

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

API NO: 15- 193-20,578-00-00

ORIGINAL

County Thomas

S/2 SE NW Sec. 22 Twp. 9S Rge. 32 ^EX_W

Operator: License # 5135

2310 Feet from S ^(M)(circle one) Line of Section

Name: John O. Farmer, Inc.

1980 Feet from E ^(M)(circle one) Line of Section

Address P.O. Box 352

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

City/State/Zip Russell, KS 67665

Lease Name Renner Well # 1

Purchaser: Koch Oil Company

Field Name (Not named yet)

Operator Contact Person: Marge Schulte

Producing Formation Lansing "J"

Phone (913) 483-3144

Elevation: Ground 3076' KB 3081'

Contractor: Name: Shields Drilling Co., Inc.

Total Depth 4690' PBTD

License: 5655

Amount of Surface Pipe Set and Cemented at 283 Feet

Wellsite Geologist: Martin K. Dubois

Multiple Stage Cementing Collar Used? Yes No

Designate Type of Completion
 New Well Re-Entry Workover

If yes, show depth set 2656 Feet

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

If Alternate II completion, cement circulated from 2656'
* Circ. lost during 2nd stage.
feet depth to 1500' w/ 400 sx cmt.

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

Drilling Fluid Management Plan * Above 1500' to be cemented prior to (Data must be collected from the Reserve Pit) 3/8/92.
5-18-93

Operator:

Chloride content 4,500 ppm Fluid volume 1,800 bbls

Well Name:

Dewatering method used evaporation

Comp. Date Old Total Depth

Location of fluid disposal if hauled offsite:
(not hauled)

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

Operator Name

11-8-91 11-17-91 12-19-91

Lease Name License No.

Spud Date Date Reached TD Completion Date

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.

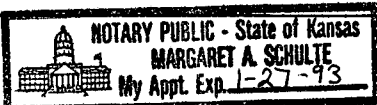
Signature John O. Farmer III
Title President Date 1-24-92

Subscribed and sworn to before me this 24th day of January, 1992.

Notary Public Margaret A. Schulte
Margaret A. Schulte

Date Commission Expires

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
RECEIVED
DISTRIBUTION
KCS SWD/Rep NGPA
KGS Plug Other (Specify)
JAN 27 1992
0-27-1992
CONSERVATION DIVISION
FORM ACO-1 (7-91)
WICHITA, KS



Operator Name John O. Farmer, Inc. Lease Name Renner Well # 1
 Sec. 22 Twp. 9S Rge. 32 East County Thomas
 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datums	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Anhydrite	2657'	(+424)
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Topeka	3839'	(-758)
		Heebner	4049'	(-968)
		Lansing	4091'	(-1010)
		Stark	4300'	(-1219)
		Base/KC	4360'	(-1279)
List All E.Logs Run:		Pawnee	4487'	(-1406)
Cement Bond Log, Quick Look Log		Fort Scott	4546'	(-1465)
		Cherokee	4577'	(-1496)
		Johnson zone	4619'	(-1538)
		Mississippi	4660'	(-1579)
		L.T.D.	4691'	(-1610)

*COPY OF SHIELDS DRILLERS LOG ATTACHED.

** (CONTINUED ON SIDE TWO, PAGE TWO)

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"	28#	283'	60-40 Pozmix	195	3% C.C., 2% gel
Production	7-7/8"	4-1/2"	10.5#	4429'	Class A	200	18% Salt
D.V. Tool				2656'	Hal Light HDL	400	.25# Flocele

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
4 SPF	4284-88 (4')	500 gals. 15% NE	4284-88 (4')

TUBING RECORD Size 2-3/8" Set At 4376' Packer At --- Liner Run Yes No

Date of First, Resumed Production, SWD or Inj. January 16, 1992 Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours Oil 51 Bbls. Gas -0- Mcf Water 1 Bbls. Gas-Oil Ratio --- Gravity 38°

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 4284-88 (4')

15-193-20578-00-00

ORIGINAL

SIDE TWO (Page Two)

ACO-1 WELL HISTORY

OPERATOR John O. Farmer, Inc. LEASE NAME Renner SEC. 22 TWP. 9S RGE. 32W

FILL IN WELL LOG AS REQUIRED:

Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

SHOW GEOLOGICAL MARKERS, LOGS RUN, OR OTHER DESCRIPTIVE INFORMATION.

FORMATION DESCRIPTION, CONTENTS, ETC.	TOP	BOTTOM	NAME	DEPTH
<p><u>DST #1 4247-4293'</u> (Lansing "I" & "J" zones) Tool open 30-30-45-60 Very good blow on both opens (bottom of bucket in 5 minutes) Rec: 1330' gas in pipe 589' clean gassy oil (40 gravity) 120' mud and gas cut mud (40% mud, 10% gas, 50% oil) 190' oil and gas cut mud (20% oil, 35% mud, 45% gas) FP: 66-177, 233-333 SIP: 936-991 HP: 2129-2120 BHT: 128° F.</p>				
<p><u>DST #2 4295-4356'</u> (Lansing "K" & "L" zones) Tool open 45-45-45-60 Fair blow to bottom in 15" Fair blow to bottom in 35" Rec: 403' gas in pipe 31' clean gassy oil (41 gravity) 124' heavy oil cut mud (40% oil, 60% mud) 124' oil and gas cut watery mud (10% oil, 10% water, 60% mud, 20% gas) 62' slight oil & gassy watery mud (5% oil, 15% water, 60% mud, 20% gas) 186' slightly oil cut muddy water (10% oil, 55% water, 35% mud) 20,000 cl. on H₂O FP: 55-155, 188-244 SIP: 871-849 HP: 2196-2196 BHT: 128° F.</p>				
<p><u>DST #3 4563-4643'</u> (Johnson zone) Tool open 30-30-30-30 Weak blow - died on 1st open, no blow on 2nd Rec: 10' mud FP: 20-20, 30-30 SIP: 80-55 HP: 2319-2310 BHT: 116° F.</p>				

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 CONSERVATION DIVISION
 WICHITA, KS



Shields

15-193-20578-00-00

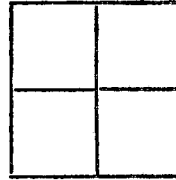
ORIGINAL

Russell, Kansas

WELL LOG

Operator: John O. Farmer, Inc.
 Well: Renner #1
 Commenced: November 8, 1991
 Completed: November 18, 1991
 Contractor: Shields Drilling Co.

Well Description: S/2 SE NW
 Sec. 22-9S-32W
 Thomas Co., KS.



Elevation: 3,081' KB

Treatment:

Production:

Tops:

CASING RECORD

Size	Run	Pulled
8 5/8"	280'	Cmtd. w/195 sax
4 1/2"	4,429'	Cmtd. w/200 sax
Stage tool	@2,656'	Cmtd. w/400 sax

..... Figures Indicate Bottom of Formations

Sand	135'	
Shale & Sand	2,159'	
Shale & lime	2,424'	
Shale	2,658'	
Anhydrite	2,703'	
Shale	2,992'	
Shale & lime	4,220'	
Lime	4,690'	RTD

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 WICHITA, KS

15-193-20578-00-00

ORIGINAL

JOHN O. FARMER, INC.

OIL PRODUCERS AND DRILLING CONTRACTORS

BOX 352

RUSSELL, KANSAS 67665

913-483-3144

November 18, 1991

GEOLOGIC REPORT

John O. Farmer, Inc.

#1 Renner

S/2 SE NW 22-9S-32W

Thomas County, Kansas

Daily Progress:

- 11-8 Moved on location; set 8 5/8" surface casing at 280' with 195 sacks
60/40 Pozmix, 2% Gel. 3% CaCl, plug down at 5:00 a.m.
- 11-9 Waiting on cement; under surface casing at 5:00 p.m.
- 11-10 1651', drilling
- 11-11 2774', drilling
- 11-12 3408', drilling
- 11-13 3906', drilling
- 11-14 4993', coming out of hole for DST #1
- 11-15 4356', coming out of hole with DST #2
- 11-16 4570', drilling
- 11-17 4663', drilling; RTD of 4690' reached at 8:55 a.m.; ran E-logs;
set 4 1/2" casing at 4429' with 200 sacks EA-2, DV tool at 2656',
upper stage cemented with 400 sacks, plug down at 5:30 a.m. 11-18-91

Service Companies:

Drilling Contractor: Shields Drilling, Rig No. 2, toolpusher--Burt Beery
Drilling Mud: Unibar
Elevation: Fall and Associates
Drill Stem Testing: Trilobite Testing
Electric Logs: Mercury Wireline
Cement: Halliburton

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Formation Tops:

GL 3076	KR 3081	Structural Relation	
<u>Formation</u>	<u>Sample</u>	<u>E-Log</u>	<u>First Energy</u> <u>(40)-22 Bertrand</u>
Anhydrite	2658 (+423)	2657 (+424)	+2
B. Anhydrite	2686 (+395)	-	+1
Topeka	3838 (-757)	3839 (-758)	-1
Heebner	4049 (-968)	4049 (-968)	-2
Lansing	4088 (-1007)	4091 (-1010)	-3
Stark	4298 (-1217)	4300 (-1219)	+1
Base KC	4358 (-1277)	4360 (-1279)	+2
Pawnee	4486 (-1405)	4487 (-1406)	+3
Cherokee	4576 (-1495)	4577 (-1496)	+4
Johnson Zone	4618 (-1537)	4619 (-1538)	+3
Mississippi	4658 (-1577)	4660 (-1579)	+8
Miss. Dol.	4681 (-1600)	4682 (-1601)	+12
Total Depth	4690 (-1609)	4691 (-1610)	---

Sample Shows and DST's: (E-Log Depths)

L-KC D 4150-55	Limestone, tan, fine grained, rounded fossil grains and oolite, trace of poor vuggy porosity, trace of tarry oil (1% of sample). E-Logs indicate this zone is tight (5-7% porosity).
L-KC E 4168-72	Limestone, mostly light gray-tan, fine crystalline, fossiliferous, mostly tight, scattered poor moldic and vuggy porosity, dead to spotty dark stain and very slight show of tarry oil in 2% of sample. E-Logs indicate this zone is tight (5% porosity).
L-KC H 4235-38	Limestone, medium-coarse grained, rounded fossil grains, mostly poor with some fair intergranular and moldic porosity, faint odor, spotty stain, fair show of free oil in 5-10% of 4240-50 sample. E-Logs indicate this zone is tight (5% porosity).
L-KC I 4265-74	Limestone, white to light tan (stain), fine crystalline and some very fine grained, poor intercrystalline porosity, spotty to even stain in 30% of sample, very slight show of free oil in 5% of sample. E-Logs indicate this zone is tight (4-6% porosity) and has a shale break in the middle (4268-70).
L-KC J 4283-86	Limestone, white to tan (stain), fine to medium grained, rounded fossil grains, fair to good intergranular and moldic porosity, spotty to saturated stain, faint odor, good show of free oil (30% sample). E-Logs calculate 16% porosity and 28% water saturation.
4286-88	Limestone as above with poor to fair porosity. E-Logs calculate 9% porosity and 45% water saturation.

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DST #1 4247-4293 (L-KC I and J zones)

30-30-45-60

Strong blow on both open periods and during shut in periods.

Rec: 1330' gas in pipe
 589' clean gassey oil (40° API)
 120' heavily mud and gas cut oil
 (50% oil, 40% mud, 10% gas)
 190' oil and gas cut mud
 (20% oil, 35% mud, 45% gas)

FP: 66-177,233-333

SIP: 936-991*

HP: 2129-2120

BHT: 128° F

* Shut in pressures were still building, SIP extrapolated by
 Horner plat are 1192-1171 #.

L-KC K
 4316-20

Limestone, mostly gray, very fine crystalline with some fine to
 medium grained oolite, fair moldic porosity, slight show of free
 oil. E-Logs indicate 10% porosity and 75% water saturation at
 4316-18.

4321-27

Limestone, white to light tan (stain), fine grained, slightly chalky,
 poor intercrystalline and pinpoint moldic porosity, faint to good
 odor, spotty stain, floresence and slight show of free oil in
 10% of sample. E-Logs indicate 8-10% porosity and approximately
 90% water saturation.

L-KC L
 4346-53

Limestone cream, mostly very fine crystalline, no matrix porosity
 in general, very scattered medium to coarse grained rounded
 fossil grained limestone with fair moldic porosity, very
 scattered vugs and fracture porosity, weak odor, slight show of
 free oil on break, floresence and cut in 15% of sample.
 E-Logs indicate this zone is tight (3% porosity).

DST #2 4295-4356 (L-KC K and L)

45-45-60-60

Fair blow to bottom of bucket on both open periods.

Rec: 403' GIP
 31' clean gassey oil (41° API)
 124' heavily oil cut mud (40% oil, 60% mud)
 124' oil and gas cut watery mud
 (10% oil, 10% water, 20% gas, 60% mud)
 62' slightly oil and gas cut watery mud
 (5% oil, 15% water, 20% gas, 60% mud)
 186' slightly oil cut muddy water
 (10% oil, 55% water, 35% mud)

Chlorides: 40,000 ppm (by Unibar)

FP: 55-155, 188-244

SIP: 871-849

HP: 2196-2196

BHT: 128° F

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Only traces of free oil were noted in the Pawnee (4488-93 and 4500-03) and Myric Station (4531-38). These zones were tight on E-Logs (2-5% porosity). These samples were described by John O. Farmer IV.

Johnson Zone
4619-33 Limestone, tan, vfxln, slightly fossiliferous, scattered poor vuggy porosity; and limestone, white to tan, slightly chalky, mostly very fine crystalline, some is fine grained and slightly chalky with poor intergranular porosity; fair odor, dark stain, show of free oil in 10% of sample. E-Logs indicate this zone is tight (2-4% porosity).

Cherokee Sand
4634-39 Sandstone, gray, very fine to fine grained, fair intergranular porosity, shaley in part, fair to good show of free oil. E-Logs calculate 9% porosity and 70% water saturation.

DST #3 4563-4643 (Johnson Zone and Cherokee Sand)
30-30-30-30
Weak blow died on 1st open, no blow on 2nd open
Rec: 10' mud
FP: 20-20, 30-30
SIP: 80-55
HP: 2319-2310
BHT: 116° F

Summary and Recommendations:

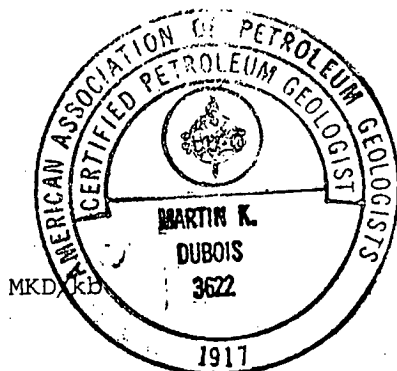
4 1/2 inch production casing was set at 4429' in order to further test the Lansing-Kansas City "J" Zone. The recommended interval for perforations is 4284 to 4288.

Consideration should be given to perforating the L-KC "K" zone from 4316 to 4318 and the L-KC "H" zone from 4216 to 4218 prior to abandonment. The "K" zone yielded the oil and water on DST #2 and is likely to yield a substantial amount of water upon completion. The "H" zone was not tested by DST but may contribute some oil despite low porosity.

Respectfully Submitted,

Martin K. Dubois

Martin K. Dubois
Certified Petroleum Geologist



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CONSERVATION DIVISION
WICHITA, KS

HALLIBURTON SERVICES
JOB LOG

WELL NO. 1 LEASE Renner 15-193-20518 TICKET NO. 163583
 CUSTOMER John O. Farmer PAGE NO. 1
 JOB TYPE Cmt. Surface Csg. DATE 11-9-91

FORM 2013 R-2

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	11-8-91 2100 2345							ORIGINAL Called out - Ready Now On location - Rig drilling @ 165'
	11-9-91 0145 0210							Hole Cut Out of hole w/ bit - Change over to run 8 5/8" Csg.
	0245							Start casing - 7 Jts New 20" / 8 5/8" casing
	0330							Finish casing - Hook up Plug container.
	0335 0422		4					1200 Rig circulate - Casing plugged 1450 Hook up to Howco - Pumped out plug - Circulate
	0425							Hook back to rig. Circulate about 20' back to bottom
	0442 0444 0445		5 wtr					Hook up to Howco Start 5 bbl Spacer ahead Finish spacer - Start Cement - 195 sks 60/40 Poz w/ 2% Gel + 3% CC
	0457 0457	6	4 1/2 cmt					Finish Cement - Shut down Release plug & Start Disp
	0500 0500 0502 0510 0520	6	17 1/2 wtr					Finish Displacement Close in Wash up truck Rack up Job Complete
								Circulated Cement to the Cellar

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JAN 27 1992

CONSERVATION DIVISION
WICHITA, KS

CUSTOMER

CUSTOMER: John O. Farmer
LEASE: Renner
WELL NO.:
JOB TYPE: Cement Surface Casing
DATE: 11-9-91

WELL DATA
 FIELD: N. Oakley KS SEC: 22 TWP: 9S RNG: 30W COUNTY: Thomas 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: 283

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	N	20	8 5/8	KB	280	
LINER						
TUBING						
OPEN HOLE			12 1/4	KB	283	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG <u>LA-11 8 5/8"</u>	<u>1EA</u>	<u>Howco</u>
HEAD		
PACKER		
OTHER		

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>11-8-91</u> TIME <u>2100</u>	DATE <u>11-8-91</u> TIME <u>2345</u>	DATE <u>11-9-91</u> TIME _____	DATE <u>11-9-91</u> TIME _____

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>J. Moore</u>	<u>B4685</u>	
<u>J. Keenan</u>	<u>H7-400 RCM</u>	<u>Oberlin KS</u>
<u>H. Berry</u>	<u>3896</u>	<u>BulkTK Oberlin 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. _____ IN _____
 PERFPAC BALLS TYPE _____ GAL.-LB. _____ IN _____
 OTHER _____
 OTHER _____

DEPARTMENT: Cement
 DESCRIPTION OF JOB: Cement Surface Casing w/ 195 sks 60/40 Poz w/ 2% Gel & 3% CC
 JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.
 CUSTOMER REPRESENTATIVE: X Burton Beery
 HALLIBURTON OPERATOR: J. Moore COPIES REQUESTED: _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	<u>195</u>	<u>60/40 Poz</u>			<u>2% Gel 3% CC</u>	<u>14.31</u>	<u>1.28</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: 15 REASON: Requested

SUMMARY
 PRESLUSH: BBL-GAL. 5 TYPE: Fresh Water
 LOAD & BKDN: BBL-GAL. _____ PAD: BBL-GAL. _____
 TREATMENT: BBL-GAL. _____ DISPL: BBL-GAL. 17 1/2
 CEMENT SLURRY: BBL-GAL. 44 1/2
 TOTAL VOLUME: BBL-GAL. 67
 REMARKS: See Job Log
Thank you

15-193-20578-00-00

DISTRICT Hays KS

DATE 11-9-91

TO: HALLIBURTON SERVICES YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICEMEN TO DELIVER AND OPERATE THE SAME AS AN INDEPENDENT CONTRACTOR TO: John O. Farmer (CUSTOMER) AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING

WELL NO. 1 LEASE Renner SEC. 22 TWP. 9S RANGE 30W
FIELD N. Oakley KS COUNTY Thomas STATE KS OWNED BY John O. Farmer

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

FORMATION NAME _____ TYPE _____
FORMATION THICKNESS _____ FROM _____ TO _____
PACKER: TYPE _____ SET AT _____
TOTAL DEPTH 283 MUD WEIGHT _____
BORE HOLE 12 1/4
INITIAL PROD: OIL _____ BPD, H₂O _____ BPD, GAS _____ MCF
PRESENT PROD: OIL _____ BPD, H₂O _____ BPD, GAS _____ MCF

	NEW USED	WEIGHT	SIZE	FROM	TO	MAX. ALLOW. P.S.I.
CASING	N	20	8 5/8	KB	280	
LINER						
TUBING						
OPEN HOLE			12 1/4	KB	283	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____
TREATMENT INSTRUCTIONS: TREAT THRU TUBING ANNULUS CASING TUBING/ANNULUS HYDRAULIC HORSEPOWER ORDERED
Cement Surface Casing w/ 195 sks 60/40 Poz w 2% Gel + 3% CC as directed

CUSTOMER OR HIS AGENT WARRANTS THE WELL IS IN PROPER CONDITION TO RECEIVE THE PRODUCTS, SUPPLIES, MATERIALS, AND SERVICES

THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED

- To pay Halliburton as agreed with the rates and terms stated in Halliburton's current price list. Invoices are payable NET by the 20th of the following month after date of invoice. Upon Customer's default in payment of Customer's account by the 10th day of the month following the month in which the invoice is dated, Customer agrees to pay interest thereon after default at the highest lawful rate of such applicability, but never to exceed 18% per annum. In the event it becomes necessary to employ attorneys to enforce collection of said account, Customer agrees to pay all collection costs and attorney fees in the amount of 20% of the amount of the unpaid account.
 - To defend and indemnify and hold harmless Halliburton, its divisions, subsidiaries, parent and affiliated companies and the officers, directors, employees, agents and servants of all of them from and against any claims, liability, expenses, attorneys fees, and costs of defense to the extent permitted by law for:
 - Damage to property owned by, in the possession of or leased by Customer, and/or the well owner (if different from Customer), including, but not limited to, surface and subsurface damage. The term "well owner" shall include working and royalty interest owners.
 - Recovery, formation, or well loss or damage, subsurface trespass or any action in the nature thereof.
 - Recovery or damage to other property, including, but not limited to, damage to the reservoir, formation or well, or any damages whatsoever, growing out of or in any way connected with or resulting from pollution, subsurface pressure, losing control of the well and/or a well blowout or the use of radioactive material.
- The defense, indemnity, release and hold harmless obligations of Customer provided for in this Section b) and Section c) below shall apply to claims or liability even if caused or contributed to by Halliburton's negligence, strict liability, or the unworkability of any vessel owned, operated, or furnished by Halliburton or any defect in the data, products, supplies, materials, or equipment of Halliburton, whether in the preparation, distribution, manufacture, distribution, or marketing thereof, or from a failure to warn any person of such defect. Such defense, indemnity, release and hold harmless obligations of Customer shall not apply where the claim or liability are caused by the gross negligence or willful misconduct of Halliburton. The term "Halliburton" as used in said Sections b) and c) shall mean Halliburton, its divisions, subsidiaries, parent and affiliated companies, and the officers, directors, employees, agents and servants of all of them.
- That because of the hazardous nature of the well conditions and the necessity of relying on facts and supporting surveys furnished by others, Halliburton is unable to guarantee the effectiveness of the products, supplies, materials, or equipment used in the treatment or service, nor the accuracy of any charts, interpretation, research, analysis, logs, recommendations or other data furnished by Halliburton. Halliburton shall not be liable for any claims or liability arising from such information and their best judgment in interpreting it, but Customer agrees that Halliburton shall not be liable for and Customer shall indemnify Halliburton against any damages, claims, from the use of such information.
 - That Halliburton warrants that the products, supplies and materials used that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING LIABILITY, FITNESS FOR USE, OTHERWISE WHICH EXTEND BEYOND TO USE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton's liability and Customer's obligations hereunder shall be limited to the highest lawful rate of such applicability, but never to exceed 18% per annum. In the event it becomes necessary to employ attorneys to enforce collection of said account, Customer agrees to pay all collection costs and attorney fees in the amount of 20% of the amount of the unpaid account.
 - That Customer shall, at its risk and expense, attempt to recover any and all instruments which are lost in the well and all such equipment, tools or instruments are not recovered. Customer shall pay Halliburton the replacement cost of such lost or damaged instruments, tools or equipment, if Halliburton can identify the instruments, tools or equipment which are lost or damaged in the well. Customer shall pay Halliburton the replacement cost of such lost or damaged instruments, tools or equipment, if Halliburton cannot identify the instruments, tools or equipment which are lost or damaged in the well. The cost of such replacement shall be the sole responsibility of Halliburton. In the case of equipment, tools or instruments for mining operations, Customer shall be liable to the extent of the fully responsible replacement cost of such lost or damaged instruments, tools or equipment, if Halliburton can identify the instruments, tools or equipment which are lost or damaged in the well. The cost of such replacement shall be the sole responsibility of Halliburton.
 - To waive the provisions of the Oklahoma Trade Practices - Consumer Protection Act, to the extent permitted by law.
 - That the contract shall be governed by the law of the state where the materials are furnished.
 - That Halliburton shall not be bound by any changes or modifications in this contract, except where such change or modification is made in writing by a duly authorized executive officer of Halliburton.

CONSERVATION DIVISION
WICHITA, KS

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER'S AGENT

SIGNED Burton Boery CUSTOMER
DATE 11-9-91
TIME 0045 A.M. P.M.

We certify that the Fair Labor Standards Act of 1938, as amended, has been complied with in the production of goods and/or with respect to services furnished under this contract.

CUSTOMER

JOB LOG

WELL NO. #1 LEASE Renner TICKET NO. 163702-0
 CUSTOMER J.O. Farmer 15-193-20578-00-00# 1 of 2 PAGE NO. 1 of 2
 JOB TYPE 4 1/2" 2-Stage-Prod. Csg. DATE 11-17-91

ORIGINAL

FORM 2013 R-2

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
11-17-91	1700							Called out - Job ready Now
"	2045							On loc. - Rig laying down DP - Cat Bm to loc. - Set up Equip.
"	2348							DP out of hole - Rig up to Run csg.
11-18-91	0103							Start 4 1/2" Csg. - Insert Flat shoe - Shut off baffle in Top of 1 st Jt. - Roto-wall Cleaners
								Starting 2 ft. up on Jt. #3 (15') - 16 Ft. up on Jt. #4 (15') Centralizers on 1 st Collar - 1 ft. below Scratchers on Jt. #3 - 10 Ft. above 3 rd Collar - 20 th Collar - 40 th Collar - 43 rd Collar
								Cmt. Bskts. 18 ft. up on Jt. #5 - 2 Ft. below Collar #43 - DV Tool on Top of Jt. #44
	0301							Csg. @ 4429' - Hook up to Circ. - St. Rotating
	0308							Rig Start Circulating - mix Superflush Hook up to P.T.
	0400	6.0	18.0				400	Start 18 bbl. Salt flush
	0403	6.0	3.0				300	Start 3 bbl. water spacer
	0404	6.0	12.0				300	Start 500 gal. Superflush.
	0408	5.5	4.0				300	Start 4 bbl. water spacer
	0408	5.5	48.4				300	Start mixing 200 SKS EA-2 - 5% Cal-Seal 18% Salt - .4 Haled 322 - .25 D-Air
	0417						100	Finish mixing - Stop Rotating Csg. Drop Shut-off Plug - wash up Pump & lines
	0419	6.0	69.8				100	Start disp. (30 bbl. mud - 40 bbl. mud)
	0425	6.0					300	44 bbl disp. in St. press increase
	0431	6.0					1600	Plug down - Final Circ. press. = 700*
	0434							Release Press. - Insert Held
	0436							Drop D.V. opening Bomb
	0453	4.0	12.0				1650	Open D.V. Tool - Pump 12 bbl. mud
	0500	7.0	64.5				150	Start mixing 100 SKS HDL - 1/4" Flocele
	0510	7.0	98.3				150	Start mixing 300 SKS HLC - 1/4" Flocele
	0524	6.0	1.0				175	Finish mixing Cemt. - 1 Bbl. water behind
								Release 4 1/2" Closing Plug

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 KANSAS CORPORATION COMMISSION
 JAN 27 1992
 CONSERVATION DIVISION
 WICHITA, KS

Continued on Page #2
 Thank you

WELL DATA

FIELD _____ SEC. 22 TWP. 9^s RNG. 32^w COUNTY Thomas 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 4690'

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	N	10.5	4 1/2"	K3	4428	
LINER						
TUBING						
OPEN HOLE			7 7/8"	4428	4690'	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>11-17-91</u>	DATE <u>11-17-91</u>	DATE <u>11-17-91</u>	DATE <u>11-18-91</u>
TIME <u>1700</u>	TIME <u>2045</u>	TIME <u>2330</u>	TIME <u>0550</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>E. Reynolds</u>	<u>ROM HT-400</u>	
<u>J. Alstrom</u>	<u>2591</u>	<u>Oberlin, Ks.</u>
	<u>Bm</u>	
<u>H. Berry</u>	<u>4718</u>	<u>Oberlin, Ks.</u>
	<u>Bm</u>	
<u>D. Roberts</u>	<u>50181</u>	<u>Oberlin, Ks.</u>
	<u>Supervisor</u>	
<u>H.D. Hughes</u>		<u>Oberlin, Ks.</u>

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
<u>Rotowall Cleaners 5</u>	<u>6 ea.</u>	
<u>Float Shoe Insert 4 1/2"</u>	<u>1 ea.</u>	
<u>Grip Shoe Fas Grip Clamp 4 1/2"</u>	<u>12 ea.</u>	
<u>Centralizers S-4 4 1/2"</u>	<u>6 ea.</u>	
<u>DU. Tool 4 1/2"</u>	<u>1 ea.</u>	
<u>Plug-Set 4 1/2"</u>	<u>1 ea.</u>	
<u>Cement Bskt. 4 1/2"</u>	<u>2 ea.</u>	
<u>Banding Mat.</u>	<u>6 ea.</u>	
OTHER		

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 500 gal Super flush - 2 gal. Ch-Fix II

DEPARTMENT Cementing

DESCRIPTION OF JOB Cement 4 1/2" 2 Stage

As directed

JOB DONE THRU: TUBING CASING ANNULUS TBG/ANN.

CUSTOMER REPRESENTATIVE X [Signature]

HALLIBURTON OPERATOR [Signature] COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
<u>1</u>	<u>200</u>	<u>EA-2</u>			<u>5% Gel Seal - 1.8% S.H. - .4 Halad 322 - .25-D Air</u>	<u>1.36</u>	<u>15.5</u>
<u>2</u>	<u>100</u>	<u>HDL</u>			<u>1/4" Floccle</u>	<u>3.62</u>	<u>10.7</u>
<u>2</u>	<u>300</u>	<u>HLC</u>			<u>1/4" Floccle</u>	<u>1.84</u>	<u>12.7</u>

PRESSURES IN PSI

SUMMARY

VOLUMES

CIRCULATING _____ DISPLACEMENT _____ PRESLUSH: BBL-GAL _____ TYPE Salt & Super flush

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

AVERAGE _____ FRACTURE GRADIENT _____ TREATMENT: BBL-GAL _____ DISPL: BBL-GAL _____

SHUT-IN: INSTANT _____ 5-MIN. _____ 15-MIN. _____ CEMENT SLURRY: BBL-GAL 48.4 - 64.5 - 98.3

ORDERED _____ AVAILABLE _____ USED _____ TOTAL VOLUME: BBL-GAL _____

TREATING _____ DISPL. _____ CEMENT LEFT IN PIPE _____ REMARKS See Job Log & Chart

FEET 35.30 REASON Shoe Joint Cement did Circulate
Thank you

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JAN 27 1992

CONSERVATION DIVISION
WICHITA, KS

CUSTOMER J.O. Farmer
LEASE Renner
WELL NO. #1
JOB TYPE 4 1/2" 2-Stage
DATE 11-17-91

DISTRICT Hays, KS.

DATE 11-17-91

TO: HALLIBURTON SERVICES YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICEMEN TO DELIVER AND OPERATE

THE SAME AS AN INDEPENDENT CONTRACTOR TO: J.O. Farmer (CUSTOMER)
AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING

WELL NO. #1 LEASE Renner SEC. 22 TWP. 9^S RANGE 32^W

FIELD _____ COUNTY Thomas STATE Ks. OWNED BY J.O. Farmer

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

FORMATION NAME	TYPE	NEW USED	WEIGHT	SIZE	FROM	TO	MAX. ALLOW. P.S.I.
CASING		N	10.5	4 1/2"	KB	4428	
LINER							
TUBING							
OPEN HOLE				7 7/8"	4428	4690	SHOTS/FT.
PERFORATIONS							
PERFORATIONS							
PERFORATIONS							

FORMATION THICKNESS _____ FROM _____ TO _____

PACKER: TYPE DV Tool SET AT 2659'

TOTAL DEPTH 4690 MUD WEIGHT _____

BORE HOLE 7 7/8"

INITIAL PROD: OIL _____ BPD, H₂O _____ BPD, GAS _____ MCF

PRESENT PROD: OIL _____ BPD, H₂O _____ BPD, GAS _____ MCF

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____

TREATMENT INSTRUCTIONS: TREAT THRU TUBING ANNULUS CASING TUBING/ANNULUS HYDRAULIC HORSEPOWER ORDERED _____

Cement 4 1/2" 2-Stage w/ 500 gal Salt Flush - 500 gal Super Flush - 200 SKS EA - 2 5% Cal Seal - 18% Salt
4% Hald 322 - 25 D-Air - 2nd Stage w/ 100 SKS HDL 1/4" Fluoce - 300 SKS HLC w/ 1/4" Fluoce
Hays District Light

As directed

CUSTOMER OR HIS AGENT WARRANTS THE WELL IS IN PROPER CONDITION TO RECEIVE THE PRODUCTS, SUPPLIES, MATERIALS, AND SERVICES

- As consideration the above named Customer agrees: THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED
- To pay Halliburton in accordance with the rates and terms stated in Halliburton's current price list. Invoices are payable NET by the 20th of the following month after date of invoice. Upon Customer's default in payment of Customer's account by the last day of the month following the month in which the invoice is dated, Customer agrees to pay interest thereon after default at the highest lawful contract rate applicable but never to exceed 18% per annum. In the event it becomes necessary to employ attorneys to enforce collection of said account, Customer agrees to pay all collection costs and attorney fees in the amount of 20% of the amount of the unpaid account.
 - To defend, indemnify, release and hold harmless Halliburton, its divisions, subsidiaries, parent and affiliated companies and the officers, directors, employees, agents and servants of all of them from and against any claims, liability, expenses, attorneys fees and costs of defense to the extent permitted by law for:
 - Damage to property owned by, in the possession of, or leased by Customer, and/or the well owner (if different from Customer), including, but not limited to, surface and subsurface damage. The term "well owner" shall include working and royalty interest owners.
 - Reservoir formation, or well loss or damage, subsurface trespass or any action in the nature thereof.
 - Personal injury or death or property damage (including, but not limited to, damage to the reservoir, formation or well), or any damages whatsoever, growing out of or in any way connected with or resulting from pollution, subsurface pressure, losing control of the well and/or a well blowout or the use of radioactive material.

The defense, indemnity, release and hold harmless obligations of Customer provided for in this Section b) and Section c) below shall apply to claims or liability even if caused or contributed to by Halliburton's negligence, strict liability, or the unseaworthiness of any vessel owned, operated, or furnished by Halliburton or any defect in the data, products, supplies, materials, or equipment of Halliburton whether in the preparation, design, manufacture, distribution, or marketing thereof, or from a failure to warn any person of such defect. Such defense, indemnity, release and hold harmless obligations of Customer shall not apply where the claims or liability are caused by the gross negligence or willful misconduct of Halliburton. The term "Halliburton" as used in said Sections b) and c) shall mean Halliburton, its divisions, subsidiaries, parent and affiliated companies, and the officers, directors, employees, agents and servants of all of them.
 - That because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, Halliburton is unable to guarantee the effectiveness of the products, supplies or materials, nor the results of any treatment or service, nor the accuracy of any chart interpretation, research analysis, job recommendation or other data furnished by Halliburton. Halliburton personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Customer agrees that Halliburton shall not be liable for and Customer shall indemnify Halliburton against any damages arising from the use of such information.
 - That Halliburton warrants only title to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton's liability and Customer's exclusive remedy in any cause of action (whether in contract, tort, breach of warranty or otherwise) arising out of the sale or use of any products, supplies or materials is expressly limited to the replacement of such products, supplies or materials on their return to Halliburton or, at Halliburton's option, to the allowance to the Customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.
 - That Customer shall, at its risk and expense, attempt to recover any Halliburton equipment, tools or instruments which are lost in the well and if such equipment, tools or instruments are not recovered, Customer shall pay Halliburton its replacement cost unless such loss is due to the sole negligence of Halliburton. If Halliburton equipment, tools or instruments are damaged in the well, Customer shall pay Halliburton the lesser of its replacement cost or the cost of repair unless such damage is caused by the sole negligence of Halliburton. In the case of equipment, tools or instruments for marine operations, Customer shall, in addition to the foregoing, be fully responsible for any damage to any of Halliburton's equipment, tools or instruments which occurs at any time after delivery to Customer at the landing until returned to the landing, unless such loss or damage is caused by the sole negligence of Halliburton.
 - To waive the provisions of the Deceptive Trade Practices - Consumer Protection Act, to the extent permitted by law.
 - That this contract shall be governed by the law of the state where services are performed or materials are furnished.
 - That Halliburton shall not be bound by any changes or modifications in this contract, except where such change or modification is made in writing by a duly authorized executive officer of Halliburton.

RECEIVED
KANSAS CORPORATION COMMISSION

JAN 27 1992

CONSERVATION DIVISION
WICHITA, KS

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER'S AGENT.

SIGNED [Signature] CUSTOMER
DATE 11-17-90
TIME 2:00 A.M./P.M.

We certify that the Fair Labor Standards Act of 1938, as amended, has been complied with in the production of goods and/or with respect to services furnished under this contract.

CUSTOMER