

FORM MUST BE TYPED

SIDE ONE

ORIGINAL

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

API NO. 15- 081-20955-0001

County HASKELL  
SURFACE LOCATION:  
489N& 185E OF C NE NE Sec. 16 Twp. 29 Rge. 34 X W

Operator: License # 4549

171 Feet from (N)X (circle one) Line of Section

Name: ANADARKO PETROLEUM CORPORATION

475 Feet from (E)X (circle one) Line of Section

Address P. O. BOX 351

BHL: 706 FNL & 619 FEL  
Footages Calculated from Nearest Outside Section Corner:  
(NE) SE, NW or SW (circle one)

City/State/Zip LIBERAL, KANSAS 67905-0351

Lease Name OWENS "A" Well # 3

Purchaser: NATIONAL COOPERATIVE REFINERY ASSOCIATION

Field Name EUBANK

Operator Contact Person: DAVID W. KAPPLF

Producing Formation CHESTER

Phone (316) 624-6253

Elevation: Ground 2979.1 KB

Contractor: Name: CHEYENNE DRILLING

Total Depth 5720 MD PBT 5613 MD

License: 5382

Amount of Surface Pipe Set and Cemented at 1806 Feet

Wellsite Geologist: \_\_\_\_\_

Multiple Stage Cementing Collar Used? X Yes \_\_\_\_\_ No

Designate Type of Completion

If yes, show depth set \_\_\_\_\_ Feet

\_\_\_\_\_ New Well \_\_\_\_\_ Re-Entry X Workover

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

X Oil \_\_\_\_\_ SWD \_\_\_\_\_ SLOW \_\_\_\_\_ Temp. Abd.

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

\_\_\_\_\_ Gas \_\_\_\_\_ ENHR \_\_\_\_\_ SIGW

\_\_\_\_\_ Dry \_\_\_\_\_ Other (Core, WSW, Expl., Cathodic, etc)

Drilling Fluid Management Plan REWORK JK 6-16-97  
(Data must be collected from the Reserve Pit)

If Workover:

Operator: ANADARKO PETROLEUM CORPORATION

Chloride content 1900 ppm Fluid volume 700 bbls

Well Name: OWENS "A" No. 3

Dewatering method used DRY, BACKFILL & RESTORE LOCATION

Comp. Date 11-11-95 Old Total Depth 5752 MD

Location of fluid disposal if hauled offsite: \_\_\_\_\_

\*REDRILL XXX DEVIATED HOLE FROM VERTICAL

Deepening \_\_\_\_\_ Re-perf. \_\_\_\_\_ Conv. to Inj/SWD

XXX Plug Back 2157 PBT

\_\_\_\_\_ Commingled \_\_\_\_\_ Docket No. \_\_\_\_\_

Operator Name 6-4-97

\_\_\_\_\_ Dual Completion \_\_\_\_\_ Docket No. \_\_\_\_\_

Lease Name \_\_\_\_\_ License No. \_\_\_\_\_

\_\_\_\_\_ Other (SWD or Inj?) \_\_\_\_\_ Docket No. \_\_\_\_\_

Quarter Sec. Twp. S Rng. E/W

3-3-97 3-14-97 4-4-97

County \_\_\_\_\_ Docket No. \_\_\_\_\_

3-3-97 Date of START Date Reached TD 3-14-97 Completion Date of 4-4-97  
OF WORKOVER WORKOVER

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 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 geologist well report 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.

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 L. Marc Harvey  
L. MARC HARVEY  
Title DRILLING TECHNICAL ASSISTANT Date 5-29-97

Subscribed and sworn to before me this 29th day of May  
19 97.

Notary Public Freda L. Hinz

Date Commission Expires \_\_\_\_\_

FREDA L. HINZ  
Notary Public - State of Kansas  
My Appt. Expires 5-15-99

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

Operator Name ANADARKO PETROLEUM CORPORATION Lease Name OWENS "A" Well #, 3

Sec. 16 Twp. 29 Rge. 34  East County HASKELL  
 West

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  Yes  No  
 (Attach Additional Sheets.)

Samples Sent to Geological Survey  Yes  No

Cores Taken  Yes  No

Electric Log Run  Yes  No  
 (Submit Copy.)

List All E.Logs Run: DIL, CNL-LDT, ML, NGR,  
 DIRECTIONAL SURVEY.

<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datums	<input type="checkbox"/> Sample
	TVD	
Name	Top	Datum
B/STONE CORRAL	1816	
CHASE	2510	
COUNCIL GROVE	2844	
HEEBNER	3984	
LANSING	4062	
KANSAS CITY	4510	
MARMATON	4662	
MORROW	5166	
CHESTER	5304	
ST. LOUIS	5596	

* ORIGINAL COMPLETION								CASING RECORD							
<input checked="" 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"	23.0	1806	P+ MIDCON 2/ P+	340/160	2%CC, 1/4#SK FLC/ 2%CC, 1/4#SK FLC.								
PRODUCTION	7-7/8"	5-1/2"	15.5	5655	P+ MIDCON 2/ VERSASET	50/140	2%CC, 1/4#SK FLC/ .6% HALAD 322, 5% KCL, 3%CC, 1/4#SK FLC, .9% VERSASET.								
			F.O. TOOL @	3228	P+ MIDCON 2	60	3%CC, 1/4#SK FLC.								

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose: WHIPSTOCK PLUG	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone	2157-2400	P+	120	1%CC, .5% CFR 3.

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
2	5414-5496	ACID: 9000 GAL 7 1/2% FeHCL.	5414-5496

TUBING RECORD	Size	Set At	Packer At	Liner Run
	2 3/8	5532		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Date of First, Resumed Production, SWD or Inj. 4-5-97 Producing Method  Flowing  Pumping  Gas Lift  Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	106	314	21		

Disposition of Gas:  Vented  Sold  Used on Lease (If vented, submit ACO-18.) METHOD OF COMPLETION  Open Hole  Perf.  Dually Comp.  Commingled  Other (Specify) \_\_\_\_\_ Production Interval 5414-5496

# Halliburton Drilling Systems

## Survey Report

Date: 3/19/97  
 Time: 10:01 am  
 Wellpath ID: SIDETRACK SURVEYS  
 Date Created: 3/7/97  
 Last Revision: 3/19/97

Calculated using the Minimum Curvature Method  
 Computed using WIN-CADDS REV2.2  
 Vertical Section Plane: S 15.04 W

ORIGINAL

Survey Reference: WELLHEAD  
 Vertical Section Reference: WELLHEAD  
 Closure Reference: WELLHEAD  
 TVD Reference: WELLHEAD

15-081-20955-0001

ANADARKO PETROLEUM  
 OWENS "A" #3  
 HASKELL COUNTY, KANSAS  
 SEC. 16-T29S-R34W  
 SURVEYS

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	TOTAL Rectangular Offsets (ft)		Vertical Section (ft)	DLS (dg/100ft)
0.00	0.00	N 0.00 E	0.00	0.00	0.00 N	0.00 E	0.00	0.00
100.00	0.58	S 55.24 W	100.00	100.00	0.29 S	0.42 W	0.39	0.58
200.00	0.42	S 73.69 W	100.00	199.99	0.68 S	1.18 W	0.96	0.23
300.00	0.25	S 70.14 W	100.00	299.99	0.86 S	1.74 W	1.28	0.17
400.00	0.25	S 40.47 W	100.00	399.99	1.10 S	2.09 W	1.60	0.13
500.00	0.25	N 41.17 W	100.00	499.99	1.10 S	2.37 W	1.68	0.38
600.00	0.33	N 62.74 W	100.00	599.99	0.80 S	2.77 W	1.49	0.13
700.00	0.58	N 38.32 W	100.00	699.99	0.27 S	3.34 W	1.13	0.31
800.00	0.67	N 35.01 W	100.00	799.98	0.60 N	3.99 W	0.45	0.10
900.00	0.42	N 4.65 W	100.00	899.98	1.45 N	4.36 W	-0.27	0.37
1000.00	0.50	N 64.61 E	100.00	999.97	2.00 N	3.95 W	-0.89	0.53
1100.00	0.42	N 32.79 E	100.00	1099.97	2.49 N	3.40 W	-1.53	0.26
1200.00	0.50	S 26.71 W	100.00	1199.97	2.41 N	3.40 W	-1.45	0.92
1300.00	0.75	N 28.01 E	100.00	1299.97	2.60 N	3.25 W	-1.66	1.25
1400.00	1.08	S 33.34 W	100.00	1399.96	2.39 N	3.50 W	-1.40	1.83
1500.00	1.58	S 56.80 W	100.00	1499.94	0.85 N	5.17 W	0.52	0.73
1600.00	1.75	S 53.20 W	100.00	1599.89	0.82 S	7.54 W	2.75	0.20
1700.00	1.92	S 68.52 W	100.00	1699.84	2.35 S	10.33 W	4.95	0.52
1800.00	1.75	S 55.46 W	100.00	1799.79	3.83 S	13.14 W	7.11	0.45
1900.00	1.08	S 54.17 W	100.00	1899.76	5.25 S	15.16 W	9.00	0.67

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# Halliburton Drilling Systems

## Survey Report Wellpath ID: SIDETRACK SURVEYS

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	TOTAL Rectangular Offsets (ft)		Vertical Section (ft)	DLS (dg/100ft)
2000.00	1.92	S 52.62 W	100.00	1999.73	6.81 S	17.26W	11.06	0.84
2100.00	1.00	S 66.07 W	100.00	2099.69	8.19 S	19.39W	12.94	0.98
START SIDETRACK AT 2157'								
2150.00	1.00	S 66.40 W	50.00	2149.69	8.54 S	20.19W	13.48	0.01
BHA #1 IN @ 2157 MD 1½" x 1" F2000S F27-IP								
2181.00	1.50	S 27.40 W	31.00	2180.68	9.01 S	20.62W	14.05	3.09
2211.00	3.40	S 4.50 W	30.00	2210.65	10.24 S	20.87W	15.31	7.00
2243.00	4.60	S 0.10 W	32.00	2242.57	12.47 S	20.95W	17.48	3.87
2273.00	5.20	S 2.70 W	30.00	2272.46	15.03 S	21.01W	19.97	2.13
2304.00	5.20	S 5.20 W	31.00	2303.33	17.83 S	21.21W	22.73	0.73
2334.00	5.10	S 5.60 W	30.00	2333.21	20.51 S	21.46W	25.38	0.35
2364.00	4.70	S 3.90 W	30.00	2363.10	23.07 S	21.68W	27.90	1.42
2394.00	4.60	S 7.30 W	30.00	2393.01	25.49 S	21.91W	30.30	0.98
2454.00	4.40	S 7.70 W	60.00	2452.82	30.15 S	22.53W	34.97	0.34
2547.00	4.30	S 8.20 W	93.00	2545.55	37.14 S	23.50W	41.97	0.11
2638.00	4.20	S 6.70 W	91.00	2636.30	43.83 S	24.38W	48.65	0.16
2669.00	4.20	S 7.80 W	31.00	2667.22	46.08 S	24.66W	50.90	0.26
2699.00	4.60	S 10.70 W	30.00	2697.13	48.35 S	25.04W	53.19	1.53
2730.00	5.20	S 15.70 W	31.00	2728.02	50.92 S	25.65W	55.83	2.37
2761.00	5.50	S 17.20 W	31.00	2758.88	53.70 S	26.47W	58.72	1.07
2822.00	5.80	S 15.80 W	61.00	2819.59	59.45 S	28.17W	64.73	0.54
2853.00	6.00	S 16.80 W	31.00	2850.42	62.51 S	29.06W	67.91	0.73
2884.00	6.20	S 17.10 W	31.00	2881.25	65.66 S	30.02W	71.20	0.65
2946.00	6.30	S 16.10 W	62.00	2942.88	72.13 S	31.95W	77.95	0.24
3008.00	6.30	S 16.10 W	62.00	3004.50	78.67 S	33.84W	84.75	0.00
3038.00	6.30	S 14.60 W	30.00	3034.32	81.84 S	34.71W	88.05	0.55
3070.00	6.50	S 16.50 W	32.00	3066.12	85.28 S	35.67W	91.61	0.91
3099.00	7.10	S 15.30 W	29.00	3094.92	88.58 S	36.61W	95.04	2.13
3131.00	7.70	S 12.80 W	32.00	3126.65	92.58 S	37.60W	99.16	2.13
3161.00	7.70	S 12.80 W	30.00	3156.38	96.50 S	38.49W	103.18	0.00
3192.00	8.10	S 8.70 W	31.00	3187.09	100.68 S	39.28W	107.43	2.23
3223.00	8.70	S 7.90 W	31.00	3217.75	105.16 S	39.94W	111.92	1.97
3254.00	9.20	S 7.20 W	31.00	3248.38	109.94 S	40.57W	116.71	1.65

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CONVENTION CENTER

# Halliburton Drilling Systems

## Survey Report Wellpath ID: SIDETRACK SURVEYS

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	TOTAL Rectangular Offsets (ft)		Vertical Section (ft)	DLS (dg/100ft)
3285.00	9.90	S 8.00 W	31.00	3278.95	115.04 S	41.25W	121.81	2.30
3315.00	10.20	S 8.30 W	30.00	3308.49	120.22 S	41.99W	127.00	1.02
3346.00	10.90	S 7.70 W	31.00	3338.96	125.84 S	42.78W	132.64	2.29
3376.00	11.20	S 8.50 W	30.00	3368.41	131.54 S	43.59W	138.34	1.12
3406.00	11.00	S 8.30 W	30.00	3397.85	137.26 S	44.44W	144.08	0.68
3437.00	10.90	S 9.90 W	31.00	3428.28	143.06 S	45.37W	149.94	1.03
3469.00	10.80	S 9.40 W	32.00	3459.71	149.00 S	46.38W	155.93	0.43
3500.00	10.60	S 9.60 W	31.00	3490.17	154.68 S	47.33W	161.66	0.66
3530.00	10.40	S 9.30 W	30.00	3519.67	160.07 S	48.23W	167.10	0.69
3561.00	10.20	S 10.00 W	31.00	3550.17	165.54 S	49.15W	172.62	0.76
3592.00	10.20	S 10.90 W	31.00	3580.68	170.94 S	50.15W	178.09	0.51
3623.00	11.20	S 10.60 W	31.00	3611.14	176.59 S	51.22W	183.83	3.23
3654.00	11.50	S 9.90 W	31.00	3641.53	182.59 S	52.31W	189.91	1.06
3684.00	11.60	S 9.60 W	30.00	3670.92	188.51 S	53.33W	195.89	0.39
3715.00	11.60	S 10.30 W	31.00	3701.29	194.65 S	54.40W	202.10	0.45
3747.00	11.50	S 9.20 W	32.00	3732.64	200.97 S	55.45W	208.48	0.76
3778.00	11.60	S 9.70 W	31.00	3763.02	207.09 S	56.51W	214.66	0.46
3809.00	11.50	S 9.30 W	31.00	3793.39	213.21 S	57.53W	220.84	0.41
3839.00	11.60	S 10.10 W	30.00	3822.78	219.13 S	58.54W	226.82	0.63
3870.00	11.50	S 10.20 W	31.00	3853.15	225.24 S	59.64W	233.00	0.33
3900.00	11.30	S 9.90 W	30.00	3882.56	231.08 S	60.67W	238.81	0.70
3930.00	11.30	S 10.70 W	30.00	3911.98	236.86 S	61.72W	244.77	0.52
3961.00	11.10	S 10.50 W	31.00	3942.39	242.78 S	62.83W	250.77	0.66
3991.00	11.10	S 10.20 W	30.00	3971.83	248.46 S	63.87W	256.53	0.19
4022.00	10.90	S 11.70 W	31.00	4002.26	254.27 S	64.99W	262.43	1.13
4052.00	10.80	S 13.00 W	30.00	4031.72	259.79 S	66.20W	268.07	0.88
4083.00	10.90	S 14.10 W	31.00	4062.17	265.46 S	67.57W	273.90	0.74
4113.00	11.00	S 14.70 W	30.00	4091.62	270.98 S	68.98W	279.60	0.51
4143.00	10.90	S 14.10 W	30.00	4121.08	276.50 S	70.40W	285.30	0.51
4173.00	11.00	S 13.50 W	30.00	4150.53	282.03 S	71.76W	290.99	0.51
4204.00	11.00	S 14.30 W	31.00	4180.96	287.77 S	73.18W	296.91	0.49
4234.00	11.00	S 13.40 W	30.00	4210.41	293.33 S	74.55W	302.63	0.57
4264.00	10.90	S 13.80 W	30.00	4239.86	298.87 S	75.89W	308.33	0.42

1997 JUN -4 A 12:20  
 APPROVED FOR COMPANY  
 BY: [Signature]  
 DATE: [Date]

# Halliburton Drilling Systems

# ORIGINAL

## Survey Report Wellpath ID: SIDETRACK SURVEYS

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	TOTAL Rectangular Offsets (ft)	Vertical Section (ft)	DLS (dg/100ft)
4294.00	11.10	S 13.70 W	30.00	4269.31	304.43 S 77.25W	314.05	0.67
4325.00	10.90	S 14.70 W	31.00	4299.74	310.17 S 78.70W	319.96	0.89
4356.00	10.50	S 13.80 W	31.00	4330.20	315.74 S 80.12W	325.72	1.40
4387.00	10.20	S 14.00 W	31.00	4360.70	321.15 S 81.46W	331.29	0.97
4418.00	10.10	S 14.10 W	31.00	4391.21	326.45 S 82.78W	336.75	0.33
4450.00	9.90	S 14.60 W	32.00	4422.73	331.83 S 84.16W	342.31	0.68
4480.00	10.00	S 15.80 W	30.00	4452.28	336.84 S 85.52W	347.49	0.77
4510.00	10.20	S 15.20 W	30.00	4481.81	341.91 S 86.93W	352.75	0.75
4541.00	10.10	S 15.20 W	31.00	4512.33	347.18 S 88.36W	358.21	0.32
4571.00	10.00	S 15.70 W	30.00	4541.86	352.22 S 89.75W	363.45	0.44
4602.00	9.80	S 16.30 W	31.00	4572.40	357.35 S 91.22W	368.78	0.73
4634.00	9.60	S 17.60 W	32.00	4603.95	362.50 S 92.79W	374.17	0.93
4664.00	9.40	S 17.40 W	30.00	4633.53	367.23 S 94.28W	379.11	0.68
4695.00	9.40	S 16.30 W	31.00	4664.12	372.07 S 95.75W	384.17	0.58
4725.00	9.40	S 13.10 W	30.00	4693.71	376.81 S 96.99W	389.07	1.74
4755.00	9.40	S 11.20 W	30.00	4723.31	381.60 S 98.02W	393.96	1.03
4786.00	9.10	S 12.70 W	31.00	4753.91	386.47 S 99.05W	398.94	1.24
4817.00	9.20	S 14.60 W	31.00	4784.51	391.26 S 100.22W	403.87	1.03
4847.00	9.60	S 14.90 W	30.00	4814.11	396.00 S 101.46W	408.77	1.34
4879.00	9.50	S 14.50 W	32.00	4845.67	401.14 S 102.81W	414.07	0.38
4910.00	9.50	S 13.70 W	31.00	4876.24	406.10 S 104.06W	419.19	0.43
4941.00	9.30	S 15.00 W	31.00	4906.83	411.00 S 105.31W	424.25	0.94
4971.00	8.90	S 14.70 W	30.00	4936.45	415.59 S 106.53W	429.00	1.34
5002.00	8.50	S 16.60 W	31.00	4967.09	420.10 S 107.79W	433.69	1.59
5033.00	8.20	S 17.30 W	31.00	4997.76	424.41 S 109.10W	438.18	1.02
5064.00	8.90	S 18.00 W	31.00	5028.42	428.80 S 110.50W	442.79	2.28
5095.00	9.30	S 16.90 W	31.00	5059.03	433.48 S 111.97W	447.69	1.41
5127.00	9.40	S 18.10 W	32.00	5090.60	438.44 S 113.54W	452.88	0.68
5157.00	9.50	S 18.10 W	30.00	5120.20	443.12 S 115.07W	457.80	0.33
5187.00	9.90	S 17.10 W	30.00	5149.77	447.94 S 116.59W	462.85	1.45
5218.00	10.10	S 17.80 W	31.00	5180.30	453.07 S 118.21W	468.23	0.75
5247.00	10.20	S 18.40 W	29.00	5208.84	457.93 S 119.80W	473.33	0.50
5278.00	10.50	S 18.20 W	31.00	5239.34	463.22 S 121.54W	478.89	0.97

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WELL LOG  
SIDETRACK SURVEYS  
CORIN

# Halliburton Drilling Systems

## Survey Report Wellpath ID: SIDETRACK SURVEYS

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	TOTAL Rectangular (ft)	Offsets (ft)	Vertical Section (ft)	DLS (dg/100ft)
5308.00	10.50	S 17.80 W	30.00	5268.84	468.42 S	123.23W	484.35	0.24
5339.00	10.30	S 18.10 W	31.00	5299.33	473.74 S	124.96W	489.94	0.67
5369.00	10.10	S 19.00 W	30.00	5328.85	478.78 S	126.65W	495.24	0.85
5399.00	9.90	S 19.80 W	30.00	5358.40	483.69 S	128.38W	500.44	0.81
5430.00	9.70	S 19.20 W	31.00	5388.94	488.67 S	130.14W	505.70	0.72
LAST MWD SURVEY								
5461.00	9.50	S 16.20 W	31.00	5419.51	493.59 S	131.71W	510.86	1.74
PROJECTION TO TD @ 5720 MD SLICK ROTARY ASSEMBLY								
5720.00	9.50	S 16.20 W	259.00	5674.96	534.64 S	143.64W	553.60	0.00

ORIGINAL

RECEIVED  
KANSAS CORP COMM  
1997 JUN -4 A 12: 26



# JOB SUMMARY

HALLIBURTON DIVISION Mid Continent  
 HALLIBURTON LOCATION LIBERAL, KS

BILLED ON TICKET NO. 185782

## WELL DATA

FIELD \_\_\_\_\_ SEC \_\_\_\_\_ TWP. \_\_\_\_\_ RNG. \_\_\_\_\_ COUNTY Haskell 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 \_\_\_\_\_ SET AT \_\_\_\_\_

BOTTOM HOLE TEMP. \_\_\_\_\_ PRESSURE \_\_\_\_\_

MISC. DATA \_\_\_\_\_ TOTAL DEPTH 2902

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING						
LINER						
TUBING						
OPEN HOLE						SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

# ORIGINAL

## JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
<u>3-4-97</u>	<u>3-4-97</u>	<u>3-5-97</u>	<u>3-5-97</u>
DATE	DATE	DATE	DATE
TIME <u>1730</u>	TIME <u>2200</u>	TIME <u>0115</u>	TIME <u>0130</u>

## PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>J. Wooten</u>	<u>4115/1</u>	<u>LIBERAL KS</u>
<u>C. Day</u>	<u>4115/2</u>	<u>" "</u>
<u>L. Patterson</u>	<u>4115/Bulk</u>	<u>HUGOTON KS</u>
	<u>175237</u>	

## TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG		
HEAD		
PACKER		
OTHER		

## MATERIALS

TREAT. FLUID \_\_\_\_\_ DENSITY \_\_\_\_\_ LB/GAL. <sup>0</sup>API

DISPL. FLUID \_\_\_\_\_ DENSITY \_\_\_\_\_ LB/GAL. <sup>0</sup>API

PROP. TYPE \_\_\_\_\_ SIZE \_\_\_\_\_ LB.

PROP. TYPE \_\_\_\_\_ SIZE \_\_\_\_\_ LB.

ACID TYPE \_\_\_\_\_ GAL. \_\_\_\_\_ %

ACID TYPE \_\_\_\_\_ GAL. \_\_\_\_\_ %

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. \_\_\_\_\_

PERFAC BALLS TYPE \_\_\_\_\_ QTY. \_\_\_\_\_

OTHER \_\_\_\_\_

OTHER \_\_\_\_\_

DEPARTMENT Oilfield

DESCRIPTION OF JOB \_\_\_\_\_

JOB DONE THRU. TUBING  CASING  ANNULUS  TBG ANN.

CUSTOMER REPRESENTATIVE X Steve Ridener

HALLIBURTON OPERATOR J. Wooten COPIES REQUESTED \_\_\_\_\_

## CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU FT / SK	MIXED LBS / GAL.
	<u>120</u>	<u>PREMIUM</u>	<u>...</u>	<u>2</u>	<u>1% ICC SF CFR-3</u>	<u>9</u>	<u>172</u>

## PRESSURES IN PSI

## SUMMARY

## VOLUMES

CIRCULATING \_\_\_\_\_ DISPLACEMENT \_\_\_\_\_ PRESLUSH: BBL -GAL. \_\_\_\_\_ TYPE \_\_\_\_\_

BREAKDOWN \_\_\_\_\_ MAXIMUM \_\_\_\_\_ LOAD & BKDN: BBL -GAL. \_\_\_\_\_ PAD BBL -GAL. \_\_\_\_\_

AVERAGE \_\_\_\_\_ FRACTURE GRADIENT \_\_\_\_\_ TREATMENT: BBL -GAL. \_\_\_\_\_ DISPL BBL -GAL. \_\_\_\_\_

SHUT-IN INSTANT \_\_\_\_\_ 5-MIN \_\_\_\_\_ 15-MIN \_\_\_\_\_ CEMENT SLURRY: BBL -GAL. 172

HYDRAULIC HORSEPOWER \_\_\_\_\_ TOTAL VOLUME: BBL -GAL. \_\_\_\_\_

ORDERED \_\_\_\_\_ AVAILABLE \_\_\_\_\_ USED \_\_\_\_\_ REMARKS JOB PROCEDURE

AVERAGE RATES IN BPM \_\_\_\_\_ JOB LOG

TREATING \_\_\_\_\_ DISPL. \_\_\_\_\_ OVERALL \_\_\_\_\_

CEMENT LEFT IN PIPE \_\_\_\_\_

FEET \_\_\_\_\_ REASON \_\_\_\_\_

FIELD OFFICE

CUSTOMER AMERICAN PETROLEUM  
 LEASE OWENS  
 WELL NO. A-3  
 JOB TYPE WHP STOCK PLUS  
 DATE 3-5-97



**JOB LOG** HAL-2013-C

 CUSTOMER: ANADARKO PETROLEUM  
 WELL NO.: A-3  
 LEASE: GWINS  
 JOB TYPE: WHIP-STACK PLUG  
 TICKET NO.: 185782

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2300							JOB READY
	1930							called out for job
	2200							pump truck + bulk cmt on location
	{							RIG LAYING DRILL PIPE ON RACKS
	{							SET UP PUMP TRUCK
	2315							TRIP IN HOLE WITH 2400' OF DRILL PIPE
								D.P. ON BOTTOM 2400' - HOOR UP
	0030							KILLY - CIRCULATE HOLE
								THROUGH CIRCULATING HOOR UP TO PUMP TRUCK
								JOB PROCEDURE
	0112	5.0	10.0	✓		90		pump 10 BBL FRESH WATER AHEAD
	0115	5.0	21.3	✓				MIX 100 STS CMT AT 17-2' LVL
	0120		3.5	✓				pump 3.5 BBL FRESH WATER
	0125	6.0	25	✓		50		DISPLACE WITH 25 BBL MUD
	0130							HOOR DOWN - PUNCH LOOSE
								PULL 5 STD D.P. 300'
								LAY DOWN 20 JTS
								THANK YOU!
								CALL AGAIN
								AMARCO / 1000

 RECEIVED  
 AMARCO CORP. (M)  
 1997 JUN -11 A. 12: 26

**WELL DATA**

FIELD \_\_\_\_\_ SEC 15 TWP. 29S RNG. 74W COUNTY Scott STATE KS

FORMATION NAME	TYPE	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
FORMATION THICKNESS _____	FROM _____ TO _____	CASING <u>N</u>	<u>15.5</u>	<u>6 1/2</u>	<u>61</u>	<u>4655</u>	
INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD		LINER					
PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD		TUBING					
COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____		OPEN HOLE					SHOTS/FT.
PACKER TYPE _____ SET AT _____		PERFORATIONS					
BOTTOM HOLE TEMP. _____ PRESSURE _____		PERFORATIONS					
MISC. DATA _____ TOTAL DEPTH _____		PERFORATIONS					

**JOB DATA**

**TOOLS AND ACCESSORIES**

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR <u>12 3/4" x 10 1/2" x 3/4"</u>	<u>1</u>	<u>H</u>
FLOAT SHOE		<u>C</u>
GUIDE SHOE <u>Regular 5.5"</u>	<u>1</u>	<u>W</u>
CENTRALIZERS <u>5.5"</u>	<u>16</u>	<u>C</u>
BOTTOM PLUG		<u>H W</u>
TOP PLUG <u>5 pipes 5.5"</u>	<u>1</u>	<u>C</u>
HEAD <u>C.W.</u>	<u>1</u>	<u>W</u>
PACKER		<u>C</u>
OTHER <u>CONCRETE BUCKET</u>	<u>1</u>	<u>D</u>

CALLLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>3-15-97</u>	DATE <u>3-15-97</u>	DATE <u>3-15-97</u>	DATE <u>3-15-97</u>
TIME <u>10:23</u>	TIME <u>17:07</u>	TIME <u>17:01</u>	TIME <u>2:05</u>

**PERSONNEL AND SERVICE UNITS**

NAME	UNIT NO. & TYPE	LOCATION
<u>R. G. ...</u>	<u>40000</u>	<u>...</u>
<u>T. M. ...</u>	<u>75000</u>	<u>...</u>
<u>G. H. ...</u>	<u>4461</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. \_\_\_\_\_

PERFPAC BALLS TYPE \_\_\_\_\_ QTY. \_\_\_\_\_

OTHER \_\_\_\_\_

DEPARTMENT S. O. I. Cement

DESCRIPTION OF JOB 3.5" ...

JOB DONE THRU: TUBING  CASING  ANNULUS  TBG 'ANN.

CUSTOMER REPRESENTATIVE X O J. ...

HALLIBURTON OPERATOR \_\_\_\_\_ COPIES REQUESTED \_\_\_\_\_

**CEMENT DATA**

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU FT SK	MIXED LBS/GAL.
	<u>25</u>	<u>W. ...</u>		<u>R</u>	<u>...</u>		
	<u>147</u>	<u>H</u>		<u>R</u>	<u>...</u>		

**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 47' REASON SH & Joint

**SUMMARY**

**VOLUMES**

PRESLUSH: BBL-GAL. 3/018 TYPE ...

LOAD & BKDN: BBL-GAL. \_\_\_\_\_ PAD: BBL-GAL. \_\_\_\_\_

TREATMENT: BBL-GAL. \_\_\_\_\_ DISPL: BBL-GAL. \_\_\_\_\_

CEMENT SLURRY: BBL-GAL. \_\_\_\_\_

TOTAL VOLUME: BBL-GAL. 61.9

**REMARKS**

Baker part ... 33' ...



REGION 4 North America  
 NW/COUNTRY U.S.A  
 BDA / STATE KANSAS  
 COUNTY HASKELL  
 MAUD / EMP # LT102 D-4360  
 EMPLOYEE NAME ROBERT ELWOOD  
 PSL DEPARTMENT Cement 5001  
 LOCATION LIBERAL KANSAS  
 COMPANY ANADARKO Petroleum Corp  
 CUSTOMER REF / PHONE  
 TICKET AMOUNT  
 WELL TYPE 01  
 API / UWI #  
 WELL LOCATION N. SARAWA Ks.  
 DEPARTMENT 5001 CMT  
 JOB PURPOSE CODE 205  
 LEASE / WELL # OILCRLS A-3  
 SEC / TWP / RNG 16 29S 34 W

ORIGINAL

HES EMP NAME/EMP#/(EXPOSURE HOURS)   HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)   HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)   HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)   HRS
ROBERT ELWOOD 04360 8			
CALVIN LAY 09259 8			
H. STANTON 41012 4			
M. HESTON 8			

HES UNIT NUMBERS	PVT MILES	HES UNIT NUMBERS	PVT MILES	HES UNIT NUMBERS	PVT MILES	HES UNIT NUMBERS	PVT MILES
020041 P.U.	88	77759					
53554	88						
3644	88						

Form Name \_\_\_\_\_ Type: \_\_\_\_\_  
 Form Thickness \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
 Packer Type \_\_\_\_\_ Set At \_\_\_\_\_  
 Bottom Hole Temp. \_\_\_\_\_ Pressure \_\_\_\_\_  
 Misc. Data \_\_\_\_\_ Total Depth \_\_\_\_\_

**TOOLS AND ACCESSORIES**

TYPE AND SIZE	QTY	MAKE
Float Collar		
Float Shoe		
Guide Shoe		
Centralizers		
Bottom Plug		
Top Plug		
Head		
Packer		
Other		

**MATERIALS**

Treat Fluid	Density	Lb/Gal
Disp. Fluid	Density	Lb/Gal
Prop. Type	Size	Lb.
Prop. Type	Size	Lb.
Acid Type	Gal.	%
Acid Type	Gal.	%
Surfactant	Gal.	in
NE Agent	Gal.	in
Fluid Loss	Gal/Lb	in
Gelling Agent	Gal/Lb	in
Fric. Red.	Gal/Lb	in
Breaker	Gal/Lb	in
Blocking Agent	Gal/Lb	
Perfpac Balls	Qty.	
Other		
Other		
Other		
Other		

DATE	CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
TIME	05:30	08:30	09:45	13:14

**WELL DATA**

	NEW/USED	WEIGHT	SIZE	FROM	TO	MAX ALLOW
Casing	U	5 1/4		B.L.	5500	
Liner						
Liner						
Tbg/D.P.	U		2 1/8	B.L.	500	
Tbg/D.P.						
Open Hole						SHOTS/FT.
Perforations						
Perforations						
Perforations						

HOURS ON LOCATION		OPERATING HOURS		DESCRIPTION OF JOB
DATE	HOURS	DATE	HOURS	
				RECEIVED MAY 19 1997 LIBERAL KANSAS
TOTAL		TOTAL		

**HYDRAULIC HORSEPOWER**  
 ORDERED \_\_\_\_\_ Avail. \_\_\_\_\_ Used \_\_\_\_\_  
**AVERAGE RATES IN RPM**  
 TREATED \_\_\_\_\_ Disp. \_\_\_\_\_ Overall \_\_\_\_\_  
**CEMENT LEFT IN PIPE**  
 FEET \_\_\_\_\_ Reason \_\_\_\_\_

**CEMENT DATA**

STAGE	SACKS	CEMENT	BULK/SKS	ADDITIVES	YIELD	LBS/GAL
1	60	Med Coat PT	B	3% C.C., 1/4 #/sk Elacete	3.22	16.1

Circulating _____	Displacement _____	Preflush: Gal - BBI _____	Type _____
Breakdown _____	Maximum _____	Load & Bkdn: Gal - BBI _____	Pad: BBI - Gal _____
Average _____	Frac Gradient _____	Treatment Gal - BBI _____	Disp: BBI - Gal 18
Shut In: Instant _____	5 Min _____ 15 Min _____	Cement Slurr Gal - BBI 33	
		Total Volume Gal - BBI _____	

Frac Ring #1 \_\_\_\_\_ Frac Ring #2 \_\_\_\_\_ Frac Ring #3 \_\_\_\_\_ Frac Ring #4 \_\_\_\_\_  
 THE INFORMATION STATED HEREIN IS CORRECT  
 CUSTOMER'S REPRESENTATIVE SIGNATURE: *Michael Paul*

REGION North America	NY/COUNTRY U.S.A.	RD/STATE KANSAS	COUNTY HASSELL
MBU ID / EMP # 2-4366	EMPLOYEE NAME ALBERT ELWOOD	PS# DEPARTMENT 5001	
LOCATION WELL # 15205	COMPANY HALLIBURTON	CUSTOMER REPT / PHONE	
TICKET AMOUNT	WELL TYPE SI	API / UWI #	
WELL LOCATION	DEPARTMENT 5001	JOB PURPOSE CODE 203	ORIGINAL
LEASE / WELL # A 2	SEC / TWP / RNG 16 R 25 34		

HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS

CHART NO.	TIME	RATE (BPM)	VOLUME (TUB/CCAL)	PUMPS		PRESS. (GAL)		JOB DESCRIPTION / REMARKS
				T	C	/Top	Cap	
	09:50							CALLED OUT READY 09:00
	09:55							ON LOCATION RIG T.F.H.
	09:55							Safety Meeting
	09:45					1500		Press Test Casing
	09:50							SHUT DOWN
	09:54							OPEN FOOT COLLAR
	09:55	5	15			500		INJECTION RATE
	10:02	4	35					BREAK CIRCULATION 9800S Pumped
	10:10	4	18			500		START CNT @ 11.1 MPa
	10:14							START HQ DEPARTMENT
	10:15							SHUT DOWN
	10:16					1500		Close Foot Collar
	10:18							Press Test Casing
	10:20							Release Back
	10:30	2	30			500		Run in 2 joints
	10:40					300		REV. OUT
	10:50							SHUT DOWN
	11:00							T.F.H. WITH TUBING
	12:20							ACED ON LOCATION
	12:30	2	6			250		Hook to HALLIBURTON
	12:38	2	32			250		START ACED
	12:40							DISPLACE
	12:52	2	45			250		SHUT DOWN
	13:16					250		REV. OUT
	13:40							SHUT DOWN
								Job Complete

Thank You for Calling  
 HALLIBURTON