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Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Oil Cons.
N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
OMB No. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMNM98124

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side

7. If Unit or CA/Agreement, Name and/or No.
Exxon Federal 4

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
1

2. Name of Operator
Matador Operating Company

9. API Well No.
30-015-30449

3a. Address
310 W. Wall, Ste 905 Midland, TX 79703

3b. Phone No. (include area code)
915-687-5955

10. Field and Pool, or Exploratory Area
Avalon;Bone Spring,East

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 4, T21S..R27E
660' FNL 1980' FWL

11. County or Parish, State
Eddy County, NM

RECEIVED
2002
OCD-ARTESIA

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☒ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Producing Formation: Avalon; Bone Spring East
Amount Produced: 10 BWPD
Water Analysis: See Attached

Water is stored on lease in a 500 bbl steel water tank. The water is transported via pipeline to:

Operator: Exxon Mobile
Facility Name: Avalon Delaware Unit, ADU-CTB
Well Type: Water flood
Well Location: NE/NW Sec 31, T20S, R28E
Eddy County, NM
Lease # NMNM-01119
Unit # NMNM-94450X

ACCEPTED FOR RECORD
JUL 31 2002
LES BABYAK
PETROLEUM ENGINEER

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed) Russ Mathis — Title Production Manager
Signature Russ Mathis — Date 3/12/02

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by — Title — Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. — Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Schlumberger
Artesia Operating Center

Exxon Federal 4 #1
Sec 4, T21S, R27E
API #30-015-30449
Eddy County, NM

Company: MATADOR
Lease & Well: Exxon Federal #4
County, State:
Formation:
BHT (F):

Report No.: ANM02W0001
Service Point: ANMLAB
Prepared by: Geraldine Perez/ Jason Reyes
Prepared for:
Date: 3/5/2002

Specific gravity: 1.135 @ 71.3 degrees F ph 6.30

Anions

	Factor	ml	Sample	mg/l	Factor	me/l	Ionic Strength (mg/l)	Ionic Strength (me/l)	(ppm)
Chlorides	3545	4.0	0.1	141800	0.0282	3998.76	1.9852	1.9994	124934
Sulfates	20			400	0.0208	8.32	0.0084	0.0083	352
Carbonates	492	0.0	10	0	0.0333	0.00	0.0000	0.0000	0
Bicarbonates	1000	4.3	10	430	0.0164	7.05	0.0034	0.0035	379

Cations

	Factor	ml	Sample	mg/l	Factor	me/l	Ionic Strength (mg/l)	Ionic Strength (me/l)	(ppm)
Calcium	401	3.8	1	1523.8	0.0499	76.04	0.0762	0.0760	1343
Magnesium	243	5.8	1	486	0.0823	40.00	0.0399	0.0400	428
Iron				50	0.0358	1.79	0.0004	0.0009	44
Sodium	0	0	0	89570	0.0435	3896.31	1.9705	1.9482	78917

Total Dissolved Solids: 234260.1 8028.26

Total Ionic Strength: 4.0840 4.0763

Calcium Carbonate Deposition

Stiff-Davis Equation: Stability Index(SI) = pH - pCa - pAlk - K

pH= 6.30
pCa= 1.41
pAlk= 2.44
K= 1.31

Total Ion Equivalent NaCl Concentration= 206260.8 ppm

SI= 1.14

The Stiff-Davis equation predicts this water does have a tendency toward calcium carbonate deposition.

Calcium Sulfate Deposition

CaSO4 Solubility: S = 1000 (SQRT (X**2 + 4*K) - X)

Total Ionic Strength= 4.0840
Solubility Constant, K= 0.00290
X= 0.0339

S= 78.99 me/l

Laboratory analysis shows that this water contains 8.32 me/l, therfore the tendency towards calcium sulfate deposition does not exist.