

15-167-23037

30-15-13W

Arvada Oil Company
 Boomhower #5
 C NE/4, Section 30-15S-13W
 Russell County, Kansas

FEB 12 1993

Computer inventoried5 1/2" PRODUCTION CASING SET

CONTRACTOR: Emphasis Oil Operations

COMMENCED: 10-31-92

COMPLETED: 11-6-92

ELEVATION: 1813' K.B., 1811' D.F., 1808' G.L.

CASING PROGRAM: Surface: 8 5/8" @ 791'
 Production: 5 1/2" @ 3301'

MEASUREMENTS: All depths measured from the Kelly Bushing.

DRILLING TIME: One (1) foot drilling time recorded by geologist, surface to the R.T.D.

SAMPLES: Samples saved 2300' to the R.T.D.

ELECTRIC LOG: By Log-Tech, Radiation Guard Log.

FORMATION TESTING: There were two (2) drill stem tests run by Swift Formation Testers.

<u>FORMATION</u>	<u>ELECTRIC LOG DEPTH</u>	<u>SUB-SEA DATUM</u>
Anhydrite	780	+1033
Grand Haven	2345	-532
1st Tarkio Sand	2356	-543
Tarkio Lime	2417	-604
Elmont	2483	-670
Howard	2620	-807
Topeka	2691	-878
Heebner	2922	-1109
Toronto	2940	-1127
Douglas	2954	-1141
Lansing	2988	-1175
Arbuckle	3248	-1438
Rotary Total Depth	3300	-1487
Electric Log Total Depth	3302	-1489

(All tops and zone determinations were correlated to the electric log engineer's measurements.)

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

TARKIO SECTION
 2356-2366

Sandstone, reddish brown, fine grain, micaceous and glauconitic, consolidated, slightly friable. No shows of oil.

TOPEKA SECTION
 2872-2875

Limestone, cream, finely crystalline, very chalky, suboocastic, poorly developed oocastic porosity, spotty brown stain. No free oil or odor in fresh samples.

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2887-2894

Limestone, buff to gray, finely crystalline, cherty, oocastic, poor to fair scattered oocastic porosity, fair scattered golden brown stain. No free oil and weak odor in fresh samples.

LANSING SECTION
2990-2992

Limestone, buff to light gray, cherty, slightly fossiliferous, trace of spotty vugular type porosity, trace of spotty stain. No free oil or odor in fresh samples.

3005-307

Limestone, buff, finely crystalline, oolitic to fossiliferous, trace of spotty fossilcast porosity, trace of spotty light stain, traces of bone white chert. No free oil and faint odor in fresh samples. (Perforate)

3010-3030

Limestone, tan to gray, finely crystalline, oocastic, good oocastic, good oocastic porosity, (75% barren) fair scattered light brown stain and saturation (upper part of zone) Fair show of free oil and fair odor in fresh samples. (Perforate)

DRILL STEM TEST #1 2990-3040

Open:

I.F. 45"
F.F. 45"

Blow:

Very good thru-out

Recovery:

300' of gas in the pipe
60' of oil and gas cut mud
120' of slightly oil cut watery mud.
420' of saltwater

3080-3083

Limestone, cream to buff, oolitic to slightly fossiliferous, cherty, blocky, trace of minor stain. No free oil or odor in fresh samples.

3090-3107

Limestone, white, finely crystalline, chalky, oocastic, fair oocastic porosity (barren) Abundant white chalk. No shows of oil.

3143-3146

Limestone, gray, oolitic to oocastic, poor to fair scattered oocastic porosity, cherty, fair scattered dark brown stain. Show of free oil (gassy) and weak odor in fresh samples. (Perforate)

3182-3187

Limestone, buff to gray, cherty, oocastic, fair oocastic porosity (mostly barren) trace of spotty stain. Very slight show of oil and faint odor in fresh samples.

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DRILL STEM TEST #2 3133-3190

Open:	I.F.	45"
	F.F.	45"
Blow:	Weak to fair (Intermittent)	
Recovery:	60' of gas in pipe 60' of heavy oil and gas cut mud	
Pressures:	ISIP	84 psi
	FSIP	84 psi
	IFP	84-84 psi
	FFP	84-84 psi
	HSH	1629-1618 psi

ARBuckle SECTION
3250-3256

Dolomite, gray, medium to coarse crystalline, good intercrystalline porosity, good scattered brown stain and saturation. Fair show of free oil and good odor in fresh samples. (Perforate)

3257-3280

Dolomite, gray, medium to coarse crystalline, good intercrystalline to vuggy type porosity, trace of spotty stain. Show of free oil and weak odor in fresh samples.

3281-3302

Dolomite, as above. No shows of oil.

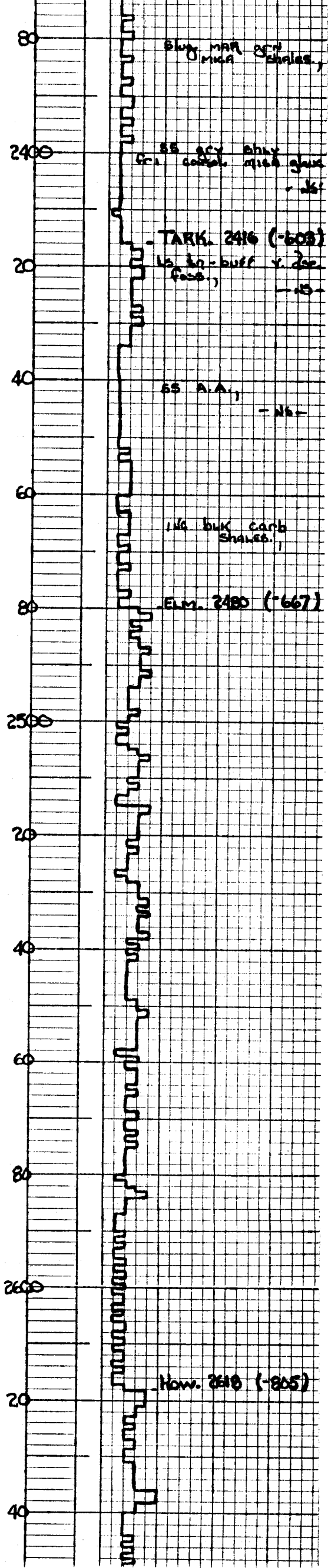
ROTARY TOTAL DEPTH 3300 (-1487)
ELECTRIC LOG TOTAL DEPTH 3302 (-1489)

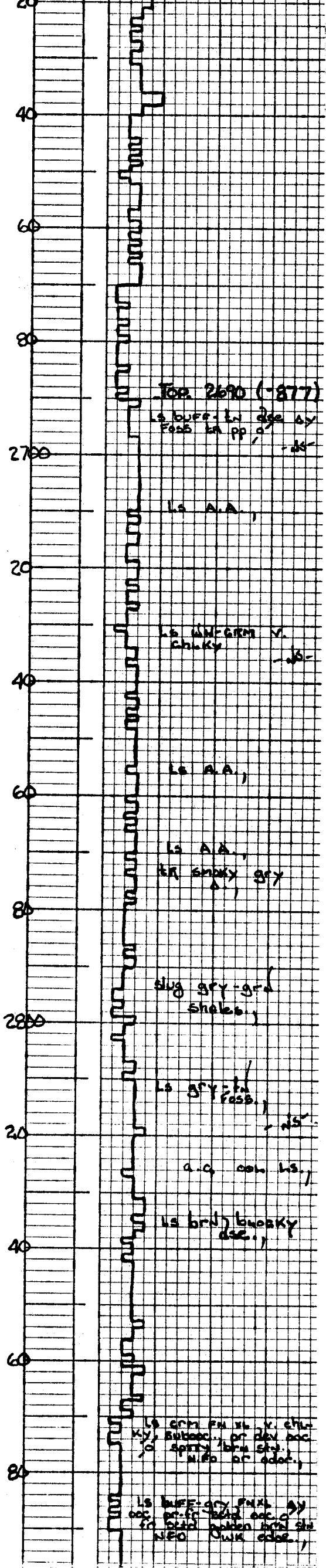
Recommendations: It was recommended that 5 1/2" production casing be set and cemented at 3301', one (1) foot off bottom, and the following zones to be tested.

1. Arbuckle	3250-3252	(Perforate)
2. Lansing	3143-3146	(Perforate)
	3010-3013	(Perforate)
	3005-3007	(Perforate)

Respectfully Submitted,

Brad J. Hutchison
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15 BUFF-GRY FNXL AY
 occ. pr. fr. 100% occ. o.
 fr. 100% golden brown sh
 NFO dark odor.,
 2900
 INC WH - CRM
 chunky LS.,
 20
 HS 2920 (-1107)
 sh blk carb fiss
 40
 TOR 2938 (-1125)
 LS BUFF-FN dsg AY
 tr. spt. H. kny, spt
 pr. dev 20% NFO/odor.
 -OGL 2951 (-1138)
 60
 INC GRY-GRN
 sl micaceous ALTY
 ch.,
 80
 SAME A.A.,
 .LS 2986 (-1173)
 LS BUFF-IT GRY/AY sh fac
 tr. spt. v. o. fr. spt.
 sh. o. NFO/odor.,
 3000
 LS BUFF FNXL/colt Foss
 tr. spt. o. tr. spt.
 H. spt. GR. wh. A
 NFO/FT odor.,
 20
 LS FN-GRY FNXL occ
 dsg o. 75% barren
 fr. spt. lt. spt. spt. spt.
 fr. sfo/fr odor.,
 40
 INC barren o.
 w/ ABUND WH
 chunky LS.,
 60
 LS FN SUBDOC
 barren abund
 CRM chunky LS.,
 80
 LS GRY ool-Foss
 dsg tr. minor spt
 abund smoky GR
 A. NFO/odor.
 3000
 LS CRM-BUFF ool
 sli Foss AY chunky
 tr. minor spt
 NFO/odor.
 20
 LS WH FNXL chunky
 ool - fr. ool o.
 (barren) abund WH
 chalk
 - NS -
 40
 LS GRY FN XL
 chunky - NS -
 shale GRY blk
 fiss carb.,
 40
 LS GRY ool-ool/AY
 pr. fr. spt. ool o. fr.
 spt. ool. spt. spt.
 sfo (gassy) wk odor.

