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

Date: May 27, 92

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

RE: Proposed MC_____ Proposed DHC X
Proposed NSL_____ Proposed SWD_____
Proposed WFX_____ Proposed PMX_____
Proposed NSP_____ Proposed DD_____

Gentlemen:

I have examined the application received on May 27, 1992

for the Meridian (OPERATOR) Angel Peak #1 (LEASE & WELL NO.)

L 2-27N-11W (UL-S-T-R) and my recommendations are as follows:

Approve

Yours truly,

B. D.

MERIDIAN OIL

May 22, 1992

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

Re: Angel Peak #1 DK/Gal
1150' FSL; 1090' FWL
Section 2, T27N R11W
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 Kutz Gallup and Basin Dakota fields. The ownership of the zones to be commingled is common. The offset operators and owners are Arco Oil and Gas Company, BHP Petroleum, Texaco Inc., Amoco Inc., Conoco Inc., and Meridian Oil. The Bureau of Land Management and these offset operators and owners will receive notification of this proposed downhole commingling.

This well has produced since 1960 from the Dakota interval. The Dakota experienced a normal production decline and is currently capable of producing 200 MCF/D & 1.0 BOPD. Its cumulative production is 6,228 MMCF & 56,758 BO as of January 1, 1992.

We propose to commingle the Dakota with the Gallup in this well. The Gallup is a very marginal producing interval and generally requires a pumping unit to lift the oil. The nearest offset, Pipkin #26 (E 12 27 11) initiated production at 8 BOPD and 75 MCF/D in 1989 and is currently capable of only 3 BOPD and 45 MCF/D. Commingling should enable the well to produce Gallup hydrocarbons without pumping equipment since the Dakota gas should be sufficient to lift the oil production. The small amount of oil and gas produced from the Gallup could not justify a drilling expenditure. Granting this application will be in the best interest of conservation, the prevention of waste, and the protection of correlative rights.

We plan to commingle this well by pulling the Dakota tubing, perforating and stimulating the Gallup, and

running a string of production tubing to the lower producing interval.

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. See the attached fluid analyses from Hillside #1, a nearby Kutz Gallup-Basin Dakota well that was commingled on 12-17-91 (DHC-784) with no detrimental effects. The daily production will not exceed the limit of Rule 303c, Section 1a, Part 1.

The shut-in pressure for the Gallup is estimated to be 550 psi, and the Dakota shut-in pressure is 612 psi.

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 Gallup during recompletion operations.

Included with this letter is a plat showing ownership of offsetting leases, a copy of the letter to the offset operators and BLM, wellbore diagrams both before and after commingling, production curve for the Dakota, pertinent data sheet, and a detailed report of fluid compatibility.

Yours truly,

P. M. Pippin
Sr. Production Engineer

PMP:pmp
attachments

cc: Frank Chavez - OCD

Pertinent Data Sheet - ANGEL PEAK #1 DK

Location: 1150'FSL 1090' FWL, SEC. 2 T27N R11W, SAN JUAN COUNTY, N.M.

Field: Basin Dakota

Elevation: 6051' **TD:** 6548'
10'KB **PBTD:** 6492'

DP#: 50373a
GWI: 100.00%
NRI: 87.50%

Completed: 9-12-60

Initial Potential:
AOF=18,155 MCF/D Q=8422 MCF/D SIP:1929 PSI

Casing Record:

Hole Size	Csg. Size	Wt. & Grade	Depth Set	Cement	Top/Cmt
15-1/4"	10-3/4"	32.75# SW	294'	330 sx	CIR CMT/SURF.
6-1/4"	5-1/2"	15.5# J-55	6538'	290 sx	2981'@ 50% EFF.
		Stg tool @	2099'	84 sx *	1750' TS
		* Stg tool resq		100 sx	

Tubing Record: 2-3/8" 4.7# J-55 6444' 207 Jts
S.N. @ 6410'

Formation Tops:

Ojo Alamo	800'	Menefee	3525'
Kirtland	880'	Point Lookout	4323'
Fruitland	1679'	Gallup	5440'
Pictured Cliffs	1885'	Greenhorn	6251'
Cliffhouse	3544'	Graneros	6307'
Lewis	1964'	Dakota	6409'
Cliffhouse	3409'		

Logging Record: Induction Log, GR Forxo Log.

Stimulation: Sq DV tool w/100 sx cmt. Perf DK @ 6340'-44', 6354'-58', 6362'-66', 6370'-76', 6410'-16', 6420'-26', 6430'-38', 6445'-49', 6454'-49', 6454'-6462', & fraced w/60,000# sand in water. Found csg leak @ 48', pulled top 2 jts 5-1/2" csg, & replaced.

Workover History: None

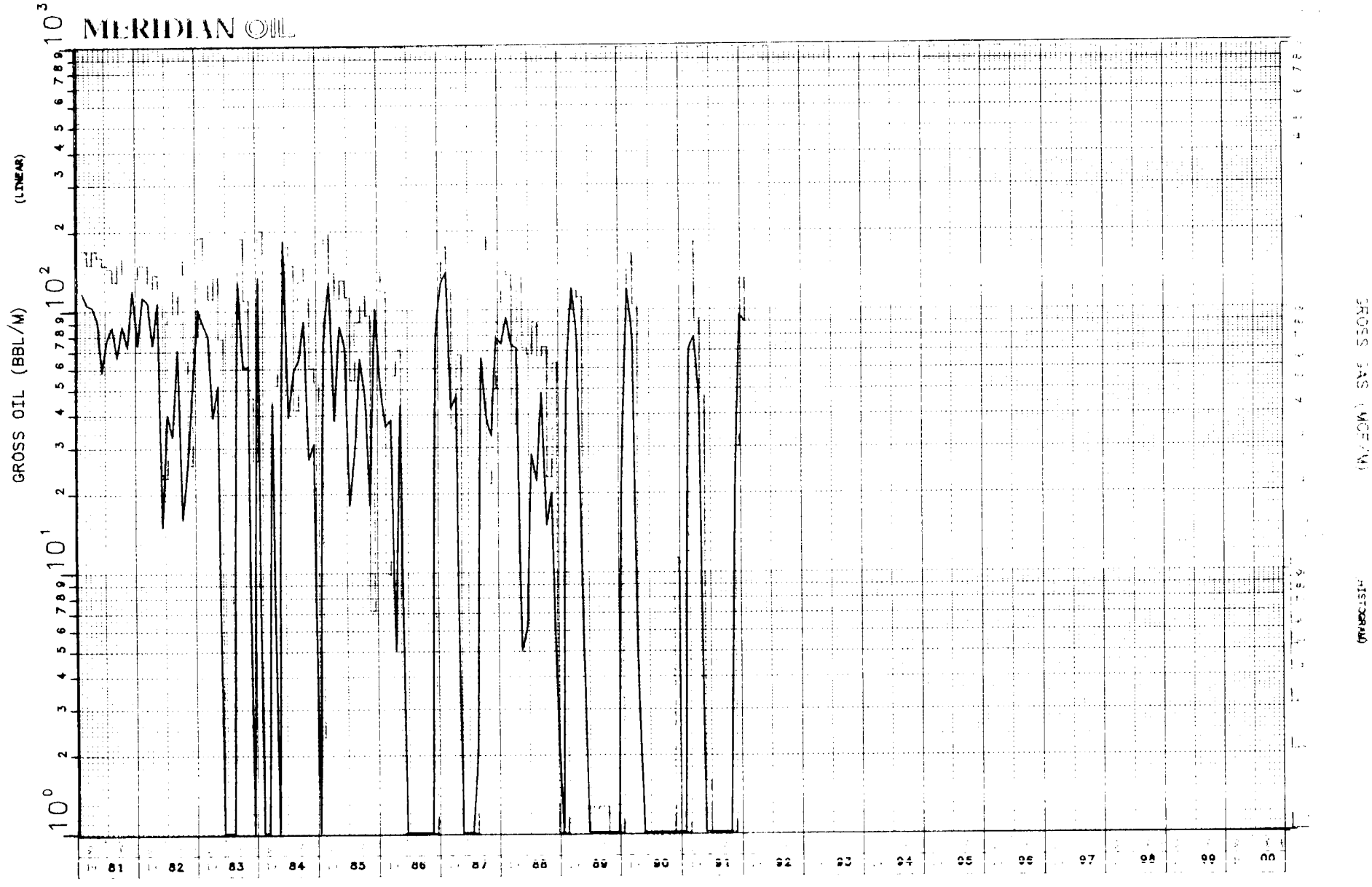
Production History: 1st Delivery= 12-1-60. Dakota Cumulative= 6228 MMCF & 56,758 BO. Capacity = 200 MCF/D & 1 BOPD. Csg pressure = 442 psi. Tbg pressure = 399 psi. Bradenhead = open & dead.

Pipeline: EPNG

PMP

PROJECT : XX
STATE : NO STATE FOUND
COUNTY : SAN JUAN
LOCATION : 2M 27N 1
PAGE NUMBER : 0000001-A

DWIGHTS NUMBER : 30427N11W02M00DK
LEASE/WELL NAME : BASIN (DAKOTA)
RESERVOIR :
FIELD : ANGEL PEAK
OPERATOR : MERIDIAN OIL INC



OIL BY MONTH GAS BY MONTH

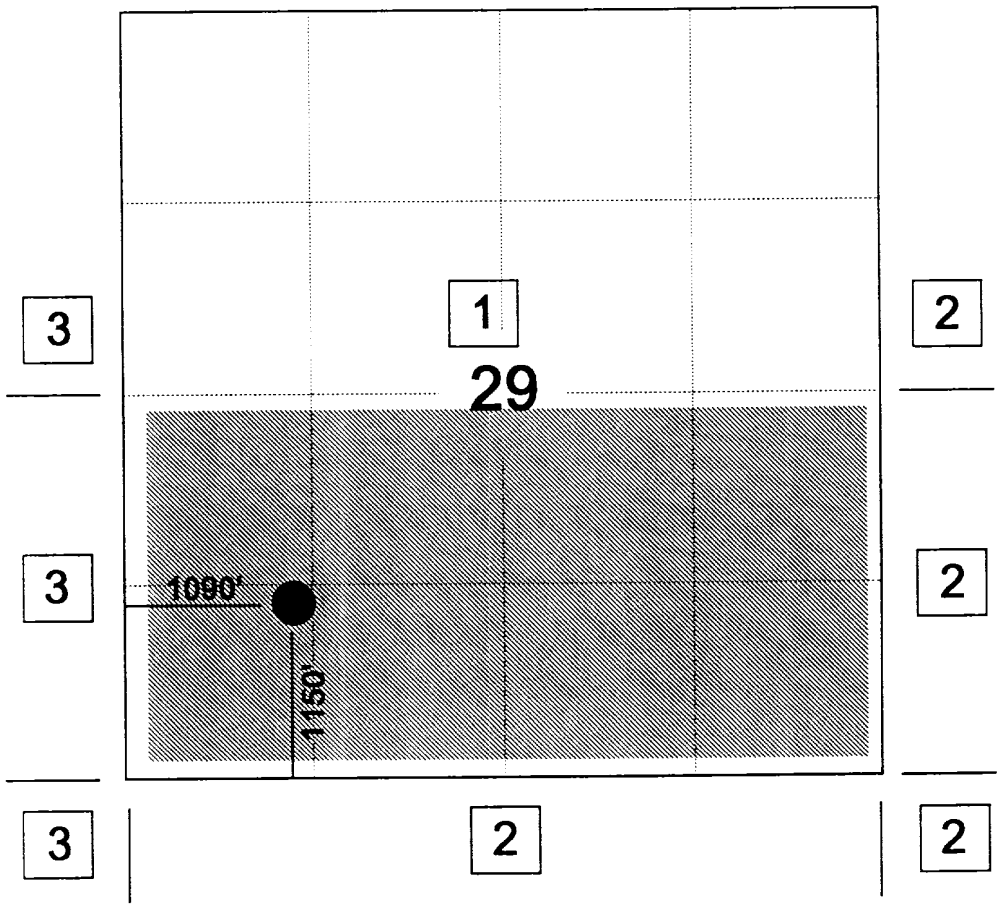
MERIDIAN OIL INC

OFFSET OPERATOR \ OWNER PLAT

Angel Peak #1

Gallup \ Dakota Commingle

Township 27 North, Range 11 West



1) Texaco Exploration and Production, Inc., PO Box 85771, Dallas, TX 75285
   Amoco Production Co., PO Box 800, Denver, CO 80202
   Conoco, Inc., PO Box 951063, Houston, TX 75395-1063
2) BHP Petroleum, PO Box 845877, Dallas, TX 75284-5877
3) ARCO, PO Box 688, Dallas, TX 75221
   Amoco Production Company
   Conoco, Inc.

Dakota Formation

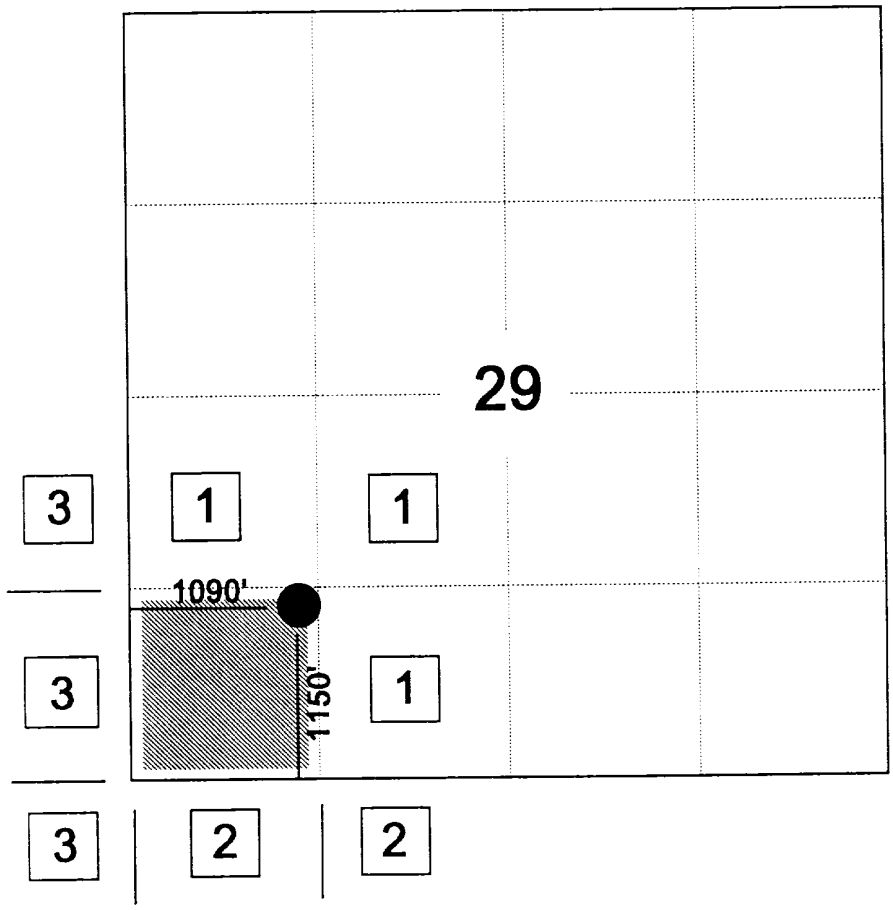
MERIDIAN OIL INC

OFFSET OPERATOR \ OWNER PLAT

Angel Peak #1

Gallup \ Dakota Commingle

Township 27 North, Range 11 West



1) Meridian Oil Inc
2) BHP Petroleum, PO Box 845877, Dallas, TX 75284-5877
3) ARCO, PO Box 688, Dallas, TX 75221
   Amoco Production Co., PO Box 800, Denver, CO 80202
   Conoco, Inc., PO Box 951063, Houston, TX 75395-1063

Gallup Formation

MERIDIAN OIL
HILLSIDE #1 - GALLUP
HILLSIDE #1 - DAKOTA
LEASE FLUIDS

LABORATORY INVESTIGATION

OF

HILLSIDE DAKOTA AND GALLUP FLUIDS COMPATIBILITY

OCTOBER 25, 1990

PREPARED FOR:

MERIDIAN OIL, INC
MIKE PIPPIN
PETROLEUM ENGINEER

PREPARED BY:

BRIAN P. AULT
PETROLEUM ENGINEER
WESTERN COMPANY OF
NORTH AMERICA

SERVICE POINT
FARMINGTON, NEW MEXICO
505-327-6222

MERLABINV

MERIDIAN OIL
HILLSIDE #1 - GALLUP
HILLSIDE #1 - DAKOTA
LEASE FLUIDS

SUMMARY OF RESULTS

1. No precipitation of materials was observed from either admixture of fluids.

2. Emulsion testing was performed. There should be no serious concern over the formation of a stabilized emulsion at well bore temperatures.

3. The cloud point of oil mixtures dropped or remained the same upon mixing of fluids.

4. According to calculations not enough cool down from gas expansion will occur to alter paraffin deposition significantly.

MERLABINV

MERIDIAN OIL
HILLSIDE #1 - GALLUP
HILLSIDE #1 - DAKOTA
LEASE FLUIDS

On Thursday, October 25, 1990, a request for laboratory work was placed by Mike Pippin, Petroleum Engineer of Meridian Oil, Inc.

PURPOSE

Two oil samples were received of Mr. Pippin with the request we investigate the concern of potentially detrimental effects due to commingling of Gallup and Dakota fluids in the Hillside #1 wellbore.

INVESTIGATION

1. Background information - current wellbore.

   a. Figure 1

   b. Figure 2

   c. BHST Gradient: 1.375° f/100 ft.

   d. Current production problems are primarily due to paraffin deposition from surface down to more/less 1000' depth.

   e. Commingling Order Mixture Requirements:

      The commingling requests present the mixing of Hillside #1 Dakota fluids with Hillside #1 Gallup fluids.

      The tests performed simulated the mixture of fluids that may result from this commingling action. Each oil component was analyzed for API gravity, paraffin, pour point and cloud point. Each water component was analyzed for dissolved solids, pH, specific gravity and resistivity. The mixture of oils addressed the potential increase in precipitation of materials and the potential increase in paraffin content by a synergistic effect of mixing oils of different constitution. Emulsion tests simulated the mixing environment of the wellbore where the water component of a fluid could be tied up in a resulting emulsion without the ability to break out and allow separation of the oil and water constituents. The emulsion test results

present the number of ml (% of mixture) of water breakout at listed time intervals. The volume of test sample (mixture) used in the emulsion tests is 100 ml.

2. Concerns to address in analysis:

   a. The precipitation of materials produced by the admixture of oils of potentially different constitution.

   b. The creation of emulsions due to the admixture of different fluids.

   c. Increased paraffin deposition by additive properties of oils.

   d. Increased paraffin deposition due to the reduction of temperature accompanying gas expansion.

3. Steps taken in analysis

   a. API Analysis of oils including: API Gravity
      Pour Point
      Cloud Point
      Paraffin Content

   b. Discussion with Mr. Pippen regarding the well bore production environment, e.g., mode of hydrocarbon production, pump type and operation, water components of production fluids, current paraffin problems, etc.

   c. Mixing of oils in appropriate cases with additional cloud point testing to determine resulting fluid characteristics.

   d. API Water Analysis

   e. Emulsion tendency testing via mixing of fluids in appropriate cases.

MERIDIAN OIL
HILLSIDE #1 - GALLUP
HILLSIDE #1 - DAKOTA
LEASE FLUIDS

DATA

SAMPLE #1 - HILLSIDE #1

ZONE	GALLUP
API GRAVITY @ 60° F	34.59°
CLOUD POINT	>40D F*
POUR POINT	40D F
PARAFFIN CONTENT	3.95%

SAMPLE #2 - HILLSIDE #1

ZONE	DAKOTA
API GRAVITY @ 60° F	58.02°
CLOUD POINT	28° F
POUR POINT	<23° F
PARAFFIN CONTENT	0%

SAMPLE #3 50:50 MIX OF HILLSIDE #1 FLUIDS

ZONE	50:50 MIX GAL/DK
API GRAVITY @ 60° F	39.94°
CLOUD POINT	>17°**
POUR POINT	<17° F
PARAFFIN CONTENT	1.94%

*UNABLE TO ACCURATELY DETERMINE DUE TO THE DARK COLOR OF THE SAMPLE.

**UNABLE TO ACCURATELY DETERMINE DUE TO THE RESULTING DARK MIX

MERLABINV

MERIDIAN OIL
HILLSIDE #1 - GALLUP
HILLSIDE #1 - DAKOTA
LEASE FLUIDS

CALCULATIONS

Cool down effects due to gas expansion:

Reference: Perry's Handbook of Chemical Engineering

RE: Adiabatic Expansion of Ethane, Methane

$$T_s + T_r \left(\frac{P_s}{P_r}\right) \left(\frac{K-1}{K}\right), \text{ where}$$

T_s = Surface Temperature

T_r = Reservoir Temperature

P_s = Surface Pressure

P_r = Reservoir Pressure

$K = \frac{\text{Specific heat at constant pressure}}{\text{Specific heat at constant volume}}$

Assumed values for maximum cool down due to gas expansion:

T_s = Unknown

$T_r = 160^{\circ}$ F

P_s = 500 psi

P_r = 2000 psi

K = 1.2

$$T_s = 160 \left(\frac{500}{2000}\right)^{0.1667}$$

$T_s = 127^{\circ}$F

NOTE:

A total cooldown of 33° F would be expected

ANALYSIS NO. 24-11-90

FIELD RECEIPT NO. _____

API FORM 45-1

API WATER ANALYSIS REPORT FORM

Company: Meridian Oil		Sample No.	Date Sampled: 10-24-90	
Field: BASIN DAK / Kutz GALLUP	Legal Description: Sec 9, T27N, R11W	County or Parish: San Juan	State: NM	
Lease or Unit	Well: Hillside 1	Depth: 5550 GAL 6560 DAK	Formation: Dakota	Water, B/D
Type of Water (Produced, Supply, etc.): Produced	Sampling Point		Sampled By: M. Pippen	

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	606	26.33
Calcium, Ca	16	.80
Magnesium, Mg	3	.22
Barium, Ba	—	—
Potassium, K^+	11	.28

ANIONS		
Chloride, Cl	554	15.63
Sulfate, SO_4	27	.56
Carbonate, CO_3	0	0
Bicarbonate, HCO_3	698	11.44
OH	0	0

Total Dissolved Solids (calc.) 1915

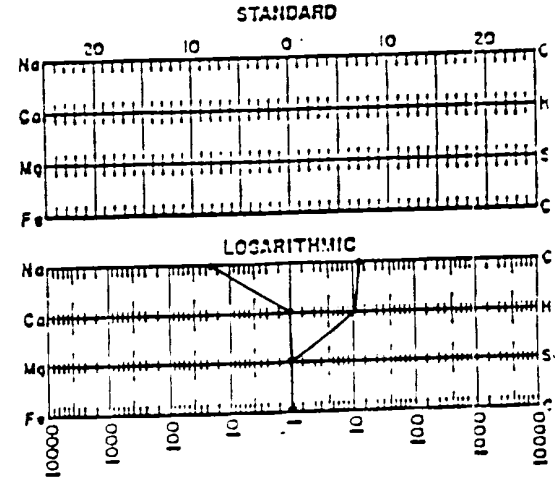
Iron, Fe (total) + ++ 0.0 ppm

Sulfide, as H_2S neg

OTHER PROPERTIES

pH	7.32
Specific Gravity, 60/60 F.	1.00
Resistivity (ohm-meters) 76 F.	3.9
Total hardness	51

WATER PATTERNS — me/l



REMARKS & RECOMMENDATIONS:

ANALYST: Lee

THE WESTERN COMPANY OF
NORTH AMERICA, FARMINGTON.
(505) 327-6222

Please refer any questions to: **BRIAN AULT** . District Engineer

ANALYSIS NO. 54-12-90

FIELD RECEIPT NO. _____

API FORM 45-1

API WATER ANALYSIS REPORT FORM

Company	Sample No.	Date Sampled
Meridian Oil		10-24-90

Field	Legal Description	County or Parish	State
Basin Dakota / Kutz Gallup	Sec 9, T27N, R11W	San Juan	NM

Lease or Unit	Well	Depth	Formation	Water, B/D
	Hillside 1	5558	Gallup	

Type of Water (Produced, Supply, etc.)	Sampling Point	Sampled By
Produced		M. Pippen

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	1398	60.78
Calcium, Ca	33	1.64
Magnesium, Mg	12	.96
Barium, Ba	—	—
Potassium, K^+	151	3.86

ANIONS		
Chloride, Cl	2058	58.04
Sulfate, SO_4	0	0
Carbonate, CO_3	0	0
Bicarbonate, HCO_3	561	9.20
OH	0	0

Total Dissolved Solids (calc.) 4,213

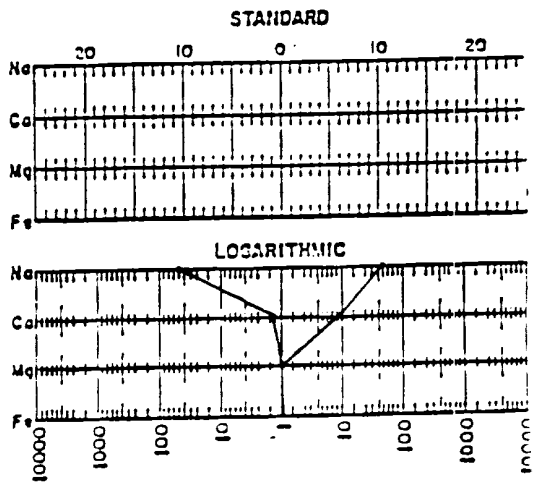
Iron, Fe (total) 0.0 ppm

Sulfide, as H_2S neg

OTHER PROPERTIES

pH	7.10
Specific Gravity, 60/60 F.	1.00
Resistivity (ohm-meters) 76 F.	1.4
Total hardness	13

WATER PATTERNS — me/l



REMARKS & RECOMMENDATIONS:

ANALYST: Lee

THE WESTERN COMPANY OF
NORTH AMERICA, FARMINGTON.
(505) 327-6222

Please refer any questions to: BRIAN AULT . District Engineer

Analysis No. 54-03-90
Date 10-26-90

The Western Company

Oil Analysis

Operator Meridian Oil
Well Hillside 1
Field Kutz Gallup
Formation Gallup
Depth 5550'
County San Juan
State NM

Date Sampled 10-24-90
Date Received 10-25-90
Submitted By Mike Pippin
Worked By LLee
Sample Description 300 ml sample w/ 17% free H_2O + 83% brown oil.

API Gravity 34.59 ° at 60°F
*Paraffin Content 3.95 % by weight.
*Asphaltene Content ___ % by weight
Pour Point 40 °F
Cloud Point >40 °F

Comments:

Unable to determine cloud point due to dark color of sample.

Analyst LLee

*Report calculations and data on back.

S4-03-90

Paraffin Content

wt. beaker + sample _____

- wt. beaker -_____

(wt. sample) 2.0268 g

wt. Buchner funnel, watch glass, and filter papers 148.07 g

After filtering:

wt. beaker + paraffin residue 98.16

- wt. beaker (from above) 98.16 g

(wt. paraffin in beaker) 0

wt. funnel, glass, papers + paraffin residue 148.15

- wt. funnel, watch glass filter papers from above 148.07 g

(wt. paraffin in these) .08

Total wt. paraffin:

wt. paraffin in beaker 0

+ wt. paraffin in others .08

Total paraffin .08 grams

Paraffin content (%) =

$$\frac{\text{Total paraffin}}{\text{Sample wt.}} \times 100 = \frac{.08}{2.0268} \times 100 = 3.95\ \%$$

Asphaltene Content

wt. tube + sample _____

- wt. tube -_____

(wt. sample) _____

wt. tube & residue _____

- wt. tube -_____

(wt. residue) _____

Asphaltene content (%)

$$\frac{\text{wt. residue}}{\text{wt. sample}} \times 100 = \_\_\_\_\_$$

Analysis No. 54-02-90
Date 10-26-90

The Western Company

Oil Analysis

Operator Meridian Oil
Well Hillside 1
Field Basin Dakota
Formation Dakota
Depth 6550'
County San Juan
State NM

Date Sampled 10-24-90
Date Received 10-25-90
Submitted By Mike Pippin
Worked By hlee
Sample Description 435 ml sample w/ 2% free H2O + 96% clear yellowish brown oil.

API Gravity 58.02° at 60°F
*Paraffin Content 0 % by weight.
*Asphaltene Content — % by weight
Pour Point < 23 °F
Cloud Point 28 °F

Comments:

Analyst hlee

*Report calculations and data on back.

#SH-02-C0

Paraffin Content

wt. beaker + sample _____

- wt. beaker - _____

(wt. sample) 2.013 g

wt. Buchner funnel, watch glass, and filter papers 187.02 g

After filtering:

wt. beaker + paraffin residue 95.68 g

- wt. beaker (from above) 95.68 g

(wt. paraffin in beaker) 0

wt. funnel, glass, papers + paraffin residue 187.02 g

- wt. funnel, watch glass filter papers from above 187.02 g

(wt. paraffin in these) 0

Total wt. paraffin:

wt. paraffin in beaker 0

+ wt. paraffin in others 0

Total paraffin 0 grams

Paraffin content (%) =

$$\frac{\text{Total paraffin}}{\text{Sample wt.}} \times 100 = 0\ \%$$

Asphaltene Content

wt. tube + sample _____

- wt. tube - _____

(wt. sample) _____

wt. tube & residue _____

- wt. tube - _____

(wt. residue) _____

Asphaltene content (%)

$$\frac{\text{wt. residue}}{\text{wt. sample}} \times 100 = \_\_\_\_\_$$

Analysis No. 54-04-90
Date 10-29-90

The Western Company

Oil Analysis

Operator Meridian Oil
Well Hillside 1
Field Kutz Gallup/Basin Dak.
Formation Gallup / Dakota
Depth 5550' - 6550'
County San Juan
State NM

Date Sampled 10-24-90
Date Received 10-25-90
Submitted By Mike Pippin
Worked By Lee
Sample Description 50/50 mix of Hillside 1 Gallup oil + Hillside 1 Dakota oil.

API Gravity 39.94 ° at 60°F
*Paraffin Content 1.94 % by weight
*Asphaltene Content — % by weight
Pour Point <17 °F
Cloud Point >17 °F

Comments:
Unable to determine cloud point due to dark color of sample.

Analyst Lee

*Report calculations and data on back.

84-04-90

Paraffin Content

wt. beaker + sample _____
- wt. beaker - 98.16
(wt. sample) 2.0600 g

wt. Buchner funnel, watch glass, and filter papers 187.02

After filtering:

wt. beaker + paraffin residue 98.16
- wt. beaker (from above) 98.16
(wt. paraffin in beaker) 0

wt. funnel, glass, papers + paraffin residue 187.06
- wt. funnel, watch glass filter papers from above 187.02
(wt. paraffin in these) .04

Total wt. paraffin:

wt. paraffin in beaker 0
+ wt. paraffin in others .04
Total paraffin .04 grams

Paraffin content (%) =

$\frac{.04}{2.0600}$ $\frac{\text{Total paraffin}}{\text{Sample wt.}}$ X 100 = 1.94 %

Asphaltene Content

wt. tube + sample _____
- wt. tube - _____
(wt. sample) _____

wt. tube & residue _____
- wt. tube - _____
(wt. residue) _____

Asphaltene content (%)

$\frac{\text{wt. residue}}{\text{wt. sample}}$ X 100 = _____

ANALYSIS #
DATE: 10-29-90

water Fig. 1
~~ACID~~-OIL EMULSION TESTS DATA SHEET

OPERATOR: Meridian Oil
WELL: Hillside 1
FIELD: Basin Dakota/Kutz Gallup
FORMATION: Gallup/Dakota
DEPTH: 5550 - 6550'
COUNTY: San Juan

SUBMITTED BY: Mike Pippin
SOURCE OF SAMPLE: Produced
DATE SAMPLED: 10-24-90
DATE RECEIVED: 10-25-90
API GRAVITY OF OIL: 39.9

TYPE & CONC. OF FLUID: 50/50 mix of Gallup Dakota Fluids
~~TYPE & CONC. OF EMULSION~~: Hillside 1 Oil
~~TYPE & CONC. OF SOLIDS~~: water
TEST TEMPERATURE: 78°F
~~OIL/TREATMENT FLUID RATIO~~:
ANALYSIS BY: LLee

water
PERCENTAGE OF ORIGINAL ~~ACID~~ SEPARATED AT VARIOUS TIME INTERVALS AFTER EMULSIFYING

Test Number	1															
Additives & Concentration, Gal/1000 Gal	25ml & H2O 25 ml D H2O 25ml & oil 25ml D oil															
Elapsed Time	Time	Vol	Time	Vol	Time	Vol	Time	Vol	Time	Vol	Time	Vol	Time	Vol	Time	Vol
1 min	1	50	2		3		4		5		6		7		8	
2	2		3		4		5		6		7		8		9	
3	3		4		5		6		7		8		9		10	
4	4		5		6		7		8		9		10		11	
5	5		6		7		8		9		10		11		12	
6	6		7		8		9		10		11		12		13	
7	7		8		9		10		11		12		13		14	
8	8		9		10		11		12		13		14		15	
9	9		10		11		12		13		14		15		16	
10	10		11		12		13		14		15		16		17	
20	20		21		22		23		24		25		26		27	
30	30		31		32		33		34		35		36		37	
Total Vol (ml)		*50														
Vol. Emulsion / Sludge		0														
Solids*		—														
Interface**		—														
Vol. Sediment		—														

REMARKS:

* Preferential wetting of solids: OB=oil-wet bottom; OO=oil-wet oil phase; WB=water-wet bottom; WO=water-wet oil p
OI=oil-wet interface; WI=water-wet interface
** Interface: F=Fluid; S=Solid; V=Viscous

25 ml Hillside 1 Gallup oil + 25ml Hillside 1 Dakota oil + 25ml Hillside Gallup water + 25 ml Hillside 1 Dakota water.

* 50ml of the 50 ml water separated in 1 minute @ 78°F. Approximately 2 ml of the 50 ml oil adhered to the side of glass in the water phase.

MERIDIAN OIL

May 22, 1992

BHP Petroleum
P.O. Box 845877
Houston, Texas 75284-5877

Gentlemen:

Meridian Oil, Inc. is in the process of applying for a downhole commingling order for their Angel Peak #1 GAL/DK well located 1150' FSL 1090' FWL, Section 02 T27N R11W, N.M.P.M., San Juan County, New Mexico, in the Kutz Gallup and Basin Dakota.

The purpose of this letter is to notify you of such action.

Yours truly,

P. M. Pippin
Sr. Production Engineer

PMP:pmp

Meridian Oil Inc., 3535 East 30th St., P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700

MERIDIAN OIL

May 22, 1992

Conoco Inc.
P.O. Box 951063
Houston, Texas 75395-1063

Gentlemen:

Meridian Oil, Inc. is in the process of applying for a downhole commingling order for their Angel Peak #1 GAL/DK well located 1150' FSL 1090' FWL, Section 02 T27N R11W, N.M.P.M., San Juan County, New Mexico, in the Kutz Gallup and Basin Dakota.

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Yours truly,

P. M. Pippin
Sr. Production Engineer

PMP:pmp

Meridian Oil Inc., 3535 East 30th St., P.O. Box 4289, Farmington, New Mexico 87499-4289 Telephone 505-326-9700

MERIDIAN OIL

May 22, 1992

Amoco Production Company
P.O. Box 800
Denver, Co 80202

Gentlemen:

Meridian Oil, Inc. is in the process of applying for a downhole commingling order for their Angel Peak #1 GAL/DK well located 1150' FSL 1090' FWL, Section 02 T27N R11W, N.M.P.M., San Juan County, New Mexico, in the Kutz Gallup and Basin Dakota.

The purpose of this letter is to notify you of such action.

Yours truly,

P. M. Pippin
Sr. Production Engineer

PMP:pmp

MERIDIAN OIL

May 22, 1992

Texaco Inc.
P.O. Box 85771
Dallas, Texas 75285

Gentlemen:

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P. M. Pippin
Sr. Production Engineer

PMP:pmp

Meridian Oil Inc., 3535 East 30th St., P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700

MERIDIAN OIL

May 22, 1992

Arco Oil and Gas Company
P.O. Box 688
Dallas, Texas 75221

Gentlemen:

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MERIDIAN OIL

May 22, 1992

Bureau of Land Management
1235 La Plata Hwy.
Farmington, N. M. 87401

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