

## GEOLOGICAL PROGNOSIS AND DRILLING PROGRAM

Well Canoe River YT-G-19

Location 66°8'23" N latitude  
137°32'34" W longitude  
(50' S, 66' W of S. P. 8, on Seisline NB)

Elevation Ground : 1680' (Shot Pt. NB. 8)  
K. B. :

### Geological Prognosis

		Sub Sea
Top Blackie Sand	2130	-450
Top New Shale	2430	-750
Top Penn. (Alder)	3950	-2270
Top Chance Sand	4050	-2370
Total Depth (tentative)	5500	

### Ditch Samples

Catch one set of bagged samples every 10' from surface to T. D. Samples to be caught on time. One cut of reworked and bottled samples to be kept for Canoe River in the interval from 70' to T. D.

### Coring

Above Chance Sand, core on the basis of D. S. T. results. Commence coring the Chance Sand 5' or less below the top of the sand. Cut 60' of core and D. S. T. on basis of visual examination. Continue coring until all sand with commercial possibilities is penetrated. This will be determined from D. S. T. results.

### Testing

Test all shows with commercial possibilities above the Chance Sand. Test the Chance Sand based on visual examination of the cores. Continue testing in conjunction with the coring until the sand is evaluated. Collect a sample of all fluids recovered on D. S. T. 's. Collect samples of gas in a suitable gas bomb supplied by the tester.

### Logging

- Induction - Electrical Log; 2" and 5" scale, T. D. to base of surface casing.
- B. H. C. Sonic Gamma with Caliper; 2" and 5" scale, T. D. to surface, 3' spacing with 1' spacing over zones of interest.
- Microlog - Caliper; 2" and 5" scale, across zones of interest.

## DRILLING PROGRAM

1. Drill a 20" hole with rathole bucket on kelly and on one joint of drill pipe or drill collar to approximately 100'. Take Deviation Survey at 30', 60' and 90'. Survey not to exceed 1/2°. Run 13.3/8" casing to bottom and cement to surface with cementing unit. Use 2% CaCl<sub>2</sub> with cement. Slurry weight 14.8 p.p.g. Slurry yield 1.24 cu ft/sack of cement. Pilot test cement and water and raise water temperature so that final slurry temperature is between 50 and 80° F. Wait on cement 24 hours.
2. After waiting on cement, drill out cement and clean tanks.
3. Drill 8.5/8" Pilot hole to 800', plus footage required to place top of casing within 4' of top of rotary table. Use square drill collar. Check deviation at 120', 150' and at least every 100' thereafter. Deviation should not exceed one degree to 300' and 1.1/2° to 800'. Round trip bit and measure pipe when within 30' of setting depth. Totco Recorder to be in use.
4. Ream Pilot hole to 12.1/4" with a pilot reamer. Circulate, condition hole and mud and make dummy trip.
5. Run 800' of 9.5/8" x J-55 x 36# casing with float collar and guide shoe on bottom joint. Run one centralizer on shoe joint and on the joint above and one on the first joint below the surface. Run 3 scratchers on the bottom joint. Spot weld the first 3 joints with four 2" welds per connection using a low hydrogen rod. Cement with 350 sacks of cement plus 2% CaCl<sub>2</sub> (500#). Slurry weight 14.8 p.p.g. Pilot test cement to obtain final slurry temperature of 50 to 80° F. Run top and bottom rubber plugs and bump plug with 600 p.s.i. Land casing on bottom. Wait on cement 12 hours before slacking off and 24 hours before drilling out. If good cement does not circulate to surface or drops in annules, cement is to be spotted from surface.
6. Dig cellar and crib.
7. After w.o.c. 12 hours, cut off 9.5/8" casing and install 9.5/8" weld-on, by 10" 900 series casing bowl. Pressure test inside and outside weld with grease gun.
8. Install 10" Double Shaffer and Hydril. Instal bleed-off and kill line valves with all tandem valves. Kill line to have plug valve next to preventors. Gate valve next to this, and flanged check valve next to this. Bleed off side to have plug valve, gate valve next to this and 4 way cross next to this. Bleed off manifold to have a positive choke, an adjustable choke, and a full flow line. Flare lines to be not less than 2.7/8" tubing. All fittings and valves are to be rated at 3000 p.s.i.
9. Pressure test hydril, pipe rams and blind rams to 1500# each for 15" and record in report books. Pressure test casing to 1500#.
10. Drill out cement and plugs with mud. Treat out cement contamination. Test formation to 500 p.s.i.

11. Drill ahead with an 8.5/8" bit using a square drill collar and a Peltex-caustic disbursed Bentonite mud with the following characteristics :

WT.	9.0 - 9.3 per gallon
VIS.	40 - 45 seconds
PH.	up to 10.5
W. L.	under 10 c. c.

Maintain a 5 c. c. or less W. L. across zones with commercial possibilities. Keep viscosity sufficiently high to keep hole clean and insure good samples.

12. Core and test as required by well site geologist.
13. Tally drill pipe on pulling first bit under surface casing. Thereafter double measure before first testing or coring and logging.
14. Deviation surveys are to be taken every 250' under the surface casing and should not exceed 1° change per 100'. Should the average deviation go above 3°, specific survey intervals will be determined. The average deviation should not exceed 5° at total depth.
15. Six gas masks are to be maintained in first class working condition.
16. Run casing or abandonment plugs. This will be dictated by results of this well. A separate abandonment program will be issued after hole is logged if hole is to be abandoned.



LINE 11 S  
100' X 100' PERMANENT

100' X 100' PERMANENT 597

OPBLX OTELIC  
CAMPUS CABLE CHANGE  
VF-8-9

19G

19H

19E

19B

19A

19D

18U

18P

8M

18J

18I

8L

DETAIL B

TRAINING TORRE

66°10'N

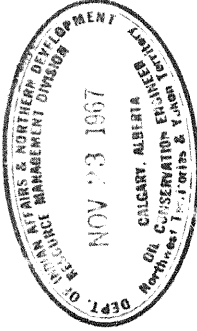
105°27'W



18J

16I

8L



TRAVEL TABLE

STATION	Bearing	DISTANCE
CHANCE #1	N 56° 07' W	1710.1
②	N 20° 31' E	2221.5
③	N 21° 09' E	1400.2
④	N 22° 18' W	787.6
⑤	N 22° 50' W	227.7
⑥	S 68° 00' W	1816.3

DETAIL 'B'

66° 10' N  
137° 30' W

80	70	60	50	40	30	20	10
79	69	59	49	39	29	19	9
78	68	58	48	38	28	18	8
77	67	57	47	37	27	17	7
76	66	56	46	36	26	16	6
75	65	55	45	35	25	15	5
74	64	54	44	34	24	14	4
73	63	53	43	33	23	13	3
72	62	52	42	32	22	12	2
71	61	51	41	31	21	11	1

DETAIL 'B'

66° 00' N

LOCATED NE COR 66° N LAT, 137° 30' W LONG.

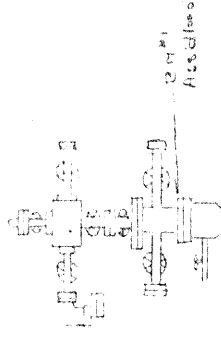
NOTE: 1. SECTIONS ARE LINED BY CHANCE #1 RANGING

2. BEARINGS ARE TRUE BEINGS DERIVED FROM MAGNETIC COMPASS USING DECLINATION OF 36° E

3. LATITUDE & LONGITUDE CALCULATED BY ASSUMING CHANCE #1 MAKING LAT 65° 07' 42" & LONG 137° 31' 42"

4. WELL IS LOCATED 100' EAST OF SP #8 LINE NB

5. CAMP OVER CHANCE YT-G-19 IS LOCATED 5207.4' N 25° 32' N OF CHANCE #1.



WHEREAS THE WELL MARKERS

CHANCE #1

DETAIL 'A'

LOCATION OF WELL

WELL SITE

CAMP OVER CHANCE YT-G-19

LAT. 65° 07' 42" N LONG. 137° 31' 42" W

YUKON TERRITORY

CHANCE #1

CHANCE #19

Yukon Exploration Ltd  
100-1125 WINTERGLEN ST  
WHITEHORSE YT

168 E-S-NT-23-4