

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 # 5952
Name: Amoco Production Company
Address P.O. Box 800, Rm. 1833
City/State/Zip Denver, CO 80201

Purchaser: _____
Operator Contact Person: J. A. Victor
Phone (303) 830-4009

Contractor: Name: Service Drilling
License: 5987

Wellsite Geologist: _____

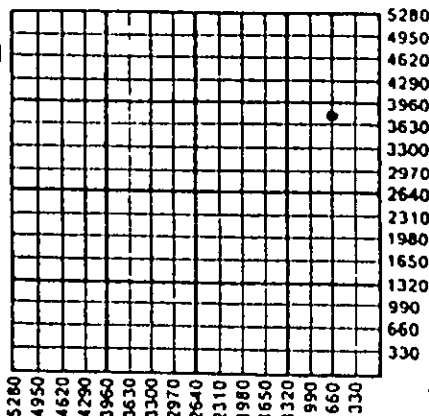
Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD Temp. Abd.
 Gas Inj Delayed Comp.
 Dry Other (Core, Water Supply, etc.)

If OWMO: old well info as follows:
Operator: N/A
Well Name: _____
Comp. Date _____ Old Total Depth _____

Drilling Method:
 Mud Rotary Air Rotary Cable
12/11/90 12/20/90 12/22/90
Spud Date Date Reached TD Completion Date

API NO. 15- 071-20527-0000
County Greeley
N/2 SE NE sec. 26 Twp. 18 Rge. 43 East West
3660 Ft. North from Southeast Corner of Section
660 Ft. West from Southeast Corner of Section
(NOTE: Locate well in section plat below.)

Lease Name Settles Well # 3
Field Name Wildcat
Producing Formation N/A
Elevation: Ground 3859' KB 3871''
Total Depth 5275' PBTD _____



Amount of Surface Pipe Set and Cemented at 523 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.

RECEIVED
STATE CORPORATION COMMISSION
MAR 26 1991
3-26-91
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 C. Burton
Title Sr. Admin. Analyst Date 3/21/91
Subscribed and sworn to before me this 21 day of March, 19 91
Notary Public Julie A. Victor
Date Commission Expires 4/7/94

K.C.C. OFFICE USE ONLY		
F	<input type="checkbox"/>	Letter of Confidentiality Attached
C	<input checked="" type="checkbox"/>	Wireline Log Received
C	<input type="checkbox"/>	Drillers Timelog Received
Distribution		
<input checked="" type="checkbox"/>	KCC	<input type="checkbox"/> SWD/Rep
<input type="checkbox"/>	KGS	<input type="checkbox"/> Plug
		<input type="checkbox"/> NGPA
		<input type="checkbox"/> Other
		(Specify)

SIDE TWO

Operator Name Amoco Production Company Lease Name Settles Well # 3
 Sec. 26 Twp. 18 Rge. 43 East County Greeley
 West

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken (Attach Additional Sheets.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 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	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: center;">Formation Description</th> </tr> <tr> <th style="width:60%;"></th> <th style="width:20%; text-align: center;">Top</th> <th style="width:20%; text-align: center;">Bottom</th> </tr> </thead> <tbody> <tr> <td>Stone Corral</td> <td style="text-align: center;">2470'</td> <td></td> </tr> <tr> <td>Chase</td> <td style="text-align: center;">2680'</td> <td></td> </tr> <tr> <td>Pennsylvanian</td> <td style="text-align: center;">3495'</td> <td></td> </tr> <tr> <td>Morrow</td> <td style="text-align: center;">5015'</td> <td></td> </tr> <tr> <td>Lower Morrow</td> <td style="text-align: center;">5132'</td> <td></td> </tr> </tbody> </table>	Formation Description				Top	Bottom	Stone Corral	2470'		Chase	2680'		Pennsylvanian	3495'		Morrow	5015'		Lower Morrow	5132'	
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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#	523'	65/35 Lite Class C	175 100	CACL 2% CACL 2%
PERFORATION RECORD				Acid, Fracture, Shot, Cement Squeeze Record			
Shots Per Foot	Specify Footage of Each Interval Perforated			(Amount and Kind of Material Used)		Depth	
TUBING RECORD				Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
	Size	Set At	Packer At				
N/A							
Date of First Production	Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)						
N/A							
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity		

Disposition of Gas:	METHOD OF COMPLETION	Production Interval
<input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease (If vented, submit ACO-18.)	<input type="checkbox"/> Open Hole <input type="checkbox"/> Perforation <input type="checkbox"/> Dually Completed <input type="checkbox"/> Commingled <input type="checkbox"/> Other (Specify) _____	_____

FORM 1906 R-11

WELL NO. — FARM OR LEASE NAME 3 Settles		COUNTY Greeley	STATE Ks	CITY / OFFSHORE LOCATION	DATE 12-21-90
CHARGE TO Ampco Production Co		OWNER Ampco Prod. Co	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 Service Drilg. Co	LOCATION 1 LAMAR, CO		CODE 25615
CITY, STATE, ZIP		SHIPPED VIA COTEK	FREIGHT CHARGES <input type="checkbox"/> PPD <input type="checkbox"/> COLLECT	LOCATION 2 CODE	
WELL TYPE	WELL CATEGORY	WELL PERMIT NO. B-815243	DELIVERED TO E. Towner, Co.	LOCATION 3 CODE	
TYPE AND PURPOSE OF JOB		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 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	60	mi			2.35	141.00
000-118				Mileage Surcharge	40	mi			1.90	76.00
009-019				Pump Charge	2565	ST	8	HAS		1040.00

NOT
APPROVED

RECEIVED
STATE CORPORATION COMMISSION

MAR 26 1991

CONSERVATION DIVISION
Wichita, Kansas

AS PER ATTACHED BULK MATERIAL DELIVERY TICKET NO. **B-815243**

WAS JOB SATISFACTORILY COMPLETED? _____

WAS OPERATION OF EQUIPMENT SATISFACTORY? _____

WAS PERFORMANCE OF PERSONNEL SATISFACTORY? _____

X **Roy D. Terbrug**
CUSTOMER OR HIS AGENT (PLEASE PRINT)

X _____
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.

H. D. Towner
HALLIBURTON OPERATOR

HALLIBURTON APPROVAL _____

CUSTOMER

2302 66
5511 66

SUB TOTAL

APPLICABLE TAXES WILL BE ADDED ON INVOICE.

HALLIBURTON SERVICES
JOB LOG

WELL NO. 3 LEASE Settles TICKET NO. 41132
 CUSTOMER Amoco Prod. Co. PAGE NO. 1
 JOB TYPE PT ORIGINAL DATE 12-22-90

FORM 2013 R-2

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1700	Temp	-10					Called out Unit #65751
	2000	Wind (h.1)	-48					Request ONLOC
	1930							ONLOC, Rig Engine quit
	2250							1st Plug 50SK @ 2575 FT
	2305	7	105					START Pump Water Ahead (WMA)
	2305							FINISH WATER AHEAD
	2309	4	16					START MIX CEMENT
	2309							FINISH MIX CEMENT
	2315	5	32					START WATER DISPL.
	2320							FINISH DISPL. Plug Down + Balance
	2354	5	5					Rig Pulling Pipe
	2355							2nd Plug 20SK @ 1700 FT
	2400	5	26					Pump Water Ahead
	2400							FINISH MIX CEMENT
	0015	5	17					START DISPL.
	0020							FINISH DISPL. Plug Down + Balance
	0112	5	5					Rig Pulling Pipe
	0113							3RD Plug 50SK @ 300 FT
	0117	4	16					Pump Water Ahead
	0117							START MIX CEMENT
	0118	6.5	6.5					FINISH MIX CEMENT
	0120							START DISPL.
	0133	5	5					FINISH DISPL. Plug Down + Balance
	0134							Rig Pulling Pipe
	0136	6.5	13					4TH Plug 40SK @ 550 FT
	0136							Pump Water Ahead
	0137	4 1/2	4 1/2					START MIX CEMENT
	0140							FINISH MIX CEMENT
								START DISPLACEMENT
								FINISH DISPLACEMENT
								Rig Pulling Pipe
								Dump 20 SKS For Top
								- Rathole
								Job Complete

STATE COMMISSION
 MAR 26 1991
 COMMISSION DIVISION
 Wichita, Kansas

THANK YOU

CUSTOMER

ORIGINAL

DISTRICT 11-10-101

DATE 12-22-90

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

WELL NO. 3 LEASE S.H. 1-5 SEC. _____ TWP. _____ RANGE _____

FIELD W. 1-8-CAT COUNTY Greene STATE Ks OWNED BY AMOCO Prod. Co

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

FORMATION NAME _____ TYPE _____ FROM _____ TO _____ Packer: TYPE _____ SET AT _____ TOTAL DEPTH _____ MUD WEIGHT _____ BORE HOLE _____ INITIAL PROD: OIL _____ BPD, H2O _____ BPD, GAS _____ MCF PRESENT PROD: OIL _____ BPD, H2O _____ BPD, GAS _____ MCF

Table with columns: CASING, LINER, TUBING, OPEN HOLE, PERFORATIONS. Includes handwritten data: TUBING 1 11/2, OPEN HOLE 4 2 7/8, PERFORATIONS 2595.

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____

TREATMENT INSTRUCTIONS: TREAT THRU TUBING [] ANNULUS [] CASING [] TUBING/ANNULUS [] HYDRAULIC HORSEPOWER ORDERED [] 1st Plug to Abandon 1st Plug 500K @ 2595 FT 2nd Plug 500K @ 1500 FT, 3rd Plug 500K @ 500 FT 4th Plug 400K @ 250 FT, Dump Top + Bottom 1 Plug

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.
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 or leased by Customer, and/or the well owner (if different from Customer) including but not limited to, surface and subsurface damage.
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.
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.
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.
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.
f) To waive the provisions of the Deceptive Trade Practices of 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.
h) That Halliburton shall not be bound by any changes or modifications to the contract unless such changes or modifications are made in writing by a duly authorized executive officer of Halliburton.

RECEIVED STATE COMMISSION

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

MAR 26 1991

SIGNED _____ DATE 12-22-90 TIME 2:00 A.M./P.M. CUSTOMER

We certify that the Fair Labor Standards Act of 1938, as amended, has been complied with in the price of goods or 1/3 with respect to services furnished under this contract.

CUSTOMER

BULK MATERIALS DELIVERY AND ORIGINAL TICKET CONTINUATION

HALLIBURTON SERVICES
Durham, Oklahoma 72835

A Division of Halliburton Company

FOR INVOICE AND
TICKET NO.

911/32

DATE 12-21-90		CUSTOMER ORDER NO.		WELL NO. AND FARM Settles # 3		COUNTY Greeley		STATE Ks.	
CHARGE TO Amoco Prod. Co.				OWNER Amoco Prod. Co.		CONTRACTOR Service Drlg.		No. B815243	
MAILING ADDRESS				DELIVERED FROM Lamar, Co.		LOCATION CODE 25615		PREPARED BY F. E. Painter	
CITY & STATE				DELIVERED TO Loc. E. Towner, Co.		TRUCK NO. 4149-5070		RECEIVED BY <i>H. D. Moore</i>	

PRICE REFERENCE	SECONDARY REF. OR PART NO.	CODE		DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT	
		L	D		QTY.	MEAS.	QTY.	MEAS.			
314-118				Halliburton Light Cement	240	sks			6.16	1,478.40	
500-307				Mileage Surcharge	663.84	tonMile			.10	66.38	

STATE OF KANSAS
MAR 2 6 1991
COMMISSION

		Returned Mileage Charge	TOTAL WEIGHT	LOADED MILES	TON MILES		
		SERVICE CHARGE ON MATERIALS RETURNED			CU FEET		
500-207		SERVICE CHARGE			CU FEET 240	1.10	264. 00
500-306		Mileage Charge	22,128 TOTAL WEIGHT	60 LOADED MILES	663.84 TON MILES	.75	497.88
No B 815243		CARRY FORWARD TO INVOICE				SUB TOTAL	2,306.66

CUSTOMER: Amoco Prod. Co.
LEASE: Settles
WELL NO: 3
JOB TYPE: PTA
DATE: 12-21-90

WELL DATA

FIELD: Wildcat SEC: _____ TWP: _____ RNG: _____ COUNTY: Greeley STATE: KS

FORMATION NAME: _____ TYPE: ORIGINAL

NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING					
LINER					
TUBING	<u>U</u>	<u>16.6</u>	<u>4 1/2</u>	<u>KB</u>	<u>2595</u>
OPEN HOLE		<u>7 7/8</u>		<u>2275</u>	SHOTS/FT.
PERFORATIONS					
PERFORATIONS					
PERFORATIONS					

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 _____

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
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 _____

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>12-28-90</u> TIME <u>1700</u>	DATE <u>12-21-90</u> TIME <u>0930</u>	DATE <u>2-21-90</u> TIME <u>2250</u>	DATE _____ TIME _____

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>G.D. MOORE</u> <u>46006</u>	<u>40079</u>	<u>LAMAR, KS</u>
<u>J. CRAWFORD</u> <u>D-7877</u>	<u>3801</u> <u>6595</u>	<u>LAMAR, KS</u>
<u>FIE. MAINTOR</u> <u>44366</u>	<u>4149</u> <u>5070</u>	<u>LAMAR, KS</u>

DEPARTMENT: Cement

DESCRIPTION OF JOB: Plug To Abandon

JOB DONE THRU: TUBING CASING ANNULUS TBG/ANN.

CUSTOMER REPRESENTATIVE: X

HALLIBURTON OPERATOR: J.D. Moore

COPIES REQUESTED: _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
<u>1</u>	<u>512</u>	<u>HLC</u>	<u>SW</u>	<u>B</u>		<u>1.95</u>	<u>12.6</u>
<u>2</u>	<u>812</u>	<u>N.I.C.</u>	<u>SW</u>	<u>B</u>		<u>1.95</u>	<u>12.6</u>
<u>3</u>	<u>512</u>	<u>"</u>	<u>"</u>	<u>"</u>		<u>"</u>	<u>"</u>
<u>4</u>	<u>412</u>	<u>"</u>	<u>"</u>	<u>"</u>		<u>"</u>	<u>"</u>
<u>5</u>	<u>712</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>Dunlop Ground</u>		

SUMMARY

CIRCULATING _____ DISPLACEMENT _____ PRESLUSH: BBL-GAL. _____ TYPE _____
BREAKDOWN _____ MAXIMUM _____ 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. See Job 5107
TOTAL VOLUME: BBL-GAL. _____

ORDERED _____ AVAILABLE _____ USED _____
AVERAGE RATES IN BPM _____

TREATING _____ DISPL. _____ OVERALL _____
CEMENT LEFT IN PIPE _____

FEET _____ REASON _____

REMARKS: Thank You For Calling
HALLIBURTON

CEMENTING SERVICE REPORT



DOWELL SCHLUMBERGER INCORPORATED

TREATMENT NUMBER 02-12-80 DATE 12/12/90
 RANGE DS DISTRICT 02-12

08-496 PRINTED IN U.S.A.

WELL NAME AND NO. SETTLERS # 3 LOCATION (LEGAL) SEC-26-185-43W
 FIELD-POOL _____ FORMATION _____
 COUNTY/PARISH WATER CREEK STATE Ks API. NO. _____
 NAME SERVICE DRILLING # 3 (AMOCO)
 AND _____
 ADDRESS _____
 ZIP CODE _____

RIG NAME: SERVICE DRILLING # 3
 WELL DATA: BIT SIZE 1 7/8 CSG/Liner Size 8 7/8 BOTTOM _____ TOP _____
 TOTAL DEPTH _____ WEIGHT 2410
 ROT CABLE FOOTAGE 525
 MUD TYPE _____ GRADE F-35
 BHST BHCT THREAD 820
 MUD DENSITY _____ LESS FOOTAGE SHOE JOINT(S) 481 TOTAL _____
 MUD VISC. _____ Disp. Capacity 30.6

SPECIAL INSTRUCTIONS EQUIPMENT: MATERIALS
To DO 8 7/8 SURFACE CASING
 IS CASING/TUBING SECURED? YES NO
 LIFT PRESSURE 210 PSI CASING WEIGHT - SURFACE AREA (3.14 x R²) _____
 PRESSURE LIMIT _____ PSI BUMP PLUG TO 500 OVER PSI
 ROTATE _____ RPM RECIPROCATATE _____ FT No. of Centralizers 2

NOTE: Include Footage From Ground Level To Head In Disp. Capacity
 Float TYPE 1 1/2 EXT TYPE _____
 DEPTH 481 DEPTH _____
 Shoe TYPE TEXAS PATTERN TYPE _____
 DEPTH 525 DEPTH _____
 Head & Plugs TBG D P SQUEEZE JOB
 Double SIZE _____ TOOL TYPE _____
 Single WEIGHT DEPTH _____
 Swage GRADE TAIL PIPE: SIZE _____ DEPTH _____
 Knockoff THREAD TUBING VOLUME _____ Bbls
 TOP OR NEW USED CASING VOL. BELOW TOOL _____ Bbls
 BOT OR DEPTH TOTAL _____ Bbls
 ANNUAL VOLUME _____ Bbls

TIME SCHEDULED FOR ARRIVE ON LOCATION LEFT LOCATION
 TIME 12:00 DATE 12/12/90 TIME 2400 DATE 12/12/90 TIME 0400 DATE 12/12/90

TIME	PRESSURE		VOLUME PUMPED BBL		JOB SCHEDULED FOR			SERVICE LOG DETAIL
	TBG OR D/P	CASING	INCREMENT	CUM	INJECT RATE	FLUID TYPE	FLUID DENSITY	
0001 to 2400								PRE-JOB SAFETY MEETING
02:24		90	5	5	5	H2O	8.34	START H2O AHEAD
02:25		150	69	5	5	CAT	12.3	START LEAD CAT
02:38		130	24	74	5	CAT	14.8	START TAIL CAT
02:42		40		98				SHUTDOWN - DRIP PLUG
02:44		50	31	98	4	H2O	8.34	START DISPLACEMENT
02:48		130		129	4	CAT	12.3	CAT TO SURFACE
02:50		90			2	H2O	8.34	LOWER RATE
02:52		110			1	H2O	8.34	LOWER RATE
02:54		670		129	0	H2O	8.34	BUMP PLUG
02:55		0						CHECK FLOAT - FLOAT HOLDING
02:56								END JOB

RECEIVED
 STATE CORP. AND COMMISSION
 MAR 26 1991
 CONSERVATION DIVISION
 Wichita, Kansas

REMARKS _____

SYSTEM CODE	NO OF SACKS	YIELD CU FT/SK	COMPOSITION OF CEMENTING SYSTEMS				SLURRY MIXED	
							BBLs	DENSITY
1	175	2.15	35% O/S FORT + 6% D20 + 2% SI + 14% K D20				67	12.3
2	100	1.32	CLASS C + 2% SI + 14% K D20				24	14.8
3								
4								
5								
6								

BREAKDOWN FLUID TYPE _____ VOLUME _____ DENSITY _____ PRESSURE _____ MAX. _____ MIN. _____
 HESITATION SG RUNNING SG CIRCULATION LOST YES NO Cement Circulated To Surf YES NO 9 5/8 15 Bbls
 BREAKDOWN PSI FINAL _____ PSI DISPLACEMENT VOL 30.6 Bbls TYPE OF WELL OIL STORAGE BRINE WATER
 GAS INJECTION WILDCAT
 Washed Thru Peris YES NO TO _____ FT MEASURED DISPLACEMENT WIRELINE
 PERFORATIONS _____ CUSTOMER REPRESENTATIVE _____ DS SUPERVISOR _____

DOWELL SCHLUMBERGER INCORPORATED

P.O. BOX 4378 HOUSTON, TEXAS 77210

SPECIAL HANDLING

OILFIELD SERVICES
INDUSTRIAL SERVICES

ORIGINAL

DSI SERVICE LOCATION NAME AND NUMBER
03-12

DSI SERVICE ORDER RECEIPT AND INVOICE NO.
03-12-3380

CUSTOMER NUMBER CUSTOMER P.O. NUMBER TYPE SERVICE CODE BUSINESS CODES
211

CUSTOMER'S NAME: SERVICE DRILLING
ADDRESS:
CITY, STATE AND ZIP CODE:

WORKOVER NEW WELL OTHER W N API OR IC NUMBER

IMPORTANT SEE OTHER SIDE FOR TERMS & CONDITIONS
ARRIVE LOCATION MO. DAY YR. TIME
12 12 90 2400

DSI will furnish and Customer shall purchase materials and services required in the performance of the following SERVICE INSTRUCTIONS or DSI INDUSTRIAL SERVICE CONTRACT NO. in accordance with the terms and conditions as printed on the reverse side of this form.

SERVICE ORDER RECEIPT
I certify that the materials and services listed were authorized and received and all services performed in a workmanlike manner and that I have the authority to accept and execute this document.

EQUIPMENT & MATERIALS TO DO 8 3/8 SURF. CASING
115 EKS 25/65 POC + 6% DDD + 70% SI + 1/4 #PK DDD
100 EKS CLASS C + 20% SI + 1/4 #PK DDD

JOB COMPLETION MO. DAY YR. TIME
12 2 90 100

STATE: KS CODE: COUNTY/PARISH: ~~JACKSON~~ GARRETT CODE: CITY:

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE

WELL NAME AND NUMBER / JOB SITE: ~~WELL #3~~ LOCATION AND POOL / PLANT ADDRESS: SHIPPED VIA: DS

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
059200-002	M. TRAKE CHG.	M.	100	2.65	265.00
102871-005	PUMP CHG.	EA.	1	505.00	505.00
049102-000	DELIVERY CHG.	T/M.	1300	0.80	1040.00
049100-000	SERVICE CHG.	#	300	1.15	345.00
059697-000	PACK CHG.	EA.	1	125.00	125.00
040003-000	D903 CLASS C	SK	214	7.75	1658.50
045008-000	D35 LITE POC 3	SK	61	3.50	213.50
045014-050	DDO BENTONITE	#	914	0.16	146.24
067005-100	SI CACL2	#	493	0.34	167.62
044003-025	DDO CELLULOSE FLAKE	#	69	1.45	100.05
050001-085	8 3/8 TEAS PATERN GUIDE SHOE	EA.	1	215.00	215.00
053003-085	8 3/8 INSERT FLOAT	EA.	1	370.00	370.00
056011-085	8 3/8 CENTRALIZERS	EA.	2	72.00	144.00
056704-085	8 3/8 TOP RUBBER PLUG	EA.	1	150.00	150.00

RECEIVED
STATE CORPORATION COMMISSION
MAR 26 1991
CONSERVATION DIVISION
Wichita, Kansas

SUB TOTAL: FIELD EST. # 5394.91

LICENSE/REIMBURSEMENT FEE

REMARKS: THANKS FOR USING DS !!
STATE TAX ON \$
COUNTY TAX ON \$
CITY TAX ON \$
SIGNATURE OF DSI REPRESENTATIVE: Y. M. Schwabe
TOTAL \$

GENERAL TERMS AND CONDITIONS

1. **AMENDMENTS.** Any modification of this document by the Customer, and all additional or different terms included in the Customer's purchase order or any other document responding to this contract, are hereby objected to. BY REQUESTING THE GOODS AND SERVICES SET FORTH HEREIN, BUYER AGREES TO ALL THE TERMS AND CONDITIONS CONTAINED ON BOTH SIDES OF THIS DOCUMENT.

2. **TERMS.** Cash in advance unless DSI has approved credit prior to the sale. Credit terms of sale for approved accounts are total invoice amount due at DSI's office, Houston, Texas, on or before the 30th day from the date of invoice. Past due accounts are to pay interest on the balance past due at the rate of 1 1/4% per month or the maximum allowable by the applicable state laws if such laws limit interest to a lesser amount. In the event it is necessary to employ an agency and/or attorney to effect collection of said account, Customer agrees to pay all fees directly or indirectly incurred for such collection.

3. **PRICES.** The products and services to be supplied hereunder shall be priced in accordance with DSI's current Price Schedule. As provided in DSI's Price Schedule, special jobs, under unusual conditions, will be subject to special price quotations to reflect increased or reduced costs.

4. **TAXES.** Any tax based on or measured by the charge for sale or rental of products or rendering of service shall be added to the price stated in DSI's Price Schedule.

5. **INDEPENDENT CONTRACTOR.** DSI is and shall be an independent contractor with respect to the performance of this contract, and neither DSI nor anyone employed by DSI shall be the agent, representative, employee or servant of Customer in the performance of this contract or any part hereof.

6. **FORCE MAJEURE.** Any delays or failure by DSI in the performance of this contract shall be excused if and to the extent caused by war, fire, flood, strike, labor trouble, accident, riot, acts of God, or any contingencies beyond the reasonable control of DSI.

7. **DISPOSAL.** Disposal of the chemicals used in the performance of this contract is the responsibility of Customer. Customer agrees the chemicals will be disposed of in accordance with all applicable Federal, State and local laws and regulations.

12. **SEVERABILITY.** It is understood and agreed by the parties hereto that any part, term, or provision of this Contract prohibited by law shall be deemed invalid to the extent of such prohibition and shall be deemed modified to the extent necessary to conform to such rule of law.

SPECIAL TERMS AND CONDITIONS

In addition to the foregoing General Terms and Conditions which are applicable to all services and products furnished by DSI, the following Special Terms and Conditions are applicable to Oil Field Services and Mining Services. In the event of any conflict, inconsistency, or incongruity between the General Terms and Conditions and the Special Terms and Conditions, the Special Terms and Conditions shall govern and control.

13. **WELL.** The term "well" as used herein shall also be construed to include and mean a "mine" or other property being serviced where the work to be performed involves DSI mining services.

14. **CUSTOMER'S RESPONSIBILITY & INDEMNITIES.** The parties agree that Customer has complete custody and control of the well, the conditions created in the well, the drilling equipment, well premises and access routes from highways to well locations. Customer will have the well in readiness for the service and, following service, will return the well to production. The parties further agree that unless caused by DSI's willful misconduct or failure to exercise good faith, Customer shall be fully responsible for and defend, indemnify and save harmless DSI, its officers, agents and employees against:

(i) Liability for damage to property of Customer (and well owner if different from Customer), this provision applying but not limited to subsurface damage and surface damage arising from subsurface damage including any liability based in whole or in part on the negligence of DSI.

(ii) Liability for reservoir loss or damage, or any property damage (including but not limited to damages caused by pollution or contamination), or personal injuries resulting directly or indirectly from subsurface pressure, well blowout or cratering, or losing control of the well including any liability based in whole or in part on the negligence of DSI.

(iii) Liability for any damages whatever resulting directly or indirectly from a subsurface trespass, pollution or contamination arising out of any servicing operation performed by DSI or Customer including any liability based in whole or in part on the negligence of DSI.

(iv) Liability for injury to persons (including death) or damage to property, other than employees and property of DSI, growing out of or in any way, connected with the use of materials in the well which are radioactive, poison, toxic or otherwise hazardous including any liability based in whole or in part on the negligence of DSI.

8. **PRODUCT SALES AND RENTALS - WARRANTY.** DSI warrants only that products (including tools, supplies and materials) furnished shall conform to the quality and specification represented and that DSI can convey good title. DSI MAKES NO WARRANTY OF MERCHANTABILITY, OR THAT SAID PRODUCTS SHALL BE FIT FOR ANY PARTICULAR PURPOSE, NOR IS THERE ANY OTHER WARRANTY EXPRESSED OR IMPLIED EXCEPT AS EXPRESSLY STATED HEREIN. DSI's liability and Customer's exclusive remedy for any cause of action arising out of a product sale or rental pursuant hereto is expressly limited at DSI's option to (a) replacement or such product upon its return to DSI or (b) allowance to Customer of credit for the cost of such product.

9. **SERVICE WARRANTY.** In interpreting information and making recommendations, either written or oral, as to type or amount of material or service to be furnished, or manner of performance, or in predicting results to be obtained therefrom, DSI will give Customer the benefit of its best judgment based on its experience in the field. Nevertheless, all such recommendations or predictions are opinions only; and, in view of the impracticability of obtaining first-hand knowledge of the many variable conditions and/or the necessity of relying on facts and supporting services furnished by others, NO WARRANTY IS GIVEN CONCERNING THE EFFECTIVENESS OF THE MATERIALS USED, RECOMMENDATIONS GIVEN, OR THE SERVICES RENDERED.

10. **LIABILITY AND INDEMNITY.** Customer agrees to be responsible for and to defend, indemnify and save harmless DSI, its officers, agents and employees, from any and all claims, loss, damage or expense by reason of accident, injuries, damages or hurt to any person or property, including property of DSI or Customer, that may occur in connection with or related to the performance of this contract and which is caused in whole or in part by the negligent act or omission of Customer, its agents, servants or employees and whether or not caused in part by the negligent act or omission of DSI. In no event shall DSI be liable for any special, incidental, indirect, punitive, or consequential damage, including, but not limited to, loss of use or loss of profit, for breach of contract, negligence (including DSI's sole negligence) or any other cause of action.

11. **DSI.** The term "DSI" as used herein is an abbreviation of Dowell Schlumberger Incorporated and where used throughout this agreement, shall be construed to mean Dowell Schlumberger Incorporated, a Delaware corporation.

(v) Liability for damages to property of customer or third parties or injuries to persons caused or alleged to have been caused by contamination or pollution from the application or use of products designed to control dust, wind erosion, product loss, sealing of ponds, reservoirs, irrigation canals, or sanitary landfills including any liability based in whole or in part on the negligence of DSI.

(vi) Liability for injury to persons (including death) or damage to property growing out of or in any way connected to the use of various equipment provided by DSI at no cost for the sole convenience of and use by the Buyer including any liability based in whole or in part on the negligence of DSI.

(vii) Liability for damage to property of Customer (and well owner if different from Customer) resulting, directly or indirectly, from tools or instruments of DSI being lost in a well, including any liability based in whole or in part on the negligence of DSI.

15. **DOWN - HOLE TOOLS AND INSTRUMENTS.** If tools or instruments of DSI are lost in a well, Customer agrees to make a reasonable effort at Customer's risk and expense to recover same; and, if unable to recover, to pay DSI for same unless such loss or damage was caused solely by DSI's negligence.

16. **OFFSHORE & MARINE OPERATIONS.** For offshore marine operations Customer agrees to insure against loss and assumes full responsibility for damage to equipment furnished by DSI from time of delivery to Customer at landing until returned to landing when transported on craft, or located on platforms not owned or leased by DSI.

Customer shall furnish transportation for crew changes at customer's expense.