

RELEASE 8-16-93

**MERIDIAN OIL**

**Mr. David Catanach  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504**

**RE: Request to surface commingle  
Meridian Oil Inc.  
Checkerboard 23 Federal Well No's 1 and 2  
Red Tank Bone Spring Field  
East Livingston Ridge Delaware Field  
Sec. 23, T-22-S, R-32-E  
Lea County, New Mexico**

**Gentlemen:**

**Meridian requests approval to surface commingle the Red Tank Bone Spring and the East Livingston Ridge Delaware Fields on the Checkerboard 23 Federal Lease (NM-81633)**

**Production will be commingled in a common battery located in unit letter O, SW/4 of the SE/4 of Sec. 23, T-22-S, R-32-E, Lea county, New Mexico. A battery sketch is enclosed with this request.**

**Each well has it's own heater treater with measurement. Production will be allocated to each well by this method. The production from each zone is compatible.**

**Bone Spring - 45 degree gravity, 92 BOPD, 190 MCFPD, 16 BWPD  
Delaware - 39.1 degree gravity, estimated production 120 BOPD, 60 MCFPD, 60 BWPD**

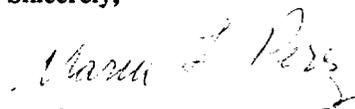
**The working interest, royalty interest and overriding royalty interest are the same for both zones.**

**Currently, both wells produce from the Red Tank Bone Spring Field. Plans are to recomplete well no. 1 to the East Livingston Ridge Delaware Field and surfaced commingle with well no. 2.**

**The commingling of this production will prevent setting additional tanks which will be a savings of \$25,000.**

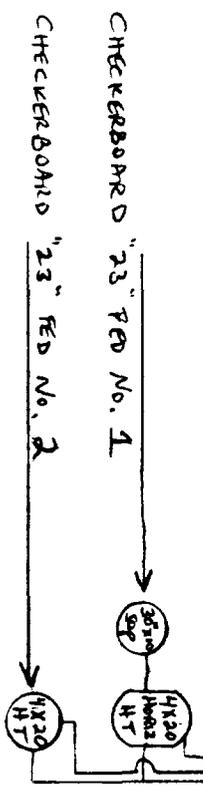
**Should you require additional information on this application, please contact me at A/C 915-688-6906.**

**Sincerely,**



**Maria L. Perez  
Production Asst.**

|                       |                                     |                             |
|-----------------------|-------------------------------------|-----------------------------|
| <b>XC: Lease File</b> | <b>Nancy Kilgore - Resv. Engr'g</b> | <b>Artesia Field Office</b> |
| <b>Land Dept.</b>     | <b>Prod. Engr.</b>                  | <b>BLM-Carlsbad</b>         |
| <b>Jt. Int.</b>       | <b>Facility Engr.</b>               | <b>Production Services</b>  |



MERIDIAN OIL  
CHECKERBOARD "23" FEDERAL BATTERY  
SW/4 SE/4 SEC 23 T-22-S R-32-E  
EDDY COUNTY, NM

07/20/93

J-I-B SCHEDULE

LWM270NL  
<LANDWELL>

WELL: CHECKERBOARD 23

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| CO-OWNER                              | BILLING % | TOTAL %    |
|---------------------------------------|-----------|------------|
| -----                                 | -----     | -----      |
| 028022 A J LOSEE, FOR ELIZABETH LOSEE | 5.024000  |            |
| 999810 MERIDIAN OIL INC.              | 94.976000 |            |
|                                       |           | 100.000000 |

ENTER=MORE

PFX=DETAIL SCREEN

PF12=RETURN TO MENU

PF24=HELP

07/20/93 10:44:13.4

DIVISION ORDER INQUIRY

LWM601NL  
<LANDWELL>

PROD: ALL

WELL: CHECKERBOARD 23 2

---

| OWNER#    | OWNER NAME               | RE PAY | REASON FOR SUSP  | B/C TYPE | OWNER %   |
|-----------|--------------------------|--------|------------------|----------|-----------|
| 027338 01 | MINERALS MANAGEMENT SERV | A PAY  |                  | 001 RI   | 12.500000 |
| 078496 01 | MARIAN MUSSETT           | A SUS  | D.O. NOT RETURNE | 001 ORRI | .251200   |
| 078497 01 | DR RONALD BARNES         | A SUS  | D.O. NOT RETURNE | 001 ORRI | .502550   |
| 078498 01 | F PRINCE IV              | A SUS  | D.O. NOT RETURNE | 001 ORRI | 2.512500  |
| 078499 01 | HUGO COTTER              | A SUS  | D.O. NOT RETURNE | 001 ORRI | .418750   |
| 078500 01 | MATCO 850                | A SUS  | D.O. NOT RETURNE | 001 ORRI | .125650   |
| 078501 01 | ELIZABETH LOSEE & ANN RA | A SUS  | D.O. NOT RETURNE | 001 ORRI | .628000   |
| 078502 01 | CHARLES TIBLOM           | A SUS  | D.O. NOT RETURNE | 001 ORRI | .502550   |
| 078503 01 | C W TRAINER              | A SUS  | D.O. NOT RETURNE | 001 ORRI | 2.349275  |
| 078504 01 | TROBAUGH PROPERTIES      | A SUS  | D.O. NOT RETURNE | 001 ORRI | .125650   |
| 999021 01 | MERIDIAN OIL INC         | A PAY  |                  | NWI      | 80.083875 |

ENTER=MORE PFX=DETAILS PF9=D/O LIST PF11=TOP OF LIST PF12=MENU PF24=HELP

Operator

MERIDIAN OIL INC.

Lease

CHECKERBOARD 23 FEDERAL

Well No.

1 and 2

Unit Letter

Section

Township

Range

County

23

22-S

32-E

NMPM

LEA

Producing Formations

DELAWARE AND BONE SPRINGS

SURFACE COMMINGLING

D

C

B

A

E

F

G

H

Delaware

● #1

I

J

K

L

Bone Spring

Battery



● #2

0

M

N

P

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

LEASE DESCRIPTION: 560 ACRES.  
ALL OF SECTION 23 EXCEPT FOR THE  
E/2 OF THE SE/4.

**MERIDIAN OIL**

REGULATORY DIVISION  
SEP 11 1993

**SEPTEMBER 8, 1993**

**MR. DAVID CATANACH  
OIL CONSERVATION COMMISSION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87504**

**RE: REQUEST APPROVAL FOR SURFACE COMMINGLING  
CHECKERBOARD 23 FEDERAL LEASE (NM-81633)  
WEST RED TANK DELAWARE POOL AND  
RED TANK BONE SPRING POOL  
SEC. 23, T22S, R32E  
LEA COUNTY, NEW MEXICO**

**DEAR MR. CATANACH:**

**ENCLOSED IS AMENDED APPLICATION FOR APPLICATION TO SURFACE COMMINGLE  
THE TWO CAPTIONED POOLS ON THE CHECKERBOARD 23 FEDERAL LEASE. THIS  
APPLICATION WAS SENT TO YOU TWO TIMES BEFORE. THIS APPLICATION IS  
BEING AMENDED TO CORRECT FIELD NAME FROM THE EAST LIVINGSTON RIDGE  
DELAWARE POOL TO THE WEST RED TANK DELAWARE POOL AS REQUESTED BY  
MR. JERRY SEXTON OF YOUR HOBBS DISTRICT OFFICE.**

**WE HAVE OBTAINED VERBAL APPROVAL FROM MR. ADAM SALAMEH WITH THE  
BUREAU OF LAND MANAGEMENT TO COMMINGLE. COULD YOU PLEASE REVIEW  
THIS APPLICATION IN ORDER THAT WE CAN OBTAIN COMMINGLING APPROVAL  
FROM THE STATE.**

**SHOULD YOU HAVE ANY QUESTIONS ON THIS APPLICATION, PLEASE CONTACT  
ME AT A/C 915-688-6906.**

**SINCERELY,**



**MARIA L. PEREZ  
PRODUCTION ASST.**

**XC: REGULATORY FACILITY FILE**



**APPLICATION FOR SURFACE COMMINGLING AND MEASUREMENT  
APPROVAL FOR TWO POOLS WITHIN THE SAME LEASE.**

**TO: BUREAU OF LAND MANAGEMENT  
P. O. BOX 1778  
CARLSBAD, NEW MEXICO 88221-1778**

**MERIDIAN OIL INC. IS REQUESTING APPROVAL FOR SURFACE  
COMMINGLING AND MEASUREMENT OF HYDROCARBON PRODUCTION  
FROM THE WEST RED TANK DELAWARE POOL AND THE  
RED TANK BONE SPRING POOL ON LEASE NO. NM-81633;  
CHECKERBOARD 23 FEDERAL LEASE IN LEA COUNTY, N.M.**

| <u>WELL<br/>NO.</u> | <u>LOC.</u> | <u>SEC.</u> | <u>TWP.</u> | <u>RNG.</u> | <u>FORMATION</u> |
|---------------------|-------------|-------------|-------------|-------------|------------------|
| 1                   | J           | 23          | 22S         | 32E         | DELAWARE         |
| 2                   | O           | 23          | 22S         | 32E         | BONE SPRING      |

**PRODUCTION FROM THE WELLS INVOLVED IS AS FOLLOWS:**

| <u>WELL NAME AND NO.</u> | <u>BOPD</u> | <u>OIL GRAVITY</u> | <u>MCFPD</u> |
|--------------------------|-------------|--------------------|--------------|
| CHECKERBOARD 23 FED. #1  | 230         | 39.1               | 230          |
| CHECKERBOARD 23 FED. #2  | 92          | 45.0               | 190          |

**THE PROPOSED OPERATION IS DESCRIBED IN DETAIL ON THE  
ATTACHED DIAGRAM.**

**A MAP IS ENCLOSED SHOWING THE LEASE NUMBER AND LOCATION OF  
ALL WELLS THAT WILL CONTRIBUTE PRODUCTION TO THE PROPOSED  
COMMINGLING/COMMON STORAGE FACILITY. ALL UNITIZED/  
COMMUNITIZED AREAS, PRODUCING ZONES/POOLS ARE ALSO  
CLEARLY ILLUSTRATED.**

**A SCHEMATIC DIAGRAM IS ALSO ATTACHED WHICH CLEARLY  
IDENTIFIES ALL EQUIPMENT THAT WILL BE UTILIZED.**

**THE STORAGE AND MEASURING FACILITY IS LOCATED AT THE SW4/SE4 OF SEC. 23, T-22-S, R-32-E, ON LEASE NO. NM-81633, LEA COUNTY, NEW MEXICO. THE BLM WILL BE NOTIFIED IF THERE IS ANY FUTURE CHANGE IN THE FACILITY LOCATION.**

**DETAILS OF THE PROPOSED METHOD FOR ALLOCATING PRODUCTION TO CONTRIBUTING SOURCES IS AS FOLLOWS:**

**WELL NO. 1 OIL AND GAS WILL BE METERED.**

**WELL NO. 2 OIL WILL BE METERED AND GAS WILL BE CALCULATED.**

**EACH WELL HAS IT'S OWN 3-PHASE HEATER TREATER. BOTH TREATERS ARE EQUIPPED WITH HALLIBURTON'S TURBINE FLOW METERS ON THE OIL DUMPS AND WATER DUMPS TO CONTINUOUSLY MEASURE THE OIL AND WATER VOLUMES FOR EACH WELL. WELL NO. 1 IS ALSO EQUIPPED WITH AN ORIFICE TEST METER TO MEASURE THE GAS VOLUMES. WELL NO. 2 GAS VOLUME WILL BE CALCULATED BY SUBTRACTING THE VOLUME FOR WELL NO. 1 FROM THE TOTAL LEASE SALES VOLUME.**

**THE WORKING INTEREST OWNERS HAVE BEEN NOTIFIED OF THE PROPOSAL.**

**THE PROPOSED COMMINGLING OF PRODUCTION IS IN THE INTEREST OF CONSERVATION AND WILL NOT RESULT IN REDUCED ROYALTY OR IMPROPER MEASUREMENT OF PRODUCTION.**

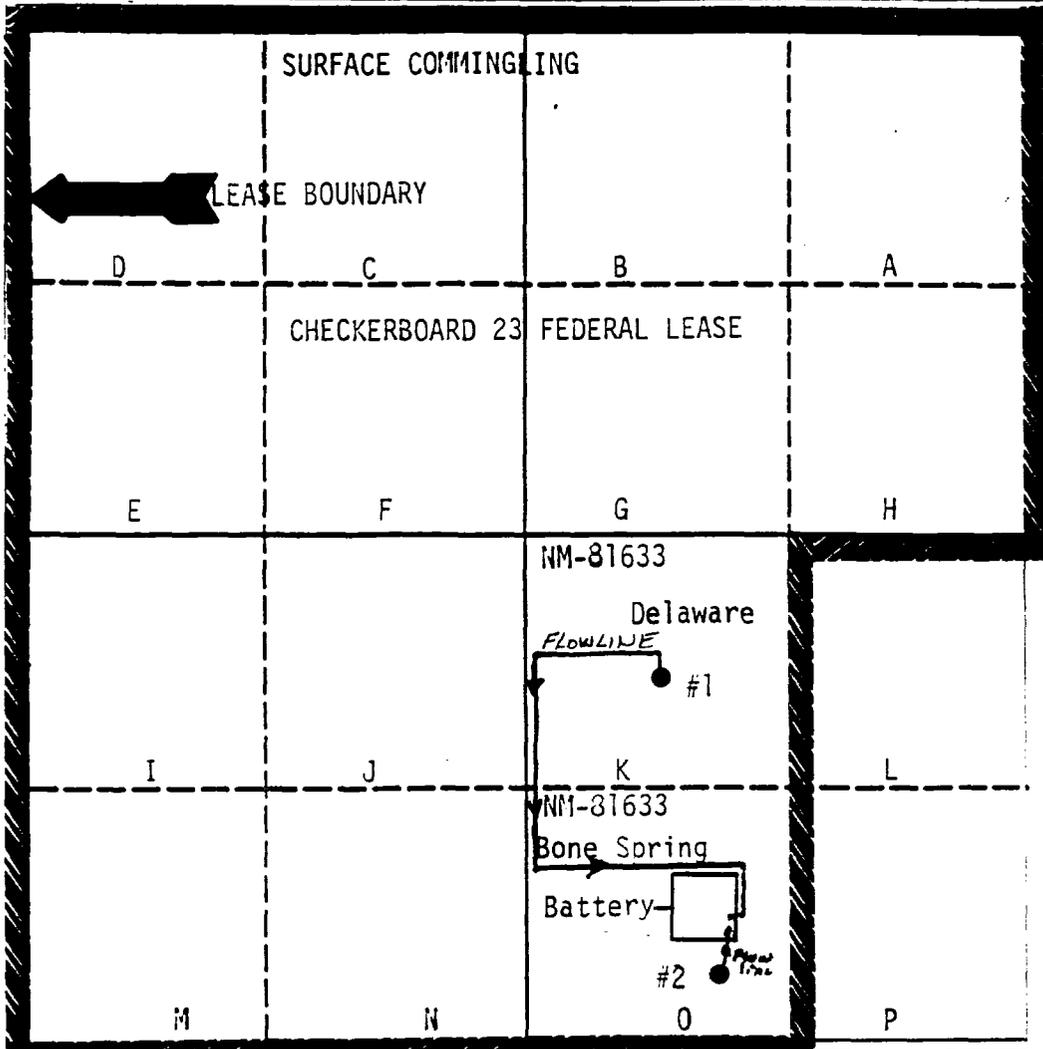
**THE PROPOSED COMMINGLING IS NECESSARY FOR CONTINUED OPERATION OF THE ABOVE REFERENCED FEDERAL LEASE.**

**WE UNDERSTAND THAT THE REQUESTED APPROVAL WILL NOT CONSTITUTE THE GRANTING OF ANY RIGHT-OF WAY OR CONSTRUCTION RIGHTS NOT GRANTED BY THE LEASE INSTRUMENT. AND, WE WILL SUBMIT WITHIN 30 DAYS AN APPLICATION FOR RIGHT OF WAY APPROVAL TO THE BLM'S REALTY SECTION IN YOUR OFFICE IF WE HAVE NOT ALREADY DONE SO..**

**SIGNATURE:** Maria L. Perez  
**NAME:** MARIA L. PEREZ  
**TITLE:** PRODUCTION ASST.  
**DATE:** 9-3-93

|                               |               |                                  |               |                     |     |
|-------------------------------|---------------|----------------------------------|---------------|---------------------|-----|
| Operator<br>MERIDIAN OIL INC. |               | Lease<br>CHECKERBOARD 23 FEDERAL |               | Well No.<br>1 and 2 |     |
| Unit Letter<br>23             | Section<br>23 | Township<br>22-S                 | Range<br>32-E | County<br>NMPM      | LEA |

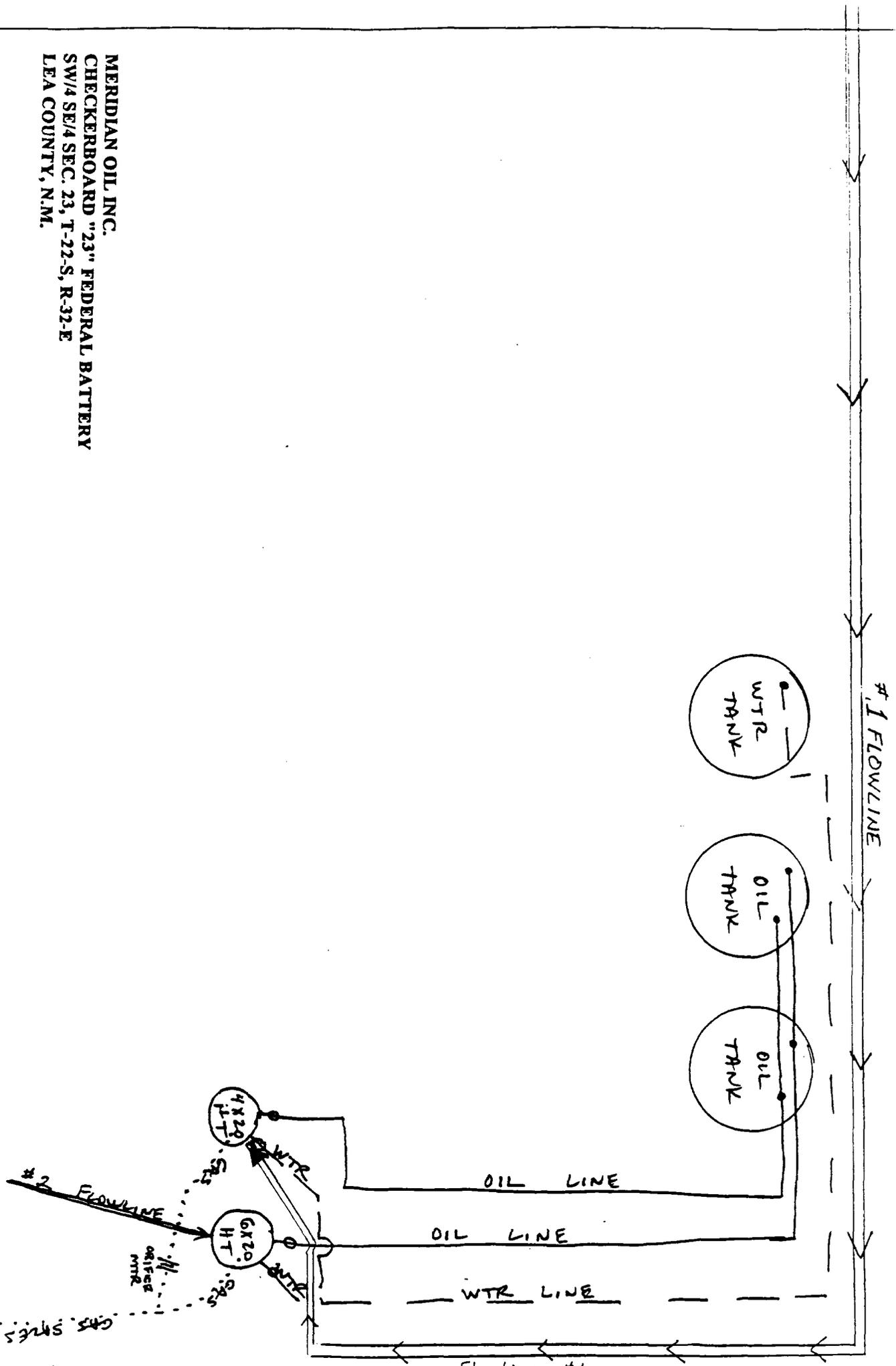
Producing Formation  
DELAWARE AND BONE SPRINGS



WELL NO. 1 LOCATION:  
J, 1930' FSL & 1980' FEL  
WELL NO. 2 LOCATION:  
O, 330' FSL & 1650' FEL

LEASE DESCRIPTION: 560 ACRES.  
ALL OF SECTION 23 EXCEPT FOR THE  
E/2 OF THE SE/4.

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0



MERIDIAN OIL INC.  
 CHECKERBOARD "23" FEDERAL BATTERY  
 SW/4 SE/4 SEC. 23, T-22-S, R-32-E  
 LEA COUNTY, N.M.

(NOT TO SCALE)

**MERIDIAN OIL**

OCD-SANTA FE'S COPY

**SEPTEMBER 2, 1993**

**MR. ADAM M. SALAMEH, P. E.  
BUREAU OF LAND MANAGEMENT  
P. O. BOX 1778  
CARLSBAD, NEW MEXICO 88221-1778**

**RE: THIS IS REPLACEMENT PACKAGE FOR PREVIOUSLY  
SUBMITTED APPLICATION FOR SURFACE COMMINGLING  
AND MEASUREMENT APPROVAL  
CHECKERBOARD 23 FEDERAL LEASE  
SEC. 23, T22S, R32E  
LEA COUNTY, NEW MEXICO  
FEDERAL LEASE NUMBER 81633**

**DEAR MR. SALAMEH:**

**ENCLOSED IS AMENDED MAP SHOWING THE FLOW LINES AS YOU  
REQUESTED. ALSO, I AM RE-SUBMITTING APPLICATION TO SURFACE  
COMMINGLE AND USING THE PROPER FORMAT.**

**SUNDRY TO PLUG BACK AND RECOMPLETE THE CHECKERBOARD 23  
FEDERAL NO. 1 WAS SUBMITTED TO THE BLM AND VERBAL  
APPROVAL WAS OBTAINED FROM YOU TO BEGIN THIS WORK. WE ARE  
IN THE PROCESS OF COMPLETING THIS WORK AND REQUEST  
APPROVAL TO SURFACE COMMINGLE AS SOON AS POSSIBLE. FOR THE  
MOMENT, WE HAVE SET SOME TEST TANKS ON LOCATION IN ORDER  
TO TEST THIS WELL BUT WOULD LIKE TO SEND PRODUCTION TO  
BATTERY TO SAVE THE DAILY COST OF THE RENTAL TANKS.**

**PLEASE LET ME KNOW IF YOU HAVE ANY QUESTIONS ON THIS  
APPLICATION.**

**SINCERELY,**



**MARIA L. PEREZ  
PRODUCTION ASST.  
A/C 915 - 688-6906**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.  
**NM-81633**

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE**

7. If Unit or CA, Agreement Designation

1. Type of Well

Oil Well     Gas Well     Other

8. Well Name and No.

2. Name of Operator

**MERIDIAN OIL INC.**

**CHECKERBOARD 23 FEDERAL**

3. Address and Telephone No.

**P.O. Box 51810 Midland, TX 79710**

**915-688-6906**

9. API Well No.

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**SEC. 23, T22S, R32E**

10. Field and Pool, or Exploratory Area

11. County or Parish, State  
**LEA**

**NEW MEXICO**

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

| TYPE OF SUBMISSION                                   | TYPE OF ACTION  |
|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Abandonment  |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Recompletion   |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Plugging Back  |
|  | <input type="checkbox"/> Casing Repair  |
|  | <input type="checkbox"/> Altering Casing  |
|  | <input checked="" type="checkbox"/> Other <b>SURFACE COMMINGLING AND MEASUREMENT APPROVAL</b> |
|  | <input type="checkbox"/> Change of Plans  |
|  | <input type="checkbox"/> New Construction   |
|  | <input type="checkbox"/> Non-Routine Fracturing   |
|  | <input type="checkbox"/> Water Shut-Off   |
|  | <input type="checkbox"/> Conversion to Injection  |
|  | <input type="checkbox"/> Dispose Water  |

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

APPLICATION FOR SURFACE COMMINGLING AND MEASUREMENT APPROVAL OF HYDROCARBON PRODUCTION FROM THE EAST LIVINGSTON RIDGE DELAWARE POOL AND THE RED TANK BONE SPRING POOL ON FEDERAL LEASE NO. NM-81633; CHECKERBOARD 23 FEDERAL LEASE.

SEE ATTACH FORMAT.

14. I hereby certify that the foregoing is true and correct

Signed Maria L. Perez **MARIA L. PEREZ**

Title **PRODUCTION ASST.**

Date **9-2-93**

(This space for Federal or State office use)

Approved by \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Conditions of approval, if any:

**APPLICATION FOR SURFACE COMMINGLING AND MEASUREMENT  
APPROVAL FOR TWO POOLS WITHIN THE SAME LEASE.**

**TO: BUREAU OF LAND MANAGEMENT  
P. O. BOX 1778  
CARLSBAD, NEW MEXICO 88221-1778**

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| <u>WELL<br/>NO.</u> | <u>LOC.</u> | <u>SEC.</u> | <u>TWP.</u> | <u>RNG.</u> | <u>FORMATION</u> |
|---------------------|-------------|-------------|-------------|-------------|------------------|
| 1                   | J           | 23          | 22S         | 32E         | DELAWARE         |
| 2                   | O           | 23          | 22S         | 32E         | BONE SPRING      |

**PRODUCTION FROM THE WELLS INVOLVED IS AS FOLLOWS:**

| <u>WELL NAME AND NO.</u> | <u>BOPD</u> | <u>OIL GRAVITY</u> | <u>MCFPD</u> |
|--------------------------|-------------|--------------------|--------------|
| CHECKERBOARD 23 FED. #1  | 187         | 39.1               | 187          |
| CHECKERBOARD 23 FED. #2  | 92          | 45.0               | 190          |

**THE PROPOSED OPERATION IS DESCRIBED IN DETAIL ON THE  
ATTACHED DIAGRAM.**

**A MAP IS ENCLOSED SHOWING THE LEASE NUMBER AND LOCATION OF  
ALL WELLS THAT WILL CONTRIBUTE PRODUCTION TO THE PROPOSED  
COMMINGLING/Common Storage FACILITY. ALL UNITIZED/  
COMMUNITIZED AREAS, PRODUCING ZONES/POOLS ARE ALSO  
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**A SCHEMATIC DIAGRAM IS ALSO ATTACHED WHICH CLEARLY  
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WELL NO. 2 OIL WILL BE METERED AND GAS WILL BE CALCULATED.**

**EACH WELL HAS IT'S OWN 3-PHASE HEATER TREATER. BOTH TREATERS ARE EQUIPPED WITH HALLIBURTON'S TURBINE FLOW METERS ON THE OIL DUMPS AND WATER DUMPS TO CONTINUOUSLY MEASURE THE OIL AND WATER VOLUMES FOR EACH WELL. WELL NO. 1 IS ALSO EQUIPPED WITH AN ORIFICE TEST METER TO MEASURE THE GAS VOLUMES. WELL NO. 2 GAS VOLUME WILL BE CALCULATED BY SUBTRACTING THE VOLUME FOR WELL NO. 1 FROM THE TOTAL LEASE SALES VOLUME.**

**THE WORKING INTEREST OWNERS HAVE BEEN NOTIFIED OF THE PROPOSAL.**

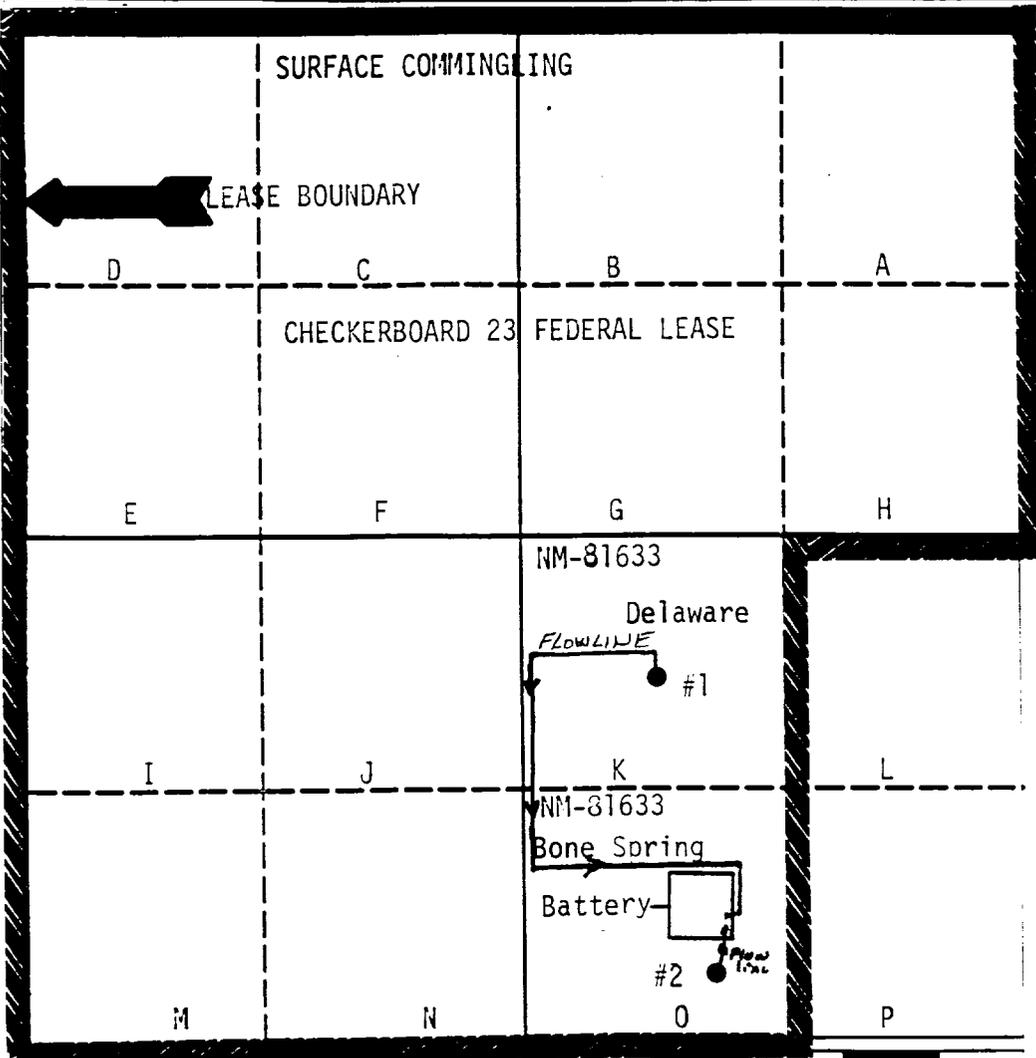
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**THE PROPOSED COMMINGLING IS NECESSARY FOR CONTINUED OPERATION OF THE ABOVE REFERENCED FEDERAL LEASE.**

**WE UNDERSTAND THAT THE REQUESTED APPROVAL WILL NOT CONSTITUTE THE GRANTING OF ANY RIGHT-OF WAY OR CONSTRUCTION RIGHTS NOT GRANTED BY THE LEASE INSTRUMENT. AND, WE WILL SUBMIT WITHIN 30 DAYS AN APPLICATION FOR RIGHT OF WAY APPROVAL TO THE BLM'S REALTY SECTION IN YOUR OFFICE IF WE HAVE NOT ALREADY DONE SO..**

**SIGNATURE:** *Maria L. Perez*  
**NAME:** MARIA L. PEREZ  
**TITLE:** PRODUCTION ASST.  
**DATE:** 9-2-93

|  |               |                                  |               |                     |     |
|--|---------------|----------------------------------|---------------|---------------------|-----|
| Operator<br>MERIDIAN OIL INC.                    |               | Lease<br>CHECKERBOARD 23 FEDERAL |               | Well No.<br>1 and 2 |     |
| Unit Letter                                      | Section<br>23 | Township<br>22-S                 | Range<br>32-E | County<br>NMPM      | LEA |
| Producing Formation<br>DELAWARE AND BONE SPRINGS |               |                                  |               |                     |     |



WELL NO. 1 LOCATION:  
J, 1930' FSL & 1980' FEL

WELL NO. 2 LOCATION:  
O, 330' FSL & 1650' FEL

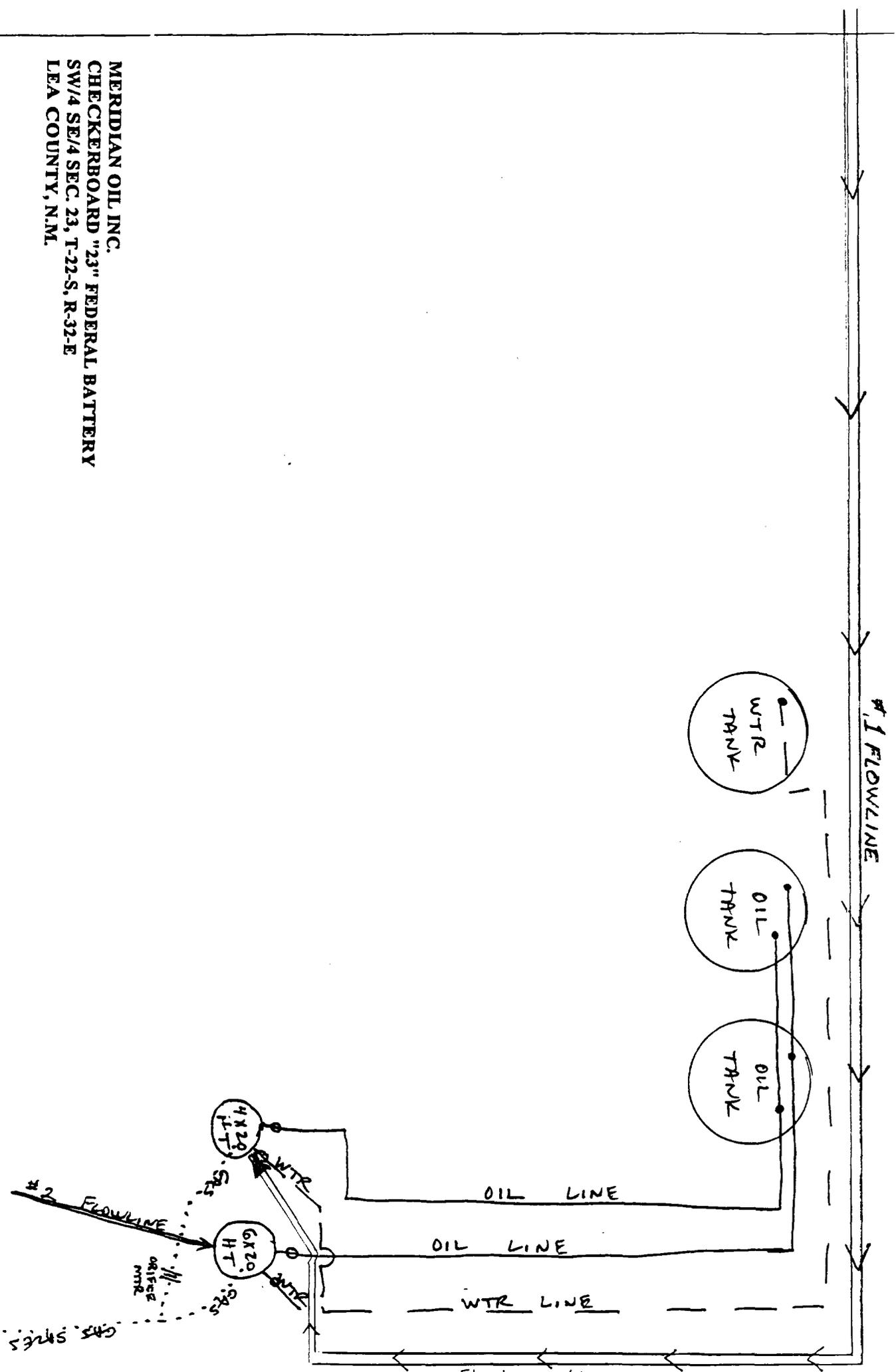
**LEASE DESCRIPTION: 560 ACRES.  
ALL OF SECTION 23 EXCEPT FOR THE  
E/2 OF THE SE/4.**

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

**MAIL TO: MR. DAVID CATANACH  
OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO**

OIL CONSERVATION DIVISION  
RECEIVED

SEP 7 11 56



MERIDIAN OIL INC.  
 CHECKERBOARD "23" FEDERAL BATTERY  
 SW/4 SE/4 SEC. 23, T-22-S, R-32-E  
 LEA COUNTY, N.M.

(NOT TO SCALE)



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION



BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY

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

November 19, 1993

Meridian Oil, Inc.  
P.O. Box 51810  
Midland, Texas 79710-1810

Attention: Maria L. Perez

*Re: Duplicate Division Orders*

Dear Ms. Perez,

This letter serves to inform you that duplicate Division Orders were inadvertently issued to your company. The subject orders are PC-849 and PC-879, both of which authorize pool commingling for your Checkerboard Federal Well Nos.1 and 2, located in the W/2 SE/4 of Section 23, Township 22 South, Range 32 East, Lea County, New Mexico. As both orders read the same, PC-849, issued October 12, 1993, will remain in effect. Division Order PC-879, issued November 4, 1993, is hereby rescinded.

Very truly yours,

A handwritten signature in black ink that reads "William J. LeMay".

William J. LeMay  
Director

cc: Oil Conservation Division - Hobbs  
US Bureau of Land Management - Carlsbad  
OCD Data Processing - Donna McDonald

WJL/BES



**PAGE -2-  
FORM 3160-5  
REQUEST APPROVAL FOR SURFACE COMMINGLING  
CHECKERBOARD 23 FEDERAL WELL'S 1 AND 2**

**CURRENTLY BOTH WELLS PRODUCE FROM THE RED TANK BONE SPRING FIELD. IF PROPOSED SURFACE COMMINGLING IS APPROVED, PLANS ARE TO FILE FOR APPROVAL TO RECOMPLETE WELL NO. 1 TO THE EAST LIVINGSTON RIDGE DELAWARE FIELD AND SURFACE COMMINGLE WITH WELL NO. 2 PRODUCING FROM THE BONE SPRING.**

**THE COMMINGLING OF THIS PRODUCTION WILL PREVENT SETTING ADDITIONAL TANKS WHICH WILL BE A SAVINGS OF \$25,000.00**

**THE FOLLOWING ATTACHMENTS ARE ENCLOSED WITH THIS REQUEST.**

- 1. SKETCH OF BATTERY**
- 2. PLAT**
- 3. BREAKDOWN OF THE INTEREST FOR EACH WELL**
- 4. COPY OF FLOW METER AND FLOW ANALYZER**

**THIS WILL REPLACE PREVIOUS APPLICATION MADE WITH THE BLM TO AMEND STATEMENT CONCERNING THE VARIOUS INTEREST OWNERS. ALSO APPLICATION IS BEING PUT ON A SUNDRY AS PER VICENTE R. BALDERAZ WITH THE BLM IN HOBBS REQUEST.**

# MERIDIAN OIL

# Memorandum

To: Maria Perez

Date: August 2, 1993

From: Don W. Davis

Location: Midland/Land

Re: Interest Breakdown  
Checkerboard "23" Federal #1  
Checkerboard "23" Federal #2  
Section 23, T-22-S, R-32-E  
Lea County, New Mexico

Below, please find a breakdown of the working and revenue interests associated with the captioned wells:

### Checkerboard "23" Federal #1

| <u>Name</u>         | <u>Working Interest</u> | <u>Net Interest</u>  |
|---------------------|-------------------------|----------------------|
| Meridian Oil Inc.   | 94.976%                 | 76.315875% NWI       |
| A. J. Losee         | 5.024%                  | 4.396% NWI           |
| Hugh Cotter         | -0-                     | .41875% ORRI         |
| Trobaugh Properties | -0-                     | .12565% ORRI         |
| MATCO 850, Ltd.     | -0-                     | .12565% ORRI         |
| Marian Mussett      | -0-                     | .2512% ORRI          |
| Dr. Ronald Barnes   | -0-                     | .50255% ORRI         |
| Charles Tiblom      | -0-                     | .50255% ORRI         |
| C. W. Trainer       | -0-                     | 2.349275% ORRI       |
| F. W. Prince        | -0-                     | 2.5125% ORRI         |
| BLM                 | -0-                     | <u>12.5% Royalty</u> |
|                     | 100.00%                 | 100.00%              |

### Checkerboard "23" Federal #2

|                                     |         |                |
|-------------------------------------|---------|----------------|
| Meridian Oil Inc.                   | 100.00% | 80.083875% NWI |
| Elizabeth Losee & Ann Ransome Losee | -0-     | .628% ORRI     |
| Hugh Cotter                         | -0-     | .41875% ORRI   |
| Trobaugh Properties                 | -0-     | .12565% ORRI   |

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Maria Perez  
August 2, 1993  
Page 2

|                   |            |                      |
|-------------------|------------|----------------------|
| MATCO 850, Ltd.   | -0-        | .12565% ORRI         |
| Marian Mussett    | -0-        | .2512% ORRI          |
| Dr. Ronald Barnes | -0-        | .50255% ORRI         |
| Charles Tiblom    | -0-        | .50255% ORRI         |
| C. W. Trainer     | -0-        | 2.349275% ORRI       |
| F. W. Prince      | -0-        | 2.5125% ORRI         |
| BLM               | <u>-0-</u> | <u>12.5% Royalty</u> |
|                   | 100.00%    | 100.00%              |

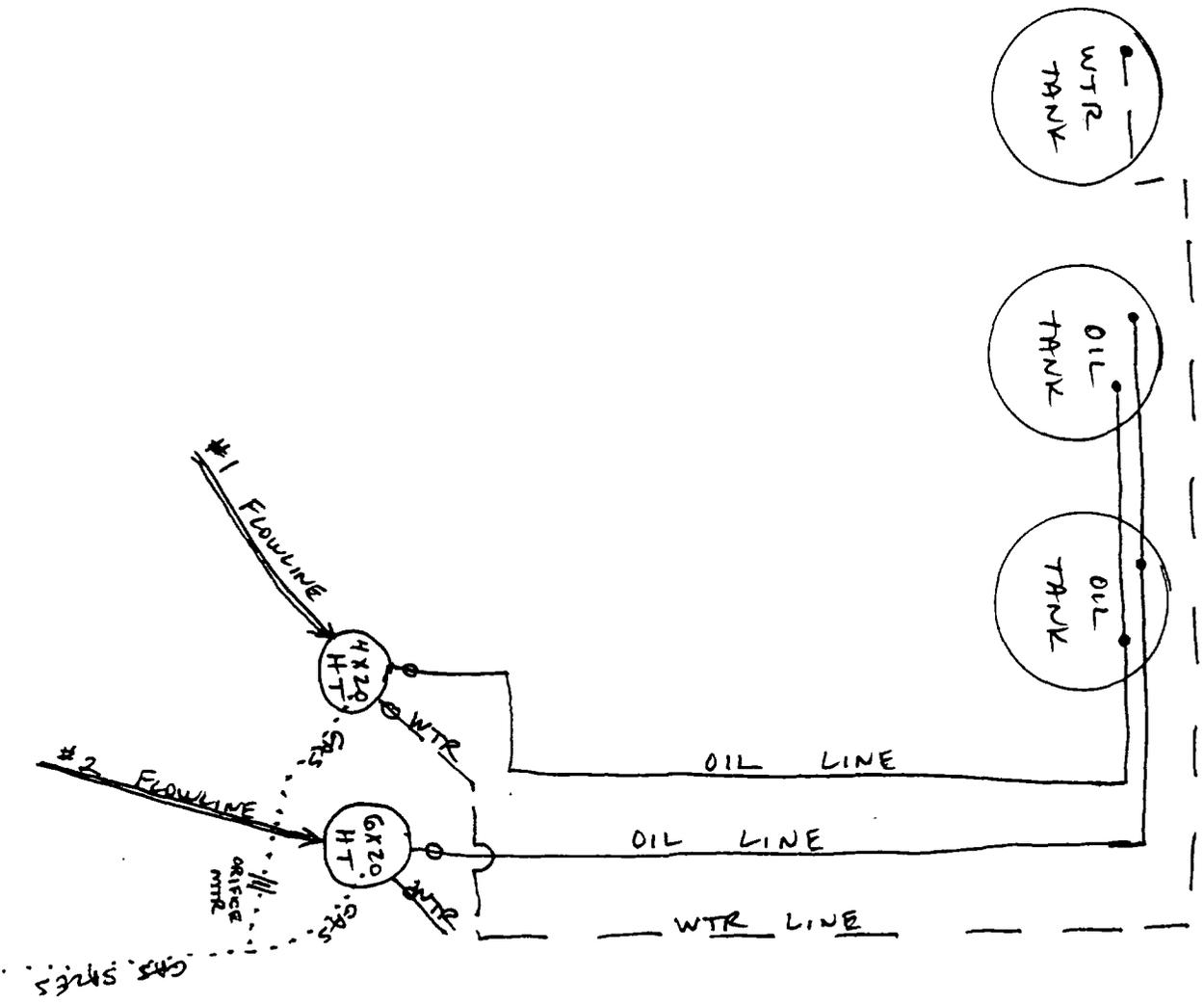
If there are any questions concerning this matter, please advise.

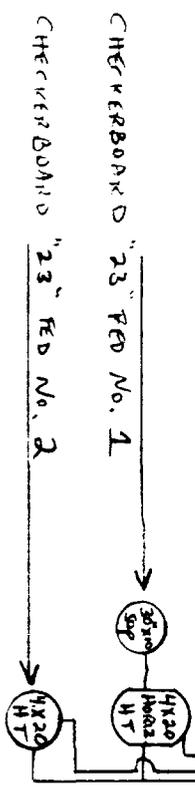
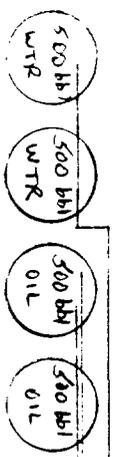
  
Don W. Davis

DWD/cs

MERIDIAN OIL INC.  
 CHECKERBOARD "23" FEDERAL BATTERY  
 SW/4 SE/4 SEC. 23, T-22-S, R-32-E  
 LEA COUNTY, N.M.

(NOT TO SCALE)



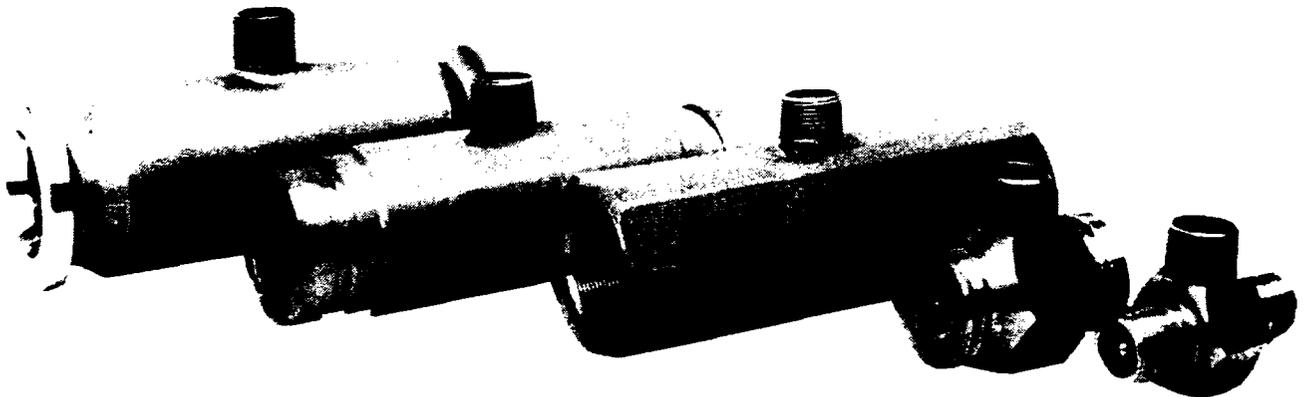


MERIDIAN OIL INC.  
CHECKERBOARD "23" FEDERAL BATTERY  
SW/4 SE/4 SEC. 23, T-22-S, R-32-E  
LEA COUNTY, N.M.



# Halliburton Services Special Products Division

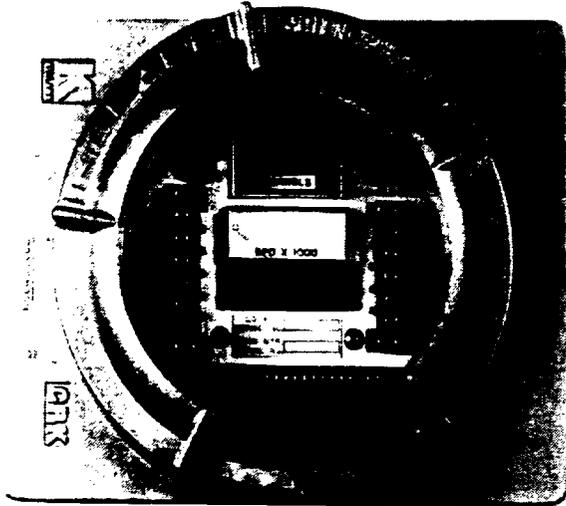
## Standard Grade Turbine Flow Meters



| FLOW METER SIZE   | LINEAR FLOW RANGE |           |                |                     | NOMINAL CALIBRATION FACTOR |                           | MAXIMUM OUTPUT FREQUENCY PULSES/SEC |
|-------------------|-------------------|-----------|----------------|---------------------|----------------------------|---------------------------|-------------------------------------|
|                   | gal/min           | bbl/hr    | bbl/D          | (m <sup>3</sup> /d) | PULSES/GAL                 | (PULSES/dm <sup>3</sup> ) |                                     |
| *3/8 in. (10 mm)  | .3-3              | .4-4      | 10-100         | (1.6-16)            | 20,000                     | (5,284)                   | 1,000                               |
| *1/2 in. (13 mm)  | .75-7.5           | 1-10      | 25-250         | (4-40)              | 13,000                     | (3,435)                   | 1,625                               |
| *3/4 in. (19 mm)  | 2-15              | 3-20      | 68-515         | (11-80)             | 3,000                      | (793)                     | 750                                 |
| 7/8 in. (22 mm)   | 3-30              | 4-40      | 100-1000       | (16-160)            | 1600                       | (423)                     | 800                                 |
| 1 in. (25 mm)     | 5-50              | 7-70      | 170-1,700      | (27-270)            | 870                        | (230)                     | 725                                 |
| 1 1/2 in. (38 mm) | 15-180            | 21-250    | 515-6,000      | (80-1,000)          | 330                        | (87)                      | 990                                 |
| 2 in. (51 mm)     | 40-400            | 54-540    | 1,300-13,000   | (210-2,100)         | 55                         | (14.5)                    | 365                                 |
| 3 in. (76 mm)     | 60-600            | 88-880    | 2,100-21,000   | (335-3,300)         | 57                         | (15.2)                    | 570                                 |
| 4 in. (102 mm)    | 100-1,200         | 142-1,708 | 3,400-41,000   | (540-6,500)         | 29                         | (7.7)                     | 580                                 |
| 6 in. (152 mm)    | 200-2,500         | 283-3,570 | 6,800-86,000   | (1,100-14,000)      | 7                          | (1.8)                     | 350                                 |
| 8 in. (203 mm)    | 350-3,500         | 500-5,000 | 12,000-120,000 | (1,900-19,000)      | 3                          | (.8)                      | 200                                 |

\* Contact the factory for engineering assistance for applications involving liquids with viscosity above 5 centistokes.

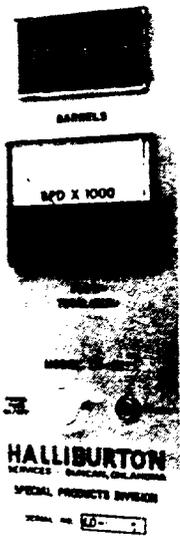
**Standard Grade Turbine Flow Meters are  
Designed For Use With These Reliable Halliburton Totalizers**



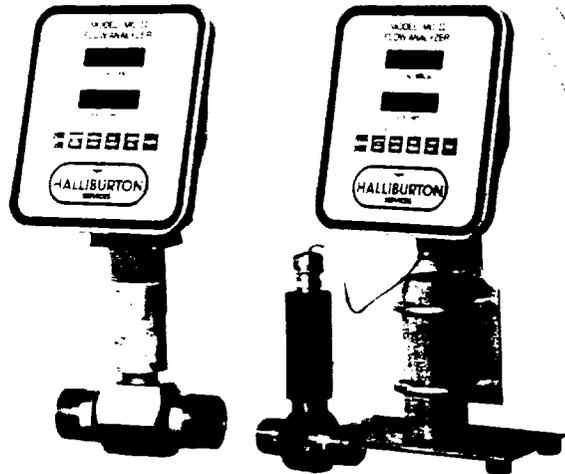
**Model LO-II EXP Flow Totalizer  
With Flow Rate Indicator**



**Model LO-II PD Batch Totalizer**



**LO-II With Rate Indicator  
Option II**



**MC-II Flow Analyzer**

**WARRANTY-LIMITATION OF LIABILITY:** Seller warrants only title to the products, software, supplies and materials and that, except as to software, the same are free from defects in workmanship and materials for a period of one (1) year from the date of delivery. Seller does not warrant that software is free from error or that software will run in an uninterrupted fashion. Seller provides all software "as is". THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Seller's liability and Buyer's exclusive remedy in any cause of action (whether in contract, tort, breach of warranty or otherwise) arising out of the sale or use of any products, software, supplies, or materials is expressly limited to the replacement of such products, software, supplies, or materials on their return to Seller or, at Seller's option, to the allowance to the customer of credit for the cost of such items. In no event shall Seller be liable for special, incidental, indirect, punitive or consequential damages. Seller does not warrant in any way products, software, supplies, and materials not manufactured by Seller, and such will be sold only with the warranties that are given by the manufacturer thereof. Seller will pass only through to its purchaser of such items the warranty granted to it by the manufacturer.

**Special Products Division**



**HALLIBURTON SERVICES**

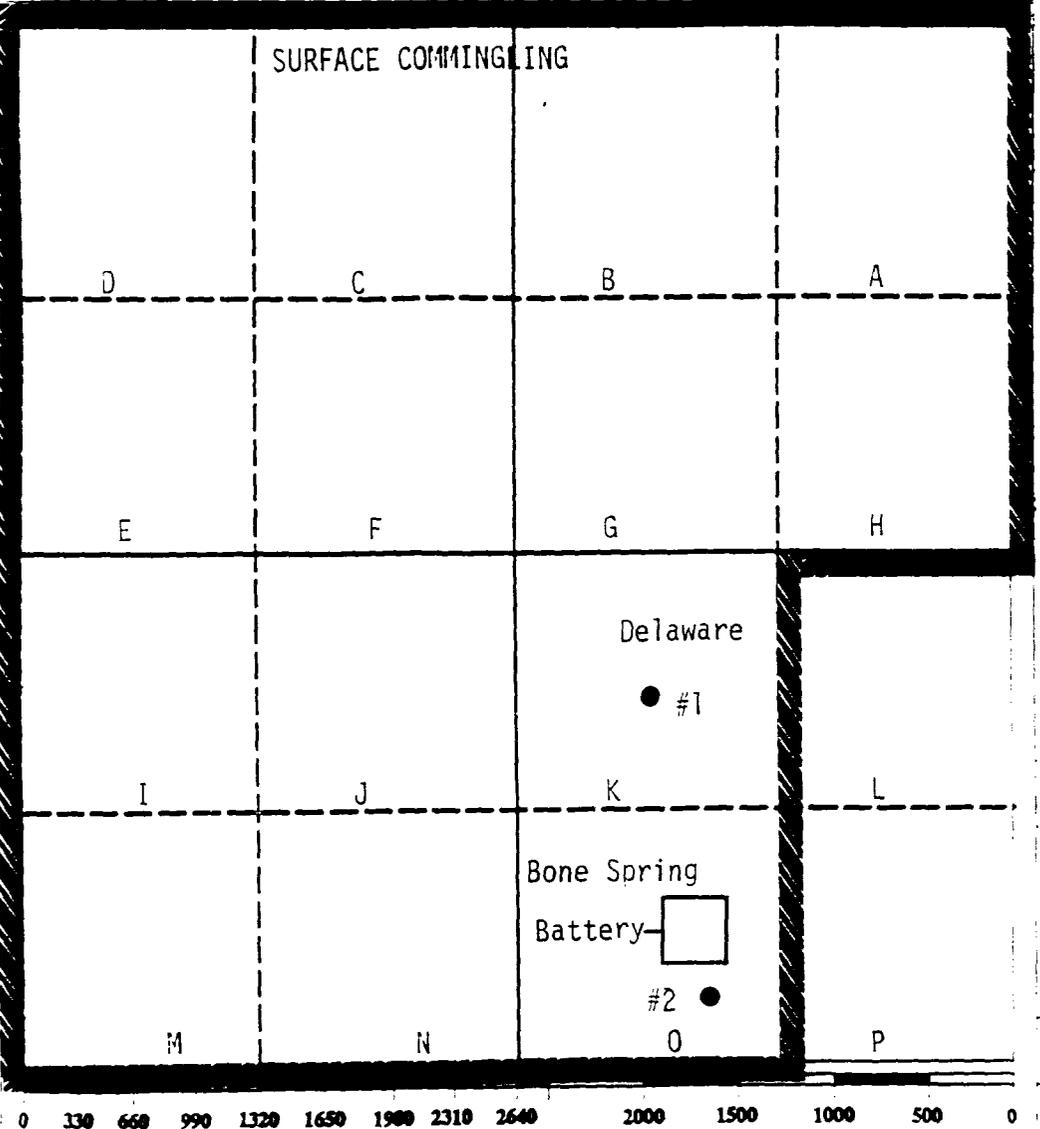
Executive Offices, Houston, Texas 77056  
General Offices, Duncan, Oklahoma 73536

 A Halliburton Company

Operator: MERIDIAN OIL INC. Lease: CHECKERBOARD 23 FEDERAL Well No.: 1 and 2

Unit/Lot: 23 Section: 22-Township: Rango: County: WEA

Producing Formation: DELAWARE AND BONE SPRINGS



LEASE DESCRIPTION: 560 ACRES. ALL OF SECTION 23 EXCEPT FOR THE E/2 OF THE SE/4.

This is a detailed land ownership map showing various lease agreements, company names, and well identifiers across a grid of sections. Key features include:
 

- Section 12: PROHIBITION UNIT MARALO (OPER.)
- Section 13: 23442-74 J/O
- Section 15: (Mobil)
- Section 16: Yates Pet. et al
- Section 17: Pogo Prod.
- Section 18: BOOTLEG RIDGE
- Section 19: BOOTLEG RIDGE
- Section 20: C.W. Trainer
- Section 21: Yates Pet. et al
- Section 22: Yates Pet. et al
- Section 23: BOOTLEG RIDGE
- Section 24: Yates Pet. et al
- Section 25: Yates Pet. et al
- Section 26: Yates Pet. et al
- Section 27: Yates Pet. et al
- Section 28: Yates Pet. et al
- Section 29: Yates Pet. et al