

ORIGINAL

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

Operator: License # 30915
Name: RICHFIELD GAS STORAGE SYSTEM
Address Two Warren Place
6120 S. Yale - Suite 1200
City/State/Zip Tulsa, OK 74136
Purchaser: None - Observation Well
Operator Contact Person: Mark Repasky
Phone (918) 743-8060
Contractor: Name: Beredco
License: 5147
Wellsite Geologist: None
Designate Type of Completion
 New Well Re-Entry Workover

Oil SWD SIGW Temp. Abd.
 Gas ENHR SIGM
 Dry Other (Core, WSV, Expl., Cathodic, etc)
Gas Storage - Observation Well
If Workover/Re-Entry: old well info as follows:

Operator: _____
Well Name: _____
Comp. Date _____ Old Total Depth _____
 Deepening Re-part. Cons. % Inj./SWD
 Plug Back PBTB
 Commingled Decklet No. _____
 Dual Completion Decklet No. _____
 Other (SWD or Inj?) Decklet No. _____
5-20-94 5-28-94 6-28-94
Spud Date Date Reached TD Completion Date

API NO. 15- 129-21272-0000
County Morton
SE SW NE Sec. 11 Twp. 32S Rng. 42 X
2310 Feet from S/W (circle one) Line of Section
1657 Feet from E/W (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
 SE, NW or SW (circle one)
Lease Name Jackson Well # 4-11
Field Name Richfield West
Producing Formation Morrow
Elevation: Ground 3472 ft. KR 3484 ft.
Total Depth 5200 PBTB 5122
Amount of Surface Pipe Set and Cemented at 1463 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set 3103 Feet
If Alternate II completion, cement circulated from _____
feet depth to _____ w/ _____ sz cat.
Drilling Fluid Management Plan ALT 1 87 12-6-94
(Data must be collected from the Reserve Pit)
Chloride content 5000 ppm Fluid volume 300 bbls
Dewatering method used evaporation
Location of fluid disposal if hauled offsite: _____
Operator Name _____
Lease Name _____ License No. _____
Quarter Sec. Twp. Rng. E/W
County _____ Decklet No. _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, 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 EXPENSIVE TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-119 form with all successfully 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 R. Barrett
Title: VICE PRESIDENT Date JULY 21, 1994
Subscribed and sworn to before me this 17 day of 21
19 94.
Notary Public Beth Delaney
Date Commission Expires 8/31/96

RECEIVED
STATE CORPORATION COMMISSION OFFICE USE ONLY
Letter Confidentiality Attached
 Wireline Log Received
 Spud Report Received
Distribution
CONSERVATION DIVISION Wichita, Kansas
 SWD/Rep NGPA
 Plug Other
(Specify)

Operator Name RICHFIELD GAS STORAGE SYSTEM Lease Name Jackson Well # 4-11
 Sec. 11 Twp. 32S Rge. 42 East County Morton
 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 (Attach Additional Sheets.)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Morrow Shale	4648	-1164
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	"G-1" Sand	4918	-1434
		"G-2" Sand	5002	-1518
		"Keyes" Sand	5065	-1581
		Chester	5112	-1628

List All E.Logs Run: Dual Induction
 Compensated Neutron Litho-Density
 Cement Bond Log

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"	9 5/8"	36.0#	1463	Lite & "C"	500	2% CaCl
Production	7 7/8"	5 1/2"	15.5#	5200	Thixset	250	5% KCL

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input checked="" type="checkbox"/> Perforate <input checked="" type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone	2590 3105	Lite & Class "C"	250	1/4# Flocele
Note: DV Tool Set at 3103 ft.				

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
8	G-2, 5010'-5016', 5019'-5024', 5027'-5034'	6000 gls. 15%HCL w/25% N ₂	5010-5034
8	Keyes, 5067'-5078'	5000 gls. 15% HCL w/25% N ₂	5067-5078

TUBING RECORD

Size 2 7/8" Set At 5053' Packer At 5045 Liner Run Yes No

Date of First, Resumed Production, SWD or Inj. None, observation well Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	N/A	N/A	N/A		

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 Morrow G-2
Morrow Keyes



JOB SUMMARY

HALLIBURTON DIVISION
HALLIBURTON LOCATION

Midland County
Wichita, KS

BILLED ON TICKET NO. 677465

WELL DATA

FIELD _____ SEC. **ORIGINAL** TWP. _____ RNG. _____ COUNTY **Midland** 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 **5113**

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	21	150	5 1/2	K12	5117	15000
LINER						
TUBING						
OPEN HOLE						SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

JOB DATA

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR	1	
FLOAT SHOE	1	Houston
GUIDE SHOE		
CENTRALIZERS	6	
BOTTOM PLUG		
TOP PLUG		
HEAD		
PACKER		
OTHER		

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE 5-28-11	DATE 5-28-11	DATE 5-29-11	DATE 5-29-11
TIME 19:00	TIME 12:30	TIME 04:03	TIME 07:00

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
T. Babcock	40011 P11	Wichita, KS
T. Babcock	52812	
R. Babcock	50266	Hogback
C. Cornelius	52819	
	52819	

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB./GAL. API

DISPL. FLUID _____ DENSITY _____ LB./GAL. API

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 **Oil**

DESCRIPTION OF JOB **Oil**

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

CUSTOMER REPRESENTATIVE **X** *W. H. H. H.*

HALLIBURTON OPERATOR **Tina Babcock** COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
1	5	Portland	1		10% - 14	1.5	15.7
2	100	Thompson	1		1% KCL	1.41	4.11
3	100	High	2		1% - 1.5%	1.5	12.7
4	100	High	1			1.5	12.7

PRESSURES IN PSI

SUMMARY

VOLUMES

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 **45** REASON **Stop ST**

PRESLUSH: BBL.-GAL. _____ TYPE _____

LOAD & BKDN: BBL.-GAL. _____ PAD: BBL.-GAL. _____

TREATMENT: BBL.-GAL. _____

CEMENT SLURRY: BBL.-GAL. **122 72 KCL**

TOTAL VOLUME: BBL.-GAL. _____

REMARKS **JUL 25 1994**

CONSERVATION DIVISION
Wichita, Kansas

CUSTOMER: *Richard D. Babcock*
LEASE: *Wichita, KS*
WELL NO.: *4-11*
JOB TYPE: *Oil*
DATE: *6-23-11*

JOB LOG FORM 2013 R-4

CUSTOMER Richfield Gas	WELL NO. H-11	LEASE Jackson	JOB TYPE 035	TICKET NO. 677465
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CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	09:00							Call out Ready 00:00
	23:30							ON LOC Rig on way Down
	00:45							run 5 1/2 CSC
	03:35							TO CSC circ w Rig Pump
	04:03	6	12					PVS-5
		"	24					Mod Flush
	04:09	"	10.8					50 SK "H"
	04:12	"	50.2					200 SK Thixset 58 KCL
	04:18							Stop Wash-up To Pit Drop Plug
	04:23	6 1/2						Displ w 2% KCL H ₂ O
		6	48			200		
		2	63			250		Drk Mod
	05:00	2	73.8			430		Plug Down Release Back Ps.
			122.1 Total Displ					Float Holding Drop Bush
								Tool open at 250 Ps!
								circ w Rig Pump
	06:15	1				150		200 SK HLC "H"
		"	66.6			"		
		"				"		50 SK "H"
		"	9.4			-		
	06:20	-						Stop Wash-up To Pit
	06:23	6				"		Displ w 2% KCL H ₂ O
						250		
		2	62.7			"		
	06:37	1	73.9			250		Plug Down Tool Closed at 1250
								Holding
								Thank You Tim & Tina

WELL DATA

FIELD _____ SEC. 11 TWP. 32S RING. 42W COUNTY Morton STATE Kansas

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	<u>21</u>	<u>36</u>	<u>9 7/8</u>	<u>0</u>	<u>1466</u>	
LINER						
TUBING						
OPEN HOLE						SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

ORIGINAL

JOB DATA

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE <u>1 4 7/8</u>	<u>1</u>	<u>Hallib</u>
CENTRALIZERS <u>2 1/4 9 7/8</u>	<u>3</u>	<u>"</u>
BOTTOM PLUG		
TOP PLUG <u>5 1/2 7 7/8</u>	<u>1</u>	<u>"</u>
HEAD		
PACKER		
OTHER <u>1 1/2 1 1/4</u>	<u>1</u>	<u>"</u>

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>5/21/94</u>	DATE <u>5/21/94</u>	DATE <u>5/21/94</u>	DATE <u>5/22/94</u>
TIME <u>15:00</u>	TIME <u>17:45</u>	TIME <u>21:30</u>	TIME <u>03:00</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>K. B. ...</u>	<u>4784</u>	<u>40026</u>
<u>W. Talc.</u>	<u>52823</u>	<u>"</u>
	<u>75324</u>	<u>"</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 1466' of 9 7/8" casing
 JOB DONE THRU: TUBING CASING ANNULUS TBG/ANN.
 CUSTOMER REPRESENTATIVE X ...
 HALLIBURTON OPERATOR _____ COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	<u>350</u>	<u>P'LC</u>		<u>B</u>	<u>A 2 Cact, 1/2 "White</u>	<u>205</u>	<u>122</u>
	<u>150</u>	<u>AT</u>		<u>S</u>	<u>2 2 Cact</u>	<u>132</u>	<u>148</u>
	<u>200</u>	<u>AT</u>		<u>B</u>	<u>2" Cact</u>	<u>132</u>	<u>148</u>

PRESSURES IN PSI

SUMMARY

VOLUMES

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 36 REASON ...

PRESLUSH: BBL.-GAL. _____
 LOAD & BKDN: BBL.-GAL. _____
 TREATMENT: BBL.-GAL. _____
 CEMENT SLURRY: BBL.-GAL. 139 - 35
 TOTAL VOLUME: BBL.-GAL. _____
 RECEIVED
 STATE OCCUPATION COMMISSION
 DISPL. BBL.-GAL. 110.5
 III 25 1994
 REMARKS
 CONSERVATION DIVISION
 Wichita, Kansas

CUSTOMER R.H. Old Line Service
 LEASE Jackson
 WELL NO. 9-11
 JOB TYPE 7 1/2" Surface
 DATE 5/21/94

