

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

**District II**  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-0720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-101  
Revised July 18, 2013

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address <b>Fulfer Oil &amp; Cattle, LLC</b> <b>PO Box 1224</b> <b>Jal, NM 88252</b>		<sup>2</sup> OGRID Number <b>141402</b>
		<sup>3</sup> API Number <b>30-025-27085</b>
<sup>4</sup> Property Code <b>313627</b>	<sup>5</sup> Property Name <b>South Langlie Jal Unit</b>	<sup>6</sup> Well No. <b>31</b>

<sup>7</sup> Surface Location									
UL - Lot <b>N</b>	Section <b>7</b>	Township <b>25 S</b>	Range <b>37 E</b>	Lot Idn	Feet from <b>660'</b>	N/S Line <b>South</b>	Feet From <b>1980'</b>	E/W Line <b>West</b>	County <b>Lea</b>

<sup>8</sup> Proposed Bottom Hole Location									
UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

<sup>9</sup> Pool Information	
Pool Name <b>Jalmat; Tan-Yates-7 Rvrs (Oil)</b>	Pool Code <b>33820</b>

Additional Well Information				
<sup>11</sup> Work Type <b>E</b>	<sup>12</sup> Well Type <b>O</b>	<sup>13</sup> Cable/Rotary <b>R</b>	<sup>14</sup> Lease Type <b>P</b>	<sup>15</sup> Ground Level Elevation <b>3127'</b>
<sup>16</sup> Multiple <b>N</b>	<sup>17</sup> Proposed Depth <b>3500' PBTD</b>	<sup>18</sup> Formation <b>Seven Rivers</b>	<sup>19</sup> Contractor <b>TBD</b>	<sup>20</sup> Spud Date <b>3/01/2016</b>
Depth to Ground water <b>~92'</b>		Distance from nearest fresh water well <b>~1050'</b>		Distance to nearest surface water <b>n/a</b>

☒ We will be using a closed-loop system in lieu of lined pits

<sup>21</sup> Proposed Casing and Cement Program						
Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
<b>Surface</b>	<b>17.5"</b>	<b>13.375"</b>	<b>54.5/61.0#</b>	<b>1050'</b>	<b>870 'C'</b>	<b>Circ. to Surf.</b>
<b>Intermediate</b>	<b>12.25"</b>	<b>9.625"</b>	<b>43.5#</b>	<b>4520'</b>	<b>3550 'C'</b>	<b>Circ. to Surf.</b>
<b>Production</b>	<b>8.5"</b>	<b>7.0"</b>	<b>26.0/29.0#</b>	<b>12100'</b>	<b>2400 'C'</b>	<b>3500'</b>

Casing/Cement Program: Additional Comments
Additional squeeze intervals behind 7.0" casing. See wellbore diagram.

<sup>22</sup> Proposed Blowout Prevention Program			
Type	Working Pressure	Test Pressure	Manufacturer
<b>Hydraulic or Man./Dbl. Blind Ram</b>	<b>3000 psi</b>	<b>5000 psi</b>	<b>S haffer/Hydril or equivalent</b>

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable. Signature: 		<b>OIL CONSERVATION DIVISION</b>	
Printed name: <b>Ben Stone</b>		Approved By: 	
Title: <b>Agent for Fulfer Oil &amp; Cattle, LLC</b>		Title: <b>Petroleum Engineer</b>	
E-mail Address: <b>ben@sosconsulting.us</b>		Approved Date: <b>02/16/16</b>   Expiration Date: <b>02/16/16</b>	
Date: <b>2/16/2016</b>	Phone: <b>903-488-9850</b>	Conditions of Approval Attached	

*E-Permit KB*  
**FEB 17 2016**

**Fulfer Oil & Cattle, LLC  
South Langlie Jal Unit Well No.31  
Section 7, Twp 25-S, Rng 37-E  
Lea County, New Mexico**

**Well Re-entry Program**

**Objective:** *Re-enter the existing wellbore by drilling out plugs, clean out to new PBTD of 3500', selectively perforate desired intervals, acidize and run new tubing, pump and rods to return to production.*

**1. Geologic Information** – The Tansill Formation consists of gypsum, red clay, and silt (evaporite facies) that laterally grades into dolomite near the reef margin. The Yates Formation consists of siltstone and sandstone beds totaling approximately 300 to 400 feet in thickness near the reef margin. The Seven Rivers Formation is a thin-bedded dolomite sandwiched between the upper Queen sandstone and the Yates sand. This formation laterally grades from evaporite to a carbonate facies as it grades into the Capitan Reef Complex. The bedding disappears as it grades into the Capitan Limestone. This formation is up to 500 feet thick (Hill, 1996; Hiss, 1975).

The Tansill is overlain by the Salado and the Seven Rivers is underlain by the Queen, Paddock and Bone Spring.

Fresh water in the area is generally available from the Capitan Aquifer. Based on State Engineer's records for the township, groundwater is at an average depth of 92 feet, with a minimum depth of 23 feet and a maximum depth of 275 feet.

**Formation Tops**

T/ Salt	1080'
B/ Salt	2650'
Yates	2850'
Seven Rivers	3040'
Queen	3460'
Bone Spring	5570'
Wolfcamp	8098'

**2. Completion Procedure**

- a) MIRU WSU, reverse unit and associated equipment. Install B.O.P. RIH with bit and collars to drill out plugs.
- b) D/O & C/O plugs to 3500'.
- c) Selectively perforate intervals from logs between 3288' and 3390'.
- d) Acidize w/ ~1000 gals 15% HCl. Swab and/or circulate hole clean.
- e) Install pumping unit.
- f) RIH w/ tubing, pump and rods, hang horses head.
- g) Return to production and report on C-115.

**3. Tubular program** - The well casing is set as shown in the table below, under "Cementing Program". (See attached Proposed Well Schematic) 2-3/8" tubing will be run and set with tubing anchor set at approximately 3900'. Install new pump and rods.



## **Well Re-entry Program (cont.)**

4. **Cementing Program** - Existing Surface and Intermediate casing strings were all circulated to surface during the original well drilling and completion operations as follows:

STRING	CSG. SIZE	WEIGHT/FT.	HOLE SIZE	DEPTH	CEMENT VOL.	TOP OF CEMENT
Surface	13.375"	54.6/61.0#	17.5" hole	1050'	870 sx 'C'	100 sx Circ to Surf
Intermediate	9.625"	43.5#	12.25" hole	4520'	3550 sx 'C'	300 sx Circ to Surf
Production	7.0"	26.0/29.0#	8.5" hole	12100'	2400 sx 'H'	TOC @ 3500'
* Additional intervals behind 7.0" casing were squeezed during P&A of well: 3460'-3380'; 3040'-2800'; 2700'-2600'; 1130'-1000'; 60'-0'.						

5. **Pressure Control** - BOP diagram is attached to this application. All BOP and related equipment shall comply with well control requirements as described NMOC rules and regulations. Minimum working pressure of the BOP and related equipment required for the drillout shall be 3000 psi. OCD will be notified a minimum of 4 hours prior to BOP pressure tests. The test shall be performed by an independent service company utilizing a test plug (no cup or J-packer). The results of the test shall be recorded on a calibrated test chart submitted to the OCD Hobbs district office. The BOP test(s) will be conducted at:

- Installation;
- after equipment or configuration changes;
- at 30 days from any previous test, and;
- anytime operations warrant, such as well conditions

6. **Mud Circulation System** - the plugs will be drilled with 8.4 lb/gal fresh water looped through the reverse unit with all cutting recovered for disposal. Visual inspection will be made by personnel while reverse unit is in operation so cement plug cuttings and potential losses are witnessed and acted upon.

7. **Auxiliary Well Control and Monitoring** - Not Applicable

8. **H<sub>2</sub>S Safety** - There is a low risk of H<sub>2</sub>S in this area. The operator will comply with the provisions of company H<sub>2</sub>S contingency plan as applicable. All personnel will wear monitoring devices and a wind direction sock will be placed on location.

9. **Logging, Coring and Testing** - Fulfer Oil & Cattle, LLC is not anticipating running additional logs. No corings or drill tests will be conducted.

10. **Potential Hazards** - No abnormal pressures or temperatures are expected. No loss of circulation is expected to occur. All personnel will be familiar with the safe operation of the equipment being used to drillout and reenter this well. The maximum anticipated bottomhole pressure is 1500 psi and the maximum anticipated bottomhole temperature is 94° F.

11. **Waste Management** - All drill cuttings and other wastes associated with the re-entry and drill out operations will be transported to a commercial surface waste disposal facility permitted by the Environmental Bureau of the New Mexico Oil Conservation Division.

12. **Sundry Reporting** - Potential spills will be reported immediately on form C-141 and OCD will be notified within 24 hours of detection. Recoverable releases will be cleaned up and remediated if necessary. Other items for action or work to the well will be reported as required on form C-103 Sundry Notice.

13. **Anticipated Start Date** - Ready to schedule - MIRU 3/15/2015. Completion of the well operations will take one to two weeks. Production volumes will be reported on form C-115.



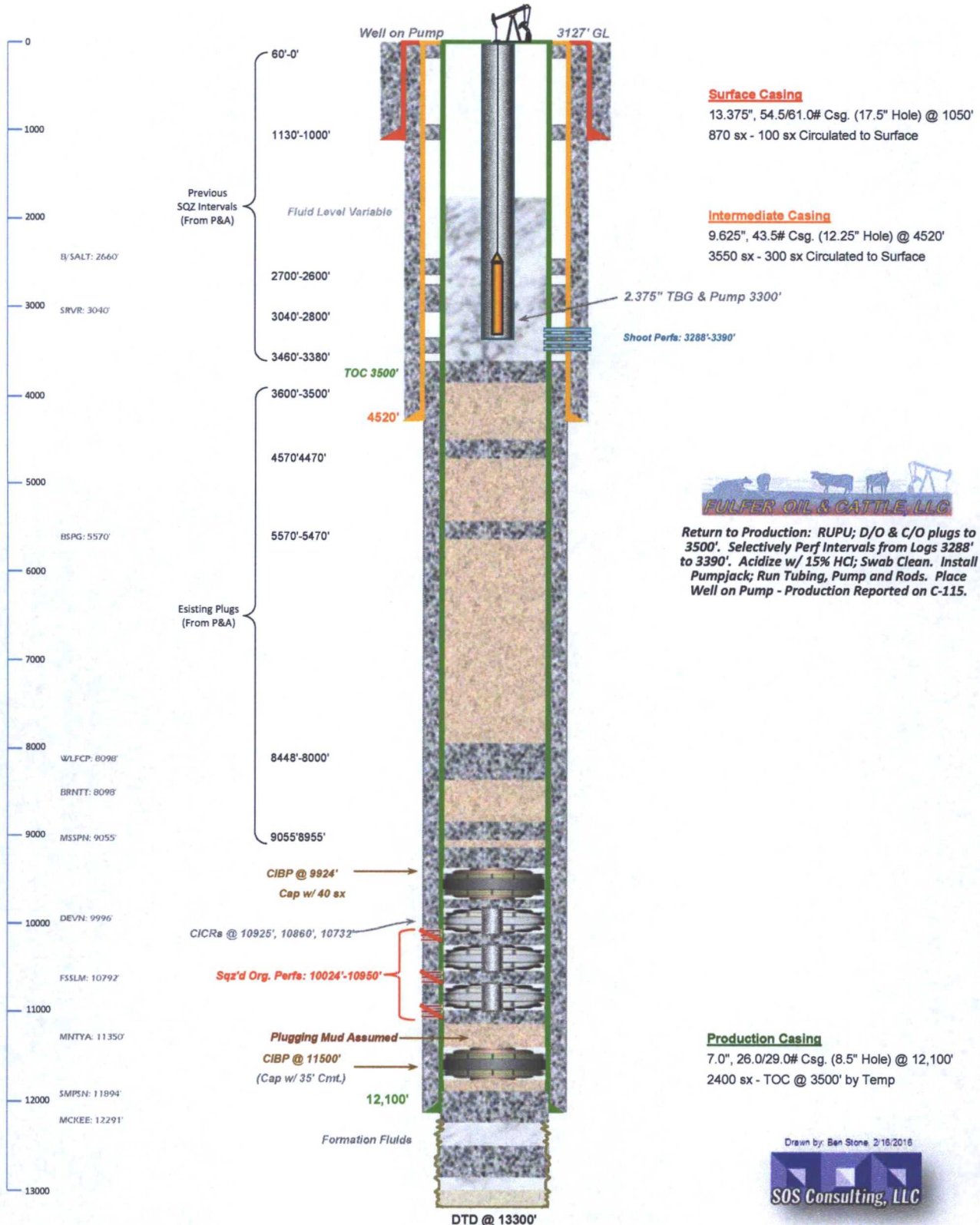
# **WELL SCHEMATIC - PROPOSED** **South Langlie Jal Unit Well No.31**

API 30-025-27085

660' FSL & 1980' FWL, SEC. 7-T25S-R37E  
 LEA COUNTY, NEW MEXICO

[33820] JALMAT;TAN-YATES-7 RVRS (OIL)

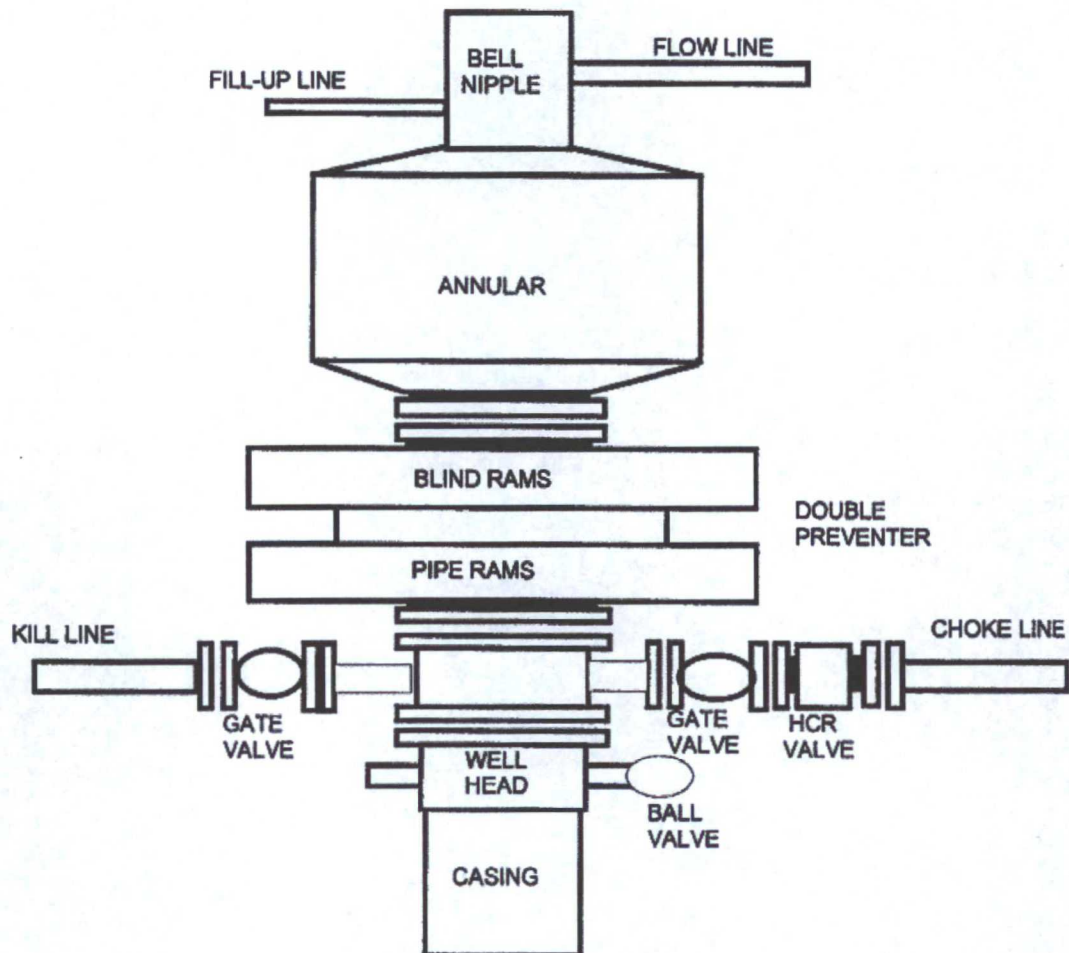
Spud Date: 8/05/1981  
 Reentry Dt: ~3/15/2015





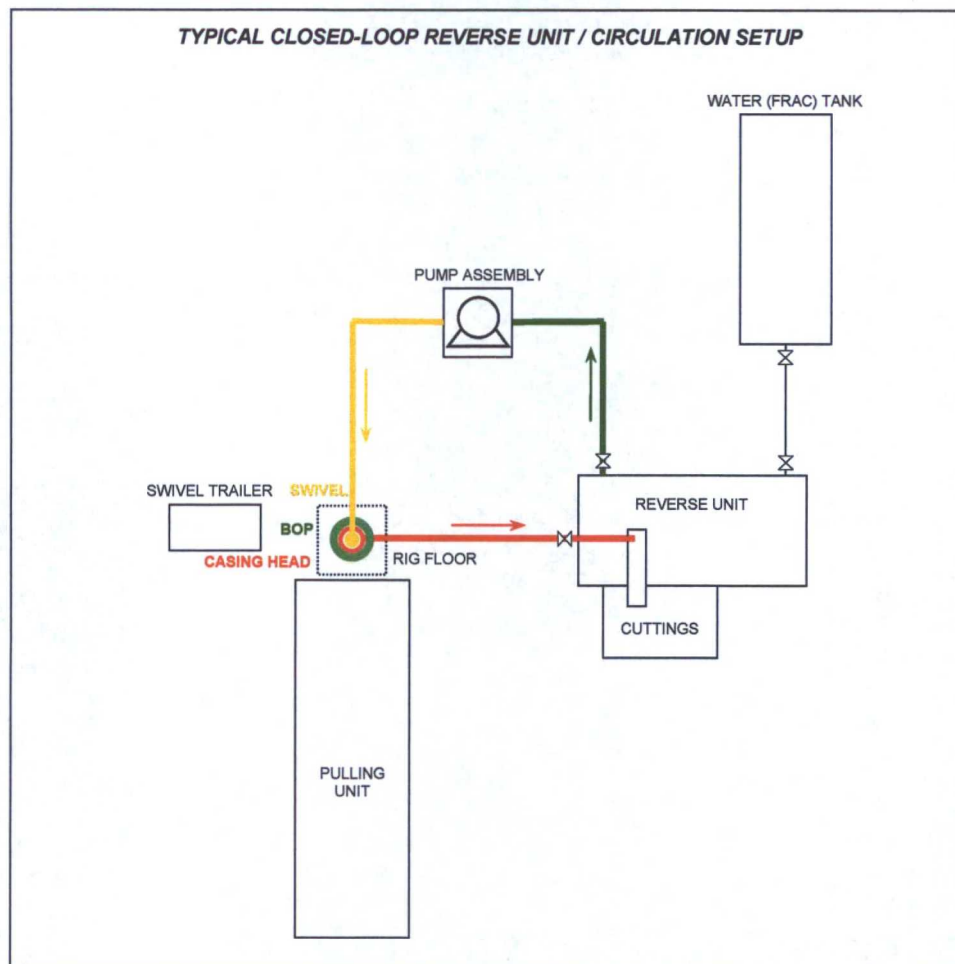
## Blow Out Preventer Diagram

3000 PSI WORKING PRESSURE

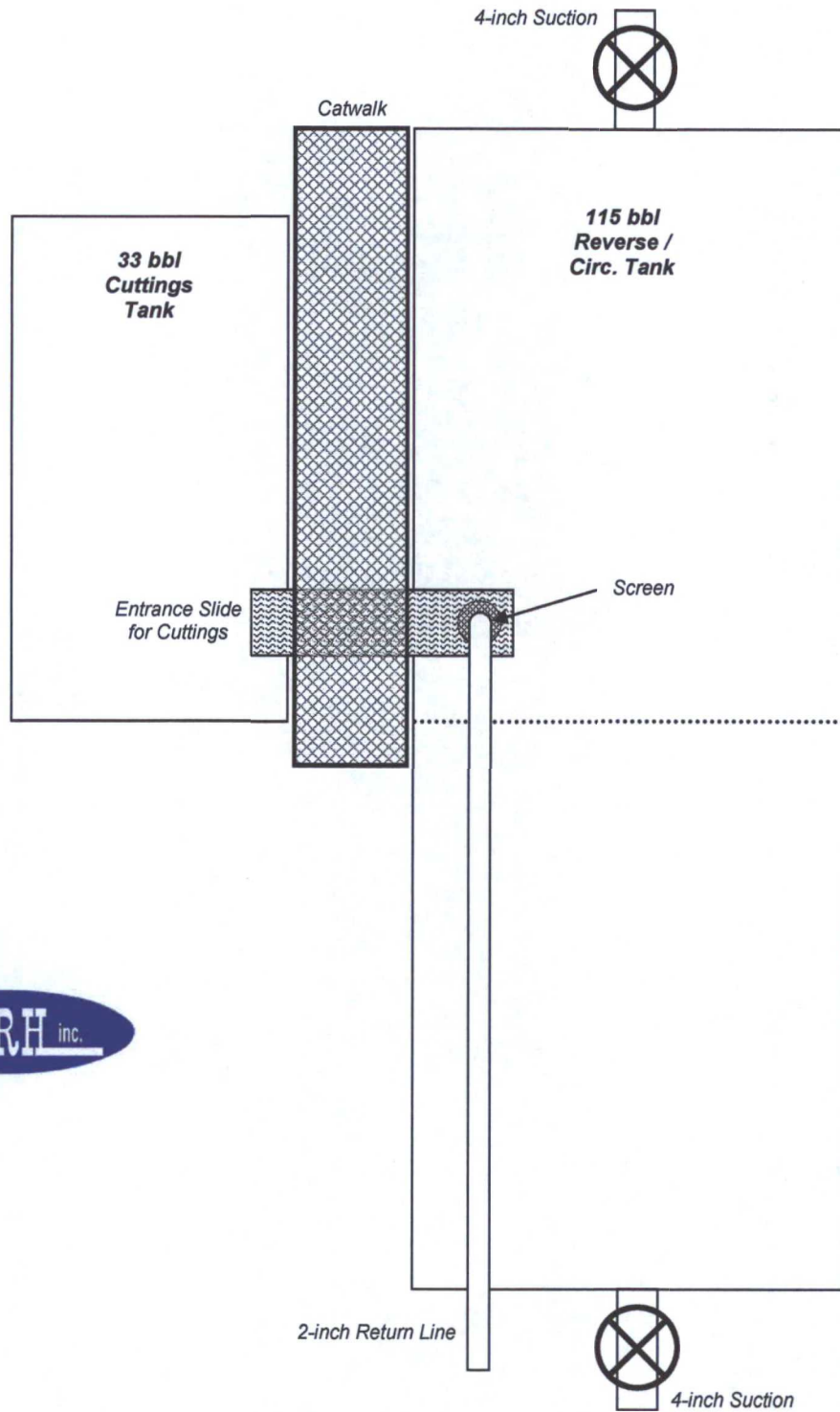


## Standard Operating Procedure - Re-entry Closed-Loop Reverse Unit Diagram

1. Blow Out Preventer tested prior to any operations. Notify BLM at least 4 hours prior.
2. Visual maintained on returns. Proceed with drillout operations accordingly.
3. Cuttings / waste hauled to specified facility.
4. Spills contained & cleaned up immediately. Repair or otherwise correct the situation within 48 hours before resuming operations. Notify OCD and BLM within 24 hours. Remediation started ASAP if required. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.
5. Subsequent sundry / forms filed as needed - well returned to service.



## Reverse / Circulation Tank for Workovers & Drillouts

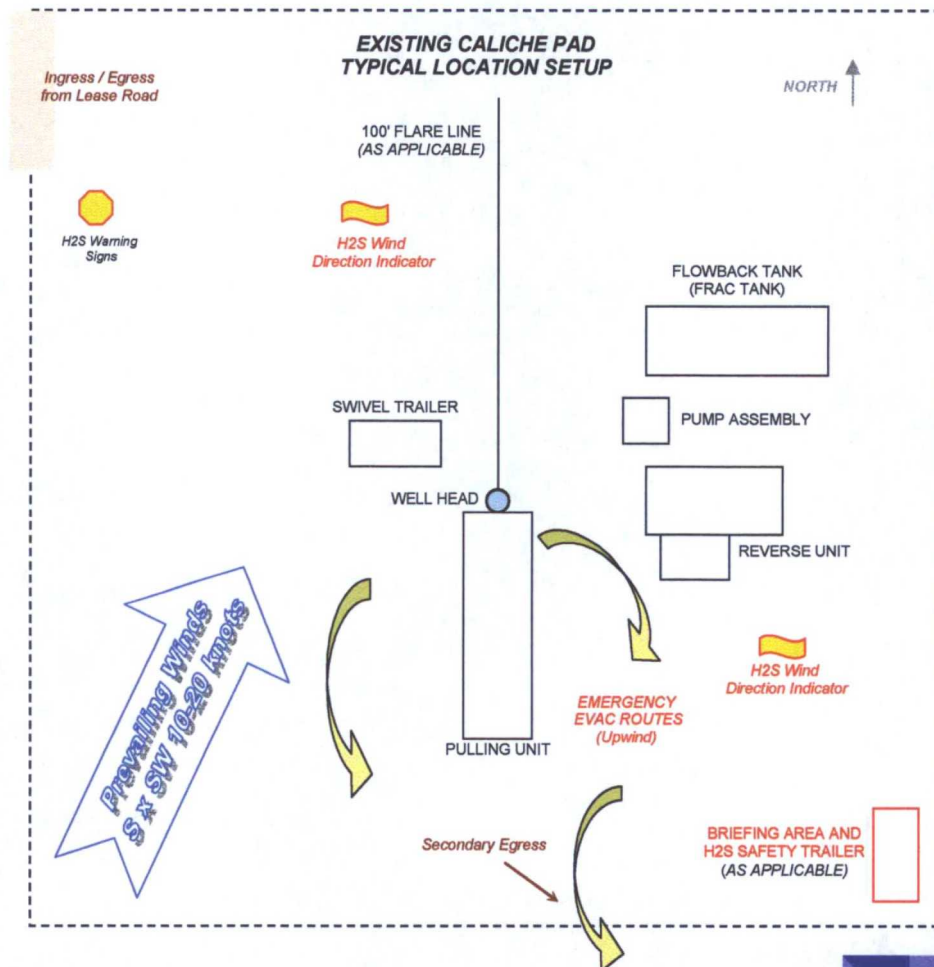




## Standard Operating Procedure & Site Setup - Re-entry

ALL OPERATIONS CONDUCTED WITHIN EXISTING PAD SITE  
NOT EXCEEDING SURVEYED SITE. ORIENTATION PER BEST FIT.

1. Set up H2S wind direction indicators; brief all personnel on Emergency Evacuation Routes.
2. All contractors conduct safety meeting prior to current task at Briefing Area.
3. If H2S levels >10ppm detected, implement H2S Plan *accordingly*. (E.g., cease operations, shut in well, employ H2S safety trailer & personnel safety devices, install flare line, etc. - Refer to Plan.)
4. All equipment inspected daily. Repair / replace as required.
5. Visual on returns (losses); cuttings & waste hauled to specified facility.
6. Spills contained & cleaned up immediately. Repair or otherwise correct the situation within 48 hours before resuming operations. Notify OCD and BLM within 24 hours. Remediation started ASAP if required. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.
7. Subsequent sundry / forms filed as needed - well returned to service.





# South Langlie Jal Unit No. 31

## Aerial Overview

