

15-119-20812-0000

ORIGINAL

SIDE ONE

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

API NO. 15- 119-20812-0000

County Meade

NW NW SE Sec. 18 Twp. 33 Rge. 30 East West

2310 Ft. North from Southeast Corner of Section

2310 Ft. West from Southeast Corner of Section
(NOTE: Locate well in section plat below.)

Lease Name W. W. Langhofer Well # 1-18

Field Name Kismet East Morrow Field

Producing Formation Morrow

Elevation: Ground 2728 KB 2739

Total Depth 5750 PBDT 5732

Operator: License # 6528

Name: R. J. Patrick Operating Company

Address P O Box 1314

Liberal, Kansas

City/State/Zip 67905-1314

Purchaser: Elleron Oil Company

Operator Contact Person: R. J. Patrick

Phone (316.) 624-8483

Contractor: Name: Zenith Drilling Corp.

License: 5141

Wellsite Geologist: Bob Posey

Designate Type of Completion

New Well Re-Entry Workover

Oil SWD Temp. Abd.

Gas Inj Delayed Comp.

Dry Other (Core, Water Supply, etc.)

If OWWO: old well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

Drilling Method:

Mud Rotary Air Rotary Cable

06/25/90 07/06/90 07/14/90

Spud Date Date Reached TD Completion Date

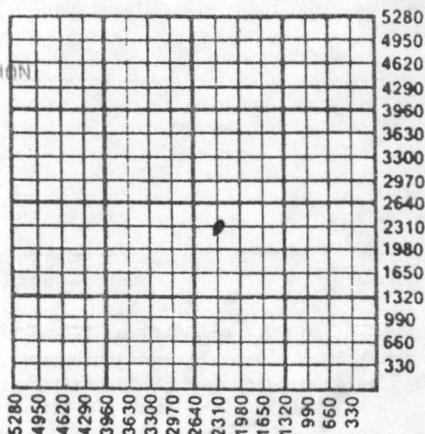
Amount of Surface Pipe Set and Cemented at 1524 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from 1524

feet depth to surface w/ 670 sx cmt.



RECEIVED
STATE CORPORATION COMMISSION
AUG 4 1990
CONSERVATION DIVISION
Wichita, Kansas

INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 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 drillers time log 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. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

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.

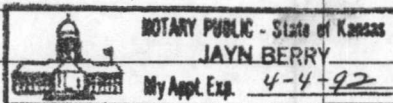
Signature RJ Patrick

Title Owner Date 08/13/90

Subscribed and sworn to before me this 13 day of August, 19 90.

Notary Public Jayn Berry

Date Commission Expires 04/04/92



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)

ORIGINAL

SIDE TWO

Operator Name R. J. Patrick Operating Company Lease Name W. W. Langhofer Well # 1-18

Sec. 18 Twp. 33 Rge. 30 East West County Meade

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	Formation Description <input checked="" type="checkbox"/> Log <input type="checkbox"/> Sample <table border="1"> <thead> <tr> <th>Name</th> <th>Top</th> <th>Bottom</th> </tr> </thead> <tbody> <tr><td>Toronto</td><td>4361</td><td>4480</td></tr> <tr><td>Lansing</td><td>4480</td><td>4958</td></tr> <tr><td>Kansas City</td><td>4958</td><td>5100</td></tr> <tr><td>Maraton</td><td>5100</td><td>5290</td></tr> <tr><td>Cherokee-Atoka</td><td>5290</td><td>5606</td></tr> <tr><td>Morrow</td><td>5606</td><td>5664</td></tr> <tr><td>Chester</td><td>5664</td><td>5750</td></tr> </tbody> </table>	Name	Top	Bottom	Toronto	4361	4480	Lansing	4480	4958	Kansas City	4958	5100	Maraton	5100	5290	Cherokee-Atoka	5290	5606	Morrow	5606	5664	Chester	5664	5750
Name	Top		Bottom																							
Toronto	4361		4480																							
Lansing	4480		4958																							
Kansas City	4958	5100																								
Maraton	5100	5290																								
Cherokee-Atoka	5290	5606																								
Morrow	5606	5664																								
Chester	5664	5750																								
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																									
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																									
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																									

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"	23	1524	HOWCO	670	2%CC
Production	7 7/8	4 1/2	11.60/10.5	5765	HOWCO POZ	150	18% salt 3/4 1% CFR2

PERFORATION RECORD		Acid, Fracture, Shot, Cement Squeeze Record
Shots Per Foot	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used) Depth
2	5676 to 5686	2000 gal of 7 1/2% FE 5631 to 5686
4	5652 to 5669	Fraced w/90 tons CO2 43000# of 20/40 sand & 270 Bbls. treated water. 5631 to 5686
2	5631 to 5638	

TUBING RECORD	Size 2 3/8	Set At 5631	Packer At none	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Date of First Production 07/14/90	Producing Method <input checked="" type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)
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Estimated Production Per 24 Hours	Oil Bbls. 3	Gas Mcf 1,450	Water Bbls. 0	Gas-Oil Ratio Gas Well	Gravity 38.5
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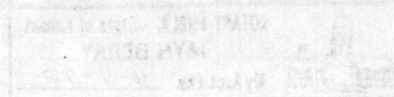
Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION

Open Hole Perforation Dually Completed Commingled

Other (Specify) _____

Production Interval _____





JOB SUMMARY

HALLIBURTON DIVISION Wichita, KS
 HALLIBURTON LOCATION Liberal, KS

BILLED ON TICKET NO. 990354

CUSTOMER: 2740101 LEASE: 1-18 WELL NO: 1-18 JOB TYPE: Production DATE: 6-25-90

WELL DATA

FIELD _____ SEC. 18 TWP. 33S RNG. 30W COUNTY Monte STATE KS

FORMATION NAME	TYPE	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING		<input checked="" type="checkbox"/>	<u>24</u>	<u>8 7/8</u>	<u>KB</u>	<u>1524</u>	<u>1500</u>
LINER							
TUBING							
OPEN HOLE				<u>12 1/4</u>	<u>KB</u>	<u>1524</u>	SHOTS/FT.
PERFORATIONS							
PERFORATIONS							
PERFORATIONS							

FORMATION THICKNESS _____ FROM _____ TO _____

INITIAL PROD. OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

PRESENT PROD. OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

COMPLETION DATE _____ MUD TYPE SW-1 MUD WT. 9.50

PACKER TYPE _____ SET AT _____

BOTTOM HOLE TEMP. _____ PRESSURE _____

MISC. DATA _____ TOTAL DEPTH 1524

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>6-25-90</u>	DATE <u>6-25-90</u>	DATE <u>6-25-90</u>	DATE <u>6-25-90</u>
TIME <u>7:30</u>	TIME <u>19:00</u>	TIME <u>19:00</u>	TIME <u>23:15</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>L.D. Covert</u>	<u>35730</u>	<u>Liberal, KS</u>
<u>R. Bellamy</u>	<u>15374 P</u>	<u>Liberal, KS</u>
<u>E. Smith</u>	<u>7649</u>	<u>Huyton, KS</u>
<u>D. Phillips</u>	<u>5502</u>	<u>Liberal, KS</u>

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG <u>SW</u>	<u>8 7/8</u>	<u>1 HDXO</u>
HEAD <u>QCPC</u>	<u>1</u>	<u>"</u>
PACKER		
OTHER		

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL-^oAPI

DISPL. FLUID _____ DENSITY _____ LB/GAL-^oAPI

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 _____ QTY. _____

OTHER _____

OTHER _____

DEPARTMENT CEMENT

DESCRIPTION OF JOB Oil Well Surface

JOB DONE THRU: TUBING CASING ANNULUS TBG/ANN.

CUSTOMER REPRESENTATIVE X R.P. Petric

HALLIBURTON OPERATOR Long D. ... COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
<u>L</u>	<u>545</u>	<u>HLC</u>	<u>P1</u>	<u>B</u>	<u>20% CC, 1/4" Flocc</u>	<u>2.06</u>	<u>123</u>
<u>T</u>	<u>125</u>	<u>Premium PL</u>	<u>P1</u>	<u>B</u>	<u>20% CC, 1/4" Flocc</u>	<u>1.32</u>	<u>14.8</u>

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 94.4

SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN _____ CEMENT SLURRY: BBL-GAL 200, 29.5

HYDRAULIC HORSEPOWER _____ TOTAL VOLUME: BBL-GAL _____

ORDERED _____ AVAILABLE _____ USED _____

AVERAGE RATES IN BPM _____

TREATING _____ DISPL. _____ OVERALL _____

CEMENT LEFT IN PIPE _____

FEET 44 REASON Show ST.

REMARKS _____

BULK MATERIALS DELIVERY AND TICKET CONTINUATION



FOR INVOICE AND TICKET NO. 990354

DATE 6-25-90	CUSTOMER ORDER NO.	WELL NO. AND FARM Langhoffer 1-18	COUNTY Meade	STATE KS
CHARGE TO R. J. Patrick Operating		OWNER Same	CONTRACTOR No. B856807	
MAILING ADDRESS		DELIVERED FROM Hugoton	LOCATION CODE 50335	PREPARED BY Rick Rawlins
CITY & STATE		DELIVERED TO Loc. SW/Plains, KS	TRUCK NO.	RECEIVED BY <i>Lonny D. [Signature]</i>

PRICE REFERENCE	SECONDARY REF. OR PART NO.	CODE		DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT	
		L	D		QTY.	MEAS.	QTY.	MEAS.			
504-050	516.00265	2	B	Premium Plus Cement	125	sk			7.08	885	00
504-120		2	B	Halliburton Light Cement	545	sk			6.29	3428	05
507-210	890.50071	2	B	Flocele blended 1/2 lb/sk	168	lb			1.30	218	40
509-406	890.50812	2	B	Calcium Chloride blended 2%	12	sk			26625	315	00

THIS IS NOT AN INVOICE

		Returned Mileage Charge	RECEIVED STATE CORPORATION COMMISSION AUG 14 1990		LOADED MILES	TON MILES		
			SERVICE CHARGE ON MATERIALS RETURNED			CU. FEET		
500-207		2 B	SERVICE CHARGE CONSERVATION DIVISION Wichita, Kansas			CU. FEET 705	1.10 775 50	
500-306		2 B	Mileage Charge	TOTAL WEIGHT 63138	LOADED MILES 50	TON MILES 1578.45	.75 1183 84	
No. B 856807		CARRY FORWARD TO INVOICE				SUB-TOTAL		

**WORK ORDER CONTRACT
AND PRE-TREATMENT DATA**

FORM 1908 R-7

A Division of Halliburton Company

ATTACH TO INVOICE & TICKET NO. 990243

DISTRICT LIBERAL, KS

DATE 7-5-90

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

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

WELL NO. 1-18 LEASE KANGHOFFEL SEC. 18 TWP. 33S RANGE 30W

FIELD _____ COUNTY MEADE STATE KS OWNED BY PATRICK

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.
FORMATION THICKNESS _____ FROM _____ TO _____	CASING	<u>10.5/11.6</u>	<u>1 1/2</u>	<u>KS</u>	<u>5966</u>	
PACKER: TYPE _____ SET AT _____	LINER					
TOTAL DEPTH _____ MUD WEIGHT _____	TUBING					
BORE HOLE _____	OPEN HOLE		<u>2 3/8</u>		<u>5966</u>	SHOTS/FT.
INITIAL PROD: OIL _____ BPD, H ₂ O _____ BPD, GAS _____ MCF	PERFORATIONS					
PRESENT PROD: OIL _____ BPD, H ₂ O _____ BPD, GAS _____ MCF	PERFORATIONS					
	PERFORATIONS					

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____

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

CEMENT 4 1/2" CASING w/ 150 lb 5/8" pipe - 1 1/2" salt, 4 1/2" ID, 3 1/2" O.D.

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

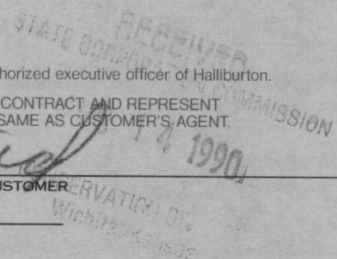
As consideration, the above-named Customer agrees: THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED

- a) To pay Halliburton in accord 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.
- b) 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:
 - 1. 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.
 - 2. Reservoir, formation, or well loss or damage, subsurface trespass or any action in the nature thereof.
 - 3. 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.
- c) 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.
- d) 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.
- e) 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 repairs 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 loss of or 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.
- f) To waive the provisions of the Deceptive Trade Practices - Consumer Protection Act, to the extent permitted by law.
- g) That this contract shall be governed by the law of the state where services are performed or materials are furnished.
- h) 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.

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

SIGNED _____ DATE 7-5-90 CUSTOMER _____



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.

TIME _____ A.M. P.M.

CUSTOMER

HALLIBURTON SERVICES JOB LOG

WELL NO. 1-18 LEASE LANGHOTTEN TICKET NO. 990213
CUSTOMER RJ PATRICK PAGE NO. _____
JOB TYPE JS LONG STAIN DATE 7-5-90

FORM 2013 R-2

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0630							Called
	1000							ON LOCATION, Rig LAMP
	1140							RUN 4 1/2 CASING
	1510							Casing in
	1520							Circulate w/ L.g
	1540							Hook up Pump Truck
	1547	6	35			250/50		Pump 150 sk 50/50 P2 w/ 12% salt, 4 1/2" casing, 1/2" thick
	1555							Shut down - Drop Plug - Clean lines
	1559	7				50/150		Displace
	1615	2	89			500/150		Plug Down
						0		Float Good - Job Complete

RECEIVED
STATE COMMISSION
AUG 14 1990
CONSERVATION DIVISION
Wichita, Kansas

CUSTOMER



HALLIBURTON SERVICES
Duncan, Oklahoma 73536
A Division of Halliburton Company

BULK MATERIALS DELIVERY AND TICKET CONTINUATION

FOR INVOICE AND TICKET NO. 990243

DATE 7-5-90	CUSTOMER ORDER NO.	WELL NO. AND FARM Langhoffer 1-18	COUNTY Meade	STATE KS
CHARGE TO R. J. Patrick Operating		OWNER Same	CONTRACTOR No. B856851	
MAILING ADDRESS		DELIVERED FROM Hugoton	LOCATION CODE 50335	PREPARED BY Rick Rawlins
CITY & STATE		DELIVERED TO Loc. SE/Kismet, KS	TRUCK NO.	RECEIVED BY EBASOLE

PRICE REFERENCE	SECONDARY REF. OR PART NO.	CODE		DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT
		L	D		QTY.	MEAS.	QTY.	MEAS.		
				150 cft Pozmix Cement 50/50						
504-043	516.00272	2	B	Premium Cement	75	sk			6.85	513 75
506-105	516.00286	2	B	Pozmix "A"	75	sk			3.91	293 25
506-121	516.00259	2	B	Halliburton Gel blended 2%	3	sk				NC
507-145	70.15329	2	B	CFR-2 blended .75%	95	lb			3.75	356 25
507-210	890.50071	2	B	Flocele blended 1/4 lb/sk	38	lb			1.30	49 40
509-968	516.00315	2	B	Granulated Salt blended 18%	1295	lb			.09	116 55

THIS IS NOT AN INVOICE

		Returned Mileage Charge	TOTAL WEIGHT	LOADED MILES	TON MILES			
			SERVICE CHARGE ON MATERIALS RETURNED					
500-207	2	B	SERVICE CHARGE			1.10	189 20	
500-306	2	B	Mileage Charge	TOTAL WEIGHT 14280	LOADED MILES 50	TON MILES 357	.75	
No. B 856851						CARRY FORWARD TO INVOICE	SUB-TOTAL	1786 50

RECEIVED
 COMMISSION
 1990
 CONSERVATION DIVISION
 Wichita, Kansas



HALLIBURTON SERVICES
Duncan, Oklahoma 73536

A Division of Halliburton Company

TICKET
NO. **990243-1**

FORM 1906 R-11

WELL NO. - FARM OR LEASE NAME 1-12 LANGHOFFEN		COUNTY MEADE	STATE KS	CITY / OFFSHORE LOCATION	DATE 7-5-90
CHARGE TO R.J. Patrick		OWNER SAME	TICKET TYPE (CHECK ONE) SERVICE <input checked="" type="checkbox"/> SALES <input type="checkbox"/>		NITROGEN JOB YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
ADDRESS		CONTRACTOR ZIMM	LOCATION 1 Langhoff, KS		CODE 50340
CITY, STATE, ZIP		SHIPPED VIA HONEY	FREIGHT CHARGES <input type="checkbox"/> PPD <input type="checkbox"/> COLLECT	LOCATION 2 HAYDON, KS	CODE 50335
WELL TYPE 01 02	WELL CATEGORY 01	WELL PERMIT NO.	DELIVERED TO LOCAL	LOCATION 3	CODE
TYPE AND PURPOSE OF JOB 005		B- 856851	ORDER NO.	REFERRAL LOCATION	

As consideration, the above-named Customer agrees to pay Halliburton in accord with the rates and terms stated in Halliburton's current price lists. Invoices 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 an attorney 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. These terms and conditions shall be governed by the law of the state where services are performed or equipment or materials are furnished.

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 FOR A PARTICULAR PURPOSE 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, product liability, 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.

PRICE REFERENCE	SECONDARY REF OR PART NO.	L O C.	ACCOUNT	DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT	
					QTY	MEAS	QTY	MEAS			
000-117				MILEAGE	25	MI.			2.35	58	75
001-016				PUMP CHARGE	5766	LF				1400	00
030-046				SW TOP PLUG	1	TA	1/2	IN		32	00

THIS IS NOT AN INVOICE

RECEIVED
STATE CONSERVATION COMMISSION
AUG 14 1990
CONSERVATION DIVISION
Wichita, Kansas

AS PER ATTACHED BULK MATERIAL DELIVERY TICKET NO. B- 856851

1786 15

WAS JOB SATISFACTORILY COMPLETED? _____

WAS OPERATION OF EQUIPMENT SATISFACTORY? _____

WAS PERFORMANCE OF PERSONNEL SATISFACTORY? _____

X RJ Patrick
CUSTOMER OR HIS AGENT (PLEASE PRINT)

X RJ Patrick
CUSTOMER OR HIS AGENT (SIGNATURE)

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.

John Ebersole
HALLIBURTON OPERATOR

HALLIBURTON APPROVAL

CUSTOMER

SUB TOTAL

APPLICABLE TAXES WILL BE ADDED ON INVOICE.
3296 90



JOB SUMMARY

HALLIBURTON DIVISION Wichita, Ks
 HALLIBURTON LOCATION LINCOLN, Ks

BILLED ON TICKET NO. 990243

CUSTOMER R. J. Payne
 LEASE Langhorne
 WELL NO. 1-12
 JOB TYPE 11.55
 DATE 7-5-90

WELL DATA

FIELD _____ SEC. 18 TWP. 33S RNG. S40 COUNTY MEANE STATE Ks

FORMATION NAME	TYPE	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING			<u>10.5/116</u>	<u>4 1/2</u>	<u>K2</u>	<u>5466</u>	
LINER							
TUBING							
OPEN HOLE				<u>7 7/8</u>		<u>5746</u>	SHOTS/FT.
PERFORATIONS							
PERFORATIONS							
PERFORATIONS							

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 _____

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>7-5-90</u>	DATE <u>7-5-90</u>	DATE <u>7-5-90</u>	DATE <u>7-5-90</u>
TIME <u>0630</u>	TIME <u>1000</u>	TIME <u>1519</u>	TIME <u>1615</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>Engelhardt</u>	<u>62693</u>	<u>Lincoln, Ks</u>
<u>C. Davis</u>	<u>71522</u>	<u>"</u>
<u>Phillips</u>	<u>60978</u>	<u>Hugoton, Ks</u>

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG		
HEAD		
PACKER		
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 _____

OTHER _____

DEPARTMENT COMPACT

DESCRIPTION OF JOB 1" long string

JOB DONE THRU: TUBING CASING ANNULUS TBG/ANN.

CUSTOMER REPRESENTATIVE X R. J. Payne

HALLIBURTON OPERATOR John F. ... COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
<u>1</u>	<u>150</u>	<u>50/50 - P/106</u>		<u>B</u>	<u>18% Sol, 1/4" Flacks, 1/4" CCR-2</u>	<u>1.31</u>	<u>14.56</u>

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ FRACTURE GRADIENT _____

SHUT-IN: INSTANT _____ 5-MIN. _____ 15-MIN. _____

ORDERED _____ AVAILABLE _____ USED _____

TREATING _____ DISPL. _____ OVERALL _____

FEET 42 REASON Solub. ...

SUMMARY

PRESLUSH: BBL.-GAL. _____ TYPE _____

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

TREATMENT: BBL.-GAL. _____ DISPL. BBL.-GAL. 85

CEMENT SLURRY: BBL.-GAL. 35

TOTAL VOLUME: BBL.-GAL. _____

VOLUMES

REMARKS

STATE _____ COMMISSION _____

AUG 14 1990

CONNECTION DIVISION
Wichita, Kansas

**WORK ORDER CONTRACT
AND PRE-TREATMENT DATA**

FORM 1908-R-7

A Division of Halliburton Company

ATTACH TO INVOICE & TICKET NO. 990354

DISTRICT Liberal, KS

DATE 6-25-90

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

THE SAME AS AN INDEPENDENT CONTRACTOR TO: R. S. Patrick Operating (CUSTOMER)
AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING

WELL NO. 1-18 LEASE Langhoffer SEC. 18 TWP. 33S RANGE 30W
FIELD _____ COUNTY Meade STATE KS OWNED BY SAME

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.	
FORMATION THICKNESS _____ FROM _____ TO _____	CASING	<u>N</u>	<u>24</u>	<u>8 3/8</u>	<u>KB-7</u>	<u>1526</u>	<u>1500</u>
PACKER: TYPE _____ SET AT _____	LINER						
TOTAL DEPTH <u>1524</u> MUD WEIGHT <u>9.5 #</u>	TUBING						
BORE HOLE _____	OPEN HOLE		<u>12 1/4</u>	<u>KB</u>	<u>1524</u>	SHOTS/FT.	
INITIAL PROD: OIL _____ BPD, H ₂ O _____ BPD, GAS _____ MCF	PERFORATIONS						
PRESENT PROD: OIL _____ BPD, H ₂ O _____ BPD, GAS _____ MCF	PERFORATIONS						
	PERFORATIONS						

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____

TREATMENT INSTRUCTIONS: TREAT THRU TUBING ANNULUS CASING TUBING/ANNULUS HYDRAULIC HORSEPOWER ORDERED _____
OIO Cement Surface CSC, 545 SK HLC (M) 2% CC, 1 1/4" Flocculant 123'
Followed by 125 SK Premium Plus 2% CC, 1 1/4" Flocculant 148' Displace sand
TOP PLY with Fresh WATER.

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 accord 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 repairs 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 loss of or 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.

AUG 14 1990

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

SIGNED R. S. Patrick CUSTOMER

DATE 6-25-90

TIME 19:00 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



FORM 1906 R-11

WELL NO. - FARM OR LEASE NAME #1-18 Langhoffer		COUNTY Meade	STATE KS.	CITY / OFFSHORE LOCATION	DATE 6-25-90
CHARGE TO R.S. Patrick Operating		OWNER R.S. Patrick Operating	TICKET TYPE (CHECK ONE) SERVICE <input checked="" type="checkbox"/> SALES <input type="checkbox"/>		NITROGEN JOB YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
ADDRESS		CONTRACTOR Zewith Dale	LOCATION 1 Liberal, KS		CODE 50340
CITY, STATE, ZIP		SHIPPED VIA Halliburton	FREIGHT CHARGES <input type="checkbox"/> PPD <input type="checkbox"/> COLLECT	LOCATION 2 Hamorton, KS	
WELL TYPE Oil	WELL CATEGORY 03 wildcat	WELL PERMIT NO.	DELIVERED TO Lor. S. Plains	LOCATION 3	
TYPE AND PURPOSE OF JOB 010 cement surface CSG.		B-856807	ORDER NO.	REFERRAL LOCATION	

As consideration, the above-named Customer agrees to pay Halliburton in accord with the rates and terms stated in Halliburton's current price lists. Invoices 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 an attorney 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. These terms and conditions shall be governed by the law of the state where services are performed or equipment or materials are furnished.

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 FOR A PARTICULAR PURPOSE 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, product liability, 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.

PRICE REFERENCE	SECONDARY REF OR PART NO.	L O C.	ACCOUNT	DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT
					QTY	MEAS	QTY	MEAS		
000-117		1		MILEAGE	35	mi.	1	EA	2.35	82.25
001-016		1		PMD CHG.	1526	FT.	8	hrs		945.00
030-018		1		Saw top plug	8 1/2	in	1	EA		100.00
<p style="font-size: 2em; opacity: 0.5;">NOT THIS IS AN INVOICE</p>										

RECEIVED
STATE CORPORATION COMMISSION
AUG 14 1990
CONSERVATION DIVISION
Wichita, Kansas

AS PER ATTACHED BULK MATERIAL DELIVERY TICKET NO. B-856807 6805.79

WAS JOB SATISFACTORILY COMPLETED? _____

WAS OPERATION OF EQUIPMENT SATISFACTORY? _____

WAS PERFORMANCE OF PERSONNEL SATISFACTORY? _____

X R. J. Patrick
CUSTOMER OR HIS AGENT (PLEASE PRINT)

X [Signature]
CUSTOMER OR HIS AGENT (SIGNATURE)

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.

[Signature]
HALLIBURTON OPERATOR

HALLIBURTON APPROVAL _____
CUSTOMER

SUB TOTAL 7933.04

APPLICABLE TAXES WILL BE ADDED ON INVOICE.

PHONE
316 / 624-7340

DEAN'S TESTERS INC.

P. O. BOX 1182
LIBERAL, Ks. 67901

SEC. 18
TWP. 33S
ROE. 30W
COUNTY Meade
STATE Kansas
TICKET NO. 3231

R. J. Patrick Operating Co. OPERATOR
Langhoffer #1 WELL NAME & NO.
2 TEST #
4316' - 4374' TEST INTERVAL

Formation Toronto Type Test Hook Straddle Date July 4, 1990

Anchor Length and Size 58'; 30' X 6"OD-D.C., 28' X 4 1/2"OD-Perf. Total Depth 5750'

Packer Depths 4311' & 4316' Below Straddle 4374' Choke Size Bottom 5/8" Surface 1/4"

Equipment Run 3 Packers, Jars, Straddle Assembly, Hook Assembly, Sfty. jnt., Circ. sub.

Lengths: Tool 114' D. P. 4125' ID 3.8" Wt. P. _____ ID _____ D. C. 180' ID 2.25"

Mud Type Chemical Vls. 55 Wt. 9.1 Wtr. Loss 9.0 Cl. 3,000 ppm

Recorders:

Depth <u>4324'</u>	Make <u>Kuster</u>	Cap. <u>6400</u>	Ser. No. <u>13373</u>	Inside
Depth <u>4329'</u>	Make <u>Kuster</u>	Cap. <u>6450</u>	Ser. No. <u>6064</u>	Outside
Depth <u>4382'</u>	Make <u>Kuster</u>	Cap. <u>6700</u>	Ser. No. <u>3472</u>	Below Straddle

Pressures:

Tool on Bottom @ <u>6:03 P.M.</u>	Initial Hydrostatic <u>2087</u> psi
Initial Flow <u>15</u> Min.	IFP <u>77</u> psi to <u>80</u> psi
Initial Shut-In <u>24</u> Min.	ISIP <u>1102</u> psi
Final Flow <u>20</u> Min.	FFP <u>80</u> psi to <u>74</u> psi
Final Shut-In <u>39</u> Min.	FSIP <u>1067</u> psi
Tool off Bottom @ <u>7:48 P.M.</u>	Final Hydrostatic <u>2087</u> psi Temp. <u>108</u>

Blow: Very weak blow died in 12 min. on I.F.P., No blow on F.F.P.

Recovery: 20' Mud.

Gas Flow:

Sampler Data:

Pressure _____ PSI

Gas _____ cu. ft.

Total Fluid _____ cc

Oil _____ cc

Water _____ cc

Mud _____ cc

Oil Gravity _____ @ _____ °F.

Gas/Oil Ratio _____

Remarks: Hook set @ 4388'

Tester Dean Blagrave Witnessed by: Bob Posey

Pressure Break Down

Test ticket no. 3231 Recorder no. 13373 Capacity 6400 Rec. Depth. 4342'

Initial Flow pressure <u>77</u> to <u>80</u>	Time	Given <u>15</u>	Computed <u>15</u>
Initial Closed in pressure <u>1102</u>		<u>30</u>	<u>24</u>
Final Flow pressure <u>80</u> to <u>74</u>		<u>20</u>	<u>20</u>
Final Closed-in pressure <u>1067</u>		<u>40</u>	<u>39</u>
Initial Hydrostatic pressure <u>2087</u>	Final Hydrostatic press. <u>2087</u>	Temp <u>108</u>	

Initial Flow Press.

Minutes	Press
0	77
5	77
10	77
15	80
20	
25	
30	
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
85	
90	
95	
100	
105	
110	
115	
120	

Initial Closed in Press.

Minutes	Press
0	80
3	454
6	654
9	803
12	903
15	974
18	1032
21	1077
24	1102
27	
30	
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	
63	
66	
69	
72	
75	
78	
81	
84	
87	
90	
93	
96	
99	
102	
105	
108	
111	
114	
117	
120	

Final Flow Press

Minutes	Press
0	--
5	80
10	77
15	74
20	74
25	
30	
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
85	
90	
95	
100	
105	
110	
115	
120	
125	
130	
135	
140	
145	
150	
155	
160	
165	
170	
175	
180	

Final Closed in Press.

Minutes	Press
0	74
3	219
6	416
9	541
12	654
15	741
18	816
21	870
24	912
27	954
30	993
33	1022
36	1048
39	1067
42	
45	
48	
51	
54	
57	
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63	
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72	
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81	
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90	
93	
96	
99	
102	
105	
108	
111	
114	
117	
120	

PHONE
316 / 624-7340

DEAN'S TESTERS INC.

P. O. BOX 1182
LIBERAL, Ks. 67901

Formation Marmaton Type Test Conventional Date July 2, 1990
Anchor Length and Size 22' X 4 1/2" OD Total Depth 5132'
Packer Depths 5105' & 5110' Below Straddle _____ Choke Size Bottom 5/8" Surface 1/4"
Equipment Run 2 Packers, Jars, Safty joint, Circ. sub.

Lengths: Tool 52' D. P. 4470' ID 3.8" Wt. P. _____ ID _____ D. C. 531' ID 2.25"
Mud Type Chemical Vis. 41 Wt. 9.0 Wtr. Loss 9.6 Cl. 3,000 ppm

Recorders:
Depth 5118' Make Kuster Cap. 6400 Ser. No. 13373 Inside
Depth 5127' Make Kuster Cap. 6450 Ser. No. 6064 Outside
Depth _____ Make _____ Cap. _____ Ser. No. _____ Below Straddle

Pressures:

Tool on Bottom @ 5:43 A.M. Initial Hydrostatic 2432 psi
Initial Flow 20 Min. IFP 96 psi to 141 psi
Initial Shut-In 39 Min. ISIP 1591 psi
Final Flow 60 Min. FFP 225 psi to 325 psi
Final Shut-In 60 Min. FSIP 1524 psi
Tool off Bottom @ 8:43 A.M. Final Hydrostatic 2419 psi Temp. 117

Blow: Weak increasing to strong on both flow periods.

Recovery: 1550' Gas in pipe. 700' Total Fluid. (3.64 bbl.)
70' Oil & Gas Cut Mud. (0.94 bbl.)
120' Oil & Gas Cut Muddy Saltwater. (0.51 bbl.)
510' Gas Cut Salt Water. (2.19 bbl.) 121,000 PPM Cl.
Rw. - .03 @ 117° F.

Gas Flow:

Sampler Data:

Pressure _____ PSI
Gas _____ cu. ft.
Total Fluid _____ cc
Oil _____ cc
Water _____ cc
Mud _____ cc
Oil Gravity _____ @ _____ °F.
Gas/Oil Ratio _____

Remarks:

Tester Dean Blagrave Witnessed by: Bob Posey

SEC. 18
TWP. 33S
RGE. 30W
COUNTY Meade
STATE Kansas
TICKET NO. 3229

R. J. Patrick Operating Co.
OPERATOR
Langhoffer #1
WELL NAME & NO.
TEST # 1
TEST INTERVAL 5110' - 5132'

Pressure Break Down

Test ticket no. 3229 Recorder no. 13373 Capacity 6400 Rec. Depth. 5118'

Initial Flow pressure <u>96</u> to <u>141</u>	Time	Given <u>20</u>	Computed <u>20</u>
Initial Closed in pressure <u>1591</u>		<u>40</u>	<u>39</u>
Final Flow pressure <u>225</u> to <u>325</u>		<u>60</u>	<u>60</u>
Final Closed-in pressure <u>1524</u>		<u>60</u>	<u>60</u>
Initial Hydrostatic pressure <u>2432</u>		Final Hydrostatic press. <u>2419</u>	Temp <u>117</u>

Initial Flow Press.		Initial Closed in Press.		Final Flow Press		Final Closed in Press.	
Minutes	Press	Minutes	Press	Minutes	Press	Minutes	Press
0	--	0	141	0	--	0	325
5	96	3	922	5	225	3	709
10	103	6	1221	10	232	6	1083
15	119	9	1334	15	241	9	1221
20	141	12	1408	20	254	12	1289
25		15	1453	25	274	15	1340
30		18	1488	30	283	18	1379
35		21	1514	35	293	21	1405
40		24	1536	40	300	24	1424
45		27	1553	45	306	27	1443
50		30	1562	50	312	30	1456
55		33	1572	55	319	33	1469
60		36	1581	60	325	36	1479
65		39	1591	65		39	1489
70		42		70		42	1495
75		45		75		45	1501
80		48		80		48	1508
85		51		85		51	1514
90		54		90		54	1517
95		57		95		57	1520
100		60		100		60	1524
105		63		105		63	
110		66		110		66	
115		69		115		69	
120		72		120		72	
		75		125		75	
		78		130		78	
		81		135		81	
		84		140		84	
		87		145		87	
		90		150		90	
		93		155		93	
		96		160		96	
		99		165		99	
		102		170		102	
		105		175		105	
		108		180		108	
		111				111	
		114				114	
		117				117	
		120				120	