

DATE IN 11/15/2016	SUSPENSE	ENGINEER MAM	LOGGED IN 11/15/2016	TYPE DHC	APP NO PMAM 1632046320
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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 Proration 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 ☐ EOR ☐ 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 - Commissioner 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.

Rory McMinn  
Print or Type Name

Signature

President  
Title

11-11-2016  
Date

rmmcinn@readoperating.com  
e-mail Address

-DHC 4800  
-Read Stevens, Inc.  
18417

Well  
-Toles Kad #1  
30-005-60782  
POW  
-Diamond mound,  
Stromberg #84  
-Diamond mound,  
Upper Penn  
97223 76075  
-Diamond mound,  
Morrow 76075

-Diamond mound  
Stromberg  
76075

District I  
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District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

Form C-107A  
Revised August 1, 2011

APPLICATION TYPE  
☒ Single Well  
Establish Pre-Approved Pools  
EXISTING WELLBORE  
☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

Read and Stevens, Inc.

P.O. Box 1518 Roswell, NM 88202-1518

Operator Address  
Toles Federal #1 O Section 34 T15S-R27E Chaves  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No.18917 Property Code 9576 API No. 30-005-60782 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Pennsylvanian	Strawn	Atoka
Pool Code	97223	96984	76060
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	7,640' - 7,649'	8,214'	+/- 8,680' to +/- 8,695' Com. w/ Morrow Below
Method of Production (Flowing or Artificial Lift)	Artificial Lift	Artificial Lift	Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	+/- 700 psi	+/- 700 psi	+/- 700 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	+/- 1100	+/-1100	+/-1100
Producing, Shut-In or New Zone	New Zone	New Zone	Adjacent to Existing Producing Zone
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: NA  Rates:	Date: NA  Rates:	Date: 07/31/2012  Rates: +/- 2 mcf/d
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas % 48 % 48	Oil Gas 1 % 1 %	Oil Gas 20 % 20 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones?  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?

Yes ☒ No ☐  
Yes ☐ No ☐

Are all produced fluids from all commingled zones compatible with each other?

Yes ☒ No ☐

Will commingling decrease the value of production?

Yes ☐ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands  
or the United States Bureau of Land Management been notified in writing of this application?

Yes ☐ No ☒ (NA)

NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.

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State of New Mexico  
Energy, Minerals and Natural Resources Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

Form C-107A  
Revised August 1, 2011

APPLICATION TYPE  
☒ Single Well  
☐ Establish Pre-Approved Pools  
EXISTING WELLBORE  
☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

Read and Stevens, Inc. P.O. Box 1518 Roswell, NM 88202-1518

Operator Address  
Toles Federal #1 O Section 34 T15S-R27E Chaves

Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No.18917 Property Code 9576 API No. 30-005-60782 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name			Morrow
Pool Code			76079
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)			8,720' -8,732' , 8,695.5', and 8,699'
Method of Production (Flowing or Artificial Lift)			Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			+/- 700 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)			+/-1100
Producing, Shut-In or New Zone			Existing Producing Zone
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date:  Rates:	Date:  Rates:	Date: 07/31/2012  Rates: +/- 3mcf/d
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas % %	Oil Gas % %	Oil Gas 31 % 31 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No ☐  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ☐ No ☐

Are all produced fluids from all commingled zones compatible with each other? Yes ☒ No ☐

Will commingling decrease the value of production? Yes ☐ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands  
or the United States Bureau of Land Management been notified in writing of this application? Yes ☐ No ☒ (NA)

NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.

Notification list of working, royalty and overriding royalty interests for uncommon interest cases.  
Any additional statements, data or documents required to support commingling.

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**PRE-APPROVED POOLS**

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools

List of all operators within the proposed Pre-Approved Pools

Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.

Bottomhole pressure data.

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

SIGNATURE Matt B. Murphy TITLE Consultant/Agent DATE Nov 17 2016

TYPE OR PRINT NAME Matt Murphy TELEPHONE NO. (720) 4683646

E-MAIL ADDRESS conquestenergy@gmail.com

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

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**State of New Mexico**  
**Energy, Minerals and Natural**  
**Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-102

August 1, 2011

Permit 227736

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number <b>30-005-60782</b>	2. Pool Code <b>76060</b>	3. Pool Name <b>DIAMOND MOUND, ATOKA (GAS)</b>
4. Property Code <b>9576</b>	5. Property Name <b>TOLES FEDERAL</b>	6. Well No. <b>001</b>
7. OGRID No. <b>18917</b>	8. Operator Name <b>READ &amp; STEVENS INC</b>	9. Elevation <b>3518</b>

**10. Surface Location**

UL - Lot <b>O</b>	Section <b>34</b>	Township <b>15S</b>	Range <b>27E</b>	Lot Idn	Feet From <b>660</b>	N/S Line <b>S</b>	Feet From <b>1980</b>	E/W Line <b>E</b>	County <b>CHAVES</b>
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**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres <b>320.00</b>	13. Joint or Infill			14. Consolidation Code			15. 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**

	<p style="text-align: center;"><b>OPERATOR CERTIFICATION</b></p> <p><i>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 unleased mineral interest in the land including the proposed bottom hole location(s) 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.</i></p> <p>E-Signed By: </p> <p>Title: <b>President &amp; Chairman Read Stevens, Inc</b></p> <p>Date: <b>18 November 2016 Agent for R&amp;S, Inc</b></p>		
	<p style="text-align: center;"><b>SURVEYOR CERTIFICATION</b></p> <p><i>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.</i></p> <p>Surveyed By: <b>John West</b></p> <p>Date of Survey: <b>8/23/1980</b></p> <p>Certificate Number: <b>676</b></p>		



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**State of New Mexico  
Energy, Minerals and Natural  
Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505**

Form C-102  
August 1, 2011

Permit 227736

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number	2. Pool Code 97223	3. Pool Name DIAMOND MOUND; UPPER PENN. (G)
4. Property Code 9576	5. Property Name TOLES FEDERAL	6. Well No. 001
7. OGRID No. 18917	8. Operator Name READ & STEVENS INC	9. Elevation 3518

**10. Surface Location**

UL - Lot	Section 34	Township 15S	Range 27E	Lot Idn	Feet From 660	N/S Line S	Feet From 1980	E/W Line E	County CHAVES
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**11. Bottom Hole Location If Different From Surface**

UL - Lot O	Section 34	Township 15S	Range 27E	Lot Idn	Feet From 660	N/S Line S	Feet From 1980	E/W Line E	County CHAVES
12. Dedicated Acres 320.00			13. Joint or Infill		14. Consolidation Code			15. Order No.	

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	E-Signed By: <i>Rory McMinin</i> Title: <i>Pres.</i> Date: <i>11-11-2016</i>	
	<b>SURVEYOR CERTIFICATION</b>	
<i>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.</i>		
Surveyed By: John West Date of Survey: 8/23/1980 Certificate Number: 676		

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**Santa Fe, NM 87505**

Form C-102

August 1, 2011

Permit 227736

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number	2. Pool Code 96984	3. Pool Name DIAMOND MOUND; STRAWN (G)
4. Property Code 9576	5. Property Name TOLES FEDERAL	6. Well No. 001
7. OGRID No. 18917	8. Operator Name READ & STEVENS INC	9. Elevation 3518

**10. Surface Location**

UL - Lot O	Section 34	Township 15S	Range 27E	Lot Idn	Feet From 660	N/S Line S	Feet From 1980	E/W Line E	County CHAVES
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**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 320.00	13. Joint or Infill		14. Consolidation Code			15. Order No.			

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	<b>OPERATOR CERTIFICATION</b>	
	<p><i>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 unleased mineral interest in the land including the proposed bottom hole location(s) 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.</i></p>	
	<p>E-Signed By: <i>RL Robery</i> Title: <i>PLWJ</i> Date: <i>11-11-2016</i></p>	
	<b>SURVEYOR CERTIFICATION</b>	
<p><i>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.</i></p>		
<p>Surveyed By: John West Date of Survey: 8/23/1980 Certificate Number: 676</p>		



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Santa Fe, NM 87505**

Form C-102

August 1, 2011

Permit 227736

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number	2. Pool Code 76079	3. Pool Name DIAMOND MOUND;MORROW (GAS)
4. Property Code 9576	5. Property Name TOLES FEDERAL	6. Well No. 001
7. OGRID No. 18917	8. Operator Name READ & STEVENS INC	9. Elevation 3518

**10. Surface Location**

UL - Lot	Section 34	Township 15S	Range 27E	Lot Idn	Feet From 660	N/S Line S	Feet From 1980	E/W Line E	County CHAVES
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**11. Bottom Hole Location If Different From Surface**

UL - Lot O	Section 34	Township 15S	Range 27E	Lot Idn	Feet From 660	N/S Line S	Feet From 1980	E/W Line E	County CHAVES
12. Dedicated Acres 320.00	13. Joint or Infill	14. Consolidation Code	15. Order No.						

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	<b>OPERATOR CERTIFICATION</b>
	<p><i>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 unleased mineral interest in the land including the proposed bottom hole location(s) 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.</i></p> <p>E-Signed By: <i>[Signature]</i> Title: <i>Pres.</i> Date: <i>11-11-2016</i></p>
	<b>SURVEYOR CERTIFICATION</b>
	<p><i>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.</i></p> <p>Surveyed By: John West Date of Survey: 8/23/1980 Certificate Number: 676</p>



**Exhibit To NMOC Form C-107A – Application For Downhole Commingling**

**Read and Stevens, Inc.**

**Toles Federal #1**

API # 30-005-60782

660' FSL & 1980' FEL

Section 34 T15S – R27E

Latitude 32.9669075 & Longitude 104.2210312

Chaves County, New Mexico

**Explanation for Attachments under "Additional Data" on the C-107A:**

A C-102 has been attached for each of the zones that it is proposed to produce on the C-107.

A production curve for the Morrow formation is included with the attached reserve report. The proposed zones in the Pennsylvanian and Strawn do not have a production curves since they have not been completed or produced as of this date. However, the decline curve does include projected future production from all the zones that are being proposed to commingle.

The attached reserve report prepared by Garry Ward includes reserve estimates for the proposed completion in the Pennsylvanian and the existing and proposed completion in the Morrow. Reserves were not allocated to the Strawn Formation since there is only one foot that is proposed to be completed in that particular formation.

No allocation formula is required since the Royalty owners are the same with the same percentage of interest in the existing formation and all the formations that are being proposed to commingle.

As stated above, the Royalty owners are the same, with the same percentage of interest in the existing producing formation and formation that are being proposed to commingle. Therefore a notification list should not be required.

The additional supporting documents that are being submitted with this application include a recent reserve study, inclusive of a decline curve, projected recoveries, and remaining reserves in place. The report breaks the reserves into proved and probable reserves categories. The report also contains a historical production plot, together with forecasted production.

Submitted By:

  
Matt Murphy

Agent & Consultant

Read and Stevens, Inc.

Date: November 14, 2016

General	Company: Read & Stevens		Prospect: Diamond Mound Morrow		
	Well Name: Toles Federal #1		TD (MD/TVD): 9000' TVD		
	County: Chavez		Elevation: 3518' GL & KB		
	State: New Mexico		Latitude & longitude: 32.9669075, -104.2210312 NAD83		
	API Number: 30-005-60782		Section-Township-Range: Sec 34 T15S-R27E		
	Directions:		Surface Location: 34-15S-27E 660' FSL & 1980' FEL		
		Bottom Hole Location: 34-15S-27E 660' FSL & 1980' FEL			

Formation	Depth		Casing Profile	Hole Size	Casing Specifications	Cementing
	Notes	TVD				
13 3/8" Casing @ 383'				17 1/2"	13" 3/8 48# H-40, S. T. & C	Halco Lite cement w/5# gulsonite per sx. & 1/4# flocele per sx. Followed w/200sx Class C w/2% CaCl2 & 1/4# flocele per sx. Cement circulated
Rustler Anhydrite	550 sks	Circ to Surface		11"	8 5/8" 24#, J-55, S.T.&C	Cemented w/100 s. Halco Lite cement w/8# gulsonite & 1/4# flocele per sx. Followed w/200sx Class "H" cement w/2% CaCl2
8 5/8" Casing @ 1730'						
	300 sks			7 7/8"	4 1/2" 11.6#	
	TOC @	5250' by WL				
Wolfcamp (estimate)		6525				
				7 7/8"	4 1/2" 11.6#	
Proposed Penn Perf	PENN	7640-7649"				Gas show on mudlog, sample shows indicate abundant fossils and cr
Proposed Strawn Perf	Strawn	8214'				
Proposed Atoka Perf	Atoka	8695.5-8699				Gas show on mudlog, sample descriptions imply oolitic rock
Existing Morrow Perfs		8720-8732				24 Holes
		(w/2JSPF)		7 7/8"	4 1/2" 11.6#	
4 1/2" Casing @ 8988'						
1360 sacks PBTD= 8943						

Comments	Objective: Repair casing leak and return to production, or perf proposed formations, if not succsesfull plug and abandon
	The well holds 320 acre Federal Lease
	Cummulative production 4.612 BCFG, 10,595 BO, & 671 BW

## Garry Ward

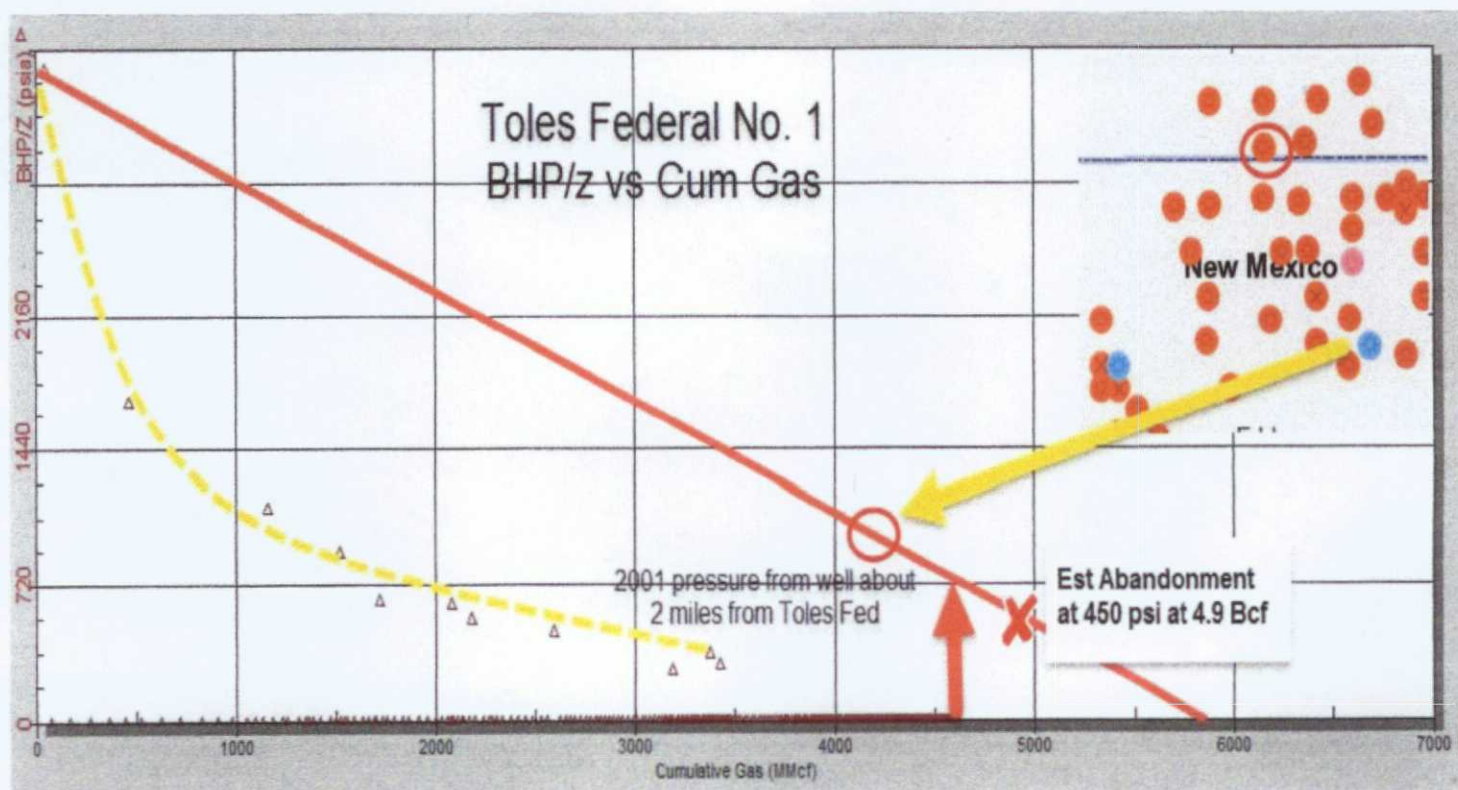
To: Garry Ward  
Subject: Toles Federal #1 - Read and Stevens, Inc.

## Reserve Conclusions

I have reviewed what I could in regard to the Toles Federal No.1. Based on my review I have assigned proved reserves of 180 MMcf to the Morrow and 175 MMcf probable reserves to the uphole Penn formation. Based on a workover cost of 161M\$ and an initial rate of about 4000 Mcfpm this work should yield a rate of return of about +50% over a 2 year period. Gas price was initially set at \$3.00 per MMBtu and escalated at 5% after one year. Operating expenses were set at \$2000 per month and escalated at 5%

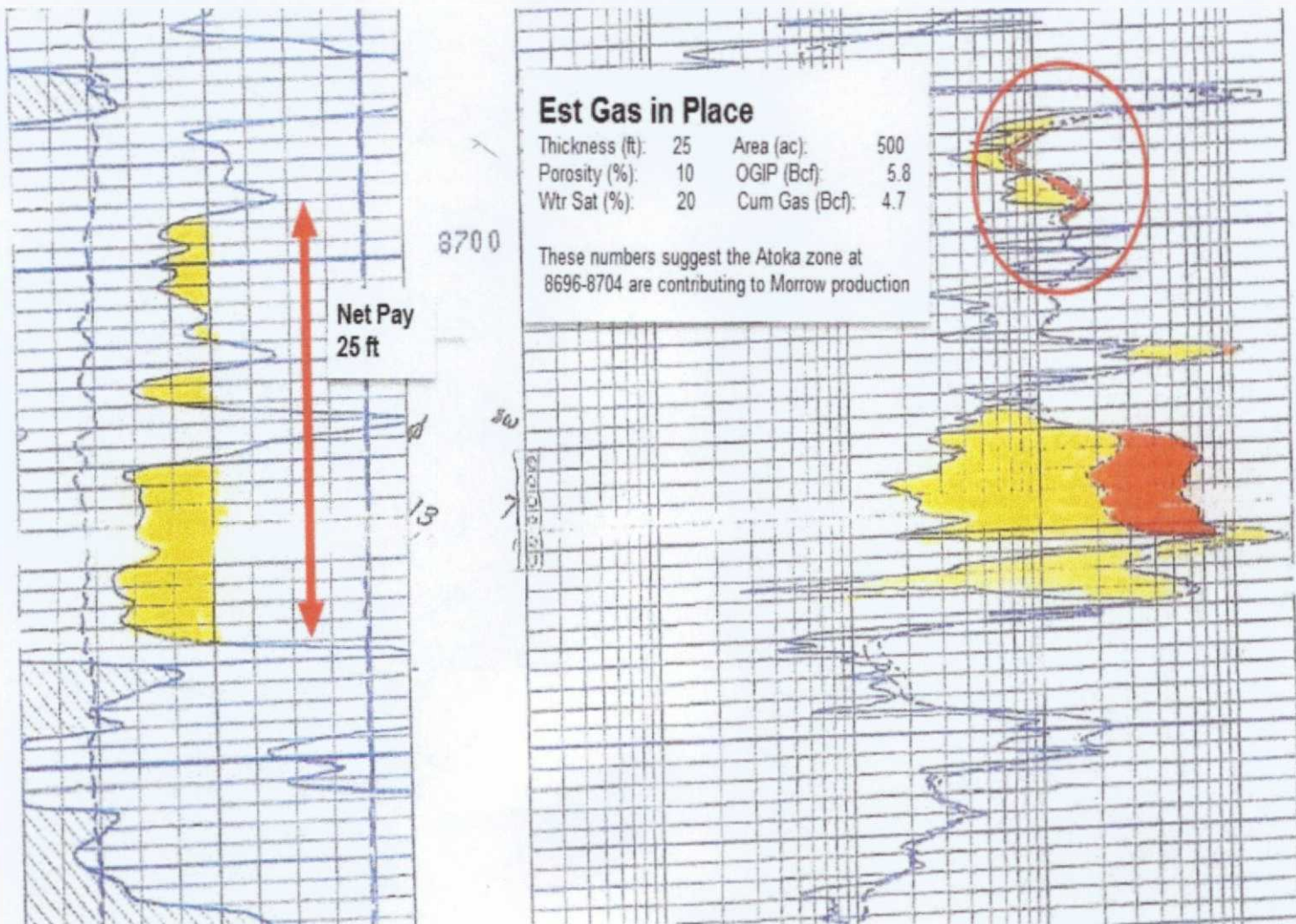
## Morrow Formation

I did not find any information in regard to flowing well history. The only data that had any flowing data was the initial reported test of 23 MMcfpd with 1725 psi flowing pressure. Given that simple data and a reservoir pressure of 3250 psi, the permeability of this wellbore would be about 10 mD. That permeability appears to be high given the production history of the field. It also does not agree with the curved plot of the BHP/z plot below. Without additional flowing data it would be difficult to make a determination about the condition of the well in terms of skin. The cumulative production from the well has been about 4.7 Bcf. Based on an abandonment pressure of 450 psi it appears that proved reserves of about 200 MMcf are reasonable. Using a risk factor of 90% yields adjusted **proved reserves of 180 MMcf**. Acidizing the well should improve the flow rate, but fluid buildup in the wellbore will continue to be a problem due to liquid loading



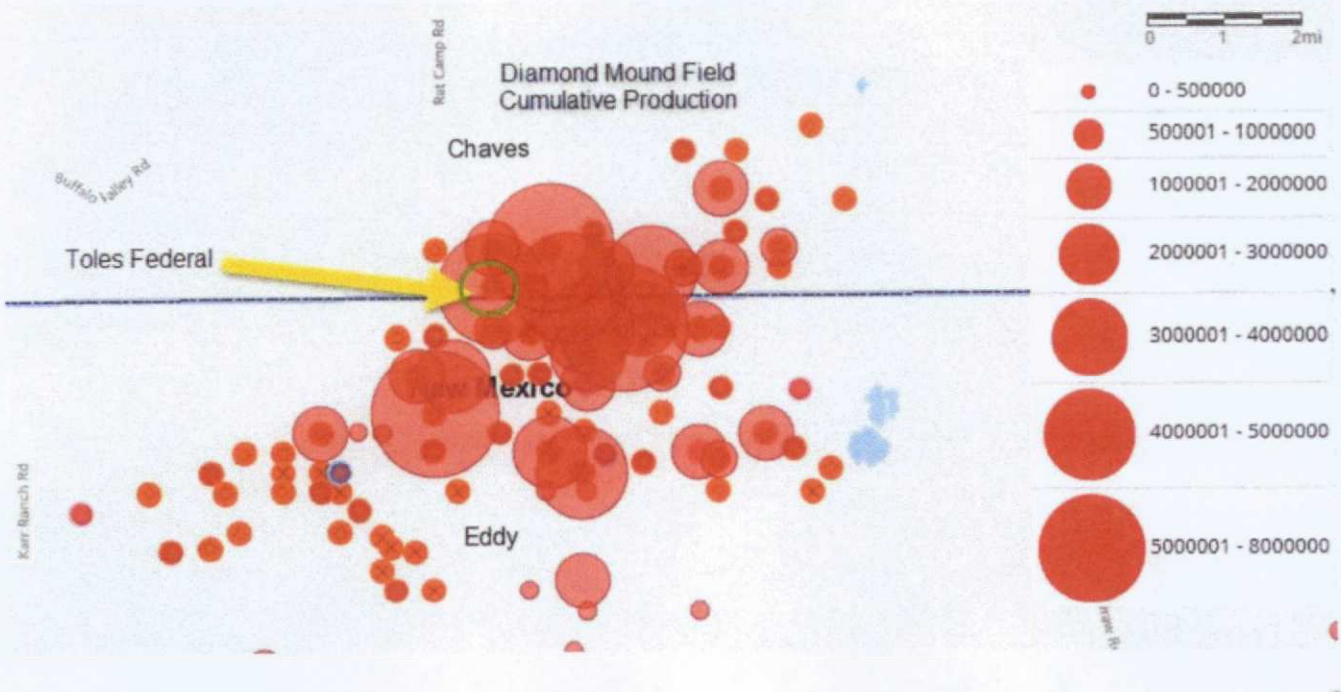


The cumulative production from the Morrow formation has been about 4.7 Bcf as of October 2016. Based on the log characteristics and the gas in place from the BHP/z plot above it would appear that this well is producing from an area of about +/- 500 acres. This potentially large area would suggest the permeability to be +5 mD, although more work would be need to verify this comment. The cumulative production map below show how this type of production is possible.

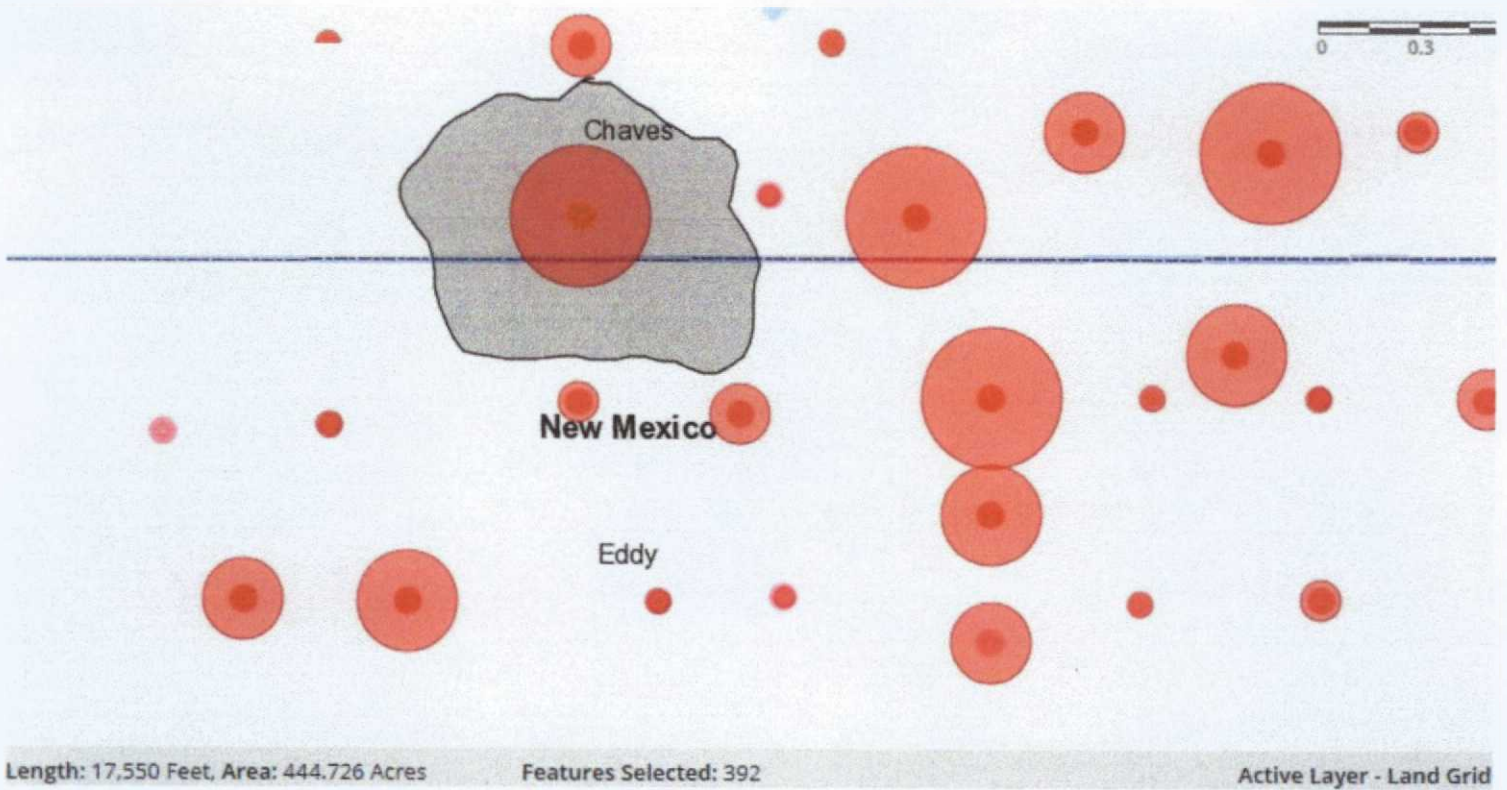




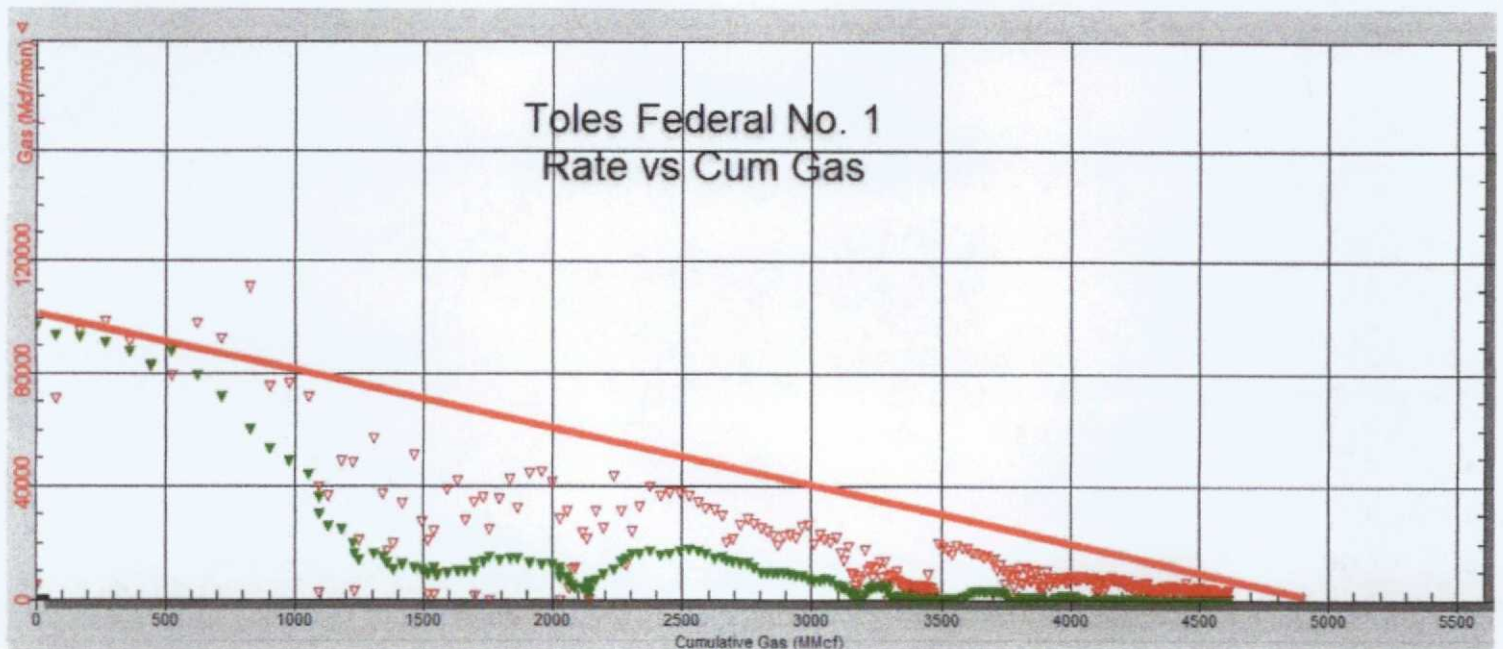
Map of cumulative production (Mcf) from the Diamond Mound Field as of October 2016. Clearly the area around the Toles Federal is a highly fractured area with communicating fractures in multiple directions



This map shows the approximate drainage area of the Toles Federal No. 1. Shown is an area of 455 acres, but could be even larger with no competitive wells to the west and limited production north and south.



The rate vs cum production plot below show that for a good amount of time this well has been underperforming its potential. This would give further evidence of wellbore damage. There is some room for improved production, but not a lot.



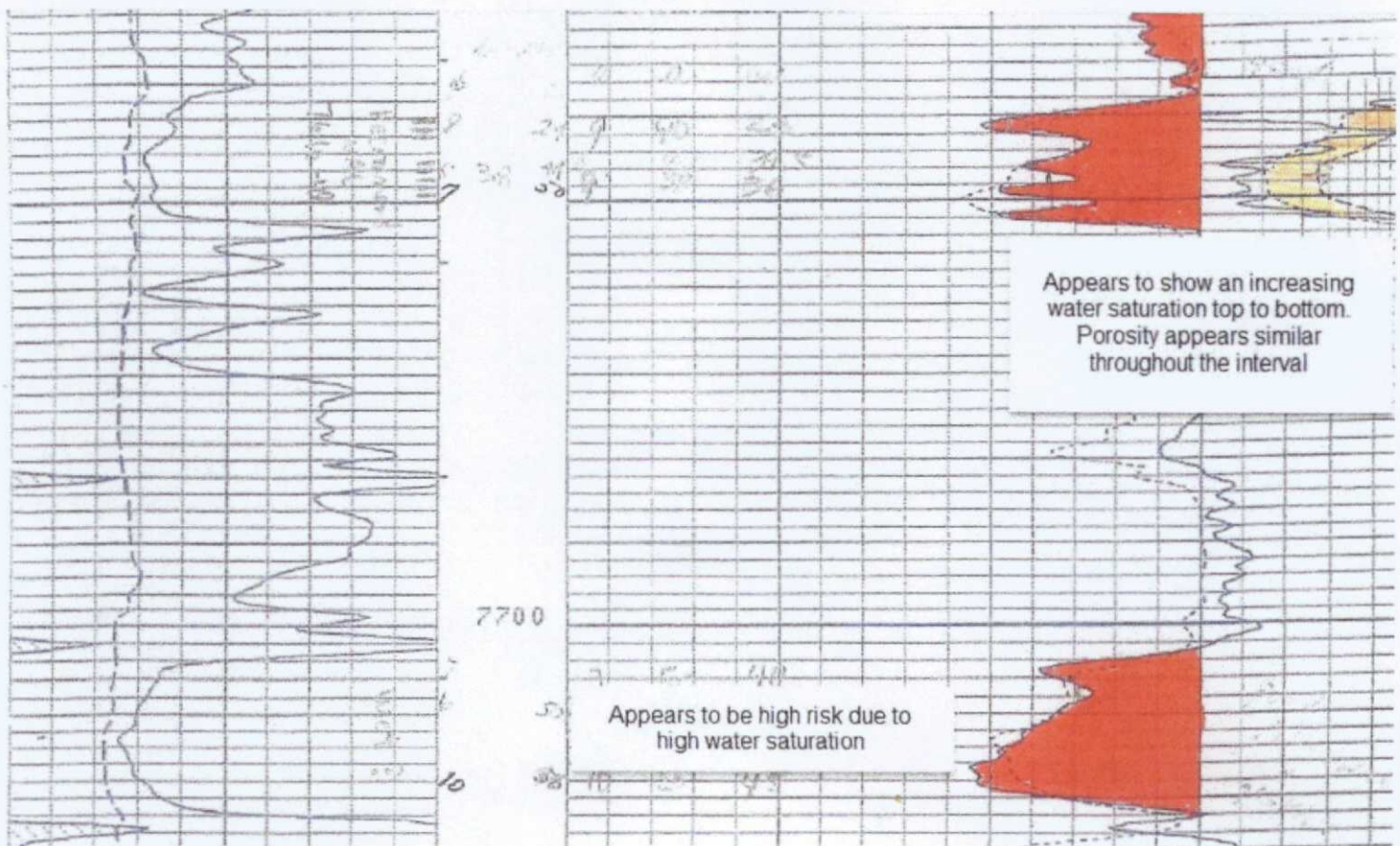


## Atoka Formation (8695-8710)

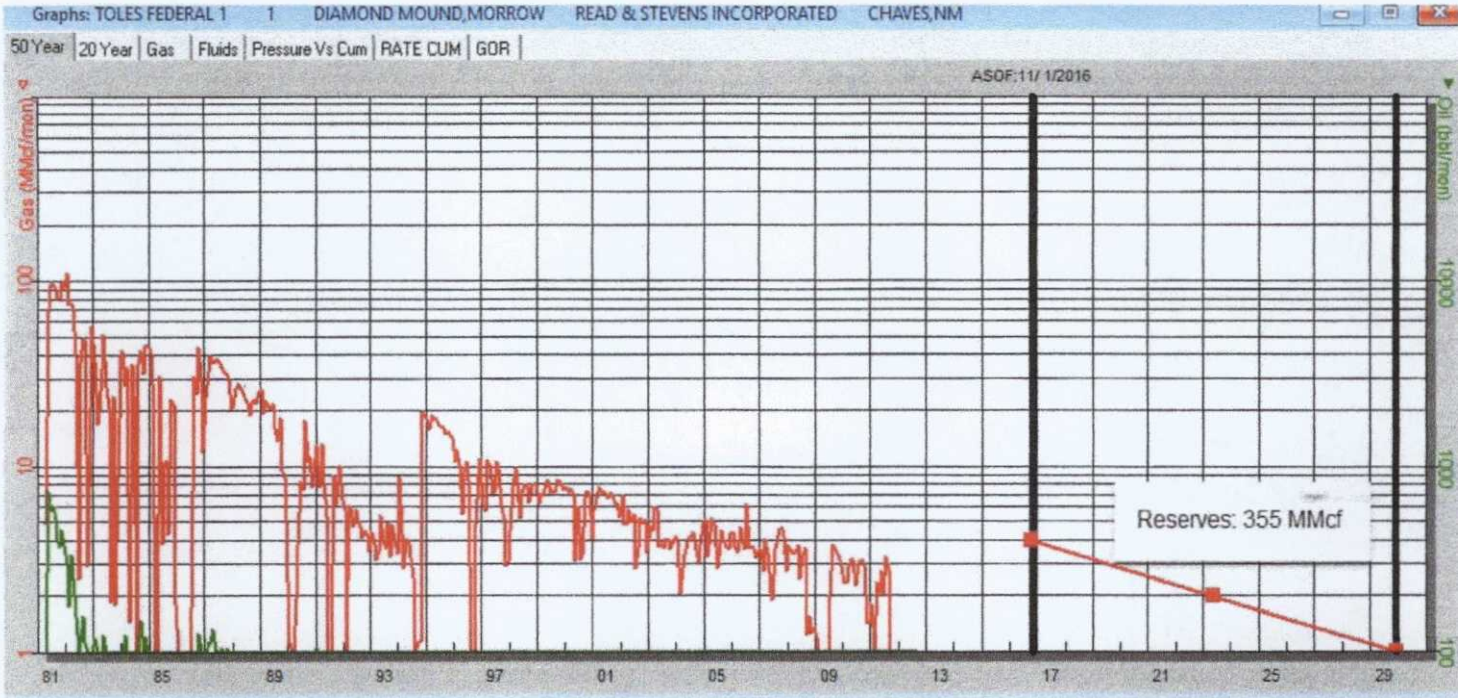
Based on the data from the Morrow formation and log shown above, it is probably true that whatever reserves there were in the upper Atoka are already in communication with the lower Morrow formation.

## Pennsylvanian Formation (7645-7655)

Based on a review of 282 completions in the Penn formation there were 86 wells with cumulative production less than 50 MMcf this represents 35% of all Penn completions. In the interval from 50-400 MMcf there were 70 completions for 24%. This leaves 44% of wells completed in the Penn greater than 400 MMcf. Based on these rough numbers it is estimated that the volumetric recovery from this interval could be as much as 350 MMcf of probable reserves. Assuming a 75% recovery rate, this is a gas in place number of 470 MMcf. Volumetrically 10 ft, 160 acres, 40% water saturation and 9% porosity would yield 500 MMcf in place. Because the zone has not been tested a risk factor of 50% as used to determine the adjusted **probable reserve of 175 MMcf.**



# Historical Production Plot with Forecast





## McMillan, Michael, EMNRD

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**From:** Matt Murphy <conquestenergy@gmail.com>  
**Sent:** Thursday, November 17, 2016 12:50 PM  
**To:** McMillan, Michael, EMNRD  
**Subject:** Re: Revised C-107A - Toles Federal #1

Yes. I can send you copy of master log (that section) in a couple of minutes.

On Thu, Nov 17, 2016 at 12:48 PM, McMillan, Michael, EMNRD <[Michael.McMillan@state.nm.us](mailto:Michael.McMillan@state.nm.us)> wrote:

So it is based on well log analysis?

**From:** Matt Murphy [mailto:[conquestenergy@gmail.com](mailto:conquestenergy@gmail.com)]  
**Sent:** Thursday, November 17, 2016 12:47 PM  
**To:** McMillan, Michael, EMNRD <[Michael.McMillan@state.nm.us](mailto:Michael.McMillan@state.nm.us)>  
**Subject:** Re: Revised C-107A - Toles Federal #1

It is just a rough estimate. There is only 1' of proposed pay. If needed we do not need to perforate it.

On Thu, Nov 17, 2016 at 12:45 PM, McMillan, Michael, EMNRD <[Michael.McMillan@state.nm.us](mailto:Michael.McMillan@state.nm.us)> wrote:

How did you get the reserves for the Strawn?

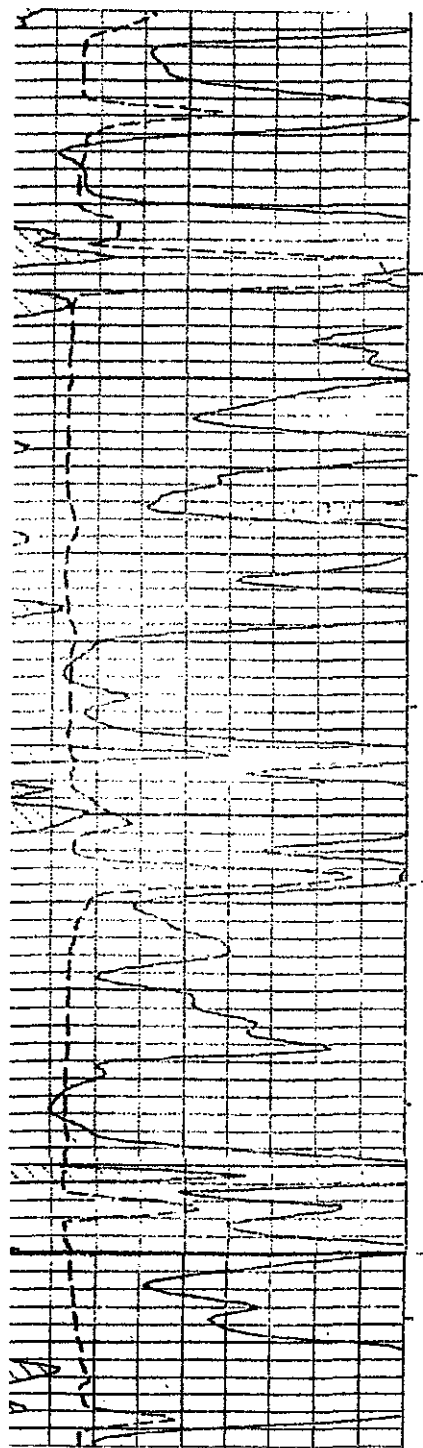
**From:** Matt Murphy [mailto:[conquestenergy@gmail.com](mailto:conquestenergy@gmail.com)]  
**Sent:** Thursday, November 17, 2016 12:04 PM  
**To:** McMillan, Michael, EMNRD <[Michael.McMillan@state.nm.us](mailto:Michael.McMillan@state.nm.us)>  
**Subject:** Revised C-107A - Toles Federal #1

Mike,

I attached the revised C-107. Please let me know if it meets your approval or if it requires further revisions.

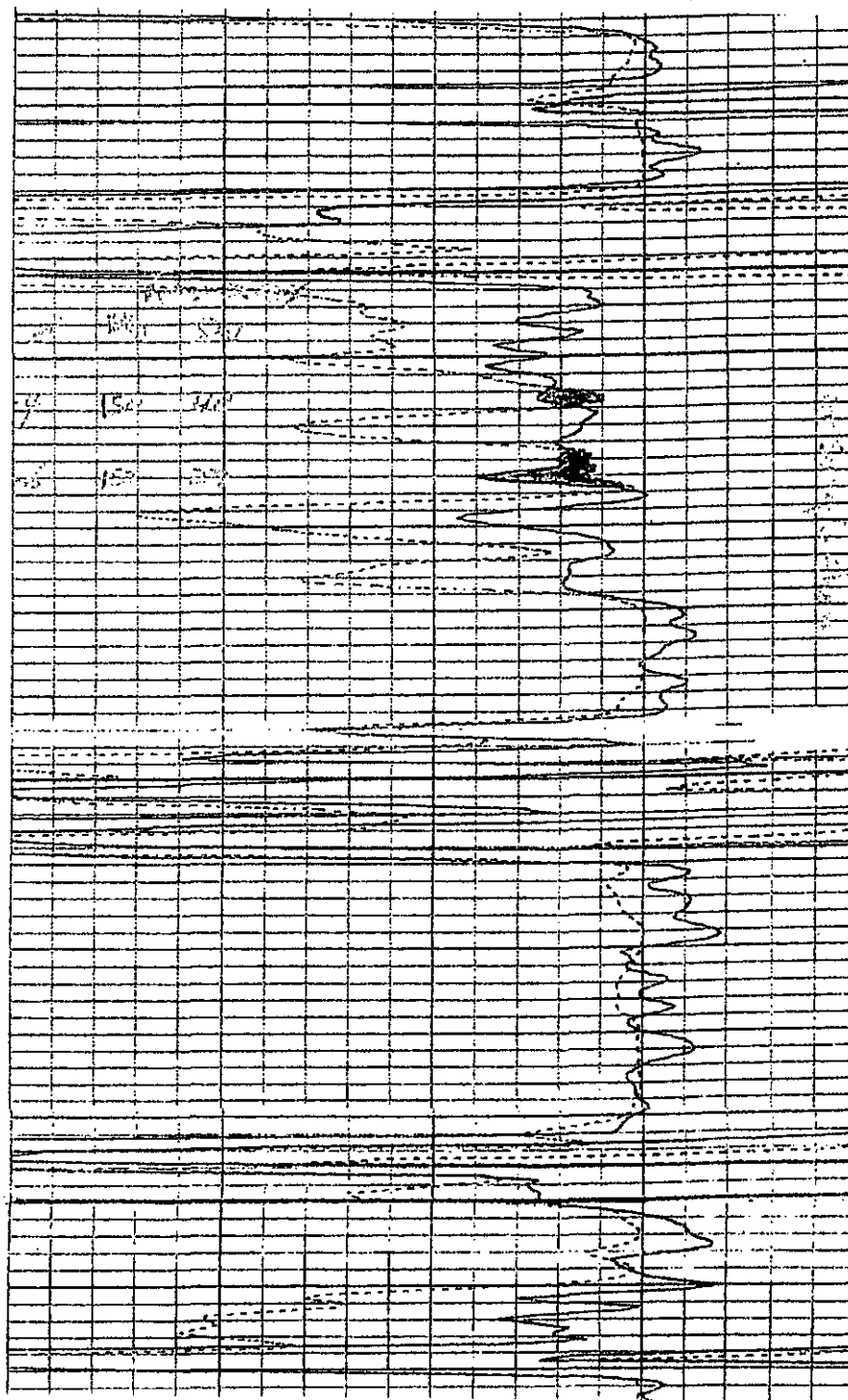
Thanks,

# Strawn section



8200

8300



NO. 1

**McMillan, Michael, EMNRD**

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**From:** Matt Murphy <conquestenergy@gmail.com>  
**Sent:** Wednesday, November 16, 2016 9:38 AM  
**To:** McMillan, Michael, EMNRD  
**Subject:** Re: Read and Stevens Toles Federal Well No. 1 Administrative

Mike,

Please read the statement below from Garry Ward in regards to Morrow/Atoka reserves and etc. Do you need a revised report from him? Or will this statement be acceptable? I will forward you the revised C-107 and add the C-102 for the Atoka, asap. Thanks.

Best regards,

Matt Murphy

**Reserve Conclusions Revised (Nov. 16,2016)**

I make reference to my earlier report to you regarding reserves attributable to the Atoka and Morrow formations. Based on the results of that study I had concluded that the Atoka and Morrow formations are most likely both contributing the production of the Toles Federal No. 1. *In my previous report, I attributed reserves to the Morrow/Atoka at 180 MMcf. Given that the Morrow appears to have better log characteristics than the Atoka and given that a review of Atoka in the surrounding area has proven to be less prolific than production attributed to the Morrow zone by itself, reserves would be split based solely on net feet of pay calculated from the open hole log. It appears that the Morrow net pay would be 15 ft out of the 25 ft used in the volumetric calculations. Therefore, based on this simple formula Morrow reserves would be 108 MMcf and Atoka reserves would be 72 MMcf.*

There was some question as to current reservoir pressure. Although this cannot be determined directly from the limited data available from this well alone, the offset wells showed the pressure to be about 800 psi in 2001. Additional depletion, based on production from the Toles Federal No. 1 and other wells, appears to have move the reservoir pressure from 800 psi down to about 700 psi today. It is based on this observation that reserves have been assigned to the Morrow/Atoka formations for this well.

Thanks

Garry Ward

6030 Spring Oak Hollow

Spring, Texas

713-992-1336

On Tue, Nov 15, 2016 at 12:18 PM, McMillan, Michael, EMNRD <[Michael.McMillan@state.nm.us](mailto:Michael.McMillan@state.nm.us)> wrote:

Matt:

The OCD will require the following information.

The OCD will require a signed statement from a landman stating identical ownership.

Next, your application states that the Atoka is in communication with the Morrow; therefore you must include the Atoka in your application. You will need a C-102 for the Atoka in your application. Include another C-107A that has new allocation percentages and all of the pools

As a practical procedure, if the different zones have identical ownership, then the decimal allocation percentages are not required, as an example round the Pennsylvanian to 51%.

Also, you state the reservoir pressure is 3000 psi; however, it has produced 4.7 Bcf. If I am reading your plot correctly, the reservoir pressure is 720 psi.

How long have you lived in Roswell-I think I went to Goddard with you-I have lived in Albuquerque for 11 years.

Tell Rory I said hello

**MICHAEL A. MCMILLAN**

Engineering Bureau, Oil Conservation Division

1220 south St. Francis Dr., Santa Fe NM 87505

O; 505.476.3448



Michael.McMillan@state.nm.us

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Phone:(575) 393-6161 Fax:(575) 393-0720**District II**811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720**District III**1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170**District IV**1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural**  
**Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-102  
August 1, 2011

Permit 227736

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number <b>30-005-60782</b>	2. Pool Code <b>76060</b>	3. Pool Name <b>DIAMOND MOUND;ATOKA (GAS)</b>
4. Property Code <b>9576</b>	5. Property Name <b>TOLES FEDERAL</b>	6. Well No. <b>001</b>
7. OGRID No. <b>18917</b>	8. Operator Name <b>READ &amp; STEVENS INC</b>	9. Elevation <b>3518</b>

**10. Surface Location**

UL - Lot <b>O</b>	Section <b>34</b>	Township <b>15S</b>	Range <b>27E</b>	Lot Idn	Feet From <b>660</b>	N/S Line <b>S</b>	Feet From <b>1980</b>	E/W Line <b>E</b>	County <b>CHAVES</b>
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**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres <b>320.00</b>	13. Joint or Infill			14. Consolidation Code			15. 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**

	<b>OPERATOR CERTIFICATION</b>	
	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 unleased mineral interest in the land including the proposed bottom hole location(s) 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.	
	E-Signed By: Title: <b>President &amp; Chairman Read Stevens, Inc</b> Date: <b>12 November 2016 Agent for R&amp;S, Inc</b>	
	<b>SURVEYOR CERTIFICATION</b>	
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.		
Surveyed By: <b>John West</b> Date of Survey: <b>8/23/1980</b> Certificate Number: <b>676</b>		

READ & STEVENS, INC.  
OIL PRODUCERS

Mailing address  
P. O. Box 1518  
Roswell, New Mexico 88202

400 Penn Plaza, Suite 1000  
Roswell, New Mexico 88201

Phone: 575/622-3770  
Fax: 575/622-8643

November 16, 2016

Energy, Minerals and Natural Resources Department  
Attn: Michael McMillan  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Toles Federal #1 - C-107 Attestation  
Section 34-T15S-R27E  
Chaves County, New Mexico

Mr. McMillan:

After a review of our records we have determined that ownership within the captioned wellbore is identical from the surface of the Earth to 9,000 feet, which represents total vertical depth of this wellbore. All zones proposed to be commingled are presently penetrated by the wellbore; there will be no deepening operations. Thus, upon information and belief, Read & Stevens, Inc. attests and confirms the identical ownership within all zones identified in the attendant Application for Downhole Commingling.

Regards,



Derik Smith  
Landman  
575.624.3751 direct  
316.214.5299 cell  
575.625.0279 fax  
dsmith@read-stevens.com