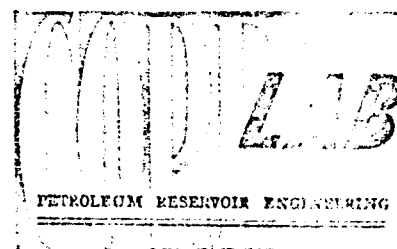
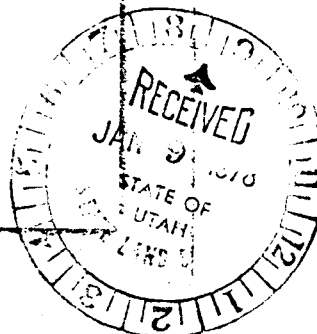


OIL SHALE ASSAY

THE ATLANTIC REFINING COMPANY

NO. 1 LONG DRAW WELL



Core Hole RecordATLANTIC, LONG DRAW NO. 1

Sec. 36, T. 12 S., R. 24 E. - 2450' FSL & 500' FEL
 Eastern Uinta Basin Oil Shale Area I
 Three Mile Canyon Tar Sand Area
 Uintah County, Utah

Elevation: 6900'

Spud Date: 4-23-65

Set casing to 20.5'.

Core Description:4-23-65

Assay 5' or 7'

Core No. 1 - rec 14'3".

20.5- 24.5' Oil sh: m-brn-gy, good varves.
 24.5- 26 Oil sh: dk brn-blk, varved, mahogany color.
 26 - 32 Oil sh: m grn-gy to brn, varved.
 32 - 33 Oil sh: dk brn-blk, varved w/reddish layers.
 33 - 35 Oil sh: lt-m brn & gy, varved.

Core No. 2 - rec 20'4".

35 - 51 Sh: lt-m, brn, gy, grn sh varved throughout, even varves to 50', contorted 50-51'. 1" layer at 45.5' looks like gilsonite. 3" analcite layer at 51' (Mahogany Marker?)
 51 - 55 Oil sh: dk brn, varved, good mahogany color.

Core No. 3 - rec 20'2".

55 - 66 Sh: m grn-gy, few brn varves, vf, mic.
 66 - 70 Oil sh: lt-m brn, varved, 8" dk brn zone @ 66'.
 70 - 75 Oil sh: dk brn, platy, good mahogany color.

Core No. 4 - rec 20' 1".

75 - 77 As 70-75'.
 77 - 78.5 Oil sh: m brn.
 78.5- 79 Oil sh: dk brn.

Core Hole Record
Atlantic, Long Draw No. 1

2.

Core No. 4 (continued)

79 - 95' Oil sh: m-dk brn, lt brn zone 84-85', v dk brn zone 88-89, lt brn zone 90-91', good dk brn color 91-93, 94-95'.

Core No. 5 - rec 20'6".

95 - 99 Oil sh: m brn at top to lt-m brn, varved.

99 -100 Oil sh: dk brn.

100 -101 Oil sh: lt-m brn, varved.

101 -110 Sh: lt-m brn, grn, gy, laminated even 6" analcite layer 104-104.5'.

Base Ascs - 110'

110 -111 As above, contorted bed.

111 -112 Analcite(?).

112 -115.5 Ls: wh, m-dk gy, thin even lam.

Core No. 6 - rec 19'9".

115.5-127 Ls: wh, m-dk gy, brn, arg, thin even lam, some intbd sh, thin 2" cgl bed @ 115.5'.

127 -129.5 Ls: aa, v/much contorted bed.

129.5-130 Evap(?), wh, xl.

130 -134 Ls: algal, lt brn in upper 2.5', dk brn in lower 1.5'.

134 -135.5 Sh: m bl-gy, v calc w/incl & blebs of dk gy sat asphaltic sand, vf-m grd, sub ang

4-24-65

Core No. 7 - rec 20'.

135.5-136 As 134-135.5'.

136 -137.5 Ss: blk, vf, carbonate(?), good sat.

137.5-138.5 Ss, lt gy, looks the same but barren, mic.

138.5-144 Ss: blk, vf-m grd, mic, good sat, bldg in spots.

144 -145 As above w/50% barren layers of gy sta.

Core Hole Record
Atlantic, Long Draw No. 1

3.

Core No. 7 (continued)

- 145 -147.5' As 138.5-144' w/few 1/4"-3/4" barren layers of gy, mic, calc ste.
147.5-154 Ste: lt gy, sdy, calc, mic, barren, 1" stk tar at 154'.
154 -155.5 Ss: blk, vf-f, hvy tar, barren stks in top 6", solid tar below.

Core No. 8 - rec 20'1".

- 155.5-168 Ss: blk, vf-f, hvy sat, thin 1/4" barren stks of gy ste thruout from 164-168', also considerable xbd.
168 -170.5 Ss: blk, vf-f, xbd, hvy sat, inter. lam w/50% barren gy mic ste.
170.5-175.5 Ste: lt gy, calc, mic barren, becomes v arg, nearly calc sh at 173.5'.

Core No. 9 - rec 20'.

- 175.5-186 Ls: lt gy, vf, arg, barren, possible sli oil stn in bottom 1'.
186 -188.5 Sh: lam, lt-dk gy, brn, v calc, contorted bed.
188.5-191.5 Ls: dk gy, ost, algal, foss hash, asphalt sat.
191.5-195.5 Ls: lt gy, arg, barren, 1" ost zone 193.5'.

Core No. 10 - rec 20'2".

- 195.5-196 As above.
196 -199 Ls: algal, lt brn-yel, large algal heads in lower part, some tar in bottom 6".
199 -207 Sh: gy grn, calc, slty.
207 -212 Ste: lt gy, calc, mic.
212 -215 Ss: lt gy, vf, v calc, sli tar in scat stks on x-bds.
215 -215.7 Ste: lt gy, calc, barren.

TD

Core Tops:

Mahogany Zone	44'	(+6856)
Base Mahogany Zone	96'	(+6804)
Douglas Creek	136'	(+6764)

KEW"rlh