State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

OIL CONSERVATION DIVISION

New Mexico DRUG FREE It's a State of Mind!

ADMINISTRATIVE ORDER DHC-1082

Meridian Oil Company
P.O. Box 4289
Farmington, New Mexico 87499-4289

Attention: P.M. Pippin

Huerfanito Unit Well No.86
Unit L, Section 36, Township 27 North, Range 9 West, NMPM,
San Juan County, New Mexico.
Basin Dakota (Prorated Gas) and Blanco Mesaverde (Prorated Gas) Pools

Dear Mr. Pippin:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 30 barrels per day, and total water production shall not exceed 60 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

In accordance with the provisions of Rule 303-C, the supervisor of the Aztec District Office of the Oil Conservation Division shall determine the proper allocation of production from the subject well following its completion.

FURTHER: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

RECEIVED
FEB - 6 1995
OIL CON. DIV.
DIST. 3

VILLAGRA BUILDING - 408 Galisteo
Forestry and Resources Conservation Division
P.O. Box 1948 87504-1948
827-5830
Park and Recreation Division
P.O. Box 1147 87504-1147
827-7465

2040 South Pacheco
Office of the Secretary
827-5950
Administrative Services
827-5925
Energy Conservation & Management
827-5900
Mining and Minerals
827-5970
Oil Conservation
827-7131

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 1st day of February, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

WJL/BES

cc: Oil Conservation Division - Aztec
Bureau of Land Management - Farmington

DHC-1582

Ernie Busch

From: Ernie Busch
To: David Catanach
Subject: MERIDIAN OIL INC (DHC)
Date: Tuesday, December 20, 1994 3:28PM
Priority: High

HUERFANO UNIT # 86 MV/DK
36-27N-09W
RECOMMEND: APPROVAL

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P.O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-125
REVISED 3-2-84

GAS WELL SHUT-IN PRESSURE REPORT

OPERATOR	ADDRESS	POOL	COUNTY
BHP PETROLEUM (AMERICAS) INC.	P.O. BOX 977 FARMINGTON, NM 87499	KUTZ PICTURED CLIFFS, WEST	SAN JUAN

LEASE	WELL NO.	LOCATION UNIT	SEC.	TWP.	RGE.	DATE PRESS. RUN	TIME S.I. HRS./MIN.	S.I. PRESSURE PSIG (DWT)	PSIA
GALLEGOS CANYON UNIT	30	I	33	28N	12W	09-13-94	5 DAYS	158	170
GALLEGOS CANYON UNIT	11	M	34	28N	12W	09-13-94	5 DAYS	157	169
GALLEGOS CANYON UNIT	31	E	34	28N	12W	09-12-94	4 DAYS	140	152
GALLEGOS CANYON UNIT	4	G	34	28N	12W	09-12-94	4DAYS	170	182
GALLEGOS CANYON UNIT	24	J	34	28N	12W	09-12-94	4 DAYS	141	153
GALLEGOS CANYON UNIT	58	O	35	28N	12W	09-12-94	30+DAYS	0	0
GALLEGOS CANYON UNIT	56	E	35	28N	12W	09-12-94	30+DAYS	0	0
GALLEGOS CANYON UNIT	55	G	35	28N	12W	09-12-94	4 DAYS	148	160

I hereby ceritify that the above information is true and complete to the best of my knowledge and belief. SEE RULE 402

Signature _____ Title OPERATIONS SUPERINTENDENT Date December 19, 1994

MERIDIAN OIL

December 5, 1994

Mr. William J. LeMay
N. M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87501-2088

RECEIVED
DEC - 6 1994
OIL CON. DIV.
DIST. 3

Re: Huerfanito Unit #86 MV/DK
1750' FSL; 1090' FWL
Section 36, T27N R09W
San Juan County, N. M.

Dear Mr. LeMay:

Meridian Oil Inc. is applying for an administrative downhole commingling order for the referenced well in the Basin Dakota and Blanco Mesaverde fields. Meridian Oil operates all the acreage surrounding the referenced well. We therefore wave the 30 day notice requirement and request that the NMOCD consider this application as expeditiously as possible. The Bureau of Land Management will receive notification of this proposed downhole commingling.

Meridian's ownership in the Dakota and Mesaverde is not common. However, we have approval to commingle these zones administratively in the Huerfanito Unit as per NMOCD Order No. R-9887. The MOI GWI-NRI in the Dakota is 95.14%-77.48% and 87.85%-73.20% for the Mesaverde.

This well has produced since 1965 as a dual well from the Dakota and Mesaverde. The well is presently not a good producer due to poor producing efficiency. It has a producing capacity in 1993 of only 29 MCF/D and 54 MCF/D, respectively. The cumulative production is 1,578 MMCF & 11,088 BO from the Dakota and 2,501 MMCF & 12,210 BO from the Mesaverde, as of January 1, 1994.

The Dakota production is currently being suppressed due to the presence of the well's production packer which limits the Dakota's ability to unload liquid with its small amount of gas volume. We believe that the Dakota has the potential to initially produce 100 MCF/D. We believe that the Mesaverde has the potential to initially produce 70 MCF/D. However, like the Dakota, the Mesaverde does not make sufficient gas to lift the produced liquids. The commingling of the subject well in the twilight of its producing life will result in better producing efficiency for both intervals. We believe that the combined gas volume will be sufficient to lift the produced liquids in the near future. A possible future artificial lift system such as a plunger

will be much more efficient with the intervals commingled. Granting this application will be in the best interest of conservation, the prevention of waste, and the protection of correlative rights.

Commingling should greatly enhance this well's producing life and its reserves from both producing intervals. We plan to commingle this well by pulling the Mesaverde tubing and the Dakota tubing and packer seal assembly. The permanent packer will be extracted and a single string of tubing run to the lower producing interval.

Additional Point Lookout intervals will be opened and stimulated during the workover.

The reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed downhole commingling. The fluids from each zone are compatible and no precipitates will be formed to cause damage to either reservoir. Two other wells commingled in these same fields in 1991 with no detrimental effects are the McClanahan #17E (Sec. 24 T28N R10W) and Reid #20 (Sec 19 T28N R09W). The daily production will not exceed the limit of Rule 303c, Section 1a, Part 1. The shut-in pressures for the Dakota and Mesaverde are 374 psi and 418 psi, respectively. The Dakota and Mesaverde have the ability to produce about 1 barrel of water per day.

To allocate the commingled production to each of the zones, Meridian will consult with the District Supervisor of the Aztec District Office of the Division to determine an allocation formula for each of the productive zones. This will be done using flow tests from the Dakota and Mesaverde during field operations.

Included with this letter are plats showing ownership of offsetting leases for both the Dakota and Mesaverde, wellbore diagrams, production curves, a pertinent data sheet, workover procedure, and maps indicating the offset Dakota and Mesaverde wells in the area.

Yours truly,

P. M. Pippin
Sr Production Engineer

attachments

cc: Frank Chavez - OCD

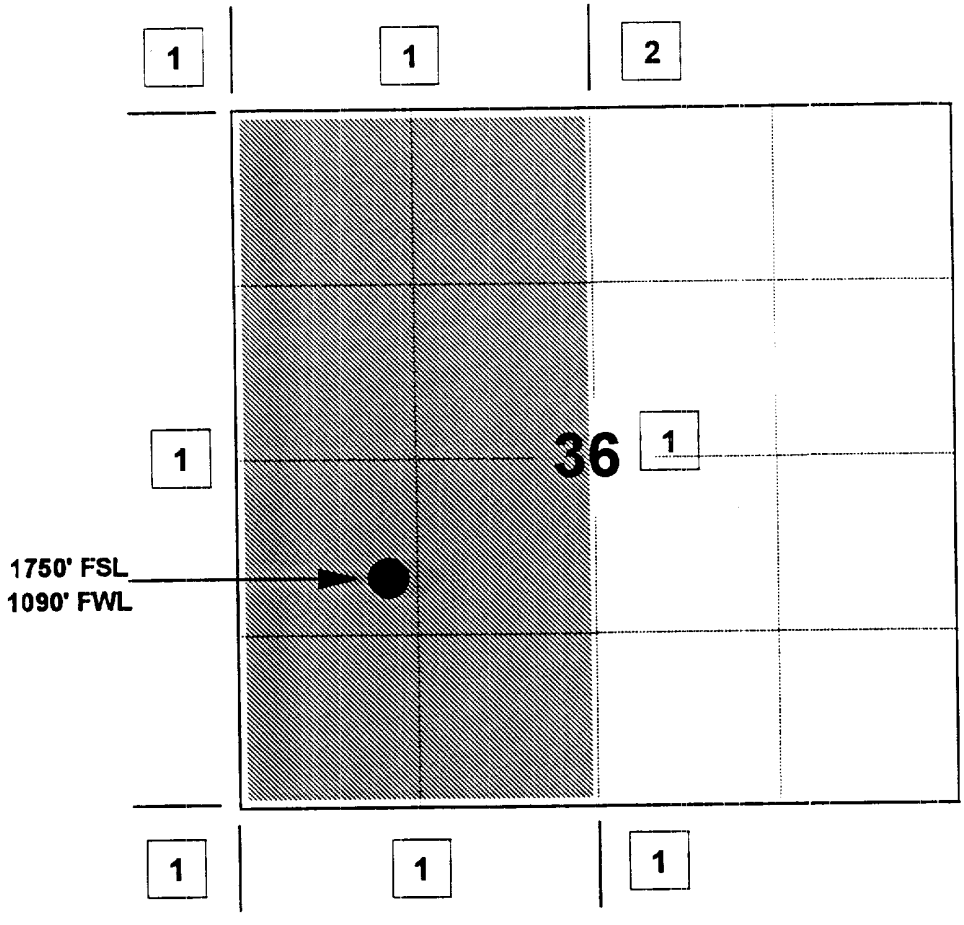
MERIDIAN OIL INC

HUERFANITO UNIT #86

OFFSET OPERATOR \ OWNER PLAT

Mesaverde / Dakota Formations Commingle Well

Township 27 North, Range 9 West



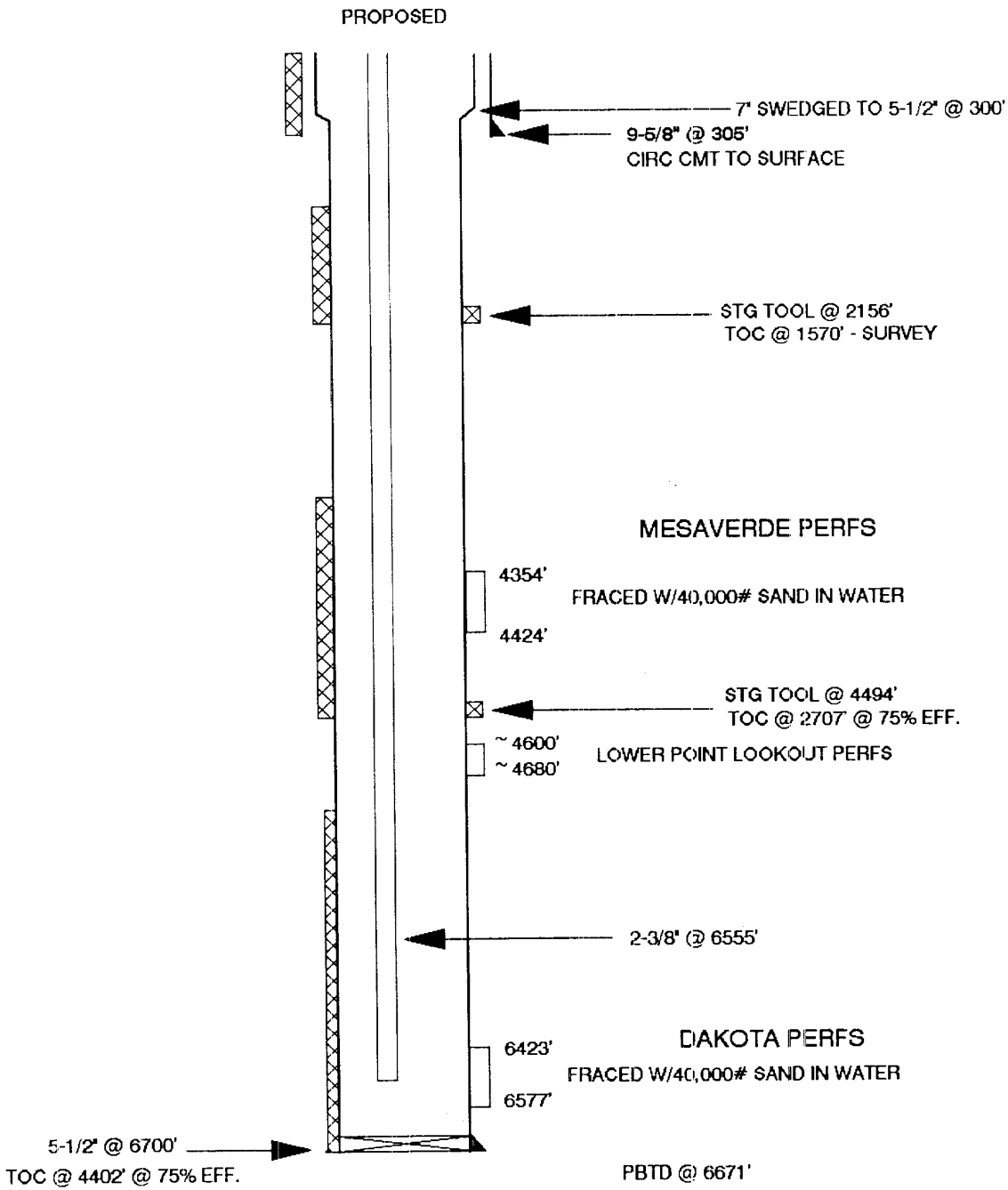
1) Meridian Oil Inc

2) Southland Royalty Company

HUERFANITO UNIT #86 MV/DK

UNIT L SECTION 36 T27N R9W

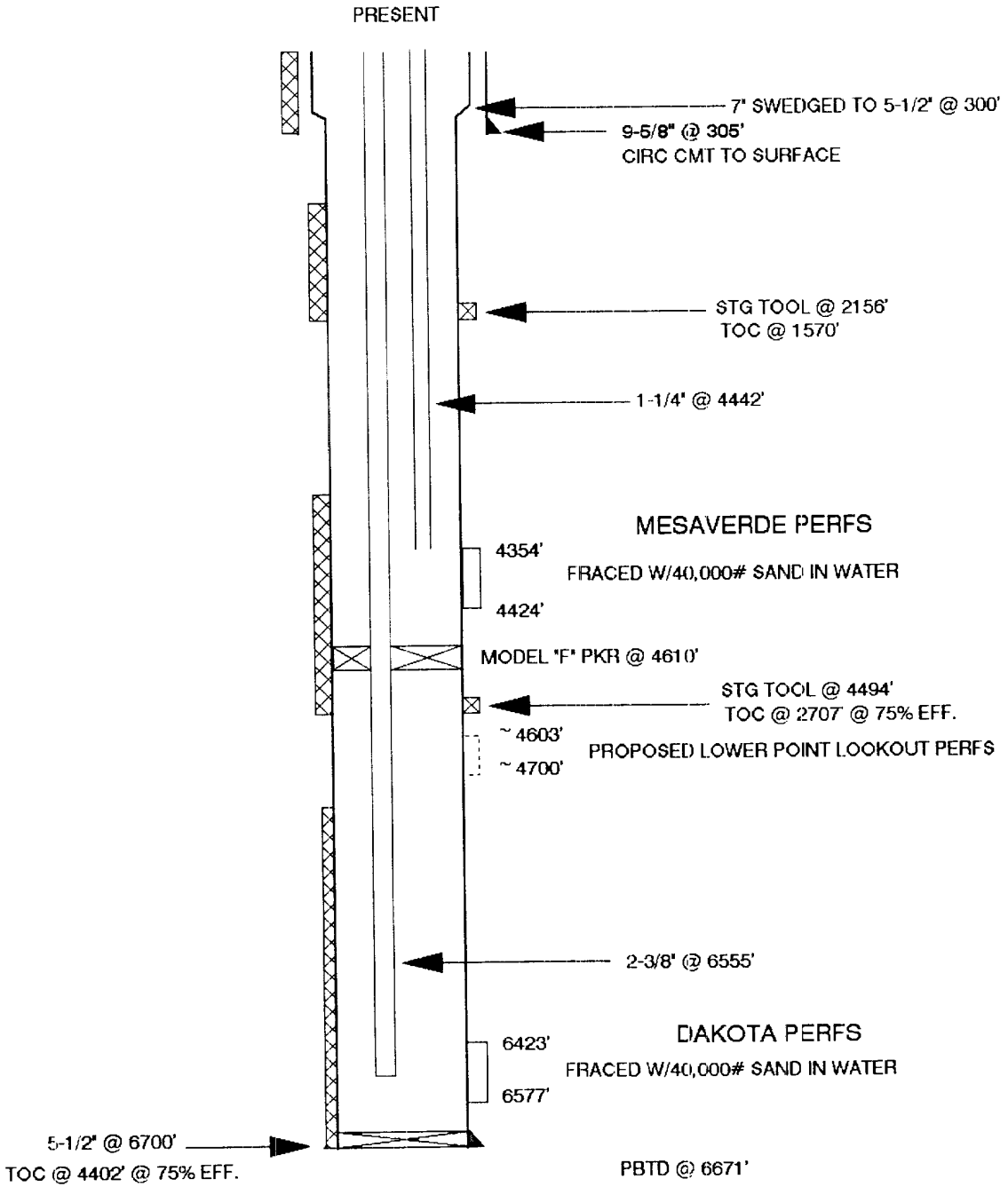
SAN JUAN COUNTY, NEW MEXICO



HUERFANITO UNIT #86 MV/DK

UNIT L SECTION 36 T27N R9W

SAN JUAN COUNTY, NEW MEXICO



STATE : NO STATE FOUND
COUNTY : SAN JUAN
LOCATION : 36 27N
PAGE NUMBER : 0000001-A

WELLS NUMBER : 3042(009-36L 00P
LEASE NAME : BLANCO (PESAVERDE
RESERVOIR :
FIELD : [illegible]
OPERATOR : MERIDIAN OIL INC.

MERIDIAN OIL

WATER (BBL/M) (LINEAR WITH ◄)

GROSS OIL (BBL/M)

19 74 19 75 19 76 19 77 19 78 19 79 19 80 19 81 19 82 19 83 19 84 19 85 19 86 19 87 19 88 19 89 19 90 19 91 19 92 19 93

MERIDIAN OIL
GROSS OIL (BBL/M)
WATER (BBL/M)
(LINEAR WITH Δ)
STATE
COUNTY
LOCATION
36L 27N
0000002-A

Pertinent Data Sheet - HUERFANITO UNIT #86 MV/DK

Location: 1750'FSL 1090' FWL SEC. 36 T27N R09W, SAN JUAN COUNTY, N.M.

Field: Basin Dakota
Blanco Mesaverde

Elevation: 6213' (14'KB) **TD:** 6700' **PBTD:** 6671'

Prop#: MV:0023403 DK:0079705
Lease: State: E-1199-3
DP#: DK=30051 MV=30025
GWI: MV=87.85% DK=95.14%
NRI: MV=73.20% DK=77.48%

Completed: 7-2-65

Initial Potential:

DK: AOF=5556 MCF/D, Q=4863 MCF/D, SICP=2085 PSI
MV: AOF=6423 MCF/D, Q=5272 MCF/D, SICP=1130 PSI

Casing Record:

Hole Size	Csg. Size	Wt. & Grade	Depth Set	Cement	Top/Cmt
15"	9-5/8"	32.3# H-40	305'	250 sx	Circ. Cmt
7-7/8"	7"	23# J-55	(300')		
7-7/8"	5-1/2" 17 & 15.5#	J-55	6700'	450 sx	4402'@ 75% Eff.
		DV Tool @	4494'	350 sx	2707'@ 75% Eff.
		DV Tool @	2156'	100 sx	1570' - Survey

Tubing Record: 2-3/8" 4.7# J-55 6555' 213 Jts S.N. @ 6550'
Baker Model "F" Pkr @ 4610'
1-1/4" 2.3# JCW-55 4442' 136 Jts

Formation Tops:

Ojo Alamo	1230'	Gallup	5502'
Kirtland	1328'	Greenhorn	6324'
Fruitland	1896'	Graneros	6376'
Pictured Cliffs	2036'	Dakota	6486'
Cliffhouse	3591'		
Point Lookout	4347'		

Logging Record: Induction, Acoustic Velocity

Stimulation: Perf DK @ 6569'-77', 6517'-25', 6489'-97', 6423'-31', w/2 & fraced w/40,000# sand in water.
Perf MV @ 4416'-24', 4398'-4406', 4354'-62', w/2 sfp & fraced w/40,000# sand in water.

Workover History: **11-25-69:** Pulled 1-1/4" & 2-3/8" tbgs & replaced 2-3/8" jt w/hole (5 jts above pkr). Reran tbgs & seal assembly.

Production History: MV 1st delivered on 2-1-66. Cumulative: MV=2501 MMCF & 12,217 BO. DK=1578 MMCF & 11,088 BO. MV Tbg=287 psi. MV Csg=305 psi. Bradenhead=0 psi. DK Tbg = 302 psi. Line= 219 psi.

Pipeline: EPNG

PMP

HUERFANITO UNIT #86 MV/DK
Recommended Procedure
Open Lower MV & Commingle w/DK
Lat.-Long. = 36.528931 - 107.745209
L 36 27 9

1. Comply to all NMOCD, BLM, & MOI, rules & regulations. MOL and RU completion rig. Blow well down. NU 7-1/16" 900 series BOP with flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line.

2. TOH W/136 Jts 1-1/4" tbg & lay down. Set blanking plug in 2-3/8" tbg in S.N. @ 6550' & pressure test to 3000 psi. TOH w/213 Jts 2-3/8" tbg & Baker Model "F" seal assembly @ 4610".

3. Run 5-1/2" "CJ" milling tool on tested 2-3/8" tbg & mill (w/air/mist) & retrieve Baker Model "F" pkr @ 4610'. TOH.

4. MI Wireline Truck. Set 5-1/2" ret BP @ 4800' & top w/2 sx sand. Run CBL from 4800' to top of cmt and pulsed neutron log from 4800'-3500' & 3200'-2900'. Coorelate to open hole induction log. Hot-shot logs to Production Engr Dept. Lower Point Lookout perfs will be picked at this time.

5. If unsufficient cmt is across lower Point Lookout 4600'-4680', perf 2 sq holes @ 4690'. W/5-1/2" pkr @ 4450' on 2-3/8" tbg, sq w/100 sx Cl "B" w/2% CACL2 & 3#/SX HI-SEAL for a yield of 1.21 cf/sx (15.6 #/gal). Unseat pkr, reverse out (if possible), reset & repressure. WOC. TOH.

6. TIH w/4-3/4" bit on 2-3/8" tbg & drill out cmt to 4750' w/air/mist. TOH. Run CBL from 4750'to top cmt. Resq if necessary.

7. When sufficient cmt is across proposed lower Point Lookout perfs, perf w/ 2 spf. Perfs will be a total of about 25' (50 holes) from 4600'-80'. Perf w/Tolson jets.

8. Spot and fill 5 - 400 bbl. frac tanks with 2% KCL water. Filter all water to 25 microns. Four tanks for gel and one for breakdown. Usable water required for frac is 1,230 bbls.

9. Run 5-1/2" pkr on 3-1/2" 9.3# P-110 w/shaved collars (4.25" O.D. 2.992" I.D.) rental frac string & set @ 4450'. Breakdown & attempt to balloff w/2000 gal 15% HCL acid & 125 perf balls. Acid to contain 1 gal/1000 gals water of F75N (surfactant) & 10#/1000 of L58 (corrosion inhibitor). Maximum pressure = 4500 psi. Record breakdown pressures. Lower pkr to 4700' to knock off perf balls. Reset pkr @ 4550'.

10. W/backside open, fracture treat well down rental frac string with 50,000 gals. of 20# gel water and 40,000# Arizona sand. Pump at 35 BPM. Sand to be tagged with 0.4 mCi/1000# Ir-192 tracer. Max. pressure (@ 35 BPM) is 6000 psi and estimated treating pressure is 2500 psi. Frac string friction @ 35 BPM is 1574 psi. Treat per the following schedule:

Stage	Liquid (Gals.)	Sand Vol. (lbs.)
Pad	10,000	----
0.5 ppg	10,000	5,000
1.0 ppg	20,000	20,000
1.5 ppg	10,000	15,000
Flush	(1,660)	----
Totals	50,000	40,000#

Cut flush by 25-30% if frac gradient is less than static water.
Treat frac fluid with the following additives per 1000 gallons:

* 4.6 gal J877 (Base 20# Guar Gel)
* 1.0 gal. F75N (Non-ionic Surfactant)
* 1.0# J134 (Enzyme Breaker)
* 0.35# M275 (Bacteriacide)

11. Open well through choke manifold and monitor flow. Flow @ 20 bbl/hr, or less if sand is observed.

12. When well stops flowing, TOH w/frac string & pkr & lay down. TIH w/notched collar on 2-3/8" tbg & C.O. w/air/mist to BP @ 4800'. Take pitot gauges when possible.

13. When wellbore is sufficiently clean, TOH and run after frac gamma-ray log from 4800'-4200'.

14. TIH w/retrieving tool on 2-3/8" tbg and again CO to 4800'. When wellbore is sufficiently clean, retrieve BP & TOH.

15. TIH w/4-3/4" bit on 2-3/8" tbg & CO to 6600' w/air/mist. **Take pitot gauges when possible.** TOH.

16. TIH with 2-3/8" production tbg with standard seating nipple one joint off bottom to 6600' and again blow well clean. When well is clean, land tbg @ 6500'. Take final pitot gauges, water & oil samples, and gas samples.

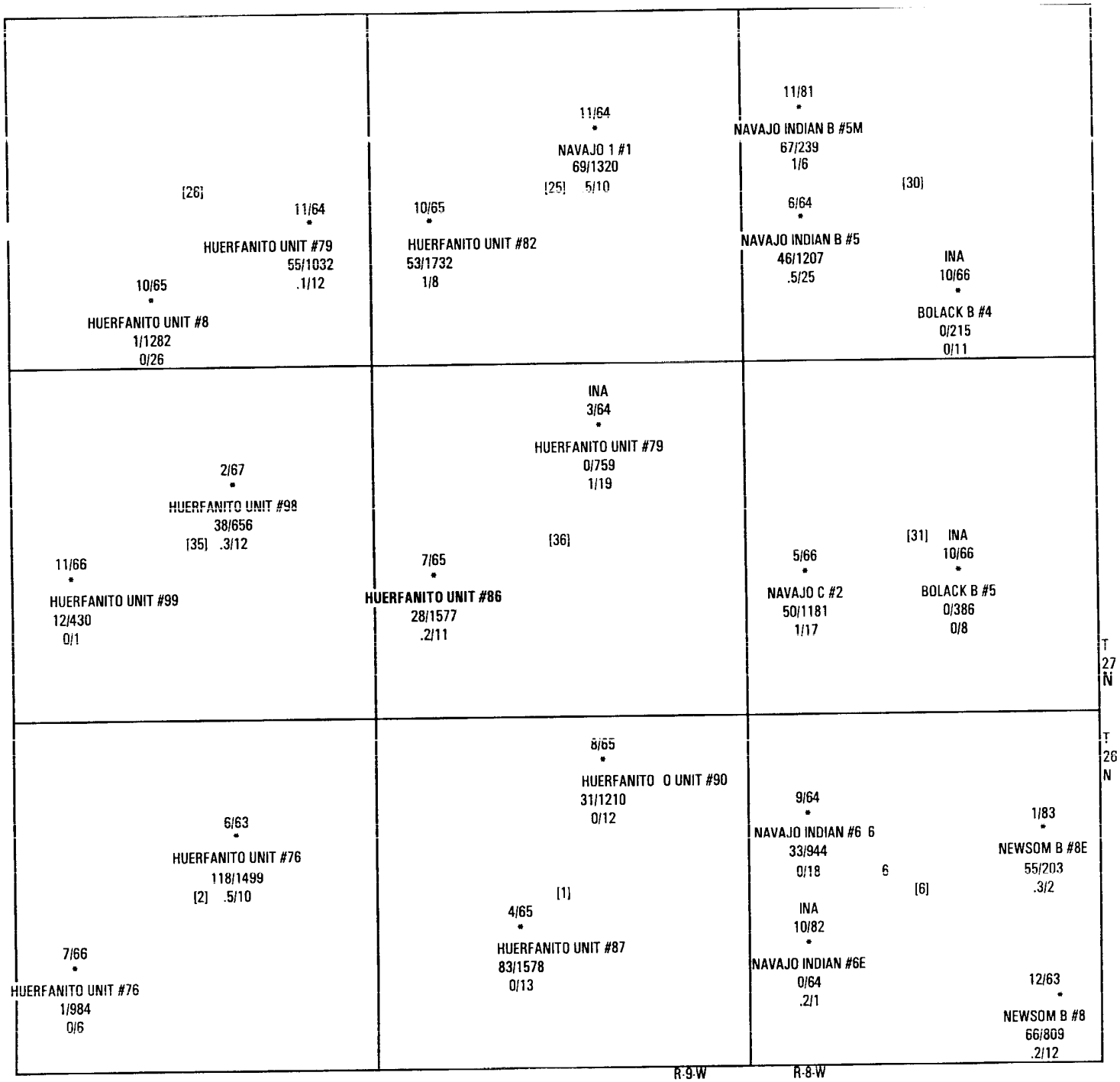
17. ND BOP and NU wellhead. Replace any bad valves on wellhead. Rig down & release rig.

Approved: _____
J. A. Howieson

VENDORS:

Wireline:	Blue Jet	325-5584
Frac & Acid:	Western	327-6222
RA Tagging:	Pro-Technics	326-7133

PMP


DATE: May 26,1994
NAME: HUERFANITO #86
FORM: DAKOTA
LOCATION
UNIT: L
SEC: 36
TWN: 27N
RNG: 9W
[26]
11/64
*
HUERFANITO UNIT #79
55/1032
.1/12
10/65
*
HUERFANITO UNIT #8
1/1282
0/26
11/64
*
NAVAJO 1 #1
69/1320
[25] 5/10
10/65
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HUERFANITO UNIT #82
53/1732
1/8
11/81
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NAVAJO INDIAN B #5M
67/239
1/6
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NAVAJO INDIAN B #5
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10/66
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BOLACK B #4
0/215
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5/66
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NAVAJO C #2
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BOLACK B #5
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9/64
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33/944
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NEWSOM B #8E
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10/82
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.2/1
12/63
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NEWSOM B #8
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.2/12
7/66
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HUERFANITO UNIT #76
1/984
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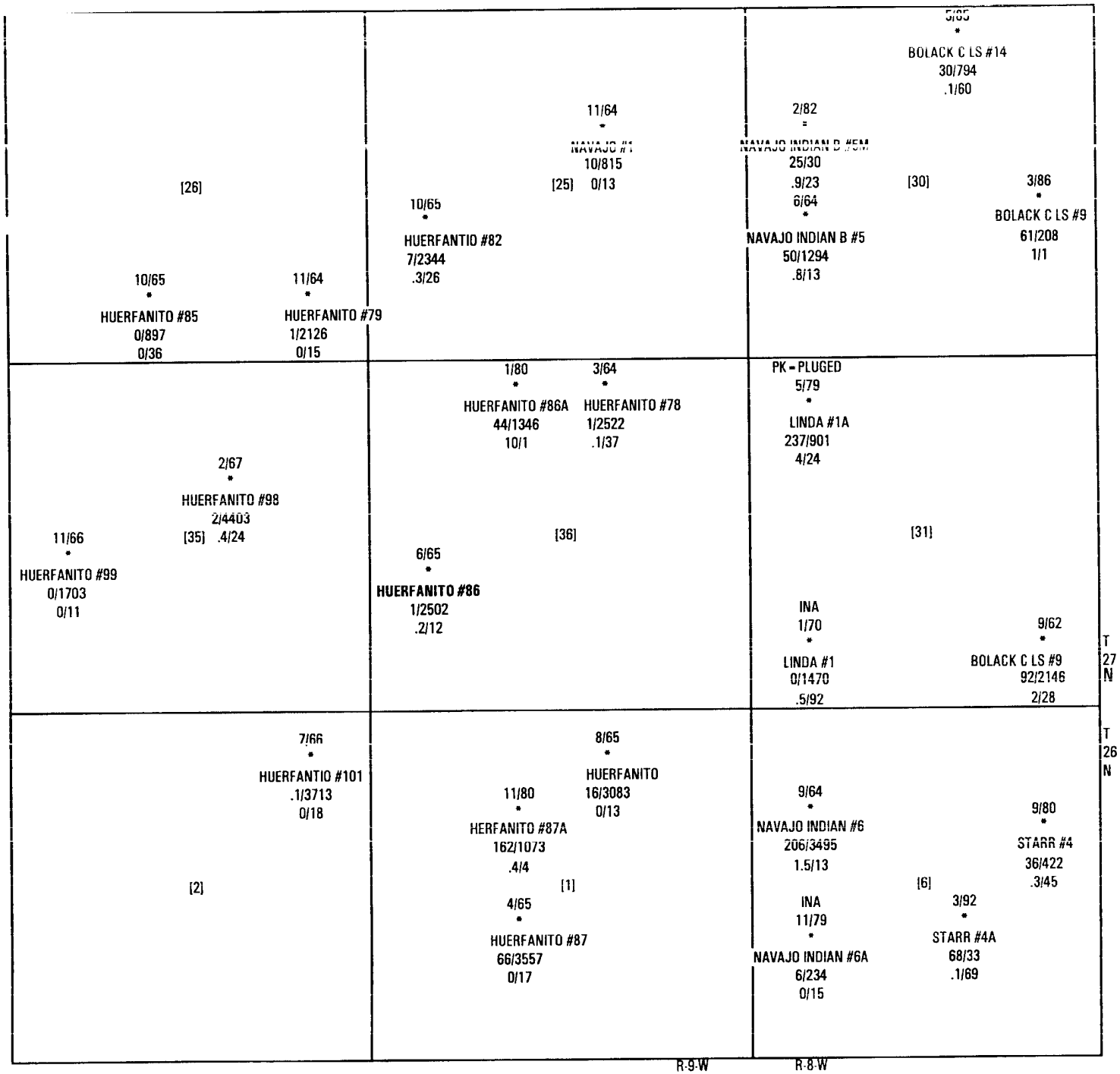
T 26 N
R-9-W
R-8-W
LEGEND
COMPLETION DATE
*
WELL NAME
MCF/D-CUM(MMF)
BOP/D-CUM(MBO)



DATE: May 21,1994

NAME: HUERFANITO #86

FORM: MESA VERDE

LOCATION
UNIT- I
SEC: 36
TWN: 27N
RNG: 9W

LEGEND

COMPLETION DATE
*
WELL NAME
MCF/D-CUM(MMF)
BOP/D-CUM(MBO)