

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

API NO. 15- 175-21782-0000 ORIGINAL

County Seward  
30<sup>th</sup> East  
of N/2 NE - SW - Sec. 13 Twp. 33 Rge. 32 X E/W

Operator: License # 04782

2310 Feet from SN (circle one) Line of Section

Name: Ensign Operating Co.

2010 Feet from EW (circle one) Line of Section

Address P. O. Box 2161

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

City/State/Zip Liberal, KS. 67905-2161

Lease Name Pinkerton Heirs Well # 1-13

Purchaser: Duke Energy

Field Name Kismet

Operator Contact Person: Wes Willimon

Producing Formation Chase Group

Phone (316) 626-8131

Elevation: Ground 2762' KB 2768'

Contractor: Name: Cheyenne Drlg., Inc.

Total Depth 2825' PBD 2769'

License: 5382

Amount of Surface Pipe Set and Cemented at 642 Feet

Wellsite Geologist: None

Multiple Stage Cementing Collar Used? Yes X No

Designate Type of Completion  
X New Well        Re-Entry        Workover

If yes, show depth set        Feet

       Oil        SWD        S10W        Temp. Abn.  
X Gas        ENHR        SIGW  
       Dry        Other (Core, WSW, Expl., Cathodic, etc)

If Alternate II completion, cement circulated from       

feet depth to        w/        sx cmt.

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

Drilling Fluid Management Plan WITH Le-28-07  
(Data must be collected from the Reserve Pit)

Operator:       

Chloride content 8,000 ppm Fluid volume 6,500 bbls

Well Name:       

Dewatering method used Evaporation & Backfill To

Comp. Date        Old Total Depth       

Original Contour.

Location of fluid disposal if hauled offsite:       

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

Operator Name       

Lease Name        License No.       

11/22/1999 11/24/1999 01/04/2000  
Spud Date Date Reached TD Completion Date

       Quarter        Sec.        Twp.        S Rng.        E/W

County        Docket No.       

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Wes Willimon  
Title Production Supt. Date Feb. 23rd, 2000

Subscribed and sworn to before me this 23rd day of February, 2000.  
Notary Public William L. Waldorf  
Date Commission Expires Sept. 19th, 2002

K.C.C. OFFICE USE ONLY  
F        Letter of Confidentiality Attached  
C        Wireline Log Received  
C        Geologist Report Received  
  
Distribution  
       KCC        SWD/Rep        NGPA  
       KGS        Plug        Other  
(Specify)

NOTARY PUBLIC - State of Kansas  
WILLIAM L. WALDORF  
My Appt. Exp. 09-19-2001

Operator Name Ensign Operating Co. Lease Name Pinkerton Heirs Well # 1-13  
 Sec. 13 Twp. 33 Rge. 32  East County Seward  
 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	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datums	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Herrington	2557'	+211
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Upper Krider	2593'	+175
List All E.Logs Run:		Lower Krider	2627'	+141
See attached		Winfield	2685'	+ 83

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#	642	Lite Class C	180 125	2%CC, 1/4#/Sx Flocc " " "
Production	7-7/8"	4 1/2"	10.5#	2825	50/50 Poz Class C	300 150	1/4#/Sx Flocc

ADDITIONAL CEMENTING/SQUEEZE RECORD					
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives	
<input type="checkbox"/> Perforate					
<input type="checkbox"/> Protect Casing					
<input type="checkbox"/> Plug Back TD					
<input type="checkbox"/> Plug Off Zone					

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth
1 JSPF	2639, 2642, 2644, 2652, 2596, 2599, 2602, 2605, 2608, 2611, 2614, 2564, 2570, 2573, 2576.	Az w/1125 Gals. 7 1/2% MCA (75 Gals/Ft.) w/30 Morflo III, 2 Gal.HC-2, 2 Gal. HAI-81 & 10# Ferchek.
		Foam Frac'd w/11,214 Gal. 28% HCL Acid & 150,000 SCF N2.

<b>TUBING RECORD</b>	Size 2-3/8"	Set At 2595'	Packer At None	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or Inj.	Producing Method <input checked="" type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)			
Jan. 4th, 2000				
Estimated Production Per 24 Hours	Oil Bbls. 0	Gas Mcf 323	Water Bbls. 10	Gas-Oil Ratio .70

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: 2564 - 2652'

ORIGINAL

DRILLER'S LOG

ENSIGN OIL & GAS, INC.  
PINKERTON HEIRS 1-13  
SECTION 13-T33S-R32W  
SEWARD COUNTY, KANSAS

COMMENCED: 11-22-99

COMPLETED: 11-24-99

SURFACE CASING: 642' OF 8 5/8" CMTD  
W/180 SKS 35:65 POZ + 6% GEL + 2%CC +  
1/4#/SK FLOCLE. TAILED IN W/125 SKS  
CLASS C + 2% CC + 1/4#/SK FLOCLE.

FORMATION

DEPTH

SURFACE HOLE	0 - 642
RED BED	642 - 990
GLORIETTA	990 - 1150
RED BED	1150 - 2634
CHASE	2634 - 2825 RTD

I DO HEREBY CERTIFY THAT THE FOREGOING STATEMENTS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

CHEYENNE DRILLING, INC.

*Wray Valentine*

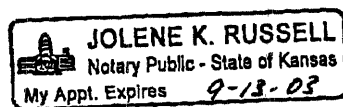
WRAY VALENTINE

STATE OF KANSAS: ss:

SUBSCRIBED AND SWORN TO BEFORE ME THIS 30TH DAY OF NOVEMBER, 1999.

JOLENE K. RUSSELL

*Jolene K. Russell*  
NOTARY PUBLIC



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STATE CORPORATION COMMISSION

FEB 24 2000

CONSERVATION DIVISION  
Wichita, Kansas



# Cementing Service Report

ORIGINAL

Well		Location (Legal)		Dewell Location		Job Start	
Pirkerton Heirs 1-13		Sec.13-33S-32W		Ulysses, KS		11/22/99	
Field		Formation Name/Type		Deviation		Well TVD	
				0		650 ft	
County		State/Province		BHT		Permeability	
Seward		Ks.		80°F		0 psi/ft	
Rig Name		Drilled For		Service Via		Casing	
Cheyenne Drilling		Gas		Land		Casing	
Offshore Zone		Well Class		Well Type		Grade	
		New		Development		K55	
Drilling Fluid Type		Max. Density		Plastic Viscosity		Thread	
Polymer		9.4 lb/gal		0 cp		6RD	
Service Line		Job Type		Depth, ft		Grade	
Cementing		Cem Surface Casing		0		K55	
Max. Allowed Tubing Pressure		Max. Allowed Ann. Pressure		Wellhead Connection		Thread	
1000 psi		0 psi		6 5/8" 24# T/S		6RD	
Service Instructions		Top, ft		Bottom, ft		Total Interval	
		0		0		0 ft	
		0		0		0 ft	
		0		0		0 ft	
		Treat Down		Displacement		Packer Type	
		Casing		38.5 bbl		Packer Depth	
		Tubing Vol.		Casing Vol.		Annular Vol.	
		0 bbl		41.1 bbl		0 bbl	
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Volume Circulated prior to Cementing <input type="checkbox"/>		Casing Tools		Squeeze Job	
LMR Pressure: 266 psi		Pipe Rusted <input type="checkbox"/>		Pipe Replaced <input type="checkbox"/>		Squeeze Type	
No. Controllers: 3		Top Plugs: 0		Bottom Plugs: 0		Tool Type	
Cement Head Type: Single		Stage Tool Type		Tool Depth: 0 ft		Tail Pipe Size: 0 in	
Job Scheduled For: 11/22/99 15:00		Arrived on Location: 11/22/99 15:00		Leave Location: 11/22/99 17:35		Tail Pipe Depth: 0 ft	
		Casing Depth: 604 ft		Seq Total Vol: 0 bbl			
Time	Rate	Volume	Pressure	Temperature	Flow	Pressure	Notes
16:01	0	0	0	0	0	0	START ACQUISITION
16:01	0.	5.	0.	-3732	0.	0	
16:01	0.	5.	0.	-3732	0.	0	Pressure Test Lines
16:02	0.091	14.24	0.366	4.58	1.79	0	
16:02	0.289	14.25	0.771	1827	0.028	0	
16:02	0.289	14.24	1.18	54.95	0.	0	
16:03	0.289	14.24	1.54	-4.58	0.	0	
16:03	0.289	14.24	1.93	0.	0.	0	
16:03	0.289	14.24	1.93	0.	0.	0	[Cum Vol]=.289 bbl
16:03	0.289	14.24	1.93	0.	0.	0	Reset Volume
16:03	0.289	14.24	1.93	0.	0.	0	Start Pumping Water
16:03	0.	14.24	2.31	0.	0.	0	
16:04	1.53	14.36	2.7	151.1	5.7	0	
16:04	3.73	14.37	3.08	178.6	5.7	0	
16:05	5.93	14.36	3.47	164.8	5.7	0	
16:05	8.13	14.37	3.85	164.8	5.73	0	
16:05	8.13	14.37	3.85	164.8	5.73	0	[Cum Vol]=10.14 bbl
16:05	8.13	14.37	3.85	164.8	5.73	0	Reset Volume
16:05	0.095	15.88	4.24	192.3	5.7	0	
16:05	0.095	15.88	4.24	192.3	5.7	0	Start Mding Lead Slurry
16:06	2.3	17.24	4.62	236.1	5.7	0	
16:06	4.5	17.19	5.01	224.4	5.7	0	

FEB 24 2000

ORIGINAL

Well			Production			Service Date		Customer		Log Number	
Pinkerton Hairs #1-13								Cheyenne Drilling		20133120	
Time	Depth	Pressure	Flow Rate	Pressure	Flow Rate	Flow Rate	Flow Rate	Flow Rate	Flow Rate	Flow Rate	Flow Rate
16:07	6.7	16.76	5.4	219.8	5.73	0	0				
16:07	8.91	17.	5.78	206.	5.7	0	0				
16:07	11.11	16.84	6.17	201.5	5.7	0	0				
16:08	13.31	16.83	6.55	192.3	5.7	0	0				
16:08	15.51	16.89	6.94	187.7	5.73	0	0				
16:08	17.71	16.95	7.32	187.7	5.7	0	0				
16:09	19.91	16.89	7.71	183.2	5.7	0	0				
16:09	22.11	16.82	8.09	169.4	5.7	0	0				
16:10	24.32	16.75	8.46	160.3	5.7	0	0				
16:10	26.52	17.01	8.86	169.4	5.7	0	0				
16:10	28.72	16.92	9.25	164.8	5.73	0	0				
16:11	30.92	16.85	9.63	160.3	5.7	0	0				
16:11	33.12	16.91	10.02	146.5	5.73	0	0				
16:12	35.32	16.96	10.4	151.1	5.7	0	0				
16:12	37.52	16.99	10.79	151.1	5.7	0	0				
16:12	39.72	16.95	11.18	151.1	5.7	0	0				
16:13	41.93	16.88	11.56	146.5	5.7	0	0				
16:13	44.13	16.95	11.95	146.5	5.73	0	0				
16:13	46.33	16.9	12.33	137.4	5.7	0	0				
16:14	48.53	16.87	12.72	141.9	5.73	0	0				
16:14	50.73	17.03	13.1	146.5	5.7	0	0				
16:15	52.93	16.95	13.49	137.4	5.7	0	0				
16:15	55.13	16.87	13.87	137.4	5.7	0	0				
16:15	57.33	16.83	14.26	137.4	5.7	0	0				
16:16	59.54	16.83	14.64	128.2	5.73	0	0				
16:16	61.74	16.87	15.03	137.4	5.73	0	0				
16:17	63.94	16.87	15.41	132.8	5.73	0	0				
16:17	66.14	16.95	15.8	137.4	5.7	0	0				
16:17	68.34	17.14	16.19	141.9	5.73	0	0				
16:18	70.54	16.95	16.57	137.4	5.73	0	0				
16:18	72.74	17.43	16.96	137.4	5.7	0	0				
16:18	0.096	18.03	17.34	151.1	5.73	0	0				
16:18	0.096	18.03	17.34	151.1	5.73	0	0			[CumVol]=74.75 bbl	
16:18	0.096	18.03	17.34	151.1	5.73	0	0			Reset Volume	
16:19	0.096	18.03	17.34	151.1	5.73	0	0			Start Mxing Tail Slurry	
16:19	2.3	18.39	17.73	169.4	5.7	0	0				
16:19	4.5	18.64	18.11	183.2	5.7	0	0				
16:20	6.7	18.44	18.5	178.6	5.7	0	0				
16:20	8.9	18.44	18.88	178.6	5.73	0	0				
16:20	11.1	18.71	19.27	178.6	5.7	0	0				
16:21	13.31	18.51	19.65	169.4	5.7	0	0				
16:21	15.51	18.65	20.04	164.8	5.7	0	0				
16:22	17.71	18.08	20.42	151.1	5.7	0	0				
16:22	19.91	18.7	20.81	160.3	5.7	0	0				
16:22	22.11	18.65	21.19	174.	5.7	0	0				
16:23	24.31	18.51	21.58	174.	5.73	0	0				
16:23	26.51	18.61	21.97	174.	5.7	0	0				
16:23	28.72	18.79	22.35	169.4	5.7	0	0				
16:24	30.92	18.98	22.74	187.7	5.7	0	0				
16:24	30.92	18.98	22.74	187.7	5.7	0	0			[CumVol]=32.43 bbl	
16:24	30.92	18.98	22.74	187.7	5.7	0	0			Reset Volume	
16:24	0.008	18.35	23.12	32.05	0.	0	0				
16:24	0.008	18.35	23.12	32.05	0.	0	0			Shutdown	
16:24	0.008	18.35	23.12	32.05	0.	0	0			Drop Top Plug	

RIGS 87 v21-SR

STATE CORPORATION COMMISSION

Page 2 of 3

FEB 24 2000

CONSERVATION DIVISION  
Wichita, Kansas

ORIGINAL

Well		Fracture		Service Date		Customer		Job Number	
Pinkerton Heirs #1-13						Cheyenne Drilling		30-30170	
Time	Sherry	Flow	Pressure	Flow	Pressure	Flow	Pressure	Remarks	
hr:mn	gpm	psi	psi	gpm	psi	gpm	psi		
16:24	0.008	18.35	23.12	32.05	0.	0	0	Start Displacement	
16:25	0.008	18.35	23.12	32.05	0.	0	0	(CumVol)=6438E-6 bbl	
16:25	0.008	18.35	23.12	32.05	0.	0	0	Reset Volume	
16:25	0.	18.42	23.51	0.	0.	0	0		
16:25	1.4	16.	23.89	155.7	5.73	0	0		
16:25	3.6	15.09	24.28	82.42	5.7	0	0		
16:28	5.81	14.61	24.66	73.26	5.7	0	0		
16:26	8.	14.39	25.05	66.66	5.68	0	0		
16:27	10.21	14.35	25.43	66.66	5.7	0	0		
16:27	12.41	14.37	25.82	66.66	5.73	0	0		
16:27	14.61	14.37	26.21	73.26	5.7	0	0		
16:28	16.81	14.37	26.59	77.84	5.7	0	0		
16:28	19.01	14.37	26.98	105.3	5.7	0	0		
16:28	21.21	14.32	27.36	73.26	5.73	0	0		
16:29	23.41	14.26	27.75	132.8	5.73	0	0		
16:29	25.61	14.35	28.13	146.5	5.7	0	0		
16:30	27.82	14.37	28.52	160.3	5.7	0	0		
16:30	30.02	14.37	28.9	174.	5.73	0	0		
16:30	32.22	13.95	29.29	192.3	5.7	0	0		
16:31	34.42	13.93	29.67	208.	5.7	0	0		
16:31	36.6	13.97	30.06	196.9	5.09	0	0		
16:32	38.37	13.98	30.44	187.7	4.53	0	0		
16:32	38.52	14.17	30.83	126.2	0.	0	0		
16:32	38.52	9.01	31.22	-4.58	0.	0	0		
16:33	38.52	9.01	31.22	-4.58	0.	0	0	Shutdown	

Average Pump Rates, bpm				Volume of Fluid Injected, bbl			
Sherry	Hz	Med	Maximum Rate	Total Sherry	Med	Spacer	Hz
5.7	0	0	5.7	98	0	10	0
Treating Pressure Summary, psi				Breakdown Fluid			
Maximum	Flow	Average	Shut Plug to Breakdown	Type	Volume	Density	
198	198	0	0		0 bbl	0 lb/gal	
Avg. Hz Percent	Designed Sherry Volume	Displacement	Mix Water Temp	<input checked="" type="checkbox"/> Cement Circulated to Surface? Volume		18 bbl	
0 %	0 bbl	38.5 bbl	°F	<input type="checkbox"/> Washed thru Perfor To		0 ft	
Customer or Authorized Representative			Dowell Supervisor			<input type="checkbox"/> Circulation Lost <input checked="" type="checkbox"/> Job Completed	
Domaso Castillo			Darren Shilling				

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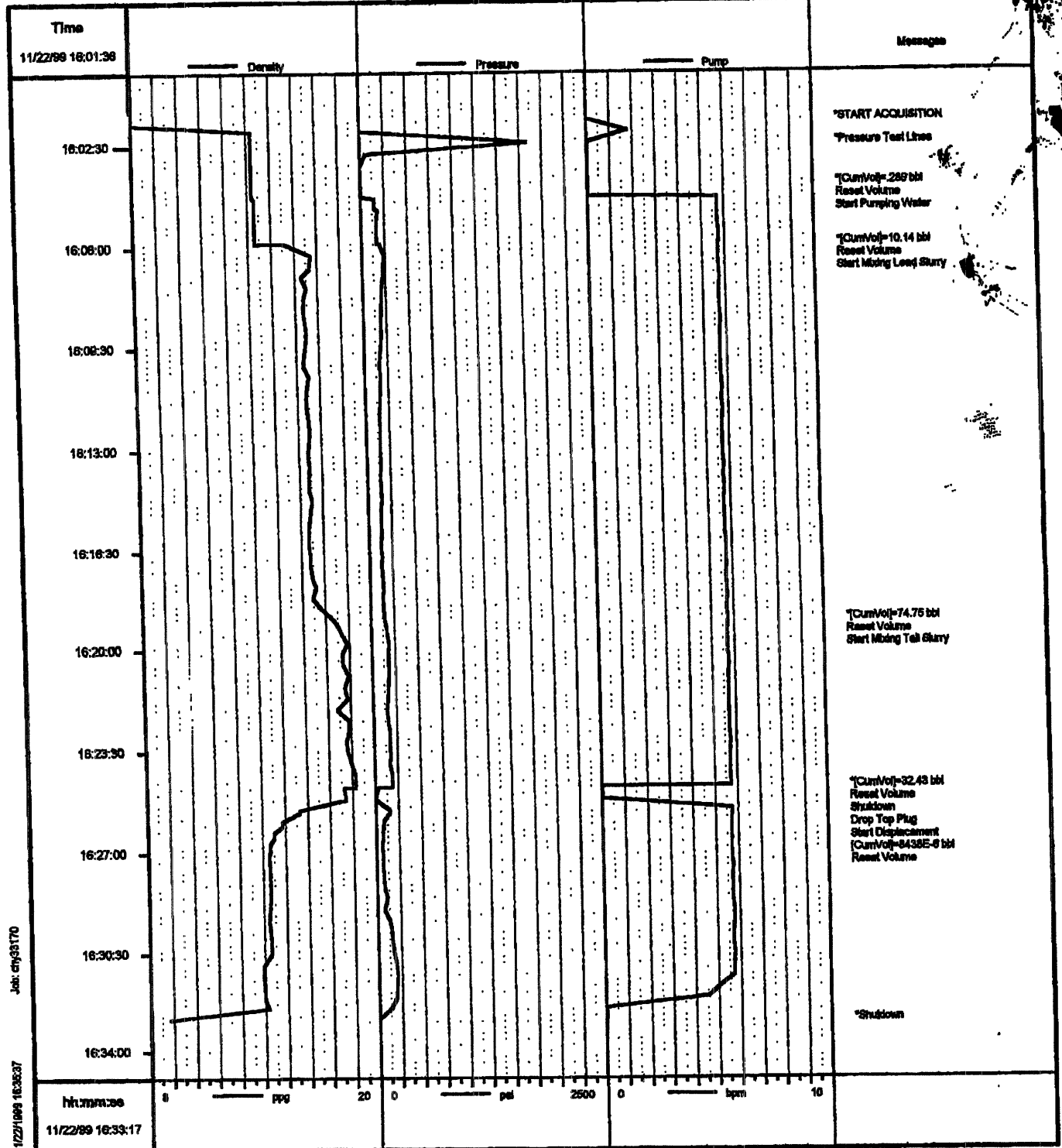
CONSERVATION DIVISION  
Wichita, Kansas

Schlumberger  
Dowell

Cementing Job Report

ORIGINAL PRISM V2.23

<b>Well</b> Pinkerton 1-13	<b>Client</b> Cheyenne Drilling
<b>Field</b>	<b>SIR No.</b> 20133170
<b>Country</b> Usa	<b>Job Date</b> 11/22/99 4:01:38 PM



Job: cty3170

11/22/99 16:33:17

\*Mark of Schlumberger

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CONSERVATION DIVISION  
Wichita, Kansas



Halliburton Energy Services, Inc.

SOLD TO

SHIP TO

*ABS*  
 ENSIGN OPERATING COMPANY  
 1225 SEVENTEENTH STREET SUITE 1900  
 DENVER CO 80202  
 USA

WELL OPERATOR  
 ENSIGN PINKERTON-HEIRS#1-13,  
 SEWARD  
 LEASE NAME / OFFSHORE AREA  
 PINKERTON-HEIRS  
 WELL NUMBER  
 #1-13  
 WELL PERMIT NO.  
 SEC 13 - 33S - 32W  
 ADDRESS  
 \*  
 CITY, STATE, ZIP CODE

ORIGINAL

TICKET TYPE	COMPANY CODE	HALLIBURTON ORDER NO.
Services	1100	306664
CUSTOMER P.O. NO.	JOB DATE	PRIMARY SERVICE LOC.
N/A	11/24/1999	Liberal, KS, USA

SALES OFFICE	WELL TYPE	WELL CATEGORY	RIG NAME / NO.
Mid-Continent BD	Oil	Development	ENSIGN OPERATING COMPANY

ITEM	MATERIAL	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
10	7523	PSL-CMT CEMENT PRODUCTION CASING-BOM Liberal, KS, USA Hwy 54 West JP035	1.00	JOB	0.00	0.00
20	1	MILEAGE FROM NEAREST HES BASE,/UNIT,ZI Liberal, KS, USA Hwy 54 West 000-117 With the following configuration: Number of Units	20	MI	3.65	73.00
			20	MI	1.46-	29.20-
			20	MI	2.19	43.80
30	2	MILEAGE FOR CEMENTING CREW,ZI Liberal, KS, USA Hwy 54 West 000-119 With the following configuration: Number of Units	20	MI	2.15	43.00
			20	MI	0.86-	17.20-
			20	MI	1.29	25.80

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CONSERVATION DIVISION  
 Wichita, Kansas

ORIGINAL

INVOICE INSTRUCTIONS	
PAYMENT TERMS Net due in 20 days	HALLIBURTON APPROVAL
HALLIBURTON OPERATOR / ENGINEER <i>Ron Crist</i>	CUSTOMER SIGNATURE <i>Wes Wilk</i>

TOTAL FROM THIS PAGE	69.60
TOTAL FROM NEXT PAGE(S)	6,163.95
SUBTOTAL	6,233.55
TAXES	263.43
GRAND TOTAL	6,496.98
	US Dollars





ORIGINAL

Halliburton Energy Services, Inc.

ITEM	MATERIAL	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
40	11	CEMENT CASING DEPTH CHARGE				
		Liberal, KS, USA Hwy 54 West	1.00	UN	1,798.00	1,798.00
			1.00	UN	719.20-	719.20-
			1.00	UN	1,078.80	1,078.80
		001-016				
		With the following configuration:				
		CHARGE BY FT OR RANGE OF FEET	2,825	ft		
50	132	PORTABLE DAS,/DAY/JOB,ZI				
		Liberal, KS, USA Hwy 54 West	1.00	JOB	760.00	760.00
			1.00	JOB	304.00-	304.00-
			1.00	JOB	456.00	456.00
		045-050				
		With the following configuration:				
		NUMBER OF DAYS	1	Days		
60	100003140	PLUG - CMTG - TOP ALUM - 4-1/2				
		Liberal, KS, USA Hwy 54 West	1.00	EA	50.00	50.00
			1.00	EA	20.00-	20.00-
			1.00	EA	30.00	30.00
		402.1502				
		PLUG - CMTG - TOP ALUM - 4-1/2				
		9.5-15.1#				
70	100004722	SHOE - GUIDE - 4-1/2 8RD				
		Liberal, KS, USA Hwy 54 West	1.00	EA	105.00	105.00
			1.00	EA	42.00-	42.00-
			1.00	EA	63.00	63.00
		12A - 825.201				
		SHOE - GUIDE - 4-1/2 8RD				
80	100004698	V ASSY,INSR FLOAT,4 1/2,8RD,10.5,15.1#				
		Liberal, KS, USA Hwy 54 West	1.00	EA	110.00	110.00
			1.00	EA	44.00-	44.00-
			1.00	EA	66.00	66.00
		24A815.19101				
		VALVE ASSY - INSERT FLOAT - 4-1/2 8RD				
		10.5-15.1#				

RECEIVED  
STATE CORPORATION COMMISSION

FEB 24 2000

CONSERVATION DIVISION  
Wichita, Kansas

ORIGINAL



ORIGINAL

Halliburton Energy Services, Inc.

ITEM	MATERIAL	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
	LOCATION					
90	100013929	FILLUP ASSY-1.000 ID-4 1/2				
	Liberal, KS, USA Hwy 54 West		1.00	EA	60.00	60.00
			1.00	EA	24.00-	24.00-
			1.00	EA	36.00	36.00
		27815.19111				
		FILLUP ASSY - 1.000 ID - 4-1/2 -				
		5 IN. INSERT FLOAT VALVE				
100	100004473	CENTRALIZER ASSY - API - 4-1/2 CSG X				
	Liberal, KS, USA Hwy 54 West		6.00	EA	59.00	354.00
			6.00	EA	23.60-	141.60-
			6.00	EA	35.40	212.40
		40806.60004				
		CENTRALIZER ASSY - API - 4-1/2 CSG X				
		7-7/8 HOLE - HINGED - W/WELDED				
		IMPERIAL BOWS				
110	100004638	CLAMP-LIMIT-4 1/2-FRICT-W/DOGS				
	Liberal, KS, USA Hwy 54 West		1.00	EA	17.65	17.65
			1.00	EA	7.06-	7.06-
			1.00	EA	10.59	10.59
		XXXXXXXX 806.72720				
		CLAMP - LIMIT - 4-1/2 - FRICTION -				
		W/DOGS				
120	100005045	HALLIBURTON WELD-A KIT				
	Liberal, KS, USA Hwy 54 West		1.00	EA	18.43	18.43
			1.00	EA	7.37-	7.37-
			1.00	EA	11.06	11.06
		890.10802				
		HALLIBURTON WELD-A KIT				
130	14239	SBM PREMIUM PLUS 50/50 POZ				
	Hugoton, KS, USA		300.00	SK	10.60	3,180.00
			300.00	SK	4.24-	1,272.00-
			300.00	SK	6.36	1,908.00
		504-132				

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Wichita, Kansas

ORIGINAL



ORIGINAL

Halliburton Energy Services, Inc.

ITEM	MATERIAL	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
170	100005049 Hugoton, KS, USA	FLOCELE - 3/8 - 25 LB SACK	75.00	LB	2.09	156.75
			75.00	LB	0.84	62.70
			75.00	LB	1.25	94.05
			XXXXXXX	890.50071		
180	100012205 Hugoton, KS, USA	CLASS C CEMENT	150.00	SK	15.69	2,353.50
			150.00	SK	6.28	941.40
			150.00	SK	9.41	1,412.10
			504-050516.00265			
190	3965 Hugoton, KS, USA	HANDLE&DUMP SVC CHR, CMT&ADDITIVES,ZI	462.00	CF	1.66	766.92
			462.00	CF	0.66	306.77
			462.00	CF	1.00	460.15
			500-207			
		With the following configuration:				
		NUMBER OF EACH	1	each		
200	3975 Hugoton, KS, USA	MILEAGE,CMTG MTLS DEL/RETURNED,ZI	400.0	TMI	1.25	500.00
			400.0	TMI	0.50	200.00
			400.0	TMI	0.75	300.00
			500-306			
		With the following configuration:				
		NUMBER OF TONS	1.00	ton		
210	100001585 Liberal, KS, USA Hwy 54 West	CHEMICAL - KCL POTASSIUM CHLORIDE -	100.00	LB	0.43	43.00
			100.00	LB	0.17	17.20
			100.00	LB	0.26	25.80
			70.15302			
		CHEMICAL - KCL POTASSIUM CHLORIDE -				
		50 LB SACK OR BAG				

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Wichita, Kansas

ORIGINAL



ORIGINAL

Halliburton Energy Services, Inc.

ITEM	MATERIAL	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
	LOCATION					
		INVOICE AMOUNT				6,233.55
		Sales Tax - State				215.88
		Sales Tax - County				3.49
		Sales Tax - City/Loc				44.06
		<b>INVOICE TOTAL</b>				<b>6,496.98</b>
						<b>US Dollars</b>

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Wichita, Kansas

ORIGINAL

**JOB SUMMARY**

ORDER NO. 70008

206664

11-27-71

REGION North America	NWA/COUNTRY Midcontinent	BDA / STATE Ks	COUNTY Seward
MBU ID / EMP # MCI1012/105943	EMPLOYEE NAME Ron Crist	PSL DEPARTMENT ZI	ORIGINAL
LOCATION Liberal Ks	COMPANY Ensign Operating	CUSTOMER REP / PHONE	
TICKET AMOUNT 6496.98	WELL TYPE 07	API / UWI #	
WELL LOCATION Land	DEPARTMENT ZI	JOB PURPOSE CODE 035	
LEASE / WELL # Pinkerton - Heirs 1-13	SEC / TWP / RNG 13-33S-32W		

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
R Crist 105943			
S Engel 106099			
R Anderson 105915			

HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES
420671							
54218-28202							

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 Geller insert 2 1/2" x 11"	1	
Float Shoe		
Guide Shoe	1	
Centralizers		
Bottom Plug		
Top Plug	1	
Head	1	
Packer		
Other clamp wellhead	1	

**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		

DATE	CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
11-24-99	1230	1500	1550	1645

**WELL DATA**

	NEW/USED	WEIGHT	SIZE	FROM	TO	MAX ALLOW
Casing	4		4 1/2	KB	2842	
Liner						
Liner						
Tbg/D.P.						
Tbg/D.P.						
Open Hole						SHOTS/FT.
Perforations						
Perforations						
Perforations						

HOURS ON LOCATION		OPERATING HOURS		DESCRIPTION OF JOB
DATE	HOURS	DATE	HOURS	
<b>TOTAL</b>		<b>TOTAL</b>		

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

**CEMENT DATA**

STAGE	SACKS	CEMENT	BULK/SKS	ADDITIVES	YIELD	LBS/GAL
	700	50/60 P+	B	1/4" Floccul	1.91	12.2
	150	P+	B	Neat	1.32	14.8

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FEB 24 2000

Circulating \_\_\_\_\_ Displacement \_\_\_\_\_ CONSERVATION DIVISION Preflush: Gal - BBI \_\_\_\_\_ Type \_\_\_\_\_  
 Breakdown \_\_\_\_\_ Maximum \_\_\_\_\_ Wichita, Kansas 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 \_\_\_\_\_  
**THE INFORMATION STATED HEREIN IS CORRECT** CUSTOMER'S REPRESENTATIVE SIGNATURE  
 \_\_\_\_\_

**JOB LOG**

ORDER NO. 70008

REGION <b>North America</b>	NWA/COUNTRY <i>USA</i>	BDA / STATE <i>KS</i>	COUNTY <i>...</i>
MBU ID / EMP #	EMPLOYEE NAME	PSL DEPARTMENT	<b>ORIGINAL</b>
LOCATION	COMPANY	CUSTOMER REP / PHONE	
TICKET AMOUNT	WELL TYPE	API / UWI #	
WELL LOCATION	DEPARTMENT	JOB PURPOSE CODE	
LEASE / WELL #	SEC / TWP / RNG		

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

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESS. (psi)		JOB DESCRIPTION / REMARKS
				T	C	Tbg	Csg	
	1230							Notified of Job
	1410							on loc picked circulating on bottom
	1500							on loc Trucks
	1550							Rig up
	1602	6	102			150		Press Test Pump 1086RC1 2%
	1617	6	35.			100		Pump Lead CNT
	1624	-						Pump Tail
	1627		34					Shut Down Wash Pump & lines
	1630							0-550 Start Displacement
								550-600 Slow Rate
								600-1100 Bump Plug
<p style="font-size: 24px; font-family: cursive;">Thank you</p>								
<p><b>RECEIVED</b> STATE CORPORATION COMMISSION</p> <p><b>FEB 24 2000</b></p> <p>CONSERVATION DIVISION Wichita, Kansas</p>								



# Work Order Contract

ORIGINAL  
Order Number

306664

Halliburton Energy Services, Inc.  
Houston Texas 77056

70012 SAP

TO: HALLIBURTON ENERGY SERVICES, INC. - YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICE PERSONNEL TO DELIVER AND OPERATE THE SAME AS AN INDEPENDENT CONTRACTOR TO CUSTOMER LISTED BELOW AND DELIVER AND SELL PRODUCTS, SUPPLIES AND MATERIALS FOR THE PURPOSE OF SERVING:

Well No. 1-13	Farm or Lease Pinkerton Heins	County Seward	State KS	Well Permit #
Customer Ensign Operating		Well Owner SAME		Job Purpose 035

**THIS WORK ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED**

**A. CUSTOMER REPRESENTATION** - Customer warrants that the well is in proper condition to receive the services, equipment, products, and materials to be supplied by Halliburton Energy Services, Inc. (hereinafter "Halliburton").

**B. PRICE AND PAYMENT** - The services, equipment, products, and/or materials to be supplied hereunder are priced in accordance with Halliburton's current price list. All prices are exclusive of taxes. If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If Customer has an approved open account, invoices are payable on the twentieth day after the date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event Halliburton employs an attorney for collection of any account, Customer agrees to pay attorney fees of 20% of the unpaid account, or Halliburton's actual attorneys fees, whichever is greater, plus all collection and court costs. Customer agrees that the amount of attorney fees set out herein are reasonable and necessary.

**C. RELEASE AND INDEMNITY** - Customer agrees to RELEASE Halliburton Group from any and all liability for any and all damages whatsoever to property of any kind owned by, in the possession of, or leased by Customer and those persons and entities Customer has the ability to bind by contract or which are co-interest owners or joint ventures with Customer. Customer also agrees to DEFEND, INDEMNIFY, AND HOLD Halliburton Group HARMLESS from and against any and all liability, claims, costs, expenses, attorney fees and damages whatsoever for personal injury, illness, death, property damage and loss resulting from:

loss of well control; services to control a wild well whether underground or above the surface; reservoir or underground damage, including loss of oil, gas, other mineral substances or water; surface damage arising from underground damage; damage to or loss of the well bore; subsurface trespass or any action in the nature thereof; fire; explosion; subsurface pressure; radioactivity; and pollution and contamination and its cleanup and control.

**CUSTOMER'S RELEASE, DEFENSE, INDEMNITY AND HOLD HARMLESS** obligations will apply even if the liability and claims are caused by the sole, concurrent, active or passive negligence, fault, or strict liability of one or more members of the Halliburton Group, the unseaworthiness of any vessel or any defect in the data, products, supplies, materials or equipment furnished by any member or members of the Halliburton Group whether in the design, manufacture, maintenance or marketing thereof or from a failure to warn of such defect. "Halliburton Group" is defined as Halliburton Energy Services, Inc., its parent, subsidiary, and affiliated companies, insurers and subcontractors and all its/their officers, directors, employees, consultants and agents. Customer's RELEASE, DEFENSE, INDEMNITY AND HOLD HARMLESS obligations apply whether the personal injury, illness, death, property damage or loss is suffered by one or more members of the Halliburton Group, Customer, or any other person or entity. Customer agrees to support such obligations assumed herein with liability insurance with limits of not less than \$500,000. Customer agrees to name Halliburton Group as named additional insureds on all of its general liability policy(s). Customer agrees that its liability under this Contract is not limited by the amounts of its insurance coverage, except where and as may be required by applicable local law for the provisions of this Contract to be enforceable.

**D. EQUIPMENT LIABILITY** - Customer shall at its risk and expense attempt to recover any Halliburton Group equipment lost or lodged in the well. If the equipment is recovered and repairable, Customer shall pay the repair costs, unless caused by Halliburton's sole negligence. If the equipment is not recovered or is irreparable, Customer shall pay the replacement cost, unless caused by Halliburton's sole negligence. If a radioactive source becomes lost or lodged in the well, Customer shall meet all requirements of Section 39.15(a) of the Nuclear Regulatory Commission regulations and any other applicable laws or regulations concerning retrieval or abandonment and shall permit Halliburton to monitor the recovery or abandonment efforts all at no risk or liability to Halliburton Group. Customer shall be responsible for damage to or loss of Halliburton group equipment, products, and materials while in transit aboard Customer-supplied transportation, even if such is arranged by Halliburton at Customer's request, and during loading and unloading from such transport. Customer will also pay for the repair or replacement of Halliburton group equipment damaged by corrosion or abrasion due to well effluents.

**E. LIMITED WARRANTY** - Halliburton warrants only title to the equipment, products, and materials supplied under this Contract and that same are free from defects in workmanship and materials for thirty (30) days from the date of delivery. **THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE.** Halliburton's sole 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, lease or use of any equipment, products, or materials is expressly limited to the replacement of such on their return to Halliburton or, at Halliburton's option, to the allowance to Customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, consequential, or punitive damages. 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 EQUIPMENT, MATERIALS, OR SERVICE, NOR THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, JOB RECOMMENDATION OR OTHER DATA FURNISHED BY HALLIBURTON GROUP.** Halliburton personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Customer agrees that Halliburton Group shall not be liable for and **CUSTOMER SHALL INDEMNIFY HALLIBURTON GROUP AGAINST ANY DAMAGES ARISING FROM THE USE OF SUCH INFORMATION**, even if such is contributed to or caused by the active or passive negligence, fault or strict liability of any member or members of Halliburton Group. Halliburton also does not warrant the accuracy of data transmitted by electronic process, and Halliburton will not be responsible for accidental or intentional interception of such data by third parties.

**F. GOVERNING LAW** - The validity, interpretation and construction of this Contract shall be determined by the laws of the jurisdiction where the services are performed or the equipment or materials are delivered.

**G. DISPUTE RESOLUTION** Customer and Halliburton agree that any dispute that may arise out of the performance of this Contract shall be resolved by binding arbitration by a panel of three arbitrators under the rules of the American Arbitration Association. The arbitration will take place in Houston, TX.

**H. SEVERABILITY** - If any provision or part thereof of this Contract shall be held to be invalid, void, or of no effect for any reason, such holding shall not be deemed to affect the validity of the remaining provisions of this Contract which can be given effect, without the invalid provision or part thereof, and to this end, the provisions of this Contract are declared to be severable. Customer and Halliburton agree that any provision of this Contract that is unenforceable or void under applicable law will be modified to achieve the intent of the parties hereunder to the greatest extent allowed by applicable law.

**I. MODIFICATIONS** - Customer agrees that Halliburton shall not be bound by any modifications to this Contract, except where such modification is made in writing by a duly authorized executive officer of Halliburton. Requests for modifications should be directed to the Vice President - Legal, 4100 Clinton Drive, Houston, TX. 77020.

I HAVE READ AND UNDERSTAND THIS WORK ORDER WHICH CONTAINS RELEASE AND INDEMNITY LANGUAGE WHICH CUSTOMER ACKNOWLEDGES IS CONSPICUOUS AND AFFORDS FAIR AND ADEQUATE NOTICE AND I REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER'S AGENT.

RECEIVED

SIGNED: \_\_\_\_\_ DATE: **FEB 24 2000** TIME: \_\_\_\_\_ A.M./P.M.

CUSTOMER Authorized Signatory

Customer Acceptance of Materials and Services CONSERVATION DIVISION

Wichita, Kansas

THE CUSTOMER HEREBY ACKNOWLEDGES RECEIPT OF THE MATERIALS AND SERVICES DESCRIBED ON THE ATTACHED ORDER NUMBER \_\_\_\_\_

*[Signature]*  
CUSTOMER Authorized Signatory

White-Office

Canary-Field Office

Pink-Customer

Green-Retain