Form 3160-3				SUBMIT IN TRIPL	ICATE	FORM APPROVED
(J VIV 1992)		D STATES OF THE INTERI	ΩD	(Other instruction	ns on	OMB NO 1004-0136
k		D MANAGEMENT	JK	reverse side)		Expires February 28, 1995 5. LEASE DESIGNATION AND SERIAL NO
	APPLICATION FOR PE		OR DEEPE	V		MDA 701-98-0013
1a TYPE OF WORK	Drill X	Deepen				6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache
b. TYPE OF WELL Oil Well		эторон	a:			7. UNIT AGREEMENT NAME
2. NAME OF OPERATO	I		Single Zone	Multiple Zone		N/A 2349S
	Mallon Oil Company	13925				8. FARM OR LEASE NAME, WELL NO. Jicarilla 29-82-86 No. 3
3. ADDRESS AND TEL	EPHONE NO. P.O. Box 2797		75	777		9. API WELL NO. 39-26858
	Durango, CO 81302	(970) 382-9100	25 Jel 34			10. FIELD AND POOL, OR WILDCAT
LOCATION OF WEL At surface	L (Report location clearly and in accordance 710' FNL and 460' FWL (NV	e with any State requireme V/NW) Unit D	1	VOV 2001		E. Blanco, Pictured Cliffs 11. SEC., T., R., M., OR BLK.
At proposed prod zon	710' FNL and 460' FWL (NV	V/NW) Unit D	RE RE		0)	AND SURVEY OR AREA
14 DISTANCE IN MILE	S AND DIRECTION FROM NEAREST TO	WN OR POST OFFICE *			9	Sec. 6, T29N-R02W 12. COUNTY OR PARISH 13. STATE
	70 miles east of Bloomfield,	New Mexico	`≈	201. 3	3	Rio Arriba NM
15 DISTANCE FROM LOCATION TO NEARE.	74011		NO PACRES	SIN LEASE		OF ACRES ASSIGNED S WELL
PROPERTY OR LEASE			39,360 8	7/1/919/1/	10 11 10	16285- /
(Also to nearest drig. un				مستشفال علية		63.37 NW/4
	PROPOSED LOCATION* ORILLING, COMPLETED,	1,320'	PROPOSED D	ЕРТН 4000'	20. RO	TARY OR CABLE TOOLS
OR APPLIED FOR, ON		ic29-03-01 #2		4000		Rotary
	W WHETHER DF, RT, GR, Etc.)		APPROX.DATE W			07/15/01
23. SIZE OF HOLE		POSED CASING AN				
12-1/4"	GRADE, SIZE OF CASING 8-5/8"	WEIGHT PER F	,	SETTING DEPT 250'	H	110 sx, circ. to surface.
7-7/8"	5-1/2"	15.5		4000'		900 sx, circ. to surface.
						out on the darrage.
Mallon Oil Company proposes to drill to a depth sufficient to test the Pictured Cliffs formation. If productive, 5-1/2" casing will be cemented at TD. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal regulations. Specific programs as per on-shore Oil and Gas Order No. 1 are outlined in the following attachments:						
Drilling Program Exhibit 1: Blo	<u>n</u> ow Out Preventor Equipment	/Dlan =	Exhibit D:	Drilling Site Lo	(a .	
	cation and Elevation Plat			Drilling Site Lay Production Fac	ilities	***
	ads and Pipelines	_	xhibit F:	H2S Contingen	cy Pla	
	e Mile Radius Map			Environmental		
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.						
24	2	odiono and meddared and	inde versear dept	iiis. Give blowout previ	siter pro	grant, ir any.
signed.	ry Lindeman	TITLE: C	perations S	Superintendent		DATE06/5/2001
(This space for Federal	or State office use)					
PERMIT NO.				APPROVAL D	ιΔΤΕ	
	es not warrant or certify that the applicant h	olds logal or aguitable title	to those sights in			chill the small and to
operations thereon	not warrant or certify that the applicant i	ionas regai or equitable (ille	to mose rights th	me subject lease Which	would	ениие ине аррисант то сондист
CONDITIONS OF APPROVAL, IF ANY						
APPROVED BY /S/ David R. Sitzler TITLE Acting Asst Field May DATE OCT 3 0 7801						
*See Instructions On Reverse Side						

Title 18 U.S.C. Section 1001, makes 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.

(1) All cosing Strings will be controlling (5)

(5) Au. 1 Francisco VSECT to 175 sas for 100% excess &

DISTRICT I P.O. Box 1980, Hobbs, N.M. 88241-1980 State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised February 21, 1994 Instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

P.O. Drawer DD, Artesia, N.M. 88211-0719

1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT III

DISTRICT IV

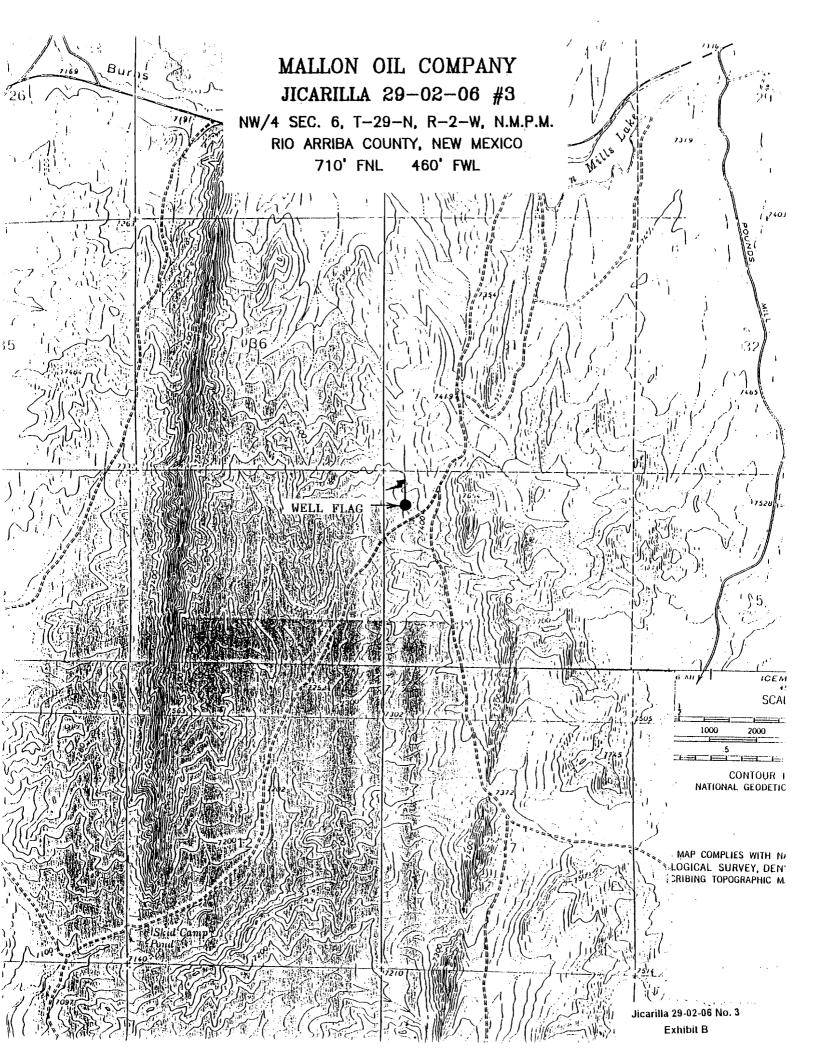
OIL CONSERVATION DIVISION P.O. Box 2088 Santa Fe, NM 87504-2088

☐ AMENDED REPORT

PO Box 2088, Santa Fe, NM 87504-2088 WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Pool Name 0039-26858 East Blanco; Pictured Cliffs Property Name Well Number JICARILLA 29-02-06 3 OGRID No. Operator Name Elevation 013925 MALLON OIL COMPANY 7387' ¹⁰ Surface Location UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County Đ 6 29-N 2-W **NORTH** 460' WEST RIO ARRIBA ¹¹ Bottom Hole Location If Different From Surface UL or lot no. Section Lot Idn Feet from the Township Range North/South line Feet from the East/West line County Dedicated Acres 18 Joint or Infill 14 Consolidation Code is Order No. 163.37-160-5 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 (1359')(1314')S189-37-03 E FD. 1 1/2" AC STAMPED "LS 8894" OPERATOR CERTIFICATION 5300.70' FD. U.S.G.L.O. BC 1917 LOT 4 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief LOT 3 LOT 2 LOT 1 460 - 899' LAT. 36°45'34'N LONG. 107'05 29"W [≥ Signature Terry Lindeman LOT 5 Operations Superintenden 6/5/01 Date FD. U.S.G.L.O. BC 1917 SURVEYOR CERTIFICATION OIL CON. DIV I hereby certify that the well location show was plotted from field notes of actual surveys made by me LOT 6 or under my supervision, and that the sa correct to the best of my belief. LOT 7

Cartificate Number

Jicarilla 29-02-06 No. 3 Capital r



DRILLING PROGRAM

Attached to Form 3160-3

Mallon Oil Company

Jicarilla 29-02-06 No. 3

710' FNL and 460' FWL (NW/NW) Unit D

Sec. 6, T29N-R02W

Rio Arriba County, New Mexico

LEASE NUMBER: MDA 701-98-0013

1. Geologic name of surface formation: San Jose

2. Estimated tops of important geologic markers:

San Jose	Surface
Nacimiento	2600'
Ojo Alamo	3030'
Kirtland	3358'
Fruitland	3468'
Pictured Cliffs	3660'
Lewis	3800'
Total Depth	4000'

3. Estimated depths of anticipated fresh water, oil, or gas:

San Jose	1300'	Gas
Nacimiento	2600'	Gas
Ojo Alamo	3030'	Gas
Fruitland	3468'	Gas
Pictured Cliffs	3660'	Gas

No other formations are expected to produce oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 8-5/8" casing at 250' and circulating cement back to surface.

4. Proposed casing program:

Hole Size	<u>Interval</u>	Casing OD	Casing weight, grade, and thread		
12-1/4"	0-250°	8-5/8 ²²	24 lb/ft, K55, ST&C		
7-7/8"	0-4000°	5-1/2 ²²	15.5 lb/ft, K55, LT&C		

Cement program:

8-5/8" surface casing: Cemented to surface with 110 sx Class B, or Type III cement containing 2% CaCl₂, 1/4 lb/sk Celloflake, slurry to be mixed at 15.6 lb/gal, yield 1.18 cu ft/sk. Circulate cement to surface.

5-1/2" production casing: 900 sks 50/50 POZ 2% Gel, with 6-1/4 lb/sk Gilsonite, 3% KCl, mixed at 13.7 lb/gal, 1.26 cu ft/sk, 30% excess. Circulate cement to surface.

5. Minimum specifications for pressure control (2M System):

The blowout preventor equipment (BOP) shown in Exhibit 1 will consist of a double ram-type (2000 psi WP) preventor. The unit will be hydraulically operated and the ram-type preventor will be equipped with blind rams on top and drill pipe rams on bottom. The BOP will be nippled up on the 8-5/8" surface casing and used continuously until TD is reached. BOP and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Pipe rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 2" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve, and choke lines and choke manifold with 2000 psi WP rating.

6. Types and characteristics of the proposed mud system:

The well will be drilled to TD with a combination of fresh water and fresh water polymer mud system. The applicable depths and properties of this system are as follows:

<u>Depth</u>	Type	Weight (ppg)	Viscosity (sec)	Water loss (cc)
0-250'	FW	± 8.5 er) ± 9.0	30-33	NC
250' - TD	FW (Gel polym		32-35	10 - 20 cc

7. Auxiliary well control and monitoring equipment:

- A. A kelly cock will be kept in the drill string at all times.
- B. A full-opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- C. The drilling fluids systems will be visually monitored at all times.

8. Testing, logging, and coring program:

Drill stem tests: None anticipated

Logging: TD to surface casing, Open Hole GR, SP, Neutron, Density, Induction

Coring: None planned

9. Abnormal conditions, pressures, temperatures, and potential hazards:

No abnormal pressures or temperatures are anticipated. The proposed mud program will be modified to control excess pressure if abnormal pressures are encountered. The estimated bottom-hole pressure (BHP) is 1200 psig. Hydrogen sulfide gas is potentially present in the San Jose and Ojo Alamo formation and an H₂S drilling plan is attached.

10. Anticipated starting date: July 1, 2001

Anticipated completion of drilling operations: Expected duration of 6 days

Hydrogen Sulfide Drilling Operations Plan

I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- 1. The hazards and characteristics of hydrogen sulfide (H_2S) .
- The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- 3. The contents and requirements of the $\rm H_2S$ Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S Safety Equipment and Systems

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S .

A. Well control equipment:

- 1. Choke manifold with a minimum of one remote choke.
- 2. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- B. Protective equipment for essential personnel:
 - 1. Mark II Surviveair 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

C. H₂S detection and monitoring equipment:

 Two portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.

D. Visual warning systems:

- 1. Wind direction indicators as shown on well site diagram.
- Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate. See example attached.

E. Mud program:

 The mud program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

F. Metallurgy:

- All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- 2. All elastomers used for packing and seals shall be ${\rm H_2S}$ trim.

G. Communication:

1. Cellular telephone communications in company vehicles.

H. Well testing:

 Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H₂S environment will use the closed chamber method of testing.