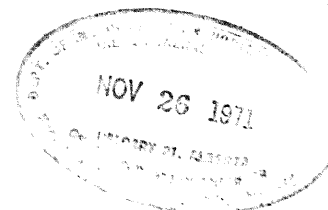


CHEVRON SOBC WM N. PARKIN YT D-61



GEOLOGICAL PROGRAM

CONFIDENTIAL

The status of this well will be "Tight" therefore, all information regarding the well will be restricted to Chevron Standard personnel and authorized representatives of Western Minerals.

Elevations

Ground Elevation (surveyed) - +1580'
K.B. Elevation (estimated) - 1595'
K.B. Elevation (surveyed) -

A. Estimated Depth and Elevation of Significant Markers

	<u>Est. Elevation</u>	<u>Est. Depth</u>
Cretaceous	+1580	Surface
Eagle Plain Formation	+1580	Surface
Blackie Sandstone Member	+ 900	695
Lower Cretaceous Shale Unit	+ 680	915
Orange Marker	+ 560	1035
Paleozoic Unconformity (Mississippian)	+ 310	1285
Mississippian Shale	+ 310	1285
Tuttle Formation	-2890	4485
Upper Devonian Imperial Formation	-3520	5715
Upper Devonian "A" Event	-4840	6435
Middle Devonian Reef Crinoidal Platform	-6300	7895
Lower Reef Complex	-7050	8645
Lower Reef Complex	-7450	9045
Total Depth	-7550	10000

Note: These depths are based on seismic events and regional cross sections and are subject to revision based on good sample picks and a surveyed K.B.

B. Objective Horizons

Primary - Middle Devonian Reef

- Secondary - 1. Blackie Sandstone
2. Basal Cretaceous Sandstone
3. Tuttle Sandstone

C. Ditch Samples

Two sets of bagged samples are required, one for Chevron and one for the Geological Survey. One set of washed bottled samples and one set of washed enveloped (double volume) samples are required for Chevron and one set of washed bottled samples is required for Western Minerals. These cuts may be taken from Chevron's bagged set.

Sample interval is as follows:

Surface to TD - 10' samples

Five foot samples should be caught at the wellsite geologist's discretion.

D. Penetration Rate Records

A mechanical drilling time recorder should be used on this well.

E. Sample Description

An up-to-date written sample description and a plotted rock log chart must be maintained by the wellsite geologist. A copy of the written description is required by the government. Through cored and/or oil stained intervals a detailed written description of the reservoir characteristics and hydrocarbon shows must be made.

F. Gas Analyzer

A gas detector will be used on this well. Samples will be canned every 30' for later analysis.

G. Formation Evaluation

General

Well control is sparse in this region and it is possible that reservoir conditions could develop almost anywhere in the section. The wellsite geologist must, therefore, be prepared to evaluate potential reservoirs other than those listed under objective horizons.

Any shows in the section above the Middle Devonian Reef will be evaluated after logging unless there is substantial porosity and hydrocarbon indications. Substantial meaning 10' plus porosity, with positive indications of hydrocarbons (live oil, staining, fluorescence or gas in the mud). Consult Calgary if the "substantial" should occur.

1. Coring and Testing Program

Coring should commence as soon as the top of reefoid or light coloured Middle Devonian carbonates are encountered. Report core results to

the Calgary office and further instructions will follow. After the Middle Devonian Reef has been properly evaluated by coring, DST, etc., according to Calgary instructions, continue to drill to the FTD.

After logging is completed, sidewall cores will be taken for paleontological control. Two runs of the sample barrel with 64 shots each should be sufficient.

2. Logging Program

Use Schlumberger

Two logging runs will be made (at casing point and TD).

I On surface hole run Dual Induction Laterolog/S.P. and B.H.C. Sonic/Gamma/Caliper (Integrated). Other logs may be considered depending on hole condition and any hydrocarbon shows.

II (a) Dual Induction Laterolog/S.P.

Try a 10 m.v. S.P. scale.

Run from TD to surface casing.

Vertical scales:

2" = 100' - run linear scale using 0-100 scale on resistivity and 0-100-200 scale on conductivity.

5" = 100' - use logarithmic scale on resistivity.

Both scales will be run from TD to surface casing.

A 200' repeat will be run at TD or over the zone of interest.

(b) B.H.C. Sonic/Gamma/Caliper (Integrated)

Run from TD to surface casing.

Run Caliper 50' inside surface casing.

Run Gamma Ray to surface.

Transit time scales 40-60-80 from TD top of Middle Devonian Reef,

40-90-140 from Middle Devonian Reef to surface casing.

Gamma Ray scale 0-150 API units.

Vertical scales: 2" = 100' and 5" = 100' from TD to surface casing.

A 200' repeat will be run at TD or over the zone of interest.

(c) Formation Density Log (Compensated)/Gamma/Caliper

Run from TD to top of Devonian carbonate and over any other zones of interest.

Run first 2" = 100' scale on bulk density with correction curve.

Run second 5" = 100' scale on porosity curve using a limestone scale.

A 200' repeat will be run at TD or over the zone of interest.

(d) Sidewall Neutron Porosity Log

Run from TD to top of Devonian carbonate and over any other zones of interest.

Run porosity trace on limestone scale.

A 200' repeat will be run at TD or over the zone of interest.

(e) Microlog Caliper

This log may be run over the zones of interest at the discretion of the Formation Evaluation Geologist.

(f) Dipmeter should be available if needed.

(g) A velocity survey will be run immediately after logging. The district geophysicist should be notified a few days in advance, so he can make arrangements for this.

H. Fluid Samples

1. Representative fluid samples from all DST recoveries are required for lab analysis. Samples are required from the top, middle and bottom of the fluid column. One sample is sufficient for recoveries under 60'. A set of water samples is required by the logging company for R_w determinations.
2. An extra quart sample of any clean oil, or oil cut liquids obtained on DST is to be taken and forwarded to the Northern Task Force office. The wellsite personnel should have on hand a supply of special containers for these samples.
3. Three one quart mud samples should be collected at 15 minute intervals from the flowline prior to each logging run for R_m and R_{mf} measurements at the wellsite.
4. Stainless steel containers are to be available to collect a sample of any gases obtained on test.