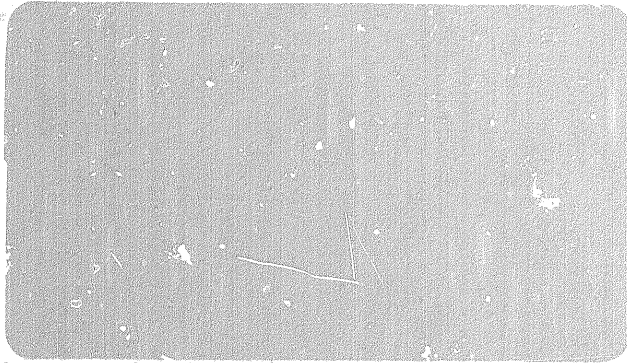


60-11-30



PAN AMERICAN PETROLEUM CORPORATION

PRODUCING DEPARTMENT
ENGINEERING SECTION


60-17-30

WELL HISTORY REPORT
PAN AM SHELL MERRILL YT L-60
UNIT L SECT. 60, GRID 60°20'N, 124°15'W
YUKON TERRITORIES

CONFIDENTIAL

By:
W.M. Liesemer
S.G. Professional Assistant

Approved By:


A.F. Holan
Area Foreman



PAN AMERICAN PETROLEUM CORPORATION
444 - 7th Ave. S.W.
Calgary 2, Alberta

March 31, 1969

I N D E X

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A T T A C H M E N T S

GEOLOGICAL SUMMARY
CORE ANALYSIS
WATER ANALYSIS

SECTION I

SUMMARY OF WELL DATA

- (a) Well Name and Number
Pan Am Shell Merrill YT L-60
- (b) Permittee
Shell Canada Limited
- (c) Operator
Pan American Petroleum Corporation, 444 - 7th Avenue S.W.,
Calgary 2, Alberta.
- (d) Location
L-60 Grid Area 60°20'N, 124°15'W.
Lat. 60°19'30" Long. 124°26'00"
Universal Well Location Reference
Lat. 60.32500°N. Long. 124.43333°W.
Unique Well Location
300 L 60 60 20 124 15 0
- (e) Co-ordinates
NIL
- (f) Permit No.
2722
- (g) Drilling Contractor
Name: Brinkerhoff Bros. Ltd.
RIG#: 42H
TYPE: Rotary
- (h) Drilling Authority
#348
1-21-69
- (i) Classification
Exploratory Outpost
- (j) Elevations
Ground: 1937.5'
K.B. : 1950'
- (k) Spudded
1-24-69
- (l) Completed Drilling
3-1-69
- (m) Depths
Total Depth - 5362'
Plug Back Depth - No production casing run.

(n) Well Status
Well Abandoned

(o) Rig Released
3-6-69

(p) Hole Size
24" 0 - 55'
17 1/2" 55 - 516'
12 1/2" 516 - 3331.5'
8" 3331.5 - 5362

(q) Casing
Casing Size: 20" Conductor
Grade : N/A
Weight : N/A
Amount : N/A
Set At : 55' with 90 sacks cement + 3% CaCl₂

Casing Size: 13-3/8"
Grade : J-55
Weight : 54.5#
Amount : 16 Jts.
Set At. : 516' with 525 sacks cement + 3% CaCl₂

Casing Size: 9-5/8"
Grade : K-55
Weight : 40
Amount : 121 Jts.
Set At : 3331.5' with 400 sacks neat + 200 sacks + 6% gel tailed
by 400 sacks neat.

SECTION II

GEOLOGICAL SUMMARY

See Attachment

SECTION III

ENGINEERING SUMMARY

(a) Drill Stem Tests
D.S.T. #1 3-2-69 (4939' - 5362')
Mid-Devonian Carbonate
Prewflow 5 min. I.S.I. - 60 min. T.O. - 120 min., F.S.I. - 60 mins.
GIP, dec. to weak. Good steady air blow for 120 mins.
Rec. 4960' fluid - 120' mud, 4840' brackish sulphurous water.
I.S.I.P. - 2446 F.S.I.P. - 2413 F.F.P. - 2226
I.H.P. - 2419, F.H.P., 2403.

(b) Casing Record

Conductor Pipe

Hole Size - 24"
 Conductor Size - 20"
 Weight - N/A
 Grade - N/A
 Joints Run - N/A
 KB Setting Depth - 55'
 Cement & Additives - 90 Sk. + 55 Sac. CaCl_2
 Date Run - 1-25-69
 Date Cemented - 1-25-69

Surface Casing

Hole Size - 17-1/2"
 Casing Size - 13-3/8"
 Weight - 54.5
 Grade - J-55
 Joints Run - 16 Jts.
 KB Setting Depth - 516.3'
 Cement & Additives - 525 Sk. plus 3 1/2 Sac. CaCl_2
 Date Run - 1-29-69
 Date Cemented - 1-29-69

Intermediate Casing

Hole Size - 12-1/4"
 Casing Size - 9-5/8"
 Weight - 40
 Grade - K-55
 Joints Run - 121
 KB Setting Depth - 3331.5
 Cement & Additives - 400 Sk. neat + 200 Sk. of gel. Tailled
 by 400 Sk. neat.
 Date Run - 2-20-69
 Date Cemented - 2-20-69

Production Casing

NIL

(c) Bit Record

<u>BIT #</u>	<u>SIZE</u>	<u>TYPE</u>	<u>MAKE</u>	<u>IN</u>	<u>OUT</u>	<u>FE.</u>	<u>HOURS</u>
1	12-1/4	YTL	Reed		Drlg.	Rathole	
2	24	OSCQ2	H.W.	0	55	55	24
3	17-1/2	YSI	Reed	55	516	466	27-1/4
4	12-1/4	YMGJ	Reed	516	1296	740	35-1/4
5	12-1/4	DINJ	Sec.	1296	1606	310	22-1/4
6	12-1/4	M&LG	Sec.	1606	1331	275	25-3/4

<u>BIT #</u>	<u>SIZE</u>	<u>TYPE</u>	<u>MAKE</u>	<u>IN</u>	<u>OUT</u>	<u>FT.</u>	<u>HOURS</u>
7	12-1/4	YTL-J	Reed	1831	1946	65	9-1/2
8	12-1/4	VHGJ	Reed	1946	2011	65	11-3/4
9	12-1/4	5JS	Smith	2011	2607	596	55
10	12-1/4	SC5G-J	Reed	2607	2608	1	1
11	12-1/4	DMNJ	Sec.	2608	2227	219	29
12	12-1/4	YHG-J	Reed	2327	1957	110	16
13	12-1/4	YMG-J	Reed	2957	3258	301	39-3/4
14	12-1/4	M4NG-J	Sec.	3258	3706	445	36
15	12-1/4	H7G-J	Sec.	3706	3333	127	11-1/4
16	8-1/2	YMG-J	Reed	3333	3893	60	3
17	8-1/2	YMG-J	Reed	3393	4111	219	11-3/4
18	8-1/2	YMG-J	Reed	4111	4260	148	35-3/4
19	8-1/2	SGH-J	Reed	4360	5129	379	27-3/4
20	8-1/2	SCM-J	Reed	5229	5240	11	3/4
1	8-1/2	Christensen		5240	5261	11	2-3/4
2	8-1/2	Christensen		5261	5295	34	6
3A	8-1/2	Christensen		5295	5326	31	5-3/4
4	8-1/2	Christensen		5326	5362	36	6

(d) Mud Report
 (Milgel - Benex) gel - 69,900 Lbs. Benex - 265 Lbs.

(e) Deviation Record

<u>Depth</u>	<u>Deviation (Degrees)</u>
172	1/4
200	1/8
231	1/4
262	1/4
324	3/8
380	7/8
413	3/4
473	7/8
504	7/8
572	7/8
662	1-1/8

DEPTH

TEMPERATURE (degrees)

722	7/7
813	1-1/2
873	1-1/2
1035	1-1/2
1145	1-1/2
1236	1-1/2
1266	1-1/2
1420	3
1480	3-1/2
1541	4
1600	5
1625	5-1/2
1685	4-7/8
1690	4-7/8
1723	4-5/8
1752	4-7/8
1783	4-3/4
1814	4-5/8
1844	4-7/8
1904	4-5/8
1934	4-5/8
1972	disrun
2002	4-1/2
2011	4-5/8
2030	4-1/2
2063	4-1/2
2093	4-1/4
2153	4-1/4
2240	3-1/2
2334	4
2425	4
2516	4-7/8
2577	5-7/8
2607	7-1/4
2637	7-1/4
2667	7-1/2
2697	7-3/4
2725	7-3/4
2756	7-3/4
2735	8-1/4
2814	9-1/2
2830	9-1/2
2874	8-1/2
2904	8-3/4
2934	8-3/4
2962	8-3/4
2992	8
3022	7-7/8
3053	7-7/8
3083	7-7/8
3115	7-5/8
3142	8
3203	8
3233	8
3295	8-1/8

<u>Depth</u>	<u>Deviation(Degrees)</u>
3356	7-3/4
3415	8
3446	7-3/4
3476	7-3/4
3535	7
3595	7
3687	7
3706	6-3/4
3833	6
3772	5-3/4
3893	5
3973	4-1/4
4068	4-1/2
4158	4
4949	4-1/2
5071	4-1/2
5192	6
4706	5
4828	5-1/2
4310	4-1/2
4374	4-3/4
4462	4-3/4
4583	5
5229	5-3/4

(f) Abandonment Plugs

Plug #1 3-5-69 (5062 - 4940) 215 Sx, No Feel
 Plug #2 3-5-69 (3893 - 3770) 100 Sx, +2.5% Cacl₂ felt @ 3670'
 Plug #3 3-5-69 rump 135 Sx. down 9-5/8 - 13-3/8 annulus. (300-600')
 Spot 5 Sx. surface plug. Weld 1/4" plate
 on csg.

(g) Lost Circulation Zones

NIL

(h) Report of Blowouts

NIL

SECTION IV

LOGS

<u>DATE</u>	<u>RUN NO.</u>	<u>TYPE</u>	<u>INTERVAL</u>
2-17-69	1	DIL.	3829 - 516
2-17-69	1	BHC-SGR, Caliper	3829 - 516
2-18-69	1	Cont. Dipmeter	3326 - 550
3-3-69	2	DIL.	5362 - 3834
3-3-69	2	BHC-SGR, Caliper	5365 - 3834
3-3-69	1	Sidewall Neutron Porosity	5364 - 3834
3-3-69	1	Formation Density	5364 - 3834
3-3-69	2	Cont. Dipmeter	5362 - 3840
3-3-69	1	Porosity Lith- ology	5362 - 3834

SECTION V

ANALYSIS

- (a) Core analysis - See Attachment - Lab Report No. CNP-1-9544
- (b) Water Analysis - See Attachment - " " E69-9401-4, E69-9471-1,
- (c) Gas Analysis - NIL E69-9471-2, E69-9471-3,
- (d) Oil Analysis - NIL E69-9471-4

SECTION VI

COMPLETION SUMMARY

NIL - Well Was Abandoned

WELL HISTORY REPORT

PAN AM SHELL MERRILL YT-L-60
(PAN AM SHELL A-1 MERRILL)

UNIT L SECT. 60, GRID 60°20'N, 124°15'W
YUKON TERRITORIES

PAN AM SHELL MERRILL YT L-60
(Pan Am Shell Merrill A-1)

UNIT L SECT. 60, GRID 60°20'N, 124°15'W

YUKON TERRITORIES

SAMPLE DESCRIPTIONS

- 0 - 30' No samples.
- 30' - 50' Shale, medium dark grey, micro-micaceous, soft, platy to blocky, slightly calcareous; trace of silt, with interbeds of quartz sandstone, very fine to fine grained, dirty brown - grey, calcareous, trace of limestone, medium brown - grey, argillaceous.
- 50' - 100' Dark grey Shale, micro-micaceous, soft, platy, bituminous; trace of ironstone, pyrite and silt.
- 100' - 190' Dark grey Shale with abundant pyrite, very slightly calcareous, trace of ironstone and anhydrite stringers.
- 190' - 410' Dark grey Shale, as above, with slight traces of siltstone, pyrite and anhydrite stringers.
- 410' - 550' Dark grey Shale; abundant pyrite; anhydrite stringers; trace of clear quartz and ironstone and siltstone.
- 550' - 600' Dark grey Shale, micro-micaceous, soft; trace of silt, very slightly calcareous; trace of ironstone.
- 600' - 850' Dark grey Shale, silty and sandy, with anhydrite stringers and pyrite; trace of ironstone.
- 850' - 1060' Dark grey Shale; trace of anhydrite stringers; trace of pyrite, silt and ironstone.
- 1060' - 1100' Dark grey Shale; with traces of silt, anhydrite, pyrite and black shale.
- 1100' - 1270' Dark grey Shale; some black shale, micro-micaceous, soft, silty; trace of dolomite, pyrite and anhydrite.
- 1270' - 1290' Dark grey Shale, as above, with increase in amount of sandy siltstone; trace of pyrite and monaxon spicules; traces of dolomite and ironstone.
- 1290' - 1690' Shale, dark grey to black, micro-micaceous, soft, silty, platy to blocky, slightly calcareous; traces of anhydrite, pyrite and dolomite.
- 1690' - 1940' Dark grey Shale, as above; traces of pyrite, monaxon spicules and dolomite.

- 1940' - 2030' Dark grey Shale and Limestone, very fine crystalline, argillaceous, grey white to dark grey speckled; trace of anhydrite in fractures; trace of pyrite and trace of crinoids.
- 2030' TOP OF MISSISSIPPIAN LIMESTONE AND SHALE UNIT
- 2030' - 2120' Limestone, fine crystalline, white - brown/dark grey; pyritic shale interbeds, very dark grey to black; trace of chert and anhydrite.
- 2120' - 2210' Shale, as above; with interbedded limestone, very argillaceous; trace of pyrite and anhydrite.
- 2210' - 2260' Limestone and Shale, as above, interbedded; trace of anhydrite and pyrite.
- 2260' - 2410' Shale, dark grey to black, as above; and Limestone, as above; shale is slightly silty; slight trace of pyrite.
- 2410' - 2590' Shale, dark grey and black; some limestone and siltstone; trace of pyrite and crinoid fragments; some monaxon spicules at base.
- 2590' - 2660' Shale, dark grey, some black, silty and limy; monaxon spicules. More crinoids than in interval above.
- 2660' - 2800' Shale, dark grey, black, micro-micaceous, silty; trace of limestone; abundant monaxon spicules; one crinoid fragment at 2770'.
- 2800' - 3395' Shale, dark grey to black, interbedded, soft, micro-micaceous and hard, slightly silty; trace of pyrite, limestone and monaxon spicules.
- 3395' TOP FIRST BLACK SHALE
- 3395' - 3740' Shale, dark grey, very dark grey and black, silty; trace of pyrite and limestone.
- 3740' - 3920' Shale, dark grey, silty and pyritic; trace of limestone in fractures and monaxon spicules.
- 3920' - 4440' Shale, very dark grey to black, micro-micaceous, flaky to platy and silty, pyritic, with scattered crinoid fragments; traces of dolomite and limestone.
- 4440' - 4480' Shale, as above; with traces of dolomite and pyrite; monaxon spicules and tasmanites.
- 4458' TOP SECOND BLACK SHALE
- 4480' - 4750' Shale, black, slightly bituminous, pyritic, slightly silty; trace of dolomite; trace of slickensides.

- 4750' - 4850' Shale, dark grey and black, pyritic, some calcite in fractures and abundant monaxon spicules; trace of dolomite and trace of limestone.
- 4850' - 4990' Shale, dark grey to black, slightly calcareous to very calcareous near base. Shale is pyritic; scattered calcite in fractures and scattered monaxon spicules; traces of chalky limestone.
- 4990' TOP OF MIDDLE DEVONIAN CARBONATE
- 4990' - 5010' Black Shale, as above; very calcareous limestone and dolomite in fractures; trace of pyrite; dolomite and limestone content increasing at base.
- 5010' - 5090' Limestone, medium grey, medium crystalline, slightly argillaceous, mainly white, some fine fractures filled with calcite, some brachiopod shell fragments and shale as above; trace of dolomite; porosity - negative.
- 5090' - 5230' Dolomite, white, slightly limy, coarse crystalline; minor pyrobitumen; grey shale; maximum porosity 3%.
- 5230' - 5362' Limestone and dolomite, as above, with trace of grey shale
T.D. and pyrite; average porosity 3%.

PAN AM SHELL MERRILL YT-L-60
(Pan Am Shell Merrill A-1)

UNIT L SECT. 60, GRID 60°20'N, 124°15'W

CORE DESCRIPTIONS

Core No. 1 5240' - 5261.3' Full Recovery 21.3'

Limestone, white, trace of corals, brachiopods and stromatoporoids, especially in top 5' and last 3'. Porosity poor throughout. Fossils and fractures completely replaced with Limestone and Dolomite.

Core No. 2 5261.3' - 5295.7' Full Recovery 34.4'

Top 13' secondary white Dolomite, coarse crystalline, very fossiliferous, vertical fractures scattered; porosity to 4%.

Middle 19' dolomitic Limestone; few fossils; open vugs and fractures; shale breaks; porosity 1 - 2%.

Bottom 2.4' 100% Dolomite, white, coarse crystalline, very vuggy, brecciated and recemented; porosity 6 - 8%.

Core No. 3 5295.7' - 5326.2' Full Recovery 29.5'

First 4.3' Limestone, tight, no vugs; next 3' Dolomite, coarse to fine crystalline, vugs pinpoint to 1" in diameter; trace of stylolites; porosity 6%; next 4' tight Limestone with fossil traces; last 19.2' Dolomite with some Limestone, many fossils, vugs to 1", stylolites; average porosity 3 - 4%.

Core No. 4 5326.2' - 5362.0' Full Recovery 35.8'

2.5' tight Limestone; 2.3' tight Dolomite with vague fossils; 3.5' Dolomite, white, coarse crystalline and fossiliferous; vugs to $\frac{1}{2}$ " in diameter; porosity 4 - 5%; 2' tight grey Dolomite; 6.5' tight grey Limestone with shale breaks; last 19' is $\frac{2}{3}$ secondary coarse crystalline Dolomite, some medium crystalline - $\frac{1}{3}$ is dolomitic Limestone and limy Dolomite, often fossiliferous (stroms?), occasional stylolites, fractures; average porosity 4%.

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

COMPANY PAN AMERICAN PETROLEUM CORPORATION
WELL PAN AM SHELL MERRILL YT-L-60
FIELD WILDCAT, YUKON TERRITORY
LOCATION 600 19' 30.00 NL
1240 26' 00.00 WL

FORMATION DRILLING FLUID
ELEVATION ANALYSIS
REMARKS

WATER BASE
FULL DIAMETER
Glazed surface on all samples removed prior to permeability measurements

PAGE 1 of 5
FILE CNP-1-9544
DATE REPORT APRIL 2/69
ANALYSTS

AST - APPROXIMATE TO
BR - BROKEN CORE
ITEM - USED FOR SUMMARY PURPOSES
P - PERMEABILITY ZONE NO
S - FINE SAND
M - MEDIUM SAND
CS - COARSE SAND
CONG - CONGLOMERATE
DOL - DOLOMITE
S - SHALE
LIM - LIMONITE
SHT - SHALE
SE - BREAK
BT - BITUMEN
CARB - CARBONACEOUS
A - ANHYDRITE
FOS - FOSSILIFEROUS
SLS - CRYSTALLINE
LAM - LAMINATION
V - VUGULAR
LV - LARK WING
PAP - PAPYRUS
M - MUD
S - SCLERITE
S - SCLERITE

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS			POROSITY %	POROSITY FEET	PERMEABILITY FEET	DENSITY	VISUAL EXAMINATION	
	DEPTH	THICK	KMAX	K500	KV						BULK
CORED INTERVAL 5240.0' - 5362.0'											
CORE No. 1 5240.0' - 5261.4' (Rec. 21.4') (5 BOXES)											
1	5240.0-5241.4	1.4	<0.01	<0.01	<0.01	0.6	0.84	-	2.70	2.72	I, Sty.
2	5241.4-5242.8	1.4	<0.01	<0.01	<0.01	0.3	0.42	-	2.70	2.71	I, Sty.
3	5242.8-5244.0	1.2	*	0.25	*	2.6	3.12	0.30	2.69	2.76	I, Sty. VF
4	5244.0-5245.5	1.5	*	2.85	<0.01	1.2	1.80	4.28	2.73	2.76	I, Sty. HF
5	5245.5-5246.5	1.0	1.39	0.53	<0.01	0.9	0.90	1.39	2.71	2.74	I, Sty. HF
6	5246.5-5247.3	0.8	0.53	0.33	<0.01	2.7	2.16	0.42	2.74	2.82	I, Sty. HF Calcite
7	5247.3-5248.4	1.1	*	1.42	*	4.2	4.62	1.56	2.68	2.79	I, Sty. HF VF
8	5248.4-5249.7	1.3	<0.01	<0.01	<0.01	0.8	1.04	-	2.71	2.73	I, Sty.
9	5249.7-5251.2	1.5	4.25	3.82	<0.01	1.1	1.65	6.36	2.68	2.70	I, HF Sty.
10	5251.2-5253.0	1.8	3.18	2.58	<0.01	0.9	1.62	5.72	2.68	2.71	I, Sty. HF
11	5253.0-5254.5	1.5	7.01	3.71	<0.01	0.9	1.35	10.52	2.68	2.70	I, Sty. HF
12	5254.5-5256.2	1.7	0.91	0.46	<0.01	0.8	1.36	1.55	2.73	2.75	I, Sty. HF
13	5256.2-5258.0	1.8	0.73	0.16	<0.01	0.9	1.62	1.31	2.70	2.72	I, Sty. HF
14	5258.0-5259.0	1.0	4.52	3.18	<0.01	1.7	1.70	4.52	2.76	2.81	PPV I, Sty. HF
15	5259.0-5260.0	1.0	*	9.81	<0.01	2.1	2.10	9.81	2.74	2.80	I, Sty. HF
16	5260.0-5261.4	1.4	<0.01	<0.01	<0.01	1.1	1.54	-	2.70	2.73	I, Sty.

CORE No. 2 5261.4' - 5295.7' (Rec. 34.3') (8 BOXES)											
17	5261.4-5262.2	0.8	*	7.39	<0.01	8.5	6.80	5.91	2.59	2.83	LV SV Calcite
18	5262.2-5263.0	0.8	34.44	24.48	<0.01	2.2	1.76	27.55	2.77	2.83	LV SV Sty. HF
19	5263.0-5264.0	1.0	32.10	28.00	<0.01	3.7	3.70	32.10	2.72	2.83	LV SV Sty. HF Calcite
20	5264.0-5264.8	0.8	141.20	47.52	0.09	3.3	2.64	112.96	2.75	2.84	LV SV Sty. HF
AST # 19	5264.8-5265.8	1.0	32.10	28.00	<0.01	3.7	3.70	32.10	-	-	AST # 19, Eroken Core
21	5265.8-5267.8	2.0	*	13.53	*	3.5	7.00	27.06	2.74	2.83	SV HF VF
AST # 21	5267.8-5272.5	4.7	*	13.53	*	3.5	16.45	63.59	-	-	AST # 21, Broken Core

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

COMPANY PAN AMERICAN PETROLEUM CORPORATION
WELL PAN AM SHELL MERRILL YT-L-60

PAGE 2 of 5
FILE CNP-1-9544

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS				POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION
	DEPTH	THICK	KMAX	KPOD	KV	BULK			GRAIN		
Core No. 2 Cont'd											
22	5272.5-5273.8	1.3	1.30	0.94	<0.01	1.69	2.2	2.86	2.75	2.81	SV Sty.
23	5273.8-5275.8	2.0	10.96	7.51	<0.01	21.92	1.8	3.60	2.78	2.83	1, Sty. HF
24	5275.8-5277.8	2.0	6.87	1.13	<0.01	13.74	1.9	3.80	2.67	2.72	1, Sty. HF
25	5277.8-5279.8	2.0	11.13	0.41	0.95	22.26	1.1	2.20	2.70	2.72	1, Sty. HF
26	5279.8-5281.8	2.0	21.41	3.79	0.08	42.82	1.4	2.80	2.70	2.74	1, Sty. HF
27	5281.8-5283.8	2.0	0.36	0.17	<0.01	0.72	0.6	1.20	2.69	2.70	1, Sty. HF
28	5283.8-5285.7	1.9	*	54.93	0.92	104.37	1.1	2.09	2.75	2.78	1, HF VF
29	5285.7-5287.6	1.9	4.88	0.93	<0.01	9.27	0.9	1.71	2.69	2.71	1, HF
30	5287.6-5289.6	2.0	0.78	0.39	<0.01	1.56	0.8	1.60	2.71	2.73	1, Sty. HF
31	5289.6-5291.6	2.0	8.34	6.22	0.22	16.68	0.9	1.80	2.69	2.71	1, Sty. HF
32	5291.6-5293.4	1.8	*	15.89	<0.01	28.60	2.4	4.32	2.76	2.83	1, Sty. HF
33	5293.4-5294.0	0.6	28.51	13.24	0.13	17.14	4.0	2.40	2.72	2.83	LV SV Sty. HF
34	5294.0-5295.7	1.7	23.59	16.48	<0.01	40.10	6.5	11.05	2.66	2.84	LV SV
CORE No. 3 5295.7' - 5326.2' (Rec. 29.5') (7 BOXES)											
35	5295.7-5297.7	2.0	11.92	2.65	1.40	23.84	1.1	2.20	2.68	2.71	1, Sty. HF
36	5297.7-5299.7	2.0	13.76	12.30	<0.01	27.52	1.2	2.40	2.71	2.74	1, Sty. HF
37	5299.7-5300.6	0.9	0.98	0.33	0.05	0.88	2.4	2.16	2.77	2.84	SV
38	5300.6-5301.6	1.0	47.97	37.76	0.10	47.97	7.3	7.30	2.64	2.85	LV SV
39	5301.6-5302.1	0.5	17.14	16.33	0.49	8.57	5.2	2.60	2.69	2.84	LV SV Sty.
40	5302.1-5303.0	0.9	53.41	26.75	0.43	48.07	7.9	7.11	2.62	2.85	LV SV Sty.
41	5303.0-5303.4	0.4	617.00	27.99	<0.01	246.80	3.2	1.28	2.71	2.80	LV SV Sty. HF
42	5303.4-5305.4	2.0	4.85	3.14	<0.01	9.70	0.5	1.00	2.71	2.72	1, Sty. HF
43	5305.4-5307.4	2.0	6.83	5.01	0.05	13.66	0.9	1.80	2.70	2.73	1, Sty. HF
44	5307.4-5308.5	1.1	16.06	15.62	1.26	17.67	4.0	4.40	2.73	2.84	LV SV Sty.
45	5308.5-5309.0	0.5	19.69	11.25	0.35	9.85	3.1	1.55	2.75	2.83	LV SV Sty.
46	5309.0-5309.6	0.6	23.94	8.19	0.03	14.36	6.9	4.14	2.64	2.83	LV SV
47	5309.6-5310.6	1.0	*	12.63	0.39	12.63	6.0	6.00	2.67	2.84	LV SV Sty.
48	5310.6-5311.5	0.9	93.70	50.65	0.02	84.33	2.1	1.89	2.77	2.83	LV SV Sty.
49	5311.5-5312.2	0.7	10.60	6.89	0.04	7.42	2.2	1.54	2.80	2.86	SV Sty. HF
50	5312.2-5312.6	0.4	207.00	94.38	0.04	82.80	5.4	2.16	2.69	2.81	LV SV Sty.
51	5312.6-5313.4	0.8	10.69	5.60	0.56	8.55	3.6	2.88	2.74	2.84	LV SV Sty.

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

COMPANY PAN AMERICAN PETROLEUM CORPORATION
WELL PAN AM SHELL MERRILL YT-L-60

PAGE 3 of 5
FILE CNP-1-9544

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS				POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION
	DEPTH	THICK	KMAX	K90P	KV	BULK			GRAIN		
Core No. 3 Cont'd *****											
52	5313.4-5314.2	0.8	54.04	10.29	0.41	43.23	2.8	2.24	2.77	2.85	SV PPV Sty.
53	5314.2-5315.0	0.8	*	297.00	*	237.60	4.3	3.44	2.72	2.34	SV PPV HF VF
54	5315.0-5315.8	0.8	23.68	15.44	0.45	18.94	2.3	1.84	2.77	2.84	SV PPV Sty.
55	5315.8-5316.5	0.7	18.41	10.29	0.41	12.89	2.2	1.54	2.78	2.84	LV SV Sty. HF
56	5316.5-5317.3	0.8	21.84	14.14	0.06	17.47	1.3	1.04	2.81	2.84	Few SV Sty. HF
57	5317.3-5318.5	1.2	16.91	5.84	12.84	22.69	1.7	2.04	2.81	2.85	Few SV HF VF
58	5318.5-5319.6	1.1	418.00	31.86	0.45	459.80	3.8	4.18	2.74	2.84	LV SV HF
59	5319.6-5321.2	1.6	27.69	8.99	3.17	44.30	3.3	5.28	2.75	2.84	SV PPV Sty.
60	5321.2-5321.7	0.5	2.96	1.94	0.62	1.48	2.7	1.35	2.76	2.84	LV SV Sty.
61	5321.7-5322.3	0.6	19.44	1.18	0.03	11.66	3.0	1.80	2.75	2.84	LV SV Sty.
62	5322.3-5323.2	0.9	4.92	4.67	0.67	4.43	2.7	2.43	2.76	2.83	LV SV
63	5323.2-5324.2	1.0	*	9.27	*	9.27	2.5	2.50	2.75	2.83	SV Sty. VF HF
64	5324.2-5325.2	1.0	23.60	<0.01	<0.01	23.60	0.4	0.40	2.71	2.72	I, HF
-	5325.2-5326.2	1.0	-	-	-	-	-	-	-	-	Lost Core
CORE No. 4 5326.2' - 5362.0' (Rec. 35.8') (8 BOXES)											
65	5326.2-5328.2	2.0	16.69	3.32	0.03	33.38	1.1	2.20	2.71	2.74	I, Sty. HF
66	5328.2-5330.1	1.9	20.54	17.18	<0.01	39.03	2.5	4.75	2.78	2.85	I, Sty. HF
67	5330.1-5330.8	0.7	8.75	3.30	<0.01	6.13	0.7	0.49	2.73	2.75	I, Sty. HF
68	5330.8-5331.4	0.6	98.91	15.60	0.77	59.35	7.7	4.62	2.63	2.85	LV SV
69	5331.4-5332.3	0.9	36.94	10.96	0.13	33.25	4.7	4.23	2.70	2.83	LV SV Sty.
70	5332.3-5333.3	1.0	27.45	11.30	0.10	27.45	6.6	6.60	2.65	2.84	LV SV
71	5333.3-5334.2	0.9	34.17	27.40	2.47	30.75	3.8	3.42	2.72	2.83	LV SV HF VF
72	5334.2-5335.2	1.0	14.66	12.49	<0.01	14.66	0.6	0.60	2.73	2.74	I, Sty. HF
73	5335.2-5336.7	1.5	16.62	0.83	0.04	24.93	1.5	2.25	2.80	2.84	I, Sty. HF
74	5336.7-5338.4	1.7	<0.01	<0.01	<0.01	-	0.5	0.85	2.82	2.83	I, Sty. HF
75	5338.4-5340.4	2.0	2.04	2.04	0.04	4.08	0.3	0.60	2.72	2.73	I, Sty. HF
76	5340.4-5342.0	1.6	0.32	0.06	<0.01	0.51	0.3	0.48	2.72	2.73	I, Sty. HF
77	5342.0-5343.2	1.2	0.16	0.16	0.04	0.19	0.9	1.08	2.74	2.74	I, Sty.
78	5343.2-5344.1	0.9	71.32	26.12	0.21	64.19	2.0	1.80	2.77	2.83	LV SV Sty. HF
AST #79	5344.1-5345.1	1.0	*	103.00	1.21	103.00	7.3	7.30	-	-	AST # 79
79	5345.1-5346.1	1.0	*	103.00	1.21	103.00	7.3	7.30	2.65	2.86	LV SV Sty. HF

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

COMPANY PAN AMERICAN PETROLEUM CORPORATION
WELL PAN AM SHELL MERRILL YT-L-60

PAGE 3 of 5
FILE CNP-1-9544

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS				POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION
	DEPTH	THICK	KMAX	K90P	KV	BULK			GRAIN		
Core No. 3 Cont'd *****											
52	5313.4-5314.2	0.8	54.04	10.29	0.41	43.23	2.8	2.24	2.77	2.85	SV PPV Sty.
53	5314.2-5315.0	0.8	*	297.00	*	237.60	4.3	3.44	2.72	2.34	SV PPV HF VF
54	5315.0-5315.8	0.8	23.68	15.44	0.45	18.94	2.3	1.84	2.77	2.84	SV PPV Sty.
55	5315.8-5316.5	0.7	18.41	10.29	0.41	12.89	2.2	1.54	2.78	2.84	LV SV Sty. HF
56	5316.5-5317.3	0.8	21.84	14.14	0.06	17.47	1.3	1.04	2.81	2.84	Few SV Sty. HF
57	5317.3-5318.5	1.2	16.91	5.84	12.84	22.69	1.7	2.04	2.81	2.85	Few SV HF VF
58	5318.5-5319.6	1.1	418.00	31.86	0.45	459.80	3.8	4.18	2.74	2.84	LV SV HF
59	5319.6-5321.2	1.6	27.69	8.99	3.17	44.30	3.3	5.28	2.75	2.84	SV PPV Sty.
60	5321.2-5321.7	0.5	2.96	1.94	0.62	1.48	2.7	1.35	2.76	2.84	LV SV Sty.
61	5321.7-5322.3	0.6	19.44	1.18	0.03	11.66	3.0	1.80	2.75	2.84	LV SV Sty.
62	5322.3-5323.2	0.9	4.92	4.67	0.67	4.43	2.7	2.43	2.76	2.83	LV SV
63	5323.2-5324.2	1.0	*	9.27	*	9.27	2.5	2.50	2.75	2.83	SV Sty. VF HF
64	5324.2-5325.2	1.0	23.60	<0.01	<0.01	23.60	0.4	0.40	2.71	2.72	I, HF
-	5325.2-5326.2	1.0	-	-	-	-	-	-	-	-	Lost Core
CORE No. 4 5326.2' - 5362.0' (Rec. 35.8') (8 BOXES)											
65	5326.2-5328.2	2.0	16.69	3.32	0.03	33.38	1.1	2.20	2.71	2.74	I, Sty. HF
66	5328.2-5330.1	1.9	20.54	17.18	<0.01	39.03	2.5	4.75	2.78	2.85	I, Sty. HF
67	5330.1-5330.8	0.7	8.75	3.30	<0.01	6.13	0.7	0.49	2.73	2.75	I, Sty. HF
68	5330.8-5331.4	0.6	98.91	15.60	0.77	59.35	7.7	4.62	2.63	2.85	LV SV
69	5331.4-5332.3	0.9	36.94	10.96	0.13	33.25	4.7	4.23	2.70	2.83	LV SV Sty.
70	5332.3-5333.3	1.0	27.45	11.30	0.10	27.45	6.6	6.60	2.65	2.84	LV SV
71	5333.3-5334.2	0.9	34.17	27.40	2.47	30.75	3.8	3.42	2.72	2.83	LV SV HF VF
72	5334.2-5335.2	1.0	14.66	12.49	<0.01	14.66	0.6	0.60	2.73	2.74	I, Sty. HF
73	5335.2-5336.7	1.5	16.62	0.83	0.04	24.93	1.5	2.25	2.80	2.84	I, Sty. HF
74	5336.7-5338.4	1.7	<0.01	<0.01	<0.01	-	0.5	0.85	2.82	2.83	I, Sty. HF
75	5338.4-5340.4	2.0	2.04	2.04	0.04	4.08	0.3	0.60	2.72	2.73	I, Sty. HF
76	5340.4-5342.0	1.6	0.32	0.06	<0.01	0.51	0.3	0.48	2.72	2.73	I, Sty. HF
77	5342.0-5343.2	1.2	0.16	0.16	0.04	0.19	0.9	1.08	2.74	2.74	I, Sty.
78	5343.2-5344.1	0.9	71.32	26.12	0.21	64.19	2.0	1.80	2.77	2.83	LV SV Sty. HF
AST #79	5344.1-5345.1	1.0	*	103.00	1.21	103.00	7.3	7.30	-	-	AST # 79
79	5345.1-5346.1	1.0	*	103.00	1.21	103.00	7.3	7.30	2.65	2.86	LV SV Sty. HF

CORE LABORATORIES - CANADA, LTD.
Petroleum Reservoir Engineering

WELL: PAN AM SHELL MERRILL YT L-60

FORMATION:

PAGE: 5 of 5

SUMMARY INTERVAL: 5240.0 - 5362.0

FILE: CNP-1-9544

TOTAL FOOTAGE: 122.0

FOOTAGE ANALYZED 121.0

FOOTAGE NOT ANALYZED: TOTAL: 1.0 DENSE .0 LOST 1.0 DRILLED .0 NABR .0 RUBBLE .0

SUMMARY
OF
ANALYZED CORE:

FOOTAGE	% OF ANALYZED CORE	WEIGHTED AVERAGE POROS.	POROSITY FEET	WEIGHTED AVERAGE PERM. MD.	PERM. FEET	WEIGHTED AVERAGE RESID. OIL %	WEIGHTED AVERAGE % CT. WATER %
121.0	100.00	2.68	324.53	171.04	20696.25	.00	.00
7.2	5.95	.65	4.69	.00	.00	.00	.00
6.0	4.96	.98	5.88	.29	1.72	.00	.00
7.2	5.95	1.24	8.90	.80	5.73	.00	.00
28.2	23.31	1.62	45.68	5.08	143.27	.00	.00
72.4	59.83	3.58	259.38	283.78	20545.53	.00	.00

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.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. **E69-9401-4**

Canadian Shell Merrill A-1
(Pan Am. Shell Merrill A-1)

Reported Mar. 5, 1969
 PAN AMERICAN PETROLEUM CORPORATION
 Zone/Formation Nahanni
 Well Location Field or Area Yukon
 D.S.T. #1 Sampled from Bottom
 Sample Interval 4989' - 5362'
 Date: Mar. 2, 1969
 Sampled by:

CONVERTIBLE DATA

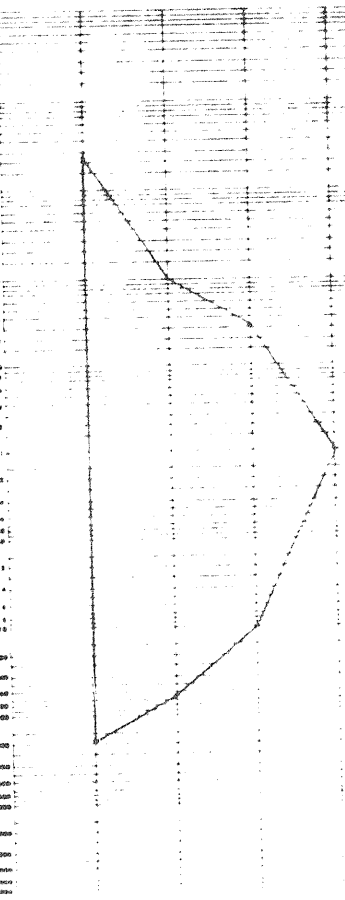
(Signed)

Na	K	Ca	Mg	SO ₄	Cl	CO ₂	HCO ₃
4203		299	126	155	8668		630
182.81		64.82	10.36	3.22	241.44		10.33
35.43		12.56	2.01	0.62	47.37		2.00

Total Solids Mg/L: By Evaporation **16,536** Fe Present Specific Gravity **1.013** @60°F Observed pH **6.7** @ 72 °F
 Calculated **15,081** After Ignition **14,904** H₂S N11 Refractive Index **1.3362** @25°C Resistivity **0.511** ohm meters @ 68 °F

Pattern Unit Meq/L

Remarks & Conclusions: Analysis determined on colourless water filtered from muddy water.



E69-9401-1 Drill fluid. Colourless water filtered from mud. Resistivity: **1.70** OHM meters **668°F**
E69-9401-2 Top. Colourless water filtered from mud. Resistivity: **0.923** OHM meters **668°F**
E69-9402-1 Middle. Colourless water filtered from slightly muddy water. Resistivity: **0.511** OHM meters **668°F**

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. E69-9471-4

Received: March 13, 1969 Reported: March 10, 1969 Well location: (Pan Am. Shell Merrill A-1)YT. L-60 60° 19' 30" 124° 26' 00"
 Operator: PAN AMERICAN PETROLEUM CORPORATION Field or Area: Yukon
 Elev.: K.B. Grd. Zone/Formation: Nihanni

Sample Interval: 4989' - 5362'

Method of Production: D.S.T. #1 Sampled from: Bottom Sampled by: --- Date: March 2, 1969

OTHER PERTINENT DATA "Whitecourt Area"

(Signed)

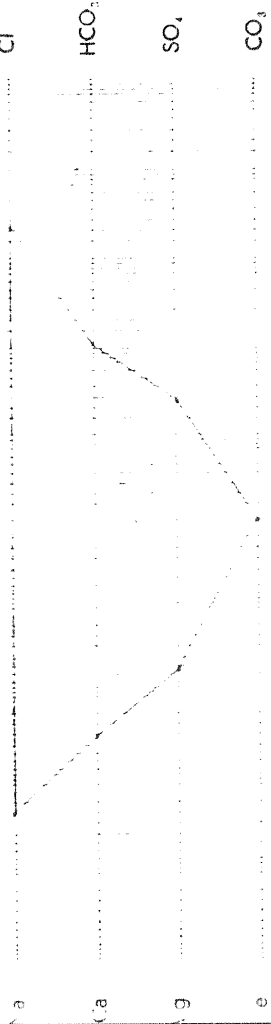
Na	K	Ca	Mg	SO ₄	Cl	CO ₃	HCO ₃
5057		639	68	140	8660		630
219.97		31.09	5.59	2.91	244.21		10.33
42.72		6.19	1.09	0.57	47.43		2.01

Total Solids Mg/L: By Evaporation 16,360 Fe Present Specific Gravity 1.012 @60°F Observed pH 6.7 @ 74 °F
 Calculated 15,194 After Ignition 14,332 H₂S Nil Refractive Index 1.3360 @25°C Resistivity 0.508 ohm meters @68 °F

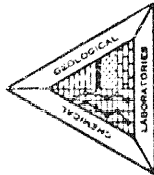
Pattern Unit Meq./L

Remarks and Conclusions

Analysis determined on light greenish coloured water filtered from muddy water.



CHEMICAL & GEOLOGICAL LABORATORIES LTD.



OPERATOR: PAN AMERICAN PETROLEUM CORPORATION REPORT NUMBER: E69-9471

DATE SAMPLED: March 2, 1969 DATE RECEIVED: March 13, 1969 DATE REPORTED: March 18, 1969

Well: Pan Am. Shell Merrill A-1 LOCATION: 60° 19' 30" 124° 26' 00" FORMATION: Nahanni

YT L-60 60° 19' 30" 124° 26' 00" METHOD OF PRODUCTION: D.S.T. #1 INTERVAL: 4989' - 5362'

FIELD: Yukon

"Whitecourt Area"

<u>LABORATORY NUMBER</u>	<u>IDENTIFICATION</u>	<u>RESISTIVITY (OHM-METERS @ 68°F.)</u>	<u>REMARKS & CONCLUSIONS</u>
E69-9471-1:	Drill fluid	1.74	Water filtered from mud.
E69-9471-2:	Top sample	0.896	Water filtered from watery mud.
E69-9471-3:	Middle sample	0.515	Water with some black sediment present.





DRILL STEM

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. **E69-9401-4**

Received: Mar. 4, 1969 Reported: Mar. 8, 1969 Well: Location: Pan Am. Shell Merrill YT 4-60
 Operator: PAN AMERICAN PETROLEUM CORPORATION Field or Area: Yukon
 Elev.: K.B. Grd. Zone/Formation: Nahanni Sample Interval: 4989' - 5362'
 Method of Production: D.S.T. #1 Sampled from: Bottom Sampled by: Dr. Mar. 2, 1969

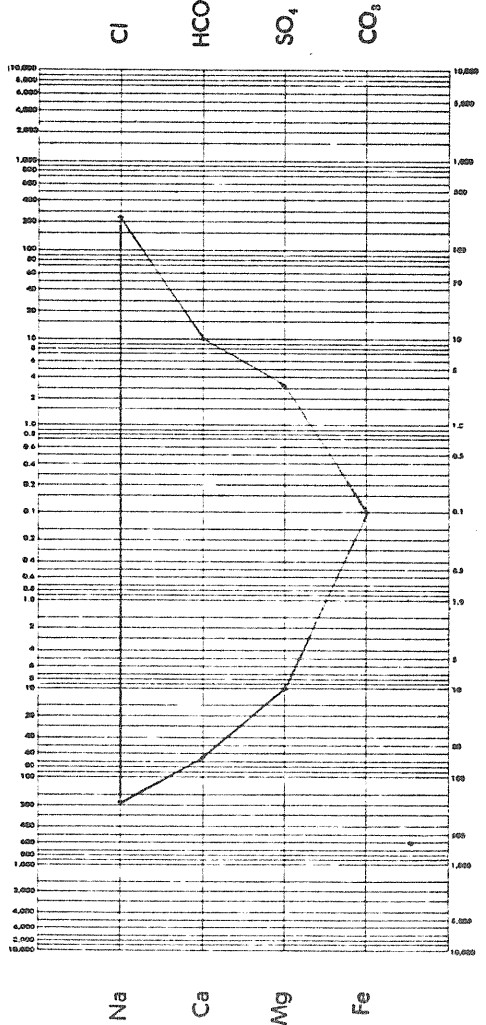
OTHER PERTINENT DATA

(Signed)

	Na	K	Ca	Mg	SO ₄	Cl	CO ₂	HCO ₃
Mg./l	4203		1299	126	155	8668		630
Meq./l	182.81		64.82	10.36	3.22	244.44		10.33
Aeq. %	35.43		12.56	2.01	0.62	47.37		2.00

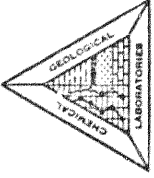
Total Solids Mg/L: By Evaporation **16,536** Fe Present Specific Gravity **1.013** @60°F Observed pH **6.7** @ **72** °F
 Calculated **15,081** After Ignition **14,904** H₂S Nil Refractive Index **1.3362** @25°C Resistivity **0.511** ohm meters @ **68** °F

Pattern Unit Meq./l



Remarks & Conclusions: Analysis determined on colourless water filtered from muddy water.
E69-9401-1 Drill fluid. Colourless water filtered from mud. Resistivity: 1.70 OHM meters @69°F
E69-9401-2 Top. Colourless water filtered from mud, Resistivity: 0.923 OHM meters @68°F
E69-9402-3 Middle. Colourless water filtered from slightly muddy water. Resistivity: 0.511 OHM meters @68°F

CHEMICAL & GEOLOGICAL LABORATORIES LTD.



OPERATOR: PAN AMERICAN PETROLEUM CORPORATION **REPORT NUMBER:** E69-9471
DATE SAMPLED: March 2, 1969 **DATE RECEIVED:** March 13, 1969 **DATE REPORTED:** March 18, 1969
WELL: Pan Am. Shell Merrill **LOCATION:** 60° 19' 30" 124° 26' 00" **FORMATION:** Nahanni
 YT L-60 60° 19' 30" 124° 26' 00"
FIELD: Yukon **METHOD OF PRODUCTION:** D.S.T. #1 **INTERVAL:** 4989' - 5362'

"Whitecourt Area"

<u>LABORATORY NUMBER</u>	<u>IDENTIFICATION</u>	<u>RESISTIVITY (OHM-METERS @ 68°F.)</u>	<u>REMARKS & CONCLUSIONS</u>
E69-9471-1:	Drill fluid	1.74	Water filtered from mud.
E69-9471-2:	Top sample	0.896	Water filtered from watery mud.
E69-9471-3:	Middle sample	0.515	Water with some black sediment present.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. E69-9471-4

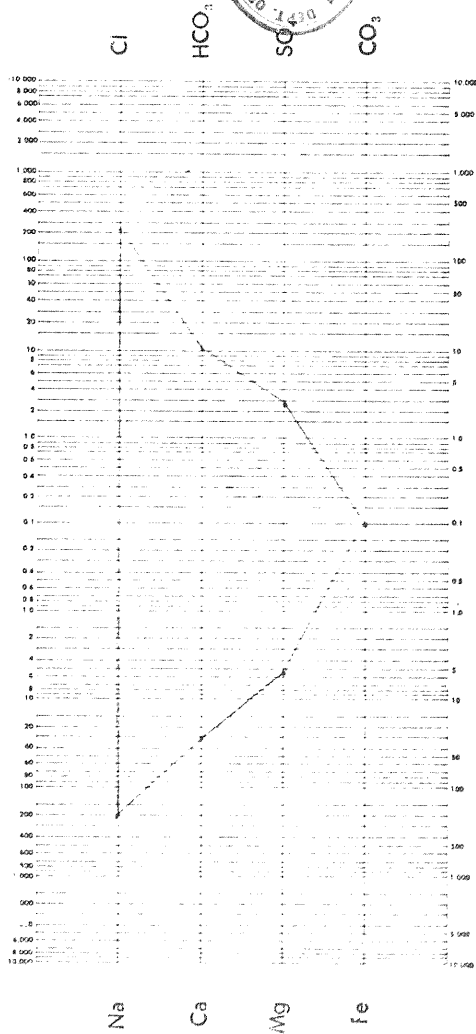
Received: March 13, 1969 Reported: March 18, 1969 Well: Location: Pan Am. Shell Merrilli Y.T. L-60 60° 19' 30" 124° 26' 00"
 Operator: PAN AMERICAN PETROLEUM CORPORATION Field or Area: Yukon
 Elev.: K.B. Grd. Zone/Formation: Nahanni
 Method of Production: D.S.T. #1 Sampled from: Bottom
 OTHER PERTINENT DATA "Whitecourt Area"
 Sample Interval: 4989' - 5362' Sampled by: --- Date: March 2, 1969

(Signed)

Na	K	Ca	Mg	SO ₄	Cl	CO ₃	HCO ₃
5057		639	68	140	8660		630
219.97		31.09	5.59	2.91	244.21		10.33
42.72		6.19	1.09	0.57	47.43		2.01

Total Solids Mg/L: By Evaporation 16,360 Fe Present Specific Gravity 1.012 @60°F Observed pH 6.7 @ 74 °F
 Calculated 15,194 After Ignition 14,332 H₂S Nil Refractive Index 1.3360 @25°C Resistivity 0.508 ohm meters @60 °F

Pattern Unit Meq./L



Remarks and Conclusions

Analysis determined on light greenish coloured water filtered from muddy water.

DEPT. OF MINES & TECHNICAL SURVEYING
 WATER ANALYSIS
 MAR 19 1969
 WHITECOURT AREA
 AS
 BR-W
 LAB
 FILE

DRILL STEM TESTING & CORING LTD.

EDMONTON: PHONE 433-7293

CALGARY: PHONE 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

TEST NUMBER

1

Date MARCH 2, 1969.

Customer PAN AMERICAN PETROLEUM CORPORATION,
9916 A RICHMOND AVE.,
GRANDE PRAIRIE, ALBERTA.

Well Name PAN AM SHELL MERRILL YT L-60

Location N60°19'30" W124°26',00"

Area YUKON TERR.

Formation TIGHT HOLE

Est. Pay Thick. --

Ticket No. B-772

Purchase Order No. E-9404-5

Interval 4989' TO 5362'

Test Duration 245 MINUTES

Initial Hydrostatic 2419

Final Hydrostatic 2405

Initial Flowing 604

Final Flowing 2226 after 120 mins.

Initial Shut-In 2446 after 60 mins.

Final Shut-In 2413 after 60 mins.

Blow GOOD

Recovery 4960' FLOWED TO SURFACE

Mud Type GEL. BENEX	Size Full Hole 8-1/2"	Size Rubber 7-1/2"	
Mud Wt. 9.2	Size Rat Hole --	O.D. Drill Collar 6-1/2"	
Vis. 45	Size & Type Pipe 4-1/2" F.H.	O.D. Sub or T.J. 6-1/4"	
W. L. 5.6	Time Circulated CORING Hrs.	Tool Length 73.09'	
pH 8.0	Where Circulated --	Rat Hole Length --	
F. C. 2/32	Bit off Bottom -- M.	Difference --	
Condition GOOD	Formation --	Total Depth 5362'	
TEST EXTRAS: SAFETY JT. DOUBLE SHUT IN. JARS. LEX PACKER. FAIL SAFE HEAD. FLOW MULTIPLOID PUMP OUT SIDE			

Type of Test DUAL BOTTOM HOLE Wt. to Set Packer 30,000 10,000 To Pull Loose

Initial Puff WEAK Gas Flow NIL Size Bean 3/4" Fluid Cushion NIL

Temp. -- Gravity -- No. Drill Collars 18(4 1/2 H90) Length -- I.D.'s 2-7/8"

PRESSURES

		INSIDE	OUTSIDE	FLUID RECOVERY	
Started In	7.45 A.M.	4877	6008	Mud	120'
Tool Open	11.42 A.M.	5007'	5017'	Oil	
" Closed	11.47 A.M.	2407-2403	2419-2405	Water	4840'
" Open	12.47 P.M.	604-2221	604-2226	Total	4960'
" Closed	2.47 P.M.	2424	2446	Sampled at	TOP, MIDDLE, BOTTOM.
" Loose	3.47 P.M.	2393	2413		
" Out	8.00 P.M.	Difference	31 33		

Description of Fluid 120' MUD. 4840' BRACKISH SULPHUROUS WATER.

Witnessed By: DARCY NAGEL.

REMARKS: GOOD INITIAL AIR PUFF, DECREASING TO WEAK. GOOD STEADY AIR BLOW FOR 120 MINUTES. MUD AND WATER FLOWED TO SURFACE.

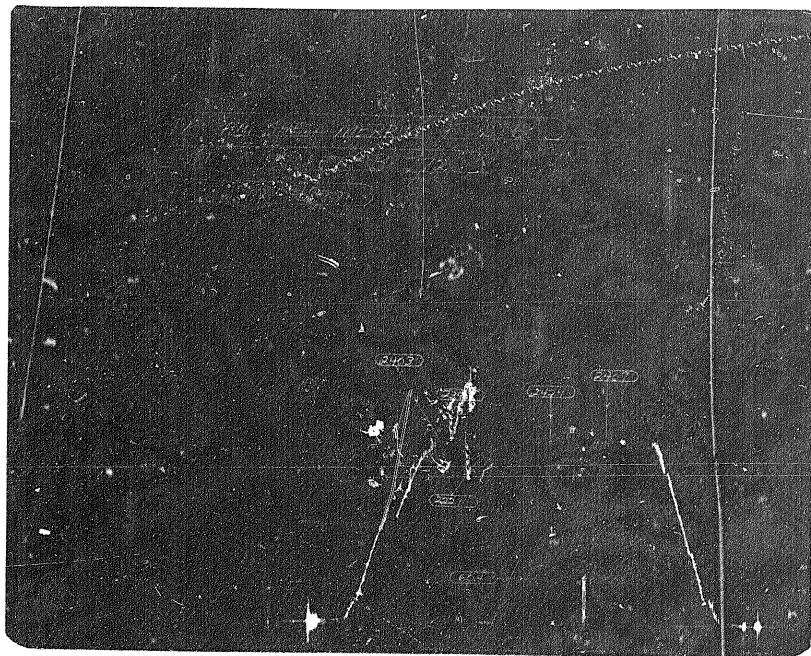
TEST SATISFACTORY.

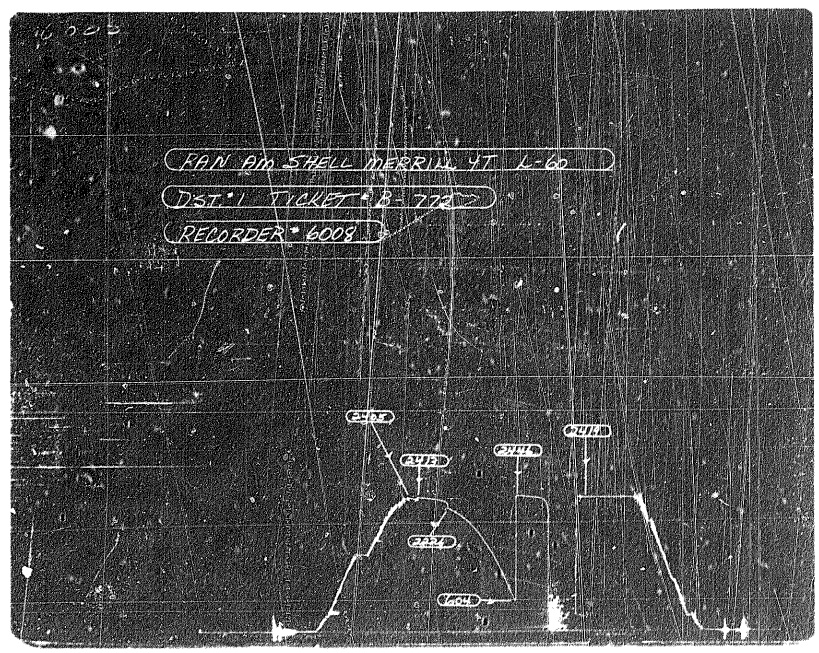
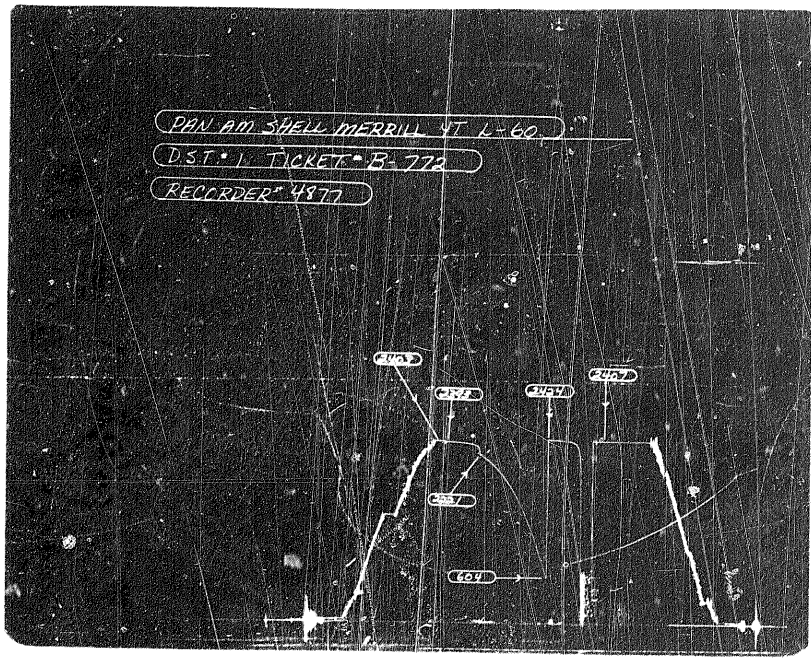
..... JIM THOMPSON.

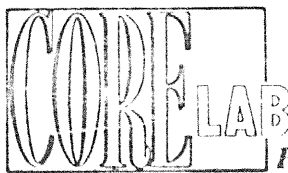
Testing Supervisor

Customer's Representative

D.S.T. # 1 WELL NAME PAN AM SHELL MERRILL YT L-60







CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

COMPANY PAN AMERICAN PETROLEUM CORPORATION FIELD _____ FILE CNP-1-9544
 WELL PAN AM SHELL MERRILL YT-L-60 DATE MARCH 4/69
 LOCATION 60 20' N 124 15' W YUKON TERRITORY ELEV. _____

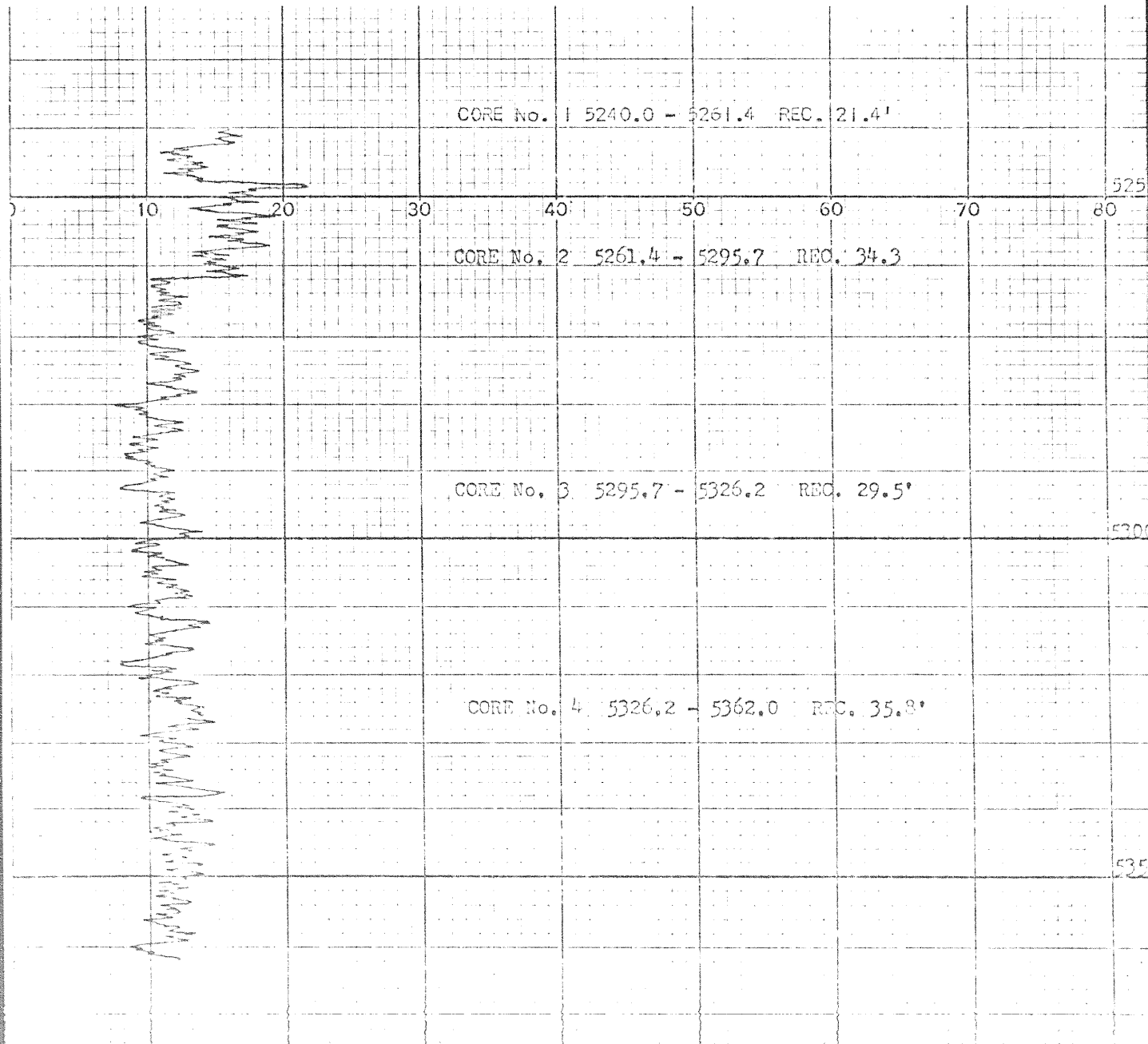
CORE-GAMMA CORRELATION

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TC 11 SECS

VERTICAL SCALE: 5" = 100'

SENS 2500 CPM



WELL PAN AM SHELL MERRILL YT-L-60

DATE MARCH 4/69

LOCATION 60 20' N 124 15' W

YUKON TERRITORY

ELEV. _____

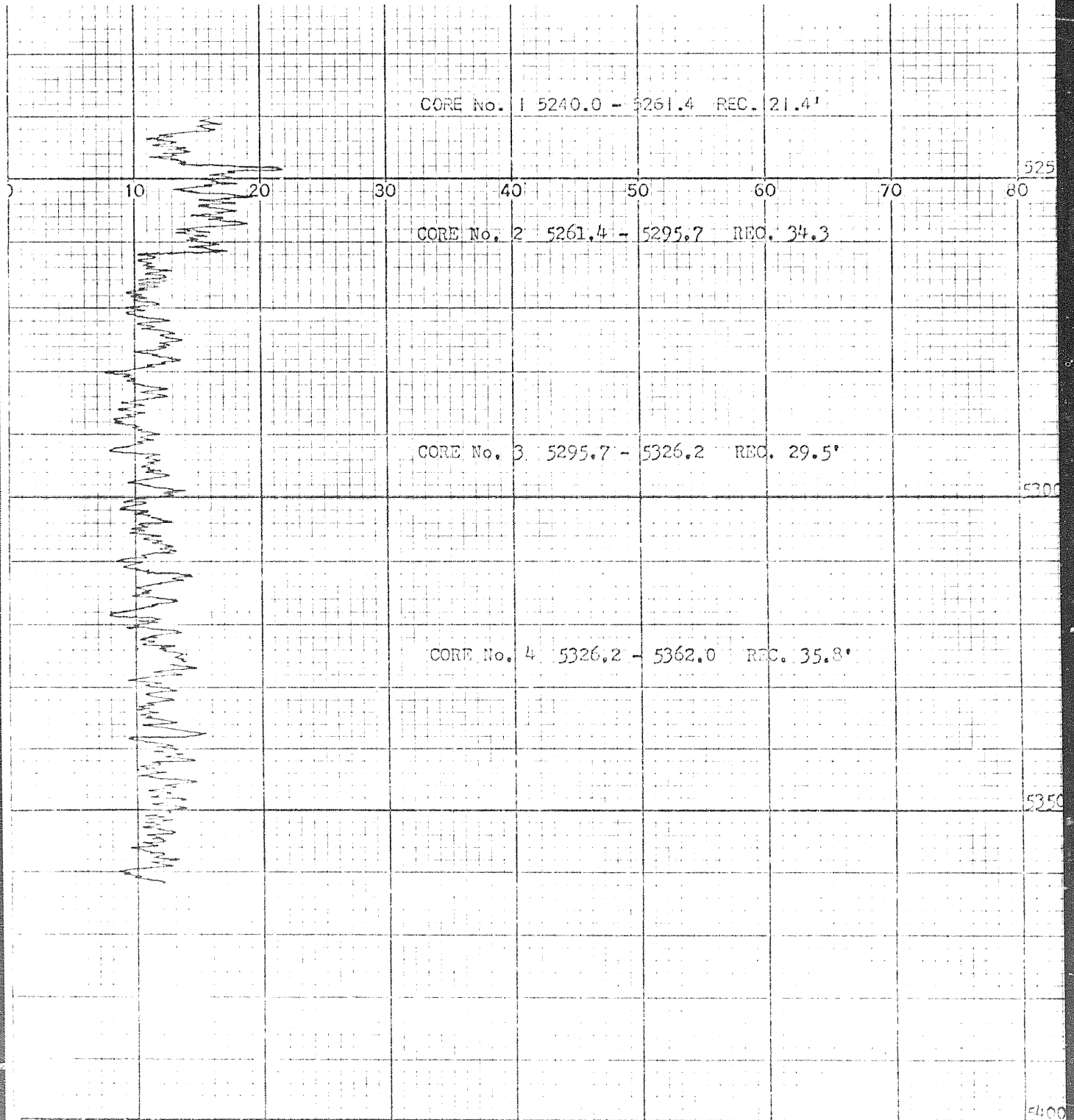
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TC 11 SECS

VERTICAL SCALE: 5" = 100'

SENS 2500 CPM



CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

COMPANY PAN AMERICAN PETROLEUM CORPORATION
WELL PAN AM SHELL MERRILL YT-L-60
FIELD WILD CAT, YUKON TERRITORY
LOCATION 600 191 30.00 NL
1240 261 00.00 WL

FORMATION DRILLING FLUID WATER EASE
ELEVATION ANALYSIS
REMARKS FULL DIAMETER
Glazed surface on all samples removed prior
to permeability measurements

PAGE 1 of 5
FILE CNP-1-9544
DATE REPORT APRIL 2/69
ANALYSTS

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS	PERMEABILITY FEET	POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION
	DEPTH	THICK					BULK	GRAIN	

CORED INTERVAL 5240.0' - 5362.0'
CORE No. 1 5240.0' - 5261.4' (Rec. 21.4') (5 BOXES)

1	5240.0-5241.4	1.4	<0.01	<0.01	0.6	0.84	2.70	2.72	1, STY.
2	5241.4-5242.8	1.4	<0.01	<0.01	0.3	0.42	2.70	2.71	1, STY.
3	5242.8-5244.0	1.2	*	0.30	2.6	3.12	2.69	2.76	1, STY. VF
4	5244.0-5245.5	1.5	*	4.28	1.2	1.80	2.73	2.76	1, STY. HF
5	5245.5-5246.5	1.0	1.39	1.39	0.9	0.90	2.71	2.74	1, STY. HF
6	5246.5-5247.3	0.8	0.53	0.42	2.7	2.16	2.74	2.82	1, STY. HF Calcite
7	5247.3-5248.4	1.1	*	1.56	4.2	4.62	2.68	2.79	1, STY. HF VF
8	5248.4-5249.7	1.3	<0.01	-	0.8	1.04	2.71	2.73	1, STY.
9	5249.7-5251.2	1.5	4.25	6.38	0.8	1.65	2.68	2.70	1, HF STY.
10	5251.2-5253.0	1.8	3.18	5.72	0.9	1.62	2.68	2.71	1, STY. HF
11	5253.0-5254.5	1.5	7.01	10.52	0.9	1.35	2.68	2.70	1, STY. HF
12	5254.5-5256.2	1.7	0.91	1.55	0.8	1.36	2.73	2.75	1, STY. HF
13	5256.2-5258.0	1.8	0.75	1.31	0.9	1.62	2.70	2.72	1, STY. HF
14	5258.0-5259.0	1.0	4.52	4.52	1.7	1.70	2.75	2.81	ppv 1, STY. HF
15	5259.0-5260.0	1.0	*	9.81	2.1	2.10	2.74	2.80	1, STY. HF
16	5260.0-5261.4	1.4	<0.01	-	1.1	1.54	2.70	2.73	1, STY.

CORE No. 2 5261.4' - 5295.7' (Rec. 34.3') (8 BOXES)

17	5261.4-5262.2	0.8	*	7.39	8.5	6.80	2.59	2.83	1, SV Calcite
18	5262.2-5263.0	0.8	34.44	24.48	2.2	1.76	2.77	2.83	1, SV STY. HF
19	5263.0-5264.0	1.0	32.10	28.00	3.7	3.70	2.72	2.83	1, SV STY. HF Calcite
20	5264.0-5264.8	0.8	141.20	47.52	3.3	2.64	2.75	2.84	1, SV STY. HF
AST # 19	5264.8-5265.8	1.0	32.10	28.00	3.7	3.70	-	-	AST # 19, Broken Core
21	5265.8-5267.8	2.0	*	13.53	3.5	7.00	2.74	2.83	SV HF VF
AST # 21	5267.8-5272.5	4.7	*	13.53	3.5	16.45	-	-	AST # 21, Broken Core

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WELL PAN AM SHELL MERRILL YT-L-60

PAGE 2 of 5
FILE CNP-1-9544

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS			PERMEABILITY FEET	POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION
	DEPTH	THICK	KMAX	K500	KV				BULK	GRAIN	

Core No. 2 Cont'd

22	5272.5-5273.8	1.3	1.30	0.94	<0.01	1.69	2.2	2.86	2.75	2.81	SV Sty.
23	5273.8-5275.8	2.0	10.96	7.51	<0.01	21.92	1.8	3.60	2.78	2.83	I, Sty. HF
24	5275.8-5277.8	2.0	6.87	1.13	<0.01	13.74	1.9	3.80	2.67	2.72	I, Sty. HF
25	5277.8-5279.8	2.0	11.13	0.41	0.95	22.26	1.1	2.20	2.70	2.72	I, Sty. HF
26	5279.8-5281.8	2.0	21.41	3.79	0.08	42.82	1.4	2.80	2.70	2.74	I, Sty. HF
27	5281.8-5283.8	2.0	0.36	0.17	<0.01	0.72	0.6	1.20	2.69	2.70	I, Sty. HF
28	5283.8-5285.7	1.9	*	54.93	0.92	104.37	1.1	2.09	2.75	2.78	I, HF VF
29	5285.7-5287.6	1.9	4.88	0.93	<0.01	9.27	0.9	1.71	2.69	2.71	I, HF
30	5287.6-5289.6	2.0	0.78	0.39	<0.01	1.56	0.8	1.60	2.71	2.73	I, Sty. HF
31	5289.6-5291.6	2.0	8.34	6.22	0.22	16.68	0.9	1.80	2.69	2.71	I, Sty. HF
32	5291.6-5293.4	1.8	*	15.89	<0.01	28.60	2.4	4.32	2.76	2.85	I, Sty. HF
33	5293.4-5294.0	0.6	28.51	13.24	0.13	17.14	4.0	2.40	2.72	2.83	LV SV Sty. HF
34	5294.0-5295.7	1.7	23.59	16.48	<0.01	40.10	6.5	11.05	2.66	2.84	LV SV

Core No. 3 5295.7' - 5326.2' (Rec. 29.5') (7 BOXES)

35	5295.7-5297.7	2.0	11.92	2.65	1.40	23.84	1.1	2.20	2.68	2.71	I, Sty. HF
36	5297.7-5299.7	2.0	13.76	12.30	<0.01	27.52	1.2	2.40	2.71	2.74	I, Sty. HF
37	5299.7-5300.6	0.9	0.98	0.33	0.05	0.88	2.4	2.16	2.77	2.84	SV
38	5300.6-5301.6	1.0	47.97	37.76	0.10	47.97	7.3	7.30	2.64	2.85	LV SV
39	5301.6-5302.1	0.5	17.14	16.33	0.49	8.57	5.2	2.60	2.69	2.84	LV SV Sty.
40	5302.1-5303.0	0.9	53.41	26.75	0.43	48.07	7.9	7.11	2.62	2.85	LV SV Sty.
41	5303.0-5303.4	0.4	617.00	27.99	<0.01	246.80	3.2	1.28	2.71	2.80	LV SV Sty. HF
42	5303.4-5305.4	2.0	4.85	3.14	<0.01	9.70	0.5	1.00	2.71	2.72	I, Sty. HF
43	5305.4-5307.4	2.0	6.83	5.01	0.05	13.66	0.9	1.80	2.70	2.75	I, Sty. HF
44	5307.4-5308.5	1.1	16.06	15.62	1.26	17.67	4.0	4.40	2.73	2.84	LV SV Sty.
45	5308.5-5309.0	0.5	19.69	11.25	0.35	9.85	3.1	1.55	2.75	2.83	LV SV Sty.
46	5309.0-5309.6	0.6	23.94	8.19	0.03	14.36	6.9	4.14	2.64	2.83	LV SV
47	5309.6-5310.6	1.0	*	12.63	0.39	12.63	6.0	6.00	2.67	2.84	LV SV Sty.
48	5310.6-5311.5	0.9	93.70	50.65	0.02	84.33	2.1	1.89	2.77	2.83	LV SV Sty.
49	5311.5-5312.2	0.7	10.60	6.89	0.04	7.42	2.2	1.54	2.80	2.86	SV Sty. HF
50	5312.2-5312.6	0.4	207.00	94.38	0.04	82.80	5.4	2.16	2.69	2.81	LV SV Sty.
51	5312.6-5313.4	0.8	10.69	5.60	0.56	8.55	3.6	2.98	2.74	2.84	LV SV Sty.

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WELL PAN AM SHELL MERRILL YT-L-60

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FILE CNP-1-9544

Core N. 3 Cont'd

SQUAT NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS			PERMEABILITY FEET	POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION
	DEPTH	THICK	KMAX	K90%	KV				BULK	GRAIN	
52	5313.4-5314.2	0.8	54.04	10.29	0.41	43.23	2.8	2.24	2.77	2.85	SV PPV Sty.
53	5314.2-5315.0	0.8	*	297.00	*	237.60	4.3	3.44	2.72	2.94	SV PPV HF VF
54	5315.0-5315.8	0.8	23.68	15.44	0.45	18.94	2.3	1.84	2.77	2.84	SV PPV Sty.
55	5315.8-5316.5	0.7	18.41	10.29	0.41	12.89	2.2	1.54	2.78	2.84	LV SV Sty. HF
56	5316.5-5317.3	0.8	21.84	14.14	0.06	17.47	1.3	1.04	2.81	2.84	Few SV Sty. HF
57	5317.3-5318.5	1.2	18.91	5.84	12.84	22.69	1.7	2.04	2.81	2.85	Few SV HF VF
58	5318.5-5319.6	1.1	418.00	31.86	0.45	459.80	3.8	4.18	2.74	2.84	LV SV HF
59	5319.6-5321.2	1.6	27.69	8.99	3.17	44.30	3.3	5.28	2.75	2.84	SV PPV Sty.
60	5321.2-5321.7	0.5	2.96	1.94	0.62	1.48	2.7	1.35	2.76	2.84	LV SV Sty.
61	5321.7-5322.3	0.6	19.44	1.18	0.03	11.66	3.0	1.80	2.75	2.84	LV SV Sty.
62	5322.3-5323.2	0.9	4.92	4.67	0.67	4.43	2.7	2.43	2.76	2.83	LV SV
63	5323.2-5324.2	1.0	*	9.27	*	9.27	2.5	2.50	2.75	2.83	SV Sty. VF HF
64	5324.2-5325.2	1.0	23.60	<0.01	<0.01	23.60	0.4	0.40	2.71	2.72	I, HF
-	5325.2-5326.2	1.0	-	-	-	-	-	-	-	-	Lost Core

Core No. 4 5326.2' - 5362.0' (Rec. 35.8') (8 BOXES)

65	5326.2-5328.2	2.0	16.69	3.32	0.03	33.38	1.1	2.20	2.71	2.74	I, Sty. HF
66	5328.2-5330.1	1.9	20.54	17.18	<0.01	39.03	2.5	4.75	2.78	2.85	I, Sty. HF
67	5330.1-5330.8	0.7	8.75	3.30	<0.01	6.13	0.7	0.49	2.73	2.75	I, Sty. HF
68	5330.8-5331.4	0.6	98.91	15.60	0.77	59.35	7.7	4.62	2.63	2.85	LV SV
69	5331.4-5332.3	0.9	36.94	10.96	0.13	33.25	4.7	4.23	2.70	2.83	LV SV Sty.
70	5332.3-5333.3	1.0	27.45	11.30	0.10	27.45	6.6	6.60	2.65	2.84	LV SV
71	5333.3-5334.2	0.9	34.17	27.40	2.47	30.75	3.8	3.42	2.72	2.83	LV SV HF VF
72	5334.2-5335.2	1.0	14.66	12.49	<0.01	14.66	0.6	0.60	2.73	2.74	I, Sty. HF
73	5335.2-5336.7	1.5	16.62	0.83	0.04	24.93	1.5	2.25	2.80	2.84	I, Sty. HF
74	5336.7-5338.4	1.7	<0.01	<0.01	<0.01	-	0.5	0.85	2.82	2.83	I, Sty. HF
75	5338.4-5340.4	2.0	2.04	2.04	0.04	4.08	0.3	0.60	2.72	2.73	I, Sty. HF
76	5340.4-5342.0	1.6	0.32	0.06	<0.01	0.51	0.3	0.48	2.72	2.73	I, Sty. HF
77	5342.0-5343.2	1.2	0.16	0.16	0.04	0.19	0.9	1.08	2.74	2.74	I, Sty.
78	5343.2-5344.1	0.9	71.32	26.12	0.21	64.19	2.0	1.80	2.77	2.83	LV SV Sty. HF
AST											
#79	5344.1-5345.1	1.0	**	103.00	1.21	103.00	7.3	7.30	-	-	AST # 79
79	5345.1-5346.1	1.0	**	103.00	1.21	103.00	7.3	7.30	2.65	2.86	LV SV Sty. HF

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COMPANY PAN AMERICAN PETROLEUM CORPORATION
WELL PAN AM SHELL MERRILL YT-L-60

PAGE 4 of 5
FILE CNP-1-9544

Core No. 4 Cont'd

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS		PERMEABILITY FEET	POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION	
	DEPTH	THICK	KRAM	KOOP				BULK	GRAIN		
80	5346.1-5346.7	0.6	**	26.16	0.15	15.70	6.2	3.72	2.68	2.85	LV SV
81	5346.7-5347.8	1.1	62.96	17.84	0.19	69.26	4.4	4.84	2.72	2.84	LV SV
82	5347.8-5348.6	0.8	*	64.74	82.39	51.75	7.0	5.60	2.55	2.74	LV SV
83	5348.6-5349.6	1.0	18.87	17.17	0.31	18.87	2.8	2.80	2.75	2.83	LV SV Sty.
84	5349.6-5350.7	1.1	**	35.62	0.08	39.18	5.8	6.38	2.68	2.84	LV SV
85	5350.7-5351.2	0.5	**	14626.00	1.30	7514.00	14.0	7.00	2.45	2.84	LV SV
86	5351.2-5351.9	0.7	4.37	3.16	0.41	5.06	4.0	2.80	2.75	2.86	LV SV
87	5351.9-5352.5	0.6	119.00	52.71	0.35	71.40	8.0	4.80	2.61	2.84	LV SV
88	5352.5-5353.0	0.5	15.63	7.80	0.89	7.82	2.2	1.10	2.77	2.85	LV SV
89	5353.0-5353.7	0.7	71.82	32.66	0.37	50.27	4.8	3.36	2.70	2.84	LV SV
90	5353.7-5354.4	0.7	**	45.35	0.79	31.75	3.7	2.59	2.74	2.84	LV SV Sty. HF
91	5354.4-5355.0	0.6	19.22	11.76	2.59	11.53	2.3	1.38	2.78	2.85	LV SV Sty. HF
92	5355.0-5355.7	0.7	**	42.07	1.51	29.45	4.5	3.15	2.71	2.84	LV SV HF
93	5355.7-5356.7	1.0	57.90	43.04	0.18	17.90	4.8	4.80	2.68	2.82	LV SV
94	5356.7-5357.3	0.6	11862.00	39.33	1.93	7117.20	5.7	3.42	2.66	2.82	LV SV HF
95	5357.3-5358.3	1.0	**	10.39	12.18	10.39	4.5	4.50	2.71	2.84	LV SV
96	5358.3-5358.8	0.5	**	5357.00	14.18	2668.50	9.9	4.95	2.56	2.84	LV SV
97	5358.8-5359.4	0.6	31.07	24.13	18.17	18.64	2.2	1.32	2.78	2.84	SV Sty. HF
98	5359.4-5360.3	0.9	132.00	85.46	52.92	118.80	5.5	4.95	2.68	2.83	LV SV
99	5360.3-5360.7	0.4	*	129.00	21.41	51.60	8.4	3.36	2.59	2.83	LV SV
100	5360.7-5362.0	1.3	118.00	51.00	14.94	153.40	4.1	5.33	2.72	2.83	LV SV HF VF

CORE LABORATORIES - CANADA, LTD.
CALGARY, ALBERTA

COMPANY PAN AMERICAN PETROLEUM CORPORATION
WELL PAN AM SHELL MERRILL YT-L-60

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FILE CNP-1-9544

Core No. 4 Cont'd

SAMPLE NUMBER	INTERVAL REPRESENTED FEET		PERMEABILITY TO AIR MILLIDARCS		PERMEABILITY FEET	POROSITY %	POROSITY FEET	DENSITY		VISUAL EXAMINATION	
	DEPTH	THICK	KRAM	KOOP				BULK	GRAIN		
80	5346.1-5346.7	0.6	**	26.16	0.15	15.70	6.2	3.72	2.68	2.85	LV SV
81	5346.7-5347.8	1.1	62.96	17.84	0.19	69.26	4.4	4.84	2.72	2.84	LV SV
82	5347.8-5348.6	0.8	*	64.74	82.39	51.75	7.0	5.60	2.55	2.74	LV SV
83	5348.6-5349.6	1.0	18.87	17.17	0.31	18.87	2.8	2.80	2.75	2.83	LV SV Sty.
84	5349.6-5350.7	1.1	**	35.62	0.08	39.18	5.8	6.38	2.68	2.84	LV SV
85	5350.7-5351.2	0.5	**	14626.00	1.30	7514.00	14.0	7.00	2.45	2.84	LV SV
86	5351.2-5351.9	0.7	4.37	3.16	0.41	5.06	4.0	2.80	2.75	2.86	LV SV
87	5351.9-5352.5	0.6	119.00	52.71	0.35	71.40	8.0	4.80	2.61	2.84	LV SV
88	5352.5-5353.0	0.5	15.63	7.80	0.89	7.82	2.2	1.10	2.77	2.85	LV SV
89	5353.0-5353.7	0.7	71.82	32.66	0.37	50.27	4.8	3.36	2.70	2.84	LV SV
90	5353.7-5354.4	0.7	**	45.35	0.79	31.75	3.7	2.59	2.74	2.84	LV SV Sty. HF
91	5354.4-5355.0	0.6	19.22	11.76	2.59	11.53	2.3	1.38	2.78	2.85	LV SV Sty. HF
92	5355.0-5355.7	0.7	**	42.07	1.51	29.45	4.5	3.15	2.71	2.84	LV SV HF
93	5355.7-5356.7	1.0	57.90	43.04	0.18	17.90	4.8	4.80	2.68	2.82	LV SV
94	5356.7-5357.3	0.6	11862.00	39.33	1.93	7117.20	5.7	3.42	2.66	2.82	LV SV HF
95	5357.3-5358.3	1.0	**	10.39	1.93	10.39	4.5	4.50	2.71	2.84	LV SV
96	5358.3-5358.8	0.5	**	5357.00	14.18	2668.50	9.9	4.95	2.56	2.84	LV SV
97	5358.8-5359.4	0.6	31.07	24.13	18.17	18.64	2.2	1.32	2.78	2.84	SV Sty. HF
98	5359.4-5360.3	0.9	132.00	85.46	52.92	118.80	5.5	4.95	2.68	2.83	LV SV
99	5360.3-5360.7	0.4	*	129.00	21.41	51.60	8.4	3.36	2.59	2.83	LV SV
100	5360.7-5362.0	1.3	118.00	51.00	14.94	153.40	4.1	5.33	2.72	2.83	LV SV HF VF

CORE LABORATORIES - CANADA, LTD.

Petroleum Reservoir Engineering

PAN AM SHELL MERRILL YT L-60

WELL:

FORMATION:

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SUMMARY INTERVAL:

5240.0 - 5362.0

FILE: CNP-1-9544

TOTAL FOOTAGE:

122.0

FOOTAGE ANALYZED

121.0

FOOTAGE NOT ANALYZED:

TOTAL: 1.0 DENSE .0 LOST 1.0 DRILLED .0 NABR .0 RUBBLE .0

SUMMARY OF ANALYZED CORE:

TOTAL 121.0
 BY PERM RANGES:
 LESS THAN 0.10 MD. 7.2
 0.10 0.49 MD. 6.0
 0.50 0.99 MD. 7.2
 1.00 9.99 MD. 28.2
 GREATER THAN 9.99 MD. 72.4

FOOTAGE	% OF ANALYZED CORE	WEIGHTED AVERAGE POROS. %	POROSITY FEET	WEIGHTED AVERAGE PERM. MD.	PERM. FEET	WEIGHTED AVERAGE RESID. OIL %	WEIGHTED AVERAGE TOT. WATER %
121.0	100.00	2.68	324.53	171.04	20696.25	.00	.00
7.2	5.95	.65	4.69	.00	.00	.00	.00
6.0	4.96	.98	5.88	.29	1.72	.00	.00
7.2	5.95	1.24	8.90	.80	5.73	.00	.00
28.2	23.31	1.62	45.68	5.08	143.27	.00	.00
72.4	59.83	3.58	259.38	283.78	20545.53	.00	.00