WELL HISTORY REPORT

for

SOCONY MOBIL WESTERN MINERALS
CHANCE YT 7-8

66-07-18,1

W E L L H I S T O R Y R E P O R T

for

SOCONY MOBIL WESTERN MINERALS

CHANCE YT G-8

Latitude 66° 07' 18.1" N

Longitude 137° 30' 50.8" W

Socony Mobil Oil of Canada, Ltd.
Dawson Creek District

G. A. Atkinson
DISTRICT GEOLOGIST

Received
March 21, 1966

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WELL HISTORY REPORT

SECTION I - Summary of Well Data

(a)	Well Name and Number:	Socony Mobil Western Minerals Chance YT G-8
(b)	Permittee:	Western Minerals Ltd.
(c)	Operator:	Socony Mobil Oil of Canada, Ltd.
(d)	Location:	Unit G Section 8 Grid 66° 10' N; 137° 30' W Latitude 66° 07' 18.1" Longitude 137° 30' 50.8"
(f)	Permit:	3363
(g)	Drilling Contractor:	Parker Drilling Co. of Canada Ltd. Rig #10 Rotary
(h)	Drilling Authority:	143; November 27, 1964
(i)	Classification:	Exploratory Outpost
(j)	Elevation:	Ground 1702.00 ft. K.B. 1719.73 ft.
(k)	Spudded:	December 4, 1964
(l)	Completed Drilling:	February 15, 1965
(m)	Total Depth:	Driller (Pipe Tally) 5181.82 Schlumberger 5183.00
	Plugged Back Total Depth	4850 K.B.

Bridge Plugs @ 4468' & 4650'

(n) **Well Status:** Completed Oilwell - Suspended

(o) **Rig Released:** February 18, 1965
Service Rig Released March 31, 1965

(p) **Hole Size:**

17 1/2" to 110 ft.

12 1/4" to 810 ft.

8 5/8" to 4944 ft.

6 1/8" to 5181.82ft. Pipe Tally

5183.00ft. Schlumberger

(q) **Casing:**

13 3/8"	54.5#	J-55	New to	110	ft. K.B.
9 5/8"	36#	J-55	New to	810	ft. K.B.
7"	23#	N-80	New to	4914.20	ft. K.B.

SECTION II - Geological Summary

(a) Formation Tops

	Sample Tops		E-log Tops	
	Depth	Elevation	Depth	Elevation
Cretaceous:				
Cody Creek fm.	Surface	+1702		
Blackie Member	2218	- 498	2220	- 500
New formation	2512	- 792	2522	- 802
Permo-Pennsylvanian:				
Alder formation	3919	-2199	3919	-2199
Chance Zone	4220	-2500	4220	-2500
Chance Sand	4240	-2520	4241	-2521
Alder Limestone	4776	-3056	4776	-3056

(b) Cored Intervals

Core Number	From	To	Rec.	Formation
1	2283	2324	41'	Lower Cretaceous Blackie Member
2	3613	3623	10'	Lower Cretaceous New formation
3	3930	3960	30'	Permo-Penn Alder Fm.
4	4263	4273	9.7'	Permo-Penn Alder Fm. Chance Zone
5	4397	4407	8.8'	Permo-Penn Alder Fm. Chance Zone
6	4542	4562	19.5'	Permo-Penn Alder Fm. Chance Zone
7	5020	5022	1.7'	Permo-Penn Alder Fm. Limestone

(c) **Core Descriptions**

Diamond Core #1 Lower Cretaceous Blackie Member

2283 - 2324' Cut 41' Recovered 41'

Coring Times: 14, 6, 4, 3, 5, 5, 5, 3, 5, 6, 7, 7, 6, 6, 10, 9, 5, 6, 5, 7, 5, 3, 4, 4, 3, 5, 4, 3, 4, 3, 3, 5, 5, 5, 6, 6, 3, 5, 4, 6, 10 minutes per foot.

2283 - 2298'

15' Sandstone light to medium grey, salt and pepper, very fine to fine grained, subangular to subrounded, medium sorting, clear quartz (some faceted), black and milky chert, slightly siliceous cement, thin carbonaceous partings, abundant cross-bedding, porosity 1 - 3%, trace hydrocarbon cut.
Slump structure in sandstone at 2294.5'.

2298 - 2299'

1' Siltstone, very dark grey to black. Black shining carbonate flakes. Fair to good hydrocarbon cut.

2299 - 2303'

4' Sandstone, light to dark grey, very fine grained, subangular, good sorting, clear quartz, milky and black chert, minor glauconite, black carbonaceous material, kaolin cement and trace siliceous cement, carbonaceous partings, abundant cross-bedding, porosity 1 - 3% in part, hydrocarbon cut throughout.

2303 - 2323'

20' Sandstone as above, with black carbonaceous band 1" thick at 2303.3, ironstone concretion bands of 1 - 2" at 2308.7 and 2315.3, minor gas bleeding at 2318, large carbonaceous plant fossil? at 2322.

2323 - 2323.5

0.5' Shale, black, silty with dark carbonaceous material.

2323.5 - 2324'

0.5' Sandstone as above but very fine to fine grained, porosity 3 - 5%.

Diamond Core #2 Lower Cretaceous New formation

3613 - 3623' Cut 10' Recovered 10'

Coring Times: 27, 16, 16, 13, 16, 17, 17, 15, 17, 19 minutes per foot.

3613 - 3623'

10' Shale, dark grey to black, very silty, micromicaceous, pyritic, slightly dolomitic, pyritic streaks throughout core, with 1.2" band of shale, very light grey at 3614; band of siltstone, light grey, siliceous, black carbonaceous material 0.6" thick at 3616.5', and chert pebbles noted, two only seen in partings, approximately 15 MM in diameter, rounded in interval 3620.5 - 3621.5'.

Diamond Core #3 Permo-Pennsylvanian Alder formation

3930 - 3960' Cut 30' Recovered 30'

Coring Times: 15, 15, 25, 19, 28, 32, 30, 27, 34, 32, 21, 24, 20, 26, 25, 22, 28, 26, 31, 28, 27, 53, 41, 36, 56, 80, 62, 50, 51, 50 minutes per foot.

3930 - 3931'

1' Limestone, buff to brown, very fine to coarse biofragmental, medium sorting, crinoid and brachiopod fragments, gas bubbles.

3931 - 3935.2'

4.2' Limestone, dark brown to black, very argillaceous, occasional biofragmental, crinoids and brachiopods, occasional subrounded chert grains.

3935.2 - 3936.1'

0.9' Limestone, buff to brown, very fine to coarse, rounded to subrounded, medium sorting, crinoid and chert grains.

3936.1 - 3939'

2.9' Limestone, dark brown, very argillaceous, occasional biofragments, crinoids and brachiopods with occasional chert pebbles.

3939 - 3943'

4' Limestone, buff to brown, very fine to coarse, rounded to subrounded, medium sorting with crinoid stems and occasional quartz and chert grains, minor fractures with some calcite infill, bleeding oil at 3941' for one foot, poorly permeable as bleeding still in progress after six hours.

3943 - 3944.6'

1.6' Limestone, dark brown to black, much brown argillaceous material with shale lenses.

3944.6 - 3945.8'

1.2' Limestone, buff to brown, very fine to coarse, subrounded, medium sorting, occasional clear quartz and black and milky chert, abundant crinoid stems.

3945.8 - 3947.2'

1.4' Limestone, dark brown to black with dark brown argillaceous material.

3947.2 - 3950.1'

2.9' Chert, grey to brown, buff to brown, cryptocrystalline, limy.

3950.1 - 3953.2'

3.1' Sandstone, light grey, salt and pepper, very fine to coarse, subrounded, medium sorting, clear quartz and black and milky chert.

3953.2 - 3959'

5.8' Limestone, light grey to buff, occasional quartz and chert grains, siliceous cement, chert pods throughout, occasional stylolite, minor fracture porosity, minor oil bleeding 3954 to 3959'.

3959 - 3960'

1' Limestone, light grey to buff to brown, very fine to fine grained, subrounded to subangular, medium sorting, quartz and some chert, slightly argillaceous.

Diamond Core #4	Permo-Pennsylvanian Chance Sand
	4263 - 4273' Recovered 9.7'
Coring Times:	32, 32, 36, 31, 34, 35, 38, 38, 35, 36 minutes per foot.
4263-4273'	
10'	Sandstone, light grey, salt and pepper, very fine to coarse grained, rounded to subrounded, poorly sorted, clear quartz, milky, black and green chert, chert pebbles, calcite infille - 20%, bituminous infill - 10%, maximum estimated porosity 3%, low permeability.
Diamond Core #5	Permo-Pennsylvanian Chance Sand
	4397 - 4407' Recovered 8.8'
Coring Times:	24, 29, 17, 22, 30, 37, 47, 53, 37, 49 minutes per foot.
4397 - 4401.9'	
4.9'	Sandstone, light grey to buff brown, salt and pepper, medium to coarse grained, subrounded to subangular, medium sorting, chert pebbles, quartz and chert grains, calcite and kaolin cement. Maximum porosity 10% found at top grading down to 3% or so near base, bleeding oil in bottom 2.5 feet. Trace of bituminous material, no trace of saltwater.
4401.9 - 4405.8'	
3.9'	As above but with no porosity, trace of calcite cement.

Diamond Core #6 Permo-Pennsylvanian Chance zone

4542 - 4562' Cut 20' Recovered 19.5' (97.5%)

Coring Times: 44, 34, 34, 28, 34, 21, 27, 33, 35, 30, 33, 39, 37, 43, 50, 56, 52, 55, 70, 65 minutes per foot.

4542 - 4544.4'

2.4' Sandstone, grey to salt and pepper, dominantly coarse grained, microconglomeratic in part, massive poorly sorted, composed of quartz and chert grains. The quartz is medium to coarse grained, subangular to subrounded. The chert ranges mainly from coarse grained to pebble size, is subrounded to rounded and is generally dark in colour. The section is tight, original good porosity having been completely infilled by calcite and minor bitumen.

4544.4 - 4552.4'

8.0' Sandstone (80%) and siltstone (20%) interbedded and interlaminated, grey to dark grey. Sandstone grey, very fine to fine grained, medium sorting, composed of chert and quartz grains, subangular to subrounded calcareous, tight trace oil stain. Sandstone is coarser at base. Siltstone dark grey, shaly in part, calcareous, arenaceous, tight.

4552.4 - 4556.1'

3.7' Sandstone as interval 4542 - 4544.4', poor porosity (about 10%?) in part infilling of original void space with bitumen and some calcite. Sand is friable and bleeding oil.

4556.1 - 4558.4'

2.3' Siltstone (60%) dark grey, argillaceous in part, calcareous, arenaceous, complexly interbedded with sandstone (40%) grey, very fine to fine grained, minor medium grained, subangular to subrounded, calcareous, tight. Bedding at 10 - 20 degrees, in part with slump structures.

4558.4 - 4561.5'

3.1' Sandstone, grey, very fine grained at top grading to coarse grained at base, medium sorting, subangular to subrounded, calcite infill with rare ineffective porosity. Abundant chert grains in sand at base. Section is massive.

Diamond Core #7 Permo-Pennsylvanian Alder

5020 - 5022' Recovered 1.7'

Coring Times: 81, 66 minutes per foot.

5020 - 5022'

2' Limestone, grey to brown, microcrystalline to minor very finely crystalline; very thinly bedded, 1 to 10 millimeters, dark and light beds, occasional cross-bedding; rare fossils, mainly spicules.
Minor lenses and nodules of highly silicified limestone with bedding planes continuous with those of surrounding unsilicified host limestone.

Limestone originally thin bedded lime muds with coarser lime fragments rarely exceeding silt to fine grain size.

Common horizontal, less common vertical fracturing; fracture planes often contain bitumen or oil stain, no significant fracture porosity.

(d) Sample Description

0 - 100'	Sandstone and shale interbedded. Sandstone, medium grey to dark grey, very fine to medium grained, subangular - subrounded, medium sorted, quartz and chert grains, silty, kaolin cement, shale, black to dark grey, rusty brown in parts.
100 - 130'	No samples.
130 - 150'	Siltstone, light grey, slightly sandy, quartz and chert grains, argillaceous matrix, glauconite.
150 - 160'	No sample.
160 - 170'	Shale, black to dark grey.
170 - 220'	Sandstone grading into siltstone. Sandstone, medium grey to light brown, very fine to fine grained, subangular, medium sorted, quartz and chert grains, glauconite. Siltstone, medium to dark grey, very fine grained, quartz and chert grains.
220 - 250'	Shale, black to dark grey, slightly calcareous. Some interbedded sandstone.

250 - 260'	Sandstone, light grey, very fine grained, subangular, well sorted, salt and pepper quartz and chert grain, kaolin cement.
260 - 300'	Siltstone grading into sandstone. Siltstone, dark grey, very fine sand grains. Sandstone, salt and pepper, very fine to fine grained, subangular, medium sorted, quartz and chert grains, slightly pyritic, glauconite.
300 - 310'	Shale, black to dark grey, silty, pyrite and plant fragments.
310 - 340'	Sandstone, medium grey, salt and pepper, very fine to fine grained, subangular, medium sorted, grey quartz and black chert grains, glauconite, minor coal.
340 - 350'	Siltstone, very dark grey with very fine grained sand, some grey-green shale.
350 - 370'	Shale, light grey to brown, with small siderite balls, pyrite.
370 - 380'	Sandstone, medium grey, salt and pepper, very fine to fine grained, subangular, medium sorted quartz and chert grains with minor coal, glauconite.

380 - 410'	Siltstone, dark to medium grey, very fine grained sand. Shaly at top but with shale and sand grains at bottom.
410 - 420'	Shale, dark grey, slightly silty, pyrite.
420 - 430'	Sandstone, medium grey to brown, very fine to fine grained, subangular, medium sorted, quartz and chert grains, siderite.
430 - 470'	Siltstone, dark grey to black, slightly micaceous, shaly, siderite, pyrite.
470 - 510'	Sandstone, light grey, very fine to medium grained, medium to well sorted, clear quartz with milky and black chert grains, glauconite, kaolin cement. 470 - 500' Minor intergranular porosity.
510 - 520'	Siltstone, dark grey, very fine grained sand, quartz and chert grains, pyrite, glauconite.
520 - 530'	Sandstone, dark grey, very fine to fine grained, subangular, medium sorted, clear quartz with milky and black chert grains, kaolin cement.
530 - 550'	Siltstone, light grey, some shaly matrix and black carbonaceous matrix, pyrite.
550 - 560'	Shale, very light grey, trace pyrite matrix.

720 - 740'	Sandstone, light to medium grained, very fine to medium grained, subangular - subrounded, medium sorted, clear quarts and milky and black chert grains. 720 - 740' Minor porosity.
740 - 750'	Siltstone, dark grey, very fine grained sand. Coal, siderite balls.
750 - 760'	Sandstone, light grey, very fine to fine grained, medium sorted, milky chert and clear quartz grains, kaolin cement, prominent coal.
760 - 770'	Shale, light grey, bentonitic, with sand stringers.
770 - 780'	Siltstone, buff-grey, bentonite, carbonaceous matrix, plant fragments.
780 - 790'	Sandstone, light grey, very fine to medium grained, subrounded, medium sorted, clear quartz and milky and black chert grains, kaolin cement.
790 - 800'	Shale, light to medium grey, silty, siderite balls.
800 - 820'	Shale, light to medium grey, much bentonite, with siderite balls and plant fragments.
820 - 840'	No samples.
840 - 860'	Shale, medium dark grey, pyrite, slightly silty in part.

860 - 890'	No samples.
890 - 900'	Shale, medium to very dark grey, some interbedded siltstone.
900 - 910'	No samples.
910 - 930'	Siltstone, dark grey, pyrite, plant fragments, black argillaceous matrix.
930 - 950'	Shale, dark grey grading to light to medium grey, black argillaceous matrix, pyrite, slightly silty.
950 - 970'	Siltstone, medium to dark grey, clear subangular quartz grains, minor coal.
970 - 980'	Shale, greenish grey to dark grey, very slightly sandy in part.
980 - 1000'	Siltstone, dark grey, clear quartz and dark argillaceous matrix, with plant fragments.
1000 - 1010'	Sandstone, light to medium grey, medium to coarse grained, well sorted, salt and pepper, clear quartz and black and milky chert grains.
1010 - 1080'	Shale, siltstone and sandstone with much coal.
1080 - 1120'	Shale, slightly silty, micaceous, carbonaceous streaks, plant fragments, minor coal.

1120 - 1130'	Sandstone, light to medium grey, very fine to fine grained, subangular, medium sorting, clear quartz and black chert grains.
1130 - 1160'	Siltstone, medium grey to brownish grey, shaly, dark argillaceous streaks.
1160 - 1180'	Sandstone, medium grey, salt and pepper, very fine to medium grey, subangular - subrounded, medium sorting, clear quartz and milky chert grains.
1180 - 1220'	Shale, light to dark grey, dark carbonaceous matrix, plant fragment, very minor interbedded siltstone.
1220 - 1230'	Siltstone, grey brown, clear quartz, black carbonaceous matrix.
1230 - 1240'	No samples.
1240 - 1250'	Siltstone, grey brown, interbedded sandstone, salt and pepper, very fine to fine grained.
1250 - 1260'	Shale, dark grey, dark carbonaceous matrix, pyrite.
1260 - 1270'	Shale, light grey to dark grey, plant fragments, siderite balls.
1270 - 1280'	Siltstone, medium to light grey, siderite balls.

1280 - 1320'	Sandstone, medium grey, salt and pepper, very fine to coarse grained, subangular - subrounded, medium sorting, clear quartz and black chert grains, kaolin cement. 1300 - 1320' 5% porosity in approximately 25% of sample.
1320 - 1330'	Shale, dark grey, to black, plant fragments to minor coal.
1330 - 1340'	Sandstone, brownish grey, slightly salt and pepper, very fine grained, subangular, well sorted, brown and black argillaceous matrix.
1340 - 1390'	Shale, light to medium grey, very minor black carbonaceous streaks.
1390 - 1430'	Sandstone, medium grey to brown grey, salt and pepper, very fine to medium grained, subrounded, medium sorting, kaolin cement, 6% porosity.
1430 - 1440'	Siltstone, dark grey brown, shaly, plant fragments and carbonaceous streaks.
1440 - 1450'	Shale, dark grey brown, silty, plant fragments and carbonaceous streaks.
1450 - 1460'	Sandstone, brownish grey, very fine grained, subangular, well sorted, kaolin cement.

1460 - 1470'	Siltstone, brownish grey, shaly, carbonaceous streaks and plant fragments.
1470 - 1510'	Sandstone, light brown to grey, very fine to medium grained, subangular - subrounded, medium sorting, kaolin cement, glauconite.
1510 - 1520'	Shale, light grey to brown, black carbonaceous streaks, slightly silty.
1520 - 1540'	Siltstone, grey brown to black, shaly black carbonaceous matrix, plant fragments.
1540 - 1580'	Shale, slight grey to dark brown, plant fragments and carbonaceous streaks, siderite balls.
1580 - 1610'	Siltstone, dark grey to very dark brown, black carbonaceous matrix, some minor coal.
1610 - 1680'	Shale, grey to grey brown to dark grey, silty black carbonaceous matrix, ironstone concretions.
1680 - 1690'	Siltstone, grey to grey brown, shaly, ironstone concretions.
1690 - 1716'	Shale, grey to grey brown, silty, carbonaceous matrix, ironstone concretions.
1716 - 1722'	Sandstone, salt and pepper, very fine to fine grained, subrounded, well sorted, quartzitic, carbonaceous matrix and kaolin cement, ironstone concretions, porosity 3%.

1722 - 1760' Shale and sandstone interbedded, grey to grey brown.

1760 - 1780' Sandstone, medium grey, salt and pepper, very fine to medium grained, subrounded, medium sorting.

1780 - 1790' Shale, light to dark grey to black, silty, black carbonaceous matrix, pyrite.

1790 - 1800' Siltstone, medium to dark grey, black argillaceous matrix.

1800 - 1860' Sandstone, light to medium grey, salt and pepper, very fine to medium grained, subangular - subrounded, medium sorting, salt and pepper, clear quartz and black and milky chert grains, kaolin cement, porosity 3%.

1860 - 1870' Siltstone, medium brown to dark grey, black argillaceous matrix.

1870 - 1880' Shale, light to dark grey, silty, black carbonaceous matrix, minor coal.

1880 - 1890' Shale, dark grey, silty, black carbonaceous material, minor coal.

1890 - 1920' Sandstone, medium to light grey, slightly salt and pepper, very fine to fine grained, subangular, well to medium sorted, clear quartz and black chert, minor hydrocarbon cut at 1900 - 1920', porosity 2 - 3%.

1920 - 1930'	Shale, light to dark grey, carbonaceous streaks, ironstone concretions.
1930 - 1940'	Sandstone, medium to light grey, salt and pepper, very fine to fine grained, subangular, medium sorting, black carbonaceous material.
1940 - 1960'	Shale, brown grey, silty, plant fragments and carbonaceous streaks.
1960 - 1970'	Siltstone, dark grey, shaly and sandy, 10% sand, clear quartz, black carbonaceous material.
1970 - 2000'	Sandstone, greyish brown, very fine to fine grained, subangular to subrounded, medium sorting, clear quartz and black chert, brown argillaceous material.
2000 - 2030'	Shale, brownish grey to black, carbonaceous streaks, minor coal, ironstone concretions.
2030 - 2040'	Siltstone, medium to dark grey, shaly, dark carbonaceous streaks.
2040 - 2060'	Sandstone, light to medium grey, slightly salt and pepper, very fine grained, well sorted, kaolin infill, very minor hydrocarbon cut.
2060 - 2090'	Shale, greyish brown to dark grey, carbonaceous streaks, plant fragments.

2090 - 2110'	Siltstone, grey brown to dark grey, shaly, carbonaceous streaks.
2110 - 2150'	Sandstone, very light to dark grey, very fine to medium grained, subangular to subrounded, well to medium sorted, clear quartz and black chert, dark silt, kaolin cement.
2150 - 2160'	Siltstone, dark grey, shaly, carbonaceous streaks with minor sandstone as above.
2160 - 2170'	Sandstone, medium to dark grey, salt and pepper, very fine to medium grained, subangular to subrounded, clear quartz and black and milky chert, kaolin cement.
2170 - 2190'	Shale, brown to dark grey, silty, plant fragments and carbonaceous streaks.
2190 - 2220'	Siltstone, grey brown, shaly, carbonaceous streaks.
2220 - 2260'	Sandstone, light to medium grey, salt and pepper, very fine to fine grained, subangular to subrounded, medium sorting, clear quartz and black and milky chert, porosity 12% grading down to 3%.
2260 - 2270'	Siltstone, dark brown, shaly with interbedded dark grey shale.

2270 - 2320'	Sandstone, light grey, salt and pepper, very fine to medium grained, grading down to very fine grained, subangular to subrounded, medium sorting, clear quartz and milky and black chert, kaolin cement, minor oil cut. Porous throughout, 9% at top with rapid gradation to trace.
2320 - 2330'	Siltstone, dark grey to brown, sandy, carbonaceous streaks.
2330 - 2430'	Sandstone, light grey, salt and pepper, very fine to medium grained at top, grading down to very fine grained at 2380', subrounded with minor subangular, medium to well sorted, clear quartz and black and milky chert, kaolin and siliceous cement. Porosity throughout, trace - 3%. Minor hydrocarbon cut.
2430 - 2460'	Siltstone, medium to dark brown, shaly, black carbonaceous material.
2460 - 2480'	Sandstone, light grey, slightly salt and pepper in part, very fine grained, subrounded, well sorted, clear quartz and black chert, kaolin cement and siliceous cement. Porosity trace - 1%.
2480 - 2500'	Siltstone, dark grey to brown, shaly, black carbonaceous material, clear quartz.

2500 - 2515'	Sandstone, light to medium grey, slightly brown in part, very fine grained, subrounded, well sorted, clear quartz, kaolin cement, trace porosity.
2515 - 2570'	Shale, medium to dark brown, micromicaceous, plant fragments, interbedded siltstone.
2570 - 2590'	Siltstone, dark brown, glauconitic, carbonaceous streaks, minor interbedded shale.
2590 - 2600'	Shale, buff to brown, micromicaceous, minor interbedded siltstone.
2600 - 2610'	Siltstone, dark grey to brown, with carbonaceous streaks.
2610 - 2650'	Shale, buff to brown to dark grey, micromicaceous, carbonaceous streaks, plant fragments, pyritic in part.
2650 - 2680'	Siltstone, dark grey to buff, dark carbonaceous material.
2680 - 2950'	Shale, buff to light grey, medium to dark grey, micromicaceous, occasional plant fragments, ironstone concretions, very minor interbedded siltstone.
2950 - 3010'	Siltstone, medium to dark grey, slightly carbonaceous with interbedded shale and sandstone, medium grey, micromicaceous, glauconitic and chert at base.

3010 - 3030'	Sandstone, buff to medium grey, salt and pepper, very fine to medium grained, subangular to subrounded, medium sorting, dolomitic, 10% glauconite in part, minor hydrocarbon cut, trace chert pebbles, trace porosity.
3030 - 3080'	Siltstone, dark grey, slightly sandy, quartz and chert and glauconite grains with black carbonaceous material.
3080 - 3170'	Siltstone, dark grey, shaly, slightly sandy in part, quartz, chert and glauconite grains, interbedded shale and sandstone.
3170 - 3190'	Sandstone, dark grey, salt and pepper, very fine to fine grained, subangular to subrounded, medium sorting, clear quartz, black chert, kaolin cement.
3190 - 3310'	Siltstone, dark grey, sandy at top, becoming very shaly at base, pyritic, black carbonaceous material, interbedded shale at base.
3310 - 3350'	Shale, medium to dark grey, micromicaceous, pyritic, interbedded siltstone.
3350 - 3390'	Siltstone, light to dark grey, very shaly, pyritic, black carbonaceous material, much interbedded shale.

3390 - 3430'	Shale, dark grey, micromicaceous, pyritic, ironstone, plant fragments, dark carbonaceous material, interbedded siltstone.
3430 - 3580'	Siltstone, medium to dark grey, very shaly, pyritic, ironstone throughout, interbedded shale.
3580 - 3700'	Shale, medium to dark grey to black, silty, micromicaceous, pyritic, maximum 10% ironstone, chert pebbles, interbedded siltstone, dark grey.
3700 - 3890'	Siltstone, medium to dark grey, very fine to fine grained, clear quartz, black chert and glauconite, pyrite, slightly dolomitic, throughout.
3890 - 3910'	Shale, buff to brown to grey brown, micromicaceous, pyritic, grading into siltstone.
3910 - 3920'	Siltstone, buff to brown to grey brown, grading to sandstone, buff, limy.
3920 - 3930'	Limestone, buff to very dark brown, shaly, chert flakes, microcrystalline, strong petroliferous odour.
3930 - 3960'	Limestone, buff to brown, biofragmental, very fine to coarse grained, crinoids and brachiopods, clear quartz and black and milky chert, minor oil bleeding.
3960 - 4000'	Limestone, light grey to dark brown, sandy, quartz grains brown argillaceous material, strong petroliferous odour.

4000 - 4090' Limestone, buff brown to dark brown to black, dense, shaly and silty, brown argillaceous material, quartz, sil y, petroliferous odour, interbedded chert.

4090 - 4170' Limestone, as above but extremely silty and less interbedded chert, slightly bioclastic with crinoid stems, chert dying out and becoming more bioclastic. Much sparry calcite.

4170 - 4210' Limestone, buff brown to light grey, varying degree of sand material, very fine to medium grained, quartz and chert, sparry calcite throughout, no bioclastic material nor interbedded chert.

4210 - 4220' Limestone, dark grey to black, slightly bioclastic, fractures infilled, grading to limestone, grey, sandy.

4220 - 4300' Sandstone, light grey, salt and pepper, very fine to coarse grained, poor sorting, rounded to subrounded, clear quartz, milky and black chert pebbles, calcite cement, bituminous material, minor oil cut, minor porosity 4250 - 4280' 3%.

4300 - 4310' Sandstone, very light grey to white medium to coarse grained, rounded to subrounded, medium sorting, clear quartz, black and milky chert, no bitumen, many chert pebbles, calcite cement, tight.

4310 - 4390'	Sandstone, light grey to buff brown, very fine to coarse grained, rounded to subrounded becoming subangular towards base, poor sorting, clear quartz chert grains, minor hydrocarbon cut, chert pebbles dying out towards base, calcite cement.
4390 - 4400'	Sandstone, light grey, salt and pepper, medium to coarse grained, subrounded to subangular, medium sorting, clear quartz, milky and black chert, calcite cement, porosity 10%, good permeability, brown oil stain, bituminous material.
4400 - 4422'	Sandstone, salt and pepper to light grey, very fine to medium grained, subangular to subrounded, medium sorting, tight. Porosity infilled with calcite. Minor chert pebbles near base.
4422 - 4426'	Sandstone as above scattered fair porosity and patchy oil stain, minor bitumen.
4426 - 4429'	Sandstone as above, minor chert pebbles, tight, minor bitumen and oil stain. Lack of porosity due to calcite infill.
4429 - 4437'	Sandstone as above scattered fair porosity and patchy oil stain, minor bitumen, minor chert.

4437 - 4450'	Sandstone, light grey to cream, very fine to medium grained, poorly sorted, subangular to subrounded, tight. Original porosity infilled with calcite. Scattered oil staining and bitumen throughout interval.
4450 - 4470'	Interbedded sandstone as above with limestone, brown to dark brown, microcrystalline to very fine crystalline, slightly arenaceous, silty and argillaceous, tight.
4470 - 4525'	Sandstone, light grey to light brown, composed of quartz and chert grains; minor well sorted, mainly poorly sorted, very fine to coarse grained, rounded to subangular, minor kaolin matrix; trace bitumen and oil stain, tight, due mainly to calcite infill.
4525 - 4536'	Sandstone as above, light grey to cream, very fine to fine grained, subangular to subrounded, kaolinitic, trace glauconite, tight.
4536 - 4542'	Sandstone, light grey to dark grey, microconglomeratic, medium to coarse grained, medium sorting, rounded to subangular, common small chert pebbles, bitumen common, poor scattered porosity, bleeding oil, fair oil staining.
4542 - 4552'	Sandstone, salt and pepper, grey, in part very fine to fine grained, slightly argillaceous, in part medium to coarse grained, cherty. Sand, calcareous, tight and interbedded with siltstone, dark grey, shaly in part, calcareous, arenaceous, tight.

4552 - 4556'	Sandstone as above, medium to coarse grained, micro-conglomeratic, poor porosity, which is due to infilling of original void space with bitumen and some calcite, sandstone is friable in part, heavy oil stained and bleeding oil. Common chert.
4556 - 4558'	Siltstone and sandstone, very fine to fine grained as above, complexly interbedded, tight.
4558 - 4570'	Sandstone, light grey to salt and pepper, fine to coarse grained, rounded to subangular, calcite infilled, tight, occasional chert pebbles.
4570 - 4580'	Sandstone as above, becoming finer grained, calcite infill, minor kaolin, tight; with limestone, brown, arenaceous.
4580 - 4600'	Sandstone, light grey to dark brown, very fine to fine grained, occasional medium grained, subrounded to angular, medium to poor sorting, calcareous, ferruginous in part, slightly silty in part, trace glauconite, tight.
4600 - 4660'	Sandstone as above interbedded with limestone brown to dark brown, sideritic? dolomitic? arenaceous, argillaceous in part, fossiliferous, occasional crinoid ossicles, tight.

4660 - 4670'	Siltstone, light grey, arenaceous with trace limestone and sandstone as above.
4670 - 4680'	Sandstone, fine to coarse grained, angular to subrounded, poorly sorted, calcareous, kaolinitic, trace glauconite, tight.
4680 - 4695'	Limestone, light brown to brown, marly, slightly earthy, tight with trace sandstone, very fine to fine grained, medium to good sorting, subanguiar, trace porosity and light brown to brown oil staining with sandstone microconglomeratic, calcareous, tight.
4695 - 4775'	Sandstone, salt and pepper, microconglomeratic in part, fine to coarse grained, angular to subrounded, generally poorly sorted, very calcareous, abundant chert pebbles, tight.
4775 - 4790'	Limestone, buff, microcrystalline, arenaceous in part, slightly argillaceous in part, siliceous, trace bitumen, tight, with trace sandstone as above.
4790 - 4805'	Limestone, as above, spicules common in siliceous limestone, chert common.
4805 - 4815'	Limestone as above with limestone dark brown, microcrystalline, very fine crystalline, trace pinpoint-intercrystalline porosity, fair oil stain and cut.

4815 - 4937'	Limestone, light brown to dark brown, earthy to microcrystalline, siliceous, slightly argillaceous, abundant bedded chert, light grey to brown, trace scattered oil stain, scattered fractures with minor bitumen on fracture faces, rare drusy calcite crystals. Section essentially tight.
4937 - 4985'	Limestone, light brown to dark brown, microcrystalline to earthy, slightly argillaceous in part, siliceous tight with common chert blue-grey to brown, minor bitumen and stylolites.
4985 - 5005'	Limestone and chert as above, fractures predominantly infilled with calcite or black bituminous argillaceous material. Rare spicules. Trace of fracture porosity, drusy calcite fracture faces and fair oil staining. Rare calcareous sandstone fine to coarse grained, tight.
5005 - 5025'	Limestone and chert as above, trace bitumen and stylolites. Very minor fracturing, no porosity.
5025 - 5040'	Limestone, buff to dark brown, microcrystalline to earthy, slightly argillaceous in part, occasional slightly siliceous, minor scattered fracture porosity with drusy calcite crystals. Scattered fair oil staining. Minor bitumen and stylolites. Common chert, blue, grey, brown. Very rare sandstone as above.

5040 - 5075'	Limestone and chert as above, chert and siliceous limestone comprises 30% of interval 5050 - 5060', rare sandstone as above, rare fracturing, tight.
5075 - 5090'	Limestone as above, less common chert and siliceous limestone, fractures common, scattered fracture porosity drusy fracture surfaces, no oil staining. Stylolitic and trace bitumen.
5090 - 5110'	Limestone and chert as above, tight.
5110 - 5130'	Limestone, brown, slightly dolomitic in part, minor scattered fracture porosity with drusy calcite, minor bitumen and stylolites, with chert, as above.
5130 - 5140'	Limestone and chert, variable, as above, tight.
5140 - 5150'	Limestone and chert, as above, trace fracture porosity.
5150 - 5181'	Limestone and chert, as above, trace spicules in chert.

SECTION III - Engineering Summary

(a) Report of Drill Stem Tests

No.	Date	From To	Formation
1	12-20-64	2210 - 2260	Blackie
2	12-22-64	2270 - 2330	Blackie
3	1- 2-65	3920 - 3960	Alder
4	1- 9-65	4250 - 4262	Chance Sand
5	1-11-65	4230 - 4273	Chance Sand
6	1-15-65	4375 - 4397	Chance Sand
7	1-16-65	4273 - 4375	Chance Sand
8	1-17-65	4397 - 4407	Chance Sand
9	1-17-65	4397 - 4417	Chance Sand
10	1-20-65	4413 - 4525	Chance Sand - (Operator's data analysis included)
11	1-21-65	4525 - 4542	Chance Sand
12	1-25-65	4547 - 4570	Chance Sand
13	2- 1-65	4650 - 4706	Chance Sand
14	2- 1-65	4708 - 4797	Chance Sand
15	2- 3-65	4737 - 4944	Chance Sand
16	2-11-65	4906 - 5022	Alder
17	2-12-65	5022 - 5047	Alder

(b) Casing Record

Casing Size	Weight	Amount	Set At	Cement
13 3/8"	54.5 #	4 Joints	110 ft.	90 sax + 3% $CaCl_2$
9 5/8"	36 #	25 Joints	810 ft.	365 sax + 3% $CaCl_2$
7"	23 #	157 Joints	4914 ft.	420 sax + 4% $CaCl_2$

(c) Bit Record

NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FOOTAGE	HOURS
1	8 5/8"	OSC^{RR}	825	866	41	3
2	8 5/8"	RG7XJ	866	1010	152	9
3	8 5/8"	OSC^{RR}	1010	1606	588	17 3/4
4	8 5/8"	OSC	1606	2042	436	23
5	8 5/8"	OWV	2042	2260	218	15 3/4
6	8 5/8"	OWV	2260	2283	23	1 1/2
Core 1	6 1/8"	KOBEL^{RR}	2283	2324	41	4
7	8 5/8"	OWV^{RR}	2324	2330	6	3
8	8 5/8"	OWV	2330	2459	129	15 3/4
9	8 5/8"	J6	2459	2547	88	9 1/2
10	8 5/8"	YTL	2547	2776	229	13 3/4
11	8 5/8"	YTL	2776	3080	304	19
12	8 5/8"	OSC	3080	3334	254	26 1/2
13	8 5/8"	J4	3334	3610	276	30
Core 2	6 1/8"	KOBEL^{RR}	3610	3620	10	3 1/2
14	8 5/8"	J4	3620	3875	255	29 1/4
15	8 5/8"	YTL	3875	3930	55	10 1/4
Core 3	6 1/8"	KOBEL^{RR}	3930	3960	30	17
16	8 5/8"	YHW2	3930	3960	REAMING	
17	8 5/8"	YH	3960	3963	23	10 1/2
18	8 5/8"	RG1J	3985	4076	93	39 1/2
19	8 5/8"	YHWG	4076	4094	18	6 1/2
20	8 5/8"	RG7XJ	4094	4117	23	11 3/4
21	8 5/8"	YHWG	4117	4208	91	27 1/4

NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FOOTAGE	HOURS
22	8 5/8"	YHWG	4208	4263	55	15 1/4
Core 4	6 1/8"	KOBEL	4263	4273	10	0
23	8 5/8"	YHWG	4263	4334	61	22 1/4
24	8 5/8"	YHWG	4334	4375	41	17 3/4
25	8 5/8"	RG7XJ^{RR}	4375	4397	22	5 1/4
Core 5	6 1/8"	KOBEL	4397	4407	10	0
26	8 5/8"	YHW2	4397	4417	10	5 1/4
27	8 5/8"	RG7XJ^{RR}	4417	4525	108	26 1/2
28	8 5/8"	RG7XJ	4525	4542	17	5 1/4
Core 6	6 1/8"	KOBEL^{RR}	4542	4562	20	13 1/2
29	8 5/8"	RG7XJ^{RR}	4562	4578	16	4 3/4
30	8 5/8"	H8	4578	4670	92	30 3/4
31	8 5/8"	H8	4670	4752	82	31 1/2
32	8 5/8"	RG1J	4752	4834	82	25
33	8 5/8"	YCGR	4834	4944	110	35 1/2
34	6 1/8"	OWS	4944	4946	2	1
35	6 1/8"	Diamond HYCOLOG	4946	4952	6	4 1/2
36	6 1/8"	W7R	4952	4956	4	3
37	6 1/8"	W7R	4956	4959	3	1 1/4
38	6 1/8"	YCGR	4959	4981	22	12
39	6 1/8"	YCGR	4981	5020	39	17 3/4
Core 7	6 1/8"	KOBEL^{RR}	5020	5022	2	2 3/4
40	6 1/8"	RG1J	5022	5047	25	11
41	6 1/8"	RG1J	5047	5107	60	24 3/4
42	6 1/8"	RG1J^{RR}	5107	5131	24	9 1/2
43	6 1/8"	YCGR^{RR}	5131	5183	52	20 1/4

(a) Mud Record

MUD VOLUMES	
Aquagel	660 sx.
Barytes	360 sx.
Dextrid	50 sx.
Caustic	25 drums
Hi-Vis Cellex	8 sx.
Q-Broxin	53 sx.
Fibertex	22 sx.
Silvacel	32 sx.
Acrysol A-3	1 bbl.
Defoamer	180 gallons
Mica	95 sx.
Soda Ash	12 sx.
Soltex	152 sx.
Carbonox	41 sx.
Magcogel	170 sx.
Sawdust	350 sx.
Calcium Chloride	10 sx.

(f) Cementing Record

Plug #1 5181 - 4850 with 67 sacks cement.

Bridge plugs with two sacks cement on top, set at 4650, and 4470.

(g) Lost Circulation Zones

None.

(h) Report of Blowouts

None.

SECTION IV - Logs

Run No.	Date	Type of Log	From	To
1	30-1-65	Induction Electric Log	4939	810
2	15-2-65	Induction Electric Log	5182	4915
1	30-1-65	Borehole Compensated Sonic Log	4940	810
2	16-2-65	Borehole Compensated Sonic Log	5177	4915
1	30-1-65	Microlog Caliper	4939	810
2	16-2-65	Microlog Caliper	5182	4915
1	4-2-65	Continuous Dipmeter	4937	3550
1	30-1-65	Seismic Reference Service	4936	810
2	16-2-65	Seismic Reference Service	5176	4915
1	12-3-65	Completion Record	4888	2000

SECTION V - Analysis

(a) Core Analysis (see attachments)

Lab No.	From	To	Source	Remarks
CNP-4-2674	4263	4273	Core #4	Routine Conventional Analysis
CNP-4-2674	4397	4407	Core #5	Routine Conventional Analysis
CNP-4-2674	4542	4562	Core #6	Routine Conventional Analysis
CEH-2-WA-2978	4397	4407	Core #5	Selective Acid Solubilities (see appendix)
CEH-2-WA-2978	4542	4562	Core #6	Selective Acid Solubilities (see appendix)

No Core Analysis on Cores 1, 2, 3, & 7

(b) Water Analysis (see appendix)

Lab No.	Sample	From	To	Source	Remarks
F 2189-1	1			850'	Blooey Line Sample
F 2189-2	1	4708	4797	D.S.T. #14	2000 plus above tool
F 2189-3	2	4708	4797	D.S.T. #14	90 plus above tool
F 2189-4	1	4906	5022	D.S.T. #16	Just above tool
F 2189-5	1	5022	5047	D.S.T. #17	270' above tool
F 2189-6	2	5022	5047	D.S.T. #17	900' above tool

(c) Gas Analysis (see appendix)

Lab No.	Sample	From	To	Source	Remarks
E 24754	1	2210	2260	D.S.T. #1	94.53% Methane 4.39% Nitrogen
E 25052	1	4650	4706	D.S.T. #13	83.97% Methane 7.12% Ethane 3.99% CO_2 2.93% Propane
E 25053	1	4708	4797	D.S.T. #14	77.44% Methane 9.68% Ethane 4.94% Propane 4.90% CO_2 1.15% N-butane
E 25054	1	5022	5047	D.S.T. #17	86.89% Methane 7.42% Ethane 2.94% Propane

(d) Oil Analysis - (see appendix)

Lab No.	Sample	From	To	Source	Remarks
E 24848	1	4392	4397	D.S.T. #6	Samples mixed and analysed together. 31.7 API. 1.29% Sulphur (by weight)
	1	4397	4417	D.S.T. #9	
E 24848	2	441	4525	D.S.T. #10	31.5 API. 1.22% Sulphur (by weight)
E 25035	"	4547	4570	D.S.T. #12	24.2 API. 1.80% Sulphur (by weight)
E 25341-1	Oil	4474	4557	Prod. Test	Naphthenic Type
E 25341-2	Oil	4393	4456	Prod. Test	Naphthenic Type

(e) Drill Stem Test - Special Data Analysis(see attachments)

Lab No.	D.S.T.	From	To	Remarks
C 3327	10	4413	4525	Well-bore damage analysis

SECTION VI - Completion Summary

Perforating Record

	From	To		
March 12	4679	4686	Zone 1	1 Shot per foot
	4668	4672		
	4659	4661		
	4655			
March 16	4554	4557	Zone 2	1 Shot per foot
	4535	4540		
	~~4516~~ 4516	~~4578~~ 4578		
	4489	4493		
	4481	4483		
	4474	4477		
March 23	4422	4456	Zone 3	1 Shot per foot
	4393	4404		

Servicing Record - See Daily Well History (p. 45-52)

Intervals Open to Production

4422	4456
4393	4404

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- 4 -

FINAL COMPLETION

MOBIL OIL OF CANADA, LTD.

Petroleum Engineering Department

3-21-M

DAILY WELL HISTORY

WELL: SOUTHERN MOBIL WESTERN MINERALS CHANCE YT G-5 FIELD: PEEL'S PLAINS

CASING: Elev. K.B 1721.75'

Date	PROGRESS AND REMARKS	MUD Wt	Visc	W L	Cake 32	pH
MARCH 1965	Kenyons Ltr #2					
8	Made up rock bit for rig and spotted rig					
9	Completed rigging up. Removed tubing spool and pulled 60 jts of 2 7/8" tubing					
10	Finished pulling tubing out of hole (Total of 157 jts). Installed B.P.S and filled hole with 60 bbls of warm calcium water. Pressure tested B.P.S and casing to 2000 psi for 15 minutes. Held O.K. Hooking up production facilities - tanks, separator, lines, etc.					
11	Ready to perforate. Gamma-ray failed to record properly when running correlation log. Waiting on new gamma ray tool. Completed hooking up production facilities. Pumped inhibited acid into 15,000 gallon tank. Tank leaking badly so pumped acid back into truck while waiting on new tank					
12	Transferred acid into another tank - approximately 7000 gallons of 15% HCl in tank. Leaking v. slowly. Mixed and circulated into watertank 250 bbls of Calcium water. Schlumberger repaired and tested gamma ray. Ran gamma-ray collar locator across the the intervals 4880' - 4200' and 2400' - 2000'. Perforated with 1 shot/ft. using 3 3/8" select casing gun from 4655 - 4679. Shut well in overnight.					
13	Ran 2 7/8" tubing in hole with crossover collar on bottom and Johnston "F" packer 2 jts above. Tubing landed at 4691' KB with packer at 4628. Rigged up Dowell. Acid washed with 250 gallons 15% double inhibited HCl with demulsifiers and surfactant added. Moved 1½ bbl across perforations every 10 mins. Very slow feeding. Acid squeezed 450 gallons at an average feed rate of 1/5 BPM at 1200 psi SIP. Displaced 20 bbls and set packer at 4628. Pressure tested to 600 psi for 10 minutes. O.K.					

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YTG-8 FIELD:

CASING: Elev K.B

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc:	W/L	Cake 1/32	pH
MARCH 13	Well came in on third swab at initial rate of 50 MCF/D with THP of 40 psig wide open. Cleaned well up for 2 1/2 hours and when well clean gas rate was approximately 20-30 MCF/D at THP of 25 psig with no fluid present. Shut well in overnight.					
14	After 10 hours SITHP was 575 psig. Blew well down for 1 1/2 hours - made considerable amount of acid water and some sulphurous formation water. Shut well in again in order to clean more fluid out. Second acid tank leaking very badly. Pumped acid out of tank into barrels. Recovered 23 bbls (Had lost 5000 gallons of acid). SITHP at end of further 3 hours was 150 psig. Almost immediately pressure dropped to 40 psig with a flow rate of less than 20 MCF/D. Shut well in and killed with Calcium water Unseated packer and circulated 900 gallons of 15% HCl in tubing. Set packer and squeezed. Max. feed rate of 1/2 BPM at 1200 psi. Allowed acid (total of 630 gallons) to spend and backwashed unspent 6 bbls out of tubing. Set packer and pressure tested. Swabbing. On seventh swab recovered slightly gassy emulsified acid. Had to shut down overnight - too dark to swab. Well not cleaned up.					
15	SITHP after 10 hours was 100 psig. Swabbed well clean to within 100 ft. of bottom. After clean up initial blow of 20-30 MCF/D at 60 psig THP. After further 2 hours, THP died to 10 psig with same flow rate. No fluid recovery.					
16	Gas rate still 20 MCF/D with 0 THP after flowing all night. Filled tubing with water and pulled tubing. Ran junk basket with collar locator to 4730'. Pulled out and ran Johnston 'WASP' bridge plug. Set at 4650' KB. Dumped 2 sacks of cement on top of bridge plug with dump bailer. Pressure tested bridge plug to 2000 psig for 10 minutes. O.K. Perforated with 1 shot/ft. from 4474 - 4557.					
17	Ran gamma-ray collar locator and picked up pip tags. Ran 2 7/8" tubing with Johnston '101' packer 4 jts above. Landed tubing at 4564 with packer at 4437'. Acid washed with 5 1/2 bbls of 15% HCl - some feeding. Acid squeezed with 4 bbls of 15% HCl at a maximum feed rate of 1/3 BPM at 1200 psi THP.					

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YT G-8 **FIELD:**

CASING: **Elev. K.B**

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc:	W/L	Cake 1/32	pH
March	Backwashed 10 bbls and set packer at 4437'. Pressure tested. Held. Pulled 4 swabs, with last swab from 3500' and well kicked in. Cleaning up but master valve on tubing leaking badly through grease nipple. Shut well in - installed new grease nipple. Left shut in overnight - too dark to swab.					
18	After 13 1/2 hours SITHP was 1100 psig, opened well up with heavy gas blow and water production. THP was 0. Installed 3/4" choke THP still 0. Gas died to 30 MCF/D with fairly clean water speckled with oil being recovered at a low rate. Shut in for 1/2 hour. SITHP was 180 psig. Thoroughly cleaned up well for 2 hours with THP = 0 and at the end of this period flowing clean at 80-100 MCF/D. Shut in and acid squeezed 675 gallons of 15% Hcl at a maximum rate of 1/2BPM at 1300 psig. Allowed acid to spend and pressure tested packer. Held O.K. Well commenced to clean up on fifth swab. After unloading water making gas at 100 MCF/D. After 2 hours cleanup making no fluid with FTHP of 0 and rate of 20 MCF /D. After a further 8 hours still flowing wide open with THP of 0, rate of 20 MCF/D and producing driblets of oil (1 gallon/hour). Flowing overnight.					
19	No change in flow conditions. After a total of 18 hours flowing, tagged fluid level at 3800'. Swabbed from T.D. and recovered 1/2 bbl of heavy water cut oil (98% water). Continued to flow a slow dribble of oil which became almost negligible as rate dropped to 20 MCF/D. Allowed to flow overnight.					
20	After a total of 32 hours producing tagged Fluid level at 3500. Swabbed from TD Produced approximately 1 bbl of clean oil (water cut = 3% S.G. of clean oil = 16° API at 60°F) . Well died quickly with gas rate of 20 MCF/D and no fluid production. After 39 hours production went into tag fluid level and pull swab. Unsuccessful in pulling swab - on coming out found swab mandrel (angle - type) missing. Installed new mandrel and re-ran sand line. Tagged fluid level at 4200'. Swabbed from T.D. Swabbed 1-1 1/2 bbls of clean non-gassified oil in 1/2 hour (% water = 0, API gr of clean oil = 12.0 at 60°F). Produced 3/4 bbl after swab and then died down to a dribble with a gas rate of 20 MCF/D. No change in conditions after 46 hours production.					

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

3-21-H

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YT G-8 **FIELD:**

CASING: Elev. K.B

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc.	W/L	Cake 1/32	pH
March 21	After 5[illegible] hours tagged Fluid Level at 4200'. No recovery, lost second mandrel. Re-ran with screw-on type BJ mandrel. Recovered approximately 1 bbl of oil. Broke one strand on sandline coming out of hole. Rebabbited 3000 feet of sandline. Obvious at this stage that tubing was open-ended and as were swabbing from TD did not run in again with sandline. Left on production - very small dribble of oil with gas blow less than 20 MCF/D.					
22	No change in production. Killed well with 30 bbls of Calcium water down the tubing. Unseated packer and pulled tubing. Cross-bar missing from bottom collar. Ran junk basket with Schlumberger to 4550. On pulling out Schlumberger line came off its bottom sheave and ravelled up. Had to cut line and babbit onto rope socket. Ran and set bridge plug at 4468' KB. Dumped 3/4 sack of cement on top of bridge plug with dump bailer. Pressure tested plug to 2000 psig for 10 minutes. Held O.K.					
23	Perforated with 1 shot/ft. from 4393 - 4404 and 4422-4456. Gamma-ray indicated from pip-tags that had shot off depth thought very improbable. However, re-shot with 1 shot/2 feet from 4420-4436. Shut well in overnight.					
24	Ran 2 7/8" tubing in with new bar collar and with Johnston "10" packer 1 joint above. Landed tubing at 4457' KB with packer at 4425. Waiting on acid.					
25	Acid washed with 6 bbls of 15% HCl, moved 1/2 bbl across perforations every 10 minutes. Barely feeding. Backwashed 31 bbls, set packer at 4395' and pressure tested. Held O.K. Swabbed well in. After clean up blowing at a rate of 200 MCF/D with heavy oil spray. After 1/2 hour oil rate negligible with gas rate of 20 MCF/D. Shut in for 1 hour. SITHP was 120 psig. On opening up produced 10-15 bbls clean oil in 1/2 hour at a gas rate of 50 MCF/D with FTHP = 0 (Producing with choke wide open - 3/4"). Blow clean for further 5 hours. Producing at 5-10 bbls/hr. of clean oil with a gas rate of 20 MCF/D. Shut in for further 1 1/2 hours. SITHP of 250 psig. Opened up for 1/2 hour. Produced approximately 1/2 bbls of oil with a light gas blow before dying down to zero flow at the end of the 1/2 hour. Shut in overnight.					

MOBIL OIL OF CANADA, LTD.

Petroleum Engineering Department

3-21-N

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YTG-8 FIELD:

CASING: Elev. K.B

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc.	W/L	Cake 1/32	pH

MARCH

26

SITHP of 600 psig after 12 hours. Opened up and pressure bled off to 140 psig after 1/2 hour. After further 1/2 hour FTHP was 0. In first 1/2 hour made 30 bbls of clean oil in second made 5 bbls before dying. Killed well. Lowered tubing to 4450 with packer at 4415 spotted 16 bbls of acid with 10 bbls above packer in annulus and 6 in tubing. Set packer at 4415. Squeezed 2 bbls of acid down tubing in 2 hours at 1200 psi THP and 4 bbls down casing in 1 hr. and 40 minutes. Unseated packer and attempted squeeze down annulus with tubing closed. No feed at all. Backwashed unspent acid into tubing and set packer at 4382. Pressure tested. Held O.K. Swabbed well clean. Flowing oil on 3/4" choke but died after 1/2 hr. - produced 10 bbls. Shut in for 2 hours. SITHP of 120 psig. Opened up but again died after making 10 bbls in 1 hour, to a dribble of oil and a slight blow of gas. Shut in overnight to obtain build up.

27

SITHP after 12 hours was 150 psig
Well flowing on 1/4" choke:

Time	THP	Cum. Prod.	Remarks
10:00 A.M.	180		
10:30	140	10	SP.GR = 33.5 at 60°F Clean
1:30 P.M.	80	42.5	
2:30	40	46.5	
5:00	35	60.6	SP.GR = 32.9 at 60° Clean
6:00	35	62.5	
7:00	35	65 0	
8:00	35	67.5	
9:00	35	70.7	
10:00	30	73.2	
11:00	0	75.7	Well Died

Shut in overnight. Attempted to rig up through separator but could not get oil dump working automatically so by-passed separator Gas rate less than 20 MCF/D.

MOBIL OIL OF CANADA, LTD.

Petroleum Engineering Department

3-21-N

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YTG-8 FIELD:

CASING: Elev. K.B

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc.	W/L	Cake 1/32	pH

MARCH

26

SITHP of 600 psig after 12 hours. Opened up and pressure bled off to 140 psig after 1/2 hour. After further 1/2 hour FTHP was 0. In first 1/2 hour made 30 bbls of clean oil in second made 5 bbls before dying. Killed well. Lowered tubing to 4450 with packer at 4415 spotted 16 bbls of acid with 10 bbls above packer in annulus and 6 in tubing. Set packer at 4415. Squeezed 2 bbls of acid down tubing in 2 hours at 1200 psi THP and 4 bbls down casing in 1 hr. and 40 minutes. Unseated packer and attempted squeeze down annulus with tubing closed. No feed at all. Backwashed unspent acid into tubing and set packer at 4382. Pressure tested. Held O.K. Swabbed well clean. Flowing oil on 3/4" choke but died after 1/2 hr. - produced 10 bbls. Shut in for 2 hours. SITHP of 120 psig. Opened up but again died after making 10 bbls in 1 hour, to a dribble of oil and a slight blow of gas. Shut in overnight to obtain build up.

27

SITHP after 12 hours was 150 psig
Well flowing on 1/4" choke:

Time	THP	Cum. Prod.	Remarks
10:00 A.M.	180		
10:30	140	10	SP.GR = 33.5 at 60°F Clean
1:30 P.M.	80	42.5	
2:30	40	46.5	
5:00	35	60.6	SP.GR = 32.9 at 60° Clean
6:00	35	62.5	
7:00	35	65 0	
8:00	35	67.5	
9:00	35	70.7	
10:00	30	73.2	
11:00	0	75.7	Well Died

Shut in overnight. Attempted to rig up through separator but could not get oil dump working automatically so by-passed separator Gas rate less than 20 MCF/D.

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

3-21-H

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YTG-8 FIELD:

CASING: Elev. K.B

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc:	W/L	Cake 1/32	pH
MARCH	At this stage very clear that though an initial surge of up to 10 BPH would be achieved after shut in the well would quickly decline to a steady rate of 2-3 BPH					
29	Continued flowing on 10/64" choke from 10 AM to 8 PM but no data recorded.					

Time	BPH	THP
8:00 P.M.	3.1	120
9:00	3.1	130
10:00	2.5	150
11:00	3.1	130
12:00	3.1	140
30 1:00 A.M.	1.8	140
2:00	3.1	150
3:00	3.1	140
4:00	1.8	140
5:00	1.8	140
6:00	2.5	150
7:00	0.6	140
8:00	2.5	140
9:00	2.5	150
10:00	2.5	140
11:00	2.5	140
12:15 P.M.	3.1	140
1:00	1.8	140
2:00	1.8	140
3:00	1.8	140
4:00	2.5	140
5:00	3.1	140
6:00	2.5	140
7:00	3.7	140
8:00	3.7	140
9:00	1.2	160
10:00	3.7	150
11:00	2.5	160

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

3-21-H

DAILY WELL HISTORY

WELL: Socony Mobil Western Minerals Chance YT G-8 **FIELD:**

CASING: Elev. K.B

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc.	W/L	Cake 1/32	pH
March 31						

Time	BPH	THP
12:00	2.5	140
1:00 a.m.	1.8	140
2:00	1.8	160
3:00	1.2	160
4:00	1.2	160
5:00	1.8	160
6:00	1.2	150
7:00	1.8	160
8:00	3.1	175
9:00	1.8	165
10:00	3.1	165
11:00	2.5	160
12:00	2.5	160
1:00 p.m.	1.8	155
2:00	1.2	155
3:00	2.5	150

During the above flow period, the gas flow was less than 20 MCF/D indicating a GOR less than 300 SCF/bbl.

Gravities were taken frequently - the oil was clean and the average gravity was 33° API at 60°F.

3:30 p.m. Killed tubing with fresh water. Unseated packer and reverse circulated hydrocarbons from tubing.

Removed BOPs and installed wellhead. Displaced hole to oil inhibited with IC-100.

Landed tubing, in bonnet with wrap-around dognut in place, at approximately 4380' KB. Set packer at 4345. Pressure tested. Held o.k. Swabbed well in and blew well clean. Rig released after well blown down. (March 31, 1965)

CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

Company - SOCONY MOBIL OIL OF CANADA, LTD.
Well - S.M.W.M. CHANCE YT G-8
Field - WILDCAT, YUKON TERRITORY
Date - FEBRUARY 24, 1965

Page - 1 of 1
File - CBH-2-WA-2978
Analysts - GS
Remarks - ACID SOLUBILITIES

SAMPLE NUMBER	DEPTH REPRESENTED FEET	FOOTAGE REPRESENTED	PERMEABILITY MILLIDARCYS	POROSITY PER CENT	WEIGHT % ACID SOLUBLE
10 & 11	4397.0-4399.3	2.3	27	13.2	11.46
12 & 13	4399.3-4401.5	2.2	2.0	11.1	16.10
14 & 15	4401.5-4403.9	2.4	0.2	7.8	18.95
16 & 17	4403.9-4405.7	1.8	0.10	2.5	24.22
18 & 19	4551.5-4553.4	1.9	0.2	2.0	25.72
20	4553.4-4554.3	0.9	91	9.9	15.40
21	4554.3-4555.2	0.9	17	8.4	16.81
22	4555.2-4556.1	0.9	1.5	5.6	19.04

CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton -- Fort St John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-1 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. Grd.

Zone and Formation: Cretaceous Cody Creek Sample Interval:

Method of Production: Well Production or Recovery at Sampling Time:

Sampled from: Blooie line sample 850' Sampled by: Date: December 15, 1964

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na & K	Ca	Mg	SO_4	Cl	CO_3	HCO_3	OH
738	86	16	28	55		2,170	

Milligram Equivalents

32.11	4.29	1.32	0.58	1.55		35.59	

Iron Hydrogen Sulfide

Total Solids in Milligrams Per Liter:

By evaporation 2,780

After ignition 1,752

Calculated 1,991

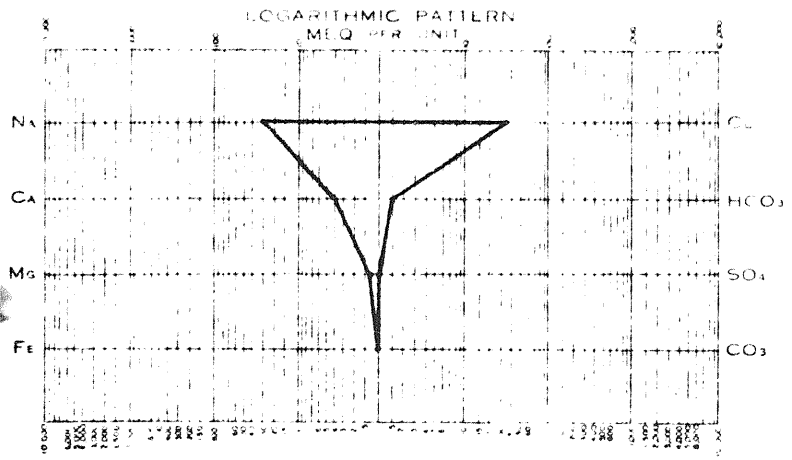
Physical Properties:

Resistivity 3.59 ohm meters @ 68 F

Observed pH 8.1

Specific Gravity 1.001

Remarks and Conclusions **Organic matter present in total solids.**



CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-2 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4708' - 4797'

Method of Production: D.S.T. #14 Well Production or Recovery at Sampling Time:

Sampled from: 2000' above tool. Sampled by: Date: February 2, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
7,784	80	17		206	6,062	576	9,120		

Milligram Equivalents

338.59	3.99	1.40		4.28	170.95	19.18	149.57		

Iron Hydrogen Sulfide

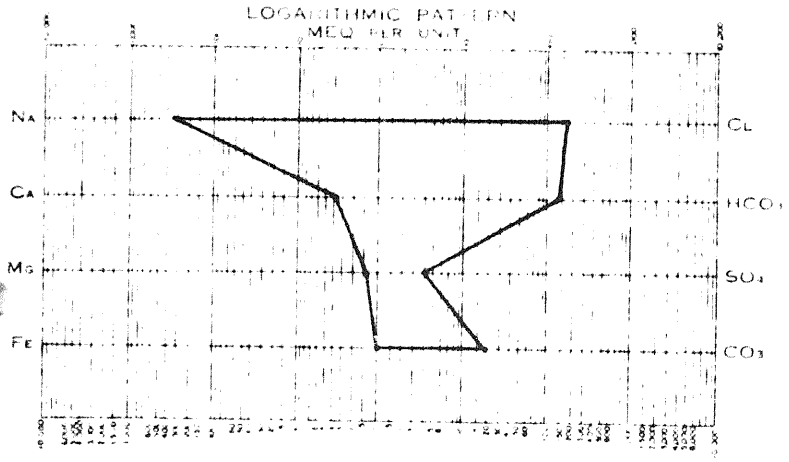
Total Solids in Milligrams Per Liter:

By evaporation 22,110
After ignition 18,550
Calculated 19,213

Physical Properties:

Resistivity 0.378 ohm meters @ 68 F
Observed pH 8.4
Specific Gravity 1.014

Remarks and Conclusions **Organic matter present in total solids. The sample appears to be filtrate contaminated.**



CGL 6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-3 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4708' - 4797'

Method of Production: D.S.T. #14 Well Production or Recovery at Sampling Time:

Sampled from: 90' above tool Sampled by: Date: February 2, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
7,749	90	18		91	6,212	527	9,050		

Milligram Equivalents

337.06	4.49	1.49		1.89	175.18	17.55	148.42		

Iron _____ Hydrogen Sulfide Present

Total Solids in Milligrams Per Liter:

By evaporation 22,160

After ignition 18,990

Calculated 19,140

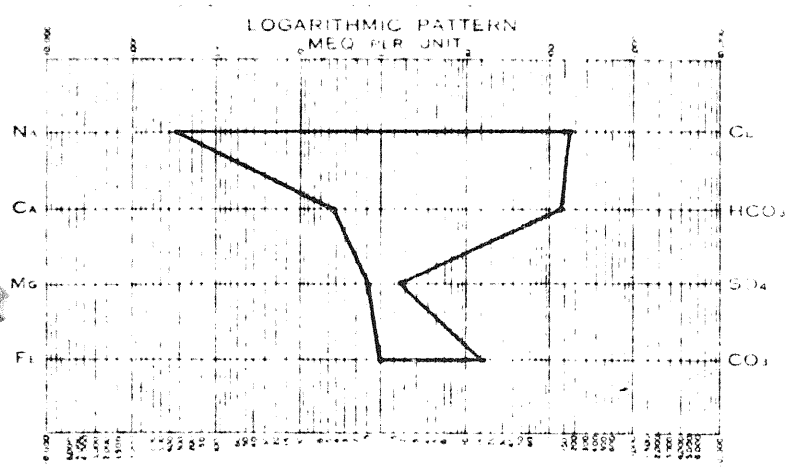
Physical Properties:

Resistivity 0.375 ohm meters @ 68 F

Observed pH 8.4

Specific Gravity 1.014

Remarks and Conclusions **The sample appears to be filtrate contaminated.**



CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-4 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4906' - 5022'

Method of Production: D.S.T. #16 Well Production or Recovery at Sampling Time: 630' filtrate cut mud.

Sampled from: just above tool. Sampled by: Date: February 11, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg	SO_4	Cl	CO_3	HCO_3	OH
5,447	100	12	770	3,056	591	7,380	

Milligram Equivalents

Na + K	Ca	Mg	SO_4	Cl	CO_3	HCO_3	OH
236.93	4.99	0.99	16.02	86.18	19.68	121.03	

Iron ____ Hydrogen Sulfide ____

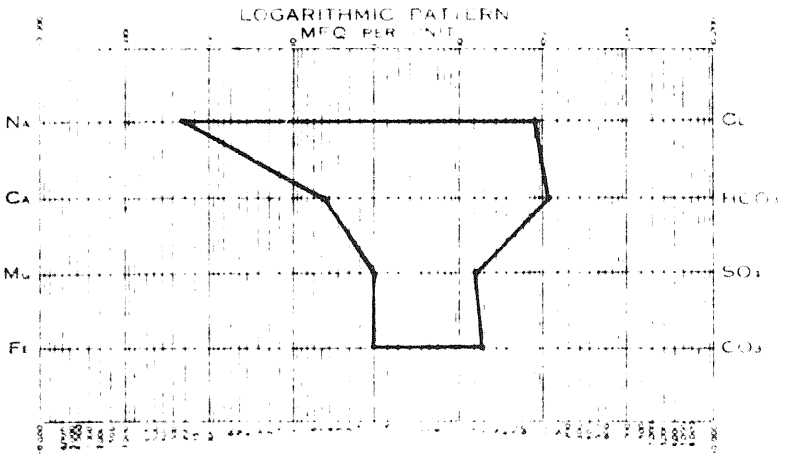
Total Solids in Milligrams Per Liter:

By evaporation 17,270
After ignition 12,560
Calculated 13,607

Physical Properties:

Resistivity 0.523 ohm meters @ 68 F
Observed pH 8.6
Specific Gravity 1.010

Remarks and Conclusions **Organic matter present in total solids. The sample appears to be filtrate contaminated.**



CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-5 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 5022' - 5047'

Method of Production: D.S.T. #17 filt. c.xw.. Well Production or Recovery at Sampling Time: 1500'

Sampled from: 270' above tool Sampled by: Date: February 12, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
7,162	124	17		247	5,110	266	9,820		

Milligram Equivalents

311.56	6.19	1.40		5.14	144.10	8.86	161.05		

Iron ____ Hydrogen Sulfide ____

Total Solids in Milligrams Per Liter:

By evaporation 20,010

After ignition 16,270

Calculated 17,758

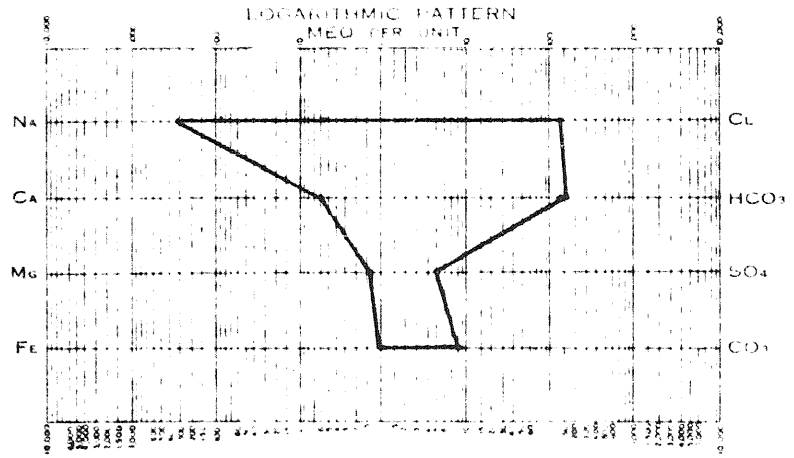
Physical Properties:

Resistivity 0.408 ohm meters @ 68 F

Observed pH 8.3

Specific Gravity 1.014

Remarks and Conclusions. **Organic matter present in total solids. The sample appears to be filtrate contaminated.**



CGL 6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-6 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 5022' - 5047'

Method of Production: D.S.T. #17 Well Production or Recovery at Sampling Time: 1500' filt. c.xw..

Sampled from: 900' above tool Sampled by: Date: February 12, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg	SO_4	Cl	CO_3	HCO_3	OH
6,646	104	9	385	4,409	251	9,410	

Milligram Equivalents

289.09	5.19	0.74	8.01	124.33	8.36	154.32	

Iron — Hydrogen Sulfide —

Total Solids in Milligrams Per Liter:

By evaporation 18,170

After ignition 14,850

Calculated 16,434

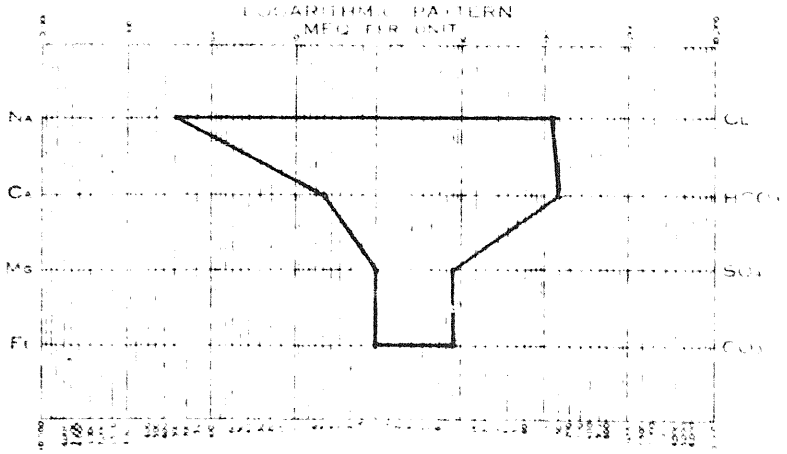
Physical Properties:

Resistivity 0.452 ohm-meters @ 68 F

Observed pH 8.3

Specific Gravity 1.012

Remarks and Conclusions **Organic matter present in total solids. The sample appears to be filtrate contaminated.**



Form 4

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

GAS ANALYSIS REPORT: Lab. No. E24754 Received: Jan. 18, 1965 Reported: Feb. 12, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil Of Canada Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1" N. 137° 30' 50.8" W. Elev.: K B Grd.

Zone and Formation: Cretaceous Blackie Member Sample Interval: 2210' - 2260'

Well production at sampling time: Oil bpd; Gas MCFD; Water bpd.

Sampled from: Sampled by: Date: Dec. 21, 1964

Pressure: (a) at point of sampling psig (b) Gas Bomb pressure psig

Temperature: (a) at point of sampling F (b) Separator F

Pressures: Reservoir Tubing Casing Separator

OTHER PERTINENT DATA D.S.T. #1.

Signed:

HYDROGEN SULFIDE (by Tutwiler Method)

Grains of hydrogen sulfide per 100 cu. ft. of gas at 60 F. and 14.65 p.s.i.a. — Nil

GROSS B.T.U. (Calculated) 60 F. and 14.65 p.s.i.a. — 983

SPECIFIC GRAVITY (Calculated) — 0.591

Specific Gravity by Weight — 0.590

VAPOR PRESSURE (Calculated) of actual pentanes — 10.24

Remarks and conclusions

Sample container arrived with 202 psig. with no apparent liquids; however the distribution of the lower boiling hydrocarbons would indicate the presence of condensate or light crude.

COMPOSITION	% by Volume	G.P.M. in Imp. Gal. @ 60°F & 14.65 PSIA
Helium	0	
Oxygen	4.39	
Nitrogen	0.31	
Carbon dioxide	0	
Hydrogen sulfide	94.53	
Methane	0.12	
Ethane	0.01	0.002
Propane	0.03	0.008
Isobutane	0.05	0.013
N-Butane	0.12	0.036
Isopentane	0.16	0.048
N-pentane	0.15	0.051
Hexanes	0.13	0.055
Heptanes +		
TOTAL	100.00	0.213

G.P.M.

Actual pentanes	0.190
Calculated at 12 lbs	0.197
Calculated at 15 lbs	0.209
Calculated at 22 lbs	0.246
Calculated at 26 lbs	0.273

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

GAS ANALYSIS REPORT: Lab. No. E25052 Received Feb. 26,1965 Reported March 22,1965

Well S.M.W.M. Chance YT G-8 Operator Socony Mobil Oil Of Canada Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4650' - 4705'

Well production at sampling time: Oil bpd; Gas MCFD; Water bpd.

Sampled from: Sampled by: Date: Feb. 1, 1965

Pressure: (a) at point of sampling 55 psig (b) Gas Bomb pressure psig

Temperature: (a) at point of sampling 32 F (b) Separator F

Pressures: Reservoir Tubing Casing Separator

OTHER PERTINENT DATA D.S.T. #13.

Signed

		COMPOSITION	Mol % by Volume	G.P.M. at Imp. Gal. @ 60 F & 14.65 PSIA
HYDROGEN SULFIDE (Tests of Water)				
Grains of hydrogen sulfide per 100 cu. ft. of gas at 60 F. and 14.65 p.s.i.a.	Nil	Helium		
		Oxygen	0	
		Nitrogen	0.59	
GROSS B.T.U. (Calculated)		Carbon dioxide	3.99	
60 F. and 14.65 p.s.i.a.	1094.	Hydrogen sulfide	0	
		Methane	83.97	
SPECIFIC GRAVITY (Calculated)	0.681	Ethane	7.12	
Specific Gravity by Weight	0.686	Propane	2.93	0.670
VAPOR PRESSURE (Calculated) of total pentanes	15.00	Isobutane	0.30	0.081
		N-butane	0.70	0.183
		Isopentane	0.16	0.049
		N-pentane	0.15	0.045
Calculated Pc 686.8		Hexanes	0.08	0.027
Tc 381.0		Heptanes +	0.01	0.004
		TOTAL	100.00	1.059
		G.P.M.		
		Actual pentanes		0.125
		Calculated at 12 lbs.		---
		Calculated at 13 lbs.		---
		Calculated at 12 lbs.		0.144
		Calculated at 13 lbs.		0.158

Remarks and conclusions:

The sample was received at a pressure of 58 psig. with no apparent liquids.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

GAS ANALYSIS REPORT: Lab. No. E25052 Received Feb. 26,1965 Reported March 22,1965

Well S.M.W.M. Chance YT G-8 Operator Socony Mobil Oil Of Canada Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4650' - 4705'

Well production at sampling time: Oil bpd; Gas MCFD; Water bpd.

Sampled from: Sampled by: Date: Feb. 1, 1965

Pressure: (a) at point of sampling 55 psig (b) Gas Bomb pressure psig

Temperature: (a) at point of sampling 32 F (b) Separator F

Pressures: Reservoir Tubing Casing Separator

OTHER PERTINENT DATA D.S.T. #13.

Signed

		COMPOSITION	Mol % by Volume	G.P.M. at Imp. Gal. @ 60 F & 14.65 PSIA
HYDROGEN SULFIDE (Tests of Water)				
Grains of hydrogen sulfide per 100 cu. ft. of gas at 60 F. and 14.65 p.s.i.a.	Nil	Helium		
		Oxygen	0	
		Nitrogen	0.59	
GROSS B.T.U. (Calculated)		Carbon dioxide	3.99	
60 F. and 14.65 p.s.i.a.	1094.	Hydrogen sulfide	0	
		Methane	83.97	
SPECIFIC GRAVITY (Calculated)	0.681	Ethane	7.12	
Specific Gravity by Weight	0.686	Propane	2.93	0.670
VAPOR PRESSURE (Calculated) of total pentanes	15.00	Isobutane	0.30	0.081
		N-butane	0.70	0.183
		Isopentane	0.16	0.049
		N-pentane	0.15	0.045
Calculated Pc 686.8		Hexanes	0.08	0.027
Tc 381.0		Heptanes +	0.01	0.004
		TOTAL	100.00	1.059
		G.P.M.		
		Actual pentanes		0.125
		Calculated at 12 lbs.		---
		Calculated at 13 lbs.		---
		Calculated at 12 lbs.		0.144
		Calculated at 13 lbs.		0.158

Remarks and conclusions:

The sample was received at a pressure of 58 psig. with no apparent liquids.

CGL 4

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

GAS ANALYSIS REPORT: Lab. No. E25054 Received: Feb. 26,1965 Reported: March 9, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil Of Canada Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N. 137° 30' 50.8"W. Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 5022' - 5047'

Well production at sampling time: Oil bpd; Gas MCFD; Water bpd.

Sampled from: Sampled by: Date: Feb. 12, 1965

Pressure: (a) at point of sampling 7 psig (b) Gas Bomb pressure psig

Temperature: (a) at point of sampling 20 F (b) Separator F

Pressures: Reservoir Tubing Casing Separator

OTHER PERTINENT DATA D.S.T. #17.

(Signed)

HYDROGEN SULFIDE (by Tutwiler Method)

Grains of hydrogen sulfide per 100 cu ft of gas at 60 F and 14.65 p.s.i.a. **Nil**

GROSS B.T.U. (Calculated)

60 F and 14.65 p.s.i.a. **1142**

SPECIFIC GRAVITY (Calculated) **0.653**

Specific Gravity by Weight **0.652**

VAPOR PRESSURE (Calculated) of actual pentanes **10.96**

Calculated Pc 670.5

Tc 375.0

Remarks and conclusions:

The sample was received at a pressure of 7 psig. and 70°F, with no apparent liquids.

COMPOSITION	% by Volume	G.P.M. in Imp. Gal. @ 60°F. & 14.65 PSIA
Helium		
Oxygen	0	
Nitrogen	0.93	
Carbon dioxide	0.20	
Hydrogen sulfide	0	
Methane	86.89	
Ethane	7.42	
Propane	2.94	0.672
Isobutane	0.28	0.076
N-butane	0.67	0.175
Isopentane	0.19	0.058
N-pentane	0.17	0.051
Hexanes	0.15	0.051
Heptanes	0.16	0.068
TOTAL	100.00	1.151

G.P.M.

Actual pentanes	0.228
Calculated at 12 lbs	0.232
Calculated at 15 lbs	0.247
Calculated at 23 lbs	0.289
Calculated at 25 lbs	0.321

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON -- CALGARY -- FORT ST. JOHN

Date Reported: February 6, 1965 Laboratory Report Number: E24848

SOCONY MOBIL OIL OF CANADA LIMITED

Well: S.M.W.M. Chance Y.T. G-8 Kind Of Sample: Crude Oil

Formation: Chance Sand

Date Received: February 1, 1965 Date Sampled: See below

Samples obtained by D. M. Bain.

LABORATORY NUMBER

E24848-1: D.S.T. #6. Interval: 4375' - 4397'
Recovered 1180' oil. Sampled January 15, 1965.
D.S.T. #9. Interval: 4397' - 4417'
Recovered 140' of fluid. Sampled January 18, 1965.

The samples from the two tests were mixed and the analysis were made on the composite sample.

Gravity at 60/60°F.: Specific: 0.867
A.P.I.: 31.7°

Total Sulfur (% by weight): 1.29

Pour Point: +15°F.

VISCOSITIES

Temperature °F.	Absolute Centipoises	Kinematic Centistokes	Saybolt Universal Seconds
30	28.34	32.28	151.
50	13.46	15.46	78.9
70	8.51	9.85	58.3
100	4.89	5.70	44.6

E24848-2: D.S.T. #10. Interval: 4413' - 4525'. Sampled January 20, 1965.

Gravity at 60/60°F.: Specific: 0.868
A.P.I.: 31.5°

Total Sulfur (% by weight): 1.22

Pour Point: +20°F.

VISCOSITIES

Temperature °F.	Absolute Centipoises	Kinematic Centistokes	Saybolt Universal Seconds
50	14.50	16.64	83.6
70	8.83	10.22	59.6
100	5.03	5.90	45.3

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON CALGARY FORT ST JOHN

(Continued) "Page 2"

Socony Mobil Oil Of Canada Limited Laboratory Number: E24848

The analysis was made on oil cleaned by centrifuging, thus excluding water and inorganic sediment.

The oil contained some high molecular weight substance (possibly wax) which had the tendency to segregate at the lower temperatures (approximately 30°F.). However the substance would dissolve in the oil at the higher temperatures.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON CALGARY FORT ST JOHN

Date Reported March 6, 1965 Laboratory Report Number: E25035

SOCONY MOBIL OIL OF CANADA LIMITED

Well: S.M.W.M. Chance YT G-8 Kind of Sample: Crude Oil

Field: (Wildcat), Yukon Territory Formation: Chance

Depths: 4547' - 4570'

Date Received: February 26, 1965 Date Sampled: Not Known

D.S.T. #12 (Straddle) Recovered 270 feet gas cut mud, 90 feet mud cut oil.

CRUDE OIL ANALYSIS

Specific Gravity 0.909 at 60/60°F.
A.P.I. Gravity: 24.2° at 60/60°F.

Total Sulfur 1.80% (by weight)

Pour Point: Below -30°F.

Viscosities:	Temp. °F.	Absolute Centipoises	Kinematic Centistokes	Saybolt Universal Seconds
	60	51.9	57.0	263.8
	70	39.1	43.2	200.3
	80	30.1	33.4	156.3
	100	19.2	21.4	103.8

There was insufficient sample for further analysis.

Remarks:

By U.O.P. Method 375, this crude has a characterization factor of 11.6.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON CALGARY - FORT ST JOHN

Date Reported: April 20, 1965 Laboratory Report Number: E.5341-1

SOCONY MOBIL OIL OF CANADA, LTD.

Well: Socony Mobil Western Minerals Chance YT G-8 Kind of Sample: Oil

Date Received: April 8, 1965 Date Sampled: Not Known

First Zone

CRUDE OIL ANALYSIS

Specific Gravity: 0.918 at 60/60°F.
A.P.I. Gravity: 22.6° at 60/60°F.

Total Sulfur: 1.87% (by weight)

Pour Point: below -25°F.

Conradson Carbon: 5.33% (by weight)

Viscosities

Temp. °F.	Absolute Centipoises	Kinematic Centistokes	Saybolt Universal Seconds
60	59.2	64.5	299.
70	44.6	48.8	226.
90	26.4	29.1	137.

Remarks:

On the basis of the A.P.I. Gravity and the gasoline content (410 - 425°F., E.P.), this crude is of a Naphthene base type.

HEMPEL DISTILLATION

Barometric Pressure: 714.2 mm. Mercury
Room Temperature: 76°F.

% Distilled	Temp. °F.
I.B.P.	94
5	280
10	354
15	391
20	422
25	450
30	480
35	517
40	553
Cracked at	562

Distillation Summary

400°F. Naphtha	16.5%
525°F. Kerosine	19.6%

There were 4 samples received from the first zone. Each of the samples was emulsified with approximately 5% water. The water was removed before analysis of the oil was made.

Gravities were determined on the 4 samples and the "complete" analysis was made on all the samples combined. The gravities of the samples are:

Specific Gravity	A.P.I. Gravity
0.915	23.1
0.916	23.0
0.916	23.0
0.920	22.3

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON CALGARY FORT ST JOHN

Date Reported: April 20, 1965 Laboratory Report Number: E25341-2

SOCONY MOBIL OIL OF CANADA, LTD.

Well: Socony Mobil Western Minerals Chance YT G-8 Kind of Sample: Oil

Date Received: April 8, 1965 Date Sampled: Not Known

Second Zone

CRUDE OIL ANALYSIS

Specific Gravity: 0.860 at 60/60°F.
A.P.I. Gravity: 33.0° at 60/60°F.

Total Sulfur: 1.17% (by weight)

Pour Point: +15°F.

Conradson Carbon: 2.72% (by weight)

Viscosities

Temp. °F.	Absolute Centipoises	Kinematic Centistokes	Saybolt Universal Seconds
30	18.5	21.3	103.
50	11.0	12.7	68.5
70	7.18	8.39	53.3

Remarks:

On the basis of the A.P.I. Gravity and the gasoline content (410 - 425°F., E.P.), this crude is of a mixed base type, but is predominantly naphthenic.

HEMPEL DISTILLATION

Barometric Pressure: 700.6 mm. Mercury
Room Temperature: 77°F.

% Distilled	Temp. °F.
I.B.P.	83
5	168
10	220
15	258
20	297
25	340
30	391
35	441
40	489
45	530
50	570
55	603
Cracked at	605

Distillation Summary

400°F. Naphtha	30.5%
525°F. Kerosine	13.9%

CORE ANALYSIS REPORT

FOR

SOCONY MOBIL OIL OF CANADA, LTD.

S.M.W.M. CHANCE YT G-8

WILDCAT (EAGLE PLAINS AREA)

YUKON TERRITORIES

CORE LABORATORIES - Canada Ltd.

Petroleum Reservoir Engineering

CALGARY, CANADA

CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

Company - SOCONY MOBIL OIL OF CANADA, LTD.
Well - S.M.W.M. Chance YT G-8
Field - WILDCAT, EAGLE PLAINS AREA, YUKON TERRITORY
Location -

Date Report - FEBRUARY 22, 1965
Formation - -
D. Fluid - WATER BASE MUD
Analysis - ROUTINE CONVENTIONAL

File - CNP-4-2674
Analysts - JA RY SS
Remarks - DIAMOND CORES

SAMPLE NUMBER	DEPTH REPRESENTED FEET	FOOTAGE REPRESENTED	PERMEABILITY MILLIDARCYS	POROSITY PER CENT	POROSITY X FEET	RESIDUAL SATURATION OIL % PORE	RESIDUAL SATURATION TOTAL WATER % PORE	VISUAL EXAMINATION
CORE NO. 4 4263' - 4273' (Rec. 9.7')								
1	4263.0-4264.0	1.0	1.9	10.8	10.80	-	-	Coarse sand, limy
2	4264.0-4265.0	1.0	1.7	10.2	10.20	-	-	Coarse sand, limy
3	4265.0-4266.1	1.1	2.0	10.5	11.55	-	-	Coarse sand, limy
4	4266.1-4267.2	1.1	1.2	9.9	10.89	-	-	Medium sand, limy
5	4267.2-4267.9	0.7	1.5	9.0	6.30	-	-	Medium sand, limy
6	4267.9-4268.9	1.0	18.	11.0	11.00	-	-	Coarse sand, limy
7	4268.9-4270.0	1.1	5.8	10.4	11.44	-	-	Coarse sand, limy
8	4270.0-4271.0	1.0	2.1	9.3	9.30	-	-	Coarse sand, limy
9	4271.0-4272.3	1.3	2.8	9.8	12.74	-	-	Coarse sand, limy
-	4272.3-4273.0	0.7	-	-	-	-	-	Lost or not received
CORE NO. 5 4397' - 4407' (Rec. 8.8')								
10	4397.0-4398.2	1.2	28.	13.2	15.84	8.1	8.1	Medium sand, limy
11	4398.2-4399.3	1.1	27.	13.2	14.52	8.5	7.3	Medium sand, limy
12	4399.3-4400.4	1.1	1.6	11.2	12.32	11.3	15.5	Medium sand, limy
13	4400.4-4401.5	1.1	2.4	11.0	12.10	7.5	11.9	Medium sand, limy
14	4401.5-4402.6	1.1	0.3	8.4	9.24	9.2	29.6	Medium sand, limy
15	4402.6-4403.9	1.3	0.2	7.3	9.49	9.1	36.3	Medium sand, limy
16	4403.9-4404.9	1.0	<0.1	3.1	3.10	22.1	27.8	Medium sand, limy
17	4404.9-4405.7	0.8	0.2	2.0	1.60	35.7	14.3	Fine sand, limy
-	4405.7-4405.8	0.1	-	-	-	-	-	Dense, shaly
-	4405.8-4407.0	1.2	-	-	-	-	-	Lost core

CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

SOCONY MOBIL OIL OF CANADA, LTD.
S.M.W.M. CHANCE YT G-8

SAMPLE NUMBER	DEPTH REPRESENTED FEET	FOOTAGE REPRESENTED	PERMEABILITY MILLIDARCYS	POROSITY PER CENT	POROSITY X FEET	RESIDUAL SATURATION OIL % PORE	RESIDUAL SATURATION TOTAL WATER % PORE	VISUAL EXAMINATION
CORE NO. 6 4542' - 4562' (Rec. 20.0')								
-	4542.0-4551.5	9.5	-	-	-	-	-	Not received
18	4551.5-4552.5	1.0	0.3	2.3	2.30	0.0	19.1	Fine sand, limy
19	4552.5-4553.4	0.9	0.1	1.7	1.53	0.0	23.5	Coarse sand, limy
20	4553.4-4554.3	0.9	91.	9.9	8.91	31.2	10.8	Coarse sand, slightly limy
21	4554.3-4555.2	0.9	17.	8.4	7.56	36.6	8.9	Coarse sand, slightly limy
22	4555.2-4556.1	0.9	1.5	5.6	5.04	36.1	16.0	Coarse sand, slightly limy
-	4556.1-4556.4	0.3	-	-	-	-	-	Dense
-	4556.4-4562.0	5.6	-	-	-	-	-	Not received

Tests were made on one sample from each core to determine effect of pyrobitumen solubility, if any, on porosity.

The tests on Cores 4 and 5 indicate that the pyrobitumen solubility effect on porosity of core handled routinely is negligible. There is a slight increase in porosity after a greatly prolonged exposure to solvents.

No conclusive results were obtained on Core No. 6 due to the heavy oil staining.

Since the content of bituminous material of these cores is comparatively low, the above conclusions may not be valid for other cores or wells in this area.

CORE LABORATORIES- NADA LTD.
CALGARY ALBERTA

DATA TO BE REPORTED ON FINAL REPORTS R MOBIL OIL OF CANADA, LTD.

1. Address of laboratory making analysis 2425 - 2A Street S.E., Calgary, Alberta

2. Type of coring fluid used Water Base

3. Diameter of core received by laboratory 3-1/2"

4. Method used to preserve core prior to analysis Nil

5. Sample dimensions (if plugs and full diameter samples are used in the analysis, give dimensions of both)

Drilled plugs 1" diameter x 2" long

6. Cleaning and handling procedures (on full cores, should note whether sample ends were faced, extraction solvents used, and whether damaged surface of large cores was removed by sand blasting prior to permeability measurement)

Toluene extraction

7 Method used for fluid saturation determinations or calculations

Conventional Retort

8. Corrections (oil density factor, salinity corrections, etc.) applied to liquid volumes obtained in Item 7. Nil

9. Equipmert used for measuring permeability (Hassler cell, tapered stopper etc.)

Hassler Holder

10. Procedure for measuring porosity. Should include whether pore volume was measured directly or calculated

Direct Pore Volume measurement by gas expansion

11. Correction for gas permeability for slippage (Klinkenberg), if made: Nil

Well Name S.M.W.M. Chance YT G-8 Date Report Feb. 22, 1965

File No. CNP-4-2674 Analysts JA RY SS

SOCONY MOBIL WESTERN MINERALS CHANCE YT C-8

The following is a precise as given us by telephone this afternoon by the Calgary Office of Socony Mobil Oil of Canada Ltd. which has not received the full details from Dawson Creek.

March 25 — Acid washed with 6 bbls. of 15% HCl
Swabbed in and well blew gas at 200 Mcf/d with heavy oil spray

March 26 — Tubing head pressure 600 psi. Production first half-hour - 30 bbls. Production secind half-hour - 5 bbls. then died. Shut in overnight.

March 27 — Tubing head pressure 150. Average production rate of 5 bbls. per hr. API 33.5 @ 60°F. decreased to 32.9 @ 60°F. Shut in.

March 28 — Average API 32 @ 60°F. Found fluid level at 3700'. Total cumulative production of 88.2.

March 29 — Average rate for 11 hrs. - 4 bbls. per hr.

March 30 — Average rate - 2.4 bbls. per hr.

March 31 — Average for 8 hrs. 1.5 bbls. per hr. of 33 API. During tests gas flow too small to measure. Pitot tube reading less than 20 Mcf/d

SCCONY MOBIL WESTERN MINERALS CHANCE YT G-8

TOTAL DEPTH 5,181' - testing. PBD 4,850'

March 16 Rigging up line truck. Johnson plug at 4650' with 2 sacks cement on plug. Perforated 1 jet per ft. @

4554' - 4557'	4576' - 4578'	4481' - 4483'
4535' - 4540'	4489' - 4493'	4474' - 4477'

March 17 Ran tubing - Johnson 101 packer 4 jts. off bottom - landed at 4560'. Acid washed with 5½ bbls. 15% HCl with acid feeding slowly and squeezed 4 bbls. at a maximum rate of 1/3 bbl. per min. at 1200 psi. Rigged up to swab.

March 18 Tubing pressure 1100 psi. Opened up well with gas flow and heavy water spray. Died in 1½ hrs. No measurements available because of water content. Shut in for ½ hr. Tubing pressure rose to 180 psi. Opened well to atmosphere, zero tubing head pressure. Flow rate 80 to 100 Mcf/d - no fluid recovery. Shut in well and squeezed 675 bbls. of 15% HCl at average feed rate of ½ bbl. per min. to maximum pressure of 1200 psi. Swabbed well and unloaded water and spent acid. Gas flow rate at 100 Mcf/d at zero tubing head pressure.

March 19 After 2 hrs. flowing tubing head pressure 0 rate 20 Mcf/d. After 10 hrs. 0 tubing head pressure - rate 20 Mcf/d with slight oil spray. After 18 hrs. tubing head pressure zero - rate 20 Mcf/d - no fluid. Tagged fluid level with sand line at 3800' and pulled swab from 4500'. Recovered ½ bbl. of heavy oil cut water. Gas rate flow following sway 20 Mcf/d and zero tubing head pressure.

March 20 After 32 hrs. producing tagged fluid level at 3500'. Swabbed to 4500'. Recovered small quantity of oil, cut with 3% water. Gravity measured 14.5 API. Gas rate stable at 15-20 Mcf/d. After 39 hrs. producing fluid level at 4200'. Swabbed 1 to 1½ bbls. of clean dead crude 0% mud. API 10.3 at 26°F. Well kicked out 3/4 dead crude and died. Gas rate 15 to 20 Mcf/d.

March 21 After 56 hrs. tagged fluid level at 4200'. Pulled swab - no recovery. Swab cups failed. Gas blow steady at 15 to 20 Mcf/d.

March 22 Killed well with water and pulled tubing. Ran Johnson bridge plug on wire line and set at 4470' with 2 sacks cement plug on top.

March 23 Perforated following intervals with 3 5/8" casing gun with 1 jet shot per ft. 4422' - 4456' and 4393' - 4404'. Re-running tubing with Johnson 101 packer and cross-bar collar on bottom.

March 24 Ran tubing and headed up. Waiting on cement.

SUCONY MOBIL WESTERN [illegible] CHANCE YT G-8

February 18, 1965

TOTAL DEPTH - 5,181' - waiting to move in service rig.

D.S.T. #17 - 5022' - 5047'. BHT Permo-Pennsylvanian Alder. GTS in 2 mins. est. at 150 Mcf/d decreasing to T.T.S. immediately Recovered 200' mud. and 1500' gassy sulphurous salt water

I.C.I. 30 mins. V.O. 90 mins. F.S.I. 60 mins.

I.S.I.P.	failed
F.S.I.P.	2000 - still rising
I.F.P.	500
F.F.P.	810
I.H.P.	2380
F.H.P.	2380

2nd Run of LOGS - I.E.L.
S.G.R.-C.
CNL-C

Bottom hole plug 5181' - 4850', cemented with 67 sacks.

RIG RELEASED 18th February 1965

FINAL REPORT

SOCONY MOBIL WESTERN MINERALS CHANCE YT G-8

February 17, 1965

Depth 5,161' - possibly testing

CORE #7 - 5020' - 5022'. Recovered 1.7'.

DST #16 - 4906' - 5022'. Permo-Pennsylvanian Alder BHT. Recovered 630' of filtrate gas cut mud.

I.S.I. 30 mins. V.O. 45 mins. F.S.I. 60 mins. Gas to surface in 4 mins. at rate TSTM

I.S.I.P.	2010
F.S.I.P.	2075 rising
I.F.P.	200
F.F.P.	310
I.H.P.	2350
F.H.P.	2330

SOCONY MOBIL WESTERN MINERALS CHANCELLOR G-8

February 10, 1965

Depth 5,025' - drilling

DST #13 - 4650' - 4705'. Straddle Test - Permo-Pennsylvanian Alder. Recovered 410' gassy mud. GTS in 8 mins. @ 857 Mcf/d decreasing steadily to 310 Mcf/d in 60 mins.

I.S.I. 30 mins. V.O. 60 mins. F.S.I. 120 mins.

I.S.I.P.	Failed
F.S.I.P.	"
I.F.P.	300
F.F.P.	190
I.H.P.	2425
F.H.P.	2380

DST #14 - 4708' - 4797'. Straddle Test - Permo-Pennsylvanian Alder. Rec. 4670' gas cut sulphurous oil flecked salt water (16300 PPM). GTS in 8 mins. TSTM, salt water to surface in55 mins.

I.S.I. 41 mins. V.O. 80 mins. F.S.I. 319 mins.

I.S.I.P.	2100
F.S.I.P.	2070
I.F.P.	1190
F.F.P.	2000
I.H.P.	2500
F.H.P.	2450

DST #15 - 4797' - 4944'. BHT - Permo-Pennsylvanian Alder. Recovered 340' gassy, black sulphurous mud.

I.S.I. 30 mins. V.O. 60 mins. F.S.I. 120 mins.

I.S.I.P.	2110
F.S.I.P.	2110
I.F.P.	195
F.F.P.	420
I.H.P.	2452
H.H.P.	2452

SOCONY MOBIL WESTERN MINERALS CHANCE YT C-8

7" casing cemented @ 4917.49' K.B. with 420 sacks cement.

LOGS RUN - Dipmeter
Velocity Survey

SOCONY MOBIL WESTERN MINERALS CHANCE YT G-8

February 3, 1965 — Depth 4,944' - completed logging and preparing to resume drilling

LOGS RUN - I.E.S.
M.L.C.
S.G.R.

DST #12 - 4547' - 4570'. Straddle Test - Permo-Pennsylvanian Chance sand Recovered 270' gas cut mud, 30' mud cut oil, 60' oil. GTS in 25 mins. 150 Mcf/d, remaining steady throughout.

I.S.I. 30 mins. V.O. 60 mins. F.S.I. 120 mins.

I.S.I.P.	Failed
F.S.I.P.	1875 (still rising)
I.F.P.	210
F.F.P.	190
I.H.P.	2375
F.H.P.	2350

SOCONY MOBIL WESTERN MINERALS CHANCE YT G-8

January 27, 1965 Depth 4,752' - drilling

DST #10 - 4413' - 4525'. BHT Permo-Pennsylvanian Chance Sand. Recovered 410' oil and 100' mud cut oil. Strong air blow decreasing to fair air blow and died in 40 mins. Oil to surface in 46 mins. Flowed for 22 mins.

I.S.I. 90 mins. V.O. 68 mins. F.S.I. 60 mins.

I.S.I.P.	2000	
F.S.I.P.	1950	
I.F.P.	500	
F.F.P.	700	Maximum flow 850
I.H.P.	2250	
F.H.P.	2240	

DST #11 - 4525' - 4542'. BHT Permo-Pennsylvanian Chance Sand. No recovery. Gas to surface immediately at 162 Mcf per day decreasing to rate too small to measure in 10 mins. and remaining steady.

I.S.I. 30 mins. V.O. 60 mins. F.S.I. 90 mins.

I.S.I.P.	2000
F.S.I.P.	1900
I.F.P.	90
F.F.P.	40
I.H.P.	2270
F.H.P.	2250

DST #12 run on 25th January but results not available.

CORE #6 - 4542' - 4562'. Recovered 19.5'.

SOCONY MOBIL WESTERN MINERALS CHANCE YT G-8

January 20, 1965 — Depth 4,525' - drilling.

DST #5 - 4230' - 4273'. Recovered 160' gas cut mud. Gas to surface in 7 mins. Too small to measure.

V.O. 60 mins. I.S.I. 30 mins. F.S.I. 120 mins.

I.S.I.P.	Failed
F.S.I.P.	1330
I.F.P.	110
F.F.P.	100
I.H.P.	2140
F.H.P.	2140

DST #6 - 4375' - 4397'. Bottom Hole Test. Gas to surface in 3 mins. TSTM. Recovered 1180' of oil.

V.O. 60 mins. I.S.I. 30 mins. F.S.I. 120 mins.

I.S.I.P.	1700
F.S.I.P.	1650
I.F.P.	600
F.F.P.	500
I.H.P.	2010
F.H.P.	1850

DST #7 - 4273' - 4275'. Straddle Test. Pennsylvanian Chance Sand. Recovered 50' slightly gas cut mud.

V.O. 60 mins. I.S.I. 30 mins. F.S.I. 120 mins.

I.S.I.P.	800
F.S.I.P.	1110
I.F.P.	100
F.F.P.	75
I.H.P.	2200
F.H.P.	2150

DST #8 - 4397' - 4407'. Misrun.

SOCONY MOBIL WESTERN MINERALS CHANCELLOR #1-8

DST #9 - 4397' - 4417'. Bottom Hole Test. Gas to surface. TSTM. Recovered 140' slightly muddy gas cut oil.

V.O. 60 mins. I.S.I. 30 mins. F.S.I. 120 mins.

I.S.I.P.	1910
F.S.I.P.	1980
I.F.P.	10
F.F.P.	100
I.H.P.	2200
F.H.P.	2150

CORE #5 - 4397' - 4407'. Recovered 8.8' sandstone, light grey to buff brown, salt and pepper. Top 5' porous. 10% at top decreasing to 3% at base oil stained.
Bleeding oil from 4400' to 4402'.
Bottom 3.8' sandstone, calcite cemented. Tight.

SOCONY MOBIL WESTERN TRIALS CHANCE YT G-8

January 13, 1965

Depth 4,342' - drilling in Chance member

CORE #3 - 3930' - 3960'. Recovered 30'
CORE #4 - 4263' - 4273'. " 9.7'

DST #3 - 3920' - 3960'. Recovered 170' gas cut mud. No gas.

V.O.	60 mins.
I.S.I.	30 "
F.S.I.	120 "
I.S.I.P.	580
F.S.I.P.	810
I.F.P.	125
F.F.P.	140
I.H.P.	2070
F.H.P.	2030

DST #4 - 4251' - 4263'. Recovered 75' sulphurous gas cut mud.

Gas to surface in 54 mins. too small to measure.

Tool plugged. Misrun.

SOCONY MOBIL WESTERN MINERALS CHANCE YT G-8

January 6, 1965 Depth 4,090' - drilling

CORE #2 - 3610' - 3620'.
Recovered 10'.

SOCONY MOBIL WESTERN MINERALS CHANCE YT G-8

December 16, 1964 Depth 866' - Tripping for bit

9 5/8" surface casing landed at 810' K.B. Cemented with 365 sacks cement + 3% $CaCl_2$

Note: The temperature, at the well, on the 15th December was 65° below zero with a 50 mile an hour wind.

SOCONY MOBIL WESTERN INTERNATIONAL CHANCE YT C-8

December 29, 1964 Depth 3,620' - drilling.

DST #1 - 2210-2260'. Rec. 2' mud. GTS in 2 mins. @ 824 Mcf/d increasing to 3370 Mcf/d after 255 mins., decreasing to 2820 Mcf/d after 270 mins. Mud spray from 25 - 180 mins.

V.O.	270 mins.
I.S.I.	30 "
F.S.I.	30 "
I.S.I.P.	780
F.S.I.P.	710
I.F.P.	240
F.F.P.	410
H.P.	1110

DST #2 - 2270-2330'. Rec. 180' mud. GTS in 12 mins. TSTM.

V.O.	60 mins.
I.S.I.	30 "
F.S.I.	90 "
I.S.I.P.	790
F.S.I.P.	840
I.F.P.	100
F.F.P.	135
I.H.P.	1330
F.H.P.	1320

CORE #1 - 2,283' - 2,324'. Rec. 41'.

SOCONY MOBIL WESTERN MINERALS CHANNEL YT G-8

December 22, 1964 — Depth 2,330' - coring or drilling

DST #1 - 2218' - 2260' (bottom hole test in Upper Blackie Sand)

No details of test available.

Gas to surface in 2 minutes.
824 Mcf/day increasing to
3.37 MMcf/day, decreasing to
2.82 MMcf/day after 270 minutes.

Recovered 3' mud.

No particulars of core received.

JOHNSTON TESTERS

TECHNICAL REPORT

JOHNSTON TESTERS

TECHNICAL REPORT

JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Alder	Zone Thickness			
Interval	5022	To	5047		5047
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	0730	hrs	Elevation	1006	ft
First Flow	5	Min	Shut in	30	Min
Second Flow	90	Min	Final Shut in	60	Min
Pulled Loose @	1311	Hrs	Out of Hole	1730	Hrs
Wt. Set on Packer	30,000	#	Pulled Loose Wt.		#

Remarks

Description of Blow During Test: Strong Blow. Gas to Surface in 2 Minutes, Decreasing, Almost Dead in 90 Minutes

GAS BLOW MEASUREMENTS

Measured with ____ ID Pipe or Est

Type of Instrument

Time	Size Choke	Reading Inches	Cubic Feet Day T. S. T. M.

FLUID RECOVERY

Was Test Reverse Circulated Yes ___ No X

Fluid Recovered Total 1700'

Description of Fluid Recovered 200' Gas Cut Drilling Fluid.
1500' Gas Cut, Filtrate Cut Salt Water.

Remarks: Test Satisfactory.

Recorder: A. Warden

Tester: D. Matson

District	Edmonton
Company	Socony Mobil Oil of Canada
Well	SMWM Chance YTG-8
Location	66°-7'-18.1"N-137°-30'-50.8"W
Formation	Alder DST#17
Interval	5022-5047
Drill Collar	

Ticket No.	C 3340
Address	P.O. Box 240, Dawson Creek, B. C.
Test No.	17
Field	Eagle Plains

8 - Dawson Creek

Elevation	1720 KB	1702 GL	
Bottom Hole Size		1/2"	
Rotary Kelly Bushing			
Packer			

TOOL SEQUENCE

Tool	Length	OD
Sub.	.85	4 3/4"
P.O. Sub.	.85	4 5/8"
Sub.	.75	4 3/4"
D.P. Sub.	1.00	5"
Shut in Tool	6.05	4 5/8"
Hyd. Tool	7.50	4 5/8"
Safety Jt.	1.75	4 5/8"
T.C. & Pkr.	6.15	4 5/8"
T.C. & Pkr.	5.80	4 5/8"
Total	30.70	
Stub	.80	4 5/8"
Perf.	5.00	4 5/8"
Recorder	5.90	4 7/8"
Recorder	5.90	4 7/8"
Perf.	5.00	4 5/8"
Perf. & B. N.	2.50	4 5/8"
Total Interval	25.10	
Total Length	55.80	

MUD AND HOLE DATA

Mud Type	Gel and Chem	Wt.	9.2
Mud Cake	2/32 Vis. 40	Wt.	9.0
Time Taken	0200 hrs.		
Contractor	Parker Drilling	Rig No.	10
Drill Pipe Size	3 1/2 IF		
Drill Collar Size	2" ID	Length	534'
Max. Hole Size	6 1/8"		
Right Hand Set			

February 12/65

17

Yukon

JOHNSTON TESTERS

Pressure Data

Test Ticket No C 3340

JTL-CD-5

Recorder No	T-52		T-49
Capacity P.S.I.G.	7000		7000
Recorder Depth	5028		5034
Pressure Gradient P.S.I. F.			
Well Temperature F	102°		102°
A Initial Hydrostatic	2321#		2339#
B First Initial Flow	271#		318#
C Initial Shut-In Pres	465#	FALSE	495#
D Flowing Pres	434#		483#
E Final Flow	822#		832#
F Final Shut In	1972#		1973#
G Final Hydrostatic	2327#		2358#

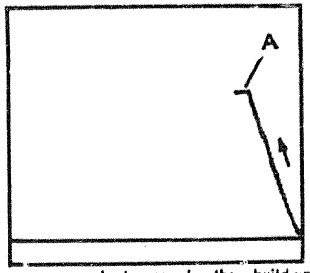
Remarks

T-52 - Outside Recorder

T-49 - Outside Recorder

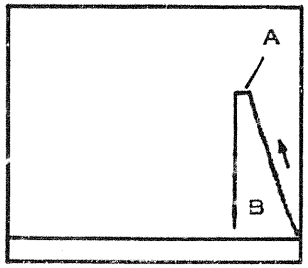
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



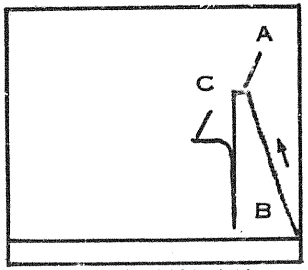
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



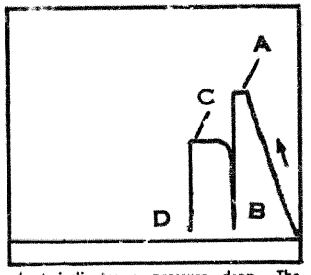
The packer is expanded and set to isolate the tort zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



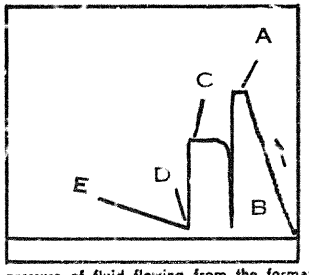
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



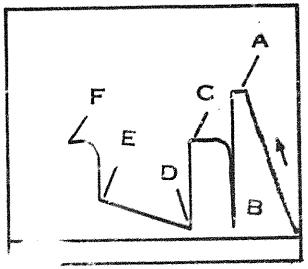
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



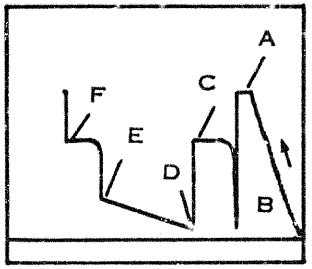
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



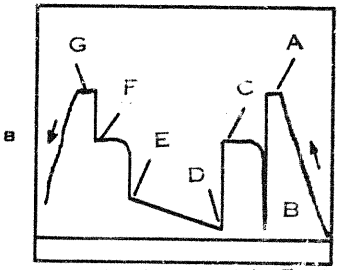
The shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

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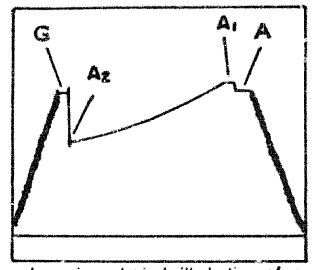
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z -- Special pressure points such as pumping pressure recorded for formation breakdown.

A



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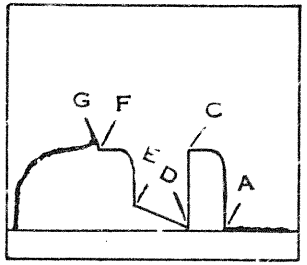

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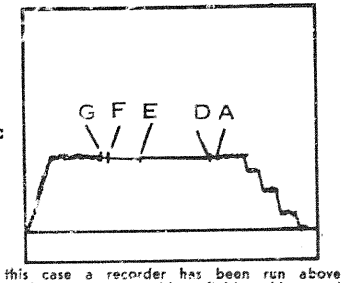

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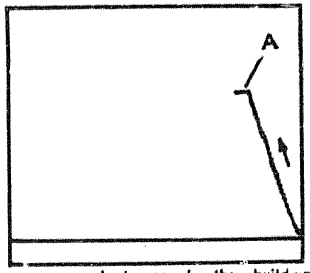

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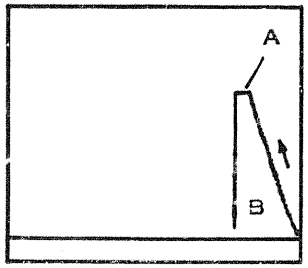

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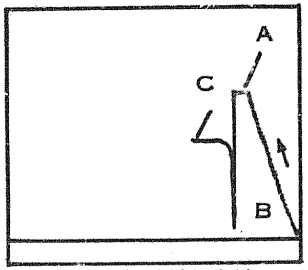

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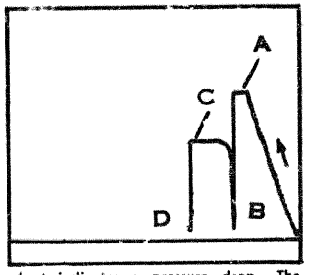

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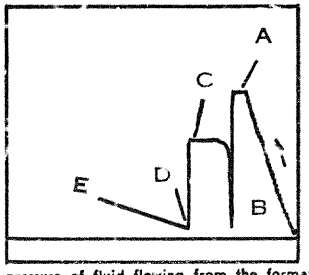

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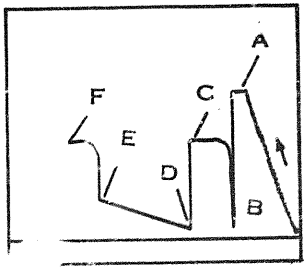

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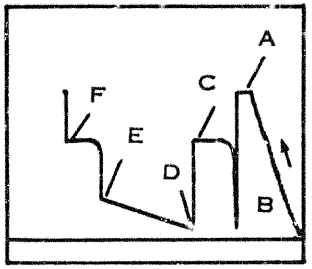

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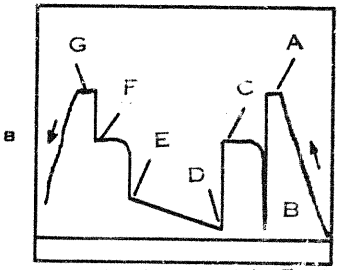

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D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
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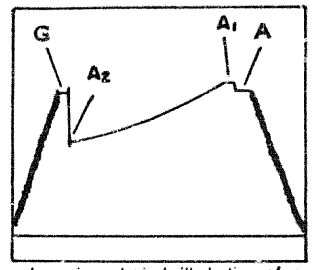

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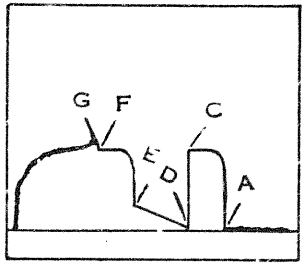

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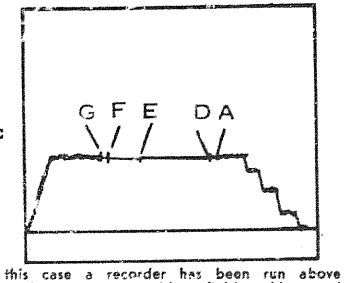


In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the column. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

JOHNSTON TESTERS

TECHNICAL REPORT

[redacted]

JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Tight Hole	Zone Thickness		Ft.	
Interval	4906	To	5022	I.D.	5022
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	0800	Hrs.	Tool Open	1036	Hrs.
First Flow	5	Min.	Shut In	30	Min.
Second Flow	45	Min.	Final Shut In	60	Min.
Pulled Loose @	1256	Hrs.	Out of Hole	1500	Hrs.
Wt. Set on Packer	30,000	#	Pulled Loose Wt.		#

Remarks

Description of Blow During Test: Good Blow, Decreasing to Weak Blow. Gas to Surface in 4 Minutes.

GAS BLOW MEASUREMENTS

Measured with: I.D. Riser or Est. ☐

Type of Instrument

Time	Sfce. Choke	Reading Inches	Cubic Feet Day
			T. S. T. M.

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered Total: 630' Ft.

Description of Fluid Recovered: 630' Filtrate Water Cut Gas Cut Drilling Fluid.

Remarks: Test Satisfactory.

Co. Rep.: A. Warden

Tester: D. Matson

Elevation: 1720 KB 1702 GL

Bottom Hole Choke Size: 1/2"

Fluid Cushion Type:

Amount

TOOL SEQUENCE

Tool	Length	O.D.
Sub.	.85	4 3/4"
P.O. Sub.	.85	4 5/8"
Sub.	.75	4 3/4"
Sub.	1.00	5"
Shut in Tool	6.05	4 5/8"
Hyd. Tool	7.50	4 5/8"
Safety Jt.	1.75	4 5/8"
T.C. & Pkr.	5.30	4 5/8"
Total	24.05	
Stub	.85	4 5/8"
Perf.	10.00	4 5/8"
Recorder	5.90	4 7/8"
Recorder	5.90	4 7/8"
Sub.	1.00	5"
D.C.	89.10	4 3/4"
Sub.	.95	4 15/16'
Perf. & B. N.	2.50	4 5/8"
Total Interval	116.20	
Total Length	140.25	

MUD AND HOLE DATA

Mud Type: Gel and Chem W.L. 9.2

Filter Cake 2/32 Visc. 38 Wt. 9.9

Time Taken: February 11, 1965 @ 0200 hrs.

Contractor: Parker Drilling Rig No. 10

Drill Pipe Size: 3 1/2 IF

Drill Collar Size: 2" ID Length 534'

Main Hole Size: 6 1/8"

Rat Hole Size:

District: Edmonton

Company: Socony Mobil Oil of Canada

Well Name: SMWM Chance YTG-8

Number: 66°-7'-18.1"N-137°-30'-50.8"W

Formation: Tight Hole DST#16

and Interval: 4906-5022

Distribution of Reports: 8 - Dawson Creek

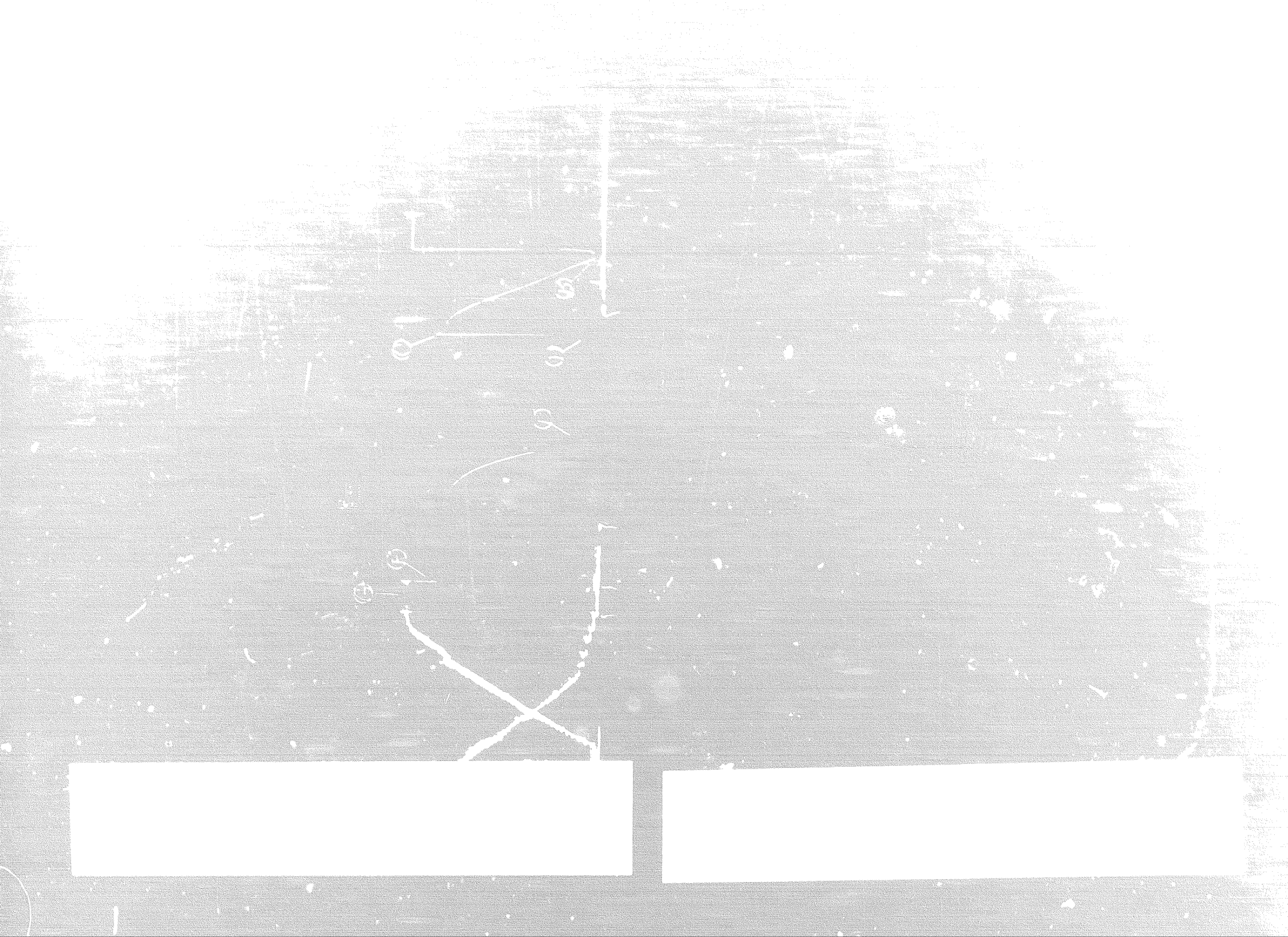
Ticket No. C 3339 Date February 11/65

Address: P.O. Box 240, Dawson Creek, B. C.

Test No. 16 J.T.L. Test No. 16

Field: Eagle Plains Province: Yukon

Consultant



JOHNSTON TESTERS

Pressure Data

Test Ticket No. C 3339

JTL-CD-5

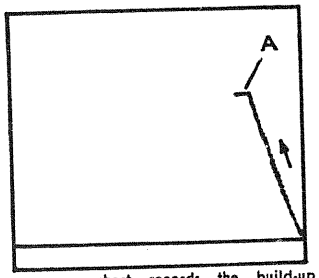
Recorder No.	T-49	T-52			
Capacity P.S.I.G.	7000	7000			
Recorder Depth	4917	4923			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F.	97°	97°			
A Initial Hydrostatic	2326#	2336#			
B First Initial Flow	144#				
C Initial Shut-In Pres.	1985#	CLOCK			
D Flowing Pres.	200#	STOPPED			
E Final Flow	316#				
F Final Shut-In	2033#				
G Final Hydrostatic	2326#	2336#			

Remarks

T-49 - Outside Recorder
T-52 - Outside Recorder

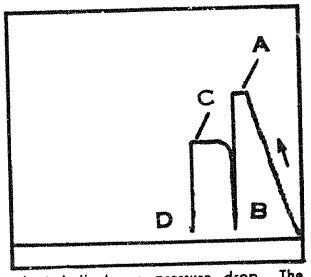
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



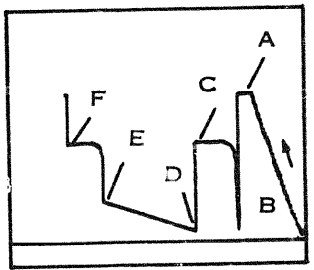
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

4



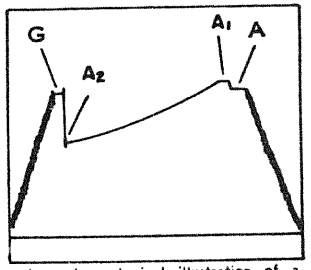
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

A



The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

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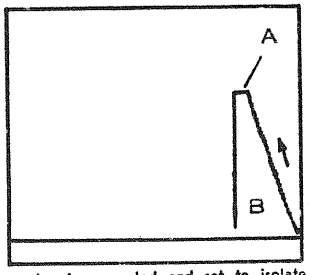
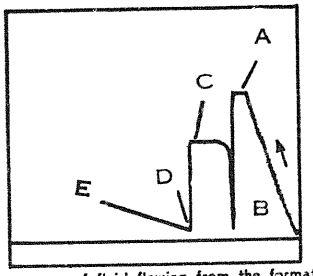


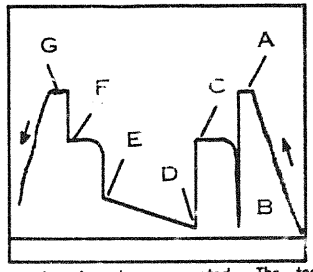
The packer is expanded and set to isolate the test zone. When the tast valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

5



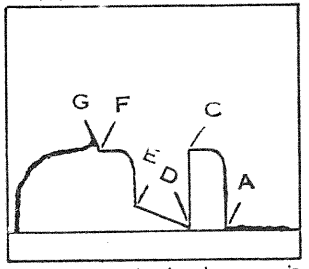
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

8



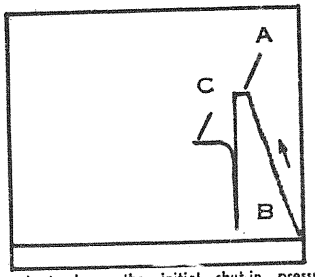
The packer has been unseated. The testing assembly is being removed from the hole.

B



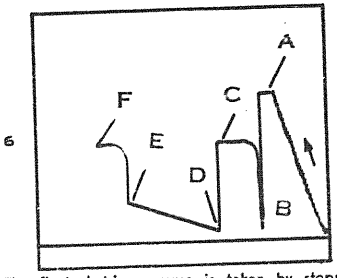
In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

3



This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

6



The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reser oir pressure has been reached.

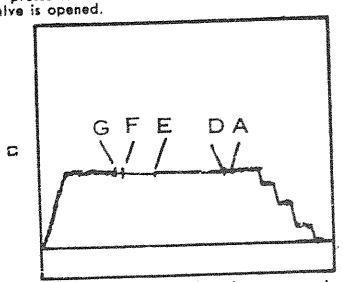
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

JOHNSTON TESTERS

TECHNICAL REPORT

JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Zone Thickness			Ft
Interval	4797 To	4944	T.D.	4944	
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	0900	Hrs.	Tool Open	1231	Hrs.
First Flow	5	Min.	Shut In	30	Min.
Second Flow	60	Min.	Final Shut In	120	Min.
Pulled Loose @	1606	Hrs.	Out of Hole	1830	Hrs.
Wt. Set on Packer	38,000	#	Pulled Loose Wt.	50,000	#

Remarks: Tool was Chased 14 Feet During Test Period.

Description of Blow During Test: Strong Blow, Decreasing Blow. Gas to Surface in 5 Minutes on 2" Riser.

GAS BLOW MEASUREMENTS

Measured with: I.D. Riser or Est. ☐

Type of Instrument:

Time	Sfce. Choke	Reading Inches	Cubic Feet Day
			T. S. T. M.

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered (Total): 740' Ft

Description of Fluid Recovered: 740' Gas Cut Sulphurous Drilling Fluid.

Remarks: Test Satisfactory. 14 Feet of Fill in Hole. Good Test. Has to Work Tool for Approximately 15 Minutes to Pull Loose.

Co. Rep.: A. Warden

Tester: D. Matson

Elevation: 1720 KB 1702 GL

Bottom Hole Choke Size: 1/2"

Fluid Cushion Type:

Amount:

TOOL SEQUENCE

Tool	Length	O.D.
Sub.	.70	6"
P.O. Sub.	.85	4 5/8"
Sub.	.70	6"
D.P. Sub.	.50	5 1/2"
Shut in Tool	6.05	4 5/8"
Hyd. Tool	7.50	4 5/8"
Safety Jt.	1.75	4 5/8"
T.C. & Pkr.	7.20	6 5/8"
T.C. & Pkr.	5.70	6 5/8"
Total	30.95	
Stub	1.40	4 5/8"
Perf.	9.00	4 5/8"
Recorder	5.90	4 7/8"
Recorder	5.90	4 7/8"
Sub.	.70	6"
D.P.	120.63	
Sub.	.70	6"
Perf. & B. N.	2.50	4 5/8"
Total Interval	146.73	
Total Length	177.68	

MUD AND HOLE DATA

Mud Type: Gel and Chem W.L. 5.1

Filter Cake 2/32 Visc. 85 Wt. 9.5

Time Taken: February 2 1965 @ 2200 hrs.

Contractor: Parker Drilling Rig No. 10

Drill Pipe Size: 4 1/2 XH

Drill Collar Size: 2 7/8 ID Length: 418'

Main Hole Size: 8 5/8"

Rat Hole Size:

District: Edmonton Ticket No. C 3337 Date: February 3/65

Company: Socony Mobil Oil of Canada Address: P.O. Box 240, Dawson Creek, B. C.

Well Name: SMWM Chance YTG-8 Test No. 15 J.T.L. Test No. 15

Number: 66°-7'-18.1"N-137°-30'-50.8"W Field: Eagle Plains Province: Yukon

Formation and Interval: Chance Sand DST#15 4797-4944 Consultant:

Distribution of Reports: 8 - Dawson Creek

JOHNSTON TESTERS

Pressure Data

Test Ticket No. C 3337

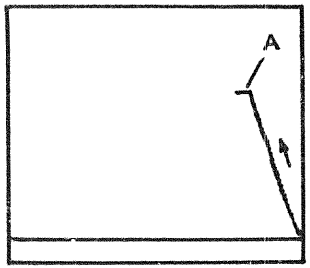
Recorder No.	T-49	T-52			
Capacity (P.S.I.G.)	7000	7000			
Recorder Depth	4807	4813			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F	98°	98°			
A Initial Hydrostatic	2450#	2450#			
B First Initial Flow	153#	162#			
C Initial Shut-In-Pres	2085#	2087#			
D Flowing Pres	192#	189#			
E Final Flow	414#	416#			
F Final Shut-In	2092#	2101#			
G Final Hydrostatic	2449#	2450#			

Remarks

T-49 - Outside Recorder
T-52 - Outside Recorder

GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



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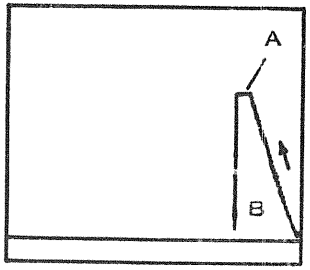

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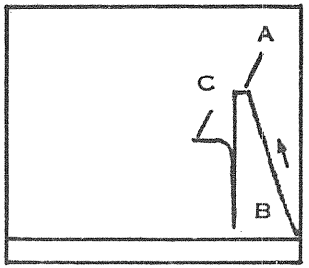

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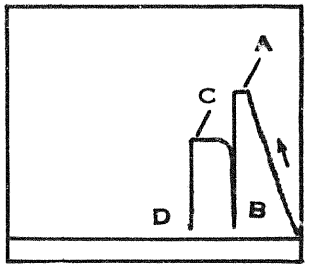

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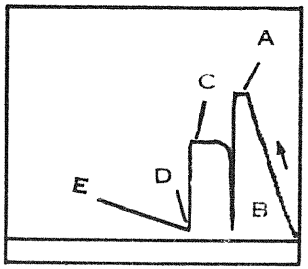

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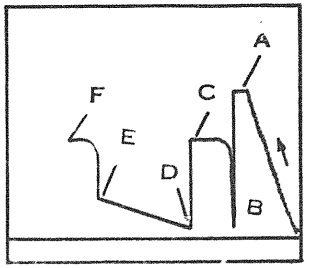

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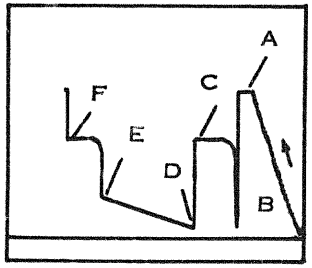

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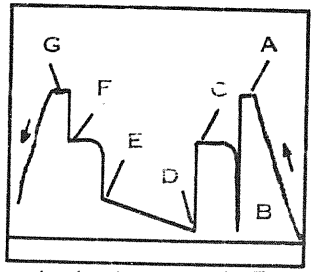

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E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
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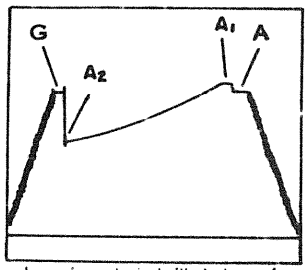

The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

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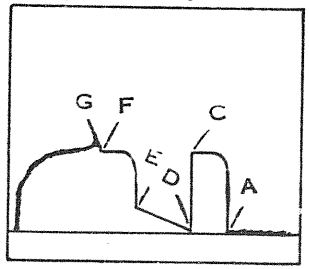
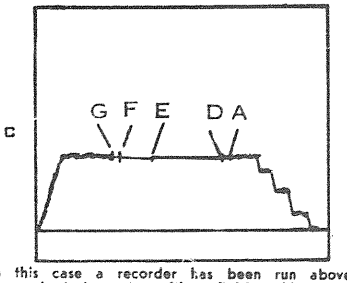


In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



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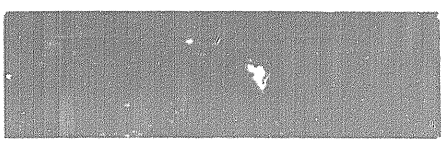
JOHNSTON TESTERS

TECHNICAL REPORT



JTL-CD 4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Zone Thickness		Ft	
Interval	4708	To	4797	T.D.	4944
Type of Test	Open Hole, Straddle, By-Pass				
Time Started in Hole	2200	Hrs.	Tool Open	0144	Hrs.
First Flow	6	Min.	Shut In	41	Min.
Second Flow	120	Min.	Final Shut In	279	Min.
Pulled Loose @	0910	Hrs.	Out of Hole	1400	Hrs.
Wt. Set on Packer	35,000	#	Pulled Loose Wt.	18,000	#

Remarks

Description of Blow During Test: Good Blow. Gas to Surface in 8 Minutes. Water to Surface in 55 Minutes.

GAS BLOW MEASUREMENTS

Measured with ____ I.D. Riser or Est. ☐

Type of Instrument

Time	Sfce. Choke	Reading Inches	Cubic Feet Day
			T. S. T. M.

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered (Total) 4670' Ft.

Description of Fluid Recovered: 4670' Black Sulphurous Salt Water (Oil Flecked) Black Sulphurous Salt Water to Surface in 55 Minutes.

Remarks: Test Satisfactory.

Co. Rep. A. Warden

Tester D. Matson

Elevation	1720 KB		1708 GL
Bottom Hole Choke Size	1/2"		
Fluid Cushion Type			
Amount			

TOOL SEQUENCE

Tool	Length	O.D.
D.P. Sub.	.50	5 1/2"
Shut in Tool	6.05	4 5/8"
Hyd. Tool	7.50	4 5/8"
Safety Jt.	1.75	4 5/8"
H. Sub.	.60	4 5/8"
T.C. & Pkr.	7.20	6 5/8"
T.C. & Pkr.	5.70	6 5/8"
Total	29.30	
Stub	1.40	4 5/8"
Perf.	7.00	4 5/8"
R. Sub.	.70	4 5/8"
Recorder	5.90	4 7/8"
Recorder	5.90	4 7/8"
Sub.	1.30	6"
D.P.	62.50	
Sub.	1.30	6"
T.C. & Stub	3.30	6 5/8"
Total Interval	89.30	
Pkr.	3.10	4 5/8"
T.C. & Packer	6.30	6 5/8"
Perf.	8.80	4 5/8"
Sub.	.70	6"
D.P.	124.90	
Sub.	.70	6"
Perf. & B. N.	2.50	4 5/8"
Total Below Intv.	147.00	
Total Length	265.60	

MUD AND HOLE DATA

Mud Type	Gel and Chem		W.L.	5.2	
Filter Cake	2/32	Visc.	84	Wt.	9.6

Time Taken: January 30, 1965 @ 0800 hrs.

Contractor: Parker Drilling Rig No. 10

Drill Pipe Size: 4 1/2 XH

Drill Collar Size: 2 7/8 ID Length: 418'

Main Hole Size: 8 5/8"

Rat Hole Size

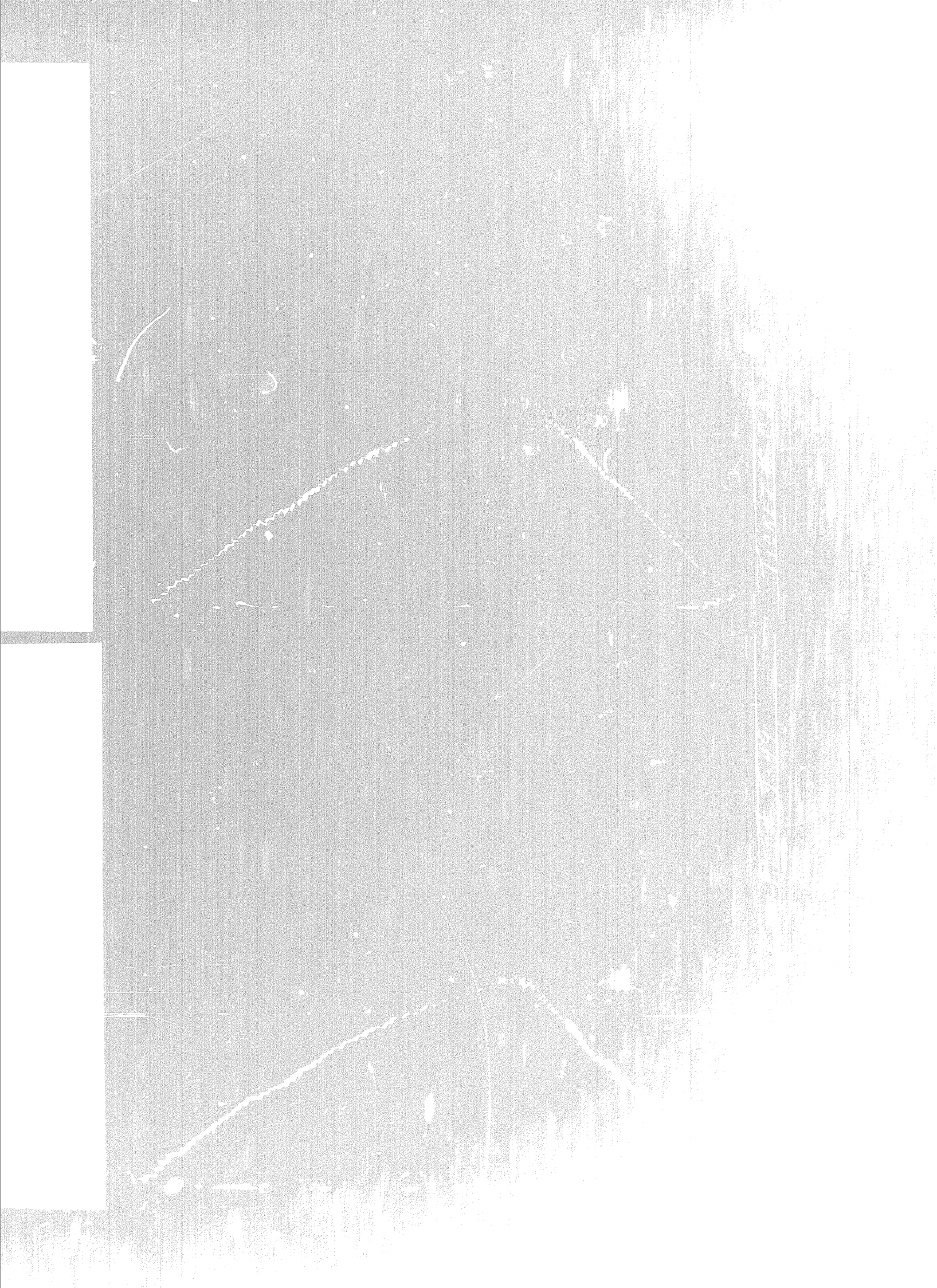
District	Edmonton	Ticket No.	C 3335
Company	Socony Mobil Oil of Canada	Address	P.O. Box 240, Dawson Creek, B. C.
Well Name	SMWM Chance YTG-8	Test No.	14
Number	66°-7'-18.1"N-137°-30'-50.8"W	Field	Eagle Plains
Formation	Chance Sand DST#14	Consultant	
and Interval	4708-4797		

Date: February 1/65

J.T.L. Test No. 14

Province: Yukon

Distribution of Reports: 8 - Dawson Creek



JOHNSTON TESTERS

Pressure Data

Test Ticket No C 3335

JTL-CD-5

Recorder No.	T-52	T-49			
Capacity (P.S.I.G.	7000	7000			
Recorder Depth	4717	4723			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F.	120° Est.	120° Est.			
A Initial Hydrostatic	2434#	2437#			
B First Initial Flow	1315#	1344#			
C Initial Shut-In-Pres	2057#	2057#			
D Flowing Pres	1123#	1147#			
E Final Flow	2047#	2050#			
F Final Shut-In	2057#	2057#			
G Final Hydrostatic	2428#	2428#			

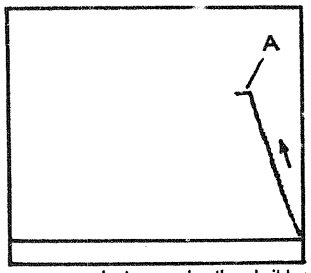
Remarks

T-52 - Outside Recorder

T-49 - Outside Recorder

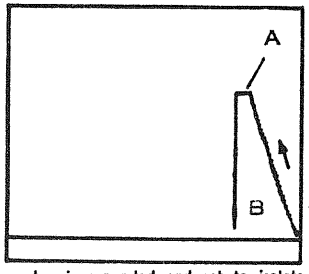
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



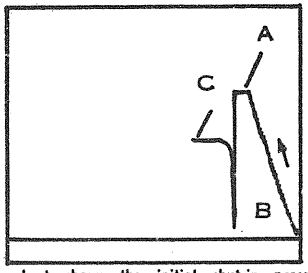
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



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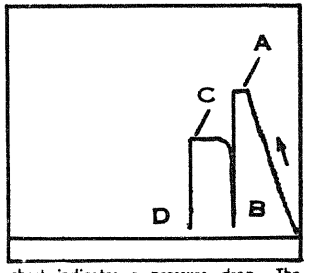
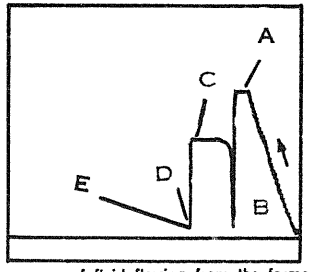
4



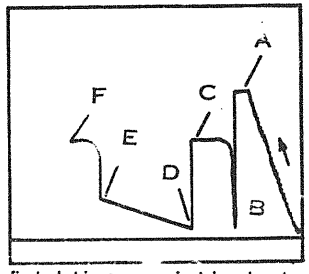
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



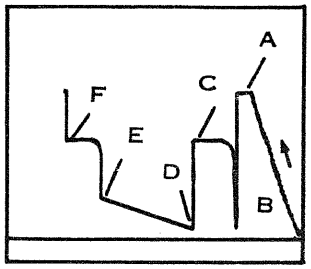
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



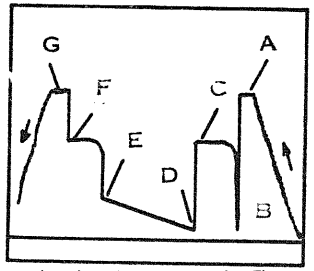
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

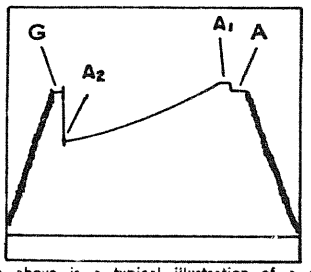
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

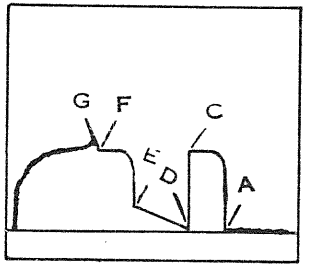
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



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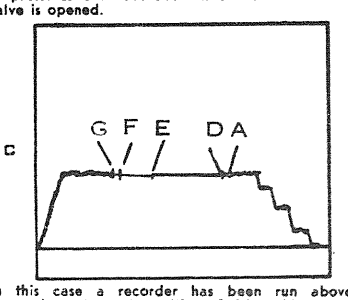

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JOHNSTON TESTERS

TECHNICAL REPORT

JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Zone Thickness		Ft.	
Interval	4650	To 4706	T.D.	4944	
Type of Test	Open Hole, Straddle, By-Pass				
Time Started in Hole	0800	Hrs.	Tool Open	1257	Hrs.
First Flow	5	Min.	Shut In	30	Min.
Second Flow	60	Min.	Final Shut In	120	Min.
Pulled Loose @	1632	Hrs.	Out of Hole	2100	Hrs.
Wt. Set on Packer	40,000	#	Pulled Loose Wt.		#

Remarks: Mud Dropped Approximately 40 Feet During Test Period.

Description of Blow During Test: Strong Blow. Gas to Surface in 8 Minutes.

GAS BLOW MEASUREMENTS

Measured with: 2" I.D. Riser or Est. ☐

Type of Instrument: Manometer

Side Static Mercury

Time	Stce. Choke	Reading Inches	M Cubic Feet Day
1345		2.8	857
1430		.37	310

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered Total: 450' Ft.

Description of Fluid Recovered: 450' Gassy Drilling Fluid.

Remarks: Mis-Run, Did not Obtain Shut-in Pressures.

Co. Rep.: A. Warden

Tester: D. Matson

Elevation: 1720 KB 1708 GL

Bottom Hole Choke Size: 1/2"

Fluid Cushion Type:

Amount:

TOOL SEQUENCE

Tool	Length	O.D.
D.P. Sub.	.50	5 1/2"
Shut in Tool	6.05	4 5/8"
Hyd. Tool	7.50	4 5/8"
Safety Jt.	1.75	4 5/8"
H. Sub.	.60	4 5/8"
T.C. & Pkr.	7.20	6 5/8"
T.C. & Pkr.	5.70	6 5/8"
Total	29.30	
Stub	1.40	4 5/8"
Perf.	5.00	4 5/8"
R. Sub.	.70	4 5/8"
Recorder	5.90	4 7/8"
Recorder	5.90	4 7/8"
Sub.	1.30	6"
D.P.	31.20	
Sub.	1.30	6"
T.C. & Stub	3.30	6 5/8"
Total Interval	56.00	
Pkr.	3.10	4 5/8"
T.C. & Packer	6.30	6 5/8"
Perf.	9.80	4 5/8"
Sub.	.70	6"
D.P.	215.60	
Sub.	.70	6"
Perf. & B. N.	2.50	4 5/8"
Total Below Intv.	238.70	
Total Length	324.00	

MUD AND HOLE DATA

Mud Type: Gel and Chem W.L. 5.2

Filter Cake 2/32 Visc. 84 Wt. 9.6

Time Taken: January 30, 1965 @ 0800 hrs.

Contractor: Parker Drilling Rig No. 10

Drill Pipe Siz: 4 1/2 XH

Drill Collar Size: 2 7/8 ID Length: 418'

Main Hole Size: 8 5/8"

Rat Hole Size:

District: Edmonton Ticket No. C 3334 Date: February 1/65

Company: Socony Mobil Oil of Canada Address: P.O. Box 240, Dawson Creek, B. C.

Well Name: SMWM Chance YTG-8 Test No. 13 J.T.L. Test No. 13

Number: 66°-7'-18.1"N-137°-30'-50.8"W Field: Eagle Plains Province: Yukon

Formation and Interval: Chance Sand DST#13 4650-4706 Consultant:

Distribution of Reports: 8 - Dawson Creek

JOHNSTON TESTERS

Pressure Data

Test Ticket No C 3334

JTL-CD-5

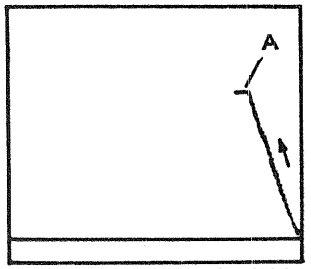
Recorder No	T-52		T-49					
Capacity P.S.I.G.	7000		7000					
Recorder Depth	4656		4662					
Pressure Gradient P.S.I. Ft.								
Well Temperature °F	92°		92°					
A Initial Hydrostatic	2412#		2418#					
B First Initial Flow	FALSE		FALSE					
C Initial Shut-In Pres	FALSE		FALSE					
D Flowing Pres	434#		464#					
E Final Flow	184#		211#					
F Final Shut-In	1374#	FALSE	1404#					
G Final Hydrostatic	2398#		2405#					

Remarks

T-52 - Outside Recorder
T-49 - Outside Recorder

GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

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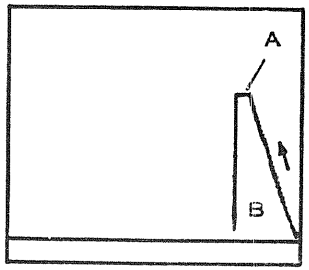

The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

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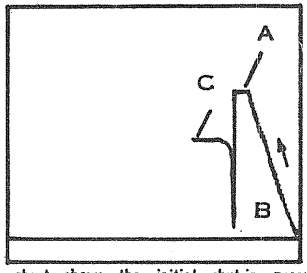

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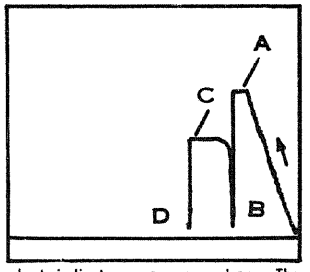

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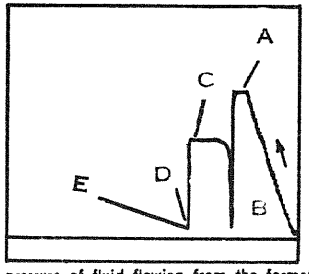

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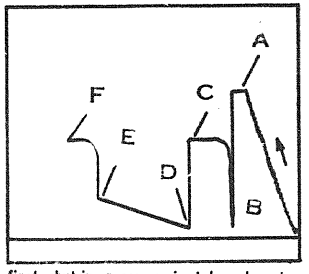

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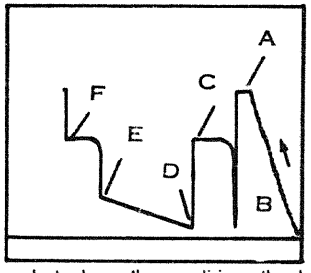

The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packe to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

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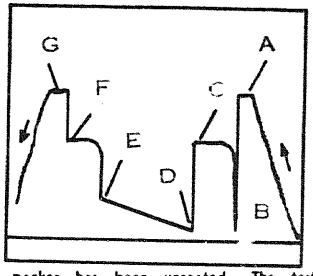

The packer has been unseated. The testing assembly is being removed from the hole

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G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
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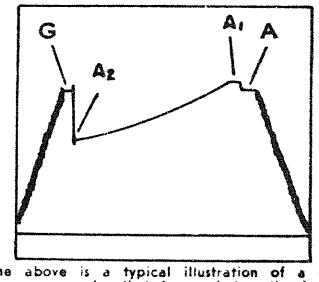

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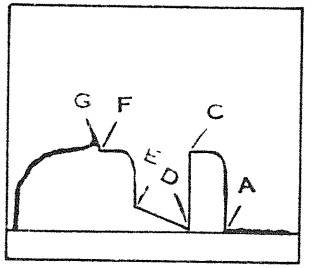
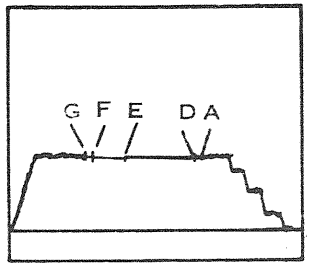


In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



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JOHNSTON TESTERS

TECHNICAL REPORT

[redacted]

JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Zone Thickness		Ft.	
Interval	4547 To 4570	T.D.	4670		
Type of Test	Open Hole, Straddle, By-Pass				
Time Started in Hole	0500 Hrs.	Tool Open	1007	Hrs.	
First Flow	8 Min.	Shut In	30	Min.	
Second Flow	60 Min.	Final Shut In	120	Min.	
Pulled Loose @	1345 Hrs.	Out of Hole	1900	Hrs.	
Wt. Set on Packer	50,000	# Pulled Loose Wt	10,000	#	

Remarks

Description of Blow During Test: Good Blow, Steady Throughout Test.

GAS BLOW MEASUREMENTS

Measured with I.D. Riser or Est. ☐

Type of Instrument: Mercury

Time	Sfce. Choke	Reading Inches	M Cubic Feet Day
1125		0.1	150
1140		0.1	150

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered Total: 360' Ft.

Description of Fluid Recovered: 270' Gas Cut Drilling Fluid.
90' Mud Cut Oil.

Remarks: Test Satisfactory.

Co. Rep. A. Warden

Tester D. Matson

Elevation	1720 KB	1708 GL			
Bottom Hole Choke Size	1/2"				
Fluid Cushion Type					
Amount					

TOOL SEQUENCE

Tool	Length	O.D.
D.P. Sub.	.50	5 1/2"
Shut in Tool	6.05	4 5/8"
Hyd. Tool	7.45	4 5/8"
Jars	4.15	4 5/8"
Safety Jt.	1.75	4 5/8"
H. Sub.	.80	4 5/8"
T.C. & Pkr.	7.10	6 5/8"
T.C. & Pkr.	5.80	6 5/8"
Total	33.60	
Stub	1.40	4 5/8"
Perf.	5.00	4 5/8"
R. Sub.	.70	4 5/8"
Recorder	5.90	4 7/8"
Recorder	5.90	4 7/8"
T.C. & Stub	3.50	6 5/8"
Total Interval	22.40	
Pkr.	2.80	
T.C. & Packer	6.30	6 5/8"
Perf.	25.40	4 5/8"
Sub.	.70	6"
D.P.	61.60	
Sub.	.70	6"
Perf. & B. N.	2.50	4 5/8"
Total Below Intv.	100.00	
Total Length	156.00	

MUD AND HOLE DATA

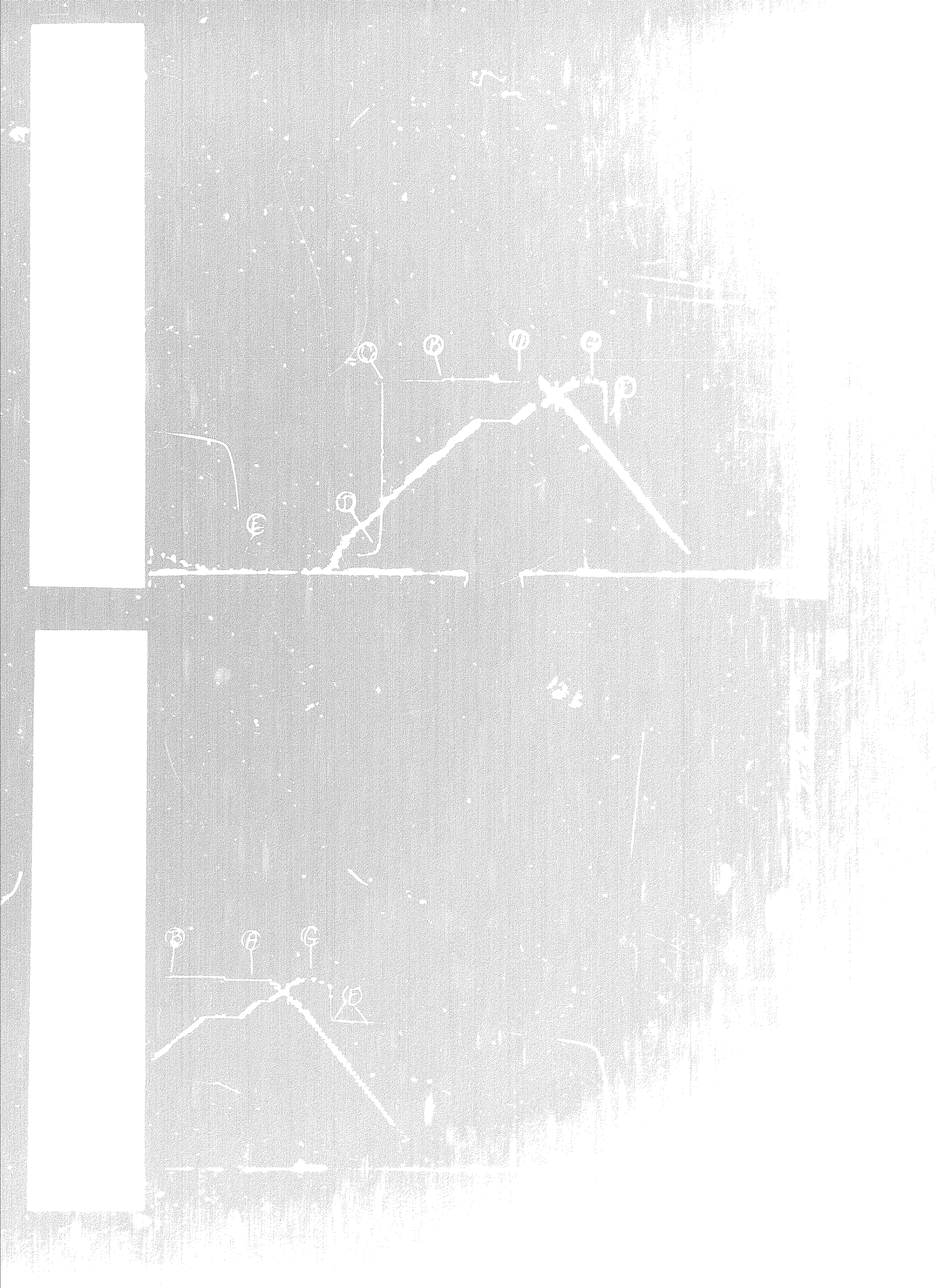
Mud Type	Gel and Chem	W.L.	4.8		
Filter Cake	2/32	Visc.	82	Wt.	9.4
Time Taken	0030 hrs.				
Contractor	Parker Drilling	Rig No.	10		
Drill Pipe Size	4 1/2 XH				
Drill Collar Size	2 7/8 ID	Length	518'		
Main Hole Size					
Rat Hole Size					

District	Edmonton	Ticket No.	C 3331
Company	Socony Mobil Oil of Canada	Address	P.O. Box 240, Dawson Creek, B. C.
Well Name	SMWM Chance YTG-8	Test No.	12
Number	66°-7'-18.1"N-137°-30'-50.8"W	Field	Wildcat
Formation and Interval	Chance Sand DST#12 4547-4570	Consultant	
Distribution of Reports	8 - Dawson Creek		

Date January 25/65

J.T.L. Test No. 12

Province Yukon



JOHNSTON TESTERS

Pressure Data

Test Ticket No. C 3331

JTL-CD-5

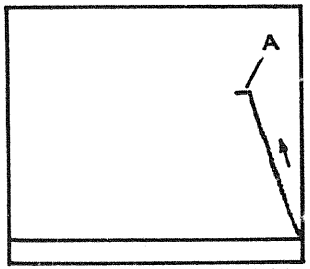
Recorder No.	T-52		T-49			
Capacity P.S.I.G.	7000		7000			
Recorder Depth	4555		4561			
Pressure Gradient P.S.I. Ft.						
Well Temperature °F.	90°		90°			
A Initial Hydrostatic	2356#		2373#			
B First Initial Flow	2360#	FALSE	2401#			
C Initial Shut-In-Pres.	2360#	FALSE	2401#			
D Flowing Pres.	320#		368#			
E Final Flow	190#		219#			
F Final Shut-In	1868#		1873#			
G Final Hydrostatic	2342#		2351#			

Remarks

T-52 - Outside Recorder
T-49 - Outside Recorder

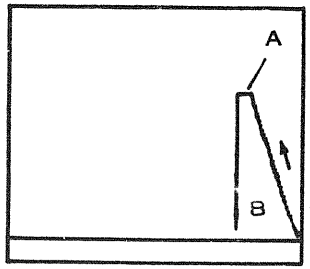
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



The pressure chart records the build-up in hydrostutic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



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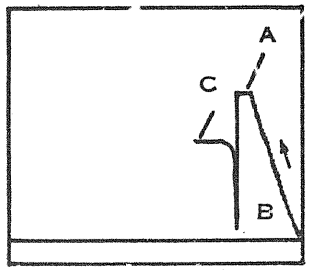
3



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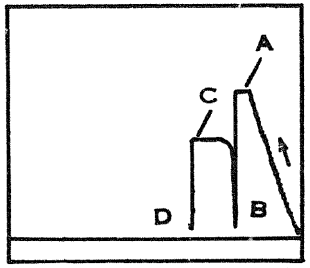
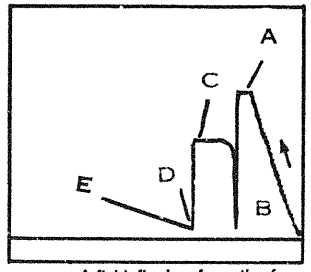
4



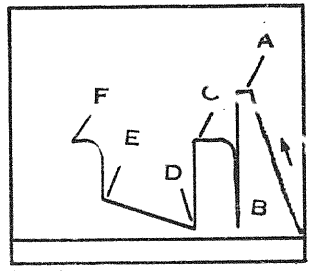
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



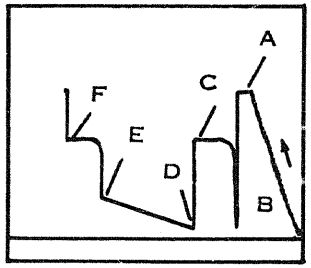
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



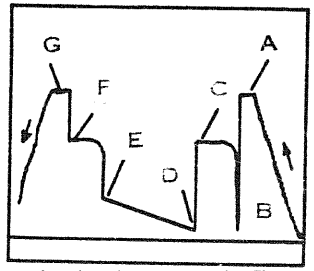
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
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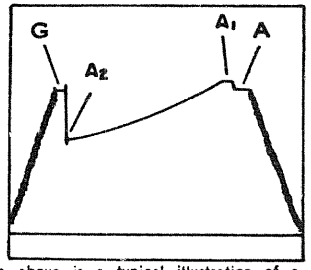
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

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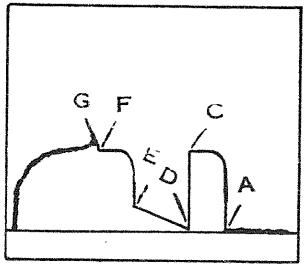

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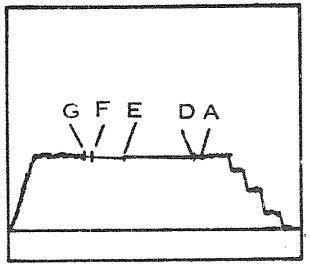

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JOHNSTON TESTERS

TECHNICAL REPORT

[redacted]

JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Zone Thickness	5	Ft.	
Interval	4525 To	4542 T.D.	4542		
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	0630 Hrs.	Tool Open	0917	Hrs.	
First Flow	5 Min.	Shut In	30	Min.	
Second Flow	60 Min.	Final Shut In	90	Min.	
Pulled Loose @	1222 Hrs.	Out of Hole	1500	Hrs.	
Wt. Set on Packer	30,000 #	Pulled Loose Wt.	55,000	#	

Remarks

Description of Blow During Test: Strong Blow. Gas to Surface in 5 Minutes, Decreasing after 10 Minutes, Steady Throughout Test. T. S. T. M.

GAS BLOW MEASUREMENTS

Measured with ID Riser or Est. ☐

Type of Instrument

Time	Size Choke	Reading Inches	M Cubic Feet Day
0960			165
	Decreasing T. S. T. M. in Ten Minutes.		

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered Total: Nil Ft.

Description of Fluid Recovered

Remarks: Test Satisfactory.

Co. Rep. A. Warden

Tester D. Matson

Elevation	1720 KB 1708 GL
Bottom Hole Choke Size	1/2"
Fluid Cushion Type	
Amount	

TOOL SEQUENCE

Tool	Length	O.D.
Sub.	.85	6"
P.O. Sub.	.80	4 5/8"
Sub.	.60	6"
Sub.	.65	6"
Shut in Tool	6.05	4 5/8"
Hyd. Tool	7.45	4 5/8"
Recorder	5.90	4 7/8"
Safety Jt.	1.75	4 5/8"
T.C. & Pkr.	6.20	6 5/8"
T.C. & Pkr.	6.10	6 5/8"
Total	36.35	
Stub	.90	4 5/8"
Perf.	3.00	4 5/8"
Recorder	5.90	4 7/8"
Perf.	5.00	
Perf. & B. N.	2.50	4 5/8"
Total Interval	17.30	
Total Length	53.65	

MUD AND HOLE DATA

Mud Type	Gel and Chem	W.L.	7.4
Filter Cake	2/32	Visc. 65	Wt. 9.4
Time Taken	January 20 1965 @ 2200 hrs.		
Contractor	Parker Drilling	Rig No.	10
Drill Pipe Size	4 1/2 XH		
Drill Collar Size	2 7/8 ID	Length	518'
Main Hole Size	8 5/8"		
Rat Hole Size			

District	Edmonton	Ticket No.	C 3328
Company	Socony Mobil Oil of Canada	Address	P.O. Box 240, Dawson Creek, B. C.
Well Name	SMWM Chance YTG-8	Test No.	11
Number	66°-7'-18.1"N-137°-30'-50.8"W	Field	Wildcat
Formation	Chance Sand DST#11	Consultant	
and Interval	4525-4542		
Distribution of Reports	8 - Dawson Creek		

Date: January 21/65

J.T.L. Test No. 11

Province: Yukon

JOHNSTON TESTERS

Pressure Data

Test Ticket No. C 3328

JTL-CD-5

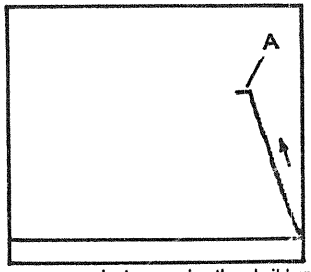
Recorder No.	T-52	T-49			
Capacity P.S.I.G.	7000	7000			
Recorder Depth	4505	4529			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F.	115° Est.	115° Est.			
A Initial Hydrostatic	2271#	2290#			
B First Initial Flow	132#	125#			
C Initial Shut-In Pres.	1951#	1966#			
D Flowing Pres.	105#	110#			
E Final Flow	32#	55#			
F Final Shut-In	1865#	1872#			
G Final Hydrostatic	2247#	2250#			

Remarks

T-52 - Inside Recorder
T-49 - Outside Recorder

GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

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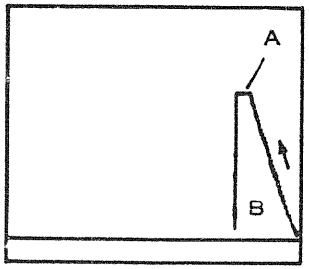
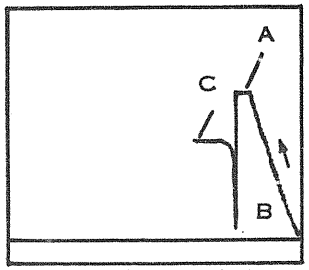


The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



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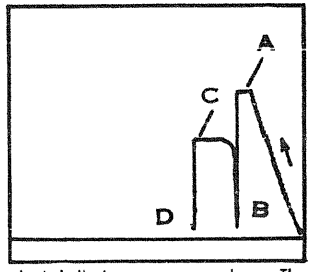

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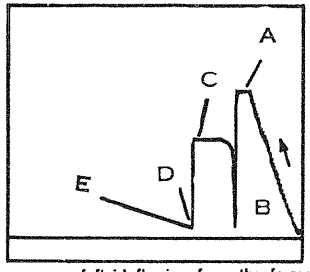

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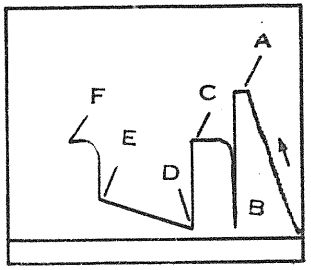

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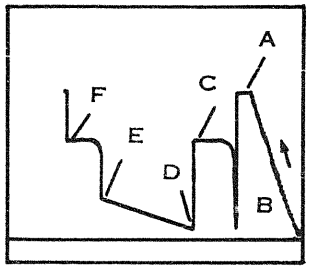

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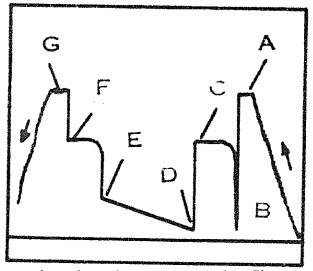

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D-1, D-2, D-3, etc. Flowing Pressures.
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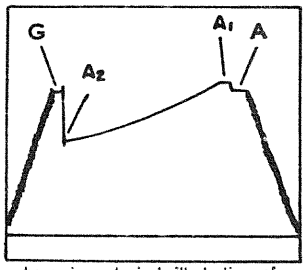

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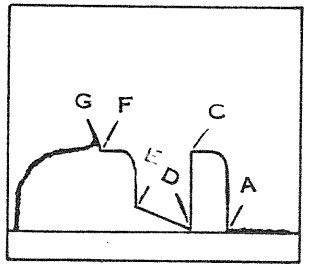

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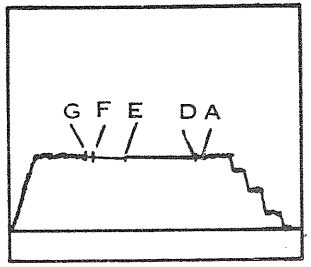
C



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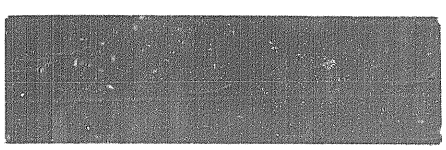
JOHNSTON TESTERS

TECHNICAL REPORT



JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Zone Thickness		Ft	
Interval	4413 To 4525	I D	4525		
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	0445	Hrs. Tool Open	0809	Hrs.	
First Flow	5 Min.	Shut In	90	Min.	
Second Flow	68 Min.	Final Shut In	60	Min.	
Pulled Loose @	1152 Hrs.	Out of Hole	1600	Hrs.	
Wt. Set on Packer	30,000	# Pulled Loose Wt.	35,000	#	
Remarks	Mud Dropped 6 Feet During Test Period.				

Description of Blow During Test: Strong Blow, Dead in 40 Minutes. Strong Blow Throughout Remainder of Test.

Oil to surface 46 mins — unloading

GAS BLOW MEASUREMENTS

Measured with ____ I.D. Riser or Est. ☐

Type of Instrument ____

Time	Sfce. Choke	Reading Inches	Cubic Feet Day

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered Total: 510' Ft.

Description of Fluid Recovered: 100' ~~Oil Cut Drilling Fluid.~~ mud cut oil.
410' Oil.

Remarks: Test Satisfactory.

Co. Rep. A. Warden

Tester D. Matson

District	Edmonton
Company	Socony Mobil Oil of Canada
Well Name	SMWM Chance YTG-8
Number	66°-7'-18.1"N 137°-30'-50.8"W
Formation and Interval	Chance Sand · DST#10 4413-4525
Distribution of Reports	8 - Dawson Creek

Ticket No. C 3327 Date January 20/65

Address P.O. Box 240, Dawson Creek, B. C.

Test No. 10 I.T.L. Test No. 10

Field Wildcat Province Yukon

Consultant ____

Elevation	1720 KB	1702 GL
Bottom Hole Choke Size	1/2"	
Fluid Cushion Type		
Amount		

TOOL SEQUENCE

Tool	Length	O.D.
Sub.	.85	6"
P.O. Sub.	.80	4 5/8"
Sub.	.60	6"
D.P. Sub.	.50	5 1/2"
Shut in Tool	6.05	4 5/8"
Hyd. Tool	7.45	4 5/8"
Safety Jt.	1.75	4 5/8"
T.C. & Pkr.	6.20	6 5/8"
T.C. & Pkr.	6.10	6 5/8"
Total	30.30	
Stub	.90	4 5/8"
Perf.	3.00	4 5/8"
Recorder	5.90	4 7/8"
Recorder	5.90	4 7/8"
Perf.	5.00	4 5/8"
Sub.	.70	4 5/8"
D.C.	87.05	6 1/4"
Sub.	.65	6"
Perf. & B. Nose	2.50	4 5/8"
Total Interval	111.60	
Total Length	141.90	

MUD AND HOLE DATA

Mud Type	Gel and Chem	W.L.	8.0
Filter Cake	2/32 Visc. 59	Wt.	9.4
Time Taken	January 19, 1965 @2200 hrs.		
Contractor	Parker Drilling Rig No. 10		
Drill Pipe Size	4 1/2 XH		
Drill Collar Size	2 7/8 ID Length		518'
Main Hole Size	8 5/8"		
Rat Hole Size			

JOHNSTON TESTERS

Pressure Data

Test Ticket No C 3327

JTL-CD-5

Recorder No	T-52	T-49			
Capacity P.S.I.G	7000	7000			
Recorder Depth	4418	4424			
Pressure Gradient P.S.I. Ft					
Well Temperature °F	94°	94°			
A Initial Hydrostatic	2213#	2249#			
B First Initial Flow	442#	488#			
C Initial Shut-In Pres	1939#	1941#			
D Flowing Pres	428#	476#			
E Final Flow	616#	662#			
F Final Shut-In	1928#	1932#			
G Final Hydrostatic	2194#	2235#			

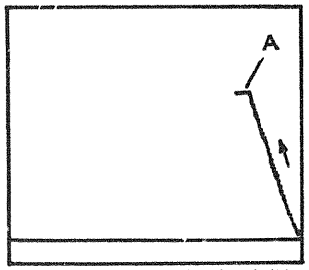
Remarks

T-52 - Outside Recorder

T-49 - Outside Recorder

GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



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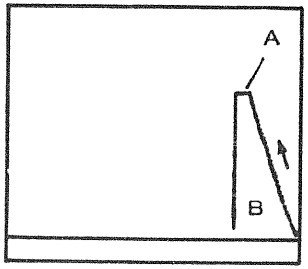

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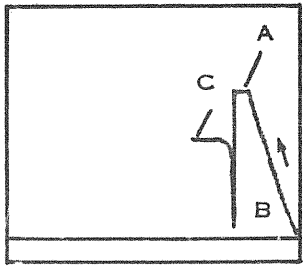
3



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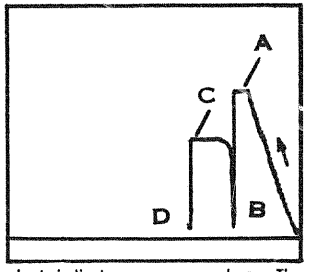

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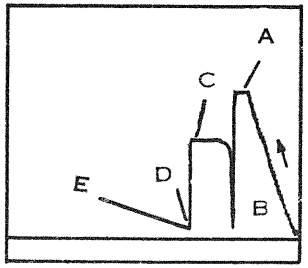

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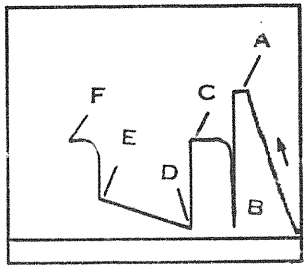

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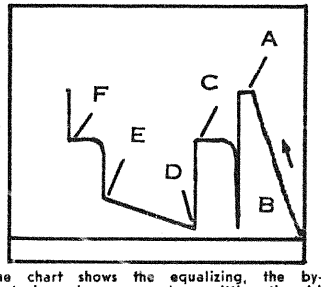
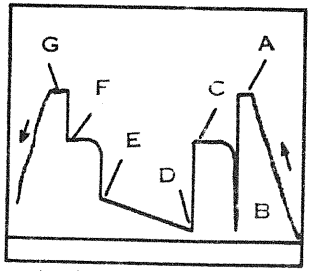


The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

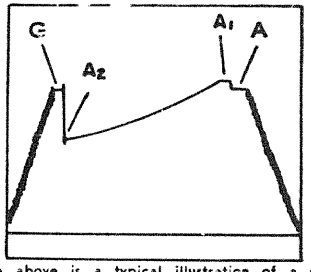
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

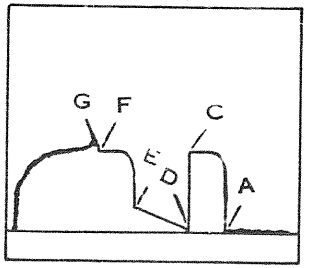
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



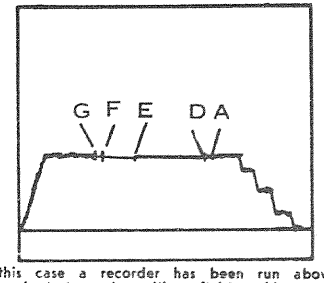
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart roads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

JOHNSTON TESTERS
A WORLD OF EXPERIENCE

DRILL STEM TEST SPECIAL DATA ANALYSIS

C 3327

Pi 1948 PSIG

Kh or kh/μ 1506.7 MD-FT/CP

Q 463.3 Bbls/Day

Estimated from back pressure 1767' Oil entered pipe in 68 Minutes.

M 50 PSI/Log Cycle

LDR 5.7

J .36026 Bbl/Day/PSI

P* 1796 PSIG

This appears to be a good formation and mechanical test. The data obtained appears to be adequate for reliable analysis.

#1 WELL BORE DAMAGE

The calculated "Estimated Damage Ratio" of 5.7 indicates that well bore damage is present during the time and at the conditions of this test. The EDR of 5.7 infers that this test interval should have produced at a rate of approximately 2640.8 Bbls/Day with the same flowing pressures observed during the test if the well bore damage were removed.

#2 PERMEABILITY

The calculated transmissibility factor of 1506.7 Md-ft/Cp. indicates the average effective permeability for the 112 foot test interval to be approximately 13.5 Md. This value was calculated assuming that the product of the viscosity and formation volume factor for the reservoir fluid was 1.0.

#3 GENERAL COMMENTS

The initial shut-in pressure plot indicates a maximum reservoir pressure of 1941 P.S.I.G. The final shut-in pressure plot indicates a maximum reservoir pressure of 1943 P.S.I.G. Both plots appear to be good and yield good straight lines for extrapolation purposes. The 7 P.S.I. difference between the two maximum readings is within recorder accuracy I have utilized the maximum reading from the final shut-in for these calculations. From these test data and empirical calculations it is indicated there is oil production from a good permeable zone having some well bore damage present. No unusual characteristics or abnormalities were observed from these test data, pressure plots or calculations.

M. S. Edwards
INTERPRETATION AND EVALUATION SECTION.

Socony Mobil Oil of Canada
SMM Chance YTG-8
66°-7'-18.1"N-137°-30'-50.8"W
Chance Sand DST # 10
4413-4525

JOHNSTON TESTERS
A WORLD OF EXPERIENCE

DRILL STEM TEST SPECIAL DATA ANALYSIS

C 3527

Initial Shut-in Pressure
PSI 1948

Slope of Initial Shut-in Curve
M 50 PSI

Ratio of Slope of Initial Shut-in Curve to Slope of Final Shut-in Curve
EDR 5.7

Extrapolated Shut-in Pressure
PS 1796

Kh of Zone 1506.7

Productivity Index
.36026 Bbl/Day/PSI

Recovery
663.3 Bbls.

Estimated from back pressure 1767' Oil entered pipe in 88 Minutes.

This appears to be a good formation and mechanical test. The data obtained appears to be adequate for reliable analysis.

#1 WELL BORE DAMAGE

The calculated "Estimated Damage Ratio" of 5.7 indicates that well bore damage is present during the time and at the conditions of this test. The EDR of 5.7 infers that this test interval should have produced at a rate of approximately 2040.8 Bbls/Day with the same flowing pressures observed during the test if the well bore damage were removed.

#2 PERMEABILITY

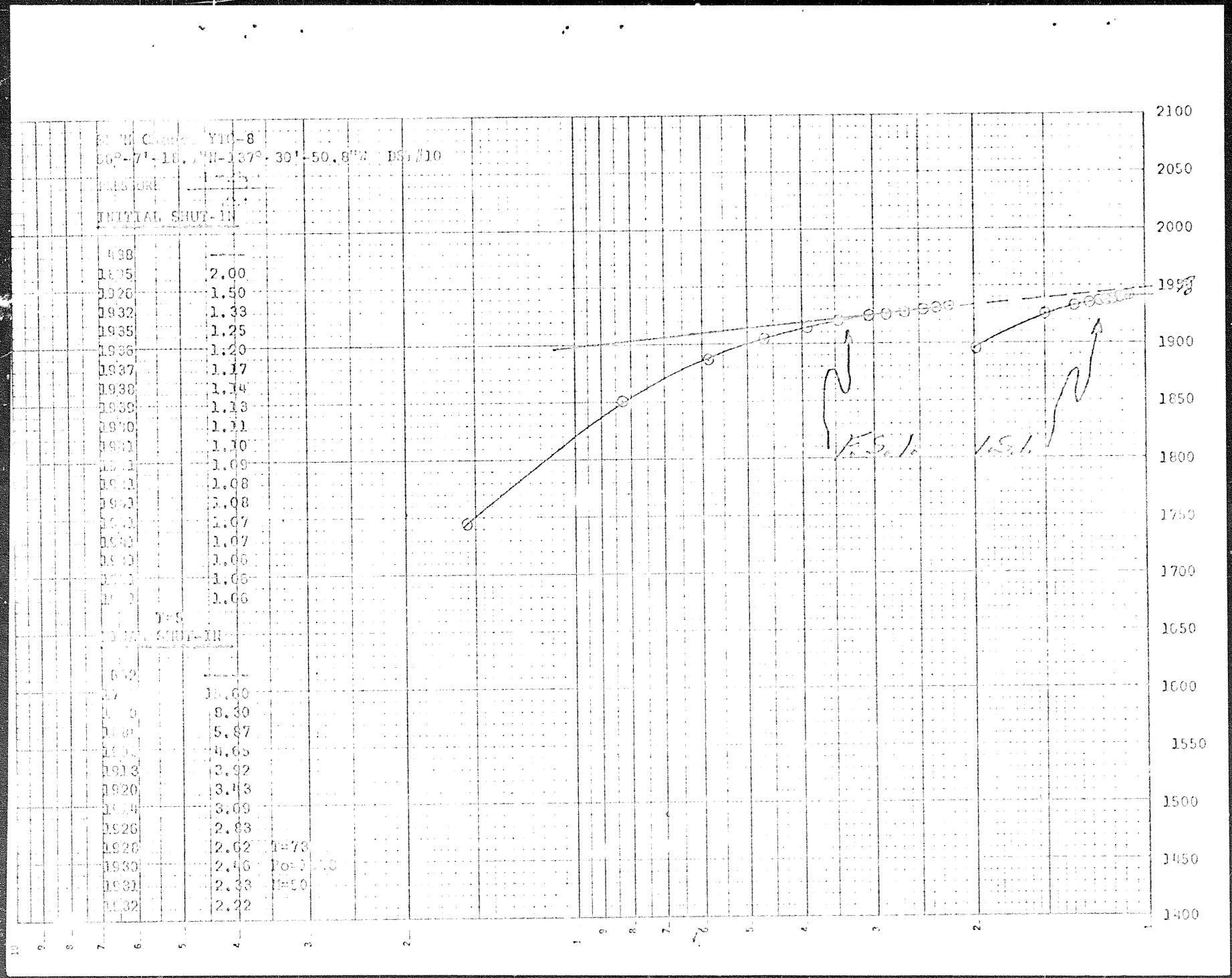
The calculated transmissibility factor of 1506.7 Md-ft/Cp. indicates the average effective permeability for the 112 foot test interval to be approximately 13.5 Md. This value was calculated assuming that the product of the viscosity and formation volume factor for the reservoir fluid was 1.0.

#3 GENERAL COMMENTS

The initial shut-in pressure plot indicates a maximum reservoir pressure of 1941 P.S.I.G. The final shut-in pressure plot indicates a maximum reservoir pressure of 1948 P.S.I.G. Both plots appear to be good and yield good straight lines for extrapolation purposes. The 7 P.S.I. difference between the two maximum readings is within recorder accuracy I have utilized the maximum reading from the final shut-in for these calculations. From these test data and empirical calculations it is indicated there is oil production from a good permeable zone having some well bore damage present. No unusual characteristics or abnormalities were observed from these test data, pressure plots or calculations.

M. S. Edwards
INTERPRETATION AND EVALUATION SECTION.

Socony Mobil Oil of Canada
SMWM Chance YTG-8
65°-7'-18.1"N-137°-30'-50.8"W
Chance Sand *DST # 10*
4413-4525


Well Code: YTO-8
60°-7'-18.7"N-137°-30'-50.8"W DST#10
PRESSURE
INITIAL SHUT-IN
438
1805 2.00
1926 1.50
1932 1.33
1935 1.25
1936 1.20
1937 1.17
1938 1.14
1939 1.13
1940 1.11
1941 1.10
1.09
1.08
1.08
1.07
1.07
1.06
1.06
1.06
T=5
SHUT-IN
642
10.00
8.30
5.87
4.65
1913 3.92
1920 3.43
3.09
1926 2.83
1926 2.62 T=73
1930 2.46 Po=
1931 2.33 T=50
1932 2.22
2100
2050
2000
1950
1900
1850
1800
1750
1700
1650
1600
1550
1500
1450
1400

JTL.CO.3

Assumptions made for Calculations for Gas Recoveries

1. Q is taken as steady state flow and unless stated otherwise at standard conditions 14.7 P.S.I. and 60° F.
2. P_i is formation flowing pressure at steady state flow.
3. Formation flow is taken as single phase flow. If liquid (condensate) is produced at surface, condensation is assumed to have occurred in drill pipe.
4. Radial flow is assumed.
5. Unless given, gas specific gravity is assumed to be 0.7 air 1.0 and having critical temperature at 390° Rankin and critical pressure of 666 P.S.I.A.
6. Other standard radial flow, steady state assumptions.

Empirical Equations:

1. $EDR = \frac{1}{\log T + 2.65} \left[\frac{P_o^2 - P_i^2}{M_s} \right]$ Where $M_s = \frac{\Delta P^2}{\log \text{ cycle}}$

2. Transmissibility $\frac{Kn}{\mu Z} = \frac{1637\ {}^{\circ}T_i Q}{M_s}$

3. P.S. = [$P_o \times 2.309$ ft./PSI] − [Recorder depth to sea level.]

Assumptions made for Calculations for Liquid Recoveries

1. Q is taken as steady state flow.
2. P_i is formation flowing pressure at steady state flow.
3. Formation flow is taken as single phase flow. If gas is produced at surface, phase separation is assumed to have occurred in drill pipe.
4. Radial flow is assumed.
5. Where PVT data is not available then it is assumed that: effective permeability, K, will fall between 1 to 200 md. Formation porosity, f will fall between 0.1 to 0.3. Fluid compressibility, c, will fall between 10^{-6} to 10^{-4}. Fluid viscosity, μ, will fall between 0.05 to 50 cp. Well bore radius r_w, will fall between 3⅞" to 4½". Which gives an average value for the function $\log_e \frac{K}{fc\mu r_w^2}$ of 5.5
6. Other standard radial flow, steady state assumptions.

Empirical Equations:

1. $EDR = \frac{1}{\log T + 2.65} \left[\frac{P_o - P_i}{M} \right]$

2. Transmissibility $\frac{Kn}{\mu B} = \frac{162.6Q}{M}$

3. P.I. $= \frac{Q}{P_o - P_i}$

4. P.S. = [$P_o \times 2.309$ ft./PSI] − [Recorder depth to sea level]

Symbols		Dimensions
B	Formation volume factor	vol./vol.
c	Fluid compressibility	vol./vol./psi.
EDR	Estimated damage ratio	
f	Formation porosity	fractional
h	Producing interval	feet
J	Productivity index	Bbls./day/PSI
K	Permeability	Millidarcies
M	Slope of shut-in build up	PSI/log cycle
M_s	Slope of shut-in build up	PSI^2/log cycle
P_i	Final flowing pressure	PSI
P_{1SI}	Final shut-in pressure at time t	PSI
P_{iSI}	Initial shut-in pressure	PSI
P_o	Maximum reservoir pressure	PSI
P. S.	Potentiometric surface	ft.

Symbols		Dimensions
Q	Rate of flow during test	Bbls./day
Q_o	Rate of oil flow during test	Bbls./day
Q_w	Rate of water flow during test	Bbls./day
Q_g	Rate of gas flow during test	MCF/day
r_w	Well bore radius	inches
t	Final shut-in time period	minutes
Δt	Increment time of final shut-in time period	minutes
T	Open flow time period	minutes
$^{\circ}T_i$	Formation temperature	Rankin
μ	Fluid viscosity	Centipoise
Z	Gas deviation factor (Compressibility factor)	
$\frac{Kh}{\mu B}$ or $\frac{Kn}{\mu Z}$	Transmissibility factor	$\frac{Md. - ft.}{Cp.}$

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

JET-CO 4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Hole Diameter			1722 KB		1708 GL
Interval	4413	To	4525	T.D.	4525		1/2"
Type of Test	Open Hole, Bottom Hole						
Time Started in Hole	0445	hrs	Date		0855	hrs	
First Flow	5	Min	Shut-in		60	Min	
Second Flow	68	Min	Final Shut-in		60	Min	
Pocket Loose @	1152	hrs	Out of Hole		1600	hrs	
Wt. Set on Packer	30,000	#	Weight Below		35,000	#	

Remarks: Mud Dropped 6 Feet During Test Period.

Description of Blow During Test: Strong Blow, Dead in 40 Minutes.

Strong Blow Throughout Remainder of Test.

GAS BLOW MEASUREMENTS

Measured with: (To Right or Left)

Type of Instrument:

Time	Size Choke	Reading Inches	Cubic Feet Day

FLUID RECOVERY

Was Test Reversed Circulated Yes: No: X

Fluid Recovered Total: 510' F

Description of Fluid Recovered: 100' Oil Cut Drilling Fluid.
410' Oil.

Remarks: Test Satisfactory.

Co. Rep.: A. Warden

Tester: D. Matson

District: Edmonton

Company: Socony Mobil Oil of Canada

Well Name and No.: SMOM Chance YTG-8

Location: 60°-7'-18.1"N-137°-30'-50.8"W

Formation Tested: Chance Sand · DST#10

Elevation: 4413-4525

Recorder Number and Depth: 6 - Dawson Crock

TOOL SEQUENCE

Tools	Length	O.D.
Sub.	.65	6"
P.O. Sub.	.80	4 3/8"
Sub.	.60	6"
D.P. Sub.	.50	5 1/2"
Shut In Tool	6.05	4 5/8"
Hyd. Tool	7.45	4 5/8"
Safety Jt.	1.75	4 5/8"
T.C. & Pkr.	6.20	6 5/8"
T.C. & Pkr.	6.10	6 5/8"
Total	30.30	
Stub	.50	4 5/8"
Perf.	3.00	4 5/8"
Recorder	5.90	4 7/8"
Recorder	5.90	4 7/8"
Perf.	5.00	4 5/8"
Sub.	.70	4 5/8"
D.C.	87.05	6 1/4"
Sub.	.65	6"
Perf. & B. Nose	2.50	4 5/8"
Total Interval	111.60	
Total Length	141.90	

MUD AND HOLE DATA

Mud Type: Cal and Chem W.L. 8.0

Filter Cake 2/32 Vis 59 Wt. 9.4

Time Tools: January 19, 1965 @2200 hrs.

Contractor: Parker Drilling Rig No. 10

Drill Pipe Size: 4 1/2" XH

Drill Collar Size: 2 7/8 I.D. 5 1/2"

Main Hole Size: 6 5/8"

Rat Hole Size:

Ticket No. C 3327 Date: January 20/65

Address: P.O. Box 240, Dawson Creek, B. C.

Test No. 10 Ticket No. 10

Field: Province: Yukon

JOHNSTON TESTERS

Pressure Data — Test No. C 3327

Recorder No.	T-52	T-49
Clock (hrs.)	7000	7000
Recorder Depth	4413	4424
Pressure Gradient P.S.I./Ft.		
Max. Temperature °	94°	94°
A Initial Hydrostatic	2213#	2240#
B Initial Flow	442#	486#
C Initial Shut-in Pres.	1939#	1942#
D Final Flow	428#	476#
E Final Flow	616#	662#
F Final Shut-in	1928#	1932#
G Final Hydrostatic	2194#	2235#
Survey		

T-52 - Outside Recorder
T-49 - Outside Recorder

JOHNSTON TESTERS

SMWW Chance YTG-8
66°-7'-18.1"N-137°-30'-50.8"W
DST#10

Pressure Breakdown Data

Date January 20, 1965 Test Ticket No. C 3027

Recorder No. T-40 Capacity 7000 Recorder Depth 4424

Clock No _____ Clock travel _____ inches per hour Well Temperature 94 °F.

Point	Pressure
A Initial Hydrostatic	2240#
B First Initial Flow	488#
C Initial Shut-in Pres	1941#
D Flowing Pres	476#
E Final Flow	662#
F Final Shut-in	1932#
G Final Hydrostatic	2235#

	Time Given	Time Corrected
Opening Tool	0300 M	
First Flow	5 Mins.	Mins.
Initial Shut-in	60 Mins.	Mins.
Final Flow	60 Mins.	Mins.
Final Shut-in	60 Mins.	Mins.

Remarks: _____

PRESSURE INCREMENTS

INITIAL SHUT-IN

Breakdown 18 increments of 5 mins. and a final increment of _____ mins.

Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$
0	488	----
5	1695	2.00
10	1926	1.50
15	1932	1.33
20	1936	1.25
25	1938	1.20
30	1937	1.17
35	1938	1.14
40	1939	1.13
45	1940	1.11
50	1941	1.10
55	1941	1.09
60	1941	1.08
65	1941	1.08
70	1941	1.07
75	1941	1.07
80	1941	1.06
85	1941	1.06
90	1941	1.06

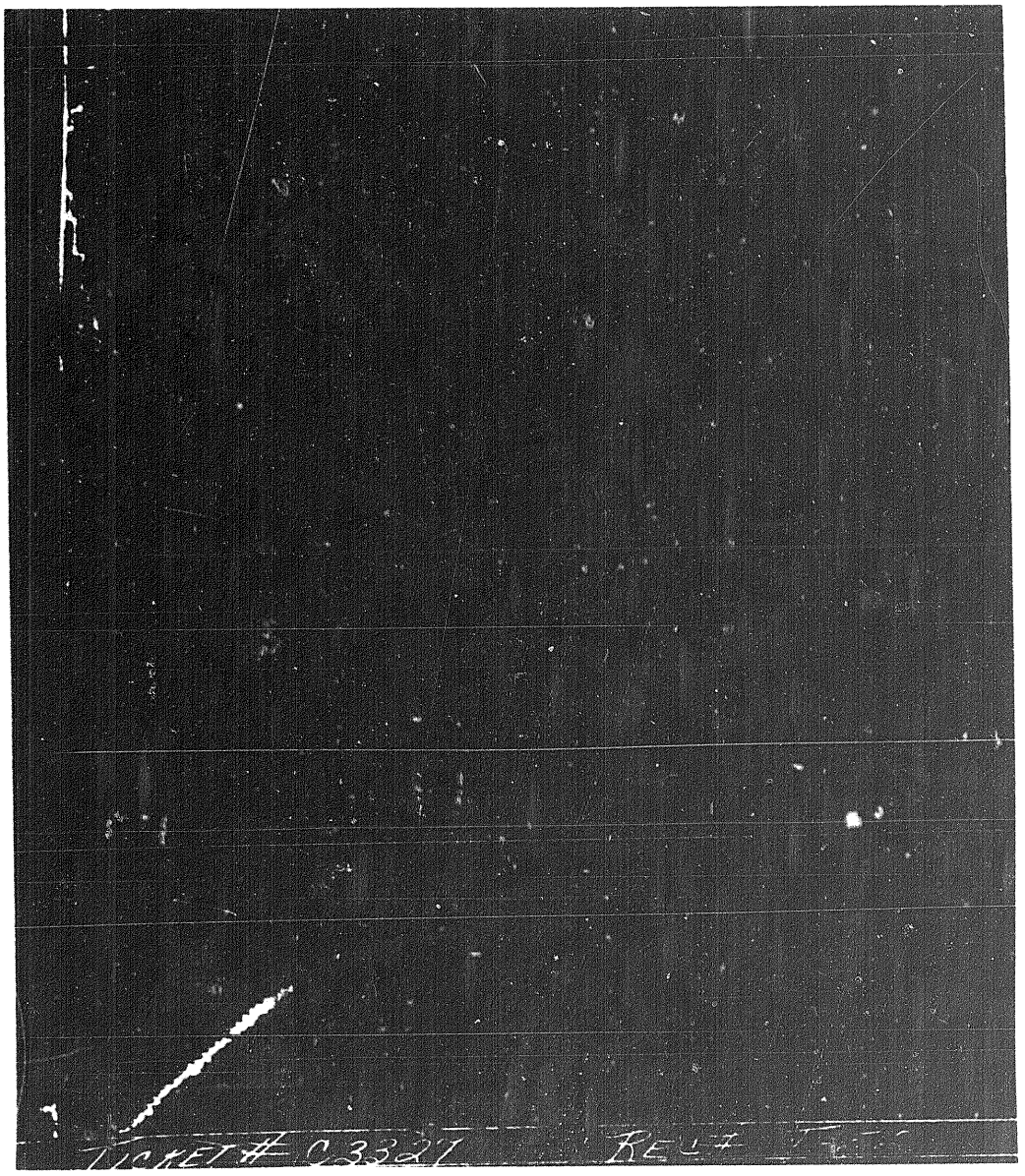
FINAL SHUT-IN

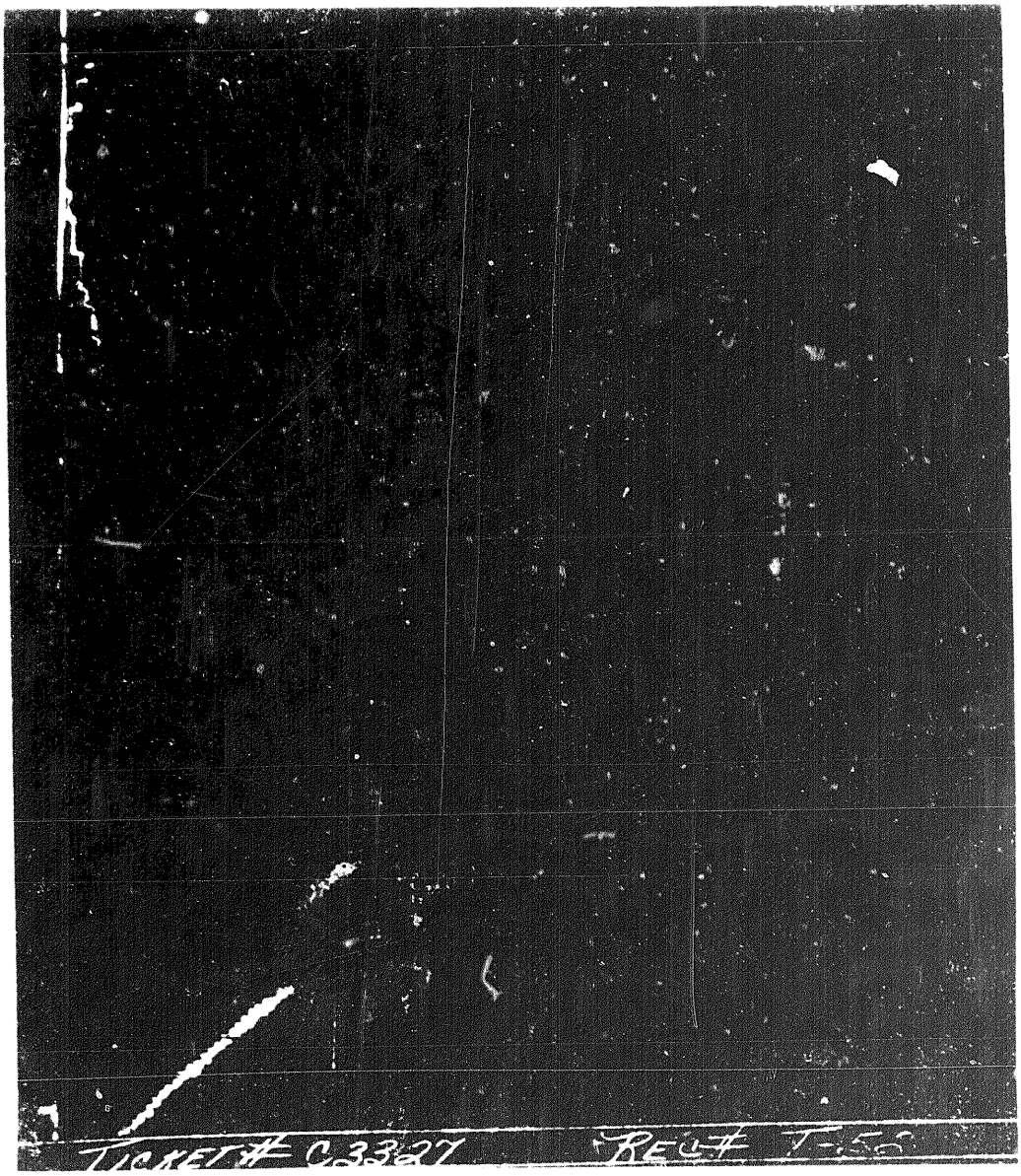
Breakdown 12 increments of 5 mins. and a final increment of _____ mins.

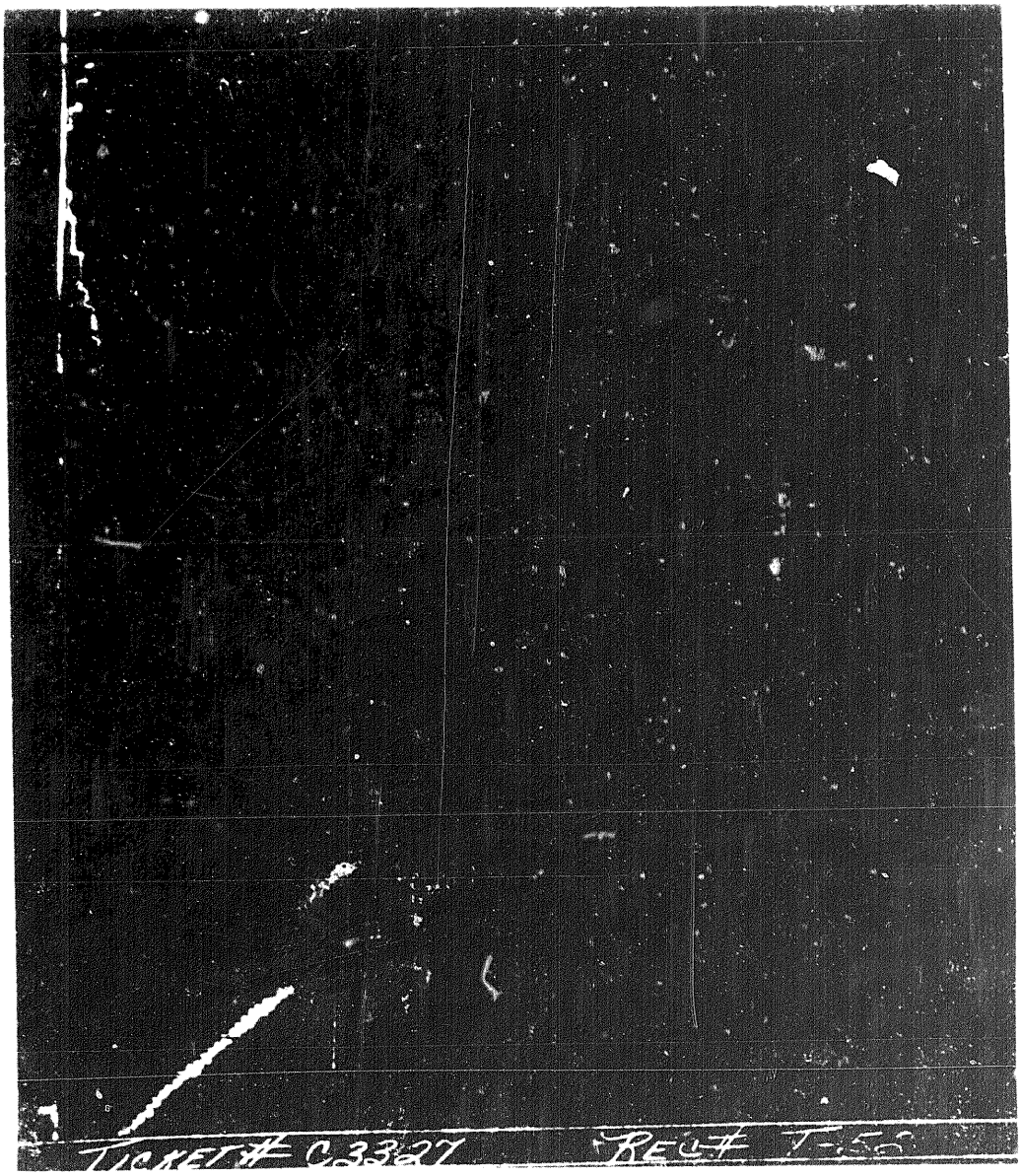
Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$
0	662	-----
5	1743	15.60
10	1850	8.30
15	1888	5.87
20	1903	4.85
25	1913	3.92
30	1920	3.48
35	1924	3.09
40	1926	2.88
45	1928	2.62
50	1930	2.46
55	1931	2.36
60	1932	2.22

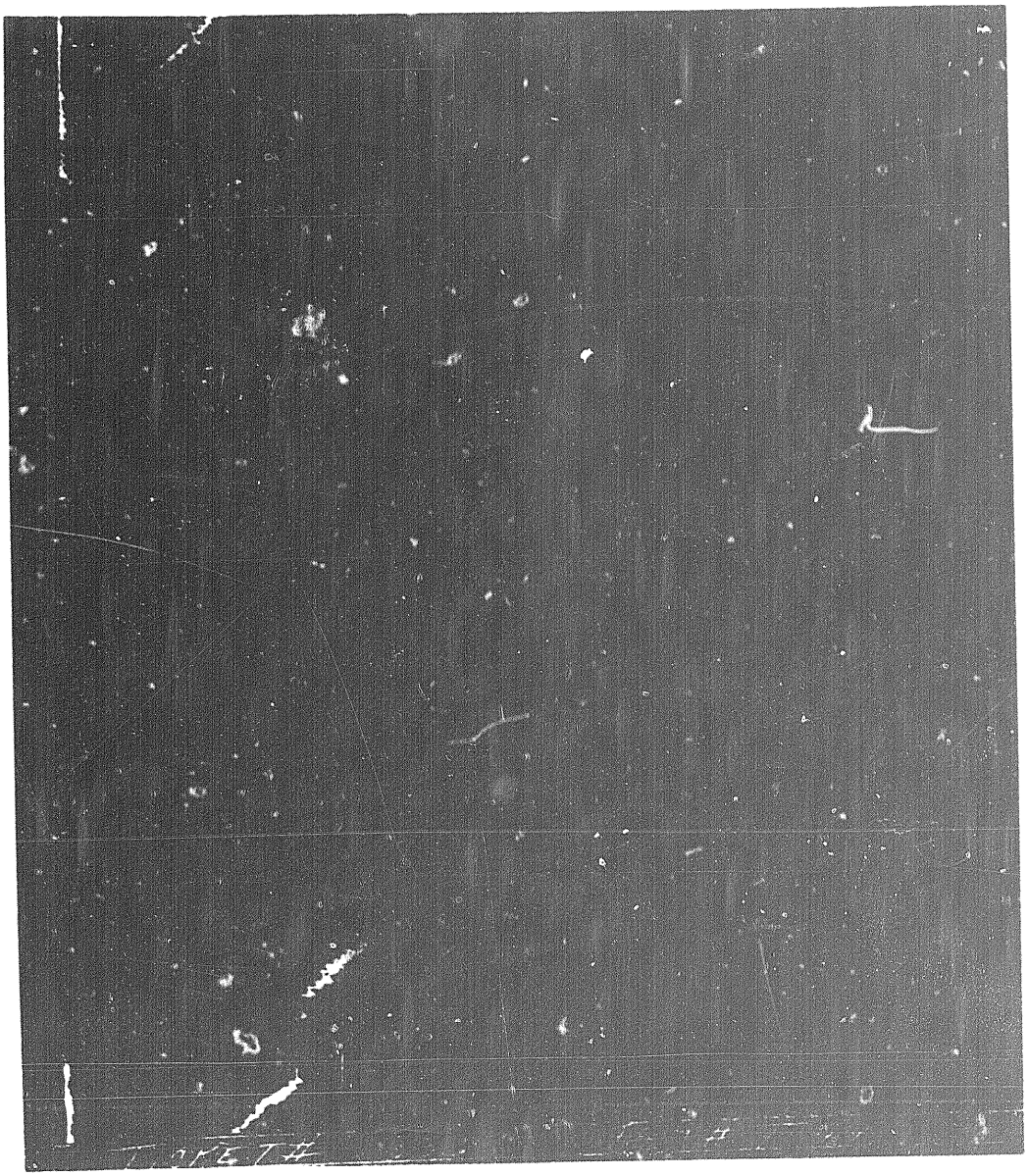
Breakdown _____ increments of _____ mins. and a final increment of _____ mins.

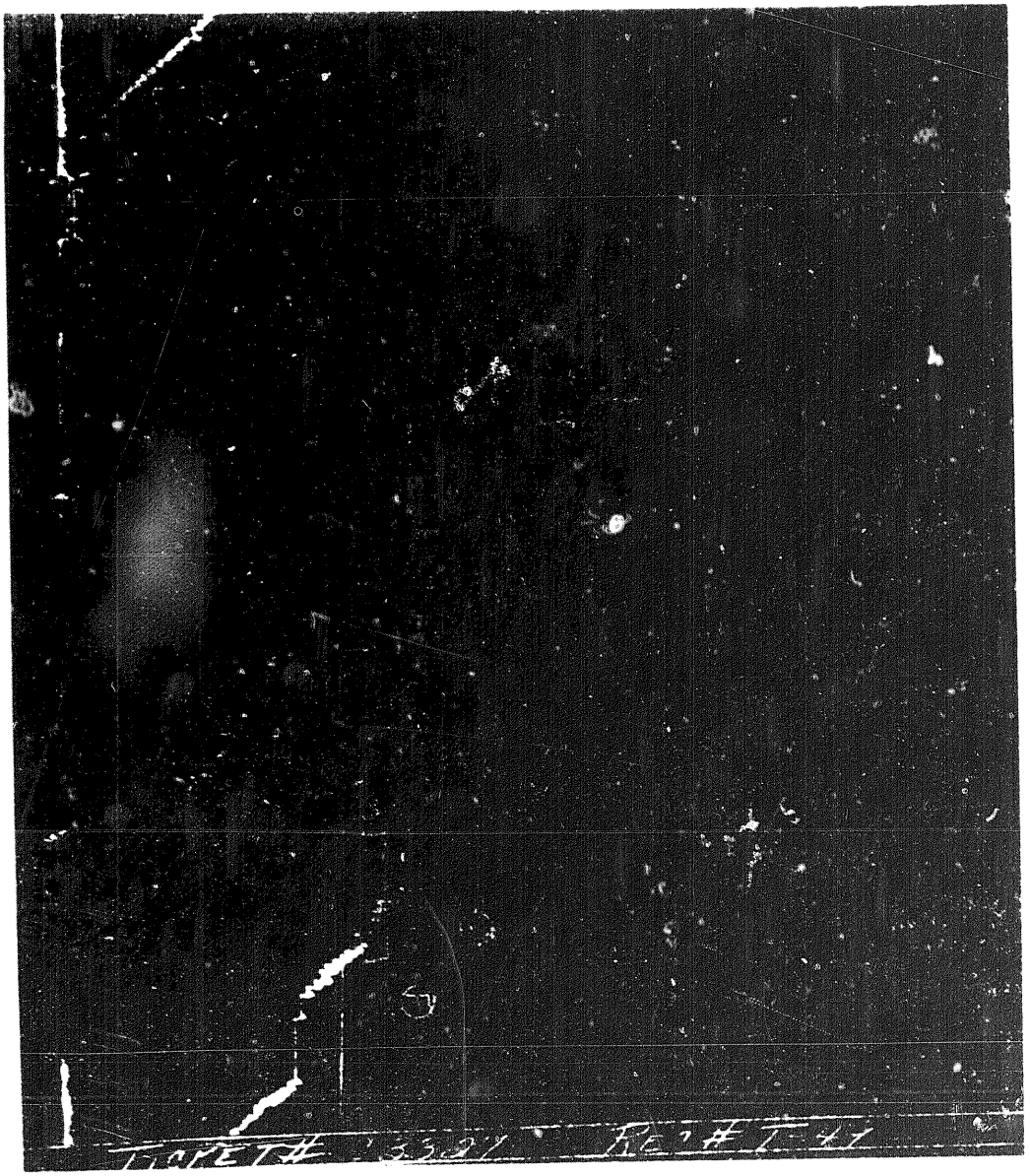
Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$


TICKET # C3327
REL #


TICKET # C3327
REG # T-58


TICKET # C3327
REG # T-58




TAPE # 3391 Roll # 1 of 1

OIL AND OR WATER CALCULATIONS

C-3327

10

Socony Mobil Oil of Canada Ltd

S.M. W.M. Chinook YT G-8 62°-7'-13.1"N 137°-30'-56.8"W

Est From Buck Pass: 1757' Oil Entered Pipe in 68 M.D

$$\left\{ \left(.0080 \times \frac{518}{68} \right) + \left(.0142 \times 1249 \right) \right\}$$

463.3

$$\frac{463.3}{50} \quad 1506.7$$

112 Test Interval

$$\frac{1506.7}{112} \quad 13.5$$

$$\frac{463.3}{1286} \quad .36026$$

$$\left\{ 10(.1 + \quad) \right\} \left\{ \frac{1286}{50} \right\} \quad 4.4825 \quad .2230 \quad 25.7200$$

5.7

(P × [illegible]) − ([illegible])

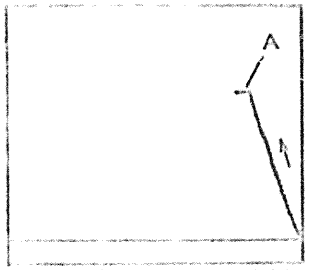
(1948) − (2702)

1796

5.7 463.3 2640.8

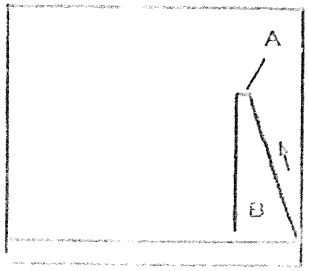
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



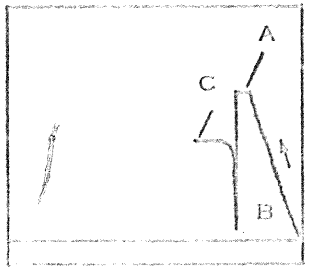
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



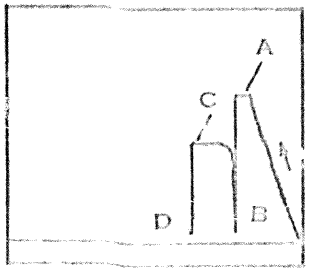
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



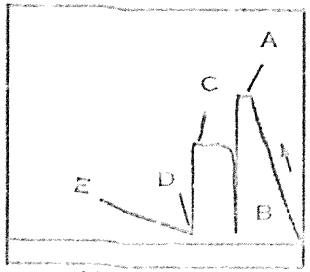
This chart shows the initial shut-in pressure. This is one mechanical method commonly used to shut-in this pressure. A 4 stage shut-in tool is run-in in the open position and rotated clockwise when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



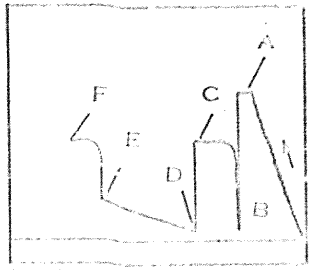
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



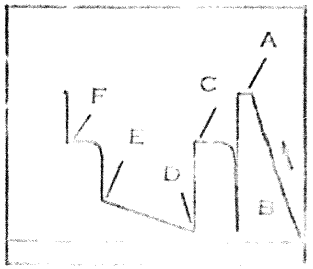
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



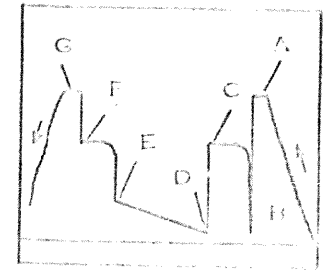
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels off the static reservoir pressure has been reached.

7



The chart [illegible] points have been [illegible] fluid to flow [illegible] zone. Thus, [illegible] low the packer. The [illegible] facilitates easier removal of the packer from the packer seat.

8



The packer has been [illegible] assembly is being removed from the hole.

INDEX OF DRILL STEM POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Final Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are often [illegible] ing pressures or points indicating [illegible] packer settings. [illegible] zones).

A-1, A-2, A-3, etc. Initial Hydrostatic Pressures.

B, B-1, B-2, B-3, First Initial Flow Pressures.

C-1, C-2, C-3, etc. Initial Shut-in Pressures.

D-1, D-2, D-3, etc. Flowing Pressures.

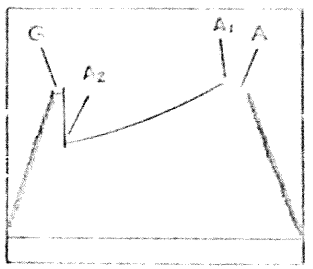
E-1, E-2, E-3, etc. Final Flow Pressures or Final Shut-in Pressures.

F-1, F-2, F-3, etc. Final Shut-in Pressures.

G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.

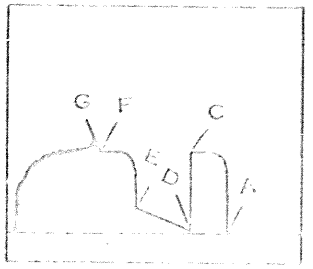
Z — Significant pressure points such as pumping pressure recorded for formation breakdown.

9



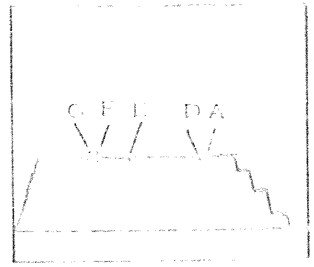
The above is a typical illustration of a chart from a record that is run below the bottom packer on a conventional stem type test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If a below straddle chart reads the same as a straddle test is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

10



In this case the bottom has [illegible] charted hydrostatic mud pressure, not indicating the [illegible] cushion out of the drill pipe [illegible] in the [illegible]

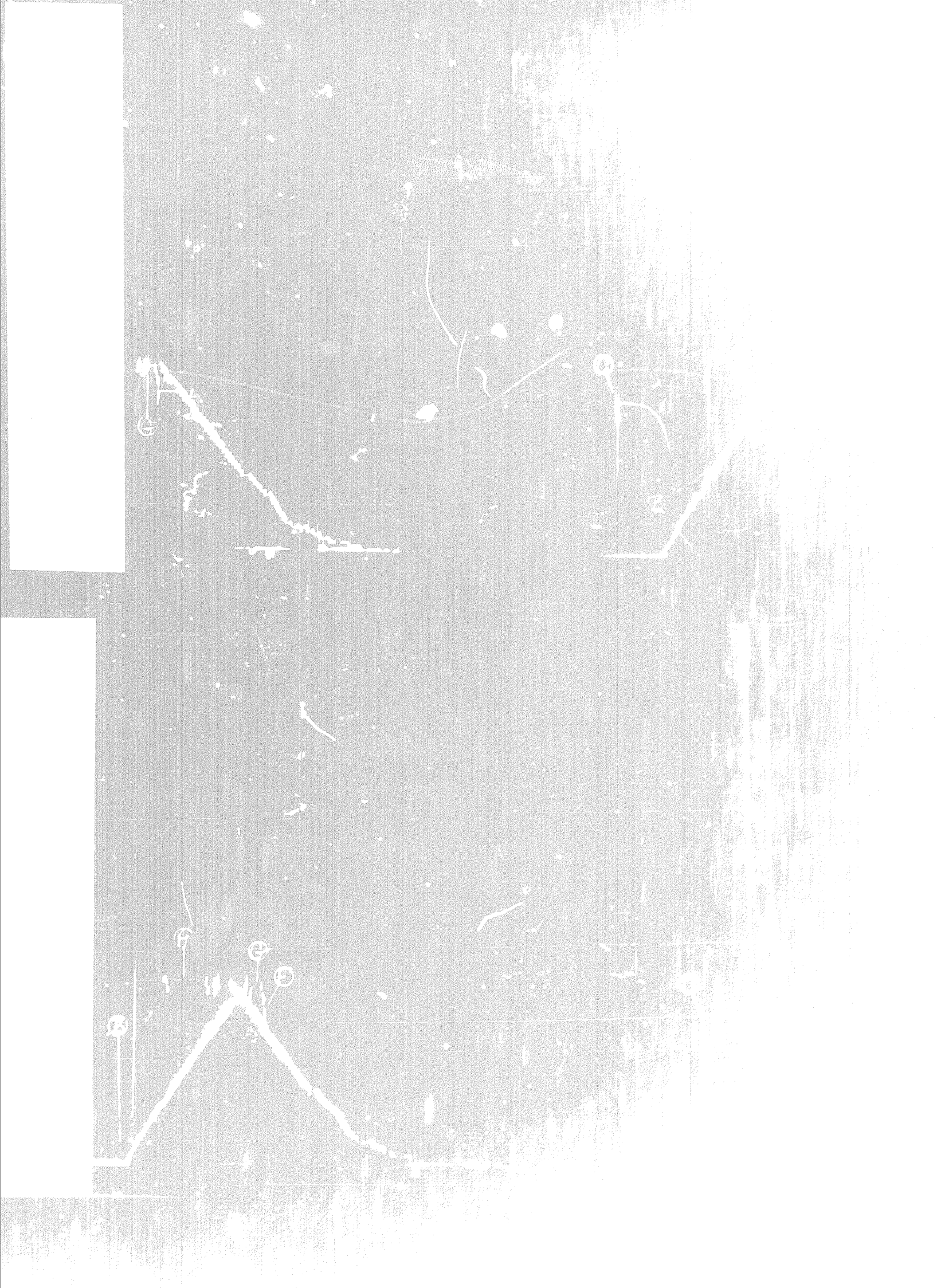
11

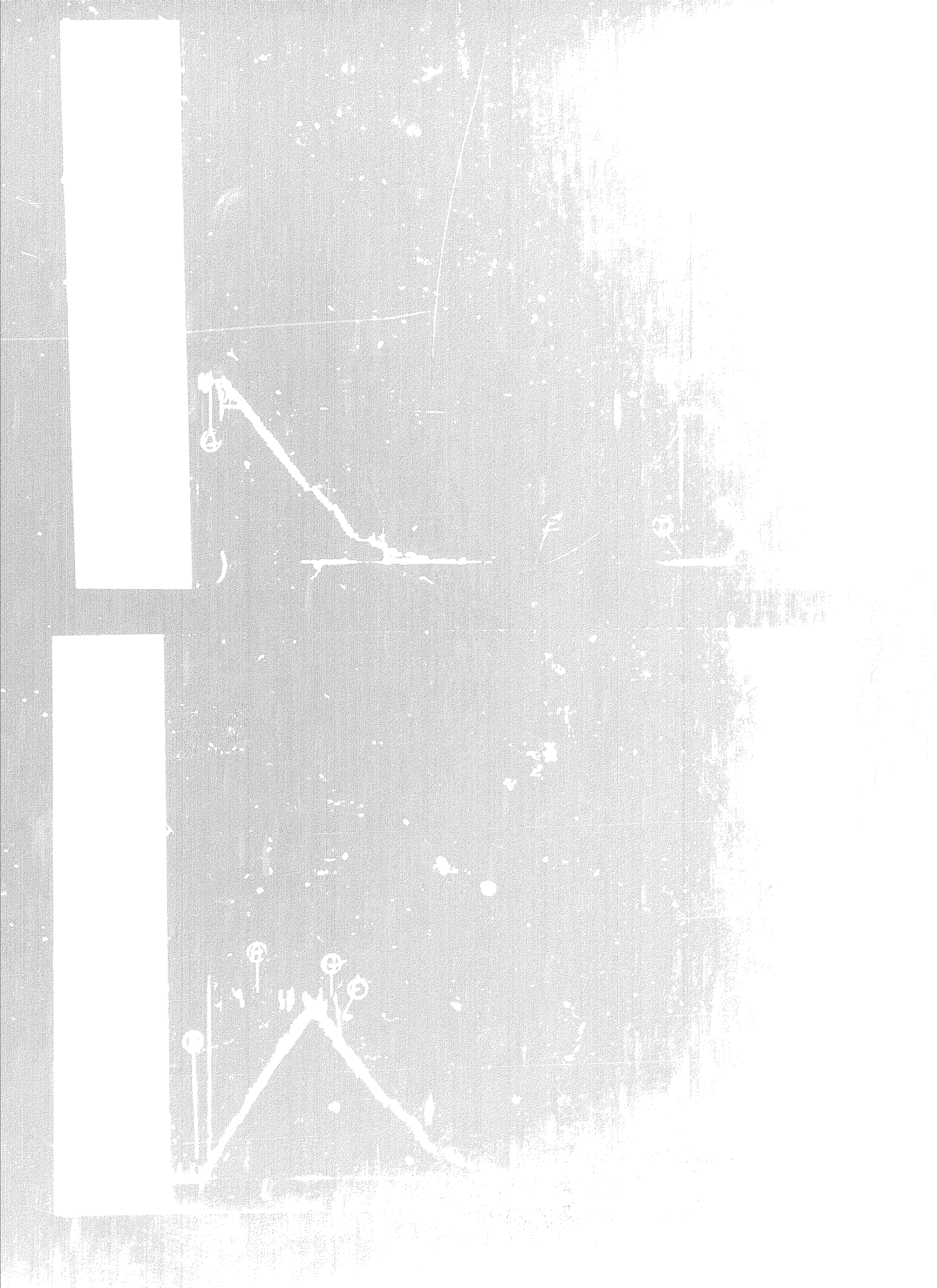


In this case [illegible] the drill pipe [illegible] stem and [illegible] When the [illegible] pressure of the cushion column [illegible] pressure of the formation, [illegible] greater), is recorded.

JOHNSTON TESTERS

TECHNICAL REPORT





JOHNSTON TESTERS

Pressure Data

Test Ticket No C 3326

JTL-CO-5

Recorder No.	T-49	T-52			
Capacity P.S.I.G.	7000	7000			
Recorder Depth	4377	4403			
Pressure Gradient P.S.I. Ft.					
Well Temperature F.	92°	92°			
A Initial Hydrostatic	2203#	2217#			
B First Initial Flow	53#	42#			
C Initial Shut-In P.	1899#	1903#			
D Flowing Pres.	62#	53#			
E Final Flow	85#	86#			
F Final Shut In	1907#	1909#			
G Final Hydrostatic	2200#	2204#			

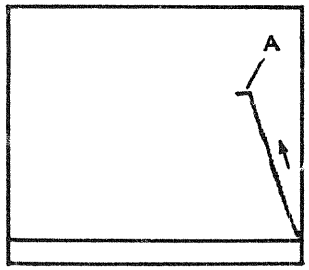
Remarks

T-49 - Inside Recorder

T-52 - Outside Recorder

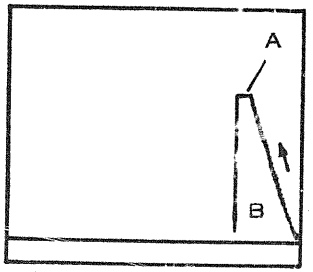
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



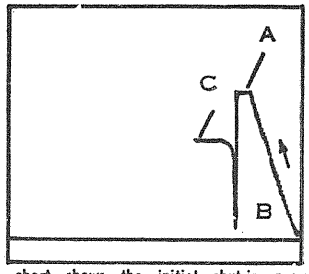
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



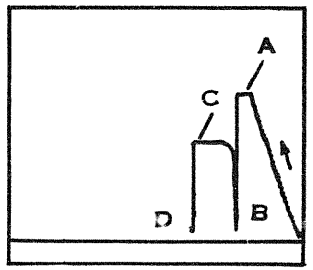
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



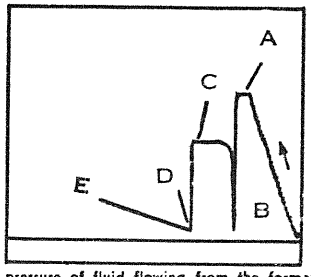
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



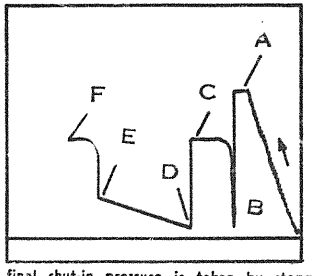
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



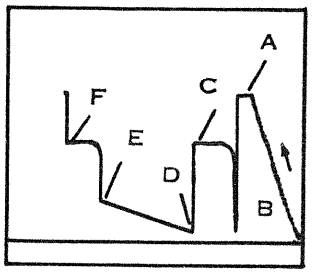
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



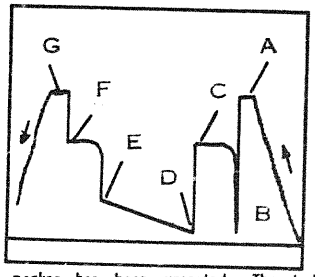
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

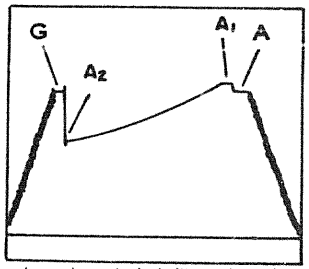
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

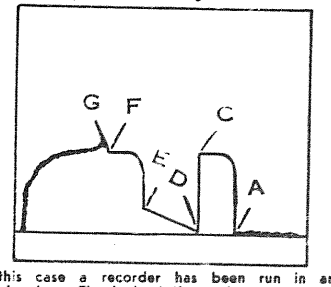
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



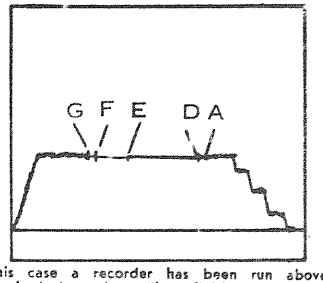
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrost mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

JOHNSTON TESTERS

TECHNICAL REPORT

[redacted]

JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Zone Thickness	10	Ft	
Interval	4397 To 4407	T.D.	4407		
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	0200 Hrs.	Tool Open		Hrs.	
First Flow	0 Min.	Shut In	0	Min.	
Second Flow	0 Min.	Final Shut In	0	Min.	
Pulled Loose @	Hrs.	Out of Hole	0800	Hrs.	
Wt. Set on Packer		# Pulled Loose Wt.		#	

Remarks

Description of Blow During Test: Mis-Run, Unable to Reach Bottom.

GAS BLOW MEASUREMENTS

Measured with ____ I.D. Riser or Est. ☐

Type of Instrument

Time	Sfce. Choke	Reading Inches	Cubic Feet Day

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered Total ____ Ft.

Description of Fluid Recovered

Remarks: Mis-Run, Unable to Reach Bottom.
30' Fill on Bottom.

Co. Rep. D. Morrison Bain

Tester D. Matson

Elevation	1720 KB	1708 GL	
Bottom Hole Choke Size	1/2"		
Fluid Cushion Type			
Amount			

TOOL SEQUENCE

Tool	Length	O.D.
Sub.	.70	6"
Shut in Tool	6.05	4 5/8"
Hyd. Tool	7.45	4 5/8"
Recorder	5.90	4 7/8"
Recorder	5.90	4 7/8"
Safety Jt.	1.75	4 5/8"
T.C. & Pkr.	6.20	6 5/8"
T.C. & Pkr.	6.20	6 5/8"
Total	40.15	
Stub	1.10	4 5/8"
Perf.	6.00	4 5/8"
Perf. & B. Nose	2.50	4 5/8"
Total Interval	9.60	
Total Length	49.75	

MUD AND HOLE DATA

Mud Type	Gel and Chem	W.L.			
Filter Cake	2/32	Visc.	80	Wt.	9.5
Time Taken	January 16, 1965 @ 2300 hrs.				
Contractor	Parker Drilling			Rig No.	10
Drill Pipe Size	4 1/2 XH				
Drill Collar Size	2 7/8 ID	Length	504'		
Main Hole Size	8 5/8"				
Rat Hole Size					

District	Edmonton	Ticket No. C 2325	Date January 17/65
Company	Socony Mobil Oil of Canada	Address P.O. Box 240, Dawson Creek, B. C.	
Well Name	SMWM Chance YTG-8	Test No. 8	I.T.L. Test No. 8
Number	66°-7'-18.1"N-137°-30'-50.8"W	Field Wildcat	Province Yukon
Formation	Chance Sand DST#8	Consultant	
and Interval	4397-4407		
Distribution of Reports	8 - Dawson Creek		

JOHNSTON TESTERS

Pressure Data Test Ticket No. C 2325

JTL-CD-5

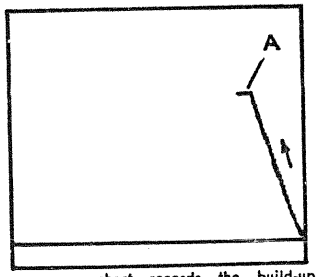
Recorder No.	T-49	T-52			
Capacity P.S.I.G.	7000	7000			
Recorder Depth	4371	4377			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F	92°	92°			
A Initial Hydrostatic	2139#	2142#			
B First Initial Flow					
C Initial Shut-In Pres	MIS-RUN, UNABLE TO REACH				
D Flowing Pres	BOTTOM.				
E Final Flow					
F Final Shut-In					
G Final Hydrostatic	2098#	2099#			

Remarks

T-49 - Inside Recorder
T-52 - Inside Recorder

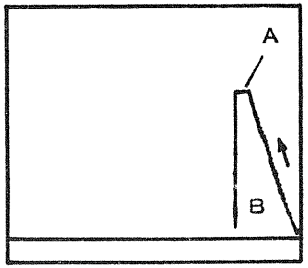
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



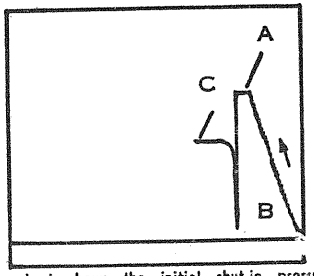
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



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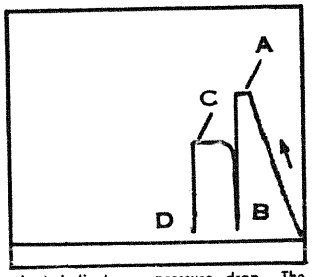
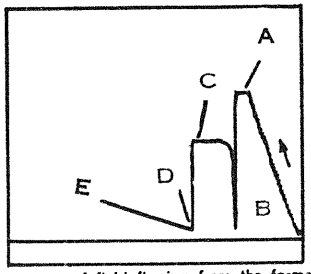
4



The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



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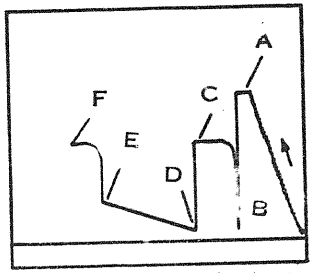
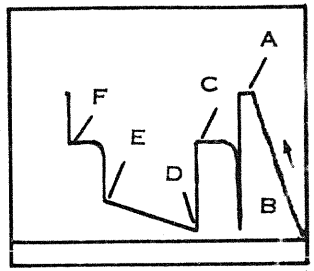
6



The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



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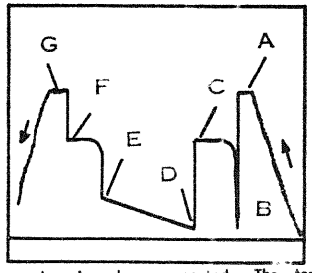
8



The packer has been unseated. The testing assembly is being removed from the hole.

INDEX OF LABELED POINTS:

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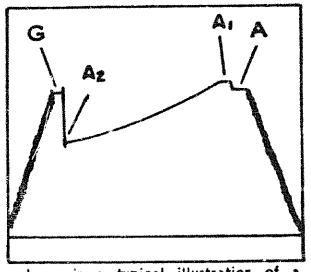
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



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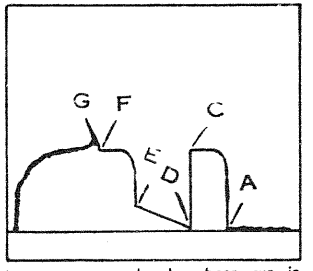
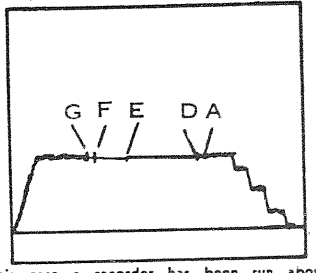
B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

JOHNSTON TESTERS

TECHNICAL REPORT

[redacted]

JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Zone Thickness		Ft	
Interval	4273	To	4375	I.D.	4407
Type of Test	Open Hole, Straddle, By Pass				
Time Started in Hole	0600	Hrs.	Tool Open	0913	Hrs
First Flow	5	Min.	Shut In	30	Min
Second Flow	60	Min.	Final Shut In	120	Min
Pulled Loose @	1248	Hrs.	Out of Hole	1650	Hrs
Wt. Set on Packer	40,000		# Pulled Loose Wt	20,000	#
Remarks	Mud Dropped 1 1/2 Feet During Test Period.				
	Tool was Chased 10 Feet During Test Period.				

Description of Blow During Test: Good Strong Blow, Decreasing Almost Dead in 60 Minutes.

GAS BLOW MEASUREMENTS

Measured with ____ I.D. Riser or Est. ☐

Type of Instrument ____

Time	Sfce. Choke	Reading Inches	Cubic Feet Day

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered (Total) 40' Ft

Description of Fluid Recovered: 40' Gasified Oil Cut Drilling Fluid.

Remarks: Test Satisfactory.

Co. Rep. D. Morrison Bain

Tester D. Matson

Elevation	1720 KB		1702 GL
Bottom Hole Choke Size			1/2"
Fluid Cushion Type			
Amount			

TOOL SEQUENCE

Tool	Length	O.D.
D.P. Sub.	.70	6"
Shut in Tool	6.05	4 5/8"
Hyd. Tool	7.45	4 5/8"
Jars	4.15	4 5/8"
H. Sub.	.65	4 5/8"
Safety Jt.	1.75	4 5/8"
T.C. & Pkr.	6.20	6 5/8"
T.C. & Pkr.	6.20	6 5/8"
Total	33.15	
Stub	1.70	4 5/8"
Perf.	18.00	4 5/8"
R. Sub.	.65	4 5/8"
Recorder	5.90	4 7/8"
Recorder	5.90	4 7/8"
Sub.	.75	6"
D..C.	64.85	
Sub.	.55	5 1/2"
T.C. & Stub	3.50	6 5/8"
Total Interval	101.80	
Pkr.	3.65	
T.C. & Packer	6.35	6 5/8"
Perf.	20.00	4 5/8"
Perf. & B. Nose	2.50	4 5/8"
Total Below Intv.	32.50	
Total Length	167.45	

MUD AND HOLE DATA

Mud Type	Gel and Chem	W.L.	7.2
Filter Cake	2/32	Visc. 70	Wt. 9.1
Time Taken	January 15, 1965 @ 2100 hrs.		
Contractor	Parker Drilling	Rig No.	10
Drill Pipe Size	4 1/2 XH		
Drill Collar Size	2 7/8 ID	Length	504'
Main Hole Size	8 5/8"		
Rat Hole Size	6 1/8"		

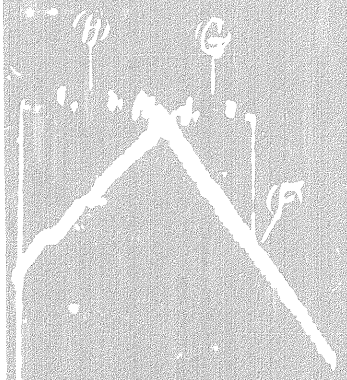
District	Edmonton	Ticket No.	C 2324
Company	Socony Mobil Oil of Canada	Address	P.O. Box 240, Dawson Creek, B. C.
Well Name	SMWM Chance YTG-8	Test No.	7
Number	66°-7'-18.1"N-137°-30'-50.8"W	Field	Wildcat
Formation	Chance Sand DST#7	Consultant	
and Interval	4273-4375		

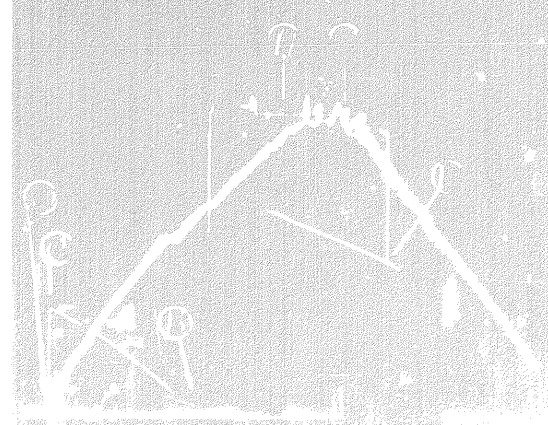
Date: January 16/65

J.T.L. Test No. 7

Province: Yukon

Distribution of Reports: 8 - Dawson Creek





JOHNSTON TESTERS

Pressure Data Test Ticket No. C 2324

JTL-CD-5

Recorder No.	T-49	T-52			
Capacity P.S.I.G.	7000	7000			
Recorder Depth	4293	4299			
Pressure Gradient P.S.I. Ft					
Well Temperature °F.	96°	96°			
A Initial Hydrostatic	2131#	2132#			
B First Initial Flow	70#	73#			
C Initial Shut-In-Pres	756#	758#			
D Flowing Pres	75#	75#			
E Final Flow	75#	75#			
F Final Shut-In	1101#	1108#			
G Final Hydrostatic	2093#	2079#			

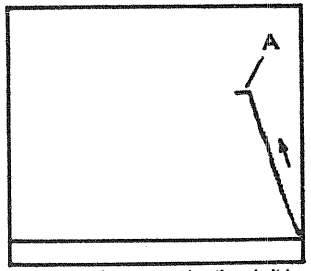
Remarks

T-49 - Outside Recorder

T-52 - Outside Recorder

GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



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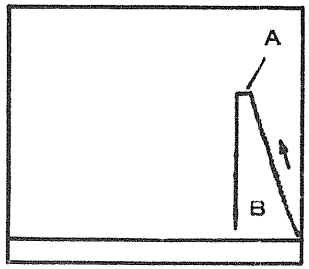

The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

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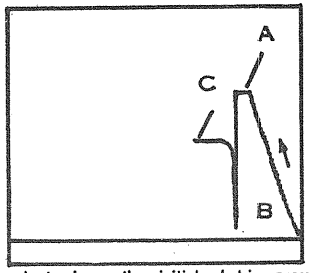

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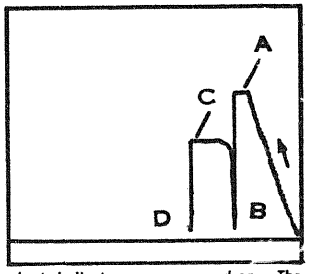

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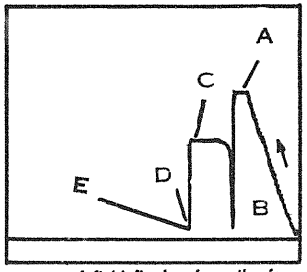
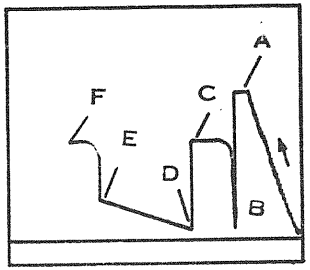
5



The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



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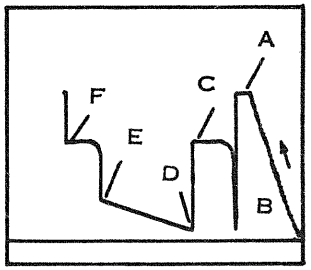

The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

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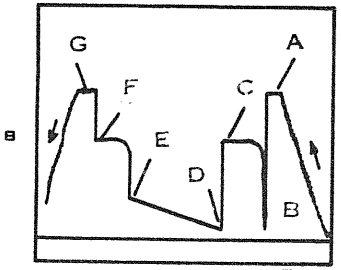

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C—Initial Shut-in
D—Initial Flow
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C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
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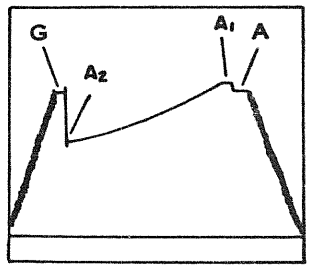

The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

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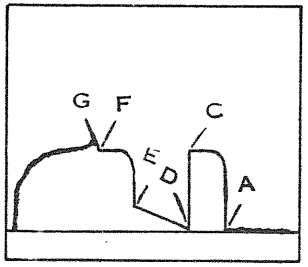

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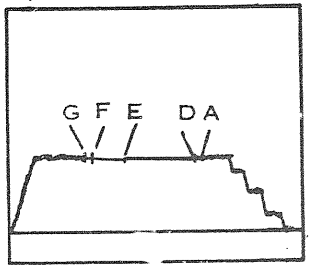
C



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JOHNSTON TESTERS

TECHNICAL REPORT

JTL.CD.4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Zone Thickness	Ft.	Elevation	1720 KB 1702 GL
Interval	4375 To 4397	T.D.	4397	Bottom Hole Choke Size	1/2"
Type of Test	Open Hole, Bottom Hole			Fluid Cushion Type	
Time Started in Hole	0100 Hrs.	Tool Open	Hrs.	Amount	
First Flow	5 Min.	Shut In	30 Min.		
Second Flow	60 Min.	Final Shut in	120 Min.		
Pulled Loose @	0720 Hrs.	Out of Hole	1200 Hrs.		
Wt. Set on Packer	40,000 #	Pulled Loose Wt.	10,000 #		

Remarks: Tool was Chased 9 Feet During Test Period.

Description of Blow During Test: Good Blow, Decreasing Slightly Throughout Test. Gas to Surface in 3 Minutes.

GAS BLOW MEASUREMENTS

Measured with ____ I.D. Riser or Est. ☐

Type of Instrument ____

Time	Sfce. Choke	Reading Inches	Cubic Feet Day
			T. S. T. M.

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered Total: 1180' Ft.

Description of Fluid Recovered: 1180' Oil

Remarks: Test Satisfactory.

Co. Rep: D. Morrison Bain

Tester: D. McCuaig

TOOL SEQUENCE

Tool	Length	O.D.
D.P. Sub.	.70	5 3/4
Shut in Tool	6.05	4 3/4
Hyd. Tool	7.45	4 3/4
Safety Jt.	1.75	4 3/4
T.C. & Pkr.	6.20	6 5/8
T.C. & Pkr.	6.20	6 5/8
Total	28.35	
Stub	1.10	4 3/4
Perf.	7.00	4 3/4
Recorder	5.90	4 3/4
Recorder	5.90	4 3/4
Perf. & B. Nose	2.50	4 3/4
Total Interval	22.40	
Total Length	50.75	

MUD AND HOLE DATA

Mud Type: Gel and Chem W.L. 6.8

Filter Cake 2/32 Visc 65 Wt 9.3

Time Taken: January 14, 1965 @ 2000 hrs.

Contractor: Parker Drilling Rig No. 10

Drill Pipe Size: 4 1/2 XH

Drill Collar Size: 2 7/8 ID Length 520'

Main Hole Size:

Rat Hole Size:

District: Edmonton Ticket No. C 2813 Date: January 15/65

Company: Socony Mobil Oil of Canada Address: P.O. Box 240, Dawson Creek, B. C.

Well Name: SMWM Chance YTG-8 Test No. 6 J.T.L. Test No. 6

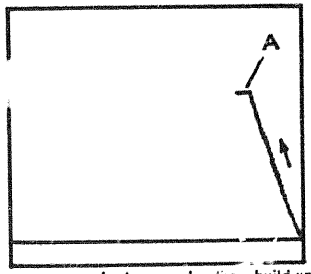
Number: 66°-7'-18.1"N-137°-30'-50.8"W Field: Wildcat Province: Yukon

Formation and Interval: Chance Sand DST#6 4375-4397 Consultant:

Distribution of Reports: 5 - Dawson Creek

GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



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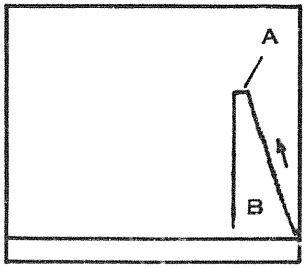

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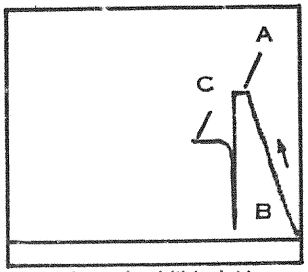

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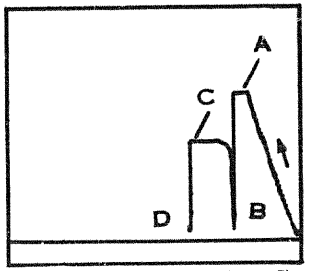

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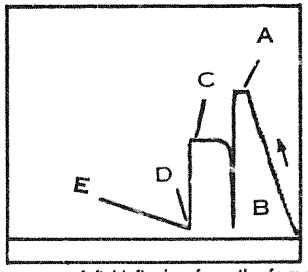

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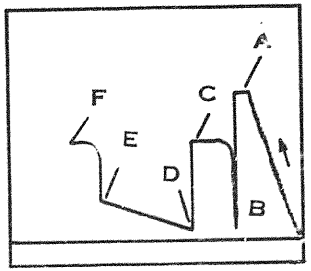

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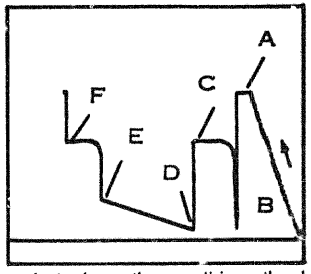

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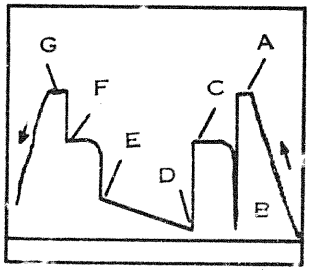

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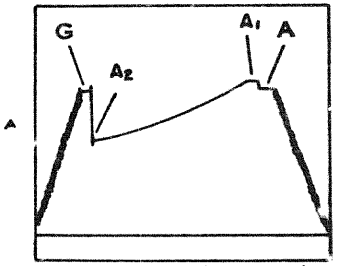

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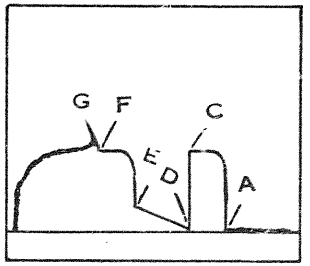

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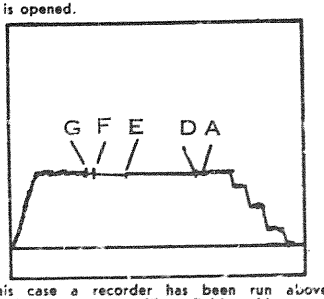

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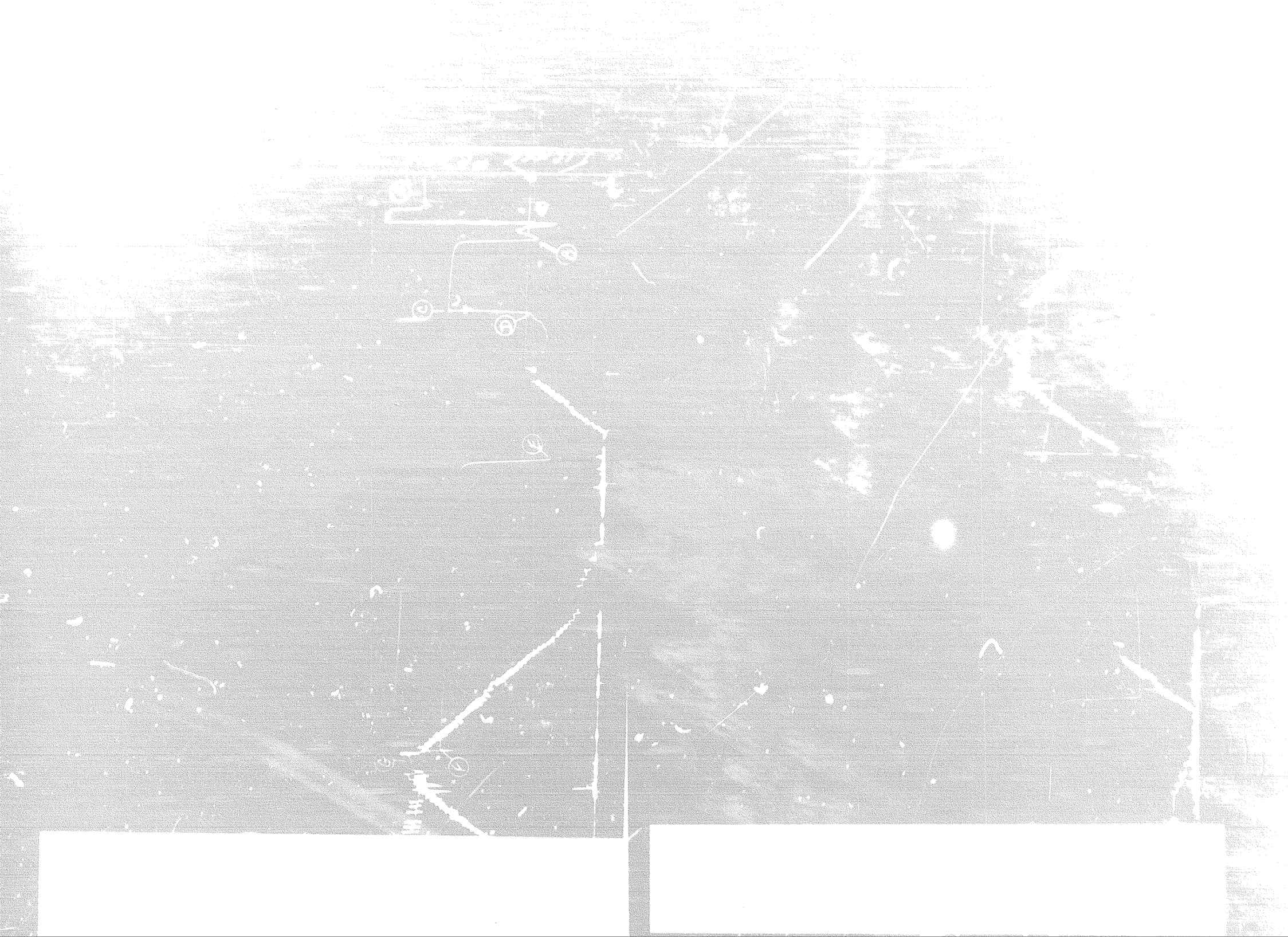

JOHNSTON TESTERS

Pressure Data

Test Ticket No C 2813

JTL-CD-5

Recorder No	T-52	T-49			
Capacity P.S.I.G.	7000	7000			
Recorder Depth	4377	4382			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F.	150° Est.	150° Est.			
A Initial Hydrostatic	2183#	2193#			
B First Initial Flow	867#	886#			
C Initial Shut-In Pres.	1868#	1868#			
D Flowing Pres.	939#	953#			
E Final Flow	656#	662#			
F Final Shut In	1829#	1829#			
G Final Hydrostatic	2158#	2178#			

Remarks

T-52 - Outside Recorder
T-49 - Outside Recorder

GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

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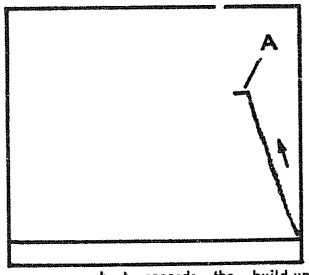

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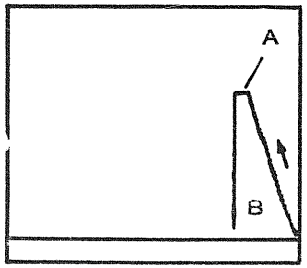

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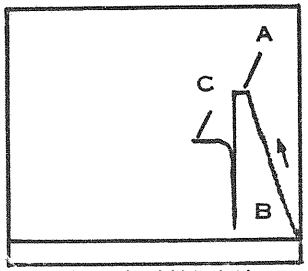

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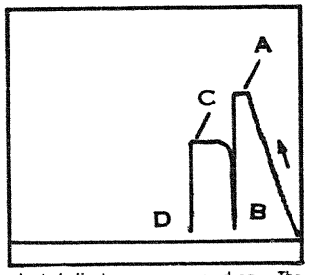

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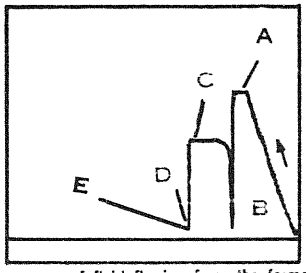

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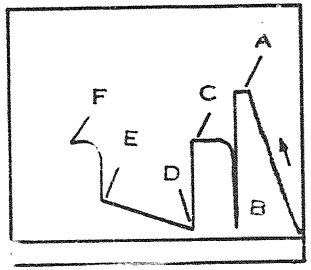

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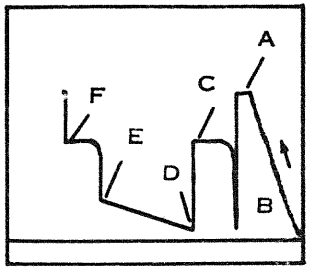
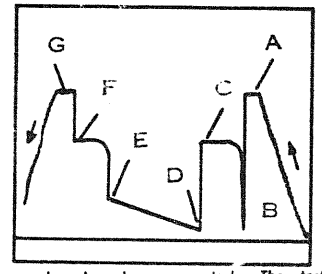
7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

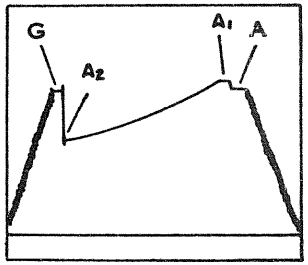
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

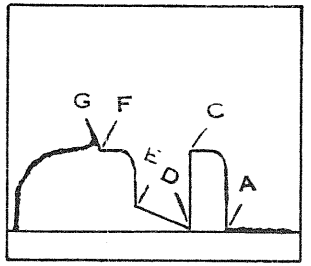
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



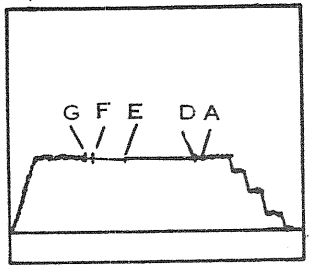
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

JOHNSTON TESTERS

TECHNICAL REPORT

[redacted]

JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Chance Sand	Zone Thickness			Ft.
Interval	4230 To 4273	T.D.	4273		
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	0900 Hrs.	Tool Open			Hrs
First Flow	5 Min.	Shut In	30		Min
Second Flow	60 Min.	Final Shut In	120		Min
Pulled Loose @	1450 Hrs	Out of Hole	1700		Hrs
Wt. Set on Packer	40,000	# Pulled Loose Wt.	20,000		#

Remarks: Tool was Chased 6 Feet During Test Period.

Description of Blow During Test: Good Blow, Decreasing Slightly Throughout Test. Gas to Surface in 7 Minutes.

GAS BLOW MEASUREMENTS

Measured with I.D. Riser or Est. ☐

Type of Instrument

Time	Sfce. Choke	Reading Inches	Cubic Feet Day
			T. S. T. M.

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered (Total) 160' Ft.

Description of Fluid Recovered: 160' Black Sulphurous Gas Cut Drilling Fluid.

Remarks: Test Satisfactory.

Co. Rep. D. Morrison Bain

Tester D. McCuaig

Elevation	1720 KB 1702 GL
Bottom Hole Choke Size	1/2"
Fluid Cushion Type	
Amount	

TOOL SEQUENCE

Tool	Length	O.D
D.P. Sub.	.70	6
Shut in Tool	6.05	4 3/4
Hyd. Tool	7.45	4 3/4
Safety Jt.	1.75	4 3/4
T.C. & Pkr.	6.20	6 5/8
T.C. & Pkr.	6.20	6 5/8
Total	28.35	
Stub	1.10	4 3/4
Perf.	28.00	4 3/4
Recorder	5.90	4 3/4
Recorder	5.90	4 3/4
Perf. & B. Nose	2.50	4 3/4
Total Interval	43.40	
Total Length	71.75	

MUD AND HOLE DATA

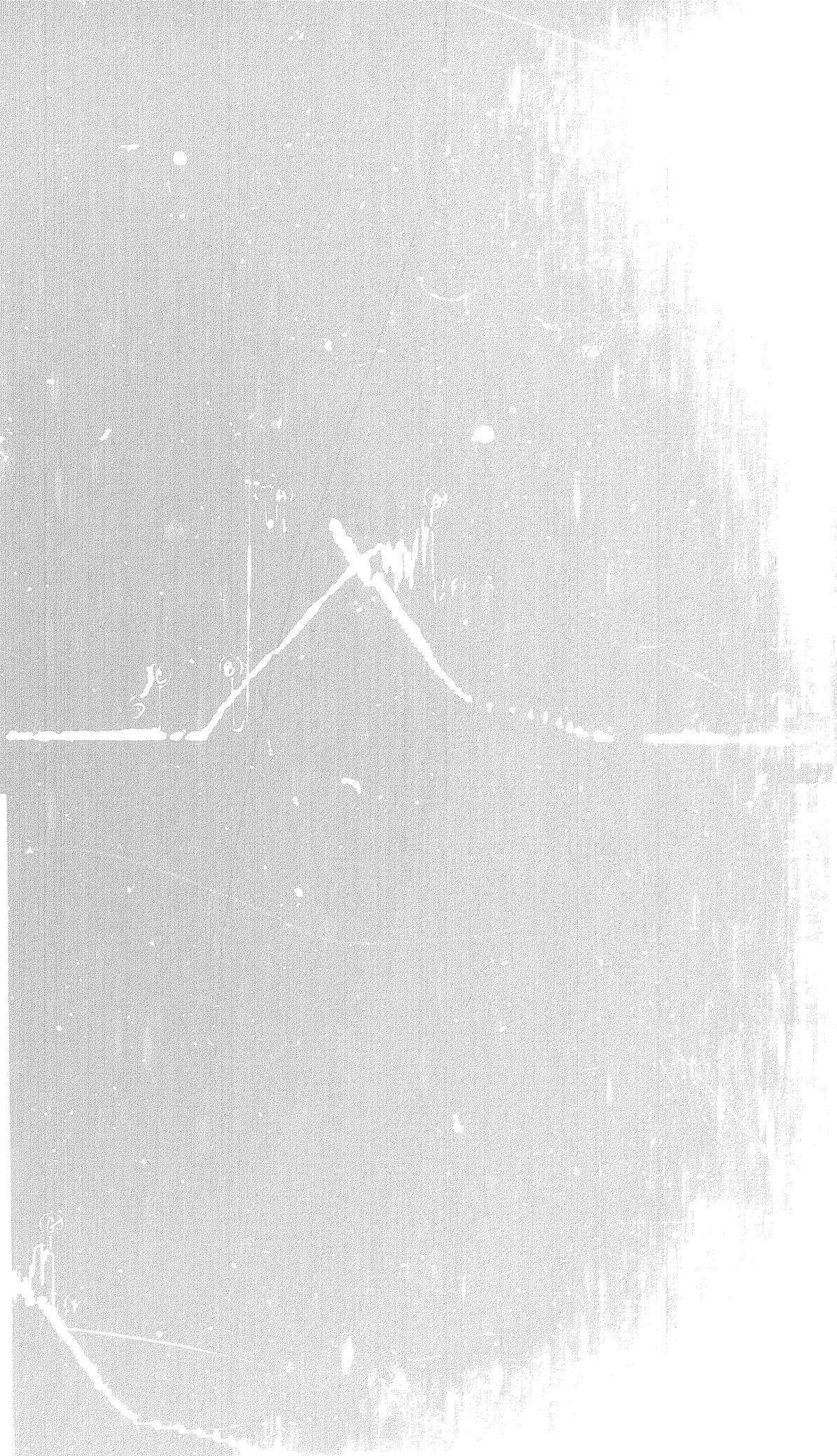
Mud Type	Gel and Chem	W.L.	7.8
Filter Cake	2/32 Visc. 77	Wt.	9.6
Time Taken	January 10, 1965 @ 0300 hrs.		
Contractor	Parker Drilling	Rig No.	10
Drill Pipe Size	4 1/2 XH		
Drill Collar Size	2 7/8 ID	Length	600'
Main Hole Size	8 5/8"		
Rat Hole Size			

District	Edmonton	Ticket No.	C 2811
Company	Socony Mobil Oil of Canada	Address	P.O. Box 240, Dawson Creek, British Columbia
Well Name	SMWM Chance YTG-8	Test No.	5
Number	66°-7'-18.1"N-137°-30'-50.8" W	Field	Wildcat
Formation	Chance Sand DST#5	Consultant	
and Interval	4230-4273		
Distribution of Reports	5 - Dawson Creek		

Date January 11/65

J.T.L. Test No. 5

Province Yukon



JOHNSTON TESTERS

Pressure Data Test Ticket No. C 2811

JTL-CD-5

Recorder No.	T-49	T-52			
Capacity (P.S.I.G.)	7000	7000			
Recorder Depth	4232	4237			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F.	124°	124°			
A Initial Hydrostatic	2110#	2138#			
B First Initial Flow	114#	130#			
C Initial Shut-In-Pres	365# FALSE	385#			
D Flowing Pres	87#	99#			
E Final Flow	103#	104#			
F Final Shut-In	1340#	1340#			
G Final Hydrostatic	2086#	2087#			

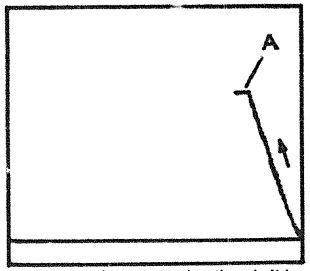
Remarks

T-49 - Outside Recorder

T-52 - Outside Recorder

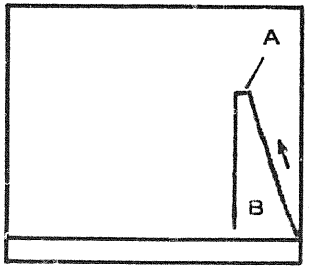
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



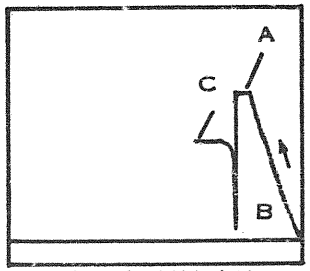
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



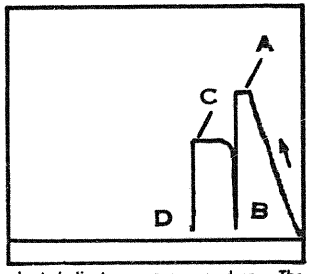
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



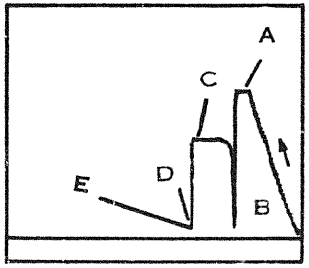
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



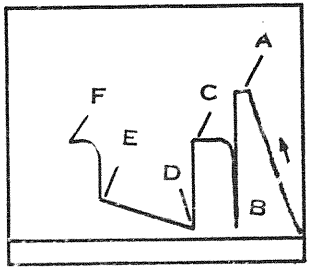
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



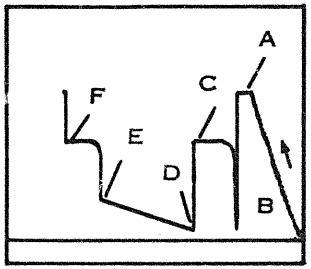
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



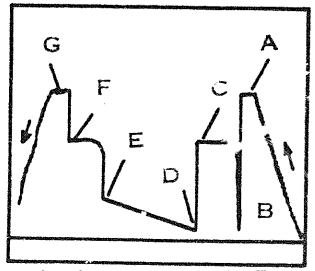
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

INDEX OF LABELED POINTS:

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D—Initial Flow
E—Final Flow
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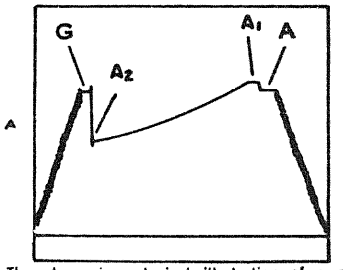
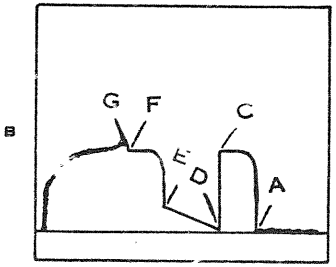
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E-1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



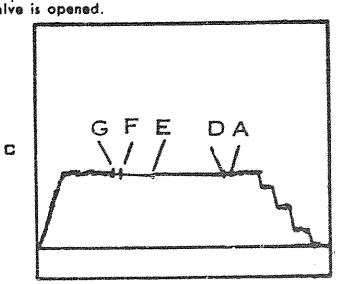
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



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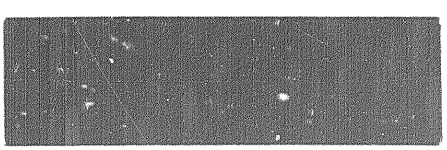
JOHNSTON TESTERS

TECHNICAL REPORT



JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Chance	Zone Thickness		Ft	
Interval	4250	To	4262	T.D.	4262
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	2350	Hrs	Tool Open		Hrs
First Flow	5	Min	Shut In	30	Min
Second Flow	60	Min	Final Shut In	120	Min
Pulled Loose @	0530	Hrs	Out of Hole	0900	Hrs
Wt. Set on Packer	40,000	# Pulled		60,000	#

Remarks: Tool was Chased 14 Feet [illegible] Test Period.

Description of Blow During Test: Weak Blow, Increasing to Fair Blow. Gas to Surface in 54 Minutes. Two Foot Flare.

GAS BLOW MEASUREMENTS

Measured with: [illegible] I.D. Rise or Est. [ ]

Type of Instrument:

Time	Size Choke	Reading Inches	Cubic Feet Day
			T. S. T. M.

FLUID RECOVERY

Was Test Reverse Circulated Yes [ ] No [X]

Fluid Recovered (Total) 75' Ft

Description of Fluid Recovered: 75' Sulphurous Gas Cut Drilling Fluid.

Remarks: Mis-Run, Tool Plugged, 14 Feet of Fill on Bottom.

Co. Rep. D. Morrison Bain

Tester D. McCuaig

Elevation 1720 KB 1702 GL

Bottom Hole Choke 1/2"

Hard Cushion Type

Amount

TOOL SEQUENCE

Tool	Length	O.D.
D.P. Sub.	.70	6
Shut in Tool	6.05	4 3/4
Hyd. Tool	7.45	4 3/4
Recorder	5.90	4 3/4
Safety Jt.	1.75	4 3/4
T.C. & Pkr.	6.20	6 5/8
T.C. & Pkr.	6.20	6 5/8
Total	34.25	
Stub	1.10	4 3/4
Perf.	2.00	4 3/4
Recorder	5.90	4 3/4
Perf. & B. Nose	2.50	4 3/4
Total Interval	11.50	
Total Length	45.75	

MUD AND HOLE DATA

Mud Type Gel and chem W.L. 7.2

Filter Cake 2/32 Visc. 46 Wt. 9.6

Time Taken January 9, 1965 @ 1200 hrs.

Contractor Parker Drilling Rig No. 10

Drill Pipe Size 4 1/2 XH

Drill Collar Size 2 7/8 ID Length 570'

Main Hole Size 8 5/8"

Rat Hole Size

District Edmonton Ticket No. C 2810 Date January 9/65

Company Socony Mobil Oil of Canada Address P.O. Box 240, Dawson Creek, B. C.

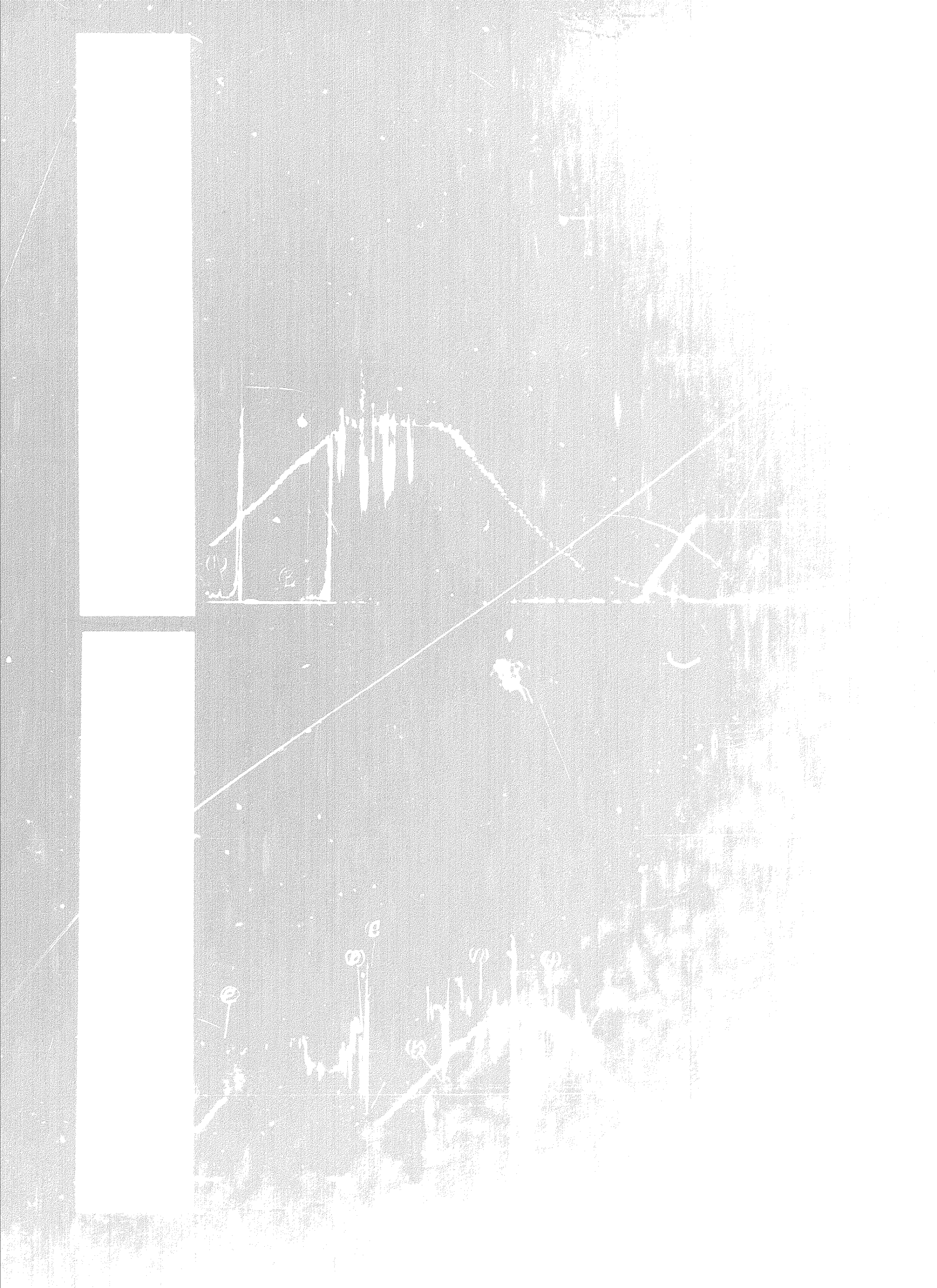
Well Name SMWM Chance YTG-8 Test No. 4 Test from 4

Number 66°-7'-18.1"N-137°-30'-50.8"W Field Wildcat Province Yukon

Formation Chance DST#4

and Interval 4250-4262

Distribution 5 - Dawson Creek



JOHNSTON TESTERS

Pressure Data Test Ticket No. C 2810

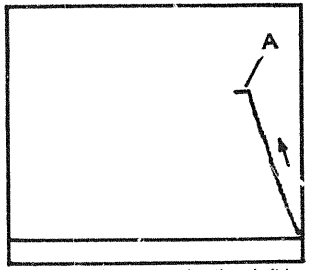
JTL-CD-5

Recorder No.	T-49	T-52			
Capacity P.S.I.G.	7000	7000			
Recorder Depth	4224	4254			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F.	126°	126°			
A Initial Hydrostatic	2098#	2101#			
B First Initial Flow	87#	1196#			
C Initial Shut-In-Pres	2585#	2585#			
D Flowing Pres	92#	771#			
E Final Flow	102#	1572#			
F Final Shut-In	1138#	1839#			
G Final Hydrostatic	2096#	2101#			
Remarks	MIS-RUN, TOOL PLUGGED.				

T-49 - Inside Recorder
T-52 - Outside Recorder

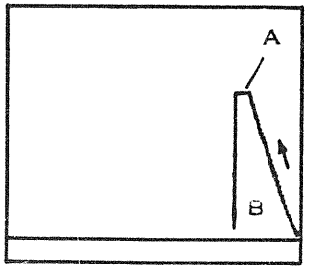
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



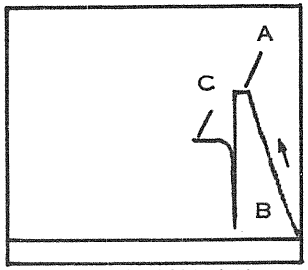
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



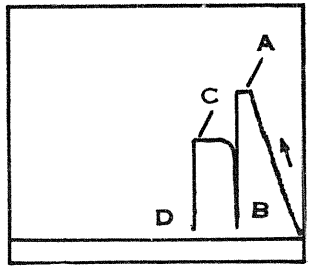
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



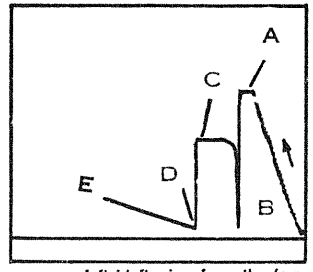
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



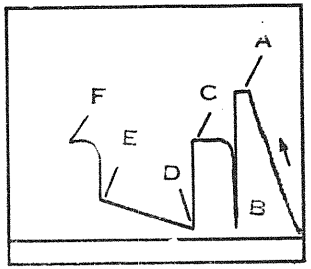
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



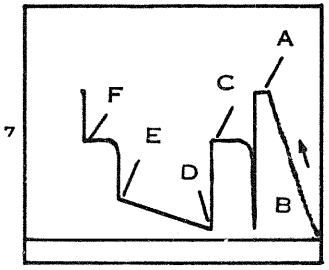
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



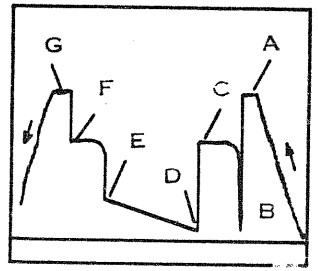
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

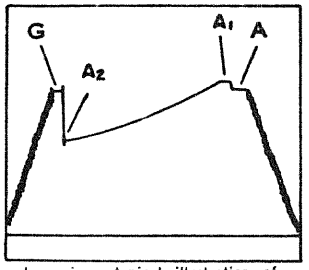
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

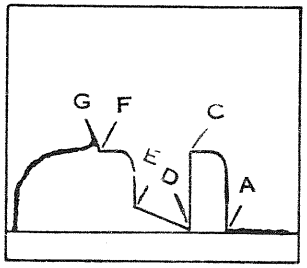
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



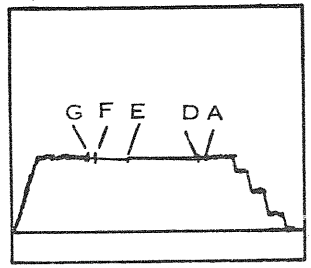
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



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JOHNSTON TESTERS

TECHNICAL REPORT

[redacted]

JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Alder	Zone Thickness			Ft.
Interval	3920	To	3960	T.D.	3960
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	2015	Hrs.	Tool Open		Hrs.
First Flow	5	Min.	Shut In	30	Min.
Second Flow	60	Min.	Final Shut In	120	Min.
Pulled Loose @	0235	Hrs.	Out of Hole	0500	Hrs.
Wt. Set on Packer	40,000	#	Pulled Loose Wt.	25,000	#

Remarks: Tool was Chased 6 Feet During Test Period.

Description of Blow During Test: Weak Blow Throughout Test.

GAS BLOW MEASUREMENTS

Measured with: I.D. Riser o. Est. ☐

Type of Instrument:

Time	Sfce. Choke	Reading Inches	Cubic Feet Day

FLUID RECOVERY

Was Tes. Reverse Circulated Yes ☐ No ☒

Fluid Recovered Total: 170' Ft.

Description of Fluid Recovered: 170' Gas Cut Drilling Fluid.

Remarks: Test Satisfactory.

Co. Rep.: D. Morrison Bain

Tester: D. McCuaig

Elevation	1720 KB		1702 GL
Bottom Hole Choke Size			1/2"
Fluid Cushion Type			
Amount			

TOOL SEQUENCE

Tool	Length	O.D.
D.P. Sub.	.70	5 3/4
Shut in Tool	6.05	4 3/4
Hyd. Tool	7.45	4 3/4
Jars	4.10	4 3/4
Safety Jt.	1.75	4 5/8
T.C. & Pkr.	6.20	56 5/8
T.C. & Pkr.	6.10	6 5/8
Total	32.35	
Stub	1.10	4 3/4
Perf.	25.00	4 3/4
Recorder	5.90	4 3/4
Recorder	5.90	4 3/4
Perf. & B. Nose	2.20	4 3/4
Total Interval	40.10	
Total Length	72.45	

MUD AND HOLE DATA

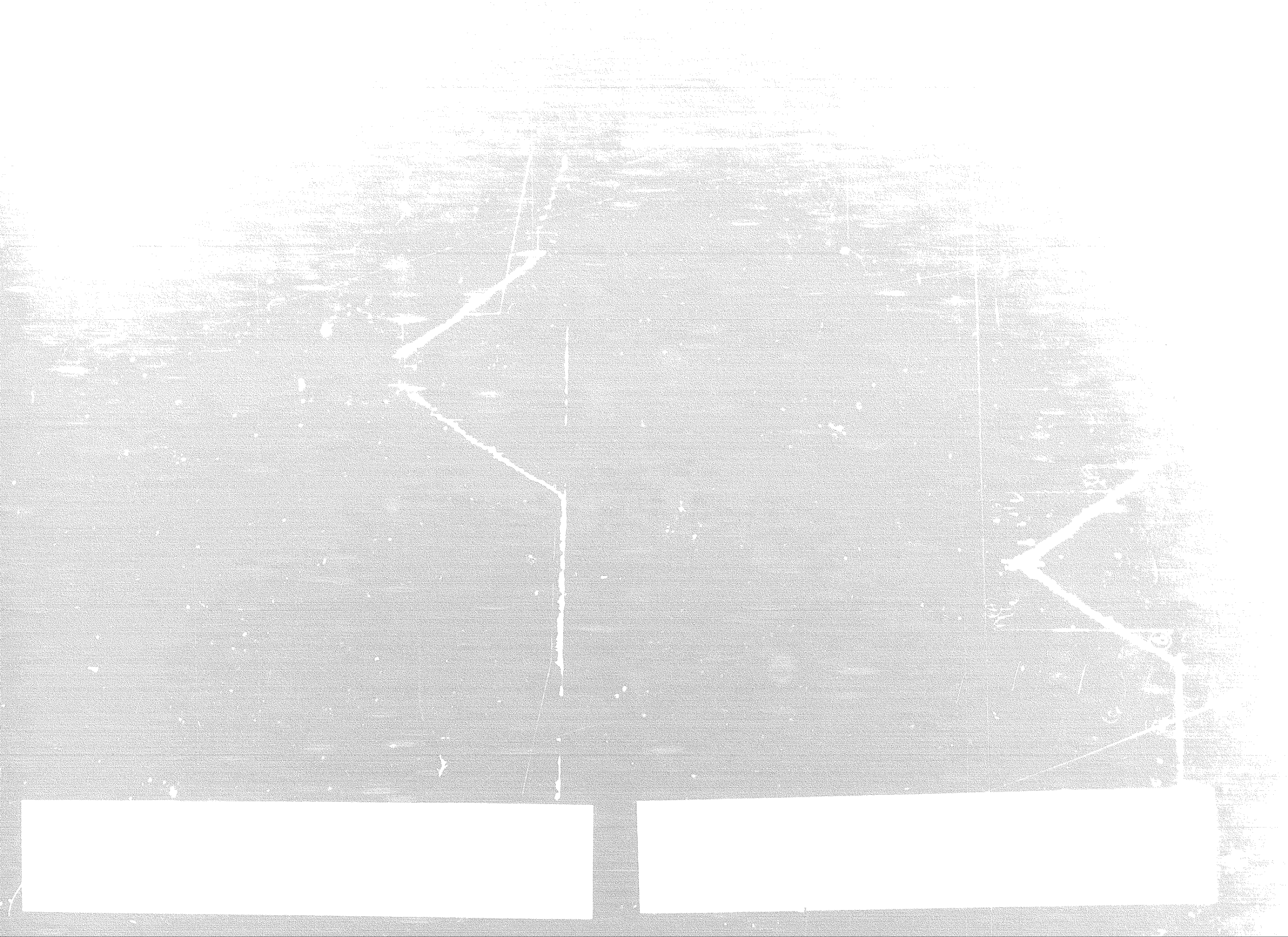
Mud Type	Gel and Chem	Wt.	7.6
Filter Cake	2/32	Visc. 77	Wt. 9.8
Time Taken	January 2, 1965 @ 1400 hrs.		
Contractor	Parker Drilling		
		Rig No.	10
Drill Pipe Size	4 1/2 XH		
Drill Collar Size	2 7/8 ID	Length	625'
Main Hole Size	8 5/8"		
Rat Hole Size			

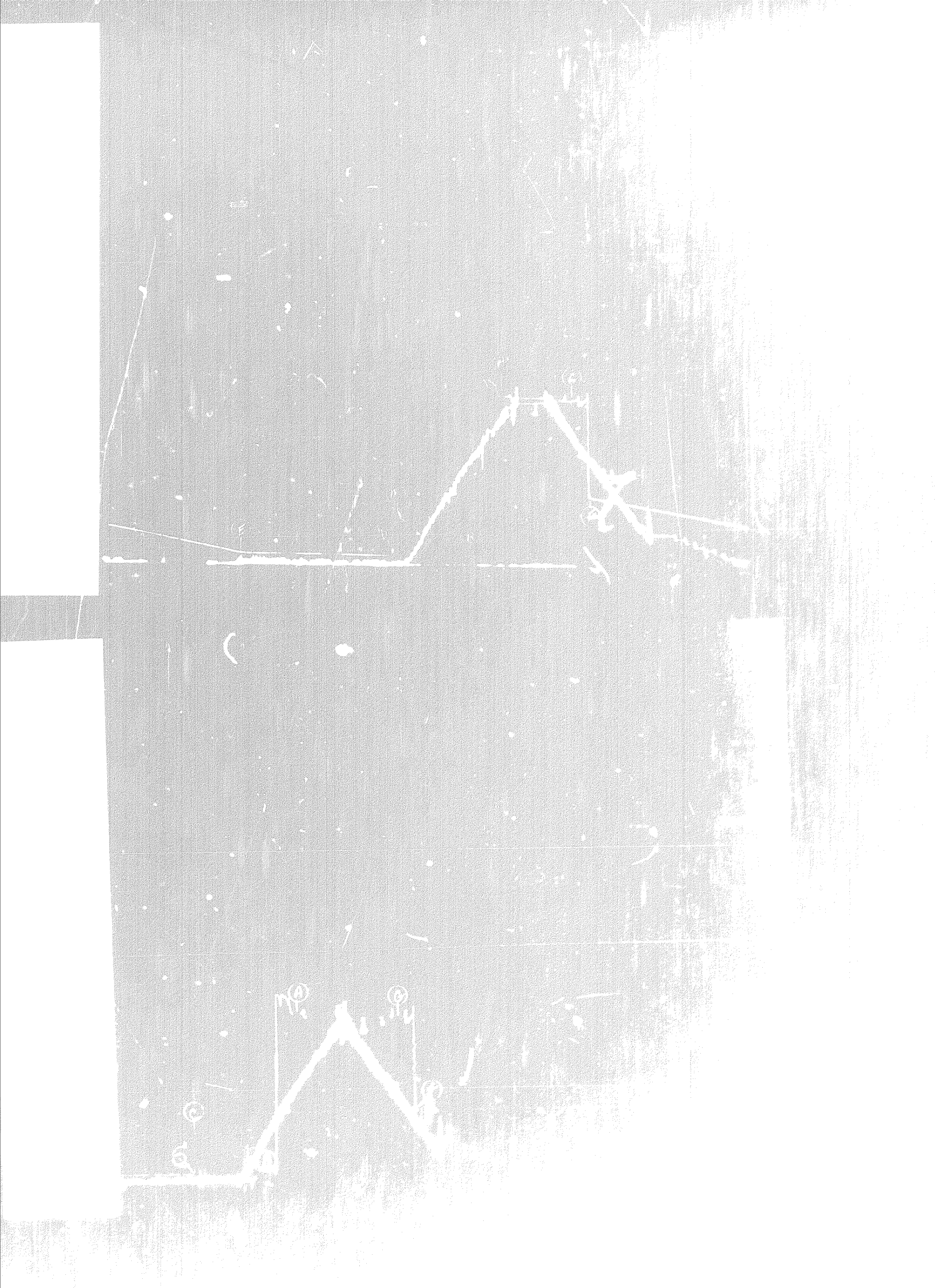
District	Edmonton	Ticket No.	C 2808
Company	Socony Mobil Oil of Canada	Address	P.O. Box 240, Dawson Creek, B. C.
Well Name	SMWM Chance YTG-8	Test No.	3
Number	66°-7'-18.1"N-137°-30'-50.8"W	Field	Wildcat
Formation	Alder DST#3	Consultant	
and Interval	3920-3960		
Distribution of Reports	5 - Dawson Creek		

Date: January 2/65

J.T.L. Test No. 3

Province: Yukon





JOHNSTON TESTERS

Pressure Data

Test Ticket No C 2808

JTL-CD-5

Recorder No.	T-49	T-52			
Capacity P.S.I.G.	7000	7000			
Recorder Depth	3922	3927			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F	148°	148°			
A Initial Hydrostatic	2008#	2016#			
B First Initial Flow	78#	93#			
C Initial Shut-In Pres.	584#	586#			
D Flowing Pres.	101#	110#			
E Final Flow	134#	138#			
F Final Shut-In	829#	831#			
G Final Hydrostatic	1974#	1973#			

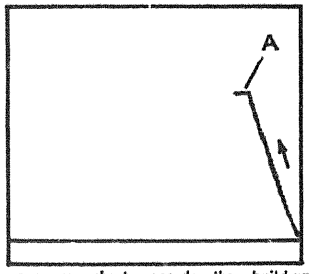
Remarks

T-49 - Outside Recorder

T-52 - Outside Recorder

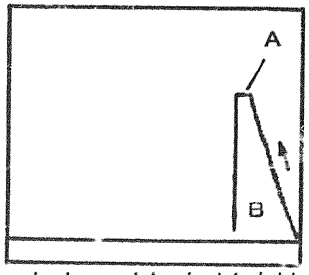
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



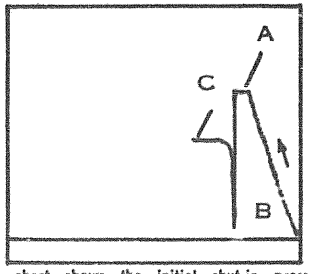
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



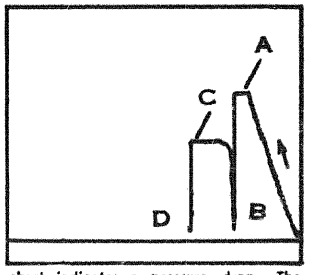
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



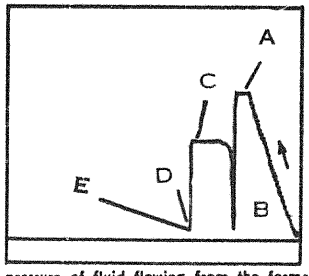
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



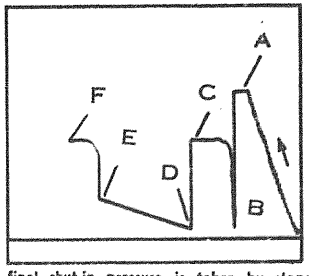
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



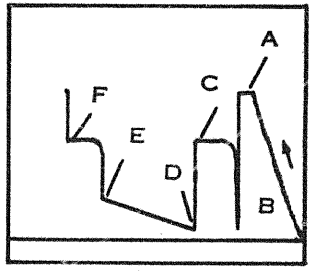
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



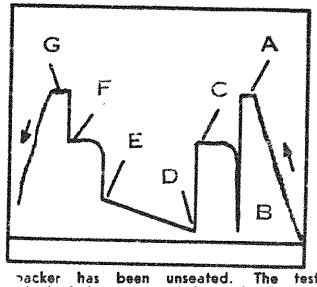
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

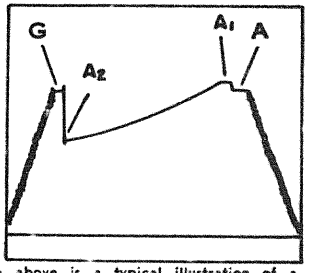
INDEX OF LABELED POINTS.

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

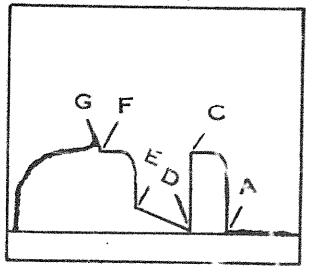
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



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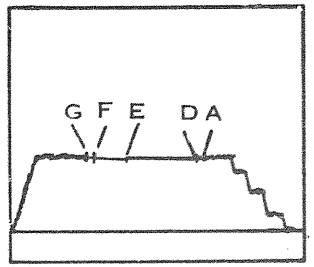
C



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JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Blackie Sand	Zone Thickness		Ft	
Interval	2270	to 2330	T.D.	2330	
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	0400	Hrs.	Tool Open		Hrs.
First Flow	5	Min.	Shut in	30	Min.
Second Flow	60	Min.	Final Shut In	90	Min.
Pulled Loose @	0900	Hrs.	Out of Hole	1030	Hrs.
Wt. Set Packer	40,000	# Pulled Loose With		60,000	#
Remarks					

Description of Blow During Test: Fair Blow. Gas to Surface in 12 Minutes. Ten Foot Flare.

Elevation	Not Reported
Est. Hole Size	1/2"
Flood Cushion Type	
Amount	

TOOL SEQUENCE

Tool	Length	O.D.
D.P. Sub.	.70	5 3/4
Shut in Tool	6.05	4 3/4
Hyd. Tool	7.45	4 3/4
Safety Jt.	1.75	4 5/8
T.C. & Pkr.	5.10	6 5/8
Total	21.05	
Stub	1.10	4 3/4
Perf.	44.50	4 5/8
Recorder	5.90	4 3/4
Recorder	5.90	4 3/4
Perf. & B. Nose	2.50	4 3/4
Total Interval	58.00	
Total Length	80.95	

GAS BLOW MEASUREMENTS

Measured with: ID Riser or Est.

Type of Instrument:

Time	Sfce. Choke	Reading Inches	Cubic Feet Day T. S. T. M.

FLUID RECOVERY

Was Test Reverse Circulated Yes ___ No X

Fluid Recovered Total: 180' Ft.

Description of Fluid Recovered: 180' Drilling Fluid.

Remarks: Test Satisfactory.

Co. Rep.: D. Bain

Tester: D. McCuaig

MUD AND HOLE DATA

Mud Type: Gel and Chem Wt. 7.0

Filter Cake 2/32 Visc. 53 Wt. 9.7

Time Taken: December 22, 1964 @ 0200 hrs.

Contractor: Parker Drilling

Rig No. 10

Drill Pipe Size: 4 1/2 XH

Drill Collar Size: 2 7/8 ID Length 600'

Main Hole Size: 8 5/8"

Rat Hole Size:

District: Yukon Ticket No. C 2806 Date: December 22/64

Company: Socony Mobil Oil of Canada, Ltd. Address: P.O. Box 240, Dawson Creek, British Columbia

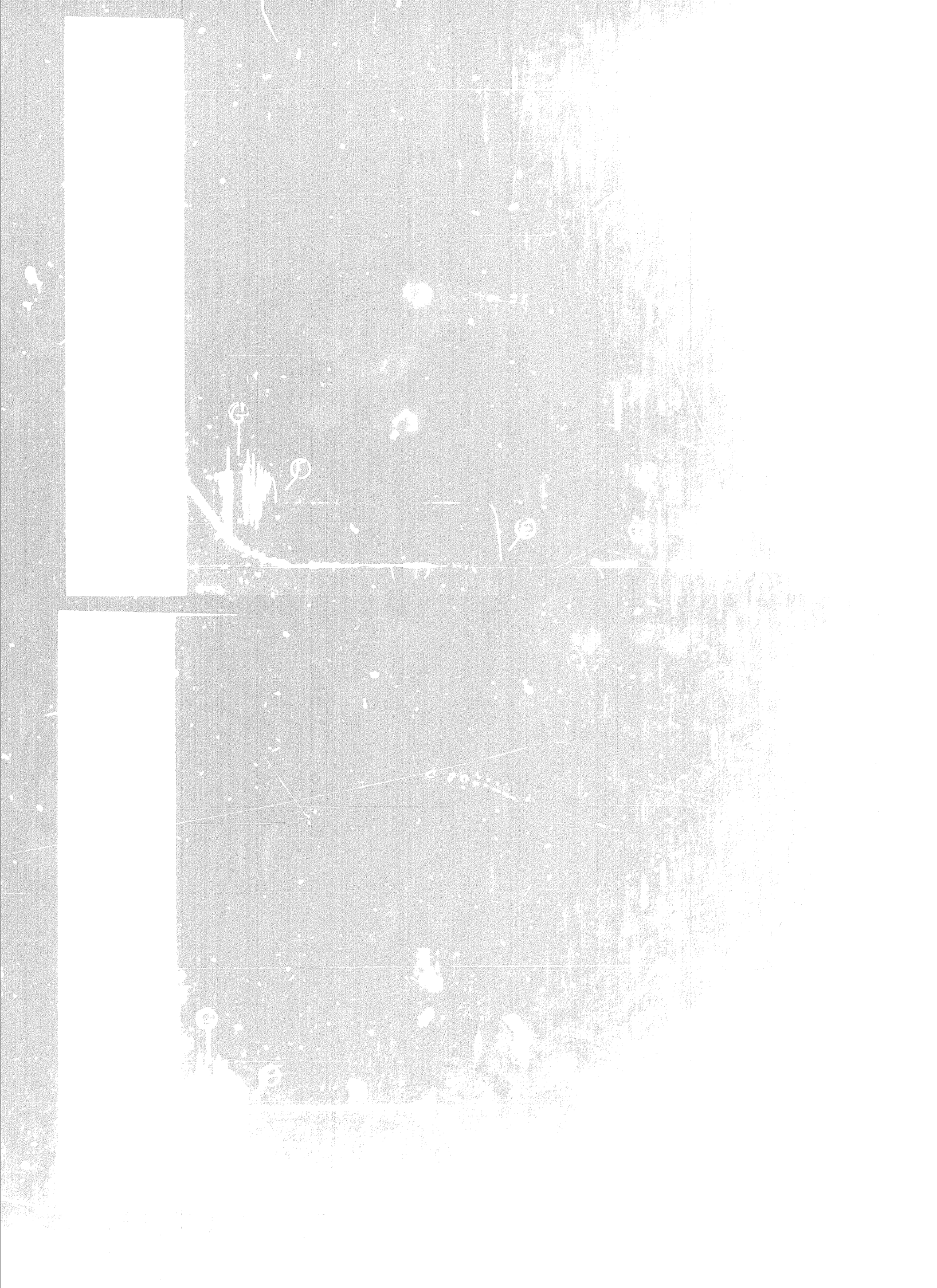
Well Name: SMWM Chance YTG-8 Test No. 2 Test No. 2

Number: #66°-7'-18.1"N-137°-30'-50.8"W Field: Chance Prov. or State: Yukon

Formation: Blackie Sand DST#2 Consultant:

and Interval: 2270-2330

Distribution of Reports: 5 - Dawson Creek



JOHNSTON TESTERS

Pressure Data

Test Ticket No C 2806

JTL-CD-5

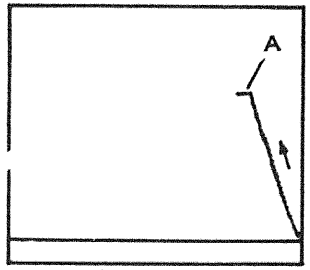
Recorder No	T-52	T-49			
Capacity P.S.I.G	7000	7000			
Recorder Depth	2290	2295			
Pressure Gradient P.S.I. Ft					
Well Temperature F	76°	76°			
A Initial Hydrostatic	1173#	1188#			
B First Initial Flow	65#	89#			
C Initial Shut-In Pres	793#	796#			
D Flowing Pres	76#	100#			
E Final Flow	104#	121#			
F Final Shut-In	802#	802#			
G Final Hydrostatic	1166#	1188#			

Remarks

T-52 - Outside Recorder
T-49 - Outside Recorder

GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



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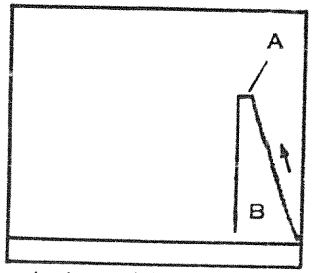
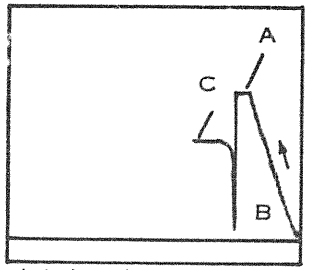
2



The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

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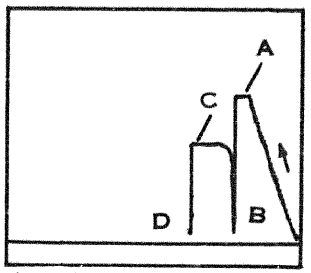

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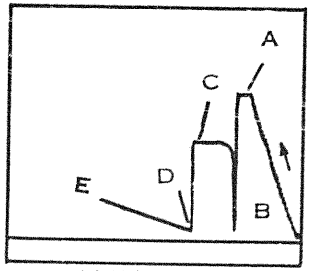
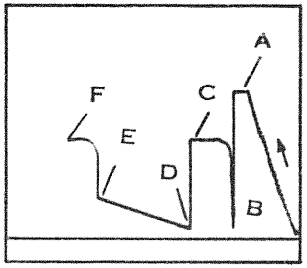


The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



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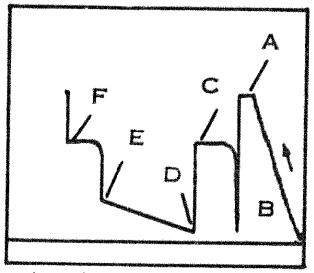
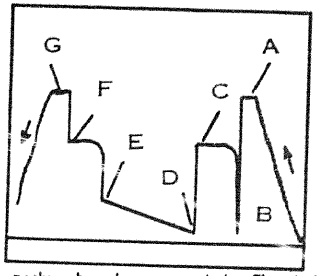
7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

INDEX OF LABELED POINTS:

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B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

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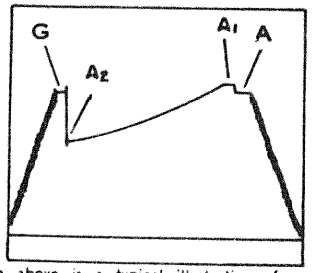
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

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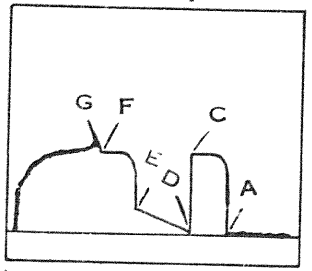
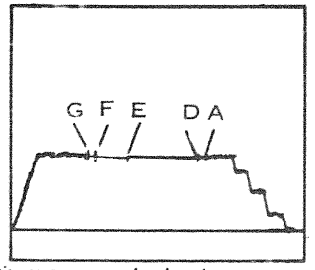


In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

JOHNSTON TESTERS

TECHNICAL REPORT

[redacted]

JOHNSTON TESTERS

JTL CO 4

TEST DATA

Formation					
Interval	2210	to	2260		2260
Type of Test	Open Hole, Bottom Hole				
Time Started	1800				
First Flow	5	Min.	Shut In		30 Min.
Second Flow	270	Min.	Final Shut In		30 Min.
Pulled Loose @	0130	Hrs.	Out of Hole		0330 Hrs.
Wt. Set on Packer	40,000		# Packers		15,000
Remarks					

Description of Blow During Test: Good Blow. Gas to Surface in 2 Minutes. Mud Spray to Surface in 25 Minutes. Blew Clean Gas After 155 Minutes.

GAS BLOW MEASUREMENTS

Measured with: 2" ID Restriction

Type of Instrument: Manometer

Time	Steel Choke	Impact Reading Inches	Mercury M Cubic Feet Gas
10 Mins.		3.6	971
20 Mins.		5.2	1170
125 Mins.		15.0	1979
180 Mins.		17.4	2136
255 Mins.	3" Riser	8.4	3346

FLUID RECOVERY

Was Test Reverse Circulated: Yes ___ No X

Fluid Recovered: Total 2'

Description of Fluid Recovered: 2' Drilling Fluid.

Remarks: Test Satisfactory.

Tester: D. Bain

Witness: D. McCuaig

Recorder: Not Reported

Choke: 1/2"

TOOL SEQUENCE

D.P. Sub.	.70	5 3/4
Shut in Tool	6.05	4 3/4
Hyd. Tool	7.45	4 3/4
Safety Jt.	1.75	4 5/8
T.C. & Pkr.	5.10	6 5/8
Total	21.05	
Stub	1.10	4 3/4
Perf.	34.50	4 5/8
Recorder	5.90	4 3/4
Recorder	5.90	4 3/4
Perf. & B. Nose	2.50	4 3/4
Total Interval	49.90	
Total Length	70.95	

MUD AND HOLE DATA

Mud Type: Gel and Chem — 7.0

Mud Wt.: 2/32 — 70 — 9.7

Contractor: Parker Drilling

Rig No.: 10

Drill Pipe: 4 1/2 XH

Drill Collars: 2 7/8 ID — 495'

Hole Size: 8 5/8"

Elevation:

District: Yukon — C 2805 — December 20/64

Company: Socony Mobil Oil of Canada — P.O. Box 240, Dawson Creek, British Columbia

Well: SMWM Chance YTG-8 — 1 — 1

Location: #66°-7'-18.1"N-137°-30'-50.8"W — Chance — Yukon

Test No.: DST#1 2210-2260

Formation:

Field: 5 - Dawson Creek

JOHNSTON TESTERS

Pressure Data

C 2805

JTL-C05

Recorder No.	T-52	T-49			
Capacity P.S.I.G.	7000	7000			
Recorder Depth	2212	2217			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F	74°	74°			
A Initial Hydrostatic	1171#	1182#			
B First Initial Flow	246#	247#			
C Initial Shut In Pr.	753#	752#			
D Flowing Pres.	271#	238#			
E Final Flow	428#	432#			
F Final Shut-In	720#	724#			
G Final Hydrostatic	1117#	1127#			

Remarks

T-52 - Outside Recorder
T-49 - Outside Recorder