

received
December 2014

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 _____

- IPI
- Alamo Petroleum Resources, LLC
274841
- well
- West Antesia Graybung
4 unit #12
30-015-02649
Pool
- Antesia, Queen-
Graybung - SAN
Andres
3230

[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.

Tyler Woodruff		Senior Landman	12/11/14
Print or Type Name	Signature	Title	Date
		twoodruff@alamoresources.com	
		e-mail Address	



December 1, 2014

Energy, Minerals, and Natural Resources Department
Oil Conservation Division
1220 South St. Francis drive
Santa Fe, New Mexico 87505

Attention: Ms. Jami Bailey, CPG
Division Director

Re: Injection Pressure Increase Application
Alamo Permian Resources, LLC
West Artesia Grayburg Unit Well No. 12
Pool: Artesia-Queen-Grayburg-San Andres Pool (3230)
Eddy County, New Mexico

Dear Ms. Bailey,

Alamo Permian Resources, LLC ("Alamo"; OGRID No. 274841), as current operator of the West Artesia Grayburg Unit Waterflood Project, located in portions of Sections 7, 8, & 17, Township 18 South, Range 28 East, NMPM, Eddy County, New Mexico, hereby requests administrative approval to increase the surface injection pressure for the West Artesia Grayburg Unit Well No. 12, API # 30-015-02649 ("WAGU Well No. 12").

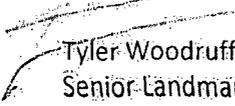
The WAGU Well No. 12 was approved for injection under Ordering Paragraph (1) of Division Order No. R-3357-C dated March 17, 2011. Pursuant to Ordering Paragraph (12) of Division Order No. R-3357-C, Alamo was approved a maximum surface injection pressure of 423 psi for the abovementioned well.

On November 13, 2014, Alamo conducted a step rate injection test on the WAGU Well No. 12. The performed step rate test indicates a surface fracture pressure was not reached at a surface pressure maximum of 1705 psi for the abovementioned well. Attached for your use and review is the Cardinal Surveys Company report on the step rate test performed on the WAGU Well No. 12.

Based on the results of the step rate test, Alamo, hereby requests authority to increase the maximum surface injection pressure to 1400 psi for the WAGU Well No. 12. The WAGU Well No. 12 will not take a sufficient volume of fluid at the current pressure limit and an approval of the proposed pressure increase will allow Alamo to effectively and efficiently conduct secondary recovery operations within the West Artesia Grayburg Unit Waterflood Project, thereby increasing the recovery of hydrocarbons from the Artesia-Queen-Grayburg-San Andres Pool (3230).

Should you have any questions or need any additional data, please do not hesitate to contact me.

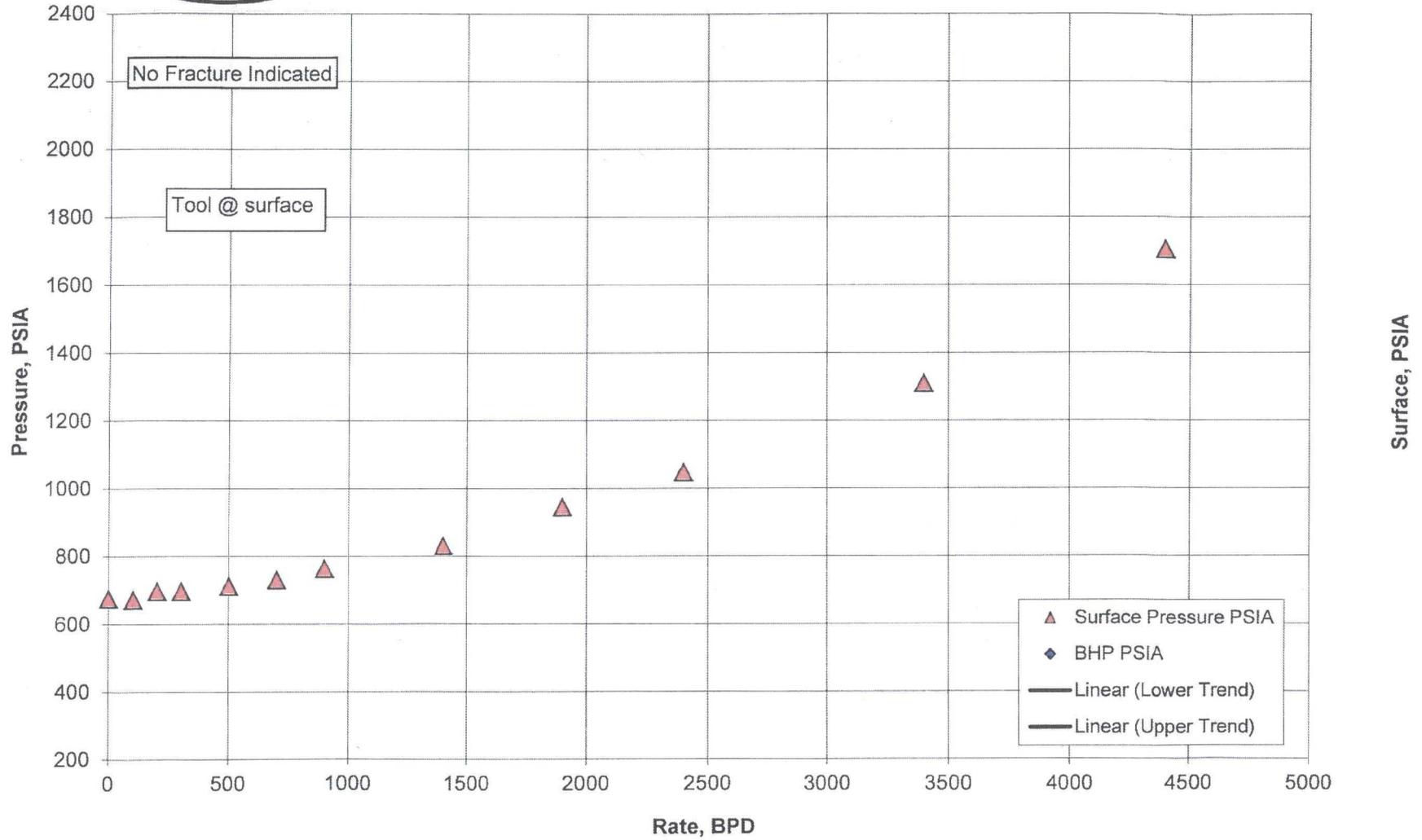
Sincerely,


Tyler Woodruff
Senior Landman

CC: Randy Dade, OCD District II Supervisor

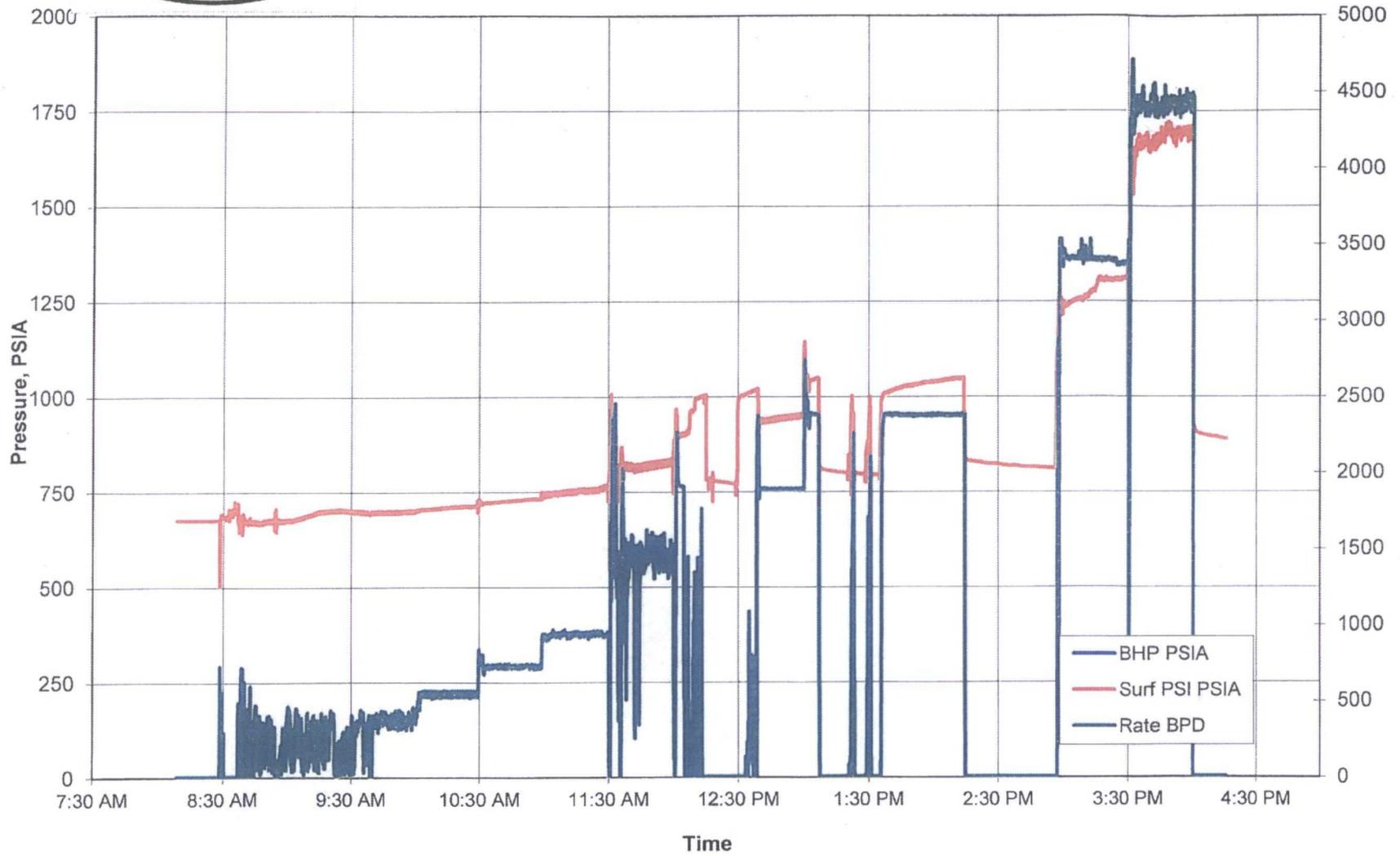


Alamo Resources WAGU # 12
Step Rate Test 11/13/2014

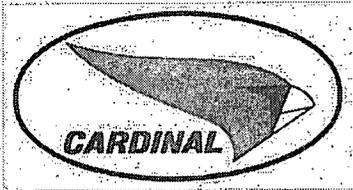




Alamo Resources WAGU # 12
Step Rate Test 11/13/2014



Step Rate Test



Cardinal Surveys Company

11/13/2014

No Fracture Indicated

Alamo Resources

WAGU #12

N/A

Eddy County, County

SC File # 21975

Tool #

Downhole PSI Tool Ser. No:

Surface PSI Gauge Ser. No:

Tool @ surface

Start Time	End Time	Rate BPD	Comments
1	8:10 AM	8:30 AM	0 Start Rate 8:30 AM
2	8:30 AM	9:00 AM	100
3	9:00 AM	9:30 AM	200
4	9:30 AM	10:00 AM	300
5	10:00 AM	10:30 AM	500
6	10:30 AM	11:00 AM	700
7	11:00 AM	11:30 AM	900
8	11:30 AM	12:00 PM	1400
9	12:30 PM	1:00 PM	1900
10	1:45 PM	2:15 PM	2400
11	3:00 PM	3:30 PM	3400
12	3:30 PM	4:00 PM	4400
13	4:00 PM	4:15 PM	0 Fall Off

Step Rate Test

Alamo Resources

WAGU #12

N/A

Eddy County, County,



	S Time	E Time	D Time	Last Rate	Step #	Pressure	Surf	Cum	Delta	Avg		
			Min	BPD	BPD	PSIA	PSIA	BBL	BBL	BPD		
1	8:10 AM	8:30 AM	20	0	0		675	0	0	0		
2	8:30 AM	9:00 AM	30	100	100		672	3.3	3.3	158.4		
3	9:00 AM	9:30 AM	30	200	100		697	7.9	4.6	220.8	1.3	
4	9:30 AM	10:00 AM	30	300	100		696	15.1	7.2	345.6	2.6	
5	10:00 AM	10:30 AM	30	500	200		712	25.6	10.5	504	3.3	
6	10:30 AM	11:00 AM	30	700	200		730	40.5	14.9	715.2	4.4	
7	11:00 AM	11:30 AM	30	900	200		764	60.4	19.9	955.2	5	
8	11:30 AM	12:00 PM	30	1400	500		831	88.2	27.8	1334.4	7.9	#REF!
9	12:30 PM	1:00 PM	30	1900	500		945	125.2	37	1776	9.2	#REF!
10	1:45 PM	2:15 PM	30	2400	500		1048	204.5	79.3	3806.4	42.3	#REF!
11	3:00 PM	3:30 PM	30	3400	1000		1310	279.3	74.8	3590.4	4.5	#REF!
12	3:30 PM	4:00 PM	30	4400	1000		1705	369.2	89.9	4315.2	15.1	#REF!
13	4:00 PM	4:15 PM	15	0	4400		886	369.2	0	0	-89.9	#REF!

#DIV/0! #DIV/0!

#DIV/0! #DIV/0!

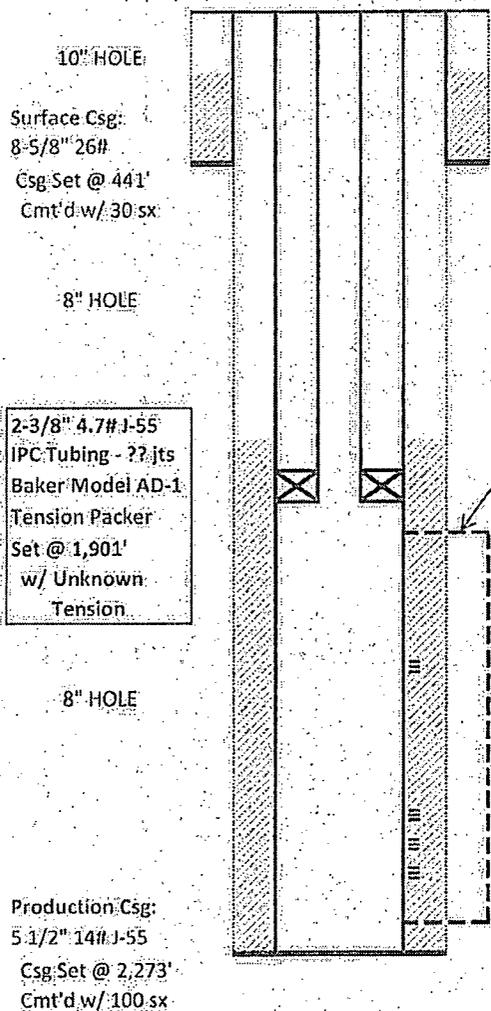
int.point: #DIV/0! BPD

#DIV/0! Psia

**ALAMO PERMIAN RESOURCES, LLC
WELLBORE DIAGRAM**

Lease/Well No.: **WAGU No. 012 WIW** ELEVATION, GL: 3,623' ft
 Location: 1,650' FSE & 990' FWL
 UL: L, SEC: 8-T, 18-S, R: 28-E FIELD: ARTESIA: QN-GB-SA
 EDDY County, NM
 LEASE No.: State E-7179 Spudded: 9/7/1957
 API No.: 30-015-02649 Drig Stopped: 10/7/1957
 Completed: 10/11/1957

CABLE TOOLS



TOC Est'd @ 228'	TOPS	DEPTH, ft
Calc'd (75% SF)	YATES	478
	SEVEN RIVERS	789
441' Csg	QUEEN	1,435
	LOCO HILLS	1,966
	GRAYBURG	1,982
	SAN ANDRES	2,268

TOC Est'd @ 1,735'
Calculated (75% SF)

PROPOSED INJECTION INTERVAL for WAGU #012 WIW:
1,966' - 2,268'
INJECTION ZONES: LOCO HILLS, GRAYBURG, METEX, & PREMIER.

PERFS:	Zone	SPF - # Holes	Date
	GB - Zone 12		
	GB - Zone 11		
	GB - Zone 10		
	GB - Zone 9		
2114 - 2120'	GB - Zone 8	6' 4 spf - 24 holes	04/01/60
	GB - Zone 7		
	GB - Zone 6		
	GB - Zone 5		
	GB - Zone 4		
2204 - 2210'	GB - Zone 3	6' 4 spf - 24 holes	04/01/60
2236 - 2238'	GB - Zone 2	2' 4 spf - 8 holes	10/07/57
2245 - 2253'	GB - Zone 1	8' 4 spf - 32 holes	10/07/57
	TOTALS:	22' - 88 holes	

Originally Drilled as the SIGNAL STATE #1 by Roach & Sheppard.
 Renamed WAGU Tract 5 #12 - 03/21/68.
 Initial Water Injection: 04/25/71 with packer @ 2189' & perforations 2114-20',
 2204-10', 2236-38', & 2245-53'.

Cumulative Prod. (04/30/14):
 OIL 50,656 MBW
 GAS 3,836 MMCF
 WATER 18,433 MBW
 INJECT. 573,000 MBW

HPS: 06/26/2014

Eddy County, New Mexico

T18S-R28E

Alamo Permian Resources, LLC

West Artesia Grayburg Unit

Waterflood Project



WAGU No. 4:
IPI-481
FPP: Not indicated
Proposed: 991 psi
Proposed Gradient: 0.50 psi/ft

WAGU No. 1:
IPI-475
FPP: 1154 psi
Approved: 1104 psi
Approved Gradient: 0.56 psi/ft

WAGU No. 13:
IPI application or order

WAGU No. 12:
IPI-482
FPP: Not indicated
Operator Proposed: 1705 psi
Operator Proposed Gradient: 0.81 psi/ft
Bureau Proposed: 1260 psi
Bureau Proposed Gradient: 0.60 psi/ft

WAGU No. 6:
IPI-475
FPP: 1284 psi
Approved: 1234 psi
Approved Gradient: 0.61 psi/ft

WAGU No. 18:
IPI-480
FPP: 1158 psi
Approved: 1108 psi
Approved Gradient: 0.55 psi/ft

West Artesia Grayburg Unit

Horizontal Scale:
One Mile



Map Key

- Grayburg Producer (WAGU Number Posted)
- Grayburg WIW (WAGU Number Posted)
- Plugged Grayburg Well
- Alamo Permian Resources, LLC Leasehold

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 14611 Exhibit No. 3
Submitted by:
ALAMO PERMIAN RESOURCES, LLC
Hearing Date: March 17, 2011

R-3357-C and WFX-928 / WAGU No. 12 - IPI Application - SRT 2014 Results

