

CHEMICAL ANALYSIS

for .

PAN AMERICAN PETROLEUM CORPORATION

Pan Am Beaver YT 61-01
Beaver River
Yukon Territories

LABORATORY - Canada Ltd.
Yukon Territories
YUKON TERRITORIES

CHEMICAL ANALYSIS

for .

PAN AMERICAN PETROLEUM CORPORATION

Pan Am Beaver YT 61-01
Beaver River
Yukon Territories



CORE LABORATORIES - CANADA LTD.
 PETROLEUM RESERVOIR ENGINEERING
 WATER ANALYSIS



File CAL-2-316 Page 1 of 2

Company Pan American Petroleum Corporation
 Well Pan Am Beaver YTG-01 K.B. _____ Grd. _____
 Location 60°10'N, 124°10'W Field Beaver River Province Yukon Territories
 Formation Mississippian Interval 10170'-10220'
 Sampled from Flare Line (After 8 Hrs. Flow) by _____
 Date sampled May 31/69 Date analyzed June 6/69 Analyst M.B.
 Recovery Muddy Salt Water
 _____ Mud type _____ Water cushion _____

Total Solids:

Resistivity 0.060 Ohm-meters @ 70 °F Calculated 159,923 mg/liter
 Specific gravity 1.1107 @ 60°F By evaporation @ 110°C - mg/liter
 pH 4.55 H₂S Absent By evaporation @ 180°C - mg/liter
 Refractive Index 1.370 @ 70°F At ignition - mg/liter

MILLIGRAMS PER LITER

Na + K	Ca	Mg	Fe	Ba	Br	I	Cl	HCO ₃	SO ₄	CO ₃	OH
18,648	32,139	5,993	Pres.	Abs.	-	-	103,089	54	-	-	-

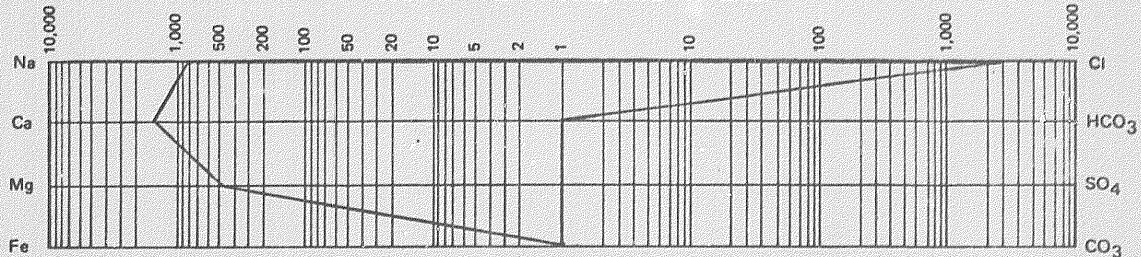
PER CENT CALCULATED SOLIDS

11.7	20.1	3.7	Pres.	Abs.	-	-	64.5	0.0	-	-	-
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MEQ PER LITER

810.8	1603.7	492.6	Pres.	Abs.	-	-	2907.1	0.9	-	-	-
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LOGARITHMIC PATTERN MEQ PER LITER





CORE LABORATORIES - CANADA LTD.
 PETROLEUM RESERVOIR ENGINEERING
 WATER ANALYSIS



File CAL-2-516 Page 2 of 2

Company Pan American Petroleum Corporation
 Well Pan Am Beaver YT-6-01 K.B. _____ Grd. _____
 Location 60°10'N, 124°10'W Field Beaver River Province Yukon Territories
 Formation Mississippian Interval 10170'-10220'
 Sampled from Flare Line (After 10 Hrs. Flow) by _____
 Date sampled May 31/69 Date analyzed June 6/69 Analyst M.B.
 Recovery Salt Water

_____ Mud type _____ Water cushion _____

Total Solids:

Resistivity 0.140 Ohm-meters @ 70 °F Calculated 54,104 mg/liter
 Specific gravity 1.0388 @ 60°F By evaporation @ 110°C - mg/liter
 pH 2.25 H₂S Absent By evaporation @ 180°C - mg/liter
 Refractive Index 1.346 @ 70°F At ignition - mg/liter

MILLIGRAMS PER LITER

Na + K	Ca	Mg	Fe	Ba	Br	I	Cl	HCO ₃	SO ₄	CO ₃	OH
5,580	12,361	1,453	Trace	Abs.	-	-	34,710	-	-	-	-

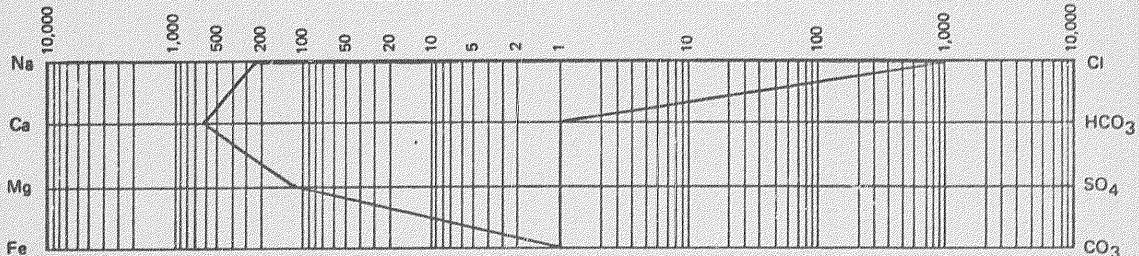
PER CENT CALCULATED SOLIDS

10.3	22.9	2.7	Trace	Abs.	-	-	64.1	-	-	-	-
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MEQ PER LITER

242.6	616.8	119.4	Trace	Abs.	-	-	978.8	-	-	-	-
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LOGARITHMIC PATTERN MEQ PER LITER



CORE ANALYSIS REPORT

FOR

Amoco Canada Petroleum Company Ltd.

PAN AM BEAVER YT G-01
WILDCAT - BEAVER RIVER AREA
YUKON TERRITORY

CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering
CALGARY - EDMONTON - REGINA

CORE LABORATORIES - CANADA LTD.
ALBERTA
EDMONTON

COMPANY AMOCO CANADA PETROLEUM COMPANY LTD. FORMATION DEVONIAN
WELL PAN AM BEAVER YT G-01 DRILLING FLUID WATER BASE MUD
FIELD WILDCAT-BEAVER RIVER AREA, YUKON TERR. ELEVATION
LOCATION 60 00' 25.00" N; 124 15' 48.00" W. ANALYSIS FULL DIAMETER
REMARKS GLAZED SURFACE ON ALL SAMPLES REMOVED
PRIOR TO PERMEABILITY MEASUREMENTS.

13492
PAGE 1 of 10
FILE CNP-1-9655
DATE REPORT OCT. 28/69
ANALYSTS GM DD MY

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS		PERMEABILITY FEET	POROSITY %	POROSITY FEET	DENSITY		RESIDUAL SAT. PORE %		VISUAL EXAMINATION
	DEPTH	THICK	KMAX	KAVG				BULK	GRAIN	OIL	WATER	
CORED INTERVALS: 13,530.0' - 13,591.0'; 13,663.0' - 14,432.0'												
CORE NO. 12 13,530.0' - 13,568.0' (REC 33.7) (9 BOXES)												
1	13530.0-13531.7	1.7	0.45	0.09	<0.01	0.77	1.70	2.76	2.79			STY
2	13531.7-13533.4	1.7	0.35	0.18	<0.01	0.60	0.36	2.80	2.82			STY
3	13533.4-13534.5	1.1	0.22	0.11	<0.01	0.24	0.88	2.75	2.77			STY
4	13534.5-13535.7	1.2	0.54	0.25	0.06	0.65	1.56	2.76	2.79			STY
5	13535.7-13537.3	1.6	0.47	0.26	0.09	0.75	2.56	2.73	2.78			STY
6	13537.3-13539.1	1.8	0.24	0.08	<0.01	0.43	2.70	2.76	2.80			STY HF
7	13539.1-13540.8	1.7	0.76	0.49	0.09	1.29	3.91	2.72	2.79			STY HF
8	13540.8-13542.8	2.0	*	3.32	0.53	6.64	4.60	2.74	2.80			HF
9	13542.8-13544.0	1.2	5.56	0.30	0.07	6.67	2.04	2.75	2.81			STY HF
10	13544.0-13545.2	1.2	*	0.33	0.66	0.40	2.52	2.75	2.81			STY HF
11	13545.2-13546.4	1.2	0.11	0.10	<0.01	0.13	1.44	2.76	2.79			STY
12	13546.4-13548.1	1.7	0.10	0.10	<0.01	0.17	2.38	2.76	2.79			STY HF
13	13548.1-13549.5	1.4	2.86	2.54	<0.01	4.00	2.24	2.74	2.79			STY HF
13A	13549.5-13551.3	1.8	0.06	0.03	<0.01	0.11	1.98	2.73	2.76			STY
13B	13551.3-13553.1	1.8	0.16	0.13	<0.01	0.29	1.80	2.75	2.78			STY
14	13553.1-13555.1	2.0	7.00	1.21	<0.01	14.00	2.20	2.74	2.77			STY HF
15	13555.1-13556.8	1.7	5.93	1.62	<0.01	10.08	2.21	2.75	2.79			STY HF
16	13556.8-13557.7	0.9	0.88	0.82	<0.01	0.79	1.35	2.78	2.82			STY HF
17	13557.7-13559.6	1.9	0.05	<0.01	<0.01	0.10	1.90	2.78	2.81			STY HF
18	13559.6-13561.6	2.0	17.61	0.80	<0.01	35.22	1.80	2.76	2.78			STY HF
19	13561.6-13563.7	2.1	0.21	0.06	<0.01	0.44	2.52	2.79	2.82			STY
20	13563.7-13568.0	4.3	-	-	-	-	-	-	-			LOST CORE
CORE NO. 13 13,568.0' - 13,591.0' (REC 23.0') (7 BOXES)												
20	13568.0-13568.7	0.7	*	1.22	<0.01	0.85	1.26	2.72	2.76			STY HF
21	13568.7-13568.8	1.1	<0.01	<0.01	<0.01	-	5.17	2.64	2.78			STY
22	13568.8-13570.8	1.0	12.57	5.68	<0.01	12.57	1.50	2.73	2.78			HF

CORE LABORATORIES - CANADA, LTD.
EDMONTON ALBERTA

PAGE 2 of 10
FILE CNP-1-9655

COMPANY AMOCO CANADA PETROLEUM COMPANY LTD.
WELL PAN AM BEAVER YT G-01

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		THICK	PERMEABILITY TO AIR MILLIDARCS		KV	PERMEABILITY FEET	POROSITY %	POROSITY FEET	DENSITY		RESIDUAL SAT. PORE %		VISUAL EXAMINATION
	DEPTH	DEPTH		KMAX	RSPD					BULK	GRAIN	OIL	TOTAL WATER	
23	13570.8-	13571.4	0.6	3.74	1.18	<0.01	2.24	1.6	0.96	2.61	2.65			HF
24	13571.4-	13572.5	1.1	3.37	<0.01	<0.01	3.71	1.2	1.32	2.76	2.79			HF
25	13572.5-	13573.2	0.7	*	3.57	<0.01	2.50	1.6	1.12	2.75	2.79			HF
26	13573.2-	13573.9	0.7	<0.01	<0.01	<0.01	-	1.3	0.91	2.73	2.77			
27	13573.9-	13575.0	1.1	0.97	0.48	<0.01	1.07	1.3	1.43	2.74	2.78			
28	13575.0-	13577.0	2.0	0.31	0.26	<0.01	0.62	1.4	2.80	2.77	2.81			
29	13577.0-	13579.0	2.0	0.06	0.06	<0.01	0.12	1.2	2.40	2.77	2.80			
30	13579.0-	13579.7	0.7	0.11	0.05	<0.01	0.08	1.1	0.77	2.75	2.79			
31	13579.7-	13580.7	1.0	0.11	0.03	<0.01	0.11	1.1	1.10	2.76	2.79			
32	13580.7-	13581.8	1.1	<0.01	<0.01	<0.01	-	1.3	1.43	2.75	2.78			
33	13581.8-	13582.5	0.7	<0.01	<0.01	<0.01	-	1.1	0.77	2.77	2.80			
34	13582.5-	13583.5	1.0	0.03	<0.01	<0.01	0.03	0.9	0.90	2.76	2.79			
35	13583.5-	13584.6	1.1	<0.01	<0.01	<0.01	-	0.9	0.99	2.76	2.79			
36	13584.6-	13585.8	1.2	<0.01	<0.01	<0.01	-	1.1	1.32	2.76	2.79			
37	13585.8-	13587.3	1.5	<0.01	<0.01	<0.01	-	1.1	1.65	2.74	2.77			
38	13587.3-	13589.2	1.9	<0.01	<0.01	<0.01	-	1.0	1.90	2.76	2.79			
39	13589.2-	13591.0	1.8	0.80	<0.01	<0.01	1.44	1.3	2.34	2.74	2.78			

CORE NO. 13 (CONT'D)

CORE LABORATORIES - CANADA, LTD.
Petroleum Reservoir Engineering

WELL: PAN AM BEAVER YT G-01
 FORMATION: DEVONIAN
 SUMMARY INTERVAL: 13530.0 - 13591.0
 TOTAL FOOTAGE: 61.0
 FOOTAGE ANALYZED: 56.7

PAGE: 3 of 10
 FILE: CNP-1-9655

FOOTAGE NOT ANALYZED: TOTAL: 4.3 DENSE .0 LOST 4.3 DRILLED .0 *NABR .0 RUBBLE .0

SUMMARY
 OF
 ANALYZED CORE:

PERM RANGES:	FOOTAGE	ANALYZED CORE	WEIGHTED PERM. POROS. %	POROSITY FEET	WEIGHTED PERM. IND.	PERM. FEET	WEIGHTED RESID. OIL %	WEIGHTED TOT. WATER %
TOTAL	56.7	100.00	1.37	77.69	1.92	109.10	.00	.00
LESS THAN 0.10 Md.	16.0	28.22	1.33	21.32	.02	.35	.00	.00
0.10	19.6	34.56	1.25	24.53	.26	5.02	.00	.00
0.50	6.7	11.82	1.58	10.59	.78	5.24	.00	.00
1.00	11.4	20.11	1.57	17.95	4.45	50.70	.00	.00
GREATER THAN 9.99 Md.	3.0	5.29	1.10	3.30	15.93	47.79	.00	.00

*NOT ANALYZED BY REQUEST

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

COMPANY ANOCO CANADA PETROLEUM COMPANY LTD. FORMATION DEVONIAN
WELL PAN AN BEAVER YT G-01 DRILLING FLUID WATER BASE MUD
FIELD WILDCAT-BEAVER RIVER AREA, YUKON TERR. ELEVATION FULL DIAMETER
LOCATION 60900' 25.00" N; 124°15' 46.00" W. ANALYSIS All samples sandblasted prior to analysis

PAGE 4 of 10
FILE CNP-4-4774
DATE REPORT AUG. 20, 1969
ANALYSTS CC MH

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCY'S		K _{AV}	PERMEABILITY FEET	POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION
	DEPTH	THICK	K _{MAX}	K _{0.90}					BULK	GRAIN	

CORE NO. 14 13663' - 13732 (Rec. 59.0') (16 boxes)

1	13663.0-13665.2	2.2	5.38	0.43	0.35	12.28	0.8	1.76	2.79	2.81	Dense F.
2	13665.2-13667.5	2.3	0.63	0.50	-0.1	1.45	1.1	2.53	2.79	2.83	Few PPV. F. F.
3	13667.5-13669.3	1.8	0.51	0.46	0.25	0.92	0.8	1.44	2.79	2.81	Dense, Sty. F.
4	13669.3-13671.3	2.0	-	-	-	-	-	-	-	-	Dense
5	13671.3-13672.8	1.5	0.93	0.75	-0.1	1.40	0.9	1.35	2.79	2.82	Dense F.
6	13672.8-13674.0	1.2	1.80	0.84	0.78	1.92	1.9	2.28	2.79	2.85	Few SV. F. F.
7	13674.0-13675.3	1.3	0.87	0.77	0.19	1.13	1.8	2.34	2.79	2.84	I. few SV. F.
8	13675.3-13676.6	1.3	0.70	0.64	0.41	0.91	1.0	1.30	2.80	2.83	I. Scatt. PPV. F.
9	13676.6-13678.0	1.4	6.18	2.19	1.48	8.65	2.8	3.92	2.75	2.83	SV. F.
10	13678.0-13679.5	1.5	1.78	0.83	0.14	2.67	1.5	2.25	2.79	2.83	SV. F.
11	13679.5-13680.9	1.4	0.53	0.32	0.07	0.74	0.5	0.70	2.78	2.80	Scattered SV.
12	13680.9-13682.4	1.5	1.12	0.99	0.19	1.68	0.8	1.20	2.79	2.81	Scattered PPV. F.
13	13682.4-13684.0	1.6	1.26	1.11	-0.1	2.02	1.5	2.40	2.78	2.82	Few SV. Sty. F.
14	13684.0-13685.4	1.4	3.80	2.07	-0.1	5.32	2.5	3.50	2.76	2.83	I. SV. Sty. F.
15	13685.4-13686.9	1.5	2.04	0.68	0.15	3.06	1.1	1.65	2.77	2.80	Few SV. Sty. F.
16	13686.9-13688.2	1.3	2.48	1.53	0.23	3.22	2.0	2.60	2.77	2.83	SV. Sty. F.
17	13688.2-13689.7	1.5	2.59	2.57	2.96	3.89	2.3	3.45	2.75	2.81	SV. F.
18	13689.7-13691.0	1.3	3.15	3.09	0.18	4.10	1.5	1.95	2.78	2.82	SV. F.
19	13691.0-13692.5	1.5	3.25	3.15	0.52	4.88	1.8	2.70	2.78	2.83	Few SV.
20	13692.5-13694.2	1.7	5.85	1.71	0.41	9.95	1.6	2.72	2.77	2.82	Few SV. F.
21	13694.2-13695.8	1.6	0.39	0.22	-0.1	0.62	0.3	0.48	2.79	2.80	Dense Sty. F.
22	13695.8-13697.3	1.5	3.61	3.15	0.11	5.42	2.0	3.00	2.77	2.82	SV. F.
23	13697.3-13698.7	1.4	12.80	6.20	0.53	17.92	1.8	2.52	2.77	2.82	Few SV. F.
24	13698.7-13700.4	1.7	3.44	0.90	-0.1	5.85	0.5	0.85	2.78	2.80	Dense Sty. F.
25	13700.4-13704.4	4.0	-	-	-	-	-	-	-	-	Dense
26	13704.4-13706.3	1.9	1.61	1.44	0.19	3.06	0.2	0.38	2.79	2.80	Dense F.

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

COMPANY AMOCO CANADA PETROLEUM COMPANY LTD.
WELL PAN AM BEAVER YT G-01

PAGE 5 of 10
FILE CNP-4-4774

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS			POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION		
	DEPTH	THICK	EMAX	KBDO	KV			BULK	GRAIN			
Core No. 14 (cont'd)												
-	13706.3-	13712.8	6.5	-	-	-	-	-	-	-	Dense	
25	13712.8-	13714.8	2.0	1.80	0.42	-0.1	3.60	0.1	0.20	2.79	2.79	Dense, F.
-	13714.8-	13722.0	7.2	-	-	-	-	-	-	-	-	Dense
-	13722.0-	13723.0	1.0	-	-	-	-	-	-	-	-	Lost core
CORE NO. 15 13723' - 13765' (Rec. 37.0') (10 boxes)												
-	13723.0-	13738.2	15.2	-	-	-	-	-	-	-	-	Dense
26	13738.2-	13740.0	1.8	12.30	4.91	-0.1	22.14	0.7	1.26	2.81	2.83	Dense Sty. F.
27	13740.0-	13741.8	1.8	7.71	7.29	0.33	13.88	0.7	1.26	2.81	2.83	Dense Sty. F.
28	13741.8-	13743.4	1.6	1.11	0.93	0.13	1.78	0.5	0.80	2.82	2.83	Dense F.
29	13743.4-	13745.2	1.8	19.70	11.20	0.60	35.46	0.8	1.44	2.81	2.83	1. Sty. F.
30	13745.2-	13747.1	1.9	4.66	1.42	0.23	8.85	0.8	1.52	2.81	2.83	Scattered PPV. F.
31	13747.1-	13748.9	1.8	*	-0.1	*	-	1.8	3.24	2.75	2.80	Few SV. F.
32	13748.9-	13750.7	1.8	64.00	29.80	2.18	115.20	2.0	3.60	2.78	2.83	SV. F.
33	13750.7-	13752.4	1.7	5.33	1.78	0.08	9.06	0.8	1.36	2.79	2.82	Scattered PPV. F.
34	13752.4-	13754.0	1.6	3.91	1.10	0.13	6.26	0.5	0.80	2.81	2.83	Dense F.
35	13754.0-	13755.7	1.7	4.11	0.96	-0.1	6.99	1.5	2.55	2.79	2.83	SV. F.
36	13755.7-	13758.0	2.3	*	7.37	*	16.95	1.2	2.76	2.79	2.82	Few SV. VF.
37	13758.0-	13765.0	5.0	*	9.34	*	18.68	1.7	3.40	2.79	2.83	Few SV. VF.
-	13765.0-	13765.0	0	-	-	-	-	-	-	-	-	Lost core
-	13765.0-	13927.0	162.0	-	-	-	-	-	-	-	-	Drilled
CORE NO. 16 13,927' - 13,963' (Rec. 36.0') (10 boxes)												
38	13927.0-	13928.1	1.1	15.00	14.60	5.29	16.50	2.3	2.53	2.76	2.82	SV. F.
39	13928.1-	13928.9	0.8	215.00	96.40	84.00	172.00	1.8	1.44	2.78	2.83	Few SV. VF.
40	13928.9-	13930.3	1.4	16.30	15.80	0.83	22.82	1.0	1.40	2.80	2.83	Few SV. F.
41	13930.3-	13931.3	1.0	4.48	1.47	1.32	4.48	0.6	0.60	2.79	2.81	Dense F.
42	13931.3-	13932.2	0.9	27.60	7.92	0.61	24.64	1.1	0.99	2.77	2.81	Few SV. F.
43	13932.2-	13933.4	1.2	4.81	3.62	0.55	3.77	0.2	0.24	2.79	2.80	Dense F.

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

COMPANY ANOCO CANADA PETROLEUM COMPANY LTD.
WELL PAN AM BEAVER YT G-01

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		KIMAX	PERMEABILITY TO AIR MILLIDARCS		KV	PERMEABILITY FEET	POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION
	DEPTH	THICK		KDOP	KV					BULK	GRAIN	
44	13933.4-	13934.7	2.66	2.23	0.73	3.46	0.7	0.91	2.80	2.82	Few SV. F.	
45	13934.7-	13936.0	8.31	7.17	0.72	10.80	1.6	2.08	2.78	2.83	Few SV. F.	
46	13936.0-	13937.0	169.00	154.00	1.54	169.00	0.7	0.70	2.81	2.83	Dense F.	
47	13937.0-	13938.2	5.10	5.10	0.52	6.12	0.9	1.08	2.80	2.82	Scattered SV. F.	
48	13938.2-	13939.5	71.20	51.90	1.50	92.56	1.1	1.43	2.79	2.82	Few SV. F.	
49	13939.5-	13941.0	67.90	33.90	2.91	101.85	0.7	1.05	2.78	2.80	Dense F.	
50	13941.0-	13942.2	6.16	2.16	0.32	7.39	1.6	1.92	2.77	2.82	Few SV. F.	
51	13942.2-	13943.5	6.03	2.59	0.74	7.84	0.6	0.78	2.78	2.80	Scattered SV. F.	
52	13943.5-	13944.4	70.70	28.10	0.50	63.63	0.7	0.63	2.80	2.82	SV. F.	
-	13944.4-	13945.0	-	-	-	-	-	-	-	-	Dense	
53	13945.0-	13946.0	13.20	8.02	0.36	13.20	0.1	0.10	2.80	2.80	Dense F.	
54	13946.0-	13947.2	4.41	2.65	0.97	5.29	1.0	1.20	2.80	2.83	Scattered SV. F.	
55	13947.2-	13948.3	3.26	1.45	0.40	3.59	1.1	1.21	2.79	2.82	Scattered SV. F.	
56	13948.3-	13949.3	38.10	8.51	0.71	38.10	1.1	1.10	2.80	2.83	SV. F.	
57	13949.3-	13950.8	25.00	19.20	3.10	37.50	1.1	1.65	2.80	2.83	Scattered PPV. F.	
58	13950.8-	13952.2	18.00	14.90	1.05	25.20	0.5	0.70	2.81	2.83	Dense F.	
59	13952.2-	13953.8	10.80	2.24	0.30	17.28	1.3	2.08	2.79	2.82	SV. F.	
60	13953.8-	13954.9	1.54	0.77	-0.1	1.69	0.7	0.77	2.80	2.82	Dense F.	
61	13954.9-	13955.9	1.32	1.08	0.17	1.32	1.3	1.30	2.78	2.81	Few SV. F.	
-	13955.9-	13956.5	-	-	-	-	-	-	-	-	Dense	
62	13956.5-	13957.4	16.60	3.65	0.86	14.94	1.6	1.44	2.78	2.82	I. F.	
63	13957.4-	13959.0	4.86	2.84	1.05	7.78	1.1	1.76	2.77	2.80	Few PPV. F.	
SS64	13959.0-	13960.2	5.81	-	-	6.96	2.8	3.36	-	-	I. F.	
SS65	13960.2-	13961.6	7.60	-	-	10.63	2.6	3.64	-	-	I. F.	
SS66	13961.6-	13963.0	9.67	-	-	13.53	3.4	4.76	-	-	I. F.	
-	13963.0-	13964.0	-	-	-	-	-	-	-	-	Drilled	

Core No. 16 (cont'd)

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

PAGE 7 of 10
FILE CMP-4-4774

COMPANY AMOCO CANADA PETROLEUM COMPANY LTD.
WELL PAN AM BEAVER YT G-01

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS			POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION
	DEPTH	THICK	KMAX	RDP	KV			BULK	GRAIN	
CORE NO. 17 13964' - 13968' (Rec. 4.0') (1 box)										
67	13964.0-	13965.2	312.00	25.80	60.30	3.7	4.44	2.71	2.81	SV, VF.
68	13965.2-	13966.8	56.70	4.48	34.60	1.8	2.88	2.76	2.81	Few SV, VF.
SS69	13966.8-	13968.0	107.00	-	-	2.6	3.12	-	-	I. F.
CORE NO. 18 13968' - 13973' (R=c, 5.0') (2 boxes)										
SS70	13968.0-	13970.0	1.75	-	-	2.6	5.20	-	-	I. F.
71	13970.0-	13971.4	5.80	1.91	1.39	3.4	4.76	2.70	2.80	SV, VF.
72	13971.4-	13973.0	5.42	2.15	1.34	2.3	3.68	2.75	2.81	Few SV, VF.
-	13973.0-	14175.0	202.0	-	-	-	-	-	-	Drilled
CORE NO. 19 14175' - 14208' (Rec. 31.0) (9 boxes)										
73	14175.0-	14176.5	16.80	8.93	6.44	1.4	2.10	2.79	2.83	I. few SV, F.
74	14176.5-	14178.1	3.33	3.19	3.01	1.7	2.72	2.79	2.84	I. F.
75	14178.1-	14179.8	8.48	4.47	1.61	1.8	3.06	2.79	2.84	I. Stylol. F.
76	14179.8-	14181.7	5.44	1.00	0.26	1.4	2.66	2.80	2.84	I. F.
77	14181.7-	14183.0	0.55	0.53	0.21	1.1	1.43	2.79	2.81	I. Stylol.
78	14183.0-	14184.0	0.95	0.41	0.17	1.2	1.20	2.79	2.82	I. Stylol.
79	14184.0-	14184.9	117.00	8.89	173.00	5.2	4.68	2.66	2.81	I. F.
SS80	14184.9-	14186.4	1.93	-	-	5.3	7.95	-	-	I. F.
81	14186.4-	14187.3	28.90	18.30	6.16	6.8	6.12	2.63	2.82	I. F.
82	14187.3-	14188.2	65.30	40.50	7.64	8.6	7.74	2.59	2.84	I. F.
83	14188.2-	14189.2	16.30	11.20	6.50	4.0	4.00	2.70	2.81	I. F.
84	14189.2-	14190.3	21.10	18.40	4.93	6.0	6.60	2.66	2.83	I. F.
85	14190.3-	14191.4	13.70	10.20	7.09	4.5	4.95	2.70	2.83	I. F.
86	14191.4-	14192.4	69.70	51.60	12.70	6.1	6.10	2.65	2.82	I. F.
87	14192.4-	14193.4	21.80	16.40	12.10	5.4	5.40	2.68	2.83	I. few PPV, F.
88	14193.4-	14194.4	19.20	9.94	4.20	5.0	5.00	2.68	2.82	I. F.
89	14194.4-	14195.3	9.63	6.16	0.49	4.5	4.05	2.69	2.82	I. few PPV, F.
90	14195.3-	14196.4	40.60	21.40	0.47	5.1	5.61	2.67	2.82	I. F.
91	14196.4-	14197.2	19.90	16.10	16.70	5.0	4.00	2.67	2.81	I. F.

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

COMPANY AMOCO CANADA PETROLEUM COMPANY LTD.
WELL PAN AM BEAVER YT G-01

PAGE 8 of 10
FILE CNP-4-4774

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS			POROSITY %	POROSITY FEET	DENSITY	VISUAL EXAMINATION	
	DEPTH	THICK	KMAK	KGOP	KV					
92	14197.2-14198.0	0.8	19.90	13.80	16.20	5.2	4.16	2.67	2.82	1. few PPV. F.
93	14198.0-14199.0	1.0	38.30	32.80	10.00	3.6	3.60	2.72	2.82	1. few PPV. F.
94	14199.0-14200.6	1.6	2.00	1.58	0.25	1.0	1.60	2.79	2.82	Dense STY. F.
95	14200.6-14201.7	1.1	7.57	6.82	0.43	0.8	0.88	2.82	2.84	Dense F.
96	14201.7-14203.1	1.4	19.10	16.80	0.16	0.7	0.98	2.82	2.84	Dense F.
97	14203.1-14204.4	1.3	1.43	1.36	0.23	0.3	0.39	2.82	2.83	Dense F.
98	14204.4-14206.0	1.6	10.50	4.22	0.74	1.5	2.40	2.79	2.83	Few SV. F.
-	14206.0-14208.0	2.0	-	-	-	-	-	-	-	Lost core
-	14208.0-14410.0	202.0	-	-	-	-	-	-	-	Drilled
CORE NO. 20 14410' - 14432' (Rec. 21.0') (6 boxes)										
99	14410.0-14411.0	1.0	24.80	10.60	0.55	3.3	3.30	2.74	2.84	PPV. few SV. F.
SS100	14411.0-14412.5	1.5	1.00	-	-	1.7	2.55	-	-	1. rubble
SS101	14412.5-14413.6	1.1	0.47	-	-	6.8	7.48	-	-	1. SV. rubble
102	14413.6-14414.5	0.9	18.80	4.35	0.80	5.3	4.77	2.68	2.83	PPV. few SV.
103	14414.5-14415.5	1.0	34.20	33.00	0.09	2.2	2.20	2.77	2.83	SV.
104	14415.5-14416.2	0.7	12.00	4.58	0.17	2.2	1.54	2.74	2.81	1.
105	14416.2-14417.3	1.1	10.70	2.72	0.08	1.4	1.54	2.78	2.82	Few SV.
106	14417.3-14418.2	0.9	1209.00	274.00	9.59	3.8	3.42	2.67	2.77	SV. few LV.
107	14418.2-14419.2	1.0	28.90	28.60	0.12	1.6	1.60	2.75	2.80	Few SV. F.
108	14419.2-14420.2	1.0	17.00	10.60	0.29	1.5	1.50	2.74	2.78	Few SV.
SS109	14420.2-14421.1	0.9	0.18	-	-	1.4	1.26	-	-	1. F.
SS110	14421.1-14422.2	1.1	0.18	-	-	1.5	1.65	-	-	1. F.
111	14422.2-14423.1	0.9	1.66	1.14	0.08	1.7	1.53	2.79	2.84	Few SV.
112	14423.1-14423.8	0.7	37.40	14.60	5.70	1.3	0.91	2.80	2.83	Few SV. F.
113	14423.8-14424.9	1.1	193.00	137.00	0.84	0.5	0.55	2.80	2.81	Few PPV. F.
114	14424.9-14425.9	1.0	10.50	4.21	0.06	1.3	1.30	2.76	2.80	Few SV. F.
115	14425.9-14427.0	1.1	2.29	0.96	0.10	2.3	2.53	2.74	2.80	Few SV. F.
116	14427.0-14427.7	0.7	50.20	24.10	0.09	4.2	2.94	2.67	2.79	Few SV. LV.

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

PAGE 9 of 10
FILE CNP-4-4774

COMPANY ANOCO CANADA PETROLEUM COMPANY LTD.
WELL PAN AM BEAVER YT G-01

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCY'S		POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION
	DEPTH	THICK	KMAX	K90P			BULK	GRAIN	
Core No. 20 (cont'd)									
117	14427.7-14428.7	1.0	79.40	63.20	2.9	2.90	2.72	2.80	Few SV.
SS118	14428.7-14429.9	1.2	0.06	-	1.3	1.56	-	-	I. F.
SS119	14429.9-14431.0	1.1	0.18	-	1.8	1.98	-	-	I. F.
-	14431.0-14432.0	1.0	-	-	-	-	-	-	Lost core

CORE LABORATORY SERVICES - CANADA, LTD.
Petroleum Reservoir Engineering

PAGE: 10 of 10
 FILE: CNP-4-4774

WELL: PAN AM BEAVER YT G-01

FORMATION: DEVONIAN

SUMMARY INTERVAL: 13663.0 - 14432.0

TOTAL FOOTAGE: 769.0

FOOTAGE ANALYZED: 156.9

FOOTAGE NOT ANALYZED: TOTAL: 612.1 DENSE 36.1 LOST 9.0 DRILLED 567.0 *NABR .0 RUBBLE .0

SUMMARY OF ANALYZED CORE:

TOTAL

BY

PERM

RANGES:

LESS THAN 0.10 Mg.

0.10 0.49 Mg.

0.50 0.93 Mg.

1.00 9.99 Mg.

GREATER THAN 9.99 Mg.

FOOTAGE	% OF ANALYZED CORE	WEIGHTED AVERAGE POROSITY	POROSITY FEET	WEIGHTED AVERAGE PERM. MD.	PERM. FEET	WEIGHTED AVERAGE RESID. OIL %	WEIGHTED AVERAGE TOT. WATER %
156.9	100.00	1.84	288.78	25.99	4077.65	.00	.00
3.0	1.91	1.60	4.80	.02	.07	.00	.00
5.8	3.70	2.22	12.85	.29	1.70	.00	.00
11.9	7.58	1.03	12.29	.69	8.21	.00	.00
79.9	50.93	1.51	120.43	4.27	341.50	.00	.00
56.5	35.88	2.46	138.41	66.18	3726.17	.00	.00

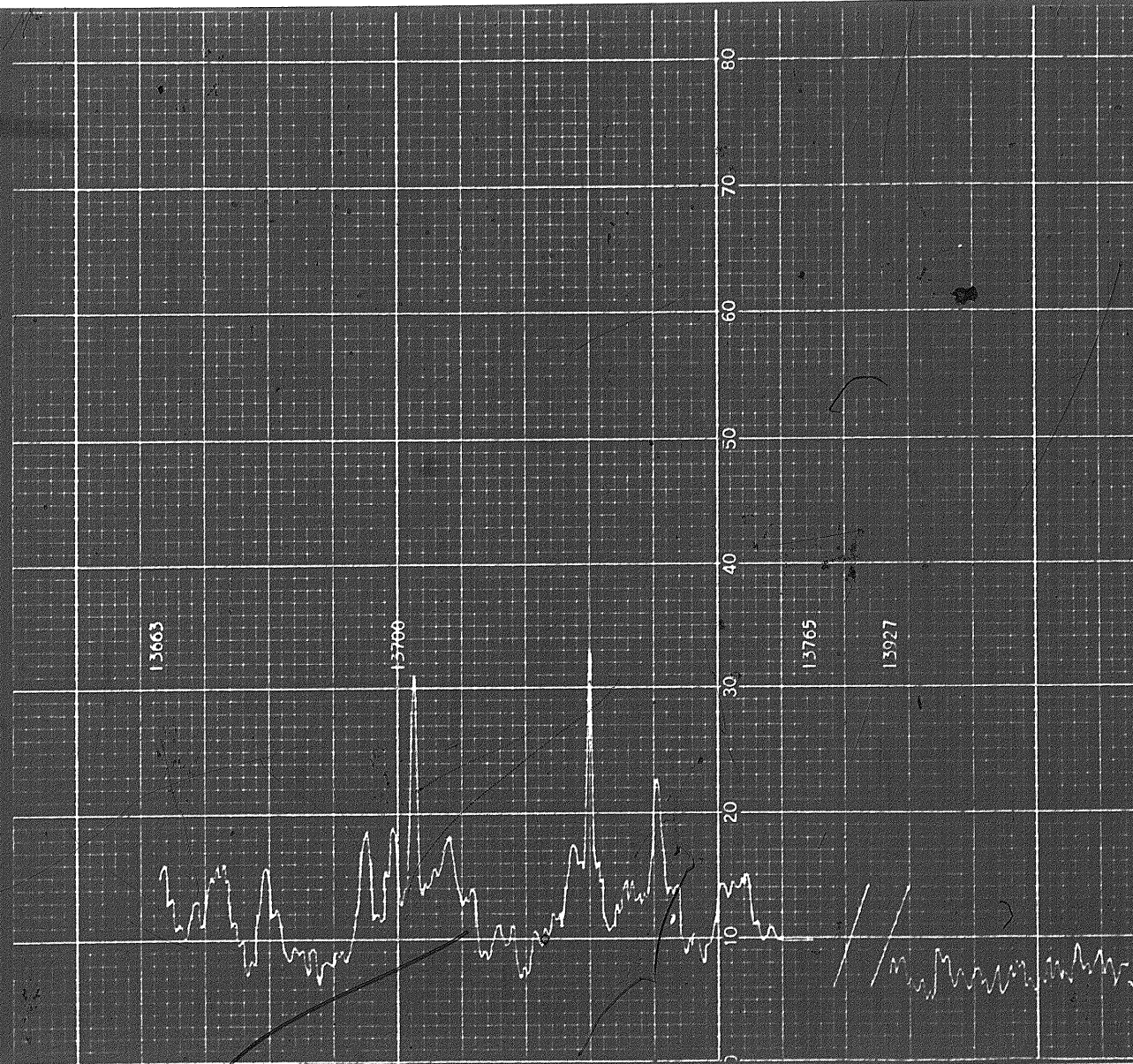
*NOT ANALYZED BY REQUEST

WELL _____ DATE _____
LOCATION _____ PROV. YUKON TERRITORIES _____ ELEV. _____

CORE-GAMMA CORRELATION

These gamma-ray spectrometry logs were prepared by the Yukon Geological Survey, Yukon Territory, Canada. The gamma-ray spectrometry logs were prepared by the Yukon Geological Survey, Yukon Territory, Canada. The gamma-ray spectrometry logs were prepared by the Yukon Geological Survey, Yukon Territory, Canada.

T.C. 11 SECS
VERTICAL SCALE: 3" = 100'
SENS. 5000 CPM.





CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

COMPANY AMOCO CANADA PETROLEUM COMPANY LTD.

FIELD WILDCAT - BEAVER RIVER AREA

FILE CNP-1-9655

WELL PAN AM BEAVER YT G-01

DATE JULY 8/69

LOCATION 60°00' 25.00"N; 124°15'48.00"W PROV YUKON TERRITORY

ELEV. _____

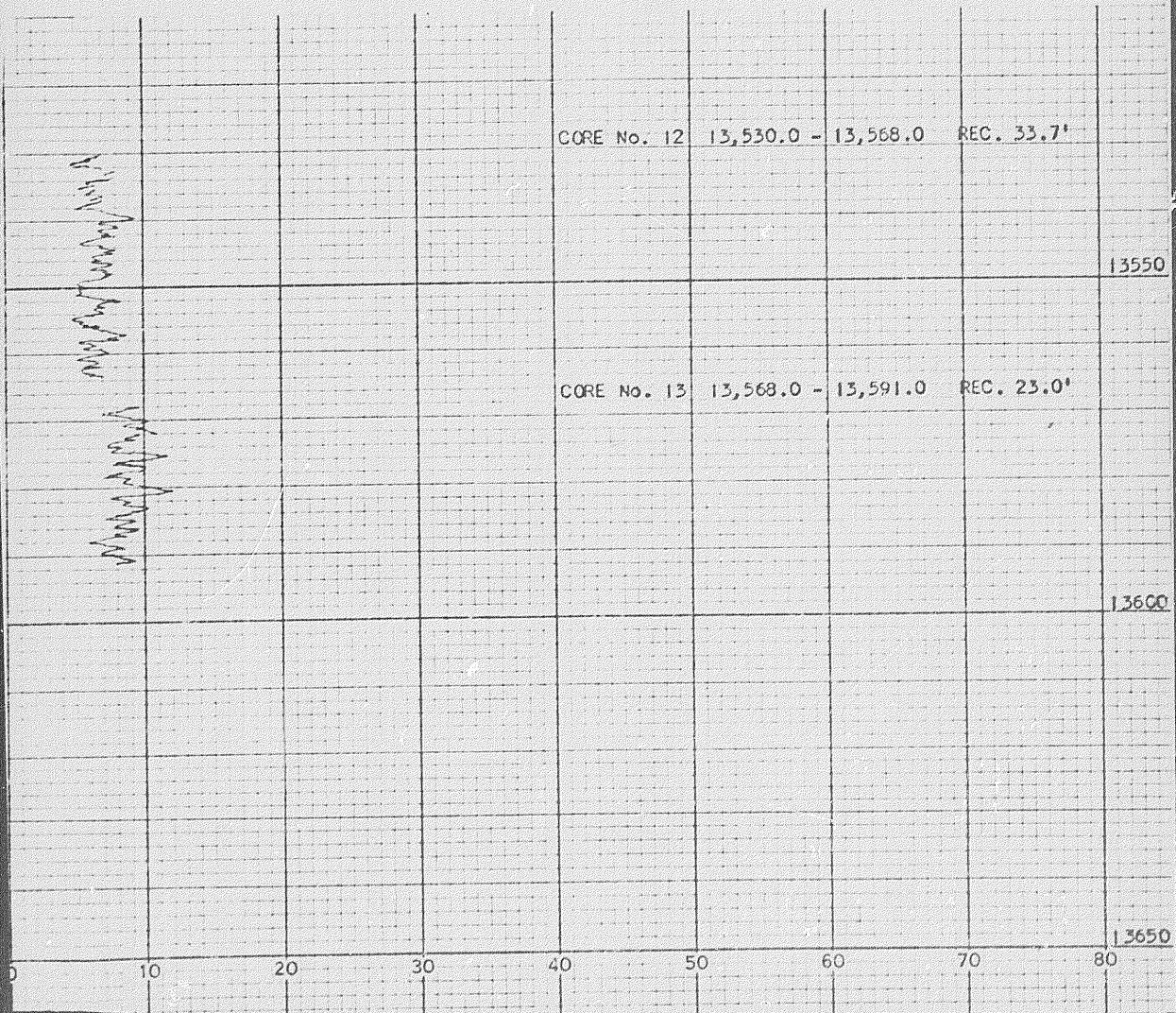
CORE-GAMMA CORRELATION

These analyses, reports or interpretations are based on information and methods supplied by the client to whom and for whom they are made and are intended for the report to whom. The responsibility of the client is to provide accurate information and to accept responsibility for the results. Core Laboratories (Canada) Ltd. and its officers and employees assume no responsibility and make no warranty or representation, as to the propriety or practicality of any use of the information or methods supplied to the client or as to the results of any use of the information or methods supplied to the client.

TC 11 SECS

VERTICAL SCALE: 5" = 100'

SENS 5000 CPM



CORE LABORATORIES -- CANADA LTD.
CALGARY ALBERTA

PAGE - 1 of 3
FILE - CWP-4-4650
DATE REPORT - JUNE 16, 1969
ANALYSTS - BK MH AD

FORMATION - WATER BASE MUD
DRILLING FLUID - FULL DIAMETER
ELEVATION ANALYSIS
REMARKS

COMPANY - PAN AMERICAN PETROLEUM CORPORATION
WELL - PAN AM BEAVER YT G-01
FIELD - LOCAT-BEAVR RIVER AREA, YUKON TERRITORY
LOCATION - 50°00' 25.00" N
124°15' 46.00" W

SAMPLE NO./USER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCY'S		PERMEABILITY FEET	POROSITY %	DENSITY		RESIDUAL SAT. PORE %		USUAL EXAMINATION
	DEPTH	THICK	KMAX	K90%			BULK	GRAIN	OIL	TOTAL WATER	

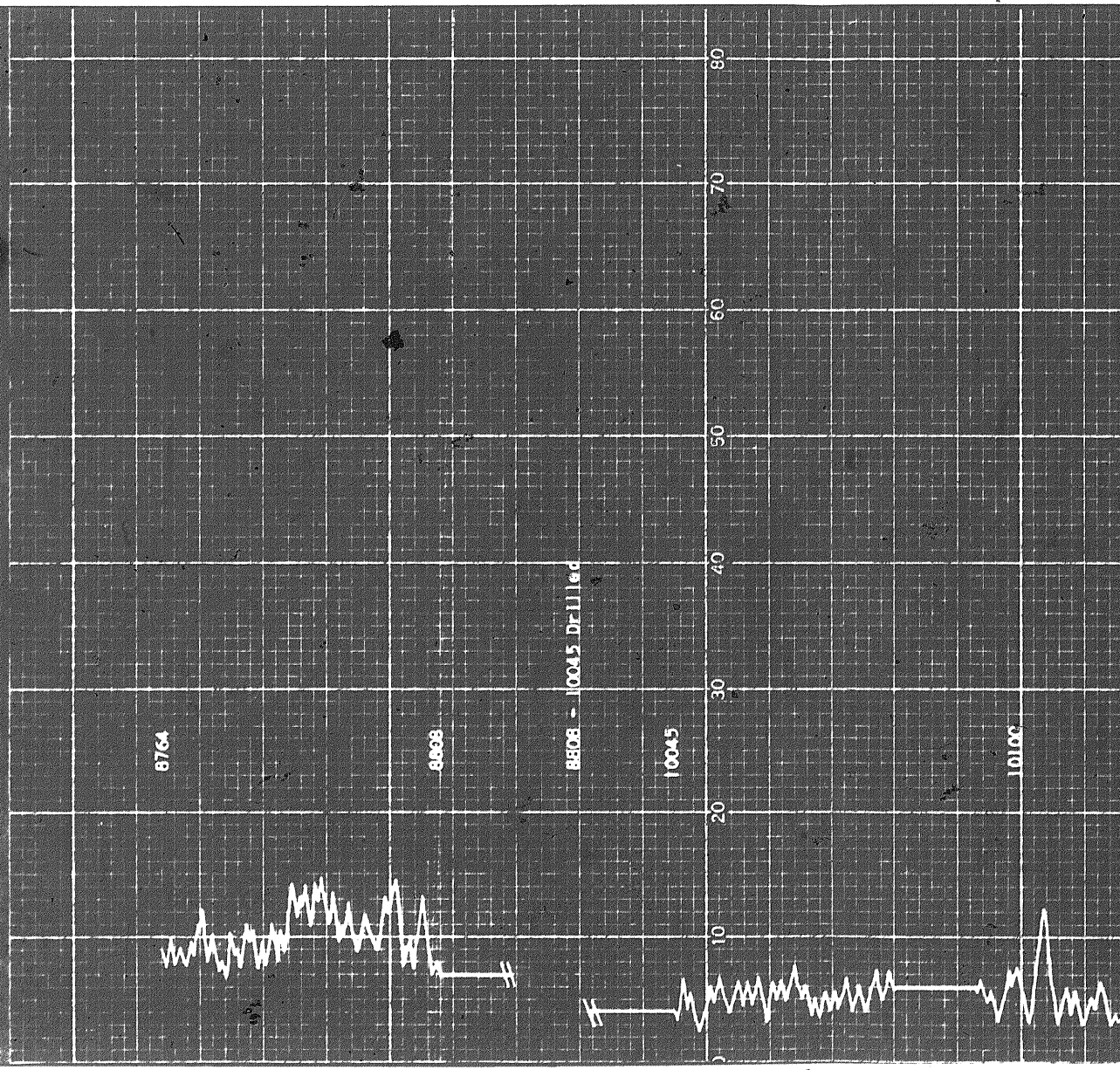
SAMPLE NO./USER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCY'S		PERMEABILITY FEET	POROSITY %	DENSITY		RESIDUAL SAT. PORE %		USUAL EXAMINATION
	DEPTH	THICK	KMAX	K90%			BULK	GRAIN	OIL	TOTAL WATER	
CORED INTERVAL 8764.0' - 10257.0'											
CORE NO. 2 8764.0' - 8808.0' (REC. 44.0') (11 BOXES)											
-	8764.0-8808.0	44.0	-	-	-	-	-	-	-	-	Dense
-	8808.0-10045.0	1237.0	-	-	-	-	-	-	-	-	Drilled
CORE NO. 3 10045.0' - 10080.0' (REC. 35.0') (9 BOXES)											
-	10045.0-10051.3	6.3	-	-	-	-	-	-	-	-	Appears Dense, F
-	10051.3-10053.0	1.7	-	-	-	-	-	-	-	-	Appears Dense
1	10053.0-10054.2	1.2	0.12	0.14	<0.01	0.1	0.12	2.68	2.69	-	Dense, F
-	10054.2-10060.0	5.8	-	-	-	-	-	-	-	-	Appears Dense
2	10060.0-10061.2	1.2	<0.01	<0.01	<0.01	0.3	0.36	2.65	2.66	-	Dense
-	10061.2-10067.8	6.6	-	-	-	-	-	-	-	-	Appears Dense
3	10067.8-10069.0	1.2	2.27	0.47	<0.01	0.1	0.12	2.66	2.67	-	Dense F
-	10069.0-10075.4	6.4	-	-	-	-	-	-	-	-	Appears Dense
-	10075.4-10078.1	2.7	-	-	-	-	-	-	-	-	Dense Vertical Fracture
4	10078.1-10079.0	0.9	0.16	0.08	<0.01	0.2	0.18	2.65	2.66	-	Dense F
-	10079.0-10080.0	1.0	-	-	-	-	-	-	-	-	Appears Dense
-	10080.0-10093.0	13.0	-	-	-	-	-	-	-	-	Drilled
CORE NO. 4 10093.0' - 10144.0' (REC. 51.0') (13 BOXES)											
-	10093.0-10129.6	36.6	-	-	-	-	-	-	-	-	Appears Dense
5	10129.6-10130.6	1.0	0.08	<0.01	<0.01	2.5	2.50	2.60	2.67	-	PPV
-	10130.6-10133.7	3.1	-	-	-	-	-	-	-	-	Appears Dense
6	10133.7-10134.7	1.0	2.35	1.03	<0.01	0.4	0.40	2.66	2.67	-	Dense F

LOCATION Beaver River Area PROV Yukon Territories ELEV. _____

CORE-GAMMA CORRELATION

The data on this report were obtained from the logs of the core and gamma-ray logs of the same hole. The gamma-ray logs were obtained from the logs of the same hole. The gamma-ray logs were obtained from the logs of the same hole. The gamma-ray logs were obtained from the logs of the same hole.

T.C. 11 Sec. VERTICAL SCALE: 3" = 100' Sens. 5000 CPM



CORE LABORATORIES - CANADA LTD.
CALGARY ALBERTA

PAGE - 1 of 3
FILE - CRD-4-4680
DATE REPORT - JUNE 16, 1969
ANALYSTS - BK NH AD

FORMATION - WATER BASE MUD
DRILLING FLUID - FULL DIAMETER
ELEVATION ANALYSIS - REMARKS

COMPANY - CAN AMERICAN PETROLEUM CORPORATION
WELL - BEAVER RIVER AREA, YUKON TERRITORY
FIELD - BEAVER RIVER AREA, YUKON TERRITORY
LOCATION - 6000' 25.00" NL
124° 15' 48.00" WL

SAMPLE NUMBER	INTERVAL REPRESENTED FEET	PERMEABILITY TO AIR MILLIDARCS			PERMEABILITY FEET	POROSITY %	DENSITY			RESIDUAL SAT. PORE %		VISUAL EXAMINATION
		KMAX	K50%	KMIN			BULK	GRAIN	OIL	TOTAL WATER		

SAMPLE NUMBER	INTERVAL REPRESENTED FEET	THICK	PERMEABILITY TO AIR MILLIDARCS			PERMEABILITY FEET	POROSITY %	DENSITY			RESIDUAL SAT. PORE %		VISUAL EXAMINATION
			KMAX	K50%	KMIN			BULK	GRAIN	OIL	TOTAL WATER		
CORED INTERVAL 8764.0' - 10257.0'													
CORE NO. 2 8764.0' - 8808.0' (REC. 44.0') (11 BOXES)													
-	8764.0-8808.0	44.0	-	-	-	-	-	-	-	-	-	Dense	
-	8808.0-10045.0	1237.0	-	-	-	-	-	-	-	-	-	Drilled	
CORE NO. 3 10045.0' - 10080.0' (REC. 35.0') (9 BOXES)													
-	10045.0-10051.3	6.3	-	-	-	-	-	-	-	-	-	Appears Dense, F	
-	10051.3-10053.0	1.7	-	-	-	-	-	-	-	-	-	Appears Dense	
1	10053.0-10054.2	1.2	0.12	0.02	<0.01	0.14	0.1	0.12	2.68	2.69	-	Dense, F	
-	10054.2-10060.0	5.8	-	-	<0.01	-	0.3	0.36	2.65	2.66	-	Appears Dense	
2	10060.0-10061.2	1.2	<0.01	-	<0.01	-	0.1	0.12	2.66	2.67	-	Appears Dense	
-	10061.2-10067.8	6.6	-	-	0.47	2.72	-	-	-	-	-	Dense F	
3	10067.8-10069.0	1.2	2.27	-	<0.01	-	-	-	-	-	-	Appears Dense	
-	10069.0-10075.4	6.4	-	-	-	-	-	-	-	-	-	Dense Vertical	
-	10075.4-10078.1	2.7	-	-	-	-	-	-	-	-	-	Fracture	
4	10078.1-10079.0	0.9	0.16	0.08	<0.01	0.14	0.2	0.18	2.65	2.66	-	Dense F	
-	10079.0-10080.0	1.0	-	-	-	-	-	-	-	-	-	Appears Dense	
-	10080.0-10093.0	13.0	-	-	-	-	-	-	-	-	-	Drilled	
CORE NO. 4 10093.0' - 10144.0' (REC. 51.0') (13 BOXES)													
-	10093.0-10129.6	36.6	-	-	-	-	-	-	-	-	-	Appears Dense	
5	10129.6-10130.6	1.0	0.06	<0.01	<0.01	0.08	2.5	2.50	2.60	2.67	-	PPV	
-	10130.6-10133.7	3.1	-	-	-	-	-	-	-	-	-	Appears Dense	
6	10133.7-10134.7	1.0	2.35	1.03	<0.01	2.55	0.4	0.40	2.66	2.67	-	Dense F	

CORE LABORATORIES - CANADA, LTD.
CALGARY ALBERTA

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FILE - CNP-4-4680

COMPANY - PAN AMERICAN PETROLEUM CORPORATION
WELL - PAN AM BEAVER YT G-01

SAMPLE NUMBER	INTERNAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS		PERMEABILITY FEET	POROSITY %	POROSITY FEET	DENSITY		RESIDUAL SAT. PORE %		VISUAL EXAMINATION
	DEPTH	THICK	KMAX	ASPP				BULK	GRAIN	OIL	TOTAL WATER	
CORE NO. 4 (Cont'd)												
-	10174.7-10144.0	9.3	-	-	-	-	-	-	-	-	-	Appears Dense
-	10144.0-10150.0	6.0	-	-	-	-	-	-	-	-	-	Drilled
CORE NO. 5 10150.0' - 10178.0' (REC. 28.0') (8 BOXES)												
-	10150.0-10161.5	11.5	-	-	-	-	-	-	-	-	-	Appears Dense
-	10161.5-10162.4	0.9	9.04	<0.01	8.14	0.3	0.27	2.66	2.67	-	-	Dense F
-	10162.4-10175.4	13.0	-	-	-	-	-	-	-	-	-	Appears Dense
-	10175.4-10176.0	0.6	13.00	1.99	7.80	0.8	0.48	2.64	2.66	-	-	Dense F
-	10176.0-10178.0	2.0	-	-	-	-	-	-	-	-	-	Appears Dense
CORE NO. 6 10178.0' - 10187.0' (REC. 9.0') (3 BOXES)												
-	10178.0-10187.0	9.0	-	-	-	-	-	-	-	-	-	Appears Dense
CORE NO. 7 10187.0' - 10197.0' (REC. 10.0') (3 BOXES)												
-	10187.0-10197.0	10.0	-	-	-	-	-	-	-	-	-	Appears Dense
CORE NO. 8 10197.0' - 10220.0' (REC. 23.0') (6 BOXES)												
-	10197.0-10220.0	23.0	-	-	-	-	-	-	-	-	-	Appears Dense
CORE NO. 9 10220.0' - 10223.0' (REC. 3.0') (1 BOX)												
-	10220.0-10223.0	3.0	-	-	-	-	-	-	-	-	-	Appears Dense
CORE NO. 10 10223.0' - 10257.0' (REC. 34.0') (9 BOXES)												
-	10223.0-10257.0	34.0	-	-	-	-	-	-	-	-	-	Appears Dense

CORE LABORATORIES - CANADA, LTD.
Petroleum Reservoir Engineering

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PAN AM BEAVER YT G-01

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FORMATION:

10045.0 - 10257.0

TOTAL FOOTAGE:

212.0

FOOTAGE ANALYZED

8.0

FOOTAGE NOT ANALYZED:

TOTAL: 204.0 DENSE 185.0 LOST .0 DRILLED 19.0 *NABR .0 RUBBLE .0

SUMMARY
 OF
 ANALYZED CORE:

TOTAL

BY
 PERM
 RANGES:

LESS THAN 0.10 Md.

0.10 0.49 Md.

0.50 0.99 Md.

1.00 9.99 Md.

GREATER THAN 9.99 Md.

FOOTAGE*	% OF ANALYZED CORE	WEIGHTED AVERAGE POROS. %	POROSITY FEET	WEIGHTED AVERAGE PERM. MD.	PERM. FEET	WEIGHTED AVERAGE RESID. OIL %	WEIGHTED AVERAGE TOT. WATER %
8.0	100.00	.55	4.43	2.67	21.38	.00	.00
2.2	27.50	1.30	2.86	.04	.08	.00	.00
2.1	26.25	.14	.30	.14	.29	.00	.00
.0	.00	.00	.00	.00	.00	.00	.00
3.1	38.75	.25	.79	4.26	13.21	.00	.00
.6	7.50	.80	.48	13.00	7.80	.00	.00

*NOT ANALYZED BY REQUEST