

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

Form ACO-1  
September 1999  
Form Must Be Typed

**ORIGINAL**

Operator: License # 5293  
 Name: Helmerich & Payne, Inc.  
 Address: 1579 E. 21<sup>st</sup> Street  
 City/State/Zip: Tulsa, OK 74114  
 Purchaser: \_\_\_\_\_  
 Operator Contact Person: Sharon LaValley  
 Phone: (918) 742-5531  
 Contractor: Name: Cheyenne Drilling  
 License: 5382  
 Wellsite Geologist: \_\_\_\_\_  
 Designate Type of Completion:  
 New Well     Re-Entry     Workover  
 Oil     SWD     SLOW     Temp. Abd.  
 Gas     ENHR     SIGW  
 Dry     Other (Core, WSW, Expl., Cathodic, etc)  
 If Workover/Re-entry: Old Well Info as follows:

API No. 15 - 055-21717 - 06-02  
 County: Finney (Irregular Section) \_\_\_\_\_  
 \_\_\_\_\_ - NW\_ Sec. 4 Twp. 26 S. R. 31  East  West  
4140 feet from S / N (circle one) Line of Section  
4030 feet from E / W (circle one) Line of Section  
 Footages Calculated from Nearest Outside Section Corner:  
 (circle one)    NE    SE    NW    SW  
 Lease Name: McGraw    Well #: 1-2  
 Field Name: Hugoton  
 Producing Formation: Chase  
 Elevation: Ground: 2810    Kelly Bushing: 2816  
 Total Depth: 2810    Plug Back Total Depth: 2757'  
 Amount of Surface Pipe Set and Cemented at 347 Feet  
 Multiple Stage Cementing Collar Used?     Yes     No  
 If yes, show depth set \_\_\_\_\_ Feet  
 If Alternate II completion, cement circulated from 2803  
 feet depth to surface w/ 525 sx cmt.

Operator: \_\_\_\_\_  
 Well Name: \_\_\_\_\_  
 Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_  
 Deepening     Re-perf.     Conv. To Enhr./SWD  
 Plug Back    \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_  
 Commingled    Docket No. \_\_\_\_\_  
 Dual Completion    Docket No. \_\_\_\_\_  
 Other (SWD or Enhr.?)    Docket No. \_\_\_\_\_  
02/06/01    02/08/01    03/20/01  
 Spud Date or    Date Reached TD    Completion Date  
 Recompletion Date    Recompletion Date

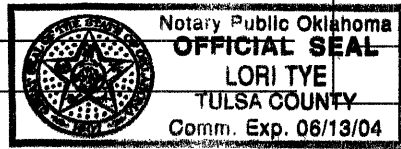
CONSERVATION DIVISION  
 5-21-2004

**Drilling Fluid Management Plan**  
 (Data must be collected from the reserve pit) 9-29-06 ALL 11 WASH  
 Chloride content Est 1000 ppm    Fluid volume 1000 bbls  
 Dewatering method used Evaporation  
 Location of fluid disposal if hauled offsite: \_\_\_\_\_  
 Operator Name: NA  
 Lease Name: \_\_\_\_\_ License No.: \_\_\_\_\_  
 Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
 County \_\_\_\_\_ Docket No.: \_\_\_\_\_

**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, 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 of 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 completed and correct to the best of my knowledge.

Signature: Sharon LaValley  
 Title: Engineer Tech    Date: 5/17/01  
 Subscribed and sworn to before me this 17<sup>th</sup> day of May  
2001  
 Notary Public: Lori Tye  
 Date Commission Expires: 6/13/04



**KCC Office Use Only**

\_\_\_\_\_ Letter of Confidentiality Attached  
 If Denied, Yes  Date: \_\_\_\_\_  
 \_\_\_\_\_ Wireline Log Received  
 \_\_\_\_\_ Geologist Report Received  
 \_\_\_\_\_ UIC Distribution

✓

X

Operator Name: Helmerich & Payne, Inc. Lease Name: McGraw Well #: 1-2

Sec. 4 Twp. 26 S. R. 31  East  West County: Finney

**Instructions:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken  Yes  No  
 (Attach Additional Sheets)  
 Samples Sent to Geological Survey  Yes  No  
 Cores Takes  Yes  No  
 Electric Log Run  Yes  No  
 (Submit Copy)

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

List All E. Logs Run:

Dual Spaced Neutron

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	23#	347'	Prem Plus Lite C	100	2% CC + 1/4# flocele
					50/50 Poz Prem Plus C	125	2% CC + 1/4# flocele
Production	7 7/8"	5 1/2"	15.5#	2803'	Prem Plus Lite	400	1/4# flocele
					50/50 Poz	125	10% Salt + 1/4# 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				

Shot Per Foot	PERFORATIONS 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	Krider 2625-2633	21600 gal of 70Q N2 Foam cont. 41000 gals 16/30 white sand in 1-4 ppg stages	
TUBING RECORD Size <u>2 3/8"</u> Set At <u>2642'</u> Packer At		Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date of First, Resumed Production, SWD or Enhr. <u>3/20/01</u>		Producing Method <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)	
Estimated Production Per 24 Hours	Oil Bbls <u>0</u> Gas Mcf <u>53</u> Water Bbls <u>128</u>	Gas-Oil Ratio	Gravity

Disposition of Gas  Vented  Sold  Used on Lease (If Vented, Submit ACO-18) METHOD OF COMPLETION  Open Hole  Perf.  Dually Comp.  Commingled 2625-2633'  Other (Specify) \_\_\_\_\_

REGION North America	NWA/C. # MILSON	TICKET # FEB. 06/2001	TICKET DATE 1128514
MBU ID / EMP # MKU 0102 188624	EMPLOYEE NAME JOE JACKSON	BDA / STATE KS	COUNTY FINNEY
LOCATION LIBERAL	COMPANY CHEYENNE IRLG	PSL DEPARTMENT CEMENTING	CUSTOMER REP / PHONE DANASO 316-242-1393
TICKET AMOUNT 7,113.13	WELL TYPE GAS	API / UWI #	JOB PURPOSE CODE 010 ORIGINAL
WELL LOCATION PLUMEL	DEPARTMENT 10003	HES FACILITY (CLOSEST TO WELL SITE) LIBERAL	
LEASE / WELL MICKAN 1-2	SEC / TWP / RNG 4-26S-31W		

HES EMP NAME/EMP # (EXPOSURE HOURS)	HRS	HES EMP NAME/EMP # (EXPOSURE HOURS)	HRS	HES EMP NAME/EMP # (EXPOSURE HOURS)	HRS	HES EMP NAME/EMP # (EXPOSURE HOURS)	HRS
J. JACKSON 188624							
J. CLEMENS 182516							
B. HOWARD 209549							

HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES
44 422207	100						
54218-78202	100						
52382-6611	50						

Form Name \_\_\_\_\_ Type: \_\_\_\_\_  
 Form Thickness \_\_\_\_\_ From: \_\_\_\_\_ To \_\_\_\_\_  
 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 Shoes		
Centralizers	5-4 3	HES
Bottom Plug		
Top Plug	1	HES
Head	1	HES
Packer		
Other INSERT/TUBE	1	HES

**MATERIALS**

Treat Fluid _____	Density _____	Lb/Gal _____
Disp. Fluid _____	Density _____	Lb/Gal _____
Prop. Type _____	Size _____	Lb. _____
Prop. Type _____	Size _____	Lb. _____
Acid Type _____	Gal. _____	% _____
Acid Type _____	Gal. _____	% _____
Surfactant _____	Gal. _____	In _____
NE Agent _____	Gal. _____	In _____
Fluid Loss _____	Gal/Lb _____	In _____
Gelling Agent _____	Gal/Lb _____	In _____
Fric. Red. _____	Gal/Lb _____	In _____
Breaker _____	Gal/Lb _____	In _____
Blocking Agent _____	Gal/Lb _____	In _____
Perpac Balls _____	Qty _____	
Other _____		
Other _____		
Other _____		
Other _____		

DATE TIME	CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
	FEB 06, 01 0900	FEB 06 1300	FEB 06 1655	FEB 06 1715

**WELL DATA**

	NEW/USED	WEIGHT	SIZE	FROM	TO	MAX ALLOW
Casing	N	24	8.50	0	450	
Liner						
Liner						
Tbg/D.P.						
Tbg/D.P.						SHOTS/FT.
Open Hole						
Perforations						
Perforations						
Perforations						

HOURS ON LOCATION		OPERATING HOURS		DESCRIPTION OF JOB
DATE	HOURS	DATE	HOURS	
FEB 06	5	FEB 06	1	
<b>TOTAL</b>	<b>5</b>	<b>TOTAL</b>	<b>1</b>	

ORDERED \_\_\_\_\_ **HYDRAULIC HORSEPOWER** \_\_\_\_\_  
 TREATED \_\_\_\_\_ **AVERAGE RATES IN BPM** \_\_\_\_\_  
 FEET \_\_\_\_\_ **CEMENT LEFT IN PIPE** \_\_\_\_\_  
 Reason \_\_\_\_\_

**CEMENT DATA**

STAGE	SACKS	CEMENT	BULK/SKS	ADDITIVES	YIELD	LBS/GAL
1	100	PPHCLC	B	2% CC, 1/4# FLOCELE	11.6	12.3
2	125	PREM+	B	2% CC, 1/4# FLOCELE	1.34	11.8

Circulating _____	Displacement _____	Preflush: _____	Gal-BBL _____	Type _____
Breakdown _____	Maximum _____	Load & Bkdn: _____	Gal-BBI _____	Pad: BBI-Gal _____
Average _____	Frac Gradient _____	Treatment _____	Gal-BBI _____	Disp: BBI-Gal _____
Shut In: Instant _____	5 Min _____	15 Min _____	Cement Slurr _____	Gal-BBI _____
			Total Volume _____	Gal-BBI _____

Frac Ring #1 _____	Frac Ring #2 _____	Frac Ring #3 _____	Frac Ring #4 _____
<b>THE INFORMATION STATED HEREIN IS CORRECT</b>		CUSTOMER'S REPRESENTATIVE SIGNATURE _____	



**JOB SUMMARY**

ORDER NO. 70006

TICKET #	1132525	TICKET DATE	2-8-01
BDA / STATE	Ks	COUNTY	Finney
PSL DEPARTMENT	21		
CUSTOMER REP / PHONE	Dave Pauley		
API / UWI #			
JOB PURPOSE CODE	035 ORIGINAL		

REGION	North America	NWA/COUNTRY	Mid East USA
MBU ID / EMP #	MC61040 106328	EMPLOYEE NAME	Nick Korbe
LOCATION	Liberal	COMPANY	H&P
TICKET AMOUNT	\$10,640.49	WELL TYPE	02
WELL LOCATION	SE of Pym School	DEPARTMENT	Cement
LEASE / WELL #	McGraw #1-2	SEC / TWP / RNG	4-265-31W

HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS
N. Korbe 106328	6.5						
J. Evans 212723	6.5						
K. Ballenger 106944	6.5						
E. Lewis 217663	6.5						

HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES
421270	140						
54218/78202	140						
52382/6611	140						
52920/75819	140						

Form Name \_\_\_\_\_ Type: \_\_\_\_\_  
 Form Thickness \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
 Packer Type \_\_\_\_\_ Set At \_\_\_\_\_  
 Bottom Hole Temp. \_\_\_\_\_ Pressure \_\_\_\_\_  
 Misc. Data \_\_\_\_\_ Total Depth \_\_\_\_\_

DATE	TIME	CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
2-8-01	1230	2-8-01	1630	2-8-01	2045
				2-8-01	2145

**TOOLS AND ACCESSORIES**

TYPE AND SIZE	QTY	MAKE
Float Collar insert	1	H
Float Shoe filltube	1	
Guide Shoe Reg.	1	O
Centralizers 524	11	O
Bottom Plug		C
Top Plug 5-in Alum.	1	
Head Fasgrip	1	O
Packer		
Other		

**WELL DATA**

	NEW/USED	WEIGHT	SIZE	FROM	TO	MAX ALLOW
Casing	N	15.5	5-1/2	0	2804'	
Liner						
Liner						
Tbg/D.P.						
Tbg/D.P.						
Open Hole						SHOTS/FT.
Perforations						
Perforations						
Perforations						

**MATERIALS**

Treat Fluid	Density	Lb/Gal
Disp. Fluid	Density	Lb/Gal
Prop. Type	Size	Lb.
Prop. Type	Size	Lb.
Acid Type	Gal.	%
Acid Type	Gal.	%
Surfactant	Gal.	In
NE Agent	Gal.	In
Fluid Loss	Gal/Lb	In
Gelling Agent	Gal/Lb	In
Fric. Red.	Gal/Lb	In
Breaker	Gal/Lb	In
Blocking Agent	Gal/Lb	
Perfpac Balls	Qty.	
Other		
Other		
Other		
Other		

HOURS ON LOCATION		OPERATING HOURS		DESCRIPTION OF JOB
DATE	HOURS	DATE	HOURS	
2-8-01	6.5 hrs	2-8-01	1 hr	035
<b>TOTAL</b>	<b>6.5 hrs</b>	<b>TOTAL</b>	<b>1 hr</b>	

ORDERED \_\_\_\_\_ **HYDRAULIC HORSEPOWER** \_\_\_\_\_  
 Avail. \_\_\_\_\_ Used \_\_\_\_\_  
 TREATED \_\_\_\_\_ **AVERAGE RATES IN BPM** \_\_\_\_\_  
 Disp. \_\_\_\_\_ Overall \_\_\_\_\_  
 FEET 46' **CEMENT LEFT IN PIPE** \_\_\_\_\_  
 Reason shift

**CEMENT DATA**

STAGE	SACKS	CEMENT	BULK/SKS	ADDITIVES	YIELD	LBS/GAL
L	400	HLC "C"	B	1/8" Polyflake	2.07	12.2
T	125	50lb "C"	B	1/8" Polyflake, 10% Salt	1.28	14.4

Circulating _____	Displacement _____	Preflush: _____	Gal - BBI 12	Type Mudflush
Breakdown _____	Maximum _____	Load & Bkdn: _____	Gal - BBI	Pad: BBI - Gal
Average _____	Frac Gradient _____	Treatment _____	Gal - BBI	Disp: BBI - Gal 66
Shut In: Instant _____	5 Min _____	Cement Slurr _____	Gal - BBI 147/29	
	15 Min _____	Total Volume _____	Gal - BBI	

Frac Ring #1 \_\_\_\_\_ Frac Ring #2 \_\_\_\_\_ Frac Ring #3 \_\_\_\_\_ Frac Ring #4 \_\_\_\_\_

**THE INFORMATION STATED HEREIN IS CORRECT** CUSTOMER'S REPRESENTATIVE SIGNATURE \_\_\_\_\_



**JOB LOG**

ORDER NO. 70006

TICKET #	1132525	TICKET DATE	2-27-01
BDA / STATE	Ks	COUNTY	Leawood
PSL DEPARTMENT	21		
CUSTOMER REP / PHONE	Dave Poutog		
API / UWI #			
JOB PURPOSE CODE	035		

REGION	North America	NWA/COUNTRY	MidCont USA
MBU ID / EMP #	MCL10110 10628	EMPLOYEE NAME	Nick K... ..
LOCATION	Liberal	COMPANY	H4 P
TICKET AMOUNT	#10/10/01	WELL TYPE	02
WELL LOCATION	McGraw 1-2	DEPARTMENT	Cement
LEASE / WELL #	McGraw 1-2	SEC / TWP / RNG	4-26S-31W

ORIGINAL

HES EMP NAME/EMP#/(EXPOSURE HOURS)   HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)   HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)   HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)   HRS
Nick K... 10628 6.5			
Bl... 21270 6.5			
R... 10628 6.5			
T.L... 21263 6.5			

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESS. (psi)		JOB DESCRIPTION / REMARKS
				T	C	Tbg	Csg	
	1230							called out
	1630							oplos Held Safety mtg Set up Trks
								Rig L.D.D.P.
	1830							st FE
	2030							Break circ
	2052					2000		Test liags
	2055	4	0			300		st Mud flush
	2059	7	12/0			375		st Lead Cement 400sks @ 12.2"
	2117	7	144/0			200		st Tail Cement 125sks @ 14.4"
	2122		29					end cement
	2123							wash pump & line
	2127							rel plug
	2129	6.5	0			100		st blisp
	2131	6.5	11			150		catch cmt
	2138	2	56			650		slow rate
	2143	2	66			715/120		Bump plug
	2144							rel plug float held
								CIFC 25 bbl top it
								Job complete Thank you Nicks & crew

# JOB SUMMARY

REGION <b>NORTH AMERICA LAND</b>		NWA / COUNTRY <b>MID CONT USA</b>		SALES ORDER NUMBER <b>1147093</b>	TICKET DATE <b>2-19-2001</b>
MBU ID / EMPL # <b>MC LIO 597 106162</b>		H.E.S EMPLOYEE NAME <b>J. EBERSOLE / K. HEDRICK</b>		BDA / STATE <b>LIBERAL KS.</b>	COUNTY / STATE <b>Finney Kansas</b>
LOCATION <b>Liberal</b>		COMPANY <b>Helmerich &amp; Payne</b>		PSL DEPARTMENT <b>P.E. / Stimulation</b>	
TICKET AMOUNT <b>N/A</b>		WELL TYPE <b>02 GAS</b>		CUSTOMER REP / PHONE <b>Dave Pauley 316-272-1125</b>	
WELL LOCATION <b>Sublette</b>		DEPARTMENT <b>FRAC DEPT 10016 / 10036</b>		APIUWI #	
LEASE NAME <b>McGraw</b>		Well No. <b>#1-2</b>		SEC / TWP / RNG <b>4-26s-31W</b>	
				SAP BOMB NUMBER	
				Description <b>ORIGINAL</b>	

H.E.S. EMP NAME / EMP # / (EXPOSURE HOURS)	HR	HRS	HRS	HRS	HRS
<b>J. EBERSOLE 106261</b>	4.0	<b>S. FREDRICK 106114</b>	4.0	<b>D. CUMMINGS 105911</b>	4.0
<b>D. NEIFERT 106297</b>	4.0	<b>J. KING 106096</b>	4.0	<b>M. STEWART 105835</b>	4.0
<b>K. HEDRICK 106030</b>	4.0	<b>A. THOMAS 222754</b>	4.0	<b>R.B. FRESER</b>	4.0
<b>B. MERKLIN 106114</b>	4.0	<b>C. HINZ 216969</b>	4.0	<b>G. GORE 106292</b>	4.0

H.E.S. UNIT #S / (R / T MILES)	R / T MILES	R / T MILES	R / T MILES	R / T MILES	R / T MILES
<b>421928</b>	20	<b>53554-6660</b>	20	<b>0451-2274</b>	20
<b>10205742</b>	20	<b>54094-75377</b>	20	<b>0431-8219</b>	20
<b>420993</b>	20	<b>54091</b>	20	<b>54012-8275</b>	20
<b>53911-78319</b>	20			<b>421644</b>	20

Form. Name Herrington Type: \_\_\_\_\_  
 Form. Thickness \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
 Packer Type \_\_\_\_\_ Set At \_\_\_\_\_  
 Bottom Hole Temp. \_\_\_\_\_ Pressure \_\_\_\_\_  
 Retainer Depth \_\_\_\_\_ Total Depth \_\_\_\_\_

Date	Called Out	On Location	Job Started	Job Completed
	2/19/01	2/19/01	2/19/01	2/19/01
Time	500	1300	1400	1500

### Tools and Accessories

Type and Size	Qty	Make
Float Collar		
Float Shoe		
Centralizers		
Top Plug		
Packer		
DV Tool		
Insert Float		
Guide Shoe		
Other		

### Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing	New	15.5	5 1/2			2800±	2,500
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole							Shots/Ft.
Perforations					2,625	2,633	
Perforations							
Perforations							

### Materials

Mud Type	<b>Delta140</b>	Density	8.34	Lb/Gal	
Disp. Fluid	FOAM GEL	Density	8.34	Lb/Gal	
Prop. Type	Ottawa	Size	16/30	Lb	41,200
Prop. Type		Size		Lb	
Acid Type		Gal.		%	
Acid Type		Gal.		%	
Surfactant	HC-2	Gal.		In	
NE Agent		Gal.		In	
Fluid Loss		Gal/Lb		In	
Gelling Agent	<b>LGC-4</b>	Gal/Lb		In	
X LINKER	BC 140	Gal/Lb		In	
Breaker	<b>GBW-30</b>	Gal/Lb		In	
Blocking Agent		Gal/Lb		In	
Perfpac Balls		Qty.			
Other	<b>BE 3S 2#</b>				
Other					
Other					
Other					
Other					

### Operating Hours

Date	On Location	Operating Hours	Description of Job
2/19			<b>*** SEE JOB LOG ***</b>
<b>Total</b>			

Ordered	Hydraulic Horsepower Avail.	Used
Treating	Average Rates in BPM	Overall
Feet	Cement Left in Pipe	Reason

### Cement Data

Stage	Sacks	Cement	Bulk/Sks	Additives	W/Rq.	Yield	Lbs/Gal

### Summary

Circulating	2020 PSI	Displacement	Maximum	12.6 BPM / 2020 PS	Preflush:	Gal - BBI		Type:	
Breakdown	YES	Lost Returns-NO	Actual TOC		Load & Bkdn:	Gal - BBI	173 BBL	Pad:Bbl - Gal	6000
Cmt Rtm#Bbl	12 BPM / 920 PSI	Frac. Gradient	5 Min.	888 PSI	Excess /Return	Gal BBI		Calc. Disp Bbl	2624
Average	945 PSI				Treatment:	Gal - BBI		Actual Disp.	2601
Shut In: Instant					Cement Slurry	Gal - BBI		Disp:Bbl-Gal	GAL
					Total Volume	Gal - BBI	27592 FOAM		

Frac Ring #1
Frac Ring #2
Frac Ring #3
Frac Ring #4

**THE INFORMATION STATED HEREIN IS CORRECT**

CUSTOMER REPRESENTATIVE \_\_\_\_\_

SIGNATURE

Time	Description
13:36:13	Prime Pumps Monday February 19, 2001
13:36:17	Test Lines
13:47:30	Safety Meeting
13:52:26	Start Job
13:52:27	Proppant Conc 8.81 lb/gal
13:52:52	Stage Change Stage 1 - 6000 GAL 70Q DELTA PAD
13:52:53	Proppant Conc 0.00 lb/gal
14:08:15	Proppant Conc 1.07 lb/gal
14:08:33	Stage Change Stage 2 - 1000 GAL 70Q DELTA W/1PPG 16/30 OTTAWA
14:09:24	Proppant Conc 2.07 lb/gal
14:10:25	Stage Change Stage 3 - 2000 GAL 70Q DELTA W/2PPG 16/30 OTTAWA
14:10:28	Proppant Conc 3.07 lb/gal
14:11:22	Proppant Conc 4.09 lb/gal
14:12:29	Proppant Conc 5.12 lb/gal
14:14:22	Proppant Conc 6.14 lb/gal
14:14:38	Stage Change Stage 4 - 4000 GAL 70Q DELTA W/3PPG 16/30 OTTAWA
14:15:17	Proppant Conc 7.15 lb/gal
14:16:23	Proppant Conc 8.17 lb/gal
14:21:16	Proppant Conc 9.17 lb/gal
14:23:18	Stage Change Stage 5 - 6000 GAL 70Q DELTA W/4PPG 16/30 OTTAWA
14:24:43	Proppant Conc 10.34 lb/gal
14:27:24	Proppant Conc 11.36 lb/gal
14:32:14	Proppant Conc 10.17 lb/gal
14:32:31	Proppant Conc 9.10 lb/gal
14:32:44	Proppant Conc 8.02 lb/gal
14:32:57	Proppant Conc 6.97 lb/gal
14:33:07	Proppant Conc 5.94 lb/gal
14:33:22	Proppant Conc 4.90 lb/gal
14:33:43	Proppant Conc 3.66 lb/gal
14:33:55	Stage Change Stage 6 - 2719 GAL 70Q N2 FLUSH
14:34:02	Proppant Conc 2.63 lb/gal
14:34:35	Proppant Conc 1.61 lb/gal
14:36:35	Proppant Conc 0.60 lb/gal
14:39:43	Stage Change Stage 7 - MONITOR PRESSURE
14:43:16	End Job
14:43:35	TOTAL LOAD 173 BBL
14:44:11	TOTAL SAND 412 SKS
14:44:41	TOTAL N2 177,000 N2
14:44:57	ISIP 945 PSI
14:45:23	MAX PSI 2020 PSI
14:46:30	AVG PSI 1000 PSI
14:46:46	MAX RATE 12.6 BPM
14:47:02	AVG RATE 12 BPM