

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

ORIGINAL

Operator: License # 5131

Name: Thunderbird Drilling, Inc.

Address P. O. Box 780407

Wichita, KS 67278

City/State/Zip

Purchaser: Koch Oil Co.

Operator Contact Person: Burke B. Krueger

Phone (316) 685-1441

Contractor: Name: Abercrombie RTD, Inc.

License: 30684

Wellsite Geologist: _____

Designate Type of Completion

New Well Re-Entry Workover

Oil SWD S10W Temp. Abd.

Gas ENHR SIGW

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

If Workover/Re-Entry: old well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

Deepening Re-perf. Conv. to Inj/SWD

Plug Back PBDT

Commingled Docket No. _____

Dual Completion Docket No. _____

Other (SWD or Inj?) Docket No. _____

7-6-93 7-13-93 7-30-93
Spud Date Date Reached TD Completion Date

API NO. 15- 153-20798-00-00

County Rawlins

SW - SE - SE - Sec. 25 Twp. 1S Rge. 32 E W

330 Feet from N (circle one) Line of Section

990 Feet from W (circle one) Line of Section

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

Lease Name Wahrman "B" Well # 1

Field Name Wildcat

Producing Formation LKC

Elevation: Ground 2883 KB 2888

Total Depth 4100 PBDT 4071

Amount of Surface Pipe Set and Cemented at 301 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 8-16-93
(Data must be collected from the Reserve Pit)

Chloride content 1000 ppm Fluid volume 700 bbls

Dewatering method used Evaporation

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, 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 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 [Signature]

Title Vice President Date 7-30-93

Subscribed and sworn to before me this 30th day of July 19 93.

Notary Public [Signature]

Date Commission Expires 4-16-94

GLENDIA FUNK
Notary Public - State of Kansas
My Appt. Expires 4-16-94

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distrib. AUG - 5 1993
 KCC SWD/Rep NGPA
 KGS Plug Other
(Specify)

Operator Name Thunderbird Drilling, Inc.

Lease Name Wahrman "B"

Well # 1

Sec. 25 Twp. 1S Rge. 32

East

County Rawlins

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.) see attached report

Log Formation (Top), Depth and Datum Sample
Name Top Datum

Samples Sent to Geological Survey Yes No

Cores Taken Yes No

See attached report

Electric Log Run Yes No
(Submit Copy.)

List All E.Logs Run:

RA Guard Log
Neutron/Density Porosity 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		8 5/8	24#	301	60-40 Poz	220	2%gel-3%cc
Production		4 1/2	10.5	4099	EA2	150	

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth		Type of Cement	#Sacks Used	Type and Percent Additives
	Top	Bottom			
<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	
	4	4013-4019		500 gal. MA
			2,000 gal 15% NE	

TUBING RECORD Size 2 3/8 Set At 4000 Packer At _____ Liner Run Yes No

Date of First, Resumed Production, SWD or Inj. 7-30-93 Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours Oil 95 Bbls. Gas _____ Mcf Water None Bbls. Gas-Oil Ratio _____ Gravity 36° API

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

4013-4019

ORIGINAL

#1 WAHRMAN "B"
SW SE SE Sec. 25-1S-32W
Rawlins County, KS

Elevation: 2883 GL
2888KB

15-153-20798-00-00

<u>TOPS:</u>	<u>Sample</u>	<u>Log</u>
Anhydrite	2663 + 225	2662 + 225
B/Anhydrite	2697 + 191	2697 + 191
Topeka	3635 - 747	3641 - 753
Heebner	3795 - 907	3804 - 916
LKC	3829 - 941	3834 - 946
BKC	4100 -1212	4100 -1212
RTD	4100 -1212	4100 -1212

- 7-6-93 Moving in and rigging up.
7-7 Ran 8 5/8, 24# set @ 301' with 220 sx 60-40 Poz, 2% gel, 3% cc. Plug down @ 2:45 A.M.
7-8 Drilling at 2,245'
7-9 Drilling at 3,200'
7-10 DST #1 (Oread & LKC "A" zone) 3748-3850/30-30-30-30. Rec. 90' mud, IFP 39-68, FFP 68-78, SIP 1210-1190
7-11 DST #2 ("D" zone) 3844-3910/30-30-30-30. Rec. 20' oil cut mud (10% oil) IFP 29-29, FFP 39-39, SIP 986-916.
7-12 DST #3 ("H" zone) 3935-3995/30-60-45-60. Rec. 60' mud w/scum of oil and 420' salt water. IFP 68-136, FFP 146-244, SIP 1122-1043.
7-13 DST #4 (J zone) 3986-4030/30-60-45-60. Recovered 339' clean gassy oil (36° API) + 120' mud cut oil (60% oil) No water. IFP 39-97, FFP 117-205, SIP 1338-1309. RTD 4100' Preparing to log.
7-14 Logged. Ran 4 1/2" 10.5# casing set @ 4099 w/150 sx. EA2. Completion unit to move in 7-19-93.
7-27 Move in completion unit. Log. Perforate 4013-4019 w/4 shots per ft. Swabbed 2.5 barrels of oil, no water for 1 hr. Acidized w/500 gal M.A. 1 BPM @ 500 psi increased to 2 BPM @ 525 psi. On vac. in 12 min. Swabbed load & tested 16 barrels of oil per hour, no water from 3600'.
7-28 3,130' of oil in hole. Swabbed down & acidize w/2,000 gal. 15% NE. Treated 2.5 BPM @ 500 psi. ISI 700 psi, on vac. in 15 min. Swab load & test 40 BO, no water from 3500'/hr. POP.

AUG - 5 1993

TELEPHONE
AREA CODE 913 483-2627

ALLIED CEMENTING COMPANY, INC.

P. O. BOX 31
RUSSELL, KANSAS 67665

ORIGINAL

15-153-20798-00-00

to: Thunderbird Drilling
P. O. Box 97
Ellinwood, KS 67526

INVOICE NO. 64367
PURCHASE ORDER NO. _____
LEASE NAME Wohrman B-1
DATE July 6, 1993

1500

700

SERVICE AND MATERIALS AS FOLLOWS:

Common 132 sks @\$6.85	\$904.20	
Pozmix 88 sks @\$3.00	264.00	
Chloride 7 sks @\$25.00	<u>175.00</u>	\$1,343.20
Handling 220 sks @\$1.00	220.00	
Mileage (25) @\$.04¢ per sk permi	220.00	
Surface	430.00	
Mi @\$2.25 pmp trk chg	56.25	
1 plug	<u>42.00</u>	<u>968.25</u>

115-103
BCP

Total \$2,311.45
- 462.29
1849.16

Cement circulated

Thank you!

M.W.

All Prices Are Net, Payable 30 Days Following Date of Invoice. 1½% Charged Thereafter.

CUSTOMER COPY



ORIGINAL HALLIBURTON ENERGY SERVICES

REMIT TO: P.O. BOX 981046 DALLAS, TX 75395-1046

INVOICE

INVOICE NO.	DATE
508155	07/13/1993

15-153-20799-00-00

WELL LEASE NO./PROJECT WAHRMAN B-1		WELL/PROJECT LOCATION RAWLINS		STATE KS	OWNER SAME
SERVICE LOCATION OBERLIN		CONTRACTOR ASERCROMBIE DRLG	JOB PURPOSE CEMENT PRODUCTION CASING		TICKET DATE 07/13/1993
ACCT NO. 889807	CUSTOMER AGENT C R BARTA	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA COMPANY TRUCK	FILE NO. 53272

DIRECT CORRESPONDENCE TO:

THUNDERBIRD DRILLING INC
P.O. BOX 780407
WICHITA, KS 67278

FIRST OKLAHOMA TOWER
210 WEST PARK AVENUE
SUITE 2050
OKLAHOMA CITY, OK 73102-5601

REFERENCE NO.	DESCRIPTION	QUANTITY	UM	UNIT PRICE	AMOUNT
000-117	PRICING AREA - MID CONTINENT MILEAGE	25	MI	2.75	68.75
001-016	CEMENTING CASING	4099	FT	1,410.00	1,410.00
030-016	CEMENTING PLUG 5W ALUM TOP	4.5	IN	45.00	45.00
213-009	MUD FLUSH	500	GAL	.65	325.00
218-738	CLAYFIX II	2	GAL	21.50	43.00
504-308	CEMENT - STANDARD	150	SK	7.87	1,180.50
508-127	CAL SEAL 60	7	SK	20.70	144.90
507-775	HALAD-322	58	LB	6.90	386.40
507-970	D-AIR 1, POWDER	35	LB	3.10	108.50
509-968	SALT	550	LB	.13	84.50
504-308	CEMENT - STANDARD	10	SK	7.87	78.70
506-105	POZMIX A	680	LB	.06	40.80
506-121	HALLIBURTON-GEL 2%	34	LB	.00	N/C
507-277	HALLIBURTON-GEL BENTONITE	.5	SK	15.50	7.75
500-207	BULK SERVICE CHARGE	189	CFT	1.25	236.25
500-306	MILEAGE CMTG MAT DEL OR RETU	215.76	TMI	.85	183.40

INVOICE SUBTOTAL

4,343.45

DISCOUNT-(BID)

781.79-

INVOICE BID AMOUNT

3,561.66

*-KANSAS STATE SALES TAX

96.92

*-DECATUR COUNTY SALES TAX

19.78

BEP

AUG - 5 1993

INVOICE TOTAL - PLEASE PAY THIS AMOUNT

3,678.36

TERMS: If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If customer has an approved open account, invoices are payable on the twentieth day after date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event Halliburton employs an attorney for collection of any account, Customer agrees to pay attorney fees of 20% of the unpaid account, plus all collection and court costs.