DON D. STRONG .... PETROLEUM GEOLOGIST

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GEOLOGICAL REPORT

CHIEF DRILLING CO., INC.
RIEDEL #1
NW SW SW SECTION 6-10S-24W
GRAHAM COUNTY, KANSAS

COMMENCED:	July 10, 1972
COMPLETED:	July 19, 1972
CONTRACTOR:	Chief Drilling Co., Inc.
SURVEYS RUN:	None
ELEVATION:	2458 Ground, 2460 DF, 2463 KB
SURFACE PIPE:	217' of 8 5/8" casing with 160 sacks cement
PRODUCTION PIPE:	None

FORMATION TOPS

Anhydrite	2102	(+ 361)
Base Anhydrite	2140	(+ 323)
Heebner	3731	(-1268)
Toronto	3753	(-1290)
Lansing	3767	(-1304)
Base Kansas City	3996	(-1533)
R.T.D.	4000	

OIL SHOWS, POROUS ZONES, DRILL STEM TESTS AND ZONES OF INTEREST

Samples were examined from 3600' to R.T.D. There were no shows of oil present above the Toronto.

TORONTO 3753 (-1290)

3753 - 58 White dense fossiliferous cherty limestone. Fair dark oil stain. Slight show of heavy free oil. Fair coarse fossiliferous porosity.

DST #1 3738 - 64	Open 1/2 hour. Recovered 8' mud with spots of oil. ISIP 845# in 30 minutes FSIP 840# in 30 minutes IFP 25# FFP 35#

LANSING 3767 (-1304)

3770 - 76	(Top Zone) White finely crystalline oolitic slightly chalky limestone. Fair scattered oil stain. Slight show free oil. Stain is very dark for zone. Fair scattered porosity.
DST #2 3760 - 75	Open 45 minutes. Recovered 80' watery mud. ISIP 930# in 30 minutes FSIP 925# in 30 minutes IFP 25# FFP 48#
3797 - 3800	(35' Zone) Off white dense fossiliferous nodular cherty limestone. Very scattered poor stain. Trace of free oil. Poor porosity.
3807 - 21	(50' Zone) White dense fossiliferous cherty limestone. Very scattered stain. Trace of free oil. Fair visible porosity.
DST #3 3796 - 3820	Open 1 hour. Recovered 1030' water with scum of oil. ISIP 675# in 30 minutes FSIP 651# in 30 minutes IFP 45# FFP 550#
3842 - 60	(90 - 100' Zone) White finely crystalline to chalky cherty limestone. Slightly oocastic and dolomitic at lower part of zone. No oil show. Fair to good scattered porosity.
3899 - 3903	(140' Zone) Cream finely crystalline slightly sucrose and dolomitic limestone. Scattered oil stain. Slight show free oil. Fair to poor porosity.

DST #4 3883 - 3914	Open 45 minutes. Recovered 8' mud. ISIP 0# in 30 minutes FSIP 0# in 30 minutes IFP 0# FFP 0#
3924 - 30	(160' Zone) Cream to light tan dense fossiliferous shaly limestone. Scattered oil stain. Scattered show free oil. Generally poor visible porosity.
DST #5 3912 - 36	Open 2 1/2 hours. Recovered 60' gas, 70' oil-cut mud. ISIP 80# in 30 minutes FSIP 156# in 30 minutes IFP 30# FFP 54#
3944 - 48	(180' Zone) Off white coarse fossiliferous nodular limestone. Good oil stain. Fair to good show free oil. Some dark residual dead oil. Good coarse inter-fossiliferous porosity.
DST #6 3930 - 58	Open 2 hours. Recovered 1140' water. ISIP 1295# in 30 minutes FSIP 1105# in 30 minutes IFP 108# FFP 585#
3963 - 68	(200' Zone) White finely crystalline oolitic limestone. Fair to good dark oil stain. Fair show free oil. Fair visible porosity.
3981 - 96	(220' Zone) Gray dense fossiliferous limestone. No oil show. Poor porosity.
DST #7 3954 - 4000	Open 2 1/2 hours. Recovered 85' oil-cut mud. ISIP 168# in 30 minutes FSIP 75# in 30 minutes IFP 35# FFP 65#

R.T.D. 4000'
Plugged and abandoned July 19, 1972
No electric log run.

REMARKS:

The Chief #1 Riedel, NW SW SW Section 6-10S-24W, ran slightly higher to the producing wells one-half mile north; however, porosity was poorly developed in the correlative producing zones and other zones were non-porous or carried water. Since all promising zones were tested, it was not considered necessary to run an electric log.

Respectfully submitted,

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Petroleum Geologist

DDS:fd