MAR 19640002: WEST CENTRAL ALBERTA

Received date: Dec 31, 1964
Public release date: Jan 01, 1966

DISCLAIMER
By accessing and using the Alberta Energy website to download or otherwise obtain a scanned mineral assessment report, you (“User”) agree to be bound by the following terms and conditions:

a) Each scanned mineral assessment report that is downloaded or otherwise obtained from Alberta Energy is provided “AS IS”, with no warranties or representations of any kind whatsoever from Her Majesty the Queen in Right of Alberta, as represented by the Minister of Energy (“Minister”), expressed or implied, including, but not limited to, no warranties or other representations from the Minister, regarding the content, accuracy, reliability, use or results from the use of or the integrity, completeness, quality or legibility of each such scanned mineral assessment report;

b) To the fullest extent permitted by applicable laws, the Minister hereby expressly disclaims, and is released from, liability and responsibility for all warranties and conditions, expressed or implied, in relation to each scanned mineral assessment report shown or displayed on the Alberta Energy website including but not limited to warranties as to the satisfactory quality of or the fitness of the scanned mineral assessment report for a particular purpose and warranties as to the non-infringement or other non-violation of the proprietary rights held by any third party in respect of the scanned mineral assessment report;

c) To the fullest extent permitted by applicable law, the Minister, and the Minister’s employees and agents, exclude and disclaim liability to the User for losses and damages of whatsoever nature and howsoever arising including, without limitation, any direct, indirect, special, consequential, punitive or incidental damages, loss of use, loss of data, loss caused by a virus, loss of income or profit, claims of third parties, even if Alberta Energy have been advised of the possibility of such damages or losses, arising out of or in connection with the use of the Alberta Energy website, including the accessing or downloading of the scanned mineral assessment report and the use for any purpose of the scanned mineral assessment report so downloaded or retrieved.

d) User agrees to indemnify and hold harmless the Minister, and the Minister’s employees and agents against and from any and all third party claims, losses, liabilities, demands, actions or proceedings related to the downloading, distribution, transmissions, storage, redistribution, reproduction or exploitation of each scanned mineral assessment report obtained by the User from Alberta Energy.
IRON ORE PROSPECTING
PERMIT No. 21

FINAL REPORT

April 27th, 1964

N. S. Edgar, P. Eng.
Iron Ore Prospecting Permit No. 21 - Final Report

Descriptions of Programs:

1) In early October, 1962, a preliminary examination of the Permit No. 21 area was made following discovery of iron ore in a borrow pit alongside an access road in Sec. 28-79-9W6. Using information gained from this examination an area was selected and Permit No. 21 was granted.

2) During the life of Permit No. 21, Twenty-five (25) test holes were drilled within the Permit area. A plan, marked "Appendix A", is included with this report and shows location of these drill holes. Drill logs of these holes also accompany this report.

Discussion of Drilling Results:

1) Initial sampling of the top of the zone at the outcrop area indicated the grade of ore to be 39% iron.

2) The drill holes were not sampled in detail since the equipment used was unable to effect a complete core recovery. Sufficient data was obtained however to indicate the thickness and the lateral extent of the ore zone. This is outlined in the plan, Appendix 'A'.

Several geological theories regarding the possible trend and extent of the deposit were tested by this drilling program. Results show, reasonably conclusively, that the ore occurs on a monoclinal structure dipping gently to the east. It terminates on the northeast, North and West by erosion and on the south apparently by the east-west trending Spirit River Ridge or scarp. To the southeast it apparently grades out into the slightly ferruginous Bad Heart sandstone.

It appears that the major deposit in this region lies in Twp's. 79 and 80-9W6, as shown on the plan.

The area underlain by the iron ore bed appears to be of about 4,500 acres in extent with an average thickness of about six feet. It is similar to the ore occurrences in the Clear Hills region 50 miles to the north and may be expected to be of similar grade.
Estimate of Expenditures made on Iron Ore Prospecting Permit No. 21

Total amount spent on this permit area, including surface exploration and drilling $6,315.48

Respectfully submitted,

N. S. Edgar, P. Eng.
Portion of Iron Ore Prospecting Permit No. 21 Retained for Lease

In Township 79 range 9 West of the 6th meridian:

N1/2 sec. 17, NE 1/4 sec. 18, E 1/2 sec. 19; sec. 20, sec. 21, sec. 26, sec. 27, sec. 28, sec. 29, SE 1/4 sec. 30, E 1/2 sec. 34, sec. 35, NW 1/4 sec. 36.

Totalling 9-1/4 sections or approximately 5,920 acres

In Township 80 range 9 West of the 6th meridian:

W 1/2 sec. 1, sec. 2.

Totalling 1-1/2 sections or approximately 960 acres

Total Lease acreage approximately 6,880 acres
IRON PROSPECTING PERMIT NO. 21

EXISTING LINE
PROPOSED NEW LINE
PROPOSED DRILL HOLE

N. S. EDGAR B. SC. P. ENG. EDMONTON-ALBERTA
PROPOSED DRILLING-IRON PROSPECTING PERMIT NO. 21
SCALE: 1:25"=1MILE DATE: 3DEC. 63 C'RD: N.S.E.
<table>
<thead>
<tr>
<th>Depth</th>
<th>Description</th>
<th>Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>Tan coloured clay</td>
<td>Grab samples at 5' intervals</td>
</tr>
<tr>
<td>11'</td>
<td>Grey, plastic glacial clay</td>
<td></td>
</tr>
<tr>
<td>19'</td>
<td>Grey, brown and harder clay</td>
<td></td>
</tr>
<tr>
<td>24'</td>
<td>Grey-brown, plastic clay, some rusty concretions</td>
<td></td>
</tr>
<tr>
<td>24'</td>
<td>Thin seam of bentonite</td>
<td></td>
</tr>
<tr>
<td>47'</td>
<td>Soft, grey-blue, plastic clay, occas. pebble</td>
<td></td>
</tr>
<tr>
<td>54'</td>
<td>Grey soft clay with much gravel</td>
<td></td>
</tr>
<tr>
<td>52'</td>
<td>As above but less gravel</td>
<td></td>
</tr>
<tr>
<td>75.5'</td>
<td>Hard, grey, clay-shale (bedrock)</td>
<td></td>
</tr>
<tr>
<td>85'</td>
<td>Very hard, grey, gritty shale or thin sandstone beds in grey clay-shale</td>
<td></td>
</tr>
<tr>
<td>89'</td>
<td>Very hard dark brown shale</td>
<td></td>
</tr>
<tr>
<td>90'</td>
<td>Fairly hard, grey, clay-shale</td>
<td></td>
</tr>
<tr>
<td>98'</td>
<td>Thin very hard bed</td>
<td></td>
</tr>
<tr>
<td>110'</td>
<td>Hard, dark grey shale</td>
<td></td>
</tr>
</tbody>
</table>
LOG OF DRILL HOLE NO. 4-18-79-9W6

Location: SW Corner of LSD    Elevation Top: Nil    Depth: 100'    Page No. 1
Elevation: 2605    Inclination: 90°    Date Completed: 30 Nov., 1962

<table>
<thead>
<tr>
<th>Drill Core From</th>
<th>Description</th>
<th>Samples From</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0' - 11'</td>
<td>Tan coloured clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11' - 51'</td>
<td>Blue-grey, sticky, plastic, glacial till</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51' - 100'</td>
<td>Hard, grey, clay-shales (bedrock)</td>
<td></td>
<td>No samples taken</td>
</tr>
</tbody>
</table>
**LOG OF DRILL HOLE NO. 13-18-79-9W6**

In NW Corner of LSD

Location: 50' East of Corner  Elevation Top: Nil  Depth: 150'  Page No. 1

Monument

Elevation: 2640  Inclination: 90°  Date Completed: 15 Dec., 1962

<table>
<thead>
<tr>
<th>Drill Core</th>
<th>Description</th>
<th>Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td>To</td>
<td>Description</td>
</tr>
<tr>
<td>0'</td>
<td>9'</td>
<td>Tan coloured clay surface mantle</td>
</tr>
<tr>
<td>9'</td>
<td>60'</td>
<td>Sticky, Grey-blue, plastic glacial clay</td>
</tr>
<tr>
<td>@ 60'</td>
<td></td>
<td>¼&quot; seam of coal (probably float)</td>
</tr>
<tr>
<td>60'</td>
<td>67'</td>
<td>Sticky, grey-blue plastic glacial clay</td>
</tr>
<tr>
<td>67'</td>
<td></td>
<td>Bedrock 2573</td>
</tr>
<tr>
<td>67'</td>
<td>69'</td>
<td>Light-grey, clay-shale</td>
</tr>
<tr>
<td>69'</td>
<td>70'</td>
<td>Dark, very hard shale</td>
</tr>
<tr>
<td>70'</td>
<td>97.5'</td>
<td>Grey clay-shale with occasional very thin bed of light-grey shale</td>
</tr>
<tr>
<td>@ 97.5'</td>
<td></td>
<td>4&quot; bed, dark-grey, hard, silt-shale with sharply angular fracture</td>
</tr>
<tr>
<td>97.8'</td>
<td>150'</td>
<td>Dark-grey, clay-shale with occasional thin bed (1/8&quot; to 1/4&quot;) of grit or fine grained S stone, usually light grey</td>
</tr>
<tr>
<td>Bottom of 150' elev. 2490</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Grab samples at 5' intervals
NE corner of 16-18-79-9W6

LOG OF DRILL HOLE No. 16-18-79-9W6

Location: 60' west of road  Elevation Top: 2586  Depth: 50'  Page No. 1

Elevation: 2610  Inclination: 90°  Date Completed: 29 Nov./62

<table>
<thead>
<tr>
<th>Drill Core From</th>
<th>To</th>
<th>Description</th>
<th>Samples From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>13'</td>
<td>Tan coloured clay</td>
<td>5'</td>
<td></td>
</tr>
<tr>
<td>13'</td>
<td>24'</td>
<td>Dark grey plastic glacial clay</td>
<td>10'</td>
<td>15'</td>
</tr>
<tr>
<td>24'</td>
<td>26'</td>
<td>Blue grey hard sandstone with oolites</td>
<td>24'</td>
<td>25'</td>
</tr>
<tr>
<td>26'</td>
<td>27'</td>
<td>Dark blue, hard, heavily oolitic sandstone</td>
<td>26'</td>
<td>27'</td>
</tr>
<tr>
<td>27'</td>
<td>28'</td>
<td>Brownish blue, softer, heavily oolitic sandstone</td>
<td>27'</td>
<td>28'</td>
</tr>
<tr>
<td>28'</td>
<td>30'</td>
<td>Blue, heavily oolitic sandstone</td>
<td>29'</td>
<td>30'</td>
</tr>
<tr>
<td>30'</td>
<td>35'</td>
<td>Bluish brown, heavily oolitic sandstone</td>
<td>31'</td>
<td>32'</td>
</tr>
<tr>
<td>35'</td>
<td>36.4'</td>
<td>Blue grey sandstone, heavily oolitic</td>
<td>33'</td>
<td>34'</td>
</tr>
<tr>
<td>36.4'</td>
<td>41'</td>
<td>Soft blue grey sandstone</td>
<td>35'</td>
<td>36'</td>
</tr>
<tr>
<td>43'</td>
<td>44'</td>
<td>Dark grey gritty shale</td>
<td>39'</td>
<td>40'</td>
</tr>
<tr>
<td>44'</td>
<td>50'</td>
<td>Dark grey clay shale</td>
<td>43'</td>
<td>43'</td>
</tr>
</tbody>
</table>

Samples

Grab samples @ 5" intervals

Riffle Board catch samples
**LOG OF DRILL HOLE NO. 5-19-79-9W6**

**Location:** About 20' east & 35' south of NW corner monument of LSD  
**Elevation:** 2620  
**Depth:** 130'  
**Inclination:** 90°  
**Date Completed:** 15 Dec. 1962

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Description</th>
<th>Samples From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>8'</td>
<td>Tan coloured surface mantle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8'</td>
<td>18'</td>
<td>Grey-brown clay, fairly firm, with rust from 15' to 18' and a few pebbles at 18'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18'</td>
<td>37'</td>
<td>Sticky, grey-blue, plastic glacial clay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37'</td>
<td></td>
<td>BEDROCK elev. 2583</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37'</td>
<td>62'</td>
<td>Interbeds of brown &amp; dark grey, clay shales; rather soft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62'</td>
<td>130'</td>
<td>Hard, dark-grey, clay-shale with an occasional very thin bed of extremely hard shale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bottom at 130' elev. 2490</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Grab samples at 5' intervals
**LOG OF DRILL HOLE NO. 13-19-79-9W6**

**Location:** About 100' east & 20' south of NW corner of LSD

**Elevation Top:** Nil

**Depth:** 120'  

**Elevation:** 2600  

**Inclination:** 90°

**Date Completed:** 15 Dec. 1962

<table>
<thead>
<tr>
<th>Drill Core From</th>
<th>Drill Core To</th>
<th>Description</th>
<th>Samples From</th>
<th>Samples To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>11'</td>
<td>Tan coloured surface till</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11'</td>
<td>120'</td>
<td>Sticky, blue-grey, plastic, glacial till</td>
<td></td>
<td></td>
<td>Grab samples at 5' intervals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bottom at 120' elev. 2480</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# LOG OF DRILL HOLE NO. 16-19-79-9W6

**Location:** In NE corner of LSD  
**Elevation Top:** 2552  
**Depth:** 85'  
**Date Completed:** 14 Dec. 1962

**Elevation:** 2620  
**Inclination:** 90°

<table>
<thead>
<tr>
<th>Drill Core</th>
<th>Description</th>
<th>From</th>
<th>To</th>
<th>Samples From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0' - 9'</td>
<td>Tan coloured hard clay</td>
<td>68'</td>
<td>69'</td>
<td></td>
<td></td>
<td>Grab samples at 5' intervals to 65'</td>
</tr>
<tr>
<td>9' - 38'</td>
<td>Grey brown clay (not sticky)</td>
<td>69'</td>
<td>70'</td>
<td></td>
<td></td>
<td>Kakhi coloured oolitic ore</td>
</tr>
<tr>
<td>38' - 68'</td>
<td>Blue-grey, soft, sticky, plastic glacial clay</td>
<td>70'</td>
<td>71'</td>
<td></td>
<td></td>
<td>Densely oolitic well oxidized</td>
</tr>
<tr>
<td>68' - 79.5'</td>
<td>Ore zone</td>
<td>71'</td>
<td>72'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79.5' - 80'</td>
<td>BEDROCK - top of ore at elev. 2552</td>
<td>72'</td>
<td>73'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68' - 79.5'</td>
<td>Ore zone</td>
<td>73'</td>
<td>74'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79.5' - 80'</td>
<td>Brown, sparsely oolitic to 79.5' then dark-blue, gritty, hard shale</td>
<td>74'</td>
<td>75'</td>
<td></td>
<td></td>
<td>Sandy, brown, with few oolites</td>
</tr>
<tr>
<td>80' - 81'</td>
<td>Soft grey-blue, clay, shale</td>
<td>75'</td>
<td>76'</td>
<td></td>
<td></td>
<td>Heavily oolitic well oxidized</td>
</tr>
<tr>
<td>81' - 82'</td>
<td>sandy shale or grit stone</td>
<td>76'</td>
<td>77'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82' - 83'</td>
<td>As above but with 1/4&quot; interbeds of hard shale &amp; some volcanic ash</td>
<td>77'</td>
<td>78'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83' - 84'</td>
<td>As above - no. vol. ash</td>
<td>78'</td>
<td>79'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84' - 85'</td>
<td></td>
<td>79'</td>
<td>80'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85' - 86'</td>
<td>No log made - reported be similar to end of hole at 90'</td>
<td>80'</td>
<td>81'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>86' - 87'</td>
<td></td>
<td>81'</td>
<td>82'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>87' - 88'</td>
<td></td>
<td>82'</td>
<td>83'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>88' - 89'</td>
<td></td>
<td>83'</td>
<td>84'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89' - 90'</td>
<td></td>
<td>84'</td>
<td>85'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**LOG OF DRILL HOLE NO. 4-26-79-9W6**

**Location:** South of NW corner of LSD  
**Top Elevation:** 2507  
**Depth:** 25'  
**Page No.:** 1  
**Elevation:** 2520  
**Inclination:** 90°  
**Date Completed:** Nov. 21, 1962

<table>
<thead>
<tr>
<th>Drill Core From</th>
<th>Drill Core To</th>
<th>Description</th>
<th>Samples From</th>
<th>Samples To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>13'</td>
<td>Tan coloured clay</td>
<td>5'</td>
<td>10'</td>
<td>Tan coloured clay</td>
</tr>
<tr>
<td>13'</td>
<td>19.5'</td>
<td>Oolitic iron ore, oxidized, becoming less oolitic towards bottom</td>
<td>13'</td>
<td>14'</td>
<td>Ore, oxidized &amp; oolitic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14''</td>
<td>15'</td>
<td>Ore, oxidized &amp; oolitic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15'</td>
<td>16'</td>
<td>Ore, oxidized &amp; oolitic</td>
</tr>
<tr>
<td>19.5'</td>
<td>22'</td>
<td>Blue shale</td>
<td>16'</td>
<td>17'</td>
<td>Ore, oxidized &amp; fewer oolites</td>
</tr>
<tr>
<td>22'</td>
<td>25'</td>
<td>Dark grey shale</td>
<td>17'</td>
<td>18'</td>
<td>Ore oxidized &amp; fewer oolites</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18'</td>
<td>19'</td>
<td>Ore oxidized &amp; sparse oolites</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19'</td>
<td>20'</td>
<td>Base of zone &amp; blue shale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20'</td>
<td>21'</td>
<td>Blue shale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>21'</td>
<td>22'</td>
<td>Blue shale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22'</td>
<td>23'</td>
<td>Dark grey shale</td>
</tr>
<tr>
<td><strong>Bottom of Hole @ 25'</strong></td>
<td></td>
<td></td>
<td>23'</td>
<td>24'</td>
<td>Dark grey shale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>24'</td>
<td>25'</td>
<td>Dark grey shale</td>
</tr>
</tbody>
</table>

Bottom of Hole @ 25'
**LOG OF DRILL HOLE NO. 4-27-79-9W6**

**Location:**
- West boundary of Section
- Elevation: 2525
- Depth: 70'
- Date Completed: 21 Nov. 62

**Log Details:**
- Inclination: 90°
- Date Completed: 21, Nov. /62

### Drill Core

<table>
<thead>
<tr>
<th>From (')</th>
<th>To (')</th>
<th>Description</th>
<th>Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>15'</td>
<td>Dark grey brown clay (O.B.)</td>
<td>Grab samples</td>
</tr>
<tr>
<td>15'</td>
<td>70'</td>
<td>Dark blue grey plastic clay, shale (glacial clay) with about 1' of interbedded hard sandstone layers (1/8'') showing some pebbles, @ 60'</td>
<td></td>
</tr>
<tr>
<td>5'</td>
<td>10'</td>
<td>Grab samples</td>
<td></td>
</tr>
<tr>
<td>15'</td>
<td>20'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25'</td>
<td>30'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30'</td>
<td>35'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40'</td>
<td>45'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50'</td>
<td>55'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60'</td>
<td>65'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70'</td>
<td>Bottom of hole 70'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**LOG OF DRILL HOLE NO. 5-27-79-9W6**

On NNE Seismic line \( \frac{1}{2} \) mi.
Location: NNE of intersection Elevation Top: 2518/2511 Depth: 60' Page No. 1
with WNW line
Elevation: 2560 Inclination: 90° Date Completed: 22 Nov./62

<table>
<thead>
<tr>
<th>Drill Core</th>
<th>From</th>
<th>To</th>
<th>Description</th>
<th>Samples From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>12'</td>
<td>tan coloured clay</td>
<td>5'</td>
<td>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12'</td>
<td>42'</td>
<td>dark grey clay shale</td>
<td>10'</td>
<td>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42'</td>
<td>49'</td>
<td>dark oolitic iron ore</td>
<td>15'</td>
<td>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49'</td>
<td>50'</td>
<td>soft, dark grey silty-shale</td>
<td>20'</td>
<td>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50'</td>
<td>60'</td>
<td>soft, impure-sandstone, suspect</td>
<td>25'</td>
<td>)</td>
<td>Grab samples</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>presence of fossils</td>
<td>30'</td>
<td>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>35'</td>
<td>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40'</td>
<td>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>45'</td>
<td>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>42' 60'</td>
<td>)</td>
<td>Cored and ore section with portion of underlaying sandstone shipped to Edmonton.</td>
<td></td>
</tr>
</tbody>
</table>

Bottom of hole @ 60'

(about 90% core recovery)
**LOG OF DRILL HOE 12-27-79-9W6**

50' NNE of SW corner

Location: Monument LSD 12-27-79- Elevation Top: 2502 Depth: 55' Page No. 1

Elevation: 2540 Inclination: 90° Date Completed: 17 December, 1962

<table>
<thead>
<tr>
<th>Drill Core</th>
<th>From</th>
<th>To</th>
<th>Description</th>
<th>Samples</th>
<th>From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0' - 11'</td>
<td>Tan coloured clay surface mantle</td>
<td>Grab samples at 5' intervals to 35'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11' - 38'</td>
<td>Sticky, grey blue, plastic, glacial clay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38' - 39'</td>
<td>Top of ore, BEDROCK elev. 2502</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38' - 41'</td>
<td>Dark-green to brown-green or kakhi coloured, heavily oolitic iron ore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47' - 49'</td>
<td>Dark blue impure sandstone with oolites</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49' - 51'</td>
<td>As above, softer, no oolites</td>
<td>Riffle box sludge samples</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51' - 53'</td>
<td>Interbedded shale and sandstone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53' - 55'</td>
<td>Grey blue gritty clay shale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Riffle box sludge samples
**LOG OF DRILL HOLE NO. 12-28-79-9W6**

**Location:** LSD 150' N of SW Corner  
**Elevation Top:** 2513/2503  
**Depth:** 83'  
**Page No.:** 1

**Elevation:** 2585  
**Inclination:** 90°  
**Date Completed:** 24 Nov. /62

<table>
<thead>
<tr>
<th>Drill Core</th>
<th>Description</th>
<th>Samples</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td>To</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0'</td>
<td>3.5'</td>
<td>Tan coloured clay</td>
<td>5'</td>
</tr>
<tr>
<td>3.5'</td>
<td>13.0'</td>
<td>Dark grey with pebbles, hard</td>
<td>10'</td>
</tr>
<tr>
<td>13.0'</td>
<td>35.0'</td>
<td>Hard clay shale, tan &amp; grey</td>
<td>15'</td>
</tr>
<tr>
<td>35.0'</td>
<td>72.0'</td>
<td>Soft blue sticky clay shale, in appearance similar to the glacial blue clays</td>
<td>20'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>30'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>35'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>45'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>55'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>60'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>65'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>70'</td>
</tr>
<tr>
<td>72'</td>
<td>82'</td>
<td>Ore zone</td>
<td>72'</td>
</tr>
<tr>
<td>82'</td>
<td>83'</td>
<td>Blue shale</td>
<td>73'</td>
</tr>
</tbody>
</table>

**Bottom @ 83'**

**Bottom of Ore @ 2503'**

**NOTE:** Attempted unsuccessfully to core first hole - No recovery  
Catch samples are scanty  
Oxidized, sandy, no oolites noted  
Dark blue shale
LOG OF DRILL HOLE NO. 13-28-79-9W6

About 200' south of
Location: NW corner of LSD  Elevation Top: Nil  Depth: 100'  Page No. 1
Elevation: 2575  Inclination: 90°  Date Completed: 23 Nov./62

<table>
<thead>
<tr>
<th>Drill Core From</th>
<th>To</th>
<th>Description</th>
<th>Samples From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>13'</td>
<td>Tan coloured clay surface mantle</td>
<td>5'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13'</td>
<td>100'</td>
<td>Toughly plastic, dark, blue-grey glacial clay</td>
<td>10'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15'</td>
<td>20'</td>
<td></td>
<td>20'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25'</td>
<td>30'</td>
<td></td>
<td>30'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35'</td>
<td>40'</td>
<td></td>
<td>40'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45'</td>
<td>50'</td>
<td></td>
<td>50'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55'</td>
<td>60'</td>
<td></td>
<td>60'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65'</td>
<td>70'</td>
<td></td>
<td>70'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75'</td>
<td>80'</td>
<td></td>
<td>80'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>85'</td>
<td>90'</td>
<td></td>
<td>90'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>95'</td>
<td>100'</td>
<td></td>
<td>100'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bottom of Hole @ 100'
## LOG OF DRILL HOLE NO. 10-29-79-9W6

**Location:** In NW Corner of LSD on WNW line midway in Section 29

**Elevation Top:** 2511.3/2504  
**Depth:** 105'  
**Page No.:** 1

**Elevation:** 2600  
**Inclination:** 90°  
**Date Completed:** 26 November, 1962

<table>
<thead>
<tr>
<th>Drill Core From To</th>
<th>Description</th>
<th>Samples From To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0' - 8'</td>
<td>Tan coloured clay</td>
<td>5' - 10'</td>
<td></td>
</tr>
<tr>
<td>8' - 44'</td>
<td>Blue grey clay, toughly plastic, soft and sticky</td>
<td>15' - 20'</td>
<td></td>
</tr>
<tr>
<td>44'</td>
<td>Small boulder</td>
<td>25' - 30'</td>
<td></td>
</tr>
<tr>
<td>44' - 76'</td>
<td>Blue grey clay, plastic, sticky with thin brown clay beds</td>
<td>35' - 40'</td>
<td></td>
</tr>
<tr>
<td>76'</td>
<td>Thin hard S. stone bed</td>
<td>45' - 50'</td>
<td></td>
</tr>
<tr>
<td>76' - 82'</td>
<td>Grey clay with thicker brown clay beds and hair line roots in brown clay</td>
<td>55' - 60'</td>
<td></td>
</tr>
<tr>
<td>82' - 88.7'</td>
<td>Thin bedded brown shale and coarse grained brown s. stone</td>
<td>65' - 70'</td>
<td></td>
</tr>
<tr>
<td>88.7' - 96'</td>
<td>Interbedded brown shale and thin oxidized oolitic beds. Thin 1/2&quot; coal seam at 92'. Rare gypsum crystals.</td>
<td>75' - 80'</td>
<td></td>
</tr>
</tbody>
</table>

Grab samples at 5' intervals

Interbedded brown shale and thin oxidized oolitic beds as above

as above, with thin coal at 92', gypsum crystals

Much more brown shale, rare oolites, rust 1/2" seams of rusty material sparrets rare oolites

Grey brown and brown shale, occas. pebble, no oolites

Brown shale, rusty shale, small pieces oolitic ore.
**Log of Drill Hole No. 10-29-7949W6**

**Location:** Elevation Top: ___________________ Depth: ___________________ Page No. 2

Elevation: ___________________ Inclination: ___________________ Date Completed: ___________________

<table>
<thead>
<tr>
<th>Depth Range</th>
<th>Description</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>96' to 102'</td>
<td>Brown shale, some rust, some blue shale</td>
<td>96'</td>
<td>97'</td>
</tr>
<tr>
<td>102' to 105'</td>
<td>Brown and blue shale beds, very soft</td>
<td>97'</td>
<td>98'</td>
</tr>
<tr>
<td>98' to 99'</td>
<td>as above, some blue shale</td>
<td>98'</td>
<td>99'</td>
</tr>
</tbody>
</table>

**Samples**

- 96' to 97': Brown shale, some rust
- 97' to 98': Brown shale, rusty shale, dark green impure S. stone
- 98' to 99': as above, some blue shale
**LOG OF DRILL HOLE NO. 13-29-79-9W6**

On West Boundary of LSD 

Location: & on WNW Seismic line  
Elevation Top: nil  
Depth: 120'  
Page No. 1  

Elevation: 2585  
Inclination: 90°  
Date Completed: 25 Nov./62

<table>
<thead>
<tr>
<th>Drill Core From</th>
<th>To</th>
<th>Description</th>
<th>Samples From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>12'</td>
<td>Tan coloured clay, fairly hard</td>
<td>5'</td>
<td>Grab samples</td>
<td></td>
</tr>
<tr>
<td>12'</td>
<td>69'</td>
<td>Toughey plastic &amp; very sticky dark, blue-grey, glacial clay</td>
<td>15'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>69'</td>
<td>72'</td>
<td>As above with thin beds of red shale &amp; brown clay</td>
<td>20'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72'</td>
<td>81'</td>
<td>Mixed dark blue grey clay &amp; brown clay with hair-like rootlets in the brown clay beds, some thin gypsum crystals</td>
<td>25'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81'</td>
<td>120'</td>
<td>Toughey plastic &amp; very sticky, soft soft dark blue grey clay (glacial?)</td>
<td>30'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>35'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>45'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>55'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>60'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>65'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>70'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>75'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>80'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>85'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>90'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>95'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottom @ 120'</td>
<td></td>
<td></td>
<td>100'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>105'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>110'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>115'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>120'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LOG OF DRILL HOLE NO. 15-30-79-9W6

Location: In NE 1/4 of LSD  
Elevation Top: NIL  
Depth: 110'  
Elevation: 2600  
Inclination: 90°  
Date Completed: 2 February 1963.

<table>
<thead>
<tr>
<th>Drill Core</th>
<th>Description</th>
<th>From (')</th>
<th>To (')</th>
</tr>
</thead>
<tbody>
<tr>
<td>0' - 12'</td>
<td>Surface clay mantle</td>
<td>0'</td>
<td>12'</td>
</tr>
<tr>
<td>12' - 110'</td>
<td>Blue grey plastic glacial clay, some brown coloured sections</td>
<td>12'</td>
<td>110'</td>
</tr>
</tbody>
</table>

Bottom of hole at 110' elev. 2490

No bedrock

No samples
### LOG OF DRILL HOLE NO. 4-31-79-W6

**Location:** SW Corner of LSD  
**Elevation Top:** nil  
**Depth:** 100  
**Elevation:** 2570  
**Inclination:** 90°  
**Date Completed:** 2 Feb./63

<table>
<thead>
<tr>
<th>Drill Core From</th>
<th>To</th>
<th>Description</th>
<th>Samples From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>12'</td>
<td>Tan coloured surface clays, some ironstained clay fragments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12'</td>
<td>100'</td>
<td>Blue-grey, sticky, plastic glacial till</td>
<td></td>
<td></td>
<td>No samples taken</td>
</tr>
</tbody>
</table>
Location: 30' Ne of SW corner Monument of LSD  

Elevation Top: nil  
Depth: 100'  

Elevation: 2520  
Inclination: 90°  
Date Completed: 17 Dec. 62

<table>
<thead>
<tr>
<th>Drill Core From</th>
<th>To</th>
<th>Description</th>
<th>Samples From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>6'</td>
<td>Tan coloured clay surface mantle</td>
<td></td>
<td></td>
<td>Grab samples taken at 5' intervals</td>
</tr>
<tr>
<td>6'</td>
<td>11'</td>
<td>Apparently bedded, tan clay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11'</td>
<td>27'</td>
<td>As above but softer and no bedding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27'</td>
<td>100'</td>
<td>Sticky, blue grey, plastic, glacial clay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>At 98' small quartzite boulder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO BEDROCK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bottom of hole at 100' elev. 2420</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LOG OF DRILL HOLE NO. 4-35-79-9-W6

Location: On West side of LSD  
Elevation Top: 2484/2475.5  
Depth: 45'  
Elevation: 2520  
Inclination: 90°  
Date Completed: 26 November, 1962.

<table>
<thead>
<tr>
<th>Drill Core</th>
<th>Description</th>
<th>Samples</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 0' to 8'</td>
<td>Tan coloured clay, hard</td>
<td>From 5' to 10'</td>
<td>Grab samples at 5' intervals</td>
</tr>
<tr>
<td>From 8' to 36'</td>
<td>Grey clay shale some yellow clay at 25'</td>
<td>From 15' to 20'</td>
<td></td>
</tr>
<tr>
<td>From 36' to 45'</td>
<td>Cored 40% recovery</td>
<td>From 25' to 30'</td>
<td>Bottom 6&quot; is blue shale. Next 1' up is</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From 30' to 35'</td>
<td>interbedded ore and shale, remainder of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From 35' to 40'</td>
<td>recovered core is oolitic ore.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From 36' to 40'</td>
<td>Catch sample</td>
</tr>
</tbody>
</table>
LOG OF DRILL


On NNE line, 0.65 miles

Location: NNE from W. boundary

Elevation Top: 2478.5'

Depth: 53'

Page No.: 1

of Section 35

Elevation: 2510

Inclination: 90°

Date Completed: Nov. 28/62

<table>
<thead>
<tr>
<th>Drill Core From</th>
<th>To</th>
<th>Description</th>
<th>Samples From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>7'</td>
<td>Tan coloured clay</td>
<td>43'</td>
<td>51'</td>
<td>4' core recovered</td>
</tr>
<tr>
<td>7'</td>
<td>31.5'</td>
<td>Blue-grey, glacial clay, sticky,</td>
<td>51'</td>
<td>54'</td>
<td>2' core recovered</td>
</tr>
<tr>
<td>31.5'</td>
<td>33'</td>
<td>Hard brown &amp; rusty shales/plastic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33'</td>
<td>33.4'</td>
<td>Rust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33.4'</td>
<td>35'</td>
<td>Hard brown shale, thin rust seams</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35'</td>
<td>43'</td>
<td>Oolitic iron ore, cored; no recovery no returns, no catch samples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49'</td>
<td>51'</td>
<td>Cored, recover 4' (50%) probably from bottom of run</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51'</td>
<td>54'</td>
<td>Cored, recover 2' (65%) probably from top of run - last 1' very soft.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51'</td>
<td>51.5'</td>
<td>conglomerate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51.5'</td>
<td>52.7'</td>
<td>oolitic, kakhi-coloured</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52.7'</td>
<td>53'</td>
<td>Blue-grey sandstone</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

...
20' NNE from cored hole

Location: on this site

Elevation: 2510

Inclination: 90°

Date Completed: 28 Nov. /62

Drill Core From | To |
--- | --- |
Re drilled 20' from cored hole & bagged foot x foot catch samples |

Samples From | To |
--- | --- |
30 | 31 |
31 | 32 |
33 | 34 |
34 | 35 |
35 | 36 |
36 | 37 |
37 | 38 |
38 | 39 |
39 | 40 |
40 | 41 |
41 | 42 |
42 | 43 |
43 | 44 |
44 | 45 |
45 | 46 |
46 | 47 |
47 | 48 |
48 | 49 |
49 | 50 |
50 | 51 |
51 | 52 |
52 | 53 |
53 | 54 |
54 | 55 |
55 | 56 |
56 | 57 |
57 | 58 |
58 | 59 |
59 | 60 |

Description

- 30-31: Heavily oolitic, oxidized
- 31-32: Heavily oolitic, not completely oxidized
- 33-34: Blue grey, heavily oolitic, hard, some oxidized seams
- 34-35: Oolitic, hard, blue to bluish brown
- 35-36: Conglomeritic chert pebbles, etc.
- 36-37: Oolitic, hard, dark blue silty sandstone
- 37-38: Oolitic blue grey ore & grey clay shale
- 38-39: Grey gritty clay shale, occas. pebbles, some shell frags.
- 39-40: Grey clay shale some rusty iron seams, pebbles
- 40-41: Grey gritty clay shale
## LOG OF DRILL HOLE NO. 7-2-80-9W6 Redrilled

**Location:** 20' SSW of cored hole  
**Elevation Top:** 2459.5'  
**Depth:** 40'  
**Page No.:** 1

**Elevation:** 2480  
**Inclination:** 90°  
**Date Completed:** 29 Nov. 1962

<table>
<thead>
<tr>
<th>Drill Core</th>
<th>Description</th>
<th>Samples</th>
<th>Zone is from 23.7' - 27.5'</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td>To</td>
<td>From</td>
<td>To</td>
</tr>
<tr>
<td>0'</td>
<td>11'</td>
<td>Tan coloured clay</td>
<td>20'</td>
</tr>
<tr>
<td>11'</td>
<td>20'</td>
<td>Grey hard clay shale (bed rock)</td>
<td>22'</td>
</tr>
<tr>
<td>20'</td>
<td>22 1/2'</td>
<td>Grey hard clay shale</td>
<td>23'</td>
</tr>
<tr>
<td>22 1/2'</td>
<td>23.7'</td>
<td>Grey brown shale &amp; rust</td>
<td>24'</td>
</tr>
<tr>
<td>23.7'</td>
<td>24'</td>
<td>Hard dark blue sandstone, rust</td>
<td>25'</td>
</tr>
<tr>
<td>24'</td>
<td>25'</td>
<td>Soft, rusty-brown, oolitic sandstone</td>
<td>26'</td>
</tr>
<tr>
<td>25'</td>
<td>26'</td>
<td>as above with shale beds</td>
<td>27'</td>
</tr>
<tr>
<td>26'</td>
<td>27'</td>
<td>soft, rusty-brown, sandstone with hard dark blue beds</td>
<td>28'</td>
</tr>
<tr>
<td>27'</td>
<td>28'</td>
<td>soft, rusty-brown &amp; grey clay shale</td>
<td>29'</td>
</tr>
<tr>
<td>28'</td>
<td>29'</td>
<td>grey clay shale</td>
<td>30'</td>
</tr>
<tr>
<td>29'</td>
<td>30'</td>
<td>Hard grey &amp; brown clay shales</td>
<td>31'</td>
</tr>
<tr>
<td>30'</td>
<td>31'</td>
<td>Hard grey &amp; yellowish clay shale interbeds</td>
<td>32'</td>
</tr>
<tr>
<td>31'</td>
<td>32'</td>
<td>gritty shale</td>
<td>33'</td>
</tr>
<tr>
<td>32'</td>
<td>33'</td>
<td>Grey clay shale with 1/2' seam yellow bentonite</td>
<td>34'</td>
</tr>
<tr>
<td>33'</td>
<td>34'</td>
<td>Grey clay shale</td>
<td>35'</td>
</tr>
<tr>
<td>34'</td>
<td>35'</td>
<td>Grey clay shale, same light yellow bentonite</td>
<td>36'</td>
</tr>
<tr>
<td>35'</td>
<td>36'</td>
<td>Grey clay shale</td>
<td>37'</td>
</tr>
<tr>
<td>36'</td>
<td>37'</td>
<td>Grey clay shale</td>
<td>38'</td>
</tr>
<tr>
<td>37'</td>
<td>38'</td>
<td>Grey clay shale</td>
<td>39'</td>
</tr>
<tr>
<td>38'</td>
<td>39'</td>
<td>Grey clay shale</td>
<td>40'</td>
</tr>
</tbody>
</table>
**LOG OF DRILL HOLE NO. 3-3-80-9W6**

**Location:** About 400' east of NW corner of LSD  
**Elevation Top:** nil  
**Depth:** 100'  
**Page No.: 1**

**Elevation:** 2545  
**Inclination:** 90°  
**Date Completed:** 14 Dec., 1962

### Drill Core

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Description</th>
<th>Samples</th>
<th>From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'</td>
<td>5'</td>
<td>Tan coloured clay, some rust</td>
<td>Grab samples at 5' intervals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5'</td>
<td>35'</td>
<td>Greenish grey hard pan or clay shale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35'</td>
<td>76'</td>
<td>Soft, grey, plastic, clay; probably glacial with a thin hard bed at 52' and another at 65'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76'</td>
<td>85'</td>
<td>Hard grey clay shale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85'</td>
<td>100'</td>
<td>Very soft grey and sticky plastic glacial clay</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>PROBABLY NO BEDROCK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Bottom at 100' elev. 2445</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drill Core From</td>
<td>To</td>
<td>Description</td>
<td>Samples From</td>
<td>To</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>----</td>
<td>-------------</td>
<td>--------------</td>
<td>----</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>0'</td>
<td>13'</td>
<td>Tan coloured surface mantle</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13'</td>
<td>36'</td>
<td>Sticky blue-grey, plastic, glacial clay</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36'</td>
<td>BEDROCK</td>
<td>elev. 2534</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25'</td>
<td>72'</td>
<td>Grey, brown, thin bedded, soft clay shale (Lose water to formation, add bran)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72'</td>
<td>120'</td>
<td>Harder, thin interbeds of grey and brown shale with some rust at 75' A very thin hard silt shale layer at 83'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bottom at 120' elev. 2450</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From</td>
<td>To</td>
<td>Description</td>
<td>Samples From</td>
<td>To</td>
<td>Description</td>
<td>No samples taken</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>--------------------------------------</td>
<td>--------------</td>
<td>----</td>
<td>-------------</td>
<td>------------------</td>
</tr>
<tr>
<td>0'</td>
<td>10'</td>
<td>Tan coloured surface clays</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10'</td>
<td>80'</td>
<td>Blue-grey, sticky, plastic glacial till</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drill Core From</td>
<td>To</td>
<td>Description</td>
<td>Samples From</td>
<td>To</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>--------</td>
<td>------------------------------------------</td>
<td>--------------</td>
<td>--------</td>
<td>------------------------------</td>
<td></td>
</tr>
<tr>
<td>0'</td>
<td>12'</td>
<td>Tan coloured clays</td>
<td></td>
<td></td>
<td>No samples taken</td>
<td></td>
</tr>
<tr>
<td>12'</td>
<td>80'</td>
<td>Blue-grey, sticky, plastic glacial till</td>
<td></td>
<td></td>
<td>No samples taken</td>
<td></td>
</tr>
</tbody>
</table>