

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised August 1, 2011

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JUN 17 2013

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WELL APINO.	30-025-35956
Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
State Oil & Gas Lease No.	
Lease Name or Unit Agreement Name	State LPG Storage
Well Number	3
OGRID Number	248440
Pool name or Wildcat	Langlie Mathix
Elevation (Show whether DR, RKB, RT, GR, etc.)	3310 ft GL

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> LPG Storage	
2. Name of Operator	Western Refining Company, L.P.
3. Address of Operator	6500 Townbridge Drive, El Paso, TX 79905
4. Well Location	Unit Letter M : 1000 feet from the south line and 530 feet from the west line Section 32 Township 23S Range 37E NMPM County Lea
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	3310 ft GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Please see attached documents.

The Oil Conservation Division
MUST BE NOTIFIED 24 Hours
Prior to the beginning of operations

Condition of Approval: notify
OCD Hobbs office 24 hours
prior of running MIT Test & Chart

Rig Release Date:

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

SIGNATURE

on behalf of Western Refining Company, L.P.
Type or print name Eric T. Busch
For State Use Only

TITLE Vice President - Operations

DATE 05/29/2013

E-mail address: eric.c.louquist.com

PHONE: 713-559-9953

APPROVED BY

Conditions of Approval (if any):

TITLE Dist. Mgr

DATE 6/8-2013

JUN 18 2013

Well Information

Operator: Western Refining
Well Name: Jal Storage State LPG Well #3
API #: 30-025-35956
Field Name: Langlie Mattix
County: Lea
State: NM

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Sonar Survey Date: 08/31/2007
Sonar Volume: 137,721.70 bbls

Top of Salt @ 1,294.5'

13-3/8" Surface String:
54.5#, J-55
Cemented to surface w/ 185 sks
Set @ 285.5'

7" Liner:
23#, J-55 (Ran 08/2007)
Cemented to surface w/ 225 sks Class C, 14.8 lb/gal
Set @ 1,568.5'

9-5/8" Intermediate String:
36#, J-55
Cemented to surface w/ 910 sks
Set @ 1,655.5'

3-1/2" IF Drill Pipe Completion:
13.3#, E-Grade, Hung @ 2,449'

T.D. 2,460.5'

NOTE: All depths are measured depths.

LONQUIST

Jal Storage, State LPG Well #3



Western Refining

PROJECT NUMBER:

DRAWN:
CMO

REVIEWED:
ETB

APPROVAL:
NONE

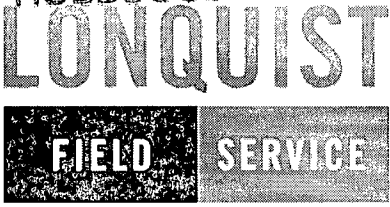
SCALE:
NONE

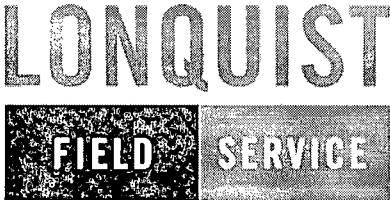
DATE:
May 2013

Drawing Number

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		Workover Prognosis		Project No.: F598			
				Date: May 31, 2013			
		Western Refining Company, L.P. State LPG Storage Well #3		Page: 1 of 7			
Well: State LPG Storage Well #3		State: New Mexico		County: Lea		Field: Langlie Mattix	
API #: 30-025-35956		Oper: Western Refining		Location: El Paso Refinery		Status: Class II Liquid Hydrocarbon Storage	
<p>INTRODUCTION:</p> <p>Western Refining Company, L.P. has issued a Request for Proposal (RFP) for the workover of its Class II State LPG Storage Well #3 at its Jal, New Mexico storage facility. The following document will detail the procedure and supplemental operations to return well #3 to storage service.</p> <p>The workover procedure will consist of the following basic steps:</p> <ol style="list-style-type: none"> 1. Move in/rig up pulling unit, reversing unit, power swivel, and BOP equipment. 2. Pull existing 4-1/2-inch completion. 3. Rig up fishing tools and attempt to retrieve 4-1/2-inch fish, lost in open hole. 4. Run new 3-1/2-inch drill pipe completion to well TD. 5. Nipple up wellhead, perform cavern MIT, and return well to service. <p>Additional information for the workover will be included or referenced in this document. The additional information includes:</p> <ul style="list-style-type: none"> • Appendix 1: Site Specific Safety Plan • Appendix 2: Current Wellbore Schematic • Appendix 3: Current Wellhead Schematic • Appendix 4: 2007 Sonar Survey <p>REGULATORY INFORMATION:</p> <p>This well is currently regulated under the provisions of the Oil and Gas Act, NMSA 1978, Section 70-2-1 et seq. and the Water Quality Act, NMSA 1978, Section 74-6-1 et seq. The New Mexico Oil Conservation Division Underground Injection Control Program Manual serves as a guideline to help operators comply with the NM OCD UIC program requirements. Title 19 Chapter 15 Part 2, Natural Resources and Wildlife, Oil and Gas, General Provisions for Oil and Gas Operations also has regulatory authority. The OCD District I will be notified prior to any work being performed, and all procedures will be approved by them.</p> <p>SAFETY INFORMATION:</p> <p>A daily well site safety meeting will be conducted by the Lonquist Field Service (LFS) supervisor prior to commencing any well work.</p> <p>The following safety gear and personal protective equipment are required:</p> <ul style="list-style-type: none"> • Hard Hat • Safety Glasses • Safety Shoes w/Ankle Support – Leather or Rubber • Gloves • Fall protection required – 6' or above • Any additional required safety equipment 							
PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature	
JEP	5-31-2013	ETB					

		Workover Prognosis		Project No.: F598	
		Western Refining Company, L.P. State LPG Storage Well #3		Date: May 31, 2013	
				Page: 2 of 7	
Well: State LPG Storage Well #3	State: New Mexico	County: Lea	Field: Langlie Mattix		
API #: 30-025-35956	Oper: Western Refining	Location: El Paso Refinery	Status: Class II Liquid Hydrocarbon Storage		

Additional safety and housekeeping items include:

- All personnel will be required to complete the safety orientation required by Western Refining
- "Lock-Out/Tag-Out" procedures to be followed according to Western Refining safety department
- Zero tolerance for any fluid release
- Spills and releases to be reported to Western Refining and LFS
- Any Injuries and Near Misses are to be reported and investigated to/by LFS and Western Refining
- Vehicles to have company placards or logos
- Good housekeeping standards
- All tanks and pumps to be set in secondary containment
- Spill kits to be on location

The following safety requirements must be completed prior to mobilization:

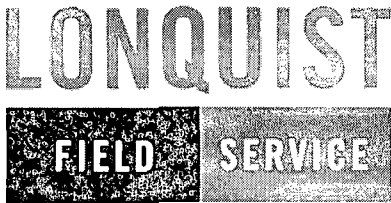
- LFS Site Specific Safety Plan

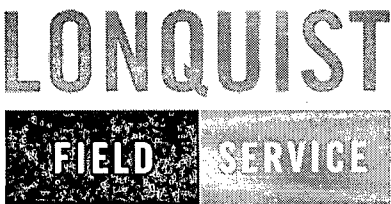
WORK PLAN:

Workover Procedure

- 1) Prepare surface location and locate and test existing rig anchors.
- 2) Move in and rig up reversing unit, pulling unit, power swivel, BOP equipment, and fishing equipment.
- 3) Bleed off pressure on 4-1/2-inch x 7-inch annulus, and load tubing with salt saturated brine. Once pressures are bled to 0 psi, nipple down wellhead to access 4-1/2-inch casing hanger assembly, just below the 11-inch 3M x 4-1/16-inch 3M adapter spool.
- 4) Nipple up BOP equipment consisting of 11-inch 3M annular BOP, diesel or gasoline powered closing unit, and hose/hydraulics package. Function test all BOP components.
- 5) Make up fishing tools and spear into 4-1/2-inch tubing string. An Arrowset 1-X packer is set at 1,550' BGL, with 10,000 lbs compression.
 - a. Release packer by slacking off at least 1,000 psi, and rotate ¼ turn to the right. This should release the tool.
 - b. If this release mechanism doesn't work, rotate hard to the right 15 turns. This is the secondary release mechanism for this tool.
- 6) Once packer is released, rig up reversing unit and reverse circulate salt saturated brine for 1 casing volume, diverting recovered brine and produced hydrocarbon to a tank located downwind of the location.
 - a. Casing volume of 7-inch 23 ppf final cemented string to 1,568.5' BGL (casing TD) is 61.75 bbls.
 - b. Ensure sufficient brine is kept on location during workover operations to perform three well kill operations.
 - c. Any brine remaining at the end of the workover and any recovered fluids will be hauled to disposal.
- 7) Rig up casing crew and pull 4-1/2-inch completion, laying out tubing for inspection or scrap. Lay out packer for re-dress or return to Weatherford.
- 8) Make up 2-7/8-inch work string and run in open ended. Slow running rate down as work string exits 9-5/8-inch casing shoe at 1,655.5'. RIH very slowly to attempt to tag top of fish at 1,737'.
 - a. If fish is tagged, displace tubing with freshwater, and run downhole video to determine condition of

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		Workover Prognosis		Project No.: F598			
		Western Refining Company, L.P. State LPG Storage Well #3		Date: May 31, 2013			
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Well: State LPG Storage Well #3		State: New Mexico		County: Lea		Field: Langlie Mattix	
API #: 30-025-35956		Oper: Western Refining		Location: El Paso Refinery		Status: Class II Liquid Hydrocarbon Storage	
<p>fishing neck. Work string volume is 9.11 bbls.</p> <p>b. If picture is unclear or murky, displace tubing with nitrogen, and re-run video. Required nitrogen volume is estimated at 8,100 scft, including 10% excess. Mobilize appropriate fishing tools to attempt to recover fish.</p> <p>c. If fish is not tagged, do not run in hole further than 1,750'. POOH 2-3 stands and attempt to RIH to location fish. Continue to work pipe to locate fish. If after several attempts, fish is not contacted, POOH with tubing string and run final completion string. If fish is contacted proceed with step 8-a.</p> <p>9) Rig up fishing tools and RIH on 2-7/8-inch work string. Fishing will be performed for three days. If the fish is not caught within this timeframe, prepare to run final completion string.</p> <p style="margin-left: 20px;">a. Fish consists of, from 2,445' BGL to top of fish:</p> <p style="margin-left: 40px;">i. 6.125-inch bit</p> <p style="margin-left: 40px;">ii. 280.3' of 4-1/2-inch 15.10 ppf C-75 PH-6 tubing</p> <p style="margin-left: 40px;">iii. 426.5' of 4-1/2-inch 11.60 ppf K-55 LTC tubing, box up</p> <p style="margin-left: 40px;">iv. Top of fish is located at 1,737' BGL, and end of fish is located at 2,445' BGL</p> <p>b. The first proposed fishing run will consist of 5-3/4-inch overshot dressed with 4-1/2-inch grapple and mill control, 4-3/4-inch bumper jar, 4-3/4-inch oil jar, 6 x 4-3/4-inch drill collars, with 2-7/8-inch work string to surface. TIH with assembly and attempt to latch and jar fish free. If successful, POOH, laying down fish. If unsuccessful, proceed to next fishing assembly.</p> <p>c. The second proposed fishing run will consist of 5-3/4-inch overshot dressed with 4-1/2-inch grapple and mill control, one bent joint of work string, crossover, 4-3/4-inch bumper jar, 4-3/4-inch oil jar, 6 x 4-3/4-inch drill collars, with 2-7/8-inch work string to surface. TIH with assembly and attempt to latch and jar fish free. If successful, POOH, laying down fish. If unsuccessful, proceed to next fishing assembly.</p> <p>d. The third proposed fishing run will consist of 6-inch ROD wavy shoe, 10 x 5-3/4-inch wash pipe, top bushing, 4-3/4-inch bumper jar, 4-3/4-inch oil jar, 6 x 4-3/4-inch drill collars, with 2-7/8-inch work string to surface. TIH with assembly and attempt to wash over fish to 2,460'. If successful, POOH and run next fishing assembly. If unsuccessful, continue attempts to wash over fish as deep as possible.</p> <p>e. The fourth proposed fishing run will consist of 5-3/4-inch overshot dressed with 4-3/4-inch grapple and mill control, crossover, one bent joint of work string, crossover, 4-3/4-inch bumper jar, 4-3/4-inch oil jar, 6 x 4-3/4-inch drill collars, with 2-7/8-inch work string to surface. TIH with assembly and attempt to latch and jar fish free. If successful, POOH, laying down fish.</p> <p>f. Fishing BHAs and schedule will be adjusted based on run success. If fish cannot be retrieved, proceed to run completion and attempt to rotate past obstruction if encountered.</p> <p>10) Once fish has been caught, POOH, racking back work string and fishing equipment and laying down fish.</p> <p>11) Lay down work string and fishing tools once all of the fish has been pulled.</p> <p>12) Offload and tally 3-1/2-inch E Grade yellow band drill pipe.</p> <p>13) Rig up handling tools, elevators, tongs, and slips to run completion string, consisting of the following:</p> <p style="margin-left: 20px;">a. 6.125-inch OD tri-cone bit;</p> <p style="margin-left: 20px;">b. 3-1/2-inch REG box x 3-1/2-inch IF box crossover;</p> <p style="margin-left: 20px;">c. 81 joints of 3-1/2-inch 13.30 E-Grade drill pipe;</p> <p style="margin-left: 20px;">d. 3-1/2-inch 13.30 ppf pin x 4-1/2-inch 11.60 ppf K-55 LTC box cross-over;</p> <p style="margin-left: 20px;">e. 4-1/2-inch 11.60 ppf K-55 LTC landing joint</p> <p style="margin-left: 40px;">i. Final completion string will be based on manufacturer availability</p> <p style="margin-left: 40px;">ii. Once bit enters open hole, slowly run string in hole. At first sign of weight loss, pick up string, rig up power swivel, and slowly run string in hole, rotating and circulating. Work through any</p>							
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		Workover Prognosis		Project No.: F598			
		Western Refining Company, L.P. State LPG Storage Well #3		Date: May 31, 2013			
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Well: State LPG Storage Well #3		State: New Mexico		County: Lea		Field: Langlie Mattix	
API #: 30-025-35956		Oper: Western Refining		Location: El Paso Refinery		Status: Class II Liquid Hydrocarbon Storage	
<p style="text-align: center;">tight spots encountered, watching torque and stick/slip.</p> <ol style="list-style-type: none"> 14) Run completion to bottom, tag, and POOH to land tubing in hanger. 15) Nipple down BOP equipment, and nipple up upper wellhead assembly and surface piping. Shut in and secure well. Release all rental equipment, fishing tools, and pulling unit. 16) Rig up wireline services, run a 2.25-inch gauge ring to TD. Perforate drill string completion from 2,440'-2,430' at 6 spf, 60 degree phasing, 60 total shots. 							
<p>MIT Procedure</p> <p>Well Preparation Phase</p> <ol style="list-style-type: none"> 17) Wellhead should be isolated from all surface piping during the test. This may include blind flanges, skillet flanges, and 1" or 2" test flanges. <ol style="list-style-type: none"> a. Wellhead should keep the ability to bleed excess brine pressure back into surface system during the test if possible. Trucks will be used if necessary. 18) Install pressure recording equipment on wellhead. Pressure equipment should be able to record wellhead pressures and wellhead temperatures during the test period. Additional equipment to measure the nitrogen stream injected into the well will be necessary. <ol style="list-style-type: none"> a. All equipment calibration certifications to be provided with final reports. 19) Wellhead configuration should permit the use of a wireline lubricator and logging tools. 20) Pre-pressure the cavern to predetermined pressure with saturated brine <ol style="list-style-type: none"> a. See MIT Data Sheet 21) Wellhead pressure should be stable prior to starting the test. <ol style="list-style-type: none"> a. Stable wellhead pressure – Decline less than 10 psi/day 							
<p>Well Injection Phase</p> <ol style="list-style-type: none"> 22) Move in and rig up wireline unit, logging tools, pressure equipment, and nitrogen supplier. 23) Complete base density log and wellbore temperature log <ol style="list-style-type: none"> a. Base Temperature Log – (0' – TD) b. Base Density Log – (1,800' – 200' above casing shoe & 300' surface density log) c. Density logs should include: tubing collars, production casing shoe, and approved logging scales. d. All depths are approximate 24) Start Nitrogen Injection at a slow rate (<500 SCFM). Nitrogen temperature should be regulated to the average wellbore temperature. 25) Monitor the nitrogen/brine interface and wellbore pressures to locate the interface above the casing shoe and conduct a preliminary casing test. <ol style="list-style-type: none"> a. Casing Test – Minimum of 30 minutes b. Monitor and record wellhead pressures and interface at the start and completion of the test 26) Monitor the nitrogen/brine interface and wellbore pressures to locate the nitrogen/brine interface below the cemented casing shoe with a targeted pressure gradient of 0.75 psi/ft at the cemented casing shoe and not to exceed a test pressure gradient of 0.77 psi/ft at the cemented casing shoe at any time during injection. 27) After nitrogen/brine interface is located sufficiently below the cemented casing shoe stop nitrogen injection and shut well in for a short stabilization period. 28) Shut in for 30 minutes – Monitor pressures, interface location, and check wellhead for possible leak paths. 29) Complete post injection density logs 							
PREPARED BY		DATE		APPROVED BY		DATE	
JEP		5-31-2013		ETB			
CLIENT APPROVAL				Client Signature			

LONQUIST



Workover Prognosis

Western Refining Company, L.P.
State LPG Storage Well #3

Project No.: F598

Date: May 31, 2013

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Well: State LPG Storage Well #3

State: New Mexico

County: Lea

Field: Langlie Mattix

API #: 30-025-35956

Oper: Western Refining

Location: El Paso Refinery

Status: Class II Liquid Hydrocarbon Storage

- a. Post Injection Density Log – (1,800' – 200' above effective casing shoe).
 - b. Record wellhead pressures.
 - c. Density logs should include: tubing collars, nitrogen/brine interface, production casing shoe, and approved logging scales.
 - d. All depths are approximate
- 30) Remove logging tools and shut well for the stabilization period.
- 31) Complete test calculations based on wellhead pressure measurements, nitrogen volume measurements, wellbore temperatures, and interface locations.
- a. Refer to Test Calculations Section

Test Initialization

- 32) Move in and rig up wireline unit, logging tools, and pressure equipment.
- 33) Complete initial density log and wellbore temperature log
- a. Base Temperature Log – (0' – 1,800')
 - b. Initial Density Log – (1,800' – 200' above cemented casing shoe)
 - c. Density logs should include: tubing collars, nitrogen/brine interface, production casing shoe, and approved logging scales.
 - d. All depths are approximate
- 34) Shut well in for test period – Minimum of 24 hours

Test Finalization

- 35) After planned test duration, move in and rig up wireline unit, logging tools, and pressure equipment.
- a. Complete final density log and wellbore temperature log
 - b. Base Temperature Log – (0' – 1,800')
 - c. Initial Density Log – (1,800' – 200' above cemented casing shoe)
 - d. Density logs should include: tubing collars, nitrogen/brine interface, production casing shoe, and approved logging scales.
 - e. All depths are approximate
- 36) Determine if the test is complete based on results or if the test should be extended. Repeat Steps 17 - 19 if required.

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Workover Prognosis

Western Refining Company, L.P.
State LPG Storage Well #3

Project No.: F598

Date: May 31, 2013

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Well: State LPG Storage Well #3

State: New Mexico

County: Lea

Field: Langlie Mattix

API #: 30-025-35956

Oper: Western Refining

Location: El Paso Refinery

Status: Class II Liquid Hydrocarbon Storage

SCHEDULE OF ACTIVITIES:

Day 1: MIRU pulling unit, fishing tools, BOP equipment, and reversing unit. Load well, release packer, and pull completion.

Day 2: Run work string and down hole video. Fish for 4-1/2-inch tubing string lost in hole.

Day 3: Fish for 4-1/2-inch tubing string lost in hole.

Day 4: Fish for 4-1/2-inch tubing string lost in hole.

Day 5: Lay down fishing tools. Run new completion.

Day 6: Run new completion.

Day 7: Run new completion, rig down, and prepare well for nitrogen/brine MIT.

Day 8: Perform MIT.

Day 9: Perform MIT.

Day 10: Perform MIT (if necessary).

Reporting Information

Daily Reports – Email or Fax

- Dick Lonquist
- Eric Busch
- John Piehl

Final Reports – Email and Hard Copy

- Western Refining Company, L.P.
- Lonquist & Company, LLC

Final Reports to include:

- Daily Reports
- Well Schematics
- Well Completion Report
- Well Logs
- Photos

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Workover Prognosis

Project No.: F598

Western Refining Company, L.P.
State LPG Storage Well #3

Date: May 31, 2013

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Well: State LPG Storage Well #3

State: New Mexico

County: Lea

Field: Langlie Mattix

API #: 30-025-35956

Oper: Western Refining

Location: El Paso Refinery

Status: Class II Liquid Hydrocarbon Storage

Well Owner

Western Refining Company, L.P.
El Paso Refinery
212 N. Clark Street
El Paso, TX 79905

- Mr. Ken Parker – Owner's Representative
 - Office – (575) 395-2632
 - Mobile – (915) 471-1607
 - Email – ken.parker@wnr.com
- Mr. Ron Weaver – Owner's Representative
 - Office – (575) 632-4185
 - Mobile – (505) 320-7074
 - Email – ron.weaver@wnr.com

Regulatory

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Hobbs, NM 88240

- Gale Gonzales
 - Telephone – (575) 393-6161
 - Email – elidiol.gonzales@state.nm.us

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