Form 3160-5	UNI'. J STATES	FORM APPROVED OMB No. 1004-0135	151-
(November 1994)	DEPARTMENT OF THE INTERIOR BUREAU OF LAND MEAGWEN	ARLSBAD 5. Lease Serial No.	
	NDRY NOTICES AND REPORTS ON W se this form for proposals to drill or to re		
abandon	ed well. Use Form 3160-3 (APD) for such p	roposals.	
SUBMIT II	NTRIPLICATE - Other instructions on	0141 4004	or No.
1. Type of Well	ell 🖸 Other	8. Well Name and No. Federal 22 Com No. 2	
2. Name of Operator Gruy Petroleum Ma	anagement Co.	P API Well No	<u> </u>
3a. Address P. O. Box 140907	Irving, TX 75014-0907	No. (include are diste) -401-3466//FD 10. Field and Pool, or Exploratory Area	
	e, Sec., T., R., M., or Survey Description)	ARTESIA AN VUNITE City; Penn (Gas)	
990' FNL & 660' FI	EL Sec. 22 T24S - R26E	Eddy Co., NM	
_	UT.A	E NATURE OF NOTICE REPORT OR OTHER DATA	
12. CHEC	K APPROPRIATE BOX(ES) TO INDICATI	E NATURE OF NOTICE, REPORT, OR OTHER DATA	
TYPE OF SUBMISSIO	N	TYPE OF ACTION	
Notice of Intent	Acidize Deepen	Production (Start/Resume) U Water Shut-Off	
~	Alter Casing Fracture 7	Ç,	
Subsequent Report	Casing Repair INew Control Change Plans		.ion
Final Abandonment No			
following completion of t testing has been complete determined that the site is 11/29/02 Receive 11/29/02 Ran 7" c 11/30/02 Unplugg 0.1% HF	he involved operations. If the operation results in a model. Final Abandonment Notices shall be filed only aft ready for final inspection.) d permision from Duncan Whitlock of BLM asing & set at 10,700'. ed casing. Cemented 1st stage, lead wit R-7 per sx. Tailed with 245 sx Super "H" (h 180 sx Interfill "H" + 1/4# Flocele + 5# Gilsonite + Cement + 0.5% Halad-344 + 0.3% CFR-3 + 5# Gilsonite +	iled once
	10.1% HR-7 + 174# Flocele per sx. Float 2" liner w bottom @ 11,929' and top @ 10	s didn't hold. TOC 6977' 30' above DV tool	
		It + 0.5% LAP-1 + 0.4% CFR-3 + 0.3% HR-7	
	-Air 3000. Plugged down and bumped-fl		
	r Packer - PU 20' & reversed out 14 sx ce		
12/16/02 Release	d Patterson-UTI Rig at 12:00 noon to go t	to the Pennzoil Fed Com 3.	
14. I hereby certify that the fo Name (Printed/Typed) Natalie Krueger	pregoing is true and correct	Title LES BASK 14 Production Assistant PETROLE StarkbackTOR	
Signature	5 11	Date 10,0000	
	u ftrefer	January 10, 2003	
	THIS SPACE FOR FEDER	AL OR STATE OFFICE USE	
Approved by		Title Date	
certify that the applicant hold	y, are attached. Approval of this notice does not warn is legal or equitable title to those rights in the subject ant to conduct operations thereon.	rant or Office t lease	
Title 18 U.S.C. Section 1001 fraudulent statements or repre	makes it a crime for any person knowingly and willfusentations as to any matter within its jurisdiction.	ully to make to any department or agency of the United States any false, fictit	tious or

Gruy Petroleum Management Co.

Magnum Hunter Production, Inc.

Well History

November 14, 2002 Thru December 17, 2002

OPERATED

CARLSBAD

GRUY	PETROLEUM MANAGEMENT CO
76878	FEDERAL 22 COM 2
EDDY,	NM

900'FNL, 660'FEL, Sec 22, T24S, R26E

W.I. Pct BCP	12.19 %
W.I. Pct ACP	12.19 %
Morrow /	12,000'

11/14/2002		Depth 3,770 Progress 556
AFE:	22288	Progress 556 Present Operation: Drlg
		Rig repair on kick pads on drum Service rig Install drilling line on drum & install wear bushing in "B" section of well head PU, make up & TIH with Bit # 3 & BHA PU & TIH with 6 - 6 3/4" DC's & X~O sub Test motor @ 500# - OK PU & TIH with 24 - 6 1/8" DC's TIH with DP out of derrick - tagged up @ 3,164' - LD 15 jts. DP Test casing, well head & BOP to 2,200# for 30 mins OK Drill plug, float collar, cement & shoe Drill from 3,214' to 3,220' (on formation at 4:15 PM 11/13/02) (156 RPM motor & 35 RPM rotary) Test formation to 10.5# /gal. mud equivalent with 350# pressure with 8.4# /gal. fluid in hole - OK Drill from 3,220' to 3,758' (156 RPM motor & 40 RPM rotary) WLS @ 3,688' = 3/40 Drill from 3,758' to 3,770' (156 RPM motor & 40 RPM rotary)
11/15/2002		Depth 4,664 Progress 894
AFE:	22288	Present Operation: Drlg
		Drill from 3,770' to 4,073' (156 RPM motor & 40 RPM rotary) Service rig Drill from 4,073' to 4,262' (156 RPM motor & 40 RPM rotary) WLS @ 4,185' = 3/40 Drill from 4,262' to 4,664' (156 RPM motor & 40 RPM rotary)
11/16/2002		Depth 5,447
AFE:	22288	Progress 783 Present Operation: Drlg
		Drill from 4,664' to 4,673' (156 RPM motor & 40 RPM rotary) WLS @ 4,596' = 3/40 Drill from 4,673' to 4,959' (156 RPM motor & 40 RPM rotary) Service rig - work BOP & hydraulic choke - pump through & test mud / gas separator - OK Drill from 4,959' to 5,148' (156 RPM motor & 40 RPM rotary) WLS @ $5,071' = 10$ Drill from 5,148' to 5,447' (156 RPM motor & 40 RPM rotary)
11/17/2002		Depth 6,280
AFE:	22288	Progress 833 Present Operation: Drlg
		Drill from 5,447' to 5,622' (156 RPM motor & 40 RPM rotary - 45,000# bit wt.) Service rig WLS @ 5,545' = 1/20 Drill from 5,622' to 6,097' (156 RPM motor & 40 RPM rotary - 45,000# to 50,000# bit wt.) WLS @ 6,020' = 20 Drill from 6,097' to 6,280' (156 RPM motor & 40 RPM rotary - 45,000# bit wt.)
11/18/2002		Depth 6,840
AFE:	22288	Progress 560 Present Operation: Drlg
		Drill from 6,280' to 6,286' (156 RPM motor & 40 RPM rotary - 45,000# bit wt.) Drop Totco @ 6,209' = 10 - trip out for bit - checked stabilizers & tri-collar for gauge - OK - BHR 1/8" out of gauge - changed

	out same with new BIR - BILT 3 6 3/4 Security X3433 5107 10591140 5-133 in (\oplus 5,214 out (\oplus 6,286' cut 3,0° in 82 1/2 hrs. condition = T5 B6 3/16" out (\oplus uge Service rig & work BOP TIH with Bit # 4 & how motor Wash & ream 110' to bottom - no fill L from 6,286' to 6,759' (153 RPM motor & 40 RPM rotary - 45,000# bit wt.) WLS (\oplus 6,686' = 1/20 Drill from 6,759' to 6,840' (153 RPM motor & 40 RPM rotary - 45,000# bit wt.)
11/19/2002	Depth 7,594 Progress 754
AFE: 22288	Present Operation: Drlg
	Drill from 6,840' to 7,076' (153 RPM motor & 40 RPM rotary - 45,000# bit wt.) Service rig Drill from 7,076' to 7,234' (153 RPM motor & 45 RPM rotary - 50,000# bit wt.) WLS @ 7,157' = 3/40 Drill from 7,234' to 7,594' (153 RPM motor & 45 RPM rotary - 50,000# bit wt.)
11/20/2002	Depth 8,298 Progress 704
AFE: 22288	Progress 704 Present Operation: Drlg
	Drill from 7,594' to 7,707' (153 RPM motor & 45 RPM rotary - 50,000# bit wt.) Service rig WLS @ 7,630' = 1 3/40 Drill from 7,707' to 8,182' (153 RPM motor & 40 RPM rotary - 45,000# bit wt.) WLS @ 8,105'' = 1/40 Drill from 8,182' to 8,298' (153 RPM motor & 40 RPM rotary - 45,000# bit wt.)
11/21/2002	Depth 8,906 Progress 608
AFE: 22288	Progress 608 Present Operation: Drlg
	Drill from 8,298' to 8,466' (149 RPM motor & 40 RPM rotary - 47,000# bit wt.) Service rig Drill from 8,466' to 8,656' (151 RPM motor & 40 RPM rotary - 47,000# bit wt.) WLS @ 8,579' = 1/40 Drill from 8,656' to 8,906' (152 RPM motor & 40 RPM rotary - 48,000# bit wt.)
11/22/2002	Depth 9,192
AFE: 22288	Progress 286 Present Operation: Drlg
	Drill from 8,906' to 9,004' (152 RPM motor & 40 RPM rotary - 48,000# bit wt.) - displace well with 9.8 #/gal. brine water from inside reserve pit Service rig - install rotating head rubber & drive bushing Drop Totco @ 9,004' = 10 & trip out for bit - checked stab., tri-collar & BHR for gauge - OK - LD motor & Bit # 4 8 3/4" HTC HR- S44C 3-13's in @ 6,286' out @ 9,004' cut 2,718' in 88 1/2 hrs. condition T2 B3 In gauge - worked BOP's - PU BlackMax Motor & Bit # 5 - tested motor - OK TIH with Bit # 5 Cut drilling line Continue TIH with Bit # 5 & install rotating head rubber Wash 47' to bottom - no fill Drill from 9,004' to 9,192' (95 RPM motor & 45 RPM rotary - 47,000# bit wt.) BGG = 302 units - max. formation gas = 1,469 units - max. conn. gas = 1,620 units - trip gas = 448 units - lag = 58 mins no shows
11/23/2002	Depth 9,719 Progress 527
AFE: 22288	Progress 527 Present Operation: Drilling
	Drill from 9,192' to 9,384' (95 RPM motor & 45 RPM rotary - 47,000# bit wt.) Service rig Drill from 9,384' to 9,605' (100 RPM motor & 45 RPM rotary - 47,000# bit wt.) WLS @ 9,528' = bad picture Drill from 9,605' to 9,637' (98 RPM motor & 45 RPM rotary - 47,000# bit wt.) WLS @ 9,529 To Drill from 9,637' to 9,719' (98 RPM motor & 45 RPM rotary - 47,000# bit wt.)
11/24/2002	Depth 10,136 Progress 417
AFE: 22288	Present Operation: Drilling
	Drill from 9,719' to 9,858' (98 RPM motor & 45 RPM rotary - 47,000# bit wt.) Service rig Drill from 9,858' to 10,080' (98 RPM motor & 45 RPM rotary - 47,000# bit wt.) - returned to the steel pits & started mud up at 10,008' WLS @ 10,003' = 20 Drill from 10,080' to 10,136' (101 RPM motor & 45 RPM rotary - 40,000# to 42,000# bit wt.)
11/25/2002	Depth 10,430
Tuesday, 17 December,	2002 FEDERAL 22 COM 2

		riogicss 234
AFE:	22288	Present Operat ⁱ Circulating well on choke
		Drill from 10,136' to 10,260' (101 RPM motor & 45 RPM rotary - 45,000# bit wt.) Service rig Drill from 10,260' to 10,430' (102 RPM motor & 45 RPM rotary - 46,000# bit wt.) - drilling break from 10,427' to 10,430' - picked up & checked for flow - well flowing - shut well in 2 bbl. gain in pits - 15 min. SIDP = $150\#$ - 30 min. SIDP = $0\#$ - 15 min. & 30 min. SICP = 140# attempted to bring pump up to slow kill rate & pressure - loosing circulation - opened choke to 1/2 open & got full circulation - circulating out gas with casing pressure going to a max. of 700# while circulating out gas on choke through mud / gas separator with 15' to 30' gas flare .
11/26/2002		Depth 10,586
AFE:	22288	Progress 156 Present Operation: Drilling
, , , , , , , , , , , , , , , , , , ,	22200	Circulating out gas on choke through mud / gas separator while raising mud weight from 9.6 # /gal. to 9.9#/gal 15' to 30' gas flare at 10,430' Drill from 10,430' to 10,491' (103 RPM motor & 45 RPM rotary - 46,000# bit wt.) with a 15' to 30' gas flare while continuing to raise mud wt. Change out MD Totco Flow Sensor Drill from 10,491' to 10,586' (103 RPM motor & 45 RPM rotary - 46,000# bit wt.) with a 15' to 25' gas flare while continuing to raise mud wt. from 9.9#/gal. to 10.2 #/gal. (maximum weight with salt) - well flowing on connections
11/27/2002		Depth 10,632
	22288	Progress 46
AFE:	22288	Present Operation: Mixing mud and LCM
		Drill from 10,586' to 10,595' (103 RPM motor & 45 RPM rotary - 46,000# bit wt.) with a 15' to 25' gas flare - well flowing on connections - called for bulk barite to bring up mud wt. Dog house WLS @ 10,477' = 1 3/40 (didn't run survey for safety reasons due to gas flow) Drill from 10,595' to 10,626' (103 RPM motor & 45 RPM rotary - 46,000# bit wt.) with a 15' to 25' gas flare - well flowing on connections - Drilling break from 10,611' to 10,617' - picked up & checked for flow - no more flow than normal - at 10,626' well started kicking (10.2#/gal. mud) & started running mud pits over on location - pulled up & shut well in - 0# SIDP & 800# SICP Circulated well through choke while mixing barite to bring weight up from 10.2#/gal. to 11.0#/gal started loosing returns - mixed LCM - 30' to 40' gas flare falling off to 10' gas flare Drill from 10,626' to 10,632' (100 RPM motor & 45 RPM rotary - 46,000# bit wt.) - lost circulation - 3' gas flare Pulled up 40' off bottom - building mud volume & mixing LCM - working pipe - pipe is free - no gas flare
11/28/2002		Depth 10,727
AFE:	22288	Progress 95 Present Operation: Drlg
		40' off bottom - building mud volume & mixing LCM - working pipe - pipe is free - no gas flare Started washing to bottom with returns & gas - 30' of fill - rotating head rubber leaking - gaining fluid in pits - switched through choke manifold Change out rotating head rubber Service rig Wash & ream 30' of hard fill while drilling through choke manifold Drill from 10,632' to 10,686' switched back to flow line (87 to 53 RPM motor & 45 to 50 RPM rotary - 46,000# bit wt.) while mixing LCM & barite trying to bring mud wt. to 10.6#/gal lost circulation Pick up 40' off bottom & build mud volume & mix LCM - go back to bottom - no fill Drill from 10,686' to 10,694' (87 RPM motor & 50 RPM rotary - 46,000# bit wt.) - gas busted flow line Pick up 40' off bottom - SI well & repair flow line - 450# SICP Circulate bottoms up through choke manifold & go back to bottom 30' to 40' gas flare - no fill Drill from 10,694' to 10,727' (100 RPM motor & 45 RPM rotary - 46,000# bit wt.) - mixing LCM - 10' to 20' gas flare - flowing on connections - 10.3#/gal. mud wt. in & out BGG = 85 units - max. connection gas = 1,600 units - lag = 59 mins.
11/29/2002		Depth 10,744
AFE:	22288	Progress 17 Present Operation: CIRC & Mixing LCM
/ 11 L.	0	$C_{1} \sim c_{1}$
		Drill from 10,727' to 10,744' TD (100 RPM motor & 45 RPM rotary - 46,000# bit wt.) - mixing LCM - 10' to 20' gas flare - flowing on connections - 10.3#/gal. mud wt. in & out Service rig Circulate & condition mud - mixing LCM - slowly mixing barite to bring mud weight from 10.3#/gal. to 10.6 #/gal. in & out to the
Tuesday 17	December 200	FEDERAL 22 COM 2

point that the note was starting to take nata, then stopped taking nut 14 stand short any out & 1111normal drag - no fluid displacement going in hole Wash 30' to bottom - 3' of fill 10,000# more Circulate botto.... up - very little gas - no pit gain - hole is starting to take fluid Circulate & condition mud - mixing LCM - hole seeps at times, then stops - mixing 180 bbl. heavy weight mud spotting pill in premix pit to 14.3#/gal. 10.744 Depth 11/30/2002 0 Progress Present Operation: Working Stuck Casing AFE: 22288 Circulate & condition mud - spotted 180 bbls. of 14.3#/gal. mud from 10,744' to 8,700' - well is dead Service rig Drop Totco @ 10,744' = 1 3/40 & trip out standing back DP - break kelly - well is dead RU LD machine & POOH LD DC's, BHA, motor & bit - well is dead - pulled wear bushing RU casing crew & ran 7" casing (See Casing Detail) - ran 10 Halliburton centralizers - well started flowing 10 to 14 BPH rate installed 7" casing stripper head - hit bridges & had to circulate & wash down from 6,394' to 6,433' & 6.700' to 6.735' - set 7" casing at 10,700' - 44' off bottom RU Halliburton & attempted to break circulation going as high as 5,000# - 7" casing is stuck & plugged - worked stuck casing for 2 hrs. & finally freed up 10,744 Depth 12/01/2002 0 Progress Present Operation: LD 4-1/2" DP from Derrick 22288 AFE: Worked to unplug casing to as high as 4,000# & surging back - finally got floats unplugged Halliburton cemented 1st stage (Lead) 180 sx Interfill "H" + 1/4# Flocele + 5# Gilsonite + 0.1% HR-7 per sx, followed by (Tail) 245 sx Super "H" Cement + 0.5% Halad-344 + 0.3% CFR-3 + 5# Gilsonite, 1# Salt + 0.1% HR-7 + 1/4# Flocele per sx - plug down & bumped with 1,230# at 8:35 AM (CST) 11/30/02 - floats didn't hold - surged floats several times - no success Wait for tail cement to set so we could drop bomb to set DV Packer - back side flowing - closed hydril & SI well to hold cement in place - 125# SICP Drop bomb & set DV Packer at 7,007' to 7,010' with 3,000# & attempted to open DV Tool with no success to as high as 6,000# - DV Tool is probably open, but cement has probably set up - pump time on the lead cement was 4 hrs. - pump time on the tail cement was 2 hrs. 20 mins. Pressured up to 500# on 7" casing & closed BOP Hydril to keep back side from flowing to allow cement to set up Bleed off pressure - back side still flows small stream - ND & PU BOP's - set 7" casing slips in 238,000# - cut off 7" casing high & beveled cut - set BOP's back down & NU BOP's RU lavdown machine & 4 1/2" power tongs - LD 4 1/2" DP out of derrick in mouse hole 10,744 Depth 12/02/2002 Progress 0 Present Operation: Drlg on Barite Bridge 22288 AFE: LD 4 1/2" DP out of derrick in mouse hole & LD kelly Service rig Change BOP pipe rams from 4 1/2" to 3 1/2" RU tester & tested pipe rams, blind rams, hydril, choke manifold & associated equipment to 5.000#, BLM was notified, but did not witness the test RU DP power tongs & laydown machine - PU & TIH with Bit #6, bit sub, 30 - 4 3/4" DC's & 3 1/2" DP tagged up on DV Packer @ 7,014' - set 65,000# down on closing sleeve to close DV Tool - saw some movement, so DV Tool should be closed now Drill DV Tool & bomb Circulate Continue TIH PU 3 1/2" DP - tagged up at 10,347' - RD laydown machine & power tongs Drill & ream on barite bridge & the remainder of the DV Tool bomb at 10,347' 10,780 Depth 12/03/2002 36 Progress Present Operation: Drlg AFE: 22288 Drill, ream & wash on barite bridges from 10,347' to 10,650' Drill cement plug, float collar & cement to 10,680' - install rotating head rubber & drive bushing - drilled cement from 10,680' & shoe at 10,700' Wash & ream from 10,700' to 10,744' - 20' of fill - no gas or flow Circulate bottoms up Service rig Trip out - LD mill tooth Bit # 6 (condition T2 B2 in gauge) & bit sub - PU motor, BHA & Bit # DeTIH Install rotating head rubber & cut drilling line Finish TIH with Bit # 7 Wash to bottom - 2' of fill Drill from 10,744' to 10,780' (128 motor RPM & 34 rotary RPM - 10,000# to 15,000# bit wt.) removing LCM over shale shaker, cleaning - jetting pits & building mud volume to bring down mud weight BGG = 1 unit max. formation gas = 9 units - trip gas = 261 units - lag = 59 mins. No shows 10,915 Depth 12/04/2002

AFE:	22288	Progress 155 Present Operat Drlg
		Drilling from 10785' - 10801'. Rig Service. Drilling from 10801' - 10865'. Pulled up to make connection and noticed 40 - 50k drag when tool joint came above rotary table. Pull 2 stands and get bit inside casing. Slowly lower string into open hole and tag up 30' below shoe. Pushed object downhole until 10' off bottom and picked up kelly. Took 10 - 15k weight to wash to bottom. Picked up and had no more problems. Drilling from 10865' - 10915' with 24k WOB and 34 RPM rotary. Daily ROP - 5.8'/hr.
12/05/2002 AFE:	22288	Depth 11,048 Progress 133 Present Operation: Drlg
		Drilling from 10915' - 10928'. Made connection and could not get bushing in rotary table or pick up string. Work string up to 230K making slow progress until able to see movement. Worked up 15' and laydown joint of pipe. Pulled loose at 250K and set kelly back. Pulled 3 stands into casing with 25 - 30K drag. Mixed 100 bbls of 100 viscosity sweep. Rig Service. Trip in hole with 3 stands pushing piece of cement to 10880'. Wash 48' to bottom with 2 - 3' of soft fill. Drilling from 10928' - 11048'. Circulated out fair amount of cement with HiVisc sweep and divert to premix pit for later use. Have not seen any problems with drag on connections since 10928'. Bled in 200 bbls of light mud into system and brought weight down to 10#/gal. Daily ROP - 7'/hr. BGG - 5u / Max Formation Gas - 5u / Max Connection Gas - 83u.
12/06/2002		Depth 11,251 Progress 203
AFE:	22288	Present Operation: Drlg
		Drilling from 11048' - 11119'. BOP Drill. Rig Service. Drilling from 11119' - 11251'. Daily ROP - 8.5'/hr / Cum ROP - 6.7'/hr.
12/07/2002		Depth 11,368 Progress 117
AFE:	22288	Present Operation: Drlg
		Motor stalled on connection. Mix slug for trip and pump. Drop survey tool. Trip out of hole for bit and motor. Change out BHA. Trip in hole to 11180'. Ream 70' to bottom. Drilling from 11252' - 11368'. Daily ROP - 8.8'/hr.
12/08/2002		Depth 11,625 Progress 257
AFE:	22288	Present Operation: Drlg
		Drilling from 11382' - 11438'. Rig Service. Drilling from 11438' - 11625'. Daily ROP - 10.8'/hr / Cum ROP - 10.1'/hr.
12/09/2002		Depth 11,801
AFE:	22288	Progress 176 Present Operation: Drlg
		Drilling from 11625' - 11693'. Rig Service. Drilling from 11693' - 11788'. ROP slowed from 11'/hr down to 7 - 8'/hr in hard sand, shale, and lime. Wireline Survey at 11740' - 1.5 degrees. Drilling from 11788' - 11801'. Daily ROP - 7.7'/hr / Cum ROP - 9.2'/hr.
12/10/2002		Depth 11,822
AFE:	22288	Progress 21 Present Operation: TIH with Bit #9
	December 200	Drilling from 11801' - 11822'. ROP slowing to 20 min/ft. Circulate samples for mudlogger and mix slug for trip. Last sample had 60% Shale / 20 Lm / 20 Sd. Rig Service. Trip out of hole for bit/Ghange bits and guage RMR and stabilizer. Trip in hole to 11750'. Kelly up to W&R to bottom and dillstring pressured up to 2200 psi at 28 spm. Attempt to "unplug bit" with no success. Trip out of hole 20 stands. High drum chain broke. Repair high drum chain. Trip out of hole. Breakout bit and found motor locked up. Check for junk inside motor and found none. LD motor. Trip in hole to 6000'. Break circulation at 6000'. FEDERAL 22 COM 2

	Conn Gas - 23 ² 's Nag time - 62 minutes.
12/11/2002	Depth 11,930 Progress 108
AFE: 22288	Present Operation: Drlg
	TIH with Bit # 9 Service rig Wash 100' to bottom - no fill Drill from 11,822' to 11,930' TD (Reached TD of 6 1/8" hole at 5:00 AM (CST) 12/11/2002) Circulate & condition mud
12/12/2002	Depth 11,930
AFE: 22288	Progress 0 Present Operation: Running Open Hole Logs
	Circulate & condition mud - cut 84' of drilling line Pump slug & drop Totco @ $11,930' = 1$ 1/20 Service rig Trip out of hole & LD IBS, reamer & bit RU Halliburton & run open hole logs - DLL, SDL, DSN, CBL, GR Caliper & RFT, Full Wave Sonic, GR Logger's TD = 11,912'
12/13/2002	Depth 11,930
AFE: 22288	Progress 0 Present Operation: Cementing 4 1/2" liner
	Finish running open hole logs & RD Halliburton logging truck Service rig TIH to 6,000' Break circulation at 6,000' Continue TIH Wash 50' to bottom - no fill Circulate & condition mud POOH RU laydown machine & run 4 1/2" liner (See Casing Detail) with 41 B&L Equip. Turbo Agitators - RD casing crew & laydown machine TIH with 3 1/2" DP - 2 mins. per stand, filling DP every 15 stands Install rotating head rubber & RU TIW cementing manifold head - TIH to 11,930' - no fill Circulate bottoms up Set TIW Liner Hanger in 16,000# - bottom of liner at 11,929' KB - top at 10,469' KB - got off liner & set back down with 15,000# weight Halliburton cemented 4 1/2" liner with 135 sx Super "H" cement + 1# Salt + 0.5% LAP-1 + 0.4% CFR-3 + 0.3% HR-7 + 0.25% D-AIR 3000 - plug down & bumped with 2,200# at 5:55 AM (CST) 12/13/02 - floats held OK
12/14/2002 Maintenance AFE: 22288	Present Operation: Cementing liner
	Finish running open hole logs & RD Halliburton logging truck Service rig TIH to 6,000' Break circulation at 6,000' Continue TIH Wash 50' to bottom - no fill Circulate & condition mud - slug DP & drop 2" OD TIW rabbit with 100' wire line tail POOH RU laydown machine & run 4 1/2" liner (See Casing Detail) with 41 B&L Equip. Turbo Agitators - RD casing crew & laydown machine TIH with 3 1/2" DP - 2 mins. per stand, filling DP every 15 stands Install rotating head rubber & RU TIW cementing manifold head - TIH to 11,930' - no fill Circulate bottoms up Set TIW Liner Hanger in 16,000# - bottom of liner at 11,929' KB - top at 10,469' KB - got off liner & set back down with 15,000# weight Halliburton cemented 4 1/2" liner with 135 sx Super "H" cement + 1# Salt + 0.5% LAP-1 + 0.4% CFR-3 + 0.3% HR-7 + 0.25% D-AIR 3000 - plug down & bumped with 2,200# at 5:55 AM (CST) 12/13/02 - floats held OK
12/15/2002	Depth 11,930
AFE: 22288	Progress 0 Present Operation: ND BOP's
	BLM was notified of cement job - didn't witness job - set Liner Packer - PU 20' & reversed out 14 sx cement from liner top Test 4 1/2" liner, 7" casing, well head & BOP to 1,000# - OK RD Halliburton Chain out of hole & LD TIW liner setting tool TIH with rerun Bit # 6 - 6 1/8" HTC GT-1 mill tooth bit, bit sub, 4 3/4" DC's & 3 1/2" DP Dress off 4 1/2" liner top at 10,469' KB & displace mud from well at 10,469' with fresh water Test 4 1/2" liner top to 1,000# - OK RU laydown machine & POOH LD 3 1/2" DP POOH LD 30 - 4 3/4" DC's & RD laydown machine Break down kelly & LD same - LD & load out all rental items for return to Knight Oil Tools Change BOP pipe rams from 3 1/2" to 4 1/2" & ND BOP's & choke manifold
12/16/2002 Maintenance AFE: 22288	Present Operation: RD

steel pits - Relf = 1 Patterson - UTI Rig # 75 at 12:00 Noon (Cf = $\frac{12}{14}/2002$ to go to the Pennzoil Federal Com # $\frac{1}{2}$ D Patterson - UTI Rig # 75

12/17/2002 Completion AFE: 22288 Daily Cost: \$0 Cumulative Costs: \$1,246,425

WOC

Present Operation:



FEDERAL 22 COM 2