

INTERVAL SHEET

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VDMR Well No: 2133

Date rec'd:

Sample Interval: from 7' to: 97'

PROP: BLM A-050369

Number of samples: 32

Hole No.: T3-9A

COMP: Minerals Development Corp.

Total Depth: 97'

COUNTY: Giles

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To
7' - 7'8"	94'7" - 95'9" (2 spls)	-	-
7'8" - 8'1"	95'9" - 97'	-	-
8'1" - 8'6"	-	-	-
8'6" - 12'	-	-	-
12' - 13'11"	-	-	-
13'11" - 24'0"	-	-	-
24'0" - 25'3"	-	-	-
25'3" - 30'4"	-	-	-
30'4" - 30'6"	-	-	-
30'6" - 37'6"	-	-	-
37'6" - 38'7"	-	-	-
38'7" - 42'	-	-	-
42'0" - 42'4"	-	-	-
42'4" - 42'5"	-	-	-
42'5" - 52'	-	-	-
52'0" - 62'	-	-	-
62' - 65'6"	-	-	-
65'6" - 71'0"	-	-	-
71'0" - 71'5"	-	-	-
71'5" - 72'3"	-	-	-
72'3" - 72'6"	-	-	-
72'6" - 77'0"	-	-	-
77' - 87'3" (3 spls)	-	-	-
87'3" - 89'7" (2 spls)	-	-	-
89'7" - 91'1"	-	-	-
91'1" - 91'4"	-	-	-
91'4" - 91'9"	-	-	-
91'9" - 92'8"	-	-	-
92'8" - 93'4"	-	-	-
93'4" - 94'7"	-	-	-

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COMP: Minerals Development Corp.

Total Depth: 97'

COUNTY: Giles

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To
7' - 7' 8"	94' 7" - 95' 9" (2 sps)	-	-
7' 8" - 8' 1"	95' 9" - 97'	-	-
8' 1" - 8' 6"	-	-	-
8' 6" - 12'	-	-	-
12' - 13' 11"	-	-	-
13' 11" - 24' 0"	-	-	-
24' - 25' 3"	-	-	-
25' 3" - 30' 4"	-	-	-
30' 4" - 30' 6"	-	-	-
30' 6" - 37' 6"	-	-	-
37' 6" - 38' 7"	-	-	-
38' 7" - 42'	-	-	-
42' - 42' 4"	-	-	-
42' 4" - 42' 5"	-	-	-
42' 5" - 52'	-	-	-
52' - 62'	-	-	-
62' - 65' 6"	-	-	-
65' 6" - 71' 0"	-	-	-
71' 0" - 71' 5"	-	-	-
71' 5" - 72' 3"	-	-	-
72' 3" - 72' 6"	-	-	-
72' 6" - 77' 0"	-	-	-
77' - 87' 3" (3 sps)	-	-	-
87' 3" - 89' 7" (2 sps)	-	-	-
89' 7" - 91' 1"	-	-	-
91' 1" - 91' 4"	-	-	-
91' 4" - 91' 9"	-	-	-
91' 9" - 92' 8"	-	-	-
92' 8" - 93' 4"	-	-	-
93' 4" - 94' 7"	-	-	-

HOLE NUMBER: T3-9A

Hole alignment N68E 15° NW
 Date started: November 16, 1961
 Date completed: December 4, 1961
 Driller: Vaughan Bowling, Cunningham Core Drilling and Grouting

Depth in feet			Description
From	To	Thickness	
0	7'	7'	Overburden, white sandstone float and Clinton float.
7'	7'8"	8"	Shale, pale grayish white, fractured and broken.
7'8"	8'1"	5"	Sandstone, grayish maroon to gray, fine grained, slightly ferruginous.
8'1"	8'6"	5"	Sandstone, rust to reddish brown, fine grained, broken.
8'6"	12'	3'6"	Sandstone, pale grayish white to tan, fine grained, contains interbeds of pale gray to pale tan shale, includes 2" core loss.
12'	13'11"	1'11"	Sandstone, pale gray to white, fine grained, quartzitic, contains rust brown manganese stained partings and fractures. Includes 1'1" core loss.
13'11"	24'	10'1"	Sandstone, rust brown to tan, fine grained, contains partings and interbeds of chocolate brown shale; badly fractured and broken. Includes 7' core loss.
24'	25'3"	1'3"	Shale, pale grayish white to pale tan, unctuous.
25'3"	30'4"	5'1"	Sandstone, maroon, fine to coarse grained, ferruginous contains maroon clay galls, broken; includes 3' core loss.
(Note fault zone 7' - 62')			
30'4"	30'6"	2"	Shale, pale tan, unctuous.
30'6"	38'7"	8'1"	Sandstone, maroon, fine to coarse grained, ferruginous contains maroon clay galls, broken. Includes 1'3" core loss.
38'7"	42'	3'5"	Shale, pale tan, includes 3'3" core loss.
42'	42'2"	2"	Shale, rust brown, sandy.
42'2"	42'4"	2"	Shale, pale gray.
42'4"	42'5"	1"	Sandstone, rust brown, fine grained.

Depth in feet			Description
From	To	Thickness	
42'5"	52'	9'7"	Shale, pale tan, broken and fractured; includes 8' core loss.
52'	62'	10'	Sandstone rust brown, fine grained, badly broken, includes 8'6" core loss.
62'	65'6"	3'6"	Shale, tan to pale rust brown, sandy, contains sporadic partings of greenish gray shale and a 1" bed of tan fine grained sandstone at 62'8".
65'6"	71'	5'6"	Shale, pale greenish gray, contains partings and lenses of gray fine grained quartzitic sandstone, includes 8" core loss.
71'	71'5"	5"	Sandstone, gray, fine grained, fossiliferous, contains ostracods and trilobites.
71'5"	72'3"	10"	Shale, pale greenish gray.
72'3"	72'6"	3"	Sandstone, gray, fine grained, fossiliferous, contains ostracods and brachiopods.
72'6"	75'2"	3'8"	Shale, pale greenish gray, contains sporadic lenses of gray fine grained quartzitic sandstone.
75'2"	77'	1'10"	Shale, gray, contains partings and interbeds of tan shale. Includes 1' core loss.
77'	87'3"	10'3"	Sandstone, maroon, fine grained, highly ferruginous complete absence of shale partings and clay galls.
87'3"	89'7"	2'4"	Sandstone, maroon, fine grained, ferruginous, contains partings of maroon shale parallel to the bedding planes.
89'7"	91'1"	1'6"	Sandstone, maroon, fine grained, ferruginous.
91'1"	91'4"	3"	Sandstone, maroon, fine grained, ferruginous, contains 50% maroon shale partings parallel to the bedding planes.
91'4"	91'9"	5"	Shale, maroon and pale gray, unctuous.
91'9"	92'8"	11"	Sandstone, maroon, coarse grained, ferruginous.
92'8"	93'4"	8"	Shale, grayish maroon, unctuous.
93'4"	94'7"	1'3"	Sandstone, maroon, coarse grained, ferruginous, contains quartz granules and rust brown clay galls.

<u>Depth in feet</u>			<u>Description</u>
<u>From</u>	<u>To</u>	<u>Thickness</u>	
94'7"	95'1"	6"	Sandstone, maroon, coarse grained, ferruginous contains abundant maroon shale interbeds parallel to the bedding planes.
95'11"	95'5"	4"	Sandstone, maroon, coarse grained, ferruginous.
95'5"	95'9"	4"	Sandstone, maroon, coarse grained, ferruginous contains abundant maroon shale partings.
95'9"	97'	1'3"	Clay, gray, unctuous, includes 6" core loss.

Hole shut down.

T3-9A Log of Split Core

Date logged: December 9, 1961

<u>Depth in feet</u>			<u>Description</u>
<u>From</u>	<u>To</u>	<u>Thickness</u>	
Sample 1 (25'3" - 38'3")			
25'3"	30'4"	5'1"	Sandstone, maroon, fine to coarse grained, ferruginous, contains maroon clay galls, broken. Includes 3' core loss.
30'4"	30'6"	2"	Shale, pale tan unctuous.
30'6"	38'7"	8'1"	Sandstone, maroon, fine to coarse grained ferruginous, contains maroon clay galls, includes 1'3" core loss.
Sample 2 (77' - 91'1")			
77'	87'3"	10'3"	Sandstone, maroon, fine grained, ferruginous, contains sporadic paper thin wavelite partings at 86'.
87'3"	89'5"	2'2"	Sandstone, maroon, fine grained, ferruginous, contains scattered maroon shale partings parallel to the bedding planes.
89'5"	91'1"	1'8"	Sandstone, maroon, fine grained, ferruginous.
Sample 3 (91'1" - 92'8")			
91'1"	91'4"	3"	Sandstone, maroon, fine grained, ferruginous contains 50% maroon shale partings parallel to the bedding planes.
91'4"	91'9"	5"	Shale, maroon and pale gray unctuous.
91'9"	92'8"	11"	Sandstone, fine to coarse grained, ferruginous.
Sample 4 (93'6" - 95'5")			
93'6"	94'7"	1'1"	Sandstone, maroon, coarse grained, ferruginous, contains quartz granules and rust brown clay galls.
94'7"	95'1"	6"	Sandstone, maroon, coarse grained, ferruginous, contains abundant maroon shale partings parallel to the bedding planes.