

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

Form C-105
Revised 1-1-89

WELL API NO. 30-015-32560
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG					
1a. Type of Well: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER _____			7. Lease Name or Unit Agreement Name Gulf Federal Com		
b. Type of Completion: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DEEP RESVR ☐ OTHER ☐ RECEIVED					
2. Name of Operator Gruy Petroleum Management Company			8. Well No. 4		
3. Address of Operator P.O. Box 140907, Irving, TX 75014-0907			9. Pool name or Wildcat Carlsbad; Morrow (South)		
4. Well Location Unit Letter <u>D</u> : <u>660'</u> Feet From The <u>South</u> Line and <u>660'</u> Feet From The <u>West</u> Line Section <u>6</u> Township <u>23S</u> Range <u>27E</u> NMPM <u>Eddy</u> County					
10. Date Spudded 10-23-03	11. Date T.D. Reached 11-27-03	12. Date Compl. (Ready to Prod.) 02-26-04	13. Elevations (DF & RKB, RT, GR, etc.) 3258' GR	14. Elev. Casinghead	
15. Total Depth 12000'	16. Plug Back T.D. 11940'	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By Rotary Tools All	Cable Tools	
19. Producing Interval(s), of this completion - Top, Bottom, Name 11452' - 11754' Morrow				20. Was Directional Survey Made Yes	
21. Type Electric and Other Logs Run Duel Spaced Neutron DLL Micro Gaurd			22. Was Well Cored No		
23. CASING RECORD (Report all strings set in well)					
CASING SIZE		WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD
13 3/8"		54.5# H-40	407'	17 1/2"	425 sx Prem TOC 45'
9 5/8"		40 # NS-110 LTC	3205'	12 1/4"	1000 sx Inter C + Prem circ 68 sx
5 1/2"		17# P&N LTC	11986'	7 7/8"	1650 sx Interfil H/Sup H/Interfill C/ Premium Plus TOC 600'
24. LINER RECORD					
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	25. TUBING RECORD
					SIZE DEPTH SET PACKER SET
					2 3/8" 11529' 11529'
26. Perforation record (interval, size, and number) 11655' - 11754' 6 SPF 84 holes 11452' - 11550' 6 SPF 114 holes				27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
				DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
				11655' - 11754'	69000 gal CO2 41000# 18/40 versapro
				11452' - 11550'	158000 gal CO2 98000# 18/40 versapr
					158000 gal CO2 100000# 18/40 versapr
28. PRODUCTION					
Date First Production 02-26-04		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing			Well Status (Prod. or Shut-in) Producing
Date of Test 02-29-04	Hours Tested 24	Choke Size 48/64	Prod'n For Test Period	Oil - Bbl. -0-	Gas - MCF 689
Flow Tubing Press. 190	Casing Pressure 90	Calculated 24-Hour Rate	Oil - Bbl. -0-	Gas - MCF 689	Water - Bbl. 10
29. Disposition of Gas (Sold, used for fuel, vented, etc.) Sold				Test Witnessed By	
30. List Attachments Inclination survey, C-122, and electric logs					
31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief					
Signature <u>Natalie Krueger</u>		Printed Name <u>Natalie Krueger</u>		Title <u>Prod. Asst</u>	Date <u>04-07-04</u>

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quadruplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon 9820	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt _____	T. Strawn 10050	T. Kirtland-Fruitland _____	T. Penn. "C" _____
B. Salt _____	T. Atoka 10868	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____	T. Ignacio Otzte _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Delaware Sand _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Bone Springs _____	T. Entrada _____	T. _____
T. Abo _____	T. _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. Morrow 11182	T. Chinle _____	T. _____
T. Penn _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn "A" _____	T. _____

OIL OR GAS SANDS OR ZONES

No. 1, from.....to.....
No. 2, from.....to.....
No. 3, from.....to.....
No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology

From	To	Thickness in Feet	Lithology

Gulf Federal Com No. 4 Perforation/Fracture/Acidization Attachment

30-015-32560

Eddy County, New Mexico

Perforation Record	Acid, Shot, Fracture, Cement Squeeze, Etc.	
	Depth Interval	Amount and Kind of Material Used
11655' - 11752' 6 SPF 84 Holes	11655' - 11754'	69000 gal foamed 45# gelled 7% KCL w/ CO2 & 41000# 18/40 Versaprop
11452' - 11550' 6 SPF 114 Holes	11452' - 11550'	158000 gal foamed 45# gelled 7% KCL w/ CO2 & 96000# 18/40 Versaprop
Refrac		158000 gal foamed 45# gelled 7% KCL w/ CO2 & 100000# 18/40 Versaprop

Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

RECEIVED

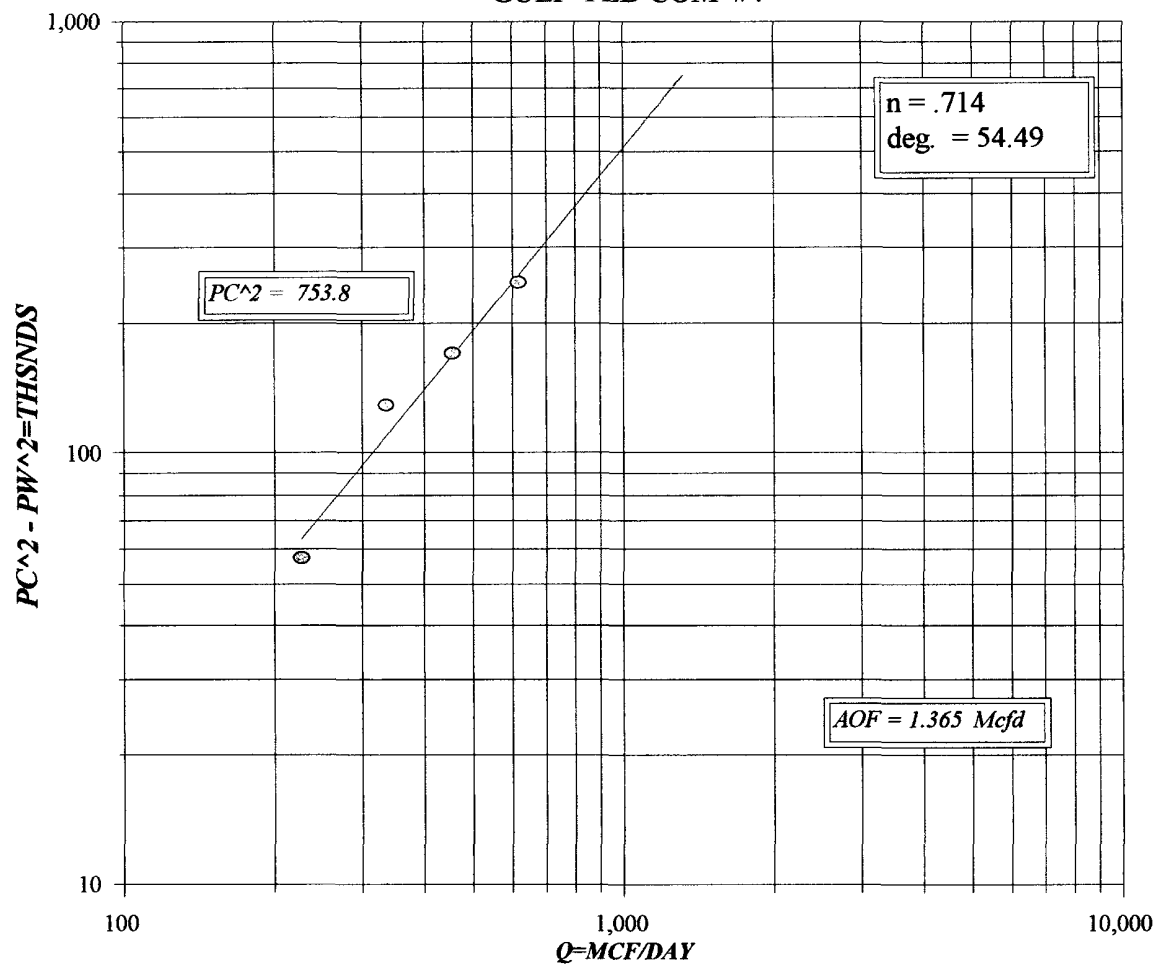
APR 26 2004

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator GRUY PET.MANAG.CO.				Lease or Unit Name GULF FED COM			
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2/3/04	Well No. 4
Completion Date 2/26/04		Total Depth 12000		Plug Back TD 11940		Elevation 3258	Unit Ltr - Sec - TWP - Rge D 6 23S 27E
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 11940	Perforations: From: 11545 To: 11655			County EDDY
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 11529	Perforations: From: To:			Pool
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11529		Formation MARROW	
Producing Thru TUBING		Reservoir Temp. 175	Mean Annual Temp. 60	Baro. Press.-P _a 13.2			Connection SALES
L 11529	H 11529	Gg 0.584	%CO ₂ 1.583	%N ₂ 0.286	%H ₂ S	Prover	Meter Run 4.026
Taps FLG							
FLOW DATA				TUBING DATA			
No.	Prover Line Size	Orifice x Size	Press p.s.i.g.	Diff. h _w	Temp.	Press p.s.i.g.	Temp.
SI						855	
1	4.026 X 1.250		180	2.9	44	820	1 HRS
2	4.026 X 1.250		179	6.4	47	774	1 HRS
3	4.026 X 1.250		178	11.9	51	745	1 HRS
4	4.026 X 1.250		177	22	54	686	1 HRS
5							
RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}	Rate of Flow Q. Mcfd
1							228
2	TOTAL	FLOW	METER				338
3							457
4							620
5							
No.	P _r	Temp. R	T _r	Z	Gas Liquid Hydrocarbon Ratio N/A Mcfbbl.		
1					A.P. I. Gravity of Liquid Hydrocarbons N/A Deg.		
2					Specific Gravity Separator Gas 0.584 XXXXXXXX		
3	TOTAL	FLOW	METER		Specific Gravity Flowing Fluid XXXXXX		
4					Critical Pressure 676 P.S.I.A. P.S.I.A.		
5					Critical Temperature 344 R. R.		
P _c	868.2	P _{c2}	753.8				
No.	P _t ²	P _w	P _w ²	P _c ² -P _w ²	(1) $P_c^2 = 3.024$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.202$		
1		834.4	696.3	57.5			
2		790.1	624.3	129.5			
3		763.7	583.3	170.5			
4		710.3	504.5	249.3			
5					AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.365$		
Absolute Open Flow 1.365				Mcf @ 15.025	Angle of Slope (°) 54.49	Slope n: 0.7135	
Remarks: * NO LIQUID MADE DURING TEST.							
Approved By Division:		Conducted By: PRO WELL TESTING		Calculated By: MERV BUECKER		Checked By: BM	

GRUY PET. MANAGEMENT

GULF FED COM #4



COMPANY : GRUY PET. MANAGEMENT CO		LEASE : GULF FED COM		WELL NO. : 4		Pc = 868.2		Pc2 = 753.8		*	
UNIT : D		SECTION : 6		TOWNSHIP : 23S		P12 = 694.2		Pw = 834.4		*	
L : 11529		H : 11529		L/H : 1		G/GMIX : 0.584		619.7		790.1	
%CO2 : 1.583		%N2 : 0.286		H2S : 8197.0		DATE : 3-3-04		574.9		763.7	
d : 1.995		Fr : 0.018183		GH :		RANGE : 27E		488.9		710.3	
=====											
VOL 1 : 228		PSIA 1 : 833.2		RESV.TEMP : 175.0		Pc2-Pw2 = 57.5		Pw2 = 696.3		*	
VOL 2 : 338		PSIA 2 : 787.2		SHUT-IN PRE: = 868.2		129.5		624.3		*	
VOL 3 : 457		PSIA 3 : 758.2				170.5		583.3		*	
VOL 4 : 620		PSIA 4 : 699.2				249.3		504.5		*	
=====											
		PCR : 676				n = 0.714				*	
		TCR : 344				Pc2/(Pc2-Pw2) =		13.111		*	
LINE		RATE 1		RATE 2		RATE 3		RATE 4		*	
		1ST		2ND		1ST		2ND		*	
1 QM		0.228		0.228		0.338		0.338		*	
2 TW		534		534		534		534		*	
3 Ts		635.0		635.0		635.0		635.0		*	
4 T		584.5		584.5		584.5		584.5		*	
PR(est)		1.23		1.16		1.12		1.03		*	
5 Z(est)		0.903		0.892		0.906		0.899		*	
6 TZ		527.7		521.6		529.7		523.8		*	
7 GH/TZ		15.535		15.715		15.474		15.648		*	
8 eS		1.791		1.803		1.787		1.798		*	
9 l-e-S		0.442		0.445		0.440		0.444		*	
10 Pt		833.2		833.2		787.2		787.2		*	
11 P12 /1000		694.2		694.2		619.7		619.7		*	
12 Fr		0.018183		0.018183		0.018183		0.018183		*	
13 Fc=FrTZ		9.594		9.484		9.632		9.525		*	
14 FcQm		2.19		2.16		3.26		3.22		*	
15 L/H(FcQm)2		4.8		4.7		10.6		10.4		*	
16 Fw		2.1128283		2.0821939		4.6661916		4.6007041		*	
17 Pw2		696.3		696.3		624.4		624.3		*	
18 Ps2		1246.9		1255.3		1115.4		1122.6		*	
19 Ps		1116.6		1120.4		1056.1		1059.5		*	
20 P		974.9		976.8		921.7		923.4		*	
21 Pr		1.44		1.44		1.36		1.37		*	
22 Tr		1.70		1.70		1.70		1.70		*	
23 Z		0.892		0.892		0.896		0.899		*	
=====											
										FORM C122-D	

OPERATOR: GRUY PETROLEUM
WELL/LEASE: GULF FED. COM. 4
COUNTY: EDDY

080-0020

STATE OF NEW MEXICO
DEVIATION REPORT

180	1/2	8,171	2 3/4
646	3/4	8,335	2 1/4
859	1 3/4	8,493	1 3/4
954	2	8,679	1
1,049	2	8,870	1
1,145	2 1/4	9,156	2 1/2
1,272	2	9,286	2 1/2
1,431	2 1/4	9,441	2
1,621	1 3/4	9,636	3 3/4
1,785	2	9,790	4
2,003	1 1/2	9,926	5 1/2
2,193	1/2	10,018	5
2,484	3/4	10,108	5 1/4
2,766	1	10,208	5 1/4
2,924	3/4	10,370	4 3/4
3,705	1	10,394	3 1/2
4,200	3/4	10,489	3 1/2
4,677	3/4	10,584	3
5,248	3/4	10,838	2
6,140	3	11,202	2
6,330	3 1/4	11,428	1 1/4
6,483	2 3/4	11,682	1 3/4
6,679	1 3/4	12,000	1 3/4
6,868	1 3/4		
7,061	1 1/2		
7,349	2		
7,504	1 1/4		
7,668	2 1/4		
7,918	1 3/4		

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APR 26 2004

OCD-ARTESIA

By: Steve Moore

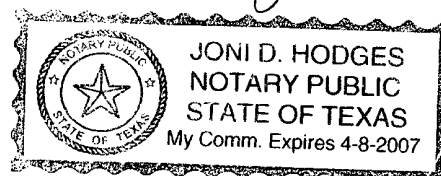
STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on this 3rd day of December, 2003, by Steve Moore on behalf of Patterson-UTI Drilling Company LP, LLLP.

Joni D. Hodges
Notary Public for Midland County, Texas

My Commission Expires: 4/08/2007



DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name South Carlsbad, Morrow
Property Code	Property Name GULF FEDERAL COM	Well Number 4
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT CO.	Elevation 3201'

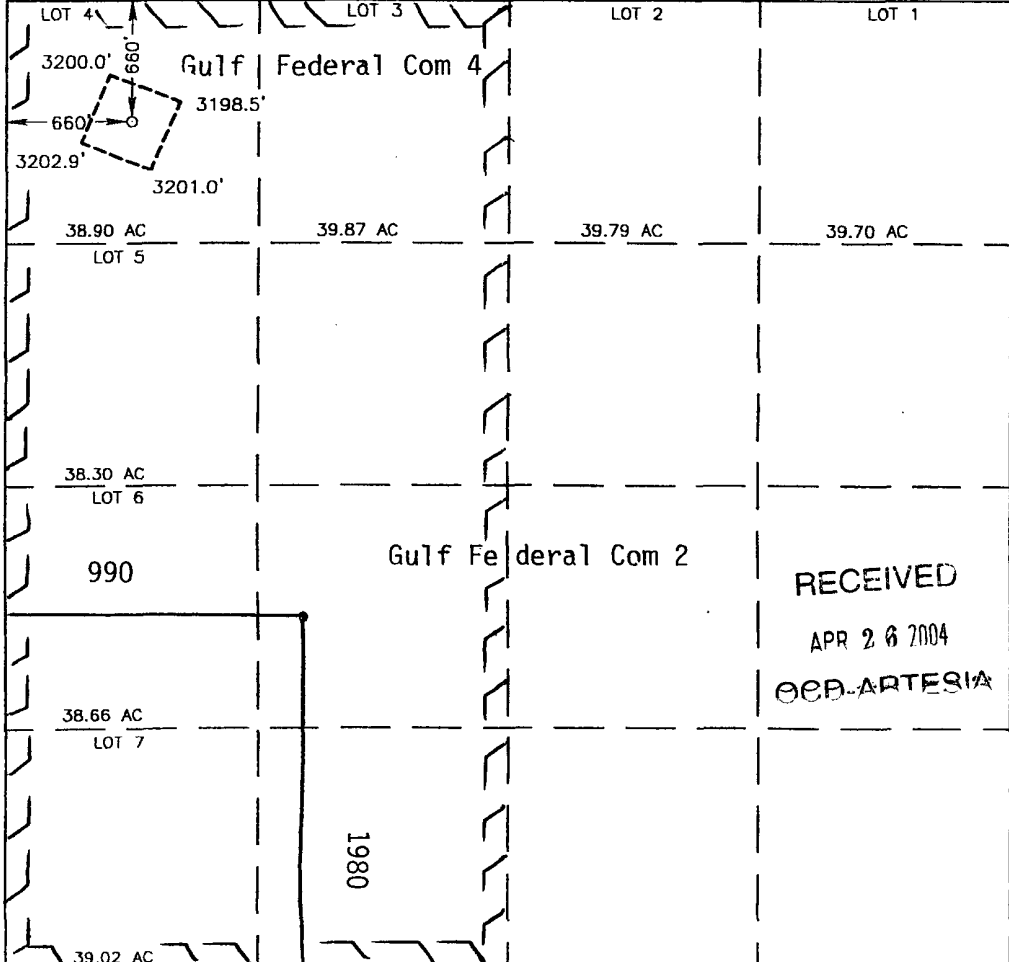
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	6	23-S	27-E		660	NORTH	660	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 315	Joint or Infill Y	Consolidation Code C	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Zeno Farris</i> Signature Zeno Farris Printed Name Mgr. Operations, Admin. Title Date SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. DECEMBER 11, 2002 Date Surveyed Signature & Seal of Professional Surveyor Professional Surveyor RONALD J. EDSON 12/12/02 02.11.0944 Certificate No. RONALD J. EDSON 3239 GARY EDSON 12641
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