eceived by QCD; 6/21/2021 8:02:04	AM State of New Me	exico		Form C-103
Office <u>District I</u> – (575) 393-6161	Energy, Minerals and Natu	ral Resources		Revised July 18, 2013
1625 N. French Dr., Hobbs, NM 88240 District II – (575) 748-1283			WELL API NO.	30-025-35955
811 S. First St., Artesia, NM 88210	OIL CONSERVATION		5. Indicate Type of Leas	
<u>District III</u> – (505) 334-6178 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Fran		STATE 🖂	FEE
<u>District IV</u> – (505) 476-3460	Santa Fe, NM 87	7505	6. State Oil & Gas Leas	e No.
1220 S. St. Francis Dr., Santa Fe, NM 87505				
SUNDRY NOT	ICES AND REPORTS ON WELLS OSALS TO DRILL OR TO DEEPEN OR PLU		7. Lease Name or Unit	Agreement Name
	CATION FOR PERMIT" (FORM C-101) FO	OR SUCH	State LPG Sto	orage Well
PROPOSALS.)  1. Type of Well: Oil Well	Gas Well Other LPG Stora	nge	8. Well Number	#002
2. Name of Operator		-6-	9. OGRID Number	
Western Refining Company, L	.P			248440
3. Address of Operator 19100 Ridgewood Parkway, Sa	an Antonio, TX 78259		10. Pool name or Wildo	at Salado
4. Well Location				
Unit Letter M	: 100 feet from the South	line and	feet from the	line
Section 32	Township 23S	Range 37E	NMPM Lea	County
	11. Elevation (Show whether DR,			
	eted operations. (Clearly state all perk). SEE RULE 19.15.7.14 NMAC. ompletion.  of LPG Storage Well #2 Date Work Completed: March 20, 20	ertinent details, and For Multiple Com	▼ JOB □  Workover  give pertinent dates, inclu  pletions: Attach wellbore	diagram of
Test Method was used for the test. No below the casing shoe. The well was with an annulus (nitrogen) pressure of feet. The test was finalized on March of 455.74 psig with the nitrogen-brin- year and a Minimum Detectable Leak the 7 inch cemented casing shoe (1,6' New Mexico, State LPG Storage Cav required for the storage of hydrocarbo	allowed to stabilize for approximate of 1,269.06 psig and a tubing (brine) 19 <sup>th</sup> , 2021 at 08:30 with an annulus e interface at 1,697 feet. The calcula k Rate ("MDLR") of 892.88 barrels 172 feet). Considering these results are vern #002 at the Jal Station Field, at the	ly 12 hours and on pressure of 459.53 (nitrogen) pressure tions yielded a calc per year. The well v and the guidelines set the time of this test,	March 17 <sup>th</sup> at 08:30 the M psig with the nitrogen-brir of 1,266.56 psig and tubin ulated leak rate ("CLR) of was tested to a test gradien forth by the Oil Conserva	IT was initialized the interface at 1,697 ag (brine) pressure 807.19 barrels per t of 0.81 psi/ft at tition Division of
Spud Date:	Rig Release Date	e:		
I hereby certify that the information a	above is true and complete to the bes	st of my knowledge	and belief.	
SIGNATURE_Jessica O'Briev	$_{ extstyle \Delta}$ TITLE Environ	nmental Supervisor	DATEA	oril 30, 2021
Type or print nameJessica O'Brief For State Use Only	n E-mail address:	jobrien@marathong	petroleum.com PHONE: (	210) 626-7774
APPROVED BY	hours TITLE Enviro	onmental Engineer	DATE	6/21/2021

APPROVED BY:

Conditions of Approval (if any):

Released to Imaging: 6/21/2021 8:27:00 AM



### WORKOVER

# Marathon Petroleum Company LP State LPG Well No. 2

Project No.: TBD

Date: January 2021

Page: 1 of

Well: Well No. 2State: New MexicoCounty: LeaField: Langlie MattixWell API#: 30-025-35955Operator: MarathonLocation: Jal, NMStatus: Active Storage

#### **INTRODUCTION:**

Marathon Petroleum Company LP (MPC) issued a request for proposal to Lonquist Field Service (LFS) to workover Well No. 2 at their facility near Jal, New Mexico. The purpose of the workover is to ensure the cavern is fit for service, safe to operate and industry best practices are followed. During the workover we will remove the hanging string, run casing inspection logs to evaluate casing integrity, inspect and refurbish the hanging string and wellhead components, install the hanging string and install the wellhead assembly. After the hanging string is installed, a thru tubing sonar survey will be recorded to map the cavern shape and measure the cavern volume. An optional thru tubing casing inspection log may also be run at this time. Following completion of the workover, a nitrogen/brine mechanical integrity test will be performed to evaluate cavern integrity. The MIT procedure is submitted under separate cover and will be refined based on information collected during the workover.

Additional information for the workover of Well No. 2 is included or referenced in this document. The additional information includes:

- Contact Information
- Vendor List
- Wellhead Schematic
- Wellbore Schematic
- Historic Sonar Survey
- Retrievable Bridge Plug (RBP) Running Procedure
- Explosive Safety Checklist

### **REGULATORY INFORMATION:**

Well No. 2 is regulated by the New Mexico Oil Conservation Division (NMOCD). Final Workover and MIT reports will be submitted to MPC and the NMOCD within 30 days of completion in the field.

Oil Conservation Division – Division 1 1625 N. French Drive Hobbs. NM 88240

- Kerry Fortner Compliance
  - Office (575) 393-6161 ext. 120
  - Mobile (575) 263-6633
  - o Email <u>kerry.fortner@state.nm.us</u>

#### **SAFETY INFORMATION:**

LFS believes that all accidents and incidents are preventable. Our corporate goal is to have zero incidents, accidents, or near misses. To further our commitment to safety, LFS has staffed a Safety Director, whose sole purpose is to identify and mediate possible safety concerns and to be a resource for advice on such safety issues. He will be involved in work safety plans, managing JSAs, and offering oversight on our daily safety meeting program. We require that all of our employees and subcontractors accept that philosophy and uphold the standards of LFS. Our field supervisors are well-control certified, with both site specific and industry required safety qualifications related to new well drilling and well workovers. LFS supervisors are responsible to complete pre-job meetings with the contractors and clients, obtain daily work permits, complete JSAs, safety meetings, review Emergency Response Plans, identify any unsafe practices or

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	1/14/2021					



### WORKOVER

State LPG Well No. 2

## Marathon Petroleum Company LP

Project No.: TBD

Date: January 2021

Page: 2 of

Well: Well No. 2State: New MexicoCounty: LeaField: Langlie MattixWell API#: 30-025-35955Operator: MarathonLocation: Jal, NMStatus: Active Storage

potential hazards, and implement corrective actions to minimize employee exposure. LFS implements a site specific safety plan that defines the scope of work and identifies the appropriate safety standards and responsibilities for applicable parties for each project performed. LFS will implement a complete HSE plan for all phases of the operation. Our goal is always to ensure compliance with all client needs, as well as all local, State, and Federal safety and environmental regulations.

Well site safety meetings will be conducted at the beginning of each day and at the beginning of critical operations by the LFS supervisor prior to commencing any well work. All contractors involved during the day or critical operations will be required to attend the safety meeting, and all will be required to participate in the JSA process.

In order to protect personnel from the novel Coronavirus (COVID-19) and maintain continuity of operations, LFS has issued certain guidelines for our field personnel and personnel who visit site locations as part of their responsibilities. We understand not all situations are the same and in circumstances not outlined in the attached Health and Safety Manual personnel should contact their immediate supervisor for additional guidance.

The following protocols will be addressed daily:

- Location access limited to essential personnel only
- Body Temperature Surveys
- Review of hygiene and wellness
- · Review travel and contact expectations
- Review safety phone numbers and expectations
- Update all stakeholders of work or policy changes

The following safety gear and personal protective equipment are required:

- Hard Hat
- Safety Glasses
- Fire Retardant Coveralls
- Safety Shoes w/Ankle Support Leather or Rubber
- Gloves
- Fall protection required 4' or above
- Any additional required safety equipment
- Daily Safety Meeting
- JSA Form Completed Daily

### Additional safety and housekeeping items include:

- All personnel will be required to complete the site specific safety orientation required by MPC
- Zero tolerance for any fluid release
- Spills and releases to be reported to LFS and MPC
- Any Injuries and Near Misses are to be reported and investigated to/by LFS and MPC
- Hot work will require a hot work permit issued by MPC
- Vehicles to have company placards or logos
- Good housekeeping standards

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	1/14/2021					



### **Marathon Petroleum Company LP** State LPG Well No. 2

Project No.: TBD

Date: January 2021

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of

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Well: Well No. 2 State: New Mexico County: Lea Field: Langlie Mattix Well API#: 30-025-35955 **Operator:** Marathon Location: Jal, NM Status: Active Storage

#### **WORK PLAN:**

Daily work activities will commence after all permits have been acquired and daily safety meetings have been completed. MPC will take the well out of service prior to mobilizing equipment.

### **Well Preparation**

- 1. MPC will empty the cavern of stored product and flare any residual product prior to mobilization of equipment
- 2. Survey and prepare well location for service equipment
- 3. Rig Anchors
  - a. Existing rig anchors on all 4 cavern locations will be pull tested to 20,000 lbs prior to mobilization
  - b. Install and test new/additional rig anchors as necessary
  - c. Complete 811 call at least 48 hours in advance
- 4. Remove all surface equipment, instrumentation and piping
  - a. Brine and product flowlines and miscellaneous equipment
  - b. Remove fencing, barriers and scaffolding
  - c. Valves on piping to be locked out and isolated prior to removing equipment

#### Workover

- 5. Move in and rig up workover rig and equipment
  - a. Workover Rig Package
    - i. Fluid Pump
    - ii. Tank
    - iii. Flow Equipment
    - iv. Hydraulic Catwalk
    - v. Pipe Racks
    - vi. Power Swivel
  - b. BOP Package
    - i. 7-1/16" 5M Annular
    - ii. 7-1/16" 5M x 7-1/16" 3M DSA
    - iii. 7-1/16" 5M x 11" 3M DSA
    - iv. Diesel Powered Accumulator
    - v. Steel Flex Hoses
- 6. Confirm zero wellhead pressure
  - a. Circulate well with brine to ensure the cavern in brine full
- 7. Set BPV in tubing hanger
- 8. Nipple down wellhead to 7-1/16" 3M product casing spool
  - a. Be prepared to cut bolts to remove wellhead section
    - i. Obtain hot work permit if any cutting occurs
  - b. All wellhead equipment to be inspected and refurbished/replaced as necessary
  - c. All wellhead bolts and gaskets to be replaced with Teflon coated bolts and stainless steel gaskets
- 9. Nipple up 7-1/16" 5M annular BOP and DSA on the product casing spool flange
  - a. Function test BOP
- 10. Remove BPV
- 11. Rig up casing spear and grapple for hanging string
- 12. Spear, pull and laydown hanging string
  - a. 3-1/2", 12.95 lb/ft, PH-6

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	1/14/2021					



## Marathon Petroleum Company LP State LPG Well No. 2

Project No.: TBD

Date: January 2021

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Well: Well No. 2State: New MexicoCounty: LeaField: Langlie MattixWell API#: 30-025-35955Operator: MarathonLocation: Jal, NMStatus: Active Storage

13. Tally, visually inspect and send hanging string for cleaning and inspection immediately

- a. Thread cleaning and inspection
- b. Full body Electro-Magnetic Inspection (EMI)
- c. Repair/replace joints as necessary
- 14. Pick up 2-7/8" work string
- 15. Run 5-1/2" casing scraper to liner shoe and POOH
- 16. Set 5-1/2" RBP at approximately 500'
  - a. Set according to attached procedure
  - b. Set at least 5' from a collar
  - c. Pressure test RBP at 500 psi for 30 minutes on chart
- 17. Nipple down BOP
- 18. Nipple down wellhead and remove the product casing spool and product wing valves
  - a. Be prepared to cut bolts to remove wellhead section
    - i. Obtain hot work permit if any cutting occurs
  - b. All wellhead equipment to be inspected and refurbished/replaced as necessary
  - c. All wellhead bolts and gaskets to be replaced with Teflon coated bolts and stainless steel gaskets
- 19. Nipple up 7-1/16" 5M annular BOP and DSA on the 11" 3M bradenhead flange
  - a. Function test BOP
- 20. Pull 5-1/2" RBP
  - a. Retrieve according to attached procedure
- 21. Rig up wireline equipment
  - a. Run junk basket, gauge ring and CCL
    - i. Locate 7" Casing Shoe, 5-1/2" Liner Shoe and Last 5-1/2" Collar
    - ii. Run all logs past last 5-1/2" collar
  - b. Run photon density log
    - i. Log across 7" casing shoe ( 200' 1,700')
  - c. Run Multi-Finger Caliper
    - i. 5-1/2", 15.5 lb/ft Liner (0' 1,656')
    - ii. 7", 20 lb/ft Casing (0' 1,672')
      - 1. Casing Shoe @ 1,672' Do not go outside shoe
  - d. Run Magnetic Flux Leakage log
    - i. 5-1/2", 15.5 lb/ft Liner (0' 1,656')
    - ii. 7", 20 lb/ft Casing (0' 1,672')
      - 1. Casing Shoe @ 1,672' Do not go outside shoe
  - e. Run Electro-Magnetic Thickness log
    - i. 5-1/2", 15.5 lb/ft Liner (0' 1,656')
    - ii. 7", 20 lb/ft Casing (0' 1,672')
      - 1. Casing Shoe @ 1,672' Do not go outside shoe
- 22. Evaluate casing inspection logs and determine if remediation is required
  - a. If a production trap is identified behind the production casing, perforate and mill casing to remove trap
  - b. If significant corrosion is recorded, remediation may be required
- 23. Set 5-1/2" RBP at approximately 500'
  - a. Set according to attached procedure
  - b. Set at least 5' from a collar
  - c. Set at least 5' from previous setting depth
  - d. Pressure test RBP/Isolation Packer at 500 psi for 30 minutes on chart
- 24. Nipple down BOP

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	1/14/2021					



### WORKOVER

## Marathon Petroleum Company LP State LPG Well No. 2

Project No.: TBD

Date: January 2021

Page: 5 of

Well: Well No. 2State: New MexicoCounty: LeaField: Langlie MattixWell API#: 30-025-35955Operator: MarathonLocation: Jal, NMStatus: Active Storage

- 25. Nipple up refurbished/new product casing spool and product wing valves
  - a. Teflon coated bolts
  - b. Stainless steel gaskets
  - c. Jet Lube 550 X-treme
- 26. Nipple up 7-1/16" 5M annular BOP and DSA on the 7-1/16" 3M product casing spool flange
  - a. Function test BOP
- 27. Pull 5-1/2" RBP
  - a. Retrieve according to attached procedure
- 28. Offload and tally refurbished/new hanging string
  - a. 3-1/2" PH-6
- 29. Rig up casing crew, torque turn equipment and external connection pressure testing equipment
- 30. Make up 4-3/4" tri-cone bit and RIH
- 31. Run 3-1/2" drill pipe to cavern TD
  - a. Torque Turn each connection to optimum torque
  - b. Externally pressure test each connection to 1,500 psi for 60 seconds
    - i. Confirm 80% of collapse rating is not exceeded
  - c. Check with Engineer for final setting depth
  - d. Once the bit enters open hole, slowly run string in hole
  - e. At first sign of weight loss, pick up string, rig up power swivel, and slowly run string in hole rotating and circulating.
  - f. Work through any tight spots encountered monitoring torque and stick/slip.
  - g. Minimize weight on bit.
- 32. Run 3-1/2" drill pipe to TD, space out and land tubing hanger
- 33. Set BPV in tubing hanger
- 34. Nipple down BOP
- 35. Nipple up refurbished/new wellhead equipment and valves
  - a. Energize P-seals and pressure test tubing hanger void to 3,000 psi for 15 minutes on chart
- 36. Remove BPV
- 37. Rig up wireline equipment
  - a. Run Gauge Ring/Collar Locator and tag bit
  - b. Run thru-tubing sonar survey
    - i. 2 ft horizontal intervals
    - ii. Send field copy to LFS as soon as complete
  - c. **Optional:** Run EMT thru-tubing casing inspection log (eddy current tool)
    - i. Log across 7" casing shoe ( 0' 1,700')
    - ii. Compare logging results with previously recorded casing inspection logs and determine validity as a base thru-tubing casing inspection log moving forward
  - d. Run jet cutter and cut off 4-3/4" bit
    - i. Explosive Safety Checklist must be followed at all times (attached)
    - ii. Cut immediately above bit
  - e. Perforate weep hole 1' above end of hanging string
    - i. Explosive Safety Checklist must be followed at all times (attached)
- 38. Confirm circulation and pre-pressure cavern to calculated MIT pressure
  - a. Circulate at least 40 bbls of brine at 2 bpm
  - b. MIT pre-pressure is dependent on sonar survey and data collected in the field
- 39. Rig down workover rig and move off location
- 40. Complete Cavern MIT (submitted under separate cover)

	PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
Г	WHG	1/14/2021					



### WORKOVER

Project No.: TBD

## Marathon Petroleum Company LP State LPG Well No. 2

Date: January 2021

Page: 6 of

Well: Well No. 2State: New MexicoCounty: LeaField: Langlie MattixWell API#: 30-025-35955Operator: MarathonLocation: Jal, NMStatus: Active Storage

#### **Contact Information**

### Well Owner - Marathon Petroleum Company LP

Marathon Petroleum Logistics Services LLC 803 N 300 W Salt Lake City, UT 84103

- Sam Flessner Owner's Representative
  - o Telephone (419) 348-4269
  - o Email siflessner@marathonpetroleum.com

#### **New Mexico Oil Conservation Division**

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

- Daniel Sanchez Enforcement
  - o Telephone (505) 476-3493
  - o Email daniel.sanchez@state.nm.us

Oil Conservation Division – Division 1 1625 N. French Drive Hobbs, NM 88240

- Kerry Fortner Compliance
  - o Office (575) 393-6161 ext. 120
  - o Mobile (575) 263-6633
  - Email <u>kerry.fortner@state.nm.us</u>

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	1/14/2021					



**Marathon Petroleum Company LP** 

State LPG Well No. 2

Project No.: TBD

Date: January 2021

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Well: Well No. 2

State: New Mexico

County: Lea Location: Jal, NM

Field: Langlie Mattix

Status: Active Storage

of

Well API#: 30-025-35955

**Operator:** Marathon

### **Engineering Consultants**

Longuist Field Service, LLC 1415 Louisiana St., Suite 3800 Houston, Texas 77002

- Richard R. Lonquist, P.E. Chairman
  - Telephone (512) 732-9812
  - Fax (512) 732-9816
  - Email richard@lonquist.com
- William H. George, P.E. Principal Engineer / Project Manager
  - Telephone (512) 787-7478
  - Fax (512) 732-9816
  - Email will@longuist.com
- Greg Ashcraft Sr. Drilling, Workover and Completions Consultant
  - Telephone (512) 663-3231
  - Email greg@longuist.com
- Andy Mabe Site Safety Supervisor
  - o Telephone (281) 414-2116
  - Email amabe@longuistrms.com

### **Reporting Information**

Daily Reports - Email or Fax

- Sam Flessner
- Will George

Final Reports - Email and Hard Copy

- Marathon Petroleum Company LP
- New Mexico Oil Conservation Division
- Lonquist & Company, LLC

#### Final Reports to include:

- Daily Reports
- As-Built Schematics
- Workover/Completion Report
- MIT Report
- Well Logs
- **Photos**

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	1/14/2021					



Marathon Petroleum Company LP State LPG Well No. 2 Casing Patch Installation Project No.: F1882

Date: March 2021

Page: 1 of 12

Well: Well No. 2State: New MexicoCounty: LeaField: Langlie MattixWell API#: 30-025-35955Operator: MarathonLocation: Jal, NMStatus: Active Storage

#### **INTRODUCTION:**

Marathon Petroleum Company LP (MPC) contracted Lonquist Field Service (LFS) to complete a workover and MIT on Well No. 2 at their facility near Jal, New Mexico. A casing leak was found from 365' to 370' in the 5-1/2" cemented liner. This procedure outlines installation of a casing patch to repair the wellbore. Following completion of the workover, a nitrogen/brine mechanical integrity test will be performed to evaluate cavern integrity. The MIT procedure is submitted under separate cover and will be refined based on information collected during the workover.

Additional information for the workover of Well No. 2 is included or referenced in this document. The additional information includes:

- Contact Information
- Vendor List
- Wellhead Schematic
- Wellbore Schematic
- Historic Sonar Survey
- Casing Patch Running Procedure
- Explosive Safety Checklist

### **REGULATORY INFORMATION:**

Well No. 2 is regulated by the New Mexico Oil Conservation Division (NMOCD). Final Workover and MIT reports will be submitted to MPC and the NMOCD within 30 days of completion in the field.

Oil Conservation Division – Division 1 1625 N. French Drive Hobbs, NM 88240

- Kerry Fortner Compliance
  - Office (575) 393-6161 ext. 120
  - Mobile (575) 263-6633
  - Email kerry.fortner@state.nm.us

#### SAFETY INFORMATION:

LFS believes that all accidents and incidents are preventable. Our corporate goal is to have zero incidents, accidents, or near misses. To further our commitment to safety, LFS has staffed a Safety Director, whose sole purpose is to identify and mediate possible safety concerns and to be a resource for advice on such safety issues. He will be involved in work safety plans, managing JSAs, and offering oversight on our daily safety meeting program. We require that all of our employees and subcontractors accept that philosophy and uphold the standards of LFS. Our field supervisors are well-control certified, with both site specific and industry required safety qualifications related to new well drilling and well workovers. LFS supervisors are responsible to complete pre-job meetings with the contractors and clients, obtain daily work permits, complete JSAs, safety meetings, review Emergency Response Plans, identify any unsafe practices or potential hazards, and implement corrective actions to minimize employee exposure. LFS implements a site specific safety plan that defines the scope of work and identifies the appropriate safety standards and responsibilities for applicable parties for each project performed. LFS will implement a complete HSE plan for all phases of the operation. Our goal is always to ensure compliance with all client needs, as well as all local, State, and Federal safety and

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	3/5/2021					



### WORKOVER

Marathon Petroleum Company LP State LPG Well No. 2 Casing Patch Installation Project No.: F1882

Date: March 2021

Page: 2 of

Well: Well No. 2State: New MexicoCounty: LeaField: Langlie MattixWell API#: 30-025-35955Operator: MarathonLocation: Jal, NMStatus: Active Storage

environmental regulations.

Well site safety meetings will be conducted at the beginning of each day and at the beginning of critical operations by the LFS supervisor prior to commencing any well work. All contractors involved during the day or critical operations will be required to attend the safety meeting, and all will be required to participate in the JSA process.

In order to protect personnel from the novel Coronavirus (COVID-19) and maintain continuity of operations, LFS has issued certain guidelines for our field personnel and personnel who visit site locations as part of their responsibilities. We understand not all situations are the same and in circumstances not outlined in the attached Health and Safety Manual personnel should contact their immediate supervisor for additional guidance.

The following protocols will be addressed daily:

- Location access limited to essential personnel only
- Body Temperature Surveys
- Review of hygiene and wellness
- Review travel and contact expectations
- Review safety phone numbers and expectations
- Update all stakeholders of work or policy changes

The following safety gear and personal protective equipment are required:

- Hard Hat
- Safety Glasses
- Fire Retardant Coveralls
- Safety Shoes w/Ankle Support Leather or Rubber
- Gloves
- Fall protection required 4' or above
- Any additional required safety equipment
- Daily Safety Meeting
- JSA Form Completed Daily

#### Additional safety and housekeeping items include:

- All personnel will be required to complete the site specific safety orientation required by MPC
- Zero tolerance for any fluid release
- Spills and releases to be reported to LFS and MPC
- Any Injuries and Near Misses are to be reported and investigated to/by LFS and MPC
- Hot work will require a hot work permit issued by MPC
- Vehicles to have company placards or logos
- Good housekeeping standards

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	3/5/2021					



**Marathon Petroleum Company LP** State LPG Well No. 2 **Casing Patch Installation** 

Project No.: F1882

Date: March 2021

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of

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Page:

Well: Well No. 2 State: New Mexico County: Lea Field: Langlie Mattix Well API#: 30-025-35955 **Operator:** Marathon Location: Jal, NM Status: Active Storage

#### **WORK PLAN:**

Daily work activities will commence after all permits have been acquired and daily safety meetings have been completed. MPC will take the well out of service prior to mobilizing equipment.

### **Well Preparation**

- 1. MPC will empty the cavern of stored product and flare any residual product prior to mobilization of equipment
- 2. Survey and prepare well location for service equipment
- 3. Rig Anchors
  - a. Existing rig anchors on all 4 cavern locations will be pull tested to 20,000 lbs prior to mobilization
  - b. Install and test new/additional rig anchors as necessary
  - c. Complete 811 call at least 48 hours in advance
- 4. Remove all surface equipment, instrumentation and piping
  - a. Brine and product flowlines and miscellaneous equipment
  - b. Remove fencing, barriers and scaffolding
  - c. Valves on piping to be locked out and isolated prior to removing equipment

#### Workover

- 5. Move in and rig up workover rig and equipment
  - a. Workover Rig Package
    - i. Fluid Pump
    - ii. Tank
    - iii. Flow Equipment
    - iv. Hydraulic Catwalk
    - v. Pipe Racks
    - vi. Power Swivel
  - b. BOP Package
    - i. 7-1/16" 5M Annular
    - ii. 7-1/16" 5M x 7-1/16" 3M DSA
    - iii. 7-1/16" 5M x 11" 3M DSA
    - iv. Diesel Powered Accumulator
    - v. Steel Flex Hoses
- 6. Confirm zero wellhead pressure
  - a. Circulate well with brine to ensure the cavern in brine full
- 7. Nipple down wellhead to 7-1/16" 3M product casing spool
  - All wellhead equipment to be inspected and refurbished/replaced as necessary
  - b. All wellhead bolts and gaskets to be replaced with Teflon coated bolts and stainless steel gaskets
- 8. Nipple up 7-1/16" 5M annular BOP and DSA on the product casing spool flange
  - a. Function test BOP
- 9. Rig up casing spear and grapple for hanging string
- 10. Spear, pull and laydown hanging string
  - a. 3-1/2", 12.95 lb/ft, PH-6
- 11. Tally, visually inspect and prepare tubing for storage
  - a. Clean and dope threads
  - b. Install thread protectors
- 12. Pick up 2-7/8" work string

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	3/5/2021					



State LPG Well No. 2 Casing Patch Installation

Marathon Petroleum Company LP State LPG Well No. 2

Date: March 2021

Project No.: F1882

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of

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Well: Well No. 2

State: New Mexico

County: Lea

Field: Langlie Mattix

Well API#: 30-025-35955

**Operator:** Marathon

Location: Jal, NM

Status: Active Storage

- 13. Run cleanout/drift BHA to liner shoe and POOH
  - a. Rotate through liner setting depths with power swivel
  - b. Drop drain sub ball and pressure up to activation pressure to flex the work string
  - c. POOH
- 14. MIRU equipment to run and set Casing patch
  - a. Casing Crew
    - i. Equipment and handling tools for 4-1/4" casing patch
  - b. Torque Turn Equipment
    - i. Equipment and handling tools for 4-1/4" casing patch
  - c. Pump Truck
    - i. Capable of 6,000 psi
    - ii. Pump as slow as ½ bpm
    - iii. High pressure relief device/valves
    - iv. High pressure pump screens
- 15. MU Running Tool and Casing patch per attached Casing Patch Procedure
  - a. Torque Turn each connection
    - i. Record each connection provide digital report
- 16. RIH to 1,645' (10' above 5-1/2" liner shoe)
- 17. Run inner string BHA per attached Mohawk Procedure
- 18. Set Casing patch from Surface 1,645' per attached Casing Patch Procedure
  - a. Circulate with Reverse Unit to close valve for hydraulic expansion and set lower seal
    - i. Maximum expected rate 3 bbl/min
    - ii. Maximum Pressure 6,000 psi
  - b. Expand by pulling through the Casing patch
    - i. Maximum expected overpull 80k
  - c. Pull out of Casing patch and POOH
- 19. Run milling BHA to Casing patch shoe
- 20. Pressure test liner to 1,000 psi for 30 minutes on chart
- 21. Mill shoe per attached Mohawk Procedure and POOH
- 22. Offload and tally new hanging string
  - a. Options
    - i. 3-1/2", 9.3 lb/ft, J-55, FL4S
    - ii. 3-1/2", 9.3 lb/ft, J-55, Hydril 511
    - iii. 2-7/8", 7.9 lb/ft, P-110, PH6
- 23. Rig up casing crew, torque turn equipment and external connection pressure testing equipment
- 24. Make up tubing installation BHA
  - a. Crossover, pump off sub, crossover, 2-7/8" motor, 4" bit
- 25. Run 3-1/2" hanging string to cavern TD
  - a. Torque Turn each connection to optimum torque
  - b. Externally pressure test each connection to 1,500 psi for 60 seconds
    - i. Confirm 80% of collapse rating is not exceeded
  - c. Check with Engineer for final setting depth
  - d. Once the bit enters open hole, slowly run string in hole
  - e. At first sign of weight loss, pick up string, slowly run string in hole drilling with motor
  - f. Minimize weight on bit
- 26. Run 3-1/2" hanging string to TD, space out and land tubing hanger
- 27. Nipple down BOP

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	3/5/2021					



Project No.: F1882

### Marathon Petroleum Company LP State LPG Well No. 2 Casing Patch Installation

Date: March 2021

Page: 5 of 12

Well: Well No. 2State: New MexicoCounty: LeaField: Langlie MattixWell API#: 30-025-35955Operator: MarathonLocation: Jal, NMStatus: Active Storage

- 28. Nipple up refurbished/new wellhead equipment and valves
  - a. Energize P-seals and pressure test tubing hanger void to 3,000 psi for 15 minutes on chart
- 29. Drop bit sub ball and pump off tubing installation BHA
- 30. Rig up wireline equipment
  - a. Gauge run to tag TD
  - b. Perforate weep hole 1' above end of hanging string
    - i. Explosive Safety Checklist must be followed at all times (attached)
- 31. Confirm circulation and pre-pressure cavern to calculated MIT pressure
  - a. Circulate at least 40 bbls of brine at 2 bpm
  - b. MIT pre-pressure is 50 psi
- 32. Rig down workover rig and move off location
- 33. Complete Cavern MIT (submitted under separate cover)

#### **Contact Information**

#### Well Owner - Marathon Petroleum Company LP

Marathon Petroleum Logistics Services LLC 803 N 300 W Salt Lake City, UT 84103

- Sam Flessner Owner's Representative
  - Telephone (419) 348-4269
  - Email <u>siflessner@marathonpetroleum.com</u>

#### **New Mexico Oil Conservation Division**

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

- Daniel Sanchez Enforcement
  - Telephone (505) 476-3493
  - o Email daniel.sanchez@state.nm.us

Oil Conservation Division – Division 1 1625 N. French Drive Hobbs, NM 88240

- Kerry Fortner Compliance
  - o Office (575) 393-6161 ext. 120
  - o Mobile (575) 263-6633
  - Email kerry.fortner@state.nm.us

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	3/5/2021					



Project No.: F1882

### Marathon Petroleum Company LP State LPG Well No. 2 Casing Patch Installation

Date: March 2021

**Page:** 6 **of** 12

Well: Well No. 2State: New MexicoCounty: LeaField: Langlie MattixWell API#: 30-025-35955Operator: MarathonLocation: Jal, NMStatus: Active Storage

### **Engineering Consultants**

Lonquist Field Service, LLC 1415 Louisiana St., Suite 3800 Houston, Texas 77002

- Richard R. Lonquist, P.E. Chairman
  - o Telephone (512) 732-9812
  - o Fax (512) 732-9816
  - o Email richard@lonquist.com
- William H. George, P.E. Principal Engineer / Project Manager
  - Telephone (512) 787-7478
  - Fax (512) 732-9816
  - o Email will@lonquist.com
- Greg Ashcraft Sr. Drilling, Workover and Completions Consultant
  - o Telephone (512) 663-3231
  - o Email greg@longuist.com
- Terry Smith Site Safety Supervisor
  - o Telephone (337) 278-7894
  - o Email tsmith@longuistrms.com

### **Reporting Information**

Daily Reports - Email or Fax

- Sam Flessner
- Jim Tomlinson
- Will George

Final Reports – Email and Hard Copy

- Marathon Petroleum Company LP
- New Mexico Oil Conservation Division
- Lonquist & Company, LLC

### Final Reports to include:

- Daily Reports
- As-Built Schematics
- Workover/Completion Report
- MIT Report
- Well Logs
- Photos

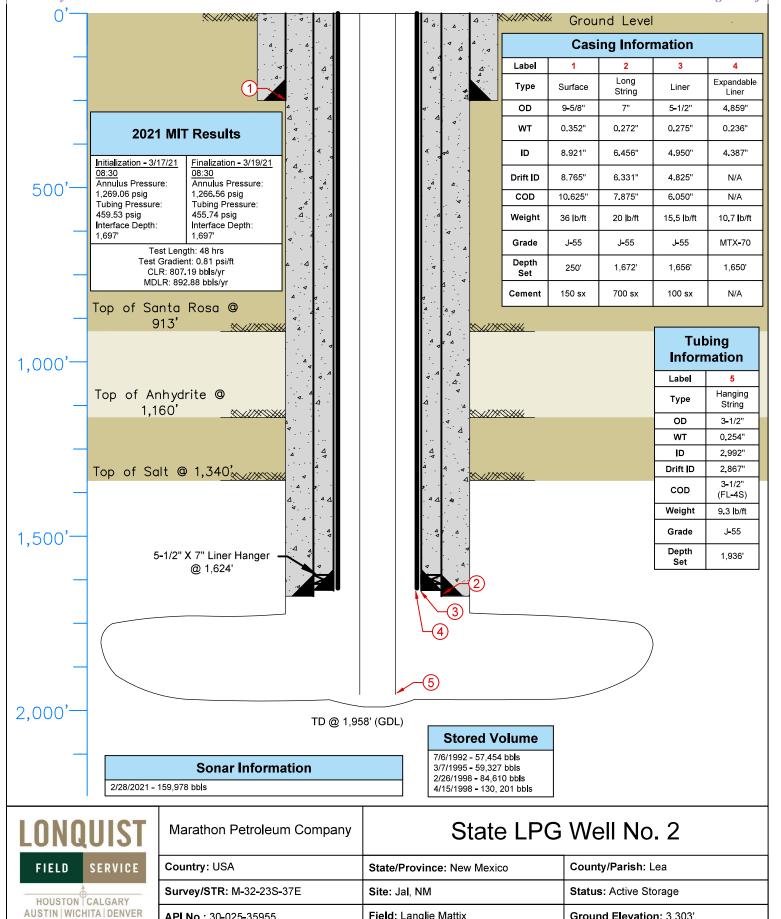
PREPARED BY	DATE	APPROVED BY	DATE	CLIENT APPROVAL	DATE	Client Signature
WHG	3/5/2021					

### Workover Report – Marathon Petroleum Company LP State LPG Well No. 2

Appendix B – LFS Daily Activity Reports

## Workover Report – Marathon Petroleum Company LP State LPG Well No. 2

### **Final As-Built Schematics**



Field: Langlie Mattix

Reviewed: WHG

Project No:

Notes:

Ground Elevation: 3,303'

Date: 3/23/21

Approved: WHG

Texas License F-9147

12912 Hill Country Blvd., Suite F-200

Austin, Texas 78738 Tel: 512,732,9812

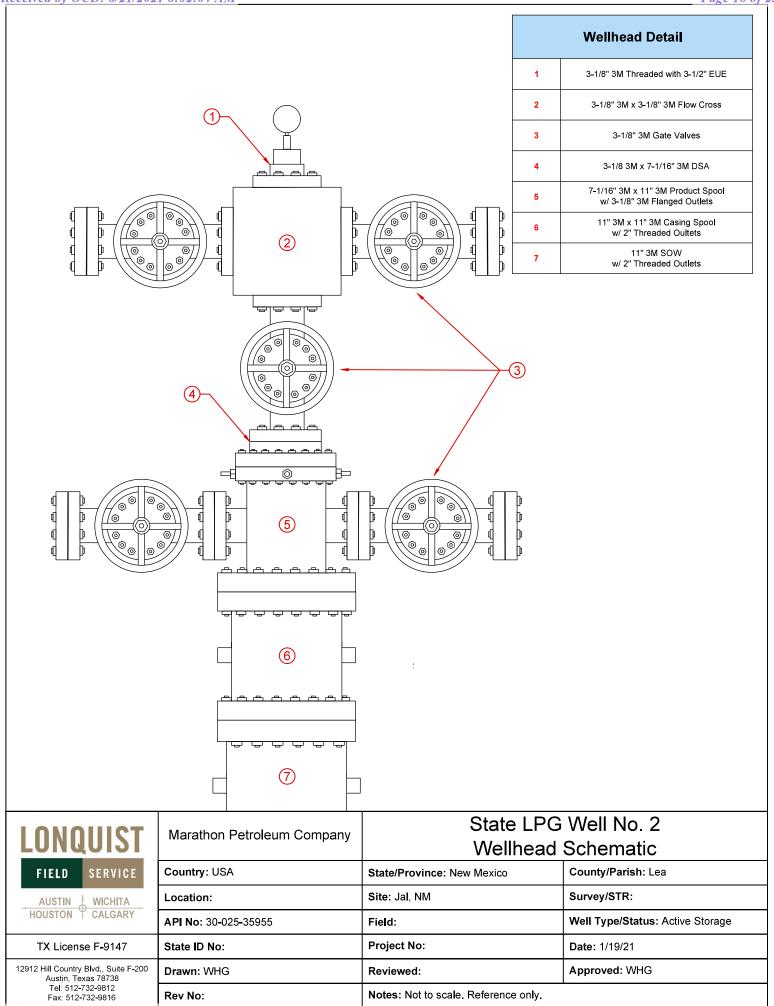
Fax: 512.732.9816

API No.: 30-025-35955

Serial No.:

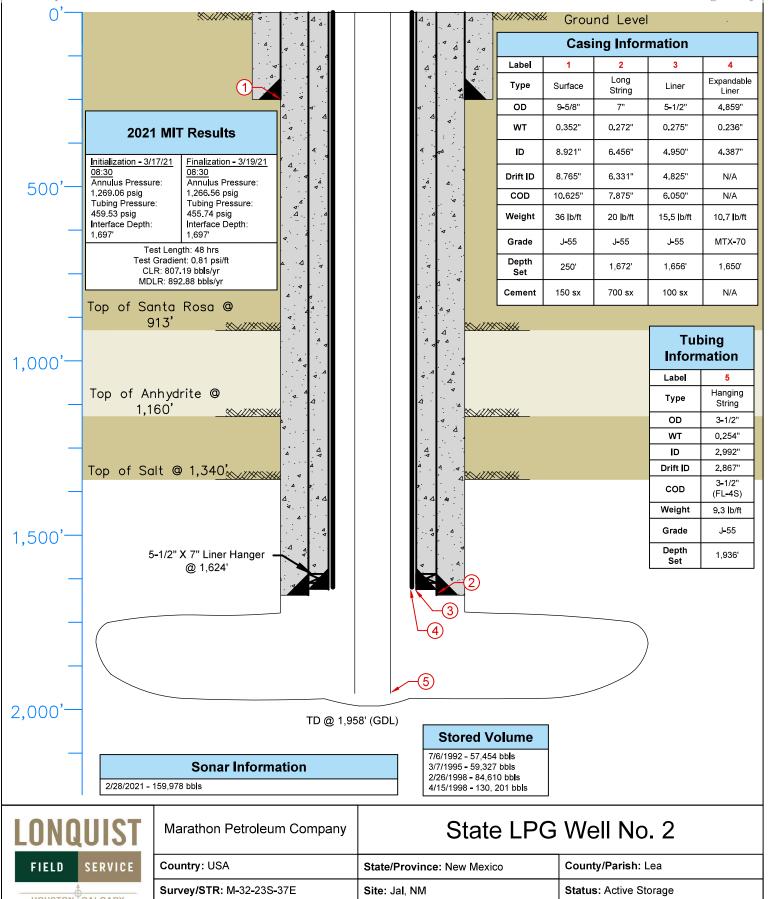
Drawn: NJP

Rev No:

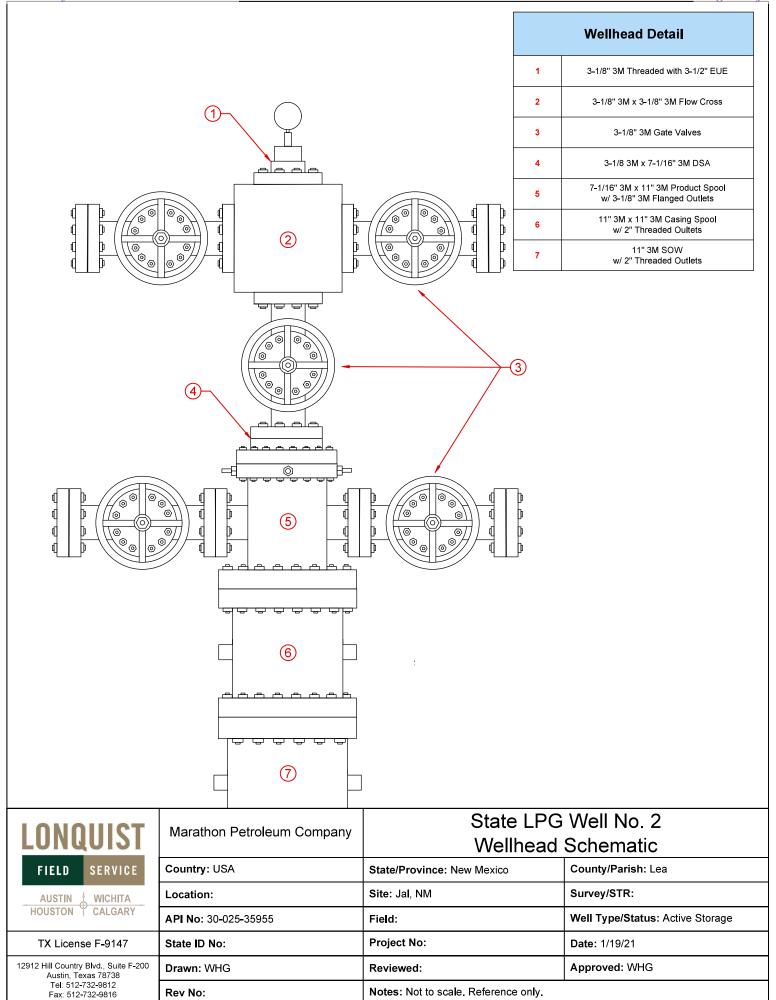


## Workover Report – Marathon Petroleum Company LP State LPG Well No. 2

### **Final As-Built Schematics**



HOUSTON CALGARY AUSTIN | WICHITA | DENVER Field: Langlie Mattix Ground Elevation: 3,303' API No.: 30-025-35955 Project No: Texas License F-9147 Date: 3/23/21 Serial No.: 12912 Hill Country Blvd., Suite F-200 Approved: WHG Drawn: NJP Reviewed: WHG Austin, Texas 78738 Tel: 512,732,9812 Rev No: Fax: 512.732.9816 Notes:



District I
1625 N. French Dr., Hobbs, NM 88240
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

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** 

COMMENTS

Action 32836

#### **COMMENTS**

Operator:	OGRID:
WESTERN REFINING COMPANY, L.P.	248440
6500 Trowbridge Drive	Action Number:
El Paso, TX 799053402	32836
	Action Type:
	[C-103] NOI Workover (C-103G)

#### COMMENTS

Created By	Comment	Comment Date
cchavez	LPG Storage Well No. 2 Nitrogen Interface Test Results Final Report & Well Workover.	6/21/2021

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CONDITIONS

Action 32836

### **CONDITIONS**

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6500 Trowbridge Drive	Action Number:
El Paso, TX 799053402	32836
	Action Type:
	[C-103] NOI Workover (C-103G)

#### CONDITIONS

Created By	Condition	Condition Date	
cchavez	None	6/21/2021	