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

RECEIVED
AUG 05 2002
KCC WICHITA

API NO. 15 - 075-20791 0000 Docket No. E-28,043

Operator: License # 32971

Name: Dominion Oklahoma Texas E&P, Inc.

Address: Suite 600

14000 Quail Springs Parkway

City/State/Zip Oklahoma City, OK 73134

Purchaser: NA

Operator Contact Person: Lenora Sawyer

Phone (405) 748-2725

Contractor: Name Cheyenne Drilling

License: 5382

Wellsite Geologist: NA

Designate Type of Completion
X New Well ____ Re-Entry ____ Workover

____ Oil X SWD ____ SIOW ____ Temp. Abd.
____ Gas ____ ENHR ____ SIGW
____ Dry ____ Other (Core, WSW, Expl. Cathodic, etc.)

If Workover:

Operator:

Well Name:

Comp. Date ____ Old Total Depth ____

____ Deepening ____ Re-perf. ____ Conv. To Inj/SWD
____ Plug Back ____ PBTD
____ Commingled Docket No.
____ Dual Completion Docket No.
____ Other (SWD or Inj?) Docket No. E-28043

7/25/02 Spud Date | 7/27/02 Date Reached TD | 7/31/02 Completion Date

County Hamilton

Ap. N/2 - NW - NE - NW Sec. 14 Twp. 21 Rge. 41 E X W

165' Feet from S / N (circle one) Line of Section

1596' Feet from E / W (circle one) Line of Section

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

Lease Name HCU 1411 Well # SWD

Field Name Bradshaw

Producing Formation Council Grove

Elevation: Ground 3622.1' KB 3627'

Total Depth 3210' PBTD 3158'

Amount of Surface Pipe Set and Cemented at 352' Feet

Multiple Stage Cementing Collar Used? ____ Yes X No

If yes, show depth set ____ Feet

If Alternate II completion, cement circulated from 3210'

feet depth to Surface w/ 500 sx cmt

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit) ALT II EIH 9-6-02

Chloride content 47000 ppm Fluid volume 800 bbls

Dewatering method used Evaporation

Location of fluid disposal if hauled offsite:

Operator Name

Lease Name ____ License No. ____

____ 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, 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 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 CD-4 form with all plugged wells. Submit CP-111 with all temporarily abandoned wells.

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

Signature Lenora Sawyer

Title Regulatory Specialist Date 8/1/02

Subscribed and sworn to before me this 1st day of August 20 02 .

Notary Public Teresa L. Voiss

Date Commission Expires 2/20/04

TERESA L. VOISS NOTARY PUBLIC COMM. # 00001933 EXPIRES 2/20/04 STATE OF OKLAHOMA OKLAHOMA COUNTY

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)

Form ACO-1 (7-91)

Operator Name: Dominion Oklahoma Texs E&P, Inc. | Lease Name: HCU 1411 | Well #: SWD

Sec. 14 Twp. 21 Rge. 41 ☐ East ☒ West | County: Hamilton

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.) ☐ Yes ☒ No | ☒ Log | Formation (Top), Depth and Datum | ☐ Sample

Samples Sent to Geological Survey ☐ Yes ☒ No

Cores Taken ☐ Yes ☒ No

Electric Log Run (Submit Copy.) ☒ Yes ☐ No

Name / Top / Datum: See Attached Sheet

List All E.Logs Run:

Gamma Ray - Collar Log

MIT witnessed by KCC representative, Kevin Strube on 7/31/02.

CASING RECORD ☒ New ☐ Used

Report all strings set-conductor, surface, intermediate, production etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additivies
Surface	12-1/4"	8-5/8"	23#	352'	65/35 Lt. Poz Cl "H"	70 100	2%cc+1/4#flocele 2%cc+1/4#flocele
Production	7-7/8"	5-1/2"	15.5#	3210'	Cl "C"	250	3%D79,0.2%D46 0.25 pps D29
					CL "C"	250	2%S1+0.25 pps D29

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top	Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
___ Perforate					
___ Protect Casing					
___ Plug Back TD					
___ Plug Off Zone					

Shots Per Foot	PERFORATON RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Materials Used)	Depth
4 spf	3042-3128'	Acidize down tubing w/6000.gal 15% HCl	3042-3128'
		acid + 90 bbls lease water w/ball sealers. Flush w/150 bbls. Lease water.	

TUBING RECORD: Size 2-7/8" | Set At 3015' | Packer At 3015' | Liner Run ☐ Yes ☒ No

Date of First, Resumed Production, SWD or Inj. | Producing Method ☐ Flowing ☐ Pumping ☐ Gas Lift ☒ Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

Disposition of Gas: METHOD OF COMPLETION Production Interval

☐ Vented ☐ Sold ☐ Used on Lease (If Vented, submit ACO-18.)

☐ Open Hole ☒ Perf. ☐ Dually Comp. ☐ Commingled

☒ Other (Specify) SWD

DRILLER'S LOG

DOMINION EXPLORATION AND PRODUCTION
HCU 14-11 SWD
SECTION 14-T21S-R41W
HAMILTON COUNTY, KANSAS

COMMENCED: 07-25-02
COMPLETED: 07-27-02

SURFACE CASING: 352' OF 8 5/8" CMTD W/70 SKS POZ C + 2% CC + 1/4#/SK FLOCELE. TAILED W/100 SKS CLASS C + 2% CC + 1/4#/SK FLOCELE

FORMATION	DEPTH
SURFACE HOLE	0 - 352
RED BED, SANDSTONE & CLAY	352 - 1503
RED BED	1503 - 3210 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 JULY, 2002.

JOLENE K. RUSSELL
Jolene K. Russell
NOTARY PUBLIC

JOLENE K. RUSSELL
Notary Public - State of Kansas
My Appt. Expires 9-13-03

Schlumberger

Service Order

2002-Jul-24

Customer	Person Taking Call	Dowell Location	OrderDate	Job Number
CHEYENNE DRILLING	Cambern, Charles	Ulysses, KS	2002-Jul-25	2205440450

Well Name and Number	Legal Location	Field	County	State/Province
ACU 14-11	35-17S-40W		greely	ks

Well Master	API / UWI:	
0630435868		

Rig Name	Well Age	Sales Engineer	Job Type
Cheyenne Rig 11	New	Rosch, Daniel	Cem Surface Casing

Time Well Ready:	Deviation	Bit Size	Well MD	Well TVD	BHP	BHST	BHCT
		in	ft	ft	psi	°F	°F

Treat Down	Packer Type	Packer Depth	WellHead Connection	HHP on Location	Max AllowedPressure	Max Allowed AnnPressure
Casing		ft				

Casing

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread

Tubing

Depth,	Size, in	Weight, lb/ft	Grade	Thread

Perforated Intervals

Top, ft	Bottom, ft	spf	No. of Shots	Total Interval
				ft
				Diameter
				in

Services Instructions:
Safely Cement Surface Casing per customers request.

Extra Equipment:
* SLB TO PROVIDETHIS FLOAT EQUIPMENT*
2 - 8 5/8" Regular Centralizers (1 1/2" Bow)
1 - 8 5/8" Top Plug (Plastic)
1 - Thread Lock Kit
1- 8 5/8 Insert Float, Flapper type

Expected On Location:

Ready To Pump:

Contact	Voice	Mobile	FAX	Notes
Cheyene Drilling				

Notes:
8 5/8" Casing
8 5/8 Cement Head and top plug & swedge
8 5/8 set at 350

Directions:
Syracuse - 17 N - 1 3/4 W - S into

Other Notes:

Comments:

Fluid Systems:

Lead

70 Sacks 35/65 LP3/Class "C" Cement + 6% D20 + 2% S1 + 1/4 lb/sk D29

Density:	12.2	lb/gal	*Thickening Time:*	+7 hrs	
Yield:	2.17	ft³/sk			
H2O Mix:	11.878	gal/sk			
H2O:	831.46	gal	*Eq. Sack Weight:*	88.75	lb
			Total Blend:	70	sacks

Dowell Code	Conc/ Amount		Total Quantity
S001	2	% BWOB	124.25
D029	0.25	lbs/sk	17.5
D020	6	% BWOB	372.75
D132	27.65	lbs/sk	1935.5
D903	61.1	lbs/sk	4277

Tail

100 Sacks Class "C" Cement + 2% S1 + 1/4 lb/sk D29

Density:	14.8	lb/gal	*Thickening Time:*	+4 hrs	
Yield:	1.34	ft³/sk			
H2O Mix:	6.33	gal/sk			
H2O:	633	gal	*Eq. Sack Weight:*	94	lb
			Total Blend:	100	sacks

Dowell Code	Conc/ Amount		Total Quantity
D029	0.25	lbs/sk	25
S001	2	% BWOB	188
D903	94	lbs/sk	9400

Schlumberger Cementing Service Report

Customer: Dominion/Cheyenne Drilling			Job Number: 2205440450
Well: HCU 14-11	Location (legal): 35-17S-40W	Schlumberger Location: Ulysses, KS	Job Start: 1430
Field:	Formation Name/Type:	Deviation:	Bit Size: 12 1/4 in; Well MD: 320 ft; Well TVD: 320 ft
County: Greely	State/Province: Ks	BHP: psi; BHST: °F; BHCT: °F	Pore Press. Gradient: psi/ft
Well Master:	API / UWI:		
Rig Name: Cheyenne Rig 8	Drilled For: SWD	Service Via:	
Offshore Zone:	Well Class: New	Well Type: Development	
Drilling Fluid Type: Other	Max. Density: 9.3	Plastic Vis: 33 cp	
Service Line: Cementing	Job Type: Cem Prod Casing		
Max. Allowed Tubing Pressure: psi	Max. Allowed Ann. Pressure: psi	Wellhead Connection:	

Service Instructions: Safely Cement Surface Casing per customers request.

Casing/Liner

Depth, ft	Size, in	Weight, lbft	Grade	Thread
320		15#		8RD

Tubing/Drill Pipe

Depth,	Size, in	Weight, lbft	Grade	Thread

Perforations/Open Hole

Top, ft	Bottom, ft	spf	No. of Shots	Total Interval
				ft
				Diameter: in

Treat Down	Displacement	Packer Type	Packer Depth
Casing	19.7		ft

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol
bbl	bbl	23.6 bbl	bbl

Casing/Tubing Secured: ☑ 1 Hole Volume Circulated prior to Cementing: ☐

Lift Pressure: psi

Pipe Rotated: ☐ Pipe Reciprocated: ☐

No. Centralizers: 2 Top Plugs: 1 Bottom Plugs:

Cement Head Type: Single

Job Scheduled For: Arrived on Location: 0600 Leave Location: 1630

Casing Tools

Shoe Type:	Guide
Shoe Depth:	
Stage Tool Type:	
Stage Tool Depth:	ft
Collar Type:	None
Collar Depth:	ft

Squeeze Job

Squeeze Type:	
Tool Type:	
Tool Depth:	ft
Tail Pipe Size:	in
Tail Pipe Depth:	ft
Sqz Total Vol:	bbl

Date	Time (24 hr clock)	Treating Pressure psi	Flow Rate bbl/min	Density lbm/gal	Volume bbl	0	0	0	Message
7-25-02	1440	0	0.0		0.0	0	0	0	Test lines to 500 psi
	1445	5	4	12.4	0.0	0	0	0	Start lead cmt
	1451		4	12.4					End Lead
	1452	0	4	14.8	0.0	0	0	0	Start Tail
	1457	0	0.0 4	14.8	0.0	0	0	0	End Tail
	1458		0.0		0.0	0	0	0	Drop Plug
	1500		0.0 6	8.34		0	0	0	Start displacement
	1503								Bump Plug 400 psi
			0.0			0	0	0	
			0.0			0	0	0	
			0.0			0	0	0	Cement to Surface
						0	0	0	at 1502 -
						0	0	0	6 BBLS cmt
						0	0	0	To Surface
						0	0	0	
						0	0	0	
						0	0	0	
						0	0	0	

Schlumberger

Cementing Service Report

Customer	Job Number
Dominion Exploration & Production	2205440546

Well	Location (legal)	Schlumberger Location	Job Start
HCU SWD 1411	14-21S-41W	Ulysses, KS	

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
		°	in	3,210 ft	3,210 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
HAMILTON	KS	psi	°F	°F	psi/ft

Well Master: 0630435868	API / UWI:

Rig Name	Drilled For	Service Via
	Disposal	Land

Offshore Zone	Well Class	Well Type
	New	Other

Drilling Fluid Type	Max. Density	Plastic Vi	cp
Other	9.3 lb/gal	33	

Service Line	Job Type
Cementing	Cem Prod Casing

Max. Allowed Tubing Pressure	Max. Allowed Ann. Pressure	WellHead Connection
1000 psi	psi	5.5 cement head

Service Instructions

CEMENT PRODUCTION STRING AS PER DOMINION REQUEST

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
3210	5.5	15.5	K55	8RD

Tubing/Drill Pipe

Depth,	Size, in	Weight, lb/ft	Grade	Thread

Perforations/Open Hole

Top, ft	Bottom, ft	spf	No. of Shots	Total Interval
				ft
				Diameter in

Treat Down	Displacement	Packer Type	Packer Depth
Casing	75.8 bbl		ft

Tubing Vol.	Casing Vol.	Annular Vol.	OpenHole Vol
bbl	75.5 bbl	bbl	bbl

Casing/Tubing Secured ☑ 1 Hole Volume Circulated prior to Cementing ☐

Lift Pressure: psi

Pipe Rotated ☐ Pipe Reciprocated ☐

No. Centralizers: 12 Top Plugs: 1 Bottom Plugs:

Cement Head Type:

Job Scheduled For: Arrived on Location: 2002-Jul-27 4:00 Leave Location:

Casing Tools

Shoe Type: Guide	Shoe Depth: ft
Stage Tool Type:	Stage Tool Depth: ft
Collar Type: Auto-Fill	Collar Depth: ft

Squeeze Job

Squeeze Type	Tool Type:	Tool Depth: ft	Tail Pipe Size: in	Tail Pipe Depth: ft	Sqz Total Vol: bbl

Date	Time (24 hr clock)	Treating Pressure psi	Flow Rate bbl/min	Density lb/gal	Volume bbl	0	0	0	Message
2002-Jul-27	8:18	-15	0.0	8.30	0.0	0	0	0	
2002-Jul-27	8:19	-10	0.0	8.30	0.0	0	0	0	
2002-Jul-27	8:19	4	0.2	8.30	0.0	0	0	0	
2002-Jul-27	8:19								Pressure Test Lines
2002-Jul-27	8:20	567	0.2	8.30	0.2	0	0	0	
2002-Jul-27	8:20								Bleed Off Pressure
2002-Jul-27	8:20	960	0.0	8.30	0.3	0	0	0	
2002-Jul-27	8:21	31	0.0	8.30	0.3	0	0	0	
2002-Jul-27	8:21	8	0.0	8.30	0.3	0	0	0	
2002-Jul-27	8:21								Reset Total, Vol = 0.25 bbl
2002-Jul-27	8:22	8	0.0	8.30	0.3	0	0	0	
2002-Jul-27	8:22								Start Pumping Water
2002-Jul-27	8:22	4	0.0	8.30	0.3	0	0	0	
2002-Jul-27	8:22	168	3.0	8.30	0.6	0	0	0	
2002-Jul-27	8:22								Reset Total, Vol = 0.33 bbl
2002-Jul-27	8:22	159	4.0	8.30	0.6	0	0	0	
2002-Jul-27	8:22								Reset Total, Vol = 0.17 bbl
2002-Jul-27	8:22	242	5.6	8.30	2.8	0	0	0	
2002-Jul-27	8:23	246	5.6	8.20	7.5	0	0	0	
2002-Jul-27	8:24	260	5.7	9.29	9.9	0	0	0	
2002-Jul-27	8:24								Reset Total, Vol = 9.93 bbl
2002-Jul-27	8:24								Reset Total, Vol = 0.76 bbl

Well	Field	Service Date	Customer	Job Number
HCU SWD #1411			Dominion Exploration & Production	2205440548

Date	Time	Treating Pressure	Flow Rate	Density	Volume	0	0	0	Message
	24 hr clock	psi	bbl/min	lb/gal	bbl	0	0	0	
2002-Jul-27	8:24	283	5.7	10.20	10.7	0	0	0	
2002-Jul-27	8:24								End Water
2002-Jul-27	8:24	283	5.7	10.31	11.0	0	0	0	
2002-Jul-27	8:24	297	5.7	11.27	11.6	0	0	0	
2002-Jul-27	8:24								Start Mixing Lead Slurry
2002-Jul-27	8:24	274	5.7	12.57	12.2	0	0	0	
2002-Jul-27	8:25	301	5.7	11.05	17.0	0	0	0	
2002-Jul-27	8:26	301	5.8	11.92	21.7	0	0	0	
2002-Jul-27	8:27	292	5.8	11.19	26.5	0	0	0	
2002-Jul-27	8:27	274	5.8	11.24	31.3	0	0	0	
2002-Jul-27	8:28	255	5.8	11.35	36.2	0	0	0	
2002-Jul-27	8:29	237	5.8	11.15	41.0	0	0	0	
2002-Jul-27	8:30	228	5.8	11.05	45.8	0	0	0	
2002-Jul-27	8:31	228	5.8	11.33	50.7	0	0	0	
2002-Jul-27	8:32	191	5.8	11.11	55.6	0	0	0	
2002-Jul-27	8:32	187	5.9	11.07	60.6	0	0	0	
2002-Jul-27	8:33	164	5.9	11.42	65.4	0	0	0	
2002-Jul-27	8:34	159	5.9	11.16	70.3	0	0	0	
2002-Jul-27	8:35	146	5.9	11.28	75.2	0	0	0	
2002-Jul-27	8:36	132	5.9	11.11	80.2	0	0	0	
2002-Jul-27	8:37	81	5.7	10.92	85.1	0	0	0	
2002-Jul-27	8:37	109	5.4	11.24	89.6	0	0	0	
2002-Jul-27	8:38	100	5.4	11.40	94.1	0	0	0	
2002-Jul-27	8:39	91	5.4	10.83	98.6	0	0	0	
2002-Jul-27	8:40	114	5.4	11.27	103.1	0	0	0	
2002-Jul-27	8:41	182	5.9	11.14	107.9	0	0	0	
2002-Jul-27	8:42	196	5.8	11.02	112.8	0	0	0	
2002-Jul-27	8:42	255	5.9	11.30	117.6	0	0	0	
2002-Jul-27	8:43	260	5.9	11.21	122.5	0	0	0	
2002-Jul-27	8:44	251	5.9	11.16	127.5	0	0	0	
2002-Jul-27	8:45	265	5.9	11.14	132.4	0	0	0	
2002-Jul-27	8:46	274	5.8	11.05	137.2	0	0	0	
2002-Jul-27	8:47	265	5.8	10.86	142.1	0	0	0	
2002-Jul-27	8:47								End Lead Slurry
2002-Jul-27	8:47	274	5.8	12.03	143.8	0	0	0	
2002-Jul-27	8:47	283	5.9	12.16	144.0	0	0	0	
2002-Jul-27	8:47								Start Mixing Tail Slurry
2002-Jul-27	8:47								Reset Total, Vol = 133.84 bbl
2002-Jul-27	8:47	287	5.8	12.46	144.5	0	0	0	
2002-Jul-27	8:47	283	5.9	12.69	144.9	0	0	0	
2002-Jul-27	8:47								Reset Total, Vol = 0.39 bbl
2002-Jul-27	8:47	329	6.1	13.72	2.1	0	0	0	
2002-Jul-27	8:48	406	6.6	14.53	7.5	0	0	0	
2002-Jul-27	8:49	370	6.6	14.84	13.0	0	0	0	
2002-Jul-27	8:50	173	5.8	14.35	18.3	0	0	0	
2002-Jul-27	8:51	146	4.7	14.65	23.5	0	0	0	
2002-Jul-27	8:52	191	6.6	14.02	28.0	0	0	0	
2002-Jul-27	8:52	219	6.6	14.69	33.2	0	0	0	
2002-Jul-27	8:53	123	4.6	14.61	38.5	0	0	0	
2002-Jul-27	8:54	178	5.8	14.79	43.2	0	0	0	
2002-Jul-27	8:55	242	6.6	14.90	48.5	0	0	0	
2002-Jul-27	8:56	324	7.8	14.95	54.2	0	0	0	
2002-Jul-27	8:57	251	7.6	13.33	60.8	0	0	0	
2002-Jul-27	8:57	-24	0.0	13.07	60.9	0	0	0	

Well	Field	Service Date	Customer	Job Number
HCU SWD #1411			Dominion Exploration & Production	2205440546

Date	Time	Treating Pressure	Flow Rate	Density	Volume	0	0	0	Message
	24 hr clock	psi	bbl/min	lbm/gal	bbl	0	0	0	
2002-Jul-27	8:58	-24	0.0	12.21	60.9	0	0	0	
2002-Jul-27	8:59	-24	0.0	11.78	60.9	0	0	0	
2002-Jul-27	9:00	-19	0.0	11.17	60.9	0	0	0	
2002-Jul-27	9:01	31	1.6	10.21	61.6	0	0	0	
2002-Jul-27	9:01	31	3.5	10.19	63.0	0	0	0	
2002-Jul-27	9:01								End Tail Slurry
2002-Jul-27	9:01	36	3.5	10.18	63.0	0	0	0	
2002-Jul-27	9:01								Drop Top Plug
2002-Jul-27	9:02	31	4.3	9.58	64.4	0	0	0	
2002-Jul-27	9:02	-15	0.0	9.48	65.2	0	0	0	
2002-Jul-27	9:03	40	0.0	9.41	65.2	0	0	0	
2002-Jul-27	9:03								Start Displacement
2002-Jul-27	9:03	36	5.5	8.38	66.7	0	0	0	
2002-Jul-27	9:04	31	6.3	8.31	71.6	0	0	0	
2002-Jul-27	9:05	77	6.4	8.31	76.9	0	0	0	
2002-Jul-27	9:06	54	6.4	8.31	82.2	0	0	0	
2002-Jul-27	9:07	36	6.4	8.31	87.6	0	0	0	
2002-Jul-27	9:07	320	6.3	8.31	92.9	0	0	0	
2002-Jul-27	9:08	182	6.4	8.31	98.2	0	0	0	
2002-Jul-27	9:09	287	6.4	8.31	103.4	0	0	0	
2002-Jul-27	9:10	384	6.3	8.31	108.7	0	0	0	
2002-Jul-27	9:11	484	6.3	8.31	114.0	0	0	0	
2002-Jul-27	9:12	471	5.1	8.31	118.7	0	0	0	
2002-Jul-27	9:12	562	5.1	8.31	123.0	0	0	0	
2002-Jul-27	9:13	640	5.1	8.31	127.3	0	0	0	
2002-Jul-27	9:14	603	2.9	8.31	130.3	0	0	0	
2002-Jul-27	9:15	640	2.9	8.31	132.8	0	0	0	
2002-Jul-27	9:16	677	2.9	8.31	135.2	0	0	0	
2002-Jul-27	9:17	704	2.9	8.31	137.7	0	0	0	
2002-Jul-27	9:17	722	2.6	8.31	139.0	0	0	0	
2002-Jul-27	9:18	1340	0.2	8.31	140.0	0	0	0	
2002-Jul-27	9:19	1382	0.0	8.31	140.0	0	0	0	
2002-Jul-27	9:19								End Displacement
2002-Jul-27	9:19	297	0.0	8.31	140.0	0	0	0	
2002-Jul-27	9:20	548	0.0	8.31	140.0	0	0	0	
2002-Jul-27	9:21	411	0.0	8.31	140.0	0	0	0	
2002-Jul-27	9:22	521	1.5	6.47	140.2	0	0	0	
2002-Jul-27	9:22	457	0.0	1.97	141.5	0	0	0	
2002-Jul-27	9:23	626	2.1	8.30	142.7	0	0	0	
2002-Jul-27	9:24	727	3.2	8.30	145.0	0	0	0	
2002-Jul-27	9:25	599	0.0	8.30	146.7	0	0	0	
2002-Jul-27	9:25	599	0.0	8.30	146.7	0	0	0	
2002-Jul-27	9:25								Reset Total, Vol = 146.66 bbl
2002-Jul-27	9:26	800	1.4	8.30	146.9	0	0	0	
2002-Jul-27	9:27	548	0.0	8.30	147.0	0	0	0	
2002-Jul-27	9:27	301	0.0	8.30	147.0	0	0	0	
2002-Jul-27	9:28								Bump Top Plug
2002-Jul-27	9:28	301	0.0	8.30	147.0	0	0	0	
2002-Jul-27	9:28	301	0.0	8.30	147.0	0	0	0	
2002-Jul-27	9:28								Shutdown
2002-Jul-27	9:28	-10	0.0	8.30	147.0	0	0	0	
2002-Jul-27	9:28	-15	0.0	8.30	147.0	0	0	0	
2002-Jul-27	9:28								Stop Pumping

Well	Field	Service Date	Customer	Job Number
HCU SWD #1411			Dominion Exploration & Production	2205440548

Date	Time (24 hr clock)	Treating Pressure (psi)	Flow Rate (bbl/min)	Density (lb/gal)	Volume (bbl)	0	0	0	Message
						0	0	0	

Post Job Summary

Average Pump Rates, bpm

Slurry	N2	Mud	Maximum Rate
5.3			6.6

Volume of Fluid Injected, bbl

Total Slurry	Mud	Spacer	N2
200			

Treating Pressure Summary, psi

Maximum	Final	Average	Bump Plug to	Breakdown
800	707	288	1350	

Breakdown Fluid

	Volume	Density
FreshWater	bbl	8.34 lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	
	200 bbl	75.5 bbl	72 °F	☑ Cement Circulated to Surface? Volume 25 bbl Cmt to Surface
				☐ Washed Thru Perfs To ft

Customer or Authorized Representative: AT DOMINION, DARREL

Schlumberger Supervisor: Douglas Strano

☐ CirculationLost ☑ Job Completed

Comments:

Fluid Systems:

LEAD

250 SKS CLASS "C" + 3% D079 + 0.2% D046 + .25 PPS D029

Density:	11.1	lb/gal	*Thickening Time:*		
Yield:	3.17	ft³/sk			
H2O Mix:	19.9	gal/sk			
H2O:	4975	gal	*Eq. Sack Weight:*	94	lb
			Total Blend:	250	sacks

Dowell Code	Conc	Amount	Total Quantity
D029	0.25	lbs/sk	62.5
D046	0.2	% BWOB	47
D079	3	% BWOB	705
D903	94	lbs/sk	23500

TAIL

250 SKS CLASS "C" + 2% S1 + .25 PPS D29

Density:	14.8	lb/gal	*Thickening Time:*		
Yield:	1.34	ft³/sk			
H2O Mix:	6.29	gal/sk			
H2O:	1572.5	gal	*Eq. Sack Weight:*	94	lb
			Total Blend:	250	sacks

Dowell Code	Conc	Amount	Total Quantity
D029	0.25	lbs/sk	62.5
S001	2	% BWOB	470
D903	94	lbs/sk	23500