

SIDE ONE

STATE CORPORATION COMMISSION OF KANSAS  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
ACO-1 WELL HISTORY  
DESCRIPTION OF WELL AND LEASE

Operator: License # 05398

Name: ARCO Oil & Gas Company

Address Box 1610

City/State/Zip Midland, TX 79702

Purchaser: Diamond Shamrock

Operator Contact Person: Ken W. Gosnell

Phone (915) 688-5672

Contractor: Name: H-30 Drilling, Inc.

License: 5107

Wellsite Geologist: Ben Francka

Designate Type of Completion

New Well  Re-Entry  Workover

Oil  SWD  Temp. Abd.

Gas  Inj  Delayed Comp.

Dry  Other (Core, Water Supply, etc.)

If **OWO**: old well info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Comp. Date \_\_\_\_\_ Old Total Depth \_\_\_\_\_

Drilling Method:

Mud Rotary  Air Rotary  Cable

1-15-91 1-25-91 2-7-91

Spud Date Date Reached TD Completion Date

API NO. 15- 067-21109-0000

County Grant

W/2 SW NW Sec. 32 Twp. 29 Rge. 38  East West

3300 Ft. North from Southeast Corner of Section

4926 Ft. West from Southeast Corner of Section  
(NOTE: Locate well in section plat below.)

Lease Name Lora Hickok Well # 1

Field Name Wildcat

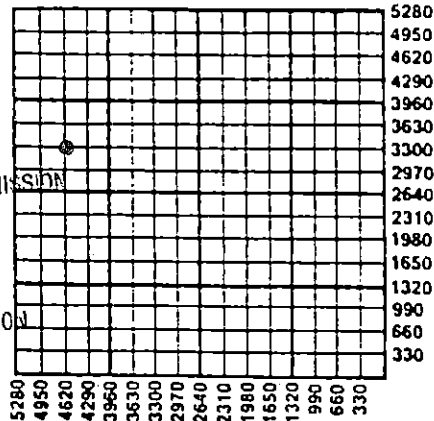
Producing Formation St. Louis

Elevation: Ground 3102.80 KB \_\_\_\_\_

Total Depth 5800 PBDT 5746

6-19-91

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Amount of Surface Pipe Set and Cemented at 1800 Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set DV tool at 3079 Feet

If Alternate II completion, cement circulated from \_\_\_\_\_

feet depth to \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**INSTRUCTIONS:** This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form. See rule 82-3-107 for confidentiality in excess of 12 months. One copy of all wireline logs and drillers time log shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

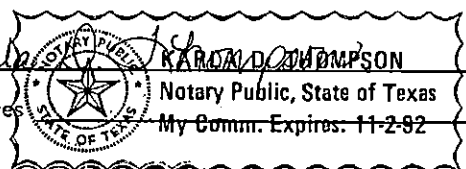
Signature Ken W. Gosnell

Title Regulatory Coordinator Date 6-14-91

Subscribed and sworn to before me this 14th day of June, 1991.

Notary Public KAROL ANN THOMPSON

Date Commission Expires \_\_\_\_\_ Notary Public, State of Texas  
My Comm. Expires: 11-2-92



K.C.C. OFFICE USE ONLY  
F  Letter of Confidentiality Attached  
C  Wireline Log Received  
C  Drillers Timelog Received  
Distribution  
 KCC  SWD/Rep  NGPA  
 KGS  Plug  Other (Specify)

**SIDE TWO**

Operator Name ARCO Oil & Gas Company Lease Name Lora Hickok Well # 1

Sec. 32 Twp. 29 Rge. 38  East  West County Grant

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Attach Additional Sheets.)  Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Submit Copy.)  Core #1    5633-5692	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Formation Name</td> <td style="width:20%;"><input checked="" type="checkbox"/> Log</td> <td style="width:30%;"><input type="checkbox"/> Sample</td> </tr> <tr> <td></td> <td style="text-align: center;">Top</td> <td></td> </tr> <tr> <td>Chase</td> <td style="text-align: right;">2315</td> <td></td> </tr> <tr> <td>Council Grove</td> <td style="text-align: right;">2606</td> <td></td> </tr> <tr> <td>Heebner</td> <td style="text-align: right;">3795</td> <td></td> </tr> <tr> <td>Lansing</td> <td style="text-align: right;">3898</td> <td></td> </tr> <tr> <td>Morrow</td> <td style="text-align: right;">5158</td> <td></td> </tr> <tr> <td>Chester</td> <td style="text-align: right;">5483</td> <td></td> </tr> <tr> <td>St. Genèviève</td> <td style="text-align: right;">5576</td> <td></td> </tr> <tr> <td>St. Louis</td> <td style="text-align: right;">5680</td> <td></td> </tr> </table>	Formation Name	<input checked="" type="checkbox"/> Log	<input type="checkbox"/> Sample		Top		Chase	2315		Council Grove	2606		Heebner	3795		Lansing	3898		Morrow	5158		Chester	5483		St. Genèviève	5576		St. Louis	5680	
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12-1/4	8-5/8	24	1800	C	900	2% CC
Production	7-7/8	5-1/2	15.5	5800	H&C	700	
PERFORATION RECORD				Acid, Fracture, Shot, Cement Squeeze Record			
Shots Per Foot	Specify Footage of Each Interval Perforated			(Amount and Kind of Material Used)      Depth			
4	5666-5672						
TUBING RECORD							
Size		Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No			
2-7/8		5701					
Date of First Production		Producing Method <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)					
2-25-91							
Estimated Production Per 24 Hours		Oil      Bbls.	Gas      Mcf	Water      Bbls.	Gas-Oil Ratio		Gravity
		240	0	70	NA		

Disposition of Gas:  Vented  Sold  Used on Lease (If vented, submit ACO-18.)

**METHOD OF COMPLETION**

Open Hole  Perforation  Dually Completed  Commingled

Other (Specify) \_\_\_\_\_

Production Interval 5666-5672

Geoscience Services

FINAL REPORT

Routine Core Analysis

ARCO OIL & GAS COMPANY

Lora Hickok No. 1 Well  
Grant County, Kansas

TTGS File No. 5807

Prepared for:

ARCO Oil & Gas Company  
600 N. Marienfeld  
Midland, Texas 79701

Prepared by:

TerraTek Geoscience Services  
University Research Park  
360 Wakara Way  
Salt Lake City, Utah 84108

March 1991

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Wichita, Kansas

Geoscience Services

March 4, 1991

ARCO Oil & Gas Company  
600 N. Marienfeld  
Midland, Texas 79701

Attn: Mr. Bill Gibbs M10-28

Subject: Routine Core Analysis Results; ARCO Lora Hickok No. 1  
Well; Grant County, Kansas; TTGS File No. 5807

Dear Mr. Gibbs:

Diamond coring equipment and water base mud were used in the ARCO Lora Hickok No. 1 Well to obtain four-inch diameter core from the interval and formation listed on the enclosed Core Interval Summary. A representative of TerraTek Geoscience Services was at wellsite to retrieve the cores and prepare them for transport to the TerraTek laboratory in Dallas, Texas for routine core analysis.

Upon arrival in the laboratory, a core component gamma log was recorded. One-inch diameter plug samples were drilled from each foot of core using water as coolant. Residual fluids were removed and measured by means of the solvent distillation extraction technique using toluene. Porosities were determined by measuring grain volumes in a helium expansion porosimeter by Boyle's Law and bulk volumes by mercury displacement. Permeabilities to nitrogen gas were measured in a Hassler sleeve using an orifice-equipped pressure transducer to monitor downstream flow.

The results of the measurements described above are presented following the Core Interval Summary. A plot of the total gamma ray activity appears on the enclosed Teklog, along with plots of grain density, horizontal permeability, porosity and residual fluid saturations. The results are then tabulated on the pages following the Teklog. A permeability versus porosity crossplot is included.

We sincerely appreciate this opportunity to be of service and look forward to working with you again on future projects.

Sincerely,

*Kevin R. Francis for*

Michael F. McAuley  
Laboratory Manager,  
Technical Sales Representative

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DISTRIBUTION OF FINAL REPORTS

ARCO OIL & GAS COMPANY

Lora Hickok No. 1 Well  
Grant County, Kansas

TTGS File No. 5807

2 COPIES SENT TO:

ARCO OIL AND GAS COMPANY  
600 N. MARIENFELD  
MIDLAND, TEXAS 79701

ATTN: MR. BILL GIBBS

2 COPIES SENT TO:

AMOCO PRODUCTION COMPANY  
P.O. BOX 800  
1670 BROADWAY  
DENVER, COLORADO 80201

ATTN: MR. VAN LEIGHTON

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CORE INTERVAL SUMMARY

ARCO OIL & GAS COMPANY

Lora Hickok No. 1 Well  
Grant County, Kansas

TTGS File No. 5807

<u>CORE NO.</u>	<u>INTERVAL</u>	<u>FORMATION</u>
1	5633.0 - 5691.0	St. Louis

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# TerraTek Core Services

13628 Gamma Road • Dallas, Texas 75244 • (214) 960-8777 • WATS (800) 338-3182 • FAX (214) 960-2939

## ARCO OIL & GAS COMPANY

Well: Lora Hickok No. 1  
 Field: N/A  
 Drilling fluid: Water Base Mud

State: Kansas  
 County: Grant  
 Location: Sec.32-T29S-R38W

Date: 4-MAR-1991  
 TTCS File #: 5807  
 Elevation: 3104.3'

### PLUG DEAN-STARK ANALYSIS

Sample Number	Depth (feet)	Permeability		Porosity %	Saturation		Grain Density (gm/cc)	Lithology
		Horz (md)	Vert (md)		Oil %	H2O %		
<b>St. Louis Formation</b>								
1	5633.0-34.0	<.01		2.5	12.1	70.3	2.67	Sd,vfg,slty,lmy
2	5634.0-35.0	<.01		2.2	9.3	79.3	2.68	Sd,vfg,slty,lmy
3	5635.0-36.0	<.01		1.9	13.3	74.7	2.68	Sd,vfg,slty,lmy
4	5636.0-37.0	<.01		1.4	10.5	71.6	2.68	Sd,vfg,slty strks,lmy
5	5637.0-38.0	<.01		2.0	21.0	69.1	2.68	Sd,vfg,slty,lmy
6	5638.0-39.0	<.01		2.0	23.3	65.9	2.67	Sd,vfg,slty,lmy
7	5639.0-40.0	<.01		1.7	9.2	73.1	2.68	Ls,vf-fxln,sl ool,sdy
8	5640.0-41.0	<.01		1.9	18.2	73.1	2.68	Ls,vf-fxln,v sdy
9	5641.0-42.0	<.01		1.3	32.1	64.8	2.68	Ls,vf-fxln,sdy
10	5642.0-43.0	<.01		1.7	11.7	76.8	2.68	Ls,vf-fxln,sdy
11	5643.0-44.0	<.01		2.3	11.1	84.8	2.68	Ls,vf-fxln,sdy
12	5644.0-45.0	<.01		2.6	37.0	44.7	2.67	Ls,vf-fxln,ool,v sdy
13	5645.0-46.0	.02		2.7	11.3	76.6	2.68	Ls,vf-fxln,ool,sdy
14	5646.0-47.0	.01		2.5	22.6	71.6	2.69	Ls,vf-fxln,ool,sdy
15	5647.0-48.0	.01		2.1	21.1	69.9	2.69	Ls,vf-fxln,ool,sdy
16	5648.0-49.0	.01		2.7	16.8	82.5	2.67	Sd,vfg,v lmy
17	5649.0-50.0	<.01		2.6	13.8	75.7	2.68	Sd,vfg,v lmy,ool
18	5650.0-51.0	<.01		1.4	25.3	67.6	2.71	Ls,vf-fxln,sdy,ool
19	5651.0-52.0	<.01		2.1	7.2	80.0	2.70	Ls,vfxln,slty strks,sdy
20	5652.0-53.0	<.01		0.9	17.7	80.5	2.69	Ls,vfxln,sm calc frac

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 Wichita, Kansas

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ARCO OIL & GAS COMPANY  
Well: Lora Hickok No. 1

Date: 4-MAR-1991

TICS File #: 5807

## PLUG DEAN-STARK ANALYSIS

Sample Number	Depth (feet)	Permeability		Porosity %	Saturation		Grain Density (gm/cc)	Lithology
		Horz (md)	Vert (md)		Oil %	H2O %		
21	5653.0-54.0	<.01		1.4	24.6	74.7	2.69	Ls,vf-fxln,slty,pyr
22	5654.0-55.0	<.01		1.4	31.9	66.3	2.69	Ls,f-micxln,ool,sdy
23	5655.0-56.0	<.01		0.7	21.5	73.1	2.69	Ls,f-micxln,ool,sdy
24	5656.0-57.0	<.01		0.8	31.9	54.2	2.69	Ls,f-micxln,ool,sdy
25	5657.0-58.0	11.		0.9	43.1	47.1	2.63	Cht,silc,frac
26	5658.0-59.0	<.01		0.9	30.6	34.7	2.63	Cht,silc,frac
27	5659.0-60.0	.20		2.1	20.6	77.0	2.71	Ls,vfxln,sl pyr,frac
28	5660.0-61.0	15.+		2.1	13.9	85.0	2.70	Ls,vfxln
29	5661.0-62.0	.06		1.6	21.3	72.3	2.71	Ls,vfxln,pyr
30	5662.0-63.0	12.+		2.4	21.6	76.4	2.71	Ls,vfxln,pyr
31	5663.0-64.0	<.01		0.7	29.1	61.9	2.70	Ls,micxln,ool,pyr
32	5664.0-65.0	323.		12.8	29.8	41.7	2.68	Ls,micxln,ool,fos,vugs
33	5665.0-66.0	240.		14.2	22.0	42.5	2.68	Ls,micxln,ool,fos,vugs
34	5666.0-67.0	601.		15.0	22.1	47.1	2.67	Ls,micxln,pis,ool,vugs
35	5667.0-68.0	358.		14.0	31.0	44.7	2.68	Ls,micxln,pis,ool,vugs
36	5668.0-69.0	441.		13.3	30.2	36.2	2.68	Ls,micxln,ool,vugs
37	5669.0-70.0	262.		12.1	21.5	45.6	2.68	Ls,micxln,ool,vugs
38	5670.0-71.0	229.		14.9	19.3	49.2	2.68	Ls,micxln,ool,fos,vugs
39	5671.0-72.0	5.0		12.2	19.6	50.7	2.69	Ls,micxln,ool,w/sm scat
40	5672.0-73.0	313.		14.1	17.0	51.6	2.69	Ls,micxln,ool,vugs
41	5673.0-74.0	237.		13.1	38.0	33.3	2.68	Ls,fimicxln,ool,vugs
42	5674.0-75.0	13.		11.0	22.2	47.2	2.71	Ls,f-micxln,ool,vugs

+ - Dehydration crack affecting permeability

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Date: 4-MAR-1991

TTCs File #: 5807

ARCO OIL & GAS COMPANY  
Well: Lora Hickok No. 1

## PLUG DEAN-STARK ANALYSIS

Sample Number	Depth (feet)	Permeability		Porosity %	Saturation		Grain Density (gm/cc)	Lithology
		Horz (md)	Vert (md)		Oil %	H2O %		
43	5675.0-76.0	72.		11.0	17.6	78.5	2.68	Ls,micxn,ool,vugs
44	5676.0-77.0	185.		10.6	11.6	74.0	2.67	Ls,micxn,ool,vugs
45	5677.0-78.0	68.		9.5	19.5	80.4	2.67	Ls,micxn,ool,vugs
46	5678.0-79.0	.25		4.5	54.2	36.0	2.68	Ls,f-micxn,ool,sl vug
47	5679.0-80.0	.17		0.5	45.3	28.9	2.71	Ls,cryp-vfxln,ool,sl vugs
48	5680.0-81.0	<.01		0.7	28.8	30.5	2.70	Ls,vfxln,sl ool,sl vug
49	5681.0-82.0	<.01		2.2	34.3	38.8	2.70	Ls,vfxln,sl ool
50	5682.0-83.0	<.01		0.9	22.4	23.8	2.70	Ls,vfxln
51	5683.0-84.0	<.01		0.9	40.9	49.7	2.70	Ls,vfxln
52	5684.0-85.0	<.01		3.0	29.7	44.6	2.69	Ls,micxn,fos,ool
53	5685.0-86.0	<.01		1.2	8.4	17.9	2.70	Ls,f-micxn,stly strks
54	5686.0-87.0	<.01		1.0	10.3	22.0	2.69	Ls,fxln,pyr
55	5687.0-88.0	2.3+		1.6	32.2	62.9	2.72	Ls,vf-fxln
56	5688.0-89.0	<.01		1.0	15.5	21.9	2.69	Ls,fxln,slty-sdy
57	5689.0-90.0	<.01		1.1	14.3	20.3	2.71	Ls,f-micxn
58	5690.0-91.0	<.01		1.4	33.5	41.2	2.70	Ls,f-micxn

+ - Dehydration crack affecting permeability

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Wichita, Kansas

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KEY TO LITHOLOGICAL ABBREVIATIONS

Anhy	- Anhydrite/anhydritic	g	- grain	pyr	- pyrite/pyritic
arg	- argillaceous	glauc	- glauconitic	qtz	- quartz
Ark	- Arkosic	Gyp	- Gypsum	Sd	- Sand/Sandstone
Bent	- Bentonite	hal	- halite	sdv	- sandy
biot	- bioturbated	hem	- hematite	Sh	- Shale
brec	- brecciated	incl	- inclusions	shy	- shaley
c	- coarse	Ign	- Igneous	sid	- siderite
calc	- calcareous	lam	- laminations	sil	- siliceous
carb	- carbonaceous	lig	- lignite/lignitic	sl/	- slightly
ccf	- calcite fill fracture	Ls	- Limestone	Sltst	- Siltstone
Cgl	- Conglomerate/ conglomeratic	m	- medium	slty	- silty
chky	- chalky	mic	- micro	stk	- streak(s)
Cht	- Chert	mica	- micaceous	sty	- stylolite
chty	- cherty	Ms	- mudstone	suc	- sucrosic
cly	- clay/clayey	nod	- nodules	Tuff	- Tuff
Dol	- Dolomite/Dolomitic	ool	- oolitic	v/	- very
f	- fine	org	- organic	vc	- very coarse
fis	- fissures	pbl	- pebbles	VF	- vertical fracture
fos	- fossiliferous	pel	- peloids	vf	- very fine
frac	- fractures	pis	- pisolites/pisolitic	vgs	- vugs
		pp	- pinpoint	vgy	- vuggy
				xl	- crystalline

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# Terra Tek Geoscience Services®

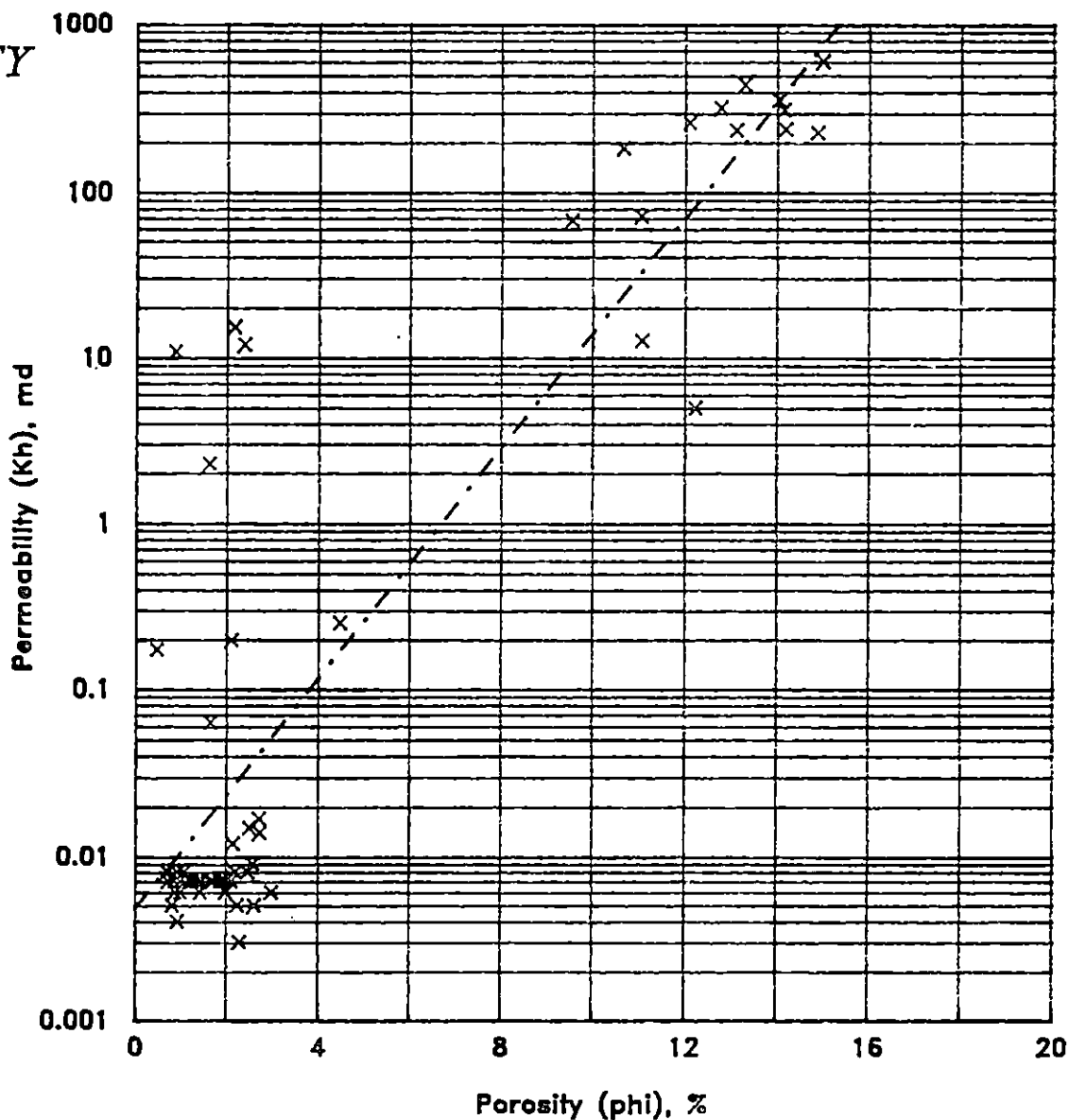
University Research Park - 360 Wakara Way - Salt Lake City, Utah 84108 - (801) 584-2480 - FAX 801-584-2408

## HORIZONTAL PERMEABILITY VS POROSITY

### ARCO OIL & GAS COMPANY

Lora Hickok No. 1 Well  
Grant County, Kansas  
March 4, 1991

Depth Interval: 5633 to 5691 Feet TTGS# 5807		
Porosity (phi), %		
Min	Max	Average
0.462	14.973	4.365
Permeability (Kh), md		
Min	Max	Geo. Ave
0.003	600.915	0.157
Equation of the Line		
$\log Kh = a \phi + \beta$		
$\log Kh = 0.3477 \phi - 2.3209$		
Correlation Coefficient : 0.889		
St. Louis Formation		



**HALLIBURTON SERVICES**  
**JOB LOG**

WELL NO. 1<sup>st</sup> LEASE Lara Victoria TICKET NO. 043175  
 OPER Arco Oil & Gas PAGE NO. 1  
 JOB TYPE 2<sup>nd</sup> Stage DV 5 1/2 Pool Stang DATE 1-27-91

FORM 2013 R-2

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CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0100							Time Called
	02400							Time Ready
	0330							Time on loc. Rig lay Down OK
X	0415							Start Pumping Casing
	0545/0610							Hook up to Casing using Pump & Casing
Y	0745							Hook up to Circulate Casing
	0755							Circulate Casing w/ Pump
Z	0757							Circulate Mtd to Ground level
	0850					1 Stage		Hook up to Pump Truck
AA	0855					3000		Start Press Test Lines
	0858							Release Press
AB	0900	5				220		Start Water Ahead of Cement
	0904	4	20			250		Start Seawater Cement 20% FPDWT
AC	0910	5	21			300		Start Mixing Cement
	0927		63.67			175		Finish Mixing Cement
AD	0929					17 1/2		Shut Down Deep Plug
	0930		13 H <sub>2</sub> O 73 H <sub>2</sub> O			60		Start Displacement + Wash Pump Lines
AE	1005		136 Total			1011		Plug Down
	1010							Release Press Float Held + Circulation done
AF	1013							Deep Room
	1030					900		Press up + Circulate Fluid
AG	1035							Hook up to Rig Pump to Circ Mtd
	1036							Circulate Mtd for 6 hours when Plug Down
AH	1605							Hook up to Pump Truck + Load Top Plug
	1610					2.5%		Start Top Plug + Circulate
AI	1614	5	20			150		Start Water Ahead of Cement
	1618	5	21			150		Start Mixing Cement
AJ	1622	6.5	66.98			170		Start Tail Cement
	1640		69.72			175		Finish Mixing Cement
AK	1642		151.70 Total			17 1/2		Shut Down Deep Plug
	1643							Wash Pump's lines
AL	1646					100		Start Displacement
	1707		73			900		Plug Down Mtd Press
AM	1715							Release Press Float Held Circ Fluid Then out jobs

CUSTOMER

WELL DATA  
FIELD \_\_\_\_\_ SEC. 32 TWP. 29<sup>S</sup> RNG. 38<sup>W</sup> COUNTY Grant STATE Ks

FORMATION NAME \_\_\_\_\_ TYPE \_\_\_\_\_  
FORMATION THICKNESS \_\_\_\_\_ FROM \_\_\_\_\_ TO \_\_\_\_\_  
INITIAL PROD: OIL \_\_\_\_\_ BPD. WATER \_\_\_\_\_ BPD. GAS \_\_\_\_\_ MCFD  
PRESENT PROD: OIL \_\_\_\_\_ BPD. WATER \_\_\_\_\_ BPD. GAS \_\_\_\_\_ MCFD  
COMPLETION DATE \_\_\_\_\_ MUD TYPE \_\_\_\_\_ MUD WT. \_\_\_\_\_  
PACKER TYPE DV Tool SET AT 3078  
BOTTOM HOLE TEMP. \_\_\_\_\_ PRESSURE \_\_\_\_\_  
MISC. DATA \_\_\_\_\_ TOTAL DEPTH \_\_\_\_\_

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING		15.3	5 1/2	KB	5804	
LINER						
TUBING						
OPEN HOLE			7 1/4	1800	5800	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

**TOOLS AND ACCESSORIES**

TYPE AND SIZE	QTY.	MAKE
TYPE AND SIZE <u>5 1/2</u>		
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG		
HEAD		
PACKER <u>Latex Drive Plug</u>	<u>1</u>	<u>Hanco</u>
OTHER <u>Latex Drive Baffle</u>	<u>1</u>	<u>/</u>

**JOB DATA**

CALLER OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>1-27</u>	DATE <u>1-27</u>	DATE <u>1-27</u>	DATE <u>1-27</u>
TIME <u>0100</u>	TIME <u>0330</u>	TIME <u>0745</u>	TIME <u>1715</u>

**PERSONNEL AND SERVICE UNITS**

NAME	UNIT NO. & TYPE	LOCATION
<u>D. Davis</u>	<u>40075</u>	<u>Liberal Ks</u>
<u>T. Beard</u>	<u>59179</u>	<u>"</u>
<u>C. Davis</u>	<u>71322</u>	<u>"</u>
<u>R. Kingsinger</u>	<u>4900</u>	<u>"</u>
<u>Clay</u>	<u>19259</u>	<u>Hesston Ks</u>
<u>P. Line</u>	<u>184372</u>	<u>"</u>
<u>D. Phillips</u>	<u>10978</u>	<u>"</u>

**MATERIALS**

TREAT. FLUID \_\_\_\_\_ DENSITY \_\_\_\_\_ LB/GAL-API  
DISPL. FLUID \_\_\_\_\_ DENSITY \_\_\_\_\_ LB/GAL-API  
PROP. TYPE \_\_\_\_\_ SIZE \_\_\_\_\_ LB.  
ACID TYPE \_\_\_\_\_ GAL. \_\_\_\_\_ %  
SURFACTANT TYPE \_\_\_\_\_ GAL. \_\_\_\_\_ IN.  
NE AGENT TYPE \_\_\_\_\_ GAL. \_\_\_\_\_ IN.  
FLUID LOSS ADD. TYPE \_\_\_\_\_ GAL.-LB. \_\_\_\_\_ IN.  
GELLING AGENT TYPE \_\_\_\_\_ GAL.-LB. \_\_\_\_\_ IN.  
FRIC. RED. AGENT TYPE \_\_\_\_\_ GAL.-LB. \_\_\_\_\_ IN.  
BREAKER TYPE \_\_\_\_\_ GAL.-LB. \_\_\_\_\_ IN.  
BLOCKING AGENT TYPE \_\_\_\_\_ GAL.-LB. \_\_\_\_\_ IN.  
PERFPAC BALLS TYPE \_\_\_\_\_ QTY. \_\_\_\_\_  
OTHER \_\_\_\_\_

DEPARTMENT Cement  
DESCRIPTION OF JOB 2 1/2" DV

JOB DONE THRU: TUBING  CASING  ANNULUS  TBG/ANN.

CUSTOMER REPRESENTATIVE [Signature]

HALLIBURTON OPERATOR D. Davis COPIES REQUESTED \_\_\_\_\_

**CEMENT DATA**

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LB./GAL.
1	20	Prem Plus	UTUT		Scavenger Cement 1 Stage	5.89	9.7
1	250	Thiact 'N'			56 KCL 3/10 10 lb. 344 1/4 1/4 Flucide	1.43	14.5
2	20	Prem Plus	UTUT		Scavenger Cement 2 Stage	5.89	9.7
2	160	Prem Plus	UTUT		1/2 9 Haldex 9 1/4 1/4 Flucide	2.14	12.1
2	290	50/50 Pa			1/4 7 1/2 Flucide 28 Total Gel	1.35	13.8

PRESSURES IN PSI \_\_\_\_\_  
CIRCULATING \_\_\_\_\_ DISPLACEMENT \_\_\_\_\_  
BREAKDOWN \_\_\_\_\_ MAXIMUM \_\_\_\_\_  
AVERAGE \_\_\_\_\_ FRACTURE GRADIENT \_\_\_\_\_  
SHUT-IN: INSTANT \_\_\_\_\_ 5-MIN. \_\_\_\_\_ 15-MIN. \_\_\_\_\_  
HYDRAULIC HORSEPOWER \_\_\_\_\_  
ORDERED \_\_\_\_\_ AVAILABLE \_\_\_\_\_ USED \_\_\_\_\_  
AVERAGE RATES IN BPM \_\_\_\_\_  
TREATING \_\_\_\_\_ DISPL. \_\_\_\_\_ OVERALL \_\_\_\_\_  
CEMENT LEFT IN PIPE \_\_\_\_\_  
FEET. 5391 REASON Slab Joint

PRELUSH: BBL-GAL. \_\_\_\_\_  
LOAD & BKDN: BBL-GAL. \_\_\_\_\_ PAD: BBL-GAL. \_\_\_\_\_  
TREATMENT: BBL-GAL. \_\_\_\_\_ DISPL. BBL-GAL. \_\_\_\_\_  
CEMENT SLURRY: BBL-GAL. \_\_\_\_\_  
TOTAL VOLUME: BBL-GAL. \_\_\_\_\_

REMARKS: 20 Free Water Added per Each Stage  
1 Stage 2098 / 63.67  
2 Stage 151.70

RECEIVED \_\_\_\_\_  
DIVISION \_\_\_\_\_  
DATE 1-27-75

CUSTOMER Acad Oil & Gas  
LEASE Lauren Michol  
WELL NO. 1 #  
JOB TYPE 2 Stage DV 5 1/2"  
DATE 1-27-75

