

GLO2459-

SODA LAKE, NV
SODA LAKE #36-78

- 3 1. ✓ Completion Report PRO-318, Soda Lake 36-78
- 3 2. ✓ Lithologic Description
- 2 * 3. ✓ Agnew & Sweet, Subsurface Temperature Traverse Survey, 3-28-78
- 2 * 4. ✓ Agnew & Sweet, Subsurface Temperature Traverse Survey, 3-17-78

* Indicates that 4th copy is reproducible

CHEVRON WELL NO. 36-78
SODA LAKE UNIT
CHURCHILL COMPANY, NEVADA

SAMPLE DESCRIPTIONS

<u>DEPTH</u>	<u>LITHOLOGY</u>
220 - 240	coarse sand, granule gravel
240 - 260	as above (a/a), some clay
260 - 280	granule gravel
280 - 300	coarse sand, granule gravel
300 - 320	coarse sand
320 - 340	fine to coarse sand, some clay
340 - 360	fine to medium sand, some clay
360 - 380	fine to medium sand
380 - 400	a/a
400 - 420	coarse sand, granule gravel
420 - 440	medium to coarse sand
440 - 460	a/a
460 - 480	a/a
480 - 500	a/a
500 - 520	medium to coarse sand, granule gravel
520 - 540	a/a
540 - 560	a/a
560 - 580	fine sand
580 - 600	fine to medium sand
600 - 620	coarse sand, granule gravel
620 - 640	a/a
640 - 660	medium to coarse sand
660 - 680	medium to coarse sand
680 - 700	medium to coarse sand
700 - 720	medium to coarse sand, granule gravel
720 - 740	coarse sand
740 - 760	medium sand
760 - 780	medium to coarse sand
780 - 800	a/a
800 - 820	a/a
820 - 840	a/a, granule gravel
840 - 860	fine to medium sand
860 - 880	no sample
880 - 900	no sample
900 - 920	no sample
920 - 940	no sample
940 - 960	no sample
960 - 980	no sample
980 - 1000	no sample
1000-1020	no sample
1020-1040	medium sand
1040-1060	
1060-1080	medium sand

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<u>DEPTH</u>	<u>LITHOLOGY</u>
1080-1100	medium sand
1100-1120	a/a
1120-1140	a/a
1140-1160	a/a
1160-1180	a/a
1180-1200	a/a
1200-1220	sand, medium to fine
1220-1240	sand, medium to fine
1240-1260	sand, medium to fine
1260-1280	sand, coarse to medium granule gravel
1280-1300	a/a
1300-1320	coarse sand, fine gravel
1320-1340	a/a
1340-1360	a/a
1360-1380	coarse sand
1380-1400	a/a
1400-1420	medium to fine sand
1420-1440	medium sand
1440-1460	medium to fine sand
1460-1480	a/a
1480-1500	a/a
1500-1520	coarse sand, fine gravel
1520-1540	fine to medium sand
1540-1560	no sample
1560-1580	no sample
1680-1600	no sample
1600-1620	sandstone some granitics?; calcite cement some pyrite-greenish east to cuttings alteration?
1620-1640	as above with some gypsum
1640-1660	sand and some sandstone, volcanic breccia frag., some granitics; calcite cement
1660-1680	sands of volcanic and granitic material some sandstone; gypsum calcite and pyrite xls.
1680-1700	same as 1660-1680
1700-1720	fine to coarse grain sand; rounded granitic frags.; pyrite gypsum, biotite
1720-1740	same as 1700-1720
1740-1760	fine to coarse grain sand - some rounded pebbles; rounded to subrounded granitic? pebbles; pyrite, biotite, epidote?, calcite
1760-1780	same as 1740-1760; lots of sluff.
1780-1800	same as 1740-1760

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SAMPLE DESCRIPTIONS

<u>DEPTH</u>	<u>LITHOLOGY</u>
1800-1820	fine to coarse sand - few granules of volcanics and granitics; biotite pyrite, calcite
1820-1840	same as 1740-1760
1840-1860	fine to coarse grain sand; some volcanic and granitic grains, rounded to subrounded - massive pyrite and pyrite cubes, a trace of chlorite and epidote
1860-1880	fine to coarse grain subangular to subrounded sand; some volcanic and granitic grains - aggregates of pyrite; calcite cemented sandstone frags.
1880-1900	fine to coarse grain subangular to subrounded sand - ~30% fine grained angular volcanic frags. - trace of biotite and calcite - fair amount of pyrite
1900-1920	~40% fine to coarse grain mostly quartz sand, with detrital(?) hornblende - ~60% angular volcanic frags. - some biotite and pyrite
1920-1940	~60% sand as above; 40% volcanic frags., pyrite
1940-1960	70% fine to coarse grain subangular to subrounded sand, lots of quartz - 30% volcanic frags. - biotite, pyrite, epidote
1960-1980	90% very fine to coarse grain sand, lots of quartz - 10% volcanic frags. - chlorite, epidote, pyrite
1990-2000	same as 1960-1980

**Completion Report
New Well PRO-318**

*Well No. 37
20N 28E
Soda Lake
36-78*

Field Soda Lake
Well No. Soda Lake 36-78
Location SW $\frac{1}{4}$ of NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 33
Elevation 3980' Darrick Floor
Date 6-20-78

Property: Federal
Sec. 33 T. 20N R. 28E MD B.&M.
Churchill Co. Nevada
D.F. is _____' above mat.

mg
B.D. Garrett/ R. B. Murray

(For Operations Manager, Producing Dept.)

Drilled By CXM Drilling Co.
Date Commenced Drilling March 7, 1978
Date of Initial Production _____

Date Completed Drilling March 16, 1978

Production:	Daily Average, 1st _____	Days _____	Gravity _____	°API _____	Pump _____
Oil	_____	Bbls. _____	T.P. _____	PSI _____	Flowing _____
Water	_____	Bbls. _____	C.P. _____	PSI _____	Gas Lift _____
Gas	_____	Mcf. _____	Bean _____	/64" _____	

Summary

Total Depth: 2000'
Casing: 6 5/8" x 20# Buttress cemented at 214'
1 1/2" F.J. tubing cemented at 1971'
Logs: None

SODA LAKE 36-78

- Mar 7 Moved in, rigged up. Set 14' of 12" conductor
- Mar 8 Mixed 75 bbls. gel mud. Spudded in at 2:30 p.m. Drilled 9 7/8" to 230'. P00H. Ran 209' of 6 5/8" x 20# buttress casing. Landed casing 5' below ground level. Cemented with 75 sx class G cement. Bumped plug at 300 psi.

Casing Detail

208.31' (7 jts) 6 5/8" x 20# buttress casing of unknown manufacture with float shoe landed at 5' below ground - Shoe at 214'

- Mar 9 Weather delay
- Mar 10 Installed BOPE consisting of Shaffer double ram gate and hydril G.K. Tested to 500 psi.
- Mar 11 Mixed 75 bbls gel mud. RIH and drilled cement and plug 180' to 214'. Drilled ahead 5 7/8" to 875'.
- Mar 12 Drilled ahead 5 7/8" to 1490'.
- Mar 13 Drilled ahead 5 7/8" to 1690'. Trip hole for new bit. Could not circulate, P00H, found float valve plugged with a rag. RIH to 1600', could not circulate. P00H, float valve plugged with sand. RIH to 1690' in stages. Drill ahead 5 7/8" to 1750', bit stopped. P00H bit locked up.
- Mar 14 Repaired swivel
Drilled ahead 5 7/8" to 2000'. Conditioned mud 1 hr. Pulled up to 215' and shut down (No night crew)
- Mar 15 RIH to TD, circulated hole clean. P00H and layed down drill pipe. Ran 1970' (62 jts) 1 1/2" F.J. tubing. Hung tubing 1' below ground level, bottom at 1971'. Cemented tubing through 1" pipe hung at 200', with 45 sx of class G cement, with good returns to surface. P00H with 1" pipe, cleaned BOPE

Mar 16

Removed BOPE and tubing head. Welded $\frac{1}{2}$ " steel plate on $6 \frac{5}{8}$ " x $1 \frac{1}{2}$ " annulus, installed plug and lock on $1 \frac{1}{2}$ " tubing. Cleaned site, Rigged down and out at 4:00 p.m.

May 13, 1978

Hole abandoned by plugging at ~ 20', filling $1 \frac{1}{2}$ " tubing with cement and covering with dirt.

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Chevron Well No. 36-78

Estimation of stratigraphy from lithology log.

Interval	Thickness	unit	detail
220 - 320	100	Ss > gravel	Coarse Ss & granules
320 - 400	80	Ss, argillaceous	fine-med, some clay.
400 - 560	160	Ss > grav.	med-coarse, 2 granule intervals
560 - 600	40	S.	fine to medium sand
600 - 840	240	S > gravel	med-coarse, 3 granule interval
840 - 1260 ?	420	S	fine-m. or m-f.
-(860-1020 - no sample)		notice this is the critical interval.	
1260 - 1400	140	S > gravel	coarse S & granules
1400 - 1500	100	S,	medium to fine
1500 - 1520	20	S > gravel	coarse S & granules
1520 - 1600	80	S	fine & no sample

1600 below 1600 the logger used rock names ?

1600 - 2000 400' Ss? tuff sand with volcanic material-
 ? or Truckee & breccia frag, "granitic"
 (rounded vol.) & calcite, pyrite, gypsum, alt.
 (could have lava flows in unit?)

Note - volcanic rocks or frag. rich sed. strat
 much higher (
 (as described in the Chevron log)

