sandy	ot.	1"			939* 0*
SANDSTONE, coarse, poorly sorted		T			A0A. A.
SHALE, grey, compact, sandy, Fine sand seems	3*	07			A 404 0#
Dip 31°	3.	0			9421 0"
SHALE, grey, compact, numerous sand seams					
Dip 299	7*	57	11	0*	9491 6"
SHALE, dark, badly fractured		6"		6*	
SHALE, black, coal marks, badly sheared	1'	10"	0	10"	953 10
MUD or COUGE SEAM, containing fragments of					
shale and a 2" seem of crushed COAL	01	5*			954° 3"
BRECCIA, coarse fragments, sand coment,	21	977	0*	6*	<u>957° 0</u> *
MUD or GOUGE SEAM, containing fragments of					
breccia and fine flakes of shale	1*	0"			
COAL, about 1" of bony fragments and some					
coal mud resovered	0*	6*(7)1	10*	9581 6"
MUD or GOUG. SEAM, as above	11	6"	••••		960* 0"
SHALE, ground up, containing some coal fines		10"	0*	4 [#]	960 10
DIORITE, medium coarse grained, containing	-		-	-	
biotite and horneblende, Sheared					
contact with shale dips 450	0*	8*			961* 6*
SHALE, dark, badly sheared	ŏ.		0*	1#	9621 0"
CONGLOMERATE, poorly sorted with coarse	Y	v	v	*	448° V
sand lenses	21	0#	0*	2*	964* 0*
Datio Tompod	6 3 "	V.	V.	6	74% V"

Note: Diorite logged at 961' is thought to be a boulder.

"Wm. H. White"

William H. White Assoc. Mining Engineer.

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Log of Merritt Drill Hole #1 - 964 -995*

Breccia, fragments of shale and vol-			:		
canios	4*	0"	-	968*	0"
Conglomerate, soft, muddy, coaly shale					7
streaks	1'	8*		969*	8*
Breccia, large volcanic fragments with					
muddy cement. Rock soft and friable	6 *	4" 0"	•	976*	0"
Felsite, light grey, fine grained.	21	0"		978*	0"
Creenstone, fine-grained, dark green,					
chloritic	71	0*	4	285	0"
Greenstone, fine-grained, somewhat					
brocclated	3*	6" 0"		9861	6*
Shale, compact, indurated	1*	0*		989*	6"
Greenstone, pillowed, somewhat porphy-					
ritic	51	6 ^m		9951	0"

END OF HOLE #

"Wm. H. White"

William H. White Assoc. Mining Engineer

MERRITT DRILL HOLE #5

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LOG OF MERRITT D.D.H. #5

SANDSTONE, dark and light, thin bedded, upper part broken, dip 30° SANDSTONE, light and dark broken, dip 25-30° SANDSTONE, light, coarse, massive, fine at 540', conglomerate at 543', dip 35° SANDSTONE, coarse, broken

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Asst. Mining Engineer

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LOG OF #5, D.D.H. MERRITT, B.C.

SHALE, sandy, few coal partings, dip 5 ⁰ SANDSTONE, light and dark, medium and fine grain	81	0"		-	451'	0"
few shaly beds, dip 5-20°	191	0"	21	0"	470'	0"
SHALE, sandy, many leaf impressions, dip 100	-61	0"	-	3"	4761	Õ"
SHALE, few sandy beds, many coal partings two				-		
1" seams coal, broken and slickensided	51	01	21	0#	481'	01
SHALE, and coal borken, probable loss of coal						
5 [†] − 6¶	- 91	01	71	0"	4901	0"
SANDSTONE, medium grain, few shale beds		01			4931	
SHALE, sandy, much broken					495	
SANDSTONE, fine grained, broken	31	0 n		3"	4981	
SHALE, dark	1'	01		-	4991	6"
SANDSTONE, dark and light, fine grained, thin						
bedded, broken, dips to 35 ⁰	•	61		3"	504	0"
SANDSTONE, grey, massive, medium grained	41	6#		_	4 08	6 n
SANDSTONE, thin bedded, fine grained, dip 250		6#		-	513'	0"
SHALE, sandy	21	6#		-	5151	6#
SANDSTONE, dark, fine grained, some shale beds,						
broken	41	6"		-	520 †	0#

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Asst. Mining Engineer

29 July 46

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LOG OF DRILL HOLE #5, MERRITT, B.C.

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SHALE, grey SHALE, grey, broken, little mud SHALE, sandy, coal partings 317' SANDSTONE, shaly, fine grain, dip 5-10 ⁰ few coal	31	0# 0# 0#	- 3" -	310' 312' 316' 317'	0# 6#
SANDSTONE, light, medium grained SANDSTONE, light, dip 15° SANDSTONE, shaly, dip 15° SANDSTONE, light and dark, medium and fine grain,		011 011 011	6"	329 336 340	6#
SANDSTONE, fine and medium SANDSTONE, fine and medium SANDSTONE, light, massive coarse, very coarse		61 61	- 3" -	3421 3451 3461	0#
352 - 56 SHALE, sandy, dip 10 ⁰ SANDSTONE, few shaly beds, fine grained			- -	357 ' 362 ' 364 ' 367 '	0" 0"
SANDSTONE, coarse, lowest 6" fine grained SANDSTONE, light, coarse massive, dip 13 ⁰ SANDSTONE, light, coarse massive SANDSTONE, shaly	271 81 21	011 011 011	6# _ _	3941 4031 4051	0" 0"
SANDSTONE, shaly, poorly sorted, few coal parting SHALE, with abundant coal partings COAL, (21" bone 2 seams), dip 13 COAL, (5" bone 5 seams)	1' 1' 2'	0# 7# 7#	- 3" 6"		011 011 011
COAL, (1" bone 1 seam) COAL, (4" bone 3 seams) SHALE, with abundant coal partings 2" coal SANDSTONE, shaly, dip 10°	2' 2' 1'	0# 0#	1' 3" 9" -	419' 421' 423' 424'	0# 0# 0#
CONGLOMERATE, few sandy beds, very coarse at base SHALE, black, fissile, broken, few coal partings	17 ' 1'	9" 3"	- 6"	441 ' 443'	

J.M. Black

Asst. Mining Engineer

27 July 46

SHALE, medium to dark grey, fractured	61	0#		-	2891	01
SANDSTONE, dark and light, medium to fine grain, dip 25		0.11		7 11	2 931	0.11
	4!			3"		
SHALE, dark	11			-	2951	
SANDSTONE, medium grain thin beeded	31	6#	1'	0"	2981	
SANDSTONE, course, massive	41	01		-	3021	6 n
SANDSTONE, grey, medium to fine grain						
broken at 303' 6", dip 30 ⁰	31	6"		6#	306'	011
SHALE, dark grey some sandy beds coal						
partings at 306' 6"	41	6"		6"	310'	6"

J.M. Black

j

Asst. Mining Engineer

161

25 July 46

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Elevation 1975', approximately 471' N 28° W from Hole #1. Started July 18, 1946.

Clay and boulders

1781

	Thic	kness		Core ssing	<u>Dept</u>]	<u>1</u>
SANDSTONE, light, medium to course grain dip 10°, few shaly					-	
beds SANDSTONE, light, medium to course,	41	011		-	182'	9"
massive, getting shaly towards base SHALE, dark, many coal partings,	81	0"		-	190'	01
some pyrite 9") COAL, 4")	21	0"		11 "	192 '	0#
SHALE, with many coal partings COAL, with little shale		6" 6"		-	1 92' 193'	0"
SHALE, with many coal partings SHALE, dark grey with few coal parin		4" 8" 0"	7 f	- 8" 6"	1931 2001 20 2 1	0 #
SHALE, mud, and coal particles SHALE, dark grey, few coal partings few sandy beds, dip 5° - 10°	,	0"	Τ.	0" 3"	202	
SHALE, dark grey SANDSTONE, light, medium to fine gre	ُوُ ain,	3"		-	2091	3"
massive, shaly at 212'. SANDSTONE, light, medium grain		9" 0"		6" 6"	217 † 226†	
SANDSTONE, light massive, medium to course SHALE, dark grey, few coal partings	10	*2"		-	2361	2"
SANDSTONE, light, medium grained, fer	-	10"		3"	241'	0"
shale beds SHALE, dark grey	21	0n 0n		- 3"	2441 2461	0"
SHALE, dark grey mud seam 249' 6" SANDSTONE, light grey, fine-medium	·	6" 6"		3"	250' 256'	
g rain, massive SANDSTONE, light and dark, few shale beds dip 10	e	611		_	261'	
SHALE, dark and medium grey, few same beds, dip 0° - 20°	ndy 14'	6"		6"	2761	0#
SHALE, dark, broken at 277' MUD, shale, coal	1'	0" 6"		6 "	2781	6"
SHALE, dark	'د	6"		-	283'	.0 #

PROGRESS REPORT, MERRITT D.D.H. #5, July 29-30

July 29

Morning shift Afternoon Graveyard Coring to 530 Coring to 550 Reaming out to 550

161

July 30

Morning shift to 10 a.m.

555

J.M. Black

PROGRESS REPORT, MERRITT D.D.H. #5, July 27-29

July_27

Morning shift Afternoon Graveyard Coring to 451 Coring to 470 Coring to 481

July 28

Morning shift Afternoon Graveyard

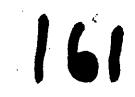
Coring to 493 Coring to 503 Coring to 513

July 29

Morning to 10 a.m.

Coring to 520

J.M. Black



PROGRESS REPORT MERRITT D.D.H. #5, July 25-27

July 25

Morning shift Afternoon Graveyard Coring to 327 Coring to 357 Coring to 374

July 26

Morning shift Afternoon Graveyard Coring to 395 Coring to 417 Coring to 439

<u>July 27</u>

Morning to 10 a.m.

Coring to 443

161

J.M. Bleck

PROGRESS REPORT MERRITT D.D.H. #5, July 23-25

July 23

Morning shift: Afternoon Graveyard

Coring to 194 Coring to 217 Coring to 246

July 24

Morning shift Afternoon Graveyard Coring to 266 Coring to 283 Coring to 302

July 25

Morning to noon

Coring to 311

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J.M. Black Asst. Min. Engr.

PROGRESS REPORT MERRITT D.D.H. #5, July 17 - 23.

<u>July 17</u>

Setting up.

<u>July 18</u>

Till 2 p.m. completing	set up.	
Afternoon shift	Casir	ng to 30
G raveyar d shift	Casir	ng to 60
		0

<u>July 19</u>

Morning shift Aftern**n**on shift Casing to 80 Casing to 110

Casing to 140

<u>July 20</u>

Morning shift Afternoon not drilling

July 21

Morning not drilling Afternoon shift

Casing to 160

July 22

Morning shift Afternoon shift Casing to 170 Casing to 175 Bedrock 178

July 23

Morning to noon

Coring to 182

161

J.M. Black

MERRITT DRILL HOLE

4

LOG OF DRILL HOLE #4, MERRITT, B.C. (cont)

.

C AND CHONE					491' O"
SANDSTONE,	light, massive, medium grain, few coal partings, at 500' coarser	10'	0"	_	501' 0"
SANDSTONE,	massive, medium grain, coarse 504-08	10'	0"	-	511' O"
	TE, fine and sandy at top		0 a 8 u	- 6*	513' 9" 518' 9"
	medium to fine grain dark grey dip 5 ⁰ grading down to shaly sandstone		3" 0"	-	520 [†] 0 " 523 [†] 0 "
SANDSTONE,	massive, light, medium grain dip 17°, some silty beds dip 5°	-	0"	- 1' 0"	530 ' 0"
	light, medium grain few silty bed dip 4° - 8° somewhat coarser at 535 and few coal fragments there	s 7'	0"	-	537' 0"
GANDSTONE,	light, medium grain, mostly massifiew silty beds dip 5°, coaly				
CANDONAT	partings 538	-	011		546 0"
SANDSTONE,	massive, light colored thin bedded, silty, dip 5 ⁰		0"	-	551' 0" 553' 0"
SANDSTONE,	massive, light, medium to fine grain, few silty beds, coaly part- ings 557, 560, dip 5°, few irregu				
	dips		0 "	6 **	561' 0"
	massive, calcite stringer at base light and dark, thin bedded, shall	-	0 " 0"	3' 9" l' 0"	569' 0" 572' 0"

"J.M. Black"

Asst. Mining Engineer

161

4 July 46

Hole stopped Jy 4 @ 575' in sandstone (H.S.)

LOG OF DRILL HOLE #4, MERRITT, B.C. (cont)

			3851	0#
	6 "	-	386'	6 "
	6 "	3' 0"	395 '	0#
CONGLOMERATE, light colored with few coaly streaks 10'		-	405 '	
CONGLOMERATE, some coarse sandy beds, coal	0"	21 3"	4 10'	0"
fragments at 413, at 420' 6" very coarse, pebbles to 2" closely packed 11'	0"	1'3"	1 191	0"
SANDSTONE, medium grained thin dark and light, beds dip 15-18°, some	0	1.0	401 °	U
mica, towards base beds thicker	07	-	431 '	0"
SANDSTONE, coarse, light with few dark fine beds some coal fragments, dis-				
turbed 5' SANDSTONE, medium grained, dark and light		10"	436 '	0"
	0"	1.8"	443 ' 447 '	
SHALE, sandy black with abundant coal	0" 6"	Τ. Ο.	449'	
SANDSTONE, brown, fine grained	4" 2"		4 4 9' 4 5 5'	10"
SHALE, black, fissile, broken 2%	õ " 0"	1' 6" 1' 3"	457' 459'	0#
COAL, and shale, 4" coal 8" shale 1' SANDSTONE, shaley, dip 18°, some irregular	10"	10"	460'	
SANDSTONE, shaly 4'	2 " 0 "	1'0"	464' 468'	
0	0"	67	472'	0 **
SANDSTONE, medium grained, light with dark laminae, dips 10 ⁰ -20 ⁰ 9' SANDSTONE, medium to fine grained, some	0	-	4 81'	0"
	911	3"	4 85 '	97
fractures 2' SANDSTONE, medium and coarse grain, some	3"	6*	488'	
silty beds 3*	0#	-	491'	0"

"J.M. Black"

Asst. Mining Engineer

2 July 46

LOG OF DRILL HOLE #4, MERRITT, B.C. (Cont.)

	Thickn	ess	Core Missing	Depth
SHALE, dark grey, coal partings SANDSTONE, dark compact becoming coarser	1'	8"	-	2861 0 " 2871 8"
at base. Dip 110 SHALE, dark to black, coal partings, brok		7" 9"	- 6"	293† 3† 297† 0†
SANDSTONE, medium grained, some dark laminae. Dip 20 ⁰ SHALE, dark fissile, coal partings	21	0 "	- 6"	299' 0" 301' 0"
SANDSTONE, medium grained, dark lamainae Dip 12° SHALE, dark with coal partings	1' 3'	6" 6"	 1'_0"	30216" 30610"
SANDSTONE, medium grained, getting coarse downwards - at base massive, some cross bedding	r 13'	07		319' 0"
CONGLOMERATE, fine, few sandy beds, coal fragments 331' 9" SANDSTONE, medium grained, dark laminae.	21'	3"	-	34 0' 3"
Dip 13° at base, massive, ligh colored, irregular SANDSTONE, medium grained with dark lamin	10'	9 1 1	-	351' 0"
getting shaly towards base SANDSTONE, dark and light, few coarse bed SHALE, dark with coal partings	10' .s 3' 2'		1'0" - 3" 10"	364' 3" 366' 3"
COAL SHALE, dark with coal partings C OAL SHALE, boney	1'	4" 3" 3"	2"	368' 7" 371' 10" 372' 1"
COAL SHALE, boney COAL, 4 shaly seams totalling 6" SHALE, dark sandy, coal partings, mud sea SANDSTONE, dark, compact, shaly Dip 10-18	m 3'	3" 2" 6" 0"	- 1'9" 1'6"	372' 4" 372' 6" 377' 0"

"J.M. Black"

Asst. Mining Engineer

28 June 46

LOG OF DRILL HOLE #4, MERRITT, B.C. (Con't)

	Thicknes	s Core Missing	Depth
SHALE, dark grey, some coal partings, some sandy and micaceous beds. Dip 30° SANDSTONE, with dark laminae, some	3' 0"		248' 0"
cross bedding medium grain to 250' 3" coarse massive to 258' 3" - with few conglomerate beds, coal fragments SANDSTONE, brown, medium grain, compac	10'3" t,	-	2581 31
with very many angular coal fra ments up to 1" across oriented parallel to bedding which dips 200	- g#		259† 0 "
SANDSTONE, coarse with conglomerate SHALE, dark grey, numerous coal paring	3' 10	" 7"	262' 10"
SHALE, dark grey, humerous coar paring some mud seams, dip 20° SHALE, dark grey SHALE, dark grey SANDSTONE, medium grained, light and	10' 2" 4' 0" 2' 0"	6"	273 ' 0" 277 ' 0" 279 ' 0"
dark grey, dip 10° SHALE, dark with coal partings SANDSTONE, medium to coarse grained SHALE, dark	1' 9" 2' 0" 2' 0" 1' 3"	-	280'9" 282'9" 284'9" 286'0"

"J.M. Black" Asst. Mining Engineer

26 June 46

LOG OF DRILL HOLE #4, MERRITT, B.C.

Located on NE Quarter Section 14, 675' N 18° E True from Hole #1. Elevation 1975'. Hole started June 20, 1946.

Boulder clay and gravel

BEDROCK	Thickness	Core Missing	Depth
SANDSTONE, medium to fine grained, cro bedded with dark laminae, thin beds conglomerate. Di	three p 18 ⁰ 5' 0"	- <u> </u>	186' 0"
SANDSTONE, medium to fine grained, wi dark laminae, shaly toward and 4" of friable Coal and probably some coal that is	s base mud,		
missing. Dip 10°	5" 9"	1' 9"	191' 9"
SANDSTONE, coarse	3* 3*	-	195' 0"
SHALE, dark grey, shattered, getting		71 0 1	
more sandy to base. Dip 14 SANDSTONE, medium grained, dark grey w		31 84	201' 0"
darker laminae, has one nea	ar Ar		
vertical slip of about 1",			
another dip about 45°, bree			
and gouge about 2" thick,	cal-	- 44	
cite stringer	6 0"	9#	2071 07
SHALE, dark grey, micaceous, near base sandy. Dip 70	e, 10'0"	10"	217'0 "
SHALE, dark sandy, micaceous, at base			
two seams 1/8 and 1/2" bony Coal	51 67		222 6"
SANDSTONE, medium grained, light grey		-	566 0"
with dark laminae, Dip 5	- 18 ⁰		
several strike fractures.			
Dip 30-60 ⁰ N - with calcite	4' 6"	-	227 0"
SANDSTONE, coarse, light colored,			
micaceous, massive - conta	ct 4'0"		0731 08
with shale below Dips 30° SHALE, dark grey, fractured at contact		- 8"	231' 0" 235' 0"
COAL,	6 ¹¹	2"	235' 6"
SHALE, dark grey, sandy, fractured, co	-	~	
partings, 2 - 3" broken Coal a			
base	4' 6"	6 #	240' 0"
SANDSTONE, grey, medium grained, frac-			
shaly toward base - at 242 black shale	5† 0 [#]	21 0"	9451 07
DIACK SHALE	5° U"	∠ · ∪"	245' 0"

"J.M. Black"

Asst. Mining Engineer

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26 June 46

PROGRESS REPORT MERRITT D.D.H. #4, July 2 - July 4

July 2

Morning shift: Afternoon shift: Graveyard shift:

Coring	481	-	501
Coring	501	-	520
Coring	520	-	530

<u>July 3</u>

Morning shift: Afternoon shift: Graveyard shift: Coring 530 - 546 Coring 546 - 556 Coring 556 - 569

July 4

Morning shift to noon:

Cored to 572'

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"J.M. Black"

Asst. Mining Engineer

4 July 46

PROGRESS REPORT MERRITT D.D.H. No. 4, June 28 - July 2

June 28

Morning shift: Afternoon ": Graveyard ": Coring 380 - 395 # 395 - 411 Ħ 411 - 431

Fishing for bit

11

Coring 431 - 436

Coring 447 - 459

Not working

459 - 472

436 - 447

June 29

Morning shift: Afternoon ": Graveyard ":

June 30

Morning shift: Afternoon ": Graveyard ":

Morning shift: Afternoon ": Graveyard ":

Morning shift:

Not working Coring 472 - 481

July 2

<u>July 1</u>

Cored to 491 at noon

"J.M. Black"

Asst. Mining Engineer

2 July 46

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PROGRESS REPORT MERRITT D.D.H. No. 4, June 26 - June 28

<u>June 26</u>

Morning shift: Afternoon shift: Graveyard shift:

June 27

Morning shift: Afternoon shift: Graveyard shift:

Coring 334 - 341 Coring 341 - 361

Coring 277 - 296

Coring 296 - 311 Coring 311 - 334

Coring 361 - 379

June 28

Morning shift to noon

Cored to 385'

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"J.M. Black" Asst. Mining Engineer 28 June 46

PROGRESS	REPORT	MERRITT	D.D.H.	No.	4,	June	24	-	June	26
		Ju	ine 24							

Morning shift: Afternoon shift: Graveyard shift:

June 25

Morning shift: Afternoon shift: Graveyard shift:

June 26

Morning shift to noon:

Cored to 286'

Coring 186 - 195 Coring 195 - 207

Coring 207 - 217

Coring **217** - 245 Coring 245 - 263 Coring 263 - 277

"J.M. Black"

Asst. Mining Engineer

26 June 46

PROGRESS REPORT MERRITT D.D.H. No. 4, June 19 - June 24

June 19

Setting up drill.

June 20

Till noon completing set up.Casing to 15'Morning shift:Casing to 35Afternoon shift:Casing to 35Graveyard shift:Casing to 60

June 21

Morning shift:Casing to 90'Afternoon shift:Casing to 120Graveyard shift:Casing to 150

June 22

Morning shift:

Afternoon shift: Graveyard shift:

June 23

Morning shift: Afternoon shift: Graveyard shift:

Not working Casing to 170 Casing to 181 - bedrock Coring 181 - 186

Casing to 160, lost bit and fished for it till end of shift.

Not working

Not working

June 24

Morning shift noon.

Drilling to 190 had trouble with pump.

16

"J.M. Black"

Asst. Mining Engineer

29 June 46

MERRITT DRILL HOLE #3)

LOG OF HOLE No. 3 (continued)

SANDSTONE, light grey, medium grained compact (coarse grained at top)	61	011	-	1030' 0"
CONGLOMERATE, fine grained	AT	01	31 4"	1034' 0"
SANDSTONE, grey, very coarse grained SHALE, dark brown to black, silty,		6"	-	1038' 6"
carbonaceous SHALE, dark grey to black, sandy, micaceous		011 011	-	1039' 6" 1042' 0"
SANDSTONE, grey, very fine grained, shaly at top, micaceous.		0#	1' 5"	1045' 0"
SANDSTONE, grey, as above, coal markings. CONGLOMERATE, grey, fine grained at top SHALE, dark grey, brown to black, carbon-		7" 10"		1045' 7" 1049' 5"
aceous, with a few thin (1/8") coal laminae.	31	011	-	1052' 5"
SANDSTONE, grey, medium-coarse grained compact	-	7"	01 21	1055' 0"
SHALE, dark grey to black, carbonaceous,		2"		
with coal partings SANDSTONE, grey, medium grained, compact with a few thin dark carbon-	Τ,	2	-	1057' 2"
aceous shale laminae. SHALE, brownish black, silty, carbon-	51	3"		1062' 5"
aceous with occasional coaly partings. SHALE, dark grey to black, carbonaceous,	01	7 "	-	1063' 0"
coaly partings. SANDSTONE, grey, medium-coarse grained,	1'	0 n	-	1064' 0"
with a few thin dark silty shale bands. SHALE, dark grey to black, carbonaceous,	31	9 "		1067' 9"
with carbonized plant frag- ments, specks of resin.	31	3"	-	1071' O"
SANDSTONE, grey, fine grained shaly with numerous carbonized plant	. '			
fragments specks of coal SHALE, dark grey, carbonaceous in part		04	-	1073' 0"
plant fragments. SANDSTONE, grey, medium grained, occasion-		7"	-	1073' 7"
al coal markings. SHALE, dark grey, carbonaceous in part, sandy in part, carbonized	1'	811	-	1075 ' 3"
plant fragments SANDSTONE, grey, medium grained compact	31 21	0# 9#	-	1078' 3" 1081' 0"
SANDSTONE, grey fine grained, interbedded with thin bands of dark grey	Q #	ז ד	C 1	10807 1
carbonaceous shale. SANDSTONE, grey, fine grained, shaly, with a few short carbonaceous	0'	, T	יסיך יס	1089' 1"
shale sections.	41	6"	-	1093' 7"

"C.B. Newmarch"

161 June 17/46

LOG OF No. 3 HOLE (Continued)

SANDSTONE, light grey, fine grained. SHALE, dark grey, sandy, carbonaceous in	0'	5"	-	9461	5"
part grading into fine grained sandstone in part.	41	0#	-	9501	5 "
SANDSTONE, light colored, fine grained compact. SHALE, dark grey to black, sandy in part,	21	7 "	-	95 3'	0"
carbonaceous at base with plant fragments.		0 ii 0 ii	0' 7"	956 ' 957 '	
SHALE, dark grey, sandy. SHALE, dark grey to black, carbonaceous be- coming sandy at base.		6n	-	9591	
SANDSTONE, light grey, fine grained inter- bedded with dark irregular silty					
shale laminae	31	6"	-	9631	011
SHALE, black, carbonaceous, coaly partings, friable	17.	0"	-	964'	0#
SANDSTONE, light grey, fine grained, shaly at top with dark irregular silty bands.	21	0 11	-	9661	0"
SHALE, dark grey, sandy, irregularly bedded with thin (1"-2") bands of grey medium grained sandstone, a few					
coaly partings. SANDSTONE, light grey, fine grained with thin irregular carbonaceous or	11'		91 4 ¹¹		
coaly laminae <u>DIP_10⁰</u>	10'	01	3' 7"	987 '	0"
CONGLOMERATE, quite coarse in part, pebbles of greenstone, qtz, and red					
granite.	61	0#	1' 9"	993 '	0#
SHALE, black, carbonaceous, with plant fragments	01	811	_	9931	811
SANDSTONE, grey, fine grained, shaly at top	21	7"	-	9961	
SANDSTONE, grey, medium to coarse grained, a few thin coaly lenses.	5 f	911	21 9#	1002'	0"
SANDSTONE, grey, coarse grained, with a few	•	•	- ,		0.11
thin irregular coal lenses. CONGLOMERATE, light grey, fine grained		0 n 0n	-	1003' 1003'	
SANDSTONE, grey, coarse grained with 1" of coarse grained conglomerate at	Ū.	U	_	1007	
base. SHALE, dark grey to black, with carbonaceous	31	2#	-	1006'	10"
partings, thinly bedded. DIP 10° - 15°	21	0#	-	1008'	10"
CONGLOMERATE, rather coarse	51	2"	21 8#	1014'	
SHALE, dark grey to black, carbonaceous becoming sandy at base.	21	3"	-	1016'	3"
CONGLOMERATE, fine grained.	7'	9"	51 81	1024'	Qu

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"C.B. Newmarch"

Asst. Mining Engineer.

June 8/46

SHALE, dark, silty0' 6" - 1261' 0"SANDSTONE, light grey medium grain with
dark laminae and 12" dark grey
shale with coaly laminae4' 0" 0' 6" 1265' 0"DIP 15 - 18°210 15' - 18°SANDSTONE, dark, fine and medium grained
drilling stopped here5' 14' 11'

"J.M. Black" Asst. Mining Engineer

18 June 46

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LOG OF NO. 3 HOLE (Continued)

				1175'	0"
SHALE, grey to black, sandy in part, Carbon	-				
aceous in part, coaly partings	51	0"	-	1180'	0"
SANDSTONE, grey, fine grained, with thin	. .	c 11		11001	C 10
dark silty laminae	2'	う"	-	1182'	う"
SANDSTONE, grey, medium grained, compact					
(coarse grained in part) with frag- ments of carbonized wood	31	7 11	01 4"	1186'	0#
SANDSTONE, grey, coarse grained	41		-	1190'	
SANDSTONE, light grey, fine grained	ī'		-	1192'	
SANDSTONE, grey, medium-course grained,	-	-		/-	
occasional thin carbon lenses	51	0"	1' 0"	1197'	
SANDSTONE, as above	01	811	-	11971	8 #
SHALE, dark grey, carbonaceous in part,	_				
sandy	81	4"	1' 7"	1206'	0#
SHALE, dark grey, silty to sandy, carbon	- •	• •			~
in part	51	0"	-	1211'	0"
SANDSTONE, light grey, with thin silty	. .	0"		10171	01
shale laminae	_	0	-	1213'	0"
SHALE, brown to black, silty, carbonaceous,	31	0#	0' 10"	12161	01
plant fragments, coaly partings SANDSTONE, grey fine grained, shaly,	21	0	0, 10	1510.	0
carbonaceous in part	1'	911	-	1217'	911
SANDSTONE, light grey, medium grained,	-	/			/
compact	21	9#	-	1220'	6"
SHALE, dark grey, silty in part, compact		•			
(carbon in top 3")	31	6"	-	1224'	01
SHALE, dark grey to black, carbon, coaly		~			0 - 1
partings	-	8 #		1224'	
COAL, bony crushed		4 ⁿ	01 8#	1226	
SHALE, dark grey, sandy at base	T.	0"	-	1227'	0"
SANDSTONE, light grey, course grained	71	3"	-	1230'	011
(fine grained at top)	2.	2"	-	1230.	2
SHALE, dark grey to black, carbonaceous, ³ / ₄ " bony coal at centre)	51	10#	51 2"	1236'	0#
SHALE, dark grey sandy grading into fine-	<i>)</i>	10) 2	12,0	Ŭ
grained sandstone at base	51	5"	-	1241'	511
SANDSTONE, light & grey, fine-medium	/	-			-
grained with thin irregular dark					
(carb) laminae, specks of coal	31	4 ¹¹	-	1244'	
SANDSTONE, light grey, course grained		3"	-	1246'	0#
SANDSTONE, light grey medium to course					
grain	•	0"	-	1250'	
CONGLOMERATE, fine grained	4'	0"		1254'	0"
SANDSTONE, light grey, fine grain,		~ "		10501	
micaceous	4'	0"	21 0#	1258'	0"
SANDSTONE, light grey, medium grained with					
shaly laminae at base and $l_{\overline{2}}^{1}$ coaly	o t	6#		1260'	611
shale in middle	۲.	0	-	TEOO.	U U

SANDSTONE, grey, coarse grained	5 '	5"	4† 5 [#]	1099' 0"
SANDSTONE, grey, fine grained, with dark grey silty shale bands	31	6"	_	1102 6"
SANDSTONE, grey, medium-coarse grained, grading into fine grained con- glomerate in part	۱ ۲	1"	_	1103 ' 7"
SANDSTONE, grey, medium-coarse grained with short fine grained con-	*	*		1107 1
glomerate sections, a few thin lenses of coal, slight porosi	ty			
in 6" section. SANDSTONE, light grey, medium-coarse	41	5"	01 3"	1108' 0"
grained. DIP - 10°	2'	5"		1110' 5"
SANDSTONE, light grey, fine grained shaly at base, carbonaceous streaks	1'	3"	-	1111' 8"
SHALE, dark grey to black, carbonaceous, coaly partings.		4 ⁿ	1' 6"	1114' 0"
SANDSTONE, dark grey, coarse grained, with occasional carbonaceous or coal				
streaks		0#	4' 10"	11231 0"
CONGLOMERATE, grey, fine grained SHALE, dark grey to black, carbonaceous,	21	7"	-	1125' 7"
coal partings. SANDSTONE, grey, fine grained, with thinly	•	011	-	1127 7"
bedded dark grey silty shale SANDSTONE, grey, medium grained, compact,	21	5"	-	11 30' 0"
occasional silty bands.	51	01	21 01	1135 0
SANDSTONE, grey, coarse grained, compact SANDSTONE, grey, coarse grained, compact,		011	-	11401 0"
Shaly at top. SHALE, dark grey, to black, carbonaceous,	1'	8#	- ·	1141' 8"
sandy in part, few coaly part-				
ings.	51	7 "	-	1147' 3"
SANDSTONE, light grey, medium-coarse		,		
grained	21	9 "	-	1150' 0"
SHALE, light grey, crushed and slicken-		•		-
sided occasional thin lenses				
of coal (1/8")	41	0"	21 21	1154' 0"
SHALE, dark grey, to black, carbonaceous,				
coaly partings, sandy at top				• • • • •
and bottom		4"	-	1158 4"
SANDSTONE, grey, coarse grained	י0	8 "	-	1159' 0"
SHALE, dark grey to black, carbonaceous,				
coaly partings.	1,	5"	-	1160' 5"
SANDSTONE, grey, fine grained, with thin				
irregular dark silty shale	. 1	7"	21 2"	1165' <u>0</u> "
bands		4"	2 2"	
SANDSTONE, grey, fine grained, as above CONGLOMERATE, compact with short coarse	U,	+ "	-	1165' 4 ^µ
grained sandstone sections	7 1	8#	-	1169' 0"
SANDSTONE, grey, grading from coarse		v		TTO/ O
grained at top to fine grained				
at bottom. shear plane at 45°				
at centre.	61	0"	21 71	1175' 0"
	-	-	- 1	,, ,
#C.B. New	mer	ch"		

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"C.B. Newmarch" Asst. Mining Engineer

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LOG OF HOLE No. 3 (continued)

SANDSTONE, light grey, very fine grained,				0/	- 44
shaly in part. CONGLOMERATE, light grey fairly coarse, with	21	01	-	8631	1"
a few thin bands of sandy shale	21	2"		8651	
SHALE, grey, sandy, irregular bedding	1'	4"	-	8661	7"
SHALE, black, carbonaceous, with 1" of	01	5#		8671	
crushed coal. SHALE, grey, sandy, occasional coal markings,	QUS.	2	-	007	
grading into fine grained light					
grey sandstone in part.	31	0#	1' 0"	8701	
SHALE, dark grey to black, carbonaceous,					
coaly partings carbonized plant fragments.	21	5"	-	8721	5 tt
CONGLOMERATE, light grey, fairly coarse		•		-	
grained	81	7"	81 01	881'	
SANDSTONE, light grey, coarse grained, few		0 "		8821	
coal lenses (1/8") sheared at 45° SANDSTONE, light grey, very fine grained,	т.	0	-	002.	
shaly	21	0#	-	884 '	
DIP 10 - 15 degrees.					
SHALE, dark grey to black, carbonaceous,		- 11		000.	r
sandy in part, coaly partings	4'	5 n 7 <u>n</u>	_ 1' 4"	8881 8911	う"
SANDSTONE, light grey, medium grained. SANDSTONE, light grey, medium-coarse grained	11	01	- -	8921	
SHALE, dark grey to black, carbonaceous,				•	
sandy in part, coaly partings	1'	7"	-	8931	7"
SANDSTONE, light grey, very fine grained,	71	5"	_	8971	
shaly SANDSTONE, light grey, fine grained, carries	2	2	-	0971	
a little finely divided pyrite.	41	0#	21 7"	901'	
SANDSTONE, light grey, fine grained with a		~ ~			
few irregular coal lenses.	31	0"	***	9041	
CONGLOMERATE, light grey, rather coarse in part	81	0#	51 04	9121	
CONGLOMERATE, rather coarse, as above	21		-	91 4 1	3#
SHALE, dark grey, coaly partings.	01	9#	-	9151	
SANDSTONE, light grey, medium grained with					
thin irregular bands of dark grey silty shale	31	011	_	918'	
SANDSTONE, grey, very gine grained, shaly,	-			-	
occasional thin coal lenses.	41	01	21 8#	9221	•
SANDSTONE, light grey, fine grained, with		• *	111 0#	0741	
		6#	111 0"	935	61
SANDSTONE, grey, medium grained SANDSTONE, light grey, fine grained inter-	-4-	U	_	/ / /	Ŭ
bedded with dark grey to black					
sandy shale	1'	6#	- ,	937 '	
SHALE, dark brown to black, carbonaceous,					
coaly partings (several shears at 550)	21	0#		9391	
SHALE, dark grey, sandy	ī'	81	-	9401	8#
SANDSTONE, grey, fine grained, with dark	- •			0401	
irregular silty bands.	1,	4"	-	942'	
SANDSTONE, fine- medium grained, salt and pepper, a few carbonaceous fragmen	ts.				
coarser at top.	41	0"	1' 10"	9461	
-					
	. M	รักรั	ng Engin	AAT -	
Asst Logged 8 June			re mretu	961.	

LOG OF HOLE No. 3 (continued)

SANDSTONE, light grey, fine grained to medium grained with a 3" dark					
grey shale band at center. SANDSTONE, light grey, medium grained to coarse grained with a few thin	10'	011	61 61	810'	
irregular crushed coal lenses . SANDSTONE, alternating bands (4" to 6")	21	0#	-	812'	
of fine and mediumgrained light grey, shaly in part. SHALE, chocolate brown to black, carbonaceous	3'	4"	_	815'	4"
with coaly partings and lenses at base.	1'	0"	-	816'	4"
SANDSTONE, light grey, fine grained with thin irregular silty laminae	1'	3#	-	817'	7 n
SHALE, dark grey to black, sandy in part carbonaceous with several seams of crushed coal from 1" to 3" thick	k	-		·	•
a few thin carbonate stringers. SANDSTONE, light grey, fine grained micro-	21	5"	01 41	8201	
micaceous, shaly at base. SHALE, dark grey, sheared, with gouge, possible	_	0#	-	821'	
fault.		4 [#]	-	821'	4 "
SANDSTONE, light grey, fine grained, with interbedded black silty shale	_		_		
bands. SANDSTONE, as above SHALE, black, silty, carbonaceous, coaly		8" 4"	1' 8" -	830' 831'	4 "
partings, leaf molds.		8n 8n	-	8351	10#
SANDSTONE, light grey, fine grained, shaly SHALE, black, silty carbonaceous as above	21	2"	-	8351 8381	
COAL, badly crushed. SHALE, dark grey, sandy, shaly in part,	01	6#	-	8381	6"
coal specks. SHALE, dark grey, sandy in part, carbonaceous	1'	6#	0' 3"	8401	
in part, occasional plant frag-					
ments and coaly partings (Several fractures dipping at 75 ⁰)	21	9"	-	8421	9"
SHALE, light grey, sandy, irregularly bedded, grades into coarse grained sand-					
stone in part (3" brown shale					
band with coaly fragments at center.	51	0#	-	8471	9"
SHALE, dark grey to black, carbonaceous (carbonized plant fragments and					
coaly lenses) SHALE, grey to dark grey, silty to sandy,	21	3#	1' 2"	850'	
carbonaceous in a few short section					
sheared in upper 2' dipping at 75° scour and fill structure at one po					
2" of coarse grained sandstone wit	h sl	hal y 0"		8601	
SHALE, pale greenish grey.		1"	-	861'	1"

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SHALE, black, carb. with a few thin crushed				-
crushed <u>coal</u> bands	11	2#	-	7841 7841 5"
SHALE, dark grey, carbonized wood frags.	01	5"	-	784 5"
SANDSTONE, light grey, coarse grained,				
conglomeratic in part	41	7"	1' 10"	7891 7891 8"
SANDSTONE, as above	01	8#	-	7891 8"
SANDSTONE, light grey, fine grained, with				
thin dark silty laminae				7901 91
SHALE, dark grey to black, carb. in part	41	5"	-	<u>7</u> 95' 2"
SANDSTONE, light grey, med. grained compact	41	10"	31 81	8001

"C.B. Newmarch"

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LOG OF HOLE No. 3 (continued)

SANDSTONE, alternating irregularly bedded laminae of light grey fine grained	+				
sandstone and dark carbonaceous sil	τy.			1-1-	
shale with coaly partings.	- 5 !	10"	-	6761	10"
SHALE, black, silty, carbonaceous			1' 2"	6811	
SHALE, black, silty, as above	11	01	_	6821	
SANDSTONE, light grey, fine grained, with	-	•		004	
wavy irregular dark silty carb.					
		0.44			^
bands.	•	8#		6861	8"
SHALE, dark grey, soft, friable	11	4"	-	6881	
SHALE, """	11	0#	-	6891	
SANDSTONE, light grey, fine grained, irregular		-		/	
bedded	±J / †	01		6931	
		0	-	075.	
SANDSTONE, light grey, medium - coarse grained	_				
conglomeratic in basal 3"		0"	-	6981	
SANDSTONE, light grey, medium grained	21	01	-	7001	
SANDSTONE, light grey, fine grained, with	-			,	
irregular dark silty laminae, gradi	n a				
the shale at here.		~ **			
to shale at base		011	-	7021	
SHALE, dark grey to black, silty, carbonaceous	-6T	0#	1' 7"	7081	
SHALE, dark grey to black, sandy in part,			•		
carbonaceous	61	0#	-	7141	
SHALE, light grey, fine grained, sandy		7 "	-	7161	7 #
SANDSTONE light grow fing to modium amained	11	5"	_		1
SANDSTONE, light grey, fine to medium grained	т,	2"	-	718 '	
SANDSTONE, light grey, medium grained, inter-	-				
bedded with thin dark carb. laminae	-51	0"	-	7231	
SHALE, dark grey to black, silty to sandy,					
with a few thin fine grained grey					
sandy bands.	21	0#	_	7251	
		6"		129	6 11
SHALE; almost black, siltly, a few spores	4'	0	-	7291	6
SANDSTONE, light grey, fine grained, with					
occasional thin carbonaceous					
laminae DIP 15 degrees	21	6"	-	7321	
SHALE, dark grey, sandy in part, carb. in	_				
part part	71	0"	01 91	735 '	
	-	<u>ğ</u> n	0. 7		0.8
SHALE, dark grey to black, carbonaceous	-		-	735!	7"
SHALE, light grey, sandy	21	3"	-	7381	
SANDSTONE, medcoarse grained, light grey	71	01	4' 0"	7451	
SANDSTONE, as above	21	2*	-	7471	2"
SANDSTONE, light grey, fine grained, shaley	01	7 "	-	7471	
interbedded with thin black wavy	v	'		171	/
carb. laminae					
			0		
CONGLOMERATE, light grey, fine grained			81 61		
		0#	21 84	7671	
SHALE, light grey, fine grained, silty	11	4"	-	7681	4 ¹¹
SANDSTONE, light grey, fine grained, shaley	_				-
in part, numerous thin carb.					
					0
laminae.		4"		7731	0"
SANDSTONE, light grey, medium grained, compact		4"	21 4"	777 '	
SANDSTONE, fine - medium grained, as above	21	0#		7791	
SHALE, dark grey, carb. in part, wood frags.	31	10"	-	7821	10"
specks of coal	•			,	

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LOG OF HOLE No. 3 (continued)

	and SHALE, as above, occasional coaly	-	<i>(</i>			<i>(</i>
	partings. TE, light grey, fine grained, (3*	1'	6"		550'	6"
	band of brown shale with coal lenses]	.01	6"	3† 6"	561'	
	at center) TE, coarse grained, (pebbles 1"-3")	01	4"	ú.,	561'	4"
SANDSTONE,	light grey, fine grained, with			· ·		
	occasional dark grey shale bands carrying coaly fragments.	61	811		5681	
SHALE, dar	k grey, silty, coaly partings		0	01 84	571'	
SANDSTONE,	light grey, fine grained, alternatin with thin dark grey silty (carbon-	lg				
	aceous in part) bands up to 3" thick	ς,				
	grading at base into 3" of fine			11 08	-901	
		<u> </u>		1' 0"	5021	
SHALE, Gar	k, (almost black), silty, carbon-	~1			c 9 0 1	1 3 11
					5841	11
	light grey, medium grained	Τ.	Τ		204.	
CONGLOWERA	TE, light grey, fine grained, slight porosity (pebbles are quartz,					
	feldspar, greenstone, occasional					
	red granite)	21	2"		5861	21
SANDSTONE	light grey, fine grained, cut by	2	2		500	2
DAUDOIONE,	thin irregular dark silty bands.	51	10"	01 6"	5921	
SANDSTONE.	light grey, fine to med. grained		0"		5981	
SANDSTONE,			0"	31 8#	6031	
SANDSTONE,		ó٠	4 "		6031	4 ⁸
	light grey, fine grained, with		·			
	dark irregular silty laminae 1	.01	8"	81 21	6141	
SANDSTONE,	light grey, coarse grained,					
•	grading into fine grained conglom-					
	erate in part.	101		1' 11"	6251	
SANDSTONE,	light grey, coarse grained, as					
	above	31	6#		627 '	6"
SHALE, gre	enish-grey, silty, with occasional					
	dark wavy laminae (1" band of	c †	6 11	71 01	(771	
	coarse donglomerate at base)		0	31 0" 31 5"	6121	
			2"	2' 2"	6431	211
	ck, carbonaceous light grey, fine grained, inter-	0.	۳.		047	2
SHIDOIONE,	bedded with greenish-grey silty					
	shale	11	5"		644'	711
SHALE der	k grey, sandy in part, carbonaceous,		•		VT 1	'
ourins, age	frags. carbonized wood.	41	0#		6481	7 #
SANDSTONE.	light grey, fine grained, with		•		• • •	'
01 <u>0</u> (<u>0</u> 0 <u>1</u> 01 <u>0</u>)	irregular dark silty laminae	41	511	1' 6"	6531	
SANDSTONE.	light grey, med coarse grained	41	10"		6571	10"
	light grey, fine grained	31	2"	21 41	661'	
SANDSTONE,		81.	01		6691	
	alternating bands of fine and					
•	medium grained light grey sandstone					
	with a few brownish grey silty bands	32 '	0"		671'	
	Ha Ha	.B.	New	march"		
				ing Eng	ineer	
				00		

<pre>shity, shickensided in part 0' 0' 0" - 455' 8" SHALE, grey, sandy, carbonized wood fragments 4' 4" - 464' SHALE, dark, carbonaceous, silty, carb. wood 5' 3' 469' SHALE, dark, carbonaceous, solty, carb. wood 5' 3' 469' SHALE, dark, carbonaceous, coaly streak at base 1' 8" - 471' 4" SANDSTONE, light-colored, fine-grained, micaceous 0' 10" - 474' 6" SANDSTONE, light-colored, fine-grained, 0' 10" - 474' 6" SHALE, grey, sandy, carb in part 2' 4" - 473' 4" SANDSTONE, light-colored, coarse grained, cross- bedded, arkosic, (frags, carb. wood) 0' 4" - 479' 4" SANDSTONE, light grey, fine grained with dark carbonaceous silty partings (x-bedded) 0' 8" 9' 489' SANDSTONE, medium to coarse grained, pebbles of quartz pebles) SANDSTONE, as above 0' 9" - 499' 9" COAL, slighty urushed DIP 20 degrees 0' 3" - 500' 5" SHALE, almost black, carbonaceous, silty 2' 6" - 504' 6" shale, ark brown, silty, coaly specks 1' 7" 0' 7" 502' SHALE, almost black, carbonaceous, slity 2' 6" - 504' 6" shale ark brown, silty, coaly specks 1' 7" 0' 7" 502' SANDSTONE and SHALE, as above, solth fine grained light grey, fine to med. grained irregularly bedded lamine of fine grained light grey, set and dark grey slity sh. Specks of coal, glant frags. 7' 6" - 512' SANDSTONE and SHALE, as above, solth fine grained light grey, fine to med. grained 5' 0" - 526' shale dark grey to black, silty, carb. in part with occasional thin stringers of coal SANDSTONE, light grey, fine to med. grained 5' 0" - 526' with irregular dark silty laminae, occasional plant frags. SHALE, dark grey to black, silty carb. plant fragments 3' - 529' SANDSTONE, light grey, fine to med. grained 1' - 530' SANDSTONE, light grey, fine to med. grained 1' - 530' SANDSTONE, light grey, fine to med. grained 1' - 530' SANDSTONE, light grey, fine to med. grained 1' - 530' SANDSTONE, light grey, fine to med. grained 1' - 539' SANDSTONE, light grey, fine to med. grained 1' - 539' SANDSTONE, light grey, fine to med. grained 1' - 539' SANDSTONE, light grey, fine to med. grained 1' - 539' SANDSTON</pre>	SHALE, dark grey to black, carbonaceous,					
 SHALE, dark, varbonaceous, silty, carb, wood 5' 3' 469' SHALE, dark, carbonaceous, coaly streak at base base I' 8" - 471' 4" SANDSTONE, light-colored, fine-grained, micaceous 0' 10" - 474' 6" SHALE, grey, sandy, carb. in part 2' 4" - 473' 8" SHALE, sandy, alternating fine grained sand-4' 6" 3' 4" 479' stone and grey sandy shale (carb. in part) SANDSTONE, light colored, coarse grained, cross-bedded, arkosic, (frags, carb.wood) 0' 4" - 479' 4" SANDSTONE, light grey, fine grained with dark carbonaceous silty partings (x-bedded) 9' 80' 489' SANDSTONE, as above, with thin irregular lenses of coal SANDSTONE and ShulE - alternating thinly and irregularly bedded laminae of fine grained light grey ss. and dark grey silty sh. Specks of coal, plant frags. 7' 6" - 512' SANDSTONE and SHLE, as above, some x-bedding 1' - 513' SANDSTONE and ShulE, as above, some x-bedding 1' - 513' SANDSTONE, light grey, fine to med. grained 4' 0" 1' 8" 521' SANDSTONE and ShulE, solt, silty, carb. plant frags. 7' 6" - 520' SANDSTONE and ShulE, as above, some x-bedding 1' - 513' SANDSTONE and ShulE, as above, some x-bedding 1' - 513' SANDSTONE and ShulE, as above, some x-bedding 1' - 513' SANDSTONE and ShulE, as above, some x-bedding 1' - 513' SANDSTONE, light grey, fine to med. grained 5' 0" - 526' SANDSTONE, light grey, fine to med. grained 5' 0" - 526' SANDSTONE, light grey, fine to med. grained 5' 0" - 520' SANDSTONE, light grey, fine to med. grained 1' - 530' SANDSTONE, light grey, fine to med. grained 1' - 530' SANDSTONE, light grey, fine to med. grained 1' - 530' SANDSTONE, light grey, fine to med. grained 1' - 539' SANDSTONE, light grey, fine to med. grained 1' - 539' SANDSTONE, light grey, fine to med. grained 1' - 539' 		01	8"	<u> </u>	459 '	8"
 SHALE, dark, varbonaceous, silty, carb, wood 5' 3' 469' SHALE, dark, carbonaceous, coaly streak at base base I' 8" - 471' 4" SANDSTONE, light-colored, fine-grained, micaceous 0' 10" - 474' 6" SHALE, grey, sandy, carb. in part 2' 4" - 473' 8" SHALE, sandy, alternating fine grained sand-4' 6" 3' 4" 479' stone and grey sandy shale (carb. in part) SANDSTONE, light colored, coarse grained, cross-bedded, arkosic, (frags, carb.wood) 0' 4" - 479' 4" SANDSTONE, light grey, fine grained with dark carbonaceous silty partings (x-bedded) 9' 80' 489' SANDSTONE, as above, with thin irregular lenses of coal SANDSTONE and ShulE - alternating thinly and irregularly bedded laminae of fine grained light grey ss. and dark grey silty sh. Specks of coal, plant frags. 7' 6" - 512' SANDSTONE and SHLE, as above, some x-bedding 1' - 513' SANDSTONE and ShulE, as above, some x-bedding 1' - 513' SANDSTONE, light grey, fine to med. grained 4' 0" 1' 8" 521' SANDSTONE and ShulE, solt, silty, carb. plant frags. 7' 6" - 520' SANDSTONE and ShulE, as above, some x-bedding 1' - 513' SANDSTONE and ShulE, as above, some x-bedding 1' - 513' SANDSTONE and ShulE, as above, some x-bedding 1' - 513' SANDSTONE and ShulE, as above, some x-bedding 1' - 513' SANDSTONE, light grey, fine to med. grained 5' 0" - 526' SANDSTONE, light grey, fine to med. grained 5' 0" - 526' SANDSTONE, light grey, fine to med. grained 5' 0" - 520' SANDSTONE, light grey, fine to med. grained 1' - 530' SANDSTONE, light grey, fine to med. grained 1' - 530' SANDSTONE, light grey, fine to med. grained 1' - 530' SANDSTONE, light grey, fine to med. grained 1' - 539' SANDSTONE, light grey, fine to med. grained 1' - 539' SANDSTONE, light grey, fine to med. grained 1' - 539' 		4'	4"	-	464'	
 SHALE, grey, slity, with thin coaly partings O' 8" - 469' 8" SHALE, dark, carbonaceous, coaly streak at base SHALE, grey, sandy, carb. in part S' 4" - 473' 8" SHALE, grey, sandy, carb. in part S' 4" - 473' 8" SHALE, grey, sandy, carb. in part S' 4" - 473' 8" SHALE, sandy, alternating fine grained sand- 4' 6" 3' 4" 479' SHALE, sandy, alternating fine grained sand- 4' 6" 3' 4" 479' SHALE, sandy, alternating fine grained sand- 4' 6" 3' 4" 479' SHNDSTONE, light croover, coarse grained, cross- bedded, arkosic, (frags, carb. wood) O' 4" - 479' 4" SANDSTONE, light grey, fine grained with dark carbonaceous slity partings (x-bedded) O' 9" - 499' 9" SANDSTONE, medium to coarse grained, pebbles of , quartz and greenstone (some reddish Quartz pebbles) SANDSTONE, As above O' 9" - 499' 9" SANDSTONE, as above, with thin irregular lenses of coal O' 5" - 500' 5" SHALE, almost black, carbonaceous, slity 2' 6" - 504' 6" SANDSTONE and SHALE - alternating thinly and irregularly bedded laminae of fine grained light grey s. and dark grey slity sh. Specks of coal, plant frags. 7' 6" - 512' SANDSTONE and SHALE - alternating thinly and irregularly bedded laminae of fine grained light grey, fine to med, grained 5' 0" 1' 8" 521' SANDSTONE, light grey, fine to med, grained 5' 0" 1' 8" 521' SANDSTONE, light grey, fine to med, grained 5' 0" 528' SANDSTONE, light grey, fine to med, grained sandve, sheared in places sandve		5'		3†	469'	
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SANDSTONE and SHALE, alternating bands of fine to medium grained light grey ss.		1'		-		
fine to medium grained light grey ss.						
		10'		-	549'	

"C.B. Newmarch"

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LOG OF HOLE #3, CONTINUED

SANDSTONE, light grey, medium to fine grain. Compact	2'	67	-	357'	67
SANDSTONE, grey, medium to fine grained, in					
part thin-bedded. Two narrow shale bands. <u>Dip variable</u> , but about 15° SANDSTONE, light grey, medium grained. 4" coal	18'	0"	-	' 37 5'	6#
seam.	31	0"		376 '	6 **
CONGLOMERATE, medium grain. Many red granite	_	-			
pebbles	81	67	-	377 1	0"
SANDSTONE, light grey, medium to coarse, with	6				
conglomerate bands of unknown	991	0.11	21' 0"	3991	0.11
thickness CONGLOMERATE, medium grained, arkosic, with	66	0	δ1. <u>0.</u>	999	0
red pebbles	21	6"	l' 6"	401'	0#
SANDSTONE, dark grey, shaley, thin-bedded.					-
Hard and compact. Contains many					
carbonized twigs	4 '	07	-	405'	0"
SANDSTONE, grey, fine even grain. Compact and	01	6#	31 07	413'	c #
massive SANDSTONE, light grey, medium grain. Massive		5" 3#	01 91	415'	
CONGLOMERATE, fine to medium grain. Numerous	~	U	00	TTO.	
pebbles of red granite	71	3"	31 31	423'	0 **
SANDSTONE, grey, fine even grain. Variable					
dip 0-5°	71	2"	-	430 '	2"
SANDSTONE, light grey, coarse grain, few large					
pebbles	0.	10'	-	431'	0"
SHALE, dark, sandy with coarse sand grains. few coal streaks	01	9#	_	431'	94
SANDSTONE, light grey, medium to coarse	Ŭ	5	_	TOT	-
grained. Poorly sorted with few					
larger pebbles	•	3#		44 0'	-
CONGLOMERATE, medium grained, with red granite	91	0 **	71 67	449'	0 #
pebbles					
SANDSTONE, grey, thin-bedded with carbonaceous	17 T	0#	1'0"	4 56 '	0#
partings. <u>Dip 7⁰</u> SANDSTONE, light grey, med. to coarse	•	0"	1'0"	4591	-
ANTIPOTORIS' TTERIO STER' MEN' OD ODATRE	Ŭ	V	то	TOA	Ÿ

Note: This completes the logging by the undersigned

"Wm. H. White"

Assoc. Mining Engineer

Log of Hole #3, Continued

BAN DSTONE, light grey, medium to coarse grain. Friable	2'	6 †	-	320 †	6#
SHALE, dark to black, fissile, with leaf molds. Dip 120	0'	10"	-	321'	4"
SANDSTONE, light grey, medium to coarse grained		77	-	3231	
SANDSTONE, dark grey, shaley, irregular bedding SHALE, grey, few coal streaks	0' 1'	8" 10 "	-	324' 326'	
	L0 †	11"	-	3371	4"
SHALE, grey, few coal streaks, grading to sandy shale	1'	5" 5"	-	338 '	
SANDSTONE, grey, thin-bedded and cross-bedded SANDSTONE, light grey, medium grain. Cross-	31	5"	-	342'	2"
bedded	_	4"	-	343	
SANDSTONE, grey, fine even grain. Massive	_	6"	-	345	
SHALE, dark, with few coal streaks	2.	0"	01 67	347'	0"
SANDSTONE, grey, medium to fine grain, in part thin-bedded	_	67	-	351'	6 "
SHALE, dark, grading to sandy. Contains 6" mud- seam.	- 1'	6"	0' 8"	3531	0"
SANDSTONE, grey, med. to fine grain, in part thin-bedded	21	0 *	-	355 '	0 **

"Wm. H. White"

Assoc. Mining Engineer

Log of #3 Hole, Continued

SANDSTONE, dark grey, shaley with narrow shale bands. Fine grained, with irregula cross-bedding.		6.1	-	2061	6 "
SHALE, dark, compact, leaf molds and few coal streaks	1'	9 1 1	-	208'	3#
SHALE, grey, soft and muddy, many carbonized twigs	3'	9"	-	212'	0#
SANDSTONE, grey, thin-bedded, shaley with complete leaf molds on bedding. <u>Dip 120</u> SHALE, dark, with few coal streaks		211 217	-	214' 215'	
SANDSTONE, grey, thin-bedded, shaley. Shows cross-bedding and channelling CONGLOMERATE, fine, friable SANDSTONE, light grey, very coarse, friable	31	10" 10" 0"	21 8" 81 6"	218' 222' 233'	0 **
CONGLOMERATE, fine with indistinct bands of coarse sand. Friable SANDSTONE, dark grey, shaley, with shale bands	-	0#	3* 6*	240'	07
SHALE, grey, compact, few coal streaks SANDSTONE, grey, thinbedded, with shaley	4'	0" 0"	1'0" _	244' 245'	
bands containing thin coal streaks SHALE, dark, with few coal streaks	1'	6" 6" 4"		253' 255' 256'	0 **
SANDSTONE, grey, thin-bedded, shaley, soft SHALE, dark, with few coal streaks SANDSTONE, light grey, medium grained SHALE, dark to black, sandy lenses	01 61	10" 8" 7"		2571 2631 2651	2" 10"
SANDSTONE, dark grey, fine grained, shaley Irregular bedding SHALE, dark. Many very thin coal streaks		10" 4"	-	267 ' 268'	
SANDSTONE, light grey to grey. Medium to fine grain. Shaley bedding in places. <u>Dip 16</u> SHALE, grey, sandy		9# 0 #	. -	278' 2 80 '	
SANDSTONE, light grey, very coarse. Friable SANDSTONE, grey, fine-grained, compact SHALE, grey, with few coal streaks SANDSTONE, dark grey, thin-bedded, shaley	16' 2' 2' 5'	8" 1" 0" 11"	-	297 299 301 307	0" 0" 1"
SHALE, dark with many carbonized twigs SANDSTONE, dark grey, thin-bedded, shaley with beds of coarser sand. Dip variable 12 to 18	_	0"		308! 318!	

"Wm. H. White"

Assoc. Mining Engineer

"Wm. H. White"

Assoc. Mining Engineer.

LOG OF HOLE #3, Continued

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SANDSTONE, SANDSTONE,	grey, shaley, thin-bedded, friable light grey, medium grained, friable containing nodules of coal up to	51	0"	3 : 711	95 '	07
	<pre>ight grey, very coarse, poorly</pre>	5 †	0"	31 91	100'	0 #
Unit Di Onit à	sorted. Contains indistinct beds of conglomerate. With several 1"					
SHALE, dark	r, soft, few coal streaks			16' 7" 0' 6"	119' 120'	
	dark grey, shaley, irregular bed- ding	2'	2#	-	122'	8#
SHALE, blac	ck, fissile, leaf molds, few coal streaks	01	10"	-	123'	6#
SANDSTONE,	grey, shaley			-	125'	
	light grey, coarse-grained, poorly	•	~ #		3 /7 M I	~ #
			8"	7'8" -	137 ' 138'	
SHALE, GARE	, with few coal streaks grey, mostly thin-bedded and	0	TO	-	TOO	т
DAMDOLUME,	shaley, but with irregular channel-					
	ling of coarser material. Few					
	irregular coal streaks.	e 1	8#	01 8"	145'	07
SHALE, dark	Average dip 120		01	01 67		
	grey, shaley, thin-bedded		711		147'	
COAL, hard,	Clean, dull conchoidal fracture	01	l"	-	147'	8"
SANDSTONE,	light grey, medium grain, some					
	cross-bedding. Contains $\frac{1}{4}$ " streak	ez t	2"		150'	101
CONGLOWERAT	hard coal FE, medium to fine grained				151'	
	light grey, variable_coarse grain		8"		153'	
SANDSTONE,	dark grey, shaley. Fine even					
	grain. Soft		6"			
SHALE, grey	y, compact, soft	-	11"	-	157	11"
•	dark grey, shaley. Fine even grain Soft	' 3'	1"	-	161'	0 "
SHALE, dark	c, fissile, leaf molds. Soft and	0 t	4"		163'	A 11
	muddy dark grey, shaley		8 ¹¹	-	165'	0 "
	light grey, medium to coarse	-	•			-
,	grained	1'	8"		166'	8"
SANDSTONE,	grey, thin-bedded, shaley bands		~ ~		• w • •	~ #
	$\frac{\text{Dip 9}^{\circ}}{\text{Dip 3}^{\circ}}$	5'	0" 4"	-	171' 176'	
CONGLOMERA	TE, fine grain. Few coal streaks grey, thin-bedded, shaley bands		0"		1771	
CONGLOMERA	TE, fine-grained with few larger	-	v		<u> </u>	Ŭ
	pebbles. One streak of hard coal					
·	near base	5'	0 **	-	182	0"
SHALE, grey	y, sandy, few thin coal streaks.	. 1	0.11		186'	0.11
° ANTO CIO NES	Soft.		9# 0	1'0"	188'	
	dark grey, shaley TE, fine grained		0 "		189'	9"
SANDSTONE.	grey, thin-bedded showing cross-		-			
	bedding	_	91		191	
SHALE, grey	y, sandy with irregular sand lenses	31	0"	-	194'	6"
SHALE, darl	k, fissile, thin coal streaks and					

LOG OF #3 HOLE

1

Approximate position: 760 feet on a line bearing 330⁰ True from the Southeast corner of Lot 120 Approximate Elevation: 2420' 1

	Thick	ness	core <u>missin</u> g		th
STREAM WASH BEDROCK, very decomposed apparently sandy shale		0 #	331 0"		0 11
SHALE, grey, sandy, coal marks. Soft decom- posed. SANDSTONE, grey, shaley with coal marks.		0#	-	41'	0#
soft, decomposed. <u>Dip 15 to 22</u> <u>Degrees</u> SANDSTONE, light grey, coarse, friable		7# 9#	-	42† 43†	
CLAY, probably ground up decomposed shaley sandstone	-	8"	- 5' 0"		
SHALE, light grey, sandy, soft and clayey SHALE, dark, with leaf molds and coal strea	5'	2" 4"	-	551 561	2"
SHALE, black, sheared, in part finely pul- verized containing carbonaceous	- •			•	
material SHALE, dark, soft SHALE, block shored in port finaly pul		3" 4"	-	56 1 57 1	
SHALE, black, sheared, in part finely pul- verized containing carbonaceous material	0'	8"	` •	57 '	Q II
SHALE, light grey, sandy, soft	1'	0 **	_	581	9#
SANDSTONE, dark grey, shaley. Soft and clay SANDSTONE, light grey, medium to coarse,	-		-	60'	3"
poorly sorted. Very friable		01	. 🗕	64'	
SHALE, grey, compact, but soft and clayey SHALE, light grey, sandy, soft and clayey	-	0 11	-	71' 78'	-
SANDSTONE, light grey, medium grained. very soft and muddy SHALE, dark, finely brecciated, containing	21	0#	-	80†	0#
carbonaceous matrix SHALE, dark, soft	-	3 " 0"	· -	80' 81'	
SANDSTONE, dark grey, shaley, thin-bedded Soft and clayey. Dip variable but					
averages about 12° SHALE, dark, soft		7# 2#		84 ' 90'	10" 0"

"Wm. H. White"

Assoc. Mining Engineer.

PROGRESS REPORT MERRITT D.D.H. No. 3, June 17 - June 18

June 17

Graveyard Shift:	Coring	1246	-	12581
Morning Shift:	Coring	1258		
Afternoon Shift:	Coring	1258'	-	

<u>June 18</u>

Graveyard Shift: Drilling stopped here Coring 1258' - 1270'

June 19

First drill used, is being set up on #4 site

"J.M. Black"

Asst. Mining Engineer

19 June 46

Graveyard Shift	Coring 1165' - 1175'
Morning Shift	Coring 1175' - 1186'
Afternoon Shift	Coring 1186' - 1192'

<u>June 14</u>

Graveyard Shift	Coring	1192'	-	1197'
Morning Shift	Coring	1197'	-	1206'
Afternoon Shift	Coring	12061	-	1216'

June 15

Graveyard Shift	Coring 1216' - 1226'
Morning Shift	Coring 1226! - 1236!
Afternnon Shift	Shut down

June 16

Graveyard Shift	Shut down
Morning Shift	Shut down
Afternoon Shift	Coring 1236' - 1246'

Depth at 8:00 A.M. June 17th was 1258'

Dr. J. Black has taken over here.

At a depth of 1225' a coal seam with a thickness of 1' 4" was encountered (bony coal) This seam may allow us to make a tentative correlation with the No. 1 hole on the Indian Reserve (1225' in hole No. 3 being equivalent 550' in the Indian Reserve hole) I am bringing the graphic logs with me and will discuss the matter with you.

> "C.B. Newmarch" Asst. Mining Engineer.

Graveyard shift:	Coring 1083' - 1099'
Morning Shift :	Coring 1099! - 1108!
Afternoon Shift:	Coring 1108' - 1114'

June 11

Graveyard Shift:	Coring	1114'		11231
Morning Shift:	Coring	1123'		11351
Afternoon Shift:	Coring	1135'	-	1140'

June 12

Graveyard Shift:	Coring	1140'		1150'
Morning Shift :	Coring	1150'	-	1154'
Afternnon Shift:	Coring	11541	-	1165'

Depth at 8:00 A.M. June 13 was 1175'

Section is mostly sandstone with a little carbonaceous shale.

"Charles B. Newmarch" Asst. Mining Engineer

Graveyard Shift:	Coring	1018'	-	1014'
Morning Shift :	Coring	1014'	-	1024!
Afternoon Shift:	Coring	1024'	-	1034

June 6

Graveyard Shift:	Coring 1034! - 1045!
Morning Shift:	Coring 1045' - 1063'
Afternoon Shift:	Shut down waiting for drill rods

<u>June 7</u>

Graveyard Shift:	\mathbf{Shut}	down	waiting	for	drill	rods
Morning Shift :	11	11	11 -	11	n	11
Afternoon Shift:	11	11	11	11	11	Ħ

June 8

Graveyard Shift:	Shut down	17	ft -	11	Ħ
Morning Shift :	11 11	11	tt	н	n
Afternoon Shift:	Coring 1063	· - 1	o68		

June 9

Graveyard Shift:	Coring 1068*	-	10731
Morning Shift :	Coring 1073'	-	10831
Afternoon Shift;	Coring 1083!	-	10931

Depth at 8:00 A.M. June 10 was 1099' No coal to date.

"C.B. Newmarch"

Asst. Mining Engineer.

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Will core to 1123 and advise C.B.N.

Graveyard Shift:	Coring 956' - 963'
Morning Shift :	Coring 963! - 977!
Afternoon Shift:	Coring 977' + 987'

June 4

Graveyard Shift:	Coring 987' - 1002'
Morning Shift:	Coring 1002' - 1003'
Afternoon Shift:	Mixing mud and coring 1003! - 1008!

Depth at 11:30 A.M. June 5 was 1024'

Now coring conglomerate and sandy shale.

"Charles B. Newmarch"

Asst. Mining Engineer.

Graveyard Shift:	Coring 939! - 946!
Morning Shift :	Coring 946! - 956!
Afternoon Shift:	Shut down.

June 2

Graveyard Shift:	\mathbf{Shut}	down	
Morning Shift :	tt	Ħ	
Afternoon Shift:	11	Ħ	

Depth at 11:00 A.M. June 3 was 977'

No coal to date.

"C.B. Newmarch"

Asst. Mining Engineer.

<u>May 30</u>

Graveyard Shifts	Coring	8801	-	8901
Morning Shift :	Coring			
Afternoon Shift:	Coring	911'	-	9221

<u>May 31</u>

Graveyard Shift:	Coring 922*	-	9321
Morning Shift:	Coring 932'	-	9341
Afternoon Shift:	Coring 934'	-	9391

Depth at 11:00 A.M. June 1st was 956' The section remain unchanged; no coal to date.

> "Charles B. Newmarch" Asst. Mining Engineer

<u>May 28</u>

Graveyard Shift:	Coring	8301	-	8401
Morning Shift :	Coring			
Afternoon Shift:	Coring			

May 29

Graveyard Shift:	Coring 855!		8601
Morning Shift :	Coring 860'	-	8701
Afternoon Shift:	Coring 870'	-	8801

Depth at 12:30 P.M. May 30 was 911'

Coring is now continuing without unusual difficulty at about 30 feet per day.

"C.B. Newmarch"

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Asst. Mining Engineer.

<u>May 26</u>

Graveyard Shift:	Shut down	
Morning Shift :	Coring 8001 - 8051	
Afternoon Shift:	Coring 805' - 812'	

May 27

Graveyard Shift:	Coring	8121	- 817'
Morning Shift :	Coring	8171	- 8201
Afternoon Shift:	Coring	8201	278301

Depth at 12:00 P.M. May 28 was 850'

"C.B. Newmarch"

Asst. Mining Engineer

<u>May 21</u>

Graveyard	Shift:	Coring	6881	-	6981
Morning	Shift:	Coring	6981	-	7081
Afternoon	Shift:	Coring	708 I	-	714'

<u>May 22</u>

Graveyard	Shift:	Coring	714'	-	7231
Morning	Shift:	Coring	7231	-	7351
Afternnon	Shift:	Coring	7351	-	7571

<u>May 23</u>

Graveyard Shift:	Coring	1571		7671
Morning Shift :	Coring Coring	7671	-	7771
Afternoon Shift:	Coring	1111	-	7891.

May 24

Graveyard Shift:	Coring 789' - 800'
Morning Shift :	Shut down
Afternoon Shift:	Shut down.

<u>May 25</u>

Graveyard Shift:	Shut down.	
Morning Shift :	Shut down.	
Afternoon Shift:	Shut down.	

Note: Will resume coring at 8:00 A.M. May 26

"C.B. Newmarch"

Asst. Mining Engineer.

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May 24, 1946

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May 23, 1946.

Merritt Drill Hole No. 3

Reached a depth of 765' at noon on May 23.

<u>May 18</u>

Graveyard	Shift:	Coring Coring	561'	-	571'
Morning	Shift:	Coring	571'	-	5821
Afternoon	Shift:	Coring	5821	-	5981.

<u>May 19</u>

Graveyard Shift:	Coring	5981	-	614'
Morning Shift :	Coring	6141	-	6531.
Afternoon Shift:	Coring	6331	-	6531.

May 20

Graveyard	Shift:	Coring	6531	-	671'
Morning	Shift:	Coring Coring	6711	+	681'
Afternoon	Shift:	Coring	681'	-	6881.

Total depth at 4:00 p.m. May 21 was 708'.

"C.B. Newmarch"

Asst. Mining Engineer.

PROGRESS REPORT Merritt Drill Hole No. 3, May 16 - 17

<u>May 16</u>

Graveyard Shift: Coring 512' to 516' Morning Shift : Coring 516' to 521' Afternoon Shift: Coring 521' to 529'

<u>May 17</u>

Graveyard Shift: Coring 529' to 539' Morning Shift : Coring 539' to 549' Afternoon Shift: Coring 549' to 561'

Total Depth at 5:00 P.M. May 18 was 590'

No coal encountered during the week.

"C.B. Newmarch" Asst. Mining Engineer

PROGRESS REPORT Merritt Drill Hole No. 3, May 14 - 15

<u>May 14</u>

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Graveyard Shift:	reaming ho	le from 140'	to	499 '
Morning Shift :	Running 42	0' of casing		
Afternoon Shift:	running ca	sing		

<u>May 15</u>

Graveyard Shift:	running casing
Morning Shift :	Setting casing at 498' and cored 499' - 502'
Afternoon Shift:	cored 502' to 512'

Total depth at 5:00 P.M. May 16 was 521'

"C.B. Newmarch"

Asst. Mining Engineer.

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PROGRESS REPORT - MERRITT DRILL HOLE #3 - May 11th to 13th.

May 11th: Morning Shift: Cored 449' to 459' Afternoon Shift: Shut down.

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- May 12th: Graveyard Shift: Shut down. Morning Shift : Shut down Afternoon Shift: Cored 459' to 467'
- May 13th: Graveyard Shift: Cored 467' to 479' Morning Shift : Cored 479' to 489' Afternoon Shift: Cored 489' to 499'

Decision made to case hole to 450' to shut off artesian watter encountered from 430' to 450'.

"C.B. Newmarch"

Asst. Mining Engineer

PROGRESS REPORT - MURRITT HOLE #3 - MAY 8th to 10th

- May 8th Night Shift: Sank casing easily to 140 feet which appears to be the bottom of the caved area which caused the trouble. If more trouble develops later on the casing can be sunk farther. Graveyard : Cored 365' to 387'
- May 9th Day Shift : Cored 387' to 405' Night Shift: Cored 405' to 416' Graveyard : Cored 416' to 430'
- May 10th Day Shift : Cored 430' to 449' Night Shift: Pump trouble - Hole making water Graveyard : Not working

May 11th - Day Shift only: Repaired Pump. Cored 449'-459'

Note: Mr. Newmarch has taken over here at this point.

"W.H. White"

Assoc. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE #3 - May 6th to 8th.

- May 8th: Night Shift: 318' to 326' Graveyard : 326' to 345'
- May 7th: Day Shift : 345' to 355' Night Shift: 355' to 365' Caving trouble. Graveyard : Caving below the casing, set at 40' resulted in the casing breaking off near the bottom and dropping to 100' in the caved hole. This was recovered and new casing run in to 100'.
- May 8th: Day Shift : Decision made to case the hole down to solid ground, which, on account of the friable nature of the sandstones and conglomerates, may have to go to bottom (365')

"Wm. H. White"

Assoc. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE #3 - May 4th - 6th.

May 4th - Night Shift: Cored 202' to 222' Graveyard : Cored 222' to 232' (Engine trouble) May 5th - Day Shift : Cored 233' to 253' Night Shift: Cored 253' to 274' Graveyard : Cored 274' to 297'May 6th - Day Shift : Cored 297' to 318'

"Wm. H. White"

Assoc. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE #3 - May 2nd to May 4th.

May 2nd: Night Shift: Cored 90' to 120'

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Мау	3rd:	Day Shift: Night Shift:	Cored Cored	-	
		Graveyard:	Cored	_	

May 4th: Day Shift: Cored 193' to 202'

"Wm. H. White"

Assoc. Mining Engineer

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PROGRESS REPORT - #3 HOLE, MERRITT, B.C. Apr. 29th to May 2nd.

April 29th:	Day Shift only:	Set up completed and hole collared.
April 30th:	Day Shift :	Drove 4" pipe to depth of 11 feet in stream wash, encountering decomposed rock at 7 feet.
,	Night Shift:	Drilling casing down.
May 1st:	Day Shift:	Drilled casing down to 40 feet in decomposed bedrock. Cored 40' to 50' in decomposed sandy shale
	Night Shift:	Cored 50' to 70'
May 2nd:	Day Shift:	Cored 70' to 90'.

"Wm. H. White"

Assoc. Mining Engineer

MERRITT DRILL HOLE #2

LOG OF HOLE #2, Continued

SANDSTONE, dark grey, shaly	1'	5"	-	894'	5"
SANDSTONE, grey, medium grained, shaly		- 1			
streaks <u>Dip 31</u> 0	4'	0"	-	8981	5"
SANDSTONE, light grey, medium to coarse			,		
grained. Few carbonate stringers		7 **	-	907 '	-
SHALE, grey, sandy	1'	1"	—	908 '	l"
SHAIE, dark, sheared, few coal streaks	2'	9#		910'	10"
SHALE, black, sheared, many coal streaks.					
Dip 32 ⁰	י ר	5"	-	912'	3"
SHALE, dark, compact		0"	-	913'	
TUFF, light colored, fine grained, coal		v		• = •	Ŭ
marks	ז ר	67	-	914 '	01
CONGLOMERATE, volcanic fragments, medium to	-	U	-	2T.I	J
oonalowinking, volcanic ilaguenos, medium to	11'	77.99		926 [•]	. 11
coarse grained. <u>Dip 25[°]</u>			-		
SHALE, dark, compact, coal marks	0.	5"	-	926 '	9
BRECCIA, medium to fine grained, volcanic					
frags.	2'	3"		9291	07
VOLCANICS, probably basalt, finely por-					
phyritic	31	6"	-	932'	6 7
VOLCANICS, greenstone, fine grained, dark					
green, in part brecciated or					
pillowed	8'	67		941'	0 **
SANDSTONE, metamorphosed, with biotite and	-	_			-
feldspar developed	31	0 7	< 	944'	0#
Totroper coloropou	Ŭ	·		• • •	v
		120	7 F		
ν.		1 57	>/		
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END OF HOLE

Assoc. Mining Engineer

LOG OF HOLE #2, Continued

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SHALE, grey, sandy with sand lenses, few coal	31	0 **	-	834	
SANDSTONE, light grey, medium even grain SANDSTONE, grey to dark grey, fine-grained, thin-bedded, shaly with several shale bands.	4'	6"	-	8381	6"
Dip 23°, fairly regular	14'	6"	1' 0"	853'	0"
SANDSTONE, finely crushed, with much gouge in fault zone		0" 0"	1' 6" 0' 4"	857† 858†	
SHALE, black, many coal streaks <u>Dip 38°</u> SANDSTONE, grey, fine-grained, somewhat	_	0"	1' 0"	8671	
broken SANDSTONE, grey, shaly, crushed and faulted	-	0 0.#	1' 8"	870	
zone SANDSTONE, light grey, fine-grained, compact	5.	0	T. 8.	870,	0
except in narrow crushed zone at 875'. Calcite strs.	6 '	3"	-	8761	3"
SANDSTONE, grey, fine-grained, shaly bedding planes. variable dip at low angles		94	-	878	
SHALE, grey, sandy, few coal streaks SHALE, dark grey, few coal streaks <u>Dip 15</u> ° COAL, very boney (nearly half black shale).		0" 11"	-	879† 879†	
Sheared.	1'	0"	01 3#	880'	<u>1</u> 1"
SHALE, grey, sandy, few coal streaks. In part finely crushed	4'	1"	21 3"	8 85 '	0 "
SHALE, black, few coal streaks. Finely crushed	0 '	8"	01 31	8851	8 "
SHALE, grey, compact, few coal streaks <u>Dip 450</u>	1'	0"	- `	8861	8"
SHALE, black, numerous coal streaks up to thick comprise nearly half the					
core. Coal streaks dip about 50°, and shearing evident parallel	7				
to the bedding. SHALE, black, several coal streaks up to	0'	10"	0'1"	887†	6"
1" thick. Severely sheared, in part finely cominuted.	2'	9 n	1' 0"	8901	3"
COAL, very boney (nearly half black shale). Severely sheared, in part finely					
comminuted SHALE, grey, sandy, compact		7" 2"	0 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		
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"Wm. H. White"

Assoc. Mining Engineer

LOG OF HOLE #2, Continued.

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SANDSTONE, dark grey, shaly. Numerous inter- calated bands of sandy shale. Dip variable 0° to 20° SANDSTONE, almost white in color, thin- bedded, mostly fine-grained with thin dark bedding planes having	11'	6 "	-	7721	6"
variable dips at low angles	20'	6 **	-	793 '	0"
SANDSTONE, dark grey, shaly	81	0#	-	801'	07
SHALE, dark grey, broken, in part finely					-
sheared. Many carbonate stringers	5'	0#	21 07	8061	0 **
SHALE, dark grey, sandy		8"'		8071	
SANDSTONE, dark grey, shaly			_		
SHALE, dark grey, sandy, few coal streaks	ō'	6"	-	811'	67
SANDSTONE, dark grey, shaly			-	812'	
SHALE, grey, sandy, with sand-filled mud	-	-			
cracks. Few coal streaks	91	2"	-	8221	0"
SANDSTONE, dark grey, shaly		8"		822'	-
SHALE, dark to black, compact, indurated having a false cleavage at 45°.	Ū	0	_	022	Ū,
Few carbonate seams	8'	4 "	***	831'	0"
	0	-		001	v

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Log of Hole #2, continued

SANDSTONE, light grey, coarse CONGLOMERATE, medium grained SANDSTONE, light grey, coarse with few		0# 6#	-	679† 679†	-
. large pebbles	9†	0"	-	6881	6 "
CONGLOMERATE, medium to coarse grained, several coal streaks SHALE, grey, sandy, compact, few coal marks SANDSTONE, dark grey, shaly	4'	6 [#] 0 [#]	21 011	694' 698' 700'	0"
SANDSTONE, grey, fine to medium grained			-	720'	-
SHALE, grey, sandy, few coal streaks <u>Dip 30</u> SHALE, grey, sandy, with irregular steep			-	721'	
bedding COAL, hard, bright SHALE, grey, sandy, one ‡" coal seam SANDSTONE, dark, shaly, irregular bedding SANDSTONE, grey, fine even grain	0' 0' 1'		0']"	725' 726' 726' 728' 732'	0" 6" 4"
SANDSTONE, light grey, coarse to very coarse. Rude bedding dips from 10° to 35°. CONGLOMERATE, fine grained CONGLOMERATE, medium grained SHALE, light grey, few coal streaks <u>Dip 37°</u> SANDSTONE, dark grey, shaly streaks. Shows irregular cross-bedding	3' 1' 2'	2" 6" 0" 2" 4"	2' 6" _ 0' 9"	749' 752' 753' 755' 761'	6 " 6" 8"

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LOG OF HOLE #2 - Continued

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SANDSTONE, light grey, coarse to very coarse, with					
irregular conglomerate beds	11'	73 11		643 '	72 11
SANDSTONE, dark grey, shaly		911 -		644 ¹	
	-	9" 6"			•
SHALE, dark grey, sandy, compact	4.	D	-	648 '	6"
SHALE, black, containing two 1 coal seams and	~ •	~ **	- • • • •		
several thinner coal streaks		0"	0 4"	650'	
COAL, boney	0'		0'1"		
SHALE, grey, sandy, with coal marks	0*		0' 1"		
COAL, bright, hard, with two-way cleat		8"	1.77		
COAL,		4"	01 21	654	4"
SHALE	01	3"		654!	7 **
COAL	01	3"	0'1"	654'	10"
SHALE	01	1"	-	654 '	
COAL	01	3"	0' 1 1 "	655'	2"
SHALE	01	2"		655'	4 "
•OAL, bright, hard, narrow streaks of bone		8"	01 8"	657'	
SHALE, grey, sandy		911		657'	
COAL, boney, with numerous thin streaks of shale	-	2n	0 7 7 **	659'	
SHALE, dark grey, sandy		8"	- ·	661'	
SANDSTONE, light grey, very coarse		8"	_	664'	
CONGLOMERATE, fine, with indistinct beds of	2	0	_	00 ±	0
coarse sandstone, and scattered larger					
pebbles	72 1	911	_	6681	01
SANDSTONE, light grey, very coarse	-	0"		670'	-
CONGLOMERATE, fine to medium-grained		0"		671'	
SANDSTONE, light grey, very coarse	_	01		673†	-
CONCLOMERATE fine to medium grained with a few	6	0	-	073	0
CONGLOMERATE, fine to medium-grained with a few					
scattered pebbles up to 2", and with indistinct beds of coarse sandstone		~ #			o.#
Indistinct beus of coarse sandstone	4'	0"		677'	0"

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LOG OF DRILL HOLE #2, Continued

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			_	
	1 61	-	478 '	67
SHALE, dark grey, slightly sandy, many coal				
	1 4 ¹¹	-	480 '	T0
SANDSTONE, light grey, medium to coarse	1 61		486 '	A 11
	1 61		400 490'	
SANDSTONE, grey, variable texture from fine	0	-	-190	10
to coarse irregular cross-bedding.				
Abrupt contact with underlying shaled	1 0 1	-	500 '	10"
	1 2"	l' 0"	513'	
SANDSTONE, dark grey, shaly Dip 50 1	1 01	-	514'	
	' l"	-	516'	1"
SHALE, black, fissile, few coal streaks	_			
	' 11		517'	
		-	519'	-
	1.0"	-	521'	
	1 0 1	-	522'	0"
SHALE, black fissile, leaf impressions, coal streaks 4	ייני		526'	- #
	1 0"		528 '	
SHALE, dark grey, finely shared in part, few	0	00	020	-
coal streaks 3	1 91	l' 0"	531'	10"
	1 gn	-	534'	
SHALE, dark, sandy, few coal streaks 2	1 07	01 31	536 '	0#
SANDSTONE, dark, very shaly, several coal				
	1 6"	-	538 '	6 "
SHALE, dark, sandy streaks, coal marks				~ **
	¹ 8"	l' 6"	546 '	2"
SANDSTONE, grey, medium grain, few shaly	• 4"		553 '	e tt
partings 7 SANDSTONE, light grey, coarse to very	· 4·		559.	O
coarse, friable (Borderline of				
fine conglomerate) 9	1 91		563'	3#
	1 67		564'	
SANDSTONE, dark grey, medium to fine grained	-			
with numerous shaly bedding planes 15	1 2"	-	579 '	
SANDSTONE, light grey, cearse 0	10	H _	5 80 '	9#
SANDSTONE, dark grey, fine grain, shaly				- 1
	· 0"	-	581'	9"
CONGLOMERATE, fine grained, friable, with				
indistinct bands of coarse sand-				
stone and two 1" shale bands, and several coal streaks which vary				
	1 31		593'	0 **
SANDSTONE, light grey, coarse, few coal				-
	1 0 [#]	-	627 '	0#
	1 01		630'	0"
SANDSTONE, light grey, very coarse, friable 2	1 0"	-	632'	0 **

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LOG OF DRILL HOLE #2 Continued

SANDSTONE, dark grey, shaly	1'	0"	-	387 '	0 **
SANDSTONE, grey, medium grained. Faulted contact with underlying shale dips 45°	771	0"	-	394	0#
CULTE more conder broken		0 "		3951	-
SHALE, grey, sandy, broken	Τ.	0	-	282.	0
SHALE, grey. Numerous talcose shear planes					
and gouge filled fault planes dip-	_ •	**			
ping about 450	51	0"	-	4 00 *	0"
SHALE, grey. Broken in all directions by many					
curved talcose shear planes	71	0"		4071	0"
SHALE, Grey. Very broken, in part finely					
comminuted. Abrupt faulted contact					
with sandy shale below	31	6#		410'	6#
SHALE, grey, sandy, compact.	-	0"		411'	
SANDSTONE, grey, fine grained, thin-bedded, with	-	0		- 	0
	L0 '	0.11		421'	c 11
	61		_	427 1	
SANDSTONE, light grey, medium grained, massive	ь.	0	-	427·	6
SHALE, grey, somewhat broken but not sheared.	·	- **			
One fault plane dipping 45	71	6"	***	435†	0"
SANDSTONE, dark grey, fine grained, some shaly					
streaks		1"	-		
SHALE, dark grey, sandy		8#		439	
SANDSTONE, dark grey, shaly		8"		44 2	
SHALE, dark grey, sandy	1'	0"	-	443	5"
SANDSTONE, dark grey, shaly	1'	0#	-	444 †	5"
SHALE, dark, somewhat sandy	1'	10"	-	446	3"
SANDSTONE, dark grey, shaly streaks Dip 10°		6#		448'	
SANDSTONE, grey, few shaly bands. Irregular		•			•
bedding	q t	6"	-	458 '	3#
	_	0"	_	468'	
SHALE, finely crushed in fault zone		3"	-	469 1	-
	01	-	-		-
SHALE, grey, sandy, compact	~	•		469	
SANDSTONE, light grey, medium grained		5"		470	
SHALE, dark, slightly sandy. Few streaks of sand	4	4"		474	
SANDSTONE, dark grey, fine grained, shaly	1'	5"	-	476'	0"

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LOG OF HOLE #2, Continued

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SANDSTONE, light grey, medium to coarse, massive SHALE, black, compact, few coal streaks SHALE, jet black, compact, with numerous coal streaks making up to 25% of the core.		ди Оц		312' 312'	
Dip 14 ⁰		1"	-	314'	
SHALE, black, compact, few coal streaks SHALE, grey, sandy		2" 8"	0 ' 5" -	316' 316'	
SANDSTONE, dark grey to grey, fine grained, thin- bedded with thin shaly partings. Some		-			-
cross-bedding. Dip and strike variable	0.01			RRO!	~ #
	22!	-	-	338'	
SHALE, dark, compact, coal marks		3"		339'	
SANDSTONE, light grey, coarse	0'	5"	-	340 '	4"
SHALE, dark to black, compact, coal marks and	_ •				
few coal streaks. Dip 18°		8#	0' 6"	347'	-
SHALE, grey, sandy		0"	-	348'	07
SANDSTONE, dark grey, shaly bands	3'	67		351'	6"
SANDSTONE, light grey, medium to coarse grained,					
Massive bedded	19'	2"	-	370'	8"
SHALE, dark grey, sandy <u>Dip 80</u>	1	'4"	-	372'	0**
SANDSTONE, dark grey, shaly	ינ	0 "		3731	0"
SHALE, dark grey, sandy		6#	-	3751	-
SANDSTONE, dark grey, thin bedded with shaly		-		010	Ū
streaks	21	3"	-	377 '	Q 11
SHALE, dark, compact		3"		381'	-
SHALE, grey, sandy		0"	_	3821	
SANDSTONE, dark grey, shaly bands and streaks	-	U	-	002	U
Dip 15°	4'	0#		386'	0#

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LOG OF MERRITT DRILL HOLE #2, Continued

SANDSTONE, grey, medium to fine grained SHALE, grey, sandy		2" 10"	-	244' 245'	
SANDSTONE, dark grey, medium to fine grained, thin-bedded showing cross-bedding and channelling SANDSTONE, light grey, coarse, massive bedded,	6 '	2"	-	251'	27
friable, containing two 1/8" coal seams, and grading downwards into					
conglomerate	81	10"	-	26 0†	0#
CONGLOMERATE, fine grained, scattered coaly material	91	0"	-	2691	0"
SANDSTONE, fine grained, few shaly streaks	1'	0 7	0 4 4	270'	0"
SHALE, grey, compact SHALE, black, compact, many coal streaks.	4'	8"	21 8"	274	8"
Dip 22°	1'	5"	-	276'	1"
SANDSTONE, dark grey, fine grained, shaly		11"		280*	-
SHALE, grey, sandy SHALE, black, fissile, goal marks and coal	0'	9"	-	2801	94
streaks <u>Dip 14</u>	31	3"	-	284'	0#
SHALE, black, fissile, coal marks and coal		c #		004	a H
streaks <u>Dip 180</u> SANDSTONE, dark grey, micaceous, shaly <u>Dip 190</u>		6 " 0"	-	286† 289†	
SHALE, grey, sandy	21	0"	-	291'	
SANDSTONE, dark grey, shaly		2"	-	2921	-
SHALE, dark grey, coal marks, broken SHALE, grey, compact, becoming sandy		4" 0"	01 81	2941 2981	+
SANDSTONE, dark grey, fine grained, thin bedded, somewhat shaly. <u>Dip</u>	-	0	0.0	2 30	0
variable 5 to 200	-	2"		3031	
SANDSTONE, light grey, medium to coarse, massiv	e2'	10"	01 31	306 *	0 **

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LOG OF DRILL HOLE #2 - MERRITT, B.C.

Located on NE Quarter Section 14, Tp 91, 1233' from Hole #1 in direction 088° True. Elevation 2022'. Hole started 27/Feb/46

Boulder clay, with some sand and gravel beds Sand, loose, coarse, undecomposed Gravel, with very little interstitial sand Sand, loose; coarse, with layers of coarse g Sand, fine, with few large boulders	14' 14'		150' 164' 178' 193' 203'
BEDROCK	Thickness	core	Depth
SANDSTONE, weathered and broken SANDSTONE, grey, compact, poorly sorted	8' 0"	<u>Missing</u> 7' 10"	211 0"
medium to coarse grained with a few thin shaly streaks. <u>Dip 14</u> ^o CONGLOMERATE, fine grained. Abrupt Contact.	4' 9" 0' 6"		215' 9" 216' 3"
SHALE, black fissile, coaly streaks, becomin sandy at the bottom SANDSTONE, grey, variable texture from fine	2'0"		218' 3"
to very coarse. Irregular beddin CONGLOMERATE, fine grained. Abrupt contact. SHALE, light grey, sandy, coaly twigs SANDSTONE, grey, fine even grain, massive SANDSTONE, dark grey, fine grained, thin bed	〕	- -	220' 9" 222' 0" 223' 7" 224' 10"
with dark laminae dipping irregul ly from 8 to 18 ⁰ SANDSTONE, light grey, med. to coarse. Mass SHALE, grey, sandy SHALE, black, coal marks SANDSTONE, light grey, coarse, friable CONGLOMERATE, fine grained, poorly sorted SANDSTONE, light grey, coarse, friable	ar- 4'0"	0'6"	228' 10" 231' 3" 231' 8" 233' 0" 237' 4" 239' 4" 243' 0"

Note: This sequence of sandstone, shale, and conglomerate is similar to, although not identical in detail with that occurring in Hole #1 at 375' depth, which is 85' above the first coal seam. Projection using the assumed attitude indicates approximately the same horizon in the two holes. If the apparent equivalence is a fact, coal should be cut in Hole #2 at a depth of about 320'.

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Wm. H. White Assoc. Mining Engineer.

FINAL PROGRESS REPORT - MERRITT DRILL HOLE #2 - April 15 - 17th

April 15th - Night Shift: 893' to 903'

April 16th - Day Shift : 903' to 913' Night Shift: 913' to 923'

April 17th - Day Shift : 923' to 937' Night Shift: 937' to 944'. Pulled rods in 10's.

HOLE COMPLETED

Assoc. Mining Engineer.

PROGRESS REPORT - MERRITT DRILL HOLE #2 - April 12th to 15th

April 12th:Night Shift:Cored 831' to 838'April 13th:Day Shift:Cored 838' to 848'Might Shift:Cored 848' to 858'April 14th:Day Shift:Cored 858' to 870'Night Shift:Cored 870' to 879'April 15th:Day Shift:Cored 879' to 893'

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Assoc. Mining Engineer.

PROGRESS REPORT - MERRITT DRILL HOLE #2

April 10th to 12th

April 10th - Night Shift: Cored 764' to 784' Graveyard : Cored 784' to 801' April 11th - Day Shift : Cored 801' to 811' Night Shift: Cored 811' to 818' Graveyard : Not working April 12th - Day Shift : Cored 818' to 831'

Note: Due to labor shortage, work will continue temporarily on a basis of two ten-hour shifts per day.

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PROGRESS REPORT - MERRITT DRILL HOLE #2 - April 8th to 10th

 April 8th.
 - Night Shift:
 680' to 700'

 Graveyard
 : 700' to 716'

 April 9th.
 - Day Shift:
 716' to 726'

 Night Shift:
 726' to 737'

 Graveyard:
 ' to 752'

 April 10th.
 - Day Shift:
 752' to 764'

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PROGRESS REPORT - MERRITT DRILL HOLE #2 - April 7th. - 8th.

April	7th.	-	Day Shift Night Shift Graveyard	:	Cored	6381	to	647 '
April	8th.	-	Day Shift	:	Cored	6671	to	680 '

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PROGRESS REPORT - MERRITT DRILL HOLE #2 - April 3rd. to 6th.

April	3rd.	- Night Shift: Graveyard :	Cored 472' to 486' Cored 486' to 497'
April	4th.	- Day Shift : Night Shift: Graveyard :	
April	5th.	- Day Shift : Night Shift: Graveyard :	
April	6th.	- Day Shift : Night Shift: Graveyard :	

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Assoc. Mining Engineer

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PROGRESS REPORT - MERRITT DRILL HOLE #2 - April 1st. to 3 rd.

April 1st. - Day Shift:
Night Shift:Cored 387' to 405'
Cored 405' to 426'April 2nd. - Day Shift:
Night Shift:Cored 426' to 430'
Cored 430' to 436'
Cored 436' to 456'Mixed fresh mud.April 3rd. - Day Shift:Cored 456' to 472'

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PROGRESS REPORT - MERRITT DRILL HOLE #2 - Mar. 30th to Mar. 31st.

Mar.	30th :		Cored 326' to 346' Cored 346' to 375'
Mar.	31st:	Day Shift:	Cored 375' to 387'

Mar. 31st: Day Shift: Cored 375' to Night Shift: Not working

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PROGRESS REPORT - MERRITT DRILL HOLE #2 - 27th Mar. to 29th Mar.

Mar. 27th - Night Shift: Cored 253' to 274'
Mar. 28th - Day Shift: Cored 274' to 289'
Night Shift: Cored 289' to 295' (Got rods stuck in hole)
Mar. 29th - Day Shift: Cored 296' to 302' (Pump trouble remedied)
Night Shift: Cored 302' to 326'

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Assoc. Mining Engineer.

PROGRESS REPORT - MERRITT DRILL HOLE #2 - Mar. 25th to Mar. 27th.

Mar. 25th - Day Shift: Pulled casing and confirmed BEDROCK at 203' Drove pipe to 203'.
Night Shift: Drilled casing down to 213' in loose and broken sandstone.
Mar. 26th - Day Shift: Cored 211 - 217'. Rearranged drilling setup.
Night Shift: Setting up equipment for using mud. Cored 217 - 224'
Mar. 27th - Day Shift: Cored 224 to 243' up to 6 PM.

Note: Starting Mar. 27th two 12 hour shifts per day will operate.

Assoc. Mining Engineer

COLE VELLER

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PROGRESS REPORT - MERRIT DRILL HOLE #2 - Mar. 20th to Mar. 24th.

Mar. 20th - Day Shift only: Washing sand and gravel out of pipe Drilling casing to 195' in sand and fine gravel.

Mar. 21st - Day Shift: Driving pipe to 193' where it was stopped by a layer of larger boulders.

> Night Shift:Washing sand out of pipe, trying to chop boulders ahead of pipe.

- Mar. 22nd Day Shift: Drilling casing down to 202' in fine sand with large boulders, some of which were shale with coal streaks.
 - Night Shift:Attempted to blast thru casing but had a misfire probably due to hole caving and shorting leads when casing was drawn back. Remainder of shift spent chopping out the hole again.
- Mar. 23rd Day Shift: Drove pipe to 198'
 - Night Shift: Drilled casing ahead to 208'. In the last five feet the ground was hard and smooth with fine grey clayey mud cuttings coming back - indicates either bedrock or a clay hard-pan.

Mar. 24th - Neither shift working.

<u>Note</u>: Progress of 123', from depth 75' to 198' required 24 shifts, exclusive of time wasted on testing Blanc Method.

> Progress of the last 12' required 6 shifts. The slow advance has been due to the hole caving ahead of the pipe and the necessity in consequence of frequent chopping.

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PROGRESS REPORT - MERRITT DRILL HOLE #2 - Mar. 15th. to 19 th.

Mar. 15th. - Day Shift of 6 men Installing mud equipment for 'Blanc Method' No progress. Mar. 16th. - Day Shift of 6 men Installing mud equipment and testing 'Blanc Method'. No progress. Mar. 17th. - Day Shift of 5 men Testing 'Blanc Method' No progress. Mar. 18th. - Day Shift of 5 men Most of the day spent removing mud equipment preparing to resume driving operations, and in jaring the pipe losse. During the last two hours of the shift the pipe was driven 2 feet, in ground that had been drilled before the Blanc experiment was made. Mar. 19th. - Day Shift of 5 men

<u>Note</u>: Due to the difficulty of turning the pipe while driving, and the shortage of crew it is possible only to run one shift per day.

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Pipe driven to 186' in coarse sand and gravel.

PROGRESS REPORT - MERRITT DRILL HOLE #2 - Mar. 12th to 14th

Mar. 12th. - Day Shift: Drilled casing to 177 feet. Drilled core barrel down to 181 feet in coarse gravel. Night Shift: Re-threaded 4" casing to be used as standpipe.

Mar. 13th. - Day Shift: Removed all casing; fixed waterline which was frozen; and prepared to resume driving pipe. Night Shift: Not working (3 men off sick)

Mar. 14th. - Day Shift: Drove 4" pipe to 178 feet (4-man crew) Night Shift: Not working.

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PROGRESS REPORT - MERRITT DRILL HOLE #2 - MAR. 10th and 11th.

Mar. 10th - Day Shift: Drove pipe to 164' in sand. Night Shift: Not working.

Mar. 11th - Day Shift: Drilled casing down to 170' Gravel Drilled core-barrel down to 175' "

Night Shift: Drilled core-barrel down to 177'

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Merritt Diamond Drill Hole #2

Progress Report - Mar. 7th to Mar. 9th, inclusive

Mar. 7th - Day Shift - Changed pump in forenoon. Drilled to 132' and blasted - boulder clay. Night Shift - Drove pipe to 132'.
Mar. 8th - Day Shift - Drove pipe to 138' - Boulder clay. Night Shift - Drove pipe to 149' - Boulder clay.
Mar. 9th - Day Shift - Drove pipe to 159' - Material is medium to coarse sand with some pebbles. (7 men required on this shift to turn pipe while driving; the sand seems to bind the pipe)
Night Shift - Not working.

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Progress Report - Merritt Drill Hole #2 - March 4th to March 6th.

Mar. 4th. - Day Shift Drove pipe to 76' in clay (depth 75' at noon)
Mar. 5th. - Day Shift Drove pipe to 96' in clay and gravel
Mar. 6th. - Day Shift Drove pipe to 116' in mostly gravel
Mar. 6th. - Day Shift Drove pipe to 116' in clay, some boulders.
Drilled to 126' in clay and gravel
Night " Driving pipe to 126'

"Wm. H. White"

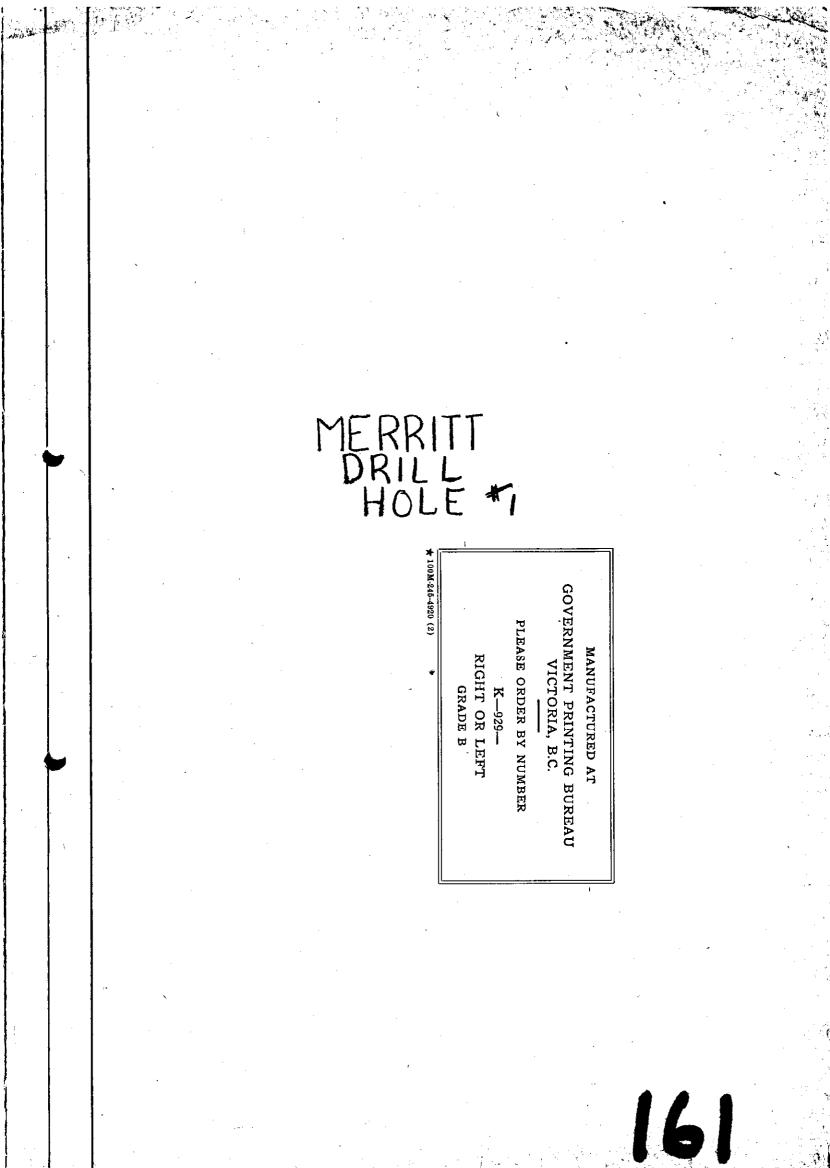
Assoc. Mining Engineer

PROGRESS REPORT of MERRITT DRILL HOLE #2

27/Feb. to 3/March

- 27/Feb. Day Shift: Collared Hole #2 Night Shift: Drove 6" pipe - Depth 30' in clay
- 28/Feb. Day Shift: Driving 4" pipe Night Shift: " - Depth 45' in boulder clay
 - 1/Mar. Day Shift: Driving 4" pipe Night Shift: " - Depth 55' in boulders and gravel beds.
 - 2/Mar. Day Shift: Driving 4" pipe- Depth 65' in coarse aand Night Shift: No working
 - 3/Mar. Day Shift: Not working Night Shift: Driving 4" pipe

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Log of Hole #1

(Located on NW quarter Sec. 14, Tp. 91, 378' N 35⁰ E from Diamond Vale Hole #11) (Elevation 1986')

Boulder Clay	102'		102'	0#
SANDSTONE, grey, med. to coarse grain, with shaly	200			•
streaks	141	0"	116'	0#
SHALE, dark, sandy		õ"	122'	
SANDSTONE, very coarse, poorly sorted, shaly streaks		ŏ"	127'	
SHALE, grey, sandy	31		131'	
SANDSTONE, grey, coarse, coal marks		10"	133'	
COAL, bony		10"	134'	
SHALE, dark, fissile, coal marks		6"	136'	
SANDSTONE, grey coarse, some fine sand and shaly streaks		0 "	138	
ALE, black, leaf molds, few sandy streaks		0"	156'	
SANDSTONE, shaly, finely bedded		67		
			158'	
SHALE, dark to black, coal marks		0"	161'	
SHALE, dark, sandy		0"	162'	
SANDSTONE, med. grain, with few shaly streaks		8" 4	167'	
SHALE, sandy, grey		6*	169'	
SANDSTONE, med. grain, shaly streaks, coal marks		2"	173'	
SHALE, black, coal marks, much fractured		0*	180'	
SANDSTONE, light grey, coarse		8"	183'	
SHALE, grey, sandy		6 **	189'	
SANDSTONE, grey, coarse, poorly sorted		10"	200'	
SHALE, dark grey, slightly sandy Dip 25°	-	07	2091	
SANDSTONE, shaly Dip 150		6"	213'	
SHALE, dark grey, sandy, fractured	61	67	2201	0"
SANDSTONE, med. to coarse, poorly sorted, few fine sand				
and shaly streaks	19'	07	2391	
SHALE, black, compact, leaf molds	13.	6"	252'	6*
COAL	0'	8"	253'	2"
SHALE, black, much fractured	81	10"	262'	0 **
WDSTONE, fine grain, shaly Dip 14°	41	0"	266'	0"
SANDSTONE, very coarse poorly sorted with some irregular				
fine conglomerate bands. Abrupt contact below	14'	07	280'	07
SHALE, black, fractured	31		2831	
COAL	Ō		2831	
SHALE, black, fissile, leaf molds		0.4	292'	
SANDSFONE, med. to fine grained, somewhat shaly		õ n	300'	
SHALE, dark, fractured	_	0 "	304'	
SANDSTONE, grey, shaly, coal marks		ŏ"	307'	
SHALE, grey to black, fractured, 1" coal seam		6"	314'	
SANDSTONE, shaly, dark grey		6"	318'	
SANDSTONE, light grey, coarse, poorly sorted, irregular	-	0	010	0
conglomerate streaks	191	07	330'	61
CONGLOMERATE, fine		9#	331'	
SANDSTONE, light grey, coarse, friable, poorly sorted		0 "	358'	
SHALE, dark, sandy, with fine sand streaks <u>Dip 14</u>		9#	364'	
		6 [#]	368 ¹	
SANDSTONE, grey, medium grained, shaly streaks CONGLOMERATE, fine, with coarse sand streaks and 2"	± '	0	900.	0
	E !	0.1	77777	c #
streak of sandy shale	5'	0"	373'	0
		6		
	•		-	

1' 6" SANDSTONE, fine grained 375' 0" 01 87 CONGLOMERATE, fine 375' 8" SANDSTONE, fine grained 1' 0" 376' 8" 3781 8" SHALE, light grey, sandy 2' 0" SANDSTONE, light grey, coarse, few shaly streaks 71 4" 450' 0" 461' 5불" 11' 51" SHALE, dark grey, sandy, sand streaks, coal marks COAL, with 12" shale parting 31 3 1 464' 9[°] 1' 7불" 466 4글 " SHALE, dark grey, coal streaks 1' 104" 468' 3["] COAL 01 31 SHALE 468' 6" 51 10" 474' 4" COAL, with 2" shale parting 01 94 SHALE, black 475' 1" 01 31 475' 4" COAL 0 4" 475' 8" SHALE, black 01 91 476 5* COAL 0' 1+" ALE, black 476' 6금" JAO $0' 2\frac{1}{2}"$ 476' 9" lñ SHALE, black, coal marks and several $\frac{1}{4}$ " coal seams 91 485' 10" 0' 10" 486' 8" COAL 1' 6" 488' 2" SHALE, black, coal marks COAL, boney 1' 6" 489' 8" 1 0" 490 8" SHALE, black, coal streaks 01 8" 491' 4" COAL 10' 8" 502 0" SHALE, black, fissile, leaf molds, coal marks COAL 01 6! 502 6" 4' 6" 507' 0" SHALE, grey, somewhat sandy 1' 0" 5081 0" SANDSTONE, coarse, poorly sorted 71 07 515' 0" SHALE, dark grey to black, fractured and sheared SANDSTONE, grey, med. grained with shaly and fine 547' 6" sand streaks. Dip 18° 321 6" 3' 0" 550' 6" SHALE, black, coal marks 555' 4" 41 10" COAL 1' 2" 556 6" SHALE, black COAL, some boney streaks 4' 6" 561' 0" JALE, black, fissile, coal marks, leaf molds 61 0" 567 0" ANDSTONE, shaly 61 0" 573! 0" SANDSTONE, light grey, medium grained with a few coarse 70' 0" 643' 0" streaks, carbonized twigs 3. 6" 646' 6" SHALE, black, compact, coal marks COAL, in part boney 4' 0" 650' 6" 1' 6" 652' 0" SHALE, black, coal streaks COAL, boney 0 * 10" 652' 10" SHALE, dark grey, sandy, fractured 31 2" 656 07 1' 6" 657 6* SANDSTONE, dark grey, shaly SHALE, grey, sandy, with many sand lenses, much fractured 91 67 667 0" and high core loss 21 0 * 6691 0<u>"</u> SANDSTONE, coarse, poorly sorted **/9'** 0" 688! 0" SHALE, dark grey, sandy, fractured Dip 10° 101 0" 698' 0" SANDSTONE, grey shaly 10' 0" 708' 0" SANDSTONE, grey, coarse 31 711' 10" SANDSTONE, med. to fine grained with shaly streaks 10" 718' 0" SHALE, dark grey, with sandy streak 61 2" 3' 8" 721' 8" SANDSTONE, shaly streaks DIP 80 724' 2" SHALE, black, fractured 21 6"

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SHALE, grey, sandy, cross-bedded sandstone streaks SHALE, black, compact	2' 1'	6" 4"	726 ' 728 '	
SHALE, grey, sandy, with sand lenses SANDSTONE, shaly, shale streaks dipping at high angles,			746'	
vertical channeling	19'	6 ⁿ	766'	0۳
SHALE, sandy, with sand streaks	71	0 "	773	0"
SANDSTONE, grey, poorly sized, with shaly streaks				
dipping at high angles		0"	802'	
SHALE, grey, sandy			804'	
SANDSTONE, shaly streaks at high angles	-		811'	
SANDSTONE, light grey, coarse, poorly sorted			813'	
SHALE, grey, sandy			820'	
SANDSTONE, light grey, coarse	_		823'	
CONGLOMERATE, med, to coarse, with few sand lenses			849 '	
MDSTONE, grey, coarse, cross-bedded	. 8'	0"	857'	
SHALE, black, coal marks			8591	0"
SHALE, black, coal marks and soft black mud		0")		
COAL		6")	862'	
SHALE, dark grey, compact		67)	879'	
SHALE, grey, sandy		0 #	883 '	
SHALE, dark grey, compact			888'	
SHALE, grey, sandy, with sand streaks			890'	
SANDSTONE, coarse, cross-bedded, shale streaks			893 '	
SHALE, dark grey, fractured	71	0"	900 '	0 "

Remainder of log is on file at Victoria

"Wm. H. White" Assoc. Mining Engineer 10/Mar/46

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Log of Merritt Drill Hole #1 - 964'-995'

END OF HOLE #1

"Wm. H. White"

William H. White Assoc. Mining Engineer

MERRITT DRILL HOLE #1 - LOG 924' to 964'

SHALE, grey, badly fractures	31	4"	1'	2"	927† 4 ^{n ×}
Abrupt, Irregular Contact, Dip 350					
SANDSTONE, grey, fine even-grained	01	8"			928' 0"
SANDSTONE, grey, fine even-grained,	-	_			······································
Scattered grains of sulphide	4'	0#	י ך	9#	932' 0"
SHALE, grey, compact, somewhat sandy	_	1Ĩ"	-	·	932 11"
SANDSTONE, grey, fine even-grained. Dip 29°		<u>'</u> '"			933' 0"
SHALE, grey, compact, sandy		10"			936' 10"
SHALE, grey, compact, sandy. Fine sand	J	ΤŪ			300 I U
streaks Dip 23°. Seam of carbonate.	1'	2"			938° 0"
	_				
SHALE, grey, compact, sandy		11"			938' 11"
SANDSTONE, coarse, poorly sorted	0'	1"			939' O"
SHALE, grey, compact, sandy. Fine sand seams	_ •				
Dip 31 ⁰	3'	0"			<u>942' 0"</u>
MALE, grey, compact, numerous sand seams					
Dip 290	71				
SHALE, dark, badly fractured	21	-			
SHALE, black, coal marks, badly sheared	1'	10"	01	10"	953' 10"
MUD or GOUGE SEAM, containing fragments of					
shale and a $\frac{1}{4}$ " seam of crushed COAL	01	5"			954' 3"
BRECCIA, coarse fragments, sand cement.	21	9"	01	6 "	9571 0"
MUD or GOUGE SEAM, containing fragments of			-	-	
breccia and fine flakes of shale	י ך	0"			
COAL, about 1" of bony fragments and some	_	•			
coal mud recovered	01	6"(2)1	10"	9581 6"
MUD or GOUGE SEAM, as above	ĭ'	6"	• / エ	10	960' 0"
SHALE, ground up, containing some coal fines	_	10"	01	۲	<u>960' 10"</u>
DIORITE, medium coarse grained, containing	Ŷ	T 0	U	Ŧ	300 10
biotite and horneblende; Sheared					
contact with shale dips 45°	0'	8"			961* 6"
SHALE, dark, badly sheared	01		01	<u>ן</u>	
CONCIONEDATE ROOT A Control with coorse	0.	0	0.	Τ	9621 0"
CONGLOMERATE, poorly sorted with coarse sand lenses	21	0"	01	0.11	0.0.4.1 0.11
sanu tenses	2.	0"	0.	2"	964' O"
					\times

Note: Diorite logged at 961' is thought to be a boulder.

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"Wm. H. White"

William H. White Assoc. Mining Engineer.

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I have checked back over the last hundred feet of Mandy's logging and find it similar to my own, possibly a bit more meticulous. However, there are minor differences. That which he logs as shale is in places arenaceous to the extent that under the glass individual grains can be seen. This material, which is dark, but not black in appearance may be what is referred to as "sandy shale" in the log of hole #11. Mandy's "sandy shale" is that in which sand streaks are quite evident to the naked eye. At present I am logging the slightly arenaceous shale as "Grey" or "dark", reserving the term "black" for the argillaceous shale. Another point: material which Mandy describes as "limey" is that containing patches and stringers of carbonate. In logging I am following the usual practise of tabulating the core missing in a separate column, where possible assigning the loss to its proper place in the section.

The textural features of these sediments indicates a variable environment of deposition such as would obtain in a periodically flooding river at grade or delta. Cross-bedding, abrupt changes in grain size, poorly sorted sands, abrupt contacts between sandstone and shale, and much evidence of channelling characterize the material. Probably the beds are quite lenticular, and correlation of individual horizons in these lower measures correspondingly difficult.

THIC	CKNESS MISSING	DEPTH
SHALE, dark, soft, slickensided partings, 10 carbonate stringers. Abrupt irregular contact		9 <u>101</u> 0"
SANDSTONE, light, coarse-grained SHALE, dark, finely cross-bedded SANDSTONE, light grey, coarse, cross-bedded Cross-bedding dips 700	4" 1" 5"	910' 4" 910' 5" 910' 10"
SHALE, dark with intercalated seams of fine 1' sand.	0 11	911' 10"
SANDSTONE, light grey, coarse (about 1mm.) 2' with some grains of shale. Abrupt contact.	· O" 7"	913' 10"
	" 2" 7"	<u>915' 0"</u>
average dip 45 degrees 3'	' 5 " 1ま")	918' 5" 918' 6글"
COAL, bony, bright partings, friable SHALE, black, much fractured, slickensided 1' fragments.	· 3½") 2"	<u>919' 10"</u>
SHALE, black with a few sandy streaks and wavy bedding dipping about 45 degrees?	1 2" 2' 3"	<u>924' 0"</u>

Log of Hole No. 1 Cont'd.

Correction

Description

Thickness	Depth
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Shale (dark, sandy in part)	Actual -	. 31	10"	
Shale (dark, sandy in part, crushed)			2"	
Sandstone (light grey, limey)	13	3'	3"	
Shale (black, broken, slickensided)	11	1'	7"	
Shale (fractured, limey) " "	Ŧŧ	4 '	91	<u>9001 01</u>

"Joseph T. Mandy" Mining Engineer

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Log of Hole No. 1 cont'd.

Description	Thickness	Depth
Shaly sandstone (shale streaks vertical and steep angles cross bedding coaly marks, limey, fractured,		
slickensided.)	10' 0"	<u>811' 0"</u>
Sandstone (coarse; coaly fractures)Actual	2'4"	
Shale (black, part sandy, broken, coaly marks) "	412"	
Sandstone (coarse Sandstone to fine	÷ 6	
conglomerate) "	1'0"	821' 0"
Sandstone (" " " "		
very soft) "	0187	
	217#	
Conglomerate to breccia (coarse, dark green, soft) "	612"	831' 0"
Conglomerate to breccia (coarse,	0 2	<u>891 0</u>
greenish, broken, soft) "	218"	834' 0"
Conglomerate to breccia (coarse,		
greenish, broken, soft) "	1'0"	<u>836' 0"</u>
Conglomerate (very coarse; soft, broken at end: mud seams) "	313#	0401 0
broken at end; mud seams) " Conglomerate " " " " " " "	0'0" 211"	<u>840' 0"</u>
Mud from conglomerate (bit plugged	С, Т	
and core probably washed) "	0'4"	850:0"
Sandstone (grey, coarse, fractured,		
slickensided) "	4'4"	
Shale (black, broken, fractured	0101	0541 0
slicken) " Sandstone (fractured, slickensided) "	0'6" 0'11"	856* 0"
Shale (black, broken) "	1'8"	
Shale (muddy, very soft) "	1'8"	
Shale (coaly, muddy, very soft) "	0'5"	
Shale (brown, borken, soft) "	1'8"	864' 0"
Note 8' cave in hole from 856 - 864		
Mud thickened to remedy this.		
Shale (fairly compact, black, in part		
broken) "	4'8"	<u>869' 0"</u>
Shale (black, soft, broken) "	610"	
Shale (black, compact, fracture	M A A A	
slickensided) "	210"	<u>878' 0"</u>
Shale (black, part sandy, fairly	7131	
compact) " Shale (black, broken) "	018"	8861 0"
Shale (black, fairly compact,	00	000 0
slickensided) "	3167	
Shale (very soft, broken) "	015"	890' 0"
Shale (compact in part, inpart broken,		
fractured , coaly marks, slickens)	10 0	900 0 "
Handed over to W.H. White		
₩ 	••	

"Joseph T. Mandy" Mining Engineer

Log of Hole No. 1 (contd)

Description Th	ickness	Depth
Sandstone (grey; coaly marks, shale streaks) Bed dip - 120	10' 0"	708 0"
Sandy shale (coaly marks, compact Actual 1* 8"	21.6"(?	·)
Shale (dark, part sandy, coaly streaks) Actual 3' 2"	5' 6"(?	•
(<u>Note</u> - grinding in core tube) Shale (black; coaly streaks, soft, broke n)	~~~~ ~ /~	
Actual 0' 9" Shalv sandstone (grev) " 3' 8"	2'0"(? 3'9") <u>718' 0"</u>
Shaly sandstone (grey) " 3' 8" Sandy shale " 0' 5"	5' 9" 0' 6"	
Shale (dark grey, fractured crushed,	0.0.	
broken, slickensided) Actual 5' 4"	51911	7281 0"
Shale (" "	81 ⁰ "	7361 01
Shale (" " compact)	9' Ŭ"	745' 0"
Shale ("" broken)	i' o"	746' 0"
Sandy shale (sandy pockets; coaly marks; shale	- 0	
streaks vertical and steep angles,		
cross-bedding; limey, fractured		
slickensided)	10' 0"	7561 0"
Shaly sandstone (""")	10' 0"	766 0"
Shaly sandstone (""""broken)	2' 4"	768' 4"
Shaly sandstone ("", ""		
Actual 1' 8"	4' 8"	<u>7731 0"</u>
Shaly sandstone ("")	10' 0"	783 0"
Shaly sandstone (""")	81 0	791* 0*
Shaly sandstone ("")	4' 6"	7951 6#
Shaly sandstone ("")	5' 6"	<u>801' 0"</u>

"Joseph T. Mandy" Mining Engineer

Log of Hole No. 1 (Cont'd.)

Description

Thickness Depth 643'

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Shale (black, coaly streaks, stress pl Coaly fines (adulterated with Altamud) COAL (broken in small pieces) Bony coal fines Shale (soft, broken, coaly streaks) Coaly fines (bony and muddy) """""""" Sandy, shale (very broken and crushed Sandstone (grey, broken, coaly shale	Actual01Actual12Actual02Actual03Actual03Actual03Actual03Actual03Actual03Actual03	9 6" (1 9 <u>7"</u> (2 9 5" (1 9 1" (1 9 4" (1 9 6" 9 8"	16")?646' 6" 10")?647' 6" 10")?649' 6" 10")?650' 6" 16")?652' 0" 10")?653' 0"
seams) Shale (coaly, very broken, crushed)	Actual 1	3 1 2	
Shale (dark grey, fractured, slicken-			
sided) Shale (coaly, very broken, crushed)	Actual 21 Actual 01	112 " 5"	661' 0"
Shaly sandstone (coaly streaks,		-	
fractured slicken- si de d)		2"	
Shale (partly sandy, coaly streaks) Shale (coaly, soft, broken, crushed)	Actual 2 Actual 0	2 ** * 7 월 **	
Sandstone (fine, in part coarse to fin conglomerate, shaly bands		12	
slickensided, compact)		9 1 77 1077	6681 0"
Shale, (dark grey, fractured, slicken-			
sided) """" sandy	Actual 0'	11"	669' 9"
bands, slickensided, mainly compact, some broken, CROSS-			·
BED.)	Actual 8	2"	<u>678' 0"</u>
Shale (black, very broken, slicken- sided, coaly streaks)	51	8"	
Coaly shale (very broken)		10#	6001 07
Sandy shale (dark grey, coaly marks) Shaly sandstone (grey, cross-bedding)		6"	<u>688' 0"</u> 693' 6"
Bed Dip - 11°			
Shaly sandstone (grey, mud seam probab	lv		
from Altamud circuit)	4'	6 *	<u>6981 0"</u>

"Joseph T. Mandy" Mining Engineer.

Log of hole No. 1 (Contd).

Description	Thickness	Depth
Sandstone (grey, compact) Sandstone (grey, compact) <u>Note</u> . started drilling with <u>ALTAMUD</u> circulation an 1 7/8" core.	91 41 81	594' 4" 595' 0"
Sandstone (grey, compact, hard, fine to coarse and fine conglomerate)(som	e	
coaly streaks at $604\frac{1}{2}$) Sandstone (grey, compact, hard, fine to	10' 0"	<u>605' 0"</u>
coarse and fine conglomerate)(som coaly streaks at 604 1) Sandstone (grey, compact, hard, fine to	e 10†:0 †	<u>615' 0"</u>
coarse, and fine conglomerate) (some coaly streaks at $604\frac{1}{2}$)	3' 1"	618' 1"
Sandstone """""	4' 11"	623' 0"
Sandstone " " " "	10' 0"	633 0"
Sandstone """""	9 † 0 #	642' 0"
Sandstone """""""slip at	rod 1 ' 0"	<u>643' 0"</u>

"Joseph T. Mandy"

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Mining Engineer.

January 1946

Log of Hole No. 1

Description

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Thickness Depth

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Shaly sand	stone	(compact	some	loose)	1'	9**	571'	10"
Sandstone	(grey,	compact	some	loose)	31		<u>5751</u>	
Sandstone	(grey o	compact,	coal	y streaks)	10'	0"	<u>585'</u>	0"

"Joseph T. Mandy" Mining Engineer.

January 1946

Log of Hole No. 1

Description	Thick	ness	Deptl	<u>1</u>
Conglomerate	0	1"	508 '	l"
Bed (?) Dip 55 ⁰ (possible cross-bed)				
Shale seam (slickensided) Shale (black, slickensided, <u>sheared</u> ,		01 "	508 '	_
broken) Shale (<u>CRUSEED AND SHEARED</u> , sandy, limey,	1'	11 <u>\$</u> †	510'	0"
coal streaks, broken, <u>disturbed</u> ground) Sandstone (grey, soft, coaly streaks,	5'	0"	<u>515'</u>	0"
Sandstone (grey, soft, coaly streaks, broken) Sandstone (grey, soft, coaly streaks,	6'	0"	<u>521'</u>	0"
broken, compact at end) Sandstone (grey, compact, shaly at end)		0 " 0"	<u>525'</u> 530'	
Sandstone (grey compact, shaly streaks, broken at shale) Sandstone (limey, <u>fractured</u> , soft)	6†	0"	5361	0"
broken)) Sandstone (limey, fractured, soft broken)	2' 1'	3" 9"	538' 540'	
Shaly sandstone (broken at shaly bands: DIP 17 Shale (dark grey, limey, FRACTURED, broken)		4" 2"	547 ' 548'	
Shale (black, coaly streaks broken) (<u>Actual 1' 6"</u>) <u>COAL</u> (friable, broken) (<u>Actual 1' 11"</u>)		0" 6"	550 ' 553'	67 07
<u>COAL</u> (friable, very broken) (<u>Actual 0' 6¹/₂"</u>) Shale (dark brown, broken at start)	21	4"	555 '	4"
(<u>Actual 0' 6"</u>) <u>Shale</u> (dark brown) (<u>Actual 0' 3"</u>) <u>COAL</u> (Sludge) (<u>NO CORE</u>) (<u>Actual 0' 0"</u>) <u>COAL</u> (Sludge) (<u>NO CORE</u>) (<u>Actual 0' 0"</u>)	0' 1'	8" 6" 0"(?) 6"(?)	556' 556' 557' 559'	6# 6#
<u>COAL</u> (very broken and slacked) (<u>Actual 0' 4</u> Shale (coaly, broken) (<u>Actual 0' 6</u> Shale (black, <u>gouge seams</u> , broken)	<u>l"</u>) 2' 1'	0"(?) 0"	561' 562'	0" 0"
(<u>Actual 3' 1"</u>)	51	0 #	5671	0"
Bed. Dip 35 ⁰				
Shalv sandstone (slickensided at joints)				

Shaly sandstone (slickensided at joints)
(Actual 0(9")1'0"568'0"Shaly sandstone (compact)2'1"570'1"

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January 1946

Log of Hole No. 1

Description	Thickness	Depth
Shale (coaly, streaks) (Core loss, Actual, 1 ¹ / ₂ ")	2"	475' 8"
COAL (friable, brokan) (Core loss,	~ 911	470' 5"
Shale (coaly streaks)(Core loss, Actual, ³ / ₄ ")	1 <u>‡</u> "	476 ' 6분"
$\frac{COAL}{COAL}$ (friable, broken) (Core loss, Actual, $1\frac{1}{4}$ ")	~ 2 ¹ / ₂ "	476 ' 9"
Shale (coaly streaks) (Core loss, Actual 2 ¹ / ₂ ")	31	<u>4771 0"</u>
Shale (coaly streaks) (Core loss, Actual 7")	8"	477 8"
Coaly shale (black, slickensided, very bro (Core loss, Actual 3')	ken) 4'4"	<u>482' 0"</u>
Note - 5' barrel replaced by 10'.		
Shale (coaly streaks) (Core loss-Actual 6" Shale, some very bony coal streaks (loose, slickenside, broken)(Core loss,		482' 10"
Actual 2' 0") COAL (friable, broken) (Core loss, Actual	3'0" 4") 10"	485' 10" 486' 8"
Shale (coaly, broken, friable) (Core loss, Actual 7")	1'6"	488 ' 2"
Bony coal (friable, very broken)(Core loss Actual 6")	°, l'6"	489 ' 8 "
Coaly shale (Friable, coal streaks) (Core loss, Actual 6' COAL (friable, very broken)(Core loss,	י) ו סיי	490' 8 "
Coaly shale (coal streaks) (Core loss,	01 81	491' 4"
Actual 5") Shale (black, limey, slickenside, broken)	0' 8"	492' 0"
Shale (black, limey, slickenside, bloken) Core loss, Actual 6' 6") Shale (black, limey, slickenside, broken)	8* 0*	<u>500 ' 0 "</u>
(Core loss, Actual, 1' 10") <u>COAL</u> (friable) (Core loss, Actual, 0' 2")) 2' 0" 0' 6"	502' 0" 502' 6"
Sandy shale (coaly and coal streaks) (Core loss, Actual 0' 8")	,l' 6"	504' 0"
Shale (light brown, limey, coal marks, bro (Core loss, Actual 0' 5")	נ י ס יי	5051 0"
Shale (light brown, limey, coal marks, bro (Core loss, Actual 1' 5")	2* 0*	5071 0*
Sandstone, part conglomerate, soft, broken (Core loss, Actual 0' 9")	1' 0"	508' 0"
Mate II. Jawa Jawah in waint of CAD	י דדרר יק	

Note - Underlined depth is point of CORE PULL.

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"Joseph T. Mandy"

January 1946

Log of Hole No. 1

Description	Thickness	Depth
Seam of shale (brown, slickensided,	o 1	
broken Sandstone (light grey; shaly streaks) Sandstone (light grey; shaly and coaly	0 : " 9 * 11 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 :	396 '0날" <u>406 '0"</u>
streaks)	10' 0"	<u>416' 0"</u>
Sandstone (light grey; shaly and coaly streaks)	10' 0"	<u>426' 0"</u>
Waterline froze Sandstone (light grey, shaly and coaly	1	
streaks) Sandstone (light grey, shaly and coaly	51	<u>431' 0"</u>
streaks) Sandstone (light grey, shaly and coaly	10'	<u>441' 0"</u>
Shaly sandstone (dark grey coaly streaks)	31	444' 0"
(Core Loss, Actual 6' 10")	71	451' O"
Shale sandy (dark grey, coaly streaks)	4' 10"	455' 10"
(Core loss) Actual 9' 6") Shale sandy (dark grey, coaly streaks)) (Core Loss)	5' 2"	<u>461' 0"</u>
Note: 10' barrell replaced by 5' barrel	Ll	
Shale (dark grey, sandy, coaly streaks,		
slickensided, broken)	51 "	461' 5 ¹
<u>COAL</u> (friable, broken) (Core loss - <u>Actual</u> Shale (dark grey, coaly streaks) Core Loss	<u>5")1' 5</u> "	462' 10;"
COAL (friable, broken) (Core loss, Actual 1	") 1층" 7층")1' 9	$\frac{463!}{464!}$ 9"
Shale (dark grey, coaly streaks)	1' 7 <u>5</u> "	466 4늘"
COAL (friable broken) (Core loss, Actual 3		467' 0 [#]
<u>COAL</u> (friable broken) (Core loss, <u>Actual 9'</u> Shale (coaly and coal seams)(Core loss	<u>'</u>) 1' 3"	468' 3"
Bony coal (slickensided, loose(Core loss,	5") 3"	468' 6"
Actual 6'	') <u>1'</u> 0"	469' 6"
$\overline{\text{COAL}}$ (friable) (Core loss, Actual $2\frac{1}{2}$ ")	6**	<u>470' 0"</u>
COAL (friable, broken) (Core loss, Actual 6	5") l' 4"	471 ' 4"
Shale, (coaly) (Core loss, Actual 1/2")	74	471' 5"
COAL (friable, broken) (Core loss, Actual 1 Shale (coaly, coal streaks) (Core loss,	1'0")2' 5"	473' 10"
Actual 1")	2 *	<u>474' 0</u> "
<u>COAL</u> (broken) (Core loss, Actual $1\frac{1}{2}$ ")	4 ۳	474 ¹ 4 ¹¹
Shale (coaly streaks) (Core loss, Actual 7'	*) 97	475' 1"
COAL (broken, friable) (Core loss, Actual		
Shale (coal streaks) (Core loss, Actual 1")	2"	475' 6"
(Note - Depth figure underlined represents	point of cor	ອີກນາ ງ

(<u>Note</u> - Depth figure <u>underlined</u> represents point of core pull "J.T.M."

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Diamond-drilling

Merritt

Correction

Bed dip at 333' 2" should read 15⁰ Bed dip at 364' 2" should read 14⁰ Bed dip at 365' 10" should read 14⁰ Bed dip at 376' 4" should read 15⁰

"Joseph T. Mandy" Mining Engineer

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January 1946

Log of hole No. 1

Description	Thickness			Depth	
Shaly sandstone (dark grey fine)	1'	2"	3 ≎5'	10"	
Bed Dip14 ⁰					
Sandstone (coarse, compact, grey) Sandstone (dark to light grey, fine to medium fine, shale streaks,		2"	3661		
soft) (core loss)(2' 3")Actus Conglomerate (fine, light grey) Sandy Shale (dark grey, slickensided) Conglomerate (fine, grey, soft) Core loss	1'	6 " 0 " 2 = "	368' 369' 369'	6개 8 <u>분</u> 개	
Actual (3') Sandstone (fine; shaly streaks) Conglomerate (fine, soft) Sandstone (fine; dark shaly streaks) Sandstone (shaly streaks; coaly spots)	3' 1'	9 <u>1</u> " 8" 6" 4" 4"	373 375 375 <u>375</u> <u>376</u>	87	
Bed Dip15 ⁰					
Shale (dark grey; partly sandy, slickenside Shaly sandstone (in part sandy shale dark	ed) l'	9"	378'	1#	
Sandstone (in part shaly streaks, grey,	3'	8"	3 81'	9#	
medium fine)	1'	2#	382'	11"	
Sandstone (in part shaly streaks, grey, medium fine) Sandstone (in places shaly streaks, medium		1"	<u>386'</u>		
fine to coarse coaly streaks)	10'	0#	<u>396</u> *		

"Joseph T. Mandy" Mining Engineer

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January 1946

Log of Hole No. 1

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Description	Thickn	less	Deptl	<u>1</u>
Sandy shale (dark grey) Sandstone (grey, coal marks) Shaly sandstone (dark grey, coal marks) Shale (black, limey in places and slicken	1'	3" 6" 2"	304' 306' 307'	3"
SOFT COALY SHALE (loose; Core Loss)(2")	2'	0" 7"(?)	309' 310'	5"
Shale (black, limey, broken, slickensided SOFT COALY Shale (loose, Core Loss) (8") Shaly sandstone (dark grey, coal marks)		10" 9"(?) 11"	311' 313' 314'	711 611
Shaly sandstone (dark grey to grey) Sandstone (light grey, coarse (Core Loss Sandstone (light grey, soft, coarse (Core	21	11"	<u>318</u> 321'	
Sandstone (light grey, soft, coarse (Core		6"(?)	321'	11"
los Sandstone (light grey, coarse patches, fin	s) 2' ne	7 "(?)	3241	6 ¹¹
Conglomerate (light grey, coarse parches, 11. conglomerate) gradational	6*	5" 7"	330† 331†	
Shaly sandstone (dark grey, micaceous coal spo Shaly sandstone (dark grey, micaceous coal spo	ts) l' l	5" 3"	332' 333'	
Bed Dip15 ⁰				
Sandstone (light grey, soft) Shaly sandstone (dark grey, micaceous, co	alv	5"	333†	7 11
spots Sandstone (light grey, coarse, soft))	2" 9"	333 ' <u>334</u> '	
	a) 10'	0#	<u>344</u> '	6"
Sandstone, light grey, loose, core loss (13") Sandstone (coarse, soft, light grey) Sandstone (coarse, soft, light grey) Sandstone (coarse, soft, light grey 1" lo Shale (black, limey, slickensided, broken Shale, sandy (dark grey) Shaly sandstone (grey) Shale (slightly sandy, dark grey) Sandy shale, shale seam (slickensided) Sandy shale (dark grey)	10' 1') 2'	6" 0" 112" 9" 11" 9" 1" 9" 1" 3"	346' 356' 357' 358' 359' 360' 362' 363' 363' 363'	0" 112" 4" 1" 1" 10" 11"

Bed Dip - -14⁰

Sandstone (coarse compact

6" 364^t 8"

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January 1946

Log of Hole No. 1

Description	Thicknes	s Depth	
Shale (black, compact) <u>Shale</u> (black, compact) <u>COAL</u> (broken, large pieces <u>NO CORE</u> (Probably Mud seam; see below) <u>Note</u> - 10' core barrel replaced by 5' barrel.	10; 1,6 <u>8</u> 1,1	2531 2"	
Black Mud (coaly) (Probable core loss) Shale (black, limey, slickensided) Mud seam (black shale gouge) Shale (black, limey, slickensided) Shale (black, limey, partly sandy, broken Mud (blackish brown) (drill sludge settled in hole ` (2")	/ 1'1	ま" 255 4 ま" 257 5" ま" 257 5" ま" 257 5 3" 258 1 ま 0 3" <u>260 1</u>	11 11 17
Shale (black, compact) Shaly sandstone (Dark grey)	21 9 31 8		
Bed Dip 12 ⁰			
Sandstone (grey, coarse)	7	2671	
Bed Dip 14 ⁰			
Sandy shale (dark grey) Sandstone (coarse, coaly streaks, grey) Conglomerate (fine; in part coarse sandsto Sandstone (coarse; in part conglomerate, o	2' 1 one) 2' 4	." 267'1" 1" <u>270'</u> " 272'4"	
Sandstone (coarse; in part conglomerate, o	7*8	3" <u>280</u> '	
streaks) Shale (black compact) Shale (black compact, slightly sandy) <u>Shale</u> (limey, black broken, slickensided) <u>COAL</u> (brittle, broken) Shale (black compact) Shale (black compact) Shale (black, limey, streaky, slickensided Shaly sandstone (fine grey) Shaly sandstone (grey, dark shale streaks Sandstone (grey medium fine) Shale (dark brown, broken slickensided) (Core Loss about 6")	1' 1'1 5 4 1'6 7'1 4) 2'4 3'3 2'3	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$, TT

"Joseph T. Mandy"

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Mining Engineer

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Merritt Diamond Drilling

January 1946

Log of Hole No. 1

Description	Thickness	Depth
Bed Dip 10 ⁰		
Shale (black, soft Sandstone (grey, micaceous black shale streaks and bands inpart fine	3"	221 '
and coarse) Sandstone (grey, micaceous black shale streaks and bands in part	10'	231'
fine and coarse) Sandy shale (black, streaks and bands of	5* 7*	236' 7"
grey sandstone) Shale (black, compact)	1' 10" 2' 7"	238' 5" 241'

"Joseph T. Mandy"

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Mining Engineer

January 1946

Log of Hole No. 1

Description	Thickness	Depth
<pre>Shale (brownish black, bitumenous broken</pre>	2' 8" 10" 1' 8"	170' 2"
some core loss Shaly sandstone (broken at end) Sandstone (friable, limey, broken-core loss) Sandstone (grey, medium fine) Sandstone (grey, medium fine, coal spots)	6 1 91 91	179' 5" 180' 2" 180' 10" 181' 183' 8"
Bedding Dip 34 ⁰		
Shale (limey, slickensided) Sandy shale (greyish brown)	2† 4" 3† 2"	186' 189' 2"
Bedding Dip 420		
Sandstone (coarse, very friablecore loss) Sandstone (coarse, very friablecore loss)	1' 10" 9'	191' 200'
Bedding Dip 30°		
Shale (dark brown Sandy shale (dark brown, bitumenous	ו'	201'
compact - good core) Sandstone, shaly, micaceous (grey) Sandstone, shaly, micaceous (grey)	7 ¹ 10 ¹¹ 2 ¹ 2 ¹¹ 2 ¹ 3 ¹¹	208' 10" <u>211</u> ' 213' 3"
Bed Dip 15 ⁰		
Shale (black, limey, slickensided partly sandy, broken)	61 91	220'
Bed Dip 12 ⁰	•	
Sandstone (grey, shaly streaks)	9"	220' 9"

January 1946

Log of Hole No. 1

(Located 378' N 35° E from hole No. 11 Diamond Vale @ 10' higher)

Description	Thickness	Depth
Boulder Clay	102'	
Broken loose bedrock coarse grey sand- stone, sandy shale, shale Shale (dark buff) Shaly sandstone (grey) Sandstone, (fine, grey) Shaly Sandstone (grey, streaky) Coarse sandst. (grey) Shaly sandstone (grey, streaky) Sandstone (coarse grey) Sandstone (fine, grey) Sandstone (coarse, grey)	3' 0' 3" 1' 9" 1' 1" 0' 2" 2' 3" 0' 1" 1' 5" 2' 6" 1' 6"	105' 105' 3" 107' 108' 1" 108' 3" 110' 6" 110' 7" 112' 114' 6" 116'
BEDDING HORIZONTAL		
Sandy shale (dark brown) Sandstone (very coarse, fine conglomerate)	61 71 01 51	122' 7" 123'
Shaly sandstone (streaky, grey)	0' 1" 4' 5"	123' 1" 127' 6"
Sandstone (very coarse, fine conglomerate) Shale (buff; in part sandy and grey) Sandy shale (grey, streaky)	4'5'' 2'6" 1'	13 0' 131'
Sandstone (grey, coarse)	21 21	1331 2"
Sandstone, shaly (bitumenous Streaks) COAL (bony, broken, streaky)	0' 8" 0' 10"	133' 10" 134' 8"
Shale (dark brown, bitumenous, broken) Sandstone, shaly (grey, bitum. streaks, brok	1' 4''	136' 139' 6"
Sandstone (coarse, grey)	31 67	143'
Shaly sandstone (streaky) Sandstone (coarse, grey)	01 71 01 51	143' 7" 144'
Shaly sandstone (streaks of sandy shale)	3' 4"	147' 4"
Shale (brownish black, bitumenous broken in places, coaly streaks)	31 8"	151'

COPY OF LOG OF NO. 11 HOLE, DIAMOND VALE COLLIERIES.

Location near centre of N.W. quarter Section 14, Tp. 91 Elevation of surface, 1976.47 Started March 30th, 1909.

	Thi	ckness	Dep	th
Sand and clay Coarse gravel with clay and sand Sand Coarse gravel Clay and gravel	16 10' 1 4 64	7" 0 4 2 BEDR	26' 27 31 96 OCK	7 " 11 11
Conglomerate Sandy shale Coarse sandstone Conglomerate Light sandy shale Dark sandy shale Light sandy shale Conglomerate Light sandy shale	5 4 8 1 7 3 .10 1		101 105 113 114 122 126 136 137 138	558842228
Dark sandy shale Conglomerate Sandstone Sandy shale Conglomerate Light sandy shale Conglomerate	5 0 1 5 2 1	6 11 7 2 2 0 10 3	130 143 144 146 151 156 158 160 161	2 8 7 2 2 0 3
Dark brown shale with coal markings Sandy shale Sandstone Sandy shale Conglomerate Sandy shale Sandstone Sandy shale (dip 20 degrees) Conglomerate	• 32125113	0 0 9 3 6	161 164 166 168 170 175 176 177 180	0 3 9 9
Dark sandy shale Conglomerate Sandy shale Conglomerate Dark sandy shale with coal marks Sandstone Dark sandy shale	5 1 . 3 1 1 1	0 6 0 0	185	9
Conglomerate Dark sandy shale Conglomerate Dark sandy shale	1 1 3 1 5	• • •	196	9
Sandstone (dip 47 degrees) Sandy shale Dark sandy shale with coal marks	. 2	4 0	206 208	1 1
Sandy shale Dark sandy shale	6 14	4	228	5

LOG OF NO. 11 HOLE Cont'd.

	Thick	ness	Dept	<u>h</u>
Sandstone Dark sandy shale Light sandy shale	1 5 . 3	•••	234	5
Dark sandy shale Sandstone (dip 38 degrees) Light sandy shale (dip 30 degrees) Dark sandy shale	ଥ ଥ ଅ ଅ	3	241 244	5 8
Sandy shale Dark sandy shale	- 2 - 8 - 3		254	8
Light sandy shale Sandstone (dip 22 degrees)	. 5 8	• • •	262	8
Dark sandy shale Sandstone (dip 14 degrees)		6	280	2
Light sandy shale (dip 14 degrees) Dark sandy shale COAL Dark brown shale		9 5	302 303	2 11
Dark sandy shale Sandstone	13 1	5	319	4
Sandy shale Sandstone (dip 15 degrees) Dark sandy shale Sandstone Sandy shale	13 1 2	6 6 0	330	0
Sandstone Dark sandy shale Sandstone Sandy shale	1 • 5 2 4	• • •	353	4
Dark sandy shale Sandstone Dark sandy shale Sandstone Conglomerate	. 1 4 2	6 3 •••	372	l
Sandy shale Conglomerate Sandstone Conglomerate Sandstone Light sandy shale		3 9	392	l
Sandstone Coarse conglomerate Dark sandy shale (dip 15 degrees) Sandstone Dark sandy shale (dip 27-38 degrees)	2 .16	8	419 427	1 9
Sandstone (dip 33-20 degrees) Light sandy shale Dark sandy shale Conglomerate	11 . 3 7 1	•••	446	9
Dark shale with coal marks COAL Dark sandy shale	3 • 4 2 1		4 69	9

LOG OF NO. 11 HOLE Cont'd.

	Thi	ckness	Dept	<u>h</u>
COAL	1	41		
COAL, bony	2	3 4늘		
COAL COAL, bony	2	±2 2		
COAL	•		472	1
Dark brown sandy shale	2			
COAL	•	9		
Dark brown shale COAL	l	10 6 1		
Dark brown shale		6 <u>1</u> 7 <u>늘</u>		
COAL	l	6	479	7
Dark brown shale, coal markings	3	4	482	11
COAL Dark brown shale occasional coal streaks	9	7 3		
COAL	5	2		
Dark brown shale		4		
COAL		4 2 6		
Brown shale		2		
COAL	• • •	6		
Light sandy shale (dip 20 degrees)	14	3		
Sandstone	9			
Light sandy shale	8	10		
COAL	1	8		
COAL	-	3		
Light sandy shale	38	9	568	
Sandstone	11			
Light sandy shale Sandstone (dip 25 degrees)	5 18			
Light sandy shale (dip 18 degrees)		9	610	4
COAL 6'5"				
COAL, bony 6"	13	2	63 8	З
COAL 6'3" Dark brown shale	3	6		
COAL	3	8		
Dark brown shale	7			
Light sandy shale	2			
Sandstone Light sandy shale	1 2	6		
COAL	~	10	658	9
Light sandy shale	8	4		
Dark sandy shale	2	C		
Sandstone Dark sandy shale	32 5	6		
COAL 1' 10")	v			
COAL, bony 2")	-	•		
COAL 9")		9 9	709	4
Dark sandy shale Light sandy shale	6 9	7		
TTERO DUIRA DUGTO	~			

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LOG OF NO. 11 HOLE Cont'd.

	<u>Thic</u>	kness	Depth	
Sandstone Light sandy shale Sandstone Light sandy shale Sandstone Light sandy shale	5 2 3 11 2 3	6 	750	7

Original log apparently signed by Alfred T. Wall, Benjamin Browitt, and N.L. Wimmler.

Progress Report - Merritt Diamond Drilling

Feb. 22nd. to 24th.

Feb. 22nd: Pulling Casing (Day Shift only - 8 men)

<u>Feb. 23rd</u>: Pulling stand pipe and preparing for move (One shift - 7 men) <u>Feb. 24th</u>: Not working.

> William H. White Assoc. Mining Engineer

Progress Report - Merritt Diamond Drill Hole #1

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Feb. 19th to Feb. 21st.

Feb. 19th: Night Shift: Cored 964'-968'; 968'-978' Graveyard Shift: Cored 978'-988'

Feb. 20th: Day Shift: Cored 988'-995' END OF HOLE Night Shift: Pulling rods and casing

Feb. 21st: Day Shift: Pulling casing (8 men) No night shift. PROGRESS REPORT, MERRITT D.D. HOLE #1 - Feb. 17th to 19th

Feb. 17th: Night Shift: Cored 924 - 928; 928 - 932. Graveyard : " 932 - 942

Feb. 18th: Day Shift : Cored 942 - 952 Night " : " 952 - 957 Graveyard : " 957 - 960

Feb. 19th: Day Shift : Cored 960 - 964; drilling.

Progress is slow due to blocky ground and short pulls, but core recovery is satisfactory.

"Wm. H. White"

William H. White Assoc. Mining Engineer

Merritt Drilling

PROGRESS REPORT - Feb. 16 - 17th.

Feb.	l6th	-	Day Shift:	Cored	890	-	900
			Night Shift	11	900	-	910
			Graveyard	ŦŤ	910	-	915

Feb. 17th - Day Shift: Cored 915 - 920; 920 - 924 Pump trouble remedied.

A new type of bit was tried on Feb. 17th. This has the water holes entering the inner surface of the bit about $\frac{2}{4}$ " up from the cutting edge, the object being to allow a build-up of pressure if the bit becomes blocked. The block at 924' was quite definite; the pressure increase caused the overflow valve on the pump to release. However this cannot detect blockage and grinding in the core-tube, because the mud circuit does not pass through the tube.

The "Altamud" system appears to accomplish its chief purpose of preventing caving, though it is doubtful if it affects core recovery one way or the other. The use of "Altamud" slows up drilling to some extent because of more frequent break-downs of pumping equipment, difficulty of handling muddy rods, and the necessity of periodically diluting or replacing the mud circuit. The mud has not been found a serious hindrance in examining the core.

Mr. Johnson expects trouble with the drill rig if this hole is continued to 1500'. According to him, he was told to make the set-up for a 600' hole, which he did. The foundations were laid on frozen ground and no mud-sills laid to anchor it. Now, with the ground thawing, and with over twice the string of rods that he figured on, Mr. Johnson is doubtful about the foundations holding.

Attached hereto is the log from 900' to 924'.

W.H. White, Assoc. Mining Engineer.

Progress Report - Feb. 12th - Feb. 16th (Noon)

<u>Feb. 13th - Day shift - cored 801 - 811.</u>
<u>Night</u> " - " 811 - 821.
Graveyard - " 821 - 831; 831 - 834.
<u>Feb. 14th</u> - <u>Day shift</u> - " 834 - 836; 836 - 840; 840 - 850
<u>Night</u> " - " 850 - 856; 856 - 864.
<u>Graveyard</u> - " 864 - 869
Feb. 15th - Day shift - Thickening mud to stop caving above 864.
Rods down to 6" of bottom. Cored 869 - 878.
<u>Night</u> " - Cored 878 - 886.
<u>Graveyard</u> - " 886 - 890
<u>Feb. 16th - Day shift - " 890 - 900.</u>
Feb. 16th Handed over to W.H. White.

"Joseph T. Mandy" Mining Engineer

Progress report Feb. 9th - Feb. 12th

- <u>Feb. 9th Day shift</u> Engine arrived by express. Installing engine; running-in engine.
- " " Night shift Drilling; cored 698 708
- " " <u>Graveyard</u> Cored 708 718
- <u>Feb. 10th Day shift</u> Cored 718 728. <u>Note</u> - Core loss between 708 - 728 thought possibly due to wash at grinding edge of mud bit. Dropped Altamud circulation and resumed water circulation test for improved core recovery.
 - " " <u>Night shift</u> Cored 728 736; 736 746. <u>Note</u> - Noted caving at 682' after last core pull.
- " " <u>Graveyard</u> Broke brakehandle bolt when letting rods down.
- <u>Feb. 11th Day shift</u> Repairing brake handle. Preparing mud circulation for <u>resuming</u> Altamud circulation. Drilling.
- " " Night shift Core 746 756; 756 766.
- " " Graveyard Rods plugged in hole 8' from bottom.
- Feb. 12th Day shift Cored 766 773
- " " Night shift Cored 773 791
- " " Graveyard Cored 791 801.

"Joseph T. Mandy" Mining Engineer

Progress Report Wed. Feb. 6th. (Noon) - Feb. 8th.

Weđ.	Feb.	<u>6th.</u>	-	Day Shift (contd) - Cored 643 - 653.
11	tt	Ħ	-	<u>Night Shift</u> - Cored 653 - 661; 661 - 668
17	Ħ	tt	-	Graveyard - Cored 668 - 678.
Thurs	s. Fel	b. 7tl	1 <u>.</u> -	<u>Day Shift</u> - Cored 678 - 688
11	Ħ	17		<u>Night Shift - Drilling</u>
11	Ħ	71		<u>Graveyard</u> - Cored 688 - 698 Drilling to 703. Oiling system on engine failed. Cylinders frozen.

<u>Fri. Feb. 8th.</u> - <u>Day Shift</u> - Dismantling engine; awaiting arrival of new engine from Vancouver.

"Joseph T. Mandy"

<u>Note</u>: The advantages, if any, through the use of Altamud, are doubtful. It may prevent caving, but this cannot be proved. It does not appear to materialy improve core recovery in coal or coaly ground, in this instance. Through the accumulation of sludge in the closed circuit sludge mud is introduced into the core and obscures the possible occurrence of mud or gouge seams and also possibly adulterates coal fines recovered in the core. The technique or its use is however still experimented.

"J.T.M."

Progress Report Jan. 24th - Wed. Feb. 6th (Noon)

Thursday, Jan. 24th. Day Shift - cored 585 - 595.Note - Rods stuck badly by cave.Danger of losing Rods and hole.Extracted with difficulty. Unwiseto continue unless condition remedied.Cementing indicated between 500 and570 as sufficient to meet condition.Wired this requirement to Victoria.

Friday, Jan. 25th. Day Shift - Rods put down ready for washing down preparatory to cementing 500 to 570. Washing. WIRE RECEIVED instructing to REAM and CASE hole Top to Bottom. Rods withdrawn and reaming started.

" " <u>Night Shift</u> - Reaming. " " Graveyard - Reaming.

Sat. Jan. 26th. Day Shift - Frozen up.

Note. Saturday, Jan. 26th. - Thurs. Jan. 31st - Reaming to 570' Friday, February 1st. Day Shift - Placing casing. Sargent arrived. 11 Ħ 11 Night Shift -71 11 11 Graveyard 71 11 clutch broke. Day Shift Sat. February 2nd. - Repairing clutch. - Waiting for Altamud equipment Sunday, February 3rd Monday, February 4th. Day Shift - Waiting for equipment. Washing hole.

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" " " <u>Night Shift</u> - Changing pump for Mud.

Tuesday, February 5th Day Shift - Installing Altamud equipment. Resumed drilling at 3 p.m.

" " " <u>Night Shift</u> - Cored 595 - 605; 605 - 615.

" " <u>Graveyard</u> - Cored 615 - 623; 623 - 633.

Wednesday, February 6th Day Shift - Cored 633 - 643; drilling.

"Joseph T. Mandy"

Mining Engineer

Progress Report Jan. 22nd (noon) - Jan. 23rd

<u>Tuesday, Jan. 22nd - Day shift</u> - (Noon) - cored 508 - 510, cored 510 - 515. <u>Night Shift</u> - cored 515 - 521; 521 - 525; 525 - 530 <u>Graveyard</u> - cored 530 - 536; 536 - 540; 540 - 548¹/₂. <u>Wednesday, Jan. 23rd - day shift</u> - cored 548¹/₂ - 553; 553 - 556; 556 - 557' 6"; 557' 6" - 559.

Note: Previous small evidence of caving had become aggravated at 550' pull. Rods badly jammed in hole at 559 pull. Cave slough increasing after each pull, 4' cave in bottom after 559 pull. Short pulls required to try and get core recovery. Cave originating about 515'.

> Night shift - cored 559 - 562. (After 562 8' of core in bottom) (changed to reamless collar on bit) cored 562 - 568. (Drilling) Graveyard - cored 568 - 575; 515 - 585;

drilling.

"Joseph T. Mandy"

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Progress Report Jan. 19th (noon) - Jan. 22th (noon)

Saturday, Jan. 19th - Day shift - cored 386 - 396 drilling. Night shift - cored 396 - 406; cored 406 - 416; 416 - 426. Graveyard - cored 426 - 431 Waterline froze. Saturday, Jan. 20th - Day shift - Working on water line. Pump trouble. Drilled 4' Night shift - cored 431 - 441 cored 441 - 451 Graveyard - cored 451 - 461; drilled to 462 Monday, Jan. 21st. - Day shift - cored 461 - 463; 463 - 467; 467-468' 6"; 468' 6" - 470; 470 - 474; 474 - 475' 6". Night shift - cored 475' 6" - 477; 477 - 482; cored 482 - 492 Graveyard cored 492 - 500 cored 508 - 505 Tuesday, Jan 22nd - Day shift cored 505 - 508; drilling; Noon

> "Joseph T. Mandy" Mining Engineer.

Merritt Drilling

Progress Report Jan. 17th - Jan. 19th (Noon)

Thurs. Jan. 17th - Day shift - cored 241' - 251' (slow drilling in tough compact shale) cored 251' - 255' (2' 2" core recovered - see log) 10' core barrel replaced by 5' barrel. Night shift - cored 255' - 260' (replaced 10' core barrel. cored 260' - 270'. Drilling. Graveyard shift - cored to 280*. cored 280' - 285' (10' barrel) drilling. Friday, Jan. 18 - Day shift - cored 285' - 295'. cored 295' -304' 6"; cored 304' 6" - 314' 6". Night shift - cored 314' 6" - 324' 6". cored 324' 6" - 334' 6" cored 334' 6" - 344' 6" cored 344' 6" - 346' (soft sandstone) Graveyard shift - cored 346' - 356' cored 356' - 366' Saturday, Jan. 19th - Day shift - cored 366' - 376' cored 376' - 386' (Noon).

Note - Now operating 3 shifts and progress is about 50' - 60' per day at the present depth.

"Joseph T. Mandy"

Mining Engineer

<u>Note</u> - Mr. James Dickson, Chief Inspector of Mines, has requested from Mr. Hughes (Inspector), information re the Merritt drilling. Please convey it to him - results etc.

"J.T.M."

[6]

Merritt Drilling

Progress Report Jan. 15th noon - Jan. 16th

<u>Tues. Jan. 15 noon - 4 p.m.</u> cored 151' - 161' drilled to @ 166'

<u>Tues. Jan. 15th night shift</u> - cored 161' - 171' cored 171' - 191'.

Wed. Jan. 16th day shift - cored 191' - 201' cored 201' - 211' drilling 211'+

Wed. Jan. 16th night shift - cored 211' - 221' cored 221' - 231'; cored 231' - 241'

<u>Note</u> Mr. Hall of Boyles visited operation. Suggested it might be advantageous when coring coal to use a special "Mud" preparation pumped into the hole. This will require a reduction in core size by $\frac{1}{4}$ inch, but would assure better core recovery. As the local coal (Diamond Vale) and the streak already intersected (134' 8") is characteristically very friable, and may be hard to core, the "Mud" method may help. The formation generally cores well and I do not think the core recovery of this would be adversely effected by a core reduction of $\frac{1}{4}$ ". Mr. Hall will contact you about this.

"Joseph T. Mandy"

Mining Engineer.

January 1946

Merritt Drilling

Progress Report Jan. 14th - Jan. 15th (Noon)

Mon. Jan. 14th Day shift - Casing placed to 105'. Drilling in bedrock. Hole cored to 120'. (two lengths of 10' each)

> <u>Night shift - Drilling in Bedrock.</u> Hole cored to 141'. (two lengths of 10' and 11'.)

<u>Tues. Jan. 15th</u> <u>Adjusting tripod.</u> Hole cored to 151' (one length of 10'.)

Note For details of core, see attached log.

Progress is being made at a rate of 2 lengths of 10' core for the two shifts working. This is 40' of core per day. Unless something unforseen happens, this will be the average of progress. for two shifts.

Regular progress reports will be mailed.

Status of Hole

6"	standpipe	0 1	•••	30'
4"	standpipe	30 †	-	102'
3"	casing	0'	-	105'

"Joseph T. Mandy"

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Mining Engineer

(Week Jan. 7th - 12th)

	Thickness	Depth 102'
Clay and boulder clay	102'	102'
Soft and broken Bedrock (?)	31	105'
Hard bedrock (?)	21	107'

Note - 102' to 107' will be verified by core to be pulled Monday, Jan. 14th.

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"Joseph T. Mandy"

Progress Report (Week Jan. 7th - 12th)

Mon. Jan. 7th	At end of shift (4 p.m.) reached 75' in boulder clay overburden. 4" standpipe.
Tues. Jan. 8th	In boulder clay overburden. 2 shifts of 4 men each. 4" standpipe.
Wed. Jan. 9th	In boulder clay overburden. 2 shifts of 4 men each. 4" standpipe.
Thurs. Jan. 10th (4" standpipe to 102')	In boulder clay overburden. 1 shift of 4 men. Loose Bedrock hit. at 102'. New drill arrived. Commenced installation of drill.
Fri. Jan. 11th	Installing new drill and erecting camps. 1 shift 8 men.
Sat. Jan. 12th	Casing installed to 102'. Drilling in Bed- rock 102' to 107'. (Rate 1' in 18 mts., probably sandstone or sandy shale.)

Status of Hole

6"	standpipe	0 -	30'
4"	11	30 ' -	102'
3"	Casing	0 -	102'

"Joseph T. Mandy"

