HUSKY

HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

P-1379

WELL BARROW #20 Date 4-7-80 Time 0600

Present Depth 100 Previous Depth 100 Footage 24 Hrs. -

Formation(s) TOROK Top surface (?)

Present Activity: Prep to spud.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

SHOW DESCRIPTION (Gas and/or Oil)

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-8-80 Time 0600

Present Depth 1500' Previous Depth 100' Footage 24 Hrs. 1400'

Formation(s) TOROK; GR/PEBBLE SH Top Surface; 1330' (?)

Present Activity: Circ and cond for logs.

LITHOLOGIC DESCRIPTION

Interval Reported 100-1500' Sampling Interval 30-10 ft. Sample Quality v.p. - fair
Lag Time: 30 min. @ 1500 ft.

Interval	Description	Avg. Drill Rate min./ft.
100-1330'	Clyst and Cly: lt - med gy, sl slty, v. soluble in lower pt of interval; occ thn strgs Ss: gy, dirty; occ Sltst: lt gy - brn, tr of tarry dd oil from Ss, tr coal, occ shell frag, tr pyr.	0.2 - 1.2
1330-1500'	Sh: v. dk gy, sl slty, sl mica, firm, w/scat w. rdd Qtz grns; occ thn Sltst; tr pyr, occ shell frag.	1.0 - 1.3

SHOW DESCRIPTION (Gas and/or Oil)

Ditch Gas (Units): 15-10 to 1375'
Background 20 below 1375' Connection 80 @ 1387' Trip - Peaks 200 @ 1385'

Mud: Wt. 9.0 Vis 37 W.L. - ph 8.0 cc Oil 0 % Cl_2 400 Temp. 75 °F. in 60 °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Logs: RICH NELSON

HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-9-80 Time 0600

Present Depth 1500' Previous Depth 1500' Footage 24 Hrs. 0

Formation(s) GR SHALE Top 1314' or 1348' (log)

Present Activity: Run 9 5/8" casing.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.
	Ran logs as follows	
	DIL/GR/SP 1492' - surface	
	BHCS/GR/TTI 1492 - 105'	

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. 9.1 Vis 47 W.L. not controlled pH 8.0 cc Oil 0 % Cl_2 400 Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-10-80 Time 0600

Present Depth 1500' Previous Depth 1500' Footage 24 Hrs. 0

Formation(s) GR SHALE Top 1348' (log)

Present Activity: WOC

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. 9.1 Vis 37 W.L. NC ph 8.0 cc Oil 0 % Cl_2 400 Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-11-80 Time 0600

Present Depth 1500' Previous Depth 1500' Footage 24 Hrs. 0

Formation(s) GR Top 1348' (log)

Present Activity: Nipple up BOP

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. 10.0 Vis 49 W.L. 10 ph 10.0 cc Oil _____ % Cl_2 121000 Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-12-80 Time 0600

Present Depth 1500 Previous Depth 1500 Footage 24 Hrs. 0

Formation(s) PEBBLE SHALE Top 1348'

Present Activity: Testing BOP's (replaced Hydrill)

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. 10 Vis 49 W.L. 10 ph 10 cc Oil _____ % Cl_2 118,000 Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-13-80 Time 0600

Present Depth 1770' Previous Depth 1500' Footage 24 Hrs. 270'

Formation(s) POSSIBLE KINGAK Top 1740'

Present Activity: Drilling

LITHOLOGIC DESCRIPTION

Interval Reported 1500-1770' Sampling Interval 10 ft. Sample Quality fair - good
Lag Time: 11 min. @ 1700 ft.

Interval	Description	Avg. Drill Rate min./ft.
1500-1530'	Contaminated spls w/cmt; Sh, dk gy, carb, sl slty, w/mnr f. grn Ss.	1.0 - 2.0
1530-1570'	Sltst, med gy brn, arg, carb, sft - firm; w/mnr Sh and Clyst, tr w. rdd Qtz and Cht grns.	1.0
1570-1580'	Ss, S&P, gy to brn stn, f. - med grn w/large w. rdd Qtz and Cht grns and grnls, brn stn, good yel fluor, milky gold cut fluor w/290 units gas.	0.75
1580-1630	Sltst: med gy - brn, arg, sdy, carb, and occ mica; w/scat w. rdd Qtz and Cht grns, occ tr f. grn sd; w/mnr tn Ls and dol ironstone (pos concretions).	3.0
1630-1640'	Ss: S&P gy, med grn, fri, brn stn w/fluor a/a at 1570'.	0.75
1640-1700'	Sltst: a/a; w/mnr lt gy - green waxy bent Clyst; tr f. grn Ss: abnt w. rdd Qtz and Cht grns.	2.5 - 3.5
1700-1740'	Sltst a/a w/ marked increase in Qtz and Cht grns and Cht frags.	3.5
1740-1770'	Sh: dk gy, arg, rr carb, grdg to arg Sltst; w/occ thn bds med - crs grn sds.	3.0

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5
1570'	290		80	120	NOT REPORTED				
1700'	930		120	240	NOT REPORTED				

Ditch Gas (Units): Background 240 Connection 480 @ 1723' Trip 118 @ 1500' Peaks a/a

Mud: Wt. 10.4 Vis 58 W.L. 10 ph 9.5 cc Oil - % Cl_2 116,000 Temp. 72 °F. in 80 °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist: RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
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DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-14-80 Time 0600

Present Depth 2140' Previous Depth 1770' Footage 24 Hrs. 370

Formation(s) LOWER BARROW SS Top 2066' (log)

Present Activity: Logging (DLL)

LITHOLOGIC DESCRIPTION

Interval Reported 1770-2140' Sampling Interval 10 ft. Sample Quality fair
Lag Time: 20 min. @ 2140 ft.

Interval	Description	Avg. Drill Rate min./ft.
1770-1990'	Sh and Clyst: lt - med gy - brn, occ slty, sft - firm,w/mnr Sh: dk gy, carb; tr of f. - crs lse sd, NOSCF.	1.5 - 3.0
1990-2040'	Ss: lt - med gy, v.f.grn, tr glau, Cly filled, hd - occ fri, nil - p. por, no vis stn, fair gold fluor, milky cut fluor.	0.6 - 1.0
2040-2050'	Ss: a/a, w/sl increase in por, show also sl better than above, w/1900-2000' units gas.	0.8
2050-2060'	Ss: a/a becoming v. slty, grds to Sltst.	0.9
2060-2090'	Ss: lt - med gy, f. grn, fri, fairly clean f. por, no vis stn, fair vel gold spl fluor, good milky cut fluor, becomes tt and slty at base.	0.5 - 0.9
2090-2140'	Sltst and Sh: intbdd, med gy - brn, occ mica and carb, sdy, pyr, occ shell frag.	1.5 - 5.0

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5
2035-2080'	1900-2000	-	-	-	CHROMATOGRAPH INOPERATIVE				

Ditch Gas (Units): Background 1900-500 Connection nil short Trip 1000 @ 2140' Peaks a/a

Mud: Wt. 10.8 Vis 60 W.L. 10.0 ph 9.0 cc Oil 0 % Cl_2 105000 Temp. 80 °F. in 84 °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-15-80 Time 0600

Present Depth 2140' Previous Depth 2140' Footage 24 Hrs. 0

Formation(s) LOWER BARROW Top 2053'

Present Activity: Ran 7" csg; attempting to circ around csg.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.
	Ran the following logs past 24 hrs.	
	DLL/GR/SP/MSFL 2130-1350'	
	BHCS/GR/TTI 2130-1500'	
	FDC/CNL/GR/CAL 2131-1485'	
	Summary of apparent zones of interest	

Formation	Interval	Net Ø > 10%	Avg. Ø
L. Cretaceous	1558-1574' (16')	13'	13%
L. Cretaceous	1625-1638' (13')	10'	17%
L. Barrow	2053-2080' (28')	16'	20%

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip After logging 3000 @ 2140' Peaks _____

Mud: Wt. 10.8 Vis 58 W.L. 10.0 ph 9.0 cc Oil - % Cl_2 98000 Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist: RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-16-80 Time 0600

Present Depth 2140' Previous Depth 2140' Footage 24 Hrs. 0

Formation(s) LOWER BARROW Top 2053'

Present Activity: Testing BOP's

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.
	NOTE: Barrow #20 logs came to Anchorage on Wein "ESP" on Flight #4, 4-15-80; need to be picked up at Anchorage International Airport and receipt confirmed with Wellsite Geologist.	

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt 10.7 Vis 51 W.L. 11 ph 9 cc Oil - % Cl 94,000 Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

RICH NELSON

HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-17-80 Time 0600

Present Depth 2140 Previous Depth 2140 Footage 24 Hrs. 0

Formation(s) LOWER BARROW Top 2053'

Present Activity: Displacing w/Arctic Pack in annulus.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. 10.7 Vis 51 W.L. 11.0 ph 9.0 cc Oil – % Cl_2 94000 Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-18-80 Time 0600

Present Depth 2161' Previous Depth 2140' Footage 24 Hrs. 21

Formation(s) L. BARROW Top 2053' (log)

Present Activity:

LITHOLOGIC DESCRIPTION

Interval Reported 2140-2160' Sampling Interval 10 ft. Sample Quality v. p.
Lag Time: 13 min. @ 2160 ft.

Interval	Description	Avg. Drill Rate min./ft.
2140-2160'	Sh: as previously reported, spls highly contaminated w/cmt.	6.0 - 7.0

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background 12 Connection nil Trip 80 Peaks none

Mud: Wt. 10.0 Vis 38 W.L. 9.5 ph 10.0 cc Oil 0- % Cl_2 43000 Temp. 65 °F. in 60 °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-19-80 Time 0600

Present Depth 2247' Previous Depth 2161' Footage 24 Hrs. 86

Formation(s) SAG RIVER Top 2242'

Present Activity: Pick up core bbl.

LITHOLOGIC DESCRIPTION

Interval Reported 2160-2247' Sampling Interval 10 ft. Sample Quality P.
Lag Time: 14 min. @ 2240 ft.

Interval	Description	Avg. Drill Rate min./ft.
2160-2242'	Sh: med gy, sft, sl slty, carb and mica, occ dk med grn pels.	11.0 - 12.(
2242-2247'	Ss: wh - tn, v.f. grn, hd, w/glau pels, no por at top; grds to f. grn Ss, fri w/dk brn stn (dd oil), dull orange initial spl fluor, immediate bright yel cut fluor.	2.0 - 3.0

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5
2245	40	-	8	40					

Ditch Gas (Units): Background 8-10 Connection nil Trip 15 @ 2161', 12 @ 2235' Peaks 40 @ 2245'

Mud: Wt. 9.9 Vis 42 W.L. 10.0 ph 9.5 cc Oil 0 % Cl_2 46000 Temp. 55 °F. in 57 °F. out

Data Unit:

Depth	Shale Density	De Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-20-80 Time 0600

Present Depth 2309' Previous Depth 2247' Footage 24 Hrs. 62

Formation(s) SAG RIVER Top 2242'

Present Activity: Cutting Core #3

LITHOLOGIC DESCRIPTION

Interval Reported 2247-2298' Sampling Interval core ft. Sample Quality good
Lag Time: - min. @ - ft.

Interval	Description	Avg. Drill Rate min./ft.
2247-2269'	Core #1, Cut 22', Rec. 20.2' (92%)	4.0 - 7.0
	2247-2267.8' - Ss: med gy - green, v.f. - f. grn, occ zones of grnls and shell frag, lime cmt and Cly filled, glau to v. glau, p. por, bleed dk brn oil throughout, dull gold fluor, bright green - yel cut fluor.	
	2267.8-2269' - No recovery.	
2269-2298'	Core #2, Cut 29', Rec. 29' (100%)	4.0 - 6.0
	2269-2298' - Ss: a/a, med gy brn, v.f. grn w/occ zones grnls and shell frag, Cly filled, calc, generally v.p. - nil por w/2' f. por near base; bleed oil a/a; w/intlam Sh.	

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background 22 Connection nil Trip 45 @ 2299' Peaks 82 @ 2285'

Mud: Wt 9.9 Vis 39 W.L. 10 ph 9.5 cc Oil 0 % Cl_2 41000 Temp. 56 °F. in 63 °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-21-80 Time 0600

Present Depth 2314' Previous Depth 2309' Footage 24 Hrs. 5

Formation(s) ARGILLITE Top 2314'

Present Activity: Running final shut in DST #1

LITHOLOGIC DESCRIPTION

Interval Reported 2299-2314' Sampling Interval core ft. Sample Quality good
Lag Time: 14 min. @ 2310 ft.

Interval	Description	Avg. Drill Rate min./ft.
2299-2314'	Core #3, Cut 15', Rec. 15' (100%)	
	2299-2313.8' - Ss: med gy, v.f. - f. grn, calc, - v. calc, firm - hd, mod Cly filled, glau, occ zones of grnls and shell frag, bleed dk brn heavy oil throughout from pores and fracs a/a.	5.0
	2313.8-2314' - Argillite: green grds to blk, apparent dip in core 40°.	10.0

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background 20 Connection nil Trip nil Peaks none

Mud: Wt. 9.9 Vis 38 W.L. 10.0 ph 9.5 cc Oil 0 % Cl_2 41000 Temp. 56 °F. in 63 °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch	110-1730, 1730-2230'	2	1
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)	110-1700'	1	
GeoChem (canned)	Cores 1 & 2	1	
Cores	No. 1,2,3; 2247-2314'	23	

Geologist RICE NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-22-80 Time 0600

Present Depth 2354' Previous Depth 2314' Footage 24 Hrs. 40

Formation(s) ARGILLITE Top 2314'

Present Activity: Drilling

LITHOLOGIC DESCRIPTION

Interval Reported 2314-2350' Sampling Interval 10 ft. Sample Quality good
Lag Time: 14 min. @ 2350 ft.

Interval	Description	Avg. Drill Rate min./ft.
2314-2350'	Argillite: dk gy, micromica, hd, occ Qtz veins, pyritic.	6.0 - 12.0

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background 45 Connection nil Trip 1200 @ 2314' Peaks none

Mud: Wt. 10.1 Vis 38 W.L. 13 ph 9.5 cc Oil 0 % Cl_2 49000 Temp. 58 °F. in 63 °F. out

Data Unit:

Depth	Shale Density	De Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-25-80 Time 0600

Present Depth Temp PBTD 1930' Previous Depth - Footage 24 Hrs. -

Formation(s) L. BARROW SD Top 2053'

Present Activity: WOC after perforating and squeeze at 1950'

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. 10.3 Vis 35 W.L. 15 ph 11.0 cc Oil 0 % Cl_2 52000 Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist _____

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-26-80 Time 0600

Present Depth PBTD 2095' Previous Depth – Footage 24 Hrs. –

Formation(s) LOWER BARROW SS Top 2053'

Present Activity: RIH w/perf guns to perf lower Barrow

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON TO SITE TODAY

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-27-80 Time 0600

Present Depth PBTD 2095' Previous Depth _____ Footage 24 Hrs. _____

Formation(s) LOWER BARROW SS Top 2053'

Present Activity: Nippling down BOP's in prep for production test; perf'd @ 4 shots/ft. 1994-2046', 2064-2082'

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-28-80 Time 0600

Present Depth PBTD 2095' Previous Depth - Footage 24 Hrs. 0

Formation(s) UPPER AND LOWER BARROW SDS Top PERFS 1994-2046', 2064-2082'

Present Activity: Attempt to bring well in.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. 9.2 Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-29-80 Time 0600

Present Depth PBTD 2095' Previous Depth - Footage 24 Hrs. -

Formation(s) L. BARROW Top 2053'

Present Activity: Cleaning up well.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

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GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 4-30-80 Time 0600

Present Depth PBTD 2095 Previous Depth - Footage 24 Hrs. -

Formation(s) L. BARROW Top 2053'

Present Activity: RIH to reperforate well

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 5-1-80 Time 0600

Present Depth PBTD 2095' Previous Depth - Footage 24 Hrs. -

Formation(s) L. BARROW Top 2053

Present Activity: Cleaning up well after reperforating.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist: RICH NELSON

HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 5-2-80 Time 0600

Present Depth PBTD 2095' Previous Depth - Footage 24 Hrs. -

Formation(s) LOWER BARROW SS Top 2053'

Present Activity: Taking pressure buildup w/Schlumberger Hewlett Packard guage on wireline.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.
	Had rate of 1.315 MMCFPD on 1.5" choke at 19 psi FWHP at 2330 hrs. 5/1/80 when well shut in, w/bottom hole temperature 34.7°F. Pressures at 0600 hrs. 5/2/80: 734 psi btm hole pressure, 625 psi surface pressure, btm hole temp. 37.2°F.	

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

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U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 5-3-80 Time 0600

Present Depth PBTD 2095' Previous Depth - Footage 24 Hrs. -

Formation(s) L. BARROW Top 2053'

Present Activity: POH w/tubing and packer after acidizing well.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.
	Pressure buildup after acidizing indicates maximum 765 psi btm hole SIP.	

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	De Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 5-4-80 Time 0600

Present Depth PBTD 2095 Previous Depth - Footage 24 Hrs. -

Formation(s) L. BARROW Top 2053

Present Acivity: Flow and clean up well.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.
	Flowed well for 8.5 hrs. at approx 1.3 MMCFPD and approx	
	1 bbl water/min, FTP 30 psi, annulus pressure 130 psi.	

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 5-5-80 Time 0600

Present Depth PBTD 2095' Previous Depth _____ Footage 24 Hrs. _____

Formation(s) U. & L. BARROW Top PERFS: 1994-2046', 2064-2082'

Present Activity: Well shut in for buildup after running flow test.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

SUMMARY OF FLOW TEST

Choke	Flow Description, etc.	Casing Pressure	Tubing Pressure	Flow Lin Pressure
Open	Well unloading water at approx 1 bbl/min, shut in for 2 hrs.	130	30	-
1/16"	Well flowed at 40 MCFPD	550-600	450-500	440-480
3/32"	Well flowed at 100 MCFPD	580	450	450
1/8"	Initial flow 210 MCFPD started making water and declined to 100 MCFPD.	550	365	355
3/16"	Flowing water, gas production rate unreliable. Shut in for 4.5 hrs.	545	330	290
Open	Unloading well.	-	-	-
-	Shut in well, after approx 8 hrs. btm hole SIP 786 psi, HP 698 psi.			

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

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U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 5-6-80 Time 0600

Present Depth PBTD 2095' Previous Depth - Footage 24 Hrs. -

Formation(s) L. BARROW Top 2053'

Present Activity: POH w/csg scraper, prep to plug back well and test Basal Cretaceous Sands.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.
	FSIP after 13 hrs. 50 min: 825 psi; max temp 38.5°F.	

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	De Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 5-7-80 Time 0600

Present Depth PBTD 1749' Previous Depth PBTD 2053' Footage 24 Hrs. -

Formation(s) PEBBLE SHALE SDS Top Perforations: 1629-1639', 1556-1574'

Present Activity: RIH w/tubing after perforating.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. 9.6 Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 5-8-80 Time 0600

Present Depth PBTD 1749' Previous Depth - Footage 24 Hrs. -

Formation(s) PEBBLE SH SDS Zone Perfs: 1629-1639', 1556-1574'

Present Activity: Testing; well shut in for buildup after blowing well down.

LITHOLOGIC DESCRIPTION

Interval Reported _____ Sampling Interval _____ ft. Sample Quality _____
Lag Time: _____ min. @ _____ ft.

Interval	Description	Avg. Drill Rate min./ft.
	Opened well for cleanup at 1815 hrs. 5-7-80, unloaded well w/gas from #19 on 3/16" choke, injected methanal, changed to 1/8" choke, changed to 1/16" choke, unloaded rat hole fluids w/some oil while blowing down w/gas from #19. Shut in well for 12 hr. buildup at 0100 hrs. on 5-8-80 w/initial btmhole shut in pressure 272 psi, and temp of 39.4°F., after 5 hrs. and 20 min. Btmhole SIP 382 psi and continuing to build at approx 12 psi/hr.	

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background _____ Connection _____ Trip _____ Peaks _____

Mud: Wt. _____ Vis _____ W.L. _____ ph _____ cc Oil _____ % Cl_2 _____ Temp. _____ °F. in _____ °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist RICH NELSON

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 5-9-80 Time 0600

Present Depth PBTD 1749' Previous Depth - Footage 24 Hrs. -

Formation(s) LOWER CRETACEOUS Top

Present Acuvity: Nippling up BOP's (summary test below)

LITHOLOGIC DESCRIPTION

Interval Reported Sampling Interval ft. Sample Quality
Lag Time: min. @ ft.

Interval	Description	Avg. Drill Rate min./ft.
	(PRODUCTION TEST L. CRETACEOUS SS CONTINUED)	
5-8-80		
0620	Cont'd shut in, max BHSIP 405 psi.	
0900	Opened well and blew clean w/gas from Barrow #19, blew out 2-4 bbls gas and wtr cut oil. Let well attempt to flow, well gradually dying.	
1200	Blew well clean w/gas from Barrow #19, recovered approx 4 bbls oil, emulsified w/wtr and gas, let well attempt to flow, well gradually dying.	
1600	Blew well clean w/gas from Barrow #19, recovered approx 4 bbls gas and wtr cut oil, let well attempt to flow.	
2200	Continue to let well attempt to flow, pulled Schlumberger temp log from test interval to surface, maximum BHFP 192.5 psi.	
2300	Blew well clean w/gas from Barrow #19, rec approx 4 bbls gas and wtr cut oil, v. emulsified.	
5-9-80		
0100	Blew well clean w/gas from Barrow #19 and killed w/$CaCl_2$ wtr, ran back pressure valve, nipple down Christmas tree, nipple up BOP's.	
	(NOTE: Rec. approx 15-20 bbls oil total during test)	

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background Connection Trip Peaks

Mud: Wt. Vis W.L. ph cc Oil % Cl_2 Temp. °F. in °F. out

Data Unit:

Depth	Shale Density	De Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

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HUSKY OIL NPR OPERATIONS, INC.
U. S. GEOLOGICAL SURVEY/ONPRA

DAILY GEOLOGICAL REPORT

WELL BARROW #20 Date 5/10-80 Time 0600

Present Depth PBTD 1749' Previous Depth - Footage 24 Hrs. -

Formation(s) LOWER CRETACEOUS SDS Top

Present Activity: Rigging down to move; well suspended as questionable oil well; rig released at 0600, 5-10-80.

LITHOLOGIC DESCRIPTION

Interval Reported Sampling Interval ft. Sample Quality
Lag Time: min. @ ft.

Interval	Description	Avg. Drill Rate min./ft.

GAS OCCURRENCE/SHOWS

INTERVAL	Total Gas Units	Cuttings Gas Units	Background Gas Units Before	Background Gas Units After	CHROMATOGRAPH (PPM) C_1	C_2	C_3	C_4	C_5

Ditch Gas (Units): Background Connection Trip Peaks

Mud: Wt. Vis W.L. ph cc Oil % Cl_2 Temp. °F. in °F. out

Data Unit:

Depth	Shale Density	Dc Exponent	Pore Pressure

Dispatched Samples:

Type	Interval	No. of Boxes	Set No.
Washed & Dried Ditch			
Unwashed Ditch (Paleo)			
Unwashed Ditch (USGS)			
GeoChem (canned)			
Cores	No.		

Geologist

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