MERRITT DRILL HOLE #1

INCOMPLETE

161(01)

Merritt Diamond-drilling

Log of Hole No. 1 Cont'd.

Correction

Description		Thickness	Depth
Shale (dark, sandy in part)	Actual -	3' 10"	
Shale (dark, sandy in part, crushed)	"	2"	
Sandstone (light grey, limey)	"	3' 3"	
Shale (black, broken, slickensided)	"	1' 7"	
Shale (fractured, limey) " " "	"	4' 9"	900' 0"

"Joseph T. Mandy"
Mining Engineer

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

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

	Thickness		Depth	
Sand and clay	16			
Coarse gravel with clay and sand	10'	7"	26'	7"
Sand	1	0	27	
Coarse gravel	4	4	31	11
Clay and gravel	64	2	96	11
		BEDROCK		
Conglomerate	5	4	101	5
Sandy shale	4	0	105	5
Coarse sandstone	8	3	113	8
Conglomerate	1	2	114	8
Light sandy shale	7	8	122	4
Dark sandy shale	3	1	126	2
Light sandy shale	10	0 ...	136	2
Conglomerate	1		137	2
Light sandy shale	1		138	2
Dark sandy shale	5	6	143	8
Conglomerate	0	11	144	7
Sandstone	1	7	146	2
Sandy shale	5	2	151	2
Conglomerate	5	2	156	
Light sandy shale	2	0	158	
Conglomerate	1	10	160	0
Dark brown shale with coal markings	1	3	161	3
Sandy shale	3	0	164	
Sandstone	2	0	166	
Sandy shale	1	9	168	0
Conglomerate	2	3	170	3
Sandy shale	5	6	175	9
Sandstone	1	0 ...	176	9
Sandy shale (dip 20 degrees)	1	0	177	
Conglomerate	3	0	180	
Dark sandy shale	5	0	185	
Conglomerate	1	6		
Sandy shale		6		
Conglomerate	1	0 ...		
Dark sandy shale with coal marks	3	0	191	9
Sandstone	1			
Dark sandy shale	1			
Conglomerate	1			
Dark sandy shale	1	...		
Conglomerate	1		196	9
Dark sandy shale	3			
Sandstone (dip 47 degrees)	1			
Sandy shale	5	4	206	1
Dark sandy shale with coal marks	2	0	208	1
Sandy shale	6			
Dark sandy shale	14	4	228	5

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LOG OF No. 11 HOLE Cont'd.

	Thickness		Depth	
Sandstone	1			
Dark sandy shale	5		234	5
Light sandy shale	3	...		
Dark sandy shale	2			
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 sandy shale	3			
Light sandy shale	5	...	262	8
Sandstone (dip 22 degrees)	8			
Dark sandy shale	9	6	280	2
Sandstone (dip 14 degrees)	9			
Light sandy shale (dip 14 degrees)	8			
Dark sandy shale	5		302	2
COAL	1	9	303	11
Dark brown shale	2	5		
Dark sandy shale	13		319	4
Sandstone	1			
Sandy shale	2			
Sandstone (dip 15 degrees)	8	...	330	0
Dark sandy shale	13	6		
Sandstone	1	6		
Sandy shale	2	0		
Sandstone	1			
Dark sandy shale	5	...	353	4
Sandstone	2			
Sandy shale	4			
Dark sandy shale	6			
Sandstone	1	6		
Dark sandy shale	1	3		
Sandstone	4	...	372	1
Conglomerate	2			
Sandy shale	4			
Conglomerate	2	3		
Sandstone	11	9 ...	392	1
Conglomerate	2			
Sandstone	2			
Light sandy shale	6			
Sandstone	2			
Coarse conglomerate	16	...	419	1
Dark sandy shale (dip 15 degrees)	89	8	427	9
Sandstone	2			
Dark sandy shale (dip 27-38 degrees)	6			
Sandstone (dip 33-20 degrees)	11	...	446	9
Light sandy shale	5			
Dark sandy shale	7			
Conglomerate	1			
Dark shale with coal marks	3			
COAL	4	0 ...	469	9
Dark sandy shale	2	10		

LOG OF NO. 11 HOLE Cont'd.

	Thickness		Depth	
COAL	1	4½		
COAL, bony		3		
COAL	2	4½		
COAL, bony		2		
COAL		4	... 472	1
Dark brown sandy shale	2	3		
COAL		9		
Dark brown shale	1	10		
COAL		6½		
Dark brown shale		7½		
COAL	1	6	... 479	7
Dark brown shale, coal markings	3	4	482	11
COAL		7		
Dark brown shale occasional coal streaks	9	3		
COAL		2		
Dark brown shale		4		
COAL		4		
Brown shale		2		
COAL		6		
Brown shale		6		
Light sandy shale (dip 20 degrees)	14	3		
Sandstone	9			
Light sandy shale	8	10		
COAL		8		
Sandy shale	1			
COAL		3		
Light sandy shale	38	9	568	
Sandstone	11			
Light sandy shale	5			
Sandstone (dip 25 degrees)	18			
Light sandy shale (dip 18 degrees)		9	610	4
COAL 6'5"				
COAL, bony 6" 13		2	... 638	3
COAL 6'3"				
Dark brown shale	3	6		
COAL	3	8		
Dark brown shale	7			
Light sandy shale	2			
Sandstone	1			
Light sandy shale	2	6		
COAL		10	... 658	9
Light sandy shale	8	4		
Dark sandy shale	2			
Sandstone	32	6		
Dark sandy shale	5			
COAL 1' 10")				
COAL, bony 2")				
COAL 9")	2	9	... 709	4
Dark sandy shale	6	9		
Light sandy shale	9			

LOG OF NO. 11 HOLE Cont'd.

	Thickness	Depth
Sandstone	5	
Light sandy shale	2	
Sandstone	3	
Light sandy shale	11 6	
Sandstone	2	
Light sandy shale	3	... 750 7

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

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 $\frac{3}{4}$" 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.

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Merritt Diamond-Drilling

Progress Report - Feb. 13th - Feb. 16th (Noon)

Feb. 13th - Day shift - cored 801 - 811.

Night " - " 811 - 821.

Graveyard - " 8 1 - 831; 831 - 834.

Feb. 14th - Day shift - " 834 - 836; 836 - 840; 840 - 850

Night " - " 850 - 856; 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 over to ... White.

"Joseph T. Sandy"

Mining Engineer

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MERRITT
DRILL
HOLE #2

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

July 2

Morning shift:	Coring 481 - 501
Afternoon shift:	Coring 501 - 520
Graveyard shift:	Coring 520 - 530

July 3

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

July 4

Morning shift to noon:	Cored to 572'

"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:	Coring 380 - 395
Afternoon " :	" 395 - 411
Graveyard " :	" 411 - 431

June 29

Morning shift:	Fishing for bit
Afternoon " :	Coring 431 - 436
Graveyard " :	" 436 - 447

June 30

Morning shift:	Coring 447 - 459
Afternoon " :	" 459 - 472
Graveyard " :	Not working

July 1

Morning shift:	Not working
Afternoon " :	" "
Graveyard " :	Coring 472 - 481

July 2

Morning shift:	Cored to 491 at noon

"J.M. Black"

Asst. Mining Engineer

2 July 46

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

June 26

Morning shift:	Coring 277 - 296
Afternoon shift:	Coring 296 - 311
Graveyard shift:	Coring 311 - 334

June 27

Morning shift:	Coring 334 - 341
Afternoon shift:	Coring 341 - 361
Graveyard shift:	Coring 361 - 379

June 28

Morning shift to noon	Cored to 385'

"J.M. Black"

Asst. Mining Engineer

28 June 46

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

June 24

Morning shift:	Coring 186 - 195
Afternoon shift:	Coring 195 - 207
Graveyard shift:	Coring 207 - 217

June 25

Morning shift:	Coring 217 - 245
Afternoon shift:	Coring 245 - 263
Graveyard shift:	Coring 263 - 277

June 26

Morning shift to noon:	Cored to 286'

"J.M. Black"

Asst. Mining Engineer

26 June 46

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Merritt Diamond-Drilling

Progress Report Feb. 9th - Feb. 12th

Feb. 9th - Day shift - Engine arrived by express. Installing engine; running-in engine.

" " Night shift - Drilling; cored 698 - 708

" " Graveyard - Cored 708 - 718

Feb. 10th - Day shift - Cored 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.

" " Night shift - Cored 728 - 736; 736 - 746.
Note - Noted caving at 682' after last core pull.

" " Graveyard - Broke brakehandle bolt when letting rods down.

Feb. 11th - Day shift - Repairing brake handle. Preparing mud circulation for resuming 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 F. Ramey"

Mining Engineer

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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"

	Core	Missing	Depth
Shale, sandy	2' 6"		213'
Shale and sandstone	2'		215'
Sandstone, grey, fine grained few shaly beds	4' 6"		219' 6"
Shale, sandy, grey	5' 6"		225'
Sandstone, light, fine grained Dip 15-20°	9'		234'
Shale, grey, sandy	4'		238'
Sandstone, light, fine grained, massive	5' 9"		243' 9"
Sandstone and shale, interbedded Dip 5-10°	5' 3"		249'
Sandstone, massive, few shaly beds 254-255 grading to very coarse at base	7'		256'
Shale, grey sandy with sandy interbeds	4'		260'
Shale, dark, few sandy beds	10'		270'
Coal	6"		270' 6"
Shale sandy	1' 6		272'
Sandstone, grey, massive, few shaly beds	3'		275'
Sandstone, grading down to shale	5'		280'
Sandstone, fine at top grading down to coarse and massive at base	9'		289'
Conglomerate	1'		290'
Sandstone, light, massive, medium to coarse with conglomerate beds	24'		314'
Shale, dark, some sandy beds, abundant coal partings at 325'	12'		326'
Shale, with many sandy interbeds	5'		331'
Coaly partings	6"		331' 6"
Sandstone, grey thin bedded, fine grained Dips 5-10°	2' 6"		334'
Coal partings	1'		335'
Shale, grey, sandy	2'		337'
Shale, broken and slickensided, some coal partings	6'		343'
Shale, dark with coal partings	8'		351'
Shale grey and getting very sandy at base	5'		356'
Shale, grey	2'		358'
Shale, dark, with coal partings	1' 3"		359' 3"
Sandstone, light, medium grained, few coal streaks	7' 9"		367'

				367'
Conglomerate, light, mostly fine grain, some medium fairly coarse at 370-71, 375-76, 404-05	68'			435'
Sandstone, light medium grain, few coal partings	10'	9"		445' 9"
Sandstone, light, fine grain	1'	3"		447'
Shale, dark few coal partings	1'	6"		448' 6"
Coal and shale	1'	6"		450'
Shale, dark, broken	2'		1' 6"	452'
Shale, grey with coal partings	1'		6"	453'
Coal, 4" bone in 2 seams	2'			455'
Shale with 4" coal	1'			456'
Coal with 7" bone in 6 seams	3'			459'
Coal with 9" bone in 7 seams Dip 10°	2'	6"		461' 6"
Shale with abundant coal partings	3'	6"		465'
Shale, grey	4'			469'

J.M. Black

Asst. Mini g Engineer.

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MERRITT DRILL HOLE #3

PROGRESS REPORT MERRITT D.D.H. No. 3 June 13 - June 16

June 13

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 1197' - 1206'
Afternoon Shift	Coring 1206' - 1216'

June 15

Graveyard Shift	Coring 1216' - 1226'
Morning Shift	Coring 1226' - 1236'
Afternoon 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.

PROGRESS REPORT MERRIT D.D.H. No. 3, June 10 - June 12

June 10

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

June 11

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

June 12

Graveyard Shift: Coring 1140' - 1150'
Morning Shift : Coring 1150' - 1154'
Afternoon Shift: Coring 1154' - 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

PROGRESS REPORT MERRITT D.D.H. No. 3, June 5 - 9

June 5

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 : " " " " " "
Afternoon Shift: " " " " " "

June 8

Graveyard Shift: Shut down " " " "
Morning Shift : " " " " " "
Afternoon Shift: Coring 1063' - 1068'

June 9

Graveyard Shift: Coring 1068' - 1073'
Morning Shift : Coring 1073' - 1083'
Afternoon Shift; Coring 1083' - 1093'

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

"C.B. Newmarch"

Asst. Mining Engineer.

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

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PROGRESS REPORT MERRITT D.D.H. No. 3, June 1 - 2

June 1

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

June 2

Graveyard Shift:	Shut down
Morning Shift :	" "
Afternoon Shift:	" "

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

No coal to date.

"C.B. Newmarch"

Asst. Mining Engineer.

PROGRESS REPORT MERRITT D.D.H. No. 3, June 3 - 4

June 3

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. Newmaroh"

Asst. Mining Engineer.

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

June 17

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

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PROGRESS REPORT MERRITT D.D.H. No. 3, May 30 - 31

May 30

Graveyard Shift: Coring 880' - 890'
Morning Shift : Coring 890' - 911'
Afternoon Shift: Coring 911' - 922'

May 31

Graveyard Shift: Coring 922' - 932'
Morning Shift: Coring 932' - 934'
Afternoon Shift: Coring 934' - 939'

Depth at 11:00 A.M. June 1st was 956'

The section remain unchanged; no coal to date.

"Charles B. Newmarch"

Asst. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE No. 3 May 28 - 29

May 28

Graveyard Shift:	Coring 830' - 840'
Morning Shift :	Coring 840' - 850'
Afternoon Shift:	Coring 850' - 855'

May 29

Graveyard Shift:	Coring 855' - 860'
Morning Shift :	Coring 860' - 870'
Afternoon Shift:	Coring 870' - 880'

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"

Asst. Mining Engineer.

PROGRESS REPORT - MERRITT DRILL HOLE No. 3 - May 26 - 27

May 26

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' - 820'
Afternoon Shift: Coring 820' - 830'

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

"C.B. Newmarch"

Asst. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE NO. 3 - May 21 - 25

May 21

Graveyard Shift: Coring 688' - 698'
Morning Shift: Coring 698' - 708'
Afternoon Shift: Coring 708' - 714'

May 22

Graveyard Shift: Coring 714' - 723'
Morning Shift: Coring 723' - 735'
Afternoon Shift: Coring 735' - 757'

May 23

Graveyard Shift: Coring 757' - 767'
Morning Shift : Coring 767' - 777'
Afternoon Shift: Coring 777' - 789'.

May 24

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

May 25

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.

May 24, 1946

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PROGRESS REPORT - MERRITT DRILL HOLE No. 3 May 18 - 20

May 18

Graveyard Shift: Coring 561' - 571'
Morning Shift: Coring 571' - 582'
Afternoon Shift: Coring 582' - 598'.

May 19

Graveyard Shift: Coring 598' - 614'
Morning Shift : Coring 614' - 653'.
Afternoon Shift: Coring 633' - 653'.

May 20

Graveyard Shift: Coring 653' - 671'
Morning Shift: Coring 671' - 681'
Afternoon Shift: Coring 681' - 688'.

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

May 16

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

May 17

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

May 14

Graveyard Shift: reaming hole from 140' to 499'
Morning Shift : Running 420' of casing
Afternoon Shift: running casing

May 15

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.
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

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

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

May 6th:	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

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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

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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

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'.

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MERRITT DRILL HOLE #4

LOG OF MERRITT D.D.H. #5

SANDSTONE,	dark and light, thin bedded, upper part broken, dip 30°	10' 0"	-	530' 0"
SANDSTONE,	light and dark broken, dip 25-30°	5' 0"	-	535' 0"
SANDSTONE,	light, coarse, massive, fine at 540', conglomerate at 543', dip 35°	15' 0"	1' 0"	550' 0"
SANDSTONE,	coarse, broken	5' 0"	3' 0"	555' 0"

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

SHALE, sandy, few coal partings, dip 5°	8' 0"		-	451' 0"
SANDSTONE, light and dark, medium and fine grain few shaly beds, dip 5-20°	19' 0"	2' 0"	470' 0"	
SHALE, sandy, many leaf impressions, dip 10°	6' 0"		3"	476' 0"
SHALE, few sandy beds, many coal partings two 1" seams coal, broken and slickensided	5' 0"	2' 0"	481' 0"	
SHALE, and coal borken, probable loss of coal 5' - 6'	9' 0"	7' 0"	490' 0"	
SANDSTONE, medium grain, few shale beds	3' 0"		3"	493' 0"
SHALE, sandy, much broken	2' 6"		-	495' 6"
SANDSTONE, 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, medium grained	4' 6"		-	408' 6"
SANDSTONE, thin bedded, fine grained, dip 25°	4' 6"		-	513' 0"
SHALE, sandy	2' 6"		-	515' 6"
SANDSTONE, dark, fine grained, some shale beds, broken	4' 6"		-	520' 0"

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

				310' 6"
SHALE, grey	2' 0"		-	312' 6"
SHALE, grey, broken, little mud	3' 6"		3"	316' 0"
SHALE, sandy, coal partings 317'	1' 0"		-	317' 0"
SANDSTONE, shaly, fine grain, dip 5-10° few coal partings	12' 6"		-	329' 6"
SANDSTONE, light, medium grained	7' 0"		6"	336' 6"
SANDSTONE, shaly, dip 15°	4' 0"		-	340' 6"
SANDSTONE, light and dark, medium and fine grain, dip 12°	2' 0"		-	342' 6"
SHALE, sandy, coal partings 344'	2' 6"		3"	345' 0"
SANDSTONE, fine and medium	1' 6"		-	346' 6"
SANDSTONE, light, massive coarse, very coarse 352 - 56	10' 6"	2'0"		357' 0"
SHALE, sandy, dip 10°	5' 0"		-	362' 0"
SANDSTONE, few shaly beds, fine grained	2' 0"		-	364' 0"
SANDSTONE, coarse, lowest 6" fine grained	3' 6"		3"	367' 6"
SANDSTONE, light, coarse massive, dip 13°	27' 0"		6"	394' 6"
SANDSTONE, light, coarse massive	8' 6"		-	403' 0"
SANDSTONE, shaly	2' 0"		-	405' 0"
SANDSTONE, shaly, poorly sorted, few coal partings	7' 0"		-	412' 0"
SHALE, with abundant coal partings	1' 6"		-	413' 6"
COAL, (2½" bone 2 seams), dip 13°	1' 6"		3"	415' 0"
COAL, (5" bone 5 seams)	2' 0"		6"	417' 0"
COAL, (1" bone 1 seam)	2' 0"		9"	419' 0"
COAL, (4" bone 3 seams)	2' 0"	1'	3"	421' 0"
SHALE, with abundant coal partings 2" coal	2' 0"		9"	423' 0"
SANDSTONE, shaly, dip 10°	1' 0"		-	424' 0"
CONGLOMERATE, few sandy beds, very coarse at base	17' 9"		6"	441' 9"
SHALE, black, fissile, broken, few coal partings	1' 3"		-	443' 0"

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SHALE, medium to dark grey, fractured	6' 0"	-	289' 0"
SANDSTONE, dark and light, medium to fine grain, dip 25°	4' 9"	3"	293' 9"
SHALE, dark	1' 3"	-	295' 0"
SANDSTONE, medium grain thin bedded	3' 6"	1' 0"	298' 6"
SANDSTONE, course, massive	4' 0"	-	302' 6"
SANDSTONE, grey, medium to fine grain broken at 303' 6", dip 30°	3' 6"	6"	306' 0"
SHALE, dark grey some sandy beds coal partings at 306' 6"	4' 6"	6"	310' 6"

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Asst. Mining Engineer

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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'

	Thickness	Core Missing	Depth
SANDSTONE, light, medium to course grain dip 10°, few shaly beds	4' 0"	-	182' 0"
SANDSTONE, light, medium to course, massive, getting shaly towards base	8' 0"	-	190' 0"
SHALE, dark, many coal partings, some pyrite 9")			
COAL, 4")	2' 0"	11"	192' 0"
SHALE, with many coal partings	6"	-	192' 6"
COAL, with little shale	6"	-	193' 0"
SHALE, with many coal partings	4"	-	193' 4"
SHALE, dark grey with few coal parings	6' 8"	8"	200' 0"
SHALE, mud, and coal particles	2' 0"	1' 6"	202' 0"
SHALE, dark grey, few coal partings, few sandy beds, dip 5° - 10°	5' 0"	3"	207' 0"
SHALE, dark grey	2' 3"	-	209' 3"
SANDSTONE, light, medium to fine grain, massive, shaly at 212'.	7' 9"	6"	217' 0"
SANDSTONE, light, medium grain	9' 0"	6"	226' 0"
SANDSTONE, light massive, medium to course	10'2"	-	236' 2"
SHALE, dark grey, few coal partings sandy towards base	4' 10"	3"	241' 0"
SANDSTONE, light, medium grained, few shale beds	3' 0"	-	244' 0"
SHALE, dark grey	2' 0"	3"	246' 0"
SHALE, dark grey mud seam 249' 6"	4' 6"	3"	250' 6"
SANDSTONE, light grey, fine-medium grain, massive	5' 6"	-	256' 0"
SANDSTONE, light and dark, few shale beds dip 10°	5' 6"	-	261' 6"
SHALE, dark and medium grey, few sandy beds, dip 0° - 20°	14' 6"	6"	276' 0"
SHALE, dark, broken at 277'	2' 6"	-	278' 6"
MUD, shale, coal	1' 0"	6"	279' 6"
SHALE, dark	3' 6"	-	283' 0"

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

July 29

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

July 30

Morning shift to 10 a.m.	555

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

July 27

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

July 28

Morning shift	Coring to 493
Afternoon	Coring to 503
Graveyard	Coring to 513

July 29

Morning to 10 a.m.	Coring to 520

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

July 25

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

July 26

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

July 27

Morning to 10 a.m.	Coring to 443

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

July 23

Morning shift:	Coring to 194
Afternoon	Coring to 217
Graveyard	Coring to 246

July 24

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

July 25

Morning to noon	Coring to 311

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Asst. Min. Engr.

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

July 17

Setting up.

July 18

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

July 19

Morning shift	Casing to 80
Afternoon shift	Casing to 110

July 20

Morning shift	Casing to 140
Afternoon not drilling	

July 21

Morning not drilling	
Afternoon shift	Casing to 160

July 22

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

July 23

Morning to noon	Coring to 182

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SHALE, grey, sandy, cross-bedded sandstone streaks	2' 6"	726' 8"
SHALE, black, compact	1' 4"	728' 0"
SHALE, grey, sandy, with sand lenses	18' 6"	746' 6"
SANDSTONE, shaly, shale streaks dipping at high angles, vertical channeling	19' 6"	766' 0"
SHALE, sandy, with sand streaks	7' 0"	773' 0"
SANDSTONE, grey, poorly sized, with shaly streaks dipping at high angles	29' 0"	802' 0"
SHALE, grey, sandy	2' 8"	804' 8"
SANDSTONE, shaly streaks at high angles	6' 4"	811' 0"
SANDSTONE, light grey, coarse, poorly sorted	2' 9"	813' 9"
SHALE, grey, sandy	6' 3"	820' 0"
SANDSTONE, light grey, coarse	3' 0"	823' 0"
CONGLOMERATE, med. to coarse, with few sand lenses	26' 0"	849' 0"
SANDSTONE, grey, coarse, cross-bedded	8' 0"	857' 0"
SHALE, black, coal marks	2' 0"	859' 0"
SHALE, black, coal marks and soft black mud	4' 0"	
COAL	0' 6"	862' 6"
SHALE, dark grey, compact	16' 6"	879' 0"
SHALE, grey, sandy	4' 0"	883' 0"
SHALE, dark grey, compact	5' 0"	888' 0"
SHALE, grey, sandy, 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"

.....

Remainder of log is on file at Victoria

.....

"Wm. H. White"

Assoc. Mining Engineer

10/Mar/46

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SANDSTONE, fine grained	1' 6"	375' 0"
CONGLOMERATE, fine	0' 8"	375' 8"
SANDSTONE, fine grained	1' 0"	376' 8"
SHALE, light grey, sandy	2' 0"	378' 8"
SANDSTONE, light grey, coarse, few shaly streaks	71' 4"	450' 0"
SHALE, dark grey, sandy, sand streaks, coal marks	11' 5½"	461' 5½"
COAL, with 1½" shale parting	3' 3½"	464' 9"
SHALE, dark grey, coal streaks	1' 7½"	466' 4½"
COAL	1' 10½"	468' 3"
SHALE	0' 3"	468' 6"
COAL, with 2" shale parting	5' 10"	474' 4"
SHALE, black	0' 9"	475' 1"
COAL	0' 3"	475' 4"
SHALE, black	0' 4"	475' 8"
COAL	0' 9"	476' 5"
SHALE, black	0' 1½"	476' 6½"
COAL	0' 2½"	476' 9"
SHALE, black, coal marks and several ¼" coal seams	9' 1"	485' 10"
COAL	0' 10"	486' 8"
SHALE, black, coal marks	1' 6"	488' 2"
COAL, boney	1' 6"	489' 8"
SHALE, black, coal streaks	1' 0"	490' 8"
COAL	0' 8"	491' 4"
SHALE, black, fissile, leaf molds, coal marks	10' 8"	502' 0"
COAL	0' 6"	502' 6"
SHALE, grey, somewhat sandy	4' 6"	507' 0"
SANDSTONE, coarse, poorly sorted	1' 0"	508' 0"
SHALE, dark grey to black, fractured and sheared	7' 0"	515' 0"
SANDSTONE, grey, med. grained with shaly and fine sand streaks. Dip 18°	32' 6"	547' 6"
SHALE, black, coal marks	3' 0"	550' 6"
COAL	4' 10"	555' 4"
SHALE, black	1' 2"	556' 6"
COAL, some boney streaks	4' 6"	561' 0"
SHALE, black, fissile, coal marks, leaf molds	6' 0"	567' 0"
SANDSTONE, shaly	6' 0"	573' 0"
SANDSTONE, light grey, medium grained with a few coarse streaks, carbonized twigs	70' 0"	643' 0"
SHALE, black, compact, coal marks	3' 6"	646' 6"
COAL, in part boney	4' 0"	650' 6"
SHALE, black, coal streaks	1' 6"	652' 0"
COAL, boney	0' 10"	652' 10"
SHALE, dark grey, sandy, fractured	3' 2"	656' 0"
SANDSTONE, dark grey, shaly	1' 6"	657' 6"
SHALE, grey, sandy, with many sand lenses, much fractured and high core loss	9' 6"	667' 0"
SANDSTONE, coarse, poorly sorted	2' 0"	669' 0"
SHALE, dark grey, sandy, fractured	19' 0"	688' 0"
SANDSTONE, grey shaly Dip 10°	10' 0"	698' 0"
SANDSTONE, grey, coarse	10' 0"	708' 0"
SANDSTONE, med. to fine grained with shaly streaks	3' 10"	711' 10"
SHALE, dark grey, with sandy streak	6' 2"	718' 0"
SANDSTONE, shaly streaks DIP 8°	3' 8"	721' 8"
SHALE, black, fractured	2' 6"	724' 2"

Merritt Diamond Drilling

Log of Hole #1

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

Boulder clay	102'	102' 0"
SANDSTONE, grey, med. to coarse grain, with shaly streaks	14' 0"	116' 0"
SHALE, dark, sandy	6' 6"	122' 6"
SANDSTONE, very coarse, poorly sorted, shaly streaks	5' 0"	127' 6"
SHALE, grey, sandy	3' 6"	131' 0"
SANDSTONE, grey, coarse, coal marks	2' 10"	133' 10"
COAL, bony	0' 10"	134' 8"
SHALE, dark, fissile, coal marks	1' 6"	136' 2"
SANDSTONE, grey coarse, some fine sand and shaly streaks	11' 0"	147' 2"
SHALE, black, leaf molds, few sandy streaks	9' 0"	156' 2"
SANDSTONE, shaly, finely bedded	2' 6"	158' 8"
SHALE, dark to black, coal marks	3' 0"	161' 8"
SHALE, dark, sandy	1' 0"	162' 8"
SANDSTONE, med. grain, with few shaly streaks	4' 8"	167' 4"
SHALE, sandy, grey	2' 6"	169' 10"
SANDSTONE, med. grain, shaly streaks, coal marks	3' 2"	173' 0"
SHALE, black, coal marks, much fractured	7' 0"	180' 0"
SANDSTONE, light grey, coarse	3' 8"	183' 8"
SHALE, grey, sandy	5' 6"	189' 2"
SANDSTONE, grey, coarse, poorly sorted	10' 10"	200' 0"
SHALE, dark grey, slightly sandy Dip 25°	9' 0"	209' 0"
SANDSTONE, shaly Dip 15°	4' 6"	213' 6"
SHALE, dark grey, sandy, fractured	6' 6"	220' 0"
SANDSTONE, med. to coarse, poorly sorted, few fine sand and shaly streaks	19' 0"	239' 0"
SHALE, black, compact, leaf molds	13' 6"	252' 6"
COAL	0' 8"	253' 2"
SHALE, black, much fractured	8' 10"	262' 0"
SANDSTONE, fine grain, shaly Dip 14°	4' 0"	266' 0"
SANDSTONE, very coarse poorly sorted with some irregular fine conglomerate bands, Abrupt contact below	14' 0"	280' 0"
SHALE, black, fractured	3' 1½"	283' 1½"
COAL	0' 4½"	283' 6"
SHALE, black, fissile, leaf molds	9' 0"	292' 6"
SANDSTONE, med. to fine grained, somewhat shaly	8' 0"	300' 6"
SHALE, dark, fractured	4' 0"	304' 6"
SANDSTONE, grey, shaly, coal marks	3' 0"	307' 6"
SHALE, grey to black, fractured, ¼" coal seam	6' 6"	314' 0"
SANDSTONE, shaly, dark grey	4' 6"	318' 6"
SANDSTONE, light grey, coarse, poorly sorted, irregular conglomerate streaks	12' 0"	330' 6"
CONGLOMERATE, fine	0' 9"	331' 3"
SANDSTONE, light grey, coarse, friable, poorly sorted	27' 0"	358' 3"
SHALE, dark, sandy, with fine sand streaks Dip 14°	5' 9"	364' 0"
SANDSTONE, grey, medium grained, shaly streaks	4' 6"	368' 6"
CONGLOMERATE, fine, with coarse sand streaks and 2" streak of sandy shale	5' 0"	373' 6"

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

Breccia, fragments of shale and volcanics	4'	0"	-	968'	0"
Conglomerate, soft, muddy, coaly shale streaks	1'	8"	-	969'	8"
Breccia, large volcanic fragments with muddy cement. Rock soft and friable	6'	4"	-	976'	0"
Felsite, light grey, fine grained.	2'	0"		978'	0"
Greenstone, fine-grained, dark green, chloritic	7'	0"		985'	0"
Greenstone, fine-grained, somewhat brecciated	3'	6"		988'	6"
Shale, compact, indurated	1'	0"		989'	6"
Greenstone, pillowed, somewhat porphyritic	5'	6"		995'	0"

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	3' 4"	1' 2"	927' 4"	
Abrupt, Irregular Contact, Dip 35°				
SANDSTONE, grey, fine even-grained	0' 8"		928' 0"	
SANDSTONE, grey, fine even-grained, Scattered grains of sulphide	4' 0"	1' 9"	932' 0"	
SHALE, grey, compact, somewhat sandy	0' 11"		932' 11"	
SANDSTONE, grey, fine even-grained. Dip 29°	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	0' 11"		938' 11"	
SANDSTONE, coarse, poorly sorted	0' 1"		939' 0"	
SHALE, grey, compact, sandy. Fine sand seams Dip 31°	3' 0"		942' 0"	
SHALE, grey, compact, numerous sand seams Dip 29°	7' 6"	1' 0"	949' 6"	
SHALE, dark, badly fractured	2' 6"	0' 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 ¼" seam of crushed COAL	0' 5"		954' 3"	
BRECCIA, coarse fragments, sand cement.	2' 9"	0' 6"	957' 0"	
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	0' 6"	(?)1'10"	958' 6"	
MUD or GOUGE SEAM, as above	1' 6"		960' 0"	
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°	0' 8"		961' 6"	
SHALE, dark, badly sheared	0' 6"	0' 1"	962' 0"	
CONGLOMERATE, poorly sorted with coarse sand lenses	2' 0"	0' 2"	964' 0"	

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

"Wm. H. White"

William H. White
Assoc. Mining Engineer.

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.

	THICKNESS	MISSING	DEPTH
SHALE, dark, soft, slickensided partings, carbonate stringers.	10' 0"	5' 0"	910' 0"
Abrupt irregular contact			
SANDSTONE, light, coarse-grained	4"		910' 4"
SHALE, dark, finely cross-bedded	1"		910' 5"
SANDSTONE, light grey, coarse, cross-bedded	5"		910' 10"
Cross-bedding dips 70°			
SHALE, dark with intercalated seams of fine sand.	1' 0"		911' 10"
SANDSTONE, light grey, coarse (about 1mm.) with some grains of shale.	2' 0"	7"	913' 10"
Abrupt contact.			
SHALE, black with a few fine-grained sand streaks interbedded.	1' 2"	7"	915' 0"
SHALE, black, compact, wavy bedding with average dip 45 degrees	3' 5"		918' 5"
COAL, bony, bright partings, friable	1½")		918' 6½"
SHALE, black, much fractured, slickensided fragments.	1' 3½")	2"	919' 10"
SHALE, black with a few sandy streaks and wavy bedding dipping about 45 degrees	4' 2"	2' 3"	924' 0"

Merritt Diamond-drilling

Log of Hole No. 1 cont'd.

Description		Thickness	Depth
Shaly sandstone (shale streaks vertical and steep angles cross bedding coaly marks, liney, fractured, slickensided.)		10' 0"	811' 0"
Sandstone (coarse; coaly fractures)	Actual	2'4"	
Shale (black, part sandy, broken, coaly marks)	"	4'2"	
Sandstone (coarse Sandstone to fine conglomerate)	"	1'0"	821' 0"
Sandstone (" " " " " very soft)	"	0'8"	
Sandstone (" " " " " " "	"	2'7"	
Conglomerate to breccia (course, dark green, soft)	"	6'2"	831' 0"
Conglomerate to breccia (coarse, greenish, broken, soft)	"	2'8"	834' 0"
Conglomerate to breccia (coarse, greenish, broken, soft)	"	1'0"	836' 0"
Conglomerate (very coarse; soft, broken at end; mud seams)	"	3'3"	840' 0"
Conglomerate " " " " " "	"	2'1"	
Mud from conglomerate (bit plugged and core probably washed)	"	0'4"	850' 0"
Sandstone (grey, coarse, fractured, slickensided)	"	4'4"	
Shale (black, broken, fractured slicken)	"	0'6"	856' 0"
Sandstone (fractured, slickensided)	"	0'11"	
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"	869' 0"
Shale (black, soft, broken)	"	6'0"	
Shale (black, compact, fracture slickensided)	"	8'0"	878' 0"
Shale (black, part sandy, fairly compact)	"	7'3"	
Shale (black, broken)	"	0'8"	886' 0"
Shale (black, fairly compact, slickensided)	"	3'6"	
Shale (very soft, broken)	"	0'5"	890' 0"
Shale (compact in part, in part broken, fractured, coaly marks, slickens)		10' 0	900' 0"
Handed over to W.H. White			

"Joseph T. Handy"
Mining Engineer

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MERRITT DRILL HOLE #5

Merritt Diamond-Drilling

Log of Hole No. 1 (contd)

Description	Thickness	Depth
Sandstone (grey; coaly marks, shale streaks) Bed dip - 12°	10' 0"	708' 0"
Sandy shale (coaly marks, compact Actual 1' 8"	2' 6"(?)	
Shale (dark, part sandy, coaly streaks) Actual 3' 2" (Note - grinding in core tube)	5' 6"(?)	
Shale (black; coaly streaks, soft, broken) Actual 0' 9"	2' 0"(?)	718' 0"
Shaly sandstone (grey) " 3' 8"	3' 9"	
Sandy shale " 0' 5"	0' 6"	
Shale (dark grey, fractured crushed, broken, slickensided) Actual 5' 4"	5' 9"	728' 0"
Shale (" "	8' 0"	736' 0"
Shale (" " compact)	9' 0"	745' 0"
Shale (" " broken)	1' 0"	746' 0"
Sandy shale (sandy pockets; coaly marks; shale streaks vertical and steep angles, cross-bedding; limey, fractured slickensided)	10' 0"	756' 0"
Shaly sandstone (" " ")	10' 0"	766' 0"
Shaly sandstone (" " "broken)	2' 4"	768' 4"
Shaly sandstone (" " " " Actual 1' 8"	4' 8"	773' 0"
Shaly sandstone (" ")	10' 0"	783' 0"
Shaly sandstone (" ")	8' 0"	791' 0"
Shaly sandstone (" ")	4' 6"	795' 6"
Shaly sandstone (" ")	5' 6"	801' 0"

"Joseph T. Mandy"
Mining Engineer

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Progress Report - Merritt Diamond Drilling

Feb. 22nd. to 24th.

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

Feb. 23rd: Pulling stand pipe and preparing for move (One shift - 7 men)

Feb. 24th: Not working.

William H. White

Assoc. Mining Engineer

Progress Report - Merritt Diamond Drill Hole #1

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

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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.

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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'
	Night 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'

"Wm. H. White"

Assoc. Mining Engineer.

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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 851'

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

"Wm. H. White"

Assoc. Mining Engineer

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PROGRESS REPORT - MERRITT 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

PROGRESS REPORT - MERRITT DRILL HOLE #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:	Cored 472'	to 486'
	Graveyard :	Cored 486'	to 497'
April 4th. -	Day Shift :	Cored 497'	to 510'
	Night Shift:	Cored 510'	to 523'
	Graveyard :	Cored 523'	to 542'
April 5th. -	Day Shift :	Cored 542'	to 553'
	Night Shift:	Cored 553'	to 568'
	Graveyard :	Cored 568'	to 583'
April 6th. -	Day Shift :	Cored 583'	to 593'
	Night Shift:	Cored 593'	to 613'
	Graveyard :	Cored 613'	to 632'

"Wm. H. White"

Assoc. Mining Engineer

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

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

"W.H. White"

Assoc. Mining Engineer

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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'.

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

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

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

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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.

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

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 loose. 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
Pipe driven to 186' in coarse sand and gravel.

Note: 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.

"W.H. White"

Assoc. Mining Engineer.

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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.

"Wm. H. White"

Assoc. Mining Engineer

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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' "

"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.

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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)
	Night "	" " " 86' " "
Mar. 5th. -	Day Shift	Drove pipe to 96' in clay and gravel
	Night "	" " "106' 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

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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

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

June 19

Setting up drill.

June 20

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

June 21

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

June 22

Morning shift: Casing to 160, lost bit and fished for it till end of shift.
Afternoon shift: Not working
Graveyard shift: Not working

June 23

Morning shift: Not working
Afternoon shift: Casing to 170
Graveyard shift: Casing to 181 - bedrock
Coring 181 - 186

June 24

Morning shift noon. Drilling to 190 had trouble with pump.

"J.A." Black"

Asst. Mining Engineer

29 June 46

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MERRITT DRILL HOLE # 5

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'

	Thickness	Core Missing	Depth
SANDSTONE, light, medium to coarse grain dip 10°, few shaly beds	4' 0"	-	182' 0"
SANDSTONE, light, medium to coarse, massive, getting shaly towards base	8' 0"	-	190' 0"
SHALE, dark, many coal partings, some pyrite 9")			
COAL, 4")	2' 0"	11"	192' 0"
SHALE, with many coal partings	6"	-	192' 6"
COAL, with little shale	6"	-	193' 0"
SHALE, with many coal partings	4"	-	193' 4"
SHALE, dark grey with few coal partings	6' 8"	8"	200' 0"
SHALE, mud, and coal particles	2' 0"	1' 6"	202' 0"
SHALE, dark grey, few coal partings, few sandy beds, dip 5° - 10°	5' 0"	3"	207' 0"
SHALE, dark grey	2' 3"	-	209' 3"
SANDSTONE, light, medium to fine grain, massive, shaly at 212'.	7' 9"	6"	217' 0"
SANDSTONE, light, medium grain	9' 0"	6"	226' 0"
SANDSTONE, light massive, medium to coarse	10' 2"	-	236' 2"
SHALE, dark grey, few coal partings sandy towards base	4' 10"	3 "	241' 0"
SANDSTONE, light, medium grained, few shale beds	3' 0"	-	244' 0"
SHALE, dark grey	2' 0"	3"	246' 0"
SHALE, dark grey mud seam 249' 6"	4' 6"	3"	250' 6"
SANDSTONE, light grey, fine-medium grain, massive	5' 6"	-	256' 0"
SANDSTONE, light and dark, few shale beds dip 10°	5' 6"	-	261' 6"
SHALE, dark and medium grey, few sandy beds, dip 0° - 20°	14' 6"	6"	276' 0"
SHALE, dark, broken at 277'	2' 6"	-	278' 6"
MUD, shale, coal	1' 0"	6"	279' 6"
SHALE, dark	3' 6"	-	283' 0"

SHALE, medium to dark grey, fractured	6' 0"	-	289' 0"
SANDSTONE, dark and light, medium to fine grain, dip 25°	4' 9"	3"	293' 9"
SHALE, dark	1' 3"	-	295' 0"
SANDSTONE, medium grain thin bedded	3' 6"	1' 0"	298' 6"
SANDSTONE, coarse, massive	4' 0"	-	302' 6"
SANDSTONE, grey, medium to fine grain broken at 303' 6", dip 30°	3' 6"	6"	306' 0"
SHALE, dark grey some sandy beds coal partings at 306' 6"	4' 6"	6"	310' 6"

J.M. Black

Asst. Mining Engineer

25 July 46

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

			310' 6"
SHALE, grey -	2' 0"	-	312' 6"
SHALE, grey, broken, little mud	3' 6"	3"	316' 0"
SHALE, sandy, coal partings 317'	1' 0"	-	317' 0"
SANDSTONE, shaly, fine grain, dip 5-10° few coal partings	12' 6"	-	329' 6"
SANDSTONE, light, medium grained	7' 0"	6"	336' 6"
SANDSTONE, shaly, dip 15°	4' 0"	-	340' 6"
SANDSTONE, light and dark, medium and fine grain, dip 12°	2' 0"	-	342' 6"
SHALE, sandy, coal partings 344'	2' 6"	3"	345' 0"
SANDSTONE, fine and medium	1' 6"	-	346' 6"
SANDSTONE, light, massive coarse, very coarse 352 - 56	10' 6"	2' 0"	357' 0"
SHALE, sandy, dip 10°	5' 0"	-	362' 0"
SANDSTONE, few shaly beds, fine grained	2' 0"	-	364' 0"
SANDSTONE, coarse, lowest 6" fine grained	3' 6"	3"	367' 6"
SANDSTONE, light, coarse massive, dip 13°	27' 0"	6"	394' 6"
SANDSTONE, light, coarse massive	8' 6"	-	403' 0"
SANDSTONE, shaly	2' 0"	-	405' 0"
SANDSTONE, shaly, poorly sorted, few coal partings	7' 0"	-	412' 0"
SHALE, with abundant coal partings	1' 6"	-	413' 6"
COAL, (2½" bone 2 seams), dip 13°	1' 6"	3"	415' 0"
COAL, (5" bone 5 seams)	2' 0"	6"	417' 0"
COAL, (1" bone 1 seam)	2' 0"	9"	419' 0"
COAL, (4" bone 3 seams)	2' 0"	1' 3"	421' 0"
SHALE, with abundant coal partings 2" coal	2' 0"	9"	423' 0"
SANDSTONE, shaly, dip 10°	1' 0"	-	424' 0"
CONGLOMERATE, few sandy beds, very coarse at base	17' 9"	6"	441' 9"
SHALE, black, fissile, broken, few coal partings	1' 3"	-	443' 0 "

J.M. Black

Asst. Mining Engineer

27 July 46

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

SHALE, sandy, few coal partings, dip 5°	8' 0"	-	451' 0"
SANDSTONE, light and dark, medium and fine grain few shaly beds, dip 5-20°	19' 0"	2' 0"	470' 0"
SHALE, sandy, many leaf impressions, dip 18°	6' 0"	3"	476' 0"
SHALE, few sandy beds, many coal partings two 1" seams coal, broken and slickensided	5' 0"	2' 0"	481' 0"
SHALE, and coal broken, probable loss of coal 5' - 6'	9' 0"	7' 0"	490' 0"
SANDSTONE, medium grain, few shale beds	3' 0"	3"	493' 0"
SHALE, sandy, much broken	2' 6"	-	495' 6"
SANDSTONE, 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, medium grained	4' 6"	-	508' 6"
SANDSTONE, thin bedded, fine grained, dip 25°	4' 6"	-	513' 0"
SHALE, sandy	2' 6"	-	515' 6"
SANDSTONE, dark, fine grained, some shale beds, broken	4' 6"	-	520' 0"

J.M. Black

Asst. Mining Engineer

29 July 46

LOG OF MERRITT D.D.H. #5

SANDSTONE, dark and light, thin bedded, upper part broken, dip 30°	10' 0"	-	530' 0"
SANDSTONE, light and dark broken, dip 25-30°	5' 0"	-	535' 0"
SANDSTONE, light, coarse, massive, fine at 540', conglomerate at 543', dip 35°	15' 0"	1' 0"	550' 0"
SANDSTONE, coarse, broken	5' 0"	3' 0"	555' 0"

J.M. Black

Asst. Mining Engineer

Ended July 30, 1946.

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'

	Thickness	Core Missing	Depth
SANDSTONE, light, medium to coarse grain dip 10°, few shaly beds	4' 0"	-	182' 0"
SANDSTONE, light, medium to coarse, massive, getting shaly towards base	8' 0"	-	190' 0"
SHALE, dark, many coal partings, some pyrite 9")			
COAL, 4")	2' 0"	11"	192' 0"
SHALE, with many coal partings	6"	-	192' 6"
COAL, with little shale	6"	-	193' 0"
SHALE, with many coal partings	4"	-	193' 4"
SHALE, dark grey with few coal partings	6' 8"	8"	200' 0"
SHALE, mud, and coal particles	2' 0"	1' 6"	202' 0"
SHALE, dark grey, few coal partings, few sandy beds, dip 5° - 10°	5' 0"	3"	207' 0"
SHALE, dark grey	2' 3"	-	209' 3"
SANDSTONE, light, medium to fine grain, massive, shaly at 212'.	7' 9"	6"	217' 0"
SANDSTONE, light, medium grain	9' 0"	6"	226' 0"
SANDSTONE, light massive, medium to coarse	10' 2"	-	236' 2"
SHALE, dark grey, few coal partings sandy towards base	4' 10"	3 "	241' 0"
SANDSTONE, light, medium grained, few shale beds	3' 0"	-	244' 0"
SHALE, dark grey	2' 0"	3"	246' 0"
SHALE, dark grey mud seam 249' 6"	4' 6"	3"	250' 6"
SANDSTONE, light grey, fine-medium grain, massive	5' 6"	-	256' 0"
SANDSTONE, light and dark, few shale beds dip 10°	5' 6"	-	261' 6"
SHALE, dark and medium grey, few sandy beds, dip 0° - 20°	14' 6"	6"	276' 0"
SHALE, dark, broken at 277'	2' 6"	-	278' 6"
MUD, shale, coal	1' 0"	6"	279' 6"
SHALE, dark	3' 6"	-	283' 0"

SHALE, medium to dark grey, fractured	6' 0"	-	289' 0"
SANDSTONE, dark and light, medium to fine grain, dip 25°	4' 9"	3"	293' 9"
SHALE, dark	1' 3"	-	295' 0"
SANDSTONE, medium grain thin bedded	3' 6"	1' 0"	298' 6"
SANDSTONE, coarse, massive	4' 0"	-	302' 6"
SANDSTONE, grey, medium to fine grain broken at 303' 6", dip 30°	3' 6"	6"	306' 0"
SHALE, dark grey some sandy beds coal partings at 306' 6"	4' 6"	6"	310' 6"

J.M. Black

Asst. Mining Engineer

25 July 46

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

			310' 6"
SHALE, grey	2' 0"	-	312' 6"
SHALE, grey, broken, little mud	3' 6"	3"	316' 0"
SHALE, sandy, coal partings 317'	1' 0"	-	317' 0"
SANDSTONE, shaly, fine grain, dip 5-10° few coal partings	12' 6"	-	329' 6"
SANDSTONE, light, medium grained	7' 0"	6"	336' 6"
SANDSTONE, shaly, dip 15°	4' 0"	-	340' 6"
SANDSTONE, light and dark, medium and fine grain, dip 12°	2' 0"	-	342' 6"
SHALE, sandy, coal partings 344'	2' 6"	3"	345' 0"
SANDSTONE, fine and medium	1' 6"	-	346' 6"
SANDSTONE, light, massive coarse, very coarse 352 - 56	10' 6"	2' 0"	357' 0"
SHALE, sandy, dip 10°	5' 0"	-	362' 0"
SANDSTONE, few shaly beds, fine grained	2' 0"	-	364' 0"
SANDSTONE, coarse, lowest 6" fine grained	3' 6"	3"	367' 6"
SANDSTONE, light, coarse massive, dip 13°	27' 0"	6"	394' 6"
SANDSTONE, light, coarse massive	8' 6"	-	403' 0"
SANDSTONE, shaly	2' 0"	-	405' 0"
SANDSTONE, shaly, poorly sorted, few coal partings	7' 0"	-	412' 0"
SHALE, with abundant coal partings	1' 6"	-	413' 6"
COAL, (2½" bone 2 seams), dip 13°	1' 6"	3"	415' 0"
COAL, (5" bone 5 seams)	2' 0"	6"	417' 0"
COAL, (1" bone 1 seam)	2' 0"	9"	419' 0"
COAL, (4" bone 3 seams)	2' 0"	1' 3"	421' 0"
SHALE, with abundant coal partings 2" coal	2' 0"	9"	423' 0"
SANDSTONE, shaly, dip 10°	1' 0"	-	424' 0"
CONGLOMERATE, few sandy beds, very coarse at base	17' 9"	6"	441' 9"
SHALE, black, fissile, broken, few coal partings	1' 3"	-	443' 0 "

J.M. Black

Asst. Mining Engineer

27 July 46

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

SHALE, sandy, few coal partings, dip 5°	8' 0"	-	451' 0"
SANDSTONE, light and dark, medium and fine grain few shaly beds, dip 5-20°	19' 0"	2' 0"	470' 0"
SHALE, sandy, many leaf impressions, dip 18°	6' 0"	3"	476' 0"
SHALE, few sandy beds, many coal partings two 1" seams coal, broken and slickensided	5' 0"	2' 0"	481' 0"
SHALE, and coal broken, probable loss of coal 5' - 6'	9' 0"	7' 0"	490' 0"
SANDSTONE, medium grain, few shale beds	3' 0"	3"	493' 0"
SHALE, sandy, much broken	2' 6"	-	495' 6"
SANDSTONE, 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, medium grained	4' 6"	-	508' 6"
SANDSTONE, thin bedded, fine grained, dip 25°	4' 6"	-	513' 0"
SHALE, sandy	2' 6"	-	515' 6"
SANDSTONE, dark, fine grained, some shale beds, broken	4' 6"	-	520' 0"

J.M. Black

Asst. Mining Engineer

29 July 46

LOG OF MERRITT D.D.H. #5

SANDSTONE,	dark and light, thin bedded, upper part broken, dip 30°	10' 0"	-	530' 0"
SANDSTONE,	light and dark broken, dip 25-30°	5' 0"	-	535' 0"
SANDSTONE,	light, coarse, massive, fine at 540', conglomerate at 543', dip 35°	15' 0"	1' 0"	550' 0"
SANDSTONE,	coarse, broken	5' 0	3' 0"	555' 0"

J.M. Black

Asst. Mining Engineer

Ended July 30, 1946.

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Log of ten unmarked boxes of 2" diamond drill core found stored in drillers' cabin near Diamond Vale Colliery, Merritt, B. C. on September 4th, 1946.

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Material.	Thickness. Ft.	Ins.	Dept Ft.		
			210		
Gray shale.....	5	0.	215		
Course white sandstone.....	4	0.	219		
Gray shale.....	5	9.	225		
Fine white sandstone.....	8	9.	234		
Dark gray shale.....	2	6.	236		
Interbedded shale and sandstone.....	13	6.	250		
Course white sandstone.....	6	0.	256		
Dark gray shale.....	14	0.	270		
Coal.....		4.	270		
Gray shale.....	1	8.	272		
Interbedded shale and sandstone.....	3	0.	275		
Dark shale.....	5	0.	280		
Dark and light gray shale.....	1	0.	281		
Course sandstone and fine conglomerate..	34	0.	315		
Dark gray shale.....	11	0.	326		
Interbedded light and dark gray shale...	11	0.	337	(	
Black shale.....	3	0.	340	(	
Black shale intermixed with dirty coal..	2	3.	342	3	
Black shale with fine coal streaks.....	6	9.	347	0	
Gray shale.....	1	0.	348	0.	
Dark shale.....	8	0.	356	0.	
Gray shale.....	2	0.	358	0.	
Dark shale.....	1	6.	359	6.	
Course white sandstone.....	4	6.	404	0.	
Fine to medium, white conglomerate.....	32	0.	436	0.	
Course to medium grain sandstone.....	12	9.	448	9.	
Coal.....	1	3.	450	0.	
Gray and black shale.....	2	4.	452	4.	
Coal.....		10.	453	2.	
"Bone".....		3.	453	5.	
Coal.....	1	0.	454	5.	COAL SEAM
"Bone" and dirty coal.....	1	6.	455	11.	
Coal.....	2	2.	458	1.	
"Bone".....		2.	458	3.	
Coal.....		9.	459	0	
Coaly shale.....	5	0.	464	0.	
Dark shale.....	5	0.	469	0.	
Mark in core box.....FINIS.....					

.....

"No. 6 Hole J.P.M."

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MERRITT DRILL HOLE #11

Thickness	Depth of Bottom	
4' 0"	464' 9"	COAL
2' 10"	467' 7"	Dark sandy shale
1' 4½"	468' 11½"	COAL
3"	469' 2½"	COAL, boney
2' 4½"	471' 7"	COAL
2"	471' 9"	COAL, boney
4"	472' 1"	COAL

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

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

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

MERRITT DRILL HOLE #1

Thickness	Depth to Bottom	
3' 3½"	464' 9"	COAL, with 1½" shale parting
1' 7½"	466' 4½"	SHALE, dark grey, coal streaks
1' 10½"	468' 3"	COAL
0' 3"	468' 6"	SHALE
5' 10"	474' 4"	COAL, with 2" shale parting
		Thin coal layers in shale to 502' 6" depth.
4' 10"	555' 4"	COAL
1' 2"	556' 6"	SHALE, black
4' 6"	561' 0"	COAL, some boney streaks
4' 0"	650' 6"	COAL, in part boney
1' 6"	652' 0"	SHALE, black, coal streaks
0' 10"	652' 10"	COAL, boney
3' 2"	656' 0"	SHALE, dark grey, sandy, fractured

MERRITT DRILL HOLE #2

2' 8"	654' 0"	COAL, bright, hard, with two-way cleat
0' 4"	654' 4"	COAL
0' 3"	654' 7"	SHALE
0' 3"	654' 10"	COAL
0' 1"	654' 11"	SHALE
0' 3"	655' 2"	COAL
0' 2"	655' 4"	SHALE
1' 8"	657' 0"	COAL, bright, hard, narrow streaks of bone
0' 9"	657' 9"	SHALE, grey, sandy
2' 2"	659' 11"	COAL, boney, with numerous thin streaks of shale

MERRITT DRILL HOLE #4

1' 0"	367' 3"	COAL
1' 4"	368' 7"	SHALE, dark with coal partings
3' 3"	371' 10"	COAL
3"	372' 1"	SHALE, boney
3"	372' 4"	COAL
2"	372' 6"	SHALE, boney
4' 6"	377' 0"	COAL, 4 shaly seams 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)

MERRITT DRILL HOLE #11

Thickness	Depth of Bottom	
4' 0"	464' 9"	COAL
2' 10"	467' 7"	Dark sandy shale
1' 4½"	468' 11½"	COAL
3"	469' 2½"	COAL, boney
2' 4½"	471' 7"	COAL
2"	471' 9"	COAL, boney
4"	472' 1"	COAL

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

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

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

MERRITT DRILL HOLE #1

Thickness	Depth to Bottom	
3' 3½"	464' 9"	COAL, with 1½" shale parting
1' 7⅛"	466' 4⅛"	SHALE, dark grey, coal streaks
1' 10⅛"	468' 3"	COAL
0' 3"	468' 6"	SHALE
5' 10"	474' 4"	COAL, with 2" shale parting
		Thin coal layers in shale to 502' 6" depth.
4' 10"	555' 4"	COAL
1' 2"	556' 6"	SHALE, black
4' 6"	561' 0"	COAL, some boney streaks
4' 0"	650' 6"	COAL, in part boney
1' 6"	652' 0"	SHALE, black, coal streaks
0' 10"	652' 10"	COAL, boney
3' 2"	656' 0"	SHALE, dark grey, sandy, fractured

MERRITT DRILL HOLE #2

2' 8"	654' 0"	COAL, bright, hard, with two-way cleat
0' 4"	654' 4"	COAL,
0' 3"	654' 7"	SHALE
0' 3"	654' 10"	COAL
6' 1"	654' 11"	SHALE
0' 3"	655' 2"	COAL
0' 2"	655' 4"	SHALE
1' 8"	657' 0"	COAL, bright, hard, narrow streaks of bone
0' 9"	657' 9"	SHALE, grey, sandy
2' 2"	659' 11"	COAL, boney, with numerous thin streaks of shale

MERRITT DRILL HOLE #4

1' 0"	367' 3"	COAL
1' 4"	368' 7"	SHALE, dark with coal partings
3' 3"	371' 10"	COAL
3"	372' 1"	SHALE, boney
3"	372' 4"	COAL
2"	372' 6"	SHALE, boney
4' 6"	377' 0"	COAL, 4 shaly seams 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)

MERRITT DRILL HOLE #11.

Thickness	Depth of Bottom	
4' 0"	464' 9"	COAL
2' 10"	467' 7"	Dark sandy shale
1' 4½"	468' 11½"	COAL
3"	469' 2½"	COAL, boney
2' 4½"	471' 7"	COAL
2"	471' 9"	COAL, boney
4"	472' 1"	COAL

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

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

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

MERRITT DRILL HOLE #1

Thickness	Depth to Bottom	
3' 3½"	464' 9"	COAL, with 1½" shale parting
1' 7½"	466' 4½"	SHALE, dark grey, coal streaks
1' 10½"	468' 3"	COAL
0' 3"	468' 6"	SHALE
5' 10"	474' 4"	COAL, with 2" shale parting
		Thin coal layers in shale to 502' 6" depth.
4' 10"	555' 4"	COAL
1' 2"	556' 6"	SHALE, black
4' 6"	561' 0"	COAL, some boney streaks
4' 0"	650' 6"	COAL, in part boney
1' 6"	652' 0"	SHALE, black, coal streaks
0' 10"	652' 10"	COAL, boney
3' 2"	656' 0"	SHALE, dark grey, sandy, fractured

MERRITT DRILL HOLE #2

2' 8"	654' 0"	COAL, bright, hard, with two-way cleat
0' 4"	654' 4"	COAL
0' 3"	654' 7"	SHALE
0' 3"	654' 10"	COAL
0' 1"	654' 11"	SHALE
0' 3"	655' 2"	COAL
0' 2"	655' 4"	SHALE
1' 8"	657' 0"	COAL, bright, hard, narrow streaks of bone
0' 9"	657' 9"	SHALE, grey, sandy
2' 2"	659' 11"	COAL, boney, with numerous thin streaks of shale

MERRITT DRILL HOLE #4

1' 0"	367' 3"	COAL
1' 4"	368' 7"	SHALE, dark with coal partings
3' 3"	371' 10"	COAL
3"	372' 1"	SHALE, boney
3"	372' 4"	COAL
2"	372' 6"	SHALE, boney
4' 6"	377' 0"	COAL, 4 shaly seams 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)

Merritt Diamond Drilling

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

	Thickness	Depth
Boulder Clay	102'	102' 0"
SANDSTONE, grey, med. to coarse grain, with shaly streaks	14' 0"	116' 0"
SHALE, dark, sandy	6' 6"	122' 6"
SANDSTONE, very coarse, poorly sorted, shaly streaks	5' 0"	127' 6"
SHALE, grey, sandy	3' 6"	131' 0"
SANDSTONE, grey, coarse, coal marks	2' 10"	133' 10"
COAL, bony	0' 10"	134' 8"
SHALE, dark, fissile, coal marks	1' 6"	136' 2"
SANDSTONE, grey coarse, some fine sand and shaly streaks	11' 0"	147' 2"
SHALE, black, leaf molds, few sandy streaks	9' 0"	156' 2"
SANDSTONE, shaly, finely bedded	2' 6"	158' 8"
SHALE, dark to black, coal marks	3' 0"	161' 8"
SHALE, dark, sandy	1' 0"	162' 8"
SANDSTONE, med. grain, with few shaly streaks	4' 8"	167' 4"
SHALE, sandy, grey	2' 6"	169' 10"
SANDSTONE, med. grain, shaly streaks, coal marks	3' 2"	173' 0"
SHALE, black, coal marks, much fractured	7' 0"	180' 0"
SANDSTONE, light grey, coarse	3' 8"	183' 8"
SHALE, grey, sandy	5' 6"	189' 2"
SANDSTONE, grey coarse, poorly sorted	10' 10"	200' 0"
SHALE, dark grey, slightly sandy Dip 25°	9' 0"	209' 0"
SANDSTONE, shaly Dip 15°	4' 6"	213' 6"
SHALE, dark grey, sandy, fractured	6' 6"	220' 0"
SANDSTONE, med. to coarse, poorly sorted, few fine sand and shaly streaks	19' 0"	239' 0"
SHALE, black, compact, leaf molds	13' 6"	252' 6"
COAL	0' 8"	253' 2"
SHALE, black, much fractured	8' 10"	262' 0"
SANDSTONE, fine grain, shaly Dip 14°	4' 0"	266' 0"
SANDSTONE, very coarse poorly sorted with some irregular fine conglomerate bands. Abrupt contact below	14' 0"	280' 0"
SHALE, black, fractured	3' 1½"	283' 1½"
COAL,	0' 4½"	283' 6"
SHALE, black fissile, leaf molds	9' 0"	292' 6"
SANDSTONE, med. to fine grained, somewhat shaly	8' 0"	300' 6"
SHALE, dark fractured	4' 0"	304' 6"
SANDSTONE, grey, shaly, coal marks	3' 0"	307' 6"
SHALE, grey to black, fractured, ¼" coal seam	6' 6"	314' 0"
SANDSTONE, shaly, dark grey	4' 6"	318' 6"
SANDSTONE, light grey, coarse, poorly sorted, irregular conglomerate streaks	12' 0"	330' 6"

CONGLOMERATE, fine	0' 9"	331' 3"
SANDSTONE, light grey, coarse, friable, poorly sorted	27' 0"	358' 3"
SHALE, dark, sandy, with fine sand streaks Dip 14°	5' 9"	364' 0"
SANDSTONE, grey, medium grained, shaly streaks	4' 6"	368' 6"
CONGLOMERATE, fine, with coarse sand streaks and 2" streak of sandy shale	5' 0"	373' 6"
SANDSTONE, fine grained	1' 6"	375' 0"
CONGLOMERATE, fine	0' 8"	375' 8"
SANDSTONE, fine grained	1' 0"	376' 8"
SHALE, light grey, sandy	2' 0"	378' 8"
SANDSTONE, light grey, coarse, few shaly streaks	71' 4"	450' 0"
SHALE, dark grey, sandy, sand streaks, coal marks	11' 5½"	461' 5½"
COAL, with 1⅛" shale parting	3' 3⅛"	464' 9"
SHALE, dark grey, coal streaks	1' 7½"	466' 4½"
COAL	1' 10½"	468' 3"
SHALE	0' 3"	468' 6"
COAL, with 2" shale parting	5' 10"	474' 4"
SHALE, black	0' 9"	475' 1"
COAL	0' 3"	475' 4"
SHALE, black	0' 4"	475' 8"
COAL,	0' 9"	476' 5"
SHALE, black	0' 1⅛"	476' 6⅛"
COAL	0' 2⅛"	476' 9"
SHALE, black, coal marks and several ¼" coal seams	9' 1"	485' 10"
COAL	0' 10"	486' 8"
SHALE, black, coal marks	1' 6"	488' 2"
COAL, boney	1' 6"	489' 8"
SHALE, black, coal streaks	1' 0"	490' 8"
COAL	0' 8"	491' 4"
SHALE, black, fissile, leaf molds, coal marks	10' 8"	502' 0"
COAL	0' 6"	502' 6"
SHALE, grey, somewhat sandy	4' 6"	507' 0"
SANDSTONE, coarse, poorly sorted	1' 0"	508' 0"
SHALE, dark grey to black, fractured and sheared	7' 0"	515' 0"
SANDSTONE, grey, med. grained with shaly and fine sand streaks. Dip 18°	32' 6"	547' 6"
SHALE, black, coal marks	3' 0"	550' 6"
COAL	4' 10"	555' 4"
SHALE, black	1' 2"	556' 6"
COAL, some boney streaks	4' 6"	561' 0"
SHALE, black, fissile, coal marks, leaf molds	6' 0"	567' 0"
SANDSTONE, shaly	6' 0"	573' 0"
SANDSTONE, light grey, medium grained with a few coarse streaks, carbonized twigs	70' 0"	643' 0"
SHALE, black, compact, coal marks	3' 6"	646' 6"
COAL, in part boney	4' 0"	650' 6"
SHALE, black, coal streaks	1' 6"	652' 0"
COAL, boney	0' 10"	652' 10"
SHALE, dark grey, sandy, fractured	3' 2"	656' 0"
SANDSTONE, dark grey, shaly	1' 6"	657' 6"
SHALE, grey, sandy, with many sand lenses, much fractured and high core loss	9' 6"	667' 0"

SANDSTONE, coarse, poorly sorted	2' 0"	669' 0"
SHALE, dark grey, sandy, fractured	19' 0"	688' 0"
SANDSTONE, grey shaly Dip 10°	10' 0"	698' 0"
SANDSTONE, grey, coarse	10' 0"	708' 0"
SANDSTONE, med. to fine grained with shaly streaks	3' 10"	711' 10"
SHALE, dark grey, with sandy streak	6' 2 "	718' 0"
SANDSTONE, shaly streaks Dip 8°	3' 8"	721' 8"
SHALE, black, fractured	2' 6"	724' 2"
SHALE, grey, sandy, cross-bedded sandstone streaks	2' 6"	726' 8"
SHALE, black, compact	1' 4"	728' 0"
SHALE, grey, sandy, with sand lenses	18' 6"	746' 6"
SANDSTONE, shaly, shale streaks dipping at high angles, vertical channeling	19' 6"	766' 0"
SHALE, sandy, with sand streaks	7' 0"	773' 0"
SANDSTONE, grey, poorly sized, with shaly streaks dipping at high angles	29' 0"	802' 0"
SHALE, grey, sandy	2' 8"	804' 8"
SANDSTONE, shaly streaks at high angles	6' 4"	811' 0"
SANDSTONE, light grey, coarse, poorly sorted	2' 9"	813' 9"
SHALE, grey, sandy	6' 3"	820' 0"
SANDSTONE, light grey, coarse	3' 0"	823' 0"
CONGLOMERATE, med. to coarse, with few sand lenses	26' 0"	849' 0"
SANDSTONE, grey, coarse, cross-bedded	8' 0"	857' 0"
SHALE, black, coal marks	2' 0"	859' 0"
SHALE, black, coal marks and soft black mud	4' 0")	
COAL,	0' 6")	862' 6"
SHALE, dark grey, compact	16' 6"	879' 0"
SHALE, grey, sandy	4' 0"	883' 0"
SHALE, dark grey, compact	5' 0"	888' 0"
SHALE, grey, sandy, 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 stringers. Abrupt irregular contact	10' 0"	910' 0"
SANDSTONE, light, coarse-grained	4"	910' 4"
SHALE, dark, finely cross-bedded	1"	910' 5"
SANDSTONE, light grey, coarse, cross-bedded Cross-bedding dips 70°	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 interbedded.	1' 2"	915' 0"
SHALE, black, compact, wavy bedding with average dip 45 degrees	3' 5"	918' 5"
COAL, bony, bright partings, friable	1½")	918' 6½"
SHALE, black, much fractured, slickensided fragments	1' 3½")	919' 10"
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 35°	3' 4"	927' 4"
SANDSTONE, grey, fine even-grained	0' 8"	928' 0"

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SANDSTONE, grey, fine even-grined. Scattered grains of sulphide	4' 0"	932' 0"
SHALE, grey, compact, somewhat sandy	0' 11"	932' 11"
SANDSTONE, grey, fine even-grained. Dip 29°	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	0' 11"	938' 11"
SANDSTONE, coarse, poorly sorted	0' 1"	939' 0"
SHALE, grey, compact, sandy. Fine sand seams Dip 31°	3' 0"	942' 0"
SHALE, grey, compact, numerous sand seams Dip 29°	7' 6"	949' 6"
SHALE, dark, badly fractured	2' 6"	952' 0"
SHALE, black, coal marks, badly sheared	1' 10"	953' 10"
MUD or GOUGE SEAM, containing fragments of shale and a ¼" seam of crushed COAL	0' 5"	954' 3"
BRECCIA, coarse fragments, sand cement	2' 9"	957' 0"
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	0' 6"	958' 6"
MUD or GOUGE SEAM, as above	1' 6"	960' 0
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	0' 6"	962' 0"
CONGLOMERATE, poorly sorted with coarse sand lenses	2' 0"	964' 0"
BRECCIA, fragments of shale and volcanics	4' 0"	968' 0"
CONGLOMERATE, soft, muddy, coaly shale streaks	1' 8"	969' 8"
BRECCIA, large volcanic fragments with muddy cement. Rock soft and friable	6' 4"	976' 0"
FELSITE, light grey, fine grained.	2' 0"	978' 0"
GREENSTONE, fine-grained, dark green, chloritic	7' 0"	985' 0"
GREENSTONE, fine-grained, somewhat brecciated	3' 6"	988' 6"
SHALE, compact, indurated	1' 0"	989' 6"
GREENSTONE, pillowed, somewhat porphyritic	5' 6"	995' 0"

END OF HOLE #1

"Wm. H. White"

Assoc. Mining Engineer.

Merritt Diamond Drilling

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

	Thickness	Depth
Boulder Clay	102'	102' 0"
SANDSTONE, grey, med. to coarse grain, with shaly streaks	14' 0"	116' 0"
SHALE, dark, sandy	6' 6"	122' 6"
SANDSTONE, very coarse, poorly sorted, shaly streaks	5' 0"	127' 6"
SHALE, grey, sandy	3' 6"	131' 0"
SANDSTONE, grey, coarse, coal marks	2' 10"	133' 10"
COAL, bony	0' 10"	134' 8"
SHALE, dark, fissile, coal marks	1' 6"	136' 2"
SANDSTONE, grey coarse, some fine sand and shaly streaks	11' 0"	147' 2"
SHALE, black, leaf molds, few sandy streaks	9' 0"	156' 2"
SANDSTONE, shaly, finely bedded	2' 6"	158' 8"
SHALE, dark to black, coal marks	3' 0"	161' 8"
SHALE, dark, sandy	1' 0"	162' 8"
SANDSTONE, med. grain, with few shaly streaks	4' 8"	167' 4"
SHALE, sandy, grey	2' 6"	169' 10"
SANDSTONE, med. grain, shaly streaks, coal marks	3' 2"	173' 0"
SHALE, black, coal marks, much fractured	7' 0"	180' 0"
SANDSTONE, light grey, coarse	3' 8"	183' 8"
SHALE, grey, sandy	5' 6"	189' 2"
SANDSTONE, grey coarse, poorly sorted	10' 10"	200' 0"
SHALE, dark grey, slightly sandy Dip 25°	9' 0"	209' 0"
SANDSTONE, shaly Dip 15°	4' 6"	213' 6"
SHALE, dark grey, sandy, fractured	6' 6"	220' 0"
SANDSTONE, med. to coarse, poorly sorted, few fine sand and shaly streaks	19' 0"	239' 0"
SHALE, black, compact, leaf molds	13' 6"	252' 6"
COAL	0' 8"	253' 2"
SHALE, black, much fractured	8' 10"	262' 0"
SANDSTONE, fine grain, shaly Dip 14°	4' 0"	266' 0"
SANDSTONE, very coarse poorly sorted with some irregular fine conglomerate bands. Abrupt contact below	14' 0"	280' 0"
SHALE, black, fractured	3' 1½"	283' 1½"
COAL,	0' 4½"	283' 6"
SHALE, black fissile, leaf molds	9' 0"	292' 6"
SANDSTONE, med. to fine grained, somewhat shaly	8' 0"	300' 6"
SHALE, dark fractured	4' 0"	304' 6"
SANDSTONE, grey, shaly, coal marks	3' 0"	307' 6"
SHALE, grey to black, fractured, ¼" coal seam	6' 6"	314' 0"
SANDSTONE, shaly, dark grey	4' 6"	318' 6"
SANDSTONE, light grey, coarse, poorly sorted, irregular conglomerate streaks	12' 0"	330' 6"

CONGLOMERATE, fine	0' 9"	331' 3"
SANDSTONE, light grey, coarse, friable, poorly sorted	27' 0"	358' 3"
SHALE, dark, sandy, with fine sand streaks Dip 14°	5' 9"	364' 0"
SANDSTONE, grey, medium grained, shaly streaks	4' 6"	368' 6"
CONGLOMERATE, fine, with coarse sand streaks and 2" streak of sandy shale	5' 0"	373' 6"
SANDSTONE, fine grained	1' 6"	375' 0"
CONGLOMERATE, fine	0' 8"	375' 8"
SANDSTONE, fine grained	1' 0"	376' 8"
SHALE, light grey, sandy	2' 0"	378' 8"
SANDSTONE, light grey, coarse, few shaly streaks	71' 4"	450' 0"
SHALE, dark grey, sandy, sand streaks, coal marks	11' 5½"	461' 5½"
COAL, with 1½" shale parting	3' 3½"	464' 9"
SHALE, dark grey, coal streaks	1' 7½"	466' 4½"
COAL	1' 10½"	468' 3"
SHALE	0' 3"	468' 6"
COAL, with 2" shale parting	5' 10"	474' 4"
SHALE, black	0' 9"	475' 1"
COAL	0' 3"	475' 4"
SHALE, black	0' 4"	475' 8"
COAL	0' 9"	476' 5"
SHALE, black	0' 1½"	476' 6½"
COAL	0' 2½"	476' 9"
SHALE, black, coal marks and several ½" coal seams	9' 1"	485' 10"
COAL	0' 10"	486' 8"
SHALE, black, coal marks	1' 6"	488' 2"
COAL, boney	1' 6"	489' 8"
SHALE, black, coal streaks	1' 0"	490' 8"
COAL	0' 8"	491' 4"
SHALE, black, fissile, leaf molds, coal marks	10' 8"	502' 0"
COAL	0' 6"	502' 6"
SHALE, grey, somewhat sandy	4' 6"	507' 0"
SANDSTONE, coarse, poorly sorted	1' 0"	508' 0"
SHALE, dark grey to black, fractured and sheared	7' 0"	515' 0"
SANDSTONE, grey, med. grained with shaly and fine sand streaks. Dip 18°	32' 6"	547' 6"
SHALE, black, coal marks	3' 0"	550' 6"
COAL	4' 10"	555' 4"
SHALE, black	1' 2"	556' 6"
COAL, some boney streaks	4' 6"	561' 0"
SHALE, black, fissile, coal marks, leaf molds	6' 0"	567' 0"
SANDSTONE, shaly	6' 0"	573' 0"
SANDSTONE, light grey, medium grained with a few coarse streaks, carbonized twigs	70' 0"	643' 0"
SHALE, black, compact, coal marks	3' 6"	646' 6"
COAL, in part boney	4' 0"	650' 6"
SHALE, black, coal streaks	1' 6"	652' 0"
COAL, boney	0' 10"	652' 10"
SHALE, dark grey, sandy, fractured	3' 2"	656' 0"
SANDSTONE, dark grey, shaly	1' 6"	657' 6"
SHALE, grey, sandy, with many sand lenses, much fractured and high core loss	9' 6"	667' 0"

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SANDSTONE, coarse, poorly sorted	2' 0"	669' 0"
SHALE, dark grey, sandy, fractured	19' 0"	688' 0"
SANDSTONE, grey shaly Dip 10°	10' 0"	698' 0"
SANDSTONE, grey, coarse	10' 0"	708' 0"
SANDSTONE, med. to fine grained with shaly streaks	3' 10"	711' 10"
SHALE, dark grey, with sandy streak	6' 2"	718' 0"
SANDSTONE, shaly streaks Dip 8°	3' 8"	721' 8"
SHALE, black, fractured	2' 6"	724' 2"
SHALE, grey, sandy, cross-bedded sandstone streaks	2' 6"	726' 8"
SHALE, black, compact	1' 4"	728' 0"
SHALE, grey, sandy, with sand lenses	18' 6"	746' 6"
SANDSTONE, shaly, shale streaks dipping at high angles, vertical channeling	19' 6"	766' 0"
SHALE, sandy, with sand streaks	7' 0"	773' 0"
SANDSTONE, grey, poorly sized, with shaly streaks dipping at high angles	29' 0"	802' 0"
SHALE, grey, sandy	2' 8"	804' 8"
SANDSTONE, shaly streaks at high angles	6' 4"	811' 0"
SANDSTONE, light grey, coarse, poorly sorted	2' 9"	813' 9"
SHALE, grey, sandy	6' 3"	820' 0"
SANDSTONE, light grey, coarse	3' 0"	823' 0"
CONGLOMERATE, med. to coarse, with few sand lenses	26' 0"	849' 0"
SANDSTONE, grey, coarse, cross-bedded	8' 0"	857' 0"
SHALE, black, coal marks	2' 0"	859' 0"
SHALE, black, coal marks and soft black mud	4' 0"	
COAL,	0' 6"	862' 6"
SHALE, dark grey, compact	16' 6"	879' 0"
SHALE, grey, sandy	4' 0"	883' 0"
SHALE, dark grey, compact	5' 0"	888' 0"
SHALE, grey, sandy, 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 stringers. Abrupt irregular contact	10' 0"	910' 0"
SANDSTONE, light, coarse-grained	4"	910' 4"
SHALE, dark, finely cross-bedded	1"	910' 5"
SANDSTONE, light grey, coarse, cross-bedded Cross-bedding dips 70°	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 interbedded.	1' 2"	915' 0"
SHALE, black, compact, wavy bedding with average dip 45 degrees	3' 5"	918' 5"
COAL, bony, bright partings, friable	1¼"	918' 6¼"
SHALE, black, much fractured, slickensided fragments	1' 3¾"	919' 10"
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 35°	3' 4"	927' 4"
SANDSTONE, grey, fine even-grained	0' 8"	928' 0"

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SANDSTONE, grey, fine even-grined. Scattered grains of sulphide	4' 0"	932' 0"
SHALE, grey, compact, somewhat sandy	0' 11"	932' 11"
SANDSTONE, grey, fine even-grained. Dip 29°	0' 1"	933' 0"
SHALE, grey, compact, sandy	3' 10"	936' 10"
SHALE, grey, compact, sandy. Fine sand streaks Dip 13° Seam of carbonate	1' 2"	938' 0"
SHALE, grey, compact, sandy	0' 11"	938' 11"
SANDSTONE, coarse, poorly sorted	0' 1"	939' 0"
SHALE, grey, compact, sandy. Fine sand seams Dip 31°	3' 0"	942' 0"
SHALE, grey, compact, numerous sand seams Dip 29°	7' 6"	949' 6"
SHALE, dark, badly fractured	2' 6"	952' 0"
SHALE, black, coal marks, badly sheared	1' 10"	953' 10"
MUD or GOUGE SEAM, containing fragments of shale and a ½" seam of crushed COAL	0' 5"	954' 3"
BRECCIA, coarse fragments, sand cement	2' 9"	957' 0"
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	0' 6"	958' 6"
MUD or GOUGE SEAM, as above	1' 6"	960' 0"
SHALE, ground up, containing some coal fines	0' 10"	960' 10"
DIORITE, medium coarse grained, containing biotite and hornablende. Sheared contact with shale dips 45°	0' 8"	961' 6"
SHALE, dark, badly sheared	0' 6"	962' 0"
CONGLOMERATE, poorly sorted with coarse sand lenses	2' 0"	964' 0"
BRECCIA, fragments of shale and volcanics	4' 0"	968' 0"
CONGLOMERATE, soft, muddy, coaly shale streaks	1' 8"	969' 8"
BRECCIA, large volcanic fragments with muddy cement. Rock soft and friable	6' 4"	976' 0"
FELSITE, light grey, fine grained.	2' 0"	978' 0"
GREENSTONE, fine-grained, dark green, chloritic	7' 0"	985' 0"
GREENSTONE, fine-grained, somewhat brecciated	3' 6"	988' 6"
SHALE, compact, indurated	1' 0"	989' 6"
GREENSTONE, pillowed, somewhat porphyritic	5' 6"	995' 0"

END OF HOLE #1

"Wm. H. White"

Assoc. Mining Engineer.

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Merritt Diamond Drilling

Log of Hole #1

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

Boulder clay	102'	102' 0"
SANDSTONE, grey, med. to coarse grain, with shaly streaks	14' 0"	116' 0"
SHALE, dark, sandy	6' 6"	122' 6"
SANDSTONE, very coarse, poorly sorted, shaly streaks	5' 0"	127' 6"
SHALE, grey, sandy	3' 6"	131' 0"
SANDSTONE, grey, coarse, coal marks	2' 10"	133' 10"
COAL, bony	0' 10"	134' 8"
SHALE, dark, fissile, coal marks	1' 6"	136' 2"
SANDSTONE, grey coarse, some fine sand and shaly streaks	11' 0"	147' 2"
SHALE, black, leaf molds, few sandy streaks	9' 0"	156' 2"
SANDSTONE, shaly, finely bedded	2' 6"	158' 8"
SHALE, dark to black, coal marks	3' 0"	161' 8"
SHALE, dark, sandy	1' 0"	162' 8"
SANDSTONE, med. grain, with few shaly streaks	4' 8"	167' 4"
SHALE, sandy, grey	2' 6"	169' 10"
SANDSTONE, med. grain, shaly streaks, coal marks	3' 2"	173' 0"
SHALE, black, coal marks, much fractured	7' 0"	180' 0"
SANDSTONE, light grey, coarse	3' 8"	183' 8"
SHALE, grey, sandy	5' 6"	189' 2"
SANDSTONE, grey, coarse, poorly sorted	10' 10"	200' 0"
SHALE, dark grey, slightly sandy Dip 25°	9' 0"	209' 0"
SANDSTONE, shaly Dip 15°	4' 6"	213' 6"
SHALE, dark grey, sandy, fractured	6' 6"	220' 0"
SANDSTONE, med. to coarse, poorly sorted, few fine sand and shaly streaks	19' 0"	239' 0"
SHALE, black, compact, leaf molds	13' 6"	252' 6"
COAL	0' 8"	253' 2"
SHALE, black, much fractured	8' 10"	262' 0"
SANDSTONE, fine grain, shaly Dip 14°	4' 0"	266' 0"
SANDSTONE, very coarse poorly sorted with some irregular fine conglomerate bands. Abrupt contact below	14' 0"	280' 0"
SHALE, black, fractured	3' 1½"	283' 1½"
COAL	0' 4½"	283' 6"
SHALE, black, fissile, leaf molds	9' 0"	292' 6"
SANDSTONE, med. to fine grained, somewhat shaly	8' 0"	300' 6"
SHALE, dark, fractured	4' 0"	304' 6"
SANDSTONE, grey, shaly, coal marks	3' 0"	307' 6"
SHALE, grey to black, fractured, ½" coal seam	6' 6"	314' 0"
SANDSTONE, shaly, dark grey	4' 6"	318' 6"
SANDSTONE, light grey, coarse, poorly sorted, irregular conglomerate streaks	12' 0"	330' 6"
CONGLOMERATE, fine	0' 9"	331' 3"
SANDSTONE, light grey, coarse, friable, poorly sorted	27' 0"	358' 3"
SHALE, dark, sandy, with fine sand streaks Dip 14°	5' 9"	364' 0"
SANDSTONE, grey, medium grained, shaly streaks	4' 6"	368' 6"
CONGLOMERATE, fine, with coarse sand streaks and 2" streak of sandy shale	5' 0"	373' 6"

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SANDSTONE, fine grained	1' 6"	375' 0"
CONGLOMERATE, fine	0' 8"	375' 8"
SANDSTONE, fine grained	1' 0"	376' 8"
SHALE, light grey, sandy	2' 0"	378' 8"
SANDSTONE, light grey, coarse, few shaly streaks	71' 4"	450' 0"
SHALE, dark grey, sandy, sand streaks, coal marks	11' 5½"	461' 5½"
COAL, with 1½" shale parting	3' 3½"	464' 9"
SHALE, dark grey, coal streaks	1' 7½"	466' 4½"
COAL	1' 10½"	468' 3"
SHALE	0' 3"	468' 6"
COAL, with 2" shale parting	5' 10"	474' 4"
SHALE, black	0' 9"	475' 1"
COAL	0' 3"	475' 4"
SHALE, black	0' 4"	475' 8"
COAL	0' 9"	476' 5"
SHALE, black	0' 1½"	476' 6½"
COAL	0' 2½"	476' 9"
SHALE, black, coal marks and several ½" coal seams	9' 1"	485' 10"
COAL	0' 10"	486' 8"
SHALE, black, coal marks	1' 6"	488' 2"
COAL, boney	1' 6"	489' 8"
SHALE, black, coal streaks	1' 0"	490' 8"
COAL	0' 8"	491' 4"
SHALE, black, fissile, leaf molds, coal marks	10' 8"	502' 0"
COAL	0' 6"	502' 6"
SHALE, grey, somewhat sandy	4' 6"	507' 0"
SANDSTONE, coarse, poorly sorted	1' 0"	508' 0"
SHALE, dark grey to black, fractured and sheared	7' 0"	515' 0"
SANDSTONE, grey, med. grained with shaly and fine sand streaks. Dip 18°	32' 6"	547' 6"
SHALE, black, coal marks	3' 0"	550' 6"
COAL	4' 10"	555' 4"
SHALE, black	1' 8"	556' 6"
COAL, some boney streaks	4' 6"	561' 0"
SHALE, black, fissile, coal marks, leaf molds	6' 0"	567' 0"
SANDSTONE, shaly	6' 0"	573' 0"
SANDSTONE, light grey, medium grained with a few coarse streaks, carbonized twigs	70' 0"	643' 0"
SHALE, black, compact, coal marks	3' 6"	646' 6"
COAL, in part boney	4' 0"	650' 6"
SHALE, black, coal streaks	1' 6"	652' 0"
COAL, boney	0' 10"	652' 10"
SHALE, dark grey, sandy, fractured	3' 2"	656' 0"
SANDSTONE, dark grey, shaly	1' 6"	657' 6"
SHALE, grey, sandy, with many sand lenses, much fractured and high core loss	9' 6"	667' 0"
SANDSTONE, coarse, poorly sorted	2' 0"	669' 0"
SHALE, dark grey, sandy, fractured	9' 0"	688' 0"
SANDSTONE, grey shaly Dip 10°	10' 0"	698' 0"
SANDSTONE, grey, coarse	10' 0"	708' 0"
SANDSTONE, med. to fine grained with shaly streaks	3' 10"	711' 10"
SHALE, dark grey, with sandy streak	6' 2"	718' 0"
SANDSTONE, shaly streaks DIP 6°	3' 8"	721' 8"
SHALE, black, fractured	2' 6"	724' 2"

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SHALE, grey, sandy, cross-bedded sandstone streaks	2' 6"	726' 8"
SHALE, black, compact	1' 4"	728' 0"
SHALE, grey, sandy, with sand lenses	18' 6"	746' 6"
SANDSTONE, shaly, shale streaks dipping at high angles, vertical channeling	19' 6"	766' 0"
SHALE, sandy, with sand streaks	7' 0"	773' 0"
SANDSTONE, grey, poorly sized, with shaly streaks dipping at high angles	29' 0"	802' 0"
SHALE, grey, sandy	2' 8"	804' 8"
SANDSTONE, shaly streaks at high angles	6' 4"	811' 0"
SANDSTONE, light grey, coarse, poorly sorted	2' 9"	813' 9"
SHALE, grey, sandy	6' 3"	820' 0"
SANDSTONE, light grey, coarse	3' 0"	823' 0"
CONGLOMERATE, med. to coarse, with few sand lenses	26' 0"	849' 0"
SANDSTONE, grey, coarse, cross-bedded	8' 0"	857' 0"
SHALE, black, coal marks	2' 0"	859' 0"
SHALE, black, coal marks and soft black mud ?	4' 0"	
COAL	0' 6"	862' 6"
SHALE, dark grey, compact	16' 6"	879' 0"
SHALE, grey, sandy	4' 0"	883' 0"
SHALE, dark grey, compact	5' 0"	888' 0"
SHALE, grey, sandy, 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"

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 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.

	THICKNESS	MISSING	DEPTH
SHALE, dark, soft, slickensided partings, carbonate stringers. Abrupt irregular contact	10' 0"	5' 0"	916' 0"
SANDSTONE, light, coarse-grained	4"		910' 4"
SHALE, dark, finely cross-bedded	1"		910' 5"
SANDSTONE, light grey, coarse, cross-bedded Cross-bedding dips 70°	5"		910' 10"
SHALE, dark with intercalated seams of fine sand.	1' 0"		911' 10"
SANDSTONE, light grey, coarse (about 1mm.) with some grains of shale. Abrupt contact.	2' 0"	7"	913' 10"
SHALE, black with a few fine-grained sand streaks interbedded.	1' 2"	7"	915' 0"
SHALE, black, compact, wavy bedding with average dip 45 degrees	3' 5"		918' 5"
COAL, bony, bright partings, friable	1½")		918' 6½"
SHALE, black, much fractured, slickensided fragments.	1' 3½")	2"	919' 10"
SHALE, black with a few sandy streaks and wavy bedding dipping about 45 degrees	4' 2"	2' 3"	924' 0"

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

SHALE, grey, badly fractures	3' 4"	1' 2"	927' 4"	
Abrupt, Irregular Contact, Dip 35°				
SANDSTONE, grey, fine even-grained	0' 8"		928' 0"	
SANDSTONE, grey, fine even-grained, Scattered grains of sulphide	4' 0"	1' 9"	932' 0"	
SHALE, grey, compact, somewhat sandy	0' 11"		932' 11"	
SANDSTONE, grey, fine even-grained. Dip 29°	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	0' 11"		938' 11"	
SANDSTONE, coarse, poorly sorted	0' 1"		939' 0"	
SHALE, grey, compact, sandy. Fine sand seams Dip 31°	3' 0"		942' 0"	
SHALE, grey, compact, numerous sand seams Dip 29°	7' 6"	1' 0"	949' 6"	
SHALE, dark, badly fractured	2' 6"	0' 6"	952' 0"	
SHALE, black, coal marks, badly sheared	1' 10"	0' 10"	953' 10"	
MUD or COUGE SEAM, containing fragments of shale and a ½" seam of crushed COAL	0' 5"		954' 3"	
BRECCIA, coarse fragments, sand cement,	2' 9"	0' 6"	957' 0"	
MUD or COUGE SEAM, containing fragments of breccia and fine flakes of shale	1' 0"			
COAL, about 1" of bony fragments and some coal mud recovered	0' 6"	(?)1'10"	958' 6"	
MUD or COUGE SEAM, as above	1' 6"		960' 0"	
SHALE, ground up, containing some coal fines	0' 10"	0' 4"	960' 10"	
DIORITE, medium coarse grained, containing biotite and hornblende. Sheared contact with shale dips 45°	0' 8"		961' 6"	
SHALE, dark, badly sheared	0' 6"	0' 1"	962' 0"	
CONGLOMERATE, poorly sorted with coarse sand lenses	2' 0"	0' 2"	964' 0"	

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

"Wm. H. White"

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Assoc. Mining Engineer.

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

Breccia, fragments of shale and volcanics	4'	0"	-	968'	0"
Conglomerate, soft, muddy, coaly shale streaks	1'	8"	-	969'	8"
Breccia, large volcanic fragments with muddy cement. Rock soft and friable	6'	4"	-	976'	0"
Felsite, light grey, fine grained.	2'	0"		978'	0"
Greenstone, fine-grained, dark green, chloritic	7'	0"		985'	0"
Greenstone, fine-grained, somewhat brecciated	3'	6"		988'	6"
Shale, compact, indurated	1'	0"		989'	6"
Greenstone, pillowed, somewhat porphyritic	5'	6"		995'	0"

END OF HOLE #1

"Wm. H. White"

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Assoc. Mining Engineer

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MERRITT DRILL HOLE #5

LOG OF MERRITT D.D.H. #5

SANDSTONE, dark and light, thin bedded, upper part broken, dip 30°	10' 0"	-	530' 0"
SANDSTONE, light and dark broken, dip 25-30°	5' 0"	-	535' 0"
SANDSTONE, light, coarse, massive, fine at 540', conglomerate at 543', dip 35°	15' 0"	1' 0"	550' 0"
SANDSTONE, coarse, broken	5' 0"	3' 0"	555' 0"

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

SHALE, sandy, few coal partings, dip 5°	8' 0"		-	451' 0"
SANDSTONE, light and dark, medium and fine grain few shaly beds, dip 5-20°	19' 0"	2' 0"	470' 0"	
SHALE, sandy, many leaf impressions, dip 10°	6' 0"		3"	476' 0"
SHALE, few sandy beds, many coal partings two 1" seams coal, broken and slickensided	5' 0"	2' 0"	481' 0"	
SHALE, and coal borken, probable loss of coal 5' - 6'	9' 0"	7' 0"	490' 0"	
SANDSTONE, medium grain, few shale beds	3' 0"		3"	493' 0"
SHALE, sandy, much broken	2' 6"		-	495' 6"
SANDSTONE, 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, medium grained	4' 6"		-	508' 6"
SANDSTONE, thin bedded, fine grained, dip 25°	4' 6"		-	513' 0"
SHALE, sandy	2' 6"		-	515' 6"
SANDSTONE, dark, fine grained, some shale beds, broken	4' 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.

				310' 6"
SHALE, grey	2' 0"		-	312' 6"
SHALE, grey, broken, little mud	3' 6"		3"	316' 0"
SHALE, sandy, coal partings 317'	1' 0"		-	317' 0"
SANDSTONE, shaly, fine grain, dip 5-10° few coal partings	12' 6"		-	329' 6"
SANDSTONE, light, medium grained	7' 0"		6"	336' 6"
SANDSTONE, shaly, dip 15°	4' 0"		-	340' 6"
SANDSTONE, light and dark, medium and fine grain, dip 12°	2' 0"		-	342' 6"
SHALE, sandy, coal partings 344'	2' 6"		3"	345' 0"
SANDSTONE, fine and medium	1' 6"		-	346' 6"
SANDSTONE, light, massive coarse, very coarse 352 - 56	10' 6"	2'0"		357' 0"
SHALE, sandy, dip 10°	5' 0"		-	362' 0"
SANDSTONE, few shaly beds, fine grained	2' 0"		-	364' 0"
SANDSTONE, coarse, lowest 6" fine grained	3' 6"		3"	367' 6"
SANDSTONE, light, coarse massive, dip 13°	27' 0"		6"	394' 6"
SANDSTONE, light, coarse massive	8' 6"		-	403' 0"
SANDSTONE, shaly	2' 0"		-	405' 0"
SANDSTONE, shaly, poorly sorted, few coal partings	7' 0"		-	412' 0"
SHALE, with abundant coal partings	1' 6"		-	413' 6"
COAL, ($2\frac{1}{2}$" bone 2 seams), dip 13°	1' 6"		3"	415' 0"
COAL, (5" bone 5 seams)	2' 0"		6"	417' 0"
COAL, (1" bone 1 seam)	2' 0"		9"	419' 0"
COAL, (4" bone 3 seams)	2' 0"	1'	3"	421' 0"
SHALE, with abundant coal partings 2" coal	2' 0"		9"	423' 0"
SANDSTONE, shaly, dip 10°	1' 0"		-	424' 0"
CONGLOMERATE, few sandy beds, very coarse at base	17' 9"		6"	441' 9"
SHALE, black, fissile, broken, few coal partings	1' 3"		-	443' 0"

J.M. Black

Asst. Mining Engineer

27 July 46

SHALE, medium to dark grey, fractured	6' 0"	-	289' 0"
SANDSTONE, dark and light, medium to fine grain, dip 25°	4' 9"	3"	293' 9"
SHALE, dark	1' 3"	-	295' 0"
SANDSTONE, medium grain thin bedded	3' 6"	1' 0"	298' 6"
SANDSTONE, course, massive	4' 0"	-	302' 6"
SANDSTONE, grey, medium to fine grain broken at 303' 6", dip 30°	3' 6"	6"	306' 0"
SHALE, dark grey some sandy beds coal partings at 306' 6"	4' 6"	6"	310' 6"

J.M. Black

Asst. Mining Engineer

25 July 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'

	Thickness	Core Missing	Depth
SANDSTONE, light, medium to course grain dip 10°, few shaly beds	4' 0"	-	182' 9"
SANDSTONE, light, medium to course, massive, getting shaly towards base	8' 0"	-	190' 0"
SHALE, dark, many coal partings, some pyrite 9")			
COAL, 4")	2' 0"	11"	192' 0"
SHALE, with many coal partings	6"	-	192' 6"
COAL, with little shale	6"	-	193' 0"
SHALE, with many coal partings	4"	-	193' 4"
SHALE, dark grey with few coal parings	6' 8"	8"	200' 0"
SHALE, mud, and coal particles	2' 0"	1' 6"	202' 0"
SHALE, dark grey, few coal partings, few sandy beds, dip 5° - 10°	5' 0"	3"	207' 0"
SHALE, dark grey	2' 3"	-	209' 3"
SANDSTONE, light, medium to fine grain, massive, shaly at 212'.	7' 9"	6"	217' 0"
SANDSTONE, light, medium grain	9' 0"	6"	226' 0"
SANDSTONE, light massive, medium to course	10'2"	-	236' 2"
SHALE, dark grey, few coal partings sandy towards base	4' 10"	3"	241' 0"
SANDSTONE, light, medium grained, few shale beds	3' 0"	-	244' 0"
SHALE, dark grey	2' 0"	3"	246' 0"
SHALE, dark grey mud seam 249' 6"	4' 6"	3"	250' 6"
SANDSTONE, light grey, fine-medium grain, massive	5' 6"	-	256' 0"
SANDSTONE, light and dark, few shale beds dip 10°	5' 6"	-	261' 6"
SHALE, dark and medium grey, few sandy beds, dip 0° - 20°	14' 6"	6"	276' 0"
SHALE, dark, broken at 277'	2' 6"	-	278' 6"
MUD, shale, coal	1' 0"	6"	279' 6"
SHALE, dark	3' 6"	-	283' 0"

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

July 29

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

July 30

Morning shift to 10 a.m.	555

J.M. Black

Asst. Mining Engineer

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

July 27

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

July 28

Morning shift	Coring to 493
Afternoon	Coring to 503
Graveyard	Coring to 513

July 29

Morning to 10 a.m.	Coring to 520

J.M. Black

Asst. Mining Engineer

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

July 25

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

July 26

Morning shift	Coring to 395
Afternoon	Coring to 417
Graveyard	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:	Coring to 194
Afternoon	Coring to 217
Graveyard	Coring to 246

July 24

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

July 25

Morning to noon	Coring to 311

J.M. Black
Asst. Min. Engr.

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

July 17

Setting up.

July 18

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

July 19

Morning shift	Casing to 80
Afternnoon shift	Casing to 110

July 20

Morning shift	Casing to 140
Afternoon not drilling	

July 21

Morning not drilling	
Afternoon shift	Casing to 160

July 22

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

July 23

Morning to noon	Coring to 182

J.M. Black

Asst. Mining Engineer

MERRITT DRILL HOLE #4

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

				491' 0"
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' 0"
SANDSTONE, massive	2' 9"	-		513' 9"
CONGLOMERATE, fine and sandy at top	5' 0"		6"	518' 9"
SANDSTONE, medium to fine grain dark grey dip 5°	1' 3"	-		520' 0"
SANDSTONE, grading down to shaly sandstone	3' 0"	-		523' 0"
SANDSTONE, massive, light, medium grain dip 17°, some silty beds dip 5°	7' 0"	1' 0"		530' 0"
SANDSTONE, light, medium grain few silty beds dip 4° - 8° somewhat coarser at 535 and few coal fragments there	7' 0"	-		537' 0"
SANDSTONE, light, medium grain, mostly massive few silty beds dip 5°, coaly partings 538	9' 0"	-		546' 0"
SANDSTONE, massive, light colored	5' 0"	-		551' 0"
SANDSTONE, thin bedded, silty, dip 5°	2' 0"	-		553' 0"
SANDSTONE, massive, light, medium to fine grain, few silty beds, coaly partings 557, 560, dip 5°, few irregular dips	8' 0"		6"	561' 0"
SANDSTONE, massive, calcite stringer at base	8' 0"	3' 9"		569' 0"
SANDSTONE, light and dark, thin bedded, shaly	3' 0"	1' 0"		572' 0"

"J.M. Black"

Asst. Mining Engineer

4 July 46

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

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

			385' 0"
SANDSTONE, medium grain, dark and light, some coal partings	1' 6"	-	386' 6"
CONGLOMERATE, dark, fairly coarse to 1", few coal fragments	8' 6"	3' 0"	395' 0"
CONGLOMERATE, light colored with few coaly streaks	10' 0"	-	405' 0"
CONGLOMERATE	5' 0"	2' 3"	410' 0"
CONGLOMERATE, some coarse sandy beds, coal fragments at 413, at 420' 6" very coarse, pebbles to 2" closely packed	11' 0"	1' 3"	421' 0"
SANDSTONE, medium grained thin dark and light, beds dip 15-18°, some mica, towards base beds thicker and coarser	10' 0"	-	431' 0"
SANDSTONE, coarse, light with few dark fine beds some coal fragments, disturbed	5'	10"	436' 0"
SANDSTONE, medium grained, dark and light beds, some coarser beds, dip 8°-12°-14° getting shaly at base	7' 0"	-	443' 0"
SHALE, sandy with coal marks	4' 0"	1' 8"	447' 0"
SHALE, sandy black with abundant coal partings	2' 6"	-	449' 6"
SANDSTONE, brown, fine grained	4"	-	449' 10"
SHALE, black, much broken	5' 2"	3' 8"	455' 0"
SHALE, black, fissile, broken	2' 0"	1' 6"	457' 0"
COAL, and boney shale, 5" coal	2' 0"	1' 3"	459' 0"
COAL, and shale, 4" coal 8" shale	1' 10"	10"	460' 10"
SANDSTONE, shaley, dip 18°, some irregular bedding	3' 2"	-	464' 0"
SANDSTONE, shaly	4' 0"	1' 0"	468' 0"
SANDSTONE, dark and light, fine to medium grain	4' 0"	6"	472' 0"
SANDSTONE, medium grained, light with dark laminae, dips 10°-20°	9' 0"	-	481' 0"
SANDSTONE, medium to fine grained, some shaly beds	4' 9"	3"	485' 9"
SHALE, dark, dip 13°, some calcite filled fractures	2' 3"	6"	488' 0"
SANDSTONE, medium and coarse grain, some silty beds	3' 0"	-	491' 0"

"J.M. Black"

Asst. Mining Engineer

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

	Thickness	Core Missing	Depth
			286' 0"
SHALE, dark grey, coal partings	1' 8"	-	287' 8"
SANDSTONE, dark compact becoming coarser at base. Dip 11°	5' 7"	-	293' 3"
SHALE, dark to black, coal partings, broken	3' 9"	6"	297' 0"
SANDSTONE, medium grained, some dark laminae. Dip 20°	2' 0"	-	299' 0"
SHALE, dark fissile, coal partings	2' 0"	6"	301' 0"
SANDSTONE, medium grained, dark laminae. Dip 12°	1' 6"	-	302' 6"
SHALE, dark with coal partings	3' 6"	1' 0"	306' 0"
SANDSTONE, medium grained, getting coarser downwards - at base massive, some cross bedding	13' 0"	-	319' 0"
CONGLOMERATE, fine, few sandy beds, coal fragments 331' 9"	21' 3"	-	340' 3"
SANDSTONE, medium grained, dark laminae. Dip 13° at base, massive, light colored, irregular	10' 9"	-	351' 0"
SANDSTONE, medium grained with dark laminae getting shaly towards base	10' 0"	1' 0"	361' 0"
SANDSTONE, dark and light, few coarse beds	3' 3"	-	364' 3"
SHALE, dark with coal partings	2' 0"	3"	366' 3"
COAL	1' 0"	10"	367' 3"
SHALE, dark with coal partings	1' 4"	2"	368' 7"
COAL	3' 3"	-	371' 10"
SHALE, boney	3"	-	372' 1"
COAL	3"	-	372' 4"
SHALE, boney	2"	-	372' 6"
COAL, 4 shaly seams totalling 6"	4' 6"	1' 9"	377' 0"
SHALE, dark sandy, coal partings, mud seam	3' 0"	1' 6"	380' 0"
SANDSTONE, dark, compact, shaly Dip 10-18°	5' 0"	-	385' 0"

"J.M. Black"

Asst. Mining Engineer

28 June 46

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

	Thickness	Core Missing	Depth
SHALE, dark grey, some coal partings, some sandy and micaceous beds. Dip 30°	3' 0"	-	248' 0"
SANDSTONE, with dark laminae, some cross bedding medium grain to 250' 3" coarse massive to 258' 3" - with few conglomerate beds, coal fragments	10' 3"	-	258' 3"
SANDSTONE, brown, medium grain, compact, with very many angular coal fragments up to 1" across oriented parallel to bedding which dips 20°	9"	-	259' 0"
SANDSTONE, coarse with conglomerate	3' 10"	7"	262' 10"
SHALE, dark grey, numerous coal parings, some mud seams, dip 20°	10' 2"	-	273' 0"
SHALE, dark grey	4' 0"	6"	277' 0"
SHALE, dark grey	2' 0"	-	279' 0"
SANDSTONE, medium grained, light and dark grey, dip 10°	1' 9"	-	280' 9"
SHALE, dark with coal partings	2' 0"	-	282' 9"
SANDSTONE, medium to coarse grained	2' 0"	-	284' 9"
SHALE, dark	1' 3"	-	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	181'		181'

BEDROCK	Thickness	Core Missing	Depth
SANDSTONE, medium to fine grained, cross bedded with dark laminae, three thin beds conglomerate. Dip 18°	5' 0"	-	186' 0"
SANDSTONE, medium to fine grained, with dark laminae, shaly towards base and 4" of friable Coal and mud, probably some coal that is missing. Dip 10°	5' 9"	1' 9"	191' 9"
SANDSTONE, coarse	3' 3"	-	195' 0"
SHALE, dark grey, shattered, getting more sandy to base. Dip 14°	6' 0"	3' 8"	201' 0"
SANDSTONE, medium grained, dark grey with darker laminae, has one near vertical slip of about ½", another dip about 45°, breccia and gouge about 2" thick, calcite stringer	6' 0"	9"	207' 0"
SHALE, dark grey, micaceous, near base, sandy. Dip 7°	10' 0"	10"	217' 0"
SHALE, dark sandy, micaceous, at base two seams 1/8 and ½" bony Coal	5' 6"	-	222' 6"
SANDSTONE, medium grained, light grey with dark laminae, Dip 5 - 18° several strike fractures. Dip 30-60°N - with calcite	4' 6"	-	227' 0"
SANDSTONE, coarse, light colored, micaceous, massive - contact with shale below Dips 30°	4' 0"	-	231' 0"
SHALE, dark grey, fractured at contact	4' 0"	8"	235' 0"
COAL,	6"	2"	235' 6"
SHALE, dark grey, sandy, fractured, coal partings, 2 - 3" broken Coal at base	4' 6"	6"	240' 0"
SANDSTONE, grey, medium grained, fractured, shaly toward base - at 242' black shale	5' 0"	2' 0"	245' 0"

"J.M. Black"

Asst. Mining Engineer

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

July 2

Morning shift:	Coring 481 - 501
Afternoon shift:	Coring 501 - 520
Graveyard shift:	Coring 520 - 530

July 3

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

July 4

Morning shift to noon:	Cored to 572'

"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:	Coring 380 - 395
Afternoon " :	" 395 - 411
Graveyard " :	" 411 - 431

June 29

Morning shift:	Fishing for bit
Afternoon " :	Coring 431 - 436
Graveyard " :	" 436 - 447

June 30

Morning shift:	Coring 447 - 459
Afternoon " :	" 459 - 472
Graveyard " :	Not working

July 1

Morning shift:	Not working
Afternoon " :	" "
Graveyard " :	Coring 472 - 481

July 2

Morning shift:	Cored to 491 at noon

"J.M. Black"

Asst. Mining Engineer

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

June 26

Morning shift:	Coring 277 - 296
Afternoon shift:	Coring 296 - 311
Graveyard shift:	Coring 311 - 334

June 27

Morning shift:	Coring 334 - 341
Afternoon shift:	Coring 341 - 361
Graveyard shift:	Coring 361 - 379

June 28

Morning shift to noon	Cored to 385'

"J.M. Black"

Asst. Mining Engineer

28 June 46

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

June 24

Morning shift:	Coring 186 - 195
Afternoon shift:	Coring 195 - 207
Graveyard shift:	Coring 207 - 217

June 25

Morning shift:	Coring 217 - 245
Afternoon shift:	Coring 245 - 263
Graveyard shift:	Coring 263 - 277

June 26

Morning shift to noon: Cored to 286'

"J.M. Black"

Asst. Mining Engineer

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

June 19

Setting up drill.

June 20

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

June 21

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

June 22

Morning shift: Casing to 160, lost bit and fished for it till end of shift.
Afternoon shift: Not working
Graveyard shift: Not working

June 23

Morning shift: Not working
Afternoon shift: Casing to 170
Graveyard shift: Casing to 181 - bedrock
Coring 181 - 186

June 24

Morning shift noon. Drilling to 190 had trouble with pump.

"J.M. Black"

Asst. Mining Engineer

29 June 46

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MERRITT DRILL HOLE #3

LOG OF HOLE No. 3 (continued)

SANDSTONE, light grey, medium grained compact (coarse grained at top)	6' 0"	-	1030' 0"
DIP - 15° - 10°			
CONGLOMERATE, fine grained	4' 0"	3' 4"	1034' 0"
SANDSTONE, grey, very coarse grained	4' 6"	-	1038' 6"
SHALE, dark brown to black, silty, carbonaceous	1' 0"	-	1039' 6"
SHALE, dark grey to black, sandy, micaceous	2' 6"	-	1042' 0"
SANDSTONE, grey, very fine grained, shaly at top, micaceous.	3' 0"	1' 5"	1045' 0"
SANDSTONE, grey, as above, coal markings.	0' 7"	-	1045' 7"
CONGLOMERATE, grey, fine grained at top	3' 10"	-	1049' 5"
SHALE, dark grey, brown to black, carbonaceous, with a few thin (1/8") coal laminae.	3' 0"	-	1052' 5"
SANDSTONE, grey, medium-coarse grained compact	2' 7"	0' 2"	1055' 0"
SHALE, dark grey to black, carbonaceous, with coal partings	1' 2"	-	1057' 2"
SANDSTONE, grey, medium grained, compact with a few thin dark carbonaceous shale laminae.	5' 3"	-	1062' 5"
SHALE, brownish black, silty, carbonaceous with occasional coaly partings.	0' 7"	-	1063' 0"
SHALE, dark grey to black, carbonaceous, coaly partings.	1' 0"	-	1064' 0"
SANDSTONE, grey, medium-coarse grained, with a few thin dark silty shale bands.	3' 9"	-	1067' 9"
SHALE, dark grey to black, carbonaceous, with carbonized plant fragments, specks of resin.	3' 3"	-	1071' 0"
SANDSTONE, grey, fine grained shaly with numerous carbonized plant fragments specks of coal	2' 0"	-	1073' 0"
SHALE, dark grey, carbonaceous in part plant fragments.	0' 7"	-	1073' 7"
SANDSTONE, grey, medium grained, occasional coal markings.	1' 8"	-	1075' 3"
SHALE, dark grey, carbonaceous in part, sandy in part, carbonized plant fragments	3' 0"	-	1078' 3"
SANDSTONE, grey, medium grained compact	2' 9"	-	1081' 0"
SANDSTONE, grey fine grained, interbedded with thin bands of dark grey carbonaceous shale.	8' 1"	5' 6"	1089' 1"
SANDSTONE, grey, fine grained, shaly, with a few short carbonaceous shale sections.	4' 6"	-	1093' 7"

"C.B. Newmarch"

Asst. Mining Engineer

June 17/46

LOG OF No. 3 HOLE (Continued)

SANDSTONE, light grey, fine grained.	0' 5"	-	946' 5"
SHALE, dark grey, sandy, carbonaceous in part grading into fine grained sandstone in part.	4' 0"	-	950' 5"
SANDSTONE, light colored, fine grained compact.	2' 7"	-	953' 0"
SHALE, dark grey to black, sandy in part, carbonaceous at base with plant fragments.	3' 0"	0' 7"	956' 0"
SHALE, dark grey, sandy.	1' 0"	-	957' 0"
SHALE, dark grey to black, carbonaceous becoming sandy at base.	2' 6"	-	959' 6"
SANDSTONE, light grey, fine grained interbedded with dark irregular silty shale laminae	3' 6"	-	963' 0"
SHALE, black, carbonaceous, coaly partings, friable	1' 0"	-	964' 0"
SANDSTONE, light grey, fine grained, shaly at top with dark irregular silty bands.	2' 0"	-	966' 0"
SHALE, dark grey, sandy, irregularly bedded with thin (1"-2") bands of grey medium grained sandstone, a few coaly partings.	11' 0"	9' 4"	977' 0"
SANDSTONE, light grey, fine grained with thin irregular carbonaceous or coaly laminae	10' 0"	3' 7"	987' 0"
DIP 10°			
CONGLOMERATE, quite coarse in part, pebbles of greenstone, qtz, and red granite.	6' 0"	1' 9"	993' 0"
SHALE, black, carbonaceous, with plant fragments	0' 8"	-	993' 8"
SANDSTONE, grey, fine grained, shaly at top	2' 7"	-	996' 3"
SANDSTONE, grey, medium to coarse grained, a few thin coaly lenses.	5' 9"	2' 9"	1002' 0"
SANDSTONE, grey, coarse grained, with a few thin irregular coal lenses.	1' 0"	-	1003' 0"
CONGLOMERATE, light grey, fine grained	0' 8"	-	1003' 8"
SANDSTONE, grey, coarse grained with 1" of coarse grained conglomerate at base.	3' 2"	-	1006' 10"
SHALE, dark grey to black, with carbonaceous partings, thinly bedded.	2' 0"	-	1008' 10"
DIP 10° - 15°			
CONGLOMERATE, rather coarse	5' 2"	2' 8"	1014' 0"
SHALE, dark grey to black, carbonaceous becoming sandy at base.	2' 3"	-	1016' 3"
CONGLOMERATE, fine grained.	7' 9"	5' 8"	1024' 0"

"C.B. Newmarch"

Asst. Mining Engineer.

June 8/46

SHALE, dark, silty	0' 6"	-	1261' 0"
SANDSTONE, light grey medium grain with dark laminae and 12" dark grey shale with coaly laminae	4' 0"	0' 6"	1265' 0"
DIP 15 - 18°			
SANDSTONE, dark, fine and medium grained drilling stopped here			

"J.M. Black"

Asst. Mining Engineer

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LOG OF NO. 3 HOLE (Continued)

			1175' 0"
SHALE, grey to black, sandy in part, Carbonaceous in part, coaly partings	5' 0"	-	1180' 0"
SANDSTONE, grey, fine grained, with thin dark silty laminae	2' 5"	-	1182' 5"
SANDSTONE, grey, medium grained, compact (coarse grained in part) with fragments of carbonized wood	3' 7"	0' 4"	1186' 0"
SANDSTONE, grey, coarse grained	4' 7"	-	1190' 7"
SANDSTONE, light grey, fine grained	1' 5"	-	1192'
SANDSTONE, grey, medium-course grained, occasional thin carbon lenses	5' 0"	1' 0"	1197'
SANDSTONE, as above	0' 8"	-	1197' 8"
SHALE, dark grey, carbonaceous in part, sandy	8' 4"	1' 7"	1206' 0"
SHALE, dark grey, silty to sandy, carbon in part	5' 0"	-	1211' 0"
SANDSTONE, light grey, with thin silty shale laminae	2' 0"	-	1213' 0"
SHALE, brown to black, silty, carbonaceous, plant fragments, coaly partings	3' 0"	0' 10"	1216' 0"
SANDSTONE, grey fine grained, shaly, carbonaceous in part	1' 9"	-	1217' 9"
SANDSTONE, light grey, medium grained, compact	2' 9"	-	1220' 6"
SHALE, dark grey, silty in part, compact (carbon in top 3")	3' 6"	-	1224' 0"
SHALE, dark grey to black, carbon, coaly partings	0' 8"	-	1224' 8"
COAL, bony crushed	1' 4"	0' 8"	1226' 0"
SHALE, dark grey, sandy at base	1' 0"	-	1227' 0"
SANDSTONE, light grey, course grained (fine grained at top)	3' 3"	-	1230' 2"
SHALE, dark grey to black, carbonaceous, $\frac{3}{4}$" bony coal at centre)	5' 10"	5' 2"	1236' 0"
SHALE, dark grey sandy grading into fine-grained sandstone at base	5' 5"	-	1241' 5"
SANDSTONE, light & grey, fine-medium grained with thin irregular dark (carb) laminae, specks of coal	3' 4"	-	1244' 9"
SANDSTONE, light grey, course grained	1' 3"	-	1246' 0"
SANDSTONE, light grey medium to course grain	4' 0"	-	1250' 0"
CONGLOMERATE, fine grained	4' 0"	-	1254' 0"
SANDSTONE, light grey, fine grain, micaceous	4' 0"	2' 0"	1258' 0"
SANDSTONE, light grey, medium grained with shaly laminae at base and $1\frac{1}{2}$" coaly shale in middle	2' 6"	-	1260' 6"

LOG OF No. 3 HOLE (continued)

SANDSTONE, grey, coarse grained	5' 5"	4' 5"	1099' 0"
SANDSTONE, grey, fine grained, with dark grey silty shale bands	3' 6"	-	1102' 6"
SANDSTONE, grey, medium-coarse grained, grading into fine grained conglomerate in part	1' 1"	-	1103' 7"
SANDSTONE, grey, medium-coarse grained with short fine grained conglomerate sections, a few thin lenses of coal, slight porosity in 6" section.	4' 5"	0' 3"	1108' 0"
SANDSTONE, light grey, medium-coarse grained.	2' 5"	-	1110' 5"
DIP - 10°			
SANDSTONE, light grey, fine grained shaly at base, carbonaceous streaks	1' 3"	-	1111' 8"
SHALE, dark grey to black, carbonaceous, coaly partings.	2' 4"	1' 6"	1114' 0"
SANDSTONE, dark grey, coarse grained, with occasional carbonaceous or coaly streaks	9' 0"	4' 10"	1123' 0"
CONGLOMERATE, grey, fine grained	2' 7"	-	1125' 7"
SHALE, dark grey to black, carbonaceous, coal partings.	2' 0"	-	1127' 7"
SANDSTONE, grey, fine grained, with thinly bedded dark grey silty shale	2' 5"	-	1130' 0"
SANDSTONE, grey, medium grained, compact, occasional silty bands.	5' 0"	2' 0"	1135' 0"
SANDSTONE, grey, coarse grained, compact	5' 0"	-	1140' 0"
SANDSTONE, grey, coarse grained, compact, shaly at top.	1' 8"	-	1141' 8"
SHALE, dark grey, to black, carbonaceous, sandy in part, few coaly partings.	5' 7"	-	1147' 3"
SANDSTONE, light grey, medium-coarse grained	2' 9"	-	1150' 0"
SHALE, light grey, crushed and slickensided occasional thin lenses of coal (1/8")	4' 0"	2' 2"	1154' 0"
SHALE, dark grey, to black, carbonaceous, coaly partings, sandy at top and bottom	4' 4"	-	1158' 4"
SANDSTONE, grey, coarse grained	0' 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 bands	4' 7"	2' 2"	1165' 0"
SANDSTONE, grey, fine grained, as above	0' 4"	-	1165' 4"
CONGLOMERATE, compact with short coarse grained sandstone sections	3' 8"	-	1169' 0"
SANDSTONE, grey, grading from coarse grained at top to fine grained at bottom. shear plane at 45° at centre.	6' 0"	2' 7"	1175' 0"

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LOG OF HOLE No. 3 (continued)

SANDSTONE, light grey, very fine grained, shaly in part.	2' 0"	-	863' 1"
CONGLOMERATE, light grey fairly coarse, with a few thin bands of sandy shale	2' 2"	-	865' 3"
SHALE, grey, sandy, irregular bedding	1' 4"	-	866' 7"
SHALE, black, carbonaceous, with 1" of crushed coal.	0' 5"	-	867'
SHALE, grey, sandy, occasional coal markings, grading into fine grained light grey sandstone in part.	3' 0"	1' 0"	870'
SHALE, dark grey to black, carbonaceous, coaly partings carbonized plant fragments.	2' 5"	-	872' 5"
CONGLOMERATE, light grey, fairly coarse grained	8' 7"	8' 0"	881'
SANDSTONE, light grey, coarse grained, few coal lenses (1/8") sheared at 45°	1' 0"	-	882'
SANDSTONE, light grey, very fine grained, shaly	2' 0"	-	884'
DIP 10 - 15 degrees.			
SHALE, dark grey to black, carbonaceous, sandy in part, coaly partings	4' 5"	-	888' 5"
SANDSTONE, light grey, medium grained.	2' 7"	1' 4"	891'
SANDSTONE, light grey, medium-coarse grained	1' 0"	-	892'
SHALE, dark grey to black, carbonaceous, sandy in part, coaly partings	1' 7"	-	893' 7"
SANDSTONE, light grey, very fine grained, shaly	3' 5"	-	897'
SANDSTONE, light grey, fine grained, carries a little finely divided pyrite.	4' 0"	2' 7"	901'
SANDSTONE, light grey, fine grained with a few irregular coal lenses.	3' 0"	-	904'
CONGLOMERATE, light grey, rather coarse in part	8' 0"	5' 0"	912'
CONGLOMERATE, rather coarse, as above	2' 3"	-	914' 3"
SHALE, dark grey, coaly partings.	0' 9"	-	915'
SANDSTONE, light grey, medium grained with thin irregular bands of dark grey silty shale	3' 0"	-	918'
SANDSTONE, grey, very gine grained, shaly, occasional thin coal lenses.	4' 0"	2' 8"	922'
SANDSTONE, light grey, fine grained, with thin grey silty bands.	12' 0"	11' 0"	934'
SANDSTONE, grey, medium grained	1' 6"	-	935' 6"
SANDSTONE, light grey, fine grained inter-bedded with dark grey to black sandy shale	1' 6"	-	937'
SHALE, dark brown to black, carbonaceous, coaly partings (several shears at 55°)	2' 0"	-	939'
SHALE, dark grey, sandy	1' 8"	-	940' 8"
SANDSTONE, grey, fine grained, with dark irregular silty bands.	1' 4"	-	942'
SANDSTONE, fine- medium grained, salt and pepper, a few carbonaceous fragments, coarser at top.	4' 0"	1' 10"	946'

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LOG OF HOLE No. 3 (continued)

SANDSTONE, light grey, fine grained to medium grained with a 3" dark grey shale band at center.	10' 0"	6' 6"	810'
SANDSTONE, light grey, medium grained to coarse grained with a few thin irregular crushed coal lenses .	2' 0"	-	812'
SANDSTONE, alternating bands (4" to 6") of fine and medium grained light grey, shaly in part.	3' 4"	-	815' 4"
SHALE, chocolate brown to black, carbonaceous 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"
SHALE, dark grey to black, sandy in part carbonaceous with several seams of crushed coal from 1" to 3" thick, a few thin carbonate stringers.	2' 5"	0' 4"	820'
SANDSTONE, light grey, fine grained micro-micaceous, shaly at base.	1' 0"	-	821'
SHALE, dark grey, sheared, with gouge, possible fault.	0' 4"	-	821' 4"
SANDSTONE, light grey, fine grained, with interbedded black silty shale bands.	8' 8"	1' 8"	830'
SANDSTONE, as above	1' 4"	-	831' 4"
SHALE, black, silty, carbonaceous, coaly partings, leaf molds.	3' 8"	-	835'
SANDSTONE, light grey, fine grained, shaly	0' 10"	-	835' 10"
SHALE, black, silty carbonaceous as above	2' 2"	-	838'
COAL, badly crushed.	0' 6"	-	838' 6"
SHALE, dark grey, sandy, shaly in part, coal specks.	1' 6"	0' 3"	840'
SHALE, dark grey, sandy in part, carbonaceous in part, occasional plant fragments and coaly partings (Several fractures dipping at 75°)	2' 9"	-	842' 9"
SHALE, light grey, sandy, irregularly bedded, grades into coarse grained sandstone in part (3" brown shale band with coaly fragments at center.	5' 0"	-	847' 9"
SHALE, dark grey to black, carbonaceous (carbonized plant fragments and coaly lenses)	2' 3"	1' 2"	850'
SHALE, grey to dark grey, silty to sandy, carbonaceous in a few short sections, sheared in upper 2' dipping at 75°, scour and fill structure at one point 2" of coarse grained sandstone with shaly matrix at base.	10' 0"	0' 6"	860'
SHALE, pale greenish grey.	1' 1"	-	861' 1"

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SHALE, black, carb. with a few thin crushed crushed coal bands	1' 2"	-	784'
SHALE, dark grey, carbonized wood frags.	0' 5"	-	784' 5"
SANDSTONE, light grey, coarse grained, conglomeratic in part	4' 7"	1' 10"	789'
SANDSTONE, as above	0' 8"	-	789' 8"
SANDSTONE, light grey, fine grained, with thin dark silty laminae	1' 1"	-	790' 9"
SHALE, dark grey to black, carb. in part	4' 5"	-	795' 2"
SANDSTONE, light grey, med. grained compact	4' 10"	3' 8"	800'

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LOG OF HOLE No. 3 (continued)

SANDSTONE, alternating irregularly bedded laminae of light grey fine grained sandstone and dark carbonaceous silty shale with coaly partings.	5' 10"	-	676' 10"
SHALE, black, silty, carbonaceous	4' 2"	1' 2"	681'
SHALE, black, silty, as above	1' 0"	-	682'
SANDSTONE, light grey, fine grained, with wavy irregular dark silty carb. bands.	4' 8"	-	686' 8"
SHALE, dark grey, soft, friable	1' 4"	-	688'
SHALE, " " " "	1' 0"	-	689'
SANDSTONE, light grey, fine grained, irregularly bedded	4' 0"	-	693'
SANDSTONE, light grey, medium - coarse grained conglomeratic in basal 3"	5' 0"	-	698'
SANDSTONE, light grey, medium grained	2' 0"	-	700'
SANDSTONE, light grey, fine grained, with irregular dark silty laminae, grading to shale at base	2' 0"	-	702'
SHALE, dark grey to black, silty, carbonaceous	6' 0"	1' 7"	708'
SHALE, dark grey to black, sandy in part, carbonaceous	6' 0"	-	714'
SHALE, light grey, fine grained, sandy	2' 7"	-	716' 7"
SANDSTONE, light grey, fine to medium grained	1' 5"	-	718'
SANDSTONE, light grey, medium grained, interbedded with thin dark carb. laminae	5' 0"	-	723'
SHALE, dark grey to black, silty to sandy, with a few thin fine grained grey sandy bands.	2' 0"	-	725'
SHALE, almost black, siltly, a few spores	4' 6"	-	729' 6"
SANDSTONE, light grey, fine grained, with occasional thin carbonaceous laminae DIP 15 degrees	2' 6"	-	732'
SHALE, dark grey, sandy in part, carb. in part	3' 0"	0' 9"	735'
SHALE, dark grey to black, carbonaceous	0' 9"	-	735' 9"
SHALE, light grey, sandy	2' 3"	-	738'
SANDSTONE, med.-coarse grained, light grey	7' 0"	4' 0"	745'
SANDSTONE, as above	2' 2"	-	747' 2"
SANDSTONE, light grey, fine grained, shaley interbedded with thin black wavy carb. laminae	0' 7"	-	747' 9"
CONGLOMERATE, light grey, fine grained	9' 3"	8' 6"	757'
CONGLOMERATE, light grey, fine grained	10' 0"	2' 8"	767'
SHALE, light grey, fine grained, silty	1' 4"	-	768' 4"
SANDSTONE, light grey, fine grained, shaley in part, numerous thin carb. laminae.	5' 4"	-	773' 8"
SANDSTONE, light grey, medium grained, compact	3' 4"	2' 4"	777'
SANDSTONE, fine - medium grained, as above	2' 0"	-	779'
SHALE, dark grey, carb. in part, wood frags. specks of coal	3' 10"	-	782' 10"

LOG OF HOLE No. 3 (continued)

SANDSTONE and SHALE, as above, occasional coaly partings.	1' 6"	--	550' 6"
CONGLOMERATE, light grey, fine grained, (3" band of brown shale with coal lenses at center)	10' 6"	3' 6"	561'
CONGLOMERATE, coarse grained, (pebbles 1"-3")	0' 4"	--	561' 4"
SANDSTONE, light grey, fine grained, with occasional dark grey shale bands carrying coaly fragments.	6' 8"	--	568'
SHALE, dark grey, silty, coaly partings	3' 0"	0' 8"	571'
SANDSTONE, light grey, fine grained, alternating with thin dark grey silty (carbonaceous in part) bands up to 3" thick, grading at base into 3" of fine grained conglomerate.	11'	1' 0"	582'
SHALE, dark, (almost black), silty, carbonaceous with a few coal markings.	0' 11"	--	582' 11"
SANDSTONE, light grey, medium grained	1' 1"	--	584'
CONGLOMERATE, light grey, fine grained, slight porosity (pebbles are quartz, feldspar, greenstone, occasional red granite)	2' 2"	--	586' 2"
SANDSTONE, light grey, fine grained, cut by thin irregular dark silty bands.	5' 10"	0' 6"	592'
SANDSTONE, light grey, fine to med. grained	6' 0"	--	598'
SANDSTONE, " " , med. - coarse grained	5' 0"	3' 8"	603'
SANDSTONE, as above	0' 4"	--	603' 4"
SANDSTONE, light grey, fine grained, with dark irregular silty laminae	10' 8"	8' 2"	614'
SANDSTONE, light grey, coarse grained, grading into fine grained conglomerate in part.	10'	1' 11"	624'
SANDSTONE, light grey, coarse grained, as above	3' 6"	--	627' 6"
SHALE, greenish-grey, silty, with occasional dark wavy laminae (1" band of coarse conglomerate at base)	5' 6"	3' 0"	633'
SANDSTONE, light grey, med.-coarse grained	10'	3' 5"	643'
SHALE, black, carbonaceous	0' 2"	--	643' 2"
SANDSTONE, light grey, fine grained, interbedded with greenish-grey silty shale	1' 5"	--	644' 7"
SHALE, dark grey, sandy in part, carbonaceous, frags. carbonized wood.	4' 0"	--	648' 7"
SANDSTONE, light grey, fine grained, with irregular dark silty laminae	4' 5"	1' 6"	653'
SANDSTONE, light grey, med. - coarse grained	4' 10"	--	657' 10"
SANDSTONE, light grey, fine grained	3' 2"	2' 4"	661'
SANDSTONE, as above	8' 0"	--	669'
SANDSTONE, alternating bands of fine and medium grained light grey sandstone with a few brownish grey silty bands	2' 0"	--	671'

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LOG OF HOLE No. 3 (continued)

SHALE, dark grey to black, carbonaceous, silty, slickensided in part	0' 8"	-	459' 8"
SHALE, grey, sandy, carbonized wood fragments	4' 4"	-	464'
SHALE, dark, carbonaceous, silty, carb. wood	5'	3'	469'
SHALE, grey, silty, with thin coaly partings	0' 8"	-	469' 8"
SHALE, dark, carbonaceous, coaly streak at base	1' 8"	-	471' 4"
SHALE, grey, sandy, carb. in part	2' 4"	-	473' 8"
SANDSTONE, light-colored, fine-grained, micaceous	0' 10"	-	474' 6"
SHALE, sandy, alternating fine grained sandstone and grey sandy shale (carb. in part)	4' 6"	3' 4"	479'
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' 8"	9'	489'
SANDSTONE, medium to coarse grained, pebbles of quartz and greenstone (some reddish quartz pebbles)	10 0' 6"	9' 6"	499'
SANDSTONE, As above	0' 9"	-	499' 9 "
COAL, slightly crushed DIP 20 degrees	0' 3"	-	500'
SANDSTONE, as above, with thin irregular lenses of coal	0' 5"	-	500' 5"
SHALE, dark brown, silty, coaly specks	1' 7"	0' 7"	502'
SHALE, almost black, carbonaceous, silty sheared in places (DIP 0 degrees)	2' 6"	-	504' 6"
SANDSTONE and SHALE - 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 SHALE, as above, some x-bedding	1'	-	513'
SANDSTONE, light grey, medium grained	4'	-	517'
SHALE, dark grey, to black, silty, carb. in part with occasional thin stringers of coal	4' 0"	1' 8"	521'
SANDSTONE, light grey, fine to med. grained with irregular dark silty laminae, occasional plant frags.	5' 0"	-	526'
SHALE, dark grey to black, silty, carb. plant fragments	3'	-	529'
SHALE, as above, sheared in places	1'	-	530'
SANDSTONE, fine grained, light grey (grading into sandy shale in part) coal markings	8'	0' 5"	538'
SANDSTONE, light grey, fine to med. grained	1'	-	539'
SANDSTONE and SHALE, alternating bands of fine to medium grained light grey ss. and dark silty shale. DIP 15 degrees.	10'	-	549'

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LOG OF HOLE #3, CONTINUED

SANDSTONE, light grey, medium to fine grain. Compact	2' 6"	-	357' 6"
SANDSTONE, grey, medium to fine grained, in part thin-bedded. Two narrow shale bands. Dip variable, but about 15°	18' 0"	-	375' 6"
SANDSTONE, light grey, medium grained. ¼" coal seam.	1' 0"	-	376' 6"
CONGLOMERATE, medium grain. Many red granite pebbles	8' 6"	-	377' 0"
SANDSTONE, light grey, medium to coarse, with conglomerate bands of unknown thickness	22' 0"	21' 0"	399' 0"
CONGLOMERATE, medium grained, arkosic, with red pebbles	2' 6"	1' 6"	401' 0"
SANDSTONE, dark grey, shaley, thin-bedded. Hard and compact. Contains many carbonized twigs	4' 0"	-	405' 0"
SANDSTONE, grey, fine even grain. Compact and massive	8' 6"	3' 0"	413' 6"
SANDSTONE, light grey, medium grain. Massive	2' 3"	0' 9"	415' 9"
CONGLOMERATE, fine to medium grain. Numerous pebbles of red granite	7' 3"	3' 3"	423' 0"
SANDSTONE, grey, fine even grain. Variable dip 0-5°	7' 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	0' 9"	-	431' 9"
SANDSTONE, light grey, medium to coarse grained. Poorly sorted with few larger pebbles	7' 3"	3' 3"	440' 0"
CONGLOMERATE, medium grained, with red granite pebbles	9' 0"	7' 6"	449' 0"
SANDSTONE, grey, thin-bedded with carbonaceous partings. Dip 7°	7' 0"	1' 0"	456' 0"
SANDSTONE, light grey, med. to coarse	3' 0"	1' 0"	459' 0"

Note: This completes the logging by the undersigned

"Wm. H. White"

Assoc. Mining Engineer

Log of Hole #3, Continued

SANDSTONE, light grey, medium to coarse grain. Friable	2' 6"	-	320' 6"
SHALE, dark to black, fissile, with leaf molds. Dip 12°	0' 10"	-	321' 4"
SANDSTONE, light grey, medium to coarse grained	2' 7"	-	323' 11"
SANDSTONE, dark grey, shaley, irregular bedding	0' 8"	-	324' 7"
SHALE, grey, few coal streaks	1' 10"	-	326' 5"
SANDSTONE, light grey, fine to medium grain. In part thin-bedded. Dip 10°	10' 11"	-	337' 4"
SHALE, grey, few coal streaks, grading to sandy shale	1' 5"	-	338' 9"
SANDSTONE, grey, thin-bedded and cross-bedded	3' 5"	-	342' 2"
SANDSTONE, light grey, medium grain. Cross-bedded	1' 4"	-	343' 6"
SANDSTONE, grey, fine even grain. Massive	1' 6"	-	345' 0"
SHALE, dark, with few coal streaks	2' 0"	0' 6"	347' 0"
SANDSTONE, grey, medium to fine grain, in part thin-bedded	4' 6"	-	351' 6"
SHALE, dark, grading to sandy. Contains 6" mud-seam.	1' 6"	0' 8"	353' 0"
SANDSTONE, grey, med. to fine grain, in part thin-bedded	2' 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 irregular cross-bedding.	4' 6"	-	206' 6"
SHALE, dark, compact, leaf molds and few coal streaks	1' 9"	-	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. Dip 12°	2' 2"	-	214' 2"
SHALE, dark, with few coal streaks	1' 2"	-	215' 4"
SANDSTONE, grey, thin-bedded, shaley. Shows cross-bedding and channelling	2' 10"	-	218' 2"
CONGLOMERATE, fine, friable	3' 10"	2' 8"	222' 0"
SANDSTONE, light grey, very coarse, friable	11' 0"	8' 6"	233' 0"
CONGLOMERATE, fine with indistinct bands of coarse sand. Friable	7' 0"	3' 6"	240' 0"
SANDSTONE, dark grey, shaley, with shale bands. Much irregular cross-bedding.	4' 0"	1' 0"	244' 0"
SHALE, grey, compact, few coal streaks	1' 0"	-	245' 0"
SANDSTONE, grey, thinbedded, with shaley bands containing thin coal streaks	8' 6"	-	253' 6"
SHALE, dark, with few coal streaks	1' 6"	-	255' 0"
SANDSTONE, grey, thin-bedded, shaley, soft	1' 4"	-	256' 4"
SHALE, dark, with few coal streaks	0' 10"	-	257' 2"
SANDSTONE, light grey, medium grained	6' 8"	-	263' 10"
SHALE, dark to black, sandy lenses	1' 7"	-	265' 5"
SANDSTONE, dark grey, fine grained, shaley Irregular bedding	1' 10"	-	267' 3"
SHALE, dark. Many very thin coal streaks	1' 4"	-	268' 7"
SANDSTONE, light grey to grey. Medium to fine grain. Shaley bedding in places. Dip 16°	10' 0"	-	278' 7"
SHALE, grey, sandy	1' 9"	-	280' 4"
SANDSTONE, light grey, very coarse. Friable	16' 8"	10' 2"	297' 0"
SANDSTONE, grey, fine-grained, compact	2' 1"	-	299' 0"
SHALE , grey, with few coal streaks	2' 0"	-	301' 1"
SANDSTONE, dark grey, thin-bedded, shaley	5' 11"	-	307' 0"
SHALE, dark with many carbonized twigs	1' 0"	-	308' 0"
SANDSTONE, dark grey, thin-bedded, shaley with beds of coarser sand. Dip variable 12 to 18°	10' 0"	1' 0"	318' 0"

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leaf molds. Dip 9°	2' 4"	-	196' 10"
SANDSTONE, dark, shaley, fine grained, compact	5' 2"	-	202' 0"

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LOG OF HOLE #3, Continued

SANDSTONE, grey, shaley, thin-bedded, friable	5' 0"	3' 7"	95' 0"
SANDSTONE, light grey, medium grained, friable containing nodules of coal up to ½" across.	5' 0"	3' 9"	100' 0"
SANDSTONE, light grey, very coarse, poorly sorted. Contains indistinct beds of conglomerate. With several ¼" coal streaks	19' 0"	16' 7"	119' 0"
SHALE, dark, soft, few coal streaks	1' 6"	0' 6"	120' 6"
SANDSTONE, dark grey, shaley, irregular bedding	2' 2"	-	122' 8"
SHALE, black, fissile, leaf molds, few coal streaks	0' 10"	-	123' 6"
SANDSTONE, grey, shaley	2' 4"	-	125' 10"
SANDSTONE, light grey, coarse-grained, poorly sorted, friable	11' 8"	7' 8"	137' 6"
SHALE, dark, with few coal streaks	0' 10"	-	138' 4"
SANDSTONE, grey, mostly thin-bedded and shaley, but with irregular channelling of coarser material. Few irregular coal streaks. Average dip 12°	6' 8"	0' 8"	145' 0"
SHALE, dark, soft	1' 0"	0' 6"	146' 0"
SANDSTONE, grey, shaley, thin-bedded	1' 7"	-	147' 7"
COAL, hard, clean, dull conchoidal fracture	0' 1"	-	147' 8"
SANDSTONE, light grey, medium grain, some cross-bedding. Contains ¼" streak hard coal	3' 2"	-	150' 10"
CONGLOMERATE, medium to fine grained	1' 0"	-	151' 10"
SANDSTONE, light grey, variable coarse grain	1' 8"	-	153' 6"
SANDSTONE, dark grey, shaley. Fine even grain. Soft	3' 6"	1' 6"	157' 0"
SHALE, grey, compact, soft	0' 11"	-	157' 11"
SANDSTONE, dark grey, shaley. Fine even grain. Soft	3' 1"	-	161' 0"
SHALE, dark, fissile, leaf molds. Soft and muddy	2' 4"	-	163' 4"
SANDSTONE, dark grey, shaley	1' 8"	-	165' 0"
SANDSTONE, light grey, medium to coarse grained	1' 8"	-	166' 8"
SANDSTONE, grey, thin-bedded, shaley bands Dip 9°	5' 0"	-	171' 8"
CONGLOMERATE, fine grain. Few coal streaks	4' 4"	-	176' 0"
SANDSTONE, grey, thin-bedded, shaley bands	1' 0"	-	177' 0"
CONGLOMERATE, fine-grained with few larger pebbles. One streak of hard coal near base	5' 0"	-	182' 0"
SHALE, grey, sandy, few thin coal streaks. Soft.	4' 0"	1' 0"	186' 0"
SANDSTONE, dark grey, shaley	2' 9"	-	188' 9"
CONGLOMERATE, fine grained	1' 0"	-	189' 9"
SANDSTONE, grey, thin-bedded showing cross-bedding	1' 9"	-	191' 6"
SHALE, grey, sandy with irregular sand lenses	3' 0"	-	194' 6"
SHALE, dark, fissile, thin coal streaks and			

LOG OF #3 HOLE

Approximate position: 760 feet on a line bearing 330° True from the Southeast corner of Lot 120
Approximate Elevation: 2420'

	Thickness	core missing	Depth
STREAM WASH	7' 0"	-	7' 0"
BEDROCK, very decomposed apparently sandy shale	33' 0"	33' 0"	40' 0"
SHALE, grey, sandy, coal marks. Soft decomposed.	1' 0"	-	41' 0"
SANDSTONE, grey, shaley with coal marks. soft, decomposed. Dip 15 to 22 Degrees	1' 7"	-	42' 7"
SANDSTONE, light grey, coarse, friable	0' 9"	-	43' 4"
CLAY, probably ground up decomposed shaley sandstone	6' 8"	5' 0"	50' 0"
SHALE, light grey, sandy, soft and clayey	5' 2"	-	55' 2"
SHALE, dark, with leaf molds and coal streaks	1' 4"	-	56' 6"
SHALE, black, sheared, in part finely pulverized containing carbonaceous material	0' 3"	-	56' 9"
SHALE, dark, soft	0' 4"	-	57' 1"
SHALE, black, sheared, in part finely pulverized containing carbonaceous material	0' 8"	-	57' 9"
SHALE, light grey, sandy, soft	1' 0"	-	58' 9"
SANDSTONE, dark grey, shaley. Soft and clayey	1' 6"	-	60' 3"
SANDSTONE, light grey, medium to coarse, poorly sorted. Very friable	4' 0"	-	64' 3"
SHALE, grey, compact, but soft and clayey	6' 9"	-	71' 0"
SHALE, light grey, sandy, soft and clayey	7' 0"	-	78' 0"
SANDSTONE, light grey, medium grained. very soft and muddy	2' 0"	-	80' 0"
SHALE, dark, finely brecciated, containing carbonaceous matrix	0' 3"	-	80' 3"
SHALE, dark, soft	1' 0"	-	81' 3"
SANDSTONE, dark grey, shaley, thin-bedded Soft and clayey. Dip variable but averages about 12°	3' 7"	-	84' 10"
SHALE, dark, soft	5' 2"	-	90' 0"

"Wm. H. White"

Assoc. Mining Engineer.

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

June 17

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

June 18

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

June 19

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

"J.M. Black"

Asst. Mining Engineer

19 June 46

PROGRESS REPORT MERRITT D.D.H. No. 3 June 13 - June 16

June 13

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 1197' - 1206'
Afternoon Shift	Coring 1206' - 1216'

June 15

Graveyard Shift	Coring 1216' - 1226'
Morning Shift	Coring 1226' - 1236'
Afternoon 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.

PROGRESS REPORT MERRIT D.D.H. No. 3, June 10 - June 12

June 10

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

June 11

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

June 12

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

PROGRESS REPORT MERRITT D.D.H. No. 3, June 5 - 9

June 5

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 : " " " " " "
Afternoon Shift: " " " " " "

June 8

Graveyard Shift: Shut down " " " "
Morning Shift : " " " " " "
Afternoon Shift: Coring 1063' - 1068'

June 9

Graveyard Shift: Coring 1068' - 1073'
Morning Shift : Coring 1073' - 1083'
Afternoon Shift; Coring 1083' - 1093'

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

"C.B. Newmarch"

Asst. Mining Engineer.

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

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PROGRESS REPORT MERRITT D.D.H. No. 3, June 3 - 4

June 3

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.

PROGRESS REPORT MERRITT D.D.H. No. 3, June 1 - 2

June 1

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

June 2

Graveyard Shift:	Shut down
Morning Shift :	" "
Afternoon Shift:	" "

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

No coal to date.

"C.B. Newmarch"

Asst. Mining Engineer.

PROGRESS REPORT MERRITT D.D.H. No. 3, May 30 - 31

May 30

Graveyard Shift:	Coring 880' - 890'
Morning Shift :	Coring 890' - 911'
Afternoon Shift:	Coring 911' - 922'

May 31

Graveyard Shift:	Coring 922' - 932'
Morning Shift:	Coring 932' - 934'
Afternoon Shift:	Coring 934' - 939'

Depth at 11:00 A.M. June 1st was 956'

The section remain unchanged; no coal to date.

"Charles B. Newmarch"

Asst. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE No. 3 May 28 - 29

May 28

Graveyard Shift: Coring 830' - 840'
Morning Shift : Coring 840' - 850'
Afternoon Shift: Coring 850' - 855'

May 29

Graveyard Shift: Coring 855' - 860'
Morning Shift : Coring 860' - 870'
Afternoon Shift: Coring 870' - 880'

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"

Asst. Mining Engineer.

PROGRESS REPORT - MERRITT DRILL HOLE No. 3 - May 26 - 27

May 26

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' - 820'
Afternoon Shift: Coring 820' - 830'

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

"C.B. Newmarch"

Asst. Mining Engineer

PROGRESS REPORT - MERRITT DRILL HOLE NO. 3 - May 21 - 25

May 21

Graveyard Shift: Coring 688' - 698'
Morning Shift: Coring 698' - 708'
Afternoon Shift: Coring 708' - 714'

May 22

Graveyard Shift: Coring 714' - 723'
Morning Shift: Coring 723' - 735'
Afternoon Shift: Coring 735' - 757'

May 23

Graveyard Shift: Coring 757' - 767'
Morning Shift : Coring 767' - 777'
Afternoon Shift: Coring 777' - 789'.

May 24

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

May 25

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.

May 24, 1946

May 23, 1946.

Merritt Drill Hole No. 3

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

PROGRESS REPORT - MERRITT DRILL HOLE No. 3 May 18 - 20

May 18

Graveyard Shift: Coring 561' - 571'
Morning Shift: Coring 571' - 582'
Afternoon Shift: Coring 582' - 598'.

May 19

Graveyard Shift: Coring 598' - 614'
Morning Shift : Coring 614' - 653'.
Afternoon Shift: Coring 633' - 653'.

May 20

Graveyard Shift: Coring 653' - 671'
Morning Shift: Coring 671' - 681'
Afternoon Shift: Coring 681' - 688'.

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

May 16

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

May 17

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

May 14

Graveyard Shift: reaming hole from 140' to 499'
Morning Shift : Running 420' of casing
Afternoon Shift: running casing

May 15

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

PROGRESS REPORT - MERRITT 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 6th:	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

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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

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

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MERRITT
DRILL
HOLE #2

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LOG OF HOLE #2, Continued

SANDSTONE, dark grey, shaly	1' 5"	-	894' 5"
SANDSTONE, grey, medium grained, shaly streaks Dip 31°	4' 0"	-	898' 5"
SANDSTONE, light grey, medium to coarse grained. Few carbonate stringers	8' 7"	-	907' 0"
SHALE, grey, sandy	1' 1"	-	908' 1"
SHALE, dark, sheared, few coal streaks	2' 9"	-	910' 10"
SHALE, black, sheared, many coal streaks. Dip 32°	1' 5"	-	912' 3"
SHALE, dark, compact	1' 0"	-	913' 3"
TUFF, light colored, fine grained, coal marks	1' 6"	-	914' 9"
CONGLOMERATE, volcanic fragments, medium to coarse grained. Dip 25°	11' 7"	-	926' 4"
SHALE, dark, compact, coal marks	0' 5"	-	926' 9"
BRECCIA, medium to fine grained, volcanic frags.	2' 3"	-	929' 0"
VOLCANICS, probably basalt, finely porphyritic	3' 6"	-	932' 6"
VOLCANICS, greenstone, fine grained, dark green, in part brecciated or pillowed	8' 6"	-	941' 0"
SANDSTONE, metamorphosed, with biotite and feldspar developed	3' 0"	-	944' 0"

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END OF HOLE

Assoc. Mining Engineer

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LOG OF HOLE #2, Continued

SHALE, grey, sandy with sand lenses, few coal streaks	3' 0"	-	834' 0"
SANDSTONE, light grey, medium even grain	4' 6"	-	838' 6"
SANDSTONE, grey to dark grey, fine-grained, thin-bedded, shaly with several shale bands. Dip 23°, fairly regular	14' 6"	1' 0"	853' 0"
SANDSTONE, finely crushed, with much gouge in fault zone	4' 0"	1' 6"	857' 0"
SHALE, black, many coal streaks Dip 38°	1' 0"	0' 4"	858' 0"
SANDSTONE, grey, fine-grained, somewhat broken	9' 0"	1' 0"	867' 0"
SANDSTONE, grey, shaly, crushed and faulted zone	3' 0"	1' 8"	870' 0"
SANDSTONE, light grey, fine-grained, compact except in narrow crushed zone at 875'. Calcite strs.	6' 3"	-	876' 3"
SANDSTONE, grey, fine-grained, shaly bedding planes. variable dip at low angles	1' 9"	-	878' 0"
SHALE, grey, sandy, few coal streaks	1' 0"	-	879' 0"
SHALE, dark grey, few coal streaks Dip 15°	0' 11"	-	879' 11"
COAL, very boney (nearly half black shale). Sheared.	1' 0"	0' 3"	880' 11"
SHALE, grey, sandy, few coal streaks. In part finely crushed	4' 1"	2' 3"	885' 0"
SHALE, black, few coal streaks. Finely crushed	0' 8"	0' 3"	885' 8"
SHALE, grey, compact, few coal streaks Dip 45°	1' 0"	-	886' 8"
SHALE, black, numerous coal streaks up to ¼" thick comprise nearly half the core. Coal streaks dip about 50°, and shearing evident parallel to the bedding.	0' 10"	0' 1"	887' 6"
SHALE, black, several coal streaks up to ¼" thick. Severely sheared, in part finely cominuted.	2' 9"	1' 0"	890' 3"
COAL, very boney (nearly half black shale). Severely sheared, in part finely comminuted	1' 7"	0' 7"	891' 10"
SHALE, grey, sandy, compact	1' 2"	0' 2"	893' 0"

"Wm. H. White"

Assoc. Mining Engineer

LOG OF HOLE #2, Continued.

SANDSTONE, dark grey, shaly. Numerous intercalated bands of sandy shale. Dip variable 0° to 20°	11' 6"	-	772' 6"
SANDSTONE, almost white in color, thin-bedded, mostly fine-grained with thin dark bedding planes having variable dips at low angles	20' 6"	-	793' 0"
SANDSTONE, dark grey, shaly	8' 0"	-	801' 0"
SHALE, dark grey, broken, in part finely sheared. Many carbonate stringers	5' 0"	2' 0"	806' 0"
SHALE, dark grey, sandy	1' 8"	-	807' 8"
SANDSTONE, dark grey, shaly	3' 4"	-	811' 0"
SHALE, dark grey, sandy, few coal streaks	0' 6"	-	811' 6"
SANDSTONE, dark grey, shaly	1' 4"	-	812' 10"
SHALE, grey, sandy, with sand-filled mud cracks. Few coal streaks	9' 2"	-	822' 0"
SANDSTONE, dark grey, shaly	0' 8"	-	822' 8"
SHALE, dark to black, compact, indurated having a false cleavage at 45°. Few carbonate seams	8' 4"	-	831' 0"

"Wm. H. White"

Assoc. Mining Engineer

Log of Hole #2, continued

SANDSTONE, light grey, coarse	2' 0"	-	679' 0"
CONGLOMERATE, medium grained	0' 6"	-	679' 6"
SANDSTONE, light grey, coarse with few large pebbles	9' 0"	-	688' 6"
CONGLOMERATE, medium to coarse grained, several coal streaks	5' 6"	2' 0"	694' 0"
SHALE, grey, sandy, compact, few coal marks	4' 0"	-	698' 0"
SANDSTONE, dark grey, shaly	2' 0"	-	700' 0"
SANDSTONE, grey, fine to medium grained	20' 0"	-	720' 0"
SHALE, grey, sandy, few coal streaks Dip 3°	1' 8"	-	721' 8"
SHALE, grey, sandy, with irregular steep bedding	4' 2"	-	725' 10"
COAL, hard, bright	0' 2"	0' 1"	726' 0"
SHALE, grey, sandy, one ¼" coal seam	0' 6"	-	726' 6"
SANDSTONE, dark, shaly, irregular bedding	1' 10"	-	728' 4"
SANDSTONE, grey, fine even grain	4' 6"	-	732' 10"
SANDSTONE, light grey, coarse to very coarse. Rude bedding dips from 10° to 35°.	16' 2"	2' 6"	749' 0"
CONGLOMERATE, fine grained	3' 6"	-	752' 6"
CONGLOMERATE, medium grained	1' 0"	-	753' 6"
SHALE, light grey, few coal streaks Dip 37°	2' 2"	0' 9"	755' 8"
SANDSTONE, dark grey, shaly streaks. Shows irregular cross-bedding	5' 4"	-	761' 0"

Assoc. Mining Engineer

LOG OF HOLE #2 - Continued

SANDSTONE, light grey, coarse to very coarse, with irregular conglomerate beds	11' 3"	-	643' 3"
SANDSTONE, dark grey, shaly	0' 9"	-	644' 0"
SHALE, dark grey, sandy, compact	4' 6"	-	648' 6"
SHALE, black, containing two ½" coal seams and several thinner coal streaks	2' 0"	0' 4"	650' 6"
COAL, boney	0' 3"	0' 1"	650' 9"
SHALE, grey, sandy, with coal marks	0' 7"	0' 1"	651' 4"
COAL, bright, hard, with two-way cleat	2' 8"	1' 7"	654' 0"
COAL,	0' 4"	0' 2"	654' 4"
SHALE	0' 3"	-	654' 7"
COAL	0' 3"	0' 1"	654' 10"
SHALE	0' 1"	-	654' 11"
COAL	0' 3"	0' 1½"	655' 2"
SHALE	0' 2"	-	655' 4"
COAL, bright, hard, narrow streaks of bone	1' 8"	0' 8"	657' 0"
SHALE, grey, sandy	0' 9"	-	657' 9"
COAL, boney, with numerous thin streaks of shale	2' 2"	0' 7"	659' 11"
SHALE, dark grey, sandy	1' 8"	-	661' 7"
SANDSTONE, light grey, very coarse	2' 8"	-	664' 3"
CONGLOMERATE, fine, with indistinct beds of coarse sandstone, and scattered larger pebbles	3' 9"	-	668' 0"
SANDSTONE, light grey, very coarse	2' 0"	-	670' 0"
CONGLOMERATE, fine to medium-grained	1' 0"	-	671' 0"
SANDSTONE, light grey, very coarse	2' 0"	-	673' 0"
CONGLOMERATE, fine to medium-grained with a few scattered pebbles up to 2", and with indistinct beds of coarse sandstone	4' 0"	-	677' 0"

"Wm. H. White"

Assoc. Mining Engineer

LOG OF DRILL HOLE #2, Continued

SANDSTONE, dark grey, fine grained, shaly	2' 6"	-	478' 6"
SHALE, dark grey, slightly sandy, many coal streaks Dip 8°	2' 4"	-	480' 10"
SANDSTONE, light grey, medium to coarse grained	5' 6"	-	486' 4"
SHALE, grey, sandy, few coal streaks	4' 6"	-	490' 10"
SANDSTONE, grey, variable texture from fine to coarse irregular cross-bedding. Abrupt contact with underlying shale	10' 0"	-	500' 10"
SHALE, dark grey, slightly sandy, compact	12' 2"	1' 0"	513' 0"
SANDSTONE, dark grey, shaly Dip 5°	1' 0"	-	514' 0"
SANDSTONE, grey, medium grained	2' 1"	-	516' 1"
SHALE, black, fissile, few coal streaks Dip 9°	0' 11"	-	517' 0"
SANDSTONE, dark grey, shaly	2' 0"	-	519' 0"
SANDSTONE, light grey, coarse, cross-bedded	2' 0"	-	521' 0"
SANDSTONE, dark grey, shaly	1' 0"	-	522' 0"
SHALE, black fissile, leaf impressions, coal streaks	4' 1"	-	526' 1"
SHALE, grey, sandy, few coal streaks	2' 0"	0' 6"	528' 1"
SHALE, dark grey, finely shared in part, few coal streaks	3' 9"	1' 0"	531' 10"
SANDSTONE, dark grey, shaly	2' 2"	-	534' 0"
SHALE, dark, sandy, few coal streaks	2' 0"	0' 3"	536' 0"
SANDSTONE, dark, very shaly, several coal streaks	2' 6"	-	538' 6"
SHALE, dark, sandy streaks, coal marks Dip 10°	7' 8"	1' 6"	546' 2"
SANDSTONE, grey, medium grain, few shaly partings	7' 4"	-	553' 6"
SANDSTONE, light grey, coarse to very coarse, friable (Borderline of fine conglomerate)	9' 9"	-	563' 3"
SHALE, grey, sandy	1' 6"	-	564' 9"
SANDSTONE, dark grey, medium to fine grained with numerous shaly bedding planes	15' 2"	-	579' 11"
SANDSTONE, light grey, coarse	0' 10"	-	580' 9"
SANDSTONE, dark grey, fine grain, shaly partings	1' 0"	-	581' 9"
CONGLOMERATE, fine grained, friable, with indistinct bands of coarse sandstone and two 1" shale bands, and several coal streaks which vary in dip from 0° to 10°	11' 3"	-	593' 0"
SANDSTONE, light grey, coarse, few coal streaks Dip 10°	34' 0"	-	627' 0"
CONGLOMERATE, fine	3' 0"	-	630' 0"
SANDSTONE, light grey, very coarse, friable	2' 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°	7' 0"	-	394' 0"
SHALE, grey, sandy, broken	1' 0"	-	395' 0"
SHALE, grey. Numerous talcose shear planes and gouge filled fault planes dipping about 45°	5' 0"	-	400' 0"
SHALE, grey. Broken in all directions by many curved talcose shear planes	7' 0"	-	407' 0"
SHALE, Grey. Very broken, in part finely comminuted. Abrupt faulted contact with sandy shale below	3' 6"	-	410' 6"
SHALE, grey, sandy, compact.	1' 0"	-	411' 6"
SANDSTONE, grey, fine grained, thin-bedded, with few shaly partings Dip 9°	10' 0"	-	421' 6"
SANDSTONE, light grey, medium grained, massive	6' 0"	-	427' 6"
SHALE, grey, somewhat broken but not sheared. One fault plane dipping 45°	7' 6"	-	435' 0"
SANDSTONE, dark grey, fine grained, some shaly streaks	2' 1"	-	
SHALE, dark grey, sandy	2' 8"	-	439' 9"
SANDSTONE, dark grey, shaly	2' 8"	-	442' 5"
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°	2' 6"	-	448' 9"
SANDSTONE, grey, few shaly bands. Irregular bedding	9' 6"	-	458' 3"
SHALE, dark, slightly sandy, very compact.	10' 0"	-	468' 3"
SHALE, finely crushed in fault zone	1' 3"	-	469' 3"
SHALE, grey, sandy, compact	0' 7"	-	469' 10"
SANDSTONE, light grey, medium grained	0' 5"	-	470' 3"
SHALE, dark, slightly sandy. Few streaks of sand	4' 4"	-	474' 7"
SANDSTONE, dark grey, fine grained, shaly	1' 5"	-	476' 0"

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LOG OF HOLE #2, Continued

SANDSTONE, light grey, medium to coarse, massive	6' 0"	-	312' 0"
SHALE, black, compact, few coal streaks	0' 9"	-	312' 9"
SHALE, jet black, compact, with numerous coal streaks making up to 25% of the core. Dip 14°	2' 1"	-	314' 10"
SHALE, black, compact, few coal streaks	1' 2"	0' 5"	316' 0"
SHALE, grey, sandy	0' 8"	-	316' 8"
SANDSTONE, dark grey to grey, fine grained, thin-bedded with thin shaly partings. Some cross-bedding. Dip and strike variable	22' 0"	-	338' 8"
SHALE, dark, compact, coal marks	1' 3"	-	339' 11"
SANDSTONE, light grey, coarse	0' 5"	-	340' 4"
SHALE, dark to black, compact, coal marks and few coal streaks. Dip 18°	6' 8"	0' 6"	347' 0"
SHALE, grey, sandy	1' 0"	-	348' 0"
SANDSTONE, dark grey, shaly bands	3' 6"	-	351' 6"
SANDSTONE, light grey, medium to coarse grained, Massive bedded	19' 2"	-	370' 8"
SHALE, dark grey, sandy Dip 8°	1 '4"	-	372' 0"
SANDSTONE, dark grey, shaly	1' 0"	-	373' 0"
SHALE, dark grey, sandy	2' 6"	-	375' 6"
SANDSTONE, dark grey, thin bedded with shaly streaks	2' 3"	-	377' 9"
SHALE, dark, compact	3' 3"	-	381' 0"
SHALE, grey, sandy	1' 0"	-	382' 0"
SANDSTONE, dark grey, shaly bands and streaks Dip 15°	4' 0"	-	386' 0"

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LOG OF MERRITT DRILL HOLE #2, Continued

SANDSTONE, grey, medium to fine grained	1' 2"	-	244' 2"
SHALE, grey, sandy	0' 10"	-	245' 0"
SANDSTONE, dark grey, medium to fine grained, thin-bedded showing cross-bedding and channelling	6' 2"	-	251' 2"
SANDSTONE, light grey, coarse, massive bedded, friable, containing two 1/8" coal seams, and grading downwards into conglomerate	8' 10"	-	260' 0"
CONGLOMERATE, fine grained, scattered coaly material	9' 0"	-	269' 0"
SANDSTONE, fine grained, few shaly streaks	1' 0"	0' 4"	270' 0"
SHALE, grey, compact	4' 8"	2' 8"	274' 8"
SHALE, black, compact, many coal streaks. Dip 22°	1' 5"	-	276' 1"
SANDSTONE, dark grey, fine grained, shaly	3' 11"	-	280' 0"
SHALE, grey, sandy	0' 9"	-	280' 9"
SHALE, black, fissile, coal marks and coal streaks Dip 14°	3' 3"	-	284' 0"
SHALE, black, fissile, coal marks and coal streaks Dip 18°	2' 6"	-	286' 6"
SANDSTONE, dark grey, micaceous, shaly Dip 19°	3' 0"	-	289' 6"
SHALE, grey, sandy	2' 0"	-	291' 6"
SANDSTONE, dark grey, shaly	1' 2"	-	292' 8"
SHALE, dark grey, coal marks, broken	1' 4"	0' 8"	294' 0"
SHALE, grey, compact, becoming sandy	4' 0"	0' 6"	298' 0"
SANDSTONE, dark grey, fine grained, thin bedded, somewhat shaly. Dip variable 5 to 20°	5' 2"	-	303' 2"
SANDSTONE, light grey, medium to coarse, massive	2' 10"	0' 3"	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	150'	150'
Sand, loose, coarse, undecomposed	14'	164'
Gravel, with very little interstitial sand	14'	178'
Sand, loose, coarse, with layers of coarse gravel	15'	193'
Sand, fine, with few large boulders	10'	203'

BEDROCK	Thickness	core Missing	Depth
SANDSTONE, weathered and broken	8' 0"	7' 10"	211' 0"
SANDSTONE, grey, compact, poorly sorted medium to coarse grained with a few thin shaly streaks. Dip 14°	4' 9"	-	215' 9"
CONGLOMERATE, fine grained. Abrupt Contact.	0' 6"	-	216' 3"
SHALE, black, fissile, coaly streaks, becoming sandy at the bottom	2' 0"	-	218' 3"
SANDSTONE, grey, variable texture from fine to very coarse. Irregular bedding.	2' 6"	-	220' 9"
CONGLOMERATE, fine grained. Abrupt contact.	1' 8"	-	222' 0"
SHALE, light grey, sandy, coaly twigs	1' 7"	-	223' 7"
SANDSTONE, grey, fine even grain, massive	1' 3"	-	224' 10"
SANDSTONE, dark grey, fine grained, thin bedded with dark laminae dipping irregularly from 8 to 18°	4' 0"	-	228' 10"
SANDSTONE, light grey, med. to coarse. Massive	2' 5"	-	231' 3"
SHALE, grey, sandy	0' 5"	-	231' 8"
SHALE, black, coal marks	1' 4"	0' 6"	233' 0"
SANDSTONE, light grey, coarse, friable	4' 4"		237' 4"
CONGLOMERATE, fine grained, poorly sorted	2' 0"	-	239' 4"
SANDSTONE, light grey, coarse, friable	4' 8"	1' 6"	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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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'
	Night 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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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:	737'	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	:	Cored 632' to 638'
	Night Shift	:	Cored 638' to 647'
	Graveyard	:	Cored 647' to 667'
April 8th. -	Day Shift	:	Cored 667' to 680'

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

April 3rd. -	Night Shift:	Cored 472'	to 486'
	Graveyard :	Cored 486'	to 497'
April 4th. -	Day Shift :	Cored 497'	to 510'
	Night Shift:	Cored 510'	to 523'
	Graveyard :	Cored 523'	to 542'
April 5th. -	Day Shift :	Cored 542'	to 553'
	Night Shift:	Cored 553'	to 568'
	Graveyard :	Cored 568'	to 583'
April 6th. -	Day Shift :	Cored 583'	to 593'
	Night Shift:	Cored 593'	to 613'
	Graveyard :	Cored 613'	to 632'

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

April 1st. -	Day Shift:	Cored 387' to 405'	
	Night Shift:	Cored 405' to 426'	
April 2nd. -	Day Shift:	Cored 426' to 430'	Mixed fresh mud.
	Night Shift:	Cored 430' to 436'	
	Graveyard:	Cored 436' to 456'	
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 :	Day Shift:	Cored 326' to 346'
	Night Shift:	Cored 346' to 375'
Mar. 31st:	Day Shift:	Cored 375' to 387'
	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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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 set-up.

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.

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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.

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

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 loose. 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
Pipe driven to 186' in coarse aand and gravel.

Note: 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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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)
	Night "	" " " 86' " "
Mar. 5th. -	Day Shift	Drove pipe to 96' in clay and gravel
	Night "	" " "106' 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'

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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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MERRITT
DRILL
HOLE #1

MANUFACTURED AT
GOVERNMENT PRINTING BUREAU
VICTORIA, B.C.

PLEASE ORDER BY NUMBER
K—929—
RIGHT OR LEFT
GRADE B

★ 100M-245-4920 (2)

191

(38)

Merritt Diamond Drilling

Log of Hole #1

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

Boulder Clay	102'	102' 0"
SANDSTONE, grey, med. to coarse grain, with shaly streaks	14' 0"	116' 0"
SHALE, dark, sandy	6' 6"	122' 6"
SANDSTONE, very coarse, poorly sorted, shaly streaks	5' 0"	127' 6"
SHALE, grey, sandy	3' 6"	131' 0"
SANDSTONE, grey, coarse, coal marks	2' 10"	133' 10"
COAL, bony	0' 10"	134' 8"
SHALE, dark, fissile, coal marks	1' 6"	136' 2"
SANDSTONE, grey coarse, some fine sand and shaly streaks	11' 0"	147' 2"
SHALE, black, leaf molds, few sandy streaks	9' 0"	156' 2"
SANDSTONE, shaly, finely bedded	2' 6"	158' 8"
SHALE, dark to black, coal marks	3' 0"	161' 8"
SHALE, dark, sandy	1' 0"	162' 8"
SANDSTONE, med. grain, with few shaly streaks	4' 8"	167' 4"
SHALE, sandy, grey	2' 6"	169' 10"
SANDSTONE, med. grain, shaly streaks, coal marks	3' 2"	173' 0"
SHALE, black, coal marks, much fractured	7' 0"	180' 0"
SANDSTONE, light grey, coarse	3' 8"	183' 8"
SHALE, grey, sandy	5' 6"	189' 2"
SANDSTONE, grey, coarse, poorly sorted	10' 10"	200' 0"
SHALE, dark grey, slightly sandy Dip 25°	9' 0"	209' 0"
SANDSTONE, shaly Dip 15°	4' 6"	213' 6"
SHALE, dark grey, sandy, fractured	6' 6"	220' 0"
SANDSTONE, med. to coarse, poorly sorted, few fine sand and shaly streaks	19' 0"	239' 0"
SHALE, black, compact, leaf molds	13' 6"	252' 6"
COAL	0' 8"	253' 2"
SHALE, black, much fractured	8' 10"	262' 0"
SANDSTONE, fine grain, shaly Dip 14°	4' 0"	266' 0"
SANDSTONE, very coarse poorly sorted with some irregular fine conglomerate bands. Abrupt contact below	14' 0"	280' 0"
SHALE, black, fractured	3' 1½"	283' 1½"
COAL	0' 4½"	283' 6"
SHALE, black, fissile, leaf molds	9' 0"	292' 6"
SANDSTONE, med. to fine grained, somewhat shaly	8' 0"	300' 6"
SHALE, dark, fractured	4' 0"	304' 6"
SANDSTONE, grey, shaly, coal marks	3' 0"	307' 6"
SHALE, grey to black, fractured, ¼" coal seam	6' 6"	314' 0"
SANDSTONE, shaly, dark grey	4' 6"	318' 6"
SANDSTONE, light grey, coarse, poorly sorted, irregular conglomerate streaks	12' 0"	330' 6"
CONGLOMERATE, fine	0' 9"	331' 3"
SANDSTONE, light grey, coarse, friable, poorly sorted	27' 0"	358' 3"
SHALE, dark, sandy, with fine sand streaks Dip 14°	5' 9"	364' 0"
SANDSTONE, grey, medium grained, shaly streaks	4' 6"	368' 6"
CONGLOMERATE, fine, with coarse sand streaks and 2" streak of sandy shale	5' 0"	373' 6"

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SANDSTONE, fine grained	1' 6"	375' 0"
CONGLOMERATE, fine	0' 8"	375' 8"
SANDSTONE, fine grained	1' 0"	376' 8"
SHALE, light grey, sandy	2' 0"	378' 8"
SANDSTONE, light grey, coarse, few shaly streaks	71' 4"	450' 0"
SHALE, dark grey, sandy, sand streaks, coal marks	11' 5½"	461' 5½"
COAL, with 1½" shale parting	3' 3½"	464' 9"
SHALE, dark grey, coal streaks	1' 7½"	466' 4½"
COAL	1' 10½"	468' 3"
SHALE	0' 3"	468' 6"
COAL, with 2" shale parting	5' 10"	474' 4"
SHALE, black	0' 9"	475' 1"
COAL	0' 3"	475' 4"
SHALE, black	0' 4"	475' 8"
COAL	0' 9"	476' 5"
SHALE, black	0' 1½"	476' 6½"
COAL	0' 2½"	476' 9"
SHALE, black, coal marks and several ¼" coal seams	9' 1"	485' 10"
COAL	0' 10"	486' 8"
SHALE, black, coal marks	1' 6"	488' 2"
COAL, boney	1' 6"	489' 8"
SHALE, black, coal streaks	1' 0"	490' 8"
COAL	0' 8"	491' 4"
SHALE, black, fissile, leaf molds, coal marks	10' 8"	502' 0"
COAL	0' 6"	502' 6"
SHALE, grey, somewhat sandy	4' 6"	507' 0"
SANDSTONE, coarse, poorly sorted	1' 0"	508' 0"
SHALE, dark grey to black, fractured and sheared	7' 0"	515' 0"
SANDSTONE, grey, med. grained with shaly and fine sand streaks. Dip 18°	32' 6"	547' 6"
SHALE, black, coal marks	3' 0"	550' 6"
COAL	4' 10"	555' 4"
SHALE, black	1' 2"	556' 6"
COAL, some boney streaks	4' 6"	561' 0"
SHALE, black, fissile, coal marks, leaf molds	6' 0"	567' 0"
SANDSTONE, shaly	6' 0"	573' 0"
SANDSTONE, light grey, medium grained with a few coarse streaks, carbonized twigs	70' 0"	643' 0"
SHALE, black, compact, coal marks	3' 6"	646' 6"
COAL, in part boney	4' 0"	650' 6"
SHALE, black, coal streaks	1' 6"	652' 0"
COAL, boney	0' 10"	652' 10"
SHALE, dark grey, sandy, fractured	3' 2"	656' 0"
SANDSTONE, dark grey, shaly	1' 6"	657' 6"
SHALE, grey, sandy, with many sand lenses, much fractured and high core loss	9' 6"	667' 0"
SANDSTONE, coarse, poorly sorted	2' 0"	669' 0"
SHALE, dark grey, sandy, fractured	19' 0"	688' 0"
SANDSTONE, grey shaly Dip 10°	10' 0"	698' 0"
SANDSTONE, grey, coarse	10' 0"	708' 0"
SANDSTONE, med. to fine grained with shaly streaks	3' 10"	711' 10"
SHALE, dark grey, with sandy streak	6' 2"	718' 0"
SANDSTONE, shaly streaks DIP 8°	3' 8"	721' 8"
SHALE, black, fractured	2' 6"	724' 2"

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SHALE, grey, sandy, cross-bedded sandstone streaks	2' 6"	726' 8"
SHALE, black, compact	1' 4"	728' 0"
SHALE, grey, sandy, with sand lenses	18' 6"	746' 6"
SANDSTONE, shaly, shale streaks dipping at high angles, vertical channeling	19' 6"	766' 0"
SHALE, sandy, with sand streaks	7' 0"	773' 0"
SANDSTONE, grey, poorly sized, with shaly streaks dipping at high angles	29' 0"	802' 0"
SHALE, grey, sandy	2' 8"	804' 8"
SANDSTONE, shaly streaks at high angles	6' 4"	811' 0"
SANDSTONE, light grey, coarse, poorly sorted	2' 9"	813' 9"
SHALE, grey, sandy	6' 3"	820' 0"
SANDSTONE, light grey, coarse	3' 0"	823' 0"
CONGLOMERATE, med. to coarse, with few sand lenses	26' 0"	849' 0"
SANDSTONE, grey, coarse, cross-bedded	8' 0"	857' 0"
SHALE, black, coal marks	2' 0"	859' 0"
SHALE, black, coal marks and soft black mud	4' 0")	
COAL	0' 6")	862' 6"
SHALE, dark grey, compact	16' 6"	879' 0"
SHALE, grey, sandy	4' 0"	883' 0"
SHALE, dark grey, compact	5' 0"	888' 0"
SHALE, grey, sandy, 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"

.....

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'

Breccia, fragments of shale and volcanics	4'	0"	-	968'	0"
Conglomerate, soft, muddy, coaly shale streaks	1'	8"	-	969'	8"
Breccia, large volcanic fragments with muddy cement. Rock soft and friable	6'	4"	-	976'	0"
Felsite, light grey, fine grained.	2'	0"		978'	0"
Greenstone, fine-grained, dark green, chloritic	7'	0"		985'	0"
Greenstone, fine-grained, somewhat brecciated	3'	6"		988'	6"
Shale, compact, indurated	1'	0"		989'	6"
Greenstone, pillowed, somewhat porphyritic	5'	6"		995'	0"

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	3' 4"	1' 2"	927' 4"	
Abrupt, Irregular Contact, Dip 35°				
SANDSTONE, grey, fine even-grained	0' 8"		928' 0"	
SANDSTONE, grey, fine even-grained, Scattered grains of sulphide	4' 0"	1' 9"	932' 0"	
SHALE, grey, compact, somewhat sandy	0' 11"		932' 11"	
SANDSTONE, grey, fine even-grained. Dip 29°	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	0' 11"		938' 11"	
SANDSTONE, coarse, poorly sorted	0' 1"		939' 0"	
SHALE, grey, compact, sandy. Fine sand seams Dip 31°	3' 0"		942' 0"	
SHALE, grey, compact, numerous sand seams Dip 29°	7' 6"	1' 0"	949' 6"	
SHALE, dark, badly fractured	2' 6"	0' 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 ¼" seam of crushed COAL	0' 5"		954' 3"	
BRECCIA, coarse fragments, sand cement.	2' 9"	0' 6"	957' 0"	
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	0' 6"(?)	1'10"	958' 6"	
MUD or GOUGE SEAM, as above	1' 6"		960' 0"	
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°	0' 8"		961' 6"	
SHALE, dark, badly sheared	0' 6"	0' 1"	962' 0"	
CONGLOMERATE, poorly sorted with coarse sand lenses	2' 0"	0' 2"	964' 0"	

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

"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.

	THICKNESS	MISSING	DEPTH
SHALE, dark, soft, slickensided partings, carbonate stringers.	10' 0"	5' 0"	910' 0"
Abrupt irregular contact			
SANDSTONE, light, coarse-grained	4"		910' 4"
SHALE, dark, finely cross-bedded	1"		910' 5"
SANDSTONE, light grey, coarse, cross-bedded	5"		910' 10"
Cross-bedding dips 70°			
SHALE, dark with intercalated seams of fine sand.	1' 0"		911' 10"
SANDSTONE, light grey, coarse (about 1mm.) with some grains of shale.	2' 0"	7"	913' 10"
Abrupt contact.			
SHALE, black with a few fine-grained sand streaks interbedded.	1' 2"	7"	915' 0"
SHALE, black, compact, wavy bedding with average dip 45 degrees	3' 5"		918' 5"
COAL, bony, bright partings, friable	1½")		918' 6½"
SHALE, black, much fractured, slickensided fragments.	1' 3½")	2"	919' 10"
SHALE, black with a few sandy streaks and wavy bedding dipping about 45 degrees	4' 2"	2' 3"	924' 0"

Merritt Diamond-drilling

Log of Hole No. 1 Cont'd.

Correction

Description		Thickness	Depth
Shale (dark, sandy in part)	Actual -	3' 10"	
Shale (dark, sandy in part, crushed)	"	2"	
Sandstone (light grey, limey)	"	3' 3"	
Shale (black, broken, slickensided)	"	1' 7"	
Shale (fractured, limey) " " "	"	4' 9"	900' 0"

"Joseph T. Mandy"
Mining Engineer

Merritt Diamond-drilling

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"	811' 0"
Sandstone (coarse; coaly fractures)	Actual	2'4"	
Shale (black, part sandy, broken, coaly marks)	"	4'2"	
Sandstone (coarse Sandstone to fine conglomerate)	"	1'0"	821' 0"
Sandstone (" " " " " very soft)	"	0'8"	
Sandstone (" " " " " " "	"	2'7"	
Conglomerate to breccia (coarse, dark green, soft)	"	6'2"	831' 0"
Conglomerate to breccia (coarse, greenish, broken, soft)	"	2'8"	834' 0"
Conglomerate to breccia (coarse, greenish, broken, soft)	"	1'0"	836' 0"
Conglomerate (very coarse; soft, broken at end; mud seams)	"	3'3"	840' 0"
Conglomerate " " " " " "	"	2'1"	
Mud from conglomerate (bit plugged and core probably washed)	"	0'4"	850' 0"
Sandstone (grey, coarse, fractured, slickensided)	"	4'4"	
Shale (black, broken, fractured slicken)	"	0'6"	856' 0"
Sandstone (fractured, slickensided)	"	0'11"	
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"	869' 0"
Shale (black, soft, broken)	"	6'0"	
Shale (black, compact, fracture slickensided)	"	2'0"	878' 0"
Shale (black, part sandy, fairly compact)	"	7'3"	
Shale (black, broken)	"	0'8"	886' 0"
Shale (black, fairly compact, slickensided)	"	3'6"	
Shale (very soft, broken)	"	0'5"	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

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Merritt Diamond-Drilling

Log of Hole No. 1 (contd)

Description	Thickness	Depth
Sandstone (grey; coaly marks, shale streaks) Bed dip - 12°	10' 0"	708' 0"
Sandy shale (coaly marks, compact Actual 1' 8"	2' 6"(?)	
Shale (dark, part sandy, coaly streaks) Actual 3' 2"	5' 6"(?)	
(Note - grinding in core tube)		
Shale (black; coaly streaks, soft, broken) Actual 0' 9"	2' 0"(?)	718' 0"
Shaly sandstone (grey) " 3' 8"	3' 9"	
Sandy shale " 0' 5"	0' 6"	
Shale (dark grey, fractured crushed, broken, slickensided) Actual 5' 4"	5' 9 "	728' 0"
Shale (" "	8' 0"	736' 0"
Shale (" " compact)	9' 0"	745' 0"
Shale (" " broken)	1' 0"	746' 0"
Sandy shale (sandy pockets; coaly marks; shale streaks vertical and steep angles, cross-bedding; limey, fractured slickensided)	10' 0"	756' 0"
Shaly sandstone (" " ")	10' 0"	766' 0"
Shaly sandstone (" " "broken)	2' 4"	768' 4"
Shaly sandstone (" " " " Actual 1' 8"	4' 8"	773' 0"
Shaly sandstone (" ")	10' 0"	783' 0"
Shaly sandstone (" ")	8' 0"	791' 0"
Shaly sandstone (" ")	4' 6"	795' 6"
Shaly sandstone (" ")	5' 6"	801' 0"

"Joseph T. Mandy"
Mining Engineer

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Merritt Diamond-drilling

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

Description		Thickness	Depth 643'
Shale (black, coaly streaks, stress planes)	Actual	2' 11" (3'6")	?646' 6"
Coaly fines (adulterated with Altamud)	Actual	0' 6" (1'0")	?647' 6"
COAL (broken in small pieces)	Actual	1' 7" (2'0")	?649' 6"
Bony coal fines	Actual	0' 5" (1'0")	?650' 6"
Shale (soft, broken, coaly streaks)	Actual	1' 1" (1'6")	?652' 0"
Coaly fines (bony and muddy)	Actual	0' 4" (1'0")	?653' 0"
" " " " "	Actual	0' 6"	
Sandy, shale (very broken and crushed	Actual	2' 8"	
Sandstone (grey, broken, coaly shale seams)	Actual	1' 3½"	
Shale (coaly, very broken, crushed)	Actual	1' 2"	
Shale (dark grey, fractured, slickensided)	Actual	2' 1½ "	
Shale (coaly, very broken, crushed)	Actual	0' 5"	661' 0"
Shaly sandstone (coaly streaks, fractured slickensided)	Actual	2' 2"	
Shale (partly sandy, coaly streaks)	Actual	2' 2"	
Shale (coaly, soft, broken, crushed)	Actual	0' 7½"	
Sandstone (fine, in part coarse to fine conglomerate, shaly bands slickensided, compact)	Actual	1' 9½"	668' 0"
" " " "	Actual	0' 10"	
Shale, (dark grey, fractured, slickensided)	Actual	0' 11"	669' 9"
" " " " " sandy bands, slickensided, mainly compact, some broken, CROSS-BED)	Actual	8' 2"	678' 0"
Shale (black, very broken, slickensided, coaly streaks)		5' 8"	
Coaly shale (very broken)		0' 10"	
Sandy shale (dark grey, coaly marks)		3' 6"	688' 0"
Shaly sandstone (grey, cross-bedding)		5' 6"	693' 6"

Bed Dip - 11°

Shaly sandstone (grey, mud seam probably from Altamud circuit)		4' 6"	698' 0"

"Joseph T. Mandy"
Mining Engineer.

Merritt Diamond-drilling

Log of hole No. 1 (Contd).

Description	Thickness	Depth
Sandstone (grey, compact)	9' 4"	594' 4"
Sandstone (grey, compact)	8"	595' 0"
Note. started drilling with ALTAMUD circulation an 1 7/8" core.		
Sandstone (grey, compact, hard, fine to coarse and fine conglomerate)(some coaly streaks at 604 ½)	10' 0"	605' 0"
Sandstone (grey, compact, hard, fine to coarse and fine conglomerate)(some coaly streaks at 604½)	10' 0"	615' 0"
Sandstone (grey, compact, hard, fine to coarse, and fine conglomerate) (some coaly streaks at 604½)	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"	643' 0"

"Joseph T. Mandy"

Mining Engineer.

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Merritt Diamond-drilling

January 1946

Log of Hole No. 1

Description	Thickness	Depth
Shaly sandstone (compact some loose)	1' 9"	571' 10"
Sandstone (grey, compact some loose)	3' 2"	575' 0"
Sandstone (grey compact, coaly streaks)	10' 0"	585' 0"

"Joseph T. Mandy"
Mining Engineer.

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Merritt Diamond-drilling

January 1946

Log of Hole No. 1

Description	Thickness	Depth
Conglomerate	0' 1"	508' 1"
Bed (?) Dip 55° (possible cross-bed)		
Shale seam (slickensided)	0' 0¼"	508' 1¼"
Shale (black, slickensided, sheared, broken)	1' 11¾"	510' 0"
Shale (CRUSHED AND SHEARED, sandy, limey, coal streaks, broken, disturbed ground)	5' 0"	515' 0"
Sandstone (grey, soft, coaly streaks, broken)	6' 0"	521' 0"
Sandstone (grey, soft, coaly streaks, broken, compact at end)	4' 0"	525' 0"
Sandstone (grey, compact, shaly at end)	5' 0"	530' 0"
Sandstone (grey compact, shaly streaks, broken at shale)	6' 0"	536' 0"
Sandstone (limey, fractured, soft broken)	2' 3"	538' 3"
Sandstone (limey, fractured, soft broken)	1' 9"	540' 0"
Shaly sandstone (broken at shaly bands: DIP 17°)	7' 4"	547' 4"
Shale (dark grey, limey, FRACTURED, broken)	1' 2"	548' 6"
Shale (black, coaly streaks broken) (Actual 1' 6")	2' 0"	550' 6"
COAL (friable, broken) (Actual 1' 11")	2' 6"	553' 0"
COAL (friable, very broken) (Actual 0' 6½")	2' 4"	555' 4"
Shale (dark brown, broken at start) (Actual 0' 6")	0' 8"	556' 0"
Shale (dark brown) (Actual 0' 3")	0' 6"	556' 6"
COAL (Sludge) (NO CORE) (Actual 0' 0")	1' 0"(?)	557' 6"
COAL (Sludge) (NO CORE) (Actual 0' 0")	1' 6"(?)	559' 0"
COAL (very broken and slacked) (Actual 0' 4")	2' 0"(?)	561' 0"
Shale (coaly, broken) (Actual 0' 6½")	1' 0"	562' 0"
Shale (black, gouge seams, broken) (Actual 3' 1")	5' 0"	567' 0"
Bed. Dip - - 35°		
Shaly sandstone (slickensided at joints) (Actual 0' 9")	1' 0"	568' 0"
Shaly sandstone (compact)	2' 1"	570' 1"

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Merritt Diamond-drilling

January 1946

Log of Hole No. 1

Description	Thickness	Depth
Shale (coaly, streaks) (Core loss, Actual, 1½")	2"	475' 8"
COAL (friable, broken) (Core loss, Actual, 4")	9"	470' 5"
Shale (coaly streaks)(Core loss, Actual, ¾")	1½"	476' 6½"
COAL (friable, broken) (Core loss, Actual, 1¼")	2½"	476' 9"
Shale (coaly streaks) (Core loss, Actual 2½")	3"	477' 0"
Shale (coaly streaks)(Core loss, Actual 7")	8"	477' 8"
Coaly shale (black, slickensided, very broken) (Core loss, Actual 3')	4' 4"	482' 0"
Note - 5' barrel replaced by 10'.		
Shale (coaly streaks) (Core loss-Actual 6")	10"	482' 10"
Shale, some very bony coal streaks (loose, slickenside, broken)(Core loss, Actual 2' 0")	3' 0"	485' 10"
COAL (friable, broken) (Core loss, Actual 4")	10"	486' 8"
Shale (coaly, broken, friable) (Core loss, Actual 7")	1' 6"	488' 2"
Bony coal (friable, very broken)(Core loss, Actual 6")	1' 6"	489' 8"
Coaly shale (Friable, coal streaks) (Core loss, Actual 6")	1' 0"	490' 8"
COAL (friable, very broken)(Core loss, Actual 4")	0' 8"	491' 4"
Coaly shale (coal streaks) (Core loss, Actual 5")	0' 8"	492' 0"
Shale (black, limey, slickenside, broken) Core loss, Actual 6' 6")	8' 0"	500' 0"
Shale (black, limey, slickenside, broken) (Core loss, Actual, 1' 10")	2' 0"	502' 0"
COAL (friable) (Core loss, Actual, 0' 2")	0' 6"	502' 6"
Sandy shale (coaly and coal streaks) (Core loss, Actual 0' 8")	1' 6"	504' 0"
Shale (light brown, limey, coal marks, broken) (Core loss, Actual 0' 5")	1' 0"	505' 0"
Shale (light brown, limey, coal marks, broken) (Core loss, Actual 1' 5")	2' 0"	507' 0"
Sandstone, part conglomerate, soft, broken) (Core loss, Actual 0' 9")	1' 0"	508' 0"

Note - Underlined depth is point of CORE PULL.

"Joseph T. Mandy"

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Merritt Diamond-drilling

January 1946

Log of Hole No. 1

Description	Thickness	Depth
Seam of shale (brown, slickensided, broken	0½"	396' 0½"
Sandstone (light grey; shaly streaks)	9' 11½"	406' 0"
Sandstone (light grey; shaly and coaly streaks)	10' 0"	416' 0"
Sandstone (light grey; shaly and coaly streaks)	10' 0"	426' 0"
Waterline froze		
Sandstone (light grey, shaly and coaly streaks)	5'	431' 0"
Sandstone (light grey, shaly and coaly streaks)	10'	441' 0"
Sandstone (light grey, shaly and coaly streaks)	3'	444' 0"
Shaly sandstone (dark grey coaly streaks) (Core Loss, Actual 6' 10")	7'	451' 0"
Shale sandy (dark grey, coaly streaks) (Core loss) Actual 9' 6")	4' 10"	455' 10"
Shale sandy (dark grey, coaly streaks)) (Core Loss)	5' 2"	461' 0"
Note: 10' barrell replaced by 5' barrell		
Shale (dark grey, sandy, coaly streaks, slickensided, broken)	5½"	461' 5½"
COAL (friable, broken) (Core loss - Actual 5")	1' 5"	462' 10½"
Shale (dark grey, coaly streaks) Core Loss Actual 1")	1½"	463'
COAL (friable, broken) (Core loss, Actual 7½")	1' 9"	464' 9"
Shale (dark grey, coaly streaks)	1' 7½"	466' 4½"
COAL (friable broken) (Core loss, Actual 3½")	7½"	467' 0"
COAL (friable broken) (Core loss, Actual 9")	1' 3"	468' 3"
Shale (coaly and coal seams)(Core loss Actual 2½")	3"	468' 6"
Bony coal (slickensided, loose(Core loss, Actual 6")	1' 0"	469' 6"
COAL (friable) (Core loss, Actual 2½")	6"	470' 0"
COAL (friable, broken) (Core loss, Actual 6")	1' 4"	471' 4"
Shale, (coaly) (Core loss, Actual ½")	1"	471' 5"
COAL (friable, broken) (Core loss, Actual 1'0")	2' 5"	473' 10"
Shale (coaly, coal streaks) (Core loss, Actual 1")	2"	474' 0"
COAL (broken) (Core loss, Actual 1½")	4"	474' 4"
Shale (coaly streaks) (Core loss, Actual 7")	9"	475' 1"
COAL (broken, friable) (Core loss, Actual 1")	3"	475' 4"
Shale (coal streaks) (Core loss, Actual 1")	2"	475' 6"

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

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Diamond-drilling

Merritt

Correction

Bed dip at 333' 2" should read 15°
Bed dip at 364' 2" should read 14°
Bed dip at 365' 10" should read 14°
Bed dip at 376' 4" should read 15°

"Joseph T. Mandy"
Mining Engineer

Merritt Diamond-drilling

January 1946

Log of hole No. 1

Description	Thickness	Depth
Shaly sandstone (dark grey fine)	1' 2"	365' 10"
Bed Dip - -14°		
Sandstone (coarse, compact, grey)	2"	366'
Sandstone (dark to light grey, fine to medium fine, shale streaks, soft) (core loss)(2' 3")Actual	2' 6"	368' 8"
Conglomerate (fine, light grey)	1' 0"	369' 6"
Sandy Shale (dark grey, slickensided)	2½"	369' 8½"
Conglomerate (fine, grey, soft) Core loss Actual (3')	3' 9½"	373' 6"
Sandstone (fine; shaly streaks)	1' 8"	375' 2"
Conglomerate (fine, soft)	6"	375' 8"
Sandstone (fine; dark shaly streaks)	4"	376'
Sandstone (shaly streaks; coaly spots)	4"	376' 4"
Bed Dip - -15°		
Shale (dark grey; partly sandy, slickensided)	1' 9"	378' 1"
Shaly sandstone (in part sandy shale dark grey)	3' 8"	381' 9"
Sandstone (in part shaly streaks, grey, medium fine)	1' 2"	382' 11"
Sandstone (in part shaly streaks, grey, medium fine)	3' 1"	386'
Sandstone (in places shaly streaks, medium fine to coarse coaly streaks)	10' 0"	396'

"Joseph T. Mandy"
Mining Engineer

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Merritt Diamond-drilling

January 1946

Log of Hole No. 1

Description	Thickness	Depth
Sandy shale (dark grey)	3"	304' 9"
Sandstone (grey, coal marks)	1' 6"	306' 3"
Shaly sandstone (dark grey, coal marks)	1' 2"	307' 5"
Shale (black, limey in places and slickensided)	2' 0"	309' 5"
SOFT COALY SHALE (loose; Core Loss)(2")	7"(?)	310'
Shale (black, limey, broken, slickensided)	1' 10"	311' 10"
SOFT COALY Shale (loose, Core Loss) (8")	1' 9"(?)	313' 7"
Shaly sandstone (dark grey, coal marks)	11"	314' 6"
Shaly sandstone (dark grey to grey)	4'	318' 6"
Sandstone (light grey, coarse (Core Loss	2' 11"	321' 5"
Sandstone (light grey, soft, coarse (Core Loss)	6"(?)	321' 11"
Sandstone (light grey, soft, coarse (Core loss)	2' 7"(?)	324' 6"
Sandstone (light grey, coarse patches, fine conglomerate)	6' 5"	330' 11"
Conglomerate (light grey, fine) gradational	7"	331' 6"
Shaly sandstone (dark grey, micaceous coal spots)	1' 5"	332' 11"
Shaly sandstone (dark grey, micaceous coal spots)	3"	333' 2"
Bed Dip - -15°		
Sandstone (light grey, soft)	5"	333' 7"
Shaly sandstone (dark grey, micaceous, coaly spots)	2"	333' 9"
Sandstone (light grey, coarse, soft)	9"	334' 6"
Sandstone (light grey, coarse, soft 1/8" shale band)	10' 0"	344' 6"
Sandstone, light grey, loose, core loss (13")	1' 6"	346' 0"
Sandstone (coarse, soft, light grey)	10' 0"	356' 0"
Sandstone (coarse, soft, light grey)	1' 11½"	357' 11½"
Sandstone (coarse, soft, light grey 1" long)	4½"	358' 4"
Shale (black, limey, slickensided, broken)	9"	359' 1"
Shale, sandy (dark grey)	11"	360'
Shaly sandstone (grey)	2' 1"	362' 1"
Shale (slightly sandy, dark grey)	1' 9"	363' 10"
Sandy shale, shale seam (slickensided)	1"	363' 11"
Sandy shale (dark grey)	3"	364' 2"
Bed Dip - -14°		
Sandstone (coarse compact	6"	364' 8"

Merritt Diamond-drilling

January 1946

Log of Hole No. 1

Description	Thickness	Depth
Shale (black, compact)	10'	251'
Shale (black, compact)	1' 6"	252' 6"
COAL (broken, large pieces	8"	253' 2"
NO CORE (Probably Mud seam; see below)	1' 10"	255'
Note - 10' core barrel replaced by 5' barrel.		
Black Mud (coaly) (Probable core loss)	4½"	255' 4½"
Shale (black, limey, slickensided)	2' 0½"	257' 5"
Mud seam (black shale gouge)	0' 0½"	257' 5½"
Shale (black, limey, slickensided)	8"	258' 1½"
Shale (black, limey, partly sandy, broken)	1' 10⅓"	260'
Mud (blackish brown) (drill sludge settled in hole (2")		
Shale (black, compact)	2' 9"	262' 9"
Shaly sandstone (Dark grey)	3' 8"	266' 5"
Bed Dip - - 12°		
Sandstone (grey, coarse)	7"	267'
Bed Dip - - 14°		
Sandy shale (dark grey)	1"	267' 1"
Sandstone (coarse, coaly streaks, grey)	2' 11"	270'
Conglomerate (fine; in part coarse sandstone)	2' 4"	272' 4"
Sandstone (coarse; in part conglomerate, coal streaks)	7' 8"	280'
Sandstone (coarse; in part conglomerate, coal streaks)	1'	281'
Shale (black compact)	1' 1½"	282' 1½"
Shale (black compact, slightly sandy)	7"	282' 8½"
Shale (limey, black broken, slickensided)	5"	283' 1½"
COAL (brittle, broken)	4½"	283' 6"
Shale (black compact)	1' 6"	285'
Shale (black compact)	7' 1"	292' 1"
Shale (black, limey, streaky, slickensided)	7"	292' 8"
Shaly sandstone (fine grey)	2' 4"	295'
Shaly sandstone (grey, dark shale streaks)	3' 3"	298' 3"
Sandstone (grey medium fine)	2' 3"	300' 6"
Shale (dark brown, broken slickensided) (Core Loss about 6")	4' 0"	304' 6"

"Joseph T. Mandy"

Mining Engineer

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Merritt Diamond Drilling

January 1946

Log of Hole No. 1

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

"Joseph T. Mandy"

Mining Engineer

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Merritt Diamond Drilling

January 1946

Log of Hole No. 1

Description	Thickness	Depth
Shale (brownish black, bitumenous broken in places, coaly streaks)	3'	154'
Shale (dark brown friable, broken)	2'	156'
Sandy shale	0' 6"	156' 6"
Sandstone (grey, brown shale streaks)	2'	158' 6"
Shale (brown, friable broken)	1' 6"	160'
Shale (brown, sandy)	1'	161'
Shale (bitumenous, black)	0' 6"	161' 6"
Sandy shale (dark grey)	1' 4"	162' 10"
Sandstone (shaly streaks, coal spots, broken)	4' 8"	167' 6"
Shale (sandy, black, bitumenous, broken)	2' 8"	170' 2"
Sandstone (shaly, broken)	10"	171'
Sandstone (shaly, coal spots, broken)	1' 8"	172' 8"
Shale (black, bitumenous, sandy in places coaly spots, very broken, slickensided, local streaks of bentonite (?)) some core loss	6' 9"	179' 5"
Shaly sandstone (broken at end)	9"	180' 2"
Sandstone (friable, limey, broken-core loss)	8"	180' 10"
Sandstone (grey, medium fine)	2"	181'
Sandstone (grey, medium fine, coal spots)	2' 8"	183' 8"
Bedding Dip - - 34°		
Shale (limey, slickensided)	2' 4"	186'
Sandy shale (greyish brown)	3' 2"	189' 2"
Bedding Dip - - 42°		
Sandstone (coarse, very friable--core loss)	1' 10"	191'
Sandstone (coarse, very friable--core loss)	9'	200'
Bedding Dip - - 30°		
Shale (dark brown	1'	201'
Sandy shale (dark brown, bitumenous compact - good core)	7' 10"	208' 10"
Sandstone, shaly, micaceous (grey)	2' 2"	211'
Sandstone, shaly, micaceous (grey)	2' 3"	213' 3"
Bed Dip - - 15°		
Shale (black, limey, slickensided partly sandy, broken)	6' 9"	220'
Bed Dip - - 12°		
Sandstone (grey, shaly streaks)	9"	220' 9"

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Merritt Diamond Drilling

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 sandstone, sandy shale, shale	3'	105'
Shale (dark buff)	0' 3"	105' 3"
Shaly sandstone (grey)	1' 9"	107'
Sandstone, (fine, grey)	1' 1"	108' 1"
Shaly Sandstone (grey, streaky)	0' 2"	108' 3"
Coarse sandst. (grey)	2' 3"	110' 6"
Shaly sandstone (grey, streaky)	0' 1"	110' 7"
Sandstone (coarse grey)	1' 5"	112'
Sandstone (fine, grey)	2' 6"	114' 6"
Sandstone (coarse, grey)	1' 6"	116'
BEDDING HORIZONTAL		
Sandy shale (dark brown)	6' 7"	122' 7"
Sandstone (very coarse, fine conglomerate)	0' 5"	123'
Shaly sandstone (streaky, grey)	0' 1"	123' 1"
Sandstone (very coarse, fine conglomerate)	4' 5"	127' 6"
Shale (buff; in part sandy and grey)	2' 6"	130'
Sandy shale (grey, streaky)	1'	131'
Sandstone (grey, coarse)	2' 2"	133' 2"
Sandstone, shaly (bitumenous Streaks)	0' 8"	133' 10"
COAL (bony, broken, streaky)	0' 10"	134' 8"
Shale (dark brown, bitumenous, broken)	1' 4"	136'
Sandstone, shaly (grey, bitum. streaks, broken)	3' 6"	139' 6"
Sandstone (coarse, grey)	3' 6"	143'
Shaly sandstone (streaky)	0' 7"	143' 7"
Sandstone (coarse, grey)	0' 5"	144'
Shaly sandstone (streaks of sandy shale)	3' 4"	147' 4"
Shale (brownish black, bitumenous broken in places, coaly streaks)	3' 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.

	Thickness		Depth	
Sand and clay	16			
Coarse gravel with clay and sand	10'	7"	26'	7"
Sand	1	0	27	
Coarse gravel	4	4	31	11
Clay and gravel	64	2	96	11
BEDROCK				
Conglomerate	5	4	101	5
Sandy shale	4	0	105	5
Coarse sandstone	8	3	113	8
Conglomerate	1	2	114	8
Light sandy shale	7	8	122	4
Dark sandy shale	3	10	126	2
Light sandy shale	10	0 ...	136	2
Conglomerate	1		137	2
Light sandy shale	1		138	2
Dark sandy shale	5	6	143	8
Conglomerate	0	11	144	7
Sandstone	1	7	146	2
Sandy shale	5	2	151	2
Conglomerate	5	2	156	
Light sandy shale	2	0	158	
Conglomerate	1	10	160	0
Dark brown shale with coal markings	1	3	161	3
Sandy shale	3	0	164	
Sandstone	2	0	166	
Sandy shale	1	9	168	0
Conglomerate	2	3	170	3
Sandy shale	5	6	175	9
Sandstone	1	0 ...	176	9
Sandy shale (dip 20 degrees)	1	0	177	
Conglomerate	3	0	180	
Dark sandy shale	5	0	185	
Conglomerate	1	6		
Sandy shale		6		
Conglomerate	1	0 ...		
Dark sandy shale with coal marks	3	0	191	9
Sandstone	1			
Dark sandy shale	1			
Conglomerate	1			
Dark sandy shale	1	...		
Conglomerate	1		196	9
Dark sandy shale	3			
Sandstone (dip 47 degrees)	1			
Sandy shale	5	4	206	1
Dark sandy shale with coal marks	2	0	208	1
Sandy shale	6			
Dark sandy shale	14	4	228	5

LOG OF NO. 11 HOLE Cont'd.

	Thickness		Depth	
Sandstone	1			
Dark sandy shale	5		234	5
Light sandy shale	3	...		
Dark sandy shale	2			
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 sandy shale	3			
Light sandy shale	5	...	262	8
Sandstone (dip 22 degrees)	8			
Dark sandy shale	9	6	280	2
Sandstone (dip 14 degrees)	9			
Light sandy shale (dip 14 degrees)	8			
Dark sandy shale	5		302	2
COAL	1	9	303	11
Dark brown shale	2	5		
Dark sandy shale	13		319	4
Sandstone	1			
Sandy shale	2			
Sandstone (dip 15 degrees)	8	...	330	0
Dark sandy shale	13	6		
Sandstone	1	6		
Sandy shale	2	0		
Sandstone	1			
Dark sandy shale	5	...	353	4
Sandstone	2			
Sandy shale	4			
Dark sandy shale	6			
Sandstone	1	6		
Dark sandy shale	1	3		
Sandstone	4	...	372	1
Conglomerate	2			
Sandy shale	4			
Conglomerate	2	3		
Sandstone	11	9 ...	392	1
Conglomerate	2			
Sandstone	2			
Light sandy shale	6			
Sandstone	2			
Coarse conglomerate	16	...	419	1
Dark sandy shale (dip 15 degrees)	8	8	427	9
Sandstone	2			
Dark sandy shale (dip 27-38 degrees)	6			
Sandstone (dip 33-20 degrees)	11	...	446	9
Light sandy shale	3			
Dark sandy shale	7			
Conglomerate	1			
Dark shale with coal marks	3			
COAL	4	0 ...	469	9
Dark sandy shale	2	10		

LOG OF NO. 11 HOLE Cont'd.

	Thickness		Depth	
COAL	1	4½		
COAL, bony		3		
COAL	2	4½		
COAL, bony		2		
COAL		4	472	1
Dark brown sandy shale	2	3		
COAL		9		
Dark brown shale	1	10		
COAL		6½		
Dark brown shale		7½		
COAL	1	6	479	7
Dark brown shale, coal markings	3	4	482	11
COAL		7		
Dark brown shale occasional coal streaks	9	3		
COAL		2		
Dark brown shale		4		
COAL		4		
Brown shale		2		
COAL		6		
Brown shale		6		
Light sandy shale (dip 20 degrees)	14	3		
Sandstone	9			
Light sandy shale	8	10		
COAL		8		
Sandy shale	1			
COAL		3		
Light sandy shale	38	9	568	
Sandstone	11			
Light sandy shale	5			
Sandstone (dip 25 degrees)	18			
Light sandy shale (dip 18 degrees)		9	610	4
COAL 6'5"				
COAL, bony 6"	13	2	638	3
COAL 6'3"				
Dark brown shale	3	6		
COAL	3	8		
Dark brown shale	7			
Light sandy shale	2			
Sandstone	1			
Light sandy shale	2	6		
COAL		10	658	9
Light sandy shale	8	4		
Dark sandy shale	2			
Sandstone	32	6		
Dark sandy shale	5			
COAL 1' 10")				
COAL, bony 2")				
COAL 9")	2	9	709	4
Dark sandy shale	6	9		
Light sandy shale	9			

LOG OF NO. 11 HOLE Cont'd.

	Thickness	Depth
Sandstone	5	
Light sandy shale	2	
Sandstone	3	
Light sandy shale	11 6	
Sandstone	2	
Light sandy shale	3	... 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)

Feb. 23rd: Pulling stand pipe and preparing for move (One shift - 7 men)

Feb. 24th: Not working.

William H. White

Assoc. Mining Engineer

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Progress Report - Merritt Diamond Drill Hole #1

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. 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 ¾" 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.

Merritt Diamond-Drilling

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

Feb. 13th - Day shift - cored 801 - 811.

Night " - " 811 - 821.

Graveyard - " 821 - 831; 831 - 834.

Feb. 14th - Day shift - " 834 - 836; 836 - 840; 840 - 850

Night " - " 850 - 856; 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 over to W.H. White.

"Joseph T. Mandy"

Mining Engineer

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Merritt Diamond-Drilling

Progress report Feb. 9th - Feb. 12th

Feb. 9th - Day shift - Engine arrived by express. Installing engine; running-in engine.

" " Night shift - Drilling; cored 698 - 708

" " Graveyard - Cored 708 - 718

Feb. 10th - Day shift - Cored 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.

" " Night shift - Cored 728 - 736; 736 - 746.
Note - Noted caving at 682' after last core pull.

" " Graveyard - Broke brakehandle bolt when letting rods down.

Feb. 11th - Day shift - Repairing brake handle. Preparing mud circulation for resuming 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

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Merritt Diamond-drilling

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

Wed. Feb. 6th. - Day Shift (contd) - Cored 643 - 653.

" " " - Night Shift - Cored 653 - 661; 661 - 668

" " " - Graveyard - Cored 668 - 678.

Thurs. Feb. 7th. - Day Shift - Cored 678 - 688

" " " Night Shift - Drilling

" " " Graveyard - Cored 688 - 698. - Drilling to 703.
Oiling system on engine failed.
Cylinders frozen.

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

"Joseph T. Mandy"

Note: 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."

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Merritt Diamond-drilling

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. Unwise to continue unless condition remedied. Cementing indicated between 500 and 570 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.

" " " Night Shift - 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.

" " " Night Shift - " "

" " " Graveyard - " " clutch broke.

Sat. February 2nd. Day Shift - Repairing clutch.

Sunday, February 3rd - Waiting for Altamud equipment

Monday, February 4th. Day Shift - Waiting for equipment. Washing hole.

" " " Night Shift - Changing pump for Mud.

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

" " " Night Shift - Cored 595 - 605; 605 - 615.

" " " Graveyard - Cored 615 - 623; 623 - 633.

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

"Joseph T. Mandy"

Mining Engineer

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Merritt Diamond-drilling

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

Tuesday, Jan. 22nd - Day shift - (Noon) - cored 508 - 510,
cored 510 - 515.

Night Shift - cored 515 - 521; 521 - 525;
525 - 530

Graveyard - cored 530 - 536; 536 - 540;
540 - 548½.

Wednesday, Jan. 23rd - day shift - cored 548½ - 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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Merritt diamond-drilling

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.

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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

Note - 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."

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Merritt Drilling

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

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

Tues. Jan. 15th night shift - 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'

Note 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 ¼ 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 ¼". Mr. Hall will contact you about this.

"Joseph T. Mandy"

Mining Engineer.

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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)
	Night shift - Drilling in Bedrock. Hole cored to 141'. (two lengths of 10' and 11'.)
Tues. Jan. 15th	Day shift to noon - Drilling in bedrock. Adjusting tripod. 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' - 30'
4" standpipe	30' - 102'
3" casing	0' - 105'

"Joseph T. Mandy"

Mining Engineer

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Log of hole to 102'

(Week Jan. 7th - 12th)

	Thickness	Depth
Clay and boulder clay	102'	102'
Soft and broken Bedrock (?)	3'	105'
Hard bedrock (?)	2'	107'

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

"Joseph T. Mandy"

Merritt Diamond-drilling

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 Bedrock 102' to 107'. (Rate 1' in 18 mts., probably sandstone or sandy shale.)

Status of Hole

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

"Joseph T. Mandy"

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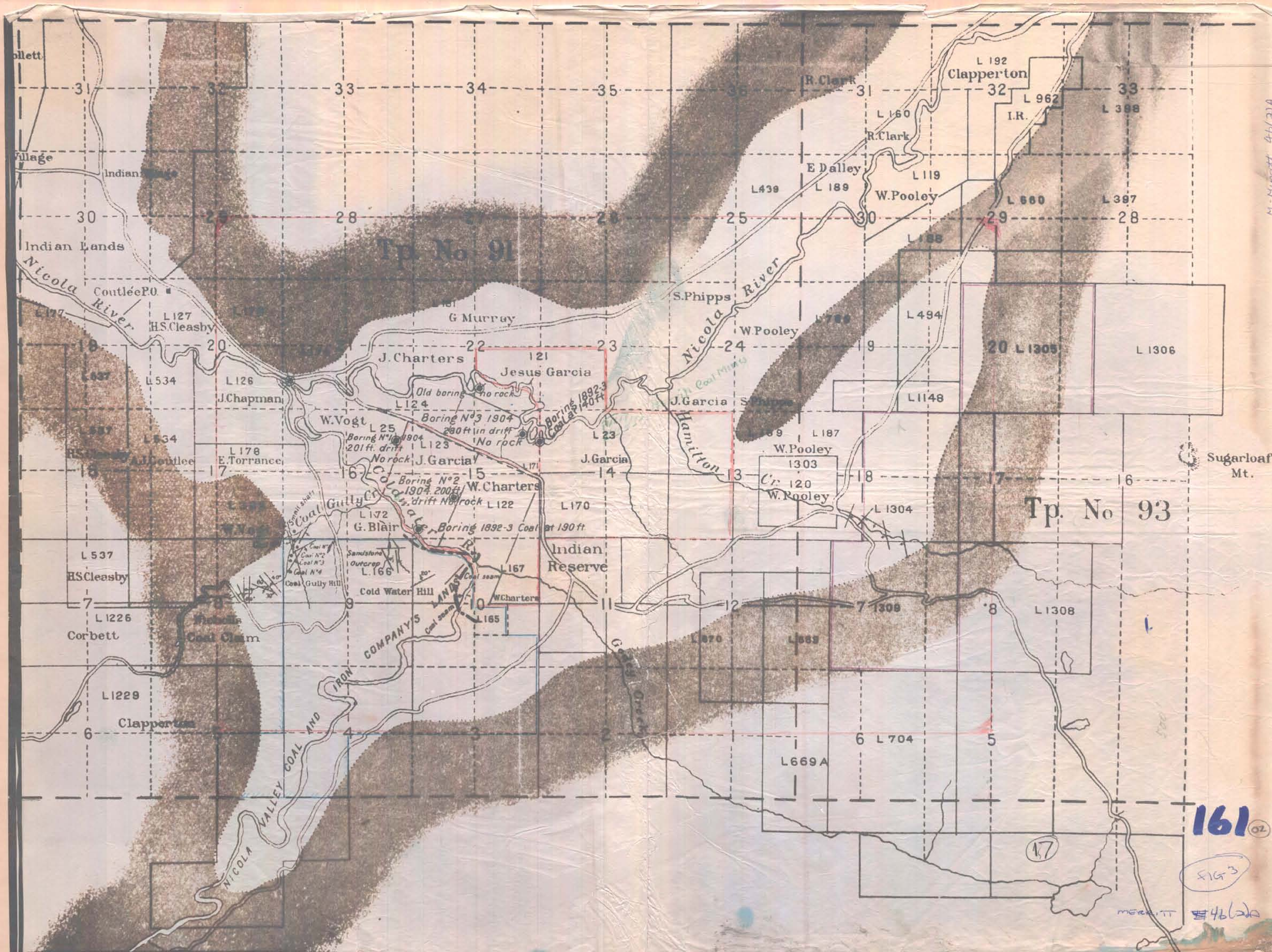
Canford P.O.
Lower Nicola P.O.
Coyle
Nicola P.O.
Sheep Creek
NICOLA
RIVER
Coutlee
MERRITT
COLDWATER R.
IRON MT.
SCALES
Feet
5,000
10,000
15,000
20,000
25,000
Miles
Contour Interval 100 Feet
Datum Mean Sea Level
Natural Scale 1 : 40,000
121°00'
120°50'
P/C
161 (01)



Tp. No 91
Tp. No 93
Nicola River
Indian Lands
Coutlee P.O.
Indian Village
H.S.Cleasby
J.Chapman
J.Charters
G Murray
Jesus Garcia
W.Vogt
J.Garcia
W.Charters
G.Blair
E.Torrance
A.J.Coutlee
S.Phipps
W.Pooley
E Dalley
R.Clark
Clapperton
I.R.
Hamilton Cr.
Coldwater R.
Coal Gully Cr.
Coal Gully Hill
Cold Water Hill
Indian Reserve
Sugarloaf Mt.
Nicholls Coal Claim
Corbett
Nicola Valley Coal and Iron Company's Lands
Guichon Creek
Old boring No rock
Boring No 3 1904 280 ft in drift No rock
Boring No 1 1904 201 ft. drift No rock
Boring No 2 1904 200 ft drift No rock
Boring 1892-3 Coal at 140 ft
Boring 1892-3 Coal at 190 ft
Sandstone Outcrop
Coal seam
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FIG 3
MERRITT 46(2)A