



Newpark Drilling Fluids, LLC



Preston Exploration, LLC

Roughneck Red "29" No.1

Section 29 , T-17-S, R-26-E

Eddy County, New Mexico

Mud Program Summary

<u>Depth</u>	<u>Casing</u>	<u>Hole Size</u>	<u>Mud Wt.</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>pH</u>
0' – 420'	13-3/8"	17-1/2"	8.6-8.7	34-36	N/C	N/C
420' - 1,400'	9-5/8"	12-1 /4"	8.4-8.5	28-29	N/C	9-10
1,400' - 6, 000'	-	8-1/2"	8.4-8.5	28-29	N/C	9-10
6,000' - 7, 200'	-	8-1/2"	8.4-9.0	28-29	N/C	9-10
7,200' - 8, 460'	5-1/2"	8-1/2"	9.0-9.4	32-38	12-8	9-10

Potential Problems

Surface Interval 0 – 420'

- Severe lost circulation.
- Losses may require dry drilling.
- Poorly consolidated formations, may require higher than normal viscosity.

Intermediate Interval 420' – 1,400'

- Severe seepage.
- Severe lost circulation.

1st Open Hole Interval 1,400' – 6,000'

- Moderate/severe seepage.
- Abnormal pressure possible in Wolfcamp.

2nd Open Hole Interval 6,000' – 7,200'

- Moderate seepage.
- Sensitive shales.

Production Hole Interval 7,200' – 8,460'

- Moderate/severe seepage.
- Abnormal pressure possible in Atoka and Morrow.
- Water Sensitive sands in Morrow.



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Surface Interval

Interval: 0 – 420'
Hole Size: 17-1/2"
Casing Size: 13-3/8"
Total Days: 1
Mud Type: New Gel/Lime
Properties:
 Weight: 8.6 – 8.7 ppg
 Viscosity: 34 – 36 sec/1000cc
 Filtrate: N/C
 pH: N/C

Interval Discussion:

Spud with a conventional New Gel/Lime "spud mud". Use NewGel and native solids to maintain a sufficient viscosity to keep the hole clean. Compound pumps to provide adequate volume to produce required annular velocity to clean hole. Mix Paper as needed to control seepage loss. Run fresh water at flowline for dilution and volume. Severe losses may require dry drilling to casing point.

At total depth of interval, mix in pre-mix pit, 200 barrels of fresh water, NewGel for a viscosity of 70 sec/1000cc, add 0.25 ppb of Super Sweep. Pump this pill prior to trip to run surface casing.

Materials Consumption & Cost:

40	sx	New Gel	\$ 345.20
5	sx	Lime	41.30
5	sx	Paper	62.50
2	bx	Super Sweep	<u>402.52</u>
			\$ 851.52



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Intermediate Hole Interval

Interval: 420' – 1,400'
Hole Size: 12-1/4"
Casing Size: 8-5/8"
Total Days: 2
Mud Type: Fresh Water
Properties:
 Weight: 8.4 – 8.5 ppg
 Viscosity: 28 – 29 sec/1000cc
 Filtrate: N/C
 pH: 9 – 10

Interval Discussion:

Drill out below Surface Casing with Fresh water. Circulate through a controlled portion of the reserve pit for maximum gravitational solids removal. Mix Paper to control seepage losses. Mix Caustic Soda to maintain pH at 9-10. Mix one gallon of New-55 at flowline every 250' to promote solids settling. Sweep hole with 5-lbs of Super Sweep every 500 feet drilled.

If severe losses are encountered, fill pre-mix pit with fresh water, mix NewGel for a 40-50 sec/1000cc viscosity, Maxi-Seal (15-20 ppb) and Mica (5-10 ppb). Pull above the loss zone and pump the LCM pill at a reduced rate until returns are gained. Severe losses may require dry drilling to casing point.

At total depth sweep the hole using 100-barrels of system fluid, NewGel for a 70 sec/1000cc viscosity and 0.25 pounds per barrel of Super Sweep.

Materials Consumption & Cost:

40	sx	NewGel	\$ 345.20
20	sx	Paper	250.00
5	sx	Caustic	199.40
1	sx	Super Sweep	201.26
1	cn	New-55	<u>226.96</u>
			\$ 1,222.82



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1st Open Hole Interval

Interval: 1,400' – 6,000'
Hole Size: 8-1/2"
Casing Size:
Total Days: 8
Mud Type: Fresh Water
Properties:
 Weight: 8.4 – 8.5 ppg
 Viscosity: 28 – 29 sec/1000cc
 Filtrate: N/C
 pH: 9 – 10

Interval Discussion:

Drill out below Intermediate Casing with fresh water. Circulate through the remaining portion of the reserve pit for gravitational solids removal. Use sweeps of Paper to control seepage loss. Use Caustic Soda for pH control. Mix one gallon of New-55 at flowline every 250' to promote solids settling. Sweep hole with 2-lbs of Super Sweep every 500 feet drilled.

Materials Consumption & Cost:

50	sx	Paper	\$ 625.00
20	sx	Caustic	779.80
4	cn	New-55	907.84
2	bx	Super Sweep	<u>402.52</u>
			\$ 2,715.16



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2nd Open Hole Interval

Interval: 6,000' – 7,200'
Hole Size: 8-1/2"
Casing Size:
Total Days: 2
Mud Type: Fresh Water-3% KCL
Properties:
 Weight: 8.4 – 9.0 ppg
 Viscosity: 28 – 29 sec/1000cc
 Filtrate: N/C
 pH: 9 – 10

Interval Discussion:

At 6,000' add 3% Potassium Chloride (KCL) for inhibition. Continue circulating through the remaining portion of the reserve pit for gravitational solids removal. Use sweeps of Paper to control seepage loss. Use Caustic Soda for pH control. Mix one gallon of New-55 at flowline every 250' to promote solids settling. Sweep hole with 2-lbs of Super Sweep every 500 feet drilled.

Maintain sufficient 10-ppg brine water on location to increase mud weight if pressure is encountered.

Materials Consumption & Cost:

250	sx	KCL	\$ 3,785.00
15	sx	Paper	187.50
8	sx	Caustic	311.92
1	bx	Super Sweep	201.26
1	cn	New-55	<u>226.96</u>
			\$ 4,712.64



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Production Hole Interval

Interval: 7,200' – 8,460'
Hole Size: 8-1/2"
Casing Size: 5-1/2"
Total Days: 4
Mud Type: Dynazan-Starch
Properties:
 Weight: 9.0 – 9.4 ppg
 Viscosity: 32 – 38 sec/1000cc
 Filtrate: 12 – 8 cc/30min
 pH: 9 – 10

Interval Discussion:

At 7,200' confine circulation to steel pits. Adjust and maintain pH with Caustic Soda. Treat the system with Newcide to prevent bacterial degradation of organic materials. Mix Dynazan for a 32 sec/1000-cc viscosity. Mix Starch to control API filtrate at <12cc.

At 8,000' reduce API filtrate to <8-cc with Starch. Increase the viscosity to 36-38 sec/1000cc with Dyna Zan for hole cleaning and a firm-thin wall cake.

At total depth fill pre-mix pit with 80 barrels of system fluid. Mix Dynazan for a 80 sec/1000cc viscosity. Sweep with 40-barrels and spot the additional 40-barrels on bottom for logging and casing operations.

Materials Consumption & Cost:

40	sx	Dynazan	\$ 14,886.40
75	sx	Starch	1,854.75
15	sx	Caustic	584.85
5	cn	Newcide	<u>1,216.90</u>
			\$ 18,542.90



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ENGINEER / WAREHOUSE INFORMATION

WELL NAME: Roughneck Red "29" No. 1

LOCATION: Section 29, T-17-S, R-26-E

Eddy County, New Mexico

MUD ENGINEER: Jack Bartlett Carlsbad, New Mexico

Bill Stewart Hobbs, New Mexico

Ron Bailey Hobbs, New Mexico

(800) 592-4627 or (432) 697-8661. Both 24 hours.

WAREHOUSE: Artesia & Lovington, New Mexico

(800) 592-4627 or (432) 697-8661. Both 24 hours.



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LOST CIRCULATION PROCEDURES

Loss of circulation is a possibility on any well. Although each well is different, there are some basic procedures and drilling practices that can aid in reducing the severity and in some cases prevent lost circulation. Below is a list of several parameters which may prove helpful.

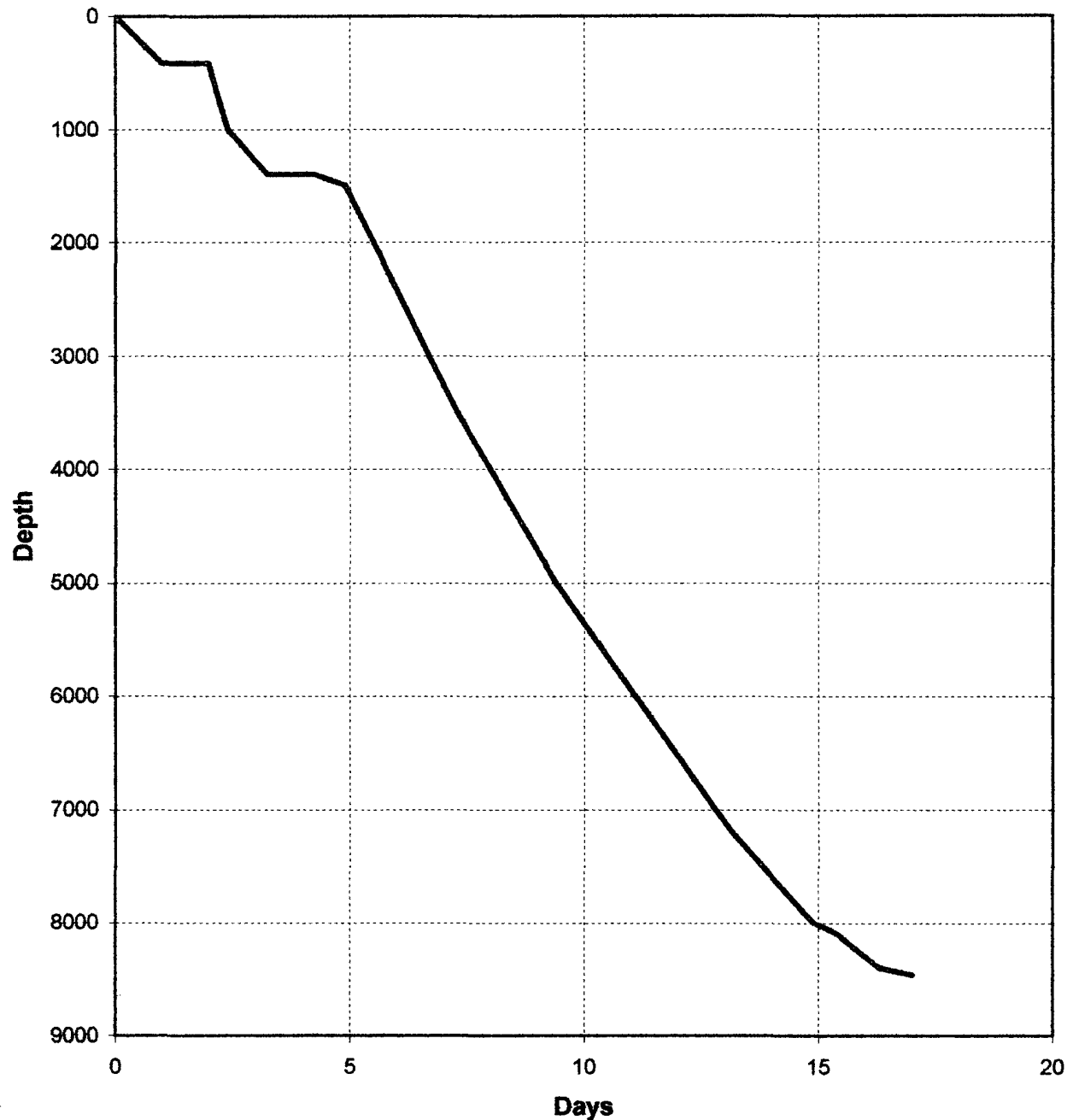
1. Maintain viscosities as low as possible and still clean the hole.
2. Maintain mud weights as low as possible without jeopardizing safety.
3. Use slower tripping speeds to prevent swabbing and surging.
4. Break circulation in stages while tripping in the hole.
5. Rotate pipe while breaking circulation.
6. Use an optimum hydraulics program.

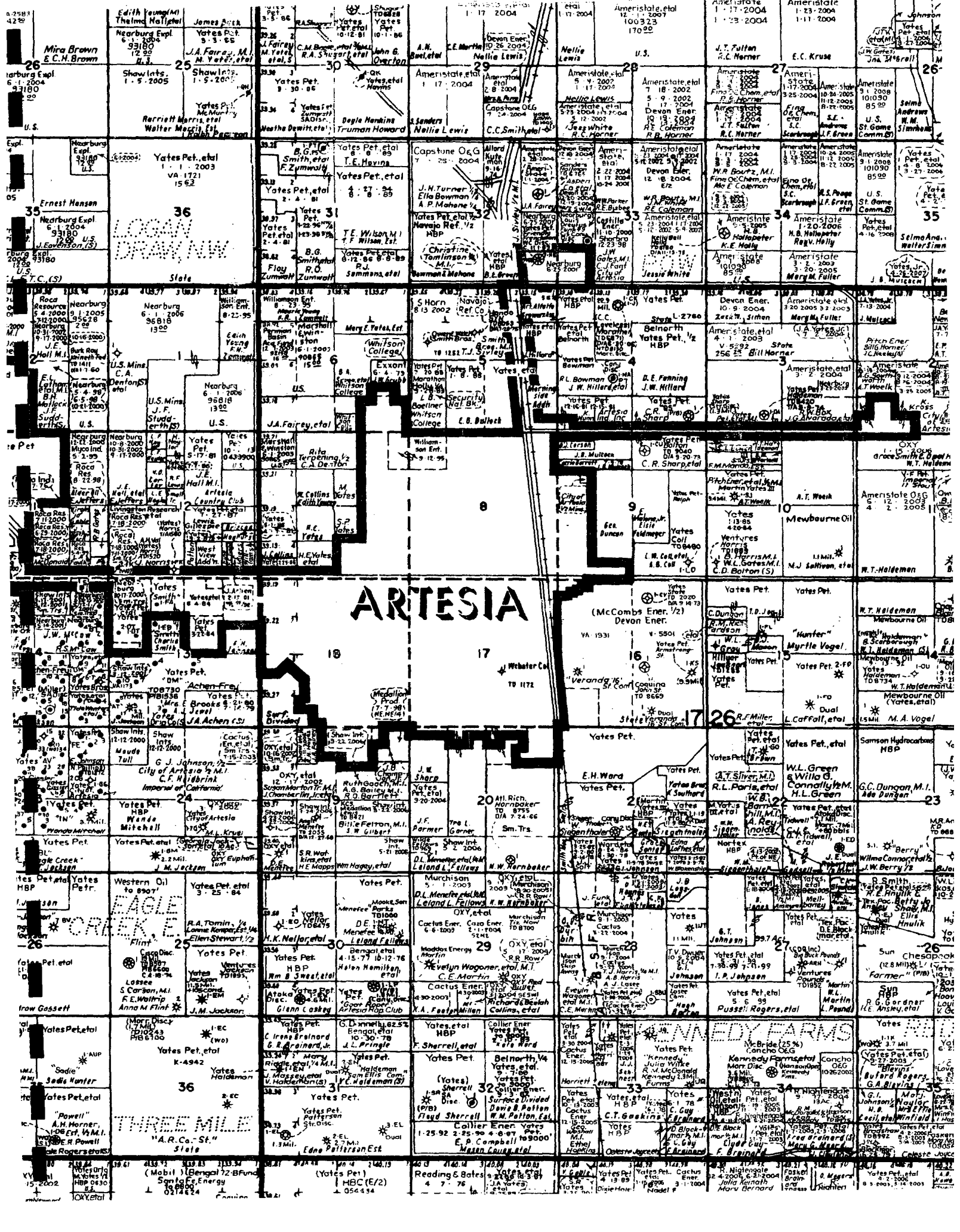
If losses do occur, we recommend pulling enough stands of pipe to get above the loss zone. A viscous pill containing a minimum of 10-20 pounds per barrel of the appropriate lost circulation material should be spotted at the loss zone. The pill should be between 50 and 100 barrels in size and be pumped at a reduced pump rate. Several attempts should be made before considering other alternatives.



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Eddy County, New Mexico

Depth Vs Days







HUGHES CHRISTENSEN BIT RECORD



API WELL NO. 30-015-32445-00-00
FILE NUMBER S58051

COUNTY/PARISH/OFFSHORE/STATE EDDY, NEW MEXICO	FIELD / AREA	DIRECTIONS 1 MI S. ARTESIA	SPUD DATE (mm/dd/yy) 11/10/2002	TD DATE (mm/dd/yy) 12/7/2002	STATUS FINAL
WELL NAME / NUMBER SKIPAWAY 1	OPERATOR MURCHISON O&G CO	OPERATOR REPRESENTATIVE WALT EVANS	DRILL COLLAR	DRILL COLLAR	DRILL COLLAR
CONTRACTOR PATTERSON-UTI DRLG CO. LP, LL	RIG 55	CONTRACTOR REPRESENTATIVE BOBBY MOORE	DRAWWORKS MID-CONT 3630	DRILL PIPE 1 4.500 x 16.500 x	DRILL PIPE 2
SALESMAN GEORGE BENGE	TURNKEY	PUMP 1 / LINER EMSCO DB550 5.50	PUMP 2 / LINER OILWELL 5.50	MUD SYSTEM Open	TOOL JOINT 1 TOOL JOINT 2
DRILLING DIRECTION VERTICAL	WORK TYPE FOOTAGE	MUD COMPANY OTHER	SEC./COORD. 28	TOWNSHIP 17S	RANGE 26E
				SURVEY	ABSTRACT BLOCK

No	SIZE	MFG	BIT TYPE	Nozzles (IFA)	SERIAL No.	Measured DEPTH OUT	Distance (feet)	HRS	ROP (ft/hr)	Accum Drlg Hrs	WT (Klb)	RPM	VERT DEV	P.P. (psi)	Flow (Gpm)	MUD (ppg)				DULL GRADING			
																WT	FV	PV	YP	FL	Type	SLDS	DATE
1	17-1/2	VAR	ETR-1	3x13	MPS4527(RR)	412	412	5.50	74.91	5.50	20-30	100-100	0.50	1,000	300	9.0	34	0	0	0.0	C	0.0	11/10
NO DULL bha=b,ss,dc,blade,5 8"dc,xo,4 6"dc TD 11/10 set 13 3/8" csgt																							TD
2	12-1/4	VAR	ETD29	3x12	176932	1,460	1,048	27.00	38.81	32.50	55-55	75-75	1.75	1,150	320	8.4	28	0	0	0.0	W	0.0	11/13
bha=b,ss,6 8"dc,xo,18 6"dc, tbha 746.09' TD 11/13 set 8 5/8" csg																							
3	07-7/8	STC	FI43Y	3x12	MK9034	1,679	219	7.00	31.29	39.50	50-50	60-60	0.00	1,300	320	8.4	28	0	0	0.0	W	0.0	11/15
						1,972	512	14.75	34.71	47.25	50-50	60-60	1.25	1,300	320	8.4	28	0	0	0.0	W	0.0	11/16
						2,745	1,285	37.75	34.04	70.25	50-50	60-60	1.25	1,300	320	8.4	28	0	0	0.0	W	0.0	11/17
						3,388	1,928	61.25	31.48	93.75	50-50	60-60	1.25	1,350	320	8.4	28	0	0	0.0	W	0.0	11/18
						3,906	2,446	84.75	28.86	117.25	50-50	60-60	1.00	1,250	320	8.4	28	0	0	0.0	W	0.0	11/19
						4,460	3,000	108.25	27.71	140.75	50-50	60-60	1.25	1,300	320	8.4	28	0	0	0.0	W	0.0	11/20
						5,013	3,553	131.75	26.97	164.25	50-50	60-60	1.00	1,350	320	8.7	28	0	0	0.0	W	0.0	11/21
						5,315	3,855	145.50	26.49	178.00	50-50	60-60	1.00	1,350	320	8.7	28	0	0	0.0	W	0.0	11/21
bha=b,tri,ib,dc,ib,29 6"dc, tbha 937.49'																8	6	BT	A	E	I	LT	PR
4	07-7/8	HCC	HR-44C	3x12	5022141	5,458	143	7.75	18.45	185.75	50-50	60-60	1.00	1,200	320	8.6	28	0	0	0.0	W	0.0	11/22
						5,755	440	23.75	18.53	201.75	50-50	60-60	1.00	1,200	320	8.7	28	0	0	0.0	W	0.0	11/23
						6,193	878	47.00	18.68	225.00	50-50	60-60	0.50	1,200	320	8.7	28	0	0	0.0	W	0.0	11/24
						6,650	1,335	70.50	18.94	248.50	50-50	60-60	0.50	1,250	320	8.8	28	0	0	21.0	W	0.0	11/25
						7,062	1,747	93.75	18.63	271.75	50-50	60-60	0.00	1,250	320	8.8	28	0	0	21.0	W	0.0	11/26
						7,519	2,204	119.25	18.48	297.25	50-50	60-60	0.00	1,300	320	8.8	28	0	0	28.0	W	0.0	11/27
bha=b,tri,ib,dc,ib,29 6"dc, tbha 937.49' 50%dolo 40%shale 10%anhy @5315 70%Dolo20%lime10%shale@5755, 50%lime30%dolo20%shale@6193 90%dolo10%shale@6650 50%shale 30%lime 10%dolo 10% sand@7483 20%shale60%lime20%dolo@7756'																3	3	BT	M	E	I	WT	PR

1915 495 7200
 1:03PM HUGHES CHRISTENSEN



HUGHES CHRISTENSEN BIT RECORD



API WELL NO. 30-015-32445-00-00	FILE NUMBER S58051
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COUNTY/PARISH/OFFSHORE/STATE EDDY, NEW MEXICO	FIELD / AREA	DIRECTIONS 1 MI S. ARTESIA	SPUD DATE (mm/dd/yy) 11/10/2002	TD DATE (mm/dd/yy) 12/7/2002	STATUS FINAL
WELL NAME / NUMBER SKIPAWAY 1	OPERATOR MURCHISON O&G CO	OPERATOR REPRESENTATIVE WALT EVANS	DRILL COLLAR	DRILL COLLAR	DRILL COLLAR
CONTRACTOR PATTERSON UTI DRUG CO. L.P. LL.	RIG 55	CONTRACTOR REPRESENTATIVE BOBBY MOORE	DRAWWORKS MUD-CONT 3690	DRILL PIPE 1 4.500 x 16.600 x	DRILL PIPE 2
SALESMAN GEORGE BENGE	TURNKEY	PUMP 1 / LINER EMSCO DB550 5.50	PUMP 2 / LINER OILWELL 5.50	MUD SYSTEM Open	TOOL JOINT 1 TOOL JOINT 2
DRILLING DIRECTION VERTICAL	WORK TYPE FOOTAGE	MUD COMPANY OTHER	SEC./COORD. 28	TOWNSHIP 17S	RANGE 26E
				SURVEY	ABSTRACT BLOCK

No	SIZE	MFG	BIT TYPE	Nozzles (T/A)	SERIAL No.	Measured DEPTH OUT	Dist- ance (feet)	HRS	ROP (ft/hr)	Accum Drlg Hrs	WT (Klb)	RPM	VERT DEV	P.P. (psi)	Flow (Gpm)	MUD (ppg)					BULL GRADING			
																WT	FV	PV	YP	FL	Type	SLDS	DATE	
																I	O	DC	L	B/S	G	ODC	RP	
5	07-7/8	STC	F47H	3x13	ML5399	7,586	67	4.25	15.76	301.50	50-50	60-60	0.00	1,350	320	8.7	29	0	0	0.0	W	0.0	11/27	
						7,756	237	12.25	19.35	309.50	50-50	60-60	0.75	1,350	320	8.8	29	0	0	30.0	W	0.0	11/28	
						8,175	656	37.50	17.49	334.75	50-50	60-60	0.75	1,400	320	8.7	29	0	0	20.0	W	0.0	11/29	
						8,359	840	52.25	16.08	349.50	50-50	60-60	0.00	1,350	320	9.1	78	12	30	5.0	C	4.4	12/2	
						8,478	959	62.75	15.28	360.00	50-50	60-60	0.00	1,450	320	9.2	100	12	30	14.0	C	4.4	12/4	
						8,634	1,115	78.75	14.16	376.00	50-50	60-60	0.00	1,400	320	9.1	63	12	30	10.4	C	4.4	12/5	
						8,750	1,231	96.75	12.72	394.00	50-50	60-60	0.00	1,400	320	9.5	70	12	30	12.0	C	4.4	12/6	
						8,780	1,261	102.50	12.30	399.75	50-50	60-60	0.00	1,400	320	9.5	70	12	30	12.0	C	4.4	12/7	

bha=b,tri,ib,dib,29 6"dc, tbha 937.49' 50%lime20%dolo20%shales10%sand @8175'
 40%lime 30%shale 30%sand @8420' 10%lime50%shale40%sand @8634'
 TD @8780' 12/7 work stuck pipe 12/7-9 Pump Out 70 jts12/9 circ & cond set csg



HUGHES CHRISTENSEN BIT RECORD



API WELL NO.
30-015-31523-00-00

FILE NUMBER
S42301

COUNTY/PARISH/OFFSHORE/STATE EDDY, NEW MEXICO	FIELD / AREA	DIRECTIONS 3 MILES S ARTESIA	SPUD DATE (mm/dd/yy) 5/7/2001	TD DATE (mm/dd/yy) 6/1/2001	STATUS FINAL
WELL NAME / NUMBER RED BULLET 1	OPERATOR OXY USA INC.	OPERATOR REPRESENTATIVE RICK MESSENGER, KEVIN BOWKER	DRILL COLLAR 26 x 6.000 x 2.250	DRILL COLLAR 4 x 8.000 x 2.250	DRILL COLLAR
CONTRACTOR UTI DRILLING - MIDLAND	RIG 303	CONTRACTOR REPRESENTATIVE JAMIE LEAL	DRAWWORKS M 46	DRILL PIPE 1 4.500 x 16.600 x 95	DRILL PIPE 2
SALESMAN JESSE POST	TURNKEY	PUMP 1 / LINER EWCO 15W800 5.50	PUMP 2 / LINER EMSCO D-500 5.00	MUD SYSTEM Open	TOOL JOINT 1
DRILLING DIRECTION VERTICAL	WORK TYPE DAYWORK	MUD COMPANY M-I	SEC./COORD. 29	TOWNSHIP 17S	RANGE 26E
				SURVEY	ABSTRACT
					BLOCK

No	SIZE	MFG	BIT TYPE	Nozzles (TFA)	SERIAL No.	Measured DEPTH OUT	Dist-ance (feet)	HRS	ROP (ft/hr)	Accum Drlg Hrs	WT (Klb)	RPM	VERT DEV	P.P. (psi)	Flow (Gpm)	MUD (ppg)				DULL GRADING			
																WT	FV	PV	YP	FL	Type	SUBS	DATE
1	17-1/2	VAR	L135	3x12	02663(RR)/RR	410	380	8.25	46.06	8.25	15-35	90-120	0.75	780	330	9.5	33	0	0	0.0	C	0.0	5/7
td 5-7-0-1 SET CSG 5-7-01																3	3	FC	A	E	I	NO	TD
2	12-1/4	HCC	HR-30C	2x14, 1x13	75DR(RR)/RR	1,320	910	17.00	53.53	25.25	55-55	76-76	0.00	800	320	8.4	29	0	0	0.0	W	0.0	5/9
BHA B, SS, 5-8"DC, XO, 27-6"DC= 1035.39 TD 5-9-01 1"CEMENT LOST CIRC@ 950'																2	2	WT	A	E	I	NO	TD
3	07-7/8	HCC	HR-44C	3x12	H74JA	1,575	255	7.25	35.17	32.50	15-55	50-60	1.00	1,200	320	8.4	28	0	0	0.0	W	0.0	5/11
						2,130	810	23.00	35.22	48.25	15-55	50-60	1.00	1,200	320	8.4	28	0	0	0.0	W	0.0	5/12
						2,863	1,543	46.50	33.18	71.75	55-55	50-60	1.00	1,200	320	8.4	28	0	0	0.0	W	0.0	5/13
						3,495	2,175	70.25	30.96	95.50	55-55	50-60	0.00	1,200	320	8.4	28	0	0	0.0	W	0.0	5/14
						4,070	2,750	94.00	29.26	119.25	55-55	50-60	1.50	1,200	320	8.4	28	0	0	0.0	W	0.0	5/15
						4,588	3,268	117.00	27.93	142.25	55-55	50-60	0.75	1,200	320	9.3	29	0	0	0.0	C	0.0	5/16
						5,063	3,743	138.75	26.98	164.00	55-55	50-60	0.00	1,200	320	9.3	29	0	0	0.0	C	0.0	5/17
BHA B, TRI, 6 1/2"DC, IBS, 28- 6 1/2"DC= 930.86 DOLO-TRACE of CHERT@ 3400'																5	5	BT	A	E	I	JD	HR
4	07-7/8	HCC	HR-44CH	3x13	P98JA	5,480	417	14.00	29.79	178.00	55-55	60-60	0.50	1,320	320	9.4	28	0	0	0.0	C	0.0	5/18
						6,471	1,408	65.50	21.50	229.50	55-55	60-60	0.50	1,320	320	9.4	28	0	0	0.0	C	0.0	5/20
						7,197	2,134	113.00	18.88	277.00	55-55	60-60	0.50	1,320	320	10.1	43	11	12	5.4	P	12.5	5/22
						7,447	2,384	133.25	17.89	297.25	55-55	60-60	0.00	1,320	320	10.1	43	11	12	5.4	P	12.5	5/23
						7,467	2,404	135.00	17.81	299.00	55-55	60-60	0.00	1,320	320	10.1	43	11	12	5.4	P	12.5	5/23
																3	3	WT	A	E	I	ER	PR
5	07-7/8	HCC	HR-44C	3x13	G43JA	7,542	75	11.00	6.82	310.00	55-55	60-60	0.00	1,400	320	10.6	46	11	12	5.4	P	12.5	5/24
						7,680	213	27.00	7.89	326.00	55-55	60-60	0.00	1,400	320	10.6	46	11	12	5.4	P	12.5	5/25
						7,870	403	50.25	8.02	349.25	55-55	60-60	0.00	1,400	320	10.6	46	11	12	5.4	P	12.5	5/26
						8,047	580	74.25	7.81	373.25	55-55	60-60	0.00	1,400	320	10.6	46	11	12	5.4	P	12.5	5/27
						8,245	778	99.25	7.84	398.25	55-55	60-60	0.00	1,400	320	10.6	46	11	12	5.4	P	12.5	5/28
BHA B, BS, 6 1/4"DC, IBS, 28- 6 1/2"DC, RT TOOL= 911.70 100% LIME-@ 7600'																							



HUGHES CHRISTENSEN BIT RECORD



API WELL NO. 30-015-31523-00-00
FILE NUMBER S42301

COUNTY/PARISH/OFFSHORE/STATE EDDY, NEW MEXICO	FIELD / AREA	DIRECTIONS 3 MILES S ARTESIA	SPUD DATE (mm/dd/yy) 5/7/2001	TD DATE (mm/dd/yy) 6/1/2001	STATUS FINAL			
WELL NAME / NUMBER RED BULLET 1	OPERATOR OXY USA INC.	OPERATOR REPRESENTATIVE RICK MESSENGER, KEVIN BOWKER	DRILL COLLAR 26 x 6.000 x 2.250	DRILL COLLAR 4 x 8.000 x 2.250	DRILL COLLAR			
CONTRACTOR UTTI DRILLING - MIDLAND	RIG 303	CONTRACTOR REPRESENTATIVE JAMIE LEAL	DRAWWORKS M 46	DRILL PIPE 1 4.500 x 16.600 x 95	DRILL PIPE 2			
SALESMAN JESSE POST	TURNKEY	PUMP 1 / LINER EWCO 15W800 5.50	PUMP 2 / LINER EMSCO D-500 5.00	MUD SYSTEM Open	TOOL JOINT 1 TOOL JOINT 2			
DRILLING DIRECTION VERTICAL	WORK TYPE DAYWORK	MUD COMPANY M-I	SEC./COORD. 29	TOWNSHIP 17S	RANGE 26E	SURVEY	ABSTRACT	BLOCK

No	SIZE	MFG	BIT TYPE	Nozzles (TFA)	SERIAL No.	Measured DEPTH OUT	Distance (feet)	HRS	ROP (ft/hr)	Accum Drig Hrs	WT (Klb)	RPM	VERT DEV	P.P. (psi)	Flow (Gpm)	MUD (ppg)				DULL GRADING			
																WT	FV	PV	YP	FL	Type	SLDS	DATE
																I	O	DC	L	B/S	G	ODC	RP
6	07-7/8	HCC	HR-44C	3x14	K78JE	8,310	65	9.75	6.67	408.00	55-55	60-60	0.00	1,420	320	10.5	45	12	28	6.6	P	12.5	5/29
						8,515	270	33.75	8.00	432.00	55-55	60-60	0.00	1,420	320	10.5	45	12	28	6.6	P	12.5	5/30
						8,635	390	57.75	6.75	456.00	55-55	60-60	0.00	1,420	320	10.5	45	12	28	6.6	P	12.5	5/31
						8,700	455	74.25	6.13	472.50	55-55	60-60	0.00	1,420	320	10.5	45	12	28	6.6	P	12.5	6/1
BHA B, BS, 6 1/2"DC, IBS, 28-6 1/2"DC, RT TOOL= 911.70 40%LIME-40%SHALE-20%CHERT@ 8310'																2	2	WT	A	E	I	NO	TD



HUGHES CHRISTENSEN BIT RECORD



API WELL NO. 30-015-32591-00-00
FILE NUMBER S62323

COUNTY/PARISH/OFFSHORE/STATE EDDY, NEW MEXICO	FIELD / AREA	DIRECTIONS 1 MI S ARTESIA	SPUD DATE (mm/dd/yy) 2/26/2003	TD DATE (mm/dd/yy) 3/25/2003	STATUS FINAL
WELL NAME / NUMBER TIZ NOW 1	OPERATOR MURCHISON O&G CO	OPERATOR REPRESENTATIVE WALT EVANS	DRILL COLLAR 20 x 6.250 x 2.250	DRILL COLLAR 6 x 7.000 x 2.500	DRILL COLLAR
CONTRACTOR PATTERSON-UTI DRLG CO. LP, LL	RIG 78	CONTRACTOR REPRESENTATIVE BUTCH FORD	DRAWWORKS N75 NATIONAL	DRILL PIPE 1 4.500 x 16.600 x E	DRILL PIPE 2
SALESMAN GEORGE BENGE	TURNKEY	PUMP 1 / LINER IDECO 700 5.50	PUMP 2 / LINER IDECO 700 5.50	MUD SYSTEM Open	TOOL JOINT 1 XH 6.250 x 3.000
DRILLING DIRECTION VERTICAL	WORK TYPE FOOTAGE	MUD COMPANY OTHER	SEC./COORD. 29	TOWNSHIP 17S	RANGE 26E
				SURVEY	ABSTRACT
					BLOCK

No	SIZE	MFG	BIT TYPE	Nozzles (TFA)	SERIAL No.	Measured DEPTH OUT	Dist-ance (feet)	HRS	ROP (ft/hr)	Accum Drlg Hrs	WT (Klb)	RPM	VERT DEV	P.P. (psi)	Flow (Gpm)	MUD (ppg)				DIESEL GRADING			
																WT	FV	PV	YP	FL	Type	SLOS	DATE
1	17-1/2	HCC	X1G	3x15	739415(RR)	405	405	5.75	70.43	5.75	20-30	100-100	0.50	800	300	8.4	34	0	0	0.0	W	0.0	2/26
bha=b,bs,ss,10 8"dc, TD 2/26 set 13 3/8 csg																							
2	12-1/4	RTC	HP53	3x15	KP2862	833	428	8.00	53.50	13.75	20-65	65-65	0.50	1,700	320	8.4	28	0	0	0.0	W	0.0	2/28
						1,490	1,085	20.00	54.25	25.75	65-65	65-65	0.75	1,700	320	8.4	28	0	0	0.0	W	0.0	2/28
RIG GRADE bha=b,ss,dc,rmr,dc,ib,10 8"dc,xo,16 6" dc tbha 833.02 lost returns @1030 TD 2/28 set 9 5/8" csg																2	2	WT	A	E	I	WT	TD
3	08-1/2	VAR	ETD627	3x13	CA63305	1,625	135	6.50	20.77	32.25	15-50	60-60	0.50	1,000	320	8.4	28	0	0	0.0	W	0.0	3/2
						1,845	355	14.50	24.48	40.25	50-50	60-60	0.25	1,000	320	8.4	28	0	0	0.0	W	0.0	3/3
						2,645	1,155	36.75	31.43	62.50	50-50	60-60	0.50	1,000	320	8.4	28	0	0	0.0	W	0.0	3/4
						3,247	1,757	60.00	29.28	85.75	50-50	60-60	1.00	1,000	320	8.4	28	0	0	0.0	W	0.0	3/5
						3,756	2,266	82.25	27.55	108.00	50-50	60-60	0.75	1,000	320	8.4	28	0	0	0.0	W	0.0	3/6
						4,240	2,750	106.00	25.94	131.75	50-50	60-60	0.75	1,000	320	8.6	29	0	0	0.0	W	0.0	3/7
						4,715	3,225	127.25	25.34	153.00	50-50	60-60	1.00	1,050	320	8.7	29	0	0	0.0	W	0.0	3/8
bha=b,nbr,quad,ib,dc,ib,28 6"dc tbha 940.91' SAND @1490' 90-dolo 10-anhy @1845-2645' dolo lime sand @3756-4599' 50-dolo 30-shale 20-anhy @4715-5575'																7	4	BT	A	E	I	CR	PR
4	08-1/2	VAR	ETD55	3x13	168131	4,780	65	4.25	15.29	157.25	58-58	55-55	0.00	1,150	320	8.7	29	0	0	0.0	W	0.0	3/8
						5,090	375	20.25	18.52	173.25	50-50	60-60	0.50	1,100	320	8.7	29	0	0	0.0	W	0.0	3/9
						5,575	860	43.50	19.77	196.50	50-50	60-60	0.00	1,150	320	8.7	29	0	0	0.0	W	0.0	3/10
						6,020	1,305	66.75	19.55	219.75	50-50	60-60	0.75	1,175	320	8.7	29	0	0	0.0	W	0.0	3/11
						6,465	1,750	90.00	19.44	243.00	50-50	60-60	0.50	1,250	320	9.3	29	0	0	0.0	C	0.0	3/12
						6,767	2,052	114.50	17.92	267.50	50-50	60-60	0.00	1,250	320	9.6	38	0	0	8.0	C	0.0	3/13
bha=b,nbr,quad,ib,dc,ib,28 6"dc tbha 940.91' 50-shale 30-lime 20-dolo @6020-6760'																3	2	BT	M	E	I	WT	PR



HUGHES CHRISTENSEN BIT RECORD



API WELL NO. 30-015-32591-00-00
FILE NUMBER S62323

COUNTY/PARISH/OFFSHORE/STATE EDDY, NEW MEXICO	FIELD / AREA	DIRECTIONS 1 MI S ARTESIA	SPUD DATE (mm/dd/yy) 2/26/2003	TD DATE (mm/dd/yy) 3/25/2003	STATUS FINAL
WELL NAME / NUMBER TIZ NOW 1	OPERATOR MURCHISON O&G CO	OPERATOR REPRESENTATIVE WALT EVANS	DRILL COLLAR 20 x 6.250 x 2.250	DRILL COLLAR 6 x 7.000 x 2.500	DRILL COLLAR
CONTRACTOR PATTERSON-UTI DRIG CO. LP, LL	RIG 78	CONTRACTOR REPRESENTATIVE BUTCH FORD	DRAWWORKS N/S NATIONAL	DRILL PIPE 1 4.500 x 15.600 x E	DRILL PIPE 2
SALESMAN GEORGE BENGE	TURNKEY	PUMP 1 / LINER IDECO 700 5.50	PUMP 2 / LINER IDECO 700 5.50	MUD SYSTEM Open	TOOL JOINT 1 XH 6.250 x 3.000
DRILLING DIRECTION VERTICAL	WORK TYPE FOOTAGE	MUD COMPANY OTHER	SEC./COORD. 29	TOWNSHIP 17S	RANGE 26E
			SURVEY		ABSTRACT BLOCK

No	SIZE	MFG	BIT TYPE	Nozzles (TFA)	SERIAL No.	Measured DEPTH OUT	Dist-ance (feet)	HRS	ROP (ft/hr)	Accum Drig Hrs	WT (Klb)	RPM	VERT DEV	P.P. (psi)	Flow (Gpm)	MUD (ppg)				DULL GRADING			
																WT	FV	PV	YP	FL	Type	SLDS	DATE
																I	O	DC	L	B/S	G	ODC	RP
5	08-1/2	HCC	HR-44C	3x13	6007164	6,823	56	7.50	7.47	275.00	50-50	60-60	0.00	1,275	320	9.6	42	0	0	10.0	C	0.0	3/13
						6,908	141	15.50	9.10	283.00	50-50	60-60	0.00	1,275	320	9.6	42	0	0	10.0	C	0.0	3/14
						7,135	368	39.25	9.38	306.75	50-50	60-60	0.00	1,125	320	9.6	39	0	0	9.0	C	0.0	3/15
						7,365	598	62.50	9.57	330.00	50-50	60-60	0.00	1,150	320	9.6	39	0	0	9.0	C	0.0	3/16
						7,513	746	80.75	9.24	348.25	50-50	60-60	0.00	1,150	320	9.7	41	0	0	8.0	C	0.0	3/17
						7,631	864	95.25	9.07	362.75	50-50	60-60	0.00	1,200	320	9.7	45	0	0	11.0	C	0.0	3/18
bha=b,nbr,quad,ib,dc,ib,28 6"dc tbha 940.91' TOH lay down BHA 3/18 shale lime dolo @6760'-7286' 80-shale 20-lime 7365-7631'																2	2	WT	A	E	I	NO	BHA
6	08-1/2	STC	F47H	3x14	ML7012	7,668	37	5.50	6.73	368.25	45-50	60-60	0.00	1,350	315	9.6	56	21	37	6.0	P	0.0	3/19
						7,852	221	28.25	7.82	391.00	45-50	60-60	0.00	1,350	315	9.6	50	22	33	6.0	P	0.0	3/20
						8,045	414	52.00	7.96	414.75	45-50	60-60	0.00	1,350	315	9.6	48	20	34	7.0	P	0.0	3/21
						8,207	576	74.00	7.78	436.75	45-50	60-60	0.00	1,350	315	9.6	48	20	34	7.0	P	0.0	3/22
						8,388	757	97.75	7.74	460.50	45-50	60-60	0.00	1,550	315	9.6	48	20	34	7.0	P	0.0	3/23
						8,583	952	121.50	7.84	484.25	45-50	60-60	0.00	1,525	315	9.6	48	20	34	7.0	P	0.0	3/24
						8,700	1,069	141.00	7.58	503.75	45-50	60-60	0.00	1,650	315	9.9	62	30	33	5.0	P	0.0	3/25
BHA=BIT, XO, 900'-6"DC TD 3-25-03 CIRC TO LOG AND TOOH W BIT #6																							

33-2064: 4:03PM:HUGHES



HUGHES CHRISTENSEN BIT RECORD



API WELL NO.
30-015-32591-00-00

FILE NUMBER
S62323

COUNTY/PARISH/OFFSHORE/STATE EDDY, NEW MEXICO	FIELD / AREA	DIRECTIONS 1 MI S ARTESIA			SPUD DATE (mm/dd/yy) 2/26/2003		TD DATE (mm/dd/yy) 3/25/2003		STATUS FINAL	
WELL NAME / NUMBER TIZ NOW 1	OPERATOR MURCHISON O&G CO	OPERATOR REPRESENTATIVE WALT EVANS			DRILL COLLAR 20 x 6.250 x 2.250		DRILL COLLAR 6 x 7.000 x 2.500		DRILL COLLAR	
CONTRACTOR PATTERSON-UTL DRLG CO. LP, LL	RIG 78	CONTRACTOR REPRESENTATIVE BUTCH FORD			DRAWWORKS N75 NATIONAL		DRILL PIPE 1 4.500 x 16.600 x E		DRILL PIPE 2	
SALESMAN GEORGE BENGE	TURNKEY	PUMP 1 / LINER IDECO 700 5.50		PUMP 2 / LINER IDECO 700 5.50		MUD SYSTEM Open		TOOL JOINT 1 XH 6.250 x 3.000		TOOL JOINT 2
DRILLING DIRECTION VERTICAL	WORK TYPE FOOTAGE	MUD COMPANY OTHER		SEC./COORD. 29	TOWNSHIP 17S	RANGE 26E	SURVEY		ABSTRACT	BLOCK

No	SIZE	MFG	BIT TYPE	Nozzles (TFA)	SERIAL No.	Measured DEPTH OUT	Dist- ance (feet)	HRS	ROP (ft/hr)	Accum Drig Hrs	WT (Klb)	RPM	VERT DEV	P.P. (psi)	Flow (Gpm)	MUD (ppg)				DILL GRADING							
																WT	FV	PV	YP	FL	Type	SIDS	DATE				
																I	O	DC	L	B/S	G	ODC	RP				
1	17-1/2	HCC	X1G	3x15	739415(RR)	405	405	5.75	70.43	5.75	20-30	100-100	0.50	800	300	8.4	34	0	0	0.0	W	0.0	2/26				
bha=b,bs,ss,10 8"dc, TD 2/26 set 13 3/8 csg																											
2	12-1/4	RTC	HP53	3x15	KP2862	833	428	8.00	53.50	13.75	20-65	65-65	0.50	1,700	320	8.4	28	0	0	0.0	W	0.0	2/28				
						1,490	1,085	20.00	54.25	25.75	65-65	65-65	0.75	1,700	320	8.4	28	0	0	0.0	W	0.0	2/28				
RIG GRADE bha=b,ss,dc,mmr,dc,ib,10 8"dc,xo,16 6" dc tbha 833.02 lost returns @1030 TD 2/28 set 9 5/8" csg																2	2	WT	A	E	I	WT	TD				
3	08-1/2	VAR	ETD627	3x13	CA63305	1,625	135	6.50	20.77	32.25	15-50	60-60	0.50	1,000	320	8.4	28	0	0	0.0	W	0.0	3/2				
						1,845	355	14.50	24.48	40.25	50-50	60-60	0.25	1,000	320	8.4	28	0	0	0.0	W	0.0	3/3				
						2,645	1,155	36.75	31.43	62.50	50-50	60-60	0.50	1,000	320	8.4	28	0	0	0.0	W	0.0	3/4				
						3,247	1,757	60.00	29.28	85.75	50-50	60-60	1.00	1,000	320	8.4	28	0	0	0.0	W	0.0	3/5				
						3,756	2,266	82.25	27.55	108.00	50-50	60-60	0.75	1,000	320	8.4	28	0	0	0.0	W	0.0	3/6				
						4,240	2,750	106.00	25.94	131.75	50-50	60-60	0.75	1,000	320	8.6	29	0	0	0.0	W	0.0	3/7				
						4,715	3,225	127.25	25.34	153.00	50-50	60-60	1.00	1,050	320	8.7	29	0	0	0.0	W	0.0	3/8				
bha=b,nbr,quad,ib,dc,ib,28 6"dc tbha 940.91' SAND @1490' 90-dolo 10-anhy @1845-2645' dolo lime sand @3756-4599' 50-dolo 30-shale 20-anhy @4715-5575'																7	4	BT	A	E	I	CR	PR				
4	08-1/2	VAR	ETD55	3x13	168131	4,780	65	4.25	15.29	157.25	58-58	55-55	0.00	1,150	320	8.7	29	0	0	0.0	W	0.0	3/8				
						5,090	375	20.25	18.52	173.25	50-50	60-60	0.50	1,100	320	8.7	29	0	0	0.0	W	0.0	3/9				
						5,575	860	43.50	19.77	196.50	50-50	60-60	0.00	1,150	320	8.7	29	0	0	0.0	W	0.0	3/10				
						6,020	1,305	66.75	19.55	219.75	50-50	60-60	0.75	1,175	320	8.7	29	0	0	0.0	W	0.0	3/11				
						6,465	1,750	90.00	19.44	243.00	50-50	60-60	0.50	1,250	320	9.3	29	0	0	0.0	C	0.0	3/12				
						6,767	2,052	114.50	17.92	267.50	50-50	60-60	0.00	1,250	320	9.6	38	0	0	8.0	C	0.0	3/13				
bha=b,nbr,quad,ib,dc,ib,28 6"dc tbha 940.91' 50-shale 30-lime 20-dolo @6020-6760'																3	2	BT	M	E	I	WT	PR				

OPERATOR : DEVON SFS LP
 CONTRACTOR : PATTERSON DRLG
 RIG : 143

REED Hycalog
 A Grant Prideco Company

SECTION : 16
 COUNTY : EDDY
 WELL NAME : VERANDA 16 ST 1

TOWNSHIP : 17S RANGE : 26E
 STATE : NEW MEXICO
 AREA : 3J CARLSBAD

API NUMBER : 31139
 REED WELL NO : ODE*835-34543
 OPERATOR REP : UNK
 TOOLPUSHER : ROGER RAMSEY
 WELL REMARKS : 01-161. DRINE. MUD CO=NOVA MUD,INC. MISSISSIPPIAN 8700'

REP : JIM SMITH
 PHONE NO : (505)397-2494

SURVEY :
 FIELD :

ABSTRACT :
 WELL PROFILE: Vertical

RIG TYPE :	MUD COMPANY :	SPUD : 21-FEB-01	PIPE : QTY:	OD: 4.5	ID:	LEN:
PUMP1 MAKE/MODEL : CONTINENTAL-EMSCO/D	MUD SYSTEM : N/A	UNDERSURFACE : 23-FEB-01	HW : QTY:	OD: 16.6	ID:	LEN:
PUMP2 MAKE/MODEL : CONTINENTAL-EMSCO/I	CONTRACT TYPE : Daywork	INTERMEDIATE : 26-FEB-01	COLLAR : QTY: 3	OD: 8	ID: 2.75	LEN: 90
PUMP3 MAKE/MODEL : /	CONTRACT DEPTH : 8800	TOTAL DEPTH : 15-MAR-01				

BIT NO	BIT SIZE in	BIT MFG	BIT TYPE	SERIAL NO	JET SIZE of TFA	DEPTH OUT ft	DRILLED ft	HRS RUN	ACC HRS	ROP ft/h	WOB klb	TOTAL RPM	MTR RPM	VERT DEV	PUMP psi	FLOW gpm	T	WT	SS	VIS	WL	DULL CODES						RUN DATE		
1	17.5	SB	DJS	XJ2656	13 13 13 \	350	295	4.5	5	65.6	5 / 40	30 / 80		1.0	350	311	W	8.4		34	2	3	WT	A	2	In	RG	TD	22-FEB-01	
RT	SET 13 3/8 (48#) CASING. (BHA=BIT,BS,SS,IBS,DBL PIN,10-8"DC)																													
2	12.25	VAR	ETD29	161061	13 13 13 \		250	4.0		62.5	40 / 40	65 / 65		3.0	500	311	W	8.6		29										
						1425	1075	22.5	27	47.8	45 / 45	70 / 70		4.0	600	311	W	8.6		29	3	3	WT	A	E	In	CT	TD	24-FEB-01	
	DO,SH, SET 8 5/8" (32#) CASING. (BHA=BIT,NBIB,SDC,IBS,8"DC,IBS,8"DC,IBS,SS,8"DC,XO,15-6"DC)																													
3	7.875	RH	HP62H	M96918	11 11 11 \		175	7.0		25.0	30 / 30	60 / 60		3.5	1325	306	W	8.6		29										
							609	22.0		27.7	30 / 30	60 / 65		2.3	1350	306	W	8.5		29										
							1235	39.5		31.3	60 / 60	60 / 60		1.8	1400	306	W	8.6		29										
							1945	63.0		30.9	60 / 60	60 / 60		0.8	1450	306	W	8.4		29										
						4173	2748	92.5	120	29.7	60 / 60	60 / 60			1450	306	W	9.0		29	8	8	BT	A	E	2	RG	PR	02-MAR-01	
	DO,ANHY,(BHA=BIT,BS,2-6 1/2"DC,IBS,6"DC,IBS,30-6"DC=993.04,22@2128																													
4	7.875	RH	HP62H	Q83611	12 12 12 \		15	.5		30.0	5 / 5	60 / 60			700	321	W	9.0		29										
							387	15.0		25.8	50 / 50	60 / 60		0.8	1500	306	W	9.1		29										
							891	38.0		23.5	50 / 50	60 / 60		1.0	1400	306	W	9.1		29										
							1388	61.5		22.6	50 / 50	60 / 60		1.0	1450	306	W	9.1		29										
							1854	84.5		21.9	50 / 50	60 / 60		1.0	1450	306	W	9.1		29										
							2351	108.0		21.8	50 / 50	60 / 60		1.0	1450	306	W	9.1		29										
							2872	130.5		22.0	50 / 50	60 / 60			1450	306	W	9.1		29										
						7059	2886	131.0	251	22.0	50 / 50	60 / 60		1.3	1450	306	W	9.1		29	4	6	BT	A	E	In	LT	PR	11-MAR-01	
	BHA=BIT,NBIBS,SDC,IBS,6"DC,IBS,30-6"DC=972.92,ODC=ER,DP,DO 70,SH30,DO 65,SH 35,LM 40,SH 20,DO 40,LM 80,DO 10,SH 10,																													
5	7.875	RH	HP62H	Q83016	12 13 13 \		274	16.0		17.1	50 / 50	60 / 60		0.3	1300	306	W	9.2		29										
							721	39.5		18.3	50 / 50	60 / 60		0.5	1350	306	W	9.2		29	8									
							995	59.0		16.9	50 / 50	60 / 60			1350	306	W	9.3		29	8									
						8250	1191	76.0	327	15.7	50 / 50	60 / 60			1450	306	W	9.2		30	8	2	1	BT	M	E	In	ER	PR	14-MAR-01
	SH,DO,LM, BHA=SAME AS ABOVE																													
6	7.875	SB	F47H	MG7297	12 13 13 \		205	16.5		12.4	60 / 60	60 / 60		0.8	1500	306	W	9.6		30	8									
						8600	350	27.0	354	13.0	60 / 60	60 / 60			1500	306	W	9.7		31	7	2	2	WT	A	E	In	NO	TD	15-MAR-01
	SH,LM,SA, BHA=SAME AS ABOVE																													

4325615533 P.02

Reed Hycalog

DEC-17-2003 21:15

OPERATOR : YATES PETROLEUM
 CONTRACTOR : KEY DRILLING
 RIG : 11

REED Hycalog
 A Grant Prideco Company

SECTION : 31
 COUNTY : EDDY
 WELL NAME : PATTERSON "E1" 3

TOWNSHIP : 17S RANGE : 26E
 STATE : NEW MEXICO
 AREA : 3J CARLSBAD

API NUMBER : 30909
 REED WELL NO : ODE*835-37422
 OPERATOR REP : UNK
 TOOLPUSHER : CARL COX
 WELL REMARKS : 00-173

REP : BUTCH BAWCOM
 PHONE NO : 432-620-4850

SURVEY :
 FIELD :

ABSTRACT :
 WELL PROFILE : BLOCK :

RIG TYPE :				MUD COMPANY :				SPUD : 21-JAN-00				PIPE SIZE/TYPE :				LENGTH :															
PUMP1 MAKE/MODEL : CONTINENTAL-EMSCO/D				MUD SYSTEM : N/A				UNDERSURFACE : 23-JAN-00				HW PIPE SIZE/TYPE :																			
PUMP2 MAKE/MODEL : CONTINENTAL-EMSCO/C				CONTRACT TYPE : Footage				INTERMEDIATE : 28-JAN-00				COLLAR 1 :																			
PUMP3 MAKE/MODEL : /				CONTRACT DEPTH :				TOTAL DEPTH : 24-FEB-00				COLLAR 2 :																			
BIT NO	BIT SIZE in	BIT MFG	BIT TYPE	SERIAL NO	JET SIZE or TFA	DEPTH OUT ft	DRILLED ft	HRS RUN	ACC HRS	ROP ft/h	WOB klb	TOTAL RPM	MTR RPM	VERT DEV	PUMP psi	FLOW gpm	MUD					DULL CODES								RUN DATE	
																	T	WT	%S	VIS	VL	I	O	MD	LOC	B	G	UD	RP		
1	17.5	SDBS	S33		12 12 12 \	350	310	4.8	5	65.3	10 / 10	120 / 120		0.8	800	90	U	9.2		55		3	4	FC	A	E	2	WT	TD	21-JAN-00	
RT					RETIP. SET 13 3/8 CASG																										
2	12.25	SDBS	S86		12 12 12 \	1254	904	25.0	30	36.2	50 / 50	75 / 75		1.0	900	84	U	8.5		28		1	2	BT	G	F	In	CI	TQ	25-JAN-00	
RR					RERUN																										
3	12.25	SDBS	M84CF		14 14 14 \	1298	44	3.5	33	12.6	48 / 48	70 / 70		1.0	900	84	U	8.5		28		1	1	WT	A	E	In	NO	TD	25-JAN-00	
RR					SET 9 5/8 CASG LOST CIRCULATION AROUND 750' SUCKED RESERVE PIT DRY MIX LCM AND PEAGRAVEL																										
4	8.75	RH	HP61	KT2351	12 12 12 \	1953		30.8			44 / 44	65 / 65		1.3	1200	84	U	8.9		28											
						2390		54.3			45 / 45	65 / 65			1200	84	U	8.9		28											
						2788		77.8			48 / 48	65 / 65		1.5	1200	84	U	8.9		28											
						3150		99.3			48 / 48	65 / 65			1200	84	U	8.9		28											
						3575		127.3			50 / 50	60 / 60			1250	84	U	9.1		28											
						3834	2536	148.3	182	17.1	50 / 50	60 / 60		0.8	1250	84	U	9.2		28		2	3	WT	A	E	In	ER	PR	02-FEB-00	
5	8.75	RH	HP62	MB3399	12 12 13 \	6597	2763	170.0	352	16.3	55 / 55	65 / 65		0.8	1300	83	U	9.5		29		3	5	BT	A	E	In	CT	PR	12-FEB-00	
6	8.75	RH	HP62		12 12 12 \	7328	731	55.0	407	13.3	55 / 55	65 / 65		1.0	1300	83	U	9.6		34		8	4	4	WT	A	F	In	FC	TQ	15-FEB-00
RR					RERUN #4																										
7	8.75	RH	HP62	A09742	13 13 14 \	8023	695	79.0	486	8.8	55 / 55	65 / 65		1.0	1350	83	U	9.7		34		9	3	4	BC	1	E	In	CT	TQ	20-FEB-00
8	8.75	SB	F47H	LX6723	13 13 14 \	8478	455	51.5	537	8.8	55 / 55	65 / 65		1.3	1350	83	U	9.8		39		14	2	3	CT	A	E	In	NO	PR	22-FEB-00
9	8.75	SD	F47H	LX5276	13 13 14 \	8800	322	43.5	581	7.4	55 / 55	65 / 65		1.3	1350	83	U	10.0		38		10	1	1	WT	A	E	In	NO	TD	24-FEB-00
					LOGGED AND RAN 5 1/2 CASG.																										

4325615533

Reed Hycalog

DEC-17-2003 21:16

OPERATOR : DEVON ENERGY CORP.
CONTRACTOR : PATTERSON DRLG
RIG : 143

REED Hycalog
A Grant Prideco Company

SECTION : 31
COUNTY : EDDY
WELL NAME : RIVERSIDE "31" FEDERAL COM. #1

TOWNSHIP : 16S
RANGE : 27E
STATE : NEW MEXICO
AREA : 3J CARLSBAD

API NUMBER : 31351
REED WELL NO : ODE'5062
OPERATOR REP : UNK
TOOLPUSHER : ROGER RAMSEY
WELL REMARKS : 01-716 SET CONDUCTOR PIPE @ 40

REP : JIM SMITH
PHONE NO : (505)397-2494

SURVEY :
FIELD :

ABSTRACT :
WELL PROFILE: Vertical

RIG TYPE :				MUD COMPANY :				SPUD : 23-APR-01				PIPE : QTY:				OD: 4.5				ID:				LEN:								
PUMP1 MAKE/MODEL : CONTINENTAL-EMSCO/D				MUD SYSTEM : N/A				UNDERSURFACE : 25-APR-01				HW : QTY:				OD: 16.6				ID:				LEN:								
PUMP2 MAKE/MODEL : CONTINENTAL-EMSCO/E				CONTRACT TYPE : Daywork				INTERMEDIATE :				COLLAR : QTY: 14				OD: 8				ID: 2.75				LEN: 413								
PUMP3 MAKE/MODEL :				CONTRACT DEPTH : 8600				TOTAL DEPTH : 27-MAY-01																								
BIT NO	BIT SIZE in	BIT MFG	BIT TYPE	SERIAL NO	JET SIZE in TFA	DEPTH OUT ft	DRILLED ft	HRS RUN	ACC HRS	ROP ft/h	WOB klb	TOTAL RPM	MTR RPM	VERT DEPTH	PUMP psi	FLOW gpm	MUD					DULL CODES										RUN DATE
																	T	WT	%S	VIS	VL	I	O	M	D	L	O	C	B	G	O	
1	11	VAR	ETD29	158587	11 12 13	494 1310	545 1270	11.0 25.3		49.6 50.3	5 / 35 50 / 50	75 / 75 75 / 75		0.3 1.8	500 700	311 311	U U	8.4 8.5				31				3 3 WT	A	E	In	NO TD	24-APR-01	
BHA=BIT COMBO, 8"DC, IBS, DBL PIN, SS, 13-8"DC, XO, 10-6"DC= 742.34' SET 8 5/8" (24#) CSG																																
2	7.875	HC	HR44CH	K36JP	13 13 13	1615 1827 2800 3425 4020 4570 5142	305 517 1490 2115 2710 3260 3832	10.5 18.0 41.5 64.5 88.0 111.5 136.5		29.1 28.7 35.9 32.8 30.8 29.2 28.1	50 / 50 40 / 50 50 / 50 50 / 50 50 / 50 50 / 50 50 / 50	50 / 60 50 / 60 60 / 60 60 / 60 60 / 60 60 / 60 60 / 60			1000 1000 1100 1100 1100 1100 1500	311 311 311 311 311 311 311	U U U U U U U	8.4 8.4 8.4 8.4 8.4 9.3 9.3		29 29 29 29 29 29 29							3 3 WT	A	E	In	TR PR	02-MAY-01
BHA=BIT COMBO, SDC, IBS, 6"DC, IBS, 6"DC, IBS, 29-6"DC=931.84'																																
3	7.875	HC	HR44C	B99JT	13 13 13	5345 5795 6245 6740 7259 7733	203 653 1103 1598 2117 2591	11.5 35.0 58.5 82.0 105.5 130.0		17.7 18.7 18.9 19.5 20.1 19.9	50 / 50 50 / 50 50 / 50 50 / 50 50 / 50 50 / 50	60 / 60 60 / 60 60 / 60 60 / 60 60 / 60 60 / 50		0.8 0.3	1200 1300 1200 1200 1200 1200	311 311 311 311 311 311	U U U U U U	9.3 9.3 9.3 9.3 9.3 9.3		28 28 28 28 28 28							4 4 BT	A	E	In	WT PR	08-MAY-01
BHA=BIT COMBO, SDC, IBS, 6"DC, IBS, 6"DC, IBS, 29-6"DC=931.84' WORK STUCK PIPE 5-9-01; JAR ON FISH 5-11-01; CONO MUD; JAR ON FISH 5-12-01; WASH OVER PIPE 5-12-01 THRU 5-16-01 WOKD UNTIL 5-20-01																																
4	7.875	HC	HR44CH	P81JA	13 13 14	7796 7900 8053 8249 8600	63 167 320 516 867	7.5 22.5 46.5 69.5 120.0		8.4 7.4 6.9 7.4 7.2	50 / 50 50 / 50 50 / 50 50 / 50 50 / 50	60 / 60 60 / 60 60 / 60 60 / 60 60 / 60		1.5 0.3	1500 1500 1500 1500 1500	311 311 311 311 311	U U U U U	10.2 10.2 10.1 10.1 10.1		77 77 66 65 65	7.4 7.4 7.4 7.4 7.4						3 3 WT	A	E	In	BT TD	27-MAY-01
BHA= BIT, BS, 27-6"DC= 803.12' LOG WELL SET 5 1/2" (17#) CSG.																																

4325615533

Reed Hycalog

DEC-17-2003 21:16

OPERATOR : OXY USA, INC.
CONTRACTOR : UTI DRLG CO
RIG : 303

REED Hycalog
A Grant Prideco Company

SECTION : 19
COUNTY : EDDY
WELL NAME : EUPHONIUM #1

TOWNSHIP : 17S RANGE : 28E
STATE : NEW MEXICO
AREA : 3J CARLSBAD

API NUMBER : 31599
REED WELL NO : ODE*5071
OPERATOR REP : UNK
TOOLPUSHER : JAMIE LEAL
WELL REMARKS : 01-714 SET CONDUCTOR PIPE @ 40 2 M. S. OF ARTESIA, NM. MUD TYPE: BRINE

SURVEY :
FIELD :

ABSTRACT :
WELL PROFILE: Vertical

REP : JIM SMITH
PHONE NO : (505)397-2494

RIG TYPE :				MUD COMPANY :				SPUD : 08-APR-01				PIPE : QTY:				OD: 4.5				ID:				LEN:										
PUMP1 MAKE/MODEL : CONTINENTAL-EMSCO/D				MUD SYSTEM : N/A				UNDERSURFACE : 10-APR-01				HW : QTY:				OD: 16.6				ID:				LEN:										
PUMP2 MAKE/MODEL : CONTINENTAL-EMSCO/I				CONTRACT TYPE : Daywork				INTERMEDIATE : 13-APR-01																										
PUMP3 MAKE/MODEL : /				CONTRACT DEPTH : 10230				TOTAL DEPTH : 30-APR-01																										
BIT NO	BIT SIZE In	RIT MFG	BIT TYPE	SERIAL NO	JET SIZE or TFA	DEPTH OUT ft	DRILLED ft	HRS RUN	ACC HRS	ROP ft/h	WOB klb	TOTAL RPM	MTR RPM	VERT DEV	PUMP psi	FLOW gpm	MUD					DULL CODES												RUN DATE
																	T	WT	%S	VIS	VAL	I	O	MD	LOC	B	G	OD	RP					
1	17.5	HC	GTXC1		14 14 14	303	236	5.8	6	41.0	5 / 35	120 / 120		0.3	650	301	W	8.6	32		5	5	FC	A	F	In	ER	PR	09-APR-01					
RR																																		
2	17.5	VAR	ETD1		12 12 12	420	117	6.0	12	19.5	5 / 35	120 / 120		0.3	1500	301	W	8.8	32		3	3	WT	A	E	In	NO	TD	09-APR-01					
RR					BHA=BIT,BS,SS,8"DC,IBS,4-8"DC,7-6 1/2"DC= 385.51' SET 13 3/8" (48") CSG.																													
3	12.25	HC	HR30C		13 13 13	1305	885	18.5	30	47.8	45 / 55	70 / 80		1.0	1200	301	W	8.4	28		2	2	WT	A	E	In	NO	TD	11-APR-01					
RR					BHA= BIT,BB,SS,8"DC,IBS,4-8"DC,10-6 1/2"DC																													
4	7.875	HC	HR44C	H30JF	12 12 12	1703	398	11.8		33.9	55 / 55	60 / 60		0.8	1200	301	W	8.4	28															
						2453	1148	35.3		32.6	55 / 55	60 / 60			1200	301	W	8.4	28															
						3740	2435	82.5		29.5	55 / 55	60 / 60		0.5	1200	301	W	8.4	28															
						4294	2989	106.0		28.2	55 / 55	60 / 60		0.8	1200	301	W	9.3	28															
						5250	3945	153.0	183	25.8	55 / 55	60 / 60			1200	301	W	9.3	28		3	3	WT	A	E	In	ER	HR	20-APR-01					
					BHA= BIT,TRI,6 1/2"DC,IBS,27-6 1/2"DC= 835.78'																													
5	7.875	HC	HR44CH	E20JM	12 12 12	5555	305	15.0		20.3	55 / 55	60 / 60		1.0	1375	301	W	9.2	28															
						6030	780	38.5		20.3	55 / 55	60 / 60			1375	301	W	9.3	28															
						6550	1300	62.0		21.0	55 / 55	60 / 60		0.5	1375	301	W	9.3	28															
						7125	1875	85.5		21.9	55 / 55	60 / 60		0.5	1375	301	W	9.3	28															
						7639	2389	108.8		22.0	55 / 55	60 / 60			1375	301	W	9.3	28															
						7848	2598	124.0		21.0	55 / 55	60 / 60		1.0	1375	301	W	9.8	42	4.8														
						7858	2608	125.5	309	20.8	55 / 55	60 / 60		1.3	1375	301	W	9.8	42	4.8									27-APR-01					
					BHA=BIT,BS,6 1/2"DC,IBS,28-6 1/2"DC,RTT= 911.86'																													
6	7.875	HC	HR44C	F78JD	12 13 13	7050	92	11.5		8.0	55 / 55	60 / 60		1.3	1200	301	W	10.0	45	5														
						8175	317	35.3		9.0	55 / 55	60 / 60		1.3	1200	301	W	10.0	45	5														
						8383	525	58.5		9.0	55 / 55	60 / 60			1200	301	W	10.0	45	5														
						8435	577	68.3	377	8.5	55 / 55	60 / 60			1200	301	W	10.0	45	5									30-APR-01					
					BHA= SAME AS ABOVE LOG WELL SET 6 1/2" (17#) CSG.																													

4325615533

Reed Hycalog

DEC-17-2003 21:17

TOTAL P.05

Standard Bit Record

Phone 432-563-0968

Document Number

Tool Pushers TY LYMM

Company
Representatives

STEVE COCHRAN

Smith
Representative

DANNY D DELMAS

SK000070

PAGE 1 of 3

NO. 620
P. 620
NO. 660

OPERATOR RATES PET		CONTRACTOR PATTERSON-UTI ENERGY		RIG NO. 512	BLOCK	SUB-BLOCK	LEASE/WELL NAME KENNEDY JQ COM		WELL # 2	WELL DEPTH (ft) / EST DEPTH (ft) 8840 8840	
COUNTRY UNITED STATES		STATE/PROVINCE NEW MEXICO		COUNTY/DISTRICT EDDY	QSECC NE	SECTION 33	TOWNSHIP 17 S	RANGE 26 E	FIELD KENNEDY FA		SPUD DATE 07-Apr-2003
LEGAL		RIG TYPE LAND		DRILL PIPE	SIZE (in)		WT (lbs)		API WELL # 30-015-32878-00-00		UNDER SURF
INTERACT TYPE WYWORK		WATER DEPTH (ft)		WELL TYPE VERTICAL	JOINT	SIZE (in)		WT (lbs)		DATE LOG 32.78173N / 104.38662W	
STAGE CONTRACT		ONSHORE		Tight Hole	DRILL COLLAR	NO O.D.		I.D.		PUMP MAKE MODEL LINER INT DATE	
TO 8,840 DEPTH (ft)		PARTIAL Well		ReEntry	DRILL COLLAR	NO O.D.		I.D.		PUMP MAKE MODEL LINER INT DATE	
		WELL RECORD		EXPLORATION	DRILL COLLAR	NO O.D.		I.D.		PUMP MAKE MODEL LINER INT DATE	

Well
Comments: **4.8 MI SE ARTESIA,**

BIT NO.	BIT SIZE (inches)	BIT MFR	BIT TYPE	SERIAL NUMBER	JEYS (GZnds)	DEPTH OUT (ft)	DRILLED (ft)	HOURS	ROP (ft/hr)	CLM HRS	WOB (lbs)	MOTOR RPM	TOTAL RPM	R O T	DEV IN	PRESS (psi)	MUD		CUTTINGS STRUCTURE			REMARKS	FORMATION DATES							
																	WT (ppg)	VS (GPM)	HS	WT (ppg)	VS (GPM)			HS	WT (ppg)	VS (GPM)	HS			
1	17.5	STC	MG29Q		13. x 3	350	350	4.0	87.5	4	20.0		80	R		650	105	8.70	4	2	BT	A	E	E	E	IN	NO	TD	09-Apr-2003	
BHA=BIT, BS, 9-8"DC, XO, 6 1/2"DC.=308.52 TD RUN 13 3/8 CASING.																														
2	12.25	RTC	HP81	NM3914	13. x 3	1385	995	19.8	50.4	24	60.0		70	R	1.50	1050	101	SPM	6.40	1	1	WT	A	E	E	E	IN	NO	TD	11-Apr-2003
BHA=BIT, SS, 8-8"DC, XO, 24-6 1/2"DC.=1019.29 TD RUN 9 5/8 CASING.																														
3	8.75	STC	F37H	MN3610	13. x 1	2400	1015	24.6	41.0	48	60.0		60	R	1.25	1350	100	8.70											13-Apr-2003	
BHA=BIT, SS, 8-8"DC, XO, 24-6 1/2"DC.=1019.29 TD RUN 9 5/8 CASING.																														
						3110	1725	48.3	35.8	72	60.0		60		.75	1400	100	8.70											14-Apr-2003	
						3700	2315	71.8	32.3	95	60.0		60		1.00	1450	100	8.60											15-Apr-2003	
						4207	2822	94.8	29.8	119	60.0		60		1.00	1550	345.00	4.31	9.20										16-Apr-2003	
						4795	3410	117.5	29.0	141	60.0		60		1.25	1600	345.00	4.30	9.30										17-Apr-2003	
						4961	3576	125.3	28.6	149	60.0		60		1.25	1600	345.00	4.40	9.40	7	6	BT	A	E	E	E	1	LT	TQ	18-Apr-2003
BIT, COMBO, SDC, QUAD, 6 1/2"DC, QUAD, 23-6 1/2"DC.=768.62 END BIT.																														
76	STC	F47H	MN3280	18. x 3		4976	15	4.5	3.3	154	35.0	53	40	M	1.25	1600	345.00	0.99	9.40	4	3	CD	A			IN	BT	TQ	18-Apr-2003	
T. MTR, XO, 6 1/2"DC, RMR, 23-6 1/2"DC.=770.69 BIT. 3 INSERTS OFF OF LAST BIT LOCKED BETWEEN ALL 3 CONES.																														
5	STC	F37H	MN3607	15. x 2	BL x 1	5100	124	6.0	20.7	160	60.0		60	R		1400	345.00	2.87	9.30										18-Apr-2003	
BHA=BIT, SS, 8-8"DC, XO, 24-6 1/2"DC.=1019.29 TD RUN 9 5/8 CASING.																														
						5100	124	6.0	20.7	160	60.0		60	R		1400	345.00	2.87	9.30										18-Apr-2003	
BHA=BIT, SS, 8-8"DC, XO, 24-6 1/2"DC.=1019.29 TD RUN 9 5/8 CASING.																														

FEB. 20. 2003 10:48AM

Standard Bit Record

Phone 432-563-0968

Document Number

Tool Pushers BOBBY MOORE

Company
Representatives

WALT EVANS

Smith
Representative

DANNY JORDAN

SI001846

PAGE 1 of 2

OPERATOR MURCHISON OIL		CONTRACTOR PATTERSON-UTI ENERGY		RIG NO. 55	BLOCK	SUB-BLOCK	LEASE/WELL NAME SKIP AWAY		WELL # 1
COUNTRY UNITED STATES	STATE/PROVINCE NEW MEXICO	COUNTY/DISTRICT EDDY	OSSEC NW	OSSEC/SD SW	SECTION 28	TOWNSHIP 17 S	RANGE 26 E	FIELD KENNEDY FA	
LEGAL		RIG TYPE LAND	DRILL PIPE	SIZE (in)	WT (lbs/ft)		API WELL # 30-015-32445-00-00		WELL DEPTH (ft) / EST DEPTH (ft) 8780 / 8820
CONTRACT TYPE OUTAGE		RIG ELEVATION (ft) WATER DEPTH (ft)	WELL DIRECTION VERTICAL	TOOL JOINT	SIZE (in)	TYPE		UTM	LAT/LONG 32.8062N / 104.38681W
OUTAGE CONTRACT		ONSHORE	Tight Hole	WELL TARGET GAS	DRILL COLLAR	NO	O.D.	I.D.	LENGTH
TO		PARTIAL Well	ReEntry WELL RECORD	WELL TYPE DEVELOPMENT	DRILL COLLAR	NO	O.D.	I.D.	LENGTH
DEPTH (ft)		PUMP MAKE MODEL LINER INT DATE NO 1. NO 2.							

Well
Comments:

BIT NO.	BIT SIZE (inches)	BIT MFR	BIT TYPE	SERIAL NUMBER	JETS (32nds)	DEPTH OUT (ft)	DRILLED (ft)	HOURS	ROP (ft/hr)	CUM HRS	WOB (lbs)	MOTOR RPM	TOTAL RPM	R O T	DEV IN	MUD				CUTTING STRUCTURE				REMARKS	FORMATION DATES		
						TWO OUT (ft)	LO				LO		PRESS (psi)			Vol (gpm)	HSI	WT (ppm)	1	2	3	4	5			6	7
1	17.5	VAR	ETR18		13. x 3	412	412	5.5	74.9	6	10.0		199	R		1010	400.00	0.85	9.00								
10 @ 412' set 13 3/8 csg. -																34 NATIVE									10-Nov-2002		
2	12.25	VAR	EYD29	176932	12. x 3	965	553	9.8	56.7	15	35.0		75	R		1150	320.00	1.14	8.40								
2 @ 965' set 12 1/2 csg. -																28 BRINE									12-Nov-2002		
						1460	1048	27.0	38.8	33	55.0		75		1.75	1250	320.00	1.14	8.40	2	2	WT	A	E	E	E	IN NO TD
bit ss, 6-8"dc, no, 18-8"dc's. total bha= 746.09' id @ 1460' set 8 5/8 csg. -																28 BRINE									13-Nov-2002		
3	7.875	STC	F143Y	MK8034	12. x 3	1972	512	14.8	34.7	47	50.0		60	R		1300	320.00	2.77	8.40								
3 @ 1972' set 7 7/8 csg. -																28 WATER									16-Nov-2002		
						2745	1285	37.8	34.0	70	50.0		60		1.25	1300	320.00	2.77	8.40								
																28 WATER									17-Nov-2002		
						3385	1928	61.3	31.5	94	50.0		50			1350	320.00	2.77	8.40								
																28 WATER									18-Nov-2002		
						3805	2448	84.8	28.9	117	50.0		80		1.60	1250	320.00	2.77	8.40								
																28 WATER									19-Nov-2002		
						4660	3200	115.8	27.8	148	50.0		60		1.25	1350	320.00	2.77	8.40								
																28 WATER									20-Nov-2002		
						5315	3855	145.5	26.5	178	50.0		60		1.00	1350	320.00	2.83	8.80	7	5	BT	A	E	E	E	1 LT PR
bar, 20, 6"dc, 10, 28-8"dc's. - 100' for bit @ 5315'																28 WATER									21-Nov-2002		
75	HTC	HR44C		5022141	13. x 3	5755	440	23.8	18.6	202	50.0		60	R		1200	320.00	2.08	8.70								
75 @ 5755' set 13 3/8 csg. -																20 WATER									23-Nov-2002		

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Tool Pushers RODGER RAMSEY

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STEVE MATTEWS

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PAGE 1 of 2

OPERATOR DEVON/SFS		CONTRACTOR PATTERSON-UTI ENERGY INC		RIG NO. 143	BLOCK	SUB-BLOCK	LEASE/WELL NAME VERANDA 16 ST COM	WELL # 01
COUNTRY UNITED STATES	STATE/PROVINCE NEW MEXICO	COUNTY/DISTRICT EDDY	QOSEC	QOSEC/D	SECTION 16	TOWNSHIP 17 S	RANGE 26 E	FIELD
LEGAL		RIG TYPE LAND	DRILL PIPE	SIZE (in) 4.5	WT (lbs/ft) 16.6	API WELL #		WELL DEPTH (ft) / EST DEPTH (ft) 8600 8600
INTRACT TYPE WATERWORK		RIG ELEVATION (ft) WATER DEPTH (ft)	WELL DIRECTION VERTICAL	TOOL JOINT	SIZE (in) 6	TYPE XH	UTM	LAT/LONG 32.83514N / 104.3866W
COVERAGE CONTRACT		ONSHORE	Tight Hole	WELL TARGET GAS	DRILL COLLAR	NO 11	O.D. 8	I.D. 3
TO		PARTIAL Well	ReEntry	WELL TYPE DEVELOPMENT	DRILL COLLAR	NO 26	O.D. 6.5	I.D. 2.25
DEPTH (ft)			WELL RECORD					

Well Comments:

BIT NO.	BIT SIZE (inches)	BIT #/R	BIT TYPE	SERIAL NUMBER	JETS (2in/ft)	DEPTH OUT (ft)	DRILLED (ft)	HOURS	ROP (ft/hr)	CUM HPS	WOB (lbs)	MOTOR RPM	TOTAL RPM	R O T	DEV	MUD				CUTTING STRUCTURE				REMARKS	FORMATION DATES
																PRESS (psi)	Vol (bbl)	HST	WT (lbs)	I	O	D	L		
1	17.5	HTC	OSC		13. x 3	350	350	4.5	77.8	5	10.0		70	R		450	350.00	0.53	8.40						
BIT, BS, SS, BLADES, DP, 10-8"DC, TO @ 350' SET 13 3/8 CSG.																28 WATER									22-Feb-2001
2	12.25	VAR	ETD29	161061	13. x 3	1425	1075	22.5	47.8	27	45.0		70	R		600	320.00	0.83	8.40						
TD @ 1425' SET 8 5/8 CSG. BIT, NB, SDC, IBS, 8"DC, IBS, 8"DC, IBS, DPS, SS, 10-8"DC, XO, 15-6"DC.																29 WATER									24-Feb-2001
3	7.875	RTC	HP82H	M98818	11. x 3	2034	609	22.0	27.7	49	30.0		60	R		1350	320.00	3.97	8.50						
																29 WATER									27-Feb-2001
						2650	1235	38.5	31.3	67	60.0		60		1.75	1400	320.00	4.01	8.50						
																29 WATER									28-Feb-2001
						3370	1945	63.0	30.9	90	60.0		60		.75	1450	320.00	3.92	8.40						
																28 WATER									01-Mar-2001
						4173	2748	92.5	29.7	120	60.0		60		.75	1450	320.00	4.20	9.00						
BIT, BS, 2-6"DC, IBS, 6"DC, IBS, 36-6"DC, TOH FOR BIT.																28 WATER									02-Mar-2001
4	7.875	RTC	HP82H	Q83611	12. x 3	4580	387	15.0	25.8	135	50.0		60	R		1500	320.00	3.00	9.10						
																29 BRINE									05-Mar-2001
						5064	891	38.0	23.4	158	50.0		60		1.00	1400	320.00	3.00	9.10						
																29 BRINE									06-Mar-2001
						7059	2886	131.0	22.0	251	50.0		60		1.25	1450	320.00	3.00	9.10						
G IN HOLE DROP COLLAR CLAMP BOLT WORK STUCK PIPE, BACK OFF AND FISH OUT RTH WITH MILL AND MILL ON JUNK. BIT, NB, SDC, IBS, 5-6"DC, IBS, 30-6"DC.																29 BRINE									10-Mar-2001
176	RTC	HP82H	Q83016	13. x 2	12. x 1	7333	274	16.0	17.1	267	50.0		60	R		1300	320.00	2.43	9.20						
																29 BRINE									11-Mar-2001

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Tool Pushers RODGER RAMSEY

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OPERATOR DEVON/SFS		CONTRACTOR PATTERSON-UTI ENERGY INC		RIG NO. 143	BLOCK	SUB-BLOCK	LEASE/WELL NAME VERANDA 16 ST COM		WELL # 01															
COUNTRY UNITED STATES		STATE/PROVINCE NEW MEXICO		COUNTY/DISTRICT EDDY	ROSEC	QSEGLSD	SECTION 16	TOWNSHIP 17 S	RANGE 26 E															
FIELD		WELL DEPTH (ft) / EST DEPTH (ft) 8600 / 8600																						
BIT NO.	BIT SIZE (inches)	BIT MFR	BIT TYPE	SERIAL NUMBER	JETS (32nds)	DEPTH OUT (ft)	DRILLED (ft)	HOURS	ROP (ft/hr)	CUM FMS	WOB (lbs)	MOTOR RPM	TOTAL RPM	R.O.I.	DEV	PRESS (psi)	MUD WT (lb/gal)	TEMP (°F)	VIT (°F)	CUTTING STRUCTURE	BEARING	REMARKS	FORMATION DATES	
7.875	RTC	HP62H	Q83D16	827X	TFA (ft)	7780	721	39.5	18.3	290	50.0		60	R	.50	1350	320.00	2.43	9.20					
30 BRINE																							12-Mar-2001	
8054 995 59.0 16.9 310 50.0 60																							1400 309.00 2.22 9.30	13-Mar-2001
8250 1191 76.0 15.7 327 10.0 60																							1550 309.00 2.22 9.30	14-Mar-2001
30 BRINE																							15-Mar-2001	
8455 205 18.5 12.4 343 60.0 60 R .75																							1500 308.00 2.29 9.60	15-Mar-2001
8600 350 28.5 12.3 355 60.0 60																							1500 320.00 2.57 9.70	15-Mar-2001
31 BRINE																							15-Mar-2001	

TOH FOR BIT..

BHA SAME, TD @ 8600 SET 5 1/2 CSG.

EXPLANATION OF THE IADC DULL BIT GRADING SYSTEM

TOOTH CONDITION	DULL CHARACTERISTICS	DULL CODE DEFINITIONS	B = BEARING DULL CODE	R = REASON PULLED or RUN TERMINATED	CUTTING STRUCTURE	B	G	REMARKS
1 = All over cone, not cutting sign.	D = MAJOR DULL CHAR. O = OTHER DULL CHAR.	L = Location codes ROLLER CODE N = Face wear M = All over wear A = All over	1 = Grade non-sealed bearings 2 = Grade on separate of measuring bit. 3 = All bit used SEALED BEARINGS E = Seals ineffective F = Seals failed H = Not stable in grade X = Seals on the bit	BHA - Chip breakers left early DMF - Downhole mineral failure DSF - Drilling string failure DST - Drill stem lost DIT - Downhole tool failure CN - Condition mud CP - Core pull DP - Drill plug FM - Formation change HT - Hole pack SR - Seals on bit LH - Lost hole LDC - Run lost PP - Pump pressure PR - Pump stroke	RO - Rig operation TD - Total depth loss TW - Twist off TG - Tongue WC - Weather conditions WD - Washout of bit string	RO - Rig operation TD - Total depth loss TW - Twist off TG - Tongue WC - Weather conditions WD - Washout of bit string	RO - Rig operation TD - Total depth loss TW - Twist off TG - Tongue WC - Weather conditions WD - Washout of bit string	RO - Rig operation TD - Total depth loss TW - Twist off TG - Tongue WC - Weather conditions WD - Washout of bit string

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OPERATOR PEARBURG PROD		CONTRACTOR PATTERSON-UTI ENERGY INC		RIG NO. 49	BLOCK	SUB-BLOCK	LEASE/WELL NAME LOGANDRAW 19 FEDC 1	WELL #
COUNTRY UNITED STATES	STATE/PROVINCE NEW MEXICO	COUNTY/DISTRICT EDDY	QSECS SE	QSECS SE	SECTION 19	TOWNSHIP 17 S	RANGE 27 E	FIELD LOGAN DRAW
LEGAL		RIG TYPE LAND	DRILL PIPE	SIZE (in) 4.5	WT (lbs/ft) 20		API WELL # 30-015-31220-50-00	
INTRACT TYPE DAYWORK		R/C ELEVATION (ft) ONSHORE	WELL DIRECTION VERTICAL	FOOT JOINT	SIZE (in) 6.25	TYPE XH		UTM 32.82057N / 104.31825W
FOOTAGE CONTRACT		WATER DEPTH (ft) PARTIAL Well	WELL TARGET GAS	DRILL COLLAR	NO 21	O.D. 8	I.D. 2.5	LENGTH 0
TO		ReEntry WELL RECORD	WELL TYPE DEVELOPMENT	DRILL COLLAR	NO 27	O.D. 8	I.D. 2.25	LENGTH 0
Well Comments:		20 MW LOCO HILLS,						

Well		20 MI W LCCO HILLS,																																	
Comments:																																			
BIT NO.	BIT SIZE (Inches)	BIT MFR	BIT TYPE	SERIAL NUMBER	JETS (Sizs)	DEPTH OUT (ft)	DRILLED (ft)	HOURS	ROP (ft/hr)	CUM HRS	WOB (lbs)	MOTOR RPM	TOTAL RPM	R D T	DEV	MUD				CONTING STRUCTURE			BEARING			REMARKS			FORMATION DATES						
			JADC CODE													PRESS (psi)	VOL (gpm)	HSI	WT (ppg)	1	2	3	4	1	2	3	4	5		6	7	8	9	10	
																BHA TYPE/COMPONENTS																			
1	12.25	HTC	ATJ33C	N48ZK	11. x 3	1529	1529	48.3	31.7	48	60.0		80	R		1000	320.00	2.01	10.40	3	2	BT	A	E	E	E	IN	WT	YD						
BIT, SS, 2-6"DC, 1BS, 14-8"DC, XO, 6-6"DC, TO @ 1529 SET 8 5/8 CSG..																31 BRINE										02-Feb-2001									
2	7.875	HTC	HR44C	D69JN	12. x 2	1850	321	11.0	29.2	59	50.0		60	R		1850	320.00	3.12	8.50												04-Feb-2001				
						2655	1126	34.3	32.9	83	50.0		60		.25	1500	320.00	3.20	8.70												05-Feb-2001				
						3347	1818	57.8	31.5	106	50.0		60		.50	1500	320.00	3.20	8.70												05-Feb-2001				
						4813	2484	80.8	30.8	129	58.0		60		.75	1500	320.00	3.16	8.60												07-Feb-2001				
						4378	2849	97.3	29.3	146	58.0		60		.75	1550	320.00	3.16	8.60	2	2	FC	A	E	E	E	1	ER	PR		08-Feb-2001				
BIT, BS, 6"DC, 1BS, 6"DC, 1BS, 25-6"DC, TOH FOR BIT..																30 WATER										09-Feb-2001									
3	7.875	HTC	HR44CH	Y41ZN	12. x 2	4954	576	23.0	25.0	169	58.0		60	R		1450	320.00	3.16	8.60												10-Feb-2001				
						5540	1182	46.5	26.0	192	58.0		60		.75	1450	320.00	3.20	8.70												11-Feb-2001				
						6097	1719	70.0	24.6	216	58.0		60		.50	1450	320.00	3.31	9.00												12-Feb-2001				
						6647	2269	93.5	24.3	239	58.0		60		.75	1600	320.00	3.27	8.90												12-Feb-2001				
																30 BRINE																			

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OPERATOR PEARBURG PROD				CONTRACTOR PATTERSON-UTI ENERGY INC				RIG NO. 49		BLOCK		SUB-BLOCK		LEASEWELL NAME LOGANDRAW 19 FEDC 1				WELL #		PAGE 2 of 3								
COUNTRY UNITED STATES				STATE/PROVINCE NEW MEXICO				COUNTY/DISTRICT EDDY				QSECC SE		QSECLSD SE		SECTION 19		TOWNSHIP 17 S		RANGE 27 E		FIELD LOGAN DRAW				WELL DEPTH (ft) / EST DEPTH (ft) 9190 9600		
BIT NO.	BIT SIZE (Inches)	BIT MFR	BIT TYPE	SERIAL NUMBER	JETS (Diams)	DEPTH OUT (ft)	DRILLED (ft)	HOURS	ROP (ft/hr)	CUM FRS	WOB (lbs)	MOTOR RPM	TOTAL RUN (hr)	R O T	DEV IN	PRESS (psi)	VOL (bbl)	FST	WT (GAL)	CUTTING STRUCTURE				REMARKS				FORMATION DATES
				</																								

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OPERATOR NEARBURG PROD		CONTRACTOR PATTERSON-UTI ENERGY INC		RIG NO. 49	BLOCK	SUB-BLOCK	LEASEWELL NAME LOGANDRAW 19 FEDQ1	WELL #
COUNTRY UNITED STATES	STATE/PROVINCE NEW MEXICO	COUNTY/DISTRICT EDDY	COSEC SE	OS/CLSD SE	SECTION 19	TOWNSHIP 17 S	RANGE 27 E	FIELD LOGAN DRAW
BIT NO. 7.875	BIT SIZE (Inches) HTC	BIT AFR HR44C	BIT TYPE F76JD	SERIAL NUMBER 827Y	JETS (12/ids) TFA (in2)	DEPTH OUT (ft) 9190	DRILLED (ft) 931	HOURS 76.0
ROP (ft/hr) 12.3	CUM PRO 402	WOB (lbs) 58.0	MOTOR (RPM) 60	RYTAP (GPM) 60	DEV R	THROTT (in) OUT	WELL DEPTH (ft) / EST DEPTH (ft) 9190 9600	
BIT, BS, 6"DC, IBS, 6"DC, IBS, 25-6"DC, TD @ 9190' TOH FOR LOGS, RUN DST., #1 Id @ 9190' set 5 1/2csg						42 BRINE		20-Feb-2001

EXPLANATION OF THE IADC DULL BIT GRADING SYSTEM

TOOTH CONDITION	DULL CHARACTERISTICS		DULL CODE DEFINITIONS		B = BEARING DULL CODE	R = REASON PULLED or RUN TERMINATED	CHIPPING STRUCTURE				REMARKS	
I = All lower rows, not cutting pipe.	D = MAJOR DULL CHAR. O = OTHER DULL CHAR.		L = Lost tooth ROCKER CORNE		Measure non-rotated bearings based on rate of remaining life. Use 1/16 inch.	RMA - Chip bit hole entry DMF - Downhole motor failure DST - Drilling string failure ATF - Drilling string failure DP - Drill pipe lost FM - Formation change HP - Hole problems HR - Heavy run in LEH - Lost hole LOD - Lost hole PP - Pump problems PR - Power loss	RH - Rig repairs TD - Total depth/DES depth TV - Total off TC - Tool cut WC - Weather conditions WOT - Weathered drill string	Inner Row (I) Outer Row (O) Dull Row (D) Location Beating Gage Remarks	SHA COMPONENT CODES DC - Drill Cutter DP - Drill Pipe HO - Hole Open HW - Hole Wear JB - Joint Bush JR - Joint LD - LWD Tool MD - MWD Tool PD - Positive Motor RR - Rubber Reamer	FORMATION CODES AR - Artyson CG - Compaction CR - Chert CK - Chert CL - Clay CO - Coal CT - Cement DO - Dolomite EF - Evaporite GR - Granite GU - Gneiss GW - Granite	BY - Gypsum IS - Ironstone MA - Marl NU - Mudstone PE - Pyrite QT - Quartzite RS - Rock SA - Salt SD - Sand SH - Shale SS - Sandstone ST - Sandstone	
D = Gage row, all teeth cutting pipe of hole. Measure of total cutting structure reduction due to loss, breakage and wear. D = No loss, wear or breakage. A = All lost, worn or broken.	BC - Broken cone BT - Broken tooth BU - Broken tooth CC - Cracked cone CD - Cracked drill CL - Cracked lip CS - Cracked side CT - Cracked tip ER - Edge row FC - Flat or cracked face HC - Hard chipping ID - Area damage LC - Lost cone UN - Lost tooth LT - Lost tooth OC - Old cone wear PS - Plugged bit PH - Plugged hole RG - Rounded gage RO - Ring out SD - Shallow damage SS - Self-chipping wear TR - Tracking WO - Worn on bit WT - Worn tooth WO - No angularity WT - Characteristics	SS - Self-chipping wear TR - Tracking WO - Worn on bit WT - Worn tooth WO - No angularity WT - Characteristics	ROCKER CORNE N - Nose row M - Middle row D - Gage row A - All rows	SEALED BEARINGS E - Seals failed P - Seals failed H - Not able to grade X - Fixed carbon bit	U = GAGE WEAR I = In-gage Measure in 1/16 inch increments.	ROTARY TYPE R = Rotary N = Miller T = Turbine S = Steam G = Top Drive J = Jetting SH = Steamable Rotary SH = Steamable Rotary	Inner Row (I) Outer Row (O) Dull Row (D) Location Beating Gage Remarks	SHA COMPONENT CODES DC - Drill Cutter DP - Drill Pipe HO - Hole Open HW - Hole Wear JB - Joint Bush JR - Joint LD - LWD Tool MD - MWD Tool PD - Positive Motor RR - Rubber Reamer	FORMATION CODES AR - Artyson CG - Compaction CR - Chert CK - Chert CL - Clay CO - Coal CT - Cement DO - Dolomite EF - Evaporite GR - Granite GU - Gneiss GW - Granite	BY - Gypsum IS - Ironstone MA - Marl NU - Mudstone PE - Pyrite QT - Quartzite RS - Rock SA - Salt SD - Sand SH - Shale SS - Sandstone ST - Sandstone		

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DANNY JORDAN

OPERATOR ATES PET		CONTRACTOR PATTERSON-UTI ENERGY INC		RIG NO. 01	BLOCK	SUB-BLOCK	LEASEWELL NAME HALDEMAN EN COM		WELL # 02
COUNTRY UNITED STATES	STATE/PROVINCE NEW MEXICO	COUNTY/DISTRICT EDDY	QSECS QSECSO	SECTION 31	TOWNSHIP 17 S	RANGE 26 E	FIELD		WELL DEPTH (ft) / EST DEPTH (ft) 8800 9000
LEGAL		RIG TYPE LAND	DRILL PIPE	SIZE (in) 4.5	WT (lbs/ft) 16.6		APP WELL #		SPUD DATE 30-Jun-2000
CONTRACT TYPE FOOTAGE		RIG ELEVATION (ft) WATER DEPTH (ft)	WELL DIRECTION VERTICAL	TOOL JOINT	SIZE (in) 6.25	TYPE XH		UTM 32.79173N / 104.42124W	UNDER SURF
FOOTAGE CONTRACT		ONSHORE	Tight Hole	WELL TARGET GAS	DRILL COLLAR	NO 4	O.D. 8	I.D. 2.5	LENGTH 120
TO		PARTIAL Well	ReEntry	WELL TYPE DEVELOPMENT	DRILL COLLAR	NO 21	O.D. 6.25	I.D. 2.25	LENGTH 641
DEPTH (ft)			WELL RECORD						
PUMP		MAKE	MODEL	LINER	NO. 1. IDECO MN700 0				
PUMP		MAKE	MODEL	LINER	NO. 2. SKYTOP BREWSTER B550F 0				
NO. 1.		NO. 2.		NO. 2. SKYTOP BREWSTER B550F 0					
NO. 2.		NO. 2.		NO. 2. SKYTOP BREWSTER B550F 0					

Well
Comments:

BIT NO.	BIT SIZE (inches)	BIT MFR	BIT TYPE	SERIAL NUMBER	JETS (32nds)	DEPTH OUT (ft)	DRIED (ft)	HOURS	ROP (ft/hr)	CUM HRS	WOB (lbs)	MOTOR RPM	TOTAL RPM	R O T	DEV	PRESS (psi)	VOL (bbl)	HST	WT (ppg)	CUTTING STRUCTURE	BEARING	REMARKS	FORMATION DATES
1	17.5	SEC	M8		12. x 3	368	368	4.5	79.6	5	30.0		120	R	75	800	320.00	0.64	9.70				30-Jun-2000
TD @ 358 SET 13 3/8 CSG.																36							
2	12.25	VAR	ETD29	158736	12. x 3	915	557	11.3	49.5	16	20.0		85	R	1.00	1050	320.00	1.14	8.40				04-Jul-2000
LOST RETURNS @ 872' TD @ 1260' SET 9 5/8 CSG.																28							
																1050	320.00	1.14	8.40				
																28							02-Jul-2000
3	8.75	HTC	HR44CH	P27ZX	12. x 3	1380	120	4.3	28.2	28	40.0		55	R	1.50	1000	62	SPM	8.40				04-Jul-2000
																28							
																1100	62	SPM	8.40				05-Jul-2000
																28							
																1300	62	SPM	9.20				12-Jul-2000
BIT, TRICOLLAR, IBS, DC, RMR, DC, RMR, 22-DC.																29							
4	8.75	HTC	HR44C	P26ZX	13. x 3	6120	627	33.5	18.7	226	55.0		55	R	1.00	1225	62	SPM	9.36				14-Jul-2000
																29							
																1300	331.00	2.05	9.60				18-Jul-2000
																32							
																1300	331.00	2.05	9.60				19-Jul-2000
OR CORE.																32							
																1300	331.00		9.50				
FOR CORE AND TIT WITH BIT.																31							22-Jul-2000

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Tool Pushers MIKE BOWERSOX

Company Representatives

STEVE COCHRAN

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 NO. 060
P. 20/20

OPERATOR VATES PET		CONTRACTOR PATTERSON-UTI ENERGY INC		REG NO. 01		BLOCK		SUB-BLOCK		LEASEWELL NAME HALDEMAN EN COM		WELL # 02	
COUNTRY UNITED STATES		STATE/PROVINCE NEW MEXICO		COUNTY/DISTRICT EDDY		COSEC		CSECLSD		SECTION 31		TOWNSHIP 17 S	
										RANGE 26 E		FIELD	
WELL DEPTH (M)		EST DEPTH (M)											
8800		9000											

BIT NO.	BIT SIZE (Inches)	BIT MFR	BIT TYPE	SERIAL NUMBER	JETS (32nds)	DEPTH CUT (M)	DRILLED (M)	HM (RS)	ROP (M/H)	CMA (RS)	WOB (LBS)	MOTOR RPM	TOTAL (LBS)	R U T	DIV	PRESS (PSI)				MUD				CUTTING STRUCTURE				BEARING				REMARKS				FORMATION DATA
																IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			
	8.75	HTC	HR44CH		13. x 3																															
																30				BRINE																
																875				331.00				9.60												
																32				BRINE																
																1250				331.00				2.03				9.50								
																31				BRINE																
																1250				331.00				2.07				9.70								
																32				BRINE																
																1250				331.00				2.07				9.70								

TOH FOR CORE #2

7 8.75 SHO CN120R 8085 45 12.8 3.6 393 18.0 54 R 875 331.00 9.60 23-JUL-2000

TOH FOR CORE AND TH WITH BIT

8 8.75 STC F47H 8385 300 21.5 14.0 414 55.0 55 R 1250 331.00 2.03 9.50 24-JUL-2000

8875 590 44.5 13.3 437 55.0 56 1250 331.00 2.07 9.70 25-JUL-2000

8800 715 55.0 13.0 448 55.0 55 1250 331.00 2.07 9.70 26-JUL-2000

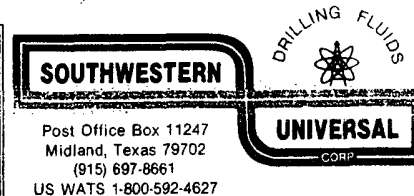
BIT, 8S, 24-6 3/8DC, TD @ 8800' SET 7" CSG.

EXPLANATION OF THE IADC DULL BIT GRADING SYSTEM

TOOTH CONDITION	DULL CHARACTERISTICS		DULL CODE DEFINITIONS		B = BEARING DULL CODE	R = REASON PULLED or RUN TERMINATED		CUTTING STRUCTURE		B	G	REMARKS	
	1 = All rows show, not cutting sight. 2 = One row, all teeth cutting edge of tooth. 3 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 4 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 5 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 6 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 7 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 8 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 9 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 10 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 11 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 12 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 13 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and... 14 = One row, all 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tooth, clean due to loss, breakage and... 100 = One row, all teeth cutting edge of tooth, clean due to loss, breakage and...	D = MAJOR DULL CHAR. 80 = Broken core 81 = Good failure 82 = Broken teeth/breaks 83 = Ruffed tip 84 = Cracked cone 85 = Cone dropped 86 = Core fractured 87 = Core fractured 88 = Core fractured 89 = Core fractured 90 = Core fractured 91 = Core fractured 92 = Core fractured 93 = Core fractured 94 = Core fractured 95 = Core fractured 96 = Core fractured 97 = Core fractured 98 = Core fractured 99 = Core fractured	O = OTHER DULL CHAR. 90 = Broken core 91 = Good failure 92 = Broken teeth/breaks 93 = Ruffed tip 94 = Cracked cone 95 = Cone dropped 96 = Core fractured 97 = Core fractured 98 = Core fractured 99 = Core fractured	L = Location codes ROLLER CONE N - Normal M - Middle row G - Gage row A - All rows CINED CUTTER G - Gage M - Middle T - Taper S - Shoulder G - Gage A - All rows	Grade recommended bearings based on accuracy of measuring etc. 0 = No B/L used 1 = All B/L used 2 = B/L used 3 = B/L used 4 = B/L used 5 = B/L used 6 = B/L used 7 = B/L used 8 = B/L used 9 = B/L used 10 = B/L used 11 = B/L used 12 = B/L used 13 = B/L used 14 = B/L used 15 = B/L used 16 = B/L used 17 = B/L used 18 = B/L used 19 = B/L used 20 = B/L used 21 = B/L used 22 = B/L used 23 = B/L used 24 = B/L used 25 = B/L used 26 = B/L used 27 = B/L used 28 = B/L used 29 = B/L used 30 = B/L used 31 = B/L used 32 = B/L used 33 = B/L used 34 = B/L used 35 = B/L used 36 = B/L used 37 = B/L used 38 = B/L used 39 = B/L used 40 = B/L used 41 = B/L used 42 = B/L used 43 = B/L used 44 = B/L used 45 = B/L used 46 = B/L used 47 = B/L used 48 = B/L used 49 = B/L used 50 = B/L used 51 = B/L used 52 = B/L used 53 = B/L used 54 = B/L used 55 = B/L used 56 = B/L used 57 = B/L used 58 = B/L used 59 = B/L used 60 = B/L used 61 = B/L used 62 = B/L used 63 = B/L used 64 = B/L used 65 = B/L used 66 = B/L used 67 = B/L used 68 = B/L used 69 = B/L used 70 = B/L used 71 = B/L used 72 = B/L used 73 = B/L used 74 = B/L used 75 = B/L used 76 = B/L used 77 = B/L used 78 = B/L used 79 = B/L used 80 = B/L used 81 = B/L used 82 = B/L used 83 = B/L used 84 = B/L used 85 = B/L used 86 = B/L used 87 = B/L used 88 = B/L used 89 = B/L used 90 = B/L used 91 = B/L used 92 = B/L used 93 = B/L used 94 = B/L used 95 = B/L used 96 = B/L used 97 = B/L used 98 = B/L used 99 = B/L used	B/LA - Chisel bit too long B/LB - Drill bit too long B/LC - Drill bit too long B/LD - Drill bit too long B/LE - Drill bit too long B/LF - Drill bit too long B/LG - Drill bit too long B/LH - Drill bit too long B/LI - Drill bit too long B/LJ - Drill bit too long B/LK - Drill bit too long B/LM - Drill bit too long B/LN - Drill bit too long B/LO - Drill bit too long B/LP - Drill bit too long B/LQ - Drill bit too long B/LR - Drill bit too long B/LS - Drill bit too long B/LT - Drill bit too long B/LU - Drill bit too long B/LV - Drill bit too long B/LW - Drill bit too long B/LX - Drill bit too long B/LY - Drill bit too long B/LZ - Drill bit too long B/LA - Drill bit too long B/LB - Drill bit too long B/LC - Drill bit too long B/LD - Drill bit too long B/LE - Drill bit too long B/LF - Drill bit too long B/LG - Drill bit too long B/LH - Drill bit too long B/LI - Drill bit too long B/LJ - Drill bit too long B/LK - Drill bit too long B/LM - Drill bit too long B/LN - Drill bit too long B/LO - Drill bit too long B/LP - Drill bit too long B/LQ - Drill bit too long B/LR - Drill bit too long B/LS - Drill bit too long B/LT - Drill bit too long B/LU - Drill bit too long B/LV - Drill bit too long B/LW - Drill bit too long B/LX - Drill bit too long B/LY - Drill bit too long B/LZ - Drill bit too long	R/L - Rig rigible TD - Total depth/SS depth TW - Twist TD - Twist WC - Weather conditions WD - Weather drill string	Inner Rows (I) Outer Rows (O) Dull Row (D) Location (L) Bearing (B) Gage (G) Other (O) Reason Pulled (R)	B/LA Component Codes DC - Drill Color DP - Drill Pipe MO - Hole Open RW - Hole W/O JA - J.A. Bit JL - J.L. Bit JL				

FEB. 20. 2004 10:55AM

OPERATOR MEWBOURNE OIL	LEGAL DESCRIPTION SECTION 14	TOTAL MUD COST \$13,655.00	
WELL HAIDEMAN #1	T 17 S R 36 E	SPUD DATE 03-12-91	
CONTRACTOR WEK #2	COUNTY/PARISH EDDY	T.D. DATE 04-07-91	
ENGINEER OLIN STEWART	STATE NEW MEXICO	DAYS TO T.D. 27	TOTAL DEPTH 8,733



DRILLING MUD RECORD

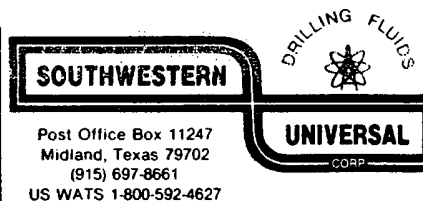
CASING PROGRAM		BITS		TYPE OF MUD SYSTEM		SOLIDS CONTROL		ADDITIONAL INFORMATION	
DEPTH (FT.)	SIZE (in.)	NO.	SIZE (in.)	TYPE	INTERVAL	TYPE	INTERVAL	PUMP SPECIFICATIONS	
465	13 3/8"		17 1/2"	FW Gel/Lime/LCM	0-465			5 1/2 x 16	
1,390	8 5/8"		12 1/4"	FW Gel/Lime/LCM	0-1,390			D.P. and D.C. 4 1/2" 8" - 6 1/4	
8,733	4 1/2"		7 7/8"	FW Gel/Lime/LCM	0-1,390			OTHER	
				Cut Brine	1,390-7,500				
				XC Polymer/Driscap/Starch	7,500-8,733	Shaker	7,500-8,733		

DATE 1991	TIME	DEPTH	WT.	FV	PV	YP	GELS	PH	FILTRATE			CAKE	ALKALINITY		CL	Ca	SD	SOL.	OIL	H ₂ O			REMARKS
									API	HTNP	°F		PM	PF/MF									
03-12																							Rig up - Spud ticket
03-13		1,229																					Dry drilling - Pumping sweeps - Lost returns at 841'
03-14		1,390																					Cut 12 1/4" hole to 1,390' - Dry drilled - Could not run 8 5/8" casing past 319' - Sand Artesian Water
03-15		319																					Pulled 8 5/8" - Seamed out to 17 1/2 - set cement plug
																							on sand at 473' - Ran 13 3/8" to 465' and cemented
03-16		745																					Mudded up - Drilling sand and cement - Washed to 1,173'
																							Lost complete returns - Washed to bottom -
																							Ran 8 5/8" - Mud cost \$4,602.00
03-19		1,496	8.4	28				11.0							1800	700	Nil	.7					
03-20		2,213	8.6	29				10.0							3600	1400	Tr.	1.0					
03-21		2,883	8.7	29				9.5							46K	1800	Tr.	.8					

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OPERATOR MEWBOURNE OIL COMPANY	LEGAL DESCRIPTION SECTION 14	TOTAL MUD COST \$13,100.00	
WELL VOGEL #1	T-17-S, R-26-E	SPUD DATE 10-24-90	
CONTRACTOR WEK #1	COUNTY/PARISH EDDY	T.D. DATE 02-07-90	
ENGINEER STEWART/HOWE	STATE NEW MEXICO	DAYS TO T.D. 24	TOTAL DEPTH 8,635



Post Office Box 11247
Midland, Texas 79702
(915) 697-8661
US WATS 1-800-592-4627

DRILLING MUD RECORD

CASING PROGRAM		BITS		TYPE OF MUD SYSTEM		SOLIDS CONTROL		ADDITIONAL INFORMATION	
DEPTH (FT.)	SIZE (in.)	NO.	SIZE (in.)	TYPE	INTERVAL	TYPE	INTERVAL	PUMP SPECIFICATIONS	
1,350	8 5/8"		12 1/4"					5 1/2 X 16	
8,635	4 1/2"		7 7/8"					D.P. and D.C. 4 1/2 x 4 - D.C. 6 1/4" - 8"	
								OTHER	

DATE 19__	TIME	DEPTH	WT.	FV	PV	YP	GELS	pH	FILTRATE			CAKE	ALKALINITY		CL	Ca	SD	SOL	OIL	H ₂ O			REMARKS
									API	HTHP	°F		PM	PF/MF									
01-15		840	10.1	40	10	21	4/20	9.0							2000	640		13					
01-17		1,350													1500	600		.5					WOC 8 5/8" Casing
01-18		1,765	8.4	28				11.5							1500	600							
01-19		2,508	8.4	28				10.0							1500	720							
01-20		2,934	8.5	28				10.5							1500	720							
01-22		3,692	9.1	28				9.5							65K	2000							Added Brine for 9.1 wt - well kicked at 3,222 w/ 8.4 wt.
																							Had to circulate gas off on trip at 3,222' then go
																							back to bottom and raise wt. to 9.0-9.1 for trip.
01-23		3,975	9.0	29				7.5							65K	1800							
01-25		4,689	9.1	29				10.0							78K	2000							
01-26		5,079	9.1+	29				9.5							85K	2400							Pumped sweep
01-28		5,714	9.1	29				10.5							88K								

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