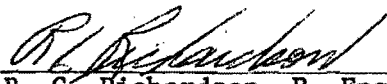


WELL HISTORY REPORT

CHEVRON SOBC WM W. PARKIN YT C-33

January 19, 1972



R. C. Richardson, P. Eng.
Project Manager

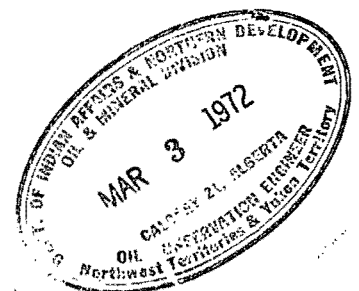


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SECTION I - SUMMARY OF WELL DATA

(a) Well Name and Number

Chevron SOBC WM W. Parkin YT C-33

(b) Permittee, Licensee or Lessee

Western Minerals Limited

✓(c) Name of Operator

Chevron Standard Limited
400 Fifth Avenue S.W.
Calgary 1, Alberta

(d) Location

Unit C, Section 33, Grid 66-20 - 137-15 UWLR - 66.20111^oN
137.36555^oW

(e) Coordinates

UWI - 300C336620-137150

Latitude: 66^o 12' 04" N; Longitude: 137^o 21' 56" W

Note: See amendment of December 15, 1971

✓(f) Permit or Lease Number

Permit No. 3354

(g) Drilling Contractor

G. P. Drilling Ltd., Rotary Rig #14

(h) Drilling Authority

No. 554, issued November 3, 1971

(i) Classification

Wildcat

(j) Elevations

Ground elevation - 1687.7' : K.B. elevation - 1706'

(k) Spudded

15:00 hours, November 29, 1971

✓(l) Completed Drilling

10:45 hours, January 9, 1972

- ✓ (m) I.D. and P.B.T.D.
T.D. - 4123' : P.B.T.D. - Surface
- (n) Well Status
Dry and permanently abandoned
- ✓ (o) Rig Release Date
24:00 hours, January 15, 1972
- (p) Hole Sizes to Total Depth
 - ✓ 30" Hole from surface to 60' K.B.
 - ✓ 24" Hole from 60' to 70'
 - ✓ 17-1/2" Hole from 70' to 826'
 - ✓ 12-1/4" Hole from 826' to 846'
 - ✓ 8-3/4" Hole from 846' to 4123'
- (q) Casing
19" O.D. conductor pipe set at 6.9' K.B.
- 13-3/8" K-55, 54.5# casing set at 823' K.B.
- (r) Engineers - L. F. Grumbley - H. Herring
Geologists - O. Gietz - N. Schultheis

SECTION II - GEOLOGICAL SUMMARY

(a) Formation Tops

<u>Formation</u>	<u>Depth</u> <u>Samples</u>	<u>Logs</u>	<u>Elevation</u> <u>K.B. 1706'</u>
Eagle Plain	Surface	Surface	
Blackie Sandstone Member	1605	1594	+ 112
L. Cretaceous Shale Unit	1880	1774	- 68
Orange Marker	2195	2192	- 486
Basal Siltstone Unit	2640	2640	- 934
Mississippian (Chance Sst.)	2873	2873	-1167
Mississippian Limestone	3490	3550	-1844

T.D.: 4123' (-2417)

(b) Cored Intervals

<u>Core No.</u>	<u>Interval</u>	<u>Formation</u>	<u>Recovery</u>
✓ 1	2268-2286	Orange Marker	18'
✓ 2	2287-2317	Orange Marker	30'
✓ 3	2877-2937	Chance Sandstone	58.5'

(c) Core Description

Core #1 2268-2286' Rec. 18'
 Coring Times 19, 18, 23, 23, 22, 19, 22, 19, 20, 18, 20, 23, 20, 20, 36, 36, 30. Core Jammed.

2268-2274
 6.0 Chert grit conglomerate. Chert pebbles up to 1 cm., well rounded to subrounded; brown, grey, green, in a fine to medium grained grey sandstone matrix. Glauconitic; siliceous cement. Poor intergranular porosity. Traces of gas bubbling, brown oil staining. Strong gas odor.

2274-2283
 9.0 Sandstone, brown-grey, fine grained, argillaceous, non-calcareous, glauconitic. Scattered chert pebbles. Upper contact is gradational, decrease in chert pebbles content of the matrix sand. Traces of intergranular porosity, oil stain, fluorescence. Trace of gas bubbling.

2283-2286
 3.0 Shale, black, non-calcareous, sub-fissile, scattered pyrite blebs and nodules. Slickensided. Upper contact appears erosional or irregular, slumped. Dip of contact 45° to core axis.

Core #2 2287-2317' Rec. 30'
 Coring Times 18, 27, 30, 24, 25, 24, 25, 24, 22, 24, 25, 22, 18, 20, 23, 23, 21, 22, 22, 22, 26, 24, 24, 24, 25, 25, 23, 25, 27, 25. Core discontinued because of iron in the borehole.

2287-2317
 30.0 Shale, dark, micromicaceous, non-calcareous, sub-fissile. Much pyrite, disseminated along bedding planes, and as fine nodules. Scattered, faintly calcareous brown-grey ironstone concretions. Bedding dip 5° to core axis.

Core #3 - 2877-2937 Rec. 58.5'

Coring Times - 35, 20, 15, 10, 10, 15, 13, 12, 17, 13,
9, 26, 31, 11, 11, 25, 19, 32, 37, 33,
28, 24, 12, 15, 17, 32, 16, 27, 28, 24,
25, 30, 23, 26, 13, 14, 18, 15, 16, 15,
20, 20, 15, 13, 11, 17, 17, 18, 20, 19,
12, 20, 21, 18, 18, 20, 30, 20, 25, 23.

Core Description -

- 2877-2878 - Shale, grey-brown, sandy, silty, pyritic, non-calcareous.
1.0
- 2878-2879.8 - Sandstone, light brown, fine to medium grained, subrounded
1.8 to subangular well sorted quartz grains, scattered glauconite,
non-calcareous. Fair intergranular porosity, stain, fluorescence.
- 2879.8-2880 - Sandstone, pale grey, medium grained subangular to subrounded
0.2 quartz grains, well sorted. Poor intergranular porosity, light
oil stain, fluorescence.
- 2880-2884.6 - Sandstone, brown, medium to coarse grained, poor to fair
4.6 sorting of subangular quartz grains, scattered coarse, sub-
rounded quartz and chert grains. Trace of glauconite. Plant
remains at 2883'. Good intergranular porosity, oil stain,
fluorescence.
- 2884.6-2885.8 - Conglomerate, brown, chert and clay stones, up to 10 cm. in
1.2 a brown sandstone-grit matrix. Non-calcareous. Much secondary
silica as cement and crystal facies. Fair porosity, oil stain,
fluorescence.
- 2885.8-2886.6 - Sandstone, grey, medium grained, irregular argillaceous partings-
0.8 slumped. Trace of pyrite. Poor intergranular porosity, light
oil stain, fluorescence.
- 2886.6-2887.6 - Sandstone, grey-brown, medium to coarse grained, scattered
1.0 coarse chert grit. Subangular, poorly sorted quartz grains.
Trace of glauconite, pyrite. Fair intergranular porosity,
oil stain, fluorescence.
- 2887.6-2892.0 - Sandstone, brown, coarse grained - fine chert grit in a medium
4.4 grained sandstone matrix. Subrounded quartz and chert grains,
fairly well sorted matrix, slightly calcareous. Good inter-
granular porosity, oil stain, fluorescence.
- 2892.0-2893 - Sandstone, light grey, medium to coarse grained, poor to fair
1.0 sorting, very calcareous, tight. Subrounded grey and dark
grey chert grit and quartz sand in a limestone matrix.

- 2893-2901.9 - Sandstone, brown, coarse grained chert grit in a medium
8.9 grained sandstone matrix, poor to fair sorting, slightly calcareous. Good porosity, oil stain, fluorescence.
- 2901.9-2903.5 - Sandstone, dark brown-grey, argillaceous, fine to medium
1.6 grained. Shale parting at top dips 5°. Poor intergranular porosity, oil stain, fluorescence.
- 2903.5-2907.8 - Sandstone, pale grey, medium to coarse sandstone-chert grit,
4.3 in a very calcareous matrix - limestone approx. 30% of rock. Tight. Scattered dark grey shale partings. Traces of oil bleeding, 2906-2906.9.
- 2907.8-2915.6 - Sandstone, grey-brown, coarse grained, subrounded quartz and
7.8 chert grains, calcareous, argillaceous matrix. Poor to fair porosity, partly infilled with bitumen. Oil bleeding, oil stain and fluorescence.
- 2915.6-2918.1 - Limestone, or limey sandstone, dark brown-grey, fine grained,
2.5 scattered crinoid fragments. Poor intergranular porosity, stain, fluorescence.
- 2918.1-2922.3 - Sandstone, grey, very calcareous, medium to coarse grained;
4.2 subrounded quartz and chert grains, grading in part to a sandy grit. Slightly calcareous. Few dark grey shale partings. Fair intergranular porosity, partly infilled with bitumen. Oil stain, fluorescence.
- 2922.3-2926.3 - Sandstone, pale grey, medium grained quartz-chert sand, sub-
4.0 rounded, fairly well sorted, very calcareous matrix (25%-30%). Tight, except for a few streaks of oil bleeding.
- 2926.3-2926.6 - Sandstone, dark grey, argillaceous, calcareous, fine to
0.3 medium grained. Beds dip at 30°. Poor intergranular porosity, oil stain, fluorescence.
- 2926.6-2935.5 - Sandstone, grey, medium to coarse grained, fine chert grit
in a medium grained very calcareous (25%-30%) sandstone matrix. Trace of pyrite - dip 30°. Subrounded, poorly sorted quartz and chert grains. Tight except for oil bleeding - 2927.5-2928.4.
- 2935.5-2937 - Core not recovered.
1.5

(d) Sample Description

Conductor Pipe set at 50'.

Sample description starts at 60'-70' interval.

- 60-70 - Shale, grey, silty, non-calcareous, blocky. Minor rust stained shale. Trace of gypsum crystals.
- 70-80 - Shale, grey, micromicaceous in part, non-calcareous. Minor interbedded grey, sandy and silty shale.
- 80-100 - Shale, as above. Trace of brown, blocky shale, sandy streaks, trace of plant remains.
- 100-110 - Shale, as above. Much interbedded fine grained grey S&P argillaceous, kaolinitic, micaceous sandstone. Trace of pale grey argillaceous siltstone.
- 110-120 - Sandstone, grey-brown, S&P. Fine grained, slightly glauconitic, faintly calcareous, kaolinitic, argillaceous, tight. Trace of carbonized plant remains.
- 120-130 - Shale, grey, blocky to sub-fissile, non-calcareous, micromicaceous. Minor sandstone, as above.
- 130-140 - Shale and sandy shale, interbedded fine grained sandstone, rusty red stained.
- 140-160 - Sandstone, fine to medium grained, grey and brown, S&P, argillaceous, non-calcareous, angular to subangular quartz and chert grains. Tight.
- 160-170 - Sandstone, very fine to fine grained, grey, S&P, argillaceous, calcareous in part, tight. Much interbedded grey sandy and silty shale.
- 170-180 - As above. Much rust-red staining of shale and sandstone.
- 180-190 - Sandstone, grey, S&P, very fine grained, trace micaceous, argillaceous, non-calcareous, tight.
- 190-200 - Interbedded sandstone, very fine to fine grained, and shale and sandy shale. Much rust staining.
- 200-210 - Sandstone, grey, S&P, fine to medium grained, subangular, fair sorting. Fair intergranular porosity, no stain.
- 210-230 - Sandstone, grey, S&P, fine to medium grained. Traces of fair intergranular porosity. No stain. Much grey, S&P, slightly argillaceous, kaolinitic sandstone, tight.

- 230-250 - Sandstone, grey S&P, medium grained, calcareous. Subangular quartz and chert grains, fairly well sorted, kaolinitic. Much loose sand. Traces of fair intergranular porosity. No stain.
- 250-270 - Sandstone, grey S&P, medium grained, subangular quartz and chert grains, fairly well sorted, kaolinitic. Traces of fair porosity, questionable cut and fluorescence.
- 270-340 - Shale, grey and light grey, blocky, non-calcareous, micromicaceous. Traces silty, sandy streaks.
- 340-360 - Shale, grey, silty, non-calcareous. Traces of grey-brown shale, grey-green shale, trace of plant remains, minor grey sandy streaks.
- 360-400 - Shale, grey, silty, micromicaceous, interbedded argillaceous siltstone. Trace of coaly fragments.
- 400-410 - Sandstone, fine grained, grey, S&P, argillaceous. Much interbedded grey, micromicaceous shale.
- 410-450 - Shale, grey, silty, micromicaceous, blocky, non-calcareous. Few sandy streaks.
- 450-470 - Shale and silty shale, as above. Minor interbedded grey S&P, fine to medium grained sandstone, kaolinitic.
- 470-480 - As above. Minor grey-green shale.
- 480-520 - Sandstone, grey S&P, medium grained, subangular quartz and chert grains, non-calcareous, fair sorting. Good intergranular porosity, no stain. Much loose grains, 500-510.
- 520-540 - Shale, grey-green, blocky, and grey, micromicaceous, silty.
- 540-580 - Sandstone, grey S&P, medium grained, subangular quartz and chert grains, slightly kaolinitic. Fair intergranular porosity (trace of oil stain - spotty, good cut and fluorescence, 540-550).
- 580-610 - Shale, brown-grey and grey, silty, trace of ironstone, plant remains. Much interbedded fine grained grey sandstone, streaks of medium grained sandstone with fair porosity, no stain.
- 610-640 - Sandstone, grey S&P, fine to medium grained fairly well sorted, subangular quartz and chert grains, non-calcareous, argillaceous. Streaks of porous sandstone (spotty staining, yellow-green fluorescence and cut, 610-620).
- 640-660 - Sandstone, grey S&P, medium grained, friable - much loose sand. Non-calcareous, good porosity, no stain.

- 660-700 - Shale, grey, micromicaceous, silty streaks. Minor brown blocky shale, trace of ironstone.
- 700-710 - Siltstone, argillaceous, grading to silty shale, grey and grey-brown. Trace of plant remains.
- 710-820 - Shale, dark medium grey, sub-fissile, micromicaceous, silty, sandy streaks. Trace of ironstone.
- 820-830 - Sandstone, grey, finely S&P, fine grained, argillaceous, non-calcareous. Traces coaly fragments, gypsum. Much shale, as above.
- Surface casing landed at 823' K.B. Cemented with 850 sacks cement plus 3% CaCl_2 .
- 830-840 - Sandstone, grey, very fine grained, argillaceous, grading to sandy shale. Trace of coarse sandstone grit in a pale grey silicious matrix. Trace of chert grit, trace of dark grey limestone.
- 840-850 - Coal
- 850-915 - Shale, grey, sub-fissile to blocky, non-calcareous, micromicaceous. Few silty streaks, trace of coal.
- 915-920 - Sandstone, grey, S&P, fine grained, argillaceous, non-calcareous, kaolinitic. Scattered streaks of medium grained sandstone with intergranular porosity, trace of cut and fluorescence.
- 920-930 - Sandstone, as above, 60%.
Sandstone 40%, grey, S&P, medium to coarse grained, fairly well sorted quartz and chert grains, subangular. Good intergranular porosity, oil stain, cut and fluorescence.
- 930-940 - Shale, grey and light grey, smooth, blocky to sub-fissile, micromicaceous 60%. Sandstone, as above, grey S&P, medium to coarse grained, subrounded to subangular quartz and chert grains, fairly well sorted, friable. Good intergranular porosity, oil stain, cut and fluorescence.
- 940-950 - Shale, as above. Sand, as above, approx. 15% of sample - cvgs.
- 950-960 - Shale, as above. Much casing cement.
- 960-990 - Shale, grey and dark grey, micromicaceous, sub-fissile, non-calcareous. Minor coal, trace of sandy shale, traces of plant fragments. Much casing cement.
- 990-1000 - Shale, as above. Sandstone, dark medium grey, S&P, very fine grained, argillaceous, non-calcareous. Trace of plant remains, chert pebbles.

- 1000-1020 - Shale, dark medium grey and grey, sub-fissile to blocky, micromicaceous, non-calcareous.
- 1020-1030 - Shale, as above. Minor sandstone streaks, grey, S&P, fine grained, argillaceous, non-calcareous.
- 1030-1120 - Shale, grey and dark grey, blocky to sub-fissile, non-calcareous, trace of plant remains - 60%.
Sandstone, grey, S&P, fine grained, argillaceous, non-calcareous, kaolinitic, streaks of medium grained sandstone, tight - 40%.
- 1120-1130 - Shale, grey and dark grey, sub-fissile to blocky, trace of micromicaceous, non-calcareous. Traces of very fine grey sandy streaks.
- 1130-1140 - Shale, as above. Sandstone, pale grey, S&P, very fine grained, argillaceous, non-calcareous, silicious.
- 1140-1150 - Sandstone, light grey S&P, fine grained, trace of glauconite. Subangular to subrounded, fairly well sorted quartz and chert grains. Trace of intergranular porosity, faint cut and fluorescence.
- 1150-1160 - Shale, grey and light grey, sub-fissile, non-calcareous. Minor sandstone, as above.
- 1160-1180 - Shale, grey and light grey, sub-fissile, non-calcareous, micromicaceous in part. Traces of grey siltstone, minor grey sandy streaks. Trace of ironstone, plant remains.
- 1180-1200 - Sandstone, pale grey, fine grained, fairly well sorted subangular to subrounded quartz, minor chert grains, argillaceous, non-calcareous. Trace of glauconite. Traces of intergranular porosity, no stain, very faint cut and fluorescence.
- 1200-1210 - Sandstone, as above - 40%. No stain, cut or fluorescence. Shale - 60%, grey, light grey and light brown, blocky to sub-fissile, non-calcareous. Trace of grey-green shale.
- 1210-1240 - Shale, as above. Trace of fine grey sandy streaks.
- 1240-1270 - Sandstone, light grey, S&P, fine grained, argillaceous, non-calcareous. Fairly well sorted, subrounded to subangular quartz and chert grains, trace of glauconite. Trace of chert grit, plant remains.
- 1270-1280 - Sandstone, as above, trace of coarse sandstone. Shale, grey, blocky, silty in part, non-calcareous. Trace of ironstone, plant remains.
- 1280-1300 - Sandstone, grey, S&P, fine to medium grained, subrounded to subangular, fair sorting, quartz and chert grains, argillaceous, trace of glauconite, much grey silty, blocky shale.

- 1300-1320 - Shale, grey, silty, blocky, non-calcareous.
- 1320-1340 - Shale, as above, interbedded grey S&P siltstone and medium grained argillaceous sandstone. Trace of glauconite, chert pebbles.
- 1340-1380 - Sandstone, pale grey, fine grained, well sorted, subangular quartz grains, faintly calcareous. Tight.
- 1380-1440 - Shale, grey and dark grey, blocky to sub-fissile, micromicaceous, silty streaks, non-calcareous. Traces of grey-green shale, plant fragments, ironstone.
- 1440-1490 - Shale, grey and light grey, sub-fissile to blocky, non-calcareous. Traces of plant remains, silty streaks. Silty and very fine grained sandy streaks.
- 1490-1500 - Shale, as above. Traces to minor sandstone, fine grained, brown-grey and grey, argillaceous in part, non-calcareous. Trace of fluorescent cut, sand appears to be tight.
- 1500-1600 - Shale, grey to dark medium grey, blocky to sub-fissile, non-calcareous, micromicaceous in part, trace of brown shale, trace of ironstone, plant remains. Interbedded sandstone, very fine to fine grained, and siltstone, pale grey and grey-brown, non-calcareous. No stain, cut or fluorescence.
- 1600-1610 - Shale, grey, light grey and brown, blocky to sub-fissile. Much brown, silty shale, plant remains. Minor grey-brown and pale grey, very fine to fine grained sandstone, trace calcareous. Fairly well sorted subangular quartz grains. Traces of pale grey medium grained quartz sand, good porosity, no stain, fluorescence or cut.
- 1610-1620 - Shale, as above. Much brown siltstone and very fine grained quartz sandstone. Sandstone, pale grey, S&P, kaolinitic, non-calcareous, subrounded to subangular quartz, fairly well sorted, fine to medium grained, sparse silica cement, friable. Good intergranular porosity, no stain, cut or fluorescence.
- 1620-1630 - As above. Increase in pale grey friable sandstone content. No stain, cut or fluorescence in porosity.
- 1630-1640 - As above. Questionable cut and fluorescence of porous sandstone.
- 1640-1650 - As above. Much shale - interbedded. No stain, fluorescence or cut.
- 1650-1670 - Sandstone, pale grey and pale brown-grey, fine to medium grained, well sorted subangular to subrounded quartz grains, kaolinitic in part. Much interbedded light brown siltstone, brown and grey shale with traces of plant remains. Sandstone shows good intergranular porosity, no stain, questionable cut and fluorescence.

- 1670-1680 - As above. Increase in shale content - dark grey and brown, sub-fissile to blocky, non-calcareous. Sand shows porosity with faint fluorescence and cut.
- 1680-1730 - Sandstone, light grey-brown, very fine to fine grained, sub-rounded to subangular, well sorted quartz grains, trace of glauconite. Poor intergranular porosity, no stain, cut or fluorescence. Much interbedded grey and dark grey shale.
- 1730-1740 - Sandstone, pale grey, S&P, medium grained, subrounded to subangular, well sorted quartz grains. Fair intergranular porosity, no stain, cut or fluorescence. Much very pale brown, very fine grained to fine grained subangular, well sorted quartz sand. Tight. Much shale, as above.
- 1740-1770 - Shale, grey and dark grey, sub-fissile to blocky, traces of brown shale. Much sandstone, as above - cvg?
- 1770-1780 - Sandstone, pale grey, S&P, fine to medium grained, fairly well sorted, subrounded to subangular quartz, minor chert grains. Trace of glauconite. Questionable trace of porosity, no stain, cut or fluorescence.
- 1780-1790 - Sandstone, light brown, fine to medium grained, subrounded to subangular, fairly well sorted quartz, minor chert grains, kaolinitic. Trace of porous streaks, no stain, cut or fluorescence.
- 1790-1830 - Shale, grey and dark grey, minor brown-grey shale, sub-fissile to blocky, trace of plant remains. Minor interbedded light brown siltstone and very fine sandstone, tight.
- 1830-1860 - Shale, light grey, brown and grey, silty in part, blocky. Much dark grey shale, sub-fissile, micromicaceous. Minor interbedded siltstone and fine grained light brown sandstone, argillaceous.
- 1860-1870 - Sandstone, light brown, very fine to fine grained, subangular, well sorted quartz grains, slightly argillaceous, grading to siltstone.
- 1870-1880 - Shale, grey and dark grey, sub-fissile, micromicaceous in part. Traces of brown shale, plant remains. Sandstone, as above, grading to brown, very fine grained sandstone and siltstone.
- 1880-1890 - Shale, grey and dark grey, sub-fissile, micromicaceous, silty in part. Trace of ironstone.
- 1890-1900 - Shale, as above. Minor pale brown very fine grained sandstone and siltstone - cvg?

- 1900-1930 - Shale, dark grey to black, minor brown-grey shale, non-calcareous, sub-fissile, slightly bituminous, micromicaceous in part.
- 1930-1940 - Shale, as above. Much very fine grained sandstone and siltstone as above, cvg?
- 1940-2140 - Shale, grey and dark grey, sub-fissile to blocky, micromicaceous, silty streaks, non-calcareous. Much black, slightly bituminous shale. Traces of ironstone, pyrite, chert pebbles.
- 2140-2180 - Shale, dark grey, blocky to fissile, non-calcareous, micromicaceous in part. Fine grey silty streaks, non-calcareous. Trace of ironstone.
- 2180-2190 - Shale, as above. Trace of fine grained light grey quartz sand, subangular to subrounded, trace of kaolinitic. Fair intergranular porosity. No cut or fluorescence. Cvg?
- 2190-2200 - Grit conglomerate - well rounded pebbles, grit size, green, grey, brown, bluish grey and black chert, some well polished, in a silicious, coarse sandstone matrix. Fair to good intergranular porosity, yellow-green fluorescence and cut.
- 2200-2210 - Grit, as above. Friable. Trace of a glauconite. Fair porosity. Staining poor, due in part to the general brown color of the lithology. Fair to good fluorescence and cut.
- 2210-2220 - Grit, as above. Porosity, fluorescence and cut.
- 2220-2230 - As above. Porosity, fluorescence and cut.
- 2230-2240 - As above. Increase in proportion of coarse sandstone matrix. Fluorescence and cut.
- 2240-2250 - As above. Dark brown oil staining, fluorescence and cut.
- 2250-2260 - Coarse sandstone grit, as above. Dark brown stain, cut and fluorescence.
- 2260-2268 - No sample
- 2268-2286 - Core #1 Recovered 18' (see Core Descriptions)
- 2286-2287 - Drilled
- 2287-2317 - Core #2 Recovered 30' (see Core Descriptions)
- 2317-2620 - Shale, grey and dark grey, micromicaceous, sub-fissile, non-calcareous. Traces of brown, faintly calcareous ironstone concretion, siderite. Trace of pyrite. Few silty streaks, scattered calcareous shale streaks. Trace of subrounded chert pebbles.

- 2620-2630 - Shale, grey, interbedded dark grey shale. Scattered varicolored chert grains, traces of pyrite, ironstone, plant remains, grey argillaceous limestone. Trace of glauconite.
- 2630-2640 - Shale, as above. Trace of pale green and pale grey very pyritic shale.
- 2640-2650 - Shale, grey, silty in part, non-calcareous, trace glauconitic. Limestone approx. 20%, dark brown-grey, argillaceous, dense. Trace of ironstone, chert grains, plant remains.
- 2650-2660 - Shale, grey, silty, blocky, much glauconite. Minor interbedded dark grey shale, trace of light green waxy shale. Trace of ironstone, chert grains, pyrite.
- 2660-2670 - Shale, silty, glauconitic, as above. Minor interbedded grey, argillaceous very fine grained sandstone.
- 2670-2680 - Shale, grey, silty, glauconitic, blocky, non-calcareous. Traces of varicolored chert pebbles, bentonite, pyrite, ironstone.
- 2680-2700 - Shale, as above. Traces of pale grey silty shale, pale grey bentonite.
- 2700-2710 - Shale, grey, silty, non-calcareous, blocky, grading in part to argillaceous siltstone, glauconitic.
- 2710-2720 - Shale, as above, silty, glauconitic. Interbedded grey-brown fine to medium grained argillaceous, glauconitic sandstone. Much loose, rounded, fairly well sorted sand grains.
- 2720-2740 - Shale, grey, silty and sandy, glauconitic. Trace of pyrite, chert grains. Trace of brown, argillaceous, glauconitic limestone.
- 2740-2750 - Shale, grey, silty, blocky, few silty streaks.
- 2750-2760 - Shale, grey, silty, blocky. Trace of grey argillaceous limestone. Traces of pale brown sandy and silty dolomite.
- 2760-2770 - Shale, as above. Much pale brown dolomite, as above. Trace of grey, argillaceous, glauconitic limestone.
- 2770-2810 - Shale, silty, grey, blocky, slightly glauconitic. Minor pale brown sandy and silty dolomite. Traces of grey, argillaceous limestone.
- 2810-2850 - Shale, as above. Trace only of dolomite, as above.
- 2850-2860 - Shale, grey, silty, non-calcareous, blocky. Much pyritic and glauconitic shale.

- 2860-2870 - Glauconitic, pyritic shale, as above. Shale, dark brown grey, soft, fissile, non-calcareous. Chert - light grey to black, coarse pebbles in silicious, sandy, glauconitic matrix.
- 2870-2877 - Circulated sample. Shale and chert, as above. Sandstone, light grey, medium grained, fairly well sorted subrounded to subangular, vitreous quartz grains. Streaks of fair to good intergranular porosity, brown oil stained, fluorescence, cut.
- 2877-2937 - Core #3 Recovered 58.5' (see Core Descriptions)
- 2937-2950 - Sandstone, pale grey, very calcareous, grading to very sandy limestone. Fine to medium grained, scattered coarse grains of subangular to subrounded quartz and chert. Traces of porous, oil stained sandstone - cavings?
- 2950-2960 - Shale, brown and dark brown, very calcareous, in part an argillaceous limestone.
- 2960-3010 - Limestone, brown and dark brown, argillaceous, grading to a very limey shale.
- 3010-3030 - Limestone, as above. Trace of Brachiopod? fragments.
- 3030-3040 - Limestone, brown and dark brown, argillaceous. Shale, dark brown to black, slightly calcareous, bituminous, trace of pyrite. Trace of fossil shells, crinoids.
- 3040-3050 - Shale, as above. Traces of shell fragments, crinoids. Minor interbedded brown, argillaceous, silty limestone.
- 3050-3060 - As above - shaly limestone marl, dark brown and brown. Traces of fossil fragments.
- 3060-3070 - Limestone, brown, dense, slightly argillaceous, silty. Trace of brown micritic limestone. Much dark brown, bituminous, calcareous shale. Scattered crinoid fragments, shell fragments. Trace of oil stain on fracture surface.
- 3070-3080 - Limestone, brown, argillaceous, trace silty, grading to brown and light grey speckled marl. Minor dark brown calcareous, bituminous shale. Traces of fossil fragments.
- 3080-3130 - Limestone marl, as above, fossiliferous. Trace silty minor dark brown interbedded bituminous, calcareous shale.
- 3130-3150 - Marl, as above. Trace of fine chert pebbles.
- 3150-3160 - Marl, as above. Fossil fragments - crinoids, echinoid spines, shell fragments.
- 3160-3170 - Marl, as above, argillaceous, bituminous, fossiliferous.

- 3170-3180 - Marl, as above, brown and dark brown. Trace of fossils, echinoid spines.
- 3180-3190 - Marl, as above. Chert, pale grey, massive, some rounded pebbles in a calcareous sandy matrix. Sandstone, pale grey, fine to medium grained, very calcareous, grading to sandy limestone approx. 10%.
- 3190-3200 - Chert, pale grey, massive, replacing brown microcrystalline, silicious dolomite. Minor pale grey, fine to medium sandy limestone. Dolomite shows fluorescence and cut.
- 3200-3210 - Limestone, pale grey, fine to medium sandy and silty. Chert, pale grey and grey, replacing and grading into limestone and into brown, silicious dolomite. Dolomite shows cut and fluorescence. Traces of fractures, calcite lined, oil stained, cut and fluorescence.
- 3210-3214 - (Circulated before trip.) Dolomite, calcareous, dark brown, microcrystalline, silicious. Chert, dark brown, massive splintery. Limestone, brown, slightly argillaceous, partly replaced by pale grey chert, silty, argillaceous. Trace of fracture porosity, oil stain, cut and fluorescence.
- 3214-3220 - As above. Much cavings.
- 3220-3240 - Limestone, brown-grey and brown, micritic, silicious in part, faintly argillaceous. Minor dark brown and pale grey splintery chert. Trace of fossil shells.
- 3240-3250 - Chert, massive, grey and pale grey - 50%. Limestone, pale grey, sandy, silty, silicious in part - 50%.
- 3250-3260 - Limestone, pale grey, sandy, silty. Minor pale grey and grey splintery chert. Traces of brown oil stain, cut, fluorescence, along fractures.
- 3260-3285 - Chert, grey, massive, splintery, much darker grey and brown chert, finely spicular - 60%. Limestone, pale grey, fine sandy - 40%. Traces of oil staining on fracture surfaces.
- 3285-3300 - Dolomite, brown, microcrystalline, compact, silicious, trace of fractures. Porosity - very fine intercrystalline, fluorescence, cut.
- 3300-3320 - Limestone, dolomitic, grey-brown and brown, faintly argillaceous, microcrystalline to micritic, dense, silicious in part. Minor dark brown and grey chert. Traces of fractures, oil stained, cut, fluorescence.
- 3320-3330 - Limestone, grey-brown and brown, microcrystalline, argillaceous, dense. Trace of fossil fragments. Chert, pale grey, trace of brown chert approx. 20%. Trace of fractures, calcite lined, oil stained, cut, fluorescence.

- 3330-3340 - Chert, pale grey, splintery - 50%. Limestone, pale grey, fine to medium sandy, silicious in part. Scattered grey and dark grey, coarse subrounded chert grains - approx. 50%. Streaks of leached sand porosity, poor to fair, oil stain, fluorescence, cut.
- 3340-3350 - Chert, as above. Fractures, bitumen lined dead oil stained. Limestone, pale grey, microcrystalline to earthy. Fair intercrystalline porosity, bitumen infilled. Fluorescence, cut. Traces of brown, microcrystalline dolomite, light oil stain, fluorescence and cut.
- 3350-3395 - Chert, pale grey, spicular in part. Much dense, brown-grey chert. Minor brown dolomitic, slightly argillaceous microcrystalline limestone. Trace of fractures.
- 3395-3410 - Sandstone, pale grey, medium to coarse grained, poorly sorted subangular quartz and chert grains, abundant (20%) calcareous cement. Streaks of leached sandstone, good intergranular porosity, dead oil stain and bitumen, cut and fluorescence.
- 3410-3420 - Sandstone, pale grey, medium to coarse grained, abundant chert grit, subangular to subrounded, poorly sorted, in a very calcareous cement. Tight.
- 3420-3430 - Sandstone, brown-grey, medium grained, fairly well sorted quartz and chert grains in a lime matrix. Traces of intergranular porosity, oil stain, bitumen infilled, cut and fluorescence. Limestone, pale grey, silicious in part, microcrystalline, slightly silty, tight.
- 3430-3440 - Interbedded, intergradational sandstone and sandy limestone, as above. Fair, leached intergranular porosity, part bitumen infilled. Dead oil stain, cut, fluorescence.
- 3440-3450 - Sandstone, as above. Much loose quartz and chert grains. Streaks of fair intergranular porosity, partially bitumen infilled. Dead oil stain, cut, fluorescence.
- 3450-3460 - Sandstone, grey, medium to coarse grained, very calcareous, subrounded to subangular quartz and chert grains, scattered chert grit, in limestone matrix. Good intergranular porosity where matrix is leached, partly bitumen infilled. Dead oil stain, good cut, fluorescence.
- 3460-3470 - Dolomite, brown, dense to microcrystalline, tight. Much pale grey, spicular and dense chert. Much loose sand grains. Trace of fracturing, oil staining in the dolomite.
- 3470-3510 - Limestone, pale grey, microcrystalline, compact pelletoid texture. Trace silty, sandy. Much chert (40%), pale grey, pelletoid, spicular, altered limestone. Trace of fractures with oil stain, cut, fluorescence.

- 3510-3530 - Limestone, grey-brown, microcrystalline to very fine crystalline, compact, silicious in part - 40%. Chert, pale grey and brown, massive, splintery. Minor dark brown chert.
- 3530-3600 - Limestone, light brown and brown, microcrystalline to very fine crystalline, compact, silicious in part - 60%. Chert, brown and grey-brown, massive, splintery - 40%. Trace of calcite lined fractures. No stain.
- 3600-3640 - Limestone, light brown, microcrystalline, silicious in part, much brown, micritic, faintly argillaceous limestone - 70%. Chert, brown and grey-brown, minor pale brown spicular chert - 30%.
- 3640-3660 - Limestone, as above, brown, micritic, slightly argillaceous. Much pale brown-grey microcrystalline limestone, earthy-crystalline, faintly argillaceous. Chert, grey and dark brown-grey, splintery - 20%
- 3660-3690 - Limestone, as above - 60%.
Chert, as above - 40%. Trace of black shale partings.
- 3690-3740 - Chert, grey-brown and dark brown - 50%.
Limestone, pale grey and brown, as above - 50%. Traces of argillaceous partings and laminae.
- 3740-3760 - Limestone, pale grey, microcrystalline to very fine crystalline, compact, cherty - chert is pale grey - 60%. Limestone, brown and dark brown, micritic, faintly argillaceous - 20%. Chert, brown and dark brown, splintery - 20%.
- 3760-3780 - Limestone, pale grey and pale brown, microcrystalline, compact, silicious in part, slightly argillaceous, 80%. Chert, pale brown, splintery, finely spicular in part, much brown chert, 20%. Trace of grey, calcareous shale laminae. Trace of calcite-filled fractures.
- 3780-3810 - Limestone, as above - 70%.
Chert, as above - 30%. Trace of dark brown very argillaceous limestone.
- 3810-3830 - Limestone, as above, pale grey and light brown, microcrystalline to dense, silicious, faintly argillaceous - 50%. Chert, grey, massive, splintery.
- 3830-3860 - Limestone, as above, pale brown, microcrystalline, and brown micritic - 50%. Chert, pale grey, spicular in part. Much dark brown blocky to splintery chert - 50%.
- 3860-3890 - Limestone - light grey to light brown, microcrystalline to very fine crystalline, silicious, trace silty to argillaceous laminae limestone, dark brown to grey. Chert, dark grey to light grey, conchoidal to rectangular fracture, trace of spicular chert. Limestone - approx. 60%, Chert - approx. 40%.

3890-4010 - As above, trace light brown silicious limestone, very fine crystalline, some of these chips show slight fluorescence with chlorothene.

4010-4123 - Limestone, as above.

- (1) Trace argillaceous limestone.
- (2) Trace dark grey sh., very slightly calcareous.
- (3) Trace of silty to very fine grained sandy limestone.

T.D. - 4123'

(e) Paleontological Determinations

Down to -2279' - Upper Albian) Microflora
2283' - 2886' - Lower & Middle Albian) Microfauna
2903' and on - Carboniferous (scolecodonts)
No further determination.

SECTION III - ENGINEERING SUMMARY

(a) Report of Drill-Stem Tests

DST #1: 2197' - 2268' : Bottom hole test
Zone: Cretaceous - Orange Marker
Times: Preflow 5 mins. - VO 90 mins.
ISI 45 mins. - FSI 150 mins.
GTS in 4 min. on preflow - GTS immediately on VO at
280 MCF decreasing to 144 MCF in 30 mins.
Recovered: 140' of drilling mud
Pressures: IHP 1296 FHP 1292
ISIP 1168 FSIP 1160
IFP 109 FFP 132
Remarks: BHT - 78°F
Test satisfactory

DST #2: 2268' - 2286' : Bottom hole test
Zone: Cretaceous - Orange Marker
Times: Preflow 5 mins. - VO 90 mins.
ISI 45 mins. - FSI 150 mins.
GIP on preflow - fair air blow decreasing to weak in
15 mins. and remaining faint throughout test.
Recovered: 20' of drilling mud
Pressure: IHP 1325 FHP 1317
ISIP 310 FSIP 555
IFP 37 FFP 38
Remarks: BHT - 78°F
Test satisfactory

DST #3: 2870' - 2937' : Bottom hole test
Zone: Chance
Times: Preflow 5 mins. - VO 120 mins.
ISI 45 mins. - FSI 240 mins.
Good air blow on preflow - GTS on VO in 7 mins.
TSTM remaining for 70 mins. then died.
Recovered: 2800' of fluid
60' of drilling mud
2740' sulphurous gas cut water
Pressures: IHP 1727 FHP 1712
ISIP 1259 FSIP 1262
IFP 730 FFP 1256
Remarks: BHT 96°F
Test satisfactory. Tool was chased 2' during test period.

DST #4: 3180' - 3214' : Bottom hole test
Zone: Chance Ss.
Times: Preflow 5 mins. - VO 90 mins.
ISI 45 mins. - FSI 150 mins.
GIP - fair air blow to weak in 15 mins. - faint and
intermittent in 60 mins.
Recovered: 50' of drilling fluid
Pressures: IHP 1897 FHP 1888
ISIP 78 FSIP 244 ?
IFP 40 FFP 42 ?
Remarks: BHT 80°F
Test satisfactory

DST #5: 3300' - 3499' : Bottom hole test
Zone: Mississippian Limestone
Times: Preflow 5 mins. - VO 90 mins.
ISI 45 mins. - FSI 150 mins.
GIP - good air blow decreasing to weak in 40 mins.
continuing to weaken to end of test. No GTS.
Recovered: 90' of drilling fluid
Pressures: IHP 1909 FHP 1899
ISIP 821 FSIP 769
IFP 46 FFP 81 ?
Remarks: BHT 79°F
Test satisfactory

DST #6: 1580' - 1634' : Straddle test
Zone: Blackie Ss.
Times: Preflow 5 mins. - VO 90 mins.
ISI 45 mins. - FSI 150 mins.
GIP - good air blow decreasing to weak in 30 mins. and
faint at end of test. No GTS.
Recovered: 765' of fluid
20' of drilling fluid
745' of water
Pressures: IHP 890 FHP 892
ISIP 399 FSIP 401
IFP 180 FFP 387 ?
Remarks: BHT 73°F
Test satisfactory
This test was a straddle conventional.
Note: Service company test reports in back folder.

(b) Casing Record

✓ Conductor Pipe

25' of 23" OD 3/16" wall insulated conductor pipe with 3/4" OD cooling
coils. 26' of 19" OD 3/16" wall conductor pipe set at 51' below ground
or 69' KB.

✓ Conductor pipe cemented with 120 sax of permafrost (cold set) cement.

✓ Surface Casing

Ran 26 joints (833.00') of 13-3/8", 54.5#, K-55, 8rd, new, seamless, ST&C, Rge 2 casing landed at 823.00 KB.

Cemented casing with 850 sax of construction cement plus 3% CaCl₂. Cement in place at 5:20 hours December 4, 1971.

Circulated approximately 130 sax of excess cement.

No intermediate and no production casing strings were run.

✓ (c) Bit Record

See attached Bit Record sheet.

(d) Mud Report

Surface Hole

The 17-1/2" surface hole was drilled from 68' KB to 826' using stable foam as the drilling fluid. At 826' the hole was filled with a water gel mud. The following materials were used on surface:

Sulfotex Sal	3.5 drums
Aluminium Stearate	2 boxes
Gel	121 sax
Fibertex	30 sax
Sawdust	70 sax
Caustic	2 sax

Main Hole

The main hole was drilled using a gel water system to 2145' and was then displaced to an XC polymer system and was continued throughout the remainder of the hole. The following materials were used on the main hole:

Magcobar	1157 sax
Magcogel	310 sax
Caustic Soda	19 sax
Bicarbonate of Soda	2 sax
Kelzan	23 sax
Plaster	4 sax
Sawdust	20 sax
Pipelax	2 bbls.

(e) Deviation Record

92 - 0	840 - 3/4	1388 - 1/2	2268 - 1-3/4	3285 - 1-3/4
280 - 3/8	862 - 1/2	1482 - 1/2	2286 - 1-3/4	3307 - 2
360 - 3/8	892 - 1	1575 - 1/2	2374 - 1-1/2	3345 - 1-1/2
435 - 1/2	924 - 1/2	1670 - 3/4	2432 - 1-1/8	3379 - 1-1/4
465 - 1/2	956 - 3/4	1770 - 1/4	2518 - 7/8	3440 - 1-1/8
485 - 1/2	998 - 1/2	1862 - 1	2720 - 1/2	3499 - 2
550 - 1/2	1070 - 7/8	1925 - 3/4	2813 - 1/2	3527 - 1-1/2
620 - 3/8	1135 - 7/8	2020 - 3/4	2937 - 1/2	3568 - 1-1/4
674 - 1/4	1198 - 3/4	2110 - 1-1/4	3030 - 3/4	3630 - 1
780 - 1/4	1261 - 7/8	2145 - 2	3095 - 1/8	3757 - 1
824 - 1/8	1325 - 3/4	2205 - 1-1/2	3214 - 1-1/4	4015 - 1-1/4

(f) Abandonment Plugs

- ✓ Plug #1 (3010'-2810') 110 sax construction cement plus 3% CaCl₂. Felt @ 2780'
 - ✓ Plug #2 (2340'-2130') 110 sax construction cement plus 3% CaCl₂. " " 2090'
 - ✓ Plug #3 (1820'-1490') 140 sax construction cement plus 3% CaCl₂. " " 1485'
 - Plug #4 (990' - 770') 175 sax construction cement plus 3% CaCl₂. " " 765'
- Surface plug 5 sax construction cement.

(g) Lost Circulation Zones

After mudding up at 826' on the 17-1/2" surface hole, circulation was lost. Approximately 100 bbls. of mud was lost in the Eagle Plain formation. Circulation was regained by mixing a pill of sawdust, gel, and fiberseal.

While stuck in hole at 1674' partial lost circulation was observed in the Blackie Ss. Approximately 60 bbls. was lost. Full circulation was regained when pipe came free and mud was displaced to XC polymer system. No other zones of lost circulation were encountered throughout the remainder of the hole.

(h) Report of Blowouts

- ✓ At a depth of 2268' (Orange Marker 2195') while changing shale shaker screens, the well started kicking. No pressure on standpipe initially, 250 psi on casing side after closing hydril.
- ✓ Circulated through adjustable choke holding 300 psi back pressure. Standpipe pressure while pumping was 400-550 psi. Circulated and raised mud weight to 11#/gal. After kick was controlled a DST was run to evaluate (see DST #1).
- ✓ A formation pressure breakdown test was run prior to cement plug #4 (990'-770') across the surface casing shoe at 823' KB. Formation broke down at 750 psi and fed at 1/2 bbl. per minute at 650 psi. Instantaneous standing pressure at 550 psi. Bled to 350 psi in 5 minutes. Mud weight was 9.5#/gal. and viscosity 90 sec./qt.

SECTION IV - LOGS

The following Schlumberger logs were run on January 9-10, 1972:

Dual Induction Laterolog (4109 - 823')
BHC Sonic/Gamma Ray/Caliper (4109 - 823')
Formation Density (Compensated) (4111 - 823')
SNP Log (4110 - 823')
Tried to run Microlog (2 runs unsuccessful)

24 Sidewall Cores were shot and 20 were recovered as follows:

1. 2855'	13. 1809'	Not Recovered
2. 2720'	14. 1729'	
3. 2675'	15. 1653'	Not Recovered
4. 2635'	16. 1589'	Not Recovered
5. 2535'	17. 1529'	
6. 2447'	18. 1437'	
7. 2370'	19. 1375'	
8. 2178'	20. 1300'	
9. 2158'	21. 1214'	
10. 2063'	22. 1098'	
11. 1980'	23. 1012'	
12. 1908'	24. 905'	Not Recovered

SECTION V - ANALYSIS

(a) Core Analysis

Core analysis enclosed in back folder.

(b) Water Analysis

Water analysis enclosed in back folder.

(c) Gas Analysis

Gas analysis enclosed in back folder.

(d) Oil Analysis

No oil analysis.

SECTION VI - COMPLETION SUMMARY

(a) Tubing Record

No tubing run.

(b) Perforation Record

No perforations.

(c) Cementation Record

Abandonment Plug #1 (3010' - 2810')

Cemented with 110 sax construction cement plus 3% CaCl₂. Cement in place at 5:10 hours January 13, 1972.

Felt plug #1 at 2780' at 17:10 hours, after 12 hours WOC.

Abandonment Plug #2 (2340' - 2130')

Cemented with 110 sax construction cement plus 3% CaCl₂. Cement in place at 18:55 hours January 13, 1972.

Felt plug #2 at 2090' at 4:00 hours, after 9 hours WOC.

Abandonment Plug #3 (1820' - 1490')

Cemented with 140 sax construction cement plus 3% CaCl₂. Cement in place at 6:35 hours January 14, 1972.

Felt plug #3 at 1485' at 17:00 hours, after 10 hours WOC.

Abandonment Plug #4 (990' - 770')

Cemented with 140 sax construction cement plus 3% CaCl₂. Cement in place at 21:40 hours January 14, 1972.

Felt plug #4 at 765' at 8:00 hours after 10-1/2 hours WOC.

Surface plug - cut off casing at original ground level and cemented top of casing with 5 sax of cement. Welded on casing plate and well identifier sign.

(d) Acidization and Fracturing Record

No acidizing or fracturing operations.

(e) Back Pressure and Production Tests

No back pressure or production tests.

CHEVRON STANDARD LIMITED
BIT RECORD

WELL NAME Chev. SOBC WM W. PARKIN
YT C-33

CONTRACTOR G. P.

RIG No. 14

PUMP No 1 C-350

SPUD DATE November 29, 1971

RIG RELEASED January 15, 1972

DRILLING DAYS 41

PUMP No 2 C-250

BIT No.	MAKE	SIZE	TYPE	DEPTH		FOOTAGE	TIME	DRLG. RATE Ft/hr.	NOZZLE SIZES	JET VEL	WEIGHT M #	RPM	No. 1 PUMP		No. 2 PUMP		PUMP PSI	HHP AT BIT	DP ANN.	DC ANN.	MUD		DULL COND.			DEV.
				FROM	TO								LINER	SPM	LINER	SPM					WT	VIS	T	B	G	
1A	HTC	17½	OSC	0	402	402	25	16	Open		10 20	60 70									Foam		4	3	1	3/8
2A	HTC	17½	OSCIG	402	722	320	19-3/4	416	Open		10	70									Foam		4	5	1	1/2
3A	HTC	17½	OSCIG	722	826	104	5½	19	Open		10	70									Foam		2	1	1	1/4
4	HTC	12½	OSCIG	826	846	20	1½	13	Open		10	60									Water		3	2	1	3/4
5	Smith	8-3/4	3JS	846	2145	1299	46	29	3-10		30	55	5½	56			950				9.1	34	2	1	1	2
6	Smith	8-3/4	SDGH	2145	2268	123	4	30	3-10		10	55	5½	56			1000				8.6	40	3	1	1	1-3/4
7	W.D.	6-3/16	◇	2268	2286	18	7½	2.5	-		8	70	5½	45			450				10.8	70	Good			1-3/4
RR6	Smith	8-3/4	SDGH	-	2286	Reamed Core Hole							5½	55			900				11.0	68	4	1	1	-
8	Smith	8-3/4	3JS	2286	2287	1	3/4	-	2-10 1-9		10	75	5½	58			900				11.1	66	1	1	1	-
9	W.D.	6-3/16	◇	2287	2317	30	12	2.5	-		8	70	5½	42			750		Reamed		11.1	65	Good			-
10	Smith	8-3/4	SDGH	2317	2605	288	19-3/4	14	3-10 2-10		35	55	5½	56			1200		30 ft.		11.3	70	4	2	1	1/2
11	Smith	8-3/4	3JS	2605	2877	272	22½	12	1-12		35	55		56			1500				11.3	74	1	1	1	1/2
12	WDRR	6-3/16	◇	2877	2937	60	21½	3	2-10		8-11	80		42			900				11.3	68	Good			-
13	REED	8-3/4	STIAG	2877	2937	60	14½	4	1-12		5-8	85		56			1250		Reaming		11.3	80	6	1	1	1/2
RR11	Smith	8-3/4	3JS	2937	3214	277	30½	9	3-10 2-14		35	55		56			1750				11.2	75	6	1	1	1-1/4
14	Smith	8-3/4	SDGH	3214	3221	7	2	3.5	1-12		25	50		56			850				11.2	75	5	1	1	1-1/4
15	SEC	8-3/4	H88	3221	3412	191	33	3	3-12		35	55		52			1050				11.1	65	3	3	1	2
16	SEC	8-3/4	S88	3412	3499	87	15	6	3-12		35	55		52			1050				11.1	70	?			2
17	SEC	8-3/4	H88	3499	3851	352	52½	7	3-12		35	48		54			1500		Lost One Cone		11.1	65	4	8	1	1
18	SEC	8-3/4	H77	3851	3855	4	1½	-	3-12		12	55		54			1000		On Iron		11.1	70	7	2	1	1
19	SEC	8-3/4	H88	3855	4015	160	26½	6	2-10 1-11		35	50		54			1450				11.1	52	7	4	1	1-1/4
20	SEC	8-3/4	H88	4015	4123	108	17-3/4	6	2-10 1-11		35	50		54			1450				11.0	55	6	2	1	1-1/4