

# **APPENDICES**

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- [Appendix A: Daily Drilling and Completion Records](#)
- [Appendix B: H<sub>2</sub>S Contingency Plan Approved for Zia II Gas Plant, July 2016](#)
- [Appendix C: Sidewall Coring Reports and Analyses of Core Samples](#)
- [Appendix D: Reservoir Tests](#)
- [Appendix E: NMOCD and BLM Regulatory Documents, Notifications, and Submittals](#)
- [Appendix F: Notice Letters to Producers within One Mile](#)
- [Appendix G: Operation Design Specifications for the Subsurface Safety Valve, Halliburton BWD Permanent Packer, P/T gauge, and AGI System Training and Maintenance](#)
- [Appendix H: Mud Logs](#)
- [Appendix I: Open-Hole Geophysical Well Logs](#)
- [Appendix J: Casing and Tubing Tallies](#)
- [Appendix K: Cement Programs and Reports](#)
- [Appendix L: Cement Bond Logs](#)
- [Appendix M: Casing, BOP/BOPE, and MIT Pressure Tests](#)
- [Appendix N: Well Tree Schematic](#)
- [Appendix O: Oil and Gas Wells in the DCP Zia AGI D #2 Area of Review and Vicinity](#)
- [Appendix P: Concho Drilling and Completion Prognosis](#)

## **APPENDIX A**

# **DAILY DRILLING AND COMPLETION RECORDS**

## **GEOLEX DAILY REPORTS**

## DAILY REPORT OF OPERATIONS

**Date:** 10/31/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

Geolex attended the pre-spud meet at the Zia Gas Plant on Monday, October 31, 2016 from approximately 08:00 to 10:00 and presented a briefing on the Geolex Team along with roles and responsibilities. The rig is anticipated to ready to spud around 12:00 on Tuesday, November 1, 2016 (Figures 1 and 2).

### **Geology Oversight**

At the pre-spud meeting Geolex made note that the COA contradicts somewhat, requiring the surface casing seat at approximately 800 feet while also stating it must be below the Magenta Dolomite (approximately 780 to 820 feet in Zia AGI #1) and well above the salt beds below. Concho is prepared to TD (total depth) surface casing at 840 feet if required (Figure 3).

### **Regulatory Oversight**

Prior to the pre-spud meeting Geolex made numerous notifications and sundry submittals to both NMOCD and BLM. On Monday, October 31, 2016 Geolex made several notifications to the Carlsbad BLM office and the Hobbs BLM hot line (including the required 24 hr. advance-notice required to spud Zia AGI #D2). There will be one sundry for each casing string unless there is a deviation from the Conditions of Approval (COA). The final well name is now Zia AGI #D2 and this name change from Zia AGI #2 must be included in the surface casing 3160-5 subsequent sundry.

### **Other Support Activities**

The Geolex team has fully mobilized and is set up on site.

**Reported by:** Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## DAILY REPORT OF OPERATIONS

**Date:** 11/01/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

Zia AGI #D2 was spud at approximately 03:00 on Wednesday November 2, 2016 (Figure 1) and reached a depth of 226 feet at approximately 06:00 (Figure 2). Total depth of the surface-hole is anticipated to occur at approximately 15:00 on Wednesday, November 2, 2016. It is anticipated the surface casing will be set at 825 feet. Upon completion of the surface casing hole, and subsequent fluid volume caliper, the 20-inch surface casing will be installed. BLM will be notified 4 hours in advanced prior to putting casing in hole.

### **Geology Oversight**

Concho is prepared to TD (total depth) surface casing at 825 feet which is just below the lower Magenta Dolomite but well above salt beds based on the Zia AGI #1 mud and drilling logs (Figure 3). A review of all available data (Zia AGI #1 data, gamma ray, drill rate, etc.) will be utilized to ensure a competent bedrock at 825 feet depth.

### **Regulatory Oversight**

A phone conference was held between the BLM, Geolex and Concho for approval to change the 9 5/8-inch production hole 10M BOP system. The change is from the 3 choke manifold 10M BOP system to a 2 choke manifold 5M BOP system. The rig is not currently configured to attach a 3 choke manifold system. This change saves on costs and finding/delivering a new 3 choke manifold system. Once the BLM's Well Information System is up-and-running, this sundry will be submitted. Four hour advance notification were made to BLM and updated with an addition notification of delay (Figure 4).

### **Other Support Activities**

Geolex began work on the Zia AGI #D2 End of Well Report.

**Reported by:** Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## DAILY REPORT OF OPERATIONS

**Date:** 11/02/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

The BLM was updated by phone on the drilling status of the surface casing hole at approximately 412 feet depth at 12:35 on November 2, 2016. During this conversation, the BLM verbally approved the surface casing to be set at 825 total depth (TD), as long as the casing seat is in a competent unit above or below the Magenta Dolomite base (i.e. it must be within a competent unit of the Magenta Dolomite). A thunderstorm caused a temporary halt to drilling from approximately 22:30 to 23:20 on November 2, 2016. Total depth (826.3 feet) on the 26-inch surface casing hole was reached on 04:23 on November 3, 2016 (Figure 1).

### **Geology Oversight**

Geolex geologist conducted a phone conference to discuss the casing seating depth at 825 feet. Upon further review of the gamma ray log and drill rate (compared to the Zia AGI #1 well logs) it was noted that the Magenta Dolomite top occurs at 824.2 feet. In order to ensure a good seat in competent bedrock, Geolex had Concho drill one more foot to approximately 826.3 feet, where the surface casing will be set in competent lithology (Figure 2).

### **Regulatory Oversight**

Submitted the Sundry (Form 3160-5) to change the 9 5/8-inch production hole 10M BOP system to the BLMs Well Information Systems (WIS) website on November 2, 2016. This Sundry is to change the three choke manifold 10M BOP system to a two choke manifold 5M BOP system. Teungku Muchlis (a.k.a. Seven) with the BLM emailed Geolex and Concho requesting another Sundry be submitted to include three rams to the 5M BOP system instead of two rams. This Sundry was submitted to the BLM's WIS website on November 2, 2016. All information included in the above Sundries was sent to the NMOCD as a courtesy (utilizing form C-103). Geolex remained in contact with the BLM Carlsbad Office project engineer and the BLM Hobbs Field Inspect with notifications and status updates to keep them apprised of delays (Figure 3).

### **Other Support Activities**

Reviewed all gamma ray logs

**Reported by:** Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## GEOLEX DAILY REPORT

**Date:** 11/03/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

Geology Oversight activities were limited on Thursday, November 3, 2016. Geologic and geophysical analysis on previous days to determine the total depth of Zia AGI #D2 so Geolex focused on preparing for the installation of the surface casing followed by cementing (Figure 1). Regulatory Oversight consisted of notifications and updates to BLM related to installation and cementing of the Zia AGI #D2 surface casing (Figure 2).

### **Geology Oversight**

The borehole is at its total depth (TD) of 826 feet. Therefore no drilling occurred during the 24-hour period ending 06:00 Friday, November 4, 2016. A fluid caliper log was run to determine the volume of cement needed to provide a good annular seal and adequate surface returns. Geolex prepared for running casing and cementing the surface casing and prepared for an onsite inspection. The installation of the surface casing began at approximately 21:20 on Thursday, November 3, 2016 and was completed at approximately 03:50. The float collar was set at approximately 779.15 feet. The BLM received the pipe tally and Halliburton cement lab results.

### **Regulatory Oversight**

Geolex made notifications related to the completion of the DCP Zia AGI #D2 surface casing to both the Carlsbad BLM and the Hobbs BLM. The BLM received the pipe tally and Halliburton cement lab results. Geolex provided briefings on Geology Oversight and Regulatory Oversight at the regularly scheduled Thursday group meeting hosted by Tony Canfield (Figure 3).

### **Other Support Activities**

Geolex continued developing the End of Well Report. Geolex also attended the Thursday telemeeting hosted by Tony Canfield to discuss progress and issues on the DCP Zia AGI #D2.

**Reported by:** Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



## GEOLEX DAILY REPORT

**Date:** 11/04/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

Geology Oversight activities on Friday, November 4, 2016 were observing the surface casing installation and cementing of Zia AGI #D2 (Figures 1 and 2). In addition, Geolex observed the cement bond logging (CBL) of the well and completed an analysis of the results. Regulatory Oversight consisted of notifications and updates to BLM related to installation and cementing of the Zia AGI #D2 surface casing.

### **Geology Oversight**

The borehole is at its total depth (TD) of 826 feet (Figure 3) and the surface casing was installed to the full depth and seated in the Magenta. The installation of the surface casing began at approximately 21:20 on Thursday, November 3, 2016 and first returns were observed at approximately 08:00. Geolex also observed the cementing and cement bond logging (CBL) of Zia AGI #D2. The CBL was completed at 02:54 on Saturday, November 05, 2016.

### **Regulatory Oversight**

Geolex made notifications related to the completion of the DCP Zia AGI #D2 surface casing to both the Carlsbad BLM and the Hobbs BLM (Figure 4). Geolex notified Teungku Chucklis of the Carlsbad BLM of the successful completion of the cementing of Zia AGI #D2 and notified them that the CBL will be completed in the morning and would call for formal review and approval. Teungku Chucklis stated that if there were good cement returns and no significant concerns with the CBL that BLM would not be available to review until Monday. He also stated that if those conditions were met we authorized to proceed with pressure testing and drilling the upper intermediate casing borehole. Geolex completed an analysis of the CBL and determined that the CBL indicated very good bonding of the casing to the formation and informed Concho they could proceed with the next phases of the project.

### **Other Support Activities**

Geolex continued developing the End of Well Report.

**Reported by:** Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## GEOLEX DAILY REPORT

**Date:** 11/05/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

Geology Oversight activities on Friday, November 5, 2016 were observing the blow out preventer and blow out preventer equipment (BOP/BOPE) pressure tests for the 1<sup>st</sup> intermediate casing 17 ½-inch borehole, which was performed by Battle Energy Services, LLC (Figures 1). Regulatory Oversight consisted of notification to the BLM to witness the BOP/BOPE pressure test and authorization to proceed in the absence of a BLM inspector. Geolex met with Battle Energy Services throughout the entire BOP/BOPE testing process during the night. Geolex also met with Concho to discuss up-coming activities throughout the night.

### **Geology Oversight**

No drilling occurred during the 24-hour period ending Sunday, November 6, 2016 at 06:00.

The borehole is at its total depth (TD) of 826 feet (Figure 2) and the surface casing was installed to the full depth and seated in the Magenta. The installation of the surface casing began at approximately 21:20 on Thursday, November 3, 2016 and first returns were observed at approximately 08:00 on Friday, November 4, 2016. Geolex observed the successful BOP/BOPE tests beginning on November 5, 2016 at 23:05 and ending at approximately 07:00 on Sunday, November 6, 2016.

### **Regulatory Oversight**

Geolex made the 4-hour notification to the Hobbs BLM Hotline to conduct BOP/BOPE test as well as the casing integrity test (CIT) and the Hotline inspector was not reachable. Therefore, Geolex contacted the Carlsbad BLM Hotline and contacted BLM's on-call engineer Charles Nimmer on November 5, 2016 at 14:20 to witness the BOP/BOPE pressure test and the CIT for the upcoming 17 ½-inch borehole (Figure 3). Charles gave approval to proceed with the BOP/BOPE and CIT testing without a BLM witness present.

Regulatory documents, BLM 3160-5 and NMOCD C-103 forms, for the surface casing installation, cementing, CBL, and BOP/BOPE test and casing pressure test (CIT) will be filed with the BLM and NMOCD, respectively, when the CIT is complete. Included on this Sundry, as required by the NMOCD, and requested by the BLM, will be the name change from Zia AGI

#2D to Zia AGI #D2. The BLM surface casing Sundry (3160-5 form) is currently being composed.

**Other Support Activities**

In addition, Geolex continued developing the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Battle Testing Unit and Zia AGI #D2

## GEOLEX DAILY REPORT

**Date:** 11/06/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

Geology Oversight activities on Sunday, November 6, 2016 were observing the successful completion of the blow out preventer and blow out preventer equipment (BOP/BOPE) pressure tests for the upper intermediate casing 17 ½-inch borehole, which was performed by Battle Energy Services, LLC (Figure 1). In addition, the casing integrity test (CIT) was successfully completed. Drilling resumed on the upper intermediate casing borehole that is planned to TD at 2600 feet. Regulatory Oversight consisted of observing the BOP/BOPE pressure test and CIT, and collecting the test results for both and provide to BLM. Geolex met with Battle Energy Services throughout the entire BOP/BOPE testing and CIT process during the night. Geolex also met with Concho to discuss up-coming activities throughout the night.

### **Geology Oversight**

Drilling resumed at 826 feet on Sunday, November 6, 2016 at 19:04. The borehole was advanced to a depth of 1014 feet (Figure 2) and within the Salado Formation (Salt Top). Geolex observed the successful BOP/BOPE tests beginning on November 5, 2016 at 23:05 and ending at approximately 07:00 on Sunday, November 6, 2016. The CIT was held at 1000 psi for 30 minutes and conducted from approximately 06:30 to 07:00 on Sunday, November 6, 2016. After the CIT was completed, drilling continued through the remaining Magenta/Rustler Formation interval and into the Salado Formation. Depth of the upper intermediate casing borehole at 06:00 Monday, November 7, 2016 is 1014 feet (Figure 2).

### **Regulatory Oversight**

Geolex observed the completion of the BOP/BOPE testing and the CIT, and reviewed and prepared the results for submission to BLM and inclusion in the surface casing subsequent 3160-5 sundry. Geolex received a call from John Staton, Hobbs BLM Inspector, and provided current status of the testing. At the time of the call the BOP/BOPE testing was complete and the CIT was expected to be complete by late afternoon/early evening (Figure 3). Regulatory documents, BLM 3160-5 and NMOCD C-103 forms, for the surface casing installation, cementing, CBL,

BOP/BOPE test and CIT will continue to develop and will be filed with the BLM and NMOCD, respectively, the week of November 7, 2016. Included on this Sundry, as required by the NMOCD, and requested by the BLM, will be the name change from Zia AGI #2D to Zia AGI #D2.

### **Other Support Activities**

Received and reviewed gamma ray logs from 167 to 858 feet.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: Battle Testing unit Completing CIT and 13 3/8-inch surface casing on the rack

## **GEOLEX DAILY REPORT**

**Date:** 11/07/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

Geology Oversight activities on Monday, November 7, 2016 were observing drilling of the 17 ½-inch borehole to its current depth of 2441 feet (Figure 1). Regulatory Oversight consisted of notifications to BLM related to the blow out preventer/blow out preventer equipment (BOP/BOPE) testing and the casing integrity test (CIT). In addition, Geolex made notifications to the Hobbs BLM On-Call Inspector that the 17 ½-inch borehole was being drilled, and when they want to be noticed for setting and cementing of the 1st intermediate casing. Geolex also met with Concho to discuss up-coming activities throughout the night.

### **Geology Oversight**

Drilling continued at a depth of 1,014 feet at 06:00 Monday, November 7, 2016. The borehole was advanced to a depth of 1,796 feet, within the salt, at 18:00 Monday, November 7, 2016. Depth of the 1<sup>st</sup> intermediate casing borehole at 06:00 Tuesday, November 8, 2016 is 2,441 feet (Figure 2). Formations and Formation Tops that were encountered are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Salt Top	882 feet	Halite, shale and dolomite
• Salado Formation	1,836 feet	Halite, anhydrite and dolomite
• Tansil	2,343 feet	Carbonates
• Yates	2,493 feet (predicted)	Siliclastics

Figure 3 shows the most recent correlation between Zia AGI #1 and Zia AGI #D2.

### **Regulatory Oversight**

Geolex observed the completion of the BOP/BOPE testing and the CIT on Sunday, November 6, 2016. One test, Hydraulic IBOP, had to be retested because the initial test was stable but below the required 250 psi, so that component was successfully retested at the required pressure the morning of Monday, November 7, 2016. Both Hobbs BLM and Carlsbad BLM were notified

and satisfied with the result. The new On-Call Inspector, Stephen Bailey, will pick up the retest chart when he is onsite to witness the cementing. The Carlsbad BLM Project Engineer, Teungko Muchlis Krueng just wants the test results included in the 3160-5 sundry for the surface casing. Stephen Bailey also requested first notification on casing setting and cementing when the first intermediate borehole is complete (Figure 4). Work continued on the surface casing sundry which is planned for submission this week.

**Other Support Activities**

No other support activities occurred on this day.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Making Connections for the 17 ½-inch borehole

## **GEOLEX DAILY REPORT**

**Date:** 11/08/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

Geology Oversight activities on Tuesday, November 8, 2016 were observing drilling of the 17 ½-inch borehole to its final total depth (TD) of 2555.5 feet. Regulatory Oversight consisted of notifications to the Hobbs BLM On-Call Inspector that the 17 ½-inch borehole was at TD. In addition, Geolex witnessed the mechanical caliper logging of the 17 ½-inch borehole on Wednesday, November 9, 2016 (Figure 1). The 13 3/8-inch casing is ready for installation, and is scheduled to be completed later in the day on Wednesday, November 9, 2016. Geolex also met with Concho to discuss up-coming activities throughout the night.

### **Geology Oversight**

Drilling continued at a depth of 2,441 feet at 06:00 on Tuesday, November 8, 2016 (Figure 2). The borehole TD is within the Yates Formation at a depth of 2,555.5 feet, which was reached at approximately 16:30 on Tuesday, November 8, 2016. Formations and Formation Tops that were encountered are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Salt Top	882 feet	Halite, shale and dolomite
• Salado Formation	1,836 feet	Halite, anhydrite and dolomite
• Tansil	2,343 feet	Carbonates
• Yates	2,482 feet	Siliclastics

Figure 3 shows the most recent correlation between Zia AGI #1 and Zia AGI #D2.

### **Regulatory Oversight**

Geolex provided advance notice at 16:17, Tuesday, November 08, 2016 when the borehole reach TD, as requested by Stephen Bailey, the Hobbs BLM On-Call Inspector. The TD was changed from 2,600 feet (original plan) to 2,555.5 feet to allow for a better casing seat and verbal approval was obtained from Teungku Muchlis Krueng, Carlsbad BLM. Teungku Muchlis



requested that this change be included in the 3160-5 subsequent sundry for the Zia AGI #D2 1<sup>st</sup> intermediate casing (Figure 4). The next notification will occur when there are five casing joints left to be run in the 17 ½-inch borehole.

Geolex witnessed, and received, the mechanical caliper log conducted by Schlumberger (also referred to as the Borehole Profile Log). This log was completed on Wednesday, November 9, 2016 at approximately 03:27. The Borehole Profile Log indicates a good borehole-diameter, compared to the 17 ½-inch drill bit, with negligible washouts.

### **Other Support Activities**

No other support activities occurred on this day.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Schlumberger Running Mechanical Caliper Log

## **GEOLEX DAILY REPORT**

**Date:** 11/09/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

Geology Oversight activities on Wednesday, November 9, 2016 were observing the 1<sup>st</sup> intermediate casing installation and cementing of Zia AGI #D2 (Figures 1 and 2). Regulatory Oversight consisted of notifications and updates to the BLM related to installation, cementing, and BOP testing for the Zia AGI #D2 1<sup>st</sup> intermediate casing.

### **Geology Oversight**

No Drilling occurred during the 24-hour period ending Thursday, November 10, 2016 at 06:00.

The borehole is at its total depth (TD) of 2,555.5 feet (Figure 3) and the 1<sup>st</sup> intermediate casing was installed to the full depth and seated in the Yates Formation. The installation of the 1<sup>st</sup> intermediate casing began at 07:00 and ended at 12:52 on Wednesday, November 9, 2016. First cement returns were observed at approximately 18:05.

Formations and Formation Tops that were encountered are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Salt Top	882 feet	Halite, shale and dolomite
• Salado Formation	1,836 feet	Halite, anhydrite and dolomite
• Tansil	2,343 feet	Carbonates
• Yates	2,482 feet	Siliclastics

### **Regulatory Oversight**

Geolex made notifications related to the completion of the DCP Zia AGI #D2 1<sup>st</sup> intermediate (13 3/8-inch) casing to the BLM On-Call hotline (Stephen Bailey – Figure 4). Stephen Bailey witnessed cement returns on the 1<sup>st</sup> intermediate casing, and was satisfied with the results. The Halliburton Cement Report was submitted to him upon his request. There was 428 sacks (130 barrels) circulated to the surface. Furthermore, Stephen Bailey gave approval to proceed with the BOP/BOPE testing without a BLM representative. The BOP/BOPE testing will occur on Thursday, November 10, 2016, along with the cement bond log. Geolex will call Teungku Muchlis for a formal review and approval upon the completion of the cement bond log.

### **Other Support Activities**

No other support activities occurred on this day.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Installing 1<sup>st</sup> intermediate casing

## **GEOLEX DAILY REPORT**

**Date:** 11/10/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

Geology Oversight activities on Thursday, November 10, 2016 included the running of the cement bond log (CBL) (Figure 1), evaluating and reporting the quality of the cement bond, and pressure testing of the BOP/BOPE. The integrity of the 1<sup>st</sup> intermediate casing was evaluated on early Friday morning, following the testing of the surface equipment. Regulatory Oversight consisted of notifications and updates to the BLM related to the installation and cementing of the 1<sup>st</sup> intermediate casing, and the subsequent pressure testing. The surface casing completion report was submitted to the BLM (Figure 2).

### **Geology Oversight**

No Drilling occurred during the 24-hour period ending Thursday, November 10, 2016 at 06:00 (Figure 3). Formations and Formation Tops that were encountered during this drilling segment are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Salt Top	882 feet	Halite, shale and dolomite
• Salado Formation	1,836 feet	Halite, anhydrite and dolomite
• Tansil	2,343 feet	Carbonates
• Yates	2,482 feet	Siliclastics

### **Regulatory Oversight**

The surface casing sundry report was submitted to the BLM, and Teungku Muchlis (Carlsbad BLM engineer), including results for the: fluid caliper log, gamma ray and rate of penetration log, geology correlation logs, schematic of the Zia AGI #D2 as-built well design, surface casing tally, photographs of cement returns, Halliburton cement and lab reports, Schlumberger cement bond log, BOP/BOPE and casing integrity tests, and notifications made to the BLM. Additionally, this report included a name change from Zia AGI #2D to Zia AGI #D2 in

compliance with a request from the NMOCD. This report was submitted Thursday, November 10, 2016 (Figure 2). A courtesy C-103 form was sent to the NMOCD with all the above information.

Geolex made notifications related to the completion of Zia AGI #D2 1<sup>st</sup> intermediate (13 3/8-inch) casing to the BLM On-Call hotline (Stephen Bailey) as shown on Figure 4. The CBL was witnessed and completed on Thursday November 10, 2016. Geolex's review of the CBL confirmed a good seal of the 13 3/8-inch 1<sup>st</sup> intermediate casing. Teungku Muchlis, of the Carlsbad BLM, was notified of the cementing and CBL results. He gave verbal approval to proceed with drilling of the 2<sup>nd</sup> intermediate casing upon completion of the BOP/BOPE and casing integrity pressure tests.

### **Other Support Activities**

No other support activities occurred on this day.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Schlumberger Running the CBL and USIT Log

## GEOLEX DAILY REPORT

**Date:** 11/11/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Friday, November 11, 2016, Geolex observed the completion of the BOP/BOPE and Cement Integrity pressure testing and provided geology oversight associated with the drilling of the 12 1/4-inch borehole. Drilling of the 12 1/4-inch borehole, 2<sup>nd</sup> intermediate, started on Friday, November 11, 2016 at 17:42 (Figure 1). Regulatory oversight consisted of notifications to the BLM related to the blow out preventer/blow out preventer equipment (BOP/BOPE) testing and the casing integrity test (CIT). In addition, Geolex made notifications to the Hobbs BLM On-Call Inspector (Stephen Bailey) concerning the pressure tests and drilling of the 12 1/4-inch borehole subsequent casing installation. Geolex also met with Concho personnel to discuss upcoming activities throughout the night.

### **Geology Oversight**

On Friday evening at 17:42, drilling of the 12 1/4-inch borehole was initiated from below the 13 3/8-inch casing at 2,555 feet (Figure 2). The borehole was advanced through the Yates and Seven Rivers Formations and into the Capitan Reef at a penetration rate of 100 to 150 feet per hour. A 40 to 50-bbl loss of drilling fluid was observed during a connection made at 2,700 feet, but it was minimized to approximately 100 bbls per hour with loss circulation material (LCM). By 06:00 on Saturday morning, the borehole had been extended to a depth of 3,666 feet. Formations and Formation Tops that were encountered during this drilling segment are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Salt Top	882 feet	Halite, shale and dolomite
• Salado Formation	1,836 feet	Halite, anhydrite and dolomite
• Tansil	2,343 feet	Carbonates
• Yates	2,482 feet	Siliclastics
• 7 Rivers	2,652 feet (predicted)	Carbonates and evaporates
• Capitan Reef	2,760 feet (predicted)	Carbonate reef

### **Regulatory Oversight**

Both the BLM Hobbs and Carlsbad offices were informed of the successful BOP/BOPE and CIT pressure test results (Figure 3). The BLM On-Call Inspector, Stephen Bailey, indicated that he would pick up the pressure test charts when he is onsite to witness the 2nd Intermediate Casing cement job, and asked to be notified immediately following the completion of the first stage. The Carlsbad BLM Project Engineer, Teungko Muchlis Krueng, was notified of the pressure test results with a phone call, and a message was left. The call was not returned from him, so the test results will be included as an attachment to the 3160-5 sundry for the 1<sup>st</sup> intermediate casing, which should be ready for submission early next week.

### **Other Support Activities**

Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Preparing to drill 12 ¼-inch borehole. Zia AGI #1 is in the foreground.

## **GEOLEX DAILY REPORT**

**Date:** 11/12/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrilling, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Saturday, November 12, 2016, Geolex observed the completion of the 12 ¼-inch, 2<sup>nd</sup> intermediate casing borehole to its total depth of 4,696 feet (Figure 1). Geology Oversight consisted of selecting the appropriate casing seat in the Goat Seep-Queen Formation. Regulatory Oversight consisted of a text update to the BLM inspector related to completion of the 2<sup>nd</sup> intermediate casing borehole and subsequent operations of specific interest to the BLM. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

On Saturday evening at 18:45, drilling of the 12 ¼-inch borehole was completed at a total depth of 4,696 feet in the Goat Seep-Queen formation in preparation for the installation of 9 5/8-inch casing (Figure 2). The borehole was advanced through the Yates, Seven Rivers, and Capitan Reef to its current depth in the Goat Seep-Queen. Formations and formation tops that were encountered during this drilling segment are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Yates	2,483 feet	Siliclastics
• 7 Rivers	2,663 feet	Carbonates and evaporates
• Capitan Reef	2,760 feet	Carbonate reef
• Goat Seep-Queen	4,439 feet	Carbonates (dolomite and limestone)

### **Regulatory Oversight**

The BLM on-call inspector (Stephen Bailey) was notified by text on Saturday, November 12, 2016 at 19:00 following the completion of the 2<sup>nd</sup> intermediate casing borehole. The text also verified his request to be notified upon the completion of the 9 5/8-inch casing first stage cement job so that he could witness circulation of the final stage cement. Mr. Bailey responded his



acknowledgment to the text message. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observation to date.

The Form 3160-5 Subsequent Report Sundry concerning activities associated with the installation of 1<sup>st</sup> intermediate casing was completed and will be submitted to the BLM upon review by the Geolex staff.

### **Other Support Activities**

Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Drilling the 12 ¼-inch 2<sup>nd</sup> intermediate casing borehole. Plant flare is in the background.

## **GEOLEX DAILY REPORT**

**Date:** 11/13/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Sunday, November 13, 2016, Geolex observed the installation and cementing of the 9 5/8-inch, 2<sup>nd</sup> intermediate casing (Figures 1 and 2). Specific Geology Oversight was not required during these operations as the casing point was determined prior to reaching the total depth (4,696 feet). Regulatory Oversight consisted of several updates to the BLM inspector and formal notification associated with the circulation of the 2<sup>nd</sup> stage cement. In addition, the Subsequent Report Sundry (Form 3160-5) concerning the 1<sup>st</sup> intermediated casing, installed last week, was submitted to the BLM WIS web site. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Formations and formation tops that were encountered during the drilling of the 2<sup>nd</sup> intermediate casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Yates	2,483 feet	Siliclastics
• 7 Rivers	2,663 feet	Carbonates and evaporates
• Capitan Reef	2,760 feet	Carbonate reef
• Goat Seep-Queen	4,439 feet	Carbonates (dolomite and limestone)

### **Regulatory Oversight**

The BLM on-call inspector (Stephen Bailey) was updated several times by text and phone calls on Sunday, November 13, 2016. Formal notification was given at 18:44 following the completion of the first stage of the 2<sup>nd</sup> intermediate casing cement job. Mr. Bailey arrived on site at 21:00 to witness the circulation of second stage cement to the surface. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

The Form 3160-5 Subsequent Report Sundry concerning activities associated with the installation of the 1<sup>st</sup> intermediate casing was submitted to the BLM website, followed by an email to Teungku Muchlis Krueng of the BLM Carlsbad office.

**Other Support Activities**

Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1A – Circulation of First Stage Cement of the 2<sup>nd</sup> intermediate casing (144 sacks to surface).  
Photograph taken immediately after cement was first observed at the surface.

## **GEOLEX DAILY REPORT**

**Date:** 11/14/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrift, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Monday, November 14, 2016, Geolex observed the testing of the BOP/BOPE attached to but isolated from the 9 5/8-inch, 2<sup>nd</sup> intermediate casing. Rig personnel worked on the installation of a flow line valve and prepared to drill out the DV tool, clean the hole to TD, and run the CBL (Figures 1). At 20:30 on Monday night, rig personnel began tripping into the hole to drill out the DV tool. Specific Geology Oversight was not required during these operations as the casing point was determined prior to reaching the total depth (4,696 feet) and no additional drilling has been performed (Figure 2). Mud loggers (Selman and Associates, Inc.) moved trailer onto location in preparation to begin drilling the 8 3/4-inch borehole. Regulatory Oversight consisted of a telephone call to the BLM to prepare them for an early morning review CBL if necessary. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Formations and formation tops that were encountered during the drilling of the 2<sup>nd</sup> intermediate casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Yates	2,483 feet	Siliclastics
• 7 Rivers	2,663 feet	Carbonates and evaporates
• Capitan Reef	2,760 feet	Carbonate reef
• Goat Seep-Queen	4,439 feet	Carbonates (dolomite and limestone)

### **Regulatory Oversight**

The BLM on-call inspector (Stephen Bailey) was contacted by text 04:00 and later by phone concerning the upcoming pressure tests of the BOP/BOPE. Mr. Bailey indicated that he would not be present for the tests. Additionally, a phone call was made at 15:42 to Teungku Muchlis

Krueng (BLM Carlsbad Coordinator for this project) in order to inform him of the upcoming CBL and determine his preference for an after-hours review of the completed log. He indicated that since cement was circulated to the surface during the 2<sup>nd</sup> intermediate casing cement job and witnessed by the BLM inspector, he would allow Geolex to verify the quality of the cement bond and determine if continued drilling was appropriate. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Rig personnel working to prepare flow line valve. Near moon in background.

## **GEOLEX DAILY REPORT**

**Date:** 11/15/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandriell, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Tuesday, November 15, 2016, Geolex observed Schlumberger's running of the cement bond log (CBL) within the 9 5/8-inch 2<sup>nd</sup> intermediate casing, under no casing pressure (Figure 1). The CBL was reviewed and evaluated by representatives of Geolex, Concho, and Schlumberger. While there was some evidence of a micro-annulus in the section above the 13 3/8-inch casing shoe and near the 9 5/8-inch DV tool, all parties concurred that the CBL indicated good cement bond such that re-running the log under casing pressure was unnecessary, and drilling should continue in accordance with the guidance provided by the BLM coordinator (see Regulatory Oversight section of the Geolex Dailey Report from 11/14/16).

Upon completion of the CBL, a successful casing integrity test (CIT) of the 9 5/8-inch casing was performed at 1,500 psi for 30 minutes. The bottom hole assembly was prepared for the 8 3/4-inch borehole and lowered into the well to condition the mud, drill into the formation below the 9 5/8-inch casing and perform a mud equivalency (formation integrity) test (FIT). The formation was successfully tested at 513 psi for 10 minutes, then 631 psi for 10 minutes. At 1:19 on Wednesday, November 16, 2016 drilling of the 8 3/4-inch borehole was initiated (Figure 2). Geologic Oversight was also continued at that time utilizing Selman (mud logger) for the remainder of the borehole, the most recent mud log and reports are attached at the end of this update.

No specific Regulatory Oversight was required or performed during these operations. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Formations and formation tops that were encountered during the drilling of the 2<sup>nd</sup> intermediate casing borehole are as follows:

<u>Formation</u>	<u>Depth (kb)</u>	<u>Primary Lithology</u>
• Yates	2,483 feet	Siliclastics
• 7 Rivers	2,663 feet	Carbonates and evaporates
• Capitan Reef	2,760 feet	Carbonate reef
• Goat Seep-Queen	4,439 feet	Carbonates (dolomite and limestone)

**Regulatory Oversight**

Specific Regulatory Oversight was not performed during the operations described above as guidance for the evaluation of cement bond was provided via a phone call to Teungku Muchlis Krueng (BLM Carlsbad Coordinator for this project) on Monday November 14, 2016. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – CBL Operations at Dawn on November 15, 2016

## **GEOLEX DAILY REPORT**

**Date:** 11/16/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Wednesday, November 16, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 6788 feet. The most recent mud log and reports are attached at the end of this update. Of particular interest was logging of the Zia AGI #1 injection interval from 5,585 feet (top) to 6,153 feet (bottom). According to the tracer survey from Zia AGI #1 the greatest volume of injection was expected from 5,875 to 5,940 feet (TVD). Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored to determine if the injection plume from Zia AGI #1 was encountered. Based on the gas and pressure monitoring, the Zia AGI #1 injection plume was not encountered during the drilling of Zia AGI D #2.

No specific Regulatory Oversight was required or performed during these operations. However, the BLM 3160-5 sundry for the lower intermediate casing and borehole is nearly complete and will be submitted this week. Also, courtesy C-103 sundries are being prepared for NMOCD. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones and siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Springs	7,046 feet (est.)	Limestone



### **Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correlation with Zia AGI #1 Mud Log  
(subsequent page)

## **GEOLEX DAILY REPORT**

**Date:** 11/17/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Thursday, November 17, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 7,512 feet. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored to determine if the injection plume from Zia AGI #1 was encountered. Based on the gas and pressure monitoring, the Zia AGI #1 injection plume was not encountered during the drilling of Zia AGI D #2 and there continues to be no CO<sub>2</sub> or H<sub>2</sub>S.

No specific Regulatory Oversight notifications were required or performed during these operations. However, the BLM 3160-5 sundry for the lower intermediate casing and borehole is nearly complete and will be submitted this week. Also, courtesy C-103 sundries are being prepared for NMOCD. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The correlation was switched to a Morrow well just southeast of the Zia AGI D #2 (the COG Lusk Deep Unit A #21) until drilling proceeds through the Morrow. After that the correlation will switch to the Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of Bone Spring was encountered at 7,060 feet, so the correlation remains flat. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones and siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Springs	7,060 feet	Limestone

### **Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correlation with Zia AGI #1 Mud Log  
(subsequent page)

## GEOLEX DAILY REPORT

**Date:** 11/18/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrift, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Friday, November 18, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 8737 feet at 06:00, Saturday, November 19, 2016. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored to determine if the injection plume from Zia AGI #1 was encountered. Based on the gas and pressure monitoring, the Zia AGI #1 injection plume was not encountered during the drilling of Zia AGI D #2. Much of Thursday (late shift) and Friday (day shift) was spent tripping for a new bit with directional tool. Drilling resumed at approximately 15:30.

No specific Regulatory Oversight notifications were required or performed during these operations. However, a visit to the Carlsbad BLM Office to discuss the lower intermediate casing CBL did occur. The BLM 3160-5 sundry for the lower intermediate casing and borehole was submitted on Friday night. Also, courtesy C-103 sundries for both upper and lower intermediate casings are ready for delivery to NMOCD next week. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and upcoming operations.

### **Geology Oversight**

The geologic correlation was switched to a Morrow well just southeast of the Zia AGI D #2 (the COG Lusk Deep Unit A #21) until drilling proceeds through the Morrow. After that the correlation will switch to the Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of Bone Spring was encountered at 7,060 feet and the correlation remains flat. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones

- Brushy Canyon                      5,632 feet                      Medium grained sandstones
- Bone Springs                        7,060 feet                      Limestone
- Bone Springs 1<sup>st</sup> Sand            8,308 feet (projected)      Fine sand and carbonates

**Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Mike Selke, Geolex, visited the Carlsbad BLM Office and briefed their project engineer, Teungku Muchlis Krueng (Seven), on the CBL for the lower intermediate casing cement job. Mr. Krueng agreed that the bonding inside the intervals of the surface casing and the upper intermediate casing was not particularly good. However, because there were good cement return for all three casing cement jobs and good CITs, along with multiple layers of casing and cement he was not concerned. He further agreed that the cement bonding in the lower intermediate casing below the bottom of the upper intermediate casing was mostly excellent. He will approve the CBL which will be included in the 3160-5 sundry which was submitted later that evening. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correllation with Zia AGI #1 Mud Log  
(subsequent page)

## **GEOLEX DAILY REPORT**

**Date:** 11/19/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Saturday, November 19, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 9,239 feet at 06:00, Sunday, November 20, 2016. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored. Much of Saturday was spent tripping for a new bit. Drilling resumed at approximately 20:00.

No specific Regulatory Oversight notifications were required or performed during these operations. Courtesy C-103 sundries for both upper and lower intermediate casings are ready for delivery to NMOCD next week. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The geologic correlation was switched to a Morrow well just southeast of the Zia AGI D #2 (the COG Lusk Deep Unit A #21) until drilling proceeds through the Morrow. After that the correlation will switch to the Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of Bone Spring was encountered at 7,060 feet and the correlation remains flat. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Springs	7,060 feet	Limestone
• Bone Springs 1 <sup>st</sup> Sand	8,310 feet	Fine sand and carbonates
• Bone Springs 2 <sup>nd</sup> Sand	9,034 feet	Fine sand and carbonates

### **Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correlation with Zia AGI #1 Mud Log  
(subsequent page)

## GEOLEX DAILY REPORT

**Date:** 11/20/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Sunday, November 20, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 10,328 feet at 06:00, Monday, November 21, 2016. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored. Drilling has been proceeding according to plan.

No specific Regulatory Oversight notifications were required or performed during these operations. Courtesy C-103 sundries for both upper and lower intermediate casings are ready for delivery to NMOCD next week. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The geologic correlation was switched to a Morrow well just southeast of the Zia AGI D #2 (the COG Lusk Deep Unit A #21) until drilling proceeds through the Morrow. After that the correlation will switch to the Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of Bone Spring was encountered at 7,060 feet and the correlation remains flat. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Springs	7,060 feet	Limestone
• Bone Springs 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Springs 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Springs 3 <sup>rd</sup> Sand	9,879 feet (projected)	Fine sand and carbonates



### **Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correllation with Zia AGI #1 Mud Log

(subsequent page)

## **GEOLEX DAILY REPORT**

**Date:** 11/21/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrift, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Monday, November 21, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 11,133 feet at 06:00, Tuesday, November 22, 2016. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored. Drilling has been proceeding according to plan but the borehole is drifting to the east and northeast. The directional drillers are making adjustments to keep the inclination within 1.5 degrees. The bottom hole location is 64.48 feet east and 49.79 feet north with an inclination of 0.9 degrees.

No specific Regulatory Oversight notifications were required or performed during these operations. Courtesy C-103 sundries for both upper and lower intermediate casings are ready for delivery to NMOCD next week. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The geologic correlation was switched to a Morrow well just southeast of the Zia AGI D #2 (the COG Lusk Deep Unit A #21) until drilling proceeds through the Morrow. After that the correlation will switch to the Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of Wolfcamp was encountered at 10,422 feet and the correlation remains flat. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones

- |                                    |                    |                                |
|------------------------------------|--------------------|--------------------------------|
| • Bone Spring                      | 7,060 feet         | Limestone                      |
| • Bone Spring 1 <sup>st</sup> Sand | 8,324 feet         | Fine sand and carbonates       |
| • Bone Spring 2 <sup>nd</sup> Sand | 9,044 feet         | Fine sand and carbonates       |
| • Bone Spring 3 <sup>rd</sup> Sand | 9,877 feet         | Fine sand and carbonates       |
| • Wolfcamp                         | 10,422 feet        | Shale, siltstone and limestone |
| • Strawn                           | 11,170 feet (est.) | Limestone                      |

**Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex attended the briefing on the installation of the seven-inch casing that included a briefing from Halliburton on the Wellock resin and the subsequent bond logging. Geolex continued work on the End of Well Report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correllation with Zia AGI #1 Mud Log  
(subsequent page)

## **GEOLEX DAILY REPORT**

**Date:** 11/22/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Tuesday, November 23, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 11,303 feet at 06:00 after spending most of the day tripping for a new bit. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored.

No specific Regulatory Oversight notifications were required or performed during these operations. Courtesy C-103 sundries for both upper and lower intermediate casings were hand delivered to NMOCD Hobbs District Office. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The geologic correlation was switched to a Morrow well just southeast of the Zia AGI D #2 (the COG Lusk Deep Unit A #21) until drilling proceeds through the Morrow. After that the correlation will switch to the Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of Wolfcamp was encountered at 10,422 feet and the correlation remains flat. Drilling continued to a depth of 11,303 feet on Wednesday, November 23, 2016 at 06:00. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates

- |                                    |             |                                |
|------------------------------------|-------------|--------------------------------|
| • Bone Spring 2 <sup>nd</sup> Sand | 9,044 feet  | Fine sand and carbonates       |
| • Bone Spring 3 <sup>rd</sup> Sand | 9,877 feet  | Fine sand and carbonates       |
| • Wolfcamp                         | 10,422 feet | Shale, siltstone and limestone |
| • Strawn                           | 11,163 feet | Limestone                      |

**Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Courtesy C-103 sundries for both upper and lower intermediate casings were hand delivered to NMOCD Hobbs District Office. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex, Concho, DCP and Integrity met to discuss the drift in Zia AGI D #2 8 ½: borehole. The consensus agreement was that additional drift to the east/northeast would be kept to no more than 30 feet. After that more aggressive directional drilling would be implemented to maintain that limit and/or induce drift to the west. Concho and Geolex will continue monitoring the deviation, and if it dramatically changes action will be taken to compensate.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correllation with Zia AGI #1 Mud Log  
(subsequent page)

## **GEOLEX DAILY REPORT**

**Date:** 11/23/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrift, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Wednesday, November 23, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 11,960 feet at 06:00 drilling in the Atoka. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored.

No specific Regulatory Oversight notifications were required or performed during these operations. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The geologic correlation was switched to a Morrow well just southeast of the Zia AGI D #2 (the COG Lusk Deep Unit A #21) until drilling proceeds through the Morrow. After that the correlation will switch to the Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of Atoka was encountered at 11,595 feet. Drilling continued to a depth of 11,960 feet on Thursday, November 24, 2016 at 06:00. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates

- |            |             |                                |
|------------|-------------|--------------------------------|
| • Wolfcamp | 10,422 feet | Shale, siltstone and limestone |
| • Strawn   | 11,163 feet | Limestone                      |
| • Atoka    | 11,595 feet | Limestone, shale and siltstone |

### **Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

Geolex continued to develop the end of well report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correlation with Zia AGI #1 Mud Log  
(subsequent page)

## **GEOLEX DAILY REPORT**

**Date:** 11/24/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Thursday, November 24, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 12,383 feet at 06:00 drilling in the Morrow. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored.

No specific Regulatory Oversight notifications were required or performed during these operations. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The geologic correlation was switched Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of Morrow was encountered at 11,973 feet. Drilling continued to a depth of 12,382 feet on Friday, November 25, 2016 at 06:00. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone



- |          |             |                                |
|----------|-------------|--------------------------------|
| • Atoka  | 11,595 feet | Limestone, shale and siltstone |
| • Morrow | 11,973 feet | sandstone and shale            |

### **Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

Geolex continued to develop the end of well report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correlation with Zia AGI #1 Mud Log  
(subsequent page)

## **GEOLEX DAILY REPORT**

**Date:** 11/25/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Friday, November 25, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 12,721 feet at 06:00 drilling in the Mississippian. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored.

No specific Regulatory Oversight notifications were required or performed during these operations. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The geologic correlation was switched Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of Morrow was encountered at 11,973 feet. Drilling continued to a depth of 12,382 feet on Friday, November 25, 2016 at 06:00. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone

- |                 |                    |                                |
|-----------------|--------------------|--------------------------------|
| • Atoka         | 11,595 feet        | Limestone, shale and siltstone |
| • Morrow        | 11,973 feet        | Sandstone and shale            |
| • Mississippian | 12,715 feet (est.) | Shale and limestone            |

### **Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

Geolex continued to develop the end of well report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correlation with Zia AGI #1 Mud Log  
(subsequent page)

## GEOLEX DAILY REPORT

**Date:** 11/26/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Saturday, November 26, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 13,197 feet at 06:00 drilling in the Mississippian Lime (Osage Formation). Formation tops are appearing shallower than expected, and it is anticipated that the Woodford shale top will come in at approximately 13,484 feet (opposed to the current prediction of 13,615 feet) and the Devonian top will come in at approximately 13,605 feet (opposed to the current estimate of 13,740 feet). The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored.

No specific Regulatory Oversight notifications were required or performed during these operations. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The geologic correlation was switched to the Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of the Mississippian (Chester Formation) was encountered at 12,544 feet, the top of the Barnett shale at 12,765 feet, and the top of the Mississippian Lime (Osage Formation) at 12,923. Drilling continued to a depth of 13,197 feet on Sunday, November 27, 2016 at 06:00. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone

• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone
• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale
• Mississippian (Chester)	12,544 feet	Shale and limestone
• Barnett	12,765 feet	Shale
• Mississippian Lime (Osage)	12,923 feet	Limestone with chert
• Woodford	13,484 feet (est.)	Shale
• Devonian	13,605 feet (est.)	Dolomite
• Silurian (Wristen)	13,755 feet (est.)	Dolomite and limestone

**Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex continued to develop the end of well report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correllation with Zia AGI #1 Mud Log  
(subsequent page)

## GEOLEX DAILY REPORT

**Date:** 11/27/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Sunday, November 27, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to a borehole depth of 13,530 feet at 21:38 drilling in the Woodford. Scandrill is currently tripping out of the hole to replace the drill bit and bring the gamma tool closer to the bit. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored.

No specific Regulatory Oversight notifications were required or performed during these operations. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The geologic correlation was switched to the Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of the Woodford was encountered at 13,474 feet. Drilling continued to a depth of 13,530 feet on Sunday, November 27, 2016 at 21:38. At this point, the top of the Woodford was determined and Scandrill pulled out of the hole to replace the bit and bring the gamma tool closer to the next bit. This provides Geolex with the capability to determine the Devonian top sooner while continuing to drill. It is estimated that the production casing will land 15 feet into the Devonian. If fracture porosity is identified at the top of the Devonian, the casing point may be changed to the base of the Woodford, also a competent lithology and an acceptable casing seat. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones

• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone
• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale
• Mississippian (Chester)	12,544 feet	Shale and limestone
• Barnett	12,765 feet	Shale
• Mississippian Lime (Osage)	12,923 feet	Limestone with chert
• Woodford	13,474 feet	Shale
• Devonian	13,605 feet (est.)	Dolomite
• Silurian (Wristen)	13,755 feet (est.)	Dolomite and limestone

**Regulatory Oversight**

Specific Regulatory Oversight notifications were not performed during the operations described above. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex continued to develop the end of well report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correllation with Zia AGI #1 Mud Log  
(subsequent page)

## GEOLEX DAILY REPORT

**Date:** 11/28/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrift, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Monday, November 28, 2016, Geolex Geologic Oversight continued with Selman (mud logger) to the production boreholes final depth of 13,622 feet at 22:56, 15 feet into the Devonian. The Devonian top appeared shallower than expected at 13,607 feet. Scandrift conditioned the hole and is currently tripping out to prepare for geophysical logging of the open-hole. The most recent mud log and reports are attached at the end of this update. Both CO<sub>2</sub> and H<sub>2</sub>S were continuously monitored.

The BLM has been notified that TD on the production hole has been reached at 13,622 feet. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The geologic correlation was switched to the Lusk Deep Unit #2 to reach the Siluro-Devonian. The top of the Woodford was encountered at 13,474 feet. The top of the Devonian was encountered at 13,607 feet. Drilling continued in the production hole to its total depth (TD) of 13,622 feet on Monday, November 28, 2016 at 22:56. This final TD is 15 feet into the Devonian, which was the original approved plan in the permit. Furthermore, no fracture porosity was encountered at the top of the Devonian, and the casing seat is in a competent lithologic unit. Formations and formation tops (Figures 1 and 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones



• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone
• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale
• Mississippian (Chester)	12,544 feet	Shale and limestone
• Barnett	12,765 feet	Shale
• Mississippian Lime (Osage)	12,923 feet	Limestone with chert
• Woodford	13,474 feet	Shale
• Devonian	13,607 feet	Dolomite
• Silurian (Wristen)	13,768 feet (est.)	Dolomite and limestone

**Regulatory Oversight**

The BLM has been notified that TD on the production hole has been reached at 13,622 feet. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

No other Support Activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

Figure 1 – Correlation with Zia AGI #1 Mud Log

(subsequent page)

## GEOLEX DAILY REPORT

**Date:** 11/29/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Tuesday, November 29, 2016, Geolex Geologic Oversight consisted of selecting the appropriate production casing seat. It has been determined that the Devonian at 13,622 feet is an appropriate and competent rock to set the production casing in. In addition, all open-hole geophysical logs, including the mechanical caliper log, have been completed for the production borehole. All logs have been sent via e-mail from Schlumberger, and hard copies will be delivered to DCP with the End of Well Report. The most recent mud log is attached at the end of this update.

Regulatory Oversight consisted of an update to the BLM notifying them that TD on the production hole has been reached at 13,622 feet. Geolex also maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

The top of the Devonian was encountered at 13,607 feet. Drilling continued in the production hole to its total depth (TD) of 13,622 feet on Monday, November 28, 2016. Geophysical logging of the production borehole commenced on Tuesday, November 29, 2016 and ended on Wednesday, November 30, 2016. This included the mechanical caliper log, which showed little to no washouts between 4,696 and 13,622 feet. Further analysis of the geophysical logs will continue, and be discussed on the following daily report. Formations and formation tops (Figures 1) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones

• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone
• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale
• Mississippian (Chester)	12,544 feet	Shale and limestone
• Barnett	12,765 feet	Shale
• Mississippian Lime (Osage)	12,923 feet	Limestone with chert
• Woodford	13,474 feet	Shale
• Devonian	13,607 feet	Dolomite
• Silurian (Wristen)	13,768 feet (est.)	Dolomite and limestone

**Regulatory Oversight**

The BLM has been notified that TD on the production hole has been reached at 13,622 feet. Figure 2 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

No other Support Activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 11/30/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Wednesday, November 30, 2016, Geolex conducted normal operations at the Zia AGI D #2 well site. After completing the geophysical logging, Scandrill performed a wiper trip to TD and is strapping out of the hole (confirmed TD at 16,322 feet). The production casing is scheduled to be run in the afternoon on Thursday, December 1, 2016.

There was no regulatory oversight conducted during this 24-hour period. Geolex maintained communications with the Concho drilling personnel with respect to current conditions and upcoming operations.

### **Geology Oversight**

Drilling of the production casing hole was completed 15 feet into the Devonian at a total depth of 13,622 feet by 23:00 on November 28, 2016. No additional drilling has been performed. Formations and formation tops (Figures 1) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone

• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale
• Mississippian (Chester)	12,544 feet	Shale and limestone
• Barnett	12,765 feet	Shale
• Mississippian Lime (Osage)	12,923 feet	Limestone with chert
• Woodford	13,474 feet	Shale
• Devonian	13,607 feet	Dolomite
• Silurian (Wristen)	13,768 feet (est.)	Dolomite and limestone

### **Regulatory Oversight**

The BLM has been notified that TD on the production hole has been reached at 13,622 feet and their engineer (Teungku Krueng) has found this to be acceptable. Figure 2 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

No other Support Activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 12/01/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrift, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Thursday, December 1, 2016, Geolex conducted normal operations at the Zia AGI D #2 well site. Upon completion of conditioning the production borehole, the 7-inch casing was run beginning at approximately 14:00. As of 06:00 on Friday, December 2 the casing depth was 7,331. Once casing reaches total depth (13,622 feet), the “well lock” polymer cement will begin the 15-hour mixing process.

Regulatory Oversight consisted of two phone calls to the BLM; one to the BLM Engineer (Teungku Krueng) and one to the BLM hotline giving them both status updates on the production casing. Geolex also attended the Thursday meeting, which included strategies for setting and cementing the production casing, final TD of the open-hole section and well completion plan. Geolex maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Drilling of the production casing hole was completed 15 feet into the Devonian at a total depth of 13,622 feet by 23:00 on November 28, 2016. No additional drilling has been performed. Formations and formation tops (Figures 4) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates

• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone
• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale
• Mississippian (Chester)	12,544 feet	Shale and limestone
• Barnett	12,765 feet	Shale
• Mississippian Lime (Osage)	12,923 feet	Limestone with chert
• Woodford	13,474 feet	Shale
• Devonian	13,607 feet	Dolomite
• Silurian (Wristen)	13,768 feet (est.)	Dolomite and limestone

**Regulatory Oversight**

Regulatory Oversight consisted of two phone calls to the BLM; one to the BLM Engineer (Teungku Krueng) and one to the BLM hotline giving them both status updates on the production casing. Teungku Krueng indicated he would be the on-call engineer next week for cementing the casing. The BLM hotline notified Geolex that John Staton may be the on-call inspector to witness the cementing of the production casing. Figure 5 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex continued to develop the end of well report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 12/02/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Friday, December 2, 2016, Geolex Oversight consisted of witnessing the setting of the 7-inch production casing at approximately 06:00 (Saturday Morning). The “Well-Lock” resin cement mixing has not begun by at the writing of this report (approximately 08:00 on Saturday) and may not require the full 15 hours as first thought.

The operations planned for today include rigging down Franks Casing Service and rigging up Schlumberger to run a gamma ray/CCL to verify the casing components depth relative to the Devonian top. Mixing of the resin will begin during or just after the logging is complete.

No Regulatory Oversight was performed on Friday. The BLM hotline will be notified on Saturday to determine what operations, if any, are to be witnessed by the field inspector. Geolex maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Drilling of the production casing hole was completed 15 feet into the Devonian at a total depth of 13,622 feet by 23:00 on November 28, 2016. No additional drilling has been performed. Formations and formation tops (Figures 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone



• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone
• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale
• Mississippian (Chester)	12,544 feet	Shale and limestone
• Barnett	12,765 feet	Shale
• Mississippian Lime (Osage)	12,923 feet	Limestone with chert
• Woodford	13,474 feet	Shale
• Devonian	13,607 feet	Dolomite
• Silurian (Wristen)	13,768 feet (est.)	Dolomite and limestone

**Regulatory Oversight**

No Regulatory Oversight was performed on Friday, December 2, 2016. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date. Communication and notification will begin on Saturday to insure the BLM field inspector is present to witness critical operations.

**Other Support Activities**

Geolex continued to develop the end of well report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## GEOLEX DAILY REPORT

**Date:** 12/03/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Saturday, December 3, 2016, Geolex Oversight consisted of witnessing the correlation of the Schlumberger gamma ray/CCL log with the open-hole logs to verify that the 7-inch casing shoe is located 15 to 17 feet into the Devonian Formation, prior to pumping the polymer WellLock cement. The first stage, consisting of H Blend (770 sacks) and WellLock (20 barrels) polymer cements, was completed at approximately 22:00 (Figure 1). Returns of the first stage cement were witnessed at approximately 23:39; after the bomb was dropped, diverter tool (DVT) engaged, and circulation commenced. There were 128 sacks returned to surface (Figure 2). Mixing of the second stage cement began at approximately 01:00 hours on Sunday, December 4, 2016, and will require approximately 8-10 hours before pumping in.

The operations planned for today will include the continued mixing of the second stage resin pumping the second stage cement. Regulatory Oversight on Saturday included a call to the BLM hotline to determine what operations, if any, are to be witnessed by the field inspector. Geolex maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Drilling of the production casing hole was completed 15 feet into the Devonian at a total depth of 13,622 feet by 23:00 on November 28, 2016. No additional drilling has been performed. Formations and formation tops (Figures 3) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones

• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone
• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale
• Mississippian (Chester)	12,544 feet	Shale and limestone
• Barnett	12,765 feet	Shale
• Mississippian Lime (Osage)	12,923 feet	Limestone with chert
• Woodford	13,474 feet	Shale
• Devonian	13,607 feet	Dolomite
• Silurian (Wristen)	13,768 feet (est.)	Dolomite and limestone

**Regulatory Oversight**

The BLM-Hobbs Hotline field inspector was called to determine when notification should be made to insure they were able to witness operations of their concern. The inspector (John Staton) indicated that witnessing the production casing cement was a lower priority than the surface and intermediate casing and would not be attended by the BLM; therefore no further notification was required. Figure 4 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

No other support activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## GEOLEX DAILY REPORT

**Date:** 12/04/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Sunday, December 4, 2016, Geolex Oversight consisted of witnessing the cementing of the second stage of the 7-inch production casing (surface to DV tool at 6,345 feet). “Tuned Light” cement (420 sacks/158 bbls) was used for the lead and “Well-Lock” resin (80 barrels) was used for the tail. The operation began at 8:55 and the final plug was landed at 10:45. Ninety-three sacks (35 bbls) of lead cement was circulated to the surface as witnessed by Concho and Geolex (Figure 1). Waiting on cement (WOC) time is expected to be between 36 and 48 hours, based on Halliburton’s evaluation of the resin samples.

The operations planned for today will include the preparation of the BLM sundry covering the installation of the production casing. Regulatory Oversight on Sunday included update emails to (Teungku Muchlis Krueng) the BLM engineer over this project. Geolex maintained communications with the Concho drilling personnel with respect to current conditions and upcoming operations.

### **Geology Oversight**

Drilling of the production casing hole was completed 15 feet into the Devonian at a total depth of 13,622 feet by 23:00 on November 28, 2016. No additional drilling has been performed. Formations and formation tops (Figures 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates

- |                                    |                    |                                |
|------------------------------------|--------------------|--------------------------------|
| • Bone Spring 3 <sup>rd</sup> Sand | 9,877 feet         | Fine sand and carbonates       |
| • Wolfcamp                         | 10,422 feet        | Shale, siltstone and limestone |
| • Strawn                           | 11,163 feet        | Limestone                      |
| • Atoka                            | 11,595 feet        | Limestone, shale and siltstone |
| • Morrow                           | 11,973 feet        | Sandstone and shale            |
| • Mississippian (Chester)          | 12,544 feet        | Shale and limestone            |
| • Barnett                          | 12,765 feet        | Shale                          |
| • Mississippian Lime (Osage)       | 12,923 feet        | Limestone with chert           |
| • Woodford                         | 13,474 feet        | Shale                          |
| • Devonian                         | 13,607 feet        | Dolomite                       |
| • Silurian (Wristen)               | 13,768 feet (est.) | Dolomite and limestone         |

**Regulatory Oversight**

Regulatory Oversight for the project on Sunday included only a couple of update emails to our BLM coordinating engineer. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex intends to utilize the extended WOC time to work on the end of well report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 12/05/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrift, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Monday, December 5, 2016, Geolex Oversight consisted of monitoring the WOC time with respect to Halliburton’s testing of the resin “Well-Lock” cement. At approximately 18:00 approval was given to TIH, test the casing above the DV tool, drill through the tool, TIH to baffle plate (90 feet above casing shoe) and test the full casing. Halliburton had not approved running the CBL at that time. As of 06:00 on Tuesday morning the upper casing pressure test had been performed (Figure 1) and the 4-inch drill pipe had been lowered to 6,359 feet.

The operations planned for today will include continued TIH, drill cement to 30 feet above casing shoe, TOH, and running CBL. No specific Regulatory Oversight was conducted on Monday. Geolex maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Drilling of the production casing hole was completed 15 feet into the Devonian at a total depth of 13,622 feet by 23:00 on November 28, 2016. No additional drilling has been performed. Formations and formation tops (Figures 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone

- |                              |                    |                                |
|------------------------------|--------------------|--------------------------------|
| • Strawn                     | 11,163 feet        | Limestone                      |
| • Atoka                      | 11,595 feet        | Limestone, shale and siltstone |
| • Morrow                     | 11,973 feet        | Sandstone and shale            |
| • Mississippian (Chester)    | 12,544 feet        | Shale and limestone            |
| • Barnett                    | 12,765 feet        | Shale                          |
| • Mississippian Lime (Osage) | 12,923 feet        | Limestone with chert           |
| • Woodford                   | 13,474 feet        | Shale                          |
| • Devonian                   | 13,607 feet        | Dolomite                       |
| • Silurian (Wristen)         | 13,768 feet (est.) | Dolomite and limestone         |

**Regulatory Oversight**

Regulatory Oversight was not performed on Monday. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex intends to utilize the extended WOC time to work on the end of well report.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 12/06/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Tuesday, December 6, 2016, Geolex Oversight consisted of monitoring the TIH with bit, drilling out resin below the DV tool, and washing/drilling to a depth of 13,592 feet. It was determined that to drill any closer to the casing shoe at this point was an unnecessary risk due to the potential of the hanging stretch of the casing to have relaxed in the resin cement and shifted the bottom of the pipe up the hole. It was also determined that the final casing integrity test would be performed following the running of the production casing CBL.

The operations planned for today will include continued TOOH and running CBL. No specific Regulatory Oversight was conducted on Tuesday, but an email update was sent to the BLM coordinating engineer early Wednesday. Geolex maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Drilling of the production casing hole was completed 15 feet into the Devonian at a total depth of 13,622 feet by 23:00 on November 28, 2016. No additional drilling has been performed. Formations and formation tops (Figures 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone



• Strawn	11,163 feet	Limestone
• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale
• Mississippian (Chester)	12,544 feet	Shale and limestone
• Barnett	12,765 feet	Shale
• Mississippian Lime (Osage)	12,923 feet	Limestone with chert
• Woodford	13,474 feet	Shale
• Devonian	13,607 feet	Dolomite
• Silurian (Wristen)	13,768 feet (est.)	Dolomite and limestone

**Regulatory Oversight**

Regulatory Oversight was not performed on Tuesday, except for a brief update email sent to the BLM coordinating engineer. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex is also working to prepare the BLM sundry covering the open-hole logging, production casing, cement, CBL, and final drill-out. The end of well report is also being reviewed and updated.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Resin Cement from Drill Out Operations

## **GEOLEX DAILY REPORT**

**Date:** 12/07/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrift, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Wednesday, December 7, 2016, once the drill pipe had been removed from the 7-inch casing, Geolex Oversight consisted of monitoring the Halliburton cement bond log run in the production casing, which include CRA pipe set with “Well-Lock” resin cement. The CBL was successfully completed on the morning of Thursday, December 08, 2016 and approval was received from BLM. Geolex maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Drilling of the production casing hole was completed 15 feet into the Devonian at a total depth of 13,622 feet by 23:00 on November 28, 2016. No additional drilling has been performed. Formations and formation tops (Figures 2) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone
• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale
• Mississippian (Chester)	12,544 feet	Shale and limestone

- Barnett 12,765 feet Shale
- Mississippian Lime (Osage) 12,923 feet Limestone with chert
- Woodford 13,474 feet Shale
- Devonian 13,607 feet Dolomite
- Silurian (Wristen) 13,768 feet (est.) Dolomite and limestone

**Regulatory Oversight**

M. Selke called Teungku Muchlis Krueng to discuss the results of the cement bond logging of the production casing. He emailed the RCBL and then called to brief the results. Teungku approved the cement job with the requirement that a successful CIT be conducted before drilling out. Teungku summarized this in an email to M. Selke, Geolex. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Geolex is also working to prepare the BLM sundry covering the open-hole logging, production casing, cement, CBL, and final drill-out. The end of well report is also being reviewed and updated.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



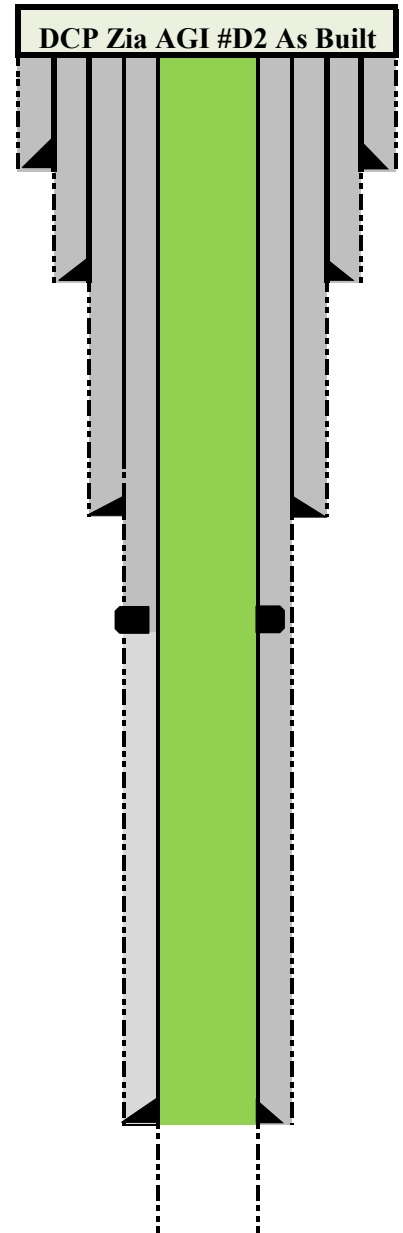
Figure 1 – Resin Cement from Drill Out Operations

Figure 2 - DCP Zia AGI #D2 Wellbore Status

Well Name: Zia AGI #D2  
API: 30-025-42207  
Location: Section 19 T19S R32E  
Footage: 1893 FSL 950 FWL

Operator: DCP Midstream LP  
County: Lea, NM  
Field: Devonian Exploration  
Lease #: NM 0149956

Depth (ft)	Wellbore Description	Material / Properties	Bit Size	Daily Progress
Rustler @ 740'	20" 106.5# J-55 BTC @ 800'	Lead: 1175 sx Class C + 4% Gel 13.5 ppg 1.75 ft <sup>3</sup> /sx Tail: 250 sx Class C + 1% CaCl <sub>2</sub> 14.8 ppg 1.34 ft <sup>3</sup> /sx	26" Surface Mud: FW Spud Mud 8.4 ppg FV 28-29 WLNC	Nov 1 - 2
Top of Salt @ 889'	13-3/8" 61# J-55 BTC @ 2,600'	Lead: 1700 sx Class C + 4% Gel 13.5 ppg 1.75 ft <sup>3</sup> /sx 100% excess	17-1/2" Intrmd Mud: Brine 10 ppg FV @ 28-29 WLNC	Nov 3 Nov 3 - 5 Nov 6 Nov 7
Base of Salt @ 2353' Yates @ 2426' 7 Rivers @ 2652'	9-5/8" 40# L80 BTC @ 4,700' DVT/ECP 100' above Reef. DVT/ECP min 50' below 13-3/8" shoe. BHST @ 4700' is 115° F 1 <sup>st</sup> stg: Lead: 525 sx 35:65:6 C Blend 12.7 ppg 2 ft <sup>3</sup> /sx TT: 4:30+ Tail: 250 sx Class C 14.8 ppg 1.34 ft <sup>3</sup> /sx TT: 3:00	BHST @ 2650' is 95° F 2 <sup>nd</sup> stg: Lead: 650 sx Class C + 4% Gel 13.5 ppg 1.75 ft <sup>3</sup> /sx TT: 4:30 Tail: 100 sx Class C + 1% CaCl <sub>2</sub> 14.8 ppg 1.34 ft <sup>3</sup> /sx TT: 3:00	12-1/4" Intrmd 2 Mud: FW 8.4 ppg FV 28-29 WLNC	Nov 8 Nov 8 - 10 Nov 11
Reef @ 2760'	7-5/8" 33.7# HCP110 LTC 0 - 300' 7-5/8" 33.7# LTC Box X 7" 29# LTC Pin ( XO) 7" 29# HCP110 LTC f/ 300' - 5000' 7" 29# LTC Box X 7" 32# VAM TOP Pin ( XO) 7" 32# SM2035-110 VAM TOP f/ 5000' - 6350' DVT ( 7" 32# VAM TOP box X 7" 29# LTC pin) 7" 29# HCP110 LTC f/ 6350' - 13,455' 7" 29# LTC Box X 7" 32# VAM TOP Pin ( XO) 7" 32# SM2035-110 VAM TOP f/ 13,455' - 13,755' ( FE to match)	Prod Mud: WBM 9.0 - 11 ppg See Mud Program	Nov 12     Nov 14 Nov 15	
Base of Reef @ 4436'				BHST @ 13,755' is 200° F 1 <sup>st</sup> Stage Lead: 650 sx 50:50:10 H Blend 11.9 ppg 2.5 ft <sup>3</sup> /sx TT: 5:30+ 40% Excess + 100 sx Tail: 40 BBLs WellLock Resin 12.5 ppg TT: 4:00+
Delaware @ 4718'				BHST @ 6350' is 130° F 2 <sup>nd</sup> stage Lead: 350 sx 50:50:10 C Blend 11.9 ppg 2.51 ft <sup>3</sup> /sx TT: 3:00+ Tail: 80 BBLs WellLock Resin 12.5 ppg TT: 3:00+
Bone Spring @ 7046'	7" casing pt to be picked by mud loggers. 15' into the Devonian. Will set comp bridge plug inside the 7" before installing disposal head	OH Mud: Fresh 8.4 - 9.2 ppg	Nov 16 Nov 17 Nov 19 Nov 20 Nov 20 Nov 21	
Wolfcamp @ 10,270'				Smith: 10/12/16
Strawn @ 11,120'			Nov 22 Nov 23 Nov 24	
Atoka @ 11,549'			Nov 26 Nov 26 Nov 26	
Morrow @ 12,075'			Nov 27 Nov 28	
Mississippian @ 12,665'			Nov 28 / Dec 7	
Miss Lime @ 13,065'				
Woodford @ 13,615'				
Devonian/Silurian @ 13,740'				
Fusselman @ 14,031'				
Montoya @ 14,511'				



Comment	Lithology
Spud on 11/2/16 starting at 120 feet	
226 feet on 11/2/16	Quaternary Deposits/Triassic
270 feet on 11/2/16	Top of Dockum Group
743 feet on 11/3/16	Top of Rustler
824 feet on 11/3/16	Top of Magenta Dolomite
Drilling 17 1/2-inch borehole on 11/6/16	Magenta Dolomite
882 feet on 11/7/16	Top of Salt
1836 feet on 11/7/16	Top of Salado
2343 feet on 11/8/16	Top of Tansill
2483 on 11/8/16	Top of Yates
2652 on 11/11/16	Top of 7 Rivers
2760 on 11/11/16	Top of Capitan Reef
3666 on 11/12/16	In the Capitan Reef
4438 on 11/12/16	Top of Goat Seep-Queen
4,696 on 11/12/16	In the Goat Seep-Queen
4,779 on 11/16/16	Top of Delaware (Bell Canyon)
4,963 on 11/16/16	Top of Cherry Canyon
5,632 on 11/16/16	Top of Brushy Canyon
7,060 on 11/17/16	Top of Bone Spring
8,310 on 11/19/16	Top of Bone Spring 1st Sand
9,034 on 11/20/16	Top of Bone Spring 2nd Sand
9,877 on 11/20/16	Top of Bone Spring 3rd Sand
10,422 on 11/21/16	Top of Wolfcamp
11,170 on 11/22/16	Top of Strawn
11,595 on 11/23/16	Top of Atoka
11,973 on 11/24/16	Top of Morrow
12,544 on 11/26/16	Top of Mississippian (Chester Fm.)
12,765 on 11/26/16	Top of Barnett
12,923 on 11/26/16	Top of Mississippian Lime (Osage Fm.)
13,474 on 11/27/16	Top of Woodford
13,607 on 11/28/16	Top of Devonian
13,622 on 11/28/16	In the Devonian

## **GEOLEX DAILY REPORT**

**Date:** 12/08/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Thursday, December 8, 2016, Geolex Oversight consisted of monitoring the Halliburton cement bond log run in the production casing. The RCBL (with no processing) was completed late Wednesday night and provided to Geolex at 03:30 on Thursday morning and approval was received from BLM at 11:30 pending a successful casing integrity test (CIT). A successful CIT was performed at 02:30 and a successful formation integrity test (FIT) was performed at 08:00 on Friday morning. Geolex maintained communications with the Concho drilling personnel with respect to current conditions and up-coming operations.

### **Geology Oversight**

Drilling of the production casing hole was completed 15 feet into the Devonian at a total depth of 13,622 feet by 23:00 on November 28, 2016. Drilling of the Devonian was resumed at 06:30 on Friday morning prior to the FIT. Formations and formation tops (Figures 1) that were encountered during the drilling of the production casing borehole are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Bell Canyon	4,779 feet	Sandstone w/thin bedded limestone
• Cherry Canyon	4,963 feet	Fine grained sandstones, siltstones
• Brushy Canyon	5,632 feet	Medium grained sandstones
• Bone Spring	7,060 feet	Limestone
• Bone Spring 1 <sup>st</sup> Sand	8,324 feet	Fine sand and carbonates
• Bone Spring 2 <sup>nd</sup> Sand	9,044 feet	Fine sand and carbonates
• Bone Spring 3 <sup>rd</sup> Sand	9,877 feet	Fine sand and carbonates
• Wolfcamp	10,422 feet	Shale, siltstone and limestone
• Strawn	11,163 feet	Limestone
• Atoka	11,595 feet	Limestone, shale and siltstone
• Morrow	11,973 feet	Sandstone and shale

- |                              |                    |                        |
|------------------------------|--------------------|------------------------|
| • Mississippian (Chester)    | 12,544 feet        | Shale and limestone    |
| • Barnett                    | 12,765 feet        | Shale                  |
| • Mississippian Lime (Osage) | 12,923 feet        | Limestone with chert   |
| • Woodford                   | 13,474 feet        | Shale                  |
| • Devonian                   | 13,607 feet        | Dolomite               |
| • Silurian (Wristen)         | 13,768 feet (est.) | Dolomite and limestone |

The plan to guide the decision making process as we drill out the open hole below the 7-inch casing can be summarized as follows:

1. We are permitted from the top of the Devonian to no deeper than the Montoya (Ordovician)
2. In the application, based on the best available pre-drilling information, we believed that the porosity zones in the Devonian would be about 300' lower making the approved injection zone APPROXIMATELY 13,950-14,750 presuming a Devonian top around 13,950. We specifically used the approximate language to give OCD and us the flexibility to deal with the geology we actually encounter
3. It appears that the fault didn't have as much displacement on it as we originally believed on the seismic and a few of the overlying formations were thinner than expected.
4. Since the Devonian top in our well is about 13,606 we anticipate losing porosity somewhere below the Devonian, Wristen and Fusselman Formations, in the Montoya.
5. Given this situation, we have the flexibility to continue drilling as long as we are seeing porosity (based on ROP) as long as we don't drill through the Montoya. This will likely take us to around 14,450 but if we still have porosity in the Montoya, my recommendation is to continue into it, of course staying above the maximum permit depth of 14,750 or the base of the Montoya, whichever comes first.

**Regulatory Oversight**

M. Selke called Teungku Muchlis Krueng on Thursday morning to discuss the results of the cement bond logging of the production casing. He emailed the field print, and generally unprocessed RCBL and then called to discuss the results. Although there were a few areas of concern, they were relatively easy to explain based on pipe and cement type transitions. Teungku approved the cement job with the requirement that a successful CIT be conducted before drilling out. Teungku summarized this in an email to M. Selke, Geolex. Figure 2 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

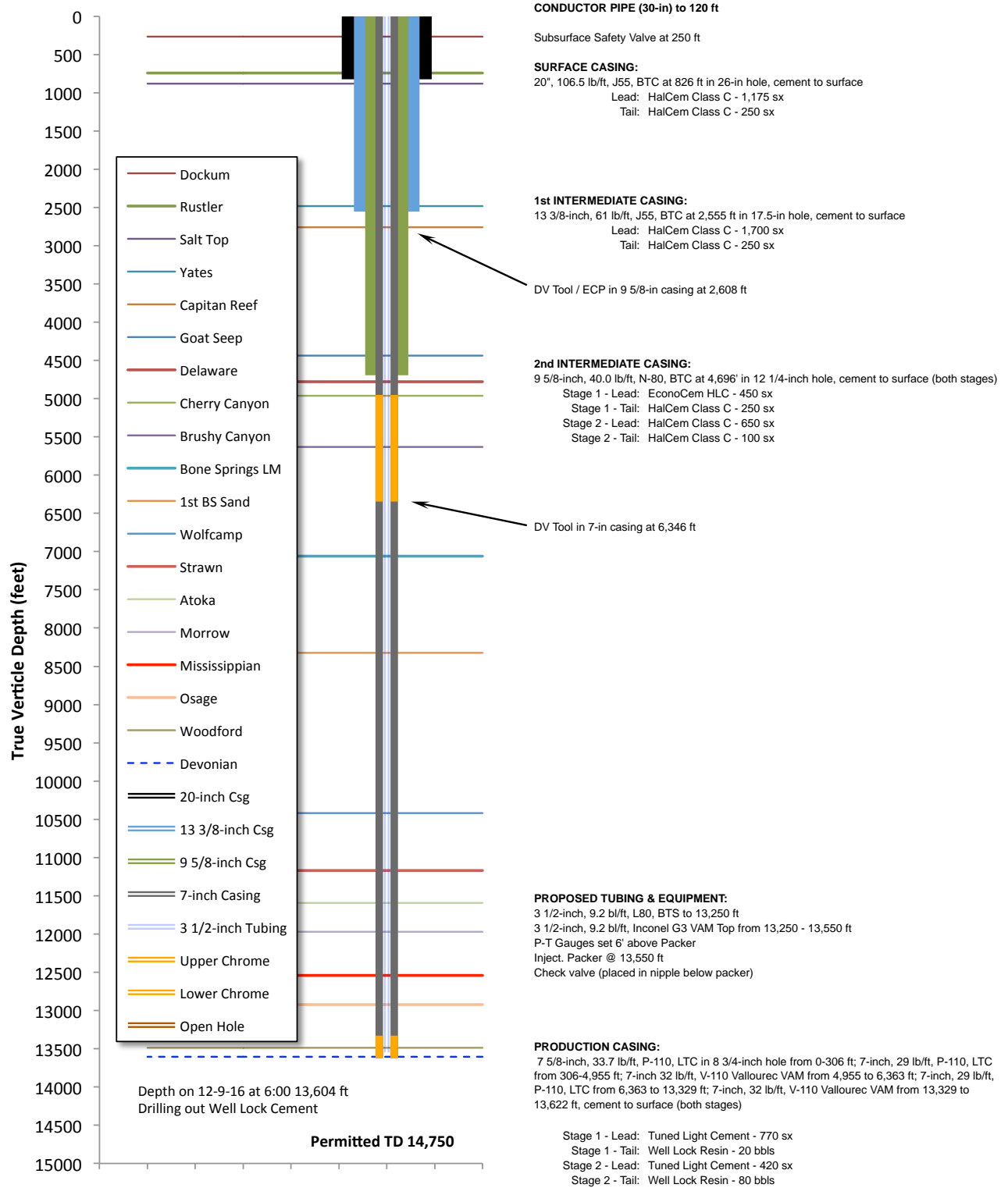
**Other Support Activities**

Geolex is also working to prepare the BLM sundry covering the open-hole logging, production casing, cement, CBL, and final drill-out. The end of well report is also being reviewed and updated.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

**Well Name: DCP AGI #D2 (API: 30-025-42207)**

Surface Location: Section 19(L), T19S-R32E, (1893' FSL & 950' FWL)  
Lea County, New Mexico



## **GEOLEX DAILY REPORT**

**Date:** 12/09/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Friday, December 9, 2016, Geolex Oversight primarily consisted of monitoring the drilling of the open-hole portion of the well in order to determine the total depth with respect to the maximum benefit for injection and compliance with regulatory requirements. Figure 1 is a schematic showing the well construction to date.

### **Geology Oversight**

Drilling of the open-hole portion of the well began at a depth of 13,622 feet, approximately 15-17 feet into the Devonian, at 6:30 on December 9, 2016. Formations and formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,607 feet	Limestone
• Silurian (Wristen)	13,787 feet	Limestone
• Silurian (Fusselman)	13,950 feet	Limestone
• Ordovician (Montoya)	14,386 feet (est.)	Dolomite

At 06:00 on Saturday, December 10, 2016 the rig was circulating to recover a sample at 14,570 feet. The drilling rate had slowed from 90 to 100 ft/hour to 60 to 70 ft/hour at approximately 14,550 feet as a result of an increase in chert within the primarily dolomite lithology. It was determined by Geolex that, although zones of apparent porosity were identified at approximately 13,850 feet and from 14,225 to 14,350 feet, the continuing presence of free calcite in the cuttings indicated that additional zones of fracture porosity were likely. Based on this it was decided that the open-hole portion of the well should be extended to the full permitted depth of 14,750, unless extremely difficult drilling or a degradation of the bit occurred. Attached are the most recent section of the mud log and the associated Geolex correlation with nearby off-set wells.



### **Regulatory Oversight**

No specific Regulatory Oversight was performed on Friday, December 9, 2016. Figure 2 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

Geolex is also working to prepare the BLM sundry covering the open-hole logging, production casing, cement, CBL, and final drill-out. The end of well report is also being reviewed and updated.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 12/10/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandril, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Saturday, December 10, 2016, Geolex Oversight consisted of monitoring the drilling of the open-hole portion of the well in order to determine the total depth with respect to the maximum benefit for injection and compliance with regulatory requirements. The total depth of 14,750 feet was reached at 09:31 on Saturday morning. Figure 2 is a schematic showing the well construction to date.

### **Geology Oversight**

Drilling of the open-hole portion of the well began at a depth of 13,622 feet, approximately 15-17 feet into the Devonian, at 6:30 on December 9, 2016. Formations and formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,607 feet	Limestone
• Silurian (Wristen)	13,787 feet	Limestone
• Silurian (Fusselman)	13,950 feet	Limestone
• Ordovician (Montoya)	14,362 feet	Dolomite and Chert

The open-hole (injection zone) of the mud log is provided as an attachment. Following the running of geophysical logs in the injection zone, Geolex will select locations for sidewall coring.

### **Regulatory Oversight**

Regulatory Oversight on Saturday, December 10, 2016 included the formal notification of total depth and the release of the drilling rig. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

Geolex is also working to prepare the BLM sundry covering the open-hole logging, production casing, cement, CBL, and final drill-out. The end of well report is also being reviewed and updated.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Open Hole Logging in Injection Zone

## **GEOLEX DAILY REPORT**

**Date:** 12/11/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Sunday, December 11, 2016, Geolex Oversight consisted of monitoring geophysical logging open-hole (injection) portion of the well in order to determine the depths for sidewall coring, and overseeing the sidewall coring. The geophysical logging was completed at 19:30 on Sunday December 11, 2016. As of 06:00 on December 12, 2016 the side wall coring was progressing. Remaining activities include setting the bridge plug and preparing the hole for rig mobilization. Figure 1 is a schematic showing the well construction to date.

### **Geology Oversight**

Drilling of the open-hole portion of the well began at a depth of 13,622 feet, approximately 15-17 feet into the Devonian, at 6:30 on December 9, 2016. Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. Formations and formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

No specific Regulatory Oversight on was conducted on Sunday, December 11, 2016. Figure 2 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### Other Support Activities

Geolex is also working to prepare the BLM sundry covering the open-hole logging, production casing, cement, CBL, and final drill-out. The end of well report is also being reviewed and updated.

Reported by: Alberto A. Gutierrez, RG, Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1 – Open Hole Logging in Injection Zone

## **GEOLEX DAILY REPORT**

**Date:** 12/12/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Monday, December 12, 2016, Geolex Oversight consisted of overseeing the sidewall coring. The core results were photographed and handed over to Schlumberger for delivery to Weatherford Laboratories in Midland, Texas. Schlumberger was released from the site. The bridge plug was set in place, and the rig began demobilization procedures. Figure 1 is a schematic showing the well construction to date.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. Sidewall cores were collected in the injection zone. These cores are being sent to Weatherford Laboratories to test for reservoir parameters (e.g. porosity, permeability, water saturation etc.). Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

No specific Regulatory Oversight on was conducted on Monday, December 12, 2016. Figure 2 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

No other support activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## GEOLEX DAILY REPORT

**Date:** 12/13/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Tuesday, December 13, 2016, Geolex Oversight consisted of overseeing the demobilization of the Scandrill Freedom rig (Figure 2) and preparing for completion procedures. Regulatory oversight consisted of a visit to the New Mexico Oil and Gas Conservation Division (NMOCD) headquarters in Hobbs, New Mexico to visit with Maxey Brown about the completion process.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

On Tuesday, December 13, 2016 Jared Smith visited with Maxey Brown at the NMOCD to discuss upcoming completion activities for Zia AGI D #2. Maxey had no questions or concerns moving forward. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.



**Other Support Activities**

No other support activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: Demobilization of the Scandrill Freedom Rig.

## **GEOLEX DAILY REPORT**

**Date:** 12/14/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandriell, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Wednesday, December 14, 2016, Geolex Oversight consisted of overseeing the demobilization of the final drilling equipment from the site (Figure 1), and mobilization of the workover rig in the early morning on Thursday, December 15, 2016. Regulatory oversight consisted of discussions with the Bureau of Land Management (BLM) petroleum engineer Paul Swartz about completion procedures.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

On Wednesday, December 14, 2016 Geolex discussed upcoming completion activities with Paul Swartz (BLM). Geolex has reviewed the preliminary Conditions of Approval (COA), made corrections, and awaiting final approval of the Completion Sundry NOI. Paul Swartz advised Geolex that the approved Completion Sundry will be made available today. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

The end of well report is being reviewed and updated.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: Demobilization of the Scandrill Freedom Rig. Zia AGI D #2 is in the foreground.

## **GEOLEX DAILY REPORT**

**Date:** 12/15/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Thursday, December 15, 2016, Geolex Oversight consisted of witnessing the mobilization of the workover rig, initiation of the completion procedures, and tagging bottom (Figure 1). Regulatory oversight consisted of discussions with Paul Swartz, Bureau of Land Management (BLM), addressing his concerns about the completion procedures. Geolex was able to provide Mr. Swartz with the appropriate information to clear up his concerns, and get his final approval for the completion Sundry Notice of Intent (NOI – Attachment 1). Geolex also received the approved Sundry NOI for the production casing (Attachment 2).

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

On Thursday, December 15, 2016 Geolex discussed upcoming completion activities with Paul Swartz (BLM). Geolex has reviewed the preliminary Conditions of Approval (COA), made corrections, and received the final approval of the Completion Sundry NOI from the BLM (Attachment 1). Geolex also received the final approval for the production casing Sundry NOI (Attachment 2). Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

The end of well report is being reviewed and updated. Compilation of the no recoverable hydrocarbons Sundry NOI is being reviewed and compiled.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: Workover rig in place and ready to begin completion procedures.

## **GEOLEX DAILY REPORT**

**Date:** 12/16/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandriell, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Friday, December 16, 2016, Geolex Oversight consisted of witnessing tripping-in-the-hole (TIH) to drill out the composite plug (Figure 1). At approximately 15:30 the workover rig shut down due to unsafe high winds. No regulatory oversight was conducted during this time period. Geolex continued to work with the Company Man (Gary Henrich - EPI) to discuss upcoming events and activities.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

Geolex continued to discuss upcoming events with Gary Henrich concerning BLM regulatory procedures. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

The end of well report is being reviewed and updated. Compilation of the no recoverable hydrocarbons Sundry NOI is being reviewed and compiled.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: Preparing to trip in hole to drill out composite plug.

## GEOLEX DAILY REPORT

**Date:** 12/16/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrift, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Saturday, December 17, 2016, Geolex Oversight consisted of witnessing tagging bottom with the drill bit at approximately 14,737 feet (Figure 1). The workover rig shut down for several hours due to unsafe high winds. After tagging bottom the workover rig began pulling out of the hole (POOH) and standing the work string pipe. By the end of day there was 2,900 feet of pipe to be pulled out. No regulatory oversight was conducted during this time period. Geolex continued to work with the Company Man (Gary Henrich - EPI) to discuss upcoming events and activities.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

Geolex continued to discuss upcoming events with Gary Henrich concerning BLM regulatory procedures. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.



**Other Support Activities**

The end of well report is being reviewed and updated. Compilation of the no recoverable hydrocarbons Sundry NOI is being reviewed and compiled.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: Standing Pipe at Workover Rig. Ready to TIH with Packer.

## GEOLEX DAILY REPORT

**Date:** 12/18/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Sunday, December 18, 2016, Geolex Oversight consisted of witnessing the remaining workstring being pulled out of the hole, connecting the packer, and setting the top of the packer at 10,015 feet (Figure 1). The workover rig shut down intermittently due to freezing temperatures and ice forming around the BOP stack. By the end of the day, the BOP had been tested and the well was shut-in. Schlumberger pressure-temperature (P/T) gauges will be run on Monday, December 18, 2016. The OPTICall continues slickline will not be run for the P/T measurements. Instead, a regular slickline will be run that stops at determined points to collect gradient P/T data. Geolex has determined these points for Schlumberger based on porosity and sidewall core points.

No regulatory oversight was conducted during this time period. Geolex continued to work with the Company Man (Gary Henrich - Concho) to discuss upcoming events and activities.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

Geolex continued to discuss upcoming events with Gary Henrich concerning BLM regulatory procedures. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

The end of well report is being reviewed and updated. Compilation of the no recoverable hydrocarbons Sundry NOI is being reviewed and compiled.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: Ready to TIH with Packer.

## **GEOLEX DAILY REPORT**

**Date:** 12/20/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Monday, December 19, 2016, Geolex Oversight consisted of selecting depth segmented points for the gradient pressure-temperature (P/T) survey conducted by Schlumberger. The P/T survey consisted of a regular slickline, and took the majority of the day to complete (figure 1). Further activities consisted of a meeting with Halliburton to review and discuss their P/T injection gauge that will be placed above the permanent packer. Swabbing will start on Tuesday, December 20, 2016. No regulatory oversight was conducted during this time period. Geolex continued to work with the Company Man (Gary Henrich - Concho) to discuss upcoming events and activities.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

Geolex continued to discuss upcoming events with Gary Henrich concerning BLM regulatory procedures. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

The end of well report is being reviewed and updated. Compilation of the no recoverable hydrocarbons Sundry NOI is being reviewed and compiled.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: Schlumberger running P-T slickline.

## **GEOLEX DAILY REPORT**

**Date:** 12/20/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Tuesday, December 20, 2016, Geolex Oversight consisted of witnessing swabbing procedures and collecting preliminary samples (Figure 1). There were approximately 300 bbls. collected by the end of the day. Regulatory oversight consisted of giving 24 hour notice to Paul Swartz (BLM) for collecting swab samples. Geolex continued to work with the Company Man (Gary Henrich - Concho) to discuss upcoming events and activities.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

On Tuesday, December 20, 2016 Geolex called Paul Swartz at 08:25 to give him 24 hour notice of collecting swab samples. Paul will be onsite at 10:00 on December 21, 2016 to witness the procedure and to observe the site and workover process. Paul informed Jared Smith that if he is not onsite for the last 100 bbls. to go ahead and collect samples.

Geolex continued to discuss upcoming events with Gary Henrich concerning BLM regulatory procedures. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Compilation of the no recoverable hydrocarbons Sundry NOI is being reviewed and compiled.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: Swab sample collected at approximately 16:00 on December 20, 2016. Sample is dirty with a methane-type odor and a very thin milky-sheen on the surface.

## **GEOLEX DAILY REPORT**

**Date:** 12/21/16 to 12/26/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandriell, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Wednesday, December 21, 2016, Geolex Oversight consisted of witnessing the final swabbing procedures and collecting laboratory sample to support the “No Recoverable Hydrocarbons” assessment for the BLM. Figure 1A is from sample No.6 at 470 bbls and Figure 1B is from sample No. 10 at 515 bbls. Following the sampling procedure the workover crew was released until December 26, 2016.

The mud log, evaluation of the open hole geophysical logs, and the laboratory analysis of total petroleum hydrocarbons were all supportive of the “No Recoverable Hydrocarbons” determination and a BLM Sundry to that effect was submitted to WIS web site on December 22, 2016. The water chemistry laboratory analyses are still pending as of 06:00 on December 27, 2016.

On Monday, December 26, 2016, an attempt was made to acidize the open-hole portion of the well. While pumping acid at a rate of 10 barrels per minute with a treatment pressure of approximately 2,700 psi, an apparent failure of the tubing or packer occurred and the injection fluid was switched back to water. The pressures were maintained to force the remaining acid into the open hole in order to protect the casing. Brine was used to keep the acid from re-entering the casing and the packer and work string tubing were pulled to evaluate and test.

Geolex continued to work with the Company Man (Gary Henrich – Consultant to Concho) to discuss and prepare for upcoming events and activities.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:



<u>Formation</u>	<u>Depth (kb)</u>	<u>Primary Lithology</u>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

**Regulatory Oversight**

On Wednesday, December 21, 2016, at approximately 08:30, Paul Swartz with the BLM Carlsbad office arrived on site to witness the collection of swab samples. He stayed for approximately 2 hours and was satisfied that no visible oil was present. Paul insisted, however that all 10 water sampled be analyzed separately rather than having composite samples prepared by the laboratory to extradite the results.

At 08:20 on Monday, December 26, 2016, Paul Swartz (BLM), Maxey Brown (NMOCD), and the BLM Hobbs Hotline were given a 24-hour notice of the Step-Rate Test planned for Tuesday morning, however once the acid job was aborted all of the regulators were informed via email of the delay.

Geolex continued to discuss upcoming events with Gary Henrich concerning BLM regulatory procedures. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

Compilation of the no recoverable hydrocarbons Sundry NOI is being reviewed and compiled.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## GEOLEX DAILY REPORT

**Date:** 12/28/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Wednesday, December 28, 2016, Geolex Oversight consisted of witnessing the acidizing of the open-hole injection zone. 87 bbls (tubing volume) of fresh water were pumped downhole prior to the acid. At approximately 10:43 Halliburton began pumping acid at 10.1 bbls/min while pressure increased. Pressure stabilized at approximately 2,300 psi, and acid entered the open-hole injection zone at approximately 2,350 psi. Salt was dropped into the hole at a rate of 5 bbls/min followed by water and the remaining salt (40 bags total). More acid was pumped downhole at a rate of 5 bbls/min at 253 psi; which was increased to 10 bbls/min at approximately 1,500 psi. The treating pressure increased as acid displaced salt water (357 bbls of acid) with no significant change in pressure. An additional 40 bags of salt were injected at 5 bbls/min, followed by acid at 10 bbls/min with no significant increase in pressure. The well was flushed with freshwater for 100 minutes at 10 bbls/min.

Regulator Oversight consisted of 24-hour notices to the BLM and NMOCD for the step rate test to be conducted on Thursday, December 29, 2016.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

On Wednesday, December 28, 2016, the BLM and NMOCD were notified via e-mail. Paul Swartz (BLM) was notified via phone call, and informed Geolex that he would not be on location to witness the SRT. However, Mr. Swartz wants Geolex to contact Stephen Bailey (BLM On-Call Inspector) on the following day to notify him of the step rate test.

Figure 2 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

### **Other Support Activities**

No Other Support activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 12/29/16

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandriell, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On Thursday, December 29, 2016, Geolex Oversight consisted of witnessing and analyzing the successful step rate test (SRT – Figure 1). Following the SRT the Zia AGI D #2 was shut-in for the ten day fall-off test. The SRT was completed in ten steps with rates of 0.25 to 7.0 bbls/min. Each step lasted thirty minutes and the surface pressure was recorded every five minutes. Surface pressures ranged from 85 psi at 0.25 bbls/min to 1613 psi at 7.0 bbls/min. Following the ten day fall-off test regulatory forms will be submitted to the BLM and NMOCD for approval.

Regulator Oversight consisted of a notice to the BLM of the upcoming SRT on Thursday, December 29, 2016.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

Regulator Oversight consisted of a notice to the Stephen Bailey (BLM-Hobbs Inspector) of the upcoming SRT on Thursday, December 29, 2016. Stephen Bailey indicated he may be on

location, but he never came to witness the SRT. Figure 3 is a summary of the regulatory notifications, major drilling events, and geologic observations to date.

**Other Support Activities**

No Other Support activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## GEOLEX DAILY REPORT

**Date:** 12/30/16 – 01/08/17

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandriell, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

From December 29, 2016 to January 8, 2017 the Zia AGI D #2 well was shut-in for the ten day fall-off test. On January 8, 2017 Geolex witnessed the removal of the bottom-hole pressure gauge beginning at 07:30 (MST – Figure 1). The well was left with approximately 89 psi surface pressure in the 3 ½-inch tubing. Schlumberger will process and transmit the bottom-hole pressure data to DCP, Geolex and Concho by Monday, January 9, 2017. The SRT form 3160-5 will be submitted to the BLM this week when the down-hole pressure data has been evaluated by Geolex.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 2 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

No other regulatory oversight occurred during this time. Figure 3 shows a summary of all major activities and regulatory oversight.

**Other Support Activities**

Other support activities consisted of work on the end of well Report and SRT sundry.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

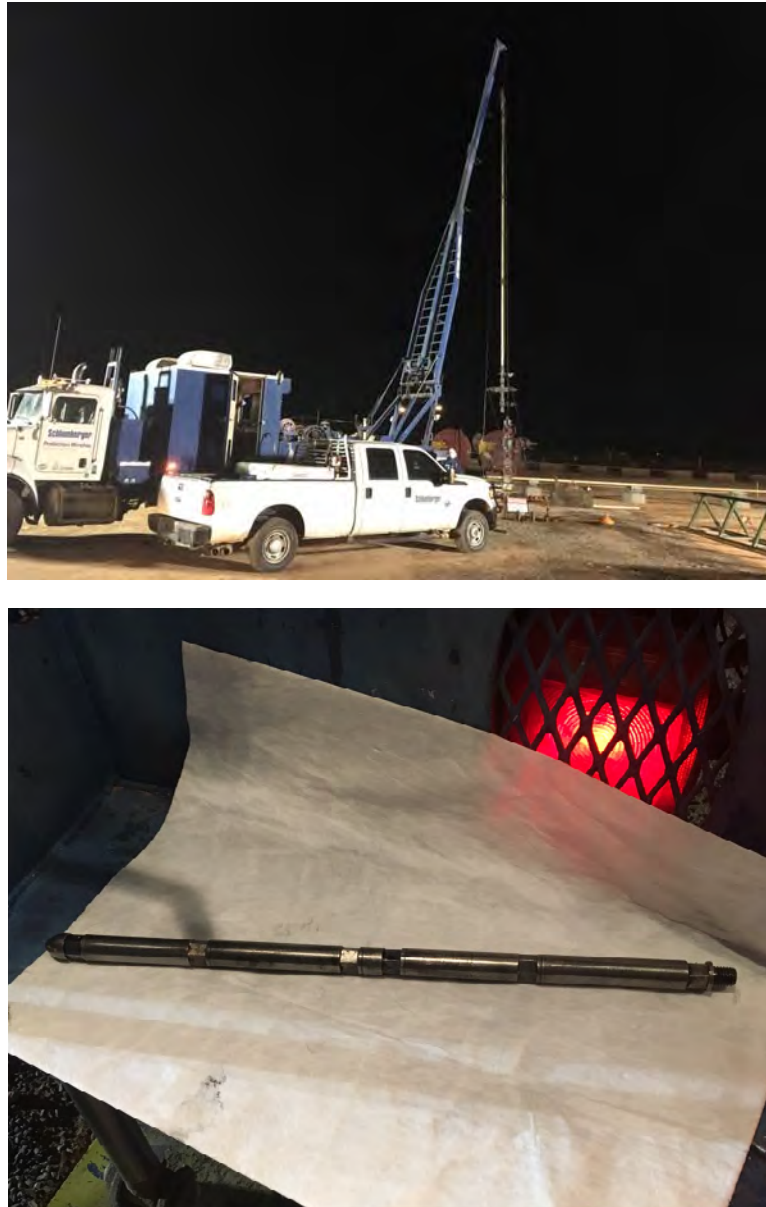


Figure 1: **Top)** Pulling out the bottom-hole pressure gauge. **Bottom)** Bottom-hole pressure gauge.

## **GEOLEX DAILY REPORT**

**Date:** 01/09/17

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandriell, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On January 9, 2017 the completion rig finished setting up for upcoming completion procedures for the Zia AGI D #2 well. The completion finished pulling out of the hole with the work string and retrievable packer. A pre-completion meeting was held to discuss upcoming activities and procedures for installing the final injection tubing, permanent packer, subsurface safety valve, and surface facilities for Zia AGI D #2. Geolex has received all data (bottom-hole pressure and surface pressure) required to complete the step rate test (SRT) sundry, and is continuing to evaluate the results. The SRT form 3160-5 will be submitted to the BLM this week once all the data has been analyzed and interpreted.

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 1 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

Regulatory oversight consisted of analyzing the bottom-hole pressure, surface pressure and temperature surveys conducted across the injection zone for Zia AGI D #2. The final SRT 3160-5 form will be submitted to the BLM and a C-103 form will be submitted to the NMOCD once



the final SRT interpretations are made. Figure 2 shows a summary of all major activities and regulatory oversight.

**Other Support Activities**

No other support activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 01/10/17

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Scandrill, Schlumberger, Halliburton, Selman, Nova Mud

### **Description of Activities**

On January 10, 2017 the completion rig completed scrapping the 7-inch production casing for Zia AGI D #2 well. Geolex analyzed all step rate test (SRT) data and submitted the SRT 3160-5 form to the BLM. The results of the SRT test show good correlation between injection pressure/rate and formation pressure (Figure 1). Furthermore, there was no break-over point, which indicates formation parting pressures were not achieved during this SRT; even at the highest injection rate of 7.0 barrels per minute (Figure 2).

### **Geology Oversight**

Total depth of 14,750 feet was achieved at 09:48 on December 10, 2016. See Figure 3 for the final well design and formation tops that were encountered. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

Regulatory oversight consisted of submitting the SRT 3160-5 form to the BLM. Mr. Paul Swartz (BLM) has been notified of the Sundry submittal. Figure 2 shows a summary of all major activities and regulatory oversight. Figure 4 shows a summary of all regulatory activities.

### **Other Support Activities**

No other support activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 01/14/17

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Aries, Halliburton

### **Description of Activities**

On January 11, 2017 the Aries rig completed the scrapping of the 7-inch production casing of Zia AGI D #2 well. A Halliburton wire line truck was used to run a gauging ring with gamma ray and casing collar locator on Thursday, January 12, 2017. The gauge ring became stuck in the 7-inch casing just below the proposed permanent packer setting depth and was pulled loose from the wire line approximately 1 foot above the tool. On January 13, 2017 rental tubing was delivered to the location and strapped to trip into the hole with fishing tools and subs. The fish was recovered on Saturday January 14<sup>th</sup> intact (Figure 1).

Following the recovery of the gauging ring tool, a bit and scraper tool was run into the hole to prepare the 7-inch casing for the permanent packer. Figure 2 is a schematic that depicts the current condition of the well.

### **Geology Oversight**

Total depth of 14,750 feet was achieved on December 10, 2016. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

No regulatory oversight has been performed since the submittal of the Step-Rate Test 3160-5 form to the BLM. Several attempts to contact Mr. Paul Swartz (BLM) have been made to

expedite his approval of the outstanding sundries. Figure 3 shows a summary of all major activities and regulatory oversight.

**Other Support Activities**

No other support activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 2 Recovered Halliburton Gauge Ring / CCL Tool

## **GEOLEX DAILY REPORT**

**Date:**                                **01/16/17 – 01/17/17**

### **Well Information**

**Operator:**                                DCP Midstream LP  
**Name:**                                        Zia AGI #D2 API #30-025-42207  
**Location:**                                    Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:**                Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:**            Aries, Halliburton

### **Description of Activities**

On Monday, January 16, 2017 the permanent packer was run and placed at 13,535 feet, 100 feet above the casing shoe (log depth-Figure 1). On January 17, 2017 the Aries rig and Franks Casing crew completed setting up to run the Halliburton Pressure/Temperature (P/T) sub unit and injection tubing. The P/T sub and injection tubing will begin to be installed on January 18, 2017.

Mr. Paul Swartz (with the BLM) was notified again on January 17, 2016 of the outstanding 3160-5 sundries that have been submitted. These include the step rate test (SRT) and no recoverable hydrocarbons sundries.

### **Geology Oversight**

Total depth of 14,750 feet was achieved on December 10, 2016. Figure 2 shows the as-built well design and formations encountered during drilling. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

No regulatory oversight has been performed since the submittal of the SRT 3160-5 form to the BLM. Further attempts to contact Mr. Paul Swartz (BLM) have been made to expedite his approval of the outstanding sundries (SRT and No Recoverable Hydrocarbons). Mr. Swartz

informed Geolex he will review the outstanding sundries on January 18, 2017. Figure 3 shows a summary of all major activities and regulatory oversight.

**Other Support Activities**

No other support activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

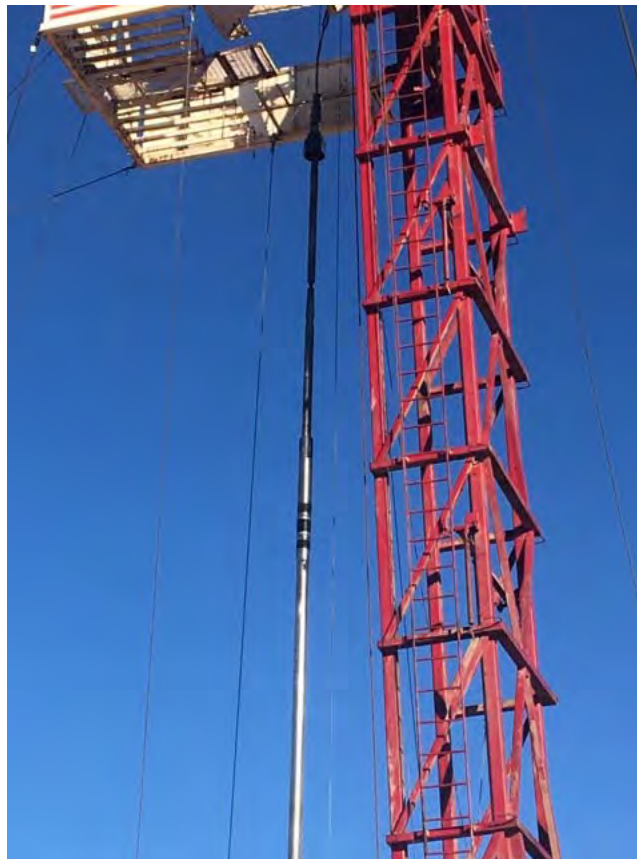


Figure 1: Halliburton Permanent Packer, which was placed at 13,535 feet.

## GEOLEX DAILY REPORT

**Date:** 01/18/17

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Aries, Halliburton

### **Description of Activities**

On Wednesday, January 18, 2017 Halliburton, Aries Rig and Franks Casing crew installed the injection pressure/temperature (P/T) gauge and began installing the injection tubing (Figure 1). All of the corrosion resistant alloy (CRA) tubing, which rests above the packer and P/T gauge, has been installed. Furthermore, the steel tubing started being installed. Each tubing connection was externally hydro-tested (Gatorhawk) to 5,000 psig. The P/T gauge data line was clamped to the outside of each tubing string by Halliburton. The rest of the tubing is anticipated to be completed on Friday, January 19, 2017.

### **Geology Oversight**

Total depth of 14,750 feet was achieved on December 10, 2016. Figure 2 shows the as-built well design and formations encountered during drilling. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

No regulatory oversight was conducted during this time. Figure 3 shows a summary of all major activities and regulatory oversight.



### **Other Support Activities**

Other support activities consisted of work on the training and maintenance presentation/manual for the AGI system and end of well report.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: P/T gauge being installed.

## **GEOLEX DAILY REPORT**

**Date:** 01/19/17

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Aries, Halliburton

### **Description of Activities**

On Thursday, January 19, 2017 Halliburton, Aries Rig and Franks Casing crew continued installing the carbon steel injection tubing. Each tubing connection was externally hydro-tested (Gatorhawk) to 5,000 psig. The P/T gauge data line was clamped to the outside of each tubing string by Halliburton. The rest of the tubing is anticipated to be completed on the evening of Friday, January 19, 2017 or morning of Saturday January 20, 2017.

### **Geology Oversight**

Total depth of 14,750 feet was achieved on December 10, 2016. Figure 1 shows the as-built well design and formations encountered during drilling. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

No regulatory oversight was conducted during this time. Figure 2 shows a summary of all major activities and regulatory oversight.

### **Other Support Activities**

Other support activities consisted of work on the training and maintenance presentation/manual for the AGI system and end of well report.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 01/20/17

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Aries, Halliburton

### **Description of Activities**

On Friday, January 20, 2017 Halliburton, Aries Rig and Franks Casing crew continued installing the carbon steel injection tubing. Each tubing connection was externally hydro-tested (Gatorhawk) to 5,000 psig. The P/T gauge data line was clamped to the outside of each tubing string by Halliburton. There were approximately 84 strings of tubing left on the rack at days end (Figure 1). The rest of the tubing is anticipated to be completed on the morning of Saturday January 20, 2017.

### **Geology Oversight**

Total depth of 14,750 feet was achieved on December 10, 2016. Figure 2 shows the as-built well design and formations encountered during drilling. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

Geolex contacted Mr. Paul Swartz about the outstanding sundries that were submitted. These include the step rate test (SRT) and no recoverable hydrocarbons sundries. Geolex answered all of Mr. Swartz's questions pertaining to the SRT, and Mr. Swartz indicated he would get through the review process today. Figure 3 shows a summary of all major activities and regulatory oversight.

### **Other Support Activities**

Other support activities consisted of work on the end of well report and reviewing reservoir properties.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.



Figure 1: Eighty-four strings of tubing left on the rack to be placed in the hole.

## **GEOLEX DAILY REPORT**

**Date:** 01/21/17

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Aries, Halliburton

### **Description of Activities**

On Saturday, January 21, 2017 Halliburton, Aries Rig and Franks Casing crew installed the subsurface safety valve (SSSV) to 277 feet and final joint of carbon steel injection tubing. Each tubing connection was externally hydro-tested (Gatorhawk) to 5,000 psig. The P/T gauge and SSSV data lines were clamped to the outsides of each tubing string by Halliburton. The tubing was successfully stabbed into the packer, and then released for pumping the corrosion-inhibiting diesel down the annulus. Approximately 206 bbls of diesel were pumped during this time before operations were halted due to a malfunction at the workover-tree. The remaining diesel will be pumped, the final tree will be installed and a preliminary mechanical integrity test will be conducted tomorrow (Sunday, January 22, 2017).

### **Geology Oversight**

Total depth of 14,750 feet was achieved on December 10, 2016. Figure 1 shows the as-built well design and formations encountered during drilling. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

No Regulatory Oversight occurred during this time. Figure 2 shows a summary of all major activities and regulatory oversight.

### **Other Support Activities**

No Other Support Activities Occurred during this time.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

## **GEOLEX DAILY REPORT**

**Date:** 01/22/17

### **Well Information**

**Operator:** DCP Midstream LP  
**Name:** Zia AGI #D2 API #30-025-42207  
**Location:** Section 19, T19S, R32E, Lea County, NM  
**Primary Contractors:** Concho, Geolex, Inc. (Inspection, Geologic and Regulatory Supervision)  
**Primary Subcontractors:** Aries, Halliburton

### **Description of Activities**

On Sunday, January 22, 2017 Aries Rig and Halliburton filled up the annulus with the remaining corrosion and biocide inhibiting diesel. Following this, the tubing hanger was landed and the Christmas tree was installed (Figure 1). Temporary surface connections were made for the Halliburton P/T gauge data line. The subsurface safety valve (SSSV) was left closed, and needs pressured applied to tits hydraulic line in order to open it. A successful preliminary mechanical integrity test (MIT) was conducted. This test began with approximately 633 psig on the backside, and increased to 691 psig, where it then leveled off around 655 psig (all pressures are within 10 % +/- of starting pressure). The backside pressure was left at approximately 290 psig. The official MIT is scheduled for Wednesday, January 25, 2017. This should allow enough time for the diesel in the backside to equilibrate. A final as-built well schematic is located in Figure 2.

### **Geology Oversight**

Total depth of 14,750 feet was achieved on December 10, 2016. Figure 2 shows the as-built well design and formations encountered during drilling. Formation tops that were encountered during the drilling of the open-hole portion of the well are as follows:

<b><u>Formation</u></b>	<b><u>Depth (kb)</u></b>	<b><u>Primary Lithology</u></b>
• Devonian	13,625 feet	Limestone
• Silurian (Wristen)	13,797 feet	Limestone
• Silurian (Fusselman)	13,972 feet	Limestone
• Ordovician (Montoya)	14,371 feet	Dolomite and Chert

### **Regulatory Oversight**

No Regulatory Oversight occurred during this time. Figure 3 shows a summary of all major activities and regulatory oversight.



**Other Support Activities**

No Other Support Activities occurred during this time.

Reported by: Alberto A. Gutierrez, RG, James C. Hunter, RG; Michael W. Selke, RG, Jared Smith, and Dale Littlejohn, Geolex, Inc.

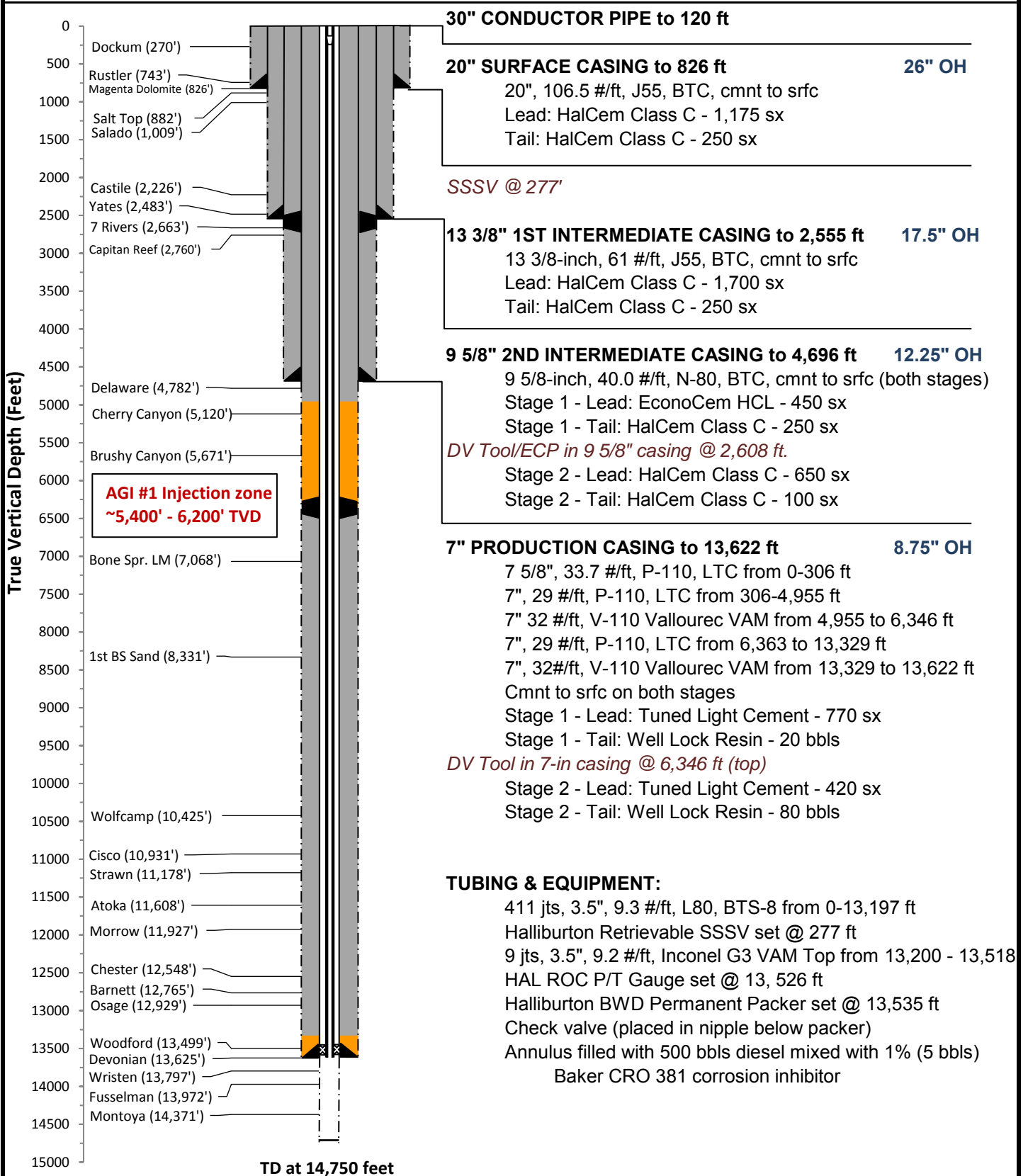


Figure 1: Christmas tree installed. Halliburton is making final adjustment to P/T gauge data line.

**Figure 2: DCP Zia AGI D #2 As-Built Well Schematic**

**Well Name:** Zia AGI D #2  
**API:** 30-025-42207  
**STR:** Sec. 19(L), T19S-R32E  
**County, St.:** Lea County, New Mexico

**Footage:** 1893' FSL & 950' FWL  
**Well Type:** Devonian AGI Expl.  
**KB/GL:** 3574'/3547'  
**Lat, Long:** 32.643950, -103.777782



**Schematic is properly scaled**

TD Location: Sec. 19, T19S-R32E (1963' FSL & 1024' FWL)

**Figure 3 - Geolex Cumulative Daily Progress Summary Report**

DCP Zia AGI #D2 API # 30-025-42207		DATE 1/22/2017			
Cumulative Daily Progress Report and Scheduled Events					
Notifications	Date	Time (MST)	Persons Notified	Responsible Person(s)	Result
24 hour BLM Spud Notification	Monday, October 31, 2016	11:26	BLM Hotline, 575-393-3612, Christie Pruitt	Dale Littlejohn	Required notification accepted by BLM.
Incoming call from Teungku Muchlis Krueng BLM	Monday, October 31, 2016	14:07	Call received by Michael W. Selke	Michael W. Selke	Teungku Muchlis Krueng wanted know why we changed Zia AGI #2, to #2D and finally to #D2 and Michael W Selke explained that DCP wanted the #2D designation but NMOCD had problems with #2D so it had been decide that all could accept the #D2 designation. However, the name change will have to be included in the 3160-5 subsequent sundry for the surface casing string.
4 hour BLM Spud Notification	Tuesday, November 1, 2016	8:59	Called Teungku Muchlis Krueng at Carlsbad BLM	Michael W. Selke	Mike Selke notified Teungku Muchlis Krueng at Carlsbad BLM 4 hour notice to spud Zia AGI #D2. Also discussed completing the surface casing in Magenta or below but being careful to not get near the salt beds below.
4 hour BLM Spud Notification	Tuesday, November 1, 2016	9:32	Called Hobs Hotline at Hobbs BLM	Michael W. Selke	Mike Selke notified Christie of hour notice to spud Zia AGI #D2.
4 hour BLM Spud Notification	Tuesday, November 1, 2016	9:39	Called John Staton at Hobbs BLM	Michael W. Selke	Mike Selke notified John Staton of hour notice to spud Zia AGI #D2.
Phone conference with BLM, Geolex and Concho	Tuesday, November 1, 2016	11:42	Teungku Muchlis Krueng at the BLM, Tim Smith at Concho, and Geolex team	Jared R. Smith	Tim Smith discovered the Freedom rig is not setup to attach a 10M 3 choke manifold system. It was agreed upon (by the BLM, Geolex, and Concho) that a 5M 2 choke manifold system will be acceptable for the 9 5/8-inch hole.
Submitted sundry	Wednesday, November 2, 2016	9:39	WIS System	Jared R. Smith	Submitted sundry to BLM for change in 9 5/8" casing 10M BOP system to 5M BOP System.
Call to Teungku Muchlis Krueng at Carlsbad BLM	Wednesday, November 2, 2016	9:25	Teungku Muchlis Krueng at the Carlsbad BLM	Michael W. Selke	M Selke called Teungku Muchlis Krueng at Carlsbad BLM to provide update on Zia AGI #2D which was approximately half way to 825. Teungku Muchlis Krueng was OK with 825' TD but wants to be sure the casing seat is in a competent unit.
Call from Teungku Muchlis Krueng at Carlsbad BLM	Wednesday, November 2, 2016	0:48	Call from Teungku Muchlis Krueng at Carlsbad BLM	Jared R. Smith	J Smith received call from Teungku Muchlis Krueng to revise sundry for Zia AGI #2D 5M BOP to include 3 rams instead of 2.
Notification to BLM of spud for Zia AGI #2D	Wednesday, November 2, 2016	12:43	Called John Staton at Hobbs BLM	Michael W. Selke	Notified John Staton at Hobbs BLM that Zia AGI #2D spudded and was at 405' and TD should be later today and will call when closer. Also gave directions to plant.
Sundry submittal for changing BOP	Wednesday, November 2, 2016	19:45	WIS System	Jared R. Smith	Submitted sundry to BLM for change in 9 5/8" casing 10M BOP system to 5M BOP System to include 3 rams instead of 2 rams.
Update to John Staton	Thursday, November 3, 2016	10:22	Texted John Staton Hobbs BLM	Michael W. Selke	Texted John Staton of the successful Zia AGI #2D TD last night but the rig was now down for repair.
4 hour notification to Hobbs BLM to run casing	Thursday, November 3, 2016	13:38	Called John Staton at Hobbs BLM	Michael W. Selke	M Selke called John Staton, Hobbs BLM, 4 hour advance notice to run surface casing in Zia AGI #D2 and he does plan to visit the site.
4 hour notification to Carlsbad BLM to run casing	Thursday, November 3, 2016	13:56	Called Teungku Muchlis Krueng at Carlsbad BLM	Michael W. Selke	M Selke called Teungku Muchlis Krueng, BLM, 4 hour advance notice to run surface casing in Zia AGI #D2 and he does plan to visit the site.
Update to BLM of delay in running casing	Thursday, November 3, 2016	16:58	Called John Staton at Hobbs BLM	Michael W. Selke	M Selke called John Staton, Hobbs BLM, rig down for repair and not ready to run surface casing in Zia AGI #D2.
Update to BLM of delay in running casing	Thursday, November 3, 2016	18:39	Called John Staton at Hobbs BLM	Michael W. Selke	M Selke called John Staton, Hobbs BLM, rig down for repair again and not ready to run surface casing in Zia AGI #D2.
Call to BLM to witness surface casing setting and cement	Friday, November 4, 2016	2:38	Called John Staton at Hobbs BLM	Jared R. Smith	J Smith called John Staton, Hobbs BLM, to witness the surface casing setting and cement. John obtained the pipe tally and Halliburton Cement Report. He will return to watch the cement returns.
Received call from BLM on timing of cementing on Zia AGI #D2	Friday, November 4, 2016	7:47	John Staton, Hobbs BLM called to check status	Michael W. Selke	John Staton of the Hobbs BLM called M Selke checking status of the Zia AGI #D2 casing and cementing job - M Selke informed him that it would ready when he arrives or shortly after.
Notification to BLM for successful cementing of Zia AGI #D2	Friday, November 4, 2016	14:51	Teungku Muchlis Krueng	Michael W. Selke	M Selke notified Teungku Muchlis of the successful completion and cementing of the Zia AGI #D2 surface casing and alerted him we will be calling in the early morning to review and obtain approval of the CBL. Teungku Muchlis. He stated that if there were good cement returns and no significant issues with the CBL that the BLM would not review it until Monday and we could proceed with the next planned steps including drilling out.
Call to BLM to omit choke manifold system on 2M BOP 17 1/2-inch borehole	Saturday, November 5, 2016	9:26	Carlsbad BLM Engineer Hotline	Jared R. Smith	J smith called the BLM Engineer Hotline (Charles Nimmer) to request not using a choke manifold on the 2M BOP system, and instead use a diverter line. Charles approved this request and asked for an e-mail with said request. E-mail was sent to Charles on Saturday, November 5, 2016 at 10:31.
4 hour advance notification to BLM for BOP/BOPE test and CIT	Saturday, November 5, 2016	13:29	Hobbs BLM Hotline	Michael W. Selke	M Selke called the Hobbs BLM Hotline multiple times and was unable to make contact and left messages with the Hotline representative.

4 hour advance notification to BLM for BOP/BOPE test and CIT	Saturday, November 5, 2016	14:38	Carlsbad BLM Engineer Hotline	Michael W. Selke	M Selke call the Carlsbad BLM Engineer Hotline and contacted Charles Nimmer who authorized proceeding to compete the testing and drill out of the shoe and proceed with the upper intermediate casing.
BLM called asking for status of testing	Sunday, November 6, 2016	13:45	John Staton, Hobbs BLM called to check status	Michael W. Selke	John Staton of the Hobbs BLM called M Selke checking status of the Zia AGI #D2 BOP/BOPE testing and the CIT. M Selke advised that the BOP/BOPE testing was complete and the CIT would be complete in the afternoon.
Called Carlsbad BLM re BOP test on surface casing	Monday, November 7, 2016	9:30	Teungku Muchlis Krueng	Michael W. Selke	M Selke called Teungku Muchlis, Carlsbad BLM to discuss results of surface casing BOP/BOPE testing and CIT. All tests good but there was one exception. On test #7 the Hydraulic IBOP the operator set the pressure below the 250 psi requirement. Battle was brought back out to the site and successfully retested #7. Teungku Muchlis was satisfied and stated he wanted us to submit him with the surface casing sundry. The next notification will be for setting casing and cementing.
Called Hobbs BLM to get name and number of the new on call inspector	Monday, November 7, 2016	10:45	Hobbs BLM	Michael W. Selke	M Selke called the Hobbs BLM Office to get contact information for this week's on call inspector: Stephen Baily 575-263-6452
Called Stephen Bailey, Hobbs BLM on call inspector	Monday, November 7, 2016	10:58	Stephen Bailey, Hobbs BLM on call inspector	Michael W. Selke	M Selke called Stephen Bailey, the new Hobbs BLM on call inspector, to discuss the retest of BOP test #7. All tests good but there was one exception. On test #7 the Hydraulic IBOP the operator set the pressure below the 250 psi requirement. Battle was brought back out to the site and successfully retested #7. Stephen was satisfied with the result and will pick up the chart on his next site visit. In addition, Stephen asked that we notify him when we reach TD in the upper intermediate casing and then he will tell us when he wants to come to the site to witness casing setting and cementing.
Stephen Baily, Hobbs BLM on call inspector	Tuesday, November 8, 2016	7:49	Stephen Bailey, Hobbs BLM on call inspector	Michael W. Selke	Stephen Bailey called M Selke asking for status of Zia AGI #D2. Currently tripping out the bit but should be drilling again after noon.
Called Teungku Muchlis Krueng	Tuesday, November 8, 2016	15:23	Teungku Muchlis Krueng	Michael W. Selke	M Selke called Teungku Muchlis, Carlsbad BLM, and notified him we plan to TD the upper intermediate casing at 2550' instead of 2600' because our correlation with AGI #1 shows
Called Stephen Baily, Hobbs BLM on call inspector	Tuesday, November 8, 2016	16:17	Stephen Bailey, Hobbs BLM on call inspector	Michael W. Selke	M Selke notified Stephen Bailey, Hobbs BLM On-Site Inspector, when the upper intermediate casing borehole reach TD at 2550', as requested. He requested that the next notification be when there are 5 casing joints left to run.
Called Stephen Baily, Hobbs BLM on call inspector	Wednesday, November 9, 2016	7:17	Stephen Bailey, Hobbs BLM on call inspector	Jared R. Smith	J Smith updated Stephen Bailey on the status of the 1st intermediate casing. He would still like to be notified when there are 5 casing joints left to run.
Called Stephen Baily, Hobbs BLM on call inspector	Wednesday, November 9, 2016	12:09	Stephen Bailey, Hobbs BLM on call inspector	Jared R. Smith	J Smith notified Stephen Bailey that there were 5 casing joints left to run. He is in route to the site. Stephen Bailey arrived on site at 13:23 on 9 Nov 2016.
Called Stephen Baily, Hobbs BLM on call inspector	Wednesday, November 9, 2016	19:46	Stephen Bailey, Hobbs BLM on call inspector	Dale T. Littlejohn	D Littlejohn notified Stephen Bailey that the BOP would be pressure tested tomorrow morning around 8:00 am. He indicated that he would not be able to witness the pressure testing and to save a copy of the charts for him. He also indicated that no other notice was required for this event.
Correspondence with BLM	Thursday, November 10, 2016	9:55	Stephen Bailey, Hobbs BLM on call inspector	Jared R. Smith	Stephen Bailey requested a copy of the Halliburton Cement Report be emailed to him once we received it. This action has been completed.
Submitted Surface Casing Sundry	Thursday, November 10, 2016	13:07	Teungku Krueng, Muchlis	Jared R. Smith	Submitted the 3160-5 surface casing sundry report to the BLM WIS website, and a copy was emailed to Teungku Krueng, Muchlis.
Approval of 1st Intermediate Casing Cement Job and proceed with BOP Testing, CIT, and Drilling of 2nd Intermediate Borehole	Thursday, November 10, 2016	13:07	Teungku Krueng, Muchlis	Jared R. Smith	Teungku Muchlis Krueng was satisfied with the WOC Time (14:10+) and the volume of circulated cement (428 sx). Jared informed him that the Geolex staff believed the CBL indicated a good cement bond so he approved the continuation of drilling without inspecting the CBL.
Called Stephen Baily, Hobbs BLM on call inspector	Thursday, November 10, 2016	18:36	Stephen Bailey, Hobbs BLM on call inspector	Dale T. Littlejohn	D Littlejohn notified Stephen Bailey that the BOP pressure test was delayed until around 8:00 pm tonight. He indicated that he would not be able to witness the pressure testing and to save a copy of the charts for him.
Called Teungku Muchlis Krueng	Friday, November 11, 2016	9:00	Teungku Krueng, Muchlis	Jared R. Smith	J Smith called and left a message for Teungku Muchlis about the successful BOP/BOPE and CIT, and to inform him that we are proceeding to drill the 12 1/4-inch, 2nd intermediate borehole. No response was received.
Called Stephen Baily, Hobbs BLM on call inspector	Friday, November 11, 2016	11:45	Stephen Bailey, Hobbs BLM on call inspector	Jared R. Smith	J Smith called Stephen Bailey to discuss the results of the BOP/BOPE and CIT pressure tests, and to notify him that drilling is about to begin on the 12 1/4-inch borehole. Geolex's review of the BOP/BOPE and CIT pressure tests indicate good and successful tests. Stephen will pick up the results when he is onsite to witness the setting and cementing of the 2nd intermediate casing. In addition, Stephen asked that we notify him when we have completed the 1st stage cementing job so that he can witness 2nd stage cement returns.
Sent text message to Stephen Baily, Hobbs BLM on call inspector	Saturday, November 12, 2016	17:00	Stephen Bailey, Hobbs BLM on call inspector	Dale T. Littlejohn	D Littlejohn texted Stephen Bailey to confirm TD of the 12 1/4-inch borehole and verify our planned notice following the 1st stage cementing job so that he can witness cement returns for the 2nd stage. Mr. Bailey affirmed to the text message.

Several phone calls and text messages to/from Stephen Baily, Hobbs BLM on call inspector, during the day to keep him aware of the activities. A final phone call was made to provide his requested notice	Sunday, November 13, 2016	18:44	Stephen Bailey, Hobbs BLM on call inspector	James Hunter and Dale T. Littlejohn	J Hunter exchanged text messages and phone calls with Stephen Bailey to keep him updated on the site operations. D Littlejohn provided a formal notification so that he could be present to witness cement returns for the 2nd stage. Mr. Bailey arrived on site at 21:00 and witnessed the circulation of 2nd stage cement to the surface.
Submitted 1st Intermediate Casing Sundry	Sunday, November 13, 2016	21:54	Teungku Krueng, Muchlis	Dale T. Littlejohn	Submitted the 3160-5 for 1st intermediate casing sundry report to the BLM WIS website, and a copy was emailed to Teungku Krueng, Muchlis once the initial processing was completed.
A text message was sent to Stephen Baily, Hobbs BLM on call inspector.	Monday, November 14, 2016	4:00	Stephen Bailey, Hobbs BLM on call inspector	Dale T. Littlejohn	D Littlejohn provided a notification concerning the pressure testing of the BOP/BOPE, which will be isolated from the casing. The CIT will be performed after the DV Tool has been drilled out for the CBL. When no response was made to the text message and phone call was made to Stephen Bailey who was rolling off of the hotline, but indicated the BLM would not likely be witnessing the tests.
Called Teungku Muchlis Krueng	Monday, November 14, 2016	15:42	Teungku Krueng, Muchlis	Dale T. Littlejohn	D Littlejohn called to determine Mr. Teungku Krueng's preference for a possible after-hours review of the 2nd intermediate casing CBL. He indicated that because cement was circulated to the surface and witnessed by a BLM inspector that the quality of the cement bond could be determined by Geolex, relative to the continuation of drilling.
Meeting with BLM and Geolex in Carlsbad BLM Office	Friday, November 18, 2016	10:55	Teungku Muchlis Krueng	Michael W. Selke	Mike Selke, Geolex, visited the Carlsbad BLM Office and briefed their project engineer, Teungku Muchlis Krueng (Seven), on the CBL for the lower intermediate casing cement job. Mr. Krueng agreed that the bonding inside the intervals of the surface casing and the upper intermediate casing was not particularly good. However, because there were good cement return for all three casing cement jobs and good CITs, along with multiple layers of casing and cement he was not concerned. He further agreed that the cement bonding in the lower intermediate casing below the bottom of the upper intermediate casing was mostly excellent. He will approve the CBL which will be included in the 3160-5 sundry to be submitted today or tomorrow.
Submitted 2nd Intermediate Casing Sundry	Friday, November 18, 2016	18:30	Teungku Krueng, Muchlis	Dale T. Littlejohn	Submitted the 3160-5 for 2nd intermediate casing sundry report to the BLM WIS website, and a copy was emailed to Teungku Krueng, Muchlis once the initial processing was completed.
Submitted 1st Intermediate Casing Courtesy C-103 to NMOCD	Tuesday, November 22, 2016	13:30	Maxey Brown	Michael W. Selke	Hand delivered courtesy C-103 for the 1st intermediate casing for the Zia AGI D #2 to the Hobbs OCD office.
Submitted 2nd Intermediate Casing Courtesy C-103 to NMOCD	Tuesday, November 22, 2016	13:30	Maxey Brown	Michael W. Selke	Hand delivered courtesy C-103 for the 2nd intermediate casing for the Zia AGI D #2 to the Hobbs OCD office.
Called Hobbs BLM Engineer Teungku Muchlis Krueng	Tuesday, November 29, 2016	13:15	Teungku Muchlis Krueng, Hobbs BLM Engineer	Michael W. Selke	M. Selke called Teungku Muchlis Krueng to discuss the seating depth of the production casing, and possibly completing in the Woodford. Muchlis said it would be acceptable to complete in the Woodford
Called Hobbs BLM Engineer Teungku Muchlis Krueng	Thursday, December 1, 2016	10:40	Teungku Muchlis Krueng, Hobbs BLM Engineer	Dale T. Littlejohn	D. Littlejohn called Teungku Muchlis Krueng to provide an update concerning the running of the 2-inch casing and cement timing.
Called the Hobbs BLM hotline phone operator	Thursday, December 1, 2016	10:50	Hobbs BLM on call operator	Dale T. Littlejohn	D Littlejohn provided update and was told that John Staton would likely be the inspector on call for the 7-inch cement job. Should call back when we know more precisely the time of cementing.
Submitted NOI Sundry for Completion Procedure	Friday, December 2, 2016	16:20	Teungku Krueng, Muchlis	Dale T. Littlejohn	D Littlejohn submitted the 3160-5 for the completion procedure/prognosis NOI sundry report to the BLM WIS website, and a copy was emailed to Teungku Muchlis Krueng.
Called the Hobbs BLM hotline phone operator	Saturday, December 3, 2016	8:30	Hobbs BLM on call operator	Dale T. Littlejohn	D Littlejohn provided update to BLM-Hobbs inspector ( John Staton), and was told that witnessing the cement returns for the production casing was not as high a priority as the surface and intermediate casing. They would therefore not be present to witness this operations and we should give them a call later as an update.
Email sent to BLM Engineer Teungku Muchlis Krueng	Sunday, December 4, 2016	03:36 & 16:39	Teungku Krueng, Muchlis	Jared R. Smith, Dale T. Littlejohn	J. Smith notified BLM Engineer of status with respect to 1st Stage cement and earlier conversations with BLM-Hobbs Inspector. D. Littlejohn updated the BLM Engineer following the completion of the cement job.
Email sent to BLM Engineer Teungku Muchlis Krueng	Wednesday, December 7, 2016	9:57	Teungku Krueng, Muchlis	Dale T. Littlejohn	D. Littlejohn notified BLM Engineer of status with respect to production casing CBL to be run later in the day.

Called BLM Engineer Teungku Muchlis Krueng	Thursday, December 8, 2016	11:00	Teungku Krueng, Muchlis	Michael W. Selke	M. Selke called Teungku Muchlis Krueng to discuss the results of the cement bond logging of the production casing. He emailed the RCBL and then called to brief the results. Teungku approved the cement job with the requirement that a successful CIT be conducted before drilling out. Teungku summarized this in an email to M. Selke, Geolex.
Called BLM On-Call Engineer	Saturday, December 10, 2016	16:09	Carlsbad BLM Engineer Hotline	Dale T. Littlejohn	Gave formal notice of well TD and intentions to release drilling rig on Sunday or Monday
Visited the NMOCD office in hobbs	Tuesday, December 13, 2016	15:36	Maxey Brown	Jared R. Smith	J. Smith visited with Maxey Brown (NMOCD) to discuss upcoming activities for the completion of Zia AGI D #2. Maxey had no questions or concerns, and is content with moving forward.
Submitted NOI Sundry for Production Casing	Wednesday, December 14, 2016	14:00	Paul Swartz	Jared R. Smith and Dale T. Littlejohn	D Littlejohn and J. Smith submitted the 3160-5 for the production casing NOI sundry report to the BLM WIS website, and a copy was emailed to Teungku Muchlis Krueng.
Called BLM Paul Swartz (BLM)	Wednesday, December 14, 2016	All Day	Paul Swartz	Jared R. Smith	J. Smith called Paul Swartz (BLM-10:57) concerning the status of the Completion NOI Sundry. Paul said it would be ready later in the morning or early afternoon. J. Smith called Paul Swartz again (15:28) to get an update on the status of the approval for the Completion Sundry. Paul had issues with using the workover string for the SRT, however, he was mistaken in why we were doing the SRT in the first place. Alberto notified Paul that we were doing it for reservoir analysis, and not for an increase to the MAOP, as Paul thought. Geolex has reviewed the COA's that Paul generated, and has made the appropriate corrections to them, per Paul's request. Still waiting on the approval from Paul Swartz at this time (12/15/2016, 08:40).
Called BLM Paul Swartz (BLM)	Thursday, December 15, 2016	All Day	Paul Swartz	Alberto A. Gutierrez	A. Gutierrez called Paul Swartz to discuss his concerns about the SRT and what equipment to use. Paul conceded that there was no need to use the permanent packer and final production tubing to run the SRT. Geolex will continue to monitor activity on the completion procedure, and confirm that all conditions of approval cited in the approved Completion Sundry are being followed.
24 hr. Notice to Paul Swartz (BLM) for Swabbing	Tuesday, December 20, 2016	8:25	Paul Swartz	Jared R. Smith	J. Smith called Paul Swartz (BLM) to give 24-hr. notice for collecting swab samples from the last 100 bbls. Paul said he will be on-site at 10:00 on 12/21/16. If we reach 400 bbls collected before Paul arrives, he said to go ahead and collect the 10 samples.
24 hr. Notice for Step Rate Testing	Monday, December 26, 2016	8:20	Paul Swartz (BLM-Carlsbad)	Dale T. Littlejohn	D Littlejohn called Paul Swartz (BLM) to give 24-hr notice of Step-Rate Test. Paul said he would not likely be present for the test.
24 hr. Notice for Step Rate Testing	Monday, December 26, 2016	8:27	Stephen Bailey (BLM-Hobbs)	Dale T. Littlejohn	D Littlejohn called Stephen Bailey (BLM) to give 24-hr notice of Step-Rate Test. Stephen said he would call me if he was in the area but would not likely be present for the test.
24 hr. Notice for Step Rate Testing	Monday, December 26, 2016	8:38	Maxey Brown (NMOCD)	Dale T. Littlejohn	D Littlejohn left message and Maxey Brown (NMOCD) returned the call to give 24-hr notice of Step-Rate Test.
Notice for Step Rate Testing Postponement	Monday, December 26, 2016	11:14	Maxey Brown (NMOCD) & Paul Swartz (BLM-Carlsbad)	Dale T. Littlejohn	D Littlejohn sent an email to both regulatory agencies concerning the postponement of the planned Step-Rate Test.
24 hr. Notice for Step Rate Testing	Wednesday, December 28, 2016	11:27	Maxey Brown (NMOCD) & Paul Swartz (BLM-Carlsbad)	Dale T. Littlejohn	D Littlejohn sent an email to both regulatory agencies for the step rate test. Paul Swartz was notified via phone call. Mr. Swartz informed Dale that he would not be on location to witness the SRT, but to call Stephen Bailey in the morning on Thursday, December 29, 2016 to update him on the status of the SRT.
Notice for Step Rate Testing	Thursday, December 29, 2016	7:40	Stephen Bailey (BLM-Hobbs Inspector)	Jared R. Smith	J. Smith called Stephen Bailey to inform him of the upcoming SRT. Mr. Bailey said he will be on location if he can make it.
Submitted SRT BLM Form 3160-5	Tuesday, January 10, 2017	3:25	Paul Swartz	Jared R. Smith	J Smith submitted the SRT 3160-5 to the BLM WIS website and email to Paul Swartz.
Notice of outstanding 3160-5 Sundries	Tuesday, January 17, 2017	10:18	Paul Swartz	Dale T. Littlejohn	D. Littlejohn notified Mr. Paul Swartz (BLM) of the outstanding 3160-5 Sundries, including the no recoverable hydrocarbons and SRT. Mr. Swartz informed D. Littlejohn he is very busy, and will review them on January 18, 2017, but would not guarantee this review date.
Notice of outstanding 3160-5 Sundries	Friday, January 20, 2017	9:54	Paul Swartz	Jared R. Smith	J. Smith called notified Mr. Paul Swartz (BLM) of the outstanding 3160-5 Sundries, including the no recoverable hydrocarbons and SRT. J. Smith answered Mr. Swartz's questions about the SRT to his satisfaction, and Mr. Swartz indicated he will work on the SRT this morning. The NRH sundry looked good to Mr. Swartz.
<b>Scheduled Events</b>	<b>Date</b>	<b>Time (MST)</b>	<b>Persons Notified</b>	<b>Responsible Person(s)</b>	<b>Result</b>
SPUD	Tuesday, November 1, 2016	03:00	BLM and OCD have been notified	Geolex	Spudded well 2 Nov 16 at 03:00 - 3160-5 (BLM) and courtesy C-103 (NMOCD) forms will be submitted with the surface casing subsequent sundries.
Surface Hole TD	Wednesday, November 2, 2016	04:23	BLM has been notified	Geolex	TD was reached on 3 Nov 16 - 3160-5 (BLM) and courtesy C-103 (NMOCD) forms will be submitted with the surface casing subsequent sundries.
Cement Surface Casing	Friday, November 4, 2016	09:18	BLM and OCD	Geolex	Cementing complete 487 sacks returned to surface 3160-5 (BLM) and courtesy C-103 (NMOCD) forms will be submitted with the surface casing subsequent sundries.

Pressure tests - BOP/BOPE and CIT	Saturday, November 5, 2016	22:08	BLM has been notified	Geolex	The Carlsbad BLM Engineer (Charles Nimmer) was notified, due to the unanswered phone calls to the BLM hotline, 4 hrs. in advance of the BOP test. Charles gave the go ahead to test BOP/BOPE and CIT without BLM witness present. The BOP/BOPE pressure test and CIT were completed on Sunday, November 6, 2016.
Begin drilling 1st Intermediate hole	Sunday, November 6, 2016	19:04	BLM has been notified	Geolex	Drilling of the 17 1/2-inch 1st intermediate borehole began at 19:04 on 6 Nov 2016.
1st Intermediate Hole TD	Tuesday, November 8, 2016	16:28	BLM has been notified	Geolex	The 1st intermediate borehole was completed on 8 Nov 2016 at its final TD of 2,555.5 ft. at 16:28. The mechanical caliper log was run on 9 Nov 2016, and casing will be installed on 9 Nov 2016. 3160-5 (BLM) and courtesy C-103 (NMOCD) forms will be submitted with the 1st intermediate casing subsequent sundries.
Cement 1st Intermediate Casing	Wednesday, November 9, 2016	All Day	BLM has been notified	Geolex	Cementing complete 428 sacks returned to surface 3160-5 (BLM) and courtesy C-103 (NMOCD) forms will be submitted with the 1st Intermediate casing subsequent sundries. Casing touched bottom
Run CBL in 1st Intermediate Casing	Thursday, November 10, 2016	All Day	BLM has been notified	Geolex	Run CBL in 1st Intermediate Casing, Stack, NU, and begin testing BOP
Begin drilling 2nd intermediate hole	Friday, November 11, 2016	17:42	BLM has been notified	Geolex	Drilling of the 12 1/4-inch 2nd intermediate borehole began at 17:42 on 11 Nov 2016.
Completed drilling 2nd intermediate hole	Saturday, November 12, 2016	18:45	BLM has been notified	Geolex	Completed drilling of the 12 1/4-inch 2nd intermediate borehole. Experienced loss of returns from 2,701 to 4,696 at 60 to 130 BPH.
Installed and cemented 9 5/8-inch casing into the 12 1/4-inch 2nd intermediate borehole	Sunday, November 13, 2016	All Day	BLM has been notified	Geolex	Installed and cemented 9 5/8-inch casing into the 12 1/4-inch 2nd intermediate borehole. Circulated 144 sacks (51 bbls) to the surface during the first stage and 107 sacks (33 bbls) to the surface during the second stage. Checked the float at 21:28.
Pressure tested BOP/BOPE	Monday, November 14, 2016	All Day	BLM will not be notified until CIT and FIT completed	Geolex	Successfully tested the BOP/BOPE (250 and 5,000 psi) and provided charts. Will perform CIT after drilling out DV tool and running CBL.
Begin drilling production hole	Wednesday, November 16, 2016	All Day	BLM has been notified	Geolex	Drilling of the 8 3/4-inch production borehole began at 01:19 on 11 Nov 2016.
Production Hole TD	Monday, November 28, 2016	22:56	BLM has been notified	Geolex	The production borehole was completed on 28 Nov 2016 at its final TD of 13,622 ft. at 22:56. 3160-5 (BLM) and courtesy C-103 (NMOCD) forms will be submitted with the production casing subsequent sundries.
Begin Running Geophysical Logs	Tuesday, November 29, 2016	All Day	BLM will not be notified until Casing is run	Geolex	Schlumberger arrived onsite on Tuesday, November 29, 2016 to run geophysical logs on the production casing borehole. Geophysical logging was completed early morning on Wednesday, November 30, 2016. It is anticipated that the production casing will be run later in the afternoon on December 1, 2016.
Trip into hole with DP for sweep and begin running 7-inch production casing	Wednesday, November 30, 2016	All Day	BLM will not be notified until Casing is run	Geolex	Following clean out of hole the drill pipe was removed and laid down. The running of the 7-inch casing began at approximately 14:00 on Thursday December 1, 2016 by Franks Casing Crew.
Completed running 7-inch Casing	Friday, December 2, 2016	All Day	BLM was notified that the casing was run	Geolex	The 7-inch casing tagged bottom at approximately 06:00 on Saturday December 3, 2016.
Completed 1st Stage cement of 7-inch Casing	Sunday, December 4, 2016	00:05	BLM was notified that the 1st Stage was completed	Geolex	First stage cement returns (128 sacks) was witnessed by Geolex at approximately 00:05 on Sunday December 4, 2016.
Completed 2nd Stage cement of 7-inch Casing	Sunday, December 4, 2016	11:00	BLM was notified that the cement job	Geolex	Second stage cement returns (93 sacks) was witnessed by Geolex at approximately 10:45 on Sunday December 4, 2016.
Began TIH with 4-inch drill pipe	Monday, December 5, 2016	18:00	NA	Geolex	Performed casing pressure test above DV tool. Pressure dropped 9% in 30 minutes.
Began drilling resin cement with 4-inch drill pipe to approximately 1 joint above the casing	Tuesday, December 6, 2016	All Day	BLM was notified that the CBL should be run Wednesday afternoon.	Geolex	Performed casing pressure test above DV tool (Pason measured). Pressure dropped 9% in 30 minutes.
Began drilling resin cement with 4-inch drill pipe to 10 foot below the casing shoe	Friday, December 9, 2016	5:30	BLM approved cement job Thursday morning.	Geolex	Performed successful CIT above shoe, drilled out 10 feet into formation and performed successful FIT.
Began drilling 6-inch open-hole portion of well	Friday, December 9, 2016	9:30	NA	Geolex	Monitoring ROP and Mud Log to determine appropriate total depth
Completed 6-inch Open Hole Injection Zone; TD = 14,750 feet	Saturday, December 10, 2016	9:31	Notified BLM After hours Engineer of TD and Release of Rig on Sunday or Monday	Geolex	TD well, TOOH LDDP in preparation for OH Logs and cores
Completed geophysical logs in open hole interval, began side wall coring	Sunday, December 11, 2016	9:31	NA	Geolex	Complete geophysical logs
Completed coring in the open hole interval	Monday, December 12, 2016	All Day	BLM and NMOCD have been notified	Geolex	Complete coring.
Workover rig is in place and initiated completion procedures	Thursday, December 15, 2016	All Day	BLM and NMOCD have been notified	Geolex	The Workover rig has been set-up, and is currently proceeding with completion procedures.
Began Swabbing	Tuesday, December 20, 2016	All Day	BLM and NMOCD have been notified	Geolex	The Workover rig has begun swabbing the well.
Sampling of Formation Water by Swabbing	Wednesday, December 21, 2016	All Morning	BLM (Paul Swartz) present for sampling	Geolex	The Workover rig completed swabbing the well to 515 bbls, crew released until December 26, 2016.
Attempt to acidize open hole portion of well	Monday, December 26, 2016	All Morning	NA	Geolex	Operation was terminated due to communication between tubing and annulus.

Acidize open-hole injection zone	Wednesday, December 28, 2016	All Day	BLM (Paul Swartz) and NMOCD have been notified	Geolex	Performed successful acidizing procedures on the open-hole injection zone.
Step Rate Test	Thursday, December 29, 2016	All Day	BLM and NMOCD have been notified	Geolex	Performed successful SRT procedures and shut-in well for 10 day fall-off test.
Completed 10 day fall-off test	Sunday, January 8, 2017	07:30	NA	Geolex	Broke off tool at 07:30 and began pulling out of the hole with bottom-hole pressure gauge at 07:40. No problems. Left the tubing with 89 psi.
Completed bit and scrapper run in preparation to run permanent packer	Wednesday, January 11, 2017	17:00	NA	Geolex	Will RIH with wire line GR/CCL/Gauge Ring and Junk basked to insure safe packer set.
Run GR/CCL/Gauge Ring	Thursday, January 12, 2017	7:00	NA	Geolex	CCL/Gauging Ring got hung up just below the packer setting depth; Halliburton pull off of the tool and left fish in hole.
Fishing Job - Day 1	Friday, January 13, 2017	7:00	NA	Geolex	Following conference call it was decided to enter hole with fishing tools, jars, and spacers subs and attempt to recover Halliburton tool or push to bottom of open hole.
Fishing Job - Day 2	Saturday, January 14, 2017	7:00	NA	Geolex	Continued TIH with rental work string, latched on to fish and began TOOH, retrieved fish at 14:00, TIH with bit and scrapper.
Clean out 7-inch casing following fishing job	Sunday, January 15, 2017	7:00	NA	Geolex	Pulled out of hole with bit & scrapper, lay down rental tubing
Set Halliburton Packer at 13,535 feet.	Monday, January 16, 2017	0827	NA	Geolex	Set Permanent Packer at 13,535 feet (log depth).
<b>Geology Observations</b>	<b>Current Formation</b>			<b>Next Formation</b>	<b>Result</b>
Drilling in the Quaternary/Triassic	Quaternary Deposits and Triassic Red Beds (terrestrial deposit)			Dockum Group	Dockum Group below Triassic Red Beds.
Drilling in Dockum Group	Dockum Group (terrestrial, lacustrine and marine deposits)			Rustler Formation	Dockum Group at 270'.
Drilling in Rustler	Upper Rustler (marine/evaporite and lacustrine deposits)			Salt Top	Rustler Formation at 743'. ROP and gamma dropped.
Drilling in Rustler	Magenta Dolomite - Member of the Rustler (marine deposit)			Salt Top	Drilled through Rustler into Magenta Dolomite (824') to 826' TD for surface casing.
Drilling in Rustler	Lower Rustler (marine/evaporite and lacustrine deposits)			Salt Top	Drilled through the Magenta Dolomite.
Drilling in Salt	Salt top (marine and evaporite deposits)			Salado Formation	Salt Top at approx. 882', ROP increased considerably and held.
Drilling in Salado	Salado Formation (marine and evaporite deposits)			Tansill Formation	Salado Formation top at 1835.5'.
Drilling in Tansill	Tansill Formation (marine deposits)			Yates Formation	Tansill formation top at 2343'.
Drilling in Yates	Yates Formation (terrestrial deposits)			7 Rivers Formation	Yates Formation top at 2483'.
Drilling in 7 Rivers	7 Rivers (marine)			Capitan Reef	7 Rivers Formation top at 2663'.
Drilling in Capitan Reef	Capitan Reef (shallow marine)			Goat-Seep Queen	Capitan Reef top at 2760'.
Drilling in the Goat-Seep Queen	Goat Seep-Queen (marine carbonates - dolomite and limestone)			Bell Canyon Formation	Goat Seep-Queen top at 4438'.
Drilling in the Bell Canyon	Bell Canyon (sandstone w/thin bedded limestone)			Cherry Canyon	Bell Canyon top at 4779'.
Drilling in the Cherry Canyon	Cherry Canyon (fine grained sandstones and siltstones)			Brushy Canyon	Cherry Canyon top at 4963'.
Drilling in the Brushy Canyon	Brushy Canyon (medium grained sandstones)			Bone Spring	Brushy Canyon top at 5632'.
Drilling in the Bone Springs	Bone Spring (medium grained sandstones)			Wolfcamp	Bone Spring top at 7060'.
Drilling in the Wolfcamp	Wolfcamp (shale, siltstone and carbonates)			Strawn	Wolfcamp top at 10,422'.
Drilling in the Strawn	Strawn (limestone with alternating shale and clay)			Atoka	Strawn top at 11,170'.
Drilling in the Atoka	Atoka (limestone, shale and siltstone)			Morrow	Atoka top at 11,595'.
Drilling in the Morrow	Morrow (sandstone and shale)			Mississippian	Morrow top at 11,973'.
Drilling in the Mississippian	Mississippian (Chester Formation - shale and limestone)			Barnett	Mississippian top at 12,544'.
Drilling in the Barnett	Barnett Shale (Shale)			Mississippian Lime	Barnett top at 12,765'.
Drilling in the Mississippian Lime	Mississippian Lime (Chester Formation -Limestone with some chert)			Woodford Shale	Mississippian Lime top at 12,923'.
Drilling in the Woodford	Woodford (Organic rich shale)			Devonian	Woodford top at 13,499'.
Drilling in the Devonian	Devonian (limestone, dodlomite, and sandstone)			Devonian	Devonian top at 13,625'.
Drilling in the Wristen	Wristen (limestone, dodlomite, and sandstone)			Silurian	Wristen top at 13,797'.
Drilling in the Fusselman	Fusselman (limestone, dodlomite, and sandstone)			Silurian	Fusselman top at 13,972'.
Drilling in the Montoya	Montoya (cherty dolomite)			Ordovician	Montoya top at 14,371'.



## **CONCHO DAILY REPORTS**



# Daily Drilling Report

Date: 11/1/2016

Report #: 2.0

DSS: 0.00

Lat: Long:

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d <typ1>, <depth <typ1>, <depth <typ1>, <depth

<b>Asset Group:</b> DELAWARE BASIN	<b>Contractor:</b>	<b>#/Crew:</b>	<b>Rig Phone #:</b>
<b>Field Name:</b> AGI	<b>County:</b> LEA		<b>State:</b> NM
<b>Area:</b> AGI	<b>End Depth (ftKB):</b> 0.0		<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (TVD) (ftKB):</b>		<b>Permit #:</b>
<b>Spud Date:</b>	<b>24 Hr Progress (ft):</b>		<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>Drilling Hours (hr):</b>		<b>Original KB Elevation (ft):</b> 3,572.00
<b>Date TD Reached (wellbore):</b>	<b>Target Formation:</b>		<b>Last BOP Test Date:</b>
<b>Job AFE Amount (Cost)</b>	<b>Daily Field Est Total (Cost)</b>		<b>Cum Field Est To Date (Cost)</b>
	\$371,235		\$402,640

### Daily Activity from 10/31/2016 - 11/1/2016

Operations at Report Time  
RIGGING UP ON ZIA AGI # D2.

Past 24 Hours Operation Summary  
RU ON ZIA AGI # D2, PU/MU TOP DRIVE AND CONTINUE RIG UP, WELD CONDUCTER, FILL PITS AND TANKS.

Operations Next Report Period  
FINISH RIG UP, PRE SPUD INSPECTION, SPUD AND DRILL 26" SURFACE HOLE.

<b>Incident Reported</b> No	<b>Accident Reported</b> No	<b>Daily Contacts</b> CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	06:00	24.00		RU W/TRUCKS & CRANES	RIG UP ON ZIA AGI # D2, DERRICK IN THE AIR @ 12:00 MST, PU/ MU TOP DRIVE AND CONTINUE RU, WELD CONDUCTER AND FILL PITS AND TANKS. UTILIZED 2 CRANES, 1 TANDOM AND 1 FORKLIFT. 100% MI 90% RU.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr	Job Circ Hr	Avg ROP (ft/hr)	Rot Time (hr)	Slide Time	Nozzles (1/32")
BHA #					Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)			Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)	
String Length (ft)					Weight of String in Air (1000lbf)								

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
Error				

### Mud Properties

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft <sup>2</sup> )
Gel 10 sec (lb/100ft <sup>2</sup> )	Gel 10 min (lb/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
Chlorides (mg/L)	Pm Filtrate (mL/mL)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned

<b>Pump # 1, Triplex</b>					
Pump Number 1	Start Date 10/31/2016 06:00	End Date 11/1/2016 06:00	Make Bomco	Model F-1600	

<b>Pump # 2, Triplex</b>					
Pump Number 2	Start Date 10/31/2016 06:00	End Date 11/1/2016 06:00	Make Bomco	Model F-1600	

### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)

### Casing Strings

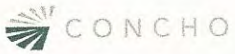
Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)

### Formation

Formation Name	Prog Top MD (ftKB)

### Fluids, Disposal and Water

Consumed	Cum On Loc	Returned



# Daily Drilling Report

Date: 11/1/2016

Report #: 2.0

DSS: 0.00

Lat: Long:

Well Name: ZIA AGI #2D

Proposed:

## Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
227	D-Contract Sprvsn	\$3,200	\$6,400	\$0
228	D-Tstg Csg/Tbg	\$23,500	\$23,500	\$0
235	D-Rentals-Surface	\$14,995	\$23,150	\$0
237	D-Trucking/Forklift/Rig Mobil	\$109,000	\$110,000	\$0
244	D-Envmntl/Clsd Loop	\$9,050	\$11,800	\$0



# Daily Drilling Report

Date: 11/2/2016

Report #: 3.0

DSS: 0.13

Lat: Long:

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d <typ1>, <depth <typ1>, <depth <typ1>, <depth

<b>Contractor:</b>	<b>#/Crew:</b>	<b>Rig Phone #:</b>
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 188.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b>	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 68.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b> 3.00	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$91,039
	Cum Field Est To Date (Cost) \$434,764

### Daily Activity from 11/1/2016 - 11/2/2016

Operations at Report Time  
DRLG 26" SURFACE HOLE W/ MWD SURVEYS @ 188'.

Past 24 Hours Operation Summary  
FINISH RIG UP, MIX MUD, STRAP AND LOAD BHA, PRE SPUD SAFTEY INSPECTION, PU/MU 26" BHA AND SURFACE TEST MWD, SPUD AND DRILL 26" SURFACE HOLE W/ MWD SURVEYS F/ 120' TO 188', 68' @ 22.6 FPH.

Operations Next Report Period  
DRILL 26" SURFACE HOLE F/ 188' TO CSG DEPTH, PUMP SWEEPS AND FLUID CALIPER WIPER TRIP, TOH RIG UP AND RUN 20" CSG.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	19:00	13.00	120	WO TRUCKS & CRANES	CONTINUE TO RIG UP FLOOR, NIPPLU UP CONDUCTER AMD MIX SPUD SWEEP, LOAD AND STRAP BHA..	No
19:00	20:00	1.00	120	PRE-SPUD INSPCTN	PRE SPUD AND SAFTEY INSPECTION.	No
20:00	03:00	7.00	120	PU/LD BHA	PU/MU 26" BHA, W/ MWD USED FOR GAMMA, INC, AZI, AND SURFACE TEST SAME. ***GEOLEX NOTIFIED JOHN STANTON W/ BLM OF INTENT TO SPUD 26" SURFACE HOLE @ 16:08 MST ON 11/1/2016.***	No
03:00	06:00	3.00	188	DRLG W/MTR	SPUD AND DRILL 26" SURFACE HOLE W/ MWD SURVEYS F/ 120' TO 188', 68' @ 22.6 FPH. ***SPUD 26" HOLE @ 03:00 MST ON 11/2/2016.***	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
1	26	BAKER HUG...	TD609S	7041846	120.0	188.0	2.00	3.00		22.7	3.00		14/14/14/14/14/14/14/14/14/14/14/14
BHA #	Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)							
1	25	25	167	167	900.0	900.0							
String Length (ft)	Weight of String in Air (1000lbf)												
188.31	18												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
2	Drill Collar	9 1/2	57.57	188.31
1	XO Sub	9 1/2	2.17	130.74
1	NMDC	8	30.61	128.57
1	NMDC	8	30.73	97.96
1	Orientation Sub	8	2.69	67.23
1	XO Sub	8	3.80	64.54
1	Reamer - 3 Pt	9 11/16	8.40	60.74
1	Shock Sub	9 11/16	12.28	52.34
1	XO Sub	9	3.19	40.06
1	Mud Motor	9 1/2	34.87	36.87

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 120.0	End Depth (ftKB) 188.0	Cum Depth Drilled (ft) 68.00	Drilling Time (hr) 3.00	Cum Drilling Time (hr) 3.00	Interval ROP (ft/hr) 22.7	Flow Rate (gpm) 704
Weight on Bit (1000lbf) 25	RPM (rpm) 75	Stand Pipe Pressure (psi) 900.0	Drill Str Wt (1000lbf) 80	PU Str Wt (1000lbf) 80	SO Str Wt (1000lbf) 80	Drilling Torque 10.0	Off Bottom Torque 2.0

### Hydraulic Calculations

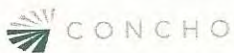
Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
Error				

### Mud Properties

Time 06:00	Type Water Base	Depth (ftKB) 120	Density (lb/gal) 8.3	Funnel Viscosity (s/qt) 28	PV Calc (cP) 1	YP Calc (lb/100ft²) 1
Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH 7.0	Solids (%) 0.0	Lime (lb/bbl)
Chlorides (mg/L) 500	Pm Filtrate (mL/mL)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 0.00	Percent Oil (%)
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm 1	Low Gravity Solids (%) 0.0	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	

### Mud Additive Amounts

On Loc	Returned
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# Daily Drilling Report

Date: 11/2/2016

Report #: 3.0

DSS: 0.13

Lat: Long:

Well Name: ZIA AGI #2D

Proposed:

### Pump # 1, Triplex

Pump Number 1	Start Date 11/1/2016 06:00	End Date 11/2/2016 06:00	Make Bomco	Model F-1600
Pressure (psi) 900.0	Strokes (spm) 100	Stroke Length (in) 12.00	Rod Diameter (in)	Volumetric Efficiency (%) 95
				Flow Rate (gpm) 352

### Pump # 2, Triplex

Pump Number 2	Start Date 11/1/2016 06:00	End Date 11/2/2016 06:00	Make Bomco	Model F-1600
Pressure (psi) 900.0	Strokes (spm) 100	Stroke Length (in) 12.00	Rod Diameter (in)	Volumetric Efficiency (%) 95
				Flow Rate (gpm) 352

### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	

### BOPs

Pressure Rating (psi)	Nominal ID (in)	Last BOP Test Date

### Formation

Formation Name	Prog Top MD (ftKB)

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
BRINE WATER	LOAD		8.0	-8.0	
FRESH WATER	LOAD		22.0	-22.0	
RIG DIESEL	gal us	7,500.0	763.0	11,602.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$43,000	\$0
210	D-Directional Drig Services	\$2,300	\$2,300	\$0
211	D-Fuel & Power	\$1,660	\$3,280	\$0
212	D-Water	\$9,950	\$9,950	\$0
213	D-Bits	\$7,500	\$7,500	\$0
214	D-Mud & Chemicals	\$1,124	\$1,124	\$0
224	D-Mud & Chemicals	\$6,700	\$6,700	\$0
224	D-Geologic/Engnrg	\$1,800	\$5,400	\$0
226	D-Company Sprvsn	\$3,200	\$9,600	\$0
227	D-Contract Sprvsn	\$1,520	\$25,020	\$0
228	D-Tstg Csg/Tbg	\$6,105	\$29,255	\$0
235	D-Rentals-Surface	\$11,630	\$11,630	\$0
236	D-Rentals-Subsrfc	\$18,150	\$128,150	\$0
237	D-Trucking/Forklift/Rig Mobil	\$650	\$1,650	\$0
238	D-Welding Services	\$2,750	\$14,550	\$0
244	D-Envmntl/Clsd Loop			



# Daily Drilling Report

Date: 11/3/2016

Report #: 4.0

DSS: 1.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 826.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 825.9	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 638.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 16.50	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$84,302
	Cum Field Est To Date (Cost) \$519,066

### Daily Activity from 11/2/2016 - 11/3/2016

Operations at Report Time  
@ TD 826' SHORT/ WIPER TRIP AND LD ROLLER REAMER.

Past 24 Hours Operation Summary  
DRILL 26" HOLE TO FROM 188' TO 826' TD, 638', SERVICE RIG, RE-TORQUE IBOP CONNECTION, CHANGE BURN SUB, TROUBLE SHOOT PASON. PUMP SWEEPS AND FLUID CALIPER.

Operations Next Report Period  
FINISH WIPER TRIP, PUMP SWEEP, TOH TO RUN 20" CSG, CMT CSG, WOC, RUN BOND LOG.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT.
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Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	07:00	1.00	260	DRLG W/MTR	DRLG 26" SURFACE HOLE W/ MWD SURVEYS F/ 188' TO 260', 72' @ 72 FPH.	No
07:00	07:30	0.50	260	UPPER IBOP	@ 260' RE-TORQUE TOP I.B.O.P CONNECTION ON TOP DRIVE.	No
07:30	10:00	2.50	385	DRLG W/MTR	DRLG 26" SURFACE HOLE W/ MWD SURVEY F/ 260' TO 385', 125' @ 50 FPH.	No
10:00	10:30	0.50	385	LUBRICATE RIG	@ 385' SERVICE RIG AND TOP DRIVE.	No
10:30	12:30	2.00	450	DRLG W/MTR	DRLG 26" SURFACE HOLE W/ MWD SURVEYS F/ 385' TO 450', 65' @32.5 FPH.	No
12:30	14:00	1.50	450	MISCELLANEOUS	@ 450', CHANGE OUT BURN SUB AND KELLY JT DUE TO THREAD OVER TORQUE.	No
14:00	18:30	4.50	611	DRLG W/MTR	DRLG 26" SURFACE HOLE W/ MWD SURVEYS F/ 450' TO 611', 161' @ 35.7 FPH.	No
18:30	19:00	0.50	611	ELECTRICAL	@ 611' RIG REPAIRE, POWER LEAD IN J BOX TOP DRIVE.	No
19:00	22:00	3.00	721	DRLG W/MTR	DRLG 26" SURFACE HOLE F/ 611' TO 721', 110' @ 36.6 FPH.	No
22:00	23:00	1.00	721	MISCELLANEOUS	@ 721' TROUBLE SHOOT PASON.	No
23:00	02:30	3.50	826	DRLG W/MTR	DRLG 26" SURFACE HOLE W/ MWD SURVEYS F/ 721' TO 826', 105' @ 30 FPH. ***TD 26" SURFACE HOLE @ 02:30 MST ON 11/3/2016.***	No
02:30	05:30	3.00	826	C&C MUD	@ 826' HOOK UP DAVIS FLUID CALIPER AND RUN, CALIPER SHOWED 62% WASHOUT @ 2.014 CU FT. FOLLOWED BY 40 BBL HI VIS SWEEP.	No
05:30	06:00	0.50	826	SHORT TRIP	@ 826' MAKE WIPER/SHORT TRIP AND LD ROLLER REAMER.	No

Bits & BHAs													
Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
1	26	BAKER HUG...	TD609S	7041846	120.0	826.0	2.00	19.50	3.00	36.2	19.50		14/14/14/14/14/14/14/14/14
BHA #	Min Weight on Bit (1000lb)	Max Weight on Bit (1000lb)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)							
1	25	45	167	167	900.0	2,000.0							
String Length (ft) 838.35					Weight of String in Air (1000lb) 93								

Drill String Components				OD (in)	Len (ft)	Cum Len (ft)
Jts	Item Des					
18	Drill Collar			6 1/2	526.56	838.35
1	XO Sub			6 1/2	1.91	311.79
3	Drill Collar			8	88.02	309.88
1	XO Sub			9	2.27	221.86
3	Drill Collar			9 1/2	88.85	219.59
1	XO Sub			9 1/2	2.17	130.74
1	NMDC			8	30.61	128.57
1	NMDC			8	30.73	97.96
1	Orientation Sub			8	2.69	67.23
1	XO Sub			8	3.80	64.54
1	Reamer - 3 Pt			9 11/16	8.40	60.74
1	Shock Sub			9 11/16	12.28	52.34
1	XO Sub			9	3.19	40.06
1	Mud Motor			9 1/2	34.87	36.87

Drilling Parameters							
Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Original Hole	188.0	826.0	706.00	16.50	19.50	38.7	704
Weight on Bit (1000lb)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lb)	PU Str Wt (1000lb)	SO Str Wt (1000lb)	Drilling Torque	Off Bottom Torque
45	75	2,000.0	130	135	130	15,000.0	2.0

Hydraulic Calculations			
Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)
72.2	0.1	150.2	175.9
Percent of Pressure Drop at Bit (%)	Max Casing AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)
9	29.6	0.0	27.2
ECD End (lb/gal)			
8.61			

Error

826.00	1.70	309.40	825.90	9.12	3.58	-8.39	0.00
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**Casing Strings**

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	

**BOPs**

Pressure Rating (psi)	Nominal ID (in)	Last BOP Test Date
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**Formation**

Formation Name	Prog Top MD (ftKB)
RUSTLER	800.00

**Fluids, Disposal and Water**

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		6.0	-6.0	
RIG DIESEL	gal us	7,001.0	1,651.0	16,952.0	

**Costs Summary**

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fid Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$59,000	\$0
210	D-Directional Drtg Services	\$2,300	\$4,600	\$0
211	D-Fuel & Power	\$3,600	\$6,880	\$0
214	D-Mud & Chemicals	\$637	\$1,761	\$0
217	D-Cement Surface	\$2,560	\$2,560	\$0
224	D-Geologic/Engnrg	\$6,700	\$13,400	\$0
226	D-Company Sprvsn	\$1,800	\$7,200	\$0
227	D-Contract Sprvsn	\$3,200	\$12,800	\$0
235	D-Rentals-Surface	\$2,805	\$32,060	\$0
236	D-Rentals-Subsrfc	\$4,800	\$16,430	\$0
237	D-Trucking/Forklift/Rig Mobil	\$30,550	\$158,700	\$0
244	D-Envmntl/Clsd Loop	\$9,350	\$23,900	\$0



# Daily Drilling Report

Date: 11/4/2016

Report #: 5.0

DSS: 2.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 826.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 825.9	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 0.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr):	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$104,550
	Cum Field Est To Date (Cost) \$623,616

### Daily Activity from 11/3/2016 - 11/4/2016

Operations at Report Time  
@ 826' CIRC CASING, PREPARE TO CMT 20" CSG.

Past 24 Hours Operation Summary  
@ 826' RIG REPAIR TOP DRIVE, SHORT/WIPER TRIP, PUMP SWEEPS AND CIRC, TOH, RIG UP AND RUN AND CMT 20" CSG.

Operations Next Report Period  
CMT 20" CSG, WOC, RUN BOND LOG, NIPPLE UP BOP.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	07:00	1.00	826	ELECTRICAL	RIG REPAIRE, TO HYDROLIC CONTROL ON TOP DRIVE.	No
07:00	11:30	4.50	826	SHORT TRIP	@ 826' CONTINUE SHORT/WIPER TRIP AND LD REAMER, NO ISSUES WENT STRAIGHT TO BOTTOM.	No
11:30	13:30	2.00	826	C&C MUD	@ 826' PUMP SWEEPS, CONDITION HOLE TO TOH TO RUN 20" CSG.	No
13:30	17:00	3.50	826	TOH TD CSG PT/ KOP	@ 826' TOH TO RUN 20" CSG, LD SHOCK SUB AND BIT. ***GEOLEX NOTIFIED JOHN STANTON W/ LEA CO BLM OF INTENT TO RUN AND CMT 20" CSG @ 14:00 MST ON 11/3/2014.***	No
17:00	04:00	11.00	826	RUN CSG	PJSM W/ FRANKS LD, CSG AND TORQUE TURN RIG UP AND RUN 19 JTS 20" 106.5# J -55 BTC CSG, CENT 1,2,3, EVERY OTHER TOTAL= 10, TP=829.36' SET @ 826'.	No
04:00	06:00	2.00	826	CIRC CSG CAP/BTMS UP	@ 826 CIRC 1 1/2 X CSG CAPICITY, RD CSG, LD AND TORQUE TURN.	No

### Bits & BHAS

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
1	26	BAKER HUG...	TD609S	7041846	120.0	826.0	2.00	19.50	5.00	36.2	19.50		14/14/14/14/14/14/14/14/14/14
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
1		25	45	137	167	900.0	2,000.0						
String Length (ft)	838.35							Weight of String in Air (1000lbf)	93				

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
18	Drill Collar	6 1/2	526.56	838.35
1	XO Sub	6 1/2	1.91	311.79
3	Drill Collar	8	88.02	309.88
1	XO Sub	9	2.27	221.86
3	Drill Collar	9 1/2	88.85	219.59
1	XO Sub	9 1/2	2.17	130.74
1	NMDC	8	30.61	128.57
1	NMDC	8	30.73	97.96
1	Orientation Sub	8	2.69	67.23
1	XO Sub	8	3.80	64.54
1	Reamer - 3 Pt	9 11/16	8.40	60.74
1	Shock Sub	9 11/16	12.28	52.34
1	XO Sub	9	3.19	40.06
1	Mud Motor	9 1/2	34.87	36.87

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Original Hole	826.0	826.0	706.00		19.50		704
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque
	45	1,800.0	130	135	130		2,000.0

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
77.3	0.1	150.2	188.1	10
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
0.0	29.6	0.0	27.2	9.23

Error

### Mud Properties

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
06:00	Water Base	826	9.2	33	3	9
Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
8	10	80.0	2	8.0	5.8	





# Daily Drilling Report

Date: 11/4/2016

Report #: 5.0

DSS: 2.13

Lat: 32.643951 Long: -103.811116

Well Name: ZIA AGI #2D

Proposed:

### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
826.00	1.70	309.40	825.90	9.12	3.58	-8.39	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	

### BOPs

Pressure Rating (psi)	Nominal ID (in)	Last BOP Test Date

### Formation

Formation Name	Prog Top MD (ftKB)
RUSTLER	800.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		1.0	-7.0	
MUD/SOLIDS/CMT DISPOSAL	LOAD		2.0	-2.0	
RIG DIESEL	gal us		1,006.0	15,946.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$75,000	\$0
210	D-Directional Drig Services	\$6,500	\$11,100	\$0
211	D-Fuel & Power	\$2,185	\$9,065	\$0
214	D-Mud & Chemicals	\$1,335	\$3,096	\$0
221	D-Float Equip/Centlizr	\$3,625	\$3,625	\$0
224	D-Geologic/Engnrg	\$6,700	\$20,100	\$0
226	D-Company Sprvsn	\$1,800	\$9,000	\$0
227	D-Contract Sprvsn	\$3,200	\$16,000	\$0
235	D-Rentals-Surface	\$3,355	\$35,415	\$0
236	D-Rentals-Subsrfc	\$3,150	\$19,580	\$0
237	D-Trucking/Forklif/Rig Mobil	\$1,000	\$159,700	\$0
238	D-Welding Services	\$650	\$2,300	\$0
244	D-Envmntl/Clsd Loop	\$4,550	\$28,450	\$0
401	D-Surface Casing	\$50,500	\$50,500	\$0



# Daily Drilling Report

Date: 11/5/2016

Report #: 6.0

DSS: 3.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 826.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 825.9	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 0.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr):	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Cum Field Est To Date (Cost) \$719,406
Daily Field Est Total (Cost) \$95,790	

### Daily Activity from 11/4/2016 - 11/5/2016

Operations at Report Time  
CUT OFF 30" CONDUCTOR AND 20" CSG AND DRESS.

Past 24 Hours Operation Summary  
@ 826' CIRC W/ 20" CSG ON BOTTOM, RU HALLIBURTON AND CEMENT, SHUT HEAD IN AND WOC, RU AND RUN SCHLUMBERGER CBL LOGS, CUT OFF 30" CONDUCTOR AND 20" CSG.

Operations Next Report Period  
WELD ON 20 3/4" 3M X 20" SOW AND BASE PLATE AND TEST, NIPPLE UP DRLG SPOOLS AND 20" 2M ANNULAR AND TEST, PU/ MU 17 1/2" SHC BHA AND TIH, DRILL CMT, FLOAT AND SHOE, DRILL 17 1/2" 1ST INTERMEDIATE HOLE.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	07:00	1.00	826	C&C MUD	@ 826' CONTINUE TO CIRC CASING ON BOTTOM.	No
07:00	09:30	2.50	826	CMT	PJSM W/ HALLIBURTON RU AND CMT AS FOLLOWS: TEST LINES TO 1535 PSI, PUMP 10 BBL FW SPACER FOLLOWED BY 20 BBL FW W/ GEL AND RED DYE FOLLOWED BY LEAD 1175 SX CLASS "C" @ 13.5 PPG 1.75 YEILD, FOLLOWED BY TAIL 250 SX CLASS "C" @ 14.8 PPG 1.34 YEILD, DROP PLUG AND DISPLACE W/ 274 BBLs FW DISPLACEMENT, BUMP PLUG @ 09:12 MST ON 11/4/2016 FLOAT DID NOT HOLD, SHUT IN W/ 200 PSI, 4 HRS, CIRC 487 SX TO PIT, RIG DOWN HALLIBURTON.	No
09:30	00:00	14.50	826	WOC	@ 826' W/ CSG ON BOTTOM AND CEMENTED, WOC W/ PIPE CENTERED AND IN TENSION. TOTAL WOC BEFORE BOND LOG 15 HRS.	No
00:00	04:30	4.50	826	CBL	PJSM W/ SCHLUMBERGER WIRELINE RIG UP AND RUN CBL LOG @ 826'. RIG DOWN SCHLUMBERGER.	No
04:30	06:00	1.50	826	SET SLIPS/CUT CSG/CNDCTR	CUT OFF 30" CONDUCTOR AND 20" CSG, DRESS AND PREPARE TO WELD ON 20 3/4" 3M X 20" SOW W/ BASE PLATE.	No

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr	Job Circ Hr	Avg ROP (f/hr)	Rot Time (hr)	Slide Time (hr)	Nozzles (1/32")
BHA #					Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)			
String Length (ft)					Weight of String in Air (1000lbf)								

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
Error				

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lbf/100ft²)
06:00	Salt Base	826	10.0	29		
Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
Chlorides (mg/L)	Pm Filtrate (mL/mL)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	

Des	Units	Rec	Consumed	On Loc	Returned
WILDCAT 360	GAL	271.0		271.0	
WILDCAT 601 TZ	GAL	282.0		282.0	

Pump # 1, Triplex | End Date | Make | Model

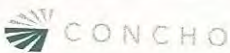
**Well Name: ZIA AGI #2D**

**Lat: 32.643951 Long: -103.811116**

**Proposed:**

<b>Fluids, Disposal and Water</b>					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
BRINE WATER	LOAD		9.0	-17.0	
CUTTINGS BIN	BIN		1.0	-8.0	
FRESH WATER	LOAD		6.0	-28.0	
JET PITS/WORK ON LOCATION	HRS		5.0	-5.0	
MUD/SOLIDS/CMT DISPOSAL	LOAD		16.0	-18.0	
RIG DIESEL	gal us		472.0	15,474.0	
STANDBY TRUCKING	HRS		20.5	-20.5	

<b>Costs Summary</b>				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$91,000	\$0
210	D-Directional Drig Services	\$4,200	\$15,300	\$0
211	D-Fuel & Power	\$1,025	\$10,090	\$0
212	D-Water	\$5,100	\$15,050	\$0
214	D-Mud & Chemicals	\$1,335	\$4,431	\$0
217	D-Cement Surface	\$26,500	\$29,060	\$0
222	D-Csg Crews & Equip	\$15,810	\$15,810	\$0
224	D-Geologic/Engnrg	\$6,700	\$26,800	\$0
226	D-Company Sprvsn	\$1,800	\$10,800	\$0
227	D-Contract Sprvsn	\$3,200	\$19,200	\$0
235	D-Rentals-Surface	\$2,605	\$38,020	\$0
236	D-Rentals-Subsrfc	\$150	\$19,730	\$0
237	D-Trucking/Forklift/Rig Mobil	\$1,915	\$161,615	\$0
244	D-Envmntl/Clsd Loop	\$9,450	\$37,900	\$0



# Daily Drilling Report

Date: 11/6/2016

Well Name: ZIA AGI #2D

Report #: 7.0

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

DSS: 4.13

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL #/Crew: FREEDOM  
 Asset Group: DELAWARE BASIN Area: AGI  
 County: LEA State: NM  
 Prospect: End Depth (ftKB): 826.0  
 Spud Date: 11/2/2016 03:00 End Depth (TVD) (ftKB): 825.9  
 Rig Release Date: 24 Hr Progress (ft): 0.00  
 Target Formation: DEVONIAN Drilling Hours (hr):

Rig Phone #: (432) 853-9909  
 Field Name: AGI  
 API/UWI: 30-025-42207  
 Permit #:  
 Ground Elevation (ft): 3,547.00  
 Original KB Elevation (ft): 3,572.00  
 KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$96,152
	Cum Field Est To Date (Cost) \$815,558

### Daily Activity from 11/5/2016 - 11/6/2016

Operations at Report Time  
@ 826' WAIT ON NEW TEST TRUCK TO FINISH TESTING 20" DEVERTER SYSTEM.

Past 24 Hours Operation Summary  
@ 826' FINISH CUT ON 20" CSG AND DRESS, WELD ON 20 3/4" 3M X 20" SOW W/ BASE PLATE AND TEST, NU 21 1/4" 2M ANNULER AND DEVERTER SYSTEM, AND TEST 2000 HI, 250 LOW,

Operations Next Report Period  
FINISH TESTING ANNULER AND DEVERTER SYSTEM, PU/MU 17 1/2" BHA, TIH, TEST CSG, DRILL CMT, FLOAT AND SHOE, DRILL 17 1/2" INTERMEDIATE HOLE.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	07:00	1.00	826	SET SLIPS/CUT CSG/CNDCTR	FINISH CUT OFF OF 20" CSG AND DRESS.	No
07:00	12:00	5.00	826	WELD ON/INSTALL WH	WELD ON 20 3/4" 3M X 20" SOW W/ BASE PLATE AND TEST TO 550 PSI. ***GEOLEX NOTIFIED JOHN STANTON W/ LEA CO BLM OF BOP TEST NOTIFICATION @ 13:29 MST ON 11/5/2016.***	No
12:00	22:00	10.00	826	NU BOP	PJSM W/ BATTLE TESTING RIG UP AND NU 21 1/4" 2M ANNULER, SPOOLS AND DEVERTER SYSTEM	No
22:00	04:00	6.00	826	TEST BOP EQUIP	PJSM W/ BATTLE TESTING RU AND TEST ALL CHOKE VALVES, ANNULER, HCR, 4" MANUEL 2" KILL VALVE AND 2" CHECK VALVE, FLOOR VALVES, 2000 HI 250 LOW. STARTED TESTING TOP DRIVE AND MUD LINES BACK TO PUMP AND TEST TRUCK MESSED UP	No
04:00	06:00	2.00	826	WO TOOLS	WAIT ON NEW BOP TEST TRUCK.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...	Rot Time (hr)	Slide Time...	Nozzles (1/32")
BHA #	Min Weight on Bit (1000lbf)		Max Weight on Bit (1000lbf)		Min RPM (rpm)		Max RPM (rpm)		Min Stand Pipe Pressure (psi)		Max Stand Pipe Pressure (psi)		
String Length (ft)					Weight of String in Air (1000lbf)								

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
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### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)

### Mud Properties

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lbf/100ft <sup>2</sup> )
08:30	Salt Base	826	9.8	28	1	2
Gel 10 sec (lbf/100ft <sup>2</sup> )	Gel 10 min (lbf/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
Chlorides (mg/L)	Pm Filtrate (mL/mL)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
Oil Water Ratio 0/100	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned
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### Pump # 1, Triplex

Pump Number 1	Start Date 11/2/2016 06:00	End Date	Make Bomco	Model F-1600
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### Pump # 2, Triplex

Pump Number 2	Start Date 11/02/2016 06:00	End Date	Make	Model
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Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
RIG DIESEL	gal us		487.0	14,987.0	
<b>Costs Summary</b>					
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)	
209	D-Daywork Contract	\$16,000	\$107,000	\$0	
210	D-Directional Drlg Services	\$7,800	\$23,100	\$0	
211	D-Fuel & Power	\$1,060	\$11,150	\$0	
213	D-Bits	\$7,500	\$15,000	\$0	
214	D-Mud & Chemicals	\$3,692	\$8,123	\$0	
217	D-Cement Surface	\$13,900	\$42,960	\$0	
224	D-Geologic/Engnrg	\$6,700	\$33,500	\$0	
226	D-Company Sprvsn	\$1,800	\$12,600	\$0	
227	D-Contract Sprvsn	\$3,200	\$22,400	\$0	
228	D-Tstg Csg/Tbg	\$1,350	\$26,370	\$0	
235	D-Rentals-Surface	\$14,200	\$52,220	\$0	
236	D-Rentals-Subsrfc	\$2,650	\$22,380	\$0	
237	D-Trucking/Forklift/Rig Mobil	\$550	\$162,165	\$0	
238	D-Welding Services	\$1,950	\$4,250	\$0	
244	D-Envmntl/Clsd Loop	\$2,750	\$40,650	\$0	
405	D-Wellhead Equip	\$11,050	\$11,050	\$0	



# Daily Drilling Report

Date: 11/7/2016

Report #: 8.0

DSS: 5.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 953.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 952.8	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 127.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 6.00	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)	
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$51,002	Cum Field Est To Date (Cost) \$866,560

### Daily Activity from 11/6/2016 - 11/7/2016

Operations at Report Time  
DRLG 17 1/2" 1ST INTERMEDIATE W/ SHC @ F/ 826' - 953'. 127'

Past 24 Hours Operation Summary  
FINISH TESTING MUD LINES, TOP DRIVE AND PUMPS, PU/MU 17 1/2" SHC BHA, SCRIBE AND TEST, TIH, RIG SERVICE, TEST CSG TO 1000 PSI, DRILL CMT AND FLOAT EQUIPMENT, @ 865' RIG REPAIRE, TOP DRIVE ELECTRICAL ISSUES, DRILL 17 1/2" HOLE F/ 826' TO XX

Operations Next Report Period  
DRILL 17 1/2" INTERMEDIATE HOLE W/ SHC.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	08:30	2.50	826	TEST BOP EQUIP	@ 826' FINISH TESTING TOP DRIVE, MUD LINES BACK TO PUMPS, 2000 HI, 250 LOW.	No
08:30	12:00	3.50	826	PU/LD BHA	PU/MU 17 1/2" BHA, DIR/SHC TOOLS SCRIBE AND TEST, AND MU BIT.	No
12:00	14:30	2.50	826	TIH DO FLT EQUIP	TIH W/ 17 1/2" SHC BHA, TAG CMT @ 775', PICK UP PREPARE TO TEST CSG. WENT IN W/ 9 5/8" 1.83" ADJ 6/7 LOBE 4.0 STAGE .16 REV MPACT MTR AND BAKER HUGHES DP606X BIT.	No
14:30	16:30	2.00	826	TEST CSG	@ 774' RIG BATTLE TESTER BACK UP AND TEST CSG 1000 PSI FOR 30 MIN, TEST GOOD.	No
16:30	17:00	0.50	826	LUBRICATE RIG	SERVICE RIG AND TOP DRIVE.	No
17:00	19:00	2.00	826	D/O CMT/ FLT EQUIP	DRLG CMT, FLOAT AND SHOE F/ 775' TO 826' FC @ 779'.	No
19:00	21:00	2.00	865	DRLG W/SHC	DRLG 17 1/2" 1ST INTERMEDIATE W/ SHC AND MWD SURVEYS F/826' TO 865', 40' @ 20 FPH. *** DRLG 17 1/2" 1ST INTERMEDIATE @ 19:00 MST ON 11/6/2016.***	No
21:00	02:30	5.50	865	ELECTRICAL	@ 865' PULL STAND BACK INTO CSG, TROUBLE SHOOT TOP DRIVE ELECTRICAL ISSUES WITH BLOWER AND GRABBER. FOUND BROKEN WIRES.	No
02:30	06:00	3.50	953	DRLG W/SHC	DRLG 17 1/2" 1ST INTERMEDIATE HOLE W/ SHC AND MWD SURVEYS F/ 865' TO 953', 88' @ 25.4 FPH, HAVING TO RELOG GAMMA EVERY STAND DUE TO VIBRATION OF 17 1/2" BIT.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
2	17 1/2	Hughes	DP606X	7044693	826.0	953.0	2.00	6.00		21.2	6.00		16/16/16/16/16/16/16
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
2		35	35	183	183	2,260.0	2,260.0						
String Length (ft)	953.06							Weight of String in Air (1000lbf)	102				

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
1	Drill Pipe	5	31.70	953.06
1	XO Sub	6 1/4	2.13	921.36
21	Drill Collar	6 1/2	612.16	919.23
1	XO Sub	7 1/2	1.91	307.07
3	Drill Collar	8	88.02	305.16
1	XO Sub	7 1/2	2.27	217.14
3	Drill Collar	9 1/2	88.85	214.87
1	XO Sub	7 1/2	2.17	126.02
1	NMDC	8	30.61	123.85
1	NMDC	8	30.73	93.24
1	Orientation Sub	8	2.69	62.51
1	XO Sub	7 1/2	3.80	59.82
1	Shock Sub	9	12.28	56.02
1	Reamer - 3 Pt	9 11/16	8.65	43.74
1	XO Sub	7 1/2	3.19	35.09
1	Mud Motor	7 3/4	29.90	31.90

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 826.0	End Depth (ftKB) 953.0	Cum Depth Drilled (ft) 127.00	Drilling Time (hr) 6.00	Cum Drilling Time (hr) 6.00	Interval ROP (ft/hr) 21.2	Flow Rate (gpm) 704
Weight on Bit (1000lbf) 35	RPM (rpm) 70	Stand Pipe Pressure (psi) 2,260.0	Drill Str Wt (1000lbf) 130	PU Str Wt (1000lbf) 130	SO Str Wt (1000lbf) 129	Drilling Torque 5.0	Off Bottom Torque 1.0

### Hydraulic Calculations

Bit Hydraulic Power (hp) 59.6	Bit Hydraulic Power Per Hole Area (hp/in²) 0.2	Bit Jet Velocity (ft/s) 127.8	Bit Pressure Drop (psi) 145.0	Percent of Pressure Drop at Bit (%) 6
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min) 51.4	Min Open Hole AV (ft/min) 27.8	ECD End (lb/gal) 9.80

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

**Pump # 1, Triplex**

Pump Number 1	Start Date 11/2/2016 06:00	End Date	Make Bomco	Model F-1600
Pressure (psi) 2,250.0	Strokes (spm) 100	Stroke Length (in) 12.00	Rod Diameter (in)	Volumetric Efficiency (%) 95
				Flow Rate (gpm) 352

**Pump # 2, Triplex**

Pump Number 2	Start Date 11/2/2016 06:00	End Date	Make Bomco	Model F-1600
Pressure (psi) 2,250.0	Strokes (spm) 100	Stroke Length (in) 12.00	Rod Diameter (in)	Volumetric Efficiency (%) 95
				Flow Rate (gpm) 352

**Survey Data**

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (*/100ft)
840.00	2.20	312.60	839.88	9.87	4.20	-8.98	0.52
953.00	2.20	312.60	952.80	14.11	7.13	-12.17	0.00

**Casing Strings**

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	

**BOPs**

Pressure Rating (psi) 2,000.0	Nominal ID (in) 21 1/4	Last BOP Test Date 11/5/2016
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**Formation**

Formation Name	Prog Top MD (ftKB)
TOP OF SALT	889.00

**Fluids, Disposal and Water**

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
RIG DIESEL	gal us		1,006.0	13,981.0	

**Costs Summary**

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$123,000	\$0
210	D-Directional Drig Services	\$6,300	\$29,400	\$0
211	D-Fuel & Power	\$2,185	\$13,335	\$0
214	D-Mud & Chemicals	\$3,692	\$11,815	\$0
224	D-Geologic/Engnrg	\$6,700	\$40,200	\$0
226	D-Company Sprvsn	\$1,800	\$14,400	\$0
227	D-Contract Sprvsn	\$3,200	\$25,600	\$0
235	D-Rentals-Surface	\$6,075	\$58,295	\$0
236	D-Rentals-Subsrfc	\$150	\$22,530	\$0
237	D-Trucking/Forklift/Rig Mobil	\$2,150	\$164,315	\$0
244	D-Envmntl/Clsd Loop	\$2,750	\$43,400	\$0



# Daily Drilling Report

Date: 11/8/2016

Report #: 9.0

DSS: 6.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 2,440.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 2,439.8	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 1,487.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 23.50	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$72,340
	Cum Field Est To Date (Cost) \$938,900

### Daily Activity from 11/7/2016 - 11/8/2016

Operations at Report Time  
DRLG 17 1/2" INTERMEDIATE HOLE F/ 953' TO 2,440', 1,487' @ 30 FPH.

Past 24 Hours Operation Summary  
DRILL 17 1/2" 1ST INTERMEDIATE HOLE F/ 953' TO 2,440', RIG SERVICE.

Operations Next Report Period  
FINISH DRLG 17 1/2" HOLE TO TD F/2,440' TO 2,600' TD/ CSG POINT. PUMP SWEEPS AND CIRC, WIPER TRIP, TOH LD 9 5/8" BHA, RUN SLB OH FLUID CALIPER, RU AND RUN 13 3/8" CSG, RU AND CMT CSG, ND, SET SLIPS, WOC.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	12:00	6.00	1,296	DRLG W/SHC	DRLG 17 1/2" 1ST INTERMEDIATE W/ SHC AND MWD SURVEYS F/ 953' TO 1,296', 343' @ 57.1 FPH.	No
12:00	12:30	0.50	1,296	LUBRICATE RIG	@ 1,296' SERVICE RIG AND TOP DRIVE.	No
12:30	06:00	17.50	2,451	DRLG W/SHC	DRLG 17 1/2" 1ST INTERMEDIATE W/ SHC AND MWD SURVEYS F/ 1,296' TO 2,451', 1,155' @ 66 FPH.	No

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...	Rot Time (hr)	Slide Time...	Nozzles (1/32")
2	17 1/2	Hughes	DP606X	7044693	826.0	2,440.0	2.00	29.50		54.7	29.50		16/16/16/16/16/16/16
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
2		35	35	183	183	2,260.0	2,880.0						
String Length (ft)	2,451.95							Weight of String in Air (1000lbf)	132				

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
49	Drill Pipe	5	1,530.59	2,451.95
1	XO Sub	6 1/4	2.13	921.36
21	Drill Collar	6 1/2	612.16	919.23
1	XO Sub	7 1/2	1.91	307.07
3	Drill Collar	8	88.02	305.16
1	XO Sub	7 1/2	2.27	217.14
3	Drill Collar	9 1/2	88.85	214.87
1	XO Sub	7 1/2	2.17	126.02
1	NMDC	8	30.61	123.85
1	NMDC	8	30.73	93.24
1	Orientation Sub	8	2.69	62.51
1	XO Sub	7 1/2	3.80	59.82
1	Shock Sub	9	12.28	56.02
1	Reamer - 3 Pt	9 11/16	8.65	43.74
1	XO Sub	7 1/2	3.19	35.09
1	Mud Motor	7 3/4	29.90	31.90

Drilling Parameters							
Wellbore Original Hole	Start Depth (ftKB) 953.0	End Depth (ftKB) 2,440.0	Cum Depth Drilled (ft) 1,614.00	Drilling Time (hr) 23.50	Cum Drilling Time (hr) 29.50	Interval ROP (ft/hr) 63.3	Flow Rate (gpm) 704
Weight on Bit (1000lbf) 35	RPM (rpm) 70	Stand Pipe Pressure (psi) 2,880.0	Drill Str Wt (1000lbf) 160	PU Str Wt (1000lbf) 175	SO Str Wt (1000lbf) 150	Drilling Torque 13,000.0	Off Bottom Torque 1,000.0

Hydraulic Calculations				
Bit Hydraulic Power (hp) 61.1	Bit Hydraulic Power Per Hole Area (hp/in²) 0.3	Bit Jet Velocity (ft/s) 127.8	Bit Pressure Drop (psi) 148.7	Percent of Pressure Drop at Bit (%) 5
Max Casing AV (ft/min) 51.4	Max Open Hole AV (ft/min) 29.6	Min Casing AV (ft/min) 51.4	Min Open Hole AV (ft/min) 26.5	ECD End (lb/gal) 10.50
Error				

Mud Properties						
Time 10:20	Type Salt Base	Depth (ftKB) 1,264	Density (lb/gal) 10.1	Funnel Viscosity (s/qt) 29	PV Calc (cP)	YP Calc (lbf/100ft²)
Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH 11.0	Solids (%) 1.5	Lime (lb/bbl)
Chlorides (mg/L) 163,000	Pm Filtrate (mL/mL)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 0.10	Percent Oil (%) 0.0
Oil Water Ratio 0/100	Flow Line Temperature (°F) 100.0	Vis 6rpm	Low Gravity Solids (%) 12.3	Magnesium (mg/L) 583.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	





# Daily Drilling Report

Date: 11/8/2016

Report #: 9.0

Well Name: ZIA AGI #2D

DSS: 6.13

Proposed:

Lat: 32.643951 Long: -103.811116

Pressure (psi) 2,880.0	Strokes (spm) 100	Stroke Length (in) 12.00	Rod Diameter (in)	Volumetric Efficiency (%) 95	Flow Rate (gpm) 352
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### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
1,967.00	0.40	73.70	1,966.78	16.15	10.43	-12.72	0.05
2,060.00	0.50	64.80	2,059.78	15.92	10.70	-12.05	0.13
2,154.00	0.50	63.50	2,153.77	15.73	11.05	-11.31	0.01
2,247.00	0.40	72.40	2,246.77	15.51	11.33	-10.64	0.13
2,341.00	0.30	82.60	2,340.77	15.26	11.46	-10.08	0.12
2,440.00	0.30	82.60	2,439.77	14.98	11.53	-9.56	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	

### BOPs

Pressure Rating (psi) 2,000.0	Nominal ID (in) 21 1/4	Last BOP Test Date 11/5/2016
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### Formation

Formation Name	Prog Top MD (ftKB)
YATES	2,426.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		9.0	-17.0	
POTABLE WATER	GAL		6,300.0	-6,300.0	
RIG DIESEL	gal us		2,180.0	11,801.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$139,000	\$0
210	D-Directional Drlg Services	\$6,300	\$35,700	\$0
211	D-Fuel & Power	\$4,735	\$18,070	\$0
212	D-Water	\$1,330	\$16,380	\$0
214	D-Mud & Chemicals	\$8,440	\$20,255	\$0
224	D-Geologic/Engnrg	\$6,700	\$46,900	\$0
226	D-Company Sprvsn	\$1,800	\$16,200	\$0
227	D-Contract Sprvsn	\$3,200	\$28,800	\$0
235	D-Rentals-Surface	\$9,425	\$67,720	\$0
236	D-Rentals-Subsrfc	\$150	\$22,680	\$0
237	D-Trucking/Forklift/Rig Mobil	\$1,610	\$165,925	\$0
244	D-Envmntl/Clsd Loop	\$12,650	\$56,050	\$0



# Daily Drilling Report

Date: 11/9/2016

Report #: 10.0

DSS: 7.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#/Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 2,555.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 2,554.8	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 115.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b>	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$54,843
	Cum Field Est To Date (Cost) \$993,743

### Daily Activity from 11/8/2016 - 11/9/2016

Operations at Report Time  
RIG UP CSG CREW TO RUN 13 3/8" CSG.

Past 24 Hours Operation Summary  
TRIP F/ BIT @ 2440'. DRLG 17 1/2" 1ST INT HOLE F/ 2440' - 2555'. CIRC. SHORT TRIP. CIRC. TOH & LD 17 1/2" BHA. RU & RUN CALIPER LOG. RU CSG CREW.

Operations Next Report Period  
RUN 13 3/8" CSG. CIRC 13 3/8" CSG. CMT 13 3/8" CSG. SET SLIPS ON 13 3/8" CSG. WOC. CUT OFF. NU BOP.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	07:30	1.50	2,440	PUMP SWEEP	PUMP SWEEP & CIRC OUT F/ BIT TRIP.	No
07:30	09:30	2.00	2,440	TOH BIT	TOH DUE TO LOW ROP @ 2440'.	No
09:30	12:30	3.00	2,440	TIH BIT	MAKE UP NEW BIT & TIH.	No
12:30	13:00	0.50	2,440	LUBRICATE RIG	SERVICE RIG & TOP DRIVE.	No
13:00	15:00	2.00	2,440	DIESEL ENGINES - GENERATOR - ELECTRICAL	TROUBLE SHOOT RENTAL GENERATOR & REBOOT PASON.	No
15:00	17:00	2.00	2,555	DRLG W/SHC	DRLG 17 1/2" 1ST INTERMEDIATE W/ SHC AND MWD SURVEYS F/ 2,440' - 2,555', 115' @ 57.5 FPH.***TD 17 1/2" 1ST INTERMEDIATE @ 1700 11/8/16.***	No
17:00	18:00	1.00	2,555	CIRC BTMS UP	PUMP SWEEP & CIRC OUT.	No
18:00	19:00	1.00	2,555	SHORT TRIP	WIPER TRIP F/ 2555' - 2046'. NO ISSUES.	No
19:00	20:30	1.50	2,555	PUMP SWEEP	PUMP SWEEP & CIRC OUT.	No
20:30	01:00	4.50	2,555	TOH TD CSG PT/ KOP	TOH TO RUN 13 3/8" CSG. LD 17 1/2" BHA & 10" DCS. ***GEOLEX NOTIFIED STEPHEN BAILEY W/ BLM OF INTENT TO RUN 13 3/8" CSG @ 1617 11/8/16.***	No
01:00	04:00	3.00	2,555	OH CALIPER	PJSM - RU SHLUMBEGER & RUN OH CALLIPER LOG.	No
04:00	06:00	2.00	2,555	RU CSG EQUIP	PJSM - RU FRANKS CSG CREW & BYRD LD MACHINE.	No

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...	Rot Time (hr)	Slide Time...	Nozzles (1/32")
3	17 1/2	BAKER HUG...	HC605S	7036661	2,440.0	2,555.0	2.00	2.00	2.50	57.5	2.00		16/16/16/16/16/16/16
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
3		41	41	179	179	2,826.0	2,826.0						
String Length (ft)	2,576.93												
	Weight of String in Air (1000lbf) 134												

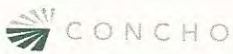
### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
53	Drill Pipe	5	1,655.57	2,576.93
1	XO Sub	6 1/4	2.13	921.36
21	Drill Collar	6 1/2	612.16	919.23
1	XO Sub	7 1/2	1.91	307.07
3	Drill Collar	8	88.02	305.16
1	XO Sub	7 1/2	2.27	217.14
3	Drill Collar	9 1/2	88.85	214.87
1	XO Sub	7 1/2	2.17	126.02
1	NMDC	8	30.61	123.85
1	NMDC	8	30.73	93.24
1	Orientation Sub	8	2.69	62.51
1	XO Sub	7 1/2	3.80	59.82
1	Shock Sub	9	12.28	56.02
1	Reamer - 3 Pt	9 11/16	8.65	43.74
1	XO Sub	7 1/2	3.19	35.09
1	Mud Motor	7 3/4	29.90	31.90

Drilling Parameters							
Wellbore Original Hole	Start Depth (ftKB) 2,440.0	End Depth (ftKB) 2,555.0	Cum Depth Drilled (ft) 115.00	Drilling Time (hr) 2.00	Cum Drilling Time (hr) 2.00	Interval ROP (ft/hr) 57.5	Flow Rate (gpm) 661
Weight on Bit (1000lbf) 41	RPM (rpm) 74	Stand Pipe Pressure (psi) 2,826.0	Drill Str Wt (1000lbf) 182	PU Str Wt (1000lbf) 185	SO Str Wt (1000lbf) 178	Drilling Torque 15,000.0	Off Bottom Torque 1,000.0

### Hydraulic Calculations

Bit Hydraulic Power (hp) 50.8	Bit Hydraulic Power Per Hole Area (hp/in²) 0.2	Bit Jet Velocity (ft/s) 120.0	Bit Pressure Drop (psi) 131.8	Percent of Pressure Drop at Bit (%) 5
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)



# Daily Drilling Report

Date: 11/9/2016

Report #: 10.0

Well Name: ZIA AGI #2D

DSS: 7.13

Proposed:

Lat: 32.643951 Long: -103.811116

### Pump # 1, Triplex

Pump Number 1	Start Date 11/8/2016 06:00	End Date 11/8/2016 17:00	Make Bomco	Model F-1600
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### Pump # 2, Triplex

Pump Number 2	Start Date 11/8/2016 06:00	End Date 11/8/2016 17:00	Make Bomco	Model F-1600
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### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
2,476.00	0.20	225.00	2,475.77	15.04	11.33	-9.90	0.33
2,555.00	0.20	225.00	2,554.77	15.03	11.13	-10.10	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	

### BOPs

Pressure Rating (psi) 2,000.0	Nominal ID (in) 21 1/4	Last BOP Test Date 11/5/2016
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### Formation

Formation Name	Prog Top MD (ftKB) 2,426.00
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### YATES

Formation Name	Prog Top MD (ftKB) 2,426.00
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### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		1.0	-18.0	
MUD/SOLIDS/CMT DISPOSAL	LOAD			-18.0	
RIG DIESEL	gal us		1,557.0	10,244.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$155,000	\$0
210	D-Directional Drlg Services	\$6,300	\$42,000	\$0
211	D-Fuel & Power	\$3,378	\$21,448	\$0
213	D-Bits	\$3,500	\$18,500	\$0
224	D-Geologic/Engnrg	\$6,700	\$53,600	\$0
226	D-Company Sprvsn	\$1,800	\$18,000	\$0
227	D-Contract Sprvsn	\$3,200	\$32,000	\$0
230	D-Logging	\$6,500	\$6,500	\$0
235	D-Rentals-Surface	\$2,715	\$70,435	\$0
236	D-Rentals-Subsrfc	\$150	\$22,830	\$0
237	D-Trucking/Forklift/Rig Mobil	\$750	\$166,675	\$0
244	D-Envmntl/Clsd Loop	\$3,850	\$59,900	\$0



# Daily Drilling Report

Date: 11/10/2016

Report #: 11.0

DSS: 8.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 2,555.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 2,554.8	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 0.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr):	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$118,740
	Cum Field Est To Date (Cost) \$1,112,483

### Daily Activity from 11/9/2016 - 11/10/2016

Operations at Report Time  
NU 20" 3M X 13 5/8" 5M B SECTION.

Past 24 Hours Operation Summary  
RU & RUN 13 3/8" 61# J55 CSG @ 2555'. CIRC 13 3/8" CSG CAP W/ RIG PUMP. CMT 13 3/8" CSG. WOC 4 HRS / SET 13 3/8" SLIPS WHILE WOC. CUT OFF 13 3/8" CSG & NU 20" 3M X 13 5/8" 5M B SECTION.

Operations Next Report Period  
NU & TEST BOP. RU & RUN CBL. MAKE UP 12 1/4" BHA & TIH. DRLG CMT & 13 3/8" FLOAT EQUIPMENT. DRLG 12 1/4" 2ND INT.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	08:00	2.00	2,555	RU CSG EQUIP	CONTINUE RIGGING UP FRANKS CSG CREW & BYRD LD MACHINE.	No
08:00	13:30	5.50	2,555	RUN CSG	MU & SURFACE TEST FLOAT EQUIP, RAN 6 JTS 13-3/8" 68# & 51 JTS 13 3/8" 61# J-55 BTC TP = 2559.54', SET @ 2555'. WASHED TO BTM, NO FILL.	No
13:30	15:00	1.50	2,555	CIRC CSG CAP/BTMS UP	CIRC 13 3/8" CSG W/ RIG PUMPS. RIG DOWN CSG CREW & LD MACHINE.	No
15:00	19:30	4.50	2,555	CMT	PJSM - RU HALLIBURTON. TEST LINES TO 3000 PSI & CMT CSG AS FOLLOWS: 20 BBL FW GEL W/ RED DYE SPACER. LEAD: 1700 SKS HALCEM CLASS C @ 13.5 PPG, 1.73 YLD. TAIL: 250 SKS HALCEM C W/ @ 14.8 PPG, 1.33 YLD. DROP PLUG & DISP W/ 382 BBL FW, BUMP PLUG W/ 870 PSI. PD @ 1928 11/9/16. FLOATS HELD, WELL STATIC. CIRC 428 SKS CMT TO SURF. ***WITNESSED BY STEVEN BAILEY OF BLM.***	No
19:30	21:30	2.00	2,555	SET SLIPS/CUT CSG/CNDCTR	ND & SET SLIPS W/ 110 K. WOC.	No
21:30	23:30	2.00	2,555	WOC	CONTINUE WOC FOR A TOTAL OF 4 HRS PRIOR TO CUTTING OFF CSG.	No
23:30	04:30	5.00	2,555	WELD ON/INSTALL WH	CUT OFF 13 3/8" CSG & INST 20" 3M X 13 5/8" 5M B SECTION. ATTEMP TO TEST. SEALS LEAKING.	No
04:30	06:00	1.50	2,555	WELD ON/INSTALL WH	REMOVE B SECTION & RE TIGHTEN SEAL RING. RE INSTALL B SECTION.	No

### Bits & BHAs

Bit Run 3	Size (in) 17 1/2	Make BAKER HUG...	Model HC605S	SN 7036661	Depth In (ft) 2,440.0	Depth Out... 2,555.0	Length (ft) 2.00	Job Drill Hr... 2.00	Job Circ Hr... 2.50	Avg ROP (f... 57.5	Rot Time (hr) 2.00	Slide Time...	Nozzles (1/32") 16/16/16/16/16/16/16
BHA # 3	Min Weight on Bit (1000lbf) 41	Max Weight on Bit (1000lbf) 41	Min RPM (rpm) 179	Max RPM (rpm) 179	Min Stand Pipe Pressure (psi) 2,826.0	Max Stand Pipe Pressure (psi) 2,826.0							
String Length (ft) 2,576.93	Weight of String in Air (1000lbf) 134												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
53	Drill Pipe	5	1,655.57	2,576.93
1	XO Sub	6 1/4	2.13	921.36
21	Drill Collar	6 1/2	612.16	919.23
1	XO Sub	7 1/2	1.91	307.07
3	Drill Collar	8	88.02	305.16
1	XO Sub	7 1/2	2.27	217.14
3	Drill Collar	9 1/2	88.85	214.87
1	XO Sub	7 1/2	2.17	126.02
1	NMDC	8	30.61	123.85
1	NMDC	8	30.73	93.24
1	Orientation Sub	8	2.69	62.51
1	XO Sub	7 1/2	3.80	59.82
1	Shock Sub	9	12.28	56.02
1	Reamer - 3 Pt	9 11/16	8.65	43.74
1	XO Sub	7 1/2	3.19	35.09
1	Mud Motor	7 3/4	29.90	31.90

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 2,440.0	End Depth (ftKB) 2,555.0	Cum Depth Drilled (ft) 115.00	Drilling Time (hr) 2.00	Cum Drilling Time (hr) 2.00	Interval ROP (ft/hr) 57.5	Flow Rate (gpm) 661
Weight on Bit (1000lbf) 41	RPM (rpm) 74	Stand Pipe Pressure (psi) 2,826.0	Drill Str Wt (1000lbf) 182	PU Str Wt (1000lbf) 185	SO Str Wt (1000lbf) 178	Drilling Torque 15,000.0	Off Bottom Torque 1,000.0

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)



# Daily Drilling Report

Date: 11/10/2016

Report #: 11.0

DSS: 8.13

Well Name: ZIA AGI #2D

Proposed:

Lat: 32.643951 Long: -103.811116

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned
SALT GEL	50# SACK		100.0	100.0	
SOAP STICKS	STICK		15.0	15.0	
SODA ASH	50# SACK		6.0	44.0	

### Pump # 1, Triplex

Pump Number 1	Start Date 11/8/2016 06:00	End Date 11/8/2016 17:00	Make Bomco	Model F-1600
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### Pump # 2, Triplex

Pump Number 2	Start Date 11/8/2016 06:00	End Date 11/8/2016 17:00	Make Bomco	Model F-1600
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### Survey Data

MD (ftKB)	Incl (*)	Azm (*)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (*100ft)
2,555.00	0.20	225.00	2,554.77	15.03	11.13	-10.10	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	

### BOPs

Pressure Rating (psi) 2,000.0	Nominal ID (in) 21 1/4	Last BOP Test Date 11/5/2016
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### Formation

Formation Name YATES	Prog Top MD (ftKB) 2,426.00
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### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN	1.0	1.0	-18.0	
FRESH WATER	LOAD	5.0	5.0	-28.0	
JET PITS/WORK ON LOCATION	HRS	8.0	8.0	-5.0	
MUD/SOLIDS/CMT DISPOSAL	LOAD	17.0	17.0	-18.0	
RIG DIESEL	gal us		961.0	9,283.0	
STANDBY TRUCKING	HRS	7.0	7.0	-20.5	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$171,000	\$0
210	D-Directional Drig Services	\$6,300	\$48,300	\$0
211	D-Fuel & Power	\$2,100	\$23,548	\$0
212	D-Water	\$1,625	\$18,005	\$0
214	D-Mud & Chemicals	\$4,225	\$24,480	\$0
218	D-Cement Intermed	\$36,000	\$36,000	\$0
221	D-Float Equip/Centizr	\$1,295	\$4,920	\$0
222	D-Csg Crews & Equip	\$15,550	\$31,360	\$0
224	D-Geologic/Engnrg	\$6,700	\$60,300	\$0
226	D-Company Sprvsn	\$1,800	\$19,800	\$0
227	D-Contract Sprvsn	\$3,200	\$35,200	\$0
235	D-Rentals-Surface	\$2,315	\$72,750	\$0
237	D-Trucking/Forklift/Rig Mobil	\$550	\$167,225	\$0
238	D-Welding Services	\$650	\$4,900	\$0
244	D-Envmntl/Clsd Loop	\$20,430	\$80,330	\$0



# Daily Drilling Report

Date: 11/11/2016

Report #: 12.0

DSS: 9.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 2,555.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 2,554.8	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 0.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr):	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$97,475
	Cum Field Est To Date (Cost) \$1,210,858

### Daily Activity from 11/10/2016 - 11/11/2016

Operations at Report Time  
MAKE UP & SURFACE TEST 12 1/4" BHA @ 2555'.

Past 24 Hours Operation Summary  
FINISH NU & TEST 20" 3M X 13 5/8" 5M B SECTION. NU 13 5/8" 10M BOP. REMOVE 13 5/8" 5M ANNULAR & INSERT 13 5/8" 10M SINGLE RAM. RU SCHLUMBERGER & RUN CBL @ 2555'. FINISH NU 13 5/8" 10M BOP. RU BATTLE ENERGY TESTER & TEST BOP 250 LOW/2000 HIGH. MAKE UP 12 1/4" BHA.

Operations Next Report Period  
TIH W/ 12 1/4" BHA @ 2555'. DRLG CMT & 13 3/8" FLOAT EQUIPMENT. DRLG 12 1/4" INTERMEDIATE.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	07:00	1.00	2,555	WELD ON/INSTALL WH	RE INSTALL 20" 3M X 13 5/8" 5M B SECTION. TEST B SEC TO 904 PSI F/ 15 MIN. NO LEAKS.	No
07:00	12:00	5.00	2,555	NU BOP	NIPPLE UP 13 5/8" 10M BOP. BREAK HYDRILL F/ DOUBLE RAM & INSERT SINGLE RAM PREVENTER.	No
12:00	18:00	6.00	2,555	CBL	PJSM - RIG UP SCHLUMBERGER WIRELINE AND RUN CBL LOG @ 2555'. RIG DOWN SCHLUMBERGER.	No
18:00	23:00	5.00	2,555	NU BOP	NIPPLE UP 13 5/8" 10M BOP.	No
23:00	04:30	5.50	2,555	TEST BOP EQUIP	PJSM - RIG UP BATTLE ENERGY. TEST ANNULAR TO 250/2000, ALL RAMS, VALVES & LINES, CHOKE MANIFOLD, IBOP, FOSV TO 250/2000 PSI FOR 10 MINS. TEST CSG TO 1000 PSI F/ 30 MIN. ***NOTIFY STEPHEN BAILEY OF BLM @ 1836 11/10/16 OF INTENT TO TEST BOP.***	No
04:30	05:30	1.00	2,555	NU BOP	CENTER BOP & INSTALL FLOW LINE.	No
05:30	06:00	0.50	2,555	TIH DO FLT EQUIP	MAKE UP & SURFACE TEST 12 1/4" BHA W/ MWD.	No

### Bits & BHAs

Bit Run 4	Size (in) 12 1/4	Make BAKER HUG...	Model T506FX	SN 7161275	Depth In (ft... 2,555.0	Depth Out... 2,555.0	Length (ft) 1.50	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32") 16/16/16/16/16
BHA # 4	Min Weight on Bit (1000lb)	Max Weight on Bit (1000lb)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)							
String Length (ft) 2,543.72	Weight of String in Air (1000lb) 129												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
54	Drill Pipe	5	1,686.67	2,543.72
1	XO Sub	6 1/4	2.13	857.05
5	DRILL COLLAR	6 1/2	146.33	854.92
	HYD DRLG JARS	6 1/2	31.36	708.59
18	Drill Collar	6 1/2	465.83	677.23
1	XO Sub	7 1/2	1.91	211.40
3	Drill Collar	8	88.02	209.49
	3 PT ROLLER REAMER	8	6.73	121.47
1	NMDC	8	30.61	114.74
1	NMDC	8	30.73	84.13
1	Orientation Sub	8	2.69	53.40
1	Shock Sub	8	12.28	50.71
1	3 PT ROLLER REAMER	8	7.11	38.43
1	Mud Motor	7 3/4	29.82	31.32

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 2,555.0	End Depth (ftKB) 2,555.0	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lb)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lb)	PU Str Wt (1000lb)	SO Str Wt (1000lb)	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min) 0.0	Max Open Hole AV (ft/min) 0.0	Min Casing AV (ft/min) 0.0	Min Open Hole AV (ft/min) 0.0	ECD End (lb/gal)

Error  
Unable to calculate annular pressure drop because pressure drop data is missing from AV calc

### Mud Properties

Time	Type	Depth (ftKB) 2,555	Density (lb/gal) 8.3	Funnel Viscosity (s/qt) 28	PV Calc (cP)	YP Calc (lb/100ft <sup>2</sup> )
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# Daily Drilling Report

Date: 11/11/2016

Report #: 12.0

DSS: 9.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

### Survey Data

MD (ftKB)	Incl (*)	Azm (*)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (*/100ft)
2,555.00	0.20	225.00	2,554.77	15.03	11.13	-10.10	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/11/2016
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### Formation

Formation Name	Prog Top MD (ftKB)
YATES	2,426.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
RIG DIESEL	gal us		403.0	8,880.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$187,000	\$0
210	D-Directional Drig Services	\$4,200	\$52,500	\$0
211	D-Fuel & Power	\$900	\$24,448	\$0
213	D-Bits	\$10,000	\$28,500	\$0
214	D-Mud & Chemicals	\$160	\$24,640	\$0
222	D-Csg Crews & Equip	\$750	\$32,110	\$0
226	D-Company Sprvsn	\$1,800	\$21,600	\$0
227	D-Contract Sprvsn	\$3,200	\$38,400	\$0
228	D-Tstg Csg/Tbg	\$1,700	\$28,070	\$0
230	D-Logging	\$11,350	\$17,850	\$0
235	D-Rentals-Surface	\$22,865	\$95,615	\$0
236	D-Rentals-Subsrfc	\$2,800	\$25,630	\$0
244	D-Envmntl/Clsd Loop	\$2,750	\$83,080	\$0
405	D-Wellhead Equip	\$19,000	\$30,050	\$0



# Daily Drilling Report

Date: 11/12/2016

Report #: 13.0

DSS: 10.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#/Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 3,544.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 3,543.6	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 989.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b> 11.00	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$38,300
	Cum Field Est To Date (Cost) \$1,249,158

### Daily Activity from 11/11/2016 - 11/12/2016

Operations at Report Time  
DRLG 12 1/4" INT @ 3544', 89 FPH.

Past 24 Hours Operation Summary  
LD 9 5/8" MTR. MAKE UP & SURF TEST 12 1/4" INT BHA @ 2555'. REPAIR BAYLOR BRAKE CONTROL. TIH W/ 12 1/4" BHA. DRLG OUT CMT & 13 3/8" FLOAT EQUIP F/ 2507' - 2555'. DRLG 12 1/4" INT W/ MWD F/ 2555' - 3544'.

Operations Next Report Period  
DRLG 12 1/4" INT W/ MWD. CIRC @ TD. TOH TO RUN 9 5/8" CSG.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	09:30	3.50	2,555	TIH DO FLT EQUIP	LAY DOWN 9 5/8" MOTOR. MAKE UP & SURFACE TEST 12 1/4" BHA W/ MWD.	No
09:30	11:00	1.50	2,555	ELECTRIC BRAKE	REPAIR BAYLOR BRAKE CONTROL & TROUBLE SHOOT ELECTRICAL ISSUE.	No
11:00	11:30	0.50	2,555	LUBRICATE RIG	SERVICE RIG & TOP DRIVE.	No
11:30	17:00	5.50	2,555	TIH DO FLT EQUIP	TIH W/ 12 1/4" BHA TO DRILL OUT CMT & FLOAT EQUIPMENT. TAG CMT @ 2507'.	No
17:00	19:00	2.00	2,555	D/O CMT/ FLT EQUIP	DRLG CMT & 9 5/8" FLOAT EQUIPMENT F/ 2507' - 2555'.	No
19:00	06:00	11.00	3,544	DRLG W/MTR	DRLG 12 1/4" INT W/ MWD F/ 2555' - 3544'. 989' @ 90 FPH. LOST PARTIAL RETURNS @ 2701'. LOSING 130 BPH. ***START DRLG 12 1/4 INT @ 1900 11/11/16.***	No

### Bits & BHAs

Bit Run 4	Size (in) 12 1/4	Make BAKER HUG...	Model T506FX	SN 7161275	Depth In (ft...) 2,555.0	Depth Out... 3,544.0	Length (ft) 1.50	Job Drill Hr... 11.00	Job Circ Hr... 2.00	Avg ROP (f...) 89.9	Rot Time (hr) 11.00	Slide Time... 16/16/16/16/16	Nozzles (1/32") 16/16/16/16/16/16
BHA # 4	Min Weight on Bit (1000lbf) 25	Max Weight on Bit (1000lbf) 25	Min RPM (rpm) 262	Max RPM (rpm) 262	Min Stand Pipe Pressure (psi) 2,214.0	Max Stand Pipe Pressure (psi) 2,214.0							
String Length (ft) 3,573.34	Weight of String in Air (1000lbf) 149												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
87	Drill Pipe	5	2,716.29	3,573.34
1	XO Sub	6 1/4	2.13	857.05
5	DRILL COLLAR	6 1/2	146.33	854.92
	HYD DRLG JARS	6 1/2	31.36	708.59
18	Drill Collar	6 1/2	465.83	677.23
1	XO Sub	7 1/2	1.91	211.40
3	Drill Collar	8	88.02	209.49
	3 PT ROLLER REAMER	8	6.73	121.47
1	NMDC	8	30.61	114.74
1	NMDC	8	30.73	84.13
1	Orientation Sub	8	2.69	53.40
1	Shock Sub	8	12.28	50.71
1	3 PT ROLLER REAMER	8	7.11	38.43
1	Mud Motor	7 3/4	29.82	31.32

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 2,555.0	End Depth (ftKB) 3,544.0	Cum Depth Drilled (ft) 989.00	Drilling Time (hr) 11.00	Cum Drilling Time (hr) 11.00	Interval ROP (ft/hr) 89.9	Flow Rate (gpm) 711
Weight on Bit (1000lbf) 25	RPM (rpm) 85	Stand Pipe Pressure (psi) 2,214.0	Drill Str Wt (1000lbf) 150	PU Str Wt (1000lbf) 165	SO Str Wt (1000lbf) 150	Drilling Torque 6,000.0	Off Bottom Torque 500.0

### Hydraulic Calculations

Bit Hydraulic Power (hp) 116.9	Bit Hydraulic Power Per Hole Area (hp/in²) 1.0	Bit Jet Velocity (ft/s) 193.6	Bit Pressure Drop (psi) 281.9	Percent of Pressure Drop at Bit (%) 13
Max Casing AV (ft/min) 51.9	Max Open Hole AV (ft/min) 28.5	Min Casing AV (ft/min) 51.9	Min Open Hole AV (ft/min) 26.8	ECD End (lb/gal) 8.33

### Mud Properties

Time 09:00	Type Water Base	Depth (ftKB) 2,555	Density (lb/gal) 8.3	Funnel Viscosity (s/qt) 28	PV Calc (cP)	YP Calc (lbf/100ft²)
Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH 7.0	Solids (%) 0.0	Lime (lb/bbl)
Chlorides (mg/L) 900	Pm Filtrate (mL/mL)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 0.00	Percent Oil (%) 0.0
Oil Water Ratio 0/100	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%) 0.1	Magnesium (mg/L) 0.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	





# Daily Drilling Report

Date: 11/12/2016

Report #: 13.0

DSS: 10.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,099.00	1.10	217.90	3,098.73	12.86	6.78	-13.71	0.20
3,193.00	1.70	212.50	3,192.70	14.37	4.89	-15.01	0.65
3,287.00	1.10	210.80	3,286.67	15.79	2.94	-16.22	0.64
3,380.00	1.50	216.50	3,379.65	17.16	1.20	-17.41	0.45
3,544.00	1.50	216.50	3,543.59	20.09	-2.26	-19.96	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/11/2016
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### Formation

Formation Name	Prog Top MD (ftKB)
TOP OF REEF	2,760.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
FRESH WATER	LOAD	8.0	8.0	-28.0	
RIG DIESEL	gal us		1,223.0	7,657.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fid Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$203,000	\$0
210	D-Directional Drig Services	\$4,200	\$56,700	\$0
211	D-Fuel & Power	\$2,675	\$27,123	\$0
212	D-Water	\$2,600	\$20,605	\$0
214	D-Mud & Chemicals	\$160	\$24,800	\$0
226	D-Company Sprvsn	\$1,800	\$23,400	\$0
227	D-Contract Sprvsn	\$3,200	\$41,600	\$0
235	D-Rentals-Surface	\$2,315	\$97,930	\$0
236	D-Rentals-Subsrfc	\$2,600	\$28,230	\$0
244	D-Envmntl/Clsd Loop	\$2,750	\$85,830	\$0



# Daily Drilling Report

Date: 11/13/2016

Report #: 14.0

DSS: 11.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#/Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 4,696.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 4,695.6	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 1,152.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b> 14.00	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$51,800
	Cum Field Est To Date (Cost) \$1,300,958

### Daily Activity from 11/12/2016 - 11/13/2016

Operations at Report Time  
RIG UP CSG CREW TO RUN 9 5/8" CSG @ 4696'.

Past 24 Hours Operation Summary  
DRLG 12 1/4" INT W/ MWD F/ 3544' - 4696'. WIPER TRIP F/ 4696' - 2538', NO ISSUES. RU & RUN FLUID CALIPER. SPOT LCM PILL. TOH & LD 12 1/4" BHA TO RUN 9 5/8" CSG. PJSM - RU FRANKS CSG CREW.

Operations Next Report Period  
RU FRANKS CSG CREW & RUN 9 5/8" CSG. CIRC 9 5/8" CSG @ 4696' W/ RIG PUMPS. CMT 9 5/8" CSG. ND/SET SLIPS. WOC. NU & TEST BOP. RUN CBL.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	20:00	14.00	4,696	DRLG W/MTR	DRLG 12 1/4" INT W/ MWD F/ 3544' - 4696'. 1152' @ 83 FPH. LOST PARTIAL RETURNS @ 2701'. LOSING 50 BPH @ TD. ***TD 12 1/4" INT @ 2000 11/12/16.***	No
20:00	21:00	1.00	4,696	CUC	PUMP SWEEPS & CIRC OUT. ***GEOLEX NOTIFIED STEPHEN BAILEY W BLM OF INTENT TO RUN & CMT 9 5/8" CSG @ 4696'***	No
21:00	23:00	2.00	4,696	SHORT TRIP	WIPER TRIP F/ 4696' - 2538'. NO ISSUES.	No
23:00	00:30	1.50	4,696	CIRC BTMS UP	CIRC OUT LCM SWEEP & FLUID CALIPER. 48% WASH OUT, 2170 CU FT.	No
00:30	01:00	0.50	4,696	PUMP SWEEP	SPOT 80 BBL LCM PILL ON BTM.	No
01:00	03:30	2.50	4,696	TOH TD CSG PT/ KOP	TOH TO RUN 9 5/8" INT CSG @ 4696'.	No
03:30	05:30	2.00	4,696	PU/LD BHA	LD 12 1/4" BHA & 8" DCS.	No
05:30	06:00	0.50	4,696	RU CSG EQUIP	PJSM - RIG UP FRANKS CSG CREW & BYRD LD MACHINE.	No

### Bits & BHAs

Bit Run 4	Size (in) 12 1/4	Make BAKER HUG...	Model T506FX	SN 7161275	Depth In (ft...) 2,555.0	Depth Out... 4,696.0	Length (ft) 1.50	Job Drill Hr... 25.00	Job Circ Hr... 5.00	Avg ROP (f...) 85.6	Rot Time (hr) 25.00	Slide Time... 16/16/16/16/16	Nozzles (1/32") 16/16/16/16/16/16
BHA # 4	Min Weight on Bit (1000lbf) 25	Max Weight on Bit (1000lbf) 25	Min RPM (rpm) 262	Max RPM (rpm) 262	Min Stand Pipe Pressure (psi) 2,214.0	Max Stand Pipe Pressure (psi) 2,418.0	String Length (ft) 4,727.34	Weight of String in Air (1000lbf) 172					

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
124	Drill Pipe	5	3,870.29	4,727.34
1	XO Sub	6 1/4	2.13	857.05
5	DRILL COLLAR	6 1/2	146.33	854.92
	HYD DRLG JARS	6 1/2	31.36	708.59
18	Drill Collar	6 1/2	465.83	677.23
1	XO Sub	7 1/2	1.91	211.40
3	Drill Collar	8	88.02	209.49
	3 PT ROLLER REAMER	8	6.73	121.47
1	NMDC	8	30.61	114.74
1	NMDC	8	30.73	84.13
1	Orientation Sub	8	2.69	53.40
1	Shock Sub	8	12.28	50.71
1	3 PT ROLLER REAMER	8	7.11	38.43
1	Mud Motor	7 3/4	29.82	31.32

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 3,544.0	End Depth (ftKB) 4,696.0	Cum Depth Drilled (ft) 2,141.00	Drilling Time (hr) 14.00	Cum Drilling Time (hr) 25.00	Interval ROP (ft/hr) 82.3	Flow Rate (gpm) 711
Weight on Bit (1000lbf) 25	RPM (rpm) 85	Stand Pipe Pressure (psi) 2,418.0	Drill Str Wt (1000lbf) 199	PU Str Wt (1000lbf) 204	SO Str Wt (1000lbf) 195	Drilling Torque 5,800.0	Off Bottom Torque 500.0

### Hydraulic Calculations

Bit Hydraulic Power (hp) 118.3	Bit Hydraulic Power Per Hole Area (hp/in²) 1.0	Bit Jet Velocity (ft/s) 193.6	Bit Pressure Drop (psi) 285.3	Percent of Pressure Drop at Bit (%) 12
Max Casing AV (ft/min) 135.1	Max Open Hole AV (ft/min) 28.5	Min Casing AV (ft/min) 132.4	Min Open Hole AV (ft/min) 26.8	ECD End (lb/gal) 8.40

Error

### Mud Properties

Time 08:30	Type Water Base	Depth (ftKB) 3,964	Density (lb/gal) 8.4	Funnel Viscosity (s/qt) 28	PV Calc (cP)	YP Calc (lbf/100ft²)
Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH 10.0	Solids (%) 0.6	Lime (lb/bbl)
						Percent Oil (%)



# Daily Drilling Report

Date: 11/13/2016

Report #: 14.0

Well Name: ZIA AGI #2D

DSS: 11.13

Proposed:

Lat: 32.643951 Long: -103.811116

### Pump # 1, Triplex

Pump Number 1	Start Date 11/12/2016 06:00	End Date 11/13/2016 05:55	Make Bomco	Model F-1600	
Pressure (psi) 210.0	Strokes (spm) 40	Stroke Length (in) 12.00	Rod Diameter (in)	Volumetric Efficiency (%)	Flow Rate (gpm)

### Pump # 2, Triplex

Pump Number 2	Start Date 11/12/2016 06:00	End Date 11/13/2016 05:55	Make Bomco	Model F-1600	
Pressure (psi) 200.0	Strokes (spm) 40	Stroke Length (in) 12.00	Rod Diameter (in)	Volumetric Efficiency (%)	Flow Rate (gpm)

### Survey Data

MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS ("/100ft)
4,316.00	0.50	335.60	4,315.57	24.38	-0.87	-24.37	0.21
4,410.00	0.40	283.70	4,409.57	24.86	-0.42	-24.86	0.43
4,503.00	0.40	265.40	4,502.57	25.49	-0.37	-25.50	0.14
4,597.00	0.40	241.20	4,596.57	26.11	-0.55	-26.11	0.18
4,626.00	0.40	236.70	4,625.57	26.29	-0.66	-26.28	0.11
4,696.00	0.40	236.70	4,695.56	26.71	-0.93	-26.69	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/11/2016
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### Formation

Formation Name BASE OF REEF	Prog Top MD (ftKB) 4,436.00
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### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		9.0	-27.0	
FRESH WATER	LOAD		1.0	-29.0	
RIG DIESEL	gal us	7,500.0	2,216.0	12,941.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$219,000	\$0
210	D-Directional Drig Services	\$4,200	\$60,900	\$0
211	D-Fuel & Power	\$4,850	\$31,973	\$0
212	D-Water	\$1,675	\$22,280	\$0
214	D-Mud & Chemicals	\$160	\$24,960	\$0
226	D-Company Sprvsn	\$1,800	\$25,200	\$0
227	D-Contract Sprvsn	\$3,200	\$44,800	\$0
235	D-Rentals-Surface	\$4,065	\$101,995	\$0
236	D-Rentals-Subsrfc	\$3,200	\$31,430	\$0
244	D-Envmnt/Clsd Loop	\$12,650	\$98,480	\$0



# Daily Drilling Report

Date: 11/14/2016

Report #: 15.0

DSS: 12.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#/Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 4,696.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 4,695.6	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 0.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b>	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$267,860
	Cum Field Est To Date (Cost) \$1,568,818

### Daily Activity from 11/13/2016 - 11/14/2016

Operations at Report Time  
NU 13 5/8" 10M BOP @ 4696'.

Past 24 Hours Operation Summary  
CONTINUE RU FRANKS CSG CREW & BYRD LD MACHINE TO RUN 9 5/8" CSG @ 4696'. RUN 104 JTS 9 5/8" 40# L-80 CSG TP 4701.45 SET @ 4696'. CIRC BTMS UP W/ RIG PUMP. CMT 1ST STAGE W/ 450 SKS LEAD @ 12.7 PPG, 1.98 YLD, 50 SKS LEAD @ 13.5 PPG, 1.72 YLD, 250 SKS TAIL @ 14.8 PPG, 1.33 YLD. PD @ 1931. OPEN DV TOOL & CIRC 144 SKS CMT TO SURF W/ RIG PUMP. CMT 2ND STAGE W/ 600 SKS LEAD @ 13.5 PPG, 1.72 YLD, 100 SKS TAIL @ 14.8 PPG, 1.33 YLD. ND & SET 9 5/8" SLIPS W/ 165K. WOC. CUT OFF 9 5/8" CSG & INSTALL 13 5/8" 5M X 11" 10M C SECT. TEST TO 2400 PSI. NU 13 5/8" 10M BOP.

Operations Next Report Period  
NU & TEST 13 5/8" 10M BOP. TEST 250 LOW 5K HIGH. TIH W/ 8 3/4" BHA & DRILL OUT DV TOOL. CIRC BTMS UP. TOH & RUN CBL. TEST 9 5/8" CSG. TIH & DRILL OUT 9 5/8" FLOAT EQUIP & 10' OF FORMATION. FIT @ 11 PPG. DRLG 8 3/4" VERT SECTION.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	08:00	2.00	4,696	RU CSG EQUIP	CONTINUE RIGGING UP FRANKS CSG CREW & BYRD LD MACHINE TO RUN 9 5/8" INT CSG @ 4696'.	No
08:00	15:00	7.00	4,696	RUN CSG	MU & SURFACE TEST FLOAT EQUIP, RAN 104 JTS 9 5/8" 40# L-80 BTC TP = 4701.45', SET @ 4696'. WASHED TO BTM, NO FILL.	No
15:00	16:30	1.50	4,696	CIRC CSG CAP/BTMS UP	CIRC 9 5/8" CSG W/ RIG PUMP @ 4696'. RIG DOWN CSG CREW & LD MACHINE.	No
16:30	19:30	3.00	4,696	CMT	PJSM, RU HALLIBURTON & TEST LINES TO 3950 PSI. 1ST STAGE PUMP 20 BBLS FW SPACER W/ RED DYE, PUMP 450 SKS ECONOCHEM HLC LEAD CEMENT @ 12.7 PPG; 1.98 YLD FOLLOWED BY 50 SKS HALCEM @ 13.5 PPG; 1.72 YLD FOLLOWED BY 250 SX HALCEM C TAIL CMT @ 14.8 PPG; 1.33 YLD, DROP PLUG & DISPLACE W/ 353 BBLS FW, BUMP PLUG @ 1931 11/13/16 W/ 1000 PSI, PRESSURE UP TO 1500 PSI OVER. BLEED OFF, 2 BBLS BACK. FLOATS HELD, FULL RTNS THROUGHOUT JOB.	No
19:30	20:00	0.50	4,696	CIRC DV TOOL	DROP BOMB & WAIT 15 MIN. PRESSURE UP TO 550 PSI TO INFLATE ECP. PRESSURE UP TO 700 PSI TO OPEN DV TOOL. ***GEOLEX NOTIFIED STEPHEN BAILEY W/ BLM @ 1944 11/13/16 OF INTENT TO CMT 2ND STAGE.***	No
20:00	21:00	1.00	4,696	CIRC DV TOOL	CIRC DV TOOL W/ RIG PUMP. CIRCULATED 144 SKS CEMENT TO SURFACE AFTER 1ST STAGE.	No
21:00	22:30	1.50	4,696	CMT	CMT 2ND STAGE. PUMP 20 BBLS FW SPACER W/ RED DYE, 600 SKS HALCEM C LEAD @ 13.5 PPG; 1.72 YLD FOLLOWED BY 100 SKS HALCEM C TAIL @ 14.8 PPG; 1.33 YLD. DROP CLOSING PLUG & DISPLACE WITH 198 BBLS FW. BUMP CLOSING PLUG W/ 970 PSI & SHIFT DV TOOL CLOSED WITH 2500 PSI @ 2226 11/13/16. BLEED OFF & GOT 1.5 BBLS BACK. CIRCULATED 107 SKS TO SURFACE. ***WITNESSED BY STEPHEN BAILEY W/ BLM.***	No
22:30	00:30	2.00	4,696	SET SLIPS/CUT CSG/CNDCTR	WASH OUT BOP, ND & SET 165K ON CSG SLIPS.	No
00:30	02:30	2.00	4,696	WOC	WOC TOTAL OF 4 HRS F/ PLUG DOWN BEFORE CUTTING OFF 9 5/8" CSG.	No
02:30	04:30	2.00	4,696	WELD ON/INSTALL WH	CUT OFF 9-5/8" CSG & INST 13 5/8" 5M X 11 10M C SECTION. TEST HEAD TO XXX PSI F/ XX MIN. NO LEAKS.	No
04:30	06:00	1.50	4,696	ND BOP	NU 13 5/8" 10M BOP. INSTALL FLOW LINE VALVE.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
String Length (ft)		Weight of String in Air (1000lbf)											

### Drill String Components

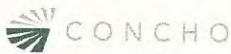
Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)



# Daily Drilling Report

Date: 11/14/2016

Report #: 15.0

Well Name: ZIA AGI #2D

DSS: 12.13

Proposed:

Lat: 32.643951 Long: -103.811116

### Pump # 1, Triplex

Pump Number 1	Start Date 11/12/2016 06:00	End Date 11/13/2016 05:55	Make Bomco	Model F-1600
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### Pump # 2, Triplex

Pump Number 2	Start Date 11/12/2016 06:00	End Date 11/13/2016 05:55	Make Bomco	Model F-1600
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### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,696.00	0.40	236.70	4,695.56	26.71	-0.93	-26.69	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/11/2016
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### Formation

Formation Name BASE OF REEF	Prog Top MD (ftKB) 4,436.00
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### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
BRINE WATER	LOAD		3.0	-20.0	
JET PITS/WORK ON LOCATION	HRS		5.0	-10.0	
MUD/SOLIDS/CMT DISPOSAL	LOAD		15.0	-33.0	
RIG DIESEL	gal us	6,000.0	842.0	18,099.0	
STANDBY TRUCKING	HRS		17.0	-37.5	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$235,000	\$0
210	D-Directional Drig Services	\$4,200	\$65,100	\$0
211	D-Fuel & Power	\$1,850	\$33,823	\$0
212	D-Water	\$1,050	\$23,330	\$0
214	D-Mud & Chemicals	\$160	\$25,120	\$0
218	D-Cement Intermed	\$32,100	\$68,100	\$0
221	D-Float Equip/Centizr	\$25,860	\$30,780	\$0
222	D-Csg Crews & Equip	\$18,900	\$51,010	\$0
226	D-Company Sprvsn	\$1,800	\$27,000	\$0
227	D-Contract Sprvsn	\$3,200	\$48,000	\$0
235	D-Rentals-Surface	\$2,315	\$104,310	\$0
236	D-Rentals-Subsrfc	\$300	\$31,730	\$0
237	D-Trucking/Forklift/Rig Mobil	\$11,150	\$178,375	\$0
238	D-Welding Services	\$600	\$5,500	\$0
244	D-Envmnt/Clisd Loop	\$18,125	\$116,605	\$0
402	D-Intermed Csg	\$114,000	\$175,200	\$0
405	D-Wellhead Equip	\$16,250	\$46,300	\$0



# Daily Drilling Report

Date: 11/15/2016

Report #: 16.0

DSS: 13.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#/Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 4,696.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 4,695.6	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 0.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b>	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$52,867
	Cum Field Est To Date (Cost) \$1,621,685

### Daily Activity from 11/14/2016 - 11/15/2016

Operations at Report Time  
RUN CBL W/ SCHLUMBERGER WL @ 4696'.

Past 24 Hours Operation Summary  
TEST 13 5/8" 10 M BOP & ALL RELATED VALVES TO 250 LOW / 5000 HIGH @ 4696'. INSTALL ORBIT VALVE ON ROT HEAD ASSEMBLY & ALTER FLOW LINE FOR HOOK UP. TIH W/ 8 3/4" MILL TOOTH & BHA TO DRILL OUT DV TOOL. TAG @ 2612'. DRLG CMT & 9 5/8" DV TOOL F/ 2612' - 2630'. TIH TO FLOAT COLLAR. TAG @ 4642'. CIRC. TOH F/ CBL. RU SCHLUMBERGER WL & RUN CBL @ 4696'.

Operations Next Report Period  
RUN CBL @ 4696'. MAKE UP 8 3/4" BHA W/ MWD & TIH. DRLG CMT & 9 5/8" FLOAT EQUIPMENT. DRLG 8 3/4" VERT SECT.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	15:30	9.50	4,696	TEST BOP EQUIP	PJSM - RIG UP BATTLE ENERGY. TEST ANNULAR TO 250/2500. ALL RAMS, VALVES & LINES, CHOKE MANIFOLD, IBOP, FOSV TO 250/5000 PSI FOR 10 MINS. HAD TO REPLACE RING GASKET ON TARGET T @ CHOKE MANIFOLD DURING TEST. ***NOTIFY STEPHEN BAILEY OF BLM @ 0520 11/14/16 OF INTENT TO TEST BOP.***	No
15:30	20:30	5.00	4,696	NU BOP	INSTALL ORBIT VALVE ON ROTATING HEAD. ALTER FLOW LINE TO MEET UP WITH ORBIT VALVE.	No
20:30	22:30	2.00	4,696	TIH DO FLT EQUIP	MAKE UP 8 3/4" BHA & TIH TO DRILL OUT DV TOOL. TAG CMT @ 2612'.	No
22:30	00:30	2.00	4,696	D/O CMT/ FLT EQUIP	DRLG CMT & DV TOOL F/ 2612' - 2630'.	No
00:30	01:00	0.50	4,696	TIH DO FLT EQUIP	CONTINUE TIH TO TOP OF FLOAT COLLAR. TAG CMT @ 4642'.	No
01:00	01:30	0.50	4,696	CIRC BTMS UP	BREAK CIRC 4642' PRIOR TO TOH TO RUN CBL.	No
01:30	03:30	2.00	4,696	TOH LOGGING/ PH	TOH TO RUN CBL.	No
03:30	06:00	2.50	4,696	CBL	PJSM - RIG UP SCHLUMBERGER WIRELINE AND RUN CBL LOG @ 4696'.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
BHA #					Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)			
String Length (ft)	Weight of String in Air (1000lbf)												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)

### Mud Properties

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
12:45	Water Base	4,696	9.3	29		
Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
Chlorides (mg/L)	Pm Filtrate (mL/mL)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned
CAUSTIC SODA	50# SACK		1.0	44.0	
CSC	25# SACK		9.0	105.0	
FIBER PLUG	40# SACK		14.0	93.0	
FRESH GEL	50# SACK		100.0	0.0	
LCF BLEND	25# SACK		9.0	39.0	



# Daily Drilling Report

Date: 11/15/2016

Report #: 16.0

Well Name: ZIA AGI #2D

DSS: 13.13

Proposed:

Lat: 32.643951 Long: -103.811116

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

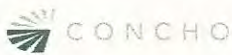
Formation Name	Prog Top MD (ftKB)
BASE OF REEF	4,436.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
BRINE WATER	LOAD		7.0	-27.0	
RIG DIESEL	gal us		624.0	17,475.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$251,000	\$0
210	D-Directional Drlg Services	\$4,200	\$69,300	\$0
211	D-Fuel & Power	\$1,400	\$35,223	\$0
213	D-Bits	\$6,500	\$35,000	\$0
214	D-Mud & Chemicals	\$2,402	\$27,522	\$0
226	D-Company Sprvsn	\$1,800	\$28,800	\$0
227	D-Contract Sprvsn	\$3,200	\$51,200	\$0
235	D-Rentals-Surface	\$14,315	\$118,625	\$0
236	D-Rentals-Subsrfc	\$300	\$32,030	\$0
244	D-Envmntl/Clsd Loop	\$2,750	\$119,355	\$0



# Daily Drilling Report

Date: 11/16/2016

Report #: 17.0

DSS: 14.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#/Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 4,933.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 4,932.6	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 237.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b> 4.50	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$68,092
	Cum Field Est To Date (Cost) \$1,689,777

### Daily Activity from 11/15/2016 - 11/16/2016

Operations at Report Time  
DRLG 8 3/4" VERT W/ MWD @ 4933', 57 FPH.

Past 24 Hours Operation Summary  
RUN CBL W/ SCHLUMBERGER @ 4696'. TEST 9 5/8" CSG W/ 3RD PARTY TESTER TO 1500 PSI F/ 30 MIN. REPLACE KELLY HOSE. MAKE UP & SURFACE TEST 8 3/4" BHA & MWD. MAKE UP BIT #6 & TIH, TAG CMT @ 4642'. DRLG CMT & 9 5/8" FLOAT EQUIPMEN F/ 4642' - 4696'. DRLG 8 3/4" VERT W/ MWD F/ 4696' - 4706'. CIRC BTMS UP. PERFORM FIT @ 4706' @ 11# EMW F/ 5 MIN, NO LEAK OFF. PERFORM FIT @ 11.5# EMW F/ 5 MIN, NO LEAK OFF. DRLG 8 3/4" VERT W/ MWD F/ 4706' - 4933'.

Operations Next Report Period  
DRLG 8 3/4" VERT W/ MWD.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	11:00	5.00	4,696	CBL	RIG UP SCHLUMBERGER WIRELINE AND RUN CBL LOG @ 4696'. RIG DOWN SCHLUMBERGER.	No
11:00	12:00	1.00	4,696	TEST CSG	PJSM - RU BATTLE ENERGY & TEST 9 5/8" CSG TO 1500 PSI F/ 30 MIN. NO LEAKS.	No
12:00	12:30	0.50	4,696	LUBRICATE RIG	SERVICE RIG & TOP DRIVE.	No
12:30	15:00	2.50	4,696	DEFECT	REPLACE KELLY HOSE & SURFACE TEST TO 1500 PSI. NO LEAKS.	No
15:00	17:30	2.50	4,696	TIH DO FLT EQUIP	MAKE UP & SURFACE TEST 8 3/4" BHA W/ MWD.	No
17:30	22:00	4.50	4,696	TOH DO FLT EQUIP	MAKE UP BIT #6 & TIH. TAG CMT @ 4642'.	No
22:00	00:30	2.50	4,696	D/O CMT/ FLT EQUIP	DRLG CMT & 9 5/8" FLOAT EQUIPMENT F/ 4642' - 4696'.	No
00:30	01:00	0.50	4,706	DRLG W/MTR	DRLG 8 3/4" VERT W/ MWD F/ 4696' - 4706'. 10' @ 20 FPH. ***START DRLG 8 3/4" VERT @ 0100 11/16/16.***	No
01:00	01:30	0.50	4,706	CIRC BTMS UP	CIRC BTMS UP.	No
01:30	02:00	0.50	4,706	LEAK OFF/FIT TEST	PERFORM FIT @ 11# EMW W/ 8.9 MW - 513 PSI, HELD F/ 5 MIN. NO LEAK OFF. PERFORM FIT @ 11.5# W. 8.9 MW - 636 PSI HELD F/ 5 MIN. NO LEAK OFF.	No
02:00	06:00	4.00	4,933	DRLG W/MTR	DRLG 8 3/4" VERT W/ MWD F/ 4706' - 4933'. 227' @ 57 FPH.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (ft/hr)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
6	8 3/4	BAKER HUG...	TD507FX	7161826	4,696.0	4,933.0	1.00	4.50	3.00	52.7	4.50		13/13/13/13/13/13
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
6		25	25	60	60	2,540.0	2,540.0						
String Length (ft)	4,612.56												
	Weight of String in Air (1000lbf) 149												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
124	Drill Pipe	5	3,870.29	4,612.56
1	XO Sub	6 1/4	2.13	742.27
5	DRILL COLLAR	6 1/2	146.33	740.14
	HYD DRLG JARS	6 1/2	31.36	593.81
15	Drill Collar	6 1/2	436.86	562.45
1	XO Sub	6 1/2	3.26	125.59
	3 PT ROLLER REAMER	6 5/8	6.34	122.33
1	NMDC	6 1/2	29.60	115.99
1	NMDC	6 1/2	27.98	86.39
1	Orientation Sub	6 1/2	2.67	58.41
	XO Sub	6 5/8	3.65	55.74
1	3 PT ROLLER REAMER	6 5/8	7.47	52.09
1	Shock Sub	6 5/8	11.99	44.62
1	Mud Motor	6 1/2	31.63	32.63

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Original Hole	4,696.0	4,933.0	237.00	4.50	4.50	52.7	585
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque
25	60	2,540.0	185	195	175	3,800.0	500.0

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
119.0	2.0	206.9	348.8	14
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
401.4	22.7	270.7	22.6	9.00

Error





# Daily Drilling Report

Date: 11/16/2016

Report #: 17.0

DSS: 14.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

### Pump # 2, Triplex

Pump Number 2	Start Date 11/15/2016 22:00	End Date 11/16/2016 06:00	Make Bomco	Model F-1600
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### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,786.00	0.30	101.20	4,785.56	26.36	-1.05	-26.34	0.41
4,933.00	0.30	101.20	4,932.56	25.61	-1.20	-25.58	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

Formation Name DELAWARE	Prog Top MD (ftKB) 4,718.00
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### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
BRINE WATER	LOAD		2.0	-29.0	
CUTTINGS BIN	BIN		1.0	-28.0	
MUD/SOLIDS/CMT DISPOSAL	LOAD		2.0	-35.0	
RIG DIESEL	gal us		904.0	16,571.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$267,000	\$0
210	D-Directional Drg Services	\$4,200	\$73,500	\$0
211	D-Fuel & Power	\$2,000	\$37,223	\$0
212	D-Water	\$700	\$24,030	\$0
213	D-Bits	\$8,000	\$43,000	\$0
214	D-Mud & Chemicals	\$2,402	\$29,924	\$0
226	D-Company Sprvsn	\$1,800	\$30,600	\$0
227	D-Contract Sprvsn	\$3,200	\$54,400	\$0
230	D-Logging	\$15,200	\$33,050	\$0
235	D-Rentals-Surface	\$3,190	\$121,815	\$0
236	D-Rentals-Subsrfc	\$6,850	\$38,880	\$0
244	D-Envmnt/Clsd Loop	\$4,550	\$123,905	\$0

# Daily Drilling Report

Date: 11/17/2016

Well Name: ZIA AGI #2D

Report #: 18.0

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

DSS: 15.13

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL #Crew: FREEDOM  
 Asset Group: DELAWARE BASIN Area: AGI  
 County: LEA State: NM  
 Prospect: Rig Phone #: (432) 853-9909  
 Spud Date: 11/2/2016 03:00 End Depth (ftKB): 6,763.0  
 Rig Release Date: End Depth (TVD) (ftKB): 6,761.9  
 Target Formation: DEVONIAN 24 Hr Progress (ft): 1,830.00  
 Drilling Hours (hr): 23.00  
 Field Name: AGI  
 API/UWI: 30-025-42207  
 Permit #:  
 Ground Elevation (ft): 3,547.00  
 Original KB Elevation (ft): 3,572.00  
 KB-Ground Distance (ft): 25.00

AFE Number: 009612 Total AFE Amount (Cost):  
 Job AFE Amount (Cost): Daily Field Est Total (Cost): \$44,167 Cum Field Est To Date (Cost): \$1,733,944

**Daily Activity from 11/16/2016 - 11/17/2016**  
 Operations at Report Time: DRLG 8 3/4" VERT W/ MWD @ 6763', 83 FPH.  
 Past 24 Hours Operation Summary: DRLG 8 3/4" VERT W/ MWD F/ 4933' - 5060'. LUBRICATE RIG. RR/ REPLACE O-RING IN WEIGHT INDICATOR @ 5060'. DRLG 8 3/4" VERT W/ MWD F/ 5060' - 6763'.

Operations Next Report Period: DRLG 8 3/4" VERT W/ MWD.  
 Incident Reported: No Accident Reported: No Daily Contacts: CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, GEORGE SMITH.

### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	08:00	2.00	5,060	DRLG W/MTR	DRLG 8 3/4" VERT W/ MWD F/ 4933' - 5060'. 127' @ 64 FPH.	No
08:00	08:30	0.50	5,060	LUBRICATE RIG	SERVICE RIG & TOP DRIVE.	No
08:30	09:00	0.50	5,060	WEIGHT INDICATOR	REPLACE O-RING IN RIG WT INDICATOR @ 5060'.	No
09:00	06:00	21.00	6,763	DRLG W/MTR	DRLG 8 3/4" VERT W/ MWD F/ 5060' - 6763'. 1703' @ 81 FPH.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...)	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
6	8 3/4	BAKER HUG...	TD507FX	7161826	4,696.0	6,763.0	1.00	27.50	3.50	75.2	27.50		13/13/13/13/13/13
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
6		25	36	60	213	2,540.0	2,608.0						
String Length (ft)	Weight of String in Air (1000lbf)												
6,763.11	191												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
193	Drill Pipe			
1	XO Sub	5	6,020.84	6,763.11
5	DRILL COLLAR	6 1/4	2.13	742.27
	HYD DRLG JARS	6 1/2	146.33	740.14
15	Drill Collar	6 1/2	31.36	593.81
1	XO Sub	6 1/2	436.86	562.45
	3 PT ROLLER REAMER	6 1/2	3.26	125.59
1	NMDC	6 5/8	6.34	122.33
1	NMDC	6 1/2	29.60	115.99
1	Orientation Sub	6 1/2	27.98	86.39
	XO Sub	6 1/2	2.67	58.41
1	3 PT ROLLER REAMER	6 5/8	3.65	55.74
1	Shock Sub	6 5/8	7.47	52.09
1	Mud Motor	6 5/8	11.99	44.62
		6 1/2	31.63	32.63

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
	4,933.0	6,763.0	2,067.00	23.00	27.50	79.6	590
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque
36	60	2,608.0	200	210	190	5,000.0	500.0

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
122.1	2.0	208.6	354.8	14
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
273.0	22.9	273.0	22.2	9.00

### Mud Properties

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft²)
03:20	Water Base	4,839	9.0	29		
Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
				10.0	1.2	
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
57,000					0.15	0.0
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
0/100	89.0		5.0	1,458.000		
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	
6.00	31.00	4.00	22.00			

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned



# Daily Drilling Report

Date: 11/17/2016

Report #: 18.0

Well Name: ZIA AGI #2D

DSS: 15.13

Proposed:

Lat: 32.643951 Long: -103.811116

### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,188.00	1.80	48.90	6,187.14	14.09	15.75	-1.71	0.05
6,282.00	1.80	45.90	6,281.10	16.73	17.74	0.46	0.10
6,376.00	1.60	47.30	6,375.05	19.25	19.66	2.49	0.22
6,470.00	1.60	46.20	6,469.02	21.61	21.46	4.40	0.03
6,563.00	1.60	46.90	6,561.98	23.95	23.24	6.28	0.02
6,763.00	1.60	47.00	6,761.90	28.97	27.06	10.36	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

Formation Name	Prog Top MD (ftKB)
DELAWARE	4,718.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
BRINE WATER	LOAD		4.0	-33.0	
CUTTINGS BIN	BIN		1.0	-29.0	
RIG DIESEL	gal us		2,214.0	14,357.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$283,000	\$0
210	D-Directional Drig Services	\$4,200	\$77,700	\$0
211	D-Fuel & Power	\$4,850	\$42,073	\$0
212	D-Water	\$1,400	\$25,430	\$0
214	D-Mud & Chemicals	\$2,402	\$32,326	\$0
226	D-Company Sprvsn	\$1,800	\$32,400	\$0
227	D-Contract Sprvsn	\$3,200	\$57,600	\$0
235	D-Rentals-Surface	\$2,315	\$124,130	\$0
236	D-Rentals-Subsrfc	\$4,150	\$43,030	\$0
244	D-Envmntl/Clsd Loop	\$3,850	\$127,755	\$0



# Daily Drilling Report

Date: 11/18/2016

Report #: 19.0

DSS: 16.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 7,512.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 7,510.2	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 749.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 11.00	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$55,785
	Cum Field Est To Date (Cost) \$1,789,729

### Daily Activity from 11/17/2016 - 11/18/2016

Operations at Report Time  
TIH W/ 8 3/4" SHC BHA @ 7512'.

Past 24 Hours Operation Summary  
DRLG 8 3/4" VERT W/ MWD F/ 6763' - 7512'. PUMP SWEEP & CIRC F/ TOH TO PICK UP SHC @ 7512' DUE TO HOLE BUILDING ANGLE. TOH & LD 8 3/4" MOTOR. MAKE UP & SURF TEST 8 3/4" SHC BHA. TIH W/ 8 3/4" SHC BHA.

Operations Next Report Period  
TIH W/ 8 3/4" SHC BHA TO 4696'. SLIP & CUT DRLG LINE @ 4696'. CONTINUE TIH W/ 8 3/4" SHC BHA. DRLG 8 3/4" VERT W/ SHC.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	16:30	10.50	7,479	DRLG W/MTR	DRLG 8 3/4" VERT W/ MWD F/ 6763' - 7479'. 749' @ 72 FPH.	No
16:30	17:00	0.50	7,479	LUBRICATE RIG	SERVICE RIG & TOP DRIVE.	No
17:00	17:30	0.50	7,512	DRLG W/MTR	DRLG 8 3/4" VERT W/ MWD F/ 7479' - 7512'. 33' @ 66 FPH.	No
17:30	19:00	1.50	7,512	PUMP SWEEP	PUMP SWEEP & CIRC F/ TOH TO PICK UP SHC BHA.	No
19:00	01:30	6.50	7,512	TOH DEVIATION	TOH TO PICK UP SHC @ 7512'. LD MOTOR & REAMERS.	No
01:30	02:30	1.00	7,512	PULL/INSTALL WEAR BSHG	INSTALL 10 1/4" WEAR BUSHING.	No
02:30	04:30	2.00	7,512	TIH DEVIATION	MAKE UP & SURFACE TEST 6 3/4" 7/8-5.0 FIXED 1.5" MOTOR & MWD.	No
04:30	06:00	1.50	7,512	TIH DEVIATION	MAKE UP BIT #7 & TIH.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
7	8 3/4	BAKER HUG...	TD507FX	7160605	7,512.0	7,512.0	1.00						13/13/13/13/13/13
BHA #	Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)							
7													
String Length (ft)	Weight of String in Air (1000lbf)												
7,553.85	205												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
218	Drill Pipe	5	6,831.96	7,553.85
1	XO Sub	6 1/4	2.13	721.89
5	DRILL COLLAR	6 1/2	146.33	719.76
	HYD DRLG JARS	6 1/2	31.36	573.43
15	Drill Collar	6 1/2	436.86	542.07
1	3 PT ROLLER REAMER	6 5/8	7.47	105.21
1	XO Sub	6 1/2	3.26	97.74
1	NMDC	6 1/2	29.60	94.48
1	NMDC	6 1/2	27.98	64.88
1	Orientation Sub	6 1/2	2.65	36.90
	3 PT ROLLER REAMER	6 5/8	6.34	34.25
1	Mud Motor	6 1/2	26.91	27.91

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 7,512.0	End Depth (ftKB) 7,512.0	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf) 220	PU Str Wt (1000lbf) 260	SO Str Wt (1000lbf) 200	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min) 0.0	Max Open Hole AV (ft/min) 0.0	Min Casing AV (ft/min) 0.0	Min Open Hole AV (ft/min) 0.0	ECD End (lb/gal)

Error  
Unable to calculate annular pressure drop because pressure drop data is missing from AV calc

### Mud Properties

Time 06:00	Type Water Base	Depth (ftKB) 6,811	Density (lb/gal) 9.1	Funnel Viscosity (s/qt) 29	PV Calc (cP)	YP Calc (lb/100ft²)
Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH 10.5	Solids (%) 1.9	Lime (lb/bbl)
Chlorides (mg/L) 50,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 0.10	Percent Oil (%) 0.0
Oil Water Ratio 0/100	Flow Line Temperature (°F) 105.0	Vis 6rpm	Low Gravity Solids (%) 5.2	Magnesium (mg/L) 437.000	HHP Filtrate (mL/30min)	HHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	



# Daily Drilling Report

Date: 11/18/2016

Report #: 19.0

Well Name: ZIA AGI #2D

DSS: 16.13

Proposed:

Lat: 32.643951 Long: -103.811116

### Pump # 2, Triplex

Pump Number 2	Start Date 11/17/2016 06:00	End Date 11/17/2016 19:00	Make Bomco	Model F-1600
Action Type Triplex			Liner Size (in) 5 1/2	
Pressure (psi) 220.0	Strokes (spm) 40	Stroke Length (in) 12.00	Volumetric Efficiency (%) 96	Flow Rate (gpm) 4,645

### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
7,031.00	1.40	49.90	7,029.79	34.85	32.18	16.01	0.22
7,125.00	1.50	57.50	7,123.76	37.16	33.59	17.93	0.23
7,219.00	1.90	60.40	7,217.72	39.80	35.02	20.32	0.44
7,312.00	3.30	65.40	7,310.63	43.69	36.89	24.10	1.52
7,406.00	4.00	66.40	7,404.43	49.10	39.33	29.56	0.75
7,512.00	4.00	66.40	7,510.18	55.76	42.29	36.34	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

Formation Name	Prog Top MD (ftKB)
BONE SPRINGS	7,046.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		4.0	-33.0	
RIG DIESEL	gal us		2,019.0	12,338.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fid Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$299,000	\$0
210	D-Directional Drlg Services	\$6,400	\$84,100	\$0
211	D-Fuel & Power	\$4,400	\$46,473	\$0
213	D-Bits	\$8,000	\$51,000	\$0
214	D-Mud & Chemicals	\$3,645	\$35,971	\$0
226	D-Company Sprvsn	\$1,800	\$34,200	\$0
227	D-Contract Sprvsn	\$3,200	\$60,800	\$0
235	D-Rentals-Surface	\$2,315	\$126,445	\$0
236	D-Rentals-Subsrfc	\$2,275	\$45,305	\$0
237	D-Trucking/Forklift/Rig Mobil	\$600	\$178,975	\$0
244	D-Envmntl/Clsd Loop	\$7,150	\$134,905	\$0



# Daily Drilling Report

Date: 11/19/2016

Report #: 20.0

DSS: 17.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 8,739.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 8,737.1	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 1,227.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 14.50	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$42,251
	Cum Field Est To Date (Cost) \$1,831,980

### Daily Activity from 11/18/2016 - 11/19/2016

Operations at Report Time  
DRLG 8 3/4" VERT W/ SHC @ 8,739', 87 FPH.

Past 24 Hours Operation Summary  
TIH W/ 8 3/4" SHC BHA F/ 0 - 4696'. SLIP & CUT 60' OF DRLG LINE @ 9 5/8" CSG SHOE. CONTINUE TIH W/ 8 3/4" SHC BHA F/ 4696' - 4780'. SERVICE RIG. RR/ REPLACE BROKEN FITTING ON TOP DRIVE BRAKE CANNISTER. CONTINUE TIH W/ 8 3/4" SHC BHA F/ 4780' - 7512'. DRLG 8 3/4" VERT W/ SHC F/ 7512' - 8739'. 1227' @ 85 FPH.

Operations Next Report Period  
DRLG 8 3/4" VERT W/ SHC.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	09:00	3.00	7,512	TIH DEVIATION	CONTINUE TIH W/ SHC BHA TO 4696'.	No
09:00	10:30	1.50	7,512	CDL	SLIP & CUT 60' DRLG LINE @ CSG SHOE.	No
10:30	13:00	2.50	7,512	TIH DEVIATION	CONTINUE TIH W/ SHC BHA F/ 4696' - 4780'.	No
13:00	13:30	0.50	7,512	LUBRICATE RIG	SERVICE RIG & TOP DRIVE.	No
13:30	14:30	1.00	7,512	MISCELLANEOUS	RIG REPAIR. REPLACE BROKEN FITTING ON TOP DRIVE BRAKE CANISTER.	No
14:30	15:30	1.00	7,512	TIH BUILD RATES	CONTINUE TIH W/ SHC BHA F/ 4780' - 7512'.	No
15:30	06:00	14.50	8,739	DRLG W/SHC	DRLG 8 3/4" VERT W/ SHC F/ 7512' - 8739'. 1259' @ 85 FPH.	No

Bits & BHAs													
Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
7	8 3/4	BAKER HUG...	TD507FX	7160605	7,512.0	8,739.0	1.00	14.50		84.6	14.50		13/13/13/13/13/13
BHA #	Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)							
7	35	35	196	196	3,010.0	3,010.0							
String Length (ft)	Weight of String in Air (1000lbf)												
8,771.67	229												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
248	Drill Pipe	5	8,049.78	8,771.67
1	XO Sub	6 1/4	2.13	721.89
5	DRILL COLLAR	6 1/2	146.33	719.76
	HYD DRLG JARS	6 1/2	31.36	573.43
15	Drill Collar	6 1/2	436.86	542.07
1	3 PT ROLLER REAMER	6 5/8	7.47	105.21
1	XO Sub	6 1/2	3.26	97.74
1	NMDC	6 1/2	29.60	94.48
1	NMDC	6 1/2	27.98	64.88
1	Orientation Sub	6 1/2	2.65	36.90
	3 PT ROLLER REAMER	6 5/8	6.34	34.25
1	Mud Motor	6 1/2	26.91	27.91

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 7,512.0	End Depth (ftKB) 8,739.0	Cum Depth Drilled (ft) 1,227.00	Drilling Time (hr) 14.50	Cum Drilling Time (hr) 14.50	Interval ROP (ft/hr) 84.6	Flow Rate (gpm) 600
Weight on Bit (1000lbf) 35	RPM (rpm) 28	Stand Pipe Pressure (psi) 3,010.0	Drill Str Wt (1000lbf) 250	PU Str Wt (1000lbf) 260	SO Str Wt (1000lbf) 240	Drilling Torque 9,500.0	Off Bottom Torque 1,000.0

### Hydraulic Calculations

Bit Hydraulic Power (hp) 129.9	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> ) 2.2	Bit Jet Velocity (ft/s) 212.2	Bit Pressure Drop (psi) 371.0	Percent of Pressure Drop at Bit (%) 12
Max Casing AV (ft/min) 277.6	Max Open Hole AV (ft/min) 23.3	Min Casing AV (ft/min) 277.6	Min Open Hole AV (ft/min) 22.6	ECD End (lb/gal) 9.05

Error

### Mud Properties

Time 08:45	Type Water Base	Depth (ftKB) 7,512	Density (lb/gal) 9.1	Funnel Viscosity (s/qt) 30	PV Calc (cP) -2	YP Calc (lb/100ft <sup>2</sup> ) 7
Gel 10 sec (lb/100ft <sup>2</sup> )	Gel 10 min (lb/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH 10.0	Solids (%) 1.8	Lime (lb/bbl)
Chlorides (mg/L) 53,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 0.10	Percent Oil (%) 0.0
Oil Water Ratio 0/100	Flow Line Temperature (°F)	Vis 6rpm 0	Low Gravity Solids (%) 5.3	Magnesium (mg/L) 486.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas 102.00	Max Background Gas 102.00	Min Connection Gas 102.00	Max Connection Gas 102.00	Max Trip Gas 89.00	Max H2S (ppm)	



# Daily Drilling Report

Date: 11/19/2016

Report #: 20.0

Well Name: ZIA AGI #2D

DSS: 17.13

Proposed:

Lat: 32.643951 Long: -103.811116

## Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
8,248.00	0.70	190.20	8,246.17	55.26	40.49	37.91	0.49
8,342.00	0.40	102.10	8,340.16	55.00	39.86	38.12	0.85
8,436.00	0.30	145.00	8,434.16	55.16	39.59	38.59	0.29
8,529.00	0.80	110.00	8,527.16	55.44	39.17	39.34	0.62
8,623.00	0.90	108.20	8,621.15	56.11	38.71	40.65	0.11
8,739.00	0.90	108.20	8,737.13	57.02	38.14	42.38	0.00

## Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

## BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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## Formation

Formation Name	Prog Top MD (ftKB)
BONE SPRINGS	7,046.00

## Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		1.0	-34.0	
RIG DIESEL	gal us		2,792.0	9,546.0	

## Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$315,000	\$0
210	D-Directional Drlg Services	\$6,400	\$90,500	\$0
211	D-Fuel & Power	\$6,100	\$52,573	\$0
212	D-Water	\$450	\$25,880	\$0
214	D-Mud & Chemicals	\$1,836	\$37,807	\$0
226	D-Company Sprvsn	\$1,800	\$36,000	\$0
227	D-Contract Sprvsn	\$3,200	\$64,000	\$0
235	D-Rentals-Surface	\$2,315	\$128,760	\$0
236	D-Rentals-Subsrfc	\$300	\$45,605	\$0
244	D-Envmntl/Clsd Loop	\$3,850	\$138,755	\$0



# Daily Drilling Report

Date: 11/20/2016

Report #: 21.0

DSS: 18.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 9,239.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB):	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 500.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 9.50	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$40,270
	Cum Field Est To Date (Cost) \$1,872,250

### Daily Activity from 11/19/2016 - 11/20/2016

Operations at Report Time  
DRLG 8 3/4" VERT W/ SHC @ 9239', 55 FPH.

Past 24 Hours Operation Summary  
DRLG 8 3/4" VERT W/ SHC F/ 8739' - 8749'. PUMP SWEEP & CIRC F/ TOH DUE TO LOW ROP @ 8749'. TOH F/ 8749' - 7612'. RE LOG GAMMA W/ MWD F/ 7612' - 7512'. CONTINUE TOH. BREAK BIT. SURF TEST MOTOR & MWD. MAKE UP BIT #8 & TIH. DRLG 8 3/4" VERT W/ SHC F/ 8749' - 9239'.

Operations Next Report Period  
DRLG 8 3/4" VERT W/ SHC.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, GEORGE SMITH.
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	06:30	0.50	8,749	DRLG W/SHC	DRLG 8 3/4" VERT W/ SHC F/ 8739' - 8749'. 10' @ 20 FPH.	No
06:30	08:00	1.50	8,749	PUMP SWEEP	PUMP & CIRC F/ TOH DUE TO LOW ROP.	No
08:00	09:00	1.00	8,749	TOH BIT CHANGE	TOH DUE TO LOW ROP F/ 8749' - 7612'.	No
09:00	10:00	1.00	8,749	MWD	RE LOG GAMMA W/ MWD F/ 7612' - 7512'.	No
10:00	14:30	4.50	8,749	TOH BIT CHANGE	CONTINUE TOH DUE TO LOW ROP.	No
14:30	15:30	1.00	8,749	TOH BIT CHANGE	BREAK OUT BIT #7. SURFACE TEST MOTOR & MWD. MAKE UP BIT #8 (RR #6).	No
15:30	21:00	5.50	8,749	TIH BIT CHANGE	TIH W/ BIT #8 & SHC BHA. FILL DP EVERY 30 STDS.	No
21:00	06:00	9.00	9,239	DRLG W/SHC	DRLG 8 3/4" VERT W/ SHC F/ 8749' - 9239'. 490' @ 55 FPH.	No

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr	Job Circ Hr	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
8	8 3/4	BAKER HUG...	TD507FX	7161826	4,696.0	9,239.0	1.00	47.50	5.00	69.6	47.50		13/13/13/13/13/13
BHA #	Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)							
8	30	30	42	42	2,915.0	2,915.0							
String Length (ft)	Weight of String in Air (1000lbf)												
9,239.99	238												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
273	Drill Pipe	5	8,518.10	9,239.99
1	XO Sub	6 1/4	2.13	721.89
5	DRILL COLLAR	6 1/2	146.33	719.76
	HYD DRLG JARS	6 1/2	31.36	573.43
15	Drill Collar	6 1/2	436.86	542.07
1	3 PT ROLLER REAMER	6 5/8	7.47	105.21
1	XO Sub	6 1/2	3.26	97.74
1	NMDC	6 1/2	29.60	94.48
1	NMDC	6 1/2	27.98	64.88
1	Orientation Sub	6 1/2	2.65	36.90
	3 PT ROLLER REAMER	6 5/8	6.34	34.25
1	Mud Motor	6 1/2	26.91	27.91

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 8,749.0	End Depth (ftKB) 9,239.0	Cum Depth Drilled (ft) 490.00	Drilling Time (hr) 9.00	Cum Drilling Time (hr) 9.00	Interval ROP (ft/hr) 54.4	Flow Rate (gpm) 600
Weight on Bit (1000lbf) 30	RPM (rpm) 25	Stand Pipe Pressure (psi) 2,915.0	Drill Str Wt (1000lbf) 270	PU Str Wt (1000lbf) 280	SO Str Wt (1000lbf) 260	Drilling Torque 5,900.0	Off Bottom Torque 1,000.0

### Hydraulic Calculations

Bit Hydraulic Power (hp) 131.3	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> ) 2.2	Bit Jet Velocity (ft/s) 212.2	Bit Pressure Drop (psi) 375.1	Percent of Pressure Drop at Bit (%) 13
Max Casing AV (ft/min) 277.6	Max Open Hole AV (ft/min) 23.3	Min Casing AV (ft/min) 277.6	Min Open Hole AV (ft/min) 22.6	ECD End (lb/gal) 9.20

Error

### Mud Properties

Time 10:00	Type Water Base	Depth (ftKB) 8,749	Density (lb/gal) 9.2	Funnel Viscosity (s/qt) 28	PV Calc (cP) 2.3	YP Calc (lb/100ft <sup>2</sup> ) 0.0
Gel 10 sec (lb/100ft <sup>2</sup> )	Gel 10 min (lb/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH 10.0	Solids (%) 2.3	Lime (lb/bbl)
Chlorides (mg/L) 65,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 0.15	Percent Oil (%) 0.0
Oil Water Ratio 0/100	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%) 6.5	Magnesium (mg/L) 486.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas 44.00	Max Background Gas 222.00	Min Connection Gas 75.00	Max Connection Gas 75.00	Max Trip Gas 37.00	Max H2S (ppm)	





# Daily Drilling Report

Date: 11/20/2016

Report #: 21.0

DSS: 18.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

Action Type Triplex	Liner Size (in) 5 1/2
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Survey Data							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
8,739.00	0.90	108.20	8,737.13	57.02	38.14	42.38	0.00

Casing Strings						
Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)	
Conductor	30	118.52	A53	120.0		
Surface	20	106.50	J-55	826.0		
Intermediate	13 3/8	61.00	J-55	2,555.5		
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6	

BOPs		
Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016

Formation	
Formation Name	Prog Top MD (ftKB)
BONE SPRINGS	7,046.00

Fluids, Disposal and Water					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		3.0	-37.0	
RIG DIESEL	gal us		536.0	9,010.0	

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$331,000	\$0
210	D-Directional Drlg Services	\$6,400	\$96,900	\$0
211	D-Fuel & Power	\$1,200	\$53,773	\$0
214	D-Mud & Chemicals	\$2,855	\$40,662	\$0
226	D-Company Sprvsn	\$1,800	\$37,800	\$0
227	D-Contract Sprvsn	\$3,200	\$67,200	\$0
235	D-Rentals-Surface	\$2,465	\$131,225	\$0
236	D-Rentals-Subsrfc	\$300	\$45,905	\$0
244	D-Envmntl/Clsd Loop	\$6,050	\$144,805	\$0



# Daily Drilling Report

Date: 11/21/2016

Report #: 22.0

DSS: 19.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed: &lt;typ1&gt;, &lt;de &lt;typ1&gt;, &lt;d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Contractor: SCANDRILL  
 Asset Group: DELAWARE BASIN  
 County: LEA

#Crew: FREEDOM

Area: AGI

State: NM

End Depth (ftKB): 10,331.0

End Depth (TVD) (ftKB): 10,329.0

24 Hr Progress (ft): 1,092.00

Drilling Hours (hr): 23.50

Rig Phone #: (432) 853-9909

Field Name: AGI

API/UWI: 30-025-42207

Permit #:

Ground Elevation (ft): 3,547.00

Original KB Elevation (ft): 3,572.00

KB-Ground Distance (ft): 25.00

Prospect:

Spud Date: 11/2/2016 03:00

Rig Release Date:

Target Formation: DEVONIAN

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost) \$39,650	Cum Field Est To Date (Cost) \$1,898,499

**Daily Activity from 11/20/2016 - 11/21/2016**

Operations at Report Time

DRLG 8 3/4" VERT W/ SHC @ 10331', 48 FPH.

Past 24 Hours Operation Summary

DRLG 8 3/4" VERT W/ SHC F/ 9339' - 9614'. SERVICE RIG &amp; TOP DRIVE. DRLG 8 3/4" VERT W/ SHC F/ 9614' - 10331'.

Operations Next Report Period

DRLG 8 3/4" VERT W/ SHC.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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Time Log				Com		NPT?
Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity		
06:00	14:30	8.50	9,614	DRLG W/SHC	DRLG 8 3/4" VERT W/ SHC F/ 9239' - 9614'. 375' @ 44 FPH.	No
14:30	15:00	0.50	9,614	LUBRICATE RIG	SERVICE RIG & TOP DRIVE.	No
15:00	06:00	15.00	10,331	DRLG W/SHC	DRLG 8 3/4" VERT W/ SHC F/ 9614' - 10331'. 717' @ 48 FPH.	No

Bits & BHAs													
Bit Run 8	Size (in) 8 3/4	Make BAKER HUG...	Model TD507FX	SN 7161826	Depth In (ft...) 4,696.0	Depth Out... 10,331.0	Length (ft) 1.00	Job Drill Hr... 71.00	Job Circ Hr... 5.00	Avg ROP (f...) 61.9	Rot Time (hr) 71.00	Slide Time... 13/13/13/13/13/13	Nozzles (1/32") 13/13/13/13/13/13
BHA # 8	Min Weight on Bit (1000lbf) 30	Max Weight on Bit (1000lbf) 35	Min RPM (rpm) 180	Max RPM (rpm) 199	Min Stand Pipe Pressure (psi) 2,450.0	Max Stand Pipe Pressure (psi) 2,915.0	Weight of String in Air (1000lbf) 260						
String Length (ft) 10,362.85													

Drill String Components				OD (in)	Len (ft)	Cum Len (ft)
Jts	Item Des			5	9,640.96	10,362.85
308	Drill Pipe			6 1/4	2.13	721.89
1	XO Sub			6 1/2	146.33	719.76
5	DRILL COLLAR			6 1/2	31.36	573.43
	HYD DRLG JARS			6 1/2	436.86	542.07
15	Drill Collar			6 5/8	7.47	105.21
1	3 PT ROLLER REAMER			6 1/2	3.26	97.74
1	XO Sub			6 1/2	29.60	94.48
1	NMDC			6 1/2	27.98	64.88
1	NMDC			6 1/2	2.65	36.90
1	Orientation Sub			6 5/8	6.34	34.25
	3 PT ROLLER REAMER			6 1/2	26.91	27.91
1	Mud Motor					

Drilling Parameters							
Wellbore Original Hole	Start Depth (ftKB) 9,239.0	End Depth (ftKB) 10,331.0	Cum Depth Drilled (ft) 1,582.00	Drilling Time (hr) 23.50	Cum Drilling Time (hr) 32.50	Interval ROP (ft/hr) 46.5	Flow Rate (gpm) 485
Weight on Bit (1000lbf) 35	RPM (rpm) 40	Stand Pipe Pressure (psi) 2,450.0	Drill Str Wt (1000lbf) 290	PU Str Wt (1000lbf) 300	SO Str Wt (1000lbf) 280	Drilling Torque 8,500.0	Off Bottom Torque 1,000.0

Hydraulic Calculations				
Bit Hydraulic Power (hp) 69.3	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> ) 1.2	Bit Jet Velocity (ft/s) 171.5	Bit Pressure Drop (psi) 245.1	Percent of Pressure Drop at Bit (%) 10
Max Casing AV (ft/min) 224.4	Max Open Hole AV (ft/min) 18.8	Min Casing AV (ft/min) 224.4	Min Open Hole AV (ft/min) 18.3	ECD End (lb/gal) 9.20
Error				

Mud Properties						
Time 11:00	Type Water Base	Depth (ftKB) 9,515	Density (lb/gal) 9.2	Funnel Viscosity (s/qt) 28	PV Calc (cP)	YP Calc (lb/100ft <sup>2</sup> )
Gel 10 sec (lb/100ft <sup>2</sup> )	Gel 10 min (lb/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH 9.0	Solids (%) 2.3	Lime (lb/bbl)
Chlorides (mg/L) 65,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 0.10	Percent Oil (%) 0.0
Oil Water Ratio 0/100	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%) 6.5	Magnesium (mg/L) 534.600	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	

Mud Additive Amounts					
Des	Units	Rec	Consumed	On Loc	Returned
Barite BULK	TON		8.0	84.0	
DEFOAMER	5 GAL		2.0	31.0	
MF-55	5 GAL		3.0	24.0	
SAI T GFI	50# SACK		50.0	350.0	



# Daily Drilling Report

Date: 11/21/2016

Report #: 22.0

DSS: 19.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

Survey Data							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
10,331.00	0.30	196.10	10,328.95	73.65	44.68	58.55	0.00

Casing Strings						
Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)	
Conductor	30	118.52	A53	120.0		
Surface	20	106.50	J-55	826.0		
Intermediate	13 3/8	61.00	J-55	2,555.5		
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6	

BOPs		
Pressure Rating (psi)	Nominal ID (in)	Last BOP Test Date
10,000.0	13 5/8	11/14/2016

Formation	
Formation Name	Prog Top MD (ftKB)
WOLFCAMP	10,270.00

Fluids, Disposal and Water					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		2.0	-39.0	
RIG DIESEL	gal us		2,016.0	6,994.0	

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$347,000	\$0
210	D-Directional Drig Services	\$6,400	\$103,300	\$0
211	D-Fuel & Power	\$4,375	\$58,148	\$0
214	D-Mud & Chemicals	\$160	\$27,421	\$0
226	D-Mud & Chemicals	\$1,800	\$39,600	\$0
227	D-Company Sprvsn	\$3,200	\$70,400	\$0
227	D-Contract Sprvsn	\$2,465	\$133,690	\$0
235	D-Rentals-Surface	\$300	\$46,205	\$0
236	D-Rentals-Subsrfc	\$4,950	\$149,755	\$0
244	D-Envmntl/Clsd Loop			



# Daily Drilling Report

Date: 11/22/2016

Report #: 23.0

DSS: 20.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 11,142.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 11,139.8	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 811.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b> 23.50	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$45,175
	Cum Field Est To Date (Cost) \$1,943,674

### Daily Activity from 11/21/2016 - 11/22/2016

Operations at Report Time  
DRLG 8 3/4" VERT W/ SHC @ 11142', 34 FPH.

Past 24 Hours Operation Summary  
DRLG 8 3/4" VERT W/ SHC F/ 10331' - 10737'. SERVICE RIG & TOP DRIVE. DRLG 8 3/4" VERT W/ SHC F/ 10737' - 11142'. BEGIN MUD UP @ 10800'.

Operations Next Report Period  
DRLG 8 3/4" VERT W/ SHC.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, GEORGE SMITH,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	17:30	11.50	10,737	DRLG W/SHC	DRLG 8 3/4" VERT W/ SHC F/ 10331' - 10737'. 406' @ 35 FPH.	No
17:30	18:00	0.50	10,737	LUBRICATE RIG	SERVICE RIG & TOP DRIVE.	No
18:00	06:00	12.00	11,142	DRLG W/SHC	DRLG 8 3/4" VERT F/ 10737' - 11142'. 405' @ 34 FPH.	No

### Bits & BHAs

Bit Run 8	Size (in) 8 3/4	Make BAKER HUG...	Model TD507FX	SN 7161826	Depth In (ft...) 4,696.0	Depth Out... 11,142.0	Length (ft) 1.00	Job Drill Hr... 94.50	Job Circ Hr... 5.00	Avg ROP (f... 55.1	Rot Time (hr) 94.50	Slide Time... 13/13/13/13/13/13
BHA # 8	Min Weight on Bit (1000lbf) 25	Max Weight on Bit (1000lbf) 35	Min RPM (rpm) 180	Max RPM (rpm) 199	Min Stand Pipe Pressure (psi) 2,450.0	Max Stand Pipe Pressure (psi) 2,915.0						
String Length (ft) 11,142.51	Weight of String in Air (1000lbf) 275											

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
334	Drill Pipe	5	10,420.62	11,142.51
1	XO Sub	6 1/4	2.13	721.89
5	DRILL COLLAR	6 1/2	146.33	719.76
	HYD DRLG JARS	6 1/2	31.36	573.43
15	Drill Collar	6 1/2	436.86	542.07
1	3 PT ROLLER REAMER	6 5/8	7.47	105.21
1	XO Sub	6 1/2	3.26	97.74
1	NMDC	6 1/2	29.60	94.48
1	NMDC	6 1/2	27.98	64.88
1	Orientation Sub	6 1/2	2.65	36.90
	3 PT ROLLER REAMER	6 5/8	6.34	34.25
1	Mud Motor	6 1/2	26.91	27.91

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 10,331.0	End Depth (ftKB) 11,142.0	Cum Depth Drilled (ft) 2,393.00	Drilling Time (hr) 23.50	Cum Drilling Time (hr) 56.00	Interval ROP (ft/hr) 34.5	Flow Rate (gpm) 500
Weight on Bit (1000lbf) 25	RPM (rpm) 35	Stand Pipe Pressure (psi) 2,650.0	Drill Str Wt (1000lbf) 310	PU Str Wt (1000lbf) 320	SO Str Wt (1000lbf) 300	Drilling Torque 8,000.0	Off Bottom Torque 1,000.0

### Hydraulic Calculations

Bit Hydraulic Power (hp) 76.0	Bit Hydraulic Power Per Hole Area (hp/in²) 1.3	Bit Jet Velocity (ft/s) 176.8	Bit Pressure Drop (psi) 260.5	Percent of Pressure Drop at Bit (%) 10
Max Casing AV (ft/min) 231.4	Max Open Hole AV (ft/min) 19.4	Min Casing AV (ft/min) 231.4	Min Open Hole AV (ft/min) 18.8	ECD End (lb/gal) 9.20

Error

### Mud Properties

Time 11:00	Type Water Base	Depth (ftKB) 9,515	Density (lb/gal) 9.2	Funnel Viscosity (s/qt) 28	PV Calc (cP)	YP Calc (lbf/100ft²)
Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH 9.0	Solids (%) 2.3	Lime (lb/bbl)
Chlorides (mg/L) 65,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 0.10	Percent Oil (%) 0.0
Oil Water Ratio 0/100	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%) 6.5	Magnesium (mg/L) 534.600	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas 22.00	Max Background Gas 238.00	Min Connection Gas 216.00	Max Connection Gas 216.00	Max Trip Gas	Max H2S (ppm)	

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned

### Pump # 1, Triplex

Pump Number 1	Start Date 11/21/2016 06:00	End Date 11/22/2016 06:00	Make Bomco	Model F-1600
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Action Type Liner Size (in)



# Daily Drilling Report

Date: 11/22/2016

Report #: 23.0

DSS: 20.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

Casing Strings					
Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

BOPs		
Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016

Formation	
Formation Name	Prog Top MD (ftKB)
STRAWN	11,120.00

Fluids, Disposal and Water					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
BRINE WATER	LOAD		2.0	-35.0	
JET PITS/WORK ON LOCATION	HRS		2.0	-12.0	
MUD/SOLIDS/CMT DISPOSAL	LOAD		4.0	-39.0	
RIG DIESEL	gal us		1,815.0	5,179.0	

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fid Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$363,000	\$0
210	D-Directional Drig Services	\$6,400	\$109,700	\$0
211	D-Fuel & Power	\$3,950	\$62,098	\$0
212	D-Water	\$2,050	\$27,930	\$0
214	D-Mud & Chemicals	\$160	\$27,581	\$0
226	D-Company Sprvsn	\$1,800	\$41,400	\$0
227	D-Contract Sprvsn	\$3,200	\$73,600	\$0
235	D-Rentals-Surface	\$4,215	\$137,905	\$0
236	D-Rentals-Subsrfc	\$300	\$46,505	\$0
237	D-Trucking/Forklift/Rig Mobil	\$550	\$179,525	\$0
244	D-Envmntl/Cisd Loop	\$6,550	\$156,305	\$0



# Daily Drilling Report

Date: 11/23/2016

Report #: 24.0

DSS: 21.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Contractor: SCANDRILL  
Asset Group: DELAWARE BASIN  
County: LEA  
Prospect:  
Spud Date: 11/2/2016 03:00  
Rig Release Date:  
Target Formation: DEVONIAN

#Crew: FREEDOM  
Area: AGI  
State: NM  
End Depth (ftKB): 11,331.0  
End Depth (TVD) (ftKB): 11,328.8  
24 Hr Progress (ft): 189.00  
Drilling Hours (hr): 8.00

Rig Phone #: (432) 853-9909  
Field Name: AGI  
API/UWI: 30-025-42207  
Permit #:  
Ground Elevation (ft): 3,547.00  
Original KB Elevation (ft): 3,572.00  
KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Cum Field Est To Date (Cost)
\$63,511	\$2,007,185

### Daily Activity from 11/22/2016 - 11/23/2016

Operations at Report Time  
DRLG 8 3/4" VERTICAL W/ SHC @ 11,331' @ 35 FPH.  
Past 24 Hours Operation Summary  
DRLG 8 3/4" VERT W/ SHC F/ 11142' - 11231', CIRC SWEEP, SLUG PIPE & TOH DUE TO LOW ROP, CHANGE BIT, MUD MTR & REAMERS, SCRIBE AND TEST, TIH, WASH TO BOTTOM F/ 11,019' TO 11,231' W/ NO ISSUES. DRILL 8 3/4" VERT F/ 11,231' - 11,331'.

Operations Next Report Period  
DRILL 8 3/4" VERTICAL W/ SHC.

Incident Reported No  
Accident Reported No  
Daily Contacts  
CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT.

### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	09:30	3.50	11,231	DRLG W/SHC	DRLG 8-3/4" VERT W/ SHC AND MWD SURVEYS F/ 11,142' - 11,231', 89' @ 25 FPH.	No
09:30	10:30	1.00	11,231	PUMP SWEEP	@ 11,231', PUMP HI VIS SWEEP AND CIRC OUT, SLUG PIPE FOR TOH.	No
10:30	16:30	6.00	11,231	TOH BIT	@ 11,231' TOH FOR LOW ROP.	No
16:30	20:00	3.50	11,231	PU/LD BHA	LD BIT, MTR AND REAMERS AND PU NEW, SCRIBE AND TEST.	No
20:00	01:00	5.00	11,231	TIH BIT	@ 11,231' TIH W/ NEW 8 3/4" BHA, WENT IN W/ 1.75" FXD 9/10 LOBE 3.5 STAGE .15 REV TRIUMPH MTR AND BAKER TD507FX BIT, PICKING UP 2 NEW 3-POINT ROLLER REAMERS, FILLING EVERY 30 STANDS TO 11,019'.	No
01:00	01:30	0.50	11,231	W/R	WASH TO BOTTOM F/ 11,019 - 11,231' NO FILL NO ISSUES.	No
01:30	06:00	4.50	11,331	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 11,231' - 11,331', 100' @ 22.2 FPH.	No

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
9	8 3/4	BAKER HUG...	TD507FX	7161719	11,231.0	11,331.0	1.00	4.50		22.2	4.50		13/13/13/13/13/13
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
9		25	25	144	144	1,980.0	1,980.0						
String Length (ft)	Weight of String in Air (1000lbf)												
11,331.17	279												

Drill String Components		Item Des	OD (in)	Len (ft)	Cum Len (ft)
Jts					
340	Drill Pipe		5	10,608.05	11,331.17
1	XO Sub		6 1/4	2.13	723.12
5	DRILL COLLAR		6 1/2	146.33	720.99
1	HYD DRLG JARS		6 1/2	31.36	574.66
15	Drill Collar		6 1/2	436.86	543.30
1	3 PT ROLLER REAMER		6 5/8	6.67	106.44
1	XO Sub		6 1/2	3.26	99.77
1	NMDC		6 1/2	29.60	96.51
1	NMDC		6 1/2	27.98	66.91
1	Orientation Sub		6 1/2	2.65	38.93
1	3 PT ROLLER REAMER		6 5/8	6.73	36.28
1	Mud Motor		6 3/4	28.55	29.55

Drilling Parameters							
Wellbore Original Hole	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (f/hr)	Flow Rate (gpm)
	11,231.0	11,331.0	100.00	4.50	4.50	22.2	457
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque
25	75	1,980.0	310	330	280	13,000.0	5,000.0

Hydraulic Calculations			
Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)
58.6	1.0	161.6	220.0
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)
211.5	17.8	211.5	17.2
Error	Percent of Pressure Drop at Bit (%)		
	11		
	ECD End (lb/gal)		
	9.38		

Mud Properties						
Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft <sup>2</sup> )
07:00	Salt Base	11,142	9.3	38	8	6
Gel 10 sec (lb/100ft <sup>2</sup> )	Gel 10 min (lb/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
4	3	14.0	1	10.0	1.1	
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
90,000					0.20	0.0
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
0/100	111.0		7.2	6.000		1



# Daily Drilling Report

Date: 11/23/2016

Report #: 24.0

DSS: 21.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

Mud Additive Amounts				Consumed	On Loc	Returned
Des	Units	Rec		29.0	253.0	
WILDCAT 601 TZ	GAL					

Pump # 1, Triplex						
Pump Number	Start Date	End Date	Make	Model		
1	11/22/2016 06:00	11/23/2016 06:00	Bomco	F-1600		
Action Type				Liner Size (in)		
Triplex				5 1/2		
Pressure (psi)	Strokes (spm)	Stroke Length (in)	Volumetric Efficiency (%)	Flow Rate (gpm)		
1,980.0	65	12.00	95	229		

Pump # 2, Triplex						
Pump Number	Start Date	End Date	Make	Model		
2	11/22/2016 06:00	11/23/2016 06:00	Bomco	F-1600		
Action Type				Liner Size (in)		
Triplex				5 1/2		
Pressure (psi)	Strokes (spm)	Stroke Length (in)	Volumetric Efficiency (%)	Flow Rate (gpm)		
1,980.0	65	12.00	95	229		

Survey Data							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
11,151.00	0.90	23.10	11,148.84	81.47	49.79	64.48	0.78
11,243.00	1.10	43.50	11,240.83	82.97	51.10	65.37	0.44
11,331.00	1.10	43.50	11,328.81	84.64	52.32	66.54	0.00

Casing Strings					
Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

BOPs		
Pressure Rating (psi)	Nominal ID (in)	Last BOP Test Date
10,000.0	13 5/8	11/14/2016

Formation		Prog Top MD (ftKB)
Formation Name		11,120.00
STRAWN		

Fluids, Disposal and Water					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		3.0	-42.0	
RIG DIESEL	gal us	12,500.0	1,551.0	16,128.0	

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$379,000	\$0
210	D-Directional Drig Services	\$8,900	\$118,600	\$0
211	D-Fuel & Power	\$3,415	\$65,513	\$0
213	D-Bits	\$8,000	\$59,000	\$0
214	D-Bits	\$12,481	\$40,062	\$0
214	D-Mud & Chemicals	\$1,800	\$43,200	\$0
226	D-Company Sprvsn	\$3,200	\$76,800	\$0
227	D-Contract Sprvsn	\$2,465	\$140,370	\$0
235	D-Rentals-Surface	\$1,200	\$47,705	\$0
236	D-Rentals-Subsrfc	\$6,050	\$162,355	\$0
244	D-Envmntl/Clsd Loop			



# Daily Drilling Report

Date: 11/24/2016

Report #: 25.0

DSS: 22.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

<b>Contractor:</b> SCANDRILL	<b>#Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 11,970.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 11,967.7	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 639.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b> 23.50	<b>KB-Ground Distance (ft):</b> 25.00

<b>AFE Number:</b> 009612	<b>Total AFE Amount (Cost):</b>
<b>Job AFE Amount (Cost):</b> \$46,915	<b>Cum Field Est To Date (Cost):</b> \$2,054,100

### Daily Activity from 11/23/2016 - 11/24/2016

Operations at Report Time  
DRLG 8 3/4" VERTICAL @ 11,970' @ 37 FPH.

Past 24 Hours Operation Summary  
DRLG 8 3/4" VERTICAL W/ SHC F/ 11,331' - 11,970', 639' @ 27.1 FPH, SERVICE RIG AND TOP DRIVE.

Operations Next Report Period  
DRILL 8 3/4" VERTICAL.

Incident Reported No Accident Reported No Daily Contacts  
CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,

### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	15:30	9.50	11,580	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 11,331' - 11,580', 249' @ 26.2 FPH.	No
15:30	16:00	0.50	11,580	LUBRICATE RIG	@ 11,580' SERVICE RIG AND TOP DRIVE.	No
16:00	06:00	14.00	11,970	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 11,580' -	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (ft/hr)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
9	8 3/4	BAKER HUG...	TD507FX	7161719	11,231.0	11,970.0	1.00	28.00		26.4	28.00		13/13/13/13/13/13
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)		Min RPM (rpm)	Max RPM (rpm)		Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)				
9		25	25		139	144		1,980.0	2,050.0				
String Length (ft)	Weight of String in Air (1000lbf)												
11,985.17	291												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
361	Drill Pipe	5	11,262.05	11,985.17
1	XO Sub	6 1/4	2.13	723.12
5	DRILL COLLAR	6 1/2	146.33	720.99
1	HYD DRLG JARS	6 1/2	31.36	574.66
15	Drill Collar	6 1/2	436.86	543.30
1	3 PT ROLLER REAMER	6 5/8	6.67	106.44
1	XO Sub	6 1/2	3.26	99.77
1	NMDC	6 1/2	29.60	96.51
1	NMDC	6 1/2	27.98	66.91
1	Orientation Sub	6 1/2	2.65	38.93
1	3 PT ROLLER REAMER	6 5/8	6.73	36.28
1	Mud Motor	6 3/4	28.55	29.55

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Original Hole	11,331.0	11,970.0	739.00	23.50	28.00	27.2	457
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque
25	70	2,050.0	320	340	300	13,000.0	5,000.0

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
59.3	1.0	161.6	222.3	11
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
211.5	17.8	211.5	17.2	9.63

### Mud Properties

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft <sup>2</sup> )
11:00	Salt Base	11,463	9.4	38	8	7
Gel 10 sec (lb/100ft <sup>2</sup> )	Gel 10 min (lb/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
5	3	18.0	1	10.0	1.7	
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
85,000					0.15	0.0
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
0/100	108.0		7.3	486.000		1

Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)
39.00	63.00	53.00	53.00	0.00	

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned
Barite BULK	TON		11.0	73.0	
CAUSTIC SODA	50# SACK		5.0	68.0	
DEFOAMER	5 GAL		4.0	27.0	





# Daily Drilling Report

Date: 11/24/2016

Report #: 25.0

DSS: 22.13

Lat: 32.643951 Long: -103.811116

Well Name: ZIA AGI #2D

Proposed:

### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
11,524.00	1.20	45.30	11,521.77	88.51	55.28	69.15	0.15
11,617.00	0.70	63.70	11,614.76	90.03	56.22	70.35	0.62
11,711.00	1.60	68.80	11,708.74	91.85	56.94	72.09	0.96
11,804.00	0.40	115.50	11,801.72	93.25	57.27	73.60	1.46
11,898.00	1.10	72.60	11,895.72	94.25	57.40	74.75	0.91
11,970.00	1.10	72.60	11,967.70	95.55	57.82	76.07	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (b/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

Formation Name	Prog Top MD (ftKB)
ATOKA	11,549.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		1.0	-43.0	
RIG DIESEL	gal us		878.0	15,250.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$395,000	\$0
210	D-Directional Drig Services	\$6,400	\$125,000	\$0
211	D-Fuel & Power	\$1,935	\$67,448	\$0
214	D-Mud & Chemicals	\$10,390	\$50,452	\$0
226	D-Company Sprvsn	\$1,800	\$45,000	\$0
227	D-Contract Sprvsn	\$3,200	\$80,000	\$0
235	D-Rentals-Surface	\$2,465	\$142,835	\$0
236	D-Rentals-Subsrfc	\$300	\$48,005	\$0
237	D-Trucking/Forklift/Rig Mobil	\$575	\$180,100	\$0
244	D-Envmntl/Clsd Loop	\$3,850	\$166,205	\$0



# Daily Drilling Report

Date: 11/24/2016

Report #: 25.0

DSS: 22.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

<b>Contractor:</b> SCANDRILL	<b>#Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 11,970.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 11,967.7	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 639.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b> 23.50	<b>KB-Ground Distance (ft):</b> 25.00

<b>AFE Number:</b> 009612	<b>Total AFE Amount (Cost):</b>
<b>Job AFE Amount (Cost):</b> \$46,915	<b>Cum Field Est To Date (Cost):</b> \$2,054,100

### Daily Activity from 11/23/2016 - 11/24/2016

Operations at Report Time  
DRLG 8 3/4" VERTICAL @ 11,970' @ 37 FPH.

Past 24 Hours Operation Summary  
DRLG 8 3/4" VERTICAL W/ SHC F/ 11,331' - 11,970', 639' @ 27.1 FPH, SERVICE RIG AND TOP DRIVE.

Operations Next Report Period  
DRILL 8 3/4" VERTICAL.

Incident Reported No Accident Reported No Daily Contacts  
CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,

### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	15:30	9.50	11,580	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 11,331' - 11,580', 249' @ 26.2 FPH.	No
15:30	16:00	0.50	11,580	LUBRICATE RIG	@ 11,580' SERVICE RIG AND TOP DRIVE.	No
16:00	06:00	14.00	11,970	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 11,580' -	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr	Job Circ Hr	Avg ROP (ft/hr)	Rot Time (hr)	Slide Time	Nozzles (1/32")
9	8 3/4	BAKER HUG...	TD507FX	7161719	11,231.0	11,970.0	1.00	28.00		26.4	28.00		13/13/13/13/13/13
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
9		25	25	139	144	1,980.0	2,050.0						
String Length (ft)	11,985.17												
Weight of String in Air (1000lbf)	291												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
361	Drill Pipe	5	11,262.05	11,985.17
1	XO Sub	6 1/4	2.13	723.12
5	DRILL COLLAR	6 1/2	146.33	720.99
1	HYD DRLG JARS	6 1/2	31.36	574.66
15	Drill Collar	6 1/2	436.86	543.30
1	3 PT ROLLER REAMER	6 5/8	6.67	106.44
1	XO Sub	6 1/2	3.26	99.77
1	NMDC	6 1/2	29.60	96.51
1	NMDC	6 1/2	27.98	66.91
1	Orientation Sub	6 1/2	2.65	38.93
1	3 PT ROLLER REAMER	6 5/8	6.73	36.28
1	Mud Motor	6 3/4	28.55	29.55

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Original Hole	11,331.0	11,970.0	739.00	23.50	28.00	27.2	457
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque
25	70	2,050.0	320	340	300	13,000.0	5,000.0

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
59.3	1.0	161.6	222.3	11
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
211.5	17.8	211.5	17.2	9.63

### Mud Properties

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft <sup>2</sup> )
11:00	Salt Base	11,463	9.4	38	8	7
Gel 10 sec (lb/100ft <sup>2</sup> )	Gel 10 min (lb/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
5	3	18.0	1	10.0	1.7	
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
85,000					0.15	0.0
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
0/100	108.0		7.3	486.000		1

Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)
39.00	63.00	53.00	53.00	0.00	

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned
Barite BULK	TON		11.0	73.0	
CAUSTIC SODA	50# SACK		5.0	68.0	
DEFOAMER	5 GAL		4.0	27.0	
			11.0	122.0	



# Daily Drilling Report

Date: 11/24/2016

Report #: 25.0

DSS: 22.13

Lat: 32.643951 Long: -103.811116

Well Name: ZIA AGI #2D

Proposed:

### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
11,524.00	1.20	45.30	11,521.77	88.51	55.28	69.15	0.15
11,617.00	0.70	63.70	11,614.76	90.03	56.22	70.35	0.62
11,711.00	1.60	68.80	11,708.74	91.85	56.94	72.09	0.96
11,804.00	0.40	115.50	11,801.72	93.25	57.27	73.60	1.46
11,898.00	1.10	72.60	11,895.72	94.25	57.40	74.75	0.91
11,970.00	1.10	72.60	11,967.70	95.55	57.82	76.07	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (b/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

Formation Name	Prog Top MD (ftKB)
ATOKA	11,549.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		1.0	-43.0	
RIG DIESEL	gal us		878.0	15,250.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$395,000	\$0
210	D-Directional Drig Services	\$6,400	\$125,000	\$0
211	D-Fuel & Power	\$1,935	\$67,448	\$0
214	D-Mud & Chemicals	\$10,390	\$50,452	\$0
226	D-Company Sprvsn	\$1,800	\$45,000	\$0
227	D-Contract Sprvsn	\$3,200	\$80,000	\$0
235	D-Rentals-Surface	\$2,465	\$142,835	\$0
236	D-Rentals-Subsrfc	\$300	\$48,005	\$0
237	D-Trucking/Forklift/Rig Mobil	\$575	\$180,100	\$0
244	D-Envmntl/Clsd Loop	\$3,850	\$166,205	\$0

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 12,382.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 12,379.7	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 412.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 17.50	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$45,756
	Cum Field Est To Date (Cost) \$2,099,856

**Daily Activity from 11/24/2016 - 11/25/2016**

Operations at Report Time  
@ 12,382' TOH FOR LOW ROP.

Past 24 Hours Operation Summary  
DRILL 8 3/4" VERTICAL W/ SHC F/ 11,970' - 12,382', 412' @ 28.4 FPH, SERVICE RIG, PUMP SWEEP AND CIRC, TOH DUE TO LOW ROP.

Operations Next Report Period  
CHANGE BIT, MTR SCRIBE AND TEST, TIH, DRILL 8 3/4" VERTICAL W/ SHC.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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**Time Log**

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	13:30	7.50	12,141	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 11,970' - 12,141', 171' @ 22.8 FPH.	No
13:30	14:00	0.50	12,141	LUBRICATE RIG	@ 12,141' SERVICE RIG AND TOP DRIVE.	No
14:00	00:00	10.00	12,382	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 12,141' - 12,382', 241' @ 24.1 FPH.	No
00:00	02:00	2.00	12,382	C&C MUD	@ 12,382' PUMP HI VIS SWEEP, CIRC AROUND, CHECK FOR FLOW, PUMP SLUG FOR TOH FOR LOW ROP.	No
02:00	06:00	4.00	12,382	TOH BIT CHANGE	@ 12,382' TOH DUE TO LOW ROP.	No

**Bits & BHAs**

Bit Run 9	Size (in) 8 3/4	Make BAKER HUG...	Model TD507FX	SN 7161719	Depth In (ft...) 11,231.0	Depth Out... 12,382.0	Length (ft) 1.00	Job Drill Hr... 45.50	Job Circ Hr... 2.00	Avg ROP (f...) 25.3	Rot Time (hr) 45.50	Slide Time... 	Nozzles (1/32") 13/13/13/13/13/13
BHA # 9	Min Weight on Bit (1000lbf) 25	Max Weight on Bit (1000lbf) 25	Min RPM (rpm) 139	Max RPM (rpm) 144	Min Stand Pipe Pressure (psi) 1,980.0	Max Stand Pipe Pressure (psi) 2,250.0							
String Length (ft) 12,391.01	Weight of String in Air (1000lbf) 299												

**Drill String Components**

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
374	Drill Pipe	5	11,667.89	12,391.01
1	XO Sub	6 1/4	2.13	723.12
5	DRILL COLLAR	6 1/2	146.33	720.99
1	HYD DRLG JARS	6 1/2	31.36	574.66
15	Drill Collar	6 1/2	436.86	543.30
1	3 PT ROLLER REAMER	6 5/8	6.67	106.44
1	XO Sub	6 1/2	3.26	99.77
1	NMDC	6 1/2	29.60	96.51
1	NMDC	6 1/2	27.98	66.91
1	Orientation Sub	6 1/2	2.65	38.93
1	3 PT ROLLER REAMER	6 5/8	6.73	36.28
1	Mud Motor	6 3/4	28.55	29.55

**Drilling Parameters**

Wellbore Original Hole	Start Depth (ftKB) 11,970.0	End Depth (ftKB) 12,382.0	Cum Depth Drilled (ft) 1,151.00	Drilling Time (hr) 17.50	Cum Drilling Time (hr) 45.50	Interval ROP (ft/hr) 23.5	Flow Rate (gpm) 493
Weight on Bit (1000lbf) 25	RPM (rpm) 70	Stand Pipe Pressure (psi) 2,250.0	Drill Str Wt (1000lbf) 320	PU Str Wt (1000lbf) 350	SO Str Wt (1000lbf) 300	Drilling Torque 15,000.0	Off Bottom Torque 6,000.0

**Hydraulic Calculations**

Bit Hydraulic Power (hp) 74.4	Bit Hydraulic Power Per Hole Area (hp/in²) 1.2	Bit Jet Velocity (ft/s) 174.3	Bit Pressure Drop (psi) 258.7	Percent of Pressure Drop at Bit (%) 11
Max Casing AV (ft/min) 228.1	Max Open Hole AV (ft/min) 19.2	Min Casing AV (ft/min) 228.1	Min Open Hole AV (ft/min) 18.6	ECD End (lb/gal) 9.45

Error

**Mud Properties**

Time 08:00	Type Salt Base	Depth (ftKB) 12,030	Density (lb/gal) 9.4	Funnel Viscosity (s/qt) 38	FV Calc (cP) 8	YP Calc (lb/100ft²) 6
Gel 10 sec (lb/100ft²) 4	Gel 10 min (lb/100ft²) 3	Filtrate (mL/30min) 18.0	Filter Cake (1/32") 1	pH 10.0	Solids (%) 1.8	Lime (lb/bbl)
Chlorides (mg/L) 80,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 0.15	Percent Oil (%) 0.0
Oil/Water Ratio 0/100	Flow Line Temperature (°F) 112.0	Vis 6rpm	Low Gravity Solids (%) 7.2	Magnesium (mg/L) 486.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32") 1
Min Background Gas 12.00	Max Background Gas 852.00	Min Connection Gas 36.00	Max Connection Gas 36.00	Max Trip Gas 0.00	Max H2S (ppm)	

**Mud Additive Amounts**

Des	Units	Rec	Consumed	On Loc	Returned
Barite BULK	TON		11.0	62.0	

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

<b>Pump # 2, Triplex</b>	Start Date 11/24/2016 06:00	End Date 11/25/2016 06:00	Make Bomco	Model F-1600
Pump Number 2	Liner Size (in) 5 1/2		Flow Rate (gpm) 246	
Action Type Triplex	Stroke Length (in) 12.00	Volumetric Efficiency (%) 95		
Pressure (psi) 2,250.0	Strokes (spm) 70			

Survey Data							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (*/100ft)
11,991.00	0.80	102.20	11,988.70	95.50	57.53	76.24	0.61
12,085.00	0.20	237.70	12,082.70	95.77	57.31	76.74	1.01
12,179.00	0.40	82.40	12,176.70	95.90	57.26	76.93	0.63
12,272.00	1.10	71.00	12,269.69	97.03	57.60	78.10	0.77
12,382.00	1.10	71.00	12,379.67	99.05	58.28	80.09	0.00

Casing Strings					
Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

<b>BOPs</b>	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
Pressure Rating (psi) 10,000.0	Prog Top MD (ftKB) 12,075.00	

<b>Formation</b>	Formation Name	Prog Top MD (ftKB) 12,075.00
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MORROW					
Fluids, Disposal and Water					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		1.0	-44.0	
RIG DIESEL	gal us		2,982.0	12,268.0	

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fid Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$411,000	\$0
210	D-Directional Drlg Services	\$6,400	\$131,400	\$0
211	D-Fuel & Power	\$6,560	\$74,008	\$0
214	D-Mud & Chemicals	\$5,181	\$55,633	\$0
226	D-Company Sprvsn	\$1,800	\$46,800	\$0
227	D-Contract Sprvsn	\$3,200	\$83,200	\$0
235	D-Rentals-Surface	\$2,465	\$145,300	\$0
236	D-Rentals-Subsrfc	\$300	\$48,305	\$0
244	D-Envmntl/Clsd Loop	\$3,850	\$170,055	\$0



# Daily Drilling Report

Date: 11/26/2016

Report #: 27.0

DSS: 24.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 12,713.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 12,710.6	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 331.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 11.50	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$51,706
	Cum Field Est To Date (Cost) \$2,151,562

### Daily Activity from 11/25/2016 - 11/26/2016

Operations at Report Time  
DRLG 8 3/4" VERTICAL @ 12,713' @ 30 FPH.

Past 24 Hours Operation Summary  
@ 12,382' CONTINUED TRIP FOR LOW ROP, CHANGE BHA SCRIBE AND TEST, CUT DRLG LINE, TIH, DRILL 8 3/4" VERTICAL F/ 12,382' - 12,713'.

Operations Next Report Period  
DRILL 8 3/4" VERTICAL.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	08:00	2.00	12,382	TOH BIT CHANGE	@ 12,382' CONTINUE TO TOH DUE TO LOW ROP.	No
08:00	10:00	2.00	12,382	TOH BIT	CHANGE BIT, MTR, MWD, SCRIBE AND TEST.	No
10:00	12:30	2.50	12,382	TIH BIT CHANGE	TIH W/ NEW BIT AND MTR, WENT IN W/ 6 3/4" FXD 1.75" 7/8 LOBE 2.9 STAGE .16 REV DYNOMAX MTR AND BAKER TD507FX BIT TO CSG SHOE @ 4,696', FILLING EVERY 30 STANDS.	No
12:30	13:30	1.00	12,382	CDL	SLIP AND CUT 77' DRLG LINE.	No
13:30	18:00	4.50	12,382	TIH BIT	CONTINUE TIH F/ 4,696' - 12,329' . FILLING EVERY 30 STANDS.	No
18:00	18:30	0.50	12,382	W/R	WASH/REAM TO BOTTOM F/ 12,239' - 12,382', NO FILL NO ISSUES.	No
18:30	06:00	11.50	12,713	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 12,382' - 12,713', 331' @ 28.7 FPH.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...	Rot Time (hr)	Slide Time...	Nozzles (1/32")
10	8 3/4	BAKER HUG...	TD507FX	7161207	12,382.0	12,713.0	1.00	11.50		28.8	11.50		13/13/13/13/13/13
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
10		25	25	133	133	2,200.0	2,200.0						
String Length (ft)	12,735.61							Weight of String in Air (1000lbf)	306				

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
385	Drill Pipe	5	12,012.01	12,735.61
1	XO Sub	6 1/4	2.13	723.60
5	DRILL COLLAR	6 1/2	146.33	721.47
1	HYD DRLG JARS	6 1/2	31.36	575.14
15	Drill Collar	6 1/2	436.86	543.78
1	3 PT ROLLER REAMER	6 5/8	6.67	106.92
1	XO Sub	6 1/2	3.26	100.25
1	NMDC	6 1/2	29.60	96.99
1	NMDC	6 1/2	27.98	67.39
1	Orientation Sub	6 1/2	2.65	39.41
1	3 PT ROLLER REAMER	6 5/8	6.73	36.76
1	Mud Motor	6 3/4	29.03	30.03

### Drilling Parameters

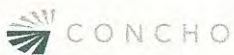
Wellbore Original Hole	Start Depth (ftKB) 12,382.0	End Depth (ftKB) 12,713.0	Cum Depth Drilled (ft) 331.00	Drilling Time (hr) 11.50	Cum Drilling Time (hr) 11.50	Interval ROP (ft/hr) 28.8	Flow Rate (gpm) 458
Weight on Bit (1000lbf) 25	RPM (rpm) 60	Stand Pipe Pressure (psi) 2,200.0	Drill Str Wt (1000lbf) 330	PU Str Wt (1000lbf) 350	SO Str Wt (1000lbf) 300	Drilling Torque 15,000.0	Off Bottom Torque 6,000.0

### Hydraulic Calculations

Bit Hydraulic Power (hp) 59.7	Bit Hydraulic Power Per Hole Area (hp/in²) 1.0	Bit Jet Velocity (ft/s) 161.9	Bit Pressure Drop (psi) 223.3	Percent of Pressure Drop at Bit (%) 10
Max Casing AV (ft/min) 211.9	Max Open Hole AV (ft/min) 17.8	Min Casing AV (ft/min) 211.9	Min Open Hole AV (ft/min) 17.2	ECD End (lb/gal) 9.45

### Mud Properties

Time 10:30	Type Salt Base	Depth (ftKB) 12,382	Density (lb/gal) 9.4	Funnel Viscosity (s/qt) 38	PV Calc (cP) 6	YP Calc (lb/100ft²) 8
Gel 10 sec (lb/100ft²) 4	Gel 10 min (lb/100ft²) 3	Filtrate (mL/30min) 16.0	Filter Cake (1/32") 1	pH 10.0	Solids (%) 2.4	Lime (lb/bbl) 0.04
Chlorides (mg/L) 70,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 0.20	Percent Oil (%) 0.0
Oil Water Ratio 0/100	Flow Line Temperature (°F)	Vis Grpm	Low Gravity Solids (%) 7.9	Magnesium (mg/L) 486.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32") 1
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas 0.25.00	Max H2S (ppm)	



# Daily Drilling Report

Date: 11/26/2016

Report #: 27.0

DSS: 24.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

Pressure (psi) 2,200.0	Strokes (spm) 65	Stroke Length (in) 12.00	Volumetric Efficiency (%) 95	Flow Rate (gpm) 229
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### Pump # 2, Triplex

Pump Number 2	Start Date 11/25/2016 06:00	End Date 11/26/2016 06:00	Make Bomco	Model F-1600
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Action Type Triplex	Liner Size (in) 5 1/2
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Pressure (psi) 2,200.0	Strokes (spm) 65	Stroke Length (in) 12.00	Volumetric Efficiency (%) 95	Flow Rate (gpm) 229
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### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
12,460.00	0.60	265.50	12,457.68	98.76	58.36	79.68	1.49
12,554.00	1.00	231.70	12,551.67	97.51	57.82	78.55	0.64
12,648.00	1.20	105.60	12,645.66	97.32	57.04	78.85	2.09
12,713.00	1.20	105.60	12,710.65	98.18	56.68	80.16	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

Formation Name MISSISSIPPIAN	Prog Top MD (ftKB) 12,665.00
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### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
RIG DIESEL	gal us		1,278.0	10,990.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$427,000	\$0
210	D-Directional Drlg Services	\$8,900	\$140,300	\$0
211	D-Fuel & Power	\$2,815	\$76,823	\$0
213	D-Bits	\$8,000	\$67,000	\$0
214	D-Mud & Chemicals	\$5,476	\$61,109	\$0
226	D-Company Sprvsn	\$1,800	\$48,600	\$0
227	D-Contract Sprvsn	\$3,200	\$86,400	\$0
235	D-Rentals-Surface	\$2,465	\$147,765	\$0
236	D-Rentals-Subsrfc	\$300	\$48,605	\$0
244	D-Envmntl/Clsd Loop	\$2,750	\$172,805	\$0



# Daily Drilling Report

Date: 11/27/2016

Report #: 28.0

DSS: 25.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 13,171.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 13,168.4	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 458.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 22.50	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$42,732
	Cum Field Est To Date (Cost) \$2,194,294

### Daily Activity from 11/26/2016 - 11/27/2016

Operations at Report Time  
DRLG 8 3/4" VERTICAL @ 13,171' @ 18 FPH.

Past 24 Hours Operation Summary  
DRILL 8 3/4" VERTICAL W/ SHC F/ 12,713' - 13,171', 458'. SERVICE RIG, CHANGE SWAB IN PUMP,

Operations Next Report Period  
DRILL 8 3/4" VERTICAL.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	13:30	7.50	12,892	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 12,713' - 12,892', 179' @ 23.8 FPH.	No
13:30	14:00	0.50	12,892	LUBRICATE RIG	@ 12,892' SERVICE RIG AND TOPDRIVE.	No
14:00	17:00	3.00	12,923	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 12,892' - 12,923', 31' @ 10.3 FPH.	No
17:00	18:00	1.00	12,923	C/O PUMP EXPENDABLES	@ 12,923' CIRC W/ #1 PUMP AND CHANGE SWAB # 2 PUMP.	No
18:00	06:00	12.00	13,171	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 12,923' - 13,171', 248' @ 20.6 FPH.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...	Rot Time (hr)	Slide Time...	Nozzles (1/32")
10	8 3/4	BAKER HUG...	TD507FX	7161207	12,382.0	13,171.0	1.00	34.00		23.2	34.00		13/13/13/13/13/13
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
10		25	30	133	143	2,150.0	2,200.0						
String Length (ft)					Weight of String in Air (1000lbf)								
13,171.79					315								

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
399	Drill Pipe	5	12,448.19	13,171.79
1	XO Sub	6 1/4	2.13	723.60
5	DRILL COLLAR	6 1/2	146.33	721.47
1	HYD DRLG JARS	6 1/2	31.36	575.14
15	Drill Collar	6 1/2	436.86	543.78
1	3 PT ROLLER REAMER	6 5/8	6.67	106.92
1	XO Sub	6 1/2	3.26	100.25
1	NMDC	6 1/2	29.60	96.99
1	NMDC	6 1/2	27.98	67.39
1	Orientation Sub	6 1/2	2.65	39.41
1	3 PT ROLLER REAMER	6 5/8	6.73	36.76
1	Mud Motor	6 3/4	29.03	30.03

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 12,713.0	End Depth (ftKB) 13,171.0	Cum Depth Drilled (ft) 789.00	Drilling Time (hr) 22.50	Cum Drilling Time (hr) 34.00	Interval ROP (ft/hr) 20.4	Flow Rate (gpm) 458
Weight on Bit (1000lbf) 30	RPM (rpm) 70	Stand Pipe Pressure (psi) 2,150.0	Drill Str Wt (1000lbf) 340	PU Str Wt (1000lbf) 360	SO Str Wt (1000lbf) 310	Drilling Torque 14,000.0	Off Bottom Torque 6,000.0

### Hydraulic Calculations

Bit Hydraulic Power (hp) 60.3	Bit Hydraulic Power Per Hole Area (hp/in²) 1.0	Bit Jet Velocity (ft/s) 161.9	Bit Pressure Drop (psi) 225.7	Percent of Pressure Drop at Bit (%) 10
Max Casing AV (ft/min) 211.9	Max Open Hole AV (ft/min) 17.8	Min Casing AV (ft/min) 211.9	Min Open Hole AV (ft/min) 17.2	ECD End (lb/gal) 9.61

Error

### Mud Properties

Time 09:30	Type Salt Base	Depth (ftKB) 12,802	Density (lb/gal) 9.5	Funnel Viscosity (s/qt) 39	PV Calc (cP) 8	YP Calc (lb/100ft²) 7
Gel 10 sec (lb/100ft²) 4	Gel 10 min (lb/100ft²) 3	Filtrate (mL/30min) 16.0	Filter Cake (1/32") 1	pH 10.0	Solids (%) 4.3	Lime (lb/bbl) 0.04
Chlorides (mg/L) 50,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL) 25.00	Percent Oil (%) 0.0
Oil Water Ratio 0/100	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%) 8.5	Magnesium (mg/L) 243.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32") 1
Min Background Gas 1,000.00	Max Background Gas 1,325.00	Min Connection Gas 1,325.00	Max Connection Gas 1,325.00	Max Trip Gas 0.00	Max H2S (ppm)	





# Daily Drilling Report

Date: 11/27/2016

Report #: 28.0

DSS: 25.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

### Pump # 2, Triplex

Pump Number 2	Start Date 11/26/2016 06:00	End Date 11/27/2016 06:00	Make Bomco	Model F-1600
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Action Type Triplex	Liner Size (in) 5 1/2
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Pressure (psi) 2,150.0	Strokes (spm) 65	Stroke Length (in) 12.00	Volumetric Efficiency (%) 95	Flow Rate (gpm) 229
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### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
12,741.00	1.30	125.60	12,738.64	98.28	56.17	80.65	0.48
12,836.00	1.20	205.00	12,833.62	97.78	54.64	81.10	1.68
12,929.00	2.70	240.10	12,926.57	94.76	52.66	78.79	1.99
13,022.00	2.30	246.90	13,019.48	90.75	50.84	75.18	0.53
13,115.00	2.00	248.20	13,112.41	87.34	49.51	71.95	0.33
13,171.00	2.00	248.20	13,168.38	85.43	48.78	70.14	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

Formation Name MISSIPPIAN LIME	Prog Top MD (ftKB) 13,065.00
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### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		1.0	-45.0	
RIG DIESEL	gal us		1,707.0	9,283.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fid Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$443,000	\$0
210	D-Directional Drlg Services	\$6,400	\$146,700	\$0
211	D-Fuel & Power	\$3,760	\$80,583	\$0
214	D-Mud & Chemicals	\$4,957	\$66,066	\$0
226	D-Company Sprvsn	\$1,800	\$50,400	\$0
227	D-Contract Sprvsn	\$3,200	\$89,600	\$0
235	D-Rentals-Surface	\$2,465	\$150,230	\$0
236	D-Rentals-Subsrfc	\$300	\$48,905	\$0
244	D-Envmntl/Clsd Loop	\$3,850	\$176,655	\$0



# Daily Drilling Report

Date: 11/28/2016  
Report #: 29.0  
DSS: 26.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 13,530.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 13,527.3	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 359.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 13.50	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Cum Field Est To Date (Cost)
Daily Field Est Total (Cost) \$47,619	\$2,241,913

### Daily Activity from 11/27/2016 - 11/28/2016

Operations at Report Time  
@ 13,530' TOH TO CHANGE BHA AND PU NEAR BIT GAMMA.

Past 24 Hours Operation Summary  
DRILL 8 3/4" VERTICAL F/ 13,171' - 13,530', 359'. RIG SERVICE, CIRC BOTTOMS UP SAMPLES, TOH TO PU/MU NEAR BIT GAMMA.

Operations Next Report Period  
FINISH TOH, CHANGE BHA, TIH, DRILL 8 3/4" VERTICAL TO TD, CIRC, TOH, RIG UP AND LOG W/ SCHLUMBERGER LOGGING.

Incident Reported No  
Accident Reported No  
Daily Contacts  
CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,

Time Log					Com	NPT?
Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity		
06:00	13:30	7.50	13,358	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 13,171' - 13,358', 187' @ 24.9 FPH.	No
13:30	14:00	0.50	13,358	LUBRICATE RIG	@ 13,358' SERVICE RIG AND TOP DRIVE.	No
14:00	19:30	5.50	13,512	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 13,358' - 13,512', 154' @ 28 FPH.	No
19:30	21:30	2.00	13,512	CIRC BTMS UP	@ 13,512', CIRC BOTTOMS UP, TO PICK TOP OF WOODFORD FORMATION, SAMPLES AND GAMMA DID NOT CONFIRM.	No
21:30	22:00	0.50	13,530	DRLG W/SHC	DRLG 8 3/4" VERTICAL W/ SHC AND MWD SURVEYS F/ 13,512' - 13,530', 18' @ 36 FPH.	No
22:00	22:30	0.50	13,530	C&C MUD	@ 13,530' CIRC, TOP PICKED @ 13,474' BY GEOLEX.	No
22:30	06:00	7.50	13,530	TOH BIT CHANGE	@ 13,530', FLOW CHECK, SLUG PIPE AND TOH TO PICK UP NEAR BIT GAMMA, STRAP OUT.	No

### Bits & BHAs

Bit Run 10	Size (in) 8 3/4	Make BAKER HUG...	Model TD507FX	SN 7161207	Depth In (ft) 12,382.0	Depth Out (ft) 13,530.0	Length (ft) 1.00	Job Drill Hr... 47.50	Job Circ Hr... 2.50	Avg ROP (f... 24.2	Rot Time (hr) 47.50	Slide Time... 13/13/13/13/13/13	Nozzles (1/32")	
BHA # 10	Min Weight on Bit (1000lbf) 25	Max Weight on Bit (1000lbf) 32	Min RPM (rpm) 133	Max RPM (rpm) 143	Min Stand Pipe Pressure (psi) 2,150.0	Max Stand Pipe Pressure (psi) 2,350.0	String Length (ft) 13,545.96	Weight of String in Air (1000lbf) 322						

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
411	Drill Pipe	5	12,822.36	13,545.96
1	XO Sub	6 1/4	2.13	723.60
5	DRILL COLLAR	6 1/2	146.33	721.47
1	HYD DRLG JARS	6 1/2	31.36	575.14
15	Drill Collar	6 1/2	436.86	543.78
1	3 PT ROLLER REAMER	6 5/8	6.67	106.92
1	XO Sub	6 1/2	3.26	100.25
1	NMDC	6 1/2	29.60	96.99
1	NMDC	6 1/2	27.98	67.39
1	Orientation Sub	6 1/2	2.65	39.41
1	3 PT ROLLER REAMER	6 5/8	6.73	36.76
1	Mud Motor	6 3/4	29.03	30.03

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 13,171.0	End Depth (ftKB) 13,530.0	Cum Depth Drilled (ft) 1,148.00	Drilling Time (hr) 13.50	Cum Drilling Time (hr) 47.50	Interval ROP (ft/hr) 26.6	Flow Rate (gpm) 458
Weight on Bit (1000lbf) 32	RPM (rpm) 65	Stand Pipe Pressure (psi) 2,350.0	Drill Str Wt (1000lbf) 350	PU Str Wt (1000lbf) 380	SO Str Wt (1000lbf) 320	Drilling Torque 14,000.0	Off Bottom Torque 6,000.0

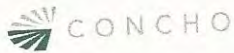
### Hydraulic Calculations

Bit Hydraulic Power (hp) 60.3	Bit Hydraulic Power Per Hole Area (hp/in²) 1.0	Bit Jet Velocity (ft/s) 161.9	Bit Pressure Drop (psi) 225.7	Percent of Pressure Drop at Bit (%) 10
Max Casing AV (ft/min) 211.9	Max Open Hole AV (ft/min) 17.8	Min Casing AV (ft/min) 211.9	Min Open Hole AV (ft/min) 17.2	ECD End (lb/gal) 9.63

Error

### Mud Properties

Time 12:30	Type Salt Base	Depth (ftKB) 12,802	Density (lb/gal) 9.5	Funnel Viscosity (s/qt) 43	PV Calc (cP) 10	YP Calc (lb/100ft³) 9
Gel 10 sec (lb/100ft³) 6	Gel 10 min (lb/100ft³) 5	Filtrate (mL/30min) 8.0	Filter Cake (1/32") 1	pH 10.0	Solids (%) 5.6	Lime (lb/bbl) 0.04
Chlorides (mg/L) 50,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL) 0.350	Pf (mL/mL) 0.02	Percent Oil (%) 0.0
Oil/Water Ratio 0/100	Flow Line Temperature (°F) 100.0	Vis 6rpm	Low Gravity Solids (%) 8.0	Magnesium (mg/L) 243.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32") 1



# Daily Drilling Report

Date: 11/28/2016

Report #: 29.0

DSS: 26.13

Lat: 32.643951 Long: -103.811116

Well Name: ZIA AGI #2D

Proposed:

<b>Pump # 2, Triplex</b>	Start Date 11/27/2016 06:00	End Date 11/28/2016 06:00	Make Bomco	Model F-1600
Pump Number 2	Liner Size (in) 5 1/2		Flow Rate (gpm) 229	
Action Type Triplex	Strokes (spm) 65	Stroke Length (in) 12.00	Volumetric Efficiency (%) 95	
Pressure (psi) 2,350.0				

Survey Data		MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
		13,209.00	1.10	262.50	13,206.38	84.89	48.78	69.54	1.03
		13,302.00	1.10	265.00	13,299.36	83.36	48.58	67.76	0.05
		13,396.00	0.40	288.80	13,393.35	82.41	48.61	66.55	0.80
		13,456.00	0.70	6.30	13,453.35	82.54	49.04	66.39	1.21
		13,530.00	0.70	6.30	13,527.35	83.16	49.94	66.49	0.00

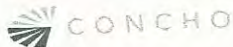
Casing Strings	Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor		30	118.52	A53	120.0	
Surface		20	106.50	J-55	826.0	
Intermediate		13 3/8	61.00	J-55	2,555.5	
Intermediate		9 5/8	40.00	N-80	4,696.0	2,811.6

<b>BOPs</b>	Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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<b>Formation</b>	Formation Name	Prog Top MD (ftKB)
	WOODFORD	13,474.00

Fluids, Disposal and Water		Received	Consumed	Cum On Loc	Returned
Supply Item Des	Unit Label		2,023.0	7,260.0	
RIG DIESEL	gal us				

Costs Summary		Daily Field Est (Cost)	Cum Fid Est (Cost)	AFE Amt (Cost)
Billing Category	Cost Des			
209	D-Daywork Contract	\$16,000	\$459,000	\$0
210	D-Directional Drlg Services	\$6,400	\$153,100	\$0
211	D-Fuel & Power	\$4,450	\$85,033	\$0
214	D-Fuel & Power	\$10,254	\$76,320	\$0
214	D-Mud & Chemicals	\$1,800	\$52,200	\$0
226	D-Company Sprvsn	\$3,200	\$92,800	\$0
227	D-Contract Sprvsn	\$2,465	\$152,695	\$0
235	D-Rentals-Surface	\$300	\$49,205	\$0
236	D-Rentals-Subsrfc	\$2,750	\$179,405	\$0
244	D-Envmntl/Clsd Loop			



# Daily Drilling Report

Date: 11/29/2016

Report #: 30.0

DSS: 27.13

Lat: 32.643951 Long: -103.811116

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Rig Phone #: (432) 853-9909

Field Name: AGI

API/UWI: 30-025-42207

Permit #:

Ground Elevation (ft): 3,547.00

Original KB Elevation (ft): 3,572.00

KB-Ground Distance (ft): 25.00

Contractor: SCANDRILL  
Asset Group: DELAWARE BASIN  
County: LEA

#/Crew: FREEDOM

Area: AGI

State: NM

End Depth (ftKB): 13,622.0

End Depth (TVD) (ftKB): 13,619.2

24 Hr Progress (ft): 92.00

Drilling Hours (hr): 2.00

Spud Date: 11/2/2016 03:00

Rig Release Date:

Target Formation: DEVONIAN

Total AFE Amount (Cost)

AFE Number

009612

Daily Field Est Total (Cost)

\$54,836

Cum Field Est To Date (Cost)

\$2,296,749

## Daily Activity from 11/28/2016 - 11/29/2016

Operations at Report Time

@ 13,622' TOH TO RUN OPEN HOLE LOGS.

Past 24 Hours Operation Summary

TOH, CHANGE BHA, RIG SERVICE, TIH, DRILL 8 3/4" VERTICAL F/ 13,530' - 13,622', 92' . RE-LOG GAMMA F/ 13,494' - 13,350', CIRC, TOH TO LOG 8 3/4" VERTICAL SECTION.

Operations Next Report Period

FINISH TOH, RIG UP SCHLUMBERGER LOGGING AND LOG 8 3/4" VERTICAL HOLE, TIH.

Incident Reported No

Accident Reported No

Daily Contacts

CONTRACT DRLG FRMN, TODD HINTON, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,

## Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	08:30	2.50	13,530	TOH BIT CHANGE	@ 13,530' CONTINUE TOH TO PU NEAR BIT GAMMA, AND LD BHA.	No
08:30	09:00	0.50	13,530	LUBRICATE RIG	SERVICE RIG AND TOP DRIVE.	No
09:00	20:00	11.00	13,530	TIH BIT CHANGE	PU/MU NEW BHA W/ NEAR BIT GAMMA AND TIH, WENT IN WITH 6 3/4" BAKER STRAIGHT 5/6 LOBE .16 REV MTR AND BAKER TD507FX BIT, FILLING EVERY 30 STANDS TO 13,494'.	No
20:00	21:00	1.00	13,530	RE-LOG	RE-LOG GAMMA F/ 13,494' - 13,530'.	No
21:00	23:00	2.00	13,622	DRLG W/MTR	DRLG 8 3/4" VERTICAL W/ MWD SURVEYS F/ 13,530' -13,622', 92' @ 46 FPH, DRILLED 15' INTO DEVONIAN. *** TD 8 3/4" VERTICAL @ 23:00 MST ON 11/28/2016.***	No
23:00	02:30	3.50	13,622	C&C MUD	@ 13,622' PUMP SWEEP AND GET BOTTOMS UP SAMPLE TO CONFIRM DEVONIAN, DEVONIAN TOP @ 13,607'. CONFIRMED BY GAMMA, ROP AND SAMPLES BY GEOLEX.	No
02:30	06:00	3.50	13,622	TOH LOGGING/ PH	@ 13,622', FLOW CHECK, PUMP SLUG AND TOH TO LD BHA AND LOG 8 3/4" VERTICAL.	No

## Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
11	8 3/4	BAKER HUG...	TD507FX	7160690	13,530.0	13,622.0	1.00	2.00	3.50	46.0	2.00		13/13/13/13/13/13
BHA #		Min Weight on Bit (1000lb)	Max Weight on Bit (1000lb)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
11		20	20	138	138	2,150.0	2,150.0						
String Length (ft)	Weight of String in Air (1000lb)												
13,650.34	322												

## Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
415	Drill Pipe	5	12,946.54	13,650.34
1	X-O SUB	6 1/4	2.13	703.80
5	DRILL COLLAR	6 1/2	146.33	701.67
1	HYD DRLG JARS	6 1/2	31.36	555.34
14	Drill Collar	6 1/2	407.34	523.98
1	3 PT ROLLER REAMER	6 3/4	7.53	116.64
1	Drill Collar	6 1/2	29.52	109.11
1	3 PT ROLLER REAMER	6 5/8	6.67	79.39
1	Mud Motor	6 3/4	31.65	72.92
1	XO Sub	6 1/2	1.65	41.27
1	XO Sub	6 3/4	4.09	39.62
1	NMDC	6 1/2	27.98	35.53
1	Orientation Sub	6 3/4	2.65	7.55
1	Bit Sub	6 1/2	3.90	4.90

## Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Original Hole	12,620.0	13,622.0	92.00	2.00	2.00	46.0	457
Weight on Bit (1000lb)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lb)	PU Str Wt (1000lb)	SO Str Wt (1000lb)	Drilling Torque	Off Bottom Torque
20	65	2,150.0	350	380	330	15,000.0	6,000.0

## Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop of Bit (DL)
59.0	1.0	161.6	221.2	10
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
211.5	17.8	211.5	17.2	9.58

Error

## Mud Properties

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft <sup>3</sup> )
11:45	Salt Base	13,530	9.4	41	10	9



# Daily Drilling Report

Date: 11/29/2016

Report #: 30.0

DSS: 27.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

Pressure (psi) 2,150.0	Strokes (spm) 65	Stroke Length (in) 12.00	Volumetric Efficiency (%) 95	Flow Rate (gpm) 229
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### Pump # 2, Triplex

Pump Number 2	Start Date 11/28/2016 06:00	End Date 11/29/2016 06:00	Make Bomco	Model F-1600
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Action Type Triplex	Liner Size (in) 5 1/2
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Pressure (psi) 2,150.0	Strokes (spm) 65	Stroke Length (in) 12.00	Volumetric Efficiency (%) 95	Flow Rate (gpm) 229
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### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
13,597.00	3.00	47.00	13,594.28	86.61	52.28	69.05	1.94
13,622.00	3.00	47.00	13,619.24	87.91	53.17	70.00	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

Formation Name DEVONIAN	Prog Top MD (ftKB) 13,607.00
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### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
POTABLE WATER	GAL		6,300.0	-12,600.0	
RIG DIESEL	gal us	7,500.0	1,364.0	13,396.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$475,000	\$0
210	D-Directional Drlg Services	\$6,800	\$159,900	\$0
211	D-Fuel & Power	\$3,005	\$88,038	\$0
212	D-Water	\$1,330	\$29,260	\$0
213	D-Bits	\$8,000	\$75,000	\$0
214	D-Mud & Chemicals	\$2,226	\$78,546	\$0
226	D-Company Sprvsn	\$1,800	\$54,000	\$0
227	D-Contract Sprvsn	\$3,200	\$96,000	\$0
227	D-Contract Sprvsn	\$2,465	\$155,160	\$0
235	D-Rentals-Surface	\$7,260	\$56,465	\$0
236	D-Rentals-Subsrfc	\$2,750	\$182,155	\$0
244	D-Envmntl/Clsd Loop			\$0



# Daily Drilling Report

Date: 11/30/2016  
Report #: 31.0  
DSS: 28.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Contractor: SCANDRILL	#Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 13,622.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 13,619.2	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 0.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr):	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$169,910
	Cum Field Est To Date (Cost) \$2,466,659

### Daily Activity from 11/29/2016 - 11/30/2016

Operations at Report Time  
TIH TO CSG POINT @ 13,622' TO CIRC SWEEP AND LD DRILL STRING.

Past 24 Hours Operation Summary  
AT 13,622' FINISH TOH, LD DIRECTIONAL BHA, RIG SERVICE, RIG UP SCHLUMBERGER LOGGING AND LOG 8 3/4" VERTICAL HOLE, MAKE UP BIT, BIT SUB AND TIH TO CIRC AND LD DRILL PIPE.

Operations Next Report Period  
FINISH TIH TO 8 3/4" CSG POINT @ 13,622', CIRC SWEEP AROUND, RIG UP LD MACHINE AND LD DRILL PIPE AND DC'S.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	10:00	4.00	13,622	TOH LOGGING/ PH	AT 13,622' CONTINUE TOH TO RUN OPEN HOLE LOGS IN THE 8 3/4" VERTICAL SECTION.	No
10:00	11:00	1.00	13,622	PU/LD BHA	LD 2 REAMERS, MTR, AND DIRECTIONAL TOOLS.	No
11:00	11:30	0.50	13,622	LUBRICATE RIG	SERVICE RIG AND TOP DRIVE.	No
11:30	04:30	17.00	13,622	LOGGING	AT 13,622' PJSM W/ SCHLUMBERGER LOGGING RU AND LOG 8 3/4" VERTICAL HOLE, LOGGERS TD 13,630' @ 15:00 MST 11/29/2016, AND RD.	No
04:30	06:00	1.50	13,622	TIH TD CSG PT/ KOP	MAKE UP BIT, BIT SUB, AND TIH TO CIRC AND LD DRILL PIPE, SLM ON WAY IN.	No

Bits & BHAs												
Bit Run 12 RR 11	Size (in) 8 3/4	Make BAKER HUG...	Model TD507FX	SN 7160690	Depth In (ft...) 13,530.0	Depth Out... 13,622.0	Length (ft) 1.00	Job Drill Hr... 2.00	Job Circ Hr... 3.50	Avg ROP (ft...) 46.0	Rot Time (hr) 2.00	Slide Time... 13/13/13/13/13/13
BHA # 12	Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
String Length (ft) 13,568.12	Weight of String in Air (1000lbf) 314											

Drill String Components				OD (in)	Len (ft)	Cum Len (ft)
Jts	Item Des			5	12,946.54	13,568.12
415	Drill Pipe			6 1/4	2.13	621.58
1	X-O SUB			6 1/2	146.33	619.45
5	DRILL COLLAR			6 1/2	31.36	473.12
1	HYD DRLG JARS			6 1/2	436.86	441.76
15	Drill Collar			6 1/2	3.90	4.90
1	Bit Sub					

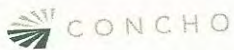
Drilling Parameters							
Wellbore Original Hole	Start Depth (ftKB) 13,622.0	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

Hydraulic Calculations			
Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)
			Percent of Pressure Drop at Bit (%)
			ECD End (lb/gal)

Error  
No end depth specified for this drilling parameter with end date 12/1/2016 6:00:00 AM

Mud Properties							
Time 10:30	Type Salt Base	Depth (ftKB) 13,622	Density (lb/gal) 9.6	Funnel Viscosity (s/qt) 40	PV Calc (cP) 9	YP Calc (lbf/100ft²) 8	
Gel 10 sec (lbf/100ft²) 6	Gel 10 min (lbf/100ft²) 10	Filtrate (mL/30min) 14.8	Filter Cake (1/32") 2	pH 8.0	Solids (%) 5.4	Lime (lb/bbl) 0.08	
Chlorides (mg/L) 53,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL) 0.300	Pf (mL/mL) 0.00	Percent Oil (%) 0.0	
Oil Water Ratio 0/100	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%) 8.9	Magnesium (mg/L) 97.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32") 2	
Min Background Gas 1.00	Max Background Gas 96.00	Min Connection Gas 0.00	Max Connection Gas 0.00	Max Trip Gas 0.00	Max H2S (ppm) 0		

Mud Additive Amounts					
Des	Units	Rec	Consumed	On Loc	Returned
Barite BULK	TON		15.0	47.0	
CAUSTIC SODA	50# SACK		3.0	75.0	
FLOZAN	25# SACK		2.0	178.0	
PAC-L	50# SACK		2.0	18.0	
SOAP STICKS	STICK		5.0	2.0	
			4.0	175.0	



# Daily Drilling Report

Date: 11/30/2016

Report #: 31.0

DSS: 28.13

Lat: 32.643951 Long: -103.811116

Well Name: ZIA AGI #2D

**Proposed:**

Casing Strings	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6

BOPs		Last BOP Test Date
Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	11/14/2016

Formation	Formation Name	Prog Top MD (ftKB)
DEVONIAN		13,607.00

Fluids, Disposal and Water					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		2.0	-47.0	
RIG DIESEL	gal us		722.0	12,674.0	

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$491,000	\$0
210	D-Directional Drlg Services	\$7,000	\$166,900	\$0
211	D-Fuel & Power	\$1,590	\$89,628	\$0
214	D-Mud & Chemicals	\$5,705	\$84,251	\$0
226	D-Company Sprvsn	\$1,800	\$55,800	\$0
227	D-Contract Sprvsn	\$3,200	\$99,200	\$0
228	D-Tstg Csg/Tbg	\$4,600	\$32,670	\$0
230	D-Logging	\$84,600	\$117,650	\$0
235	D-Rentals-Surface	\$4,415	\$159,575	\$0
236	D-Rentals-Subsrfc	\$300	\$56,765	\$0
237	D-Trucking/Forklift/Rig Mobil	\$35,750	\$215,850	\$0
244	D-Envmnt/Clsd Loop	\$4,950	\$187,105	\$0

# Daily Drilling Report

Date: 12/1/2016  
Report #: 32.0  
DSS: 29.13

Well Name: ZIA AGI #2D  
Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL  
Asset Group: DELAWARE BASIN  
County: LEA

#/Crew: FREEDOM  
Area: AGI  
State: NM

Rig Phone #: (432) 853-9909  
Field Name: AGI

Permit #: 30-925-47207

Prospect:  
Spud Date: 11/2/2016 03:00  
Rig Release Date:  
Target Formation: DEVONIAN

End Depth (ftKB): 13,622.0  
End Depth (TVD) (ftKB): 13,619.2  
24 Hr Progress (ft): 0.00  
Drilling Hours (hr):

Ground Elevation (ft): 3,547.00  
Original KB Elevation (ft): 3,572.00  
KB-Ground Distance (ft): 25.00

AFE Number 009612		Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$39,739	Cum Field Est To Date (Cost) \$2,506,398

### Daily Activity from 11/30/2016 - 12/1/2016

Operations at Report Time  
LAY DOWN DRILL DRILL STRING @ 13,622'.

Past 24 Hours Operation Summary  
CONTINUE TIH TO LD DRILL PIPE TO 4,460' TO TOP OF CSG SHOE, SLIP AND CUT 63' OF DRLG LINE, TIH TO 13,537', WASH TO BOTTOM F/ 13,537 TO 13,622', CIRC SWEEPS, SHUT WELL IN AND MUSTERD DUE TO DCP PLANT PROBLEMS, SLUG PIPE, AND LD DRILL PIPE F/ 13,622' - 3,500'.

Operations Next Report Period  
FINISH LD DRILL PIPE AND DC'S F/ 3,500' TO SURFACE, RIG UP CSG CREW AND TORQUE TURN AND RUN 7" & 7 5/8" CSG, CIRC, RIG UP HALLIBURTON AND CMT 2 STAGE JOB.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	09:00	3.00	13,622	TIH TD CSG PT/ KOP	CONTINUE TIH TO LD DRILL PIPE TO ABOVE CSG SHOE @ 4,460', FILLING EVERY 30 STANDS, SLM IN HOLE.	No
09:00	10:00	1.00	13,622	CDL	AT 4,660' SLIP AND CUT 63' OF DRLG LINE.	No
10:00	10:30	0.50	13,622	LUBRICATE RIG	AT 4,460' SERVICE RIG AND TOP DRIVE.	No
10:30	16:00	5.50	13,622	TOH TD CSG PT/ KOP	CONTINUE TIH TO 13,537', FILLING EVERY 30 STANDS, SLM IN HOLE.	No
16:00	16:30	0.50	13,622	W/R	WASH AND REAM TO BOTTOM F/ 13,537' - 13,622', 85' W/ 2' OF SOFT FILL.	No
16:30	19:30	3.00	13,622	PUMP SWEEP	AT 13,622' PUMP SWEEP AND CIRC TO LD DRILL PIPE, AND RU FRANKS LD MACHINE.	No
19:30	21:00	1.50	13,622	SAFETY STANDDOWN	AT 13,622' DCP MIDSTREAM HAD US SHUT DOWN DUE TO PLANT PROBLEMS, WE SHUT WELL IN AND MUSTERD AND GOT HEAD COUNT.	No
21:00	06:00	9.00	13,622	LDDP	PJSM W/ FRANKS LD, FLOW CHECK SLUG PIPE, AND LD DRILL PIPE F/ 13,622' - 3,500'.	No

### Bits & BHAS

Bit Run 12 RR 11	Size (in) 8 3/4	Make BAKER HUG.	Model TD507FX	SN 7160690	Depth In (ft.) 13,530.0	Depth Out (ft.) 13,622.0	Length (ft) 1.00	Job Drill Hr. 2.00	Job Circ Hr. 3.50	Avg ROP (ft/hr) 46.0	Rot Time (hr) 2.00	Slide Time (hr)	Nozzles (1/32") 13/13/13/13/13/13
BHA # 12	Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)							
String Length (ft) 13,630.81	Weight of String in Air (1000lbf) 315												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
417	Drill Pipe	5	13,009.23	13,630.81
1	X-O SUB	6 1/4	2.13	621.58
5	DRILL COLLAR	6 1/2	146.33	619.45
1	HYD DRLG JARS	6 1/2	31.36	473.12
15	Drill Collar	6 1/2	436.86	441.76
1	Bit Sub	6 1/2	3.90	4.90

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 13,622.0	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)

Error  
No end depth specified for this drilling parameter with end date 12/1/2016 6:00:00 AM

### Mud Properties

Time 09:00	Type Salt Base	Depth (ftKB) 13,622	Density (lb/gal) 9.3	Funnel Viscosity (s/qt) 42	PV Calc (cP) 11	YP Calc (lb/100ft <sup>2</sup> ) 9
Gel 10 sec (lb/100ft <sup>2</sup> ) 7	Gel 10 min (lb/100ft <sup>2</sup> ) 10	Filtrate (mL/30min) 10.0	Filter Cake (1/32") 2	pH 11.0	Solids (%) 3.5	Lime (lb/bbl) 0.05
Chlorides (mg/L) 54,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL) 1.600	Pf (mL/mL) 1.40	Percent Oil (%) 0.0
Oil Water Ratio 0/100	Flow Line Temperature (°F)	Vis.6rpm	Low Gravity Solids (%) 7.1	Magnesium (mg/L) 122.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32") 2
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	

### Mud Additive Amounts

Units	Per	Consumed	On Loc	Returned
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**Proposed:**

<b>Pump # 2, Triplex</b>				End Date	Make	Model
Pump Number	Start Date	12/1/2016 06:00	11/30/2016 06:00	Bomco	F-1600	
Action Type			Liner Size (in)			
Triplex			5 1/2			
Pressure (psi)	Strokes (spm)	Stroke Length (in)	Volumetric Efficiency (%)	Flow Rate (gpm)		
1,350.0	65	12.00	95	229		
<b>Survey Data</b>						
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)
13,622.00	3.00	47.00	13,619.24	87.91	53.17	70.00
						DLS (°/100ft)
						0.00
<b>Casing Strings</b>						
Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)	
Conductor	30	118.52	A53	120.0		
Surface	20	106.50	J-55	826.0		
Intermediate	13 3/8	61.00	J-55	2,555.5		
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6	
<b>BOPs</b>						
Pressure Rating (psi)	Nominal ID (in)	Last BOP Test Date				
10,000.0	13 5/8	11/14/2016				
<b>Formation</b>						
Formation Name				Prog Top MD (ftKB)		
DEVONIAN				13,607.00		
<b>Fluids, Disposal and Water</b>						
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned	
CUTTINGS BIN	BIN		1.0	-48.0		
RIG DIESEL	gal us		949.0	11,725.0		
<b>Costs Summary</b>						
Billing Category	Cost Des	Daily Field Est (Cost)		Cum Fld Est (Cost)	AFE Amt (Cost)	
209	D-Daywork Contract	\$16,000		\$507,000	\$0	
210	D-Directional Drlg Services	\$4,200		\$171,100	\$0	
211	D-Fuel & Power	\$2,090		\$91,718	\$0	
214	D-Mud & Chemicals	\$2,594		\$86,845	\$0	
226	D-Company Sprvsn	\$1,800		\$57,600	\$0	
227	D-Contract Sprvsn	\$3,200		\$102,400	\$0	
235	D-Rentals-Surface	\$5,705		\$165,280	\$0	
236	D-Rentals-Subsrfc	\$300		\$57,065	\$0	
244	D-Envmntl/Clsd Loop	\$3,850		\$190,955	\$0	



# Daily Drilling Report

Date: 12/2/2016

Report #: 33.0

DSS: 30.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Contractor: SCANDRILL  
Asset Group: DELAWARE BASIN  
County: LEA

#/Crew: FREEDOM

Area: AGI

State: NM

End Depth (ftKB): 13,622.0

End Depth (TVD) (ftKB): 13,619.2

24 Hr Progress (ft): 0.00

Drilling Hours (hr):

Rig Phone #: (432) 853-9909

Field Name: AGI

API/UWI: 30-025-42207

Permit #:

Ground Elevation (ft): 3,547.00

Original KB Elevation (ft): 3,572.00

KB-Ground Distance (ft): 25.00

Prospect:  
Spud Date: 11/2/2016 03:00

Rig Release Date:  
Target Formation: DEVONIAN

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$97,266
	Cum Field Est To Date (Cost) \$2,603,664

### Daily Activity from 12/1/2016 - 12/2/2016

Operations at Report Time  
AT 13,622' RUNNING 7" PRODUCTION CSG F/ SURFACE TO 7,308'.

Past 24 Hours Operation Summary  
CONTINUE TO LD DRILL STRING F/ 3,500' TO SURFACE, PULL WEAR BUSHING, RIG UP FRANKS CSG, TORQUE TURN AND RUN 7" 32# V-110 VAMTOP AND 7" 29# HCP-110 LT&C PRODUCTION CSG TO 7,308'.

Operations Next Report Period  
FINISH RUNNING 7" CSG F/ 7,308' TO 13,622', RD CASING, TORQUE TURN AND LD MACHINE, CIRC, RIG UP HALLIBURTON AND CMT 7" PRODUCTION CASING.

Incident Reported No  
Accident Reported No  
Daily Contacts  
CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,

### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	10:30	4.50	13,622	LDDP	AT 13,622' CONTINUE TO LD DRILL PIPE, DRILL COLLARS F/ 3,500' TO SURFACE.	No
10:30	11:00	0.50	13,622	PULL/INSTALL WEAR BSHG	PULL WEAR BUSHING AND PREPARE FLOOR TO RUN 7" & 7 5/8" CSG.	No
11:00	16:00	5.00	13,622	RU CSG EQUIP	PJSM W/ FRANKS, RIG UP CSG CREW AND EQUIPMENT AND FRANKS TORQUE TURN AND ALL CHROME PIPE EQUIPMENT.	No
16:00	06:00	14.00	13,622	RUN CSG	RUN 62 JTS 7" 32# V-110 VAM TOP CSG, AND 259 JTS OF 7" 29# HCP-110 LT&C AND 7 JTS OF 7 5/8" 33# HCP-110 LT&C TOTAL JTS= 328, TP= 13,637.36', TOP OF DV TOOL @ 6,345.5'. *NOTE* STILL RUNG CSG AT REPORT TIME.	No

### Bits & BHAs

Bit Run 12 RR 11	Size (in) 8 3/4	Make BAKER HUG...	Model TD507FX	SN 7160690	Depth In (ft.) 13,530.0	Depth Out... 13,622.0	Length (ft) 1.00	Job Drill Hr... 2.00	Job Circ Hr... 3.50	Avg ROP (f... 46.0	Rot Time (hr) 2.00	Slide Time... 2.00	Nozzles (1/32") 13/13/13/13/13/13
BHA # 12	Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi) 1,350.0	Max Stand Pipe Pressure (psi) 1,350.0							
String Length (ft) 13,630.81	Weight of String in Air (1000lbf) 315												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
417	Drill Pipe	5	13,009.23	13,630.81
1	X-O SUB	6 1/4	2.13	621.58
5	DRILL COLLAR	6 1/2	146.33	619.45
1	HYD DRLG JARS	6 1/2	31.36	473.12
15	Drill Collar	6 1/2	436.86	441.76
1	Bit Sub	6 1/2	3.90	4.90

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)

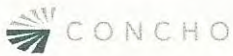
Error

### Mud Properties

Time 12:00	Type Salt Base	Depth (ftKB) 13,622	Density (lb/gal) 9.5	Funnel Viscosity (s/qt) 41	PV Calc (cP) 7	YP Calc (lb/100ft <sup>2</sup> ) 11
Gel 10 sec (lb/100ft <sup>2</sup> ) 7	Gel 10 min (lb/100ft <sup>2</sup> ) 11	Filtrate (mL/30min) 14.2	Filter Cake (1/32") 2	pH 10.0	Solids (%) 5.5	Lime (lb/bbl) 0.08
Chlorides (mg/L) 52,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL) 0.050	Pf (mL/mL) 0.02	Percent Oil (%) 0.5
Oil Water Ratio 0.5/99.5	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%) 8.9	Magnesium (mg/L) 122.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32") 2
Min Background Gas 98.00	Max Background Gas 2,424.00	Min Connection Gas 0.00	Max Connection Gas 0.00	Max Trip Gas 2,424.00	Max H2S (ppm)	

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned
1NC-9000	5 GAL		2.0	11.0	
Barite BULK	TON		4.0	43.0	
CAUSTIC SODA	50# SACK		3.0	64.0	
FLUORAN	25# SACK		8.0	168.0	
				226.0	



# Daily Drilling Report

Date: 12/2/2016

Report #: 33.0

DSS: 30.13

Well Name: ZIA AGI #2D

Proposed:

Lat: 32.643951 Long: -103.811116

### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (*/100ft)
13,622.00	3.00	47.00	13,619.24	87.91	53.17	70.00	0.00

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6
Production	7	29.00	P-110	13,622.0	

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

Formation Name	Prog Top MD (ftKB)
DEVONIAN	13,607.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
RIG DIESEL	gal us		1,079.0	10,646.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$523,000	\$0
210	D-Directional Drig Services	\$4,200	\$175,300	\$0
211	D-Fuel & Power	\$2,375	\$94,093	\$0
214	D-Mud & Chemicals	\$4,426	\$91,271	\$0
221	D-Float Equip/Centizr	\$59,500	\$90,280	\$0
226	D-Company Sprvsn	\$1,800	\$59,400	\$0
227	D-Contract Sprvsn	\$3,200	\$105,600	\$0
235	D-Rentals-Surface	\$2,465	\$167,745	\$0
237	D-Trucking/Forklift/Rig Mobil	\$550	\$216,400	\$0
244	D-Envmntl/Clsd Loop	\$2,750	\$193,705	\$0



# Daily Drilling Report

Date: 12/3/2016

Report #: 34.0

DSS: 31.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 13,622.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 13,619.2	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 0.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b>	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$901,845
	Cum Field Est To Date (Cost) \$3,505,509

### Daily Activity from 12/2/2016 - 12/3/2016

Operations at Report Time  
AT 13,622 WASH CSG TO BOTTOM W/ CRT @ 13,501'.

Past 24 Hours Operation Summary  
AT 13,622' CONTINUE RUNG 7" 32# V-110 VAMPTOP 7" 29# HCP-110 LT&C AND 7 5/8" TO 13,456', CIRC AND CONDITION MUD, WAIT ON NEW SET OF 7 5/8" CSG ELEVATORS, WASH AND REAM CSG TO BOTTOM F/ 13,456' TO 13,501'.

Operations Next Report Period  
WASH 7" CSG TO BOTTOM F/ 13,501' TO 13,622', CIRC CSG ON BOTTOM, RIG UP SCHLUMBERGER LOGGING AND RUN CCL AND GAMMA LOGS, RIG UP HALLIBURTON AND CMT 7" & 7 5/8" CSG.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	22:00	16.00	13,622	RUN CSG	AT 13,622' CONTINUE RUNG CSG RAN 62 JTS 7" 32# V-110 VAM TOP CSG, AND 259 JTS OF 7" 29# HCP-110 LT&C AND 7 JTS OF 7 5/8" 33.7# HCP-110 LT&C TOTAL JTS= 328, TP= 13,637.36', TOP OF DV TOOL @ 6,345.5', CENTRALIZERS 1,2,3, AND EVERY 5TH TOTAL OF 60.	No
22:00	04:00	6.00	13,622	C&C MUD	AT 13,456' CIRC AND CONDITION MUD, WORK CSG AND WAIT ON NEW SET OF 7 5/8" ELEVATORS.	No
04:00	06:00	2.00	13,622	WASH/CIRC TO BTM	AT 13,622' RIG UP CRT TOOL AND WASH CSG TO BOTTOM, START WASHING 7" CSG TO BOTTOM F/ 13,456' -13,501'.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...	Rot Time (hr)	Slide Time...	Nozzles (1/32")
BHA #					Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)			
String Length (ft)					Weight of String in Air (1000lbf)								

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
Error				

### Mud Properties

Time 12:00	Type Salt Base	Depth (ftKB) 13,622	Density (lb/gal) 9.5	Funnel Viscosity (s/qt) 42	PV Calc (cP) 9	YP Calc (lb/100ft <sup>2</sup> ) 11
Gel 10 sec (lb/100ft <sup>2</sup> ) 7	Gel 10 min (lb/100ft <sup>2</sup> ) 11	Filtrate (mL/30min) 13.6	Filter Cake (1/32") 2	pH 8.0	Solids (%) 5.4	Lime (lb/bbl) 0.08
Chlorides (mg/L) 53,000	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL) 0.050	Pf (mL/mL) 0.00	Percent Oil (%) 0.5
Oil Water Ratio 0.5/99.5	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%) 8.9	Magnesium (mg/L) 437.000	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32") 2
Min Background Gas 565.00	Max Background Gas 1,951.00	Min Connection Gas 0.00	Max Connection Gas 1,951.00	Max Trip Gas	Max H2S (ppm)	

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned

### Pump # 1, Triplex

Pump Number 1	Start Date 12/2/2016 06:00	End Date 12/3/2016 06:00	Make Bomco	Model F-1600
Action Type Triplex	Liner Size (in) 5 1/2			
Pressure (psi) 800.0	Strokes (spm) 73	Stroke Length (in) 12.00	Volumetric Efficiency (%) 95	Flow Rate (gpm) 257

### Pump # 2, Triplex

Pump Number 2	Start Date 12/2/2016 06:00	End Date 12/3/2016 06:00	Make Bomco	Model F-1600
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# Daily Drilling Report

Date: 12/3/2016

Report #: 34.0

DSS: 31.13

Well Name: ZIA AGI #2D

Proposed:

Lat: 32.643951 Long: -103.811116

Formation	
Formation Name	Prog Top MD (ftKB)
DEVONIAN	13,607.00

Fluids, Disposal and Water					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
POTABLE WATER	GAL		6,300.0	-18,900.0	
RIG DIESEL	gal us		753.0	9,893.0	

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$539,000	\$0
210	D-Directional Drlg Services	\$4,200	\$179,500	\$0
211	D-Fuel & Power	\$1,660	\$95,753	\$0
212	D-Water	\$1,350	\$30,610	\$0
214	D-Mud & Chemicals	\$160	\$91,431	\$0
226	D-Company Sprvsn	\$1,800	\$61,200	\$0
227	D-Contract Sprvsn	\$3,200	\$108,800	\$0
235	D-Rentals-Surface	\$2,800	\$170,545	\$0
236	D-Rentals-Subsrfc	\$925	\$57,990	\$0
244	D-Envmntl/Clsd Loop	\$2,750	\$196,455	\$0
403	D-Production Casing/Liner	\$867,000	\$867,000	\$0



# Daily Drilling Report

Date: 12/4/2016

Report #: 35.0

DSS: 32.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 13,622.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 13,619.2	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 0.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr):	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Cum Field Est To Date (Cost)
Daily Field Est Total (Cost) \$161,416	\$3,666,925

### Daily Activity from 12/3/2016 - 12/4/2016

Operations at Report Time  
AT 13,622' CIRC DV TOOL AND MIX WELL LOCK RESIN FOR 2ND STAGE CMT JOB.

Past 24 Hours Operation Summary  
AT 13,622' CONTINUE TO WASH 7" CSG TO BOTTOM F/ 13,501' TO 13,622', CIRC AND CONDITION MUD W/ CSG ON BOTTOM, RU SCHLUMBERGER AND RUN CCL AND GAMMA LOGS, CHANGE OUT JT OF 7 5/8" CSG, RD FRANKS LD, TORQUE TURN AND CHROME PIPE TOOLS, RU AND CMT 1ST STAGE AND SET ECP PACKER, CIRC ON DV TOOL, AND MIX STAGE 2 WELLOCK RESIN, PLUG DOWN @ 21:52 MST, CIRC SX 128 SX.

Operations Next Report Period  
CONTINUE TO CIRC DV TOOL AND MIX WELL LOCK RESIN, CMT 7" PRODUCTION CSG, 2ND STAGE, ND AND SET SLIPS, NIPPLE UP, AND TEST BOP.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	07:00	1.00	13,622	CIRC CSG CAP/BTMS UP	AT 13,622' CONTINUE WASHING CSG TO BOTTOM F/ 13,501' - 13,622'. RAN 62 JTS 7" 32# V-110 VAM TOP CSG, AND 259 JTS OF 7" 29# HCP-110 LT&C AND 7 JTS OF 7 5/8" 33.7# HCP-110 LT&C TOTAL JTS= 328, TP= 13,637.36', SET @ 13,622', TOP OF DV TOOL @ 6,345.5', CENTRALIZERS 1,2,3, AND EVERY 5TH TOTAL OF 60.	No
07:00	10:00	3.00	13,622	CIRC CSG CAP/BTMS UP	AT 13,622' CONDITION MUD AND CIRC TO RUN SCHLUMBERGER CCL AND GAMMA LOGS.	No
10:00	14:30	4.50	13,622	LOGGING	AT 13,622' PJSM W/ SCHLUMBERGER LOGGING AND RUN CCL AND GAMMA LOGS, AND RD.	No
14:30	15:00	0.50	13,622	RUN CSG	LD 1 JT OF 7 5/8" CSG W/ SC COLLAR AND PU 1 JT OF 7 5/8" W/ STANDARD 7" LT&C COLLAR.	No
15:00	19:00	4.00	13,622	C&C MUD	CIRC W/ CSG ON BOTTOM, RD LD MACHINE, TORQUE TURN, AND ALL CHROME PIPE TOOLS.	No
19:00	00:00	5.00	13,622	CMT	PJSM W/ HALLIBURTON RIG UP AND CMT 1ST STAGE AS FOLLOWS: TEST LINES TO 6000 PSI PUMP 50 BBLs TUNED SPACER FOLLOWED BY 770 SX OF TUNED LIGHT BLEND @ 11.5 PPG 2.1 YEILD, SHUT DOWN DROP BOTTOM PLUG THEN PUMP 20 BBLs OF WELL LOCK RESIN, DROP TOP PLUG AND DISPLACE W/ 290 BBLs FW AND 214 BBLs MUD, TOTAL DISPLACEMENT= 504 BBLs, BUMP PLUG @ 2,713 PSI @ 21:52 MST ON 12/3/2016, PRESSURE UP TO 4,130 PSI SET ECP, DROP BOMB AND WAIT 45 MIN TO OPEN DV TOOL CIRC 49 BBLs, 131 SX TO PIT.	No
00:00	06:00	6.00	13,622	CIRC DV TOOL	AT 13,622' CONTINUE TO CIRC THROUGH DV TOOL AND MIX WELL LOCK RESIN FOR 2ND STAGE CMT JOB.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...	Rot Time (hr)	Slide Time...	Nozzles (1/32")
BHA #	Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)	String Length (ft)	Weight of String in Air (1000lbf)					

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)

Error

### Mud Properties

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft <sup>2</sup> )
16:00	Salt Base	13,622	9.5	42	10	12
Gel 10 sec (lb/100ft <sup>2</sup> )	Gel 10 min (lb/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
8	12	8.4		10.0	5.0	0.04
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
54,000				0.600	0.45	0.5
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
0.5/99.5			8.6	219.000		2



# Daily Drilling Report

Date: 12/4/2016

Report #: 35.0

DSS: 32.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

Pressure (psi)	Strokes (spm)	Stroke Length (in)	Volumetric Efficiency (%)	Flow Rate (gpm)
	73	12.00	95	257

**Pump # 2, Triplex**

Pump Number	Start Date	End Date	Make	Model
2	12/3/2016 06:00	12/4/2016 06:00	Bomco	F-1600

Action Type	Liner Size (in)
Triplex	5 1/2

Pressure (psi)	Strokes (spm)	Stroke Length (in)	Volumetric Efficiency (%)	Flow Rate (gpm)
400.0	75	12.00	95	264

**Survey Data**

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
13,622.00	3.00	47.00	13,619.24	87.91	53.17	70.00	0.00

**Casing Strings**

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6
Production	7	29.00	P-110	13,622.0	

**BOPs**

Pressure Rating (psi)	Nominal ID (in)	Last BOP Test Date
10,000.0	13 5/8	11/14/2016

**Formation**

Formation Name	Prog Top MD (ftKB)
DEVONIAN	13,607.00

**Fluids, Disposal and Water**

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
MUD/SOLIDS/CMT DISPOSAL	LOAD		9.0	-48.0	
RIG DIESEL	gal us		1,084.0	8,809.0	
STANDBY TRUCKING	HRS		21.0	-58.5	

**Costs Summary**

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$555,000	\$0
210	D-Directional Drig Services	\$4,200	\$183,700	\$0
211	D-Fuel & Power	\$2,390	\$98,143	\$0
214	D-Mud & Chemicals	\$7,861	\$99,292	\$0
222	D-Csg Crews & Equip	\$78,750	\$129,760	\$0
226	D-Company Sprvsn	\$1,800	\$63,000	\$0
227	D-Contract Sprvsn	\$3,200	\$112,000	\$0
230	D-Logging	\$15,500	\$133,150	\$0
235	D-Rentals-Surface	\$2,465	\$173,010	\$0
236	D-Rentals-Subsrfc	\$325	\$58,315	\$0
237	D-Trucking/Forklift/Rig Mobil	\$23,025	\$239,425	\$0
244	D-Envmntl/Clsd Loop	\$5,900	\$202,355	\$0

# Morning Report

Company: GEOLEX INCORPORATED Date: 12/4/2016 Day: 20

Well Name: ZIA AGI D2 Prepared by: NOSA OGIAMIEN

Current Operations: CONTINUE CIRCULATING WHILE MIXING CEMENT FOR 2ND STAGE CEMENTING Unit Phone Number: 432-770-6505; 432-557-0051

TD: 13622 Time: 04:30 HRS Drill Rate: 0 Min/Ft 0 Ft/Hr

Current BGG: 33u @ Max Last 24 hrs: 3860U @ Conn Gas: N/A Trip Gas: 3860U @ Survey/DT Gas: N/A

Current Lag Time @ 13622 ' = 71.2 Minutes or 9255 Lag Strokes

Made 0 ' in the last 24 hours. Company Representative called: \_\_\_\_\_ @ \_\_\_\_\_ a.m./p.m.

Lithology (Last Sample) @: \_\_\_\_\_ Last Previous Change @: \_\_\_\_\_  
% \_\_\_\_\_ % \_\_\_\_\_  
% \_\_\_\_\_ % \_\_\_\_\_  
% \_\_\_\_\_ % \_\_\_\_\_

**Show/Drilling Breaks**

Interval	ROP	Lithology	Gas	% Fluorescence	Cut	Porosity
-						
-						
-						
-						

**Gas**

Current BGG:	Max Last 24 hrs:	Conn Gas:	Trip Gas:	Survey/DT Gas:
33u	3860u	N/A	3860u	N/A
C-1 9u	C-1 2361	C-1	C-1 2361u	C-1
C-2	C-2 700u	C-2	C-2 700u	C-2
C-3	C-3 487u	C-3	C-3 487u	C-3
I-C-4	I-C-4 0u	I-C-4	I-C-4 0u	I-C-4
N-C-4	N-C-4	N-C-4	N-C-4	N-C-4

Correlations: Top of DEVONIAN @ 13617 ' , -  
We are \_\_\_\_\_ ' high/low to \_\_\_\_\_  
Top of \_\_\_\_\_ @ \_\_\_\_\_ ' , -  
We are \_\_\_\_\_ ' high/low to \_\_\_\_\_

Expecting Top of: \_\_\_\_\_ @ \_\_\_\_\_ ' , -

**Drilling Conditions:**

@ 13622	@ 13633	Trip: 100	Hrs	Deviation
HOB NA	WT 9.35	@ 13622		3.00 ° @ 13597 ' , -
WOB NA	vis 42	Reason: <u>RUNNING 7 INCH CASING</u>		1.2 ° @ 13501 ' , -
RPM NA	pH 9.5			0.70 ° @ 13456 ' , -
PP 210	CL N/A	NB#:		0.4 ° @ 13396 ' , -
SPM 70	WL 9	Type:		1.10 ° @ 13302 ' , -

**Driller's Log**

Time	Operation
04:30-18:00	FINISH RUNNING CASING-CIRCULATE OUT SWEEP WITH RIG PUMP-HOLD SM W SCHLUMBERGER-RU AND RUN GAMMA LOGS-RD CASING CREW
18:00-00:00	CONDITION MUD AND CIRC THRU CRT-HOLD SM W HALLIBURTON-RD CRT-INSTALL CEMENT HEADPRIMARY CEMENTING-
00:00-04:30	CONTINUE CIRCULATING WHILE MIXING CEMENT FOR 2ND STAGE CEMENTING

**Calibrations:**

TOTAL GAS  
Catalytic Combustion  
1% Methane

units	0.000	100.000
volts	-0.666mV	4.644mV
	before	after

CALIBRATIONS  
Thermal Conduct  
10% Methane

units	0.000	1000.000
volts	-0.666mV	14.210mV
	before	after

CHROMATOGRAPH

Div.	Sec.	%
C-1	15-30.5	1.000
C-2	30.5-56.5	1.000
C-3	67-102	1.000
C-4	137.8-186.8	1.000
NC-4	208-265.5	1.000

Filament Change: type METAL , GREEN ' METAL time.

Gas Trap:  
Rig Air Motor ELECTRIC  
Transfer Time 1.00 MIN  
Trap Cleaned (date) 12/2/2016

Chromatograph Settings:  
Carrier Air Pressure 8.03 psi.  
Cycle Time 285 sec.

Logging Team: Team Leader: KEN FARRIS Team Lead Logger: NOSA OGIAMIEN Team Logger: BEN RICHARDS

Comments:





# Daily Drilling Report

Date: 12/5/2016

Report #: 36.0

DSS: 33.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

<b>Contractor:</b> SCANDRILL	<b>#Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 13,622.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 13,619.2	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 0.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b>	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$516,633
	Cum Field Est To Date (Cost) \$4,183,558

### Daily Activity from 12/4/2016 - 12/5/2016

Operations at Report Time  
AT 13,622' TEST 13 5/8" 10K BOP.

Past 24 Hours Operation Summary  
AT 13,622' CONTINUE TO CIRC DV TOOL AND MIX WELL LOCK RESIN, PUMP 2ND STAGE OF CMT, WOC, SET SLIPS, CUT OFF 7 5/8" CSG AND DRESS, NU 11" 10M X 7-1/16" 5M TUBBING HEAD ASSEMBLY AND 13 5/8" 10K BOP, CHANGE PIPE RAMS TO 4" AND TEST BOP.

Operations Next Report Period  
CONTINUE TESTING 13 5/8" 10K BOP, TEST CSG, PU/MU 4" DC'S AND DRILL PIPE, DRILL DV TOOL, FLOAT EQUIPMENT.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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Time Log				Com		NPT?
Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity		
06:00	09:00	3.00	13,622	CIRC DV TOOL	AT 13,622' CONTINUE TO CIRC DV TOOL AND MIX WELL LOCK RESIN.	No
09:00	11:00	2.00	13,622	CMT	PJSM W/ HALLIBURTON AND CMT 2ND STAGE AS FOLLOWS: TEST LINES TO 6000 PSI, PUMP 50 BBLS TUNED SPACER @ 10.6 PPG PUMP LEAD OF 420 SX OF TUNED LIGHT BLEND @ 11.5 PPG 2.1 YEILD, DROP BOTTOM PLUG, PUMP TAIL CMT OF 80 BBLS OF WELL LOCK RESIN @ 12.0 PPG, DROP TOP PLUG AND DISPLACE W/ 238 BBLS FW, PLUG DOWN @ 10:47 MST ON 12/4/2016, PSI UP TO 4300 PSI CLOSE DV TOOL, CIRC 35 BBLS 93 SX CMT TO PIT, WELL IS STATIC.	No
11:00	15:00	4.00	13,622	SET SLIPS/CUT CSG/CNDCTR	WOC, PJSM W/ BATTLE NU CREW, RIG UP WENCHES AND ND AND HANG STACK AND SET SLIPS W/ 210,000.	No
15:00	17:00	2.00	13,622	SET SLIPS/CUT CSG/CNDCTR	CUT OFF 7 5/8" CSG AND DRESS.	No
17:00	19:30	2.50	13,622	WELD ON/INSTALL WH	NU 11" 10M X 7 1/16" 5M TUBBING HEAD ASSEMBLY AND TEST TO 5000 PSI.	No
19:30	03:00	7.50	13,622	NU BOP	NU 13 5/8" 10K BOP, CHOKE, AND CHANGE FROM 5" TO 4" PIPE RAMS	No
03:00	06:00	3.00	13,622	TEST BOP EQUIP	RIG UP BATTLE TESTING AND TEST 13 5/8" 10K BOP AND CHOKE, TEST PIPE, BLIND RAMS, HCR, 4" MANUEL, KILL SIDE VALVES AND ALL CHOKE MANIFOLD VALVES, FLOOR VALVES 5000 HI 250 LOW, TEST TOP DRIVE, MUDLINES TO PUMPS, 5000 HI 250 LOW TEST ANNULER TO 2500 PSI.	No

Bits & BHAs													
Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (ft/hr)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
BHA #					Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)			Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)	
String Length (ft)								Weight of String in Air (1000lbf)					

Drill String Components			
Jts	Item Des	OD (in)	Cum Len (ft)

Drilling Parameters							
Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

Hydraulic Calculations				
Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
Error				

Mud Properties							
Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lbf/100ft²)	
10:45	Water Base	13,622	8.3	28			
Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)	
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)	
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")	
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)		

Mud Additive Amounts				
Des	Units	Rec	Consumed	On Loc

Bump # 1 Triplex



# Daily Drilling Report

Date: 12/5/2016

Report #: 36.0

DSS: 33.13

Lat: 32.643951 Long: -103.811116

Well Name: ZIA AGI #2D

Proposed:

Casing Strings	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6
Production	7	29.00	P-110	13,622.0	

BOPs	Nominal ID (in)	Last BOP Test Date
Pressure Rating (psi) 10,000.0	13 5/8	11/14/2016

Formation	Formation Name	Prog Top MD (ftKB)
DEVONIAN		13,607.00

Fluids, Disposal and Water		Received	Consumed	Cum On Loc	Returned
Supply Item Des	Unit Label				
CUTTINGS BIN	BIN		1.0	-49.0	
FRESH WATER	LOAD		4.0	-33.0	
JET PITS/WORK ON LOCATION	HRS		8.5	-20.5	
MUD/SOLIDS/CMT DISPOSAL	LOAD		13.0	-61.0	
RIG DIESEL	gal us		882.0	7,927.0	

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fid Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$571,000	\$0
210	D-Directional Drig Services	\$4,200	\$187,900	\$0
211	D-Fuel & Power	\$1,945	\$100,088	\$0
212	D-Water	\$1,400	\$32,010	\$0
214	D-Mud & Chemicals	\$160	\$99,452	\$0
219	D-Cement 2nd Intermediate	\$451,500	\$451,500	\$0
221	D-Float Equip/Centlzl	\$5,500	\$95,780	\$0
226	D-Company Sprvsn	\$1,800	\$64,800	\$0
227	D-Contract Sprvsn	\$3,200	\$115,200	\$0
227	D-Contract Sprvsn	\$2,465	\$175,475	\$0
235	D-Rentals-Surface	\$325	\$58,640	\$0
236	D-Rentals-Subsrfc	\$638	\$240,063	\$0
237	D-Trucking/Forklift/Rig Mobil	\$8,400	\$210,755	\$0
244	D-Envmntl/Clsd Loop	\$19,100	\$65,400	\$0
405	D-Wellhead Equip			\$0



# Daily Drilling Report

Date: 12/6/2016

Report #: 37.0

DSS: 34.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#/Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 13,622.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 13,619.2	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 0.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b>	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$63,290
	Cum Field Est To Date (Cost) \$4,079,848

### Daily Activity from 12/5/2016 - 12/6/2016

Operations at Report Time  
AT 13,622' DRILL CMT, AND DV TOOL @ 6,345'.

Past 24 Hours Operation Summary  
FINISH TESTING BOP, STRAP AND CALIPER BHA, RIG UP LD MACHINE AND PU DC'S AND DRILL PIPE, CSG TEST, DRILL CMT AND DVTOOL F/ 6,390' - 6,345'.

Operations Next Report Period  
DRILL DV TOOL, PU DRILL PIPE, TEST SCH, TOH, RUN CBL, TIH, DRILL FLOAT EQUIPMENT, DRILL 6" HOLE AND PERFORM FIT TEST.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT.
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Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	13:00	7.00	13,622	TEST BOP EQUIP	TEST 13 5/8" 10K BOP AND CHOKE, TEST PIPE, BLIND RAMS, HCR, 4" MANUEL, KILL SIDE VALVES AND ALL CHOKE MANIFOLD VALVES, FLOOR VALVES 5000 HI 250 LOW, TEST TOP DRIVE, MUDLINES TO PUMPS, 5000 HI 250 LOW TEST ANNULAR TO 2500 PSI.	No
13:00	15:00	2.00	13,622	INSPECT BHA	RIG UP 4" TOOLS, STRAP AND CALIPER BHA.	No
15:00	02:30	11.50	13,622	PU DP, DC, HWDP	PJSM W/ FRANKS LD CREW RIG UP AND PU BIT, BIT SUB, DC'S AND DRILL PIPE F/ SURFACE TO 6,288' , FILLING EVERY 90 JTS.	No
02:30	04:00	1.50	13,622	TEST CSG	AT 6,275" FILL PIPE, BREAK CIRC AND TEST CSG 1000 PSI FOR 30 MIN W/ RIG PUMP 87# LEAK OFF.	No
04:00	06:00	2.00	13,622	D/O CMT/ FLT EQUIP	TAG @ 6,290' AND DRILL CMT, PLUGS AND DV TOOL F/ 6,290' - 6 345' , DV TOOL @ 6,345'.	No

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr	Job Circ Hr	Avg ROP (ft/hr)	Rot Time (hr)	Slide Time	Nozzles (1/32")
13	6	BAKER HUG...	STX-30	5246093	13,622.0	13,622.0	0.50						20/20/20
BHA #	13	Min Weight on Bit (1000lbf)	10	Max Weight on Bit (1000lbf)	10	Min RPM (rpm)	50	Max RPM (rpm)	50	Min Stand Pipe Pressure (psi)	1,030.0	Max Stand Pipe Pressure (psi)	1,030.0
String Length (ft)	6,371.48												
	Weight of String in Air (1000lbf) 41												

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
174	DRILL PIPE	4	5,458.04	6,371.48
5	Drill Collar	4 3/4	152.81	913.44
1	Jars	4 3/4	29.79	760.63
24	Drill Collar	4 3/4	727.48	730.84
1	Bit Sub	4 3/4	2.86	3.36

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Original Hole	13,622.0	13,622.0					300
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque
10	50	1,030.0	145	148	140	2,000.0	1,000.0

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
14.4	0.5	104.6	82.2	8
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
506.2	0.0	247.0	0.0	8.33

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft <sup>2</sup> )
10:30	Water Base	13,622	8.3	28		
Gel 10 sec (lb/100ft <sup>2</sup> )	Gel 10 min (lb/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
				7.0	0.0	
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
700					0.00	0.0
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
0/100						
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	
10.00	100.00	0.00	0.00	0.00		

Des	Units	Rec	Consumed	On Loc	Returned

Pump # 1, Triplex	Start Date	End Date	Make	Model
Pump Number	12/06/2016 06:00	12/6/2016 06:00	Bomco	F-1600



# Daily Drilling Report

Date: 12/6/2016

Report #: 37.0

DSS: 34.13

Well Name: ZIA AGI #2D

Proposed:

Lat: 32.643951 Long: -103.811116

### Casing Strings

Csg Des	OD (in)	Shoe Joint Volume (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6
Production	7	29.00	P-110	13,622.0	

### BOPs

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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### Formation

Formation Name	Prog Top MD (ftKB)
DEVONIAN	13,607.00

### Fluids, Disposal and Water

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
RIG DIESEL	gal us	7,000.0	879.0	14,048.0	

### Costs Summary

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$587,000	\$0
210	D-Directional Drlg Services	\$4,200	\$192,100	\$0
211	D-Fuel & Power	\$1,990	\$102,078	\$0
213	D-Bits	\$7,600	\$82,600	\$0
214	D-Mud & Chemicals	\$160	\$99,612	\$0
226	D-Company Sprvsn	\$1,800	\$66,600	\$0
227	D-Contract Sprvsn	\$3,200	\$118,400	\$0
235	D-Rentals-Surface	\$14,065	\$189,540	\$0
236	D-Rentals-Subsrfc	\$9,275	\$67,915	\$0
237	D-Trucking/Forklift/Rig Mobil	\$2,250	\$242,313	\$0
244	D-Envmntl/Clsd Loop	\$2,750	\$213,505	\$0



# Daily Drilling Report

Date: 12/7/2016

Report #: 38.0

DSS: 35.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 13,622.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 13,619.2	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 0.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr):	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$52,361
	Cum Field Est To Date (Cost) \$4,132,209

### Daily Activity from 12/6/2016 - 12/7/2016

Operations at Report Time  
**DRILL WELL LOCK @ 13592'**  
 Past 24 Hours Operation Summary  
 FINISH DRILLING OUT DV TOOL TO 6370'. DRLG WELL LOCK F/6370' T/6412' PICKING UP DP 6412' - 13532'. TAG BAFFLE AT 13532'. DRILL BAFFLE ASSEMBLY, WELL LOCK, FC @ 13564'. DRLG WELL LOCK TO 13592'

Operations Next Report Period  
 C&CH. TEST CSG, TOH TO RUN CBL. RUN CBL, TIH TO DRILL OUT SHOE. DRILL 10' FORMATION AND FIT TEST, TOH FOR SHC.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, RONNIE DUNNAVANT,
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Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	10:00	4.00	13,622	D/O CMT/ FLT EQUIP	DRLG DV TOOL AT 6345'	No
10:00	13:30	3.50	13,622	W/R	REAMING THRU WELL LOCK FROM 6370' - 6412' ROTARY 65 RPM, WOB 15K, 300 GPM	No
13:30	17:00	3.50	13,622	PU DP, DC, HWDP	PICKING UP 4" DP WITH LAYDOWN MACHINE	No
17:00	17:30	0.50	13,622	LUBRICATE RIG	RIG SERVICE	No
17:30	01:00	7.50	13,622	PU DP, DC, HWDP	CONTINUE PICKING UP DP TO/ 13532'. TAG BAFFLE ASSEMBLY AT 13532'. RD LD MACHINE.	No
01:00	06:00	5.00	13,622	D/O CMT/ FLT EQUIP	DRILL BAFFLE ASSEMBLY 13532' - 13535', DRILL WELL LOCK 13535' - 13564', DRILL FC 13564' - 13566'. DRILL WELL LOCK 13566' - 13592'	No

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
13	6	BAKER HUG...	STX-30	5246093	13,622.0	13,622.0	0.50						20/20/20
BHA #	Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)							
13	10	15	50	65	1,030.0	1,650.0							
String Length (ft)	Weight of String in Air (1000lbf)												
6,371.48	41												

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
174	DRILL PIPE	4	5,458.04	6,371.48
5	Drill Collar	4 3/4	152.81	913.44
1	Jars	4 3/4	29.79	760.63
24	Drill Collar	4 3/4	727.48	730.84
1	Bit Sub	4 3/4	2.86	3.36

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Original Hole	13,622.0	13,622.0					300
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque
15	65	1,650.0	235	240	230	3.5	1,000.0

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
14.6	0.5	104.6	83.2	5
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
506.2	0.0	247.0	0.0	

Error  
 Unable to calculate annular pressure drop because pressure drop data is missing from AV calc

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lb/100ft <sup>2</sup> )
06:00	Water Base	136,221	8.4	28		
Gel 10 sec (lb/100ft <sup>2</sup> )	Gel 10 min (lb/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
				10.0		
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
Oil Water Ratio	Flow Line Temperature (°F)	Vis Grpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	

Des	Units	Rec	Consumed	On Loc	Returned

Pump # 1, Triplex
Pump Number 1
Start Date 12/5/2016 06:00
End Date 12/6/2016 06:00
Make Bomco
Model F-1600
Action Type Triplex
Liner Size (in) 5 1/2

Pump # 2, Triplex
Pump Number 2
Start Date 12/5/2016 06:00
End Date 12/6/2016 06:00
Make Bomco
Model F-1600
Action Type Triplex
Liner Size (in) 5 1/2

Pump # <Pump Number?>, Triplex
Pump Number
Start Date 12/6/2016 06:00
End Date 12/7/2016 06:00
Make Bomco
Model F-1600
Action Type
Liner Size (in)

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
13,622.00	3.00	47.00	13,619.24	87.91	53.17	70.00	0.00

Csg Des	OD (in)	Wt of Longest Comp (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	



# Daily Drilling Report

Date: 12/7/2016

Report #: 38.0

DSS: 35.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

Casing Strings					
Csg Des	OD (in)	Wt of Longest Comp (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6
Production	7	29.00	P-110	13,622.0	

BOPs		
Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016

Formation	
Formation Name	Prog Top MD (ftKB)
DEVONIAN	13,607.00

Fluids, Disposal and Water					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$603,000	\$0
210	D-Directional Drig Services	\$4,200	\$196,300	\$0
211	D-Fuel & Power	\$2,066	\$104,144	\$0
214	D-Mud & Chemicals	\$160	\$99,772	\$0
226	D-Mud & Chemicals	\$1,800	\$68,400	\$0
226	D-Company Sprvsn	\$3,200	\$121,600	\$0
227	D-Contract Sprvsn	\$14,410	\$203,950	\$0
235	D-Rentals-Surface	\$7,775	\$75,690	\$0
236	D-Rentals-Subsrfc	\$2,750	\$216,255	\$0
244	D-Envmntl/Clsd Loop			

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL <b>Asset Group:</b> DELAWARE BASIN <b>County:</b> LEA <b>Prospect:</b> <b>Spud Date:</b> 11/2/2016 03:00 <b>Rig Release Date:</b> <b>Target Formation:</b> DEVONIAN	<b>#/Crew:</b> FREEDOM <b>Area:</b> AGI <b>State:</b> NM <b>End Depth (ftKB):</b> 13,622.0 <b>End Depth (TVD) (ftKB):</b> 13,619.2 <b>24 Hr Progress (ft):</b> 0.00 <b>Drilling Hours (hr):</b>	<b>Rig Phone #:</b> (432) 853-9909 <b>Field Name:</b> AGI <b>API/UWI:</b> 30-025-42207 <b>Permit #:</b> <b>Ground Elevation (ft):</b> 3,547.00 <b>Original KB Elevation (ft):</b> 3,572.00 <b>KB-Ground Distance (ft):</b> 25.00
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<b>AFE Number</b> 009612	<b>Total AFE Amount (Cost)</b>
<b>Job AFE Amount (Cost)</b>	<b>Daily Field Est Total (Cost)</b> \$43,661
	<b>Cum Field Est To Date (Cost)</b> \$4,175,870

**Daily Activity from 12/7/2016 - 12/8/2016**  
 Operations at Report Time  
**RUNNING CAST M CEMENT BOND LOG'S @ 13,622'**

Past 24 Hours Operation Summary  
**CIRCULATE BOTTOMS UP @ 13,592', TOH TO RUN CBL LOGS, RUN CBL LOGS F/ 13,584' TO 0'.**

Operations Next Report Period  
**P/U NEW BHA, TIH & TEST CASING, DRLG 6" VERTICAL HOLE, FIT TEST, CONTINUE DRLG 6" VERTICAL.**

Incident Reported No    Accident Reported No    Daily Contacts  
**CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, VICTOR HERNANDEZ,**

**Time Log**

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	08:00	2.00	13,622	CIRC BTMS UP	CIRCULATE BOTTOMS UP @ 13,592'.	No
08:00	14:00	6.00	13,622	TOH LOGGING/ PH	TOH TO RUN CBL @ 13,592'.	No
14:00	06:00	16.00	13,622	CBL	HOLD P/SM, MIRU HALLIBURTON WIRELINE TRUCK & RUN CBL LOG'S FIRT RUN W/ RADIO CEMENT BOND LOG F/ 13,584' TO SURFACE OUT OF HOLE WITH FIRST LOG @ 21:30, SECOND RUN W/ CAST M TOOL CEMENT BOND LOG F/ 13,570' - SURFACE.	No

**Bits & BHAs**

Bit Run	Size (in)	Make	Model	SN	Depth In (ft...)	Depth Out...	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...)	Rot Time (hr)	Slide Time...	Nozzles (1/32")
13	6	BAKER HUG...	STX-30	5246093	13,622.0	13,622.0	0.50	2.00	2.00				20/20/20
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
13		10	15	50	65	1,030.0	1,650.0						
String Length (ft)								Weight of String in Air (1000lbf)					
6,371.48								41					

**Drill String Components**

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
174	DRILL PIPE	4	5,458.04	6,371.48
5	Drill Collar	4 3/4	152.81	913.44
1	Jars	4 3/4	29.79	760.63
24	Drill Collar	4 3/4	727.48	730.84
1	Bit Sub	4 3/4	2.86	3.36

**Drilling Parameters**

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Original Hole	13,622.0	13,622.0					300
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque
15	65	1,650.0	235	240	230	3.5	1,000.0

**Hydraulic Calculations**

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
14.6	0.5	104.6	83.2	5
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
506.2	0.0	247.0	0.0	

Error  
 Unable to calculate annular pressure drop because pressure drop data is missing from AV calc

**Mud Properties**

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lbf/100ft²)
12:00	Water Base	13,622	8.4	28		
Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
				10.0	0.3	
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
700					0.10	
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
0/100						
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	
	10.00		10.00	0.00	0	

**Mud Additive Amounts**

Des	Units	Rec	Consumed	On Loc	Returned
Barite BULK	TON		6.0	37.0	
CAUSTIC SODA	50# SACK		2.0	52.0	
FLOZAN	25# SACK		2.0	160.0	
WILDCAT 360	GAL		93.0	53.0	
WILDCAT 601 TZ	GAL		36.0	192.0	

**Pump # 1, Triplex**

Pump Number	Start Date	End Date	Make	Model
1	12/7/2016 06:00		Bomco	F-1600
Action Type	Liner Size (in)			

**Pump # 2, Triplex**

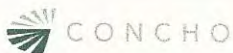
Pump Number	Start Date	End Date	Make	Model
2	12/7/2016 06:00		Bomco	F-1600
Action Type	Liner Size (in)			

**Survey Data**

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
13,622.00	3.00	47.00	13,619.24	87.91	53.17	70.00	0.00

**Casing Strings**

Csg Des	OD (in)	Wt of Longest Comp (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6
Production	7	29.00	P-110	13,622.0	



# Daily Drilling Report

Date: 12/8/2016

Report #: 39.0

Well Name: ZIA AGI #2D

DSS: 36.13

Proposed:

Lat: 32.643951 Long: -103.811116

<b>BOPs</b>		
Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016

<b>Formation</b>	
Formation Name	Prog Top MD (ftKB)
DEVONIAN	13,607.00

<b>Fluids, Disposal and Water</b>					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
RIG DIESEL	gal us		914.0	13,134.0	
RIG DIESEL	gal us		866.0	12,268.0	

<b>Costs Summary</b>				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fid Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$619,000	\$0
210	D-Directional Drig Services	\$4,200	\$200,500	\$0
211	D-Fuel & Power	\$1,958	\$106,102	\$0
214	D-Mud & Chemicals	\$3,513	\$103,285	\$0
226	D-Company Sprvsn	\$1,800	\$70,200	\$0
227	D-Contract Sprvsn	\$3,200	\$124,800	\$0
235	D-Rentals-Surface	\$2,465	\$206,415	\$0
236	D-Rentals-Subsrfc	\$7,775	\$83,465	\$0
244	D-Envmntl/Clsd Loop	\$2,750	\$219,005	\$0





# Daily Drilling Report

Date: 12/10/2016

Report #: 41.0

DSS: 38.13

Well Name: ZIA AGI #2D

Proposed: &lt;typ1&gt;, &lt;de &lt;typ1&gt;, &lt;d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 14,573.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 14,570.1	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 951.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr): 19.50	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$46,874
	Cum Field Est To Date (Cost) \$4,288,089

**Daily Activity from 12/9/2016 - 12/10/2016**  
 Operations at Report Time  
 DRLG 6" VERTICAL @ 14,573' @ 60 FPH.

Past 24 Hours Operation Summary  
 DRLG CEMENT & FLOAT SHOE, DRLG 6" VERTICAL, CIRCULATE, FIT TEST, DRLG 6" VERTICAL F/ 13,622' - 14,573'.

Operations Next Report Period  
 CIRCULATE BOTTOMS UP, DRLG 6" VERTICAL TO TD, CIRCULATE LDDP.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, VICTOR HERNANDEZ,
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Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	07:30	1.50	13,622	D/O CMT/ FLT EQUIP	DRLG SHOE TRACK AND FS 13,602' - 13,622'.	No
07:30	08:00	0.50	13,632	DRLG W/SHC	DRLG FORMATION F/ 13,622' - 13,632' MADE 10' @ 20 FPH. BEGIN DRLG 6" VERTICAL SECTION @ 07:30 MST ON 12/09/2016.	No
08:00	09:00	1.00	13,632	CIRC BTMS UP	CIRC BOTTOMS UP TO RUN FIT TEST.	No
09:00	09:30	0.50	13,632	LEAK OFF/FIT TEST	PERFORM F.I.T. TEST @ 13,632' W / 8.6# MW 425 PSI EMW OF 9.2# HELD 30 MIN NO LOSS.	No
09:30	10:30	1.00	13,632	SAVER SUB	CHANGE OUT BURN SUB ON TOP DRIVE.	No
10:30	17:00	6.50	13,821	DRLG W/SHC	DRILLING 6" VERTICAL SECTION WITH SHC F/ 13,632' - 13,821' MADE 189' @ 29 FPH.	No
17:00	17:30	0.50	13,821	LUBRICATE RIG	SERVICE RIG.	No
17:30	06:00	12.50	14,573	DRLG W/SHC	DRILLING 6" VERTICAL SECTION WITH SHC F/ 13,821' - 14,573' MADE 189' @ 29 FPH.	No

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr	Job Circ Hr	Avg ROP (ft/hr)	Rot Time (hr)	Slide Time	Nozzles (1/32")
14	6	BAKER HUG	Q406FX	7149715	13,622.0	14,573.0	0.50	19.50	1.00	48.8	19.50		10/10/16/16/16/16

BHA #	Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)
14	5	15	111	136	2,160.0	2,290.0

String Length (ft)	Weight of String in Air (1000lbf)
14,573.48	246

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
432	Drill Pipe	4	13,556.98	14,573.48
5	DRILL COLLAR	5	152.81	1,016.50
1	HYD DRLG JARS	4 3/4	29.79	863.69
24	Drill Collar	5	727.48	833.90
1	XO Sub	4 7/8	2.72	106.42
1	NORTRACK STAB	4 3/4	4.63	103.70
1	NMDC	4 13/16	30.07	99.07
1	NMDC	4 11/16	29.64	69.00
1	UBHO SUB	4 3/4	2.97	39.36
1	3 PT ROLLER REAMER	4 3/4	5.04	36.39
1	Mud Motor	4 3/4	30.85	31.35

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Original Hole	13,622.0	14,573.0	951.00	19.50	19.50	48.8	300

Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque
15	55	2,290.0	245	255	235	7,500.0	500.0

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
14.0	0.5	102.5	80.0	3

Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
608.3	11.3	247.0	11.2	8.40

Error  
 Unable to calculate annular pressure drop because pressure drop data is missing from AV calc

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lbf/100ft²)
13:00	Water Base	13,694	8.4	28		

Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
				10.0	0.7	

Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
1,000					0.15	0.0

Oil Water Ratio	Flow Line Temperature (°F)	Vis Grpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
0/100	85.0		0.8			

Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)

Des	Units	Rec	Consumed	On Loc	Returned
CAUSTIC SODA	50# SACK		8.0	44.0	
FLOZAN	25# SACK		10.0	150.0	
SODA ASH	50# SACK		5.0	165.0	
WILDCAT 360	GAL	271.0	57.0	267.0	
WILDCAT 601 TZ	GAL		15.0	177.0	

Pump Number	Start Date	End Date	Make	Model
1	12/7/2016 06:00		Bomco	F-1600

Action Type	Liner Size (in)
Triplex	5 1/2

Pump Number	Start Date	End Date	Make	Model
2	12/7/2016 06:00		Bomco	F-1600

Action Type	Liner Size (in)
Triplex	5 1/2



# Daily Drilling Report

Date: 12/10/2016

Report #: 41.0

DSS: 38.13

Well Name: ZIA AGI #2D

Lat: 32.643951 Long: -103.811116

Proposed:

Survey Data							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
14,048.00	0.80	339.10	14,045.17	94.11	58.99	73.52	1.10
14,142.00	0.80	353.70	14,139.17	94.73	60.25	73.21	0.22
14,236.00	0.60	359.30	14,233.16	95.43	61.40	73.14	0.22
14,329.00	0.80	10.20	14,326.15	96.27	62.52	73.24	0.26
14,423.00	1.00	9.90	14,420.14	97.43	63.98	73.50	0.21
14,573.00	1.00	9.90	14,570.12	99.49	66.56	73.95	0.00

Casing Strings					
Csg Des	OD (in)	Wt of Longest Comp (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6
Production	7	29.00	P-110	13,622.0	

BOPs		
Pressure Rating (psi)	Nominal ID (in)	Last BOP Test Date
10,000.0	13 5/8	11/14/2016

Formation	
Formation Name	Prog Top MD (ftKB)
MONTOYA	14,511.00

Fluids, Disposal and Water					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$651,000	\$0
210	D-Directional Drig Services	\$6,270	\$213,040	\$0
211	D-Fuel & Power	\$3,083	\$112,074	\$0
212	D-Fuel & Power	\$700	\$32,710	\$0
212	D-Water	\$2,831	\$108,492	\$0
214	D-Mud & Chemicals	\$1,800	\$73,800	\$0
226	D-Company Sprvsn	\$3,200	\$131,200	\$0
227	D-Contract Sprvsn	\$2,465	\$212,195	\$0
235	D-Rentals-Surface	\$7,775	\$100,185	\$0
236	D-Rentals-Subsrfc	\$2,750	\$224,505	\$0
244	D-Envmntl/Clsd Loop			

## Scandrill Freedom

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**From:** Timothy Smith <TSmith@concho.com>  
**Sent:** Monday, December 05, 2016 3:29 PM  
**To:** Kevin Hammons; Scandrill Freedom  
**Subject:** Composite bridge plug

The comp bridge plug is set up with SLB. The completion hand will make it up to the baker 20 setting tool and the loggers will just bring it out. They are going to look into an extended gauge ring since we will be passing it through the 32#. The plug is 17" but as long as we get a good gauge ring run and run the plug very slowly through the 32# we should not have an issue.

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# Daily Drilling Report

Date: 12/11/2016

Report #: 42.0

DSS: 39.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#/Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 14,750.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 14,747.1	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 177.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b> 3.50	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$49,279
	Cum Field Est To Date (Cost) \$4,337,368

### Daily Activity from 12/10/2016 - 12/11/2016

Operations at Report Time  
PICKING UP LOGGING TOOL'S @ 14,750'.

Past 24 Hours Operation Summary  
CIRCULATE SAMPLES @ 14,753', DRLG 6" VERTICAL F/ 14,753' - 14,750' TD, CIRCULATE HIGH VISC SWEEPS, LDDP, DC'S & DIR TOOL'S, RIG UP & START PICKING UP LOGGING TOOL'S.

Operations Next Report Period  
LOG WELL

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, VICTOR HERNANDEZ,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	08:00	2.00	14,573	CIRC BTMS UP	CIRCULATE SAMPLES PER GEOLEX GEOLOGIST @ 14,573'.	No
08:00	11:30	3.50	14,750	DRLG W/SHC	DRILLING 6" VERTICAL SECTION WITH SHC F/ 14,573' - 14,750' MADE 177' @ 51 FPH, ***TD 6" VERTICAL @ 11:30 ON 12/10/2016 ****.	No
11:30	12:30	1.00	14,750	PUMP SWEEP	PUMP 80 BBL'S HIGH VISC SWEEP & CIRCULATE OUT WHILE WORKING PIPE AT TD.	No
12:30	13:00	0.50	14,750	RU/RD LD MACHINE	HOLD PJSM W/ FRANK'S LAY DOWN MACHINE CREW & RIG UP LAY DOWN MACHINE.	No
13:00	23:00	10.00	14,750	LDDP	LAY DOWN 4" DRILL PIPE @ TD.	No
23:00	02:30	3.50	14,750	PU/LD BHA	LAY DOWN DRILL COLLAR'S, STABILIZERS, MWD TOOL'S, BIT, MONEL'S & MUD MOTOR.	No
02:30	04:00	1.50	14,750	RU/RD 3RD PARTY EQUIP	RIG DOWN LAY DOWN MACHINE & PULL WEAR BUSHING.	No
04:00	06:00	2.00	14,750	LOGGING	HOLD PJSM W/ SCHLUMBERGER WIRELINE, RIG UP LUBRICATOR & START PICKING UP LOGGING TOOL'S FOR 1 ST RUN W/ TELEMETRY CARTRIDGE, SPECTRAL GAMMA RAY, NEUTRON DENSITY 1 ARM CALIPER LOG & INDUCTION RESISTIVITY.	No

### Bits & BHAs

Bit Run 14	Size (in) 6	Make BAKER HUG...	Model Q406FX	SN 7149715	Depth In (ft...) 13,622.0	Depth Out... 14,750.0	Length (ft) 0.50	Job Drill Hr... 23.00	Job Circ Hr... 4.00	Avg ROP (f...) 49.0	Rot Time (hr) 23.00	Slide Time... 10/10/16/16/16/16	Nozzles (1/32") 10/10/16/16/16/16
BHA # 14	Min Weight on Bit (1000lbf) 5	Max Weight on Bit (1000lbf) 15	Min RPM (rpm) 111	Max RPM (rpm) 136	Min Stand Pipe Pressure (psi) 2,160.0	Max Stand Pipe Pressure (psi) 2,430.0							
String Length (ft) 14,750.16	Weight of String in Air (1000lbf) 249												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
438	Drill Pipe	4	13,733.66	14,750.16
5	DRILL COLLAR	5	152.81	1,016.50
1	HYD DRLG JARS	4 3/4	29.79	863.69
24	Drill Collar	5	727.48	833.90
1	XO Sub	4 7/8	2.72	106.42
1	NORTRACK STAB	4 3/4	4.63	103.70
1	NMDC	4 13/16	30.07	99.07
1	NMDC	4 11/16	29.64	69.00
1	UBHO SUB	4 3/4	2.97	39.36
1	3 PT ROLLER REAMER	4 3/4	5.04	36.39
1	Mud Motor	4 3/4	30.85	31.35

### Drilling Parameters

Wellbore Original Hole	Start Depth (ftKB) 14,573.0	End Depth (ftKB) 14,750.0	Cum Depth Drilled (ft) 1,128.00	Drilling Time (hr) 3.50	Cum Drilling Time (hr) 23.00	Interval ROP (ft/hr) 50.6	Flow Rate (gpm) 300
Weight on Bit (1000lbf) 15	RPM (rpm) 55	Stand Pipe Pressure (psi) 2,430.0	Drill Str Wt (1000lbf) 245	PU Str Wt (1000lbf) 255	SO Str Wt (1000lbf) 235	Drilling Torque 6,300.0	Off Bottom Torque 500.0

### Hydraulic Calculations

Bit Hydraulic Power (hp) 14.0	Bit Hydraulic Power Per Hole Area (hp/in²) 0.5	Bit Jet Velocity (ft/s) 102.5	Bit Pressure Drop (psi) 80.0	Percent of Pressure Drop at Bit (%) 3
Max Casing AV (ft/min) 348.7	Max Open Hole AV (ft/min) 11.3	Min Casing AV (ft/min) 247.0	Min Open Hole AV (ft/min) 11.1	ECD End (lb/gal) 8.40

Error  
Unable to calculate annular pressure drop because pressure drop data is missing from AV calc

### Mud Properties

Time 10:00	Type Water Base	Depth (ftKB) 14,721	Density (lb/gal) 8.4	Funnel Viscosity (s/qt) 28	PV Calc (cP)	YP Calc (lbf/100ft²)
Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH 10.0	Solids (%)	Lime (lb/bbl)
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")

Min Background Gas	Max Background Gas 75.00	Min Connection Gas	Max Connection Gas 75.00	Max Trip Gas 0.00	Max H2S (ppm) 0
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### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned

### Pump # 1, Triplex

Pump Number 1	Start Date 12/7/2016 06:00	End Date	Make Bomco	Model F-1600
Action Type Triplex	Liner Size (in) 5 1/2			

### Pump # 2, Triplex

Pump Number 2	Start Date 12/7/2016 06:00	End Date	Make Bomco	Model F-1600
Action Type Triplex	Liner Size (in) 5 1/2			

Well Name: ZIA AGI #2D

Proposed:

Lat: 32.643951 Long: -103.811116

**Survey Data**

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
14,611.00	1.10	5.60	14,608.11	99.52	67.14	73.47	0.36
14,694.00	1.10	17.60	14,691.10	100.81	68.69	73.79	0.28
14,750.00	1.10	17.60	14,747.09	101.75	69.71	74.12	0.00

**Casing Strings**

Csg Des	OD (in)	Wt of Longest Comp (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6
Production	7	29.00	P-110	13,622.0	

**BOPs**

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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**Formation**

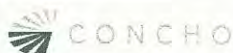
Formation Name	Prog Top MD (ftKB)
MONTOYA	14,511.00

**Fluids, Disposal and Water**

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
CUTTINGS BIN	BIN		1.0	-50.0	
RIG DIESEL	gal us		893.0	10,097.0	

**Costs Summary**

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$667,000	\$0
210	D-Directional Drig Services	\$6,270	\$219,310	\$0
211	D-Fuel & Power	\$2,019	\$114,093	\$0
226	D-Company Sprvsn	\$1,800	\$75,600	\$0
227	D-Contract Sprvsn	\$3,200	\$134,400	\$0
235	D-Rentals-Surface	\$7,765	\$219,960	\$0
236	D-Rentals-Subsrfc	\$7,775	\$107,960	\$0
237	D-Trucking/Forklift/Rig Mobil	\$600	\$242,913	\$0
244	D-Envmntl/Clsd Loop	\$3,850	\$228,355	\$0



# Daily Drilling Report

Date: 12/12/2016

Report #: 43.0

DSS: 40.13

Well Name: ZIA AGI #2D

Proposed: <typ1>, <de <typ1>, <d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

Contractor: SCANDRILL	#/Crew: FREEDOM	Rig Phone #: (432) 853-9909
Asset Group: DELAWARE BASIN	Area: AGI	Field Name: AGI
County: LEA	State: NM	API/UWI: 30-025-42207
Prospect:	End Depth (ftKB): 14,750.0	Permit #:
Spud Date: 11/2/2016 03:00	End Depth (TVD) (ftKB): 14,747.1	Ground Elevation (ft): 3,547.00
Rig Release Date:	24 Hr Progress (ft): 0.00	Original KB Elevation (ft): 3,572.00
Target Formation: DEVONIAN	Drilling Hours (hr):	KB-Ground Distance (ft): 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$35,352
	Cum Field Est To Date (Cost) \$4,372,720

### Daily Activity from 12/11/2016 - 12/12/2016

Operations at Report Time  
RIH W/ SIDE WALL CORE TOOL F/ SECOND RUN @ 14,750'.

Past 24 Hours Operation Summary  
LOGGING WELL W/ 1ST RUN TELEMETRY CARTRIDGE, SPECTRAL GAMMA RAY, NEUTRON POROSITY, DENSITY POROSITY 1 ARM CALIPERLOG, INDUCTION RESISTIVITY, 2ND RUN W/ SONIC SCANNER, 4 ARM CALIPER LOG, FMI IMAGER, 3RD RUN W/ ROTARY SIDE WALL CORES.

Operations Next Report Period  
FINISH SIDE WALL CORES, SET BRIDGE PLUG, RIG DOWN.

Incident Reported No	Accident Reported No	Daily Contacts CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, VICTOR HERNANDEZ,
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### Time Log

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	14:30	8.50	14,750	LOGGING	CONTINUE LOGGING 1ST RUN W/ TELEMETRY CARTRIDGE, SPECTRAL GAMMA RAY, NEUTRON DENSITY 1 ARM CALIPER LOG & INDUCTION RESISTIVITY.	No
14:30	21:00	6.50	14,750	LOGGING	P/U LOGGING TOOL'S FOR 2ND RUN W/ SONIC SCANNER, 4 ARM CALIPER, FMI-IMAGER & LOGG WELL.	No
21:00	04:30	7.50	14,750	SWC	P/U ROTARY SIDE WALL CORE TOOL'S, RIH W/ TOOL & CUT 20 CORES OUT OF 50. PULL TOOL OUT OF HOLE CORE JAMMED	No
04:30	06:00	1.50	14,750	SWC	BREAK DOWN SIDE WALL CORE TOOL, REMOVE JAMMED CORE, PREP TOOL & RIH FOR SECOND SIDE WALL CORE RUN.	No

### Bits & BHAs

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr...	Job Circ Hr...	Avg ROP (f...	Rot Time (hr)	Slide Time...	Nozzles (1/32")
14	6	BAKER HUG...	Q406FX	7149715	13,622.0	14,750.0	0.50	23.00	4.00	49.0	23.00		10/10/16/16/16/16
BHA #		Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)						
14		5	15	111	136	2,160.0	2,430.0						
String Length (ft)	Weight of String in Air (1000lbf)												
14,750.16	249												

### Drill String Components

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)
438	Drill Pipe	4	13,733.66	14,750.16
5	DRILL COLLAR	5	152.81	1,016.50
1	HYD DRLG JARS	4 3/4	29.79	863.69
24	Drill Collar	5	727.48	833.90
1	XO Sub	4 7/8	2.72	106.42
1	NORTRACK STAB	4 3/4	4.63	103.70
1	NMDC	4 13/16	30.07	99.07
1	NMDC	4 11/16	29.64	69.00
1	UBHO SUB	4 3/4	2.97	39.36
1	3 PT ROLLER REAMER	4 3/4	5.04	36.39
1	Mud Motor	4 3/4	30.85	31.35

### Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

### Hydraulic Calculations

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
Error				

### Mud Properties

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lbf/100ft²)
Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	

### Mud Additive Amounts

Des	Units	Rec	Consumed	On Loc	Returned

### Pump # 1, Triplex

Pump Number 1	Start Date 12/7/2016 06:00	End Date	Make Bomco	Model F-1600
Action Type	Liner Size (in)			

### Pump # 2, Triplex

Pump Number 2	Start Date 12/7/2016 06:00	End Date	Make Bomco	Model F-1600
Action Type	Liner Size (in)			

### Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
14,750.00	1.10	17.60	14,747.09	101.75	69.71	74.12	0.00

Well Name: ZIA AGI #2D

DSS: 40.13

Proposed:

Lat: 32.643951 Long: -103.811116

**Casing Strings**

Csg Des	OD (in)	Wt of Longest Comp (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6
Production	7	29.00	P-110	13,622.0	

**BOPs**

Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016
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**Formation**

Formation Name	Prog Top MD (ftKB)
MONTOYA	14,511.00

**Fluids, Disposal and Water**

Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned
JET PITS/WORK ON LOCATION	HRS		4.5	-25.0	
MUD/SOLIDS/CMT DISPOSAL	LOAD		20.0	-81.0	
RIG DIESEL	gal us		941.0	9,156.0	

**Costs Summary**

Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fid Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$683,000	\$0
211	D-Fuel & Power	\$2,118	\$116,211	\$0
226	D-Company Sprvsn	\$1,800	\$77,400	\$0
227	D-Contract Sprvsn	\$3,200	\$137,600	\$0
235	D-Rentals-Surface	\$2,465	\$222,425	\$0
236	D-Rentals-Subsrfc	\$325	\$108,285	\$0
244	D-Envmntl/Cisd Loop	\$9,444	\$237,799	\$0

**Well Name: ZIA AGI #2D**

Proposed: &lt;typ1&gt;, &lt;de &lt;typ1&gt;, &lt;d TD/MD, 14,750 TD/TVD, 14,750 TD/VS, 0

Lat: 32.643951 Long: -103.811116

<b>Contractor:</b> SCANDRILL	<b>#/Crew:</b> FREEDOM	<b>Rig Phone #:</b> (432) 853-9909
<b>Asset Group:</b> DELAWARE BASIN	<b>Area:</b> AGI	<b>Field Name:</b> AGI
<b>County:</b> LEA	<b>State:</b> NM	<b>API/UWI:</b> 30-025-42207
<b>Prospect:</b>	<b>End Depth (ftKB):</b> 14,750.0	<b>Permit #:</b>
<b>Spud Date:</b> 11/2/2016 03:00	<b>End Depth (TVD) (ftKB):</b> 14,747.1	<b>Ground Elevation (ft):</b> 3,547.00
<b>Rig Release Date:</b>	<b>24 Hr Progress (ft):</b> 0.00	<b>Original KB Elevation (ft):</b> 3,572.00
<b>Target Formation:</b> DEVONIAN	<b>Drilling Hours (hr):</b>	<b>KB-Ground Distance (ft):</b> 25.00

AFE Number 009612	Total AFE Amount (Cost)
Job AFE Amount (Cost)	Daily Field Est Total (Cost) \$176,658
	Cum Field Est To Date (Cost) \$4,549,378

**Daily Activity from 12/12/2016 - 12/13/2016**

Operations at Report Time  
RIGGING DOWN AND MOVE TO ROJO AE JV-P FED COM 1H

Past 24 Hours Operation Summary  
FINISH SIDE WALL CORES, RIG UP AND RUN GUAGE LOG, RUN & SET BRIDGE PLUG @ 13,016', NIPPLE DOWN & SET OUT BOP, CAP OFF WELL. RIG DOWN

Operations Next Report Period  
MIRU ON ROJO AE 7811 JV-P FED COM 1H

Incident Reported No    Accident Reported No    Daily Contacts  
CONTRACT DRLG FRMN, JOE HARRIS, ; CONTRACT DRLG FRMN, VICTOR HERNANDEZ,

Start Time	End Time	Dur (hr)	End Depth (ftKB)	Sub-Activity	Com	NPT?
06:00	12:30	6.50	14,750	SWC	FINISH RIH W/ SIDE WALL CORRING TOOL, FINISH GETTING 30 MORE CORES FOR A TOTAL OF 50 CORES & RIG DOWN WIRELINE TRUCK.	No
12:30	18:00	5.50	14,750	LOGGING	PJSM RIG UP RENEGADE WIRELINE TRUCK, RUN GUAGE RING W/ JUNK BASKET. PICK UP COMPOSITE BRIDGE PLUG & SET @ 13,016' RIG DOWN WIRELINE TRUCK.	No
18:00	04:00	10.00	14,750	ND BOP	NIPPLE DOWN BOP, CHANGE OUT 2 SETS OF 4" RENTAL RAM BLOCK'S, INSTALL 5" RAM BLOCK'S SET STACK OUT & NIPPLE UP 7 1/16" X 5M TUBBING HEAD CAPPING FLANGE W/ GUAGE, ***RIG RELEASED @ 04:00 AM ON 12/13/2016****.	No
04:00	06:00	2.00	14,750	RD W/CREWS ONLY	RIG DOWN AND PREP TO MOVE TO ROJO AE 7811 JV-P FED COM 1H THIS AM. ***FINAL REPORT*** USED 46 LOADS FW, 35 LOADS OF BRINE 98 HRS STANDBY/JET PITS/WORK ON LOCATION, 51 SOLIDS BINS, 98 LOADS MUD/CMT, 10 TRANSFERS.	No

Bit Run	Size (in)	Make	Model	SN	Depth In (ft)	Depth Out (ft)	Length (ft)	Job Drill Hr	Job Circ Hr	Avg ROP (ft/hr)	Rot Time (hr)	Slide Time	Nozzles (1/32")
BHA #					Min Weight on Bit (1000lbf)	Max Weight on Bit (1000lbf)	Min RPM (rpm)	Max RPM (rpm)	Min Stand Pipe Pressure (psi)	Max Stand Pipe Pressure (psi)			
String Length (ft)					Weight of String in Air (1000lbf)								

Jts	Item Des	OD (in)	Len (ft)	Cum Len (ft)

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth Drilled (ft)	Drilling Time (hr)	Cum Drilling Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
Weight on Bit (1000lbf)	RPM (rpm)	Stand Pipe Pressure (psi)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Bottom Torque

Bit Hydraulic Power (hp)	Bit Hydraulic Power Per Hole Area (hp/in <sup>2</sup> )	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	Percent of Pressure Drop at Bit (%)
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
Error				

Time	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	PV Calc (cP)	YP Calc (lbf/100ft <sup>2</sup> )
Gel 10 sec (lbf/100ft <sup>2</sup> )	Gel 10 min (lbf/100ft <sup>2</sup> )	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%)	Lime (lb/bbl)
Chlorides (mg/L)	WPS (mg/L)	Calcium (mg/L)	Electric Stab (V)	Pm (mL/mL)	Pf (mL/mL)	Percent Oil (%)
Oil Water Ratio	Flow Line Temperature (°F)	Vis 6rpm	Low Gravity Solids (%)	Magnesium (mg/L)	HTHP Filtrate (mL/30min)	HTHP Filter Cake (1/32")
Min Background Gas	Max Background Gas	Min Connection Gas	Max Connection Gas	Max Trip Gas	Max H2S (ppm)	

Des	Units	Rec	Consumed	On Loc	Returned

Pump # 1, Triplex					
Pump Number 1	Start Date 12/7/2016 06:00	End Date 12/13/2016 06:00	Make Bomco	Model F-1600	
Action Type	Liner Size (in)				

Pump # 2, Triplex					
Pump Number 2	Start Date 12/7/2016 06:00	End Date 12/13/2016 06:00	Make Bomco	Model F-1600	
Action Type	Liner Size (in)				

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
14,750.00	1.10	17.60	14,747.09	101.75	69.71	74.12	0.00

Csg Des	OD (in)	Wt of Longest Comp (lb/ft)	Grade	Set Depth (ftKB)	FIT (psi)
Conductor	30	118.52	A53	120.0	
Surface	20	106.50	J-55	826.0	
Intermediate	13 3/8	61.00	J-55	2,555.5	
Intermediate	9 5/8	40.00	N-80	4,696.0	2,811.6
Production	7	29.00	P-110	13,622.0	

BOPs		
Pressure Rating (psi) 10,000.0	Nominal ID (in) 13 5/8	Last BOP Test Date 11/14/2016



Well Name: ZIA AGI #2D

Proposed:

Lat: 32.643951 Long: -103.811116

Formation	
Formation Name	Prog Top MD (ftKB)
MONTOYA	14,511.00

Fluids, Disposal and Water					
Supply Item Des	Unit Label	Received	Consumed	Cum On Loc	Returned

Costs Summary				
Billing Category	Cost Des	Daily Field Est (Cost)	Cum Fld Est (Cost)	AFE Amt (Cost)
209	D-Daywork Contract	\$16,000	\$699,000	\$0
211	D-Fuel & Power	\$2,118	\$118,329	\$0
226	D-Company Sprvsn	\$1,800	\$79,200	\$0
227	D-Contract Sprvsn	\$3,200	\$140,800	\$0
230	D-Logging	\$126,600	\$277,550	\$0
235	D-Rentals-Surface	\$13,365	\$235,790	\$0
236	D-Rentals-Subsfc	\$325	\$108,610	\$0
244	D-Envmntl/Clsd Loop	\$2,750	\$240,549	\$0
414	D-Pckrs/Anchors/Hgrs	\$10,500	\$10,500	\$0



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 4.0, Report Date: 12/17/2016**

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ftGS)	Total Depth Alt. (TVD) (ftGS) Original Hole - 188.0

Job Category <b>COMPLETION</b>	Primary Job Type <b>INITIAL COMPLETION</b>	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$22,285	Cum Field Est To Date (Cost) \$68,685
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**Daily Readings**

Report Start Date 12/16/2016	Report End Date 12/17/2016
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Past 24 Hours Operation Summary  
AOL/HSM, 0# SITP & CP, FINISH RIH W/BIT, TAG CBP @ 12,986' (TBG, TALLY DEPTH), NU TBG. STRIPPER, R/U 3.5 POWER SWIVEL, BREAK CIRCULATION, DRILL OUT CBP IN 20 MIN., RIH TO 13,020', CIRC. CLEAN, RD PS, SWI, SDON DUE TO HIGH WINDS. (LOST 30 BBLs. FLUID AFTER DRILLING PLUG)

Operations at Report Time SDON	Operations Next Report Period CHECK WELL PRESS., BD & KILL IF NEEDED, RIH TO TD, MAY CIRC. BOTTOMS UP IF NEEDED.
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**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	19:00	13.00			

**Daily Pressures**

Pressure Type CSG	Pressure (psi) 0.0	String	Note
Pressure Type TBG	Pressure (psi) 0.0	String	Note



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 5.0, Report Date: 12/18/2016

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$18,885	Cum Field Est To Date (Cost) \$87,570
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### Daily Readings

Report Start Date 12/17/2016	Report End Date 12/18/2016
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SITP & CP, RIH W/55 JTS. OF 3.5" 9.3# P-110 EUE TBG., TAG TD @ 14,737' (TTD) ON 460 JTS., START OUT W/TBG. & HUNG UP @ 14,717', WORK FREE & PULL UP IN TO CSG., SD FOR 2 HRS. FOR WIND, POOH & LD A TOTAL OF 146 JTS. ON PIPE RACKS, SB 226 JTS. IN DERRICK, LEFT BIT SWINGING @ 2939', SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period FINISH POOH, LD DRILL COLLARS & BIT, RIH W/PKR., SET, ND BOP, NU TREE.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	20:00	14.00			

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 6.0, Report Date: 12/19/2016**

API/UVI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/CS)	Total Depth Alt (TVD) (ft/CS) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$19,885	Cum Field Est To Date (Cost) \$107,455
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**Daily Readings**

Report Start Date 12/18/2016	Report End Date 12/19/2016
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SITP & CP, FINISH POOH WWS TBG, LD DRILL COLLARS & BIT, MU KENCO 7" AS1-X PKR, WWLEG ON BOTTOM & O/O TOOL ON TOP W/2.25" F" PROFILE ON 314 JTS. OF 3.5" P-110 WS, SET PKR. @ 10,015', WAIT 2 HRS. FOR TREE, INSTALL TBG. HANGER, LAND TBG. IN 20 PTS. COMPRESSION, ND BOP, INSTALL 2 WAY CHECK, NU 3 1/8" X 5M TREE, TEST VOID 250# LOW, 5000# HIGH FOR 10 MIN. EACH, TEST TREE TO 250# LOW, 5000# HIGH FOR 10 MIN. EACH, ALL OK, PULL CHECK, TEST CSG. O 1000# FOR 10 MIN., OK, SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period MIRU SCHLUMBERGER SLICK LINE TRUCK, RIH W/PRESS./TEMP GAUGES FOR INITIAL BHP READINGS.
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**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	21:00	15.00			

**Daily Pressures**

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 7.0, Report Date: 12/20/2016

API/UWI 30-025-42207	Surface Legal Location 1093/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$8,685	Cum Field Est To Date (Cost) \$116,140
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### Daily Readings

Report Start Date 12/19/2016	Report End Date 12/20/2016
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Past 24 Hours Operation Summary  
 AOL/HSM, MIRU SCHLUMBERGER SLICKLINE, 0# SITP, RIH W/PRESS./TEMP, GAUGES, TAG TD @ 14,751' (WLM) COLLECT BHP & BASELINE TEMP.,  
 POOH MAKING 40 STOPS FOR 5 MIN. GRADIENTS, RD SL, SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period START SWABBING.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	20:00	14.00			

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 8.0, Report Date: 12/21/2016**

API/UWI 30-025-42207	Surface Legal Location 1093/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$10,435	Cum Field Est To Date (Cost) \$126,575
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**Daily Readings**

Report Start Date 12/20/2016	Report End Date 12/21/2016
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SITP & CP, RU SWAB, IFL 450' FROM SURFACE, REC. 336 BW IN 10 HRS., FFL 700' FS, AT 269 BBLs. RECOVERED FLUID STARTED GETTING DIRTIER LOOKING & HAS A GAS SMELL, (WATER IS WEIGHING 8.6 PPG) (NO SIGN OF H2S) LAST RUN WATER WAS STILL @ 8.6 PPG & STILL DIRTY W/SMELL OF GAS, (NO H2S) SWI, RD SWAB, DRAIN FLOWLINE FROM SWAB TANK TO WELL TO PREVENT FREEZING, SDON.

Operations at Report Time SDON	Operations Next Report Period CONT SWABBING.
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**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	20:00	14.00			

**Daily Pressures**

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 9.0, Report Date: 12/22/2016

API/UWI 30-025-42207	Surface Legal Location 1093/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$7,135	Cum Field Est To Date (Cost) \$133,710
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### Daily Readings

Report Start Date 12/21/2016	Report End Date 12/22/2016
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SITP & SICP, RU SWAB, IFL 150' FROM SURFACE, REC. 170 BW IN 4 HRS., FFL 700' FS, TOTAL REC. IN SWAB TEST 506 BW, (MR. PAUL SWARTZ W/THE BLM) WAS ON LOC. TO WITNESS, GEOLEX CAUGHT 10 SAMPLES IN LAST 100 BBLs. SWABBED (WILL TAKE TO CARDINAL LAB FOR ANALYSIS) END OF SWAB TEST, SWI, RD SWAB, DRAIN FL, SDFH.

Operations at Report Time SDFH	Operations Next Report Period SDFH
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	16:00	10.00			

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 11.0, Report Date: 12/24/2016

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$3,335	Cum Field Est To Date (Cost) \$140,380
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### Daily Readings

Report Start Date 12/23/2016	Report End Date 12/24/2016
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Past 24 Hours Operation Summary  
WELL SHUT IN FOR CHRISTMAS HOLIDAY, NO ACTIVITY.

Operations at Report Time SDFH	Operations Next Report Period SDFH
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG			
TBG			





# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 12.0, Report Date: 12/25/2016

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$3,335	Cum Field Est To Date (Cost) \$143,715
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### Daily Readings

Report Start Date 12/24/2016	Report End Date 12/25/2016
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Past 24 Hours Operation Summary  
WELL SHUT IN FOR CHRISTMAS HOLIDAY, NO ACTIVITY.

Operations at Report Time SDFH	Operations Next Report Period SDFH
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG			
TBG			



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 13.0, Report Date: 12/26/2016

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$3,335	Cum. Field Est To Date (Cost) \$147,050
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### Daily Readings

Report Start Date 12/25/2016	Report End Date 12/26/2016
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Past 24 Hours Operation Summary  
WELL SHUT IN FOR CHRISTMAS HOLIDAY, NO ACTIVITY.

Operations at Report Time SDFH	Operations Next Report Period SDFH
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG			
TBG			



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 14.0, Report Date: 12/27/2016**

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$12,285	Cum Field Est To Date (Cost) \$159,335
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**Daily Readings**

Report Start Date 12/26/2016	Report End Date 12/27/2016
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SITP & SICP, MIRU HALLIBURTON ACID EQUIP., GEL BRINE TANK, HSM, PRESSURE CSG. TO 1000#, START OUT ON WATER, ESTABLISH 10 BPM RATE @2807#, SWITCH TO ACID, STARTED SEEING INCREASE IN CSG. PRESSURE, WITH 101 BBLs. ACID GONE DECISION WAS MADE TO SWITCH BACK TO WATER & PUT ACID AWAY, BLEED CSG. DOWN TO SWAB TANK & MAINTAIN @ 1500#, FLUSHED ACID TO OPEN HOLE W/330 BBLs. FRESH WATER, STAND BY FOR BRINE, KILL TBG. W/75 BBLs. BRINE, ND TREE, NU 5M HYD. BOP, LD TBG. HANGER, RELEASE PKR., RU HALLIBURTON TO CSG., SI TBG., PUMP 240 BBLs. FRESH, FOLLOWED BY 160 BBLs. BRINE DOWN CSG. TO FLUSH ACID TO OPEN HOLE, ISIP VAC., SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period POOH W/TBG. & PKR., START IN HOLE W/FRESH PKR. HYDRO TESTING TBG.
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**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	21:00	15.00			

**Daily Pressures**

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 15.0, Report Date: 12/28/2016**

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ftGS)	Total Depth Alt. (TVD) (ftGS) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$16,385	Cum Field Est To Date (Cost) \$175,720
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**Daily Readings**

Report Start Date 12/27/2016	Report End Date 12/28/2016
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Past 24 Hours Operation Summary  
AOL/HSM, 0# SITP & SICP, POOH W/TBG. & PKR., NO VISIBLE PROBLEM IN TBG. STRING OR PKR., MIRU HYDROSTATIC TBG. TESTERS, RIH W/EXCHANGE PKR. ON 3.5" WS TBG. TESTING TO 8000#, FOUND COLLAR LEAK ON JT. #151 FROM SURFACE, FOUND A STRESS CRACK JUST ABOVE LOWER UPSET IN JT. #6 FROM SURFACE, REPLACED & TESTED BOTH JTS., RD TBG. TESTERS, SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period ND BOP, SET PKR. IN TENSION, INSTALL TBG. HANGER & LAND TBG., NU TREE & TEST, START ACID JOB.
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**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	20:00	14.00			

**Daily Pressures**

Pressure Type CSG	Pressure (psi) 0.0	String	Note
Pressure Type TBG	Pressure (psi) 0.0	String	Note



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 16.0, Report Date: 12/29/2016

API/UVI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$69,385	Cum Field Est To Date (Cost) \$245,105
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### Daily Readings

Report Start Date 12/28/2016	Report End Date 12/29/2016
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SITP & SICP, SET PKR. IN 4 PTS. TENSION, ND BOP, INSTALL TBG. HANGER W/2 WAY CHECK INSTALLED, LAND TBG., NU 3 1/8" X 5M RENTAL TREE, TEST TO 250# FOR 10 MIN., TEST TO 5000# FOR 10 MIN., GOOD TEST, PULL 2 WAY CHECK, RU HALLIBURTON, TEST LINES TO 6000#, OK, EST. 10 BPM RATE, PUMP 87 BFW, SWITCH TO ACID, ACIDIZE WELL W/10,758 GALS. 20% ACID, REDUCE RATE TO 5 BPM, PUMP 2000# ROCK SALT, SWITCH TO ACID, INCREASE RATE TO 10 BPM, PUMP 15,000 GALS. 20% ACID, REDUCE RATE TO 5 BPM, PUMP 2000# ROCK SALT, SWITCH TO ACID, INCREASE RATE TO 10 BPM, PUMP 10000 GALS. 20% ACID, FLUSH W/1000 BBLs. FRESH WATER @ 10 BPM, ISIP 992#, 5/10/15-650#/516#/442#, MAX PRESS.3556#, AVG. PRESS. 1740#, MAX RATE 10.1, AVG. RATE 7.4 BPM, TOTAL LOAD 2692 BBLs., SWI, RD HALLIBURTON, RD WSU & PARK ON SIDE OF LOC., SDON.

Operations at Report Time SDON	Operations Next Report Period MIRU SCHLUMBERGER SLICKLINE, RIH W/SINKER BARS & TAG TD, POOH, RIH W/BHP GAUGES ON OPTIC LINE TO 100' ABOVE TD, LET GAUGES STABILIZE, RU HALLIBURTON & PUMP STEP RATE TEST.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	19:00	13.00			

### Daily Pressures

Pressure Type CSG	Pressure (psi) 0.0	String	Note
Pressure Type TBG	Pressure (psi) 0.0	String	Note



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 17.0, Report Date: 12/30/2016

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$23,735	Cum Field Est To Date (Cost) \$268,840
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### Daily Readings

Report Start Date 12/29/2016	Report End Date 12/30/2016
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Past 24 Hours Operation Summary  
 AOL/HSM, 50# SITP, 650# SICP, MIRU SCHLUMBERGER SLICKLINE/OPTICLINE TRUCK, RIH W/SINKER BARS ON SLICKLINE, TAG @ 13,657', P/U 20', WORK BACK DOWN & FELL THRU, RIH TO 13,970' W/NO TAG (OUT OF LINE) POOH, M/U BHP GAUGES ON OPTIC LINE, RIH TO 14,622', LET GAUGES STABILIZE, R/U HALLIBURTON, TEST LINES, START STEP RATE TEST AS FOLLOWS.  
 7.5 BBLs. @ .25 BPM  
 15 BBLs. @ .50 BPM  
 30 BBLs. @ 1 BPM  
 45 BBLs. @ 1.50 BPM  
 60 BBLs. @ 2.00 BPM  
 90 BBLs. @ 3.00 BPM  
 120 BBLs. @ 4.00 BPM  
 150 BBLs. @ 5.00 BPM  
 180 BBLs. @ 6.00 BPM  
 210 BBLs. @ 7.00 BPM  
 ISIP 600#, 5/10/15-397/311/223, MAX PRESS. 1635#, AVG. 546#, MIR 7.0 BPM, AIR 3.0 BPM  
 SWI, REMOVE VALVE HANDLES & FLAG VALVES, PUMPED A TOTAL OF 914.5 BBLs. OF FRESH WATER, RD HALLIBURTON, LEAVE WELL W/SCHLUMBERGER REPS. FOR 10 DAY FALL OFF TEST.

Operations at Report Time SI FOR 10 DAY FALL OFF	Operations Next Report Period WELL SI & BEING MONITORED BY SCHLUMBERGER SL CREW.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	22:00	16.00			

### Daily Pressures

Pressure Type CSG	Pressure (psi) 650.0	String	Note
Pressure Type TBG	Pressure (psi) 50.0	String	Note



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 26.0, Report Date: 1/8/2017

API/UVI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (All) (ft/G)	Total Depth All (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$5,035	Cum. Field Est To Date (Cost) \$307,755
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### Daily Readings

Report Start Date 1/7/2017	Report End Date 1/8/2017
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Past 24 Hours Operation Summary  
 SI FOR 10 DAY FALL OFF TEST  
 ROAD WSU & CREW TO LOC., SET MATTING BOARDS, PARK RIG ON SIDE OF LOC., SDFW.

Operations at Report Time SI	Operations Next Report Period WELL SI & BEING MONITORED BY SCHLUMBERGER SI CREW.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	09:00	3.00			

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG			
TBG			



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 28.0, Report Date: 1/10/2017

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$134,535	Cum Field Est To Date (Cost) \$447,325
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### Daily Readings

Report Start Date 1/9/2017	Report End Date 1/10/2017
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Past 24 Hours Operation Summary:  
AOL/HSM, MIRU WSU, 420# SICP, 20# SITP, BD CSG, KILL TBG, W/30 BBLs, CUT BRINE, ND TREE, NU 5M HYD, BOP, TEST, RELEASE ON/OFF TOOL & LET WELL EQUALIZE, LATCH BACK ON TO PKR. & RELEASE, POOH W/314 JTS. OF 3.5" TBG. & PKR., ALL ELEMENTS IN PLACE ON PKR., RIH W/6" BIT & 7" CSG. SCRAPER ON 314 JTS. TO 10,021', SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period FINISH RIH OFF RACK TO 13,600', WORK SCRAPER FROM 13,500' TO 13,600' A FEW TIMES TO ENSURE CSG. CSG. IS CLEAN.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	20:00	14.00			

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG	420.0		
TBG	20.0		





# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 29.0, Report Date: 1/11/2017

API/UWI 30-025-42207	Surface Legal Location 1093/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	P5TD (All) (ft/G)	Total Depth All (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$10,035	Cum Field Est To Date (Cost) \$457,360
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### Daily Readings

Report Start Date 1/10/2017	Report End Date 1/11/2017
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Past 24 Hours Operation Summary  
AOL/HSM, 0# SITP & CP, RIH W/113 JTS. OF 3.5" WS TBG. TO 13,605', WORK SCRAPER FROM 13,500' TO 13,605' SEVERAL TIMES, POOH LD 277 JTS. 3.5" WS TBG., BIT SWINGING @ 4821', SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period FINISH LD WS, SCRAPER & BIT, MOVE OUT WS & RELEASE, SET IN INJECTION TBG., NU TORES ANNULAR & TEST.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	19:00	13.00			

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 30.0, Report Date: 1/12/2017**

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ftGS)	Total Depth Alt. (TVD) (ftGS) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$14,135	Cum Field Est To Date (Cost) \$471,495
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**Daily Readings**

Report Start Date 1/11/2017	Report End Date 1/12/2017
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Past 24 Hours Operation Summary  
AOL/HSM, 0# SITP & CP, LD 150 JTS. OF 3.5" WS TBG., 7" CSG. SCRAPER & BIT, MOVE OUT & RELEASE WS, PIPE RACKS & HANDLING TOOLS, RACK 3.5" INJECTION TBG., SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period MIRU HALLIBURTON WL TRUCK, RIH W/GR/JB TO 13,600', POOH, P/U PKR. ASSEMBLY & RIH, SET PKR. @ 13,565'
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**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	17:00	11.00			

**Daily Pressures**

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 31.0, Report Date: 1/13/2017**

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/KB)	Total Depth Alt. (TVD) (ft/KB) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$6,785	Cum Field Est To Date (Cost) \$478,280
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### Daily Readings

Report Start Date 1/12/2017	Report End Date 1/13/2017
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**Past 24 Hours Operation Summary**  
 AOL/HSM, 0# SICP, MIRU H.E.S. WL, REHEAD WL, RIH W/5.90" GR/IB, GAMMA LOGGING TOOL & CCL ON WL TO 13,550', PULL LOG STRIP FROM 13,550' TO 13,370', CORRELATE TO PLATFORM EXPRESS LOG DATED 12-11-16, CORECT +29', RIH TO 13,605', START LOGGING UP, AT 13,570' STARTED PULLING TENSION, WL ENG. PULLED TO 4000# & PULLED OUT OF ROPE SOCKET (SHOULD HAVE BEEN GOOD TO 5100#) POOH, REC ALL WL, LEFT CCL, GAMMA RAY, JUNK BASKET & GAUGE RING IN HOLE, RD WL, SWI, SDON. NOTIFIED CONCHO & DCP.

Operations at Report Time SDON	Operations Next Report Period MOVE OUT INJ. TBG., SET IN 2 7/8" PH-6 7.9# P-110 WS TBG., CHANGE BOP RAMS, RIH W/BIT TO PUSH TOOLS TO BOTTOM.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	19:00	13.00			

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 32.0, Report Date: 1/14/2017

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/KB)	Total Depth Alt (TVD) (ft/KB) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$30,685	Cum Field Est To Date (Cost) \$508,965
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### Daily Readings

Report Start Date 1/13/2017	Report End Date 1/14/2017
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SICP, MOVE OUT INJ. TBG., RACK & TALLY 492 JTS. OF 2 7/8" 7.9# PH-6, P-110 WS TBG., CHANGE RAMS IN BOP, RIH W/4 11/16" OVERSHOT W/5 3/4" CUT LIP GUIDE DRESSED W/3 1/8" GRAPPLE, 4 11/16" EXTENSION, 3 3/4" BUMPER SUB & 3 3/4" HYD. JARS ON 434 JTS. OF WS TBG. TO 13,567', SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period RIH & TAG FISH, IF NOT ON BOTTOM MAY PUSH TO BOTTOM IF NOT TRYING TO STICK, LATCH ON TO FISH & POOH.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	21:00	15.00			

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 33.0, Report Date: 1/15/2017**

API/UWI 30-025-42207	Surface Legal Location 1093/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ftGS)	Total Depth Alt. (TVD) (ftGS) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$14,985	Cum Field Est To Date (Cost) \$523,950
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**Daily Readings**

Report Start Date 1/14/2017	Report End Date 1/15/2017
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**Past 24 Hours Operation Summary**  
 AOL/HSM, 0# SITP & CP, RIH W/9 JTS. TO 13,815', TAG FISH, PUSH TO 13,882' & STACKED OUT, SET 5 PTS. DOWN ON FISH, P/U TO FREE TRAVEL, GO BACK DOWN DID NOT TAG, CON'T PUSHING FISH DOWN HOLE, PUSH TO 14,692' & STACKED OUT, ROTATE ON FISH & SET DOWN 6 PTS., P/U TO FREE TRAVEL, GO BACK DOWN & TAG IN SAME SPOT, DECIDE TO POOH, LD 35 JTS., SB 436 JTS. WS, JARS, BUMPER SUB, OVERSHOT & FISH (FULL RECOVERY) LD FISH & TOOLS, MU 6" BIT & 7" CSG. SCRAPER & RIH ON 435 JTS. WS TO 13,584, SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period LD WS TBG., SCRAPER & BIT.
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**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	22:00	16.00			

**Daily Pressures**

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 34.0, Report Date: 1/16/2017**

API/UWI 30-025-42207	Surface Legal Location 1093/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$8,685	Cum Field Est To Date (Cost) \$532,635
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### Daily Readings

Report Start Date 1/15/2017	Report End Date 1/16/2017
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Past 24 Hours Operation Summary  
AOL/HSM, 0# SITP & CP, WORK BIT & SCRAPER 3 TIMES FROM 13,400'-13,584', POOH & LD 435 JTS. OF WS TBG., CSG. SCRAPER & BIT, ALL IN GOOD SHAPE, CHANGE PIPE RAMS IN BOP BACK TO 3.5", SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period MIRU HALLIBURTON WL, RIH W/GR/JB TO 13,550', POOH, RIH W/PKR. ASSEMBLY.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	19:00	13.00			

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 35.0, Report Date: 1/17/2017**

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$85,885	Cum Field Est To Date (Cost) \$618,520
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**Daily Readings**

Report Start Date 1/16/2017	Report End Date 1/17/2017
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**Past 24 Hours Operation Summary**  
 AOL/HSM, MIRU HALLIBURTON WL, RIH W/5.89" GR/JB TO 13,540', CORRELATE TO OPEN HOLE LOG DATED 12-11-16, CORRECTED +20.5', POOH, PU HALLIBURTON 7" 26-32# BWD PERMANENT PKR. W/4.00" BORE (INCOLOY 925) W/SEAL BORE EXT., 4.75" 8 RND. BOX X 3.5" 9.2# VAMTOP PIN (INCOLOY 925), 6" X 3.5" 9.2# VAMTOP BOX X PIN PUP JT. (INCOLOY 925), HALLIBURTON 2.562" R NIPPLE 3.5" 9.2# VAMTOP BOX X PIN (NICKLE ALLOY 925, 6" X 3.5" 9.3# VAMTOP BOX X PIN PUP JT. INCOLOY 925), HALLIBURTON 2.562" R NIPPLE, 3.5" 9.2# VAMTOP BOX X PIN (NICKLE ALLOY 925), PUMP OUT PLUG W/3 PINS (3.5" 9.2# VAMTOP INCOLOY 925), RECORRELTE TO OPEN HOLE LOG, CORRECTED + 20.5", SET PKR. ELEMENTS @ 13,535', POOH W/SETTING TOOL, RD WL, SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period RIH W/SEAL ASSEMBLY & INJECTION TBG.
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**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	00:00	18.00			

**Daily Pressures**

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 36.0, Report Date: 1/18/2017

API/UWI 30-025-42207	Surface Legal Location 1093/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ftGS)	Total Depth Alt (TVD) (ftGS) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$6,985	Cum Field Est To Date (Cost) \$625,505
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### Daily Readings

Report Start Date 1/17/2017	Report End Date 1/18/2017
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SICP, PREP. TO RIH W/SEAL ASSEMBLY & INJECTION TBG., STAND BY FOR FRANKS CSG. CREW/LAY DOWN MACHINE, DID NOT SHOW. CALLED FRANKS & THEY HAD IT ON BOOKS FOR THURSDAY INSTEAD OF TUESDAY, THEY SAID WOULD GET CREW & EQUIPMENT ON THE W/ETA OF 3:00 PM, DECISION WAS MADE TO GET THEM RIGGED UP & SDON.

Operations at Report Time SDON	Operations Next Report Period RIH W/SEAL ASSEMBLY & TBG.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	19:00	13.00			

### Daily Pressures

Pressure Type CSG	Pressure (psi) 0.0	String	Note
Pressure Type TBG	Pressure (psi) 0.0	String	Note





## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 37.0, Report Date: 1/19/2017**

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$8,865	Cum Field Est To Date (Cost) \$634,370
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### Daily Readings

Report Start Date 1/18/2017	Report End Date 1/19/2017
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**Past 24 Hours Operation Summary**  
 AOL/HSM, 0# SICP, FINISH RIGGING UP FRANKS CSG. CREW & GATORHAWK HYDRO TESTERS, RIH W/SEAL ASSEMBLY, 4' X 3.5" 9.2# VAMTOP PUP JT., HAL ROC PTGAUGE MANDREL ASSEMBLY, 3.5" 9.2# VAMTOP PUP JT., HALLIBURTON 2.562" R NIPPLE, 9 JTS. OF 3.5" 9.2# VAMTOP INCONEL TBG., 3.5" 9.3# BTS-8 BOX X 3.5" 9.2# VAMTOP PIN L-80 PUP JT., 61 JTS. OF 3.5" BTS-8 L-80 TBG. CLAMPING TEC LINE W/1 CLAMP PER JT. & EXTERNALLY TESTING EACH CONNECTION TO 5000#, SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period CONTINUE RIH W/INJECTION TBG.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	20:00	14.00			

### Daily Pressures

Pressure Type CSG	Pressure (psi) 0.0	String	Note
Pressure Type TBG	Pressure (psi) 0.0	String	Note



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 38.0, Report Date: 1/20/2017**

API/UWI 30-025-42207	Surface Legal Location 1093/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ftGS)	Total Depth Alt. (TVD) (ftGS) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$16,915	Cum Field Est To Date (Cost) \$651,285
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**Daily Readings**

Report Start Date 1/19/2017	Report End Date 1/20/2017
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SITP & CP, RESUME RIH W/INJECTION TBG., TORQUE TBG. TO SPEC., EXTERNALLY HYDRO TESTING THE CONNECTIONS & CLAMPING TEC LINE W/1 CLAMP PER JT. RUN 120 JTS. TODAY, 190 JTS. IN HOLE, BTM OF SEAL ASSEMBLY @ 6058', TALLY REST OF TBG., SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period CONT. RUNNING INJECTION TBG.
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**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	20:00	14.00			

**Daily Pressures**

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 39.0, Report Date: 1/21/2017

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$59,515	Cum Field Est To Date (Cost) \$710,800
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### Daily Readings

Report Start Date 1/20/2017	Report End Date 1/21/2017
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SITP & CP, RESUME RIH W/INJECTION TBG., TORQUE TBG. TO SPEC., EXTERNALLY HYDRO TESTING THE CONNECTIONS & CLAMPING TEC LINE W/1 CLAMP PER JT. RUN 154 JTS. TODAY, 344 JTS. TOTAL IN HOLE, BTM OF SEAL ASSEMBLY @ 10,894', SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period FINISH RIH, STING IN TO PKR., TEST TO ENSURE IN. STING OUT, SPACE OUT, PUMP PKR. FLUID.
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### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	20:00	14.00			

### Daily Pressures

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 40.0, Report Date: 1/22/2017**

API/UWI 30-025-42207	Surface Legal Location 1093/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ftGS)	Total Depth Alt. (TVD) (ftGS) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$10,415	Cum. Field Est To Date (Cost) \$721,215
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**Daily Readings**

Report Start Date 1/21/2017	Report End Date 1/22/2017
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Past 24 Hours Operation Summary  
 AOL/HSM, 0# SITP & CP, , RESUME RIH W/INJECTION TBG., TORQUE TBG. TO SPEC., EXTERNALLY HYDRO TESTING THE CONNECTIONS & CLAMPING TEC LINE W/1 CLAMP PER JT. RUN 84 JTS., TAG PKR. ON JT. #428 @ 13,523' (TBG. TALLY DEPTH) STING OUT OF PKR. & LD TAG JT., SPACE OUT W/10' & 8' PUP JTS. UNDER LANDING JT., MIRU HALLIBURTON, REVERSE CIRCULATE 20 BBLs. 20# GEL PILL FOLLOWED BY 205 BBLs. OF DIESEL PKR. FLUID, TORUS ANNULAR FAILED & HAD TO ABORT JOB, STING IN TO PKR., SWI, SDON.

Operations at Report Time SDON	Operations Next Report Period LAY LINE TO FRAC TANK, STING OUT OF PKR., CONVENTIONALLY PUMP 30 BBL. HIGH VIS. PILL & FOLLOW W/DIESEL PKR. FLUID, DISPLACE 190 BBLs. DIESEL BACK TO TANK, SWITCH FLOW TO BLOW DOWN TANK & CIRCULATE PKR. FLUID ALL THE WAY AROUND, STING IN TO PKR., INSTALL TBG. HANGER & LAND TBG.
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**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	22:00	16.00			

**Daily Pressures**

Pressure Type CSG	Pressure (psi) 0.0	String	Note
Pressure Type TBG	Pressure (psi) 0.0	String	Note



## Daily Completion and Workover

**Well Name: ZIA AGI #2D**

**Report # 41.0, Report Date: 1/23/2017**

API/UVI 30-025-42207	Surface Legal Location 1993/S 950/W; SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/G)	Total Depth Alt. (TVD) (ft/G) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$503,915	Cum. Field Est To Date (Cost) \$1,225,130
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**Daily Readings**

Report Start Date 1/22/2017	Report End Date 1/23/2017
--------------------------------	------------------------------

**Past 24 Hours Operation Summary**  
 AOL/HSM, LAY FLOWLINE TO FRAC TANK, RU HALLIBURTON TO TBG., STING OUT OF PKR., DISPLACE 190 BBLs. OF DIESEL PKR. FLUID TO FRAC TANK, SD, SWITCH FLOW TO BLOW DOWN TANK, RESUME DISPLACING, PUMP A TOTAL OF 500 BBLs. RED DIESEL CONTAINING OXYGEN SCAVENGER, BIOCIDES & WATER SCAVENGER, STING IN TO PKR., RD HALLIBURTON, INSTALL TBG. HANGER, TORQUE TO SPEC., EXTERNALLY TEST TO 5000#, OK, FEED TEC LINE & HYD. LINE THROUGH TBG. HANGER, LAND TBG. IN 26 POINTS COMPRESSION (20 PTS. @ PKR.) ND TORUS & BOP, NU 5M TREE, TORQUE TO SPEC., MAKE HYD. & TEC LINE SURFACE CONNECTIONS, TEST HYD. LINE TO 6000# FOR MIN., INSTALL 2 WAY CHECK IN TBG. HANGER, TEST TREE SHELL TO 250# FOR 10 MIN., 5000# FOR 10/MIN., OK, REMOVE CHECK, R/U HALLIBURTON TO CSG., PERFORM 500# PRELIMINARY MIT TEST FOR 30 MIN., OK, RU/TO TBG. & PUMP PLUG OUT OF PKR. @ 3000#, FLUSH W/5 BBLs. DIESEL, ISIP 1262#, 5/10/15- 1161/1156/1156#, SWI, RD HALLIBURTON, SDON.

Operations at Report Time SDON	Operations Next Report Period RD WSU, CLEAN LOC., MOVE OFF LOC., RELEASE ALL RENTALS, TURN WELL OVER TO DCP.
-----------------------------------	---

**Daily Contacts**

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

**Time Log**

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	00:00	18.00			

**Daily Pressures**

Pressure Type	Pressure (psi)	String	Note
CSG	0.0		
TBG	0.0		



# Daily Completion and Workover

Well Name: ZIA AGI #2D

Report # 42.0, Report Date: 1/24/2017

API/UWI 30-025-42207	Surface Legal Location 1893/S 950/W: SEC19-T19S-R32E	Field Name AGI	County LEA	State NM	Well Configuration Type Vertical
Original KB Elevation (ft) 3,572.00	KB-Tubing Head Distance (ft)	Spud Date 11/2/2016 03:00	Rig Release Date 12/13/2016 04:00	PSTD (Alt) (ft/GS)	Total Depth Alt. (TVD) (ft/GS) Original Hole - 188.0

Job Category COMPLETION	Primary Job Type INITIAL COMPLETION	Start Date 12/13/2016	End Date 1/23/2017
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Job Objective

Contractor ARIES	#Crew 46	Rig Type Completion/Workover	Rig Start Date 12/13/2016	Rig Release Date 1/23/2017
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AFE Number 009612	Total AFE + Supp Amount (Cost)	Daily Field Est Total (Cost) \$2,400	Cum. Field Est To Date (Cost) \$1,227,530
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### Daily Readings

Report Start Date 1/23/2017	Report End Date 1/24/2017
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Past 24 Hours Operation Summary  
AOL/HSM, RD WSU, CLEAN LOC., MOVE OFF LOC., RELEASE ALL RENTALS, TURN WELL OVER TO DCP, FINAL REPORT.

Operations at Report Time	Operations Next Report Period
---------------------------	-------------------------------

### Daily Contacts

Job Contact	Title	Mobile
GARY HENRICH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR	(575)631-4234

### Time Log

Start Time	End Time	Dur (hr)	Activity Code	Activity	Com
06:00	10:00	4.00			

### Daily Pressures

Pressure Type CSG	Pressure (psi)	String	Note
Pressure Type TBG	Pressure (psi)	String	Note

## **APPENDIX B**

# **H<sub>2</sub>S CONTINGENCY PLAN APPROVED FOR ZIA II GAS PLANT, JULY 2016**

## Jared Smith {Geolex}

---

**From:** Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>  
**Sent:** Friday, February 24, 2017 7:28 AM  
**To:** jwg@geolex.com  
**Cc:** 'Alberto A. Gutierrez'; Jared Smith {Geolex}; Griswold, Jim, EMNRD; Brown, Maxey G, EMNRD  
**Subject:** RE: DCP Midstream, LP (H2S-063) "Zia Gas Plant H2S Contingency Plan-Revised" (July 2016) Sec. 19 T19S R32E Lea County, New Mexico

Julie, et al.:

Thank you for the update.

Mr. Carl J. Chavez, CHMM (#13099)  
New Mexico Oil Conservation Division  
Energy Minerals and Natural Resources Department  
1220 South St Francis Drive  
Santa Fe, New Mexico 87505  
Ph. (505) 476-3490  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)

**“Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?” (To see how, go to: <http://www.emnrd.state.nm.us/OCD> and see “Publications”)**

---

**From:** Julie W. Gutierrez [<mailto:jwg@geolex.com>]  
**Sent:** Thursday, February 23, 2017 10:07 PM  
**To:** Chavez, Carl J, EMNRD <[CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)>  
**Cc:** 'Alberto A. Gutierrez' <[aag@geolex.com](mailto:aag@geolex.com)>; Jared Smith {Geolex} <[jsmith@geolex.com](mailto:jsmith@geolex.com)>  
**Subject:** DCP Midstream, LP (H2S-063) "Zia Gas Plant H2S Contingency Plan-Revised" (July 2016) Sec. 19 T19S R32E Lea County, New Mexico

Hi Carl,

I am writing to update you concerning the status of the new AGI well (Zia AGI D #2) at the DCP Zia Gas Plant. The approved H2S was prepared in anticipation of the installation of a second AGI well at the plant. That second AGI well has been drilled, completed, and was brought into service as of February 2, 2017. The well is functioning as anticipated with no problems.

The final surface location of the well is: Section 19 T19S-R32E, 1,893' FSL and 950' FWL. The approved H2S Plan identified the proposed surface location of the well as: Section 19 T19S-R32E, 1900' FSL, and 950' FWL (within 17' of the projected location).

The well was drilled to a TD of 14,750' , and acid gas is being injected into the Siluro-Devonian formation, as the approved H2S plan anticipated.

All other parameters of both wells remain the same as described in the Revised H2S plan approved on July 22, 2016, including injection volume, H2S concentration and, thus, ROE calculations.



Please let me know if you have any questions.

Julie

Julie W. Gutiérrez  
Geolex, Incorporated®  
500 Marquette Avenue, NW Suite 1350  
Albuquerque, NM 87102  
505-842-8000  
505-842-7380 Fax  
505-235-7158 (Cell)

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Version: 2016.0.7998 / Virus Database: 4756/14006 - Release Date: 02/23/17

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Version: 2016.0.7998 / Virus Database: 4756/14011 - Release Date: 02/24/17

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Checked by AVG - [www.avg.com](http://www.avg.com)

Version: 2016.0.7998 / Virus Database: 4756/14013 - Release Date: 02/24/17



# **H<sub>2</sub>S Contingency Plan**

## **Zia II Gas Plant**

**DCP Midstream, LP**

**July 2016**

## TABLE OF CONTENTS

<b>I. INTRODUCTION [NMAC 19.15.11 ET. SEQ.][API RP-55 7.1 RP-49, RP-68]</b> .....	<b>1</b>
<b>II. SCOPE [API RP-55 7.2]</b> .....	<b>1</b>
<b>III. PLAN AVAILABILITY [API RP-55 7.3]</b> .....	<b>2</b>
<b>IV. EMERGENCY PROCEDURES [NMAC 19.15.11.9.B(2)(A)] [API RP-55 7.4 A] [29 CFR 1910.1200]</b> .....	<b>2</b>
RESPONSIBILITIES AND DUTIES OF PERSONNEL DURING AN EMERGENCY .....	2
IMMEDIATE ACTION PLAN .....	4
TELEPHONE NUMBERS, COMMUNICATION METHODS AND MEDIA SITE.....	4
LOCATION OF NEARBY RESIDENCES, ROADS AND MEDICAL FACILITIES .....	4
EVACUATION ROUTES, EMERGENCY ASSEMBLY AREAS AND ROAD BLOCK LOCATIONS .....	5
MONITORING EQUIPMENT, ALARM SYSTEMS, SAFETY EQUIPMENT AND SUPPLIES .....	6
ALARMS, VISIBLE BEACONS AND WIND INDICATORS .....	7
SIGNS AND MARKERS [NMSA 19.15.11.10] .....	7
EMERGENCY EQUIPMENT .....	7
GAS DETECTION EQUIPMENT.....	7
RESPIRATORS .....	8
PROCESS PURGE SYSTEM.....	8
FIRE FIGHTING EQUIPMENT.....	8
<b>V. CHARACTERISTICS OF HYDROGEN SULFIDE (H<sub>2</sub>S), SULFUR DIOXIDE (SO<sub>2</sub>) CARBON DIOXIDE (CO<sub>2</sub>) [NMAC 19.15.11.9.B(2)(B)] [API RP-55 7.4 B.]</b> .....	<b>9</b>
HYDROGEN SULFIDE (H <sub>2</sub> S) .....	9
SULFUR DIOXIDE (SO <sub>2</sub> ) .....	10
CARBON DIOXIDE (CO <sub>2</sub> ) .....	11
<b>VI. RADII OF EXPOSURE [NMAC 19.15.11.7. K]</b> .....	<b>12</b>
<b>VII. FACILITY DESCRIPTION, MAPS AND DRAWINGS [NMAC 19.15.11.9.B (2)(C)] [API RP-55 7.4 C.]</b> .....	<b>13</b>
DESCRIPTION OF PLANT OPERATIONS AND ZIA #1 AND #2 AGI WELLS .....	13
MAPS AND FIGURES .....	14
<b>VIII. TRAINING AND DRILLS [NMAC 19.15.11.9.B(2)(D)] [API RP-55 7.4 D.]</b> .....	<b>14</b>
TRAINING OF ESSENTIAL PERSONNEL .....	14
ON-SITE OR CLASSROOM EMERGENCY RESPONSE DRILLS .....	15
NOTIFICATION AND TRAINING OF PRODUCERS LOCATED WITHIN THE ROE.....	15

TRAINING OF PUBLIC OFFICIALS AND EMERGENCY RESPONSE AGENCIES .....	15
TRAINING AND ATTENDANCE DOCUMENTATION [NMAC 19.15.11.9 G].....	16
<b>IX. COORDINATION WITH STATE EMERGENCY PLANS [NMAC 19.15.11.9.B(2)(E)] .....</b>	<b>16</b>
NOTIFICATIONS AND REPORTS.....	16
<b>X. PLAN ACTIVATION [NMAC 19.15.11.9.C] [API RP-55 7.4 D].....</b>	<b>17</b>
ACTIVATION LEVELS.....	17
EVENTS THAT COULD LEAD TO A RELEASE OF H <sub>2</sub> S.....	17
<b>XI. SUBMISSION OF H<sub>2</sub>S CONTINGENCY PLANS [NMAC 19.15.11.9.D].....</b>	<b>18</b>
SUBMISSION .....	18
RETENTION.....	18
REVISIONS TO THE PLAN.....	18
ANNUAL INVENTORY OF CONTINGENCY PLANS .....	18

**FIGURES**

- Figure 1: Location of Zia II Plant**
- Figure 1a: Surface and Bottom-Hole Locations of Zia AGI #1 and #2**
- Figure 1b: Plot Plan Showing Plant Schematic**
- Figure 2: Safety Equipment: H<sub>2</sub>S Monitors, Gas Detectors, Fire Detectors**
- Figure 2a: Safety Equipment: ESD System Locations, ESD RIO Panel Locations  
Plant Emergency Siren Location**
- Figure 2b: Safety Equipment: Wind Sock Location Plan**
- Figure 2c: Safety Equipment: Emergency Breathing Equipment**
- Figure 2d: Safety Equipment: Fire Extinguisher Location Plan**
- Figure 2e: Emergency Exit Plan**
- Figure 3: Isolation Valve Location Plan**
- Figure 4: 500 and 100 PPM H<sub>2</sub>S ROE Map, Roadblock and Emergency Assembly  
Locations**
- Figure 5a: Well Design Schematic – Zia AGI #1**
- Figure 5b: Well Design Schematic – Zia AGI #2**
- Figure 6: AGI Well Facility Schematic**
- Figure 7: DCP Command Structure**
- Figure 8: Photograph of an H<sub>2</sub>S Warning Sign**

**APPENDICES**

- Appendix A – Immediate Action Plans**
- Appendix B – Response Flow Diagrams**
- Appendix C – Telephone Numbers/Emergency Call List**
- Appendix D – Radius of Exposure (ROE) Calculations**
- Appendix E – Distribution List**
- Appendix F – Chronologic Record of Events Log**
- Appendix G – NMOCD C-141 Form**

## Location of Plant

### ZIA II GAS PLANT

DCP Midstream, LP (DCP) has constructed a new gas processing plant in southeastern New Mexico. In addition to processing gas, DCP will also operate two acid gas injection (AGI) and CO<sub>2</sub> sequestration wells at the gas plant which is located in Section 19, Township 19S, Range 32E in Lea County, New Mexico, approximately 35 miles west of Hobbs (Figure 1). The Plant and AGI wells are located on land leased from the Federal Bureau of Land Management (BLM) by DCP.

Physical/Mailing Address:

89 Lusk Road  
Lovington, NM 88260

Driving Directions from Hobbs, New Mexico to the Plant:

Take Highway 62-180 west out of Hobbs, New Mexico for approximately 34 miles to State Road 243 – turn right (north) onto Road 243. Continue on State Road 243 approximately 4.5 miles to CR 126a – Maljamar Road. Turn right (north) onto CR 126a and proceed 5.5 miles to CR 126/248 – Lusk Road; turn left onto 126/248. Continue on 126/248 approximately 1 mile to the first Lease Road on the left (south). Turn left and continue south on the Lease Road for approximately ¼ mile. Plant site will be on the left (east) side of the road.

Coordinates for Plant:

Latitude: 32.643  
Longitude: -103.809

### ACID GAS INJECTION WELLS

The Zia II AGI Wells (Zia AGI Wells #1 and #2) are located on the northwest corner of the Plant (see Figure 1b)

Surface Locations are:

**AGI #1:** 2100' FSL, 950' FWL Section 19, T19S, R32 E  
Latitude: 32.64459881, Longitude: -103.8111449 (API # 30-025-42208)

**AGI #2:** 1900' FSL, 950' FWL, Section 19, T19S, R32E  
Latitude 32.64403555, Longitude: -103.8111449 (API # 30-025-42207)

## GLOSSARY OF ACRONYMS UTILIZED IN THE PLAN

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>AGI</b>	Acid Gas Injection
<b>ANSI</b>	American National Standards Institute
<b>API</b>	American Petroleum Institute
<b>CO<sub>2</sub></b>	Carbon Dioxide
<b>DCS</b>	Distributed Control System
<b>DOT</b>	Department of Transportation
<b>ERO</b>	Emergency Response Officer
<b>ESD</b>	Emergency Shut-Down
<b>H<sub>2</sub>S</b>	Hydrogen Sulfide
<b>IC</b>	Incident Commander
<b>ICS</b>	Incident Command System
<b>ICC</b>	Incident Command Center
<b>IDLH</b>	Immediately Dangerous to Life or Health
<b>LEL</b>	Lower Explosive Limit
<b>LEPC</b>	Local Emergency Planning Committee
<b>MSDS</b>	Materials Safety Data Sheets
<b>NACE</b>	National Association of Corrosive Engineers
<b>NCP</b>	National Contingency Plan
<b>NIIMS</b>	National Interagency Incident Management System
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>NGL</b>	Natural Gas Liquid
<b>NMAC</b>	New Mexico Administrative Code
<b>NMED</b>	New Mexico Environment Department
<b>NMOCC</b>	New Mexico Oil Conservation Commission
<b> OCD</b>	Oil Conservation Division
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PLC</b>	Programmable Logic Controller
<b>PPE</b>	Personal Protective Equipment
<b>PPM</b>	Parts Per Million
<b>ROE</b>	Radius of Exposure
<b>SCBA</b>	Self-Contained Breathing Apparatus
<b>SERC</b>	State Emergency Response Commission
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>STEL</b>	Short Term Exposure Limit
<b>TLV</b>	Threshold Limit Value
<b>TWA</b>	Time Weighted Average

## **I. INTRODUCTION [NMAC 19.15.11 et. seq.][API RP-55 7.1 RP-49, RP-68]**

DCP Midstream has just constructed the new Zia II Plant in order to process natural gas that will be coming into the plant from various gathering systems in the area. The Zia II Gas Plant (hereinafter the "Plant") is a natural gas processing plant which processes field gas containing hydrogen sulfide (H<sub>2</sub>S) and handles and/or generates sulfur dioxide (SO<sub>2</sub>). The Zia II Plant has two associated Acid Gas Injection wells (Zia II AGI #1 and Zia II AGI #2) which will be utilizing for disposal of H<sub>2</sub>S. Thus, this Hydrogen Sulfide Contingency Plan (the "H<sub>2</sub>S Plan" or "the Plan") is being submitted to document procedures that are to be followed in the event of an H<sub>2</sub>S release that occurs at any location on the Plant or at the AGI Processing area where AGI #1 or #2 are located.

This plan complies with **New Mexico Oil Conservation Division (OCD) Rule 11**(§ **19.15.11 et. seq. NMAC**). The plan and operation of the DCP Zia Plant conform to standards set forth in **API RP-55 "Recommended Practice for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide" as well as API RP 49 "Recommended Practice for Drilling and Well Servicing Operations Involving Hydrogen Sulfide" and API RP 68 "Oil and Gas Well Servicing and Workover Operations involving Hydrogen Sulfide", and applicable NACE standards for sour gas service and current best management practices.** The Plant does not have any storage tanks in which H<sub>2</sub>S or other gas or gas products are stored, and thus, API regulations and OCD regulations (specifically 19.15.11.12.E NMAC) relative to those types of storage are not applicable for this plant. Drilling and completion of the Zia II Plant AGI Wells was done in compliance with NMAC 19.15.11.11. The terms used in this Plan are used as defined in Title 19 Chapter 15 Part 11 of the New Mexico Administrative code (19.15.11.7-Definitions) unless otherwise defined herein. Safety precautions in the event of a release could include placement of road blocks, evacuation along designated routes or instructions to shelter-in-place. When the term "shelter-in-place" is used in this Plan, it means that individuals should go inside homes, businesses, etc., turn off heating and air conditioning systems, close windows and doors and put towels or tape around doors and/or windows that are not sealed and wait for further instruction.

## **II. SCOPE [API RP-55 7.2]**

This Plan is specific to the Zia II Gas Processing Plant and AGI Wells. It contains procedures to provide an organized response to an unplanned release of H<sub>2</sub>S from the Plant or the AGI Wells contained within the Plant and documents procedures that would be followed to alert and protect any members of the public, residents in surrounding areas and/or contractors working on or around the plant in the event of an unplanned release. This H<sub>2</sub>S Contingency Plan has been prepared to minimize the hazard resulting from an H<sub>2</sub>S release. It will be used to inform company personnel, local emergency responders and the public of actions to be taken before, during and after an H<sub>2</sub>S release. All operations shall be performed with safety as the primary goal. The primary concern of the Zia II Gas Plant, during an H<sub>2</sub>S release, is to protect company employees, contractors and the public; the secondary concern is to minimize the damage and other adverse effects of the emergency. In the event of a release, any part of the Plant operation that might compromise the safety of individuals will cease until the operation can be re-evaluated and the proper engineering controls to assure safety can be implemented. No individual should place the protection of the Plant property above his or her own personal safety.

It must be kept in mind that in a serious situation involving an H<sub>2</sub>S release, not only Zia II personnel are involved, but local Fire Departments, Law Enforcement, BLM, County and even State of New Mexico agencies may be interested parties. Cooperation will expedite all decisions. In any emergency situation

involving a H<sub>2</sub>S release, delegation of duties will be made to appropriate employees and groups. These duties will be reviewed on an annual basis to ensure complete understanding and facilitate a well-coordinated response by all involved personnel to the emergency situation.

### **III. PLAN AVAILABILITY [API RP-55 7.3]**

The H<sub>2</sub>S Plan shall be available to all personnel responsible for implementation, regardless of their normal location assignment. A copy of the Plan will be maintained at the Zia II Plant Control Room, in the Plant Supervisor's office at the plant, in the Asset Manager's office at the Hobbs office, and at the Permian Region Safety Manager's office in Midland, Texas. See Appendix E for the H<sub>2</sub>S Plan Distribution List, which lists all the additional entities that will be provided a copy of the H<sub>2</sub>S Plan.

### **IV. EMERGENCY PROCEDURES [NMAC 19.15.11.9.B(2)(a)] [API RP-55 7.4 a] [29 CFR 1910.1200]**

#### **RESPONSIBILITIES AND DUTIES OF PERSONNEL DURING AN EMERGENCY**

It is the responsibility of all personnel on-site to follow the safety and emergency procedures outlined in this H<sub>2</sub>S Contingency Plan as well as the following documents:

- DCP Midstream Safe Work Practices
- DCP Midstream Zia II Plant Emergency Response Plan, Groundwater Discharge Plan, and Oil Spill Contingency Plan; and
- DCP Midstream Environmental Policies and Programs.

The Plant uses the Incident Command System (ICS) for emergency response (see Figure 7 for a diagram of the DCP command structure). The ICS structure used is based on the National Interagency Incident Management System (NIIMS), and is consistent with the National Contingency Plan (NCP). All Plant employees shall be prepared to respond to an H<sub>2</sub>S emergency at the Plant and the AGI Wells. In the event of an accidental release that results in the activation of the H<sub>2</sub>S Plan all personnel will have been evacuated out of the affected area, and the Plant Supervisor, or designee, will be the on-scene Incident Commander (IC in this Plan). The IC will contact and coordinate with DCP Midstream's management.

The Plant Supervisor or his designee shall determine:

- 1) Plant Shutdowns
- 2) Isolation of pipeline segments
- 3) Repairs, tests or restarts as required

If an emergency occurs, the Plant Supervisor, or designee, shall be notified first, and that individual shall notify the Southeast New Mexico Asset Director who will notify the Regional Operations Vice President; the Regional Operations Vice President shall contact the Permian Business Unit President to activate the DCP Midstream Crisis Management Plan. If any person in this chain of command is unavailable, the DCP Midstream employee shall elevate the communication to the next level. The intention of this process is to allow the IC to make one phone call and then be able to focus on the incident response.



### **Site Security [NMAC 19.15.11.12.B]**

In order to have an accurate listing of all personnel on-site in the event of an emergency, a daily sign-in log sheet shall be utilized. The sign-in log sheet shall include at a minimum the person's name, the company name, the time of arrival, and the time of departure. All personnel are required to sign in at the Plant Office/Control Room. The Incident Commander shall be responsible for assuring that all personnel sign-in upon arrival and sign-out upon departure from the job site. The Incident Commander may, at his discretion, assign the responsibilities for the daily sign-in log sheet to the individual designated as the Record Keeper or another designee. At the discretion of the Incident Commander, a security coordinator and/or a security team may be established, and the access to the job site restricted. In compliance with 19.15.11.12.B NMAC the Plant and AGI Wells are contained within a secure fenced area with locking gates.

### **Discovery and Internal Reporting**

All personnel, including contractors who perform operations, maintenance and/or repair work in sour gas areas within the Plant wear personal H<sub>2</sub>S monitoring devices to assist them in detecting the presence of unsafe levels of H<sub>2</sub>S. When any person, while performing such work, discovers a leak or emission release they are to attempt to resolve the issue as long as H<sub>2</sub>S levels remain below 10 ppm. The personal monitoring devices they wear will give off an audible alarm at 10 ppm. If the response action needed to resolve the issue is more than simply closing a valve or stopping a small leak, the personnel who have discovered the leak shall notify the Plant Supervisor or his designee, initiate and maintain a Chronologic Record of Events Log (See Appendix F) which records the time, date and summary of events, and convey, at a minimum, the following information:

- Name, telephone number, and location of person reporting the situation
- Type and severity of the emergency
- Location of the emergency and the distance to surrounding equipment and/or structures
- The cause of the spill or leak, name and quantity of material released, and extent of the affected area including the degree of environmental hazard
- Description of injuries and report of damage to property and structures

If any person detects H<sub>2</sub>S levels of 10 ppm or greater, either as a result of an alarm from their personal monitoring device or one of the plant fixed monitors, they will immediately report this to the Control Room Operator who will contact the Plant Supervisor for assistance, and the responding Operator will put on the 30-minute Self Contained Breathing Apparatus (SCBA). All non-essential persons shall be notified of the release and evacuated from the area. The responding Operator, wearing the SCBA, will first help any persons requiring assistance during the evacuation, then attempt to resolve the issue. The Control Room Operator is responsible for notifying the Plant Supervisor or his designee so that the H<sub>2</sub>S Contingency Plan can be activated, if necessary.

Once the Plant Supervisor/IC is contacted, he or his designee is to contact the appropriate DCP management and Plant emergency response personnel and notify them of the existing situation. Local emergency response providers will also be contacted as deemed necessary by the IC. If necessary, the Control Room Operator will then conduct the notifications of federal and state regulatory agencies including the BLM Field Office in Carlsbad, the NMOCD District Office and emergency response agencies listed in Appendix C. DCP operations personnel are to advise any contractor and all others on-site or attempting to enter the Plant that the H<sub>2</sub>S Plan has been activated.

## **IMMEDIATE ACTION PLAN**

Immediate Action Plans outlining procedures and decision processes to be used in the event of an H<sub>2</sub>S release are contained in Appendix A. These procedures and decision processes have been designed to ensure a coordinated, efficient and immediate action plan for alerting and protecting operating personnel and the public as well as to prevent or minimize environmental hazards and damage to property. Emergency response actions may be taken for a variety of situations that may occur. The Plan is activated in progressive levels (Levels 1, 2 and 3), based on the concentration and duration of the H<sub>2</sub>S release. Response Flow Diagrams illustrating these Immediate Action Plans are contained in Appendix B.

**Zia II Plant Operators are authorized to elevate the level of response based on observed conditions if they feel a lower level response may not be effective in protecting personnel, the public, or the environment.** Additional or long-term response actions will be determined on a case-by-case basis, if needed, once the Incident Command Center (ICC) and System (ICS) are established following the immediate response.

## **TELEPHONE NUMBERS, COMMUNICATION METHODS AND MEDIA SITE**

### **Telephone Numbers and Communication Methods**

In the event of activation of the Plan, emergency responders, public agencies, local government, BLM and other appropriate public authorities must be contacted. Telephone contact information for those entities is included in Appendix C.

### **Media Site**

If a Level 2 Response occurs, the Media Site will be located adjacent to Emergency Assembly Area 2 (see Figure 4). If a Level 3 Response occurs, the Media Site will be located adjacent to Emergency Assembly Area 3 (see Figure 4). The IC will designate a Media Site adjacent to the Emergency Assembly Area. The IC will also designate an individual to assume the duties of Media Liaison Officer. Under no circumstances will media personnel be allowed inside the warm or hot zone (road blocked area). Media personnel will only be allowed inside the road blocked area once the area has been monitored and restored to a cold zone (less than 10 ppm H<sub>2</sub>S) and the IC has approved their entry. Media personnel shall not be allowed to enter DCP Midstream property without the approval of the DCP Midstream Asset Manager or his designee, and shall be escorted by DCP Midstream personnel at all times.

## **LOCATION OF NEARBY RESIDENCES, ROADS AND MEDICAL FACILITIES**

Public awareness and communication is a primary function of this Plan. DCP has compiled a list of various public, private, federal, state, and local contacts that are to be notified at various phases during the activation of the Plan. The Level 1, 2 and 3 Immediate Action Plans and the Response Flow diagrams contained in Appendices A and B indicate when certain entities are to be contacted in event of activation of this Plan. There are no businesses, residences, medical facilities or other public places located within the 500 or 100 ppm ROE of the Plant; only producers are located within the ROE. Appendix C contains a listing of all producers with wells within the 500 ppm and 100 ppm ROE who will be contacted in the event of activation of the H<sub>2</sub>S Plan. DCP will inform all state and local response organizations if the H<sub>2</sub>S Plan is activated; contact information for them is also contained in Appendix C. All entities contacted will be advised of the following:

- The nature and extent of the release/emergency at the Plant and recommendations for protective actions, such as evacuation or shelter-in-place.
- Any other event-specific information that is necessary to protect the public.

- Updated status of the release and continued safety measures to be taken, including but not limited to when to evacuate and/or when it is safe to return to the area.

### **Public Roads**

There are three public roads located within the 500 ppm ROE: Lusk Plant Road (CR 248), Dry Lake Road (CR 126) and Maljamar Road (CR 126a). All three of these roads also have sections within the 100 ppm ROE. There are emergency trailers, equipped with flashing lights, windsocks, and roadblock signs for use in alerting the public of hazardous conditions on any of these three roads. In the event of activation of this Plan, Zia personnel will be dispatched to establish roadblocks on these roads to prevent entrance into the 500 and/or 100 ppm ROE, depending on the response level and as designated by the IC (see Figure 4). Roadblocks will be established at the designated locations regardless of wind direction in anticipation that variations in wind conditions can occur. Signs warning of the potential presence of H<sub>2</sub>S have been installed where the 500 and 100 ppm ROEs of the Plant intersect the above referenced public roads. (See Figure 4 for the location of these signs, and see Figure 8 for a photograph of one of these signs).

### **Businesses or Other Public Areas**

The Plant and AGI wells are located on land leased from the Federal Bureau of Land Management (BLM) by DCP, however, there are no businesses or other public areas within the 500 ppm or 100 ppm ROE. The DCP Lusk Booster Station (just north of the Zia II Plant) is located within the 500 ppm ROE but was closed and abandoned when the new Zia II Plant was brought on-line. The original Zia Plant is also located inside the 500 ppm ROE, but it has been closed and abandoned for a number of years.

**In addition to notifying operators (listed in Appendix C) DCP personnel, as designated by the IC, will make a visual inspection of the ROE area to insure that no individuals are seen inside the ROE. If any are observed, they will be advised to evacuate immediately to the designated Emergency Evacuation Area described above (see Figure 4).**

### **Medical Facilities**

There are no medical facilities located within the ROE.

## **EVACUATION ROUTES, EMERGENCY ASSEMBLY AREAS AND ROAD BLOCK LOCATIONS**

### **Evacuation Routes and Emergency Assembly Areas**

Figure 1b shows the Plant plot plan and schematic of the Plant and location of the AGI Wells, and Figure 2e shows internal plant evacuation routes. Figure 4 shows the locations of Emergency Assembly Areas and recommended evacuation routes. Evacuation for all visitors and all personnel that are not operators begins at the 10 ppm H<sub>2</sub>S intermittent alarm and flashing yellow beacons. The responding Plant operator(s) are to put on the 30-minute SCBA and first determine if any personnel are in distress and assist any distressed personnel to evacuate to Emergency Assembly Area 1. Emergency services (911) will be contacted if there are injuries or as otherwise deemed necessary. Responding operators, wearing the SCBAs, will then investigate the cause of the release. At the sound of the alarm and flashing yellow beacons, all other personnel in the Plant are to stop work, check the prevailing wind direction (using visible windsocks) and immediately proceed along designated evacuation routes and/or upwind to the pre-designated Emergency Assembly Areas shown in Figure 4. Prevailing winds for the area are from the southwest. Personnel should evacuate along the designated route unless that route is downwind of the release (based on the wind directions observed at the windsocks); in that event all evacuees should

proceed along a route that is perpendicular to the release and then upwind to the designated Emergency Assembly Area.

Roll call shall be conducted at the Emergency Assembly Area to ensure all personnel (including contractors and visitors) are accounted for and have evacuated safely. The Zia II Plant is a Process Safety Management (PSM) facility and requires all personnel to check-in and sign-in at the Plant Office or Plant Control Room before entering the Plant. The sign-in sheet will be used at the Emergency Assembly Areas to make a full accounting of all personnel and visitors.

At each Emergency Assembly Area, the ambient air quality will be monitored for H<sub>2</sub>S concentration to ensure the area remains at less than 10 ppm. If the H<sub>2</sub>S concentration rises to 10 ppm or greater, the assembly area will be relocated as detailed in the immediate action plan section of this document (see Appendix A).

### **Road Block Locations**

Pre-planned road block locations (which would be utilized in the event of a Level 2 or Level 3 response) are shown on the ROE Map (Figure 4). Each location will have portable road barriers and flashing lights and warning signs. The IC will designate representatives to staff each of the roadblocks. If deemed necessary by the IC, the State or Local Police will be asked to assist with maintaining the roadblocks.

## **MONITORING EQUIPMENT, ALARM SYSTEMS, SAFETY EQUIPMENT AND SUPPLIES**

### **Emergency Shutdown Systems [NMAC 19.15.11.12.D(1)]**

DCP Midstream has installed an emergency shutdown (ESD) system at the Zia II Plant and AGI Wells. The ESD system is a fail-safe hardwired system that provides logic solving via a Foxboro Ticonex Safety System. Twenty ESD manual pull stations are placed throughout the Plant. Operators in consultation with the IC will determine if an H<sub>2</sub>S release situation warrants ESD of the plant. When activated the ESD System is designed to perform the following actions through the use of a hardwired interface:

- Close all hydrocarbon inlet and outlet valves to and from the Plant and AGI Wells.
- Initiate a distinct alarm and/or light which is separate from the general plant alarm.
- Shut off fuel at all individual fuel users.
- Isolate NGL storage tanks and NGL product pumps.
- Shut down all electric motors (with exceptions such as lube oil pumps, flare blowers, instrument air compressors, etc.).
- Shut down rotating equipment (engine-driven equipment, expander/compressors, pumps, etc.)
- Isolate fuel to engine-driven equipment.

The locations of the ESD buttons and Isolation Valves are shown in Figures 2a and 3. The ESD systems are designed to prevent a Level 3 response. Block valves on incoming lines can be closed where they enter the Plant perimeter (see Figure 3). Additional isolating block valves outside the Plant perimeter on the incoming lines can be closed to prevent further gas flow into the Plant. The block valves furthest upstream can isolate the entire system from the field gathering lines coming into the Plant. At the discretion of the IC, operations personnel may be designated to close valves at field locations on inlet gas pipelines to insure that incoming gas is shut off.

AGI compressors will be shut-down if two or more of the H<sub>2</sub>S sensors located in the fenced AGI Well area go into high alarm (90 ppm). When AGI compressors are shut-down isolation valves upstream and downstream of the units will close as well as those located on the wellhead.

**The Plant ESD can be activated at any time by the Zia II Plant Operators and is to be activated if efforts to control the release have failed or if a catastrophic release has occurred.**

## **ALARMS, VISIBLE BEACONS AND WIND INDICATORS**

Colored beacons, horns, and wind direction indicators and ESD stations are situated in various locations throughout the Plant and are shown on Figures 2, 2a and 2b and 3. The audible signal for an emergency response is an intermittent alarm that sounds at 10 ppm H<sub>2</sub>S. Flashing yellow beacons are also activated at 10 ppm H<sub>2</sub>S. The alarm will become continuous when the concentration of the H<sub>2</sub>S release is 90 ppm or higher, and evacuation of the Plant will be initiated. As per 19.15.11.12.C, wind direction indicators which are visible night and day are installed throughout the Plant as shown in Figure 2b. At least one wind direction indicator can be seen from any location within the Plant as well as from any point on the perimeter of the Plant.

## **SIGNS AND MARKERS [NMSA 19.15.11.10]**

The Plant and AGI Wells (which are contained totally within the Plant boundaries) have readily readable warning, caution and notice signs which conform to the current ANSI standard Z535.1-2002 (Safety Color Code). These signs contain language warnings about the presence of H<sub>2</sub>S/Poisonous Gas and high pressure gas; they are posted at the Plant entrance and around the perimeter of the Plant and where isolation/block valves are located (see Figure 3). The signs are of sufficient size to be readable at a distance of 50 feet and contain the words "Caution Poison Gas". Emergency response phone numbers are also posted at the entrance to the Plant, and there are signs at the Plant entrance requiring that all visitors sign-in at the Plant office. DCP does not have the authority to require individual operators who send gas to the Plant for processing to conform to OCD and/or Department of Transportation (DOT) regulations relative to placement of warning signs at individual wells or on gathering lines. It is the responsibility of these individual operators to conform to appropriate regulations and to certify compliance with those regulations to those regulating agencies, as required. Signs warning of the potential presence of H<sub>2</sub>S have been installed where the 500 and 100 ppm ROEs of the Plant intersects the above referenced public roads. (See Figure 4 for the location of these signs, and see Figure 8 for a photograph of one of these signs).

## **EMERGENCY EQUIPMENT**

### **Emergency Trailers**

Emergency trailers, equipped with flashing lights and windssocks will be utilized at public road locations to establish roadblocks (as shown in Figure 4) to alert the public in the event of hazardous conditions.

### **First Aid Equipment**

The first aid stations are located at the all Emergency Assembly Area (see Figure 4) and at other strategic locations throughout the plant.

## **GAS DETECTION EQUIPMENT**

### **Fixed Monitors**

DCP Midstream has installed 65 ambient hydrogen sulfide detectors strategically throughout the Plant to detect possible leaks. Upon detection of hydrogen sulfide at 10 ppm at any detector, visible beacons are activated and an alarm is sounded. Upon detection of hydrogen sulfide at 90 ppm at any detector, an evacuation alarm is sounded throughout the Plant at which time all personnel will proceed immediately to a designated evacuation area. The Plant utilizes fixed-point monitors to detect the presence of H<sub>2</sub>S in ambient air. The sensors are connected to the Control Room alarm panel's Programmable Logic

Controllers (PLCs), and then to the Zia II Distributed Control System (DCS). The monitors are equipped with a yellow flashing beacon. The yellow flashing beacon is activated at 10 ppm. The plant and AGI Well horns are activated with an intermittent alarm at 10 ppm and a continuous alarm at 90 ppm.

The Plant operators are able to monitor the ppm level of H<sub>2</sub>S of all the Plant and AGI Well sensors on the DCS located in the control room. The AGI system monitors can also be viewed on the PLC displays located at the Plant. These sensors are all shown on the plot plans (see Figure 2). All sensors must be acknowledged and will not clear themselves. This requires immediate action for any occurrence or malfunction. All H<sub>2</sub>S sensors are calibrated quarterly.

### **Personal and Handheld H<sub>2</sub>S Monitors**

All personnel working at the Zia II Plant wear personal H<sub>2</sub>S monitors. The personal monitors are set to alarm and vibrate at 10 ppm. Handheld gas detection monitors are available at strategic locations around the Plant so that plant personnel can check specific areas and equipment prior to initiating maintenance or work on the process or equipment. The handheld gas detectors have sensors for oxygen, LEL (explosive hydrocarbon atmospheres), H<sub>2</sub>S and carbon dioxide (CO<sub>2</sub>).

### **RESPIRATORS**

There are 30 minute SCBA respirators and cascade hose reel systems strategically located throughout the Plant. The cascade hose reel systems have 2-4 compressed air cylinders hooked up in series to provide a sustained supply of breathing air for extended work time in a hazardous atmosphere. Each cylinder will supply a person 6-8 hours of breathing air at normal workloads or 3 hours at medium/heavy workloads. Several hose reels and masks may be attached to a cascade system. The system is equipped with a low pressure alarm to allow workers to safely exit the hazardous area with plenty of reserve air capacity. The respirator containers and equipment locations are shown in Figure 2c. All Plant personnel are trained and fit tested annually to use the SCBA respirators.

### **PROCESS PURGE SYSTEM**

All vessels, pumps, compression equipment, and piping in the acid gas injection process are designed and equipped to allow purging with pipeline quality gas to remove the acid gas prior to conducting maintenance or inspection work. The purge gas stream with residual acid gas is routed safely into the acid gas flares located at the plant. Operating procedures include this purging of all equipment to avoid acid gas exposure to personnel and to prevent acid gas from escaping to the environment.

### **FIRE FIGHTING EQUIPMENT**

Plant personnel are trained only for incipient stage fire-fighting. The fire extinguishers located in the Plant process areas, compressor buildings, process buildings, and company vehicles are typically a 30# dry chemical fire extinguisher. The Zia II Plant is also equipped with portable fire extinguishers that may be used in an emergency, and air packs which can be utilized for escape or rescue located throughout the plant in key locations.

**V. CHARACTERISTICS OF HYDROGEN SULFIDE (H<sub>2</sub>S), SULFUR DIOXIDE (SO<sub>2</sub>)  
CARBON DIOXIDE (CO<sub>2</sub>) [NMAC 19.15.11.9.B(2)(b)] [API RP-55 7.4 b.]**

**HYDROGEN SULFIDE (H<sub>2</sub>S)**

The current inlet gas streams into the Plant contain approximately 1.0 ppm (or 0.9992 mole percent) of H<sub>2</sub>S based on data generated from the sampling of the combined inlet gas stream. The current inlet to the AGI pipeline, and injection well contains 14.2853 mole percent H<sub>2</sub>S. H<sub>2</sub>S is a colorless, toxic and flammable gas, and has the odor of rotten eggs. It is heavier than air and presents a significant health hazard by paralyzing the respiratory system resulting in serious injury or death.

<b>Hydrogen Sulfide Properties and Characteristics</b>		
CAS No.	7783-06-4	
Molecular Formula	H <sub>2</sub> S	
Molecular Weight	34.082 g/mol	
Ceiling Concentration	20 ppm (OSHA)	
Ceiling Peak Concentration	50 ppm (OSHA)	
Threshold Limit Value (TLV)	15 ppm (ACGIH)	
Time Weighted Average (TWA)	10 ppm (NIOSH)	
Short Term Exposure Level (STEL)	15 ppm (ACGIH)	
Immediately Dangerous to Life or Health (IDLH)	100 ppm	
Specific Gravity Relative to Air (Air=1.0)	1.189	
Boiling Point	-76.5F	
Freezing Point	-121.8F	
Vapor Pressure	396 psia	
Auto-ignition Temperature	518F	
Lower Flammability Limit	4.3%	
Upper Flammability Limit	46.0%	
Stability	Stable	
pH in water	3	
Corrosivity	Reacts with metals, plastics, tissues and nerves	
<b>Physical Effects of Hydrogen Sulfide</b>		
<b>Concentration</b>		<b>Physical Effects</b>
Ppm	%	
1	0.00010	Can be smelled (rotten egg odor)
10	0.0010	Obvious & unpleasant odor; Permissible exposure level; safe for 8 hour exposure
20	0.0020	Acceptable ceiling concentration
15	.005	Short Term Exposure Limit (STEL); Safe for 15 minutes of exposure without respirator
50	0.0050	Loss of sense of smell in 15 minutes
100	0.0100	Immediately dangerous to life and health (IDLH) loss of sense of smell in 3-15 minutes; stinging in eyes & throat; Altered breathing
200	0.0200	Kills smell rapidly; stinging in eyes & throat
500	0.0500	Dizziness; Unconscious after short exposure; Need artificial respiration
700	0.0700	Unconscious quickly; death will result if not rescued promptly
1000	0.1000	Instant unconsciousness; followed by death within minutes

## SULFUR DIOXIDE (SO<sub>2</sub>)

SO<sub>2</sub> is produced as a by-product of H<sub>2</sub>S combustion. The waste gas stream consisting of H<sub>2</sub>S and CO<sub>2</sub> is routed to the plant acid gas flare during abnormal conditions when the acid gas injection equipment is out of service. Waste gas is routed to the acid gas flare at the AGI Well sites during maintenance operations when equipment needs to be blown down. It is colorless, transparent, and is non-flammable, with a pungent odor associated with burning sulfur. SO<sub>2</sub> is heavier than air, but can be picked up by a breeze and carried downwind at elevated temperatures. It can be extremely irritating to the eyes and mucous membranes of the upper respiratory tract.

<b>Sulfur Dioxide Properties &amp; Characteristics</b>	
CAS No.	7446-09-5
Molecular Formula	SO <sub>2</sub>
Molecular Weight	64.07 g/mol
Permissible Exposure Limit (PEL)	5 ppm(OSHA)
Time Weighted Average (TWA)	2 ppm(ACGIH)
Short Term Exposure Level (STEL)	5 ppm(ACGIH)
Immediately Dangerous to Life and Health (IDLH)	100 ppm
Specific Gravity Relative to Air (Air = 1.0)	2.26
Boiling Point	14°F
Freezing Point	-103.9°F
Vapor Pressure	49.1 psia
Auto-ignition Temperature	N/A
Lower Flammability Limit	N/A
Upper Flammability Limit	N/A
Stability	Stable
Corrosivity	Could form an acid rain in aqueous solutions
<b>Physical Effects of Sulfur Dioxide</b>	
<b>Concentration</b>	<b>Effect</b>
1 ppm	Pungent odor, may cause respiratory changes
2 ppm	Permissible exposure limit; Safe for an 8 hour exposure
3-5 ppm	Pungent odor; normally a person can detect SO <sub>2</sub> in this range
5 ppm	Short Term Exposure Limit (STEL); Safe for 15 minutes of exposure
12 ppm	Throat irritation, coughing, chest constriction, eyes tear and burn
100 ppm	Immediately Dangerous To Life & Health (IDLH)
150 ppm	So irritating that it can only be endured for a few minutes
500 ppm	Causes a sense of suffocation, even with first breath
1,000 ppm	Death may result unless rescued promptly.



## CARBON DIOXIDE (CO<sub>2</sub>)

The projected inlet gas streams to the Plant contain approximately 6% CO<sub>2</sub>. The inlet to the AG pipeline and injection well is projected to contain approximately 85.7 mole percent of CO<sub>2</sub>. CO<sub>2</sub> is a colorless, odorless and non-flammable. It is heavier than air.

<b>Carbon Dioxide Properties &amp; Characteristics</b>	
CAS No.	124-38-9
Molecular Formula	CO <sub>2</sub>
Molecular Weight	44.010 g/mol
Time Weighted Average (TWA)	5,000 ppm
Short Term Exposure Level (STEL)	30,000 ppm
Immediately Dangerous to Life and Health (IDLH)	40,000 ppm
Specific Gravity Relative to Air (Air = 1.0)	1.5197
Boiling Point	-109.12°F
Freezing Point	-69.81°F
Vapor Pressure	830 psia
Auto-ignition Temperature	N/A
Lower Flammability Limit	N/A
Upper Flammability Limit	N/A
Stability	Stable
pH in Saturated Solution	3.7
Corrosivity	Dry gas is relatively inert & not corrosive; can be corrosive to mild steels in aqueous solutions
<b>Physical Effects of Carbon Dioxide</b>	
<b>Concentration</b>	<b>Effect</b>
1.0 %	Breathing rate increases slightly
2.0 %	Breathing rate increases to 50% above normal level. Prolonged exposure can cause headache, tiredness
3.0 %	Breathing rate increases to twice normal rate and becomes labored. Weak narcotic effect. Impaired hearing, headache, increased blood pressure and pulse rate
4 – 5 %	Breathing increases to approximately four times normal rate, symptoms of intoxication become evident, and slight choking may be felt
5 – 10 %	Characteristic sharp odor noticeable. Very labored breathing, headache, visual impairment, and ringing in the ears. Judgment may be impaired, followed within minutes by loss of consciousness
10 – 100 %	Unconsciousness occurs more rapidly above 10% level. Prolonged exposure to high concentrations may eventually result in death from asphyxiation

## VI. RADII OF EXPOSURE [NMAC 19.15.11.7. K]

**WORST CASE SCENARIOS:** See Appendix D for actual ROE calculations. The basis for worst case scenario calculations is as follows:

- The worst case ROE for this Plan has been calculated utilizing the maximum inlet and TAG flow rates (24-hour rate) contained in the permit issued by OCD for this Plant which is 200 MMCFD. The ROE calculation in this Plan utilizes that inlet flow rate and an H<sub>2</sub>S concentration for inlet gas of .9992 mole percent. Based on this inlet flow analysis, the calculated TAG flow rate from the amine unit to the AGI well is 13.9892 MMCFD with an H<sub>2</sub>S concentration of 14.2853 mole percent. Although the H<sub>2</sub>S concentration is lower in the inlet gas than in the TAG stream, the flow rate is much higher for the inlet gas than for the TAG stream. The calculated ROE's for the inlet gas and TAG streams are identical as shown in the calculations in Appendix D.
- The worst case scenario ROE assumes an uncontrolled instantaneous release of a 24-hour volume of gas at the Plant. Because the Plant is a throughput process plant, it is impossible that the entire 24 hour-throughput volume of the Plant could be released instantaneously as is assumed in the worst case scenario calculations of the ROE. Further, the Plant's ESD systems would be activated in the event of a catastrophic emergency and would prevent the flow of gas into the Plant and would isolate the AGI compressors and equipment and route the acid gas safely to the Plant acid gas flare. To comply with NMAC 19.15.11, the worst case scenario calculations (assuming an instantaneous release of the 24-hour processing and/or TAG volume) are utilized here (see Appendix C for actual calculations).

The formulas for calculating the radius of exposure (ROE) are as follows:

**100 ppm ROE Calculation (as per 19 NMAC 15.11.7.K.1):**

$$X=[(1.589)(\text{hydrogen sulfide concentration})(Q)](0.6258)$$

**500 ppm ROE Calculation (as per 19 NMAC 15.11.7.K.2):**

$$X=[(0.4546)(\text{hydrogen sulfide concentration})(Q)](0.6258)$$

Where:

X = radius of exposure in feet

"hydrogen sulfide concentration" = the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture

Q = Escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psi absolute and 60 degrees Fahrenheit)

### **ROE FOR ZIA II PLANT WORST CASE SCENARIO**

**500-ppm ROE 5,354 feet (1.01 miles)**

**100-ppm ROE 11,717 feet (2.22 miles)**

The ROE for the Plant and AGI Wells are shown on Figure 4. This ROE pattern is designed to include the 100 ppm and 500 ppm radii for a potential worst case failure at any point in the system.

**VII. FACILITY DESCRIPTION, MAPS AND DRAWINGS [NMAC 19.15.11.9.B (2)(c)]**  
**[API RP-55 7.4 c.]**

**DESCRIPTION OF PLANT OPERATIONS AND ZIA #1 AND #2 AGI WELLS**

The Plant and AGI Wells are in operation and are manned 24-hours-a-day, 7-days-a week. The Plant operations include gas compression, treating and processing. The Plant gathers and processes produced natural gas from Lea and Eddy Counties in New Mexico. Once gathered at the Plant, the produced natural gas is compressed, dehydrated to remove the water content and processed to remove and recover natural liquids. The processed natural gas and recovered natural gas liquids are then sold and shipped to various customers. The inlet gathering lines and pipelines that bring gas into the plant are regulated by DOT, NACE other applicable standards which require that they be constructed and marked with appropriate warning signs along their respective right-of-ways.

Because the natural gas that is gathered and processed at the Plant contains H<sub>2</sub>S (“sour gas”), it must be treated or processed to remove these and other impurities. The CO<sub>2</sub> and H<sub>2</sub>S stream that is removed from the natural gas in the amine treating process is compressed to approximately 1,500 – 2,644 psi. This is accomplished using electric driven, reciprocating compressors. Water vapor contained in the gas stream is removed during compression and cooling and is disposed of through a wastewater disposal system. The compressed acid gas is transported via an overhead stainless steel, corrosion-resistant, NACE-compliant pipe, approximately 1,050 feet in length, from the compressor to the AGI Wells. AGI #1 injects into the lower Cherry Canyon (5,470 to 5,670 feet) and upper Brushy Canyon (5,670 to 6,070 feet) Formations. AGI #2 will inject into the Siluro-Devonian between 13,700 and 14,650 feet. The pipe between the compressors and the AGI Wells is contained totally within the boundaries of the Plant and does not cross any public roads. H<sub>2</sub>S sensors are located at critical junctions along the pipe which is run on an overhead pipe rack. The pressure in the pipe is monitored continuously so that the acid gas injection process could be stopped should there be any unusual variations in pressure.

The AGI Wells are integral components of the Zia Gas Plant design. Both of the wells are constructed using the materials shown in Figures 5a and 5b. The overall schematic of the AGI wells is shown in Figure 6. The intermediate casing of each well extends to 4,600 feet to assure the protection of the Capitan Aquifer and the Upper Delaware Group. Each string of the telescoping casing is cemented to the surface and includes the “downhole” subsurface safety valves (SSVs) which are located approximately 250 feet below the surface on the production tubing to assure that fluid cannot flow back out of the well in the event of a failure of the injection equipment. In addition, the annular space between the production tubing and the well bore are filled with diesel fuel (an inert fluid) as a further safety measure which is consistent with injection well designs that have been approved by NMOCD for acid gas injection.

Per National Association of Corrosion Engineers (NACE) specifications, downhole components including the SSV and packer are constructed of Inconel 925. Corrosion Resistant Alloy (CRA) joints are constructed of a similar nickel alloy manufactured by Sumitomo. The gates, bonnets and valve stems within the Christmas tree are nickel coated as well. The rest of the Christmas tree is made of standard carbon steel components and outfitted with annular pressure gauges that remotely reports operating pressure conditions in real time to a gas control center. Pursuant to NMAC 19.15.11.12.D(2), in the case of abnormal pressures or any other situation requiring immediate action, the acid gas injection process can be stopped at the compressor, and the wellhead can be shut in using a hydraulically operated wing valve on the Christmas tree. The Plant operator or IC may also shut the SSV. In addition, the well has profile nipples which provide the ability to insert a blanking plug into the base of the well below the packer which would allow for the safe reentry of the well. These safety devices provide for downhole

accessibility and reentry under pressure for permanent well control. The SSV provides a redundant safety feature to shut in the wells in case the wing valves do not close properly (see Figures 5 and 6).

## MAPS AND FIGURES

Figures 1 and 1a show the location of the Zia II Plant as well as AGI #1 and #2. Figure 1b shows the plot plan of the Plant. Figure 2, 2a, 2b, 2c and 2d show the locations of safety equipment at the plant. Figure 4 shows the 100 and 500 ppm ROE, escape routes, roadblock locations and emergency assembly areas. The design schematic of the AGI Wells is shown in Figures 5, and the schematic of the AGI Wells' tie-in to the Zia Plant is shown in Figure 6.

## **VIII. TRAINING AND DRILLS [NMAC 19.15.11.9.B(2)(d)] [API RP-55 7.4 d.]**

DCP will conduct annual training for its own personnel as well as for the public and emergency responders, as detailed below. Training will include:

- Characteristics of H<sub>2</sub>S and safety precautions
- An overview of the Zia II Plant and AGI operations
- A review of their roles in responding to activation of the Zia II H<sub>2</sub>S Contingency Plan
- Location of the Radii of Exposure and how to protect the public within the Radii of Exposure
- Potential roadblock locations, potential evacuation routes, and how they can assist in implementing the Plan.

### **TRAINING OF ESSENTIAL PERSONNEL**

Annual training for DCP personnel shall include plant operators, mechanics, instrument and electrical technicians, and maintenance support personnel. Plant Operators will be responsible for initiating and implementing the Plan. In addition, all Plant personnel will receive:

- Annual training on the H<sub>2</sub>S Contingency Plan. This training will include a review of all aspects of the Plan and will include, at a minimum, one table top drill involving activation of the H<sub>2</sub>S Contingency Plan.
- Plant Orientation Training - All Plant personnel, visitors, and contractors must attend a Plant overview orientation prior to obtaining permission to enter the Plant. A refresher course on this training is required annually for all persons. Included as part of this orientation is how to respond and evacuate safely in the event of a H<sub>2</sub>S alarm or release. This training also complies with the requirements of the DCP and Zia II Plant's Process Safety Management Program and Procedures Manuals.
- All Plant personnel are also trained annually on the Zia II Emergency Response Plan.
- H<sub>2</sub>S and SO<sub>2</sub> Training - All Plant personnel receive annual refresher training on H<sub>2</sub>S and SO<sub>2</sub>, which is conducted by DCP personnel. If an individual is unable to attend, they may be required to attend a third party training session. All contract employees are required to have had H<sub>2</sub>S training and to provide the Plant a copy of their certification card prior to obtaining permission to enter the Plant.
- Respirators - All Plant personnel are trained annually on the proper use of respirators. In addition to the annual training, all Plant personnel are fit tested annually on the respirators. All Plant personnel must have medical clearance for respirator use.
- Hazard Communication - All Plant personnel are trained annually on Hazard Communication. The annual training includes, at a minimum, the use of material safety data sheets (MSDS) for those materials that are present at the Plant.

- Personal Protective Equipment (PPE) - All Plant personnel are trained annually on the DCP requirements for PPE. The training includes, at a minimum, a review of all the types and levels of personal protective equipment and how to select the correct equipment for the job.

### **ON-SITE OR CLASSROOM EMERGENCY RESPONSE DRILLS**

- The Plant will conduct, at least, a tabletop drill annually. Multiple drills during the year may be scheduled at the discretion of the Plant Supervisor.
- The annual drill will execute this Plan and include, at a minimum, the Public Officials and Local Emergency Response Agencies listed below.
- Annual training a will also include making contact with the entities including any that are identified as being within the 500 ppm and 100 ppm ROE (see Appendix C) to make sure contact information for them in Appendix C is current. Appendix C will be verified and updated annually by DCP to be sure any changes of occupancy, ownership or new commercial and/or residential buildings are reflected, and all owners/occupants receive training on protective measures.
- The drills will also include briefing of public officials on issues such as evacuation or shelter-in-place plans.

### **NOTIFICATION AND TRAINING OF PRODUCERS LOCATED WITHIN THE ROE**

DCP Midstream will provide annual training to the producers listed in Appendix C that includes:

- An overview of the Zia II Plant and AGI operations
- Design and operating safety features on the Zia II Plant
- A review of the H<sub>2</sub>S alarms and significance
- Notification procedures
- Roadblock locations
- Potential evacuation routes
- Procedures for sheltering in place
- Radii of exposure

### **TRAINING OF PUBLIC OFFICIALS AND EMERGENCY RESPONSE AGENCIES**

All of the Emergency Response Agencies listed in Appendix C will have copies of the H<sub>2</sub>S Contingency Plan, and DCP Midstream will provide annual training to the following Emergency Response Agencies:

- NM State Police-Hobbs and Carlsbad Offices
- Eddy County 911 Emergency Response
- Eddy County Emergency Planning Committee
- Hobbs, Artesia and Carlsbad Police Department
- Lea County Sherriff's Department
- Hobbs, Artesia and Carlsbad Fire Department
- New Mexico Oil Conservation Division-Hobbs District Office
- Bureau of Land Management (BLM) Carlsbad Field Office

Training will include:

- An overview of the Zia II Plant and AGI operations
- Design and operating safety features on the Zia II Plant
- A review of the H<sub>2</sub>S alarms and significance
- Notification procedures
- Roadblock locations
- Potential evacuation routes
- Procedures for sheltering in place
- Radii of exposure

DCP Midstream will also conduct, at a minimum, one annual tabletop drill involving the Emergency Response Organizations listed above on the activation of the Zia II Plant H<sub>2</sub>S Contingency Plan.

### **TRAINING AND ATTENDANCE DOCUMENTATION [NMAC 19.15.11.9 G]**

Per NMAC 19.15.11.9.G drill training will be documented, and those records will be maintained at the Plant and will be available to an OCD representative upon request. The documentation shall include at a minimum the following:

- Description or scope of the drill, including date and time
- Attendees and Participants in the drill
- Summary of activities and responses
- Post-drill debriefing and reviews

### **IX. COORDINATION WITH STATE EMERGENCY PLANS [NMAC 19.15.11.9.B(2)(e)]**

#### **NOTIFICATIONS AND REPORTS**

The Plant has various notification and reporting obligations. Some are related to its state air quality permit that is overseen by NMED as well as state and federal spill reporting obligations. In addition to the regulatory obligations noted above, Plant personnel also have internal and external notification and reporting obligations associated with the activation of this Plan. Reporting obligations are as follows:

#### **New Mexico Oil Conservation Division (OCD) [NMAC 19.15.11.16]**

As soon as possible, but no later than four hours after plan activation, (recognizing that a prompt response should supersede notification), OCD will be notified by the IC or the IC's designee via email or fax to the District II Office of the activation of the H<sub>2</sub>S Contingency Plan. In the event of a power failure, a phone call will be made within four hours. A full report of the incident to the OCD, utilizing Form C-141 shall be made no later than 15 days following the release (see Appendix G).

#### **New Mexico State Police/ New Mexico Hazardous Materials Emergency Response Plan**

The New Mexico State Police are responsible for overall scene management and coordination of all resources. A designated Emergency Response Officer (ERO) will establish the National Interagency Incident Management System (NIIMS) Incident Command System (ICS) as the Incident Commander (IC) and be responsible for management of all response resources on scene. Off-scene coordination of

response resources will be handled through designated Headquarters Emergency Response Officers. Law enforcement-related activities will be coordinated by State Police.

#### **Bureau of Land Management (BLM)**

The BLM will also be contacted (see Appendix C for phone number) in the event of activation of the plan since the Plant is located on land leased from BLM by DCP Midstream.

### **X. PLAN ACTIVATION [NMAC 19.15.11.9.C] [API RP-55 7.4 d]**

The plan will be activated as described in the Immediate Action Plans and Response Flow Diagrams in Appendix A. **At a minimum, Per NMAC 19.15.11.8.C, the Plan also shall be activated at Level 3 (see Appendices A and B for detail) whenever a release may create an H<sub>2</sub>S concentration of more than 100 ppm in a public area, 500 ppm at a public road or 100 ppm 3,000 feet from the site of release.**

#### **ACTIVATION LEVELS**

The Plan has three activation levels that are described in detail in the Immediate Action Plan Section of this Plan (see Appendix A) and in outline form in the Response Flow Diagrams (see Appendix B).

**Level 1** - Intermittent alarm sounded and flashing yellow beacons activated for H<sub>2</sub>S greater than 10 ppm at personal or fixed monitor. (See Appendices A, Level 1, and B Level 1 for detail.)

**Level 2** - Continuous alarm sounded and flashing yellow beacons activated for H<sub>2</sub>S greater than 90 ppm; when corrective actions at Level 1 have been unsuccessful or when Operators activate ESD. Notification of operators, businesses, public, BLM and state agencies is initiated. (See Appendices A, Level 2 and B, Level 2 for detail.)

**Level 3** - Catastrophic release; fire; explosion; a continuous release of maximum volume for 24 hours; or Rule 11 mandatory activation for 100 ppm in any defined public area; 500 ppm at any public road; or 100 ppm at a distance greater than 3000 feet from the site or the release. Notification of operators, businesses, public, and state agencies is initiated. (See Appendices A, Level 3 and B, Level 3 for detail.)

As soon as the Plan has been activated based on the criteria above, the Plant Supervisor, or his designee will be notified.

#### **EVENTS THAT COULD LEAD TO A RELEASE OF H<sub>2</sub>S**

- Inlet and plant piping failure
- Amine still failure (This would be a leak in the amine process equipment, or amine still utilized to separate methane from H<sub>2</sub>S and CO<sub>2</sub>.)
- Flange/gasket leaks on inlet and plant piping
- Flange/gasket leak on the acid gas compressors
- Flange/gasket or valve packing leak at the AGI Well or associated piping
- Valve packing failure
- Seal failure on acid gas compressors
- Failure of flare to ignite during Plant emergency blow down
- Damage to AGI Wellhead

## **XI. SUBMISSION OF H<sub>2</sub>S CONTINGENCY PLANS [NMAC 19.15.11.9.D]**

### **SUBMISSION**

DCP Midstream, LP submitted this H<sub>2</sub>S Contingency Plan to the OCD for review and approval in June 2015.

### **RETENTION**

DCP Midstream shall maintain a copy of the contingency plan at the Zia II Gas Plant, at DCP Headquarters in Hobbs, NM and at DCP Headquarters office in Denver, CO. The plan as approved by the OCD will be readily accessible for review by the OCD at the facility upon request.

### **REVISIONS TO THE PLAN**

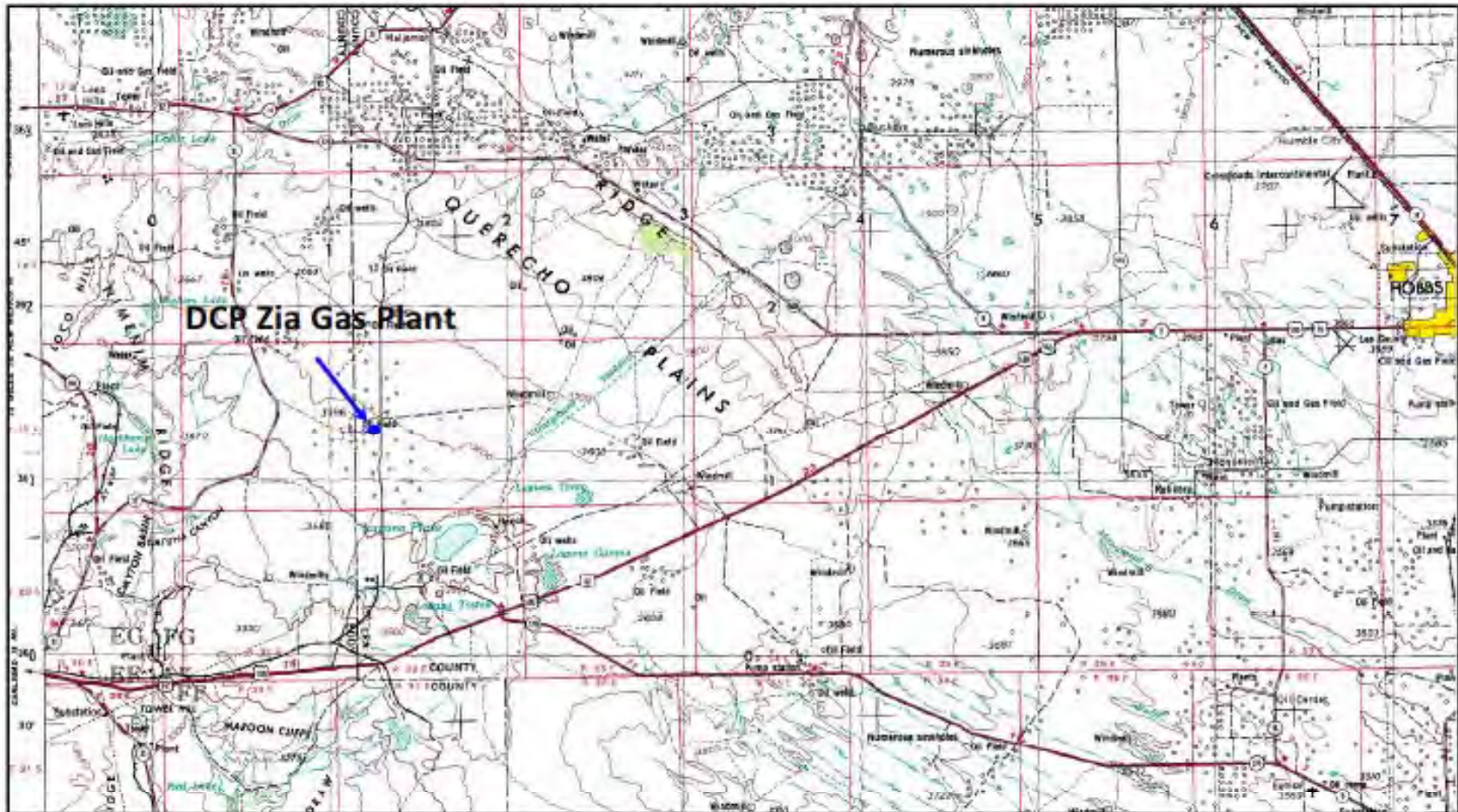
The H<sub>2</sub>S Plan will be reviewed annually and revised at that time as necessary to address changes to the Plant facilities, operations, or training requirements, contact information and the public areas including roads, businesses, or residents potentially affected by the operations of the Plant and AGI Wells, specifically those areas within the radii-of-exposure.

### **ANNUAL INVENTORY OF CONTINGENCY PLANS**

DCP Midstream, LP will file an annual inventory of wells, facilities and operations for which H<sub>2</sub>S Contingency Plans are on file with the OCD with the appropriate Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission as per NMAC 19.15.11.9H. The inventory shall include the name, address, telephone number, and point of contact for all operations for which H<sub>2</sub>S Contingency Plans are on file with the OCD.



# FIGURES



**Figure 1: Location of the DCP Zia Gas Plant and AGI Wells  
(USGS 1:250,000)**



**Figure 1a: Surface and Bottom Hole Locations of Zia AGI #1 and AGI #2**

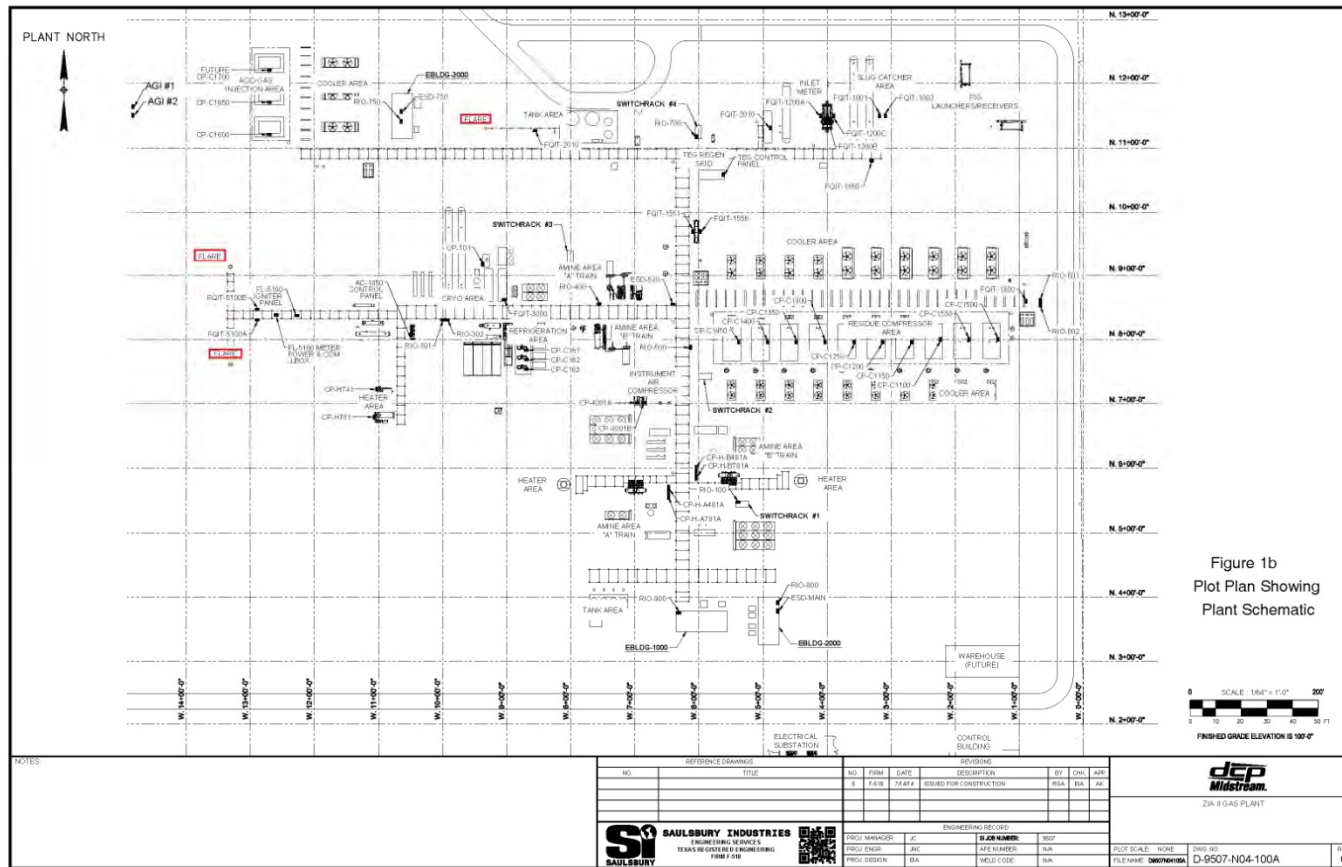


Figure 1b: Plot Plan Showing Plant Schematics

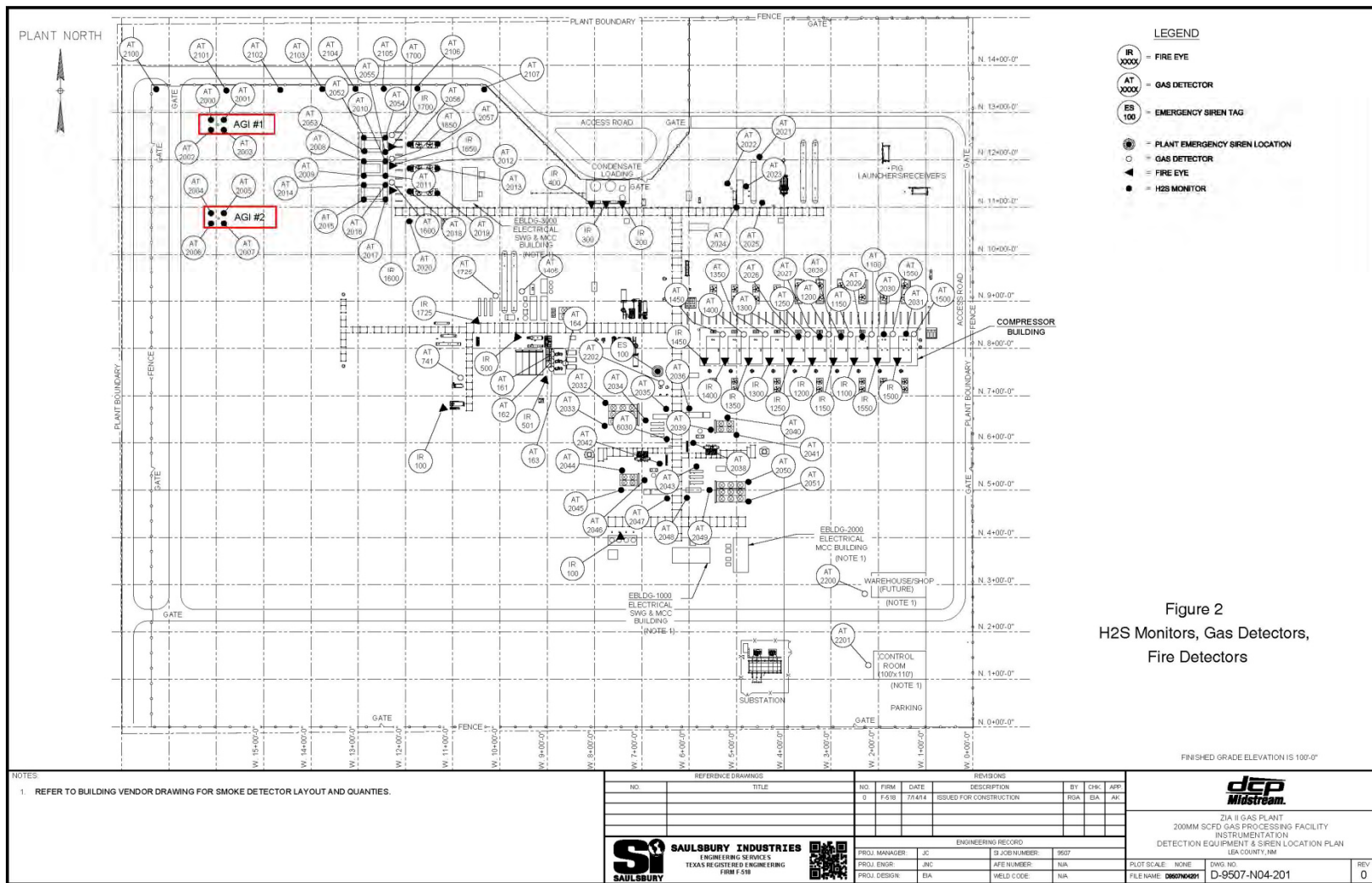
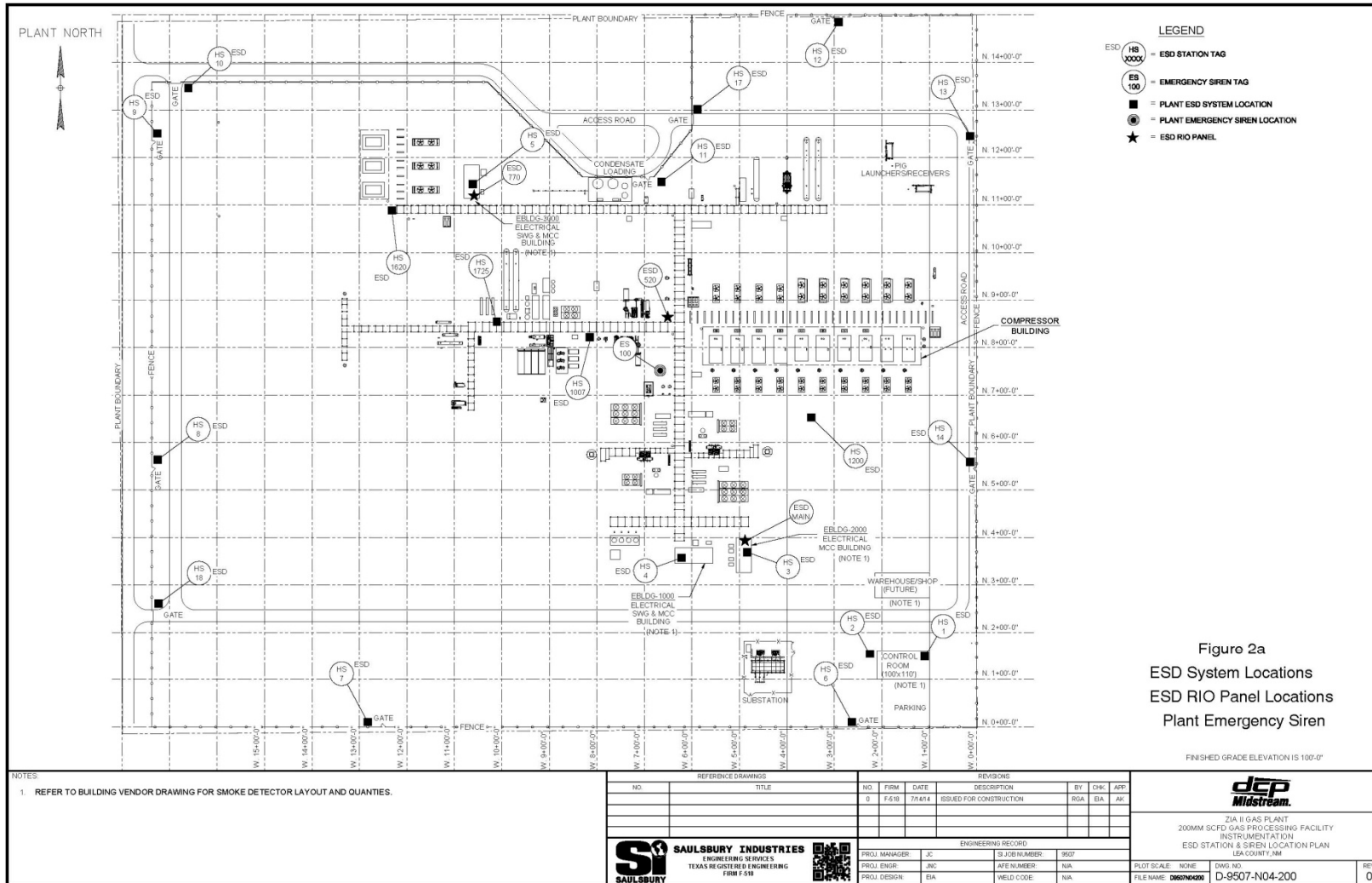
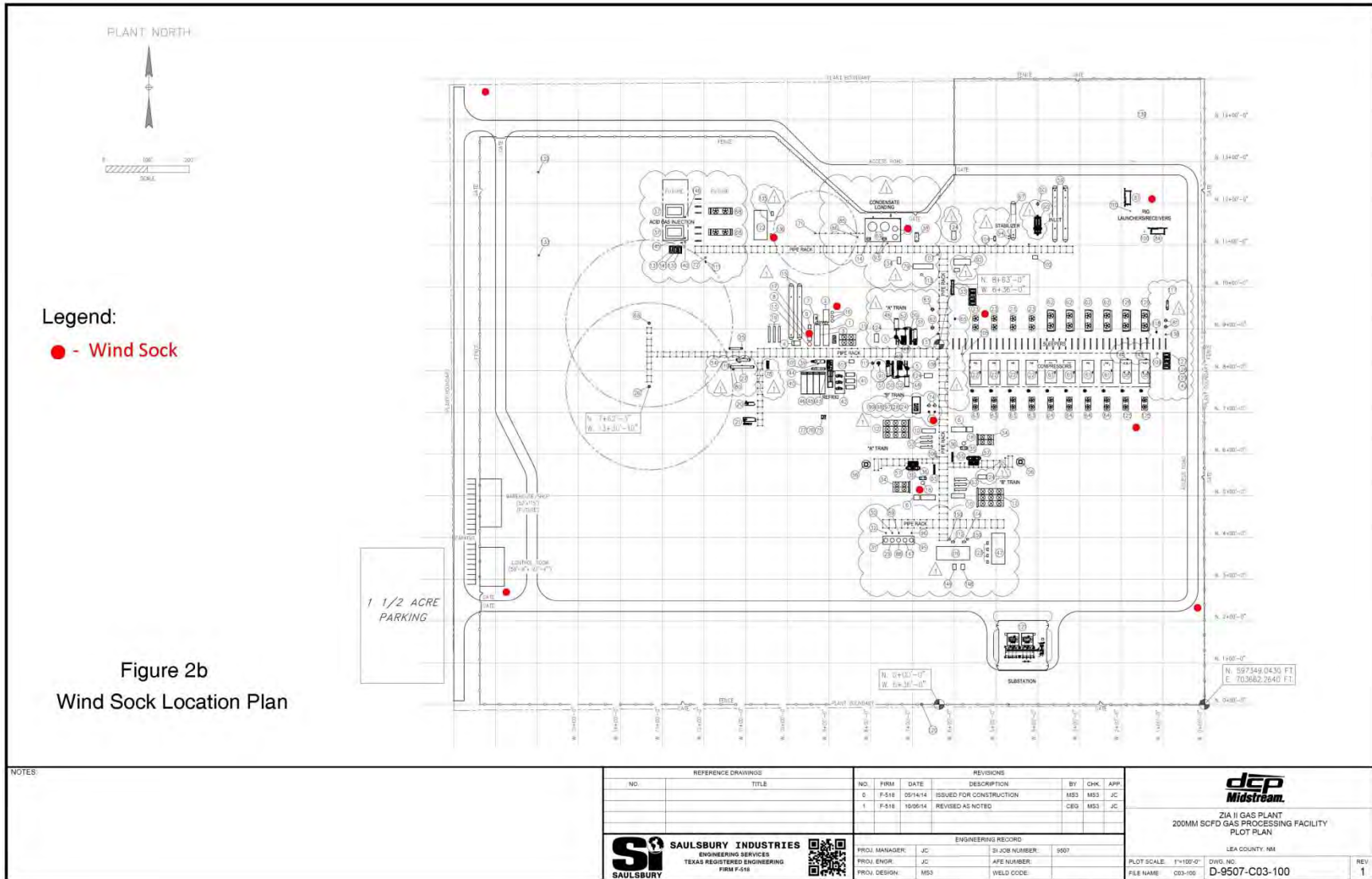


Figure 2  
H2S Monitors, Gas Detectors,  
Fire Detectors

Figure 2: H2S Monitors, Gas Detectors and Fire Detectors



**Figure 2a: ESD System Locations, ESD RIO Panel Locations and Plant Emergency Siren**



**Figure 2b: Wind Sock Location Plan**

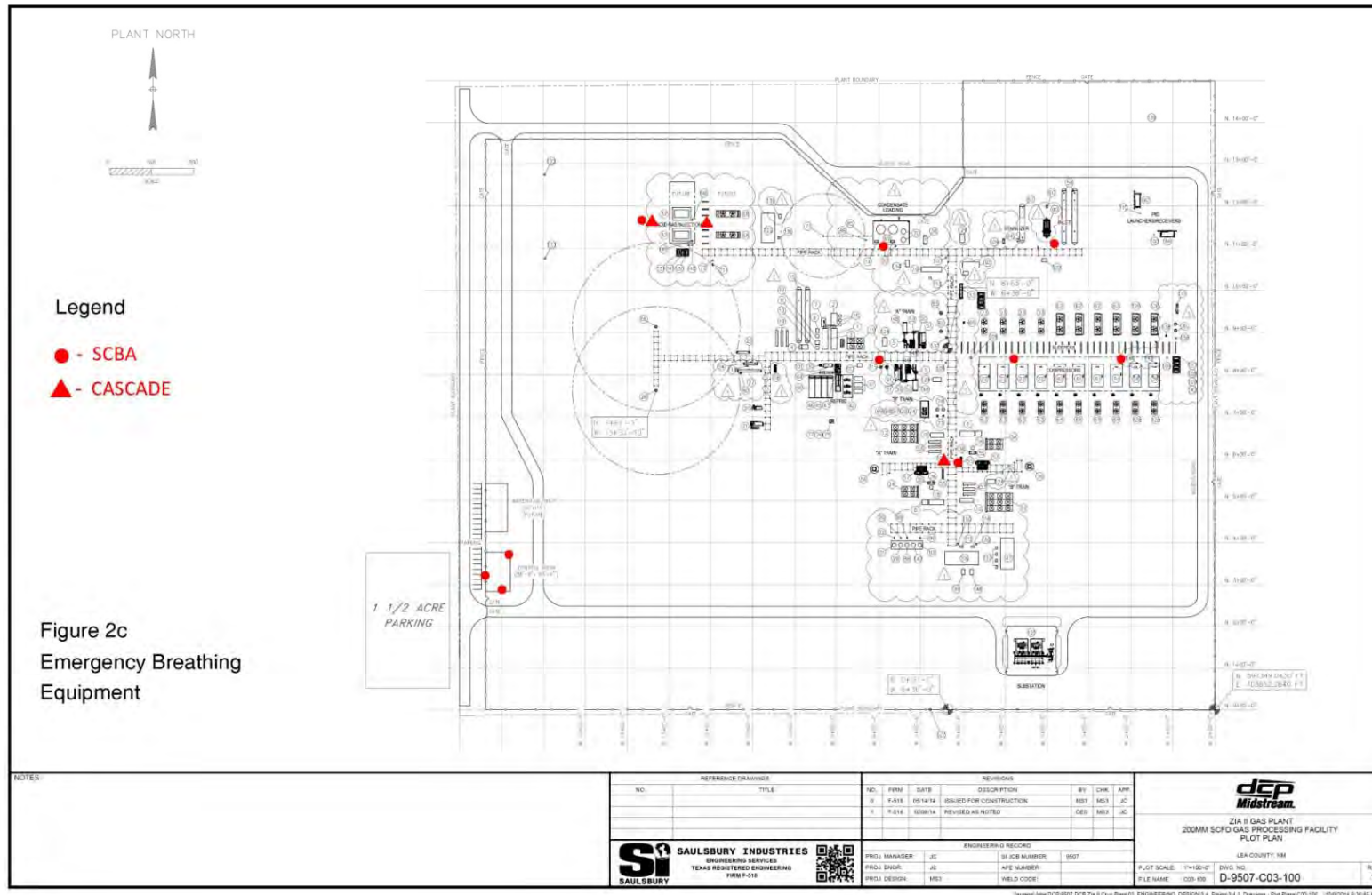


Figure 2c: Emergency Breathing Equipment



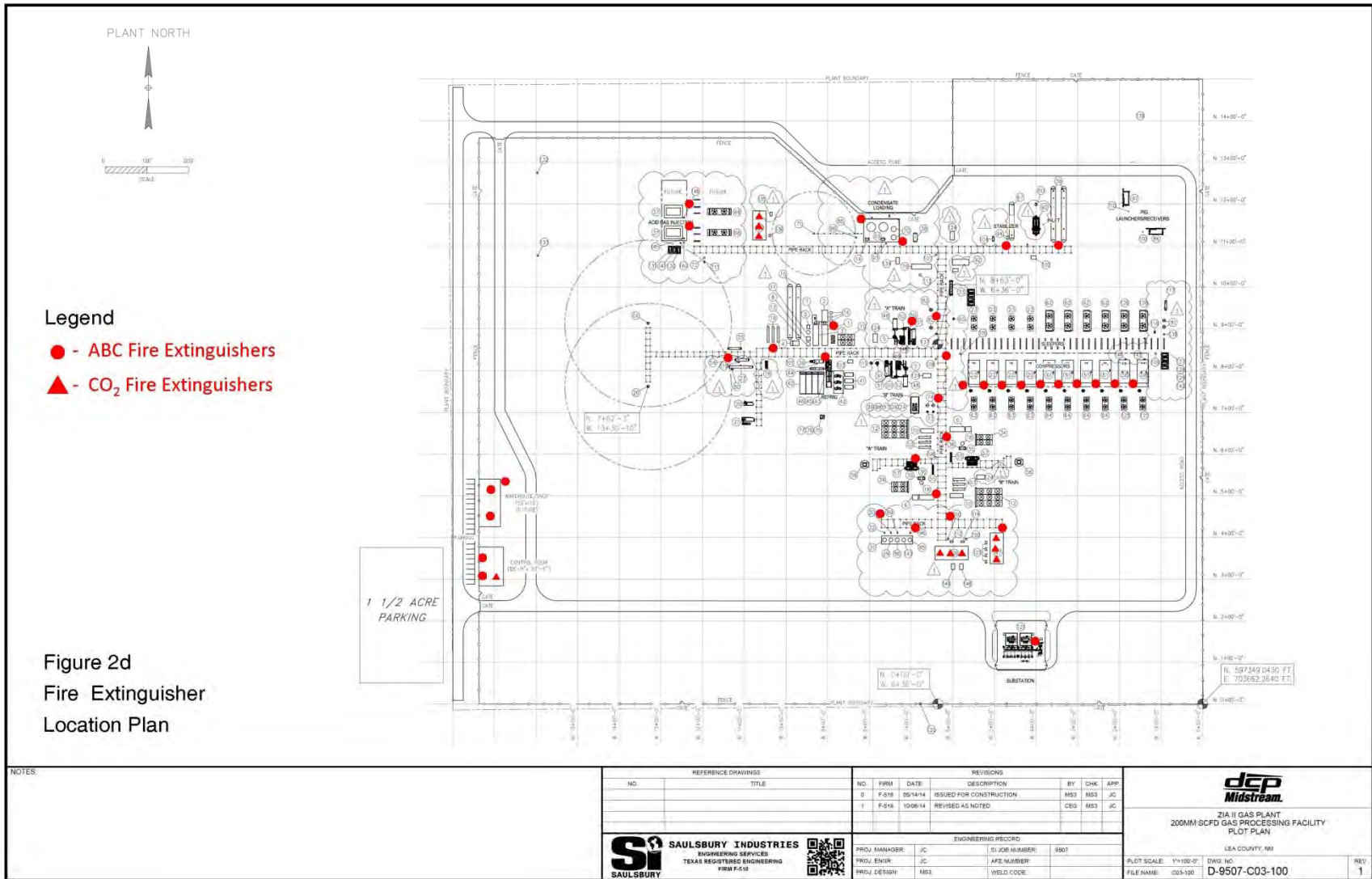


Figure 2d: Fire Extinguisher Location Plan

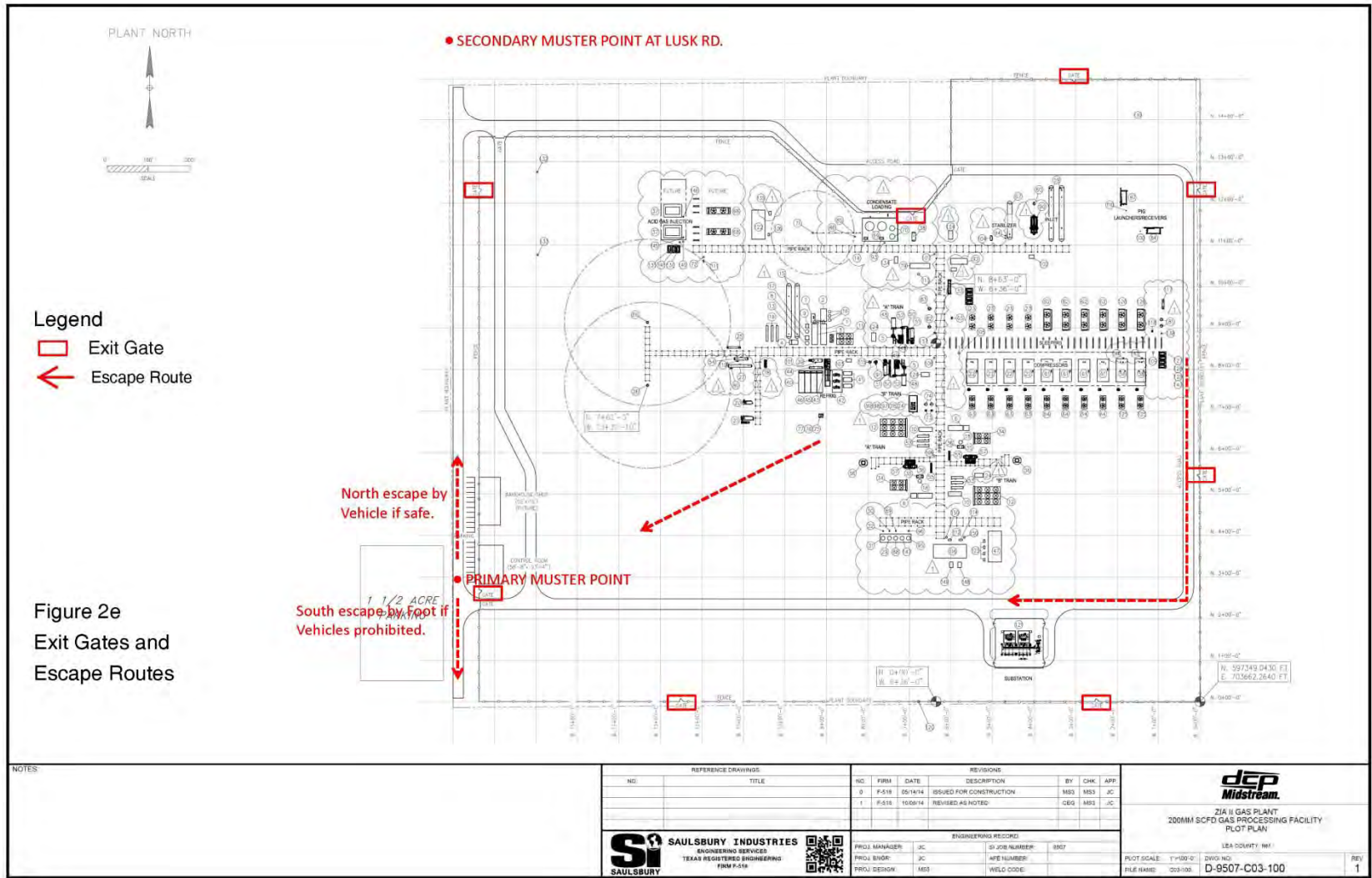
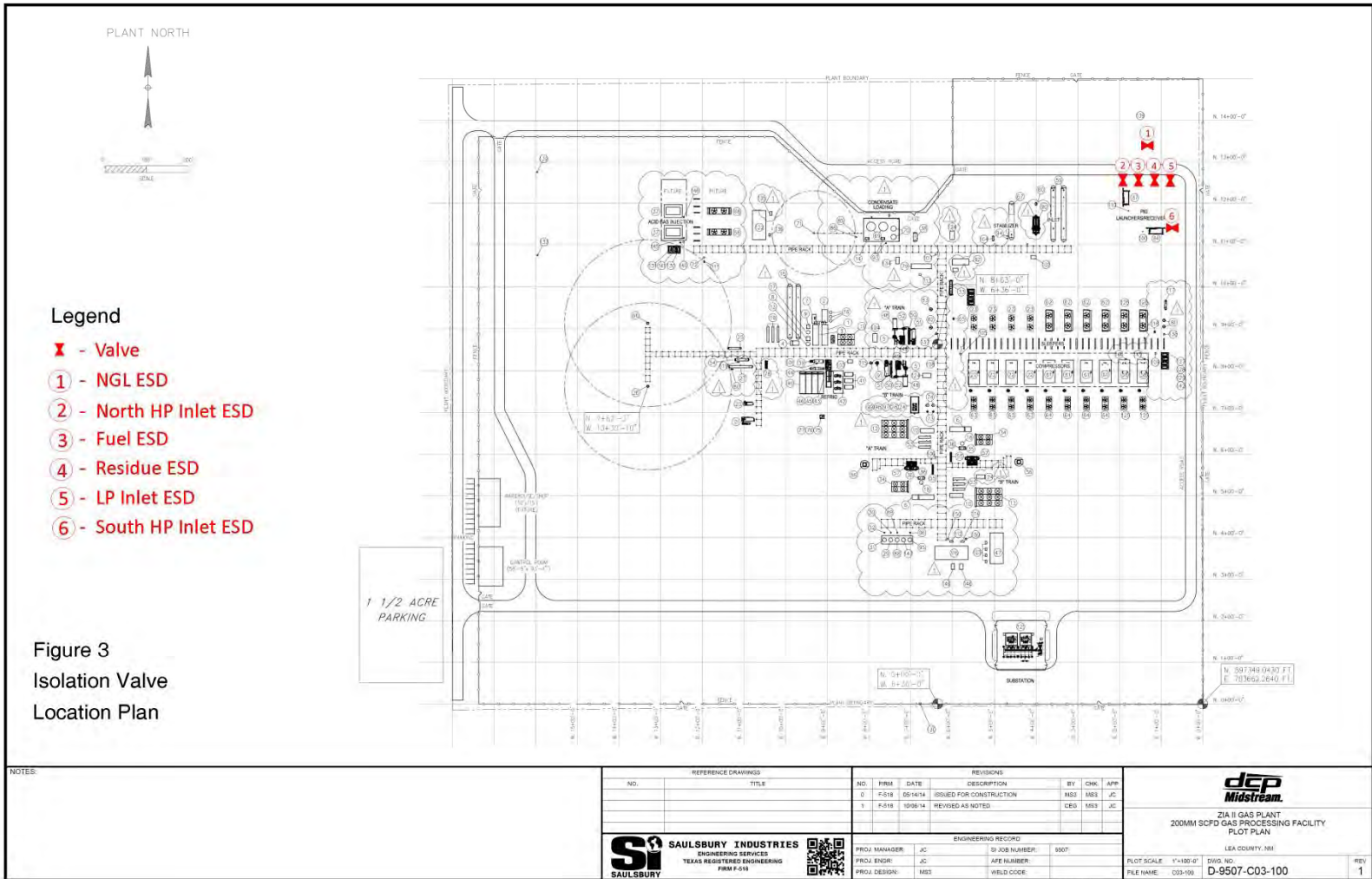


Figure 2e: Exit Gates and Escape Routes



NOTES:

REFERENCE DRAWINGS		REVISIONS					
NO.	TITLE	NO.	DATE	DESCRIPTION	BY	CHK	APP
0	F-518	05-16-14		ISSUED FOR CONSTRUCTION	MS3	MS3	JC
1	F-518	10-06-14		REVISED AS NOTED	CEO	MS3	JC

ENGINEERING RECORD	
PROJ. MANAGER: JC	SI JOB NUMBER: 9507
PROJ. ENGR: JC	AFE NUMBER:
PROJ. DESIGN: MS3	FIELD CODE:

**dcp**  
**Midstream.**

ZIA II GAS PLANT  
200MM SCFD GAS PROCESSING FACILITY  
PLOT PLAN

LEA COUNTY, NM

PROJECT NO: 0905-10  
FILE NAME: C03-100  
D-9507-C03-100

DATE: 10/20/14  
SCALE: 1"=100'-0"

REV: **1**

www.dcp.com DCP Midstream Gas Processing Facilities Engineering - C03-100 10/20/14 9:28:45 AM

Figure 3: Isolation Valve Location Plan

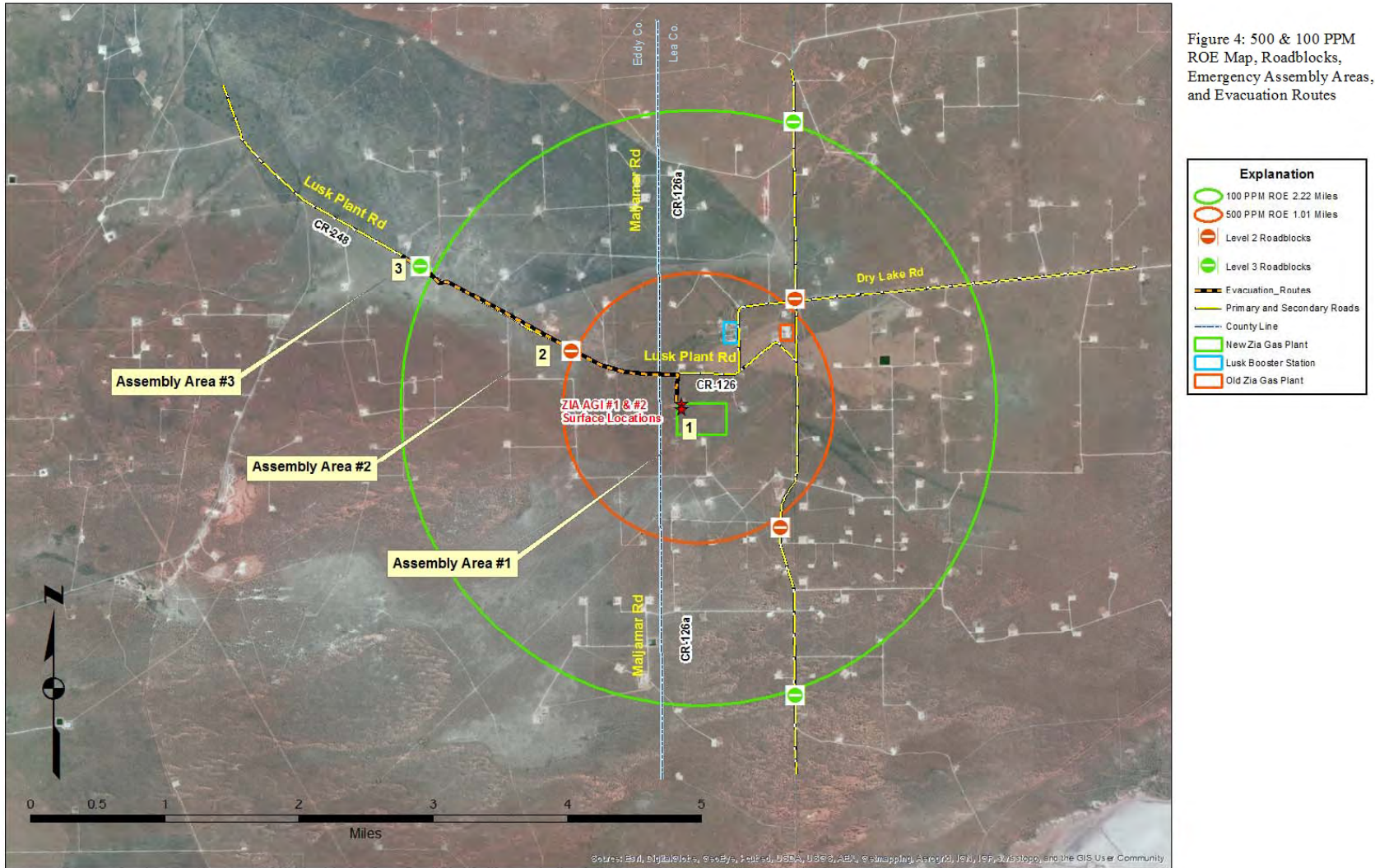


Figure 4: 500 and 100 ppm ROE Map, Roadblocks, Emergency Assembly Areas and Evacuation Routes

Location: DCF Zia AGI #1 (API 30-025-42269)  
 STR: Section 190L, T198, R32E, Q109 FSL & 950 FWL  
 County, St.: LEA COUNTY, NEW MEXICO

**16.2 DEGREE SLANT**

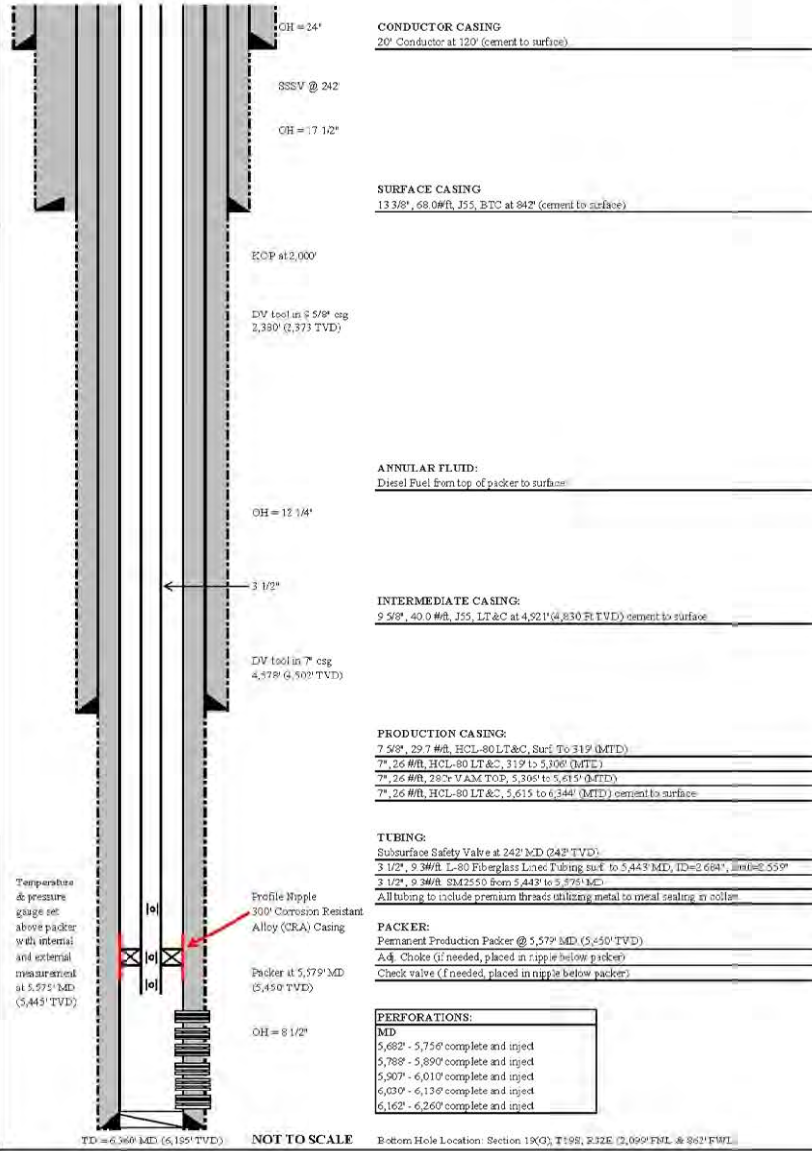


Figure 5a: Well Design Schematic – Zia AGI #1

Lea County, NM  
Section 19 T19S R32E

ZIA AGI 2

Devonian AGI

# GEOLEX INCORPORATED

Rig: Unknown  
Cmt: Unknown  
Mud: Unknown  
Dir Drig: Unknown  
Wellhead: Unknown  
AFE Days: 47  
AFE Cost: \$4,720,000 @ RR

SHL  
1900' FSL  
950' FWL

KB: ?'  
GL: ?'

32.\*\*\*\*\*N / 103.\*\*\*\*\*W

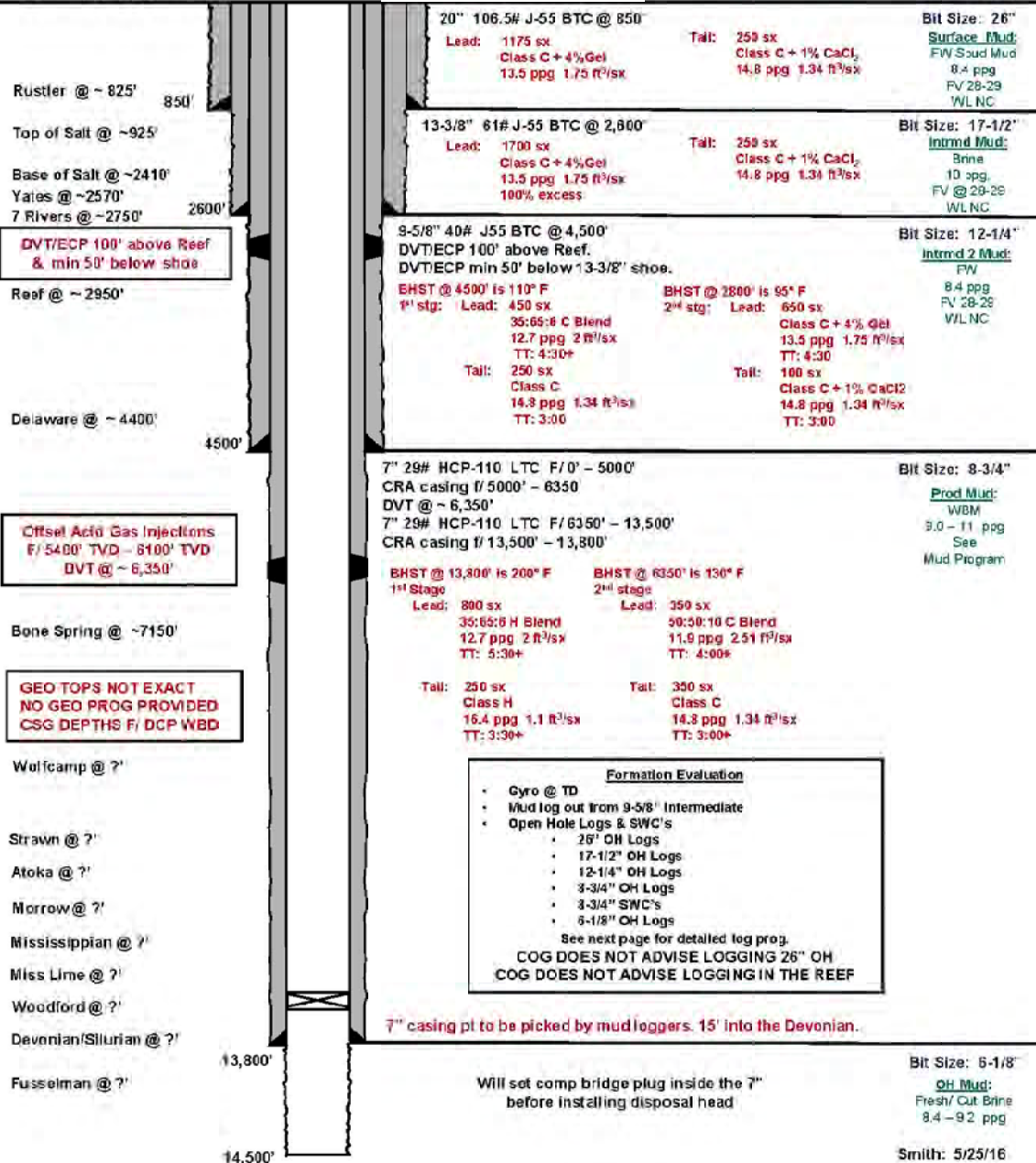
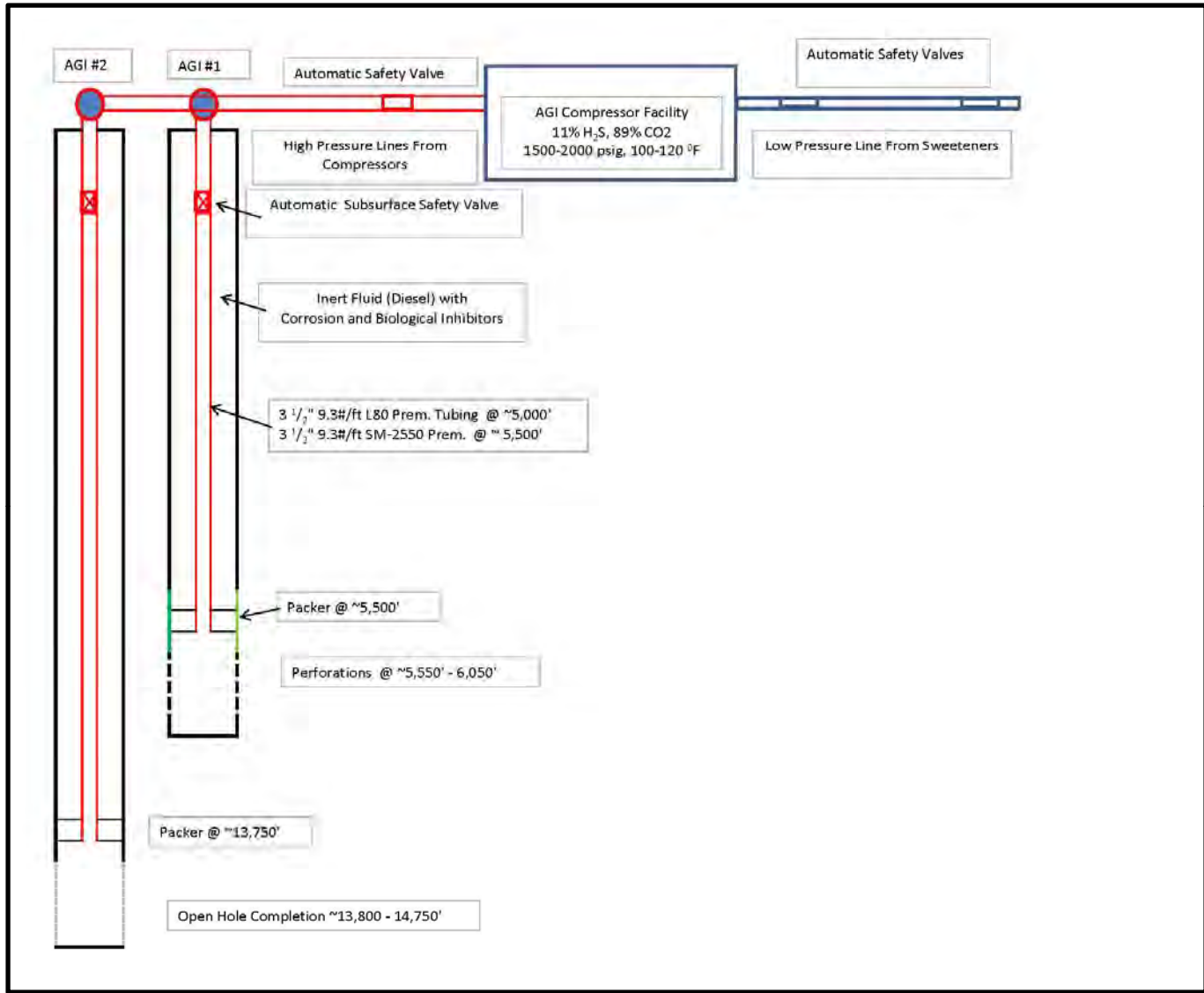


Figure 5b: Schematic of Proposed Zia AGI #2D Well Design



**Figure 6: Generalized Zia AGI Facility and General Injection Well Design**

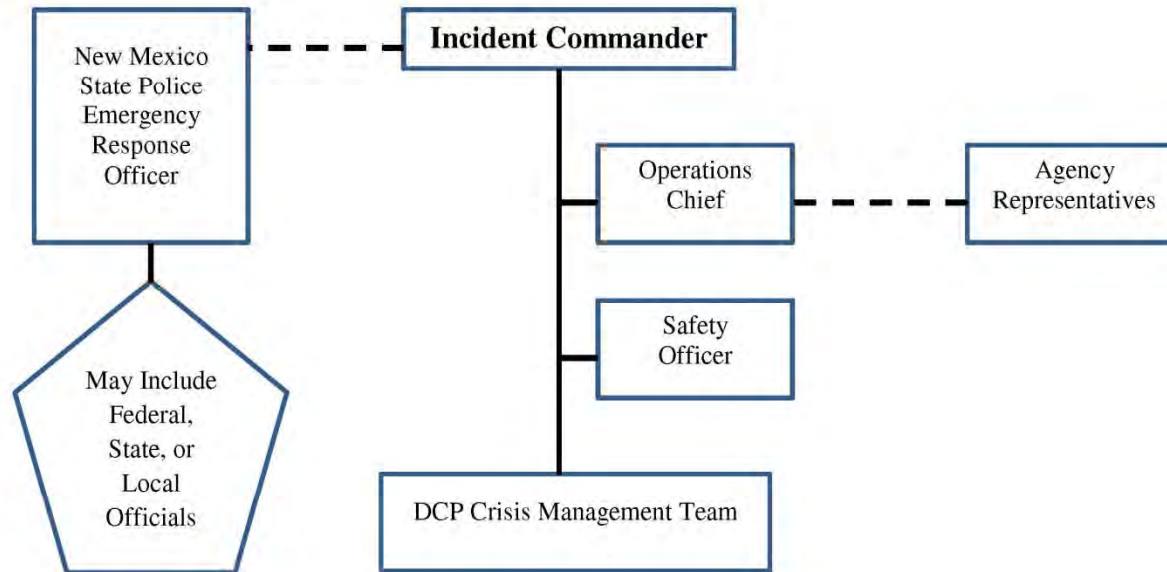


Figure 7: Incident Command System Structure





Figure 8: Photograph of H<sub>2</sub>S Warning Sign

# APPENDICES

# **APPENDIX A**

## **IMMEDIATE ACTION PLANS**

## **LEVEL 1 ACTIVATION**

### **Activating Conditions:**

- **H<sub>2</sub>S of 10 ppm or greater detected at any fixed monitor.**

### **Alarms and Automated Activations:**

- **Flashing yellow lights or beacons and an intermittent horn are activated if any fixed monitor senses H<sub>2</sub>S at 10 ppm or greater. The horn and flashing yellow lights are redundant systems which function independently of one another so that should one system fail, the other would remain active. These systems incorporate backup battery capabilities as recommended in API RP 55 which insure their operation in the event of a power failure.**
- **A computer in the Control Room and in the office of the Plant Supervisor establishes the location of the monitor(s) at the Plant or Wellsite that has activated the alarm and flashing yellow beacons.**
- **All employees also wear personal monitors that sound an audible alarm at 10 ppm H<sub>2</sub>S or greater.**

### **Actions:**

1. At the initial sound of an audible alarm or the sight of a flashing yellow beacon, responding Operator(s) in the vicinity of the alarm will put on 30 minute Self-Contained Breathing Apparatus (SCBA) and help any person in distress evacuate to Emergency Assembly Area 1.
2. All other personnel in the Plant complex shall immediately proceed to Emergency Assembly Area 1 (see Figures 2c and 4).
3. Control Room Operator and Plant Supervisor will be notified of the release. Plant Supervisor or designee will assume the role of IC. Control Room Operator will remain in the control room, identify the location(s) of the alarms and monitor H<sub>2</sub>S concentrations throughout the Plant.
4. If a perimeter monitor (see Figure 2) detects 10 ppm H<sub>2</sub>S or greater, all entities and individuals located within the 500 ppm ROE (see Figure 4) will be notified by the IC or designee that a release is occurring and to stand by for further instructions. Entities will be advised to alert their employees and any third parties working for them, or imminently scheduled to work in the area, of the release and to leave the area and not return until further notice. (Phone numbers are listed in Appendix C).
5. If deemed necessary, Plant personnel as designated by the IC will contact local emergency response service providers (phone numbers provided in Appendix C).
6. All personnel will be accounted for at Emergency Assembly Area 1 using the Plant sign in sheet and air quality will be monitored for H<sub>2</sub>S concentrations. If H<sub>2</sub>S concentrations reach 10 ppm or greater at Emergency Assembly Area 1, all personnel will be evacuated to Emergency Assembly Area 2 using the designated routes (see Figures 2C and 4).
7. If the concentration of H<sub>2</sub>S in the control room reaches 10 ppm, the Control Room Operator will also put on a 30 minute SCBA.
8. Responding Operator(s) wearing SCBAs will assess the location of the alarm and attempt to make an initial determination of its cause and rule out potential false alarms based on sensor malfunction or other conditions. If the cause of the release is a minor problem such as a packing or seal leak, the Operator(s) will attempt to take the necessary steps to correct the situation and eliminate the source of the release.
9. IC will designate secondary re-entry teams in 30-minute SCBA's to re-enter and resolve the situation. Re-entry will occur in 15-minute increments at the direction of the IC until the problem is resolved or the Emergency Shutdown (ESD) is activated.
10. If corrective actions are successful, and the release is resolved and monitored H<sub>2</sub>S levels in the Plant return to less than 10 ppm, the IC or designee will signal all clear, and personnel will be allowed to sign in and re-enter the Plant to resume work.
11. If the release is not resolved and H<sub>2</sub>S levels continue to rise IC will initiate a Level 2 Response and/or instruct Operators to initiate Plant ESD.
12. The IC will initiate and maintain a Chronologic Record of Events Log (see Appendix F).
13. The Plant Supervisor or designee will contact the Oil Conservation Division (OCD) district office within 4 hours of a release that activates the plan at Level 1. **Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15 days of release.**

## **LEVEL 2 ACTIVATION**

### **Activating Conditions:**

- **Corrective actions at Level 1 are unsuccessful;**
- **90 ppm of H<sub>2</sub>S or greater is detected at any fixed monitor.**
- **Operators activate ESD.**

### **Alarm and Automated Activations:**

- **Continuous horn and flashing yellow lights will be activated. The horn and flashing lights are redundant systems which function independently of one another so that should one system fail, the other would remain active. These systems incorporate backup battery capabilities as recommended in API RP 55 which insure their operation in the event of a power failure.**

### **Actions:**

1. The responding Operator(s), will put on SCBAs and help any persons in distress to evacuate to Emergency Assembly Area 2 (see Figure 4).
2. The Plant Supervisor and the Control Room Operator will be notified. The Plant Supervisor, or designee, will assume the role of IC. The Control Room Operator will put on SCBA, remain in the control room and monitor H<sub>2</sub>S concentrations throughout the Plant.
3. All personnel will be evacuated to Emergency Assembly Area 2 via designated routes (see Figure 4).
4. At Emergency Assembly Area 2, all personnel will be accounted for using the Plant sign-in list, and air quality will continue to be monitored for H<sub>2</sub>S at Emergency Assembly Area 2.
5. If two or more monitors within the AGI fenced area or around the AGI compressor (see Figure 2) detect 90 ppm H<sub>2</sub>S or greater, AGI compression will be shut down.
6. Plant ESD can be activated at any time by the Zia II Plant Operators as they and the IC determine that conditions are appropriate for such action.
7. Incident Command Center (ICC) will be established at Emergency Assembly Area 2.
8. A media staging area adjacent to Emergency Assembly Area 2 will be established and all media will be directed to it.
9. IC will designate personnel with H<sub>2</sub>S monitors and emergency trailers to move to the designated Level 2 (500 ppm ROE) roadblock areas shown on ROE map. Lusk Plant Road (CR-248), Dry Lake Road (CR 126) and Maljamar Road (CR 126a) will be blocked to prevent entry into the 500 ppm ROE (see Figure 4). Air quality will be monitored at each road block.
10. Emergency Responders, local law enforcement BLM and state agencies, including the OCD District Office (phone numbers provided in Appendix C) will be notified of the release and the status of containment by the IC or designee.
11. Designated personnel will notify all entities, individuals and producers within the 500 and 100 ppm ROE (phone numbers provided in Appendix C) of the nature of the release and the status of containment. All will be instructed to evacuate, or shelter in place, depending on the nature of the release and the prevailing wind conditions. They will be instructed to immediately alert all company personnel, third party contractors and/or service companies working in the area and those imminently scheduled to work in the area of the Plant evacuation status and advise them to leave and not reenter the Plant vicinity until further notice. All will be advised of the roadblocks on Lusk Plant Road (CR-248), Dry Lake Road (CR 126) and Maljamar Road (CR 126a).
12. Re-entry will occur in full SCBA and at 15-minute increments at the direction of the IC until IC determines problem has been resolved.
13. If release is resolved and monitored levels of H<sub>2</sub>S in the Plant are less than 10 ppm, IC or designee may authorize personnel to return to the Plant.
14. All entities and individuals previously notified will be informed that the release has been resolved and advised of the current monitored H<sub>2</sub>S levels. Roadblocks will be recalled, and traffic will be restored.
15. If monitored H<sub>2</sub>S levels at Emergency Assembly Area 2 or Level 2 roadblocks exceed 10 ppm, all personnel will evacuate to General Emergency Assembly Area 3 via designated route, ICC and media staging area will also be moved to Assembly Area 3.
16. If the release is not resolved or H<sub>2</sub>S levels continue to increase, IC will initiate a Level 3 Response.
17. The IC will initiate and maintain a Chronologic Record of Events log. (Appendix F)
18. The Plant Supervisor or designee will contact the Oil Conservation Division (OCD) district office within 4 hours of a release that activates the plan at Level 1. **Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15 days of release.**

## **LEVEL 3 ACTIVATION**

### **Activating Conditions:**

- **Corrective actions at Level 2 are unsuccessful;**
- **H<sub>2</sub>S concentrations reach 10 ppm or greater at Emergency Assembly Area 2;**
- **H<sub>2</sub>S concentrations reach 10 ppm or greater at Level 2 roadblocks;**
- **A catastrophic release, fire or explosion has occurred;**
- **A continuous release of maximum volume for 24 hours occurs;**
- **As per NMAC 19.15.11 there is indication of 100 ppm H<sub>2</sub>S in any defined public area, 500 ppm at any public road, or 100ppm at a distance greater than 3,000 feet from the site of the release.**

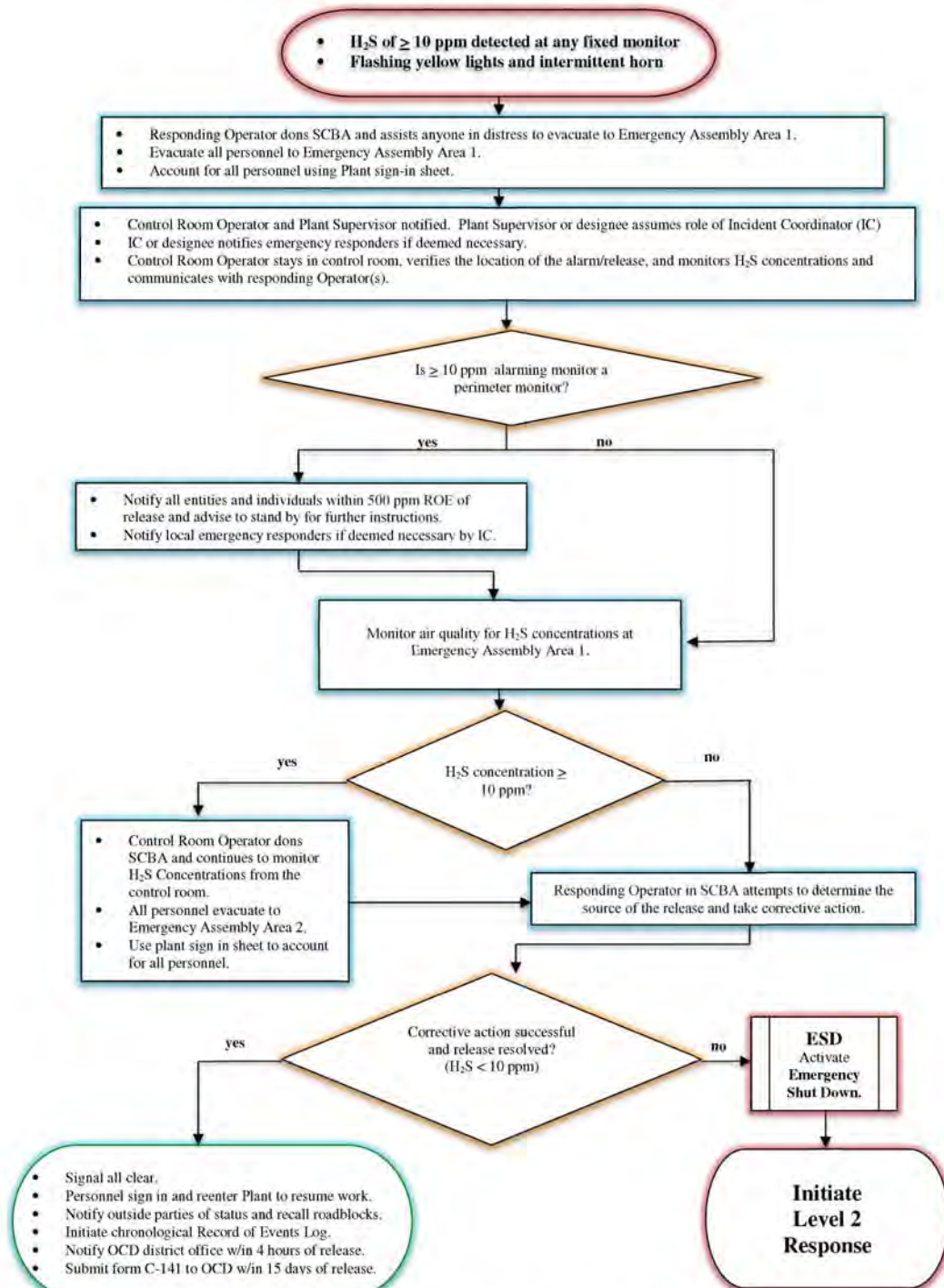
### **Actions:**

1. All personnel should be evacuated to and accounted for at Emergency Assembly Area 3 using the Plant sign in sheet, and air quality will be monitored for H<sub>2</sub>S concentrations (see Figure 4).
2. IC shall have activated or will immediately activate Plant ESD.
3. The ICC and media staging area shall be established and/or moved to Emergency Assembly Area 3.
4. Dispatch personnel with emergency trailers to move or establish designated Level 3 roadblocks at Lusk Plant Road (CR-248), Dry Lake Road (CR 126) and Maljamar Road (CR 126a) to prevent entry into the 100 ppm ROE (see Figure 4). Monitor H<sub>2</sub>S concentrations at the roadblocks.
5. Local emergency responders, BLM, and state agencies, including the OCD District Office, will be notified of the release and status of containment (phone numbers provided in Appendix C).
6. All individuals and entities within the 100 ppm ROE will already have been notified to evacuate or shelter in place. IC will review the status of evacuation, and make the final decision whether individuals within the 100 ppm ROE should evacuate or shelter in place based on, but not limited to H<sub>2</sub>S concentration, wind conditions and whether a safe evacuation can be implemented. If individuals within the 100 ppm ROE are instructed to evacuate, IC will recommend an evacuation route. All entities will be instructed to immediately alert all company personnel, third party contractors and/or service companies working in the area and those imminently scheduled to work in the area of the Plant evacuation status and advise them to leave and not enter, or re-enter the Plant vicinity until further notice. All will be advised of the roadblocks on Lusk Plant Road (CR-248), Dry Lake Road (CR 126) and Maljamar Road (CR 126a).
7. If escaping vapors have been ignited, the vapors should be allowed to continue to burn unless the fire endangers personnel, the public, other property, or other equipment.
8. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved.
9. Once release is resolved and monitored levels of H<sub>2</sub>S in the Plant are less than 10 ppm, IC or designee may authorize personnel to sign in and return to the Plant.
10. All entities and individuals previously notified will be informed that the release has been resolved and advised of the current monitored H<sub>2</sub>S levels at the Plant. Roadblocks will be recalled and traffic will be restored.
11. The IC will initiate and maintain a Chronologic Record of Events log. (Appendix F)
12. The Plant Supervisor or designee will contact the Oil Conservation Division (OCD) district office within 4 hours of a release that activates the plan at Level 1. **Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15 days of release.**

# **APPENDIX B**

## **RESPONSE FLOW DIAGRAMS**

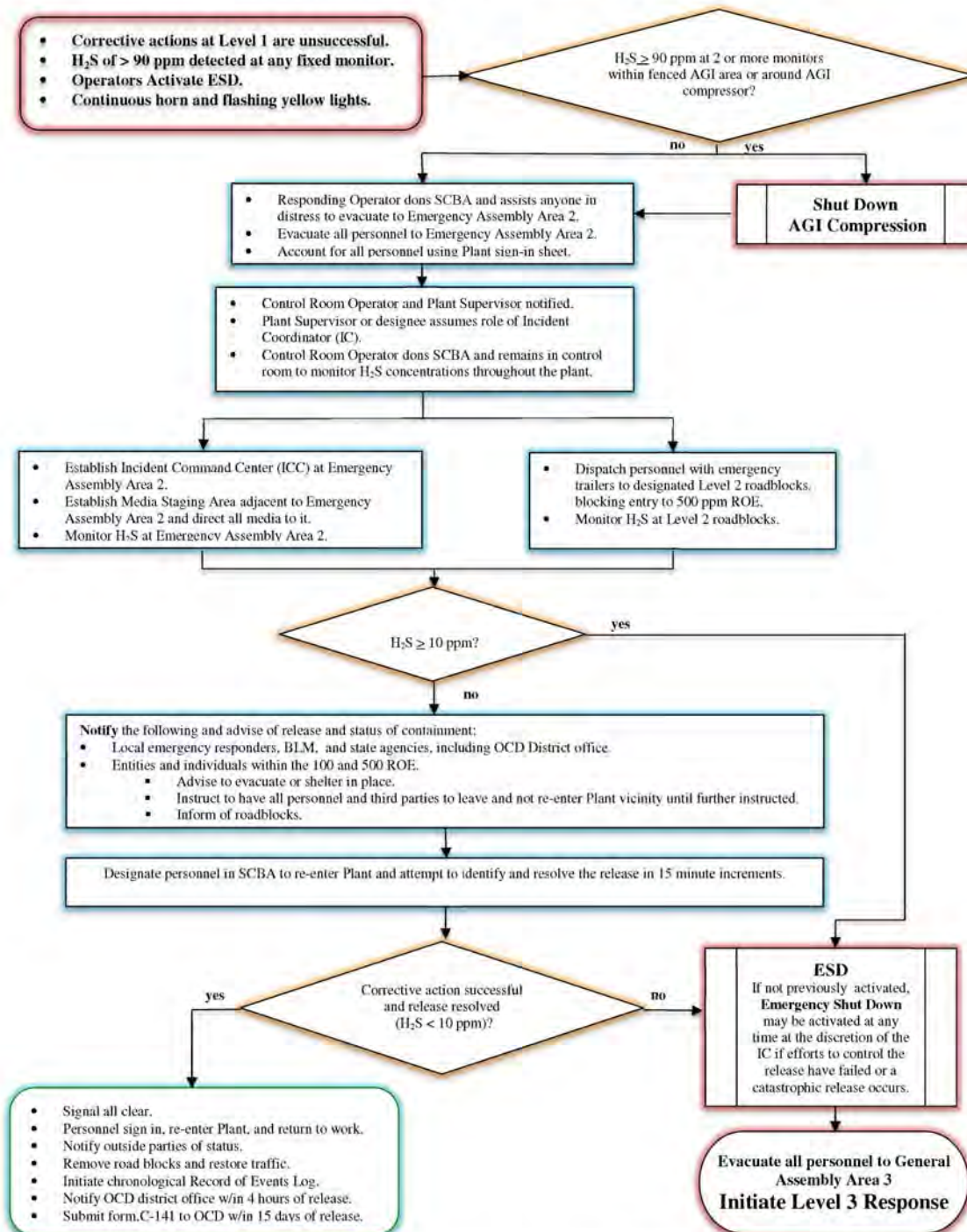
### ZIA II Gas Plant—Level 1 Activation Response Flow



P:\14-007\Reports\H2S Contingency Plan\Appendices\Appendix B Response Flow Diagrams\ZIA FLOWCHART- LEVEL 1 RESPONSE.docx

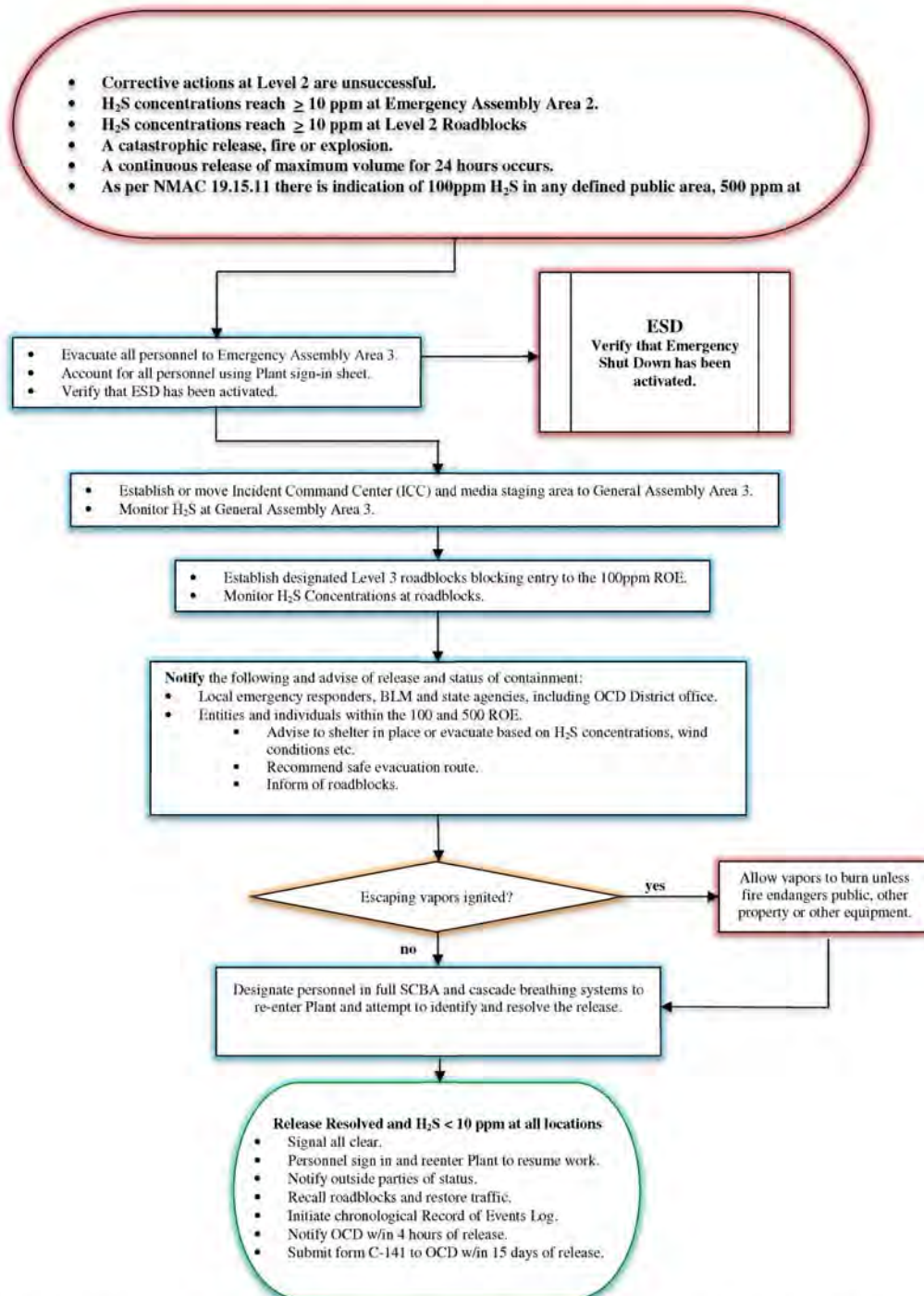


### ZIA II Gas Plant —Level 2 Activation Response Flow



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### ZIA II Gas Plant—Level 3 Activation Response Flow



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## APPENDIX C TELEPHONE NUMBERS EMERGENCY CALL LIST

### BUSINESSES AND PUBLIC RECEPTORS WITHIN THE ROE

**There are none**

### PRODUCERS WITH WELLS WITHIN THE ROE

<b>PRODUCER</b>	<b>OFFICE LOCATION</b>	<b>Office Phone</b>
<b>500 ppm ROE</b>		
Chisos, Ltd.	670 Dona Ana Rd SW Deming, NM 88030	575-546-8802
COG Operating LLC	600 W. Illinois Ave One Concho Center Midland, TX 79701	575-748 6940
Devon Energy	333 W Sheridan Ave Oklahoma City, OK 73102	405- 235-3611
Oxy USA, Inc.	1017 W Stanolind Rd Hobbs, NM 88240	575-397-8237
Shackelford Oil Co	203 W Wall St #200 Midland, TX 79701	432-682-9784
Tandem Energy Corp	200 N Loraine, Suite 500 Midland, TX 77210	432-686-7136
Tom R. Cone	1304 W Broadway Pl Hobbs, NM 88240	575-396-3681
<b>100 ppm ROE</b>		
Apache Corp.	303 Veterans Airpark Ln Suite 3000 Midland, TX 79705	432-838-1062
BOPCO, LP	3104 E Greene St Carlsbad, NM 88220	575-887-7329
Cimarex Energy Company of Colorado	600 N. Marienfeld Street, Suite 600 Midland, TX 79701	432-571-7800
Endurance Resources, LLC	11382 Lovington Hwy Artesia, NM 88210	575-308-0722
Lynx Petroleum Consultants, Inc.	3325 N Enterprise Dr Hobbs, NM 88240	575-392-6950
Ray Westall Operating, Inc.	PO Box 1 Loco Hills, NM 88255	575-677-2376
Yates Petroleum Corporation	105 South 4th Street Artesia, NM 88210	575-748-1471

## DCP COMPANY INTERNAL NOTIFICATIONS

NAME	TITIE	OFFICE	CELL
Todd Allison	Zia II Plant Supervisor		361-318-3275
Charlie Joslin	Hobbs Plant Supervisor		575-802-5101
Russ Ortega	SENM Asset Director	575-597-5598	575-390-7160
Lionel Torrez	SENM Asset Safety Coordinator	575-677-5227	575-618-9475
Jackie Strickland	GM Operations Permian Region	432-620-4066	979-732-7893
Bryan Frederick	President G&P Business Unit	713-735-3667	713-503-3130
	Safety Manager Permian Region	432-620-4009	
	DCP Gas Control, Houston, TX	800-435-1679	N/A
Brad Griffith	PSM Coordinator	575-677-5223	575-499-6873

## EMERGENCY RESPONDERS

AGENCY	PHONE
Emergency Dispatch	911
Hobbs Fire Department	575-397-9308
Hobbs Police Department	575-397-9265
Hobbs Ambulance Service	575-397-9308
New Mexico State Police (Hobbs)	575-392-5580
Lea County Sheriff's Office	575-396-3611
Hobbs-Lea Regional Medical Center	575-492-5000
Lubbock University Medical Center (UMC) (Level 1 Trauma Center)	806-345-9911
New Mexico Poison Control (Albuquerque)	800-222-1222
HELICOPTER SERVICES	
AeroCare (Lubbock)	800-823-1991
Air Med (El Paso)	800-527-2767

## COUNTY AND LOCAL LAW ENFORCEMENT AND PUBLIC AGENCIES

AGENCY	PHONE NUMBER
Oil Conservation Division Santa Fe Office District 1 Office, Lea County (Hobbs)	505-476-3440 575-370-3186
Local Emergency Planning Committee (LEPC) Lea County	575-396-8607
New Mexico State Police (Hobbs)	575-392-5580

Lea County Sheriff's Office	575-396-3611
National Response Center (NRC)	800-424-8802
New Mexico Department of Homeland Security & Emergency Management (NMDHSEM)	505-476-9600
New Mexico Emergency Response Commission in NMDHSEM	505-476-9640
New Mexico Department of Public Safety	505-827-9282
Bureau of Land Management (Carlsbad Office)	575-234-5972

## **APPENDIX D**

### **RADIUS OF EXPOSURE (ROE) CALCULATIONS**

<b>DCP</b>			
<b>MIDSTREAM ZIA II PLANT INLET Stream ROE CALCULATIONS PURSUANT TO RULE 11</b>			
<b>If data is provided in mole% use calculator below for getting ppm</b>			
Enter Mole % in cell C5	Mole %	ppm	
Convert mole% to ppm	0.9992	9992	
<b>If data is provided in mole fraction use calculator below for getting ppm</b>			
Enter Mole Fraction in cell C10	Mole Fraction	ppm	
Convert mole fraction to ppm		0	
<b>Use ppm derived from either of above calculations to input data below</b>			
<b>Input Data Here</b>	H <sub>2</sub> S Concentration (ppm)	9992	
	24 Hour Throughput (MMCFD)	200	
The radius of exposure is calculated using the following equations:			
100 ppm ROE calculation (as per 19 NMAC 15.11.7.K.1)			
$X_{100\text{ppm}} = [(1.589)(\text{Conc}_{\text{H}_2\text{S}})(Q)]^{(0.6258)}$			
500 ppm ROE calculation (as per 19 NMAC 15.11.7.K.2)			
$X_{500\text{ppm}} = [(0.4546)(\text{Conc}_{\text{H}_2\text{S}})(Q)]^{(0.6258)}$			
Where:			
X = radius of exposure (ft)			
Conc <sub>H<sub>2</sub>S</sub> = the decimal equivalent of the mole or volume fraction of H <sub>2</sub> S in the gas			
Q = daily plant throughput corrected to standard conditions (SCFD)			
Plant parameters			
Q =	200 MMSCFD =	200000000	SCFD
Conc <sub>H<sub>2</sub>S</sub> =	9992 ppm =	0.9992	Mole % = 0.009992 Mole Fraction
ROE calculation:			
X <sub>100ppm</sub> =	[(1.589)*(0.009992)*(200000000)]^(0.6258)		
X <sub>100ppm</sub> =	11717 ft =	2.22 miles	
X <sub>500ppm</sub> =	[(0.4546)*(0.009992)*(200000000)]^(0.6258)		
X <sub>500ppm</sub> =	5354 ft =	1.01 miles	

DCP			
MIDSTREAM ZIA II PLANT TAG Stream ROE CALCULATIONS PURSUANT TO RULE 11			
<b>If data is provided in mole% use calculator below for getting ppm</b>			
Enter Mole % in cell C5	Mole %	ppm	
Convert mole% to ppm	14.2853	142853	
<b>If data is provided in mole fraction use calculator below for getting ppm</b>			
Enter Mole Fraction in cell C10	Mole Fraction	ppm	
Convert mole fraction to ppm		0	
<b>Use ppm derived from either of above calculations to input data below</b>			
<b>Input Data Here</b>	H <sub>2</sub> S Concentration (ppm)	142853	
	24 Hour Throughput (MMCFD)	13.9892	
The radius of exposure is calculated using the following equations:			
100 ppm ROE calculation (as per 19 NMAC 15.11.7.K.1)			
$X_{100\text{ppm}} = [(1.589)(\text{Conc}_{\text{H}_2\text{S}})(Q)]^{(0.6258)}$			
500 ppm ROE calculation (as per 19 NMAC 15.11.7.K.2)			
$X_{500\text{ppm}} = [(0.4546)(\text{Conc}_{\text{H}_2\text{S}})(Q)]^{(0.6258)}$			
Where:			
X = radius of exposure (ft)			
Conc <sub>H<sub>2</sub>S</sub> = the decimal equivalent of the mole or volume fraction of H <sub>2</sub> S in the gas			
Q = daily plant throughput corrected to standard conditions (SCFD)			
Plant parameters			
Q =	13.9892	MMSCFD =	13989200 SCFD
Conc <sub>H<sub>2</sub>S</sub> =	142853	ppm =	14.2853 Mole %= 0.142853 Mole Fraction
ROE calculation:			
X <sub>100ppm</sub> =	[(1.589)*(0.142853)*(13989200)]^(0.6258)		
X <sub>100ppm</sub> =	11717 ft	=	2.22 miles
X <sub>500ppm</sub> =	[(0.4546)*(0.142853)*(13989200)]^(0.6258)		
X <sub>500ppm</sub> =	5354 ft	=	1.01 miles





Bryan Research & Engineering, Inc.

**ProMax<sup>®</sup> 3.2**

with  
**TSWEET<sup>®</sup> & PROSIM<sup>®</sup>**

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### Simulation Report

**Project: DCP Zia - Summer Recovery - 1% H2S - 6% CO2 Normalized Gas Analyses-Rev-4.pmx**

**Licensed to DCP Midstream, LP and Affiliates**

**Client Name: DCP Midstream**  
**Location: New Mexico**  
**Job: 9420 DCP Zia II**

**ProMax Filename: C:\Ziall\04-Process Models\DCP Zia - Summer Recovery - 1% H2S - 6% CO2 Normalized Gas Analyses-Rev-4.pmx**  
**ProMax Version: 3.2.12198.0**  
**Simulation Initiated: 2/14/2014 11:50:48 AM**

**Bryan Research & Engineering, Inc.**

Chemical Engineering Consultants  
P.O. Box 4747 Bryan, Texas 77809  
Office (979) 775-5220  
Fax (979) 775-4818  
<mailto:info@brea.com>  
<http://www.brea.com>

Report Navigator can be activated via the ProMax Navigator Toolbar.  
An asterisk (\*), throughout the report, denotes a user specified value.  
A question mark (?) after a value, throughout the report, denotes an extrapolated or approximate value.

Component	Mol %
Hydrogen Sulfide	0.9992
Nitrogen	2.2311
Methane	68.3532
Carbon Dioxide	5.9954
Ethane	12.6577
Propane	6.1254
i-Butane	0.6925
n-Butane	1.6637
i-Pentane	0.3755
n-Pentane	0.3703
Neohexane	0.0035
Cyclopentane	0.0357
2-Methylpentane	0.0707
3-Methylpentane	0.0405
Hexane	0.0776
Methylcyclopentane	0.0493
Benzene	0.0458
Cyclohexane	0.0463
2-Methylhexane	0.0094
3-Methylhexane	0.0128
Cyclopentane, 1,1-Dimethyl-	0.0203
Heptane	0.0144
Methylcyclohexane	0.0248
Cyclopentane, 1,1,2-Trimethyl-	0.0012
Toluene	0.0169
2-Methylheptane	0.0062
3-Methylheptane	0.0012
Cyclohexane, 1,1-Dimethyl-	0.0036
Octane	0.0023
Ethylbenzene	0.0013
p-Xylene	0.0016
o-Xylene	0.0003
Cyclooctane	0.0021
Octane, 3-Methyl-	0.0030
Nonane	0.0004
Decane	0.0001
Undecane	0.0004
Dodecane	0.0003
Water	0.0439
DGA	0.0000
MDEA	0.0000
Piperazine	0.0000
TEG	0.0000
<b>Total</b>	<b>100</b>
<b>Total Flow</b>	<b>200 MMSCFD</b>

DCP ZIA GAS PLANT  
CONVERSION OF INLET GAS TO TREATED AID GAS

Inlet Gas	Inlet Gas	TAG % (calculated)
H2S	0.9992	14.2853
CO2	5.9954	85.7147
Various	93.0054	—
Total	100.0000	100.0000
Flow Rate	200	13.9892

## **APPENDIX E**

### **H<sub>2</sub>S PLAN DISTRIBUTION LIST**

New Mexico Oil Conservation Division, Santa Fe Office

New Mexico Department of Public Safety (State Office)

Lea County LEPC/Emergency Manager\*

Zia II Plant Supervisor's Office

Zia II Plant Control Room

DCP SENM Asset Manager's Office

DCP Permian Region Safety Manager's Office, Midland, TX

Zia II Plant Emergency Trailers

New Mexico State Police, Hobbs Office

State of New Mexico Emergency Response Commission (SERC)

Bureau of Land Management (BLM) Carlsbad Field Office

\*Note: Lea County LEPC Emergency Manager will make and send copies of this plan to appropriate entities within his jurisdiction, including the Hobbs Fire Department.

## **APPENDIX F**

### **CHRONOLOGIC RECORD OF EVENTS LOG**



# **APPENDIX G**

## **NEW MEXICO OIL CONSERVATION DIVISION FORM C-141**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Contact
Address	Telephone No.
Facility Name	Facility Type
Surface Owner	Mineral Owner
API No.	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release	Volume of Release	Volume Recovered
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.*		
Describe Area Affected and Cleanup Action Taken.*		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
<b>OIL CONSERVATION DIVISION</b>		
Signature:	Approved by Environmental Specialist:	
Printed Name:	Approval Date:	Expiration Date:
E-mail Address:	Conditions of Approval:	
Date:	Phone:	Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary