

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

RECEIVED

SEP 12 2002

9-12-02

KCC WICHITA

ORIGINAL

Operator: License # 5293

Name: Helmerich & Payne, Inc.

Address: 1579 E. 21st 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:

X New Well Re-Entry Workover
Oil SWD SLOW Temp. Abd.
X Gas ENHR SIGW
Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-entry: Old Well Info as follows:

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.

6/10/02 6/12/02 7/18/02

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No. 15 - 175-21874

County: Seward

SE NW NW Sec. 33 Twp. 31 S. R. 32 East West

4030 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: C.S. High Well #: 1-2

Field Name: Hugoton

Producing Formation: Chase

Elevation: Ground: 2855' Kelly Bushing: 2861'

Total Depth: 2835' Plug Back Total Depth: 2790'

Amount of Surface Pipe Set and Cemented at 547 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set Feet

If Alternate II completion, cement circulated from 2782'

feet depth to surface w/ 525 sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the reserve pit)

ALT 2 9/21 9/18/02

Chloride content Est 2000 ppm Fluid volume Est 800 bbls

Dewatering method used Evaporation

Location of fluid disposal if hauled offsite:

Operator Name:

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

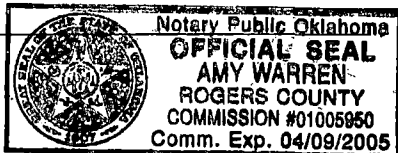
Title: Engineer Tech Date: 8/9/02

Subscribed and sworn to before me this 9th day of September

2002

Notary Public: Amy Warren

Date Commission Expires:



KCC Office Use Only

Letter of Confidentiality Attached

If Denied, Yes No Date: Wireline Log Received

Geologist Report Received

UIC Distribution

Operator Name: Helmerich & Payne, Inc. Lease Name: C.S. High Well #: 1-2

Sec. 33 Twp. 31 S. R. 32  East  West County: Seward

**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 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#	547'	Prem Plus Lite C	160	2% CC + 1/4# flocele
					Prem Plus Lite C	125	2% CC + 1/4# flocele
Production	7 7/8"	5 1/2"	14#	2782'	Prem Plus Lite C	400	1/4# flocele Mixed
					50/50 Poz Prem Plus Lt C	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	2654-2664 and 2678-2692	34700 gals 70Q N2 Delta foam & 63000 lbs 16/30 white sand.	

TUBING RECORD	Size <u>2 3/8"</u>	Set At <u>2699'</u>	Packer At	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Date of First, Resumed Production, SWD or Enhr. <u>7/18/02</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	Gas Mcf	Water Bbls	Gas-Oil Ratio	Gravity
		95	20		

Disposition of Gas  Vented  Sold  Used on Lease (If Vented, Submit ACO-18)

METHOD OF COMPLETION  Open Hole  Perf.  Dually Comp.  Commingled  Other (Specify) \_\_\_\_\_

Production Interval 2654'-2664'  
2678'-2692'

<b>HALLIBURTON</b>		<b>JOB SUMMARY</b>		SALES ORDER NUMBER <b>1898111</b>	TICKET DATE <b>06/10/02</b>
REGION <b>NORTH AMERICA LAND</b>	NWA / COUNTRY <b>Central / USA</b>	BDA / STATE <b>MC/Ks</b>	COUNTY <b>SEWARD</b>	<b>ORIGINA</b>	
NEUID / EMPL # <b>106114</b>	H.E.S. EMPLOYEE NAME <b>SHAUN FREDERICK</b>	PSL DEPARTMENT <b>CEMENT</b>			
LOCATION <b>LIBERAL</b>	COMPANY <b>CHEYENNE DRLG ( HELMERICH &amp; P</b>	CUSTOMER REP / PHONE <b>DAMASO CASTILLO 1-620-272-1393</b>			
TICKET AMOUNT <b>\$4,813.52</b>	WELL TYPE <b>OIL</b>	API/WI #			
WELL LOCATION <b>N LIBERAL</b>	DEPARTMENT <b>CEMENT</b>	SAP BOMB NUMBER <b>7521</b>			
LEASE NAME <b>CS HIGH</b>	Well No. <b>1-2</b>	SEC / TWP / RNG <b>33 - 31S - 32W</b>	HES FACILITY (CLOSEST TO WELL SITE) <b>LIBERAL</b>		

HES EMP NAME / EMP # / (EXPOSURE HOURS)	HRS	HRS	HRS	HRS
Frederick, S 106114	4.0			
King, K 105942	4.0			
Harper, K 241985	4.0			

HES. UNIT #S / (R / T MILES)	R / T MILES	R / T MILES	R / T MILES	R / T MILES
10219237	20			
53777-75821	25			

Form. Name _____	Type: _____	Date	Called Out <b>06/10/2002</b>	On Location <b>06/10/2002</b>	Job Started <b>06/10/2002</b>	Job Completed <b>06/10/2002</b>
Form. Thickness _____	From _____ To _____	Time	<b>1600</b>	<b>1730</b>	<b>2000</b>	<b>2130</b>
Packer Type _____	Set At _____					
Bottom Hole Temp. _____	Pressure _____					
Retainer Depth _____	Total Depth _____					

Tools and Accessories		
Type and Size	Qty	Make
Float Collar <b>FILLTUBE</b>	<b>1</b>	<b>HOWCO</b>
Float Shoe		
Centralizers	<b>3</b>	<b>HOWCO</b>
Top Plug <b>PLASTIC</b>	<b>1</b>	<b>HOWCO</b>
HEAD <b>PC</b>	<b>1</b>	<b>HOWCO</b>
Limit clamp		
Weld-A	<b>1</b>	<b>HOWCO</b>
Guide Shoe		
BTM PLUG		

Well Data		Well Data			Well Data		
New/Used	Weight	Size	Grade	From	To	Max. Allow	
Casing <b>NEW</b>	<b>24.0</b>	<b>8 5/8</b>		<b>KB</b>	<b>558</b>		
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole			<b>12 1/4</b>			Shots/Ft.	
Perforations							
Perforations							
Perforations							

Materials		
Mud Type	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
Perfpac Balls	Qty.	
Other		
Other		
Other		
Other		

Hours On Location		Operating Hours		Description of Job	
Date	Hours	Date	Hours		
<b>6/10</b>	<b>4.0</b>	<b>6/10</b>	<b>4.0</b>	<b>Cement Surface Casing</b>	
<b>Total</b>	<b>4.0</b>	<b>Total</b>	<b>4.0</b>		

Ordered _____	Hydraulic Horsepower Avail. _____	Used _____
Treating _____	Average Rates in BPM Disp. _____	Overall _____
Feet <b>40</b>	Cement Left in Pipe Reason _____	<b>SHOE JOINT</b>

Cement Data								
Stage	Sacks	Cement	Bulk/Sks	Additives	W/Rq.	Yield	Lbs/Gal	
<b>1</b>	<b>180</b>	<b>HLC PP</b>		<b>3% CC - 1/4# FLOCELE</b>	<b>PUMP TIME - 4+ HOURS</b>	<b>11.76</b>	<b>2.10</b>	<b>12.20</b>
<b>2</b>	<b>125</b>	<b>PREM PLUS</b>		<b>2% CC - 1/4# FLOCELE</b>	<b>PUMP TIME - 1:45 HOURS</b>	<b>6.30</b>	<b>1.34</b>	<b>14.80</b>
<b>3</b>								
<b>4</b>								

Summary					
Circulating _____	Displacement _____	Preflush: <b>BB1</b>	Type: _____		
Breakdown _____	<b>MAXIMUM</b>	Load & Bkdn: <b>Gal - BB1</b>	Pad: <b>Bbl - Gal</b>		
Lost Returns _____	Lost Returns _____	Excess /Return <b>BB1</b>	Calc. Disp <b>Bbl</b>		
Cmt Rtrn#Bbl _____	Actual TOC _____	Calc. TOC: _____	Actual Disp. <b>33</b>		
Average _____	Frac. Gradient _____	Treatment: <b>Gal - BB1</b>	Disp: <b>Bbl</b>		
Shut In: Instant _____	<b>5 Min.</b> _____ <b>15 Min.</b> _____	Cement Slurry <b>BB1</b>	<b>90.0</b>		
		Total Volume <b>BB1</b>	<b>123.00</b>		

Frac Ring #1 _____	Frac Ring #2 _____	Frac Ring #3 _____	Frac Ring #4 _____
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THE INFORMATION STATED HEREIN IS CORRECT  
CUSTOMER REPRESENTATIVE \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

RECEIVED  
SEP 12 2002  
KCC WICHITA

<b>HALIBURTON</b>		<b>JOB SUMMARY</b>		SALES ORDER NUMBER <b>1900552</b>	TICKET DATE
REGION <b>NORTH AMERICA LAND</b>		NWA / COUNTRY <b>Central / USA</b>		BDA / STATE <b>MC/Ks</b>	COUNTY <b>SEWARD</b>
MBU ID / EMPL # <b>MCLJ 0110/ 198516</b>		H.E.S. EMPLOYEE NAME <b>JASON CLEMENS</b>		PSL DEPARTMENT <b>CEMENTING SERVICES</b>	
LOCATION <b>LIBERAL</b>		COMPANY <b>HELMERICH &amp; PAYNE</b>		CUSTOMER REP / PHONE <b>DAMASO CASTILLO 1-620-272-1393</b>	
TICKET AMOUNT <b>\$10,929.56</b>		WELL TYPE <b>OIL</b>		API/UWI #	
WELL LOCATION <b>SUBLETT</b>		DEPARTMENT <b>ZI</b>		SAP BOMB NUMBER <b>7523</b>	
LEASE NAME <b>CS HIGH</b>		Well No. <b>1-2</b>		SEC / TWP / RNG <b>33 - 31S - 32W</b>	
HES EMP NAME / EMP # / (EXPOSURE HOURS)		HRS		HRS	

**ORIGINAL**

<b>Clemens, A 198516</b>	7.0				
<b>Arnett, J 226567</b>	7.0				
<b>Schawo, N 222552</b>	7.0				
<b>Archuleta, M 226383</b>	7.0				

H.E.S. UNIT #S / (R / T MILES)	R / T MILES	R / T MILES	R / T MILES	R / T MILES
<b>421269</b>	<b>20</b>			
<b>54219/78299</b>	<b>20</b>			
<b>54218/10286731</b>	<b>25</b>			
<b>10243558/6612</b>	<b>25</b>			

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

Date	Called Out <b>06/11/2002</b>	On Location <b>06/12/2002</b>	Job Started <b>06/12/2002</b>	Job Completed <b>06/12/2002</b>
Time	<b>2030</b>	<b>0030</b>	<b>530</b>	<b>700</b>

Type and Size	Qty	Make
Float Collar		<b>HES</b>
Float Shoe		
Centralizers	<b>11</b>	
Top Plug	<b>1</b>	
HEAD	<b>1</b>	
Limit clamp	<b>1</b>	
Weld-A	<b>1</b>	
Guide Shoe	<b>1</b>	
BTM PLUG		

		Well Data				
	New/Used	Weight	Size	Grade	From	To
Casing	<b>N</b>	<b>15.5#</b>	<b>5 1/2</b>		<b>KB</b>	<b>2,826</b>
Liner						
Liner						
Tubing						
Drill Pipe						
Open Hole			<b>7 7/8</b>			
Perforations						Shots/Ft.
Perforations						
Perforations						

Materials			
Mud Type	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		
Perpac Balls	Qty.		
Other			
Other			
Other			
Other			
Other			

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
<b>6/12</b>	<b>5.0</b>	<b>6/12</b>	<b>2.0</b>	<b>Cement Production Casing</b>
<b>Total</b>	<b>5.0</b>	<b>Total</b>	<b>2.0</b>	

Ordered \_\_\_\_\_ Hydraulic Horsepower Avail. \_\_\_\_\_ Used \_\_\_\_\_  
 Treating \_\_\_\_\_ Average Rates in. BPM \_\_\_\_\_ Overall \_\_\_\_\_  
 Feet **45** Cement Left in Pipe \_\_\_\_\_ Reason \_\_\_\_\_ **SHOE JOINT**

Cement Data									
Stage	Sacks	Cement	Bulk/Sks	Additives			W/Rq.	Yield	Lbs/Gal
<b>1</b>	<b>405</b>	<b>HLC PP C</b>	<b>B</b>	<b>1/4# FLOCELE</b>	<b>PUMP TIME - 4+ HOURS</b>		<b>11.47</b>	<b>2.06</b>	<b>12.20</b>
<b>2</b>	<b>125</b>	<b>50/50 POZ C</b>	<b>B</b>	<b>1/4# FLOCELE - 10% SALT</b>	<b>PUMP TIME - 1:45 HOURS</b>		<b>5.43</b>	<b>1.24</b>	<b>14.40</b>
<b>3</b>									
<b>4</b>									

Summary									
Circulating	Displacement	Preflush:	BBI	<b>10.00</b>	Type:	<b>MUDFLUSH</b>			
Breakdown	MAXIMUM	Load & Bkdn:	Gal - BBI		Pad:Bbl -Gal				
Lost Returns	Lost Returns	Excess /Return	BBI		Calc.Disp Bbl				
Cmt Rtm#Bbl	Actual TOC	Calc. TOC:			Actual Disp.	<b>67</b>			
Average	Frac. Gradient	Treatment:	Gal - BBI		Disp:Bbl				
Shut In: Instant	5 Min.	Cement Slurry	BBI	<b>177.0</b>					
		Total Volume	BBI	<b>254.00</b>					

Frac Ring #1 \_\_\_\_\_ Frac Ring #2 \_\_\_\_\_ Frac Ring #3 \_\_\_\_\_ Frac Ring #4 \_\_\_\_\_  
**THE INFORMATION STATED HEREIN IS CORRECT**  
 CUSTOMER REPRESENTATIVE \_\_\_\_\_  
 \_\_\_\_\_  
 SIGNATURE

**KANSAS CORPORATION COMMISSION**  
**ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST**

FORM G-2  
 (Rev. 8/98)

Type Test:  
 Open Flow

Deliverability

TEST DATE: 8-26-02

API No. 15-175-21874

**ORIGINAL**

RECEIVED  
 SEP 12 2002  
 KCC WICHITA

COMPANY Helmerich & Payne, Inc. LEASE C.S. High Well Number 1-2

COUNTY Seward LOCATION 4030 FSL & 4030 FEL SECTION 33 TWN 31S RNG 32W ACRES 640

FIELD Hugoton RESERVOIR Chase PIPELINE CONNECTION Oneok

COMPLETION DATE 7/18/02 PLUG BACK TOTAL DEPTH 2790' PACKER SET AT

CASING SIZE 5 1/2 WT. 14 I.D. SET AT 2782 PERF 2654 TO 2692

TUBING SIZE 2 3/8 WT. I.D. SET AT 2699 PERF TO

TYPE COMPLETION (Describe) Single TYPE FLUID PRODUCTION PUMP UNIT OR TRAVELING PLUNGER? YES/NO

PRODUCING THRU Tbg/Csg RESERVOIR TEMPERATURE F BAR.PRESS Pa 14.4 Psia

GAS GRAVITY - Gg %CARBON DIOXIDE %NITROGEN API GRAVITY OF LIQUID

VERTICAL DEPTH (H) 2835 TYPE METER CONN. Flange (METER RUN)(PROVER)SIZE 2 x 1.125

SHUT-IN PRESSURE: SHUT IN: 8/23 20\_02\_ at (AM) (PM) TAKEN 8/26 20\_02\_ at (AM) (PM)  
 FLOW TEST: STARTED 8/19 20\_02\_ at (AM) (PM) TAKEN 8/22 20\_02\_ at (AM) (PM)

OBSERVED DATA

DURATION OF SHUT-IN HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE Psig	DIFF. in. (Hw)(Hd)	FLOWING TEMP. T	WELL-HEAD TEMP. T	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. BbLS.
						psig	(Pw)(Pt)(Pc) psig	psig	(Pw)(Pt)(Pc) psig		
SHUT-IN		120.2				120.2	134.6				
FLOW	1.125	41.5	1.1			89.5	103.9				

RATE OF FLOW CALCULATIONS

COEFFICIENT (Fb)(Fp) Mcfd	(METER) (PROVER) PRESSURE Psig	EXTENSION Pmxhw	Gravity Factor Fg	Flowing Temp Factor Ft	Deviation Factor Fpv	Rate of Flow R Mcfd	GOR	Gm
7762.5	55.9	7.84				60.86		

(OPEN FLOW) (DELIVERABILITY) CALCATIONS

(Pc)2 = 18117.16 (Pw)2 = 10795.21 Pd = % (Pc-14.4) + 14.4 = (Pa)2=0.207 (Pd)2= 259.01

(Pc)2-(PA)2 OR (Pc)2-(Pd)2	(Pc)2 - (Pw)2	$\left[ \frac{Pc^2 - Pz^2}{Pc^2 - Pw^2} \right]$	LOG $\left[ \right]$	"n"	N x Log $\left[ \right]$	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R X ANTILOG MCFD
17857.95	7321.95	2.45	.38	.85	.33	2.13	129.85

OPEN FLOW Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the 5th day of September, 2002.

Witness (if any)

Helmerich & Payne, Inc.  
 For Company  
*Shorelavalley*  
 Checked by