

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 # 4742
Name: Texaco E & P, Inc.
Address P.O. Box 2700

City/State/Zip Pampa, TX 79066-2700

Purchaser: Northern Natural Gas
Operator Contact Person: T. A. Flott
Phone (806) 669-8456
Contractor: Name: Murfin Drilling Co.
License: 30606

Wellsite Geologist: Phil Schreiner

Designate Type of Completion
 New Well Re-Entry Workover.
 Oil SWD SLOW 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 _____ PBTB

Commingled _____ Docket No. _____

Dual Completion _____ Docket No. _____

Other (SWD or Inj?) _____ Docket No. _____

3-20-95 3-24-95 5-3-96

Spud Date Date Reached TD Completion Date

API NO. 15- 12921369 - 00 - 00
County Morton

NW, NW, SE; Sec. 31 Twp. 34S Rge. 39 E W

2494 Feet from N (circle one) Line of Section

2475 Feet from W (circle one) Line of Section

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

Lease Name E. C. MINGENBACK Well # 4

Producing Formation Ft. Riley, Winfield, Krider

Elevation: Ground 3362 KB 3367

Total Depth 2912 PBTB 2866

Amount of Surface Pipe Set and Cemented at 642 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 8/21 1-17-96
(Data must be collected from the Reserve Pft)

Chloride content _____ ppm Fluid volume _____ bbls

Dewatering method used _____

Location of fluid disposal if hauled offsite: _____

Operator Name _____

Lease Name _____ License No. _____

Quarter Sec. _____ Twp. _____ S Rge. _____ 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 T.A. Flott

Title Operations Manager Date 7-5-95

Subscribed and sworn to before me this 5th day of July
1995

Notary Public Merle W. Jewell

Date Commission Expires 2-23-99

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

SIDE TWO

Operator Name Texaco E & P Inc. Lease Name E. C. Mingenback Well # 4

Sec. 31 Twp. 34S Rge. 39 East West
 County Morton

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.) Yes No Log Formation (Top), Depth and Datums Sample
 Samples Sent to Geological Survey Yes No
 Cores Taken Yes No Name Top Datum
 Electric Log Run (Submit Copy.) Yes No See Attached

List All E.Logs Run:
 Compensated Neutron/Dual Induction

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	24#	642	See Att.		
Production	7-7/8	4-1/2	10.5#	2911	See Att.		

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					

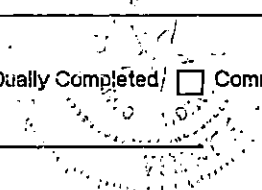
Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
2	2778 - 98	3500 Gal. 15% HCL W/150 RBS	
2	2718 - 32	26,334 Gal. 15# Gel & 92,000#	
2	2699 - 2714	Sand	
2	2650 - 70 & 1SPF 2619 - 26		

TUBING RECORD	Size	Set At	Packer At	Liner Run
	2-3/8	2781		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Date of First Resumed Production, SWD or Inj. Production	Producing Method
5/3/95	<input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	0	460	0		

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)
 METHOD OF COMPLETION: Open Hole Perforation Dually Completed/ Commingled Other (Specify) _____
 Production Interval: 2619 - 2798



ORIGINAL

E. C. MINGENBACK #4
API #15-129-21,369
Sec. 31-34S-39W
Morton County, Kansas

Cementing Data

8-5/8" Surface Casing Cement - Allied Cementing Ticket No. 1242

200 sacks 65/35, 6% Gel; 3% CC, 1/4# Flocele

100 sacks Class A, 2% Gel, 3% CC

4-1/2" Production Casing Cement - Halliburton Ticket #706291

400 sacks Premium Light mixed with 12.3#/gl

200 sacks Premium, 2% Gel, .6% Halad 322, 10% Salt mixed with 15.3#/gl.

Circulated approximately 8 bbl. to surface.

RECEIVED
STATE CORPORATION COMMISSION
JUL 07 1995
CONSERVATION DIVISION
WICHITA, KANSAS

E. C. Mingenback #4

API #15-129-21,369

Sec. 31-34S-39W

Morton County, Kansas

ORIGINAL

Formation Tops and Datum

(KB Elevation = 3367.0')

<u>Formation</u>	<u>Top</u>	<u>Datum</u>
Stone Corral	1756'	+1611'
Herington	2614'	+753'
Krider	2646'	+721'
Odell Shale	2678'	+689'
Winfield	2698'	+669'
Gage Shale	2733'	+634'
Upper Ft. Riley	2765'	+602'
Lower Ft. Riley	2828'	+539'

ALLIED CEMENTING CO., INC.

1242

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

ORIGINAL

SERVICE POINT:
Medicine Lodge

DATE <i>3/20/95</i>	SEC. <i>31</i>	TWP. <i>34s</i>	RANGE <i>39w</i>	CALLED OUT <i>4:00 PM</i>	ON LOCATION <i>9:00 PM</i>	JOB START <i>2:00 AM</i>	JOB FINISH <i>3:00 AM</i>
LEASE <i>Mingebach</i>		WELL# <i>4</i>	LOCATION <i>Rolla 5 1/2 S 2 E 1/2 N W/4</i>		COUNTY <i>Morton</i>	STATE <i>Ks</i>	

OLD OR NEW (Circle one)

CONTRACTOR *MurFin Drly Rig #3*

TYPE OF JOB *CMT 8 3/4 Surface CSG*

HOLE SIZE *12 1/4* T.D. *643*

CASING SIZE *8 3/4* DEPTH *642*

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX *600* MINIMUM *50*

MEAS. LINE SHOE JOINT *45*

CEMENT LEFT IN CSG.

PERFS.

OWNER *Texaco E&P INC*

CEMENT

AMOUNT ORDERED

<i>200 SKS 65/35/67 gel 370 cacl² 1/2 # Flo-seal</i>			
<i>100 SKS Class A + 270 gel 370 cacl²</i>			
COMMON <i>100</i>	@	<i>7.20</i>	<i>720.00</i>
POZMIX	@		
GEL <i>2</i>	@	<i>9.50</i>	<i>19.00</i>
CHLORIDE <i>10</i>	@	<i>28.00</i>	<i>280.00</i>
<i>GETWATE 200</i>	@	<i>6.65</i>	<i>1330.00</i>
<i>FLO-SEAL 50#</i>	@	<i>1.15</i>	<i>57.50</i>
	@		
	@		
	@		
HANDLING <i>300</i>	@	<i>1.05</i>	<i>315.00</i>
MILEAGE <i>300 x 20</i>		<i>.04</i>	<i>240.00</i>

EQUIPMENT

PUMP TRUCK CEMENTER *Max Ball*

234 HELPER *Justin Hart*

BULK TRUCK

257 DRIVER *Tim Sempic*

BULK TRUCK

DRIVER

TOTAL *\$2961.50*

REMARKS:

CMT 8 3/4 Surface CSG with 200 SKS 65/35/67 gel 370 cacl² 1/2 # Flo-seal + 100 SKS Class A + 270 gel 370 cacl² Drop Plug Displace 38000L Land Plug Float Head Cement Did Circulate

STATE CORPORATION COMMISSION RECEIVED SERVICE

JUL 07 1995

NONSEWABLE W/PLUG

DEPTH OF JOB <i>642'</i>		
PUMP TRUCK CHARGE <i>0-300'</i>		<i>445.00</i>
EXTRA FOOTAGE <i>342'</i>	@	<i>.41 140.22</i>
MILEAGE <i>36 Mi</i>	@	<i>2.35 84.60</i>
PLUG <i>8 3/8" TRP</i>	@	<i>90.00 90.00</i>
	@	
	@	

TOTAL *\$759.82*

CHARGE TO: *MurFin Drly Company Inc.*

STREET *250 N. Water Suite 300*

CITY *Wichita* STATE *Ko* ZIP *67202*

FLOAT EQUIPMENT

<i>1-8 3/4 Sawtooth shoe</i>	@	<i>240.00</i>	<i>240.00</i>
<i>1-8 3/4 APU Insert</i>	@	<i>258.00</i>	<i>258.00</i>
<i>2-8 3/4 Centralizers</i>	@	<i>61.00</i>	<i>122.00</i>
<i>1-8 3/4 Cement Basket</i>	@	<i>180.00</i>	<i>180.00</i>
<i>1-Thread Lock</i>	@	<i>30.00</i>	<i>30.00</i>

TOTAL *\$830.00*

TAX *— 0 —*

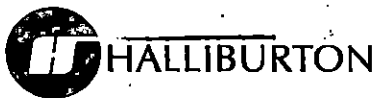
TOTAL CHARGE *\$4551.32*

DISCOUNT *\$910.26* IF PAID IN 30 DAYS

Net \$ 3641.06

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

SIGNATURE *John D. [Signature]*



TICKET CONTINUATION

CUSTOMER COPY

TICKET No. 706291

HALLIBURTON ENERGY SERVICES

FORM 1911 R-10

CUSTOMER: Murfin Drilling CO. WELL: #4 EC MINGENBACK #3-EG Hagenboth DATE: 3-25-95 PAGE 2 OF 2

Table with columns: PRICE REFERENCE, SECONDARY REFERENCE/PART NUMBER, ACCOUNTING (LOC, ACCT, DF), DESCRIPTION, QTY., U/M, UNIT PRICE, AMOUNT. Includes items like Halliburton Light Cement, Premium Cement, Flocele 1/4# w/400 HLC, Gel 2% added w/200 Premium, Haled-322 6/10% w/200 Premium, Salt 10% w/200 Premium. Summary rows at bottom for SERVICE CHARGE, MILEAGE CHARGE, TOTAL WEIGHT, LOADED MILES, CUBIC FEET, TON MILES.

ORIGINAL

RECEIVED STATE CORPORATION COMMISSION JUL 6 7 1995

No. B 218761

CONTINUATION TOTAL 8626.12

HALLIBURTON

JOB SUMMARY

HALLIBURTON DIVISION

Mid Coast incant

HALLIBURTON LOCATION

LIBERAL KS

BILLED ON TICKET NO.

706291

WELL DATA

LD _____ SEC 31 TWP 34s RNG 39w COUNTY MORTON 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. 8.8
PACKER TYPE _____ SET AT _____
BOTTOM HOLE TEMP. _____ PRESSURE _____
MISC. DATA _____ TOTAL DEPTH _____

Table with columns: NEW USED, WEIGHT, SIZE, FROM, TO, MAXIMUM PSI ALLOWABLE. Includes handwritten 'ORIGINAL' and casing data: N 10.5 4 1/2 KB 2915.

JOB DATA

Table with columns: CALLED OUT, ON LOCATION, JOB STARTED, JOB COMPLETED. Includes dates and times for 3-23-95, 3-24-95.

PERSONNEL AND SERVICE UNITS

Table with columns: NAME, UNIT NO. & TYPE, LOCATION. Lists personnel: T. Poyer, T. Davis, P. Boone, S. Porter.

TOOLS AND ACCESSORIES

Table with columns: TYPE AND SIZE, QTY., MAKE. Lists items like Float Collar, Guide Shoe, Centralizers, etc.

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. _____

DEPARTMENT 5001
DESCRIPTION OF JOB Set 4 1/2 Production casing @ 400 sks
P4 Lt. + 200 sks PARM, + Displ. 2.2% KCL

JOB DONE THRU: TUBING [] CASING [X] ANNULUS [] TBG./ANN. []

CUSTOMER REPRESENTATIVE X Kevin Alexson

HALLIBURTON OPERATOR Tom Poyer COPIES REQUESTED _____

CEMENT DATA

Table with columns: STAGE, NUMBER OF SACKS, CEMENT, BRAND, BULK SACKED, ADDITIVES, YIELD CU.FT./SK., MIXED LBS./GAL. Includes data for 400 sacks of P4 Lt and 200 sacks of Premium.

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. 45.6
SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN _____ CEMENT SLURRY: BBL.-GAL. 149.6 + 46
HYDRAULIC HORSEPOWER _____ TOTAL VOLUME: BBL.-GAL. _____
ORDERED _____ AVAILABLE _____ USED _____ REMARKS
AVERAGE RATES IN BPM _____ M.S.D.S. @ Kevin Alexson
TREATING _____ DISPL. _____ OVERALL _____ CEMENT LEFT IN PIPE _____
FEET 45.98 REASON Shoe Joint CEMENT TO SURFACE

CUSTOMER MORTON #3 LEASE E.C. MINGENBAK (Teresa) WELL NO. #4 JOB TYPE 4 1/2 L.S. DATE 3-24-95