

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR

ANITA LOCKWOOD CABINET SECRETARY

August 30, 1993

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE. NEW MEXICO 87504 (505) 827-5800

Meridian Oil, Inc. P.O. Box 4289 Farmington, NM 87499-4289

Attention: Peggy Bradfield

SEP-1 1993
OIL CON. DIV.

Administrative Order NSL-3301

Dear Ms. Bradfield:

Reference is made to your application dated August 3, 1993 for an unorthodox gas well location in both the Blanco Mesaverde and Tapacitos Pictured Cliffs Pools for your proposed Jicarilla 98 Well No. 11A to be drilled 1850 feet from the North and West lines (Unit F) of Section 18, Township 26 North, Range 3 West, NMPM, as projected into the unsurveyed Jicarilla Apache Indian Reservation, Rio Arriba County, New Mexico.

It is our understanding that production from both the Mesaverde and Pictured Cliffs intervals are to be downhole commingled.

By the authority granted me under the provisions of Rule 2(c) of the General Rules and Regulations for the Prorated Gas Pools of New Mexico, the Special Rules and Regulations for the Tapacitos Pictured Cliffs Pool and the Special Rules and Regulations for the Blanco Mesaverde Pool, as promulgated by Division Order No. R-8170, as amended, the above-described unorthodox gas well location is hereby approved.

Acreage dedication for the Tapacitos Pictured Cliffs Pool and the Blanco Mesaverde Pool is 160 acres and 320 acres, respectively. Said Special Rules also contain provision whereby the District Supervisor of the Aztec District Office of the Division has the authority to approve Meridian's proposed spacing units for both zones, the NW/4 equivalent for the Pictured Cliffs and the N/2 equivalent for the Mesaverde, due to the unorthodox size and shape of said Section 6. This is caused, in part, by a variation in the legal sub-division of the United States Public Land Surveys (Rule 2(a)4).

Also, Meridian Oil, Inc. shall comply with all provisions of Division General Rule 303.C pertaining to the downhole commingling of the gas from both zones.

Sincerely,

William J. LeMay

Director

WJL/MES/amg

cc: Oil Conservation Division - Aztec

US Bureau of Land Management - Farmington



STATE OF NEW MEXICO

ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (505) 334-6178

Dat	: 8-10-93
	atten: Affe Stogn
P.O	Conservation Division Box 2088 a Fe, NM 87504-2088
RE:	Proposed MC Proposed DHC Proposed NSL Proposed SWD Proposed WFX Proposed PMX Proposed NSP Proposed DD
Gen	lemen:
I ha	ve examined the application received on 8-5-93
for	the Mondies Of Inc. ficantla 98# 11A OPERATOR LEASE & WELL NO.
UL-S	18-26N-030 and my recommendations are as follows:
4	aprove-
Your	s truly,
4	

MERIDIAN OIL

August 3, 1993

Sent Federal Express

Mr. William LeMay
New Mexico Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Re:

Meridian Oil Inc. Jicarilla 98 #11A

1850'FNL, 1840'FWL Section 18, T-26-N, R-3-W

Rio Arriba County, New Mexico

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in both the Mesa Verde and Pictured Cliffs formations. This application for the referenced location is due to terrain as shown on the topographic map, Section 18 being a short section east/west, and at the request of the Jicarilla Apache Tribe.

AUG - 51993

OIL CON. DIV.

\ DIST. 3

This well is planned as a Mesa Verde/Pictured Cliffs commingle and application is being made to the New Mexico Oil Conservation Division for the commingling.

The following attachments are for your review:

- 1. Application for Permit to Drill.
- 2. Completed C-102 at referenced location.
- 3. Offset operators/owners plat and affadavit of notification..
- 4. 7.5 minute topographic map showing the orthodox windows for the north half dedication for the Mesa Verde and northwest quarter dedication for the Pictured Cliffs and enlargement of the map to define topographic features.
- 5. If the well were directionally drilled to a standard bottom hole location, the economics would be severely burdened due to the incremental directional drilling costs of \$200,000.

A copy of this application is being submitted to all offset owners/ operators by certified mail with a request that they furnish you with a Waiver of Objection, and return one copy to this office.

	Sincerely,
	Dergy Statical
`	Peggy Bradfield
	Regulatory/Compliance Representative
	encs.
	<u>WAIVER</u>
	hereby waives objection to Meridian Oil Inc.'s application for a non-
	standard location for their Jicarilla 98 #11A as proposed above.
	By: Date:
	xc: Consolidated Oil & Gas Corp.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

	APPLICATION F	OR PERMIT TO DRILL, DEEPEN	N, OR PLUG BACK
1a. 1b.	Type of Work DRILL Type of Well GAS	RECEIVED AUG-51993	5. Lease Number Jicarilla Contract 98 6. If Indian, All. or Tribe Jicarilla Apache
2.	Operator MERIDIAN OIL	OIL CON. DIV.	7. Unit Agreement Name
3.	Address & Phone No. of Oper PO Box 4289, Farming (505) 326-9700	ator	8. Farm or Lease Name Jicarilla 98 9. Well Number 11A
4.	Location of Well 1850'FNL, 1840'FWL Latitude 36° 29' 19",	Longitude 107° 11' 15"	10. Field, Pool, Wildcat Tapacitos Pic Cliffs/ Blanco Mesa Verde 11. Sec., Twn, Rge, Mer. Sec 18, T-26-N, R-3-W NMPM
14.	Distance in Miles from Neares 35 miles to Dulce, NM	st Town	12. County 13. State Rio Arriba NM
15.	Distance from Proposed Loca	tion to Nearest Property or Lease L	Line
16.	Acres in Lease		17. Acres Assigned to Well 160 (NW/4) & 320 (N/2)
18.	Distance from Proposed Loca	tion to Nearest Well, Drig, Compl, o	or Applied for on this Lease
19.	Proposed Depth 6310'		20. Rotary or Cable Tools Rotary
21.	Elevations (DF, FT, GR, Etc.) 6930 'GR		22. Approx. Date Work will Start 3rd quarter 1993
23.	Proposed Casing and Cement See Operations Plan	ing Program attached	
24.	Authorized by: Regional I	Q (Labhar Drilling Engineer	<u>7/29/43</u> Date
PERM	IIT NO.	APPROVAL DA	ATE
APPR	OVED BY	TITLE	DATE

School on Asse District Littles Sint Lans - 4 come

State of New Mexico Energy, Minerae and Natural Resources Department

Form C-182

CISTRICT'S 2.O. Box 1980, Hobbs, NGM \$2240

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

DISTRICTITE
2.0. DISSNE DO. Arisma, NM \$2210

WELL LOCATION AND ACREAGE DEDICATION PLAT

Meridian Oil Inc. Jicarilla 98 11A Second Towns of Mark 850' North 1840' West Post of Mark 930' Pictured Cliffs/Mesa Verde Tapacitos/Blanco 160/320 A 1. Outside as except and the mark of Mark 1. If more and the mark of Mark	RICT III Rio Annes A4. Azes	L 184 87410		TION AND ACREA			
F 18 26 North 3 West Rio Arriba **Soft North 1840	Meridian	Oil Inc.			arilla 98		Nell No.
North to Some No	F Second				est	Pi	o Arriba
Pictured Cliffs/Nesa Verde Tapacitos/Blanco 160/320 Louis and the second of my and the sec	1850'	Mon	th	184	10'	West	
Pactured Cliffs Mesa Verde Tapacitos Allanco 160/320 A. Life and the second se	na sera kier.					feet from the	Dedicates Acrespes
1. If some and the second state of my second state	I. Online on a	Pictured C	liffs/Mesa	Verde ⁱ Ta	apacitos/Bland	<u> </u>	160/320 Agree
The same of the sa							d granded
Yes No If some Yes' type of common (Um several to the later of the lat	J. If more than			ment to the well, have the			
(Un sweet of the form of the f		one county or!		us "yes" type of constitue			
OPERATOR CERTIFICA Language Peggy Bradfield Pressure Name Regulatory Represent Posses Meridian Oil Inc. Comment 1840 Jic. Contract 98 Surveyor Certify that the wail for a language of the posses of the poss	this form of neo			reach have estably been o			
OPERATOR CERTIFICA Inaming county that the company county that the company Regulatory Represent Persues Regulatory Represent Persues Meridian Oil Inc. Company 1.21-93 Data SURVEYOR CERTIFICA on that plat they persue from the control of the plat was platted from the control of the plat			o wed was all span dag gast sames, b	HAS BOVE COME CONSCIONABLE OR BOOK SUPPLYING BY THE D	i (by communic mode, Xvince,	umumaa, jaraa paa	of a crimin
JIC. CONTRACT 98 AUG - 5 1993 Data Surveyo make by me of the same of may can be belief. 6-22-93 Data Surveyo make by me of the same of may can be belief. 6-22-93 Data Surveyo make by me of the same of may can be belief. 6-22-93 Data Surveyo make by me of the same of may can be belief. 6-22-93 Data Surveyo make by me of the same of may can be belief. 6-22-93 Data Surveyo make by me of the same of may can be belief. 6-22-93						OPERA	TOR CERTIFICATION
Peggy Bradfield Promos Name Regulatory Represent Posses Meridian Oil Inc. Comment J.C. Contract 98 SURVEYOR CERTIFICA I hereby certify that the well lead on that plat was plated from for any part of the best of my one any part of the best of my one correct to the best of my one balled. 6-22-93 Data Surprise G. EUlip NGANC LIBROGE AUG - 5 1993							
Peggy Bradfield Prime Name Regulatory Represent Position Meridian Oil Inc. Comment 1.09-93 Date SURVEYOR CERTIFIC In hereby certify that the weil loc on that plat was platted from for contract to the best of my one correct to the best of m		i			1	basylet my as	resa sir oran and complete Orango and ballal.
Peggy Bradfield Prime Name Regulatory Represent Position Meridian Oil Inc. Comment 1.09-93 Date SURVEYOR CERTIFIC In hereby certify that the weil loc on that plat was platted from for contract to the best of my one correct to the best of m		İ	.		i	MARIA	Skallhull
Primare Name Regulatory Represent Posson Meridian Oil Inc. 1 Aprily Cartify that the well lace on that plan was planted from for carrier to the best of my and butter. 6-22-93 Date Converge to the best of my and Date Converge to the best of my and m		1	B		1		radfield
Regulatory Represent Possos Meridian Oil Inc. Comment Program	/ 	!	99		1		
Meridian Oil Inc. Company 1.29-93 Date SURVEYOR CERTIFIC. I hereby certify that the well less on that plat was platted from file contains and that the same correct to the best of my and balled. 6-22-93 OIL CON DIV. NG-35-0 alfBOX22							
JIC. CONTRACT 98 SURVEYOR CERTIFICATION 1 Acres of the second from the se	/ 	1					
AUG - 5 1993 OIL CON DIV	/ II	!				Meridia	n Oil Inc.
AUG - 5 1993 OIL CON DIV	/ • • • • • • • • • • • • • • • • • • 	<u> </u>	— ს ∥ /	IC. CONTRACT	498		7 4 4 6
SURVEYOR CERTIFIC AUG - 5 1993 OIL CON DIV	11	8 4 01			1		1.28.93
AUG - 5 1993 OIL CON DIV		} 			1	Date	
AUG - 5 1993 OIL CON DIV				ค	1	8===	
AUG - 5 1993 OIL CON DIV. OR I has plan true plants from fine actions surveyed make by me of my and correct to the best of my and best of 6-22-93 Date surpeign G. ED by No. 24 18 18 18 18 18 18 18 18 18 18 18 18 18				/		SURV	EYOR CERTIFICAT
AUG - 5 1993 OIL CON DIV. OR I has plan true plants from fine actions surveyed make by me of my and correct to the best of my and best of 6-22-93 Date surpeign G. ED by No. 24 18 18 18 18 18 18 18 18 18 18 18 18 18		i	/ 4)	i	N I hereby co	rrufy that the well locate
AUG - 5 1993 OIL CON DIV. No De G. ED IV.	λ	i				OR ING PLE	s was placed from field
AUG - 5 1993 OIL CON DIV. No De G. ED IV.		j		MEGE	IVEM	l actual sur-	Mys made by me or a
AUG - 5 1993 OIL CON DIV. No Service C. ED IV.		i		N C		correct to	the best of my country
OIL CON DIV.		i		AUG - F	1993	i balia/. 6	-22-93
		i			1		
						N_Z	
9357						Simalic	A STANKOLOS
		i		<u> </u>	1	Prod	A Surveyor
		i		. .			9357
		i			i		
		i			i		XXXXXX
	/	i			i	110	

OPERATIONS PLAN

Well Name: Jicarilla 98 #11A

Location: 1850'FNL, 1840'FWL Section 18, T-26-N, R-3-W

Rio Arriba County, New Mexico

Latitude 36° 29' 19", Longitude 107° 11' 15"

Formation: Tapacitos Pictured Cliffs/Blanco Mesa Verde

Elevation: 6930'GL

Formation Tops:	Top	Bottom	Contents
Surface	San Jose	3150'	
Ojo Alamo	3150'	3330'	aquifer
Kirtland	3330'	3440'	•
Fruitland	3440'	3620'	qas
Pictured Cliffs	3620'	38051	gas
Lewis	38051	4565'	.•
Chacra	4565'	53001	gas
Mesa Verde	5300'	5400'	gas
Menefee	5400'	5760'	gas
Point Lookout	5760'	6310'	gas
Total Depth	6310'		•

Logging Program:

Mud Logs/Coring/DST -

Mud logs - 3400' to Total Depth

Coring - none DST - none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-8.9	40-50	no control
200-6310'	LSND	8.4-9.1	30-60	no control

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program:

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0' - 200'	8 5/8"	24.0#	K-55
7 7/8"	0' - 6310'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 6310' 2 3/8" 4.7# J-55 EUE

BOP Specifications, Wellhead and Tests:

Surface to TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

6" 3000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams and casing top will be tested to 3000 psi for 15 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Wellhead -

8 5/8" x 4 1/2" x 2 3/8" x 3000 psi tree assembly.

General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- A BOP pit level drill will be conducted weekly for each drilling crew.
- All of the BOP tests and drills will be recorded in the daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

8 5/8" surface casing -

Cement to surface w/140 sx Class "B" cement w/3% calcium chloride and 1/4#/sx cellophane flakes (165 cu.ft. of slurry, 100% excess to circulate to surface.) WOC 12 hours prior to drilling out surface casing. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

Production Casing - 4 1/2"

First Stage: Cement to circulate to stage tool @ 3905'. Lead w/553 sx 65/35 Class "B" Pozmix w/6% gel, 2% calcium chloride, and 1/4#/sx cellophane flakes. Tail w/100 sx Class "B" cement w/2% calcium chloride. WOC 4 hours prior to pumping second stage. (Slurry volume: 1097 cu.ft. Excess slurry 100%.)

Second Stage: Cement to circulate to surface. Lead w/940 sx 65/35 Class "B" Pozmix w/6% gel, 2% calcium chloride, and 1/4#/sx cellophane flakes. Tail w/100 sx Class "B" cement w/2% calcium chloride. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 1781 cu.ft. Excess slurry: 100%.)

Float shoe on bottom. Three centralizers run every other joint above shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 3330'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

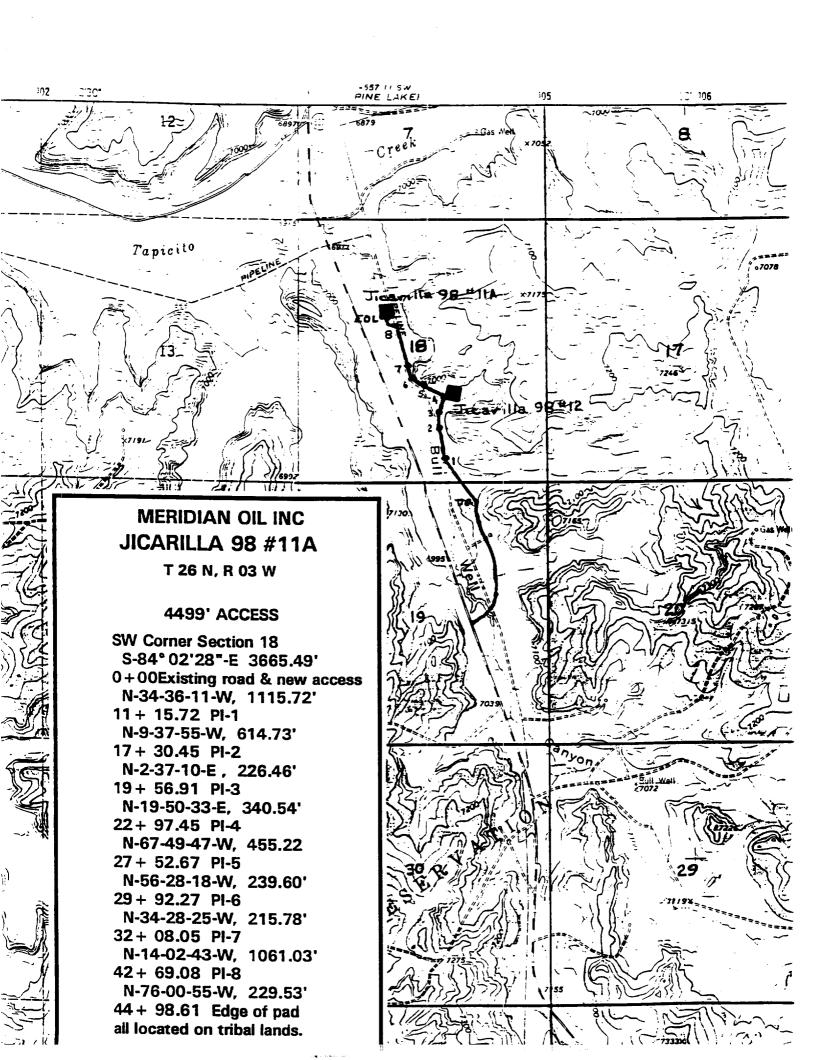
- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

Additional Information:

- Pictured Cliffs and Mesa Verde formations will be completed and commingled per New Mexico Oil Conservation Division Order.
- No abnormal temperatures or hazards are anticipated.
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The North half of Section 18 is dedicated to the Mesa Verde and the Northwest quarter is dedicated to the Pictured Cliffs.
- This gas is dedicated.
- New casing will be utilized.
- Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.



- 1. Existing Roads Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
- 2. Planned Access Road Refer to Map No. 1. The required new access road is shown on Map No. 1. The gradient, shoulder, crowning and other design elements will meet or exceed those specified by the responsible government agency. The new access road surface will not exceed twenty feet (20') in width. No additional turnarounds or turnouts will be required. Upon completion of the project, the access road will be adequately drained to control soil erosion. Approximately 4499' of access road will be constructed. Pipelines are indicated on Map No. 1A.
- 3. Location of Existing Wells Refer to Map No. 1A.
- 4. Location of Existing and/or Proposed Facilities if Well is Productive
 - a. On the Well Pad Refer to Plat No. 1, anticipated production facilities plat.
 - b. Off the Well Pad Anticipated facilities off the well pad will be applied for as required.
- 5. Location and Type of Water Supply Water will be hauled by truck for the proposed project and will be obtained from Bull Pasture Well located SW Section 17, T-26-N, R-4-W, New Mexico.
- 6. Source of Construction Materials If construction materials are required for the proposed project, such materials will be obtained from a commercial quarry.
- 7. Methods of Handling Waste Materials All garbage and trash materials will be removed from the site for proper disposal. A portable toilet will be provided for human waste and serviced in a proper manner. If liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying waste materials into the watershed. All reserve pits will be lined with 12 mil bio-degradable plastic liner. All earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if so generated.
- 8. Ancillary Facilities None anticipated.
- 9. Wellsite Layout Refer to the location diagram and to the wellsite cut and fill diagram (Figure No. 4). The blow pit will be constructed with a 2'/160' grade to allow positive drainage to the reserve pit and prevent standing liquids in the blow pit.



حلال ی n i.esso - 3 espaș

State of New Messass Energy, Minerals and Natural Resources Department

Fem C-182

OIL CONSERVATION DIVISION

P.O. Box 2088

Sansa Fe, New Mexico 87504-2088

P.O. Box 1980, Hobbs, NM 81240 P.O. Drawer OD, Artena, NM \$8210

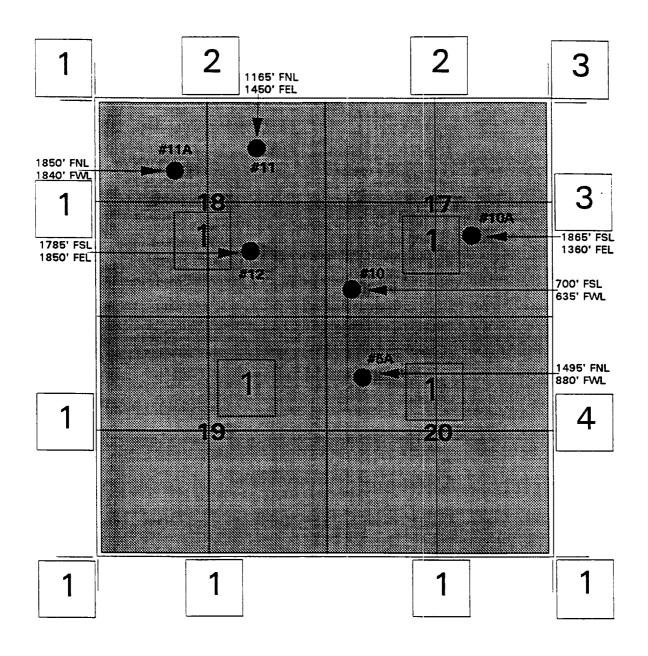
ALTRIC LIII

WELL LOCATION AND ACREAGE DEDICATION PLAT

1000 Rio Besses RA. Azec. NM 87410 All Cistances must be from the outer tourcomes of the section Well No. 11A Jicarilla 98 Meridian Oil Inc. Rio Arriba 3 West 26 North 18 F MIM Admi Farege Lorence of Welt: West 1840' 1850' North feet from the lies and feet from the Grand aver Elev. Acceptance of the last of the 6930' Tapacitos/Blanco 160/320 Agree Pictured Cliffs/Mesa Verde to the amount wed by control purch or hadron states on the put below. 1. If more than one sease of different oversman is distinguist to the well, have the material of all extends been expectational by o Yes If anything to "you" type of examinings p which have county been committeed. (Use structs and of 4 to the well that ill interest bett can de andres (by commencement, immercial, (cites-position, or comment No allowate will be an mentag such interest, has been approved by the Divis 1320.00' 2640.00' OPERATOR CERTIFICATION L hareby carely that the inform Peggy Bradfield Regulatory Representative Meridian Oil Inc. JIC. CONTRACT 498 7-28-93 1840 Date SURVEYOR CERTIFICATION I hereby certify that the well loca on this plat was platted from field note: FRIOR, and that the same is true COFFECE IO the best of my sneweege 6-22-93 W. C. EUW

MERIDIAN OIL INC.

OFFSET OPERATOR/OWNER PLAT Pictured Cliffs/Mesaverde Commingle Township 26 North, Range 3 West Rio Arriba County, New Mexico



See Attached List

Pictured Cliffs/Mesaverde Commingle Township 26 North, Range 3 West Offset Operators

- 1. Meridian Oil Inc. P.O. Box 4289 Farmington, NM 87499-4289
- Consolidated Oil & Gas Corp.
 419 17th Street, Suite 400
 Denver, CO 80202-4410
- 3. Jerome P. McHugh 650 S. Cherry Street, Suite 1225 Denver, CO 80222
- 4. Jerome P. McHugh 650 S. Cherry Street, Suite 1225 Denver, CO 80222

Dugan Production Corp. P.O. Box 420 Farmington, NM 87499-0402

MERIDIAN OIL

Re:

Meridian Oil Inc. Jicarilla 98 #11A

1850'FNL, 1840'FWL Section 18, T-26-N, R-3-W

Starfield

Rio Arriba County, New Mexico

I hereby certify that the following offset operators/owners have been mailed notification of our application for non-standard location to drill the referenced well.

Consolidated Oil & Gas Corp. 419 17th Street, Suite 400 Denver, CO 80202-4410

Peggy A. Bradfield San Juan County State of New Mexico

My commission expires August 17, 1996

