

# LIMARK CORPORATION

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Mark A. Philpy  
President

P. O. Box 10708  
Midland, Texas 79702-7708  
(915) 684-5765 (FAX) 684-5959

September 30, 1998

New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

RE: Administrative Order SWD-720  
Federal 27 #1 well  
Sandoval County, New Mexico

Ladies and Gentlemen:

In reference to the above administrative order, Limark Corporation hereby requests a waiver of the requirement to install plastic coated tubing in this wellbore. We are planning to run a profile nipple on the bottom of the injection string in order to set a plug, if necessary, to test for any leaks in this string. If we plastic coat the tubing, we will restrict the internal diameter and may have trouble running and setting any kind of plug in the nipple.

Please review this request and advise as soon as possible as we are ready to begin our completion procedures.

Yours sincerely,



Mark A. Philpy,  
President



THE WESTERN COMPANY OF NORTH AMERICA

API WATER ANALYSIS

Company: MERRION  
 Field:  
 Well: #1  
 Depth:  
 Formation: ENTRADA  
 State:  
 County:

W.C.N.A. Sample No.: S106995  
 Legal Description:  
 Lease or Unit: EAGLE MESA  
 Water.B/D:  
 Sampling Point:  
 Sampled By: STEVE DUNN  
 Date Sampled: 05/03/95

Type of Water(Produced,Supply, ect.): PROD.

PROPERTIES

pH: 7.32  
 Specific Gravity: 1.010  
 Resistivity (ohm-meter): .81  
 Temperature: 64F

Iron, Fe(total): 0  
 Sulfide as H2S: 0  
 Total Hardness:  
 (see below)

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na:	3726	162
Calcium, Ca:	160	8
Magnesium, Mg:	49	4
Barium, Ba:	N/A	N/A
Potassium, K:		

Sample(ml): 1.0 ml of EDTA: .40  
 Sample(ml): 1.0 ml of EDTA: .20

ANIONS	mg/l	me/l
Chloride, Cl:	1773	50
Sulfate, SO4:	5000	104
Carbonate, CO3:		
Bicarbonate, HCO3:	1220	20

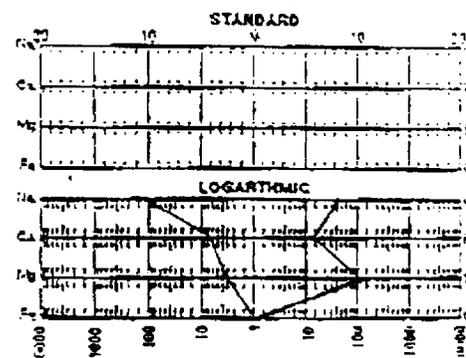
Sample(ml): 1.0 ml of AgNO3: .10  
 Sample(ml): 1.0 ml of H2SO4:  
 Sample(ml): 1.0 ml of H2SO4: .20

Total Dissolved  
 Solids (calculated): 11928  
 Total Hardness: 600

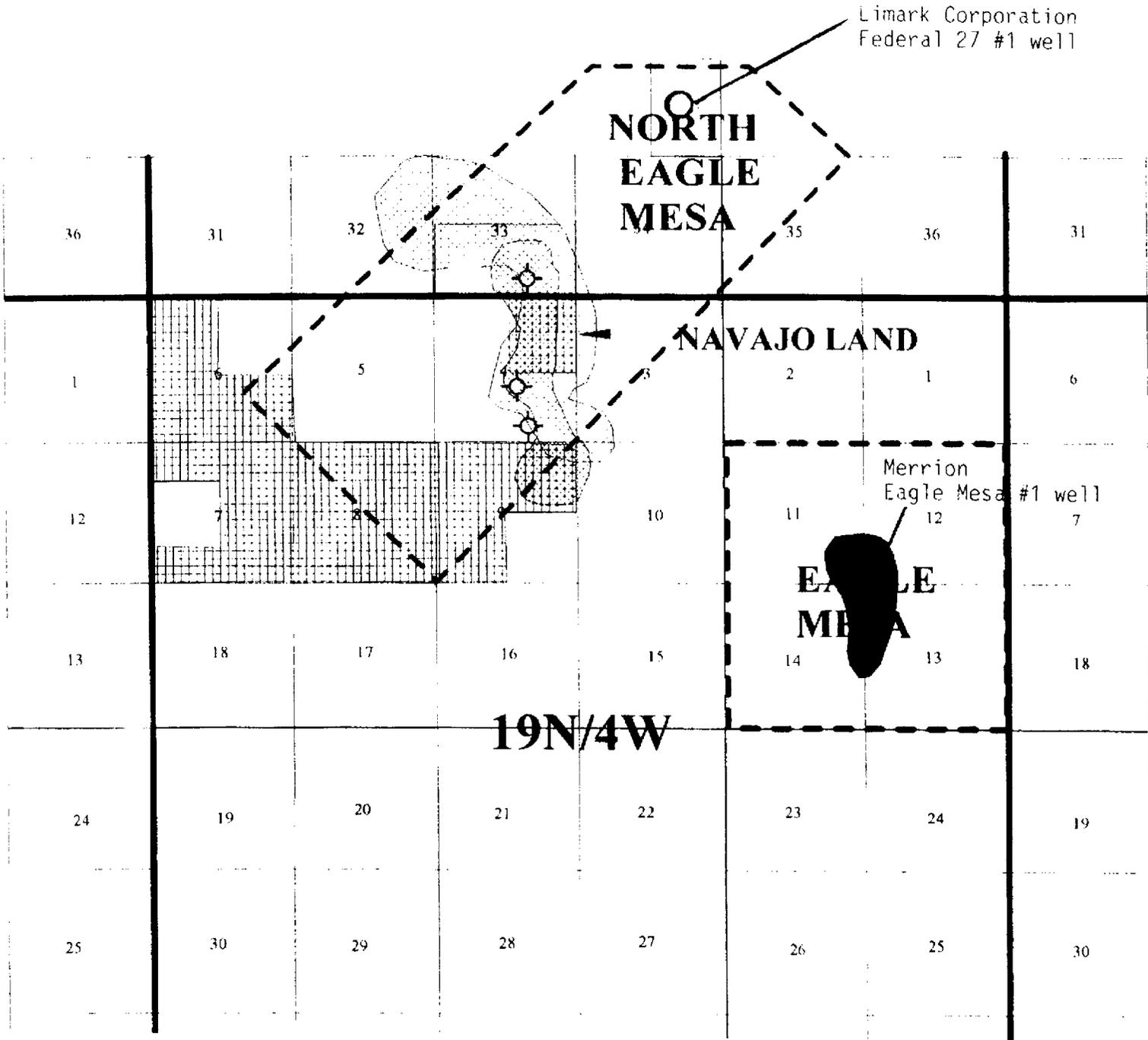
Sample(ml): 1.0 ml of EDTA: .60

REMARKS AND RECOMMENDATIONS:

WATER PATTERNS-me/l



Analyst: *DD*  
 Date Analyzed: *5/4/98*



**CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS**

Operator: LIMARK CORP. Well: ~~STA~~ FEDERAL '21' No. 1

Contact: MARK PHILIP Title: PRES. Phone: \_\_\_\_\_

DATE IN 7-27-98 RELEASE DATE 8-11-98 DATE OUT 9-8-98

Proposed Injection Application is for:  WATERFLOOD  Expansion  Initial

Original Order: R- \_\_\_\_\_  Secondary Recovery  Pressure Maintenance

**SENSITIVE AREAS**

SALT WATER DISPOSAL  Commercial Well

WIPP  Capitan Reef

Data is complete for proposed well(s)?  Additional Data Req'd WATER ANALYSIS ON

LOWER ENTRADA WATER  
INFERRED FROM MERRION EAGLE  
MESA #1

**AREA of REVIEW WELLS**

<input checked="" type="checkbox"/> Total # of AOR	<input type="checkbox"/> # of Plugged Wells
<input checked="" type="checkbox"/> Tabulation Complete	<input type="checkbox"/> Schematics of P & A's
<input checked="" type="checkbox"/> Cement Tops Adequate	<input type="checkbox"/> AOR Repair Required

**INJECTION FORMATION**

Injection Formation(s) ENTRADA (LOWER) Compatible Analysis YES

Source of Water or Injectate ENTRADA (UPPER)

**PROOF of NOTICE**

<input checked="" type="checkbox"/> Copy of Legal Notice	<input type="checkbox"/> Information Printed Correctly
<input checked="" type="checkbox"/> Correct Operators	<input type="checkbox"/> Copies of Certified Mail Receipts
<input checked="" type="checkbox"/> No Objection Received	<input type="checkbox"/> Set to Hearing _____ Date

NOTES: E. BOSCH & AZTEC HAD CONCERNS ABOUT MITS - THIS  
IS SIMILAR TO PRODUCER/DISPOSAL. MIT (PRESSURE) EVERY 2 YEARS.

**APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? YES**

**COMMUNICATION WITH CONTACT PERSON:**

1st Contact:	<input checked="" type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	<u>9-8-98</u> Date	Nature of Discussion <u>VERBAL</u>
2nd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____ Date	Nature of Discussion _____
3rd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____ Date	Nature of Discussion _____

REC 237A

5-4%

PROP = 3491

DIST = 02

7.185.27E.B B 990N 1980E

30 045	<del>60805</del>	5770 - 02
		61570 - 01
		6000 - 03

915-682-4874

713 296 7152

comp	1/1/00
PRINT	1.22.98

COMPANY: Limark Corporation

WELL: Federal No. 27 - 1

FIELD: Wildcat - Entrada

COUNTY: Sandoval STATE: New Mexico

Field: Wildcat - Entrada Location: 1395' FSL & 1575' FEL Well: Federal No. 27 - 1 Company: Limark Corporation	Platform Express Array Induction MicroCFL / GR		
	Schlumberger		
	LOCATION 1395' FSL & 1575' FEL	Elev.: K.B. 6864 F G.L. 6847 F D.F. 6864 F	
	Permanent Datum: <u>Ground Level</u> Log Measured From: <u>Kelly Bushing</u> Drilling Measured From: <u>Kelly Bushing</u>	Elev.: 6847 F 17.0 F above Perm. Datum	
API Serial No.	SECTION 27	TOWNSHIP 20N	RANGE 4W
Logging Date 9 January 1998	Circulation Tank		TIGHT HOLE MIN
Run Number One			
Depth Driller 6040 F			
Schlumberger Depth 6040 F			
Depth from Log Interval 6040 F			
Depth Log Interval 2000 F			
Logging Driller Size @ Depth 9.625 IN @ 324 F			
Logging Schlumberger 326 F			
Logging Size 8.750 IN			
Type Fluid In Hole L.S.N.D.			
Density Viscosity 9.8 LB/G 52 S			
Fluid Loss PH 8 C3 10			
Source Of Sample Circulation Tank			
I @ Measured Temperature 3.230 OHMM @ 85 DEGF			
IF @ Measured Temperature 2.970 OHMM @ 85 DEGF			
IC @ Measured Temperature 2.550 OHMM @ 85 DEGF			
Source RMF RMC Calculated Calculated			
I @ MRT RMF @ MRT 2.033 @ 139 1.870 @ 139			
Maximum Recorded Temperatures 139 DEGF			
Circulation Stopped Time 8-Jan-98 09:00			
Logger On Bottom Time 9-Jan-98 03:00			
Well Number Location 3015 Roswell, NV			
Recorded By Brooke A. Werner			
Witnessed By M. Philpy, D. Kennedy, E. Baldrige			

COMPANY: Limark Corporation

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Field: Wildcat - Entrada Location: 1395' FSL & 1575' FEL Well: Federal No. 27 - 1 Company: Limark Corporation	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>Schlumberger</b> </div>		<b>Borehole Compensated Sonic</b>			
	LOCATION 1395' FSL & 1575' FEL			Elev.: K.B. 6864 F G.L. 6847 F D.F. 6864 F		
	Permanent Datum: <u>Ground Level</u>			Elev.: 6847 F		
	Log Measured From: <u>Kelly Bushing</u>			17.0 F above Perm. Datum		
Drilling Measured From: <u>Kelly Bushing</u>						
API Serial No.		SECTION 27	TOWNSHIP 20N		RANGE 4W	
Logging Date		9 January 1998				
Run Number		One				
Depth Driller		6040 F				
Schlumberger Depth		6040 F				
Bottom Log Interval		6040 F				
Top Log Interval		326 F				
Casing Driller Size @ Depth		9.625 IN @ 324 F		@		
Casing Schlumberger		326 F				
Bit Size		8.750 IN				
Type Fluid In Hole		L.S.N.D.				
Density	Viscosity	9.8 LB/G	52 S			
Fluid Loss	PH	8 C3	10			
Source Of Sample		Circulation Tank				
RM @ Measured Temperature		3.230 OHMM @ 85 DEGF		@		
RMF @ Measured Temperature		2.970 OHMM @ 85 DEGF		@		
RMC @ Measured Temperature		2.550 OHMM @ 85 DEGF		@		
Source RMF	RMC	Calculated	Calculated			
RM @ MRT	RMF @ MRT	2.033 @ 139	1.870 @ 139	@	@	
Maximum Recorded Temperatures		139 DEGF				
Circulation Stopped		Time	8-Jan-98	09:00		
Logger On Bottom		Time	9-Jan-98	03:00		
Unit Number	Location	3015	Roswell, NM			
Recorded By		Brooke A. Werner				
Witnessed By		M. Philpy, D. Kennedy, E. Baldrige				