DUAL INDUCTION - LATEROLOG
WITH LINEAR CORRELATION LOG

COUNTY NORTH SLOPE, ALASKA
FIELD or LOCATION WILDCAT
WELL #1 ALASKA STATE "A"
COMPANY EXXON COMPANY, USA

COMPANY EXXON COMPANY, U.S.A. (Flaxman Island)
WELL #1 ALASKA STATE "A"
FIELD WILDCAT
COUNTY NORTH SLOPE STATE ALASKA

CONFIDENTIAL

Location. 2982' FEL & 1549' FSL
API Serial No. 50-089-20003
Sec. 21 Twp. 10N Rge. 24E

Other Services: BHC-GR FDC-CNL HDT

Permanent Datum: G.L.; Elev.:
Log Measured From KB, 31 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 41
D.F.
G.L. 10'

Date	4-13-15	6-25-15	7-27-15	8-7-15
Run No.	ONE	TWO	THREE	FOUR
Depth—Driller	3379	12403	12137	12998
Depth—Logger	3376	12300	12100	12992
Btm. Log Interval	3373	12300	12121	12986
Top Log Interval	826	3375	12000	11005
Casing—Driller	20" @ 824	13 3/8 @ 3375	9 5/8 @ 11070	7 5/8 @ 11070
Casing—Logger	826	3374	—	11005
Bit Size	17 1/2	12 1/4	12 1/4 11070-12421, 8 1/2 12421-TD	
Type Fluid in Hole	GEL	LIGNOSULFONATE	LIGNOSULFONATE	LIGNOSULFONATE
Fluid Level	FULL	FULL	FULL	FULL
Dens. / Visc.	10.5 / 95	13.3 / 75	15.0 / 69	15.2 / 62
pH / Fluid Loss	8.4 / 14 ml	10.0 / 4.5 ml	11.0 / 5 ml	11.0 / 5.0 ml
Source of Sample	PIT	CIRC	FLOWLINE	CIRC.
R_m @ Meas. Temp.	1.65 @ 67 °F	2.11 @ 62 °F	3.15 @ 60 °F	2.70 @ 50 °F
R_{mf} @ Meas. Temp.	1.30 @ 58 °F	0.76 @ 60 °F	1.43 @ 62 °F	1.30 @ 48 °F
R_{mc} @ Meas. Temp.	2.21 @ 55 °F	— @ — °F	— @ — °F	4.31 @ 40 °F
Source: R_{mf} / R_{mc}	M / M	M / —	M / —	M / M
R_m @ BHT	1.40 @ 79 °F	0.93 @ 178 °F	1.02 @ 185 °F	0.70 @ 195 °F
Time Since Circ.	8 HRS	8 HRS	8 HOURS	12 HOURS
Max. Rec. Temp.	79 °F	178/178 °F	185 °F	194/196 °F
Equip. Location	334 / 4614	334 / 4614	334 / 4614	334 / 4014
Recorded By	NELSON	GRIEVES	LONGSTREET	GRIEVES
Witnessed By	CROUSE	GRIEVES	LONGSTREET	GRIEVES

The well name, location and borehole reference data were furnished by the customer.

FOLD HERE

Long Spacing - After Log	
FDC P_1 — Before Log	
FDC P_2 — Before Log	
FDC P_1 — After Log	
FDC P_2 — After Log	

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole
LL8	3370	0-20, 0-200	0-50, 0-500
ILD	3370	0-20, 0-200	0-50, 0-500
CONDUCTIVITY	12,100	200-1000-0	1000-500-0

CHANGES IN MUD TYPE OR ADDITIONAL SAMPLES

Date				
Sample No.				
Depth - Driller				
Type Fluid in Hole				
Dens. / Visc.				
pH / Fluid Loss	ml			
Source of Sample				
R_m @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Source: R_{mf} / R_{mc}	—	—	—	—
R_m @ BHT	@ °F	@ °F	@ °F	@ °F
R_{mf} @ BHT	@ °F	@ °F	@ °F	@ °F
R_{mc} @ BHT	@ °F	@ °F	@ °F	@ °F

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 7 of our General Terms and Conditions as set out in our current Price Schedule.

CONDUCTIVITY
MILLIMHOS $M = \frac{1000}{\text{OHMS. } M^2/M}$

DEEP INDUCTION LOG
0 — 1000 — 2000

RESISTIVITY
OHMS. M^2/M

DEEP INDUCTION LOG
0 — 20
0 — 200

AVERAGED LATEROLOG - 8
0

SPONTANEOUS-POTENTIAL
MILLIVOLTS

+ — 10 MV

BOREHOLE COMPENSATED SONIC LOG - GAMMA RAY

COUNTY NORTH SLOPE
FIELD or LOCATION WILDCAT
WELL #1 ALASKA STATE "A"
COMPANY EXXON COMPANY USA

COMPANY EXXON COMPANY USA

WELL #1 ALASKA STATE "A"

FIELD WILDCAT

COUNTY NORTH SLOPE STATE ALASKA

CONFIDENTIAL

LOCATION
2892' FEL & 1549' FSL
Sec. 27 Twp. 10N Rge. 24E

Other Services:
DIL
FDC-CNL
HDT

Permanent Datum: G.L. , Elev. 10'
Log Measured From KB , 31 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 41'
D.F.
G.L. 10'

Date	4-13-75	6-25-75	7-29-75	8-6-75
Run No.	ONE	TWO	THREE	FOUR-A
Depth—Driller	3379	12463	12737	12998
Depth—Logger	3378	12300	12705	12994
Btm. Log Interval	3378	12300	12705	12988
Top Log Interval	824	3375	12000	11067
Casing—Driller	20" @ 824	13 3/8 @ 3375	9 5/8 @ 11076	9 5/8 @ 11076
Casing—Logger	824	3375	—	11067
Bit Size	17 1/2"	12 1/4	12 1/4 11076-12427, 8 1/2 12427-TD	8 1/2 12427-TD
Type Fluid in Hole	GEL	LIGNOSULFONATE	LIGNOSULFONATE	LIGNOSULFONATE
	FULL	FULL	FULL	FULL
Dens. / Visc.	10.5 / 9.5	13.3 / 75	15.0 / 69	15.0 / 58
pH / Fluid Loss	8.4 / 14 ml	10.0 / 4.5 ml	11.6 / 5 ml	11.2 / 4.2 ml
Source of Sample	PIT	CIRC.	FLOWLINE	PIT
R_m @ Meas. Temp.	1.65 @ 67 °F	2.71 @ 62 °F	3.15 @ 60 °F	2.47 @ 60 °F
R_{mf} @ Meas. Temp.	1.30 @ 58 °F	.96 @ 60 °F	1.43 @ 62 °F	1.24 @ 58 °F
R_{mc} @ Meas. Temp.	2.21 @ 55 °F	— @ — °F	— @ — °F	4.35 @ 60 °F
Source: R_{mf} / R_{mc}	M / M	M / —	M / —	M / M
R_m @ BHT	1.4 @ 79 °F	0.93 @ 178 °F	1.02 @ 185 °F	0.75 @ 200 °F
Time Since Circ.	11 HOURS	17 HOURS	—	22 HOURS
Max. Rec. Temp.	79 °F	181/181 °F	185 °F	198/202 °F

The well name, location and borehole reference data were furnished by the customer.

Date	8-7-75		9-5-75	
Run No.	FOUR		FIVE	
Depth — Driller	12998		14 206	
Depth—Logger (Schl.)	12994		14 204	
Btm. Log Interval	12988		14 192	
Top logged interval	11067		12990	
Casing—Driller	9 5/8 @ 11076	@	7 @ 12997	@
Casing—Logger	11067		12990	
Bit Size	12 1/4 11076-12427, 8 1/2 12427-TD		5 7/8	
Type Fluid in Hole	LIGNOSULFONATE		GEL	
Dens. / Visc.	15.2 / 62		15.4 / 56	
pH / Fluid Loss	11.0 / 5.0 ml	ml	11.0 / 5.6 ml	ml
Source of Sample	CIRC.		CIRC.	
Rm @ Meas. Temp.	2.76 @ 50 °F	@ °F	1.07 @ 67 °F	@ °F
Rmf @ Meas. Temp.	1.30 @ 48 °F	@ °F	0.58 @ 57 °F	@ °F
Rmc @ Meas. Temp.	4.87 @ 48 °F	@ °F	1.6 @ 67 °F	@ °F
Source: Rmf / Rmc	M / M		M / C	
Rm @ BHT	0.78 @ 190	@ °F	0.285 @ 240 °F	@ °F
TIME: Circulation Stopped	8-7 1400		9-4 2100	
TIME: Logger on Bottom	8-7 2200		9-5 1130	
Max. Rec. Temp.	190/190 °F		240 °F	°F
Equip. / Location	334 / 4614		334 / 4614	
Recorded By	GRIEVES		GRIEVES	
Witnessed By Mr.	GRIEVES		GRIEVES	

Permanent Datum: ; Elev.:
Log Measured From Ft. Above Perm. Datum
Drilling Measured From

Elev.: K.B.
D.F.
G.L.

Date				
Run No.				
Depth—Driller				
Depth—Logger (Schl.)				
Btm. Log Interval				
Top Log Interval				
Casing—Driller	@	@	@	@
Casing—Logger				
Bit Size				
Type Fluid in Hole				
Dens. / Visc.				
pH / Fluid Loss	ml	ml	ml	ml
Source of Sample				
Rm @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	@ °F	@ °F	@ °F	@
Source: Rmf / Rmc				
Rm @ BHT	@ °F	@ °F	@	@ °F
TIME: Circulation Stopped				
TIME: Logger on Bottom				
Max. Rec. Temp.	°F	°F	°F	°F

	ONE	TWO	THREE	FOUR	FIVE
Order No.	52241	51015	52301	51100	52229
Level	FULL	FULL	FULL	FULL	FULL
PPM CL					

MENT DATA

	JF-295	JH-324	3/7	324	

REMARKS: