		N.M Oil Cons. Division					
Form 3160-5 August 1999)	UNITED STATES	-	162 N	French Dr. APPROVED			
rugusi (793)	DEPARTMENT OF THE INTERIOR	ŀ	Hobbs.	NM 88240 <sup>No. 1004-0135</sup>			
	BUREAU OF LAND MANAGEMENT			5. Lease Serial No.			
	DRY NOTICES AND REPORTS ON W			LC-068882			
abandoned	e this form for proposals to drill or to r I well. Use Form 3160-3 (APD) for such p	e-enter an Ironosals		6. If Indian, Allottee or Tribe Name			
				-			
SUBMIT IN	TRIPLICATE - Other instructions on	reverse side	······································	7. If Unit or CA/Agreement, Name and/or			
1. Type of Well				_			
🖸 🖸 Oil Well 🗋 Gas Wel	Cither			8. Well Name and No.			
2. Name of Operator		·		Federal 30 #1			
Yates Drilling	, Company		, i	9. API Well No.			
3a. Address		lo. (include area code)		30-025-31039			
		746-0308		10. Field and Pool, or Exploratory Area			
4. Location of Well ( <i>Footage</i> ,	Sec., T., R., M., or Survey Description)		-	Lusk Delaware West			
	)'FSL & 660' FWL			11. County or Parish, State			
Sect	ion 30-195-32E			Lea County, NM			
12 CHECK	APPROPRIATE BOX(ES) TO INDICATI	N'ATTIDE OF NO		· · · · · · · · · · · · · · · · · · ·			
				TURI, UKU/HEKDAIA			
TYPE OF SUBMISSION		TYPE OF AC	TION				
	Acidize Deepen	Prod	uction (Start/	Resume) 🔲 Water ShuteOff			
Notice of Intent	Alter Casing Fracture		amation	Well Integrity			
	Casing Repair New Con	struction 🛄 Reco	mplete	Other			
Subsequent Report				1			
Subsequent Report	Change Plans Diug and	Abandon 🗌 Tem	porarily Aba	ndon			
<ul> <li>Final Abandonment Notion</li> <li>Describe Proposed or Com If the proposal is to deepen Attach the Bond under white following completion of the</li> </ul>	e Change Plans Plug and Convert to Injection Plug Back Detect Operation (clearly state all pertinent details, ind directionally or recomplete horizontally, give subsur- ch the work will be performed or provide the Bond involved operations. If the operation results in a mu Final Abandonment Notices shall be filed only aft	Wate buding estimated startin ace locations and meas No. on file with BLM/J litiple completion or re	er Disposal ng date of an sured and true BIA. Require completion in	y proposed work and approximate duration the vertical depths of all pertinent markers and ed subsequent reports shall be filed within 3 a new interval, a Form 3160-4 shall be file			
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## MILLER CHEMICALS, INC.

Post Office Box 298 Artesia, N.M. 88211-0298 (505) 746-1919 Artesia Office (505) 393-2893 Hobbs Office (505) 746-1918 Fax

WATER ANALYSIS REPORT

Address Lease Well	Y : YATES DRILLIN S : ARTESIA, NM : FEDERAL 30 : #1 Pt. : WATER TANK	G CO.	Date Date Sampled Analysis No.	: 5/20/02	
	ANALYSIS		mg/L		* meq/L
	pH	4.8			
	H2S	0			
	Specific Gravity				
	Total Dissolved Solid	.s	274027.8		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkal	-	)		
10.	Methyl Orange Alkalin	ity (CaCO3)			
	Bicarbonate	HCO:	3 146.0	HCO3	2.4
	Chloride ·	Cl	169548.0	Cl	4782.7
	Sulfate	SO4	375.0	SO4	7.8
	Calcium	Ca	29920.0	Ca	1493.0
	Magnesium	Mg	2060.1		
	Sodium (calculated)	Na	71968.7	Na	3130.4
	Iron	Fe	10.0		
	Barium	Ba	NR		
	Strontium	Sr	NR		
20.	Total Hardness (CaCO3	)	83200.0		

## PROBABLE MINERAL COMPOSITION

<pre>*milli equivalents per Liter ++</pre>	Compound	Equiv wt	-		
1493  *Ca < *HCO3   2	Ca(HCO3)2	81.0	2.4	194	
169  *Mg> *SO4   . 8	CaSO4 CaCl2	68.1 55.5	7.8 1482.8	531 82281	
<br   3130  *Na> *Cl   4783	Mg (HCO3)2 MgSO4	73.2 60.2			
++ ++ Saturation Values Dist. Water 20 C	MgC12 NaHCO3	47.6	169.5	8069	
CaCO3 13 mg/L	Na2SO4	71.0			
CaSO4 * 2H2O 2090 mg/L BaSO4 2.4 mg/L	NaCl	58.4	3130.4	182943	

REMARKS:

## SCALE TENDENCY REPORT

Company	: YATES DRILLING CO.	Date : 5/20/02
Address	: ARTESIA, NM	Date Sampled : 5/20/02
Lease	: FEDERAL 30	Analysis No. : 00349
Well	: #1	Analyst : A. MILLER
Sample Pt.	: WATER TANK	

## STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO3 Scaling Tendency

S.I.	=	-0.5	at	70	deg.	F	or	21	deg.	С
S.I.	=	-0.6	at	90	deg.	F	or	32	deg.	С
S.I.	=	-0.6	at	110	deg.	F	or	43	deg.	С
S.I.	=	-0.6	at	130	deg.	F	or	54	deg.	С
S.I.	=	-0.5	at	150	deg.	F	or	66	deg.	С

'CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

S	=	461	at	70	deg.	F	or	21	deg	С
S	=	496	at	90	deg.	F	or	32	deg	С
S	=	520	at	110	deg.	F	or	43	deg	С
S	=	529	at	130	deg.	F	or	54	deg	С
S	_	528	at	150	deg.	F	or	66	deg	С

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Respectfully submitted, A. MILLER