

DATE 2/25/2015	SURFACE MAM	ENGINEER MAM	LOGGED IN 2/25/2015	TYPE PC	APP NO. PMA150565-7826
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms

[NSL-Non-Standard Location] [NSP-Non-Standard Production Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☒ CTB ☐ PLC ☒ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ BOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Coordinator of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

REESEA FISHER
 Print or Type Name

Reesa Fisher
 Signature

Sr Staff REG ANALYST 2/21/15
 Title Date

Reesa.Fisher@apacherop.com
 e-mail Address

- PC
 - Apache Corporation
 873
 well
 - L.W. Wand #1
 30-025-07230
 - L.W. Wand #2
 30-025-07231
 - L.W. Wand #3
 30-025-07232
 - L.W. Wand #4
 30-025-07233
 Pool
 - Brownco's S. Unit
 7410
 - Brownco's S. Unit
 7600
 - WG-025 G-02
 S13384J
 SAN ANTONIO
 98107



Mr. Phillip Goetz
Engineering & Geological Services Bureau
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505
(Sent Electronically)

Subject:

**Application for Surface Commingling (Diverse Ownership)
LW Ward 001, 2 UT, 003 and 004**

Dear Mr. Goetz,

ARCADIS is providing on behalf of Apache Corporation, an application for surface commingling for LW Ward wells 001, 2UT, 003 and 004, which occur in the southeast quarter of Section 11, T13S, R38E. Wells 001, 2UT and 004 are currently commingled. Well 003 is being re-completed, and the permitting is being brought up to date. Detailed descriptive information is included to clarify the request and all items that are required by the application are included in the application packet.

Please contact Twila Carlson, ARCADIS at the listed phone number on the right for any questions or items that need further clarification. Apache requests a verbal confirmation for permission to commingle as soon as is possible, and therefore I will be calling to discuss this application in follow up to its submission.

Sincerely,

Twila Carlson
Environmental Staff Scientist
ARCADIS

Cc: OCD District I Office, Hobbs, NM
Reesa Fisher, Apache Corp
Jennifer Van Curen, ARCADIS

ARCADIS U.S., Inc.
630 Plaza Drive
Suite 100
Highlands Ranch
Colorado 80129
Tel 720.344.3500
Fax 720.344.3535
www.arcadis-us.com

ENVIRONMENT

Date:
February 9, 2015

Contact:
Twila Carlson

Phone:
720.344.3743

Email:
twila.carlson@arcadis-us.com

Our ref:
MT001153.0001

Imagine the result

Commingling Well Information for Surface Commingling Permit

This surface commingling application is to allow product from the four LW Ward wells to be commingled at the LW Ward Battery. All wells are from the Bronco field. Well 001 is from the Wolfcamp zone or formation, while Wells 2 UT and 004 are from the Devonian zone and Well 003 is from the San Andres zone. These wells are part of a fee lease where Apache has a contractual interest in the LW Ward Joint Operating Agreement. There is no depth segregation on the assignment or operating agreement. The fee lease does not have a pugh clause, so the LW Ward working interest owners each have all depths in this quarter section.

The 1952 lease encompasses the south half of Section 11, T13S, R38E; however, only the southeast quarter contributed to the working interest unit by other parties. The working interest unit owners were notified of the plans to recomplete and their signed consent ballots are attached.

The production details follow:

Production enters header and is separated in a 10 x 30 Production Separator. Oil is tank gauged for measurement and truck hauled. Gas is metered off of Production Separator and sent to Schenk lease (HD Schenck No. 001), which is included within a Joint Operating Agreement (the Boundary Map is included for this unit). Water is transferred from Production Separator via 4" poly lines to Bronco SWD wells in same field but located in Texas. Water is metered prior to disposal. Each well in Ward lease is tested on a monthly basis through an 8 x 20 tester where oil, water, and gas are metered for allocation back to each well.

The produced water line that extends to the Bronco SWD crosses Texas State Highway 769 (State Line Road). This water line has been in place for approximately 10 years. The permit for this right-of-way is in process with the Texas Department of Transportation (TDOT).

Attached please find the signed Administrative Application Checklist, the signed Form C-107-B, Table 1 as a supplement to Form 107-B, the LW Ward lease layout; the LW Ward Battery layout drawing with the legal description; the plats for each of the four wells, a drawing of the Joint Operating Agreement Boundary Map, and the signed ballot letters from the working interest owners.

District I
1623 N. French Drive, Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr, Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107-B
Revised August 1, 2011

OIL CONSERVATION DIVISION
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Submit the original
application to the Santa Fe
office with one copy to the
appropriate District Office.

APPLICATION FOR SURFACE COMMINGLING (DIVERSE OWNERSHIP)

OPERATOR NAME: APACHE CORPORATION
OPERATOR ADDRESS: 303 VETERANS AIRPARK LN. STE 800, MIDLAND, TX. 79703
APPLICATION TYPE:

☒ Pool Commingling ☐ Lease Commingling ☐ Pool and Lease Commingling ☐ Off-Lease Storage and Measurement (Only if not Surface Commingling)

LEASE TYPE: ☒ Fee ☐ State ☐ Federal

Is this an Amendment to existing Order? ☐ Yes ☒ No If "Yes", please include the appropriate Order No. _____
Have the Bureau of Land Management (BLM) and State Land office (SLO) been notified in writing of the proposed commingling
☒ Yes ☐ No

(A) POOL COMMINGLING (See Table I)

Please attach sheets with the following information

(1) Pool Names and Codes	Gravities / BTU of Non-Commingled Production	Calculated Gravities / BTU of Commingled Production	Calculated Value of Commingled Production	Volumes
Wolfcamp 07600	36 api	34.8 api / 1209.5 BTU	8167.7/day ^(gas)	
Siluro Devonian 07410	36.5 api		5385.60/day ^(oil)	
San Andres 98107	32 api (projected)		Based on: #2.58/MMBTU	
			#52.80/BBL	

- (2) Are any wells producing at top allowances? ☐ Yes ☒ No
(3) Has all interest owners been notified by certified mail of the proposed commingling? ☒ Yes ☐ No.
(4) Measurement type: ☒ Metering ☐ Other (Specify) _____
(5) Will commingling decrease the value of production? ☐ Yes ☒ No If "yes", describe why commingling should be approved _____

(B) LEASE COMMINGLING

Please attach sheets with the following information

- (1) Pool Name and Code.
(2) Is all production from same source of supply? ☐ Yes ☒ No
(3) Has all interest owners been notified by certified mail of the proposed commingling? ☐ Yes ☐ No
(4) Measurement type: ☐ Metering ☐ Other (Specify) _____

(C) POOL and LEASE COMMINGLING

Please attach sheets with the following information

- (1) Complete Sections A and B.

(D) OFF-LEASE STORAGE and MEASUREMENT

Please attached sheets with the following information

- (1) Is all production from same source of supply? ☐ Yes ☐ No
(2) Include proof of notice to all interest owners.

(E) ADDITIONAL INFORMATION (for all application types)

Please attach sheets with the following information

- (1) A schematic diagram of facility, including legal location.
(2) A plat with lease boundaries showing all well and facility locations. Include lease numbers if Federal or State lands are involved.
(3) Lease Names, Lease and Well Numbers, and API Numbers.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE: Reesa Fisher TITLE: Sr. Staff Reg. Analyst DATE: 2/2/15
TYPE OR PRINT NAME: REESEA FISHER TELEPHONE NO.: 432/818-1062
E-MAIL ADDRESS: Reesa.Fisher@apachecorp.com

Table 1. Commingling Well Information for Surface Commingling Permit

Well ID	API Numbers	Property Number	Acreage	Pool Name	Pool Number	Gravities/BTU of Non-Commingled Production	Production Volumes of Oil (bbl per Day)	Calc. Gravities/BTU of Commingled Production	Calculated Value of Commingled Production (per Day)
LW Ward 001	30-025-07230	26474	40	Wolfcamp	07600	36 api / 5 mcf	5	34.8 api / 1209.5 BTU	\$ 167.70
LW Ward 2 UT	30-025-07231	26474	43.69	Siluro Devonian San Andres; WC-025	07410	36.5 api / 30 mcf	27		\$ 5,385.60
LW Ward 003	30-025-07232	26474	40	G-02 5133811J	98107	32 api (projected)	(3)		\$ 5,553.30
LW Ward 004	30-025-07233	26474	40	Siluro Devonian	07410	36.5 api / 30 mcf	70		

Notes: ¹Based on 2/9/15 price of \$2.58/MMBTU for Natural Gas, and \$52.80 bbl for crude oil. Gas value is listed about the oil value in the table.

²Gas is expected to be very minimal

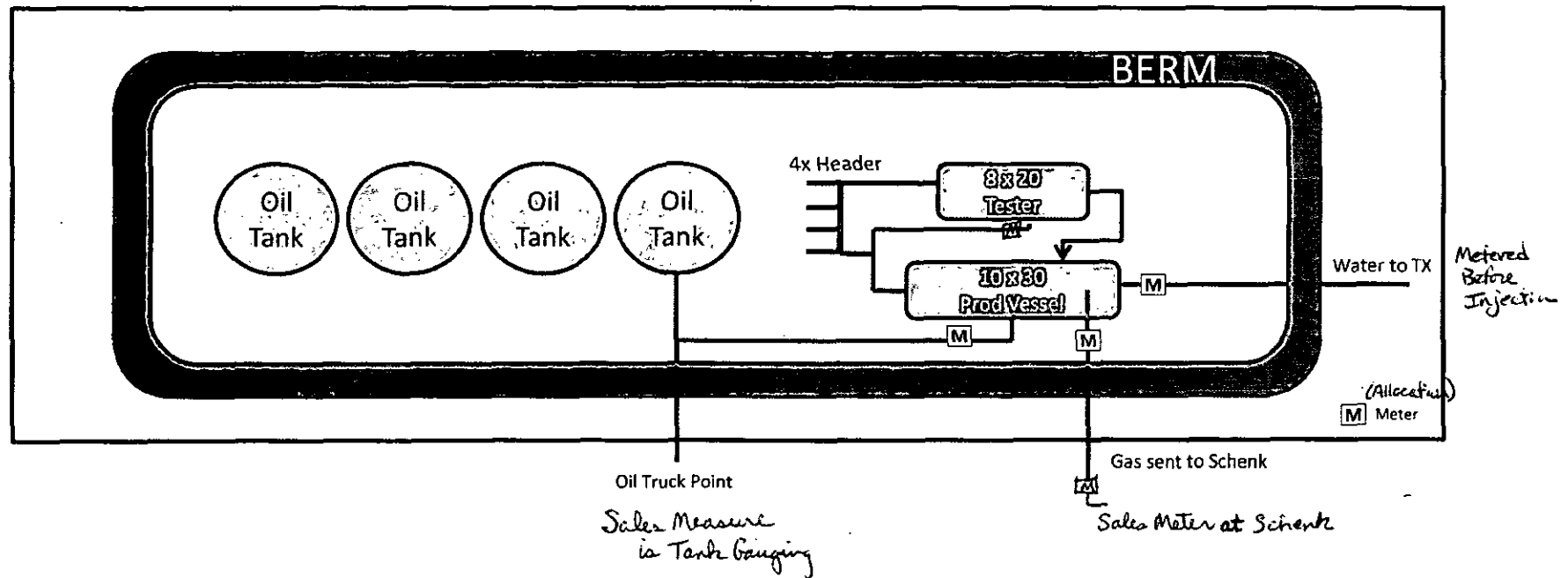
³Not yet known

LW Ward Layout



LW Ward Battery

Legal Location: 13S-38E, Sec 11



NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION AT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

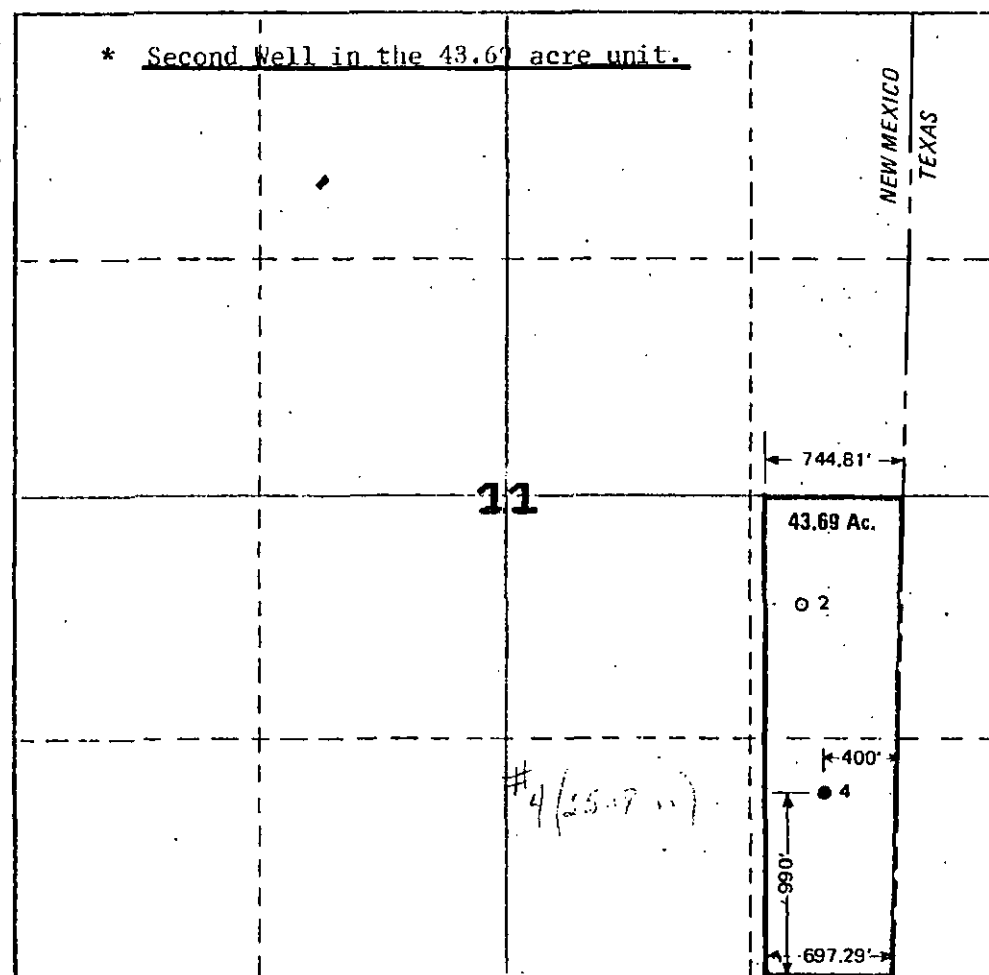
Operator Amerada Hess Corporation			Location L. W. Ward		Well No. 4
Unit Letter P	Section 11	Township 13S	Range 38E	County Lea	
Actual Postage Location of Well: 990 feet from the South line and 400 feet from the East line					
Ground Level Elev. 3809 DF	Producing Formation Silurio Devonian		Pool Bronco Siluro Devonian		Dedicated Acreage: 40* Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name
H. O. Porter H. O. Porter

Position
Supv. Drlg. Admin. Services

Company
Amerada Hess Corporation

Date
November 17, 1977

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
October 23/1954

Registered Professional Engineer and/or Land Surveyor

John West Engr.

Certificate No.
LS676

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

District I
 1625 N. French Dr., Hobbs, NM 88240
 District II
 1301 W. Grand Avenue, Arredondo, NM 88210
 District III
 1000 Rio Brazos Rd., Artes, NM 87410
 District IV
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

Form C-102
 Revised October 12, 2005
 Submit to Appropriate District Office
 State Lease - 4 Copies
 Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-025-07230		*Pool Code 07410 7600	*Pool Name Bronco; Siluro-Devonian Wolfcamp	
*Property Code 26474	L W Ward		*Property Name	*Well Number 001
*OGRIN No. 873	*Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705			*Elevation 3809' GL

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	11	13S	38E		660	South	1491	East	Lea

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
*Dedicated Acres 40		*Joint or Infill		*Consolidation Code		*Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16 	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization retains title to the underlying interest in the land including the proposed bottom hole location or has a right to drill this well on this location pursuant to an agreement with an owner of such a portion of the underlying interest, or to a voluntary pooling agreement or a compulsory pooling order as required by the division.	
	Signature: <u>Reesa Holland</u> Date: <u>05/10/2012</u> Printed Name: _____	
	18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
	Date of Survey: _____ Signature and Seal of Professional Surveyor: _____ Certificate Number: _____	

ELG-11-1-2012

NOV 01 2012

30-025-07231

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-128
Revised 5/1/57

WELL LOCATION AND ACREAGE DEDICATION PLAT

SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

SECTION A

Operator Amerada Petroleum Corporation			Lease L. W. Ward		Well No. 2 UT
Unit Letter 1	Section 11	Township 33 S	Range 38 E	County Lea	
Actual Footage Location of Well: 1983 feet from the South line and 520 feet from the East line					
Ground Level Elev. 3810'	Producing Formation Mississippian		Pool Undesignated Mississippian		Dedicated Acreage: 43.69 Acres

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES _____ NO X. ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES X NO _____. If answer is "yes," Type of Consolidation Unit Operating Agreement
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

SECTION B

CERTIFICATION

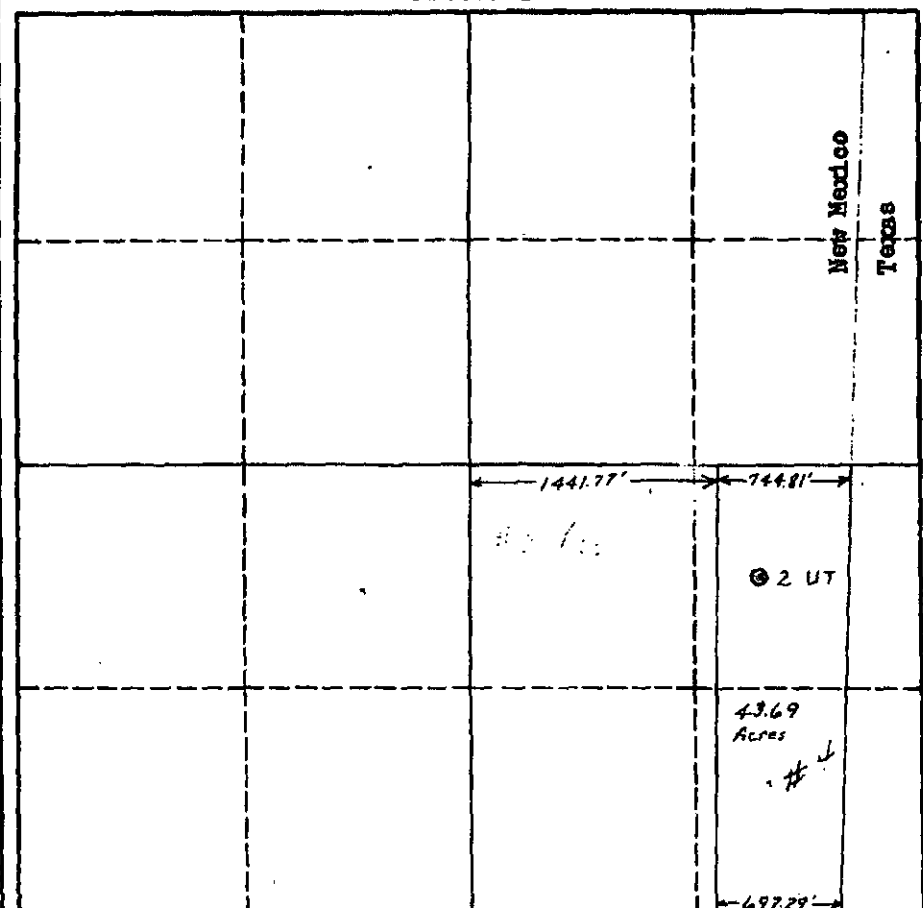
I hereby certify that the information in SECTION A above is true and complete to the best of my knowledge and belief.

Name W. H. Dunlap
Position District Supt.
Company Amerada Petro. Corp.
Date August 12, 1959

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
Registered Professional Engineer and/or Land Surveyor

Certificate No.



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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

HOBBS OCO
DEC 09 2014

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-07232		Pool Code 98107	Pool Name WC-026 G-02 51378115, SAN ANTONIO
Property Code 26474	Property Name L W Ward		Well Number 003
GRID No. 873	Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705		Elevation 3810' GL

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	11	13S	38E		1983	South	1515	East	Lea

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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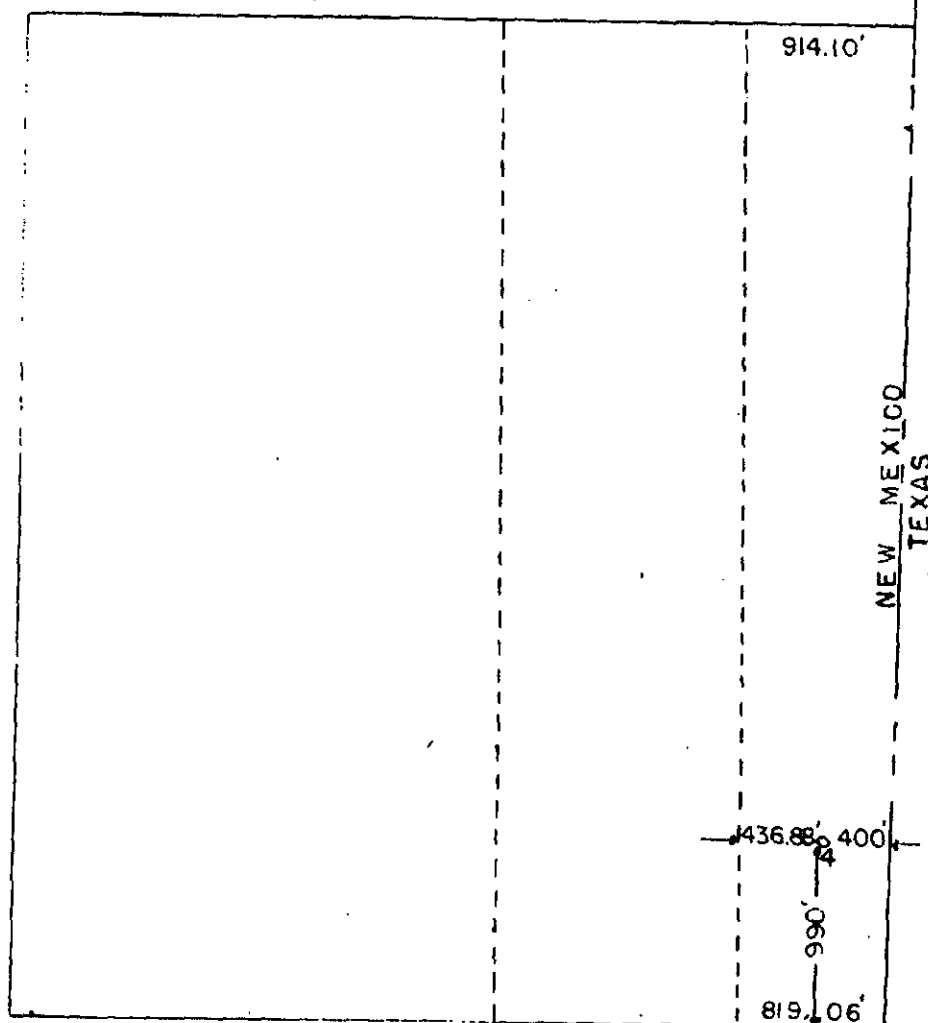
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p>16</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief and that this organization either owns a working interest or leased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Reesa Fisher</i> 12/08/2014 Signature Date</p> <p>Reesa Fisher Printed Name</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date of Survey: Signature and Seal of Professional Surveyor:</p>
	<p>Certificate Number</p>

DEC 12 2014

30-025-07233

OPERATOR AMERADA PETROLEUM CORP.
LEASE L. W. WARD
WELL NO. 4



SEC. 11, TWP. 13S, RGE. 38E, N.M.P.M.

I HEREBY CERTIFY THAT THIS PLAT WAS MADE
FROM NOTES TAKEN IN THE FIELD BY ME IN
AN ACTUAL BONA FIDE SURVEY AND THAT THE
SAME IS TRUE AND CORRECT TO THE BEST OF
MY KNOWLEDGE AND BELIEF.

John W. West
JOHN W. WEST, P.E. & L.S. NO. 676

OCT. 23, 1954

LW Ward #1 Well Production Data WCD only

Date	Oil Rate bbl/d	Gas Rate Mcf/d	Water Rate bbl/d	Cum Oil	Cum Gas	Cum Wtr
7/1/2014	5	9	342	155	279	10602
8/1/2014	4	8	317	124	248	9827
9/1/2014	4	7	305	120	210	9150
10/1/2014	5	6	392	155	186	12152
11/1/2014	8	4	467	240	120	14010
12/1/2014	3	2	201	93	62	6231
1/1/2015	4	0	198	124	0	6138

Cum 23 1/2, 43430 47460 mck

L.W. Ward #1 → WCD ONLY

LW Ward #2 Well Production Data Bronco/Dev

Date	Oil Rate bbl/d	Gas Rate Mcf/d	Water Rate bbl/d	2	Cum Gas	Cum Wtr
7/1/2014	40	27	3729	1240	837	115599
8/1/2014	42	27	3956	1302	837	122636
9/1/2014	40	26	3790	1200	780	113700
10/1/2014	39 ³¹	25	4929	1209	775	152799
11/1/2014	66 ⁶³	40	6244	1980	1200	187320
12/1/2014	22 ⁷⁰	20	3399	992	620	105369
1/1/2015	30	0	4546	930	0	140926

Cum 277051 BO 84141 mcf

LW Ward #4 Well Production Data *Devonian*

Date	Oil Rate bbl/d	Gas Rate Mcf/d	Water Rate bbl/d	Cum Oil	Cum Gas	Cum Wtr
7/1/2014	62	33	4571	1922	1023	141701
8/1/2014	62	32	4394	1922	992	136214
9/1/2014	66	33	4694	1980	990	140820
10/1/2014	65 <i>66</i>	31	6273	2015	961	194463
11/1/2014	28 <i>121</i>	12	1920 <i>8230</i>	840	360	57600
12/1/2014	63 <i>75</i>	26	4401 <i>5247</i>	1953	806	136431
1/1/2015	72 <i>75</i>	0	3701	2232	0	114731

Cum 670,000.30 160,379 mcf



Carlson, Twila

From: Nelson, John <John.Nelson@apachecorp.com>
Sent: Thursday, February 26, 2015 11:37 AM
To: Carlson, Twila; Addison, Casey
Cc: Fisher, Reesa
Subject: Ward producing well formation signed letter
Attachments: Ward Producing Well Formations.pdf

Twila, attached is the signed letter stating what formations the Ward wells are producing from.

Also, the expected Ward 3 volumes are 10 oil, 100 wtr, and 10 gas.

Let me know if you need anything else.

Thanks,
John

John Nelson
Apache Corporation – Permian
Production Engineer – Denver City
Ofc: 432.818.1154
Cell: 512.413.3360

To: Twila Carlson

From: John Nelson

Re: Ward producing formations

Date: 2/26/15

To Whom It May Concern,

The Ward 1 is producing from the Wolfcamp.

The Ward 2 is producing from the Siluro-Devonian formation.

The Ward 4 is producing from the Siluro-Devonian formation.

Regards,

John Nelson

