

ORIGINAL

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 # 4549Name: ANADARKO PETROLEUM CORPORATIONAddress P. O. BOX 351City/State/Zip LIBERAL, KANSAS 67905-0351Purchaser: ANADARKO ENERGY SERVICESOperator Contact Person: DAVID W. KAPPLFPhone (316) 624-6253Contractor: Name: NORSEMAN DRILLINGLicense: 3779

Wellsite Geologist: _____

Designate Type of Completion

☒ New Well ☐ Re-Entry ☐ Workover

☐ Oil ☐ SWD ☐ SIOW ☐ Temp. Abd.
☒ Gas ☐ ENHR ☐ SIGW
☐ Dry ☐ Other (Core, WSW, Expl., Cathodic, etc)

If Workover:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

☐ Deepening ☐ Re-perf. ☐ Conv. to Inj/SWD
☐ Plug Back ☐ PBT
☐ Commingled ☐ Docket No. _____
☐ Dual Completion ☐ Docket No. _____
☐ Other (SWD or Inj?) ☐ Docket No. _____

10-22-97 10-25-97 12-18-97
Spud Date Date Reached TD Completion Date

API NO. 15- 189-22256-0000County STEVENSSW - SW - NW - NE Sec. 7 Twp. 32 Rge. 37 X E W1250 Feet from N X (circle one) Line of Section2340 Feet from E X (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE, SE, NW or SW (circle one)Lease Name EMBERTON "B" Well # 2Field Name HUGOTONProducing Formation CHASEElevation: Ground 3148.1 KB _____Total Depth 2940 PBT 2896Amount of Surface Pipe Set and Cemented at 628 FeetMultiple Stage Cementing Collar Used? ☐ Yes ☒ No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from _____

feet depth to _____ w/ _____ sx cmt.

Drilling Fluid Management Plan AH-1, 5-15-98 U.C.
(Data must be collected from the Reserve Pit)Chloride content NA ppm Fluid volume 400 bblsDewatering method used DRY, BACKFILL & RESTORE LOCATION

Location of fluid disposal if hauled offsite: _____

Operator Name _____

Lease Name _____ License No. _____

Quarter Sec. _____ Twp. _____ S Rng. _____ E/W

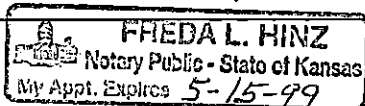
County _____ Docket No. _____

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 HarveyTitle DRILLING TECHNICAL ASSISTANT Date 2-12-98Subscribed and sworn to before me this 12th day of February 19 98.Notary Public Freda L. Hinz

Date Commission Expires _____



K.C.C. OFFICE USE ONLY	
F	Letter of Confidentiality Attached
C	Wireline Log Received
C	Geologist Report Received
STATE CORPORATION COMMISSION	
Distribution	
KCC	SWD/Rep
KGS	Plug
NGPA	
Other (Specify)	
<u>2-17-98</u>	

Form ACO-1 (7-91)

SIDE TWO

Operator Name ANADARKO PETROLEUM CORPORATION Lease Name EMBERTON "B" Well # 2Sec. 7 Twp. 32 Rge. 37
☐ East
☒ WestCounty STEVENS

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 ☒ NoCores Taken ☐ Yes ☒ NoElectric Log Run ☒ Yes ☐ No
(Submit Copy.)

List All E.Logs Run: CBL-CCL-GR.

☒ Log Formation (Top), Depth and Datums ☐ Sample

Name	Top	Datum
GLORIETTA	1212-1424	
B/CIMARRON ANHY.	1788	
HERRINGTON	2536	
KRIDER	2556	
WINFIELD	2646	
TOWANDA	2695	
FT. RILEY	2758	

CASING RECORD

☒ New ☐ 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	628	P+ MIDCON 2/ P+	90/100	3%CC, 1/4%SK FLC/ 2%CC, 1/4%SK FLC.
PRODUCTION	8-3/4"	5-1/2"	15.5	2935	P+ MIDCON 2/ P+ MIDCON 2.	160/130	2%CC, 1/4%SK FLC/ 2%CC, 1/4%SK FLC.

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
___ Perforate				
___ Protect Casing				
___ Plug Back TD				
___ Plug Off Zone				

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
1	2559-2575.5, 2589-2619, 2647-2668, 2697-2742,	ACID: 1000 GAL 71% FeHCL.	2762-2789
	2762-2789.	ACID: 3000 GAL 71% FeHCL.	2559-2789 (OA)
		FRAC: 90000 GAL FMD GEL & 304000# 12/20 SD	2559-2789 (OA)
TUBING RECORD	Size 2 3/8"	Set At 2551	Packer At
			Liner Run ☐ Yes ☒ No
Date of First, Resumed Production, SWD or Inj. 12-19-97	Producing Method: ☒ Flowing ☐ Pumping ☐ Gas Lift ☐ Other (Explain)		
Estimated Production Per 24 Hours	Oil Bbls. 502	Gas Mcf 0	Water Bbls. 0
		Gas-Oil Ratio	Gravity

Disposition of Gas:

METHOD OF COMPLETION

Production Interval

☐ Vented ☒ Sold ☐ Used on Lease
(If vented, submit ACO-18.)☐ Open Hole ☒ Perf. ☐ Dually Comp. ☐ Commingled☐ Other (Specify) _____2559-2789 (OA)

JOB SUMMARY 4239-1

REGION North America	NWA/COUNTRY mid CONTINENT	BDA / STATE KS	COUNTY STEVENS
MBU ID / EMP # LE104 62573	EMPLOYEE NAME JOHN WOODROW	PSL DEPARTMENT CEMENT	
LOCATION LIBERAL, KS	COMPANY ANADARKO PET	CUSTOMER REP / PHONE	
TICKET AMOUNT	WELL TYPE 02	API / UWI #	ORIGINAL
WELL LOCATION N. HUGOTON	DEPARTMENT CEMENT	JOB PURPOSE CODE 010-	
LEASE / WELL # EMBERTON ⁴ B-2	SEC / TWP / RNG 7-32 S-37 W		

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
G. HUMPHRIES # 9192							
S. GRANT # 4638							

HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES
420044 P/U	84						
53554/76000 TSI R/C	84						
50737/77031 BULK							

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 <i>INSTR 8 5/8</i>	1	H
Float Shoe		
Guide Shoe <i>REG 8 5/8</i>	1	O
Centralizers <i>S-4 8 5/8</i>	4	
Bottom Plug		G
Top Plug <i>S-6 8 5/8</i>	1	
Head <i>P/C 8 5/8</i>	1	C
Packer		
Other <i>BASKET 8 5/8</i>	1	G

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			

	CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE	10-23-97	10-23-97	10-23-97	10-24-97
TIME	1900	2230	2342	0015

WELL DATA						
	NEW/USED	WEIGHT	SIZE	FROM	TO	MAX ALLOW
Casing	N	23	8 7/8	96	625	
Liner						
Liner						
Tbg/D.P.						
Tbg/D.P. *						
Open Hole						SHOTS/FT.
Perforations						
Perforations						
Perforations						

HOURS ON LOCATION		OPERATING HOURS		DESCRIPTION OF JOB
DATE	HOURS	DATE	HOURS	
TOTAL		TOTAL		

		<u>HYDRAULIC HORSEPOWER</u>	
ORDERED		Avail.	Used
		<u>AVERAGE RATES IN BPM</u>	
TREATED		Disp.	Overall
		<u>CEMENT LEFT IN PIPE</u>	
FEET	42	Reason	SHOE JOINT

CEMENT DATA							
STAGE	SACKS	CEMENT	BULK/SKS	ADDITIVES		YIELD	LBS/GAL
	90	pt midcon	B	38 CC, 1/4" FLOCKLE	STATE COATED VIBRO CONCRETE	3.22	11.1
	100	pt	B	28 CC, 1/4" FLOCKLE		1.32	14.8
					Feb 11		

Circulating _____	Displacement _____	Preflush: Gal - BBI _____	Type _____
Breakdown _____	Maximum _____	Load & Bkd: Gal - BBI _____	Pad: BBI - Gal _____
Average _____	Frac Gradient _____	Treatment Gal - BBI _____	Disp: BBI - Gal <u>38</u>
Shut In: Instant _____	5 Min _____ 15 Min _____	Cement Slurr Gal - BBI <u>5120</u>	<u>23.5</u>
		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	



JOB LOG 4239-5

TICKET #

231692

TICKET DATE

REGION North America

NWA/COUNTRY Mid CONTINENT

BDA / STATE KS

COUNTY STEVENS

MBU ID / EMP # 22124 62573

EMPLOYEE NAME JOHN WOODROW

PSL DEPARTMENT CEMENT

LOCATION LIBERAL KS

COMPANY ANADARKO PET

CUSTOMER REP / PHONE

TICKET AMOUNT

WELL TYPE 02

API / UWI #

WELL LOCATION N/HUGGTON

DEPARTMENT CEMENT

JOB PURPOSE CODE

LEASE / WELL # EMBERTON 5-2

SEC / TWP / RNG 7-31S-37W

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
G. HUMPHREY 12072			
S. GRANT 14627			

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESS. (psi)		JOB DESCRIPTION / REMARKS
				T	C	Tbg	Csg	
	2300							JOB READY
	1900							CALLED OUT FOR JOB
	2230							PUMP TRUCK + BULK CMT ON LOCATION
	2330							START RUNNING 8 7/8 CSO + FLOAT EQUIP.
	2330							SET UP PUMP TRUCK
	55							CASING ON BOTTOM 638 FT
	2335							HOOK UP 8 7/8 P/C + CIRCULATING FROM
	2340							START CIRCULATING WITH RIG PUMP
								THROUGH CIRCULATING / HOOK UP TO PUMP TRUCK
								JOB PROCEDURE
	2342	6.0	51.0		U	9/150		START MIXING 90 SKS LEAD CMT 12-11-1 1/4" OIL
			23.5		U	100		START MIXING 100 SKS TAIL CMT AT 14-8 1/4" OIL
	0000		74.5			0		THROUGH MIXING CMT / SHUT DOWN
	0000							RELEASE PLUG / START DISPLACING
								HAVE 10 BBLs OUT / HAVE CMT RETURNS
	0015		39.0		U	2nd 1889		TO SURFACE
								PLUG DOWN / RELEASE FLOAT
								FLOAT HELD
								CIRCULATED (20 BBLs 35 SKS TO PIT)
								THANK YOU FOR CALLING HALLIBURTON
								WOODY + GARY

FEB 17

JOB SUMMARY 4239-1

REGION North America	NWA/COUNTRY	BDA / STATE	COUNTY
MBU ID / EMP # 111443 F4550	EMPLOYEE NAME THE DAVIS	PSL DEPARTMENT CMT	ORIGINAL
LOCATION Liberal, IL	COMPANY APL	CUSTOMER REP / PHONE Sergio	
TICKET AMOUNT	WELL TYPE	API / UWI #	
WELL LOCATION Loud	DEPARTMENT 02	JOB PURPOSE CODE	
LEASE / WELL # Kushner 1017	SEC / TWP / RNG 7-32-27	035	

~~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
52822-75374		3. pr. 5th floor 112308					
1129843-211		3. off 11y 52260					
11037-5742							

HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES
52512-78374	80						
420047-60	80						
4037-5742	16						

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 5 1/2" x 5 1/2"	1	
Float Shoe 5 1/2" x 5 1/2"	1	
Guide Shoe 1 1/2"	1	0
Centralizers 5 1/2"	20	
Bottom Plug		W
Top Plug 5 1/2"	1	
Head 1 1/2"	1	C
Packer		
Other		0

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		

	CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE	10-27-97	10-27-97	10-27-97	10-27-97
TIME	0800	1130	1630	1930

WELL DATA

NEW/USED		WEIGHT	SIZE	FROM	TO	MAX ALLOW
Casing	NV.	155	5 1/2	1-13	29.35	
Liner						
Liner						
Tbg/D.P.						
Tbg/D.P.						
Open Hole						SHOTS/FT.
Perforations						
Perforations						
Perforations						

HOURS ON LOCATION

DATE	HOURS
TOTAL	

OPERATING HOURS

DATE	HOURS
TOTAL	

DESCRIPTION OF JOB

C1217
51
12
L. S.

HYDRAULIC HORSEPOWER

ORDERED	Avail.	Used
TREATED	AVERAGE RATES IN BPM	
	Disp.	Overall
FEET	CEMENT LEFT IN PIPE	
	Reason	S.T.

CEMENT DATA

STAGE	SACKS	CEMENT	BULK/SKS	ADDITIVES	YIELD	LBS/GAL
1	166	pt mix	2	2% (1 lb) E-1	323	11.1
1	130	pt mix	2	2% (1 lb) E-1	290	12.5

Circulating _____	Displacement _____	Preflush: Gal - (BB) 2.6 _____	Type 1130 1.85 _____
Breakdown _____	Maximum _____	Load & Bkdn: Gal - (BB) _____	Pad: BB - Gal _____
Average _____	Frac Gradient _____	Treatment Gal - (BB) _____	Disp (BB) - Gal 6.9 _____
Shut In: Instant _____	5 Min _____ 15 Min _____	Cement Slurr Gal - (BB) 92.16 _____	46 7.6 _____
		Total Volume Gal - (BB) _____	

Frac Ring #1	Frac Ring #2	Frac Ring #3	Frac Ring #4
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THE INFORMATION STATED HEREIN IS CORRECT

CUSTOMER'S REPRESENTATIVE SIGNATURE

TICKET #	TICKET DATE
BDA / STATE	COUNTY
PSL DEPARTMENT	
CUSTOMER REP / PHONE	
API / UWI #	
JOB PURPOSE CODE	

REGION	North America	NWA/COUNTRY
MBU ID / EMP #		EMPLOYEE NAME
LOCATION		COMPANY
TICKET AMOUNT		WELL TYPE
WELL LOCATION		DEPARTMENT
LEASE / WELL #		SEC / TWP / RNG

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
ORIGINAL							

CHART NO.	TIME	RATE (BPM)	VOLUME (BB)(GAL)	PUMPS		PRESS. (psi)		JOB DESCRIPTION / REMARKS
				T	C	Tbg	Csg	
	0800							Called out for job.
	1130							on loc. Rig L.D.O.P. R.Y. T14 W.D.P.
	1340							Start L.D.O.P.
	1540							Out of Hole N.O.D. Rig up casing.
	1600							Start 5'2 Csg E.T.E.
	1742							Csg on BOP Hook up 5'2 F.C. & C.I.L. on BOP
	1745							brk C.I.L.
	1748							C.I.L. to pit
	1755							Thru C.I.L. Hook to P.T.
	1828	6.0	26	✓		400		PUMP Flush. H.O. & SF
	1833	6.5	91	✓		400		PUMP 1600k P.M.C. 4F 11.1' Tbg.
	1848	6.3	43	✓		200		PUMP 1300k P.M.C. at 12.8' Tbg.
	1555	0	40	✓		0		Shut down DTP P.M.C.
	1858	6.0	70	✓		80		PUMP D.T.P.
	1902	6.0	70	✓		250		2300k in casing cmf
	1910	6.0	70	✓		600		6100k in 510 pipe.
	1913	6.0	70	✓		2700		Land P.M.C.
	1914							Release P.M.C. - H.P.C.
	1920							Job over
								Thanks for calling
								Tyler D. H. & crew