

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

Operator: License # 4549

Name: ANADARKO PETROLEUM CORPORATION

Address P. O. BOX 351

City/State/Zip LIBERAL, KANSAS 67905-0351

Purchaser: ANADARKO ENERGY SERVICES

Operator Contact Person: DAVID W. KAPPLF

Phone (316) 624-6253

Contractor: Name: CHEYENNE DRILLING

License: 5382

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 PBTB
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Inj?) Docket No. _____

3-14-97 3-17-97 5-6-97
Spud Date Date Reached TD Completion Date

API NO. 15- 189-22151-0000

County STEVENS

 - - NW - NE Sec. 23 Twp. 32 Rge. 39 E
 X W

660 Feet from X (circle one) Line of Section

1980 Feet from Y (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:
 NE SE, NW or SW (circle one)

Lease Name HOWELL-RHINEHART "A" Well # 2

Field Name PANOMA COUNCIL GROVE

Producing Formation COUNCIL GROVE

Elevation: Ground 3155 KB _____

Total Depth 2975 PBTB 2927

Amount of Surface Pipe Set and Cemented at 589 Feet

Multiple 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 ALT 1 JH 6-23-97
(Data must be collected from the Reserve Pit)

Chloride content NA ppm Fluid volume 400 bbls

Dewatering 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 Harvey
L. MARC HARVEY
Title DRILLING TECHNICAL ASSISTANT Date 5-30-97

Subscribed and sworn to before me this 30th day of May
19 97.

Notary Public Freda L. Hinz

Date Commission Expires _____

FREDA L. HINZ
Notary Public - State of Kansas
My Appl. 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 HOWELL-RHINEHART "A" Well # 2

Sec. 23 Twp. 32 Rge. 39 East County STEVENS
 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: CBL-CCL-GR.

Log Formation (Top), Depth and Datums Sample
 Name Top Datum
 CHASE 2350
 COUNCIL GROVE 2668

CASING RECORD							
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	589	P+ MIDCON 2/ P+	110/100	2%CC, 1/4#SK FLC/ 2%CC, 1/4#SK FLC.
PRODUCTION	7-7/8"	5-1/2"	15.5	2975	P+ MIDCON/ P+	190/110	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
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> 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	
2	2892-2912, 2868-2876	ACID: 2800 GAL 15% FeHCL.	2868-2912 (OA)
2	2825-2838, 2813-2817, 2796-2800, 2776-2783, 2776-2783, 2753-2762, 2682-2738.	ACID: 4650 GAL 7 1/2% FeHCL. FRAC: 61000 GAL FOAMED DELTA FRAC & 148000# 12/20 SD.	2682-2838 (OA) 2682-2838 (OA)

TUBING RECORD Size 2 3/8 Set At 2792 Packer At _____ Liner Run Yes No

Date of First, Resumed Production, SWD or Inj. 5/7/977 Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours Oil Bbls. Gas Mcf 401 Water Bbls. Gas-Oil Ratio Gravity

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 2682-2912 (OA)

WELL DATA

FIELD _____ SEC 23 TWP 32S RNG 39W COUNTY STUBBS 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 _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	N	23	5 7/8	KB	587'	
LINER						
TUBING						
OPEN HOLE						SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

ORIGINAL

JOB DATA

CALLS OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>3-14-77</u>	DATE <u>3-14-77</u>	DATE <u>3-14-77</u>	DATE <u>3-15-77</u>
TIME <u>1615</u>	TIME <u>1815</u>	TIME <u>2342</u>	TIME <u>0021</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>J. Woodruff 67573</u>	<u>420044</u> <u>PIU</u>	<u>LIBERAL</u> <u>KS</u>
<u>J. Nicholas 62078</u>	<u>53954/15764</u> <u>116900</u>	<u>"</u> <u>"</u>
<u>S. Telford H 9817</u>	<u>50737</u> <u>75817</u>	<u>INDIANAPOLIS</u> <u>KS</u>

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR <u>2 1/2" x 2 1/2"</u>	<u>1</u>	
FLOAT SHOE		<u>H</u>
GUIDE SHOE <u>REG</u>	<u>1</u>	<u>O</u>
CENTRALIZERS <u>5-4</u>	<u>4</u>	<u>W</u>
BOTTOM PLUG		<u>C</u>
TOP PLUG <u>5-6</u>	<u>1</u>	<u>O</u>
HEAD <u>1/2"</u>	<u>1</u>	
PACKER		
OTHER <u>BARREL</u>	<u>1</u>	

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. °API
 DISPL. FLUID _____ DENSITY _____ LB/GAL. °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. _____
 PERFPAC BALLS TYPE _____ QTY. _____
 OTHER _____
 OTHER _____

DEPARTMENT CEMENT

DESCRIPTION OF JOB CEMENT 8 1/2" SURFACE CASING

JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.

CUSTOMER REPRESENTATIVE **X** Castillo

HALLIBURTON OPERATOR JASON NICHOLAS

COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	<u>110</u>	<u>PT Midcon</u>	<u>Southwest</u>	<u>B</u>	<u>39 CC 1/4" Marcell</u>	<u>3.22</u>	<u>11.1</u>
	<u>100</u>	<u>PT</u>	<u>"</u>	<u>B</u>	<u>28 CC 1/4" Marcell</u>	<u>1.32</u>	<u>14.8</u>

PRESSURES IN PSI

SUMMARY

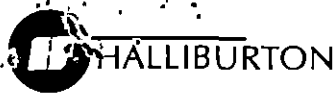
VOLUMES

CIRCULATING _____ DISPLACEMENT _____ PRESLUSH: BBL.-GAL. 5 TYPE 100% WATER
 BREAKDOWN _____ MAXIMUM _____ LOAD & BKDN: BBL.-GAL. _____ PAD: BBL.-GAL. _____
 AVERAGE _____ FRACTURE GRADIENT _____ TREATMENT: BBL.-GAL. _____ DISPL: BBL.-GAL. 35
 SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN _____ CEMENT SLURRY: BBL.-GAL. 63.16
 HYDRAULIC HORSEPOWER _____ TOTAL VOLUME: BBL.-GAL. 22.576
 ORDERED _____ AVAILABLE _____ USED _____ 46.5 REMARKS
 AVERAGE RATES IN BPM _____
 TREATING _____ DISPL. _____ OVERALL _____
 CEMENT LEFT IN PIPE _____
 FEET 429' REASON SURF JOINT

30 SKS RETURN TO P.T

CUSTOMER

CUSTOMER: ADDITIVE HALLIBURTON
 LEASE: HALLIBURTON
 WELL NO: 185791
 JOB TYPE: CEMENT CASING
 DATE: 3-15-77



JOB SUMMARY

HALLIBURTON DIVISION MID CONTINENT
 HALLIBURTON LOCATION LIBERAL, KS

BILLED ON TICKET NO 185792

WELL DATA

FIELD HUGOTON INFILL SEC 23 TWP. 32S RING. 39W COUNTY STEVENS 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 2975

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	N	15.5	5 1/2	KB	2923	
LINER						
TUBING						
OPEN HOLE						SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

ORIGINAL

JOB DATA

TOOLS AND ACCESSORIES		
TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR <u>JUBERT</u>	<u>1</u>	<u>H</u>
FLOAT SHOE		
GUIDE SHOE <u>RIG</u>	<u>1</u>	<u>O</u>
CENTRALIZERS <u>S-4</u>	<u>17</u>	
BOTTOM PLUG		<u>W</u>
TOP PLUG <u>S-W</u>	<u>1</u>	
HEAD <u>P/C</u>	<u>1</u>	<u>C</u>
PACKER		
OTHER		<u>O</u>

CALLLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>3-11-97</u>	DATE <u>3-17-97</u>	DATE <u>3-17-97</u>	DATE <u>3-17-97</u>
TIME <u>0330</u>	TIME <u>0700</u>	TIME	TIME

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>J. Woodrow</u>	<u>62573</u>	<u>LIBERAL KS</u>
<u>T. Mullins</u>	<u>5354/75104</u>	<u>" "</u>
<u>L. PATTERSON</u>	<u>4115/ BULK</u>	<u>HUGOTON KS</u>

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. °API
 DISPL. FLUID _____ DENSITY _____ LB/GAL. °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. _____
 PERFPAC BALLS TYPE _____ QTY. _____
 OTHER _____
 OTHER _____

DEPARTMENT CEMENTDESCRIPTION OF JOB CEMENT 5 1/2" PRODUCTION CASINGJOB DONE THRU: TUBING CASING ANNULUS TBG ANN. CUSTOMER REPRESENTATIVE X PastilloHALLIBURTON OPERATOR TOM MULLINS

COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK	MIXED LBS./GAL
	<u>196</u>	<u>Pt Midcon</u>	<u>Seawest</u>	<u>B</u>	<u>2% CC, 1/4' Flocite</u>	<u>3.22</u>	<u>11.1</u>
	<u>110</u>	<u>Pt Midcon</u>	<u>" "</u>	<u>B</u>	<u>2% CC, 1/4' Flocite</u>	<u>2.00</u>	<u>12.8</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 35.50 REASON SHOE JOINT

SUMMARY

VOLUMES

PRELUSH (BBL) GAL. 10
 LOAD & BKDN: BBL.-GAL. _____
 TREATMENT: BBL.-GAL. _____
 CEMENT SLURRY (BBL) GAL. 109.60
 TOTAL VOLUME: BBL.-GAL. 397.60

REMARKS: Super flush
148
 3-17-97

CUSTOMER ANADARKO Petroleum
 LEASE Lowell - Plumcraft
 WELL NO. A-2
 JOB TYPE 5 1/2" LONG STRIKE
 DATE 3-17-97

JOB LOG HAL-2013-C

CUSTOMER ANADARKO PETROLEUM	WELL NO. A-2	LEASE Howell - Rillinehart	JOB TYPE 5 1/2 LONG STRING	TICKET NO. 185792
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CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0730							JOB READY ORIGINAL
	0830							called out for job
	0700							pump truck & Bulk CMT on location
	{ }							Rig has Drill pipe Layed Down
								Rig up to Run CASING - set up pump truck
								START RUNNING SB CMT + FLT EQUIP.
	0930							Drop BALL, hook up to well and mud line
	0934							circulating mud
	0940							Hook to cement line
	0942							SAFETY MEETING
	0945	3.5	8		✓		200	START SPACER H ₂ O
	0947	3.5	10		✓		200	START SUPER FLUSH
	0949	3.5	8		✓		200	START SPACER H ₂ O
	0950	4.5	5		✓		350	START LEAD CMT.
	0951	6.5	109		✓		300	INCREASE RATE
	1005	6.5	33.5		✓		425	START TAIL CEMENT
	1017							SHUT DOWN, WASH PUMPS & LINES
	1020	4.5	5		✓		450	START DISPLACEMENT H ₂ O
	1022	6	55		✓		475	Cement circulating to PIT
	1025	2.5	10		✓		525	Slow RATE
	1031				✓		575	Plug landed
	1032				✓		1200	PST on Plug,
	1033				✓			Release PST Float Holding
								15 bbls Slurry to Pit / 26 SKS
	1034							Job complete

Thanks For
 calling
 Halliburton
 Tom and Woody

RECEIVED
 1997 JUN -4 A 2:35
 W-2013-C-185792

Rec

ANADARKO PETROLEUM CORPORATION
HOWELL-RHINEHART A-2
SECTION 23-T32S-R39W
STEVENS COUNTY, KANSAS

ORIGINAL

15-189-22151

COMMENCED: 03-14-97
COMPLETED: 03-17-97

SURFACE CASING: 589' OF 8 5/8" CMTD
W/110 SKS MIDCON 3 + 3% CC + 1/4 #/SK
FLOCELE. TAILED IN W/100 SKS PREMIUM
PLUS + 2% CC + 1/4 #/SKFLOCELE.

FORMATION

DEPTH

FORMATION	DEPTH
SURFACE HOLE	0 - 589
RED BED	589 - 1069
RED BED & ANHYDRITE	1069 - 1204
GLORIETTA	1204 - 1345
RED BED & ANHYDRITE	1345 - 1874
RED BED & CHASE	1874 - 2313
CHASE	2313 - 2975 RTD

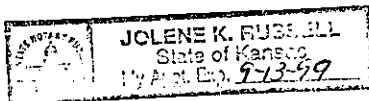
I DO HEREBY CERTIFY THAT THE FOREGOING STATEMENTS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

CHEYENNE DRILLING, INC.

WRAY VALENTINE

STATE OF KANSAS : ss:

SUBSCRIBED AND SWORN TO BEFORE ME THIS 18TH DAY OF MARCH, 1997.



JOLENE K. RUSSELL

NOTARY PUBLIC

KANSAS RECEIVED
1997 JUN -4 A 12:23
KANSAS CORP COMM