District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos 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

1. Operator Name and Address	2. OGRID Number
Ray Westall Operating, Inc. P.O. Box 4, Loco Hills, NM 88255	119305
	3. API Number 30-015-24655

4. Property Code	5. Property Name	6. Well No.
40489	Two Forks State SWD	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
B	2	18 S	28 E		660'	North	2090'	East	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name	Pool Code
SWD; Wolfcamp - Penn	96138

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
E	S	R	S	3646'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	10080' PBTD	Strawn	TBD	7/15/2014

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water
~250'	>1 mile	n/a

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

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17.5"	13.375"	48.0#	519'	575 'C'	Circ. to Surf.
Intermediate	11.0"	8.625"	32.0#	2899'	1150 'C'	Circ. to Surf.
Production *	7.875"	5.5"	17, 20#	10985' old/3815' new	1075 'C' + 600*	Circ. to Surf.

Casing/Cement Program: Additional Comments

* New 5.5" 0-3815' w/ overshot, seal, csg patch. Cmt w/ 600 sx + excess to circulate. (Existing 5.5" stub @ 3815')

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Hydraulic or Man./Dbl. Blind Ram	3000 psi	5000 psi	Shaffer/Hydril or equivalent

23. 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 ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.
Signature: Ben Stone

Printed name: Ben Stone
Title: Agent for Ray Westall Operating, Inc.
E-mail Address: ben@sosconsulting.us
Date: 7/14/2014 Phone: 903-488-9850

OIL CONSERVATION DIVISION

Approved By: T.C. Shepard
Title: Geologist
Approved Date: 7-14-2014 Expiration Date: 7-14-2016

Conditions of Approval Attached

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-015-24655	96138	SWD; Wolfcamp – Penn

4 Property Code	5 Property Name	6 Well Number
40489	Two Forks State SWD	1

7 OGRID No.	8 Operator Name	9 Elevation
119305	Ray Westall Operating, Inc.	3646 feet

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	2	18-S	28-E		660	North	2090	East	Eddy

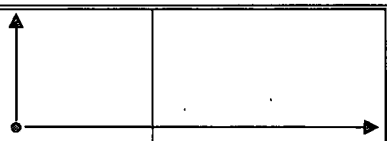
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
n/a	n/a	n/a	SWD-1491

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 7/14/2014

Benjamin E. Stone
Printed Name

SOS Consulting, LLC agent for:
Ray Westall Operating, Inc.

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

October 8, 1983
Date of Survey

Signature and Seal of Professional Surveyor:

Dan Reddy

NM Cert. No.5412
Certificate Number

Ray Westall Operating, Inc.
Two Forks State Well No.1 SWD
Section 2, Twp 18-S, Rng 28-E
Eddy County, New Mexico

Well Re-entry Program

Objective: Re-enter the existing wellbore by drilling out plugs, clean out to PBTD, run 5.5" casing to existing stub, acidize and run new tubulars to configure for salt water disposal.

1. **Geologic Information** - (Roy E. Johnson, Consulting Geologist) - The Wolfcamp is a light gray-brown fine to medium crystalline fossiliferous limestone with inter-crystalline vugular porosity interbedded with gray shale. Additional porosity can be found when the well bore encounters detrital carbonates which were shed off shelf and foreslope areas and transported down the Wolfcamp paleoslope.

The Cisco/Canyon Formation (Upper Penn) similar to the Wolfcamp is a gray micritic (fine grained) fossiliferous limestone with vugular porosity. The reservoirs in this area are usually limited in size with up dip porosity loss due to shelf margin carbonate build up.

The Strawn consists of similarly medium-grained carbonates, primarily dolomite and porous and permeable sandstone. Porosity values in the carbonates are generally quite low, averaging from 2 to 9%; however, associated permeability can be quite high and may lend to acceptable disposal rates when combined with the other formations.

Formation Tops

Caliche/Red Beds	Btm.272
Yates	760
Seven River	1050
Queen	1703
San Andres	2600
Bone Spring	4507
Wolfcamp	7120
Cisco / Canyon	8753
Strawn	9493
Atoka	10340
Morrow	10526

2. **Completion Procedure**

a. MIRU pulling unit, reverse unit and associated equipment. Install BOP. RIH with bit and collars to drillout plugs – Drill through plugs at surface; 445'; 670'; 2800'; 3720'. Circulate hole clean.
b. Run new 5.5" csg. 0'-3815' tied into stub w/ overshot seal assembly, casing patch.
c. Cement w/ 600 sx + excess to circulate.
d. WOC – RIH w/ bit & collars; D/O cmt and plugs at 8382' and bottom to ~10,200'. C/O and circulate hole clean.
e. Spot 30' cement if necessary – establish PBTD ~10,080'.
f. Perforate selected intervals from maximum top 7145' to maximum bottom 10,060'.

Well Re-entry Program (cont.)

g. Run Tubing/Packer and set approximately 7050'. Acidize if necessary.
h. Configure for SWD-1491; conduct MIT, commence disposal/injection.

3. **Tubular program** - The well casing is set except as described above. (See attached Proposed Well Schematic) 2-3/8" or 2-7/8" internally coated tubing will be run and set in a packer located at approximately 7050' (within 100' of the uppermost injection perforation at 7145').

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

Surface	13.375"	55.0#	17.5" hole	519'	575 sx	Circ to Surf
Intermediate	8.625"	32.0#	11.0" hole	2899'	1150 sx	Circ to Surf
Production	5.5"	17/20.0#	7.875	3815'-10985'	1075 sx	TOC 4380'
New 5.5" Casing will be set as follows:						
Production	5.5"	17.0#	7.875" hole	0' - 3815'	600 sx +xxs	Circ to Surf

5. **Pressure Control** - BOP diagram is attached to this application. All BOP and related equipment shall comply with well control requirements as described NMOCD 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 Artesia district office. The BOP test(s) will be conducted at:

a) Installation;
b) after equipment or configuration changes;
c) at 30 days from any previous test, and;
d) 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_2S Safety** - There is a low risk of H2S in this area. The operator will comply with the provisions of company H_2S 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** - Ray Westall Operating is not anticipating running additional logs. No corings or drill tests will be conducted. (The well may potentially be step rate tested in the future if additional injection pressures are required.)

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 bottom hole pressure is 4200 psi and the maximum anticipated bottom hole temperature is 130 F.

Well Re-entry Program (cont.)

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. **Anticipated Start Date** - Upon approval of all permits for SWD, operations would begin within 30 days. Completion of the well operations will take two to three weeks. Installation of the tank battery, berms, plumbing and other and associated equipment would be occurring during the same interval. In any event, it is not expected for the construction phase of the project to last more than 60 days, depending on availability of contractors and equipment. At the time of this submittal, the anticipated start date is:

July 15, 2014.

13. **Configure for Salt Water Disposal** – SWD Permit No. SWD-1491. Prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well for SWD and will detail the following tasks: drillout and workover including all work otherwise described above, any change to the procedure noted herein and to perform mechanical integrity pressure test per OCD test procedures. (Notify NMOCD 24 hours prior.) The casing/tubing annulus will be monitored for communication with injection fluid or loss of casing integrity. Anticipated daily volume is ~10,000 bpd at a maximum surface injection pressure of 1429 psi.

WELL SCHEMATIC - PROPOSED
Two Forks State Well No.1 SWD

API 30-015-24655

660' FNL & 2090' FEL, SEC. 2-T18S-R28E
EDDY COUNTY, NEW MEXICO

Spud Date: 10/29/1983
Re-Entry Date: ~7/15/2014

Annulus Monitored or open to atomosphere

Injection Pressure Regulated and Volumes Reported 1429 psi Surface Max

519'

Surface Casing
13.375", 55.0# Csg. (17.5" Hole) @ 519'
575 sx - Circulated to Surface

RAY WESTALL OPERATING, INC.

Convert to SWD: D/O & C/O Existing Plugs. Run & Set New 5-1/2" - Tie Into Stub w/ Overshot & Csg Patch - Circ Cmt to Surf. Set CIBP @ 10110' w/ 30' Cmt Cap. Perforate Specific Intervals TBD. Run PC Tubing and PKR - Conduct MIT. Commence Disposal Operations.

Intermediate Casing
8.625", 32.0# csg. (11.0" Hole) @ 2899'
1150 sx - Circulated to Surface

SA: 2600'

2899'

NEW Production Casing
5.5", 17.0# Csg - Surface to3815'
Est. ~600 sx w/ excess Cls C - Circulate to Surface

New 5-1/2" w/ Overshot / Seal / Csg Patch @ 3815'

GLOR: 4292'

Annulus Loaded
w/ Inert Packer Fluid

BSPG: 4507'

2.375" or 2.875" IC Tubing
PKR ~7050'

WLFCP: 7120'
Wolfcamp Perfs: 7145' Uppermost Perf

CISCO: 8573'
CISCO Perfs: Specific Depths To Be Determined.

NOTE: Strawn intervals are being analyzed for suitable porosity and may or may not be utilized for injection.

CANYN: 8753'
CANYON Perfs: Specific Depths To Be Determined

STWN: 9493'
STRWN Perfs: Lowermost 10060' (Optional)

Set CIBP @ 9980' w/ 30' Cmt
(Or for Strawn Comp. 10110' w/ 30' Cmt)

Existing CIBP @ 10300'
Cap w/ 25 Sx Cmt.

ATKA: 10340'

Production Casing
5.5", 17.0 & 20.0# Csg (7.875" Hole) @ 10985'
1075 sxs Cls H - TOC @ 4380' by Temp

Existing Perfs: 10690'-94', 10706'-10'

MISS: ~10900'

10985'

PBTD @ 10923'

DTD @ 10985'

SOS Consulting, LLC

Drawn by: Ben Stone, Rvs'd: 7/14/2014

CURRENT CONFIGURATION

PLUGGED WELL SCHEMATIC
Two Forks State Well No.1

NSL-5086

API 30-015-24655

660' FNL & 2090' FWL, SEC. 2-T18S-R28E

EDDY COUNTY, NEW MEXICO

Spud Date: 10/29/1983

P&A Date: 1/05/2009

Well plugged by:

Legacy Reserves Operating Co.

<PLUGGING ITEMS LISTED LEFT>

PLUGS:

Spot 25 sx 60'-0'

Spot 45 sx 670'-445' *(Tagged)*

Spot 45 sx 825'-670' *(Tagged)*

Spot 45 sx Cmt 2950'-2800' *(Tagged)*

Spot 50 sx Cmt 4060'-3720' (Tagged)

Shot & Pulled 5-1/2" @ 3815'

Spot 25 sx Cmt 8557'-8382'

Spot 25 sx Cmt

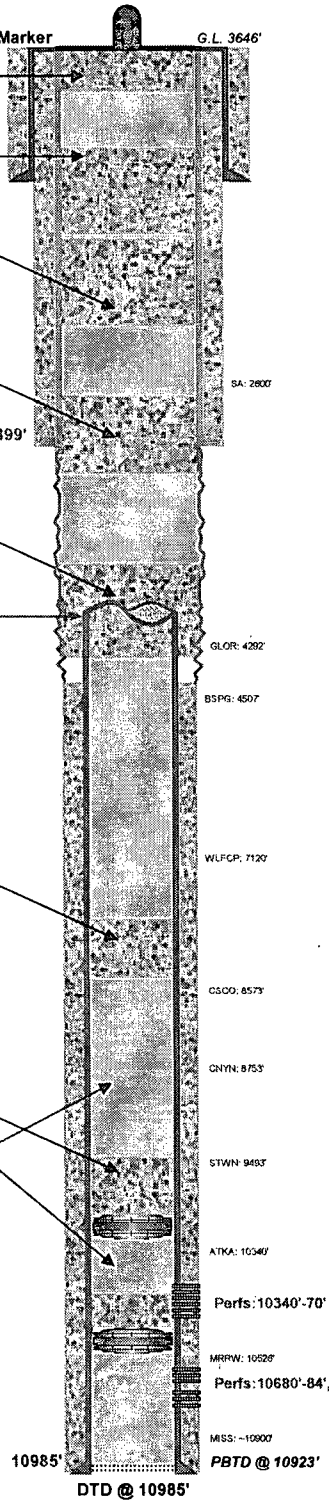
Circulated Hole w/ 9# Mud Ladened Fluid

Set CIBP @ 10300'

Dump Bail 3 sx Cmt On Existing CIBP

Set CIBP @ 10530' for Zone Abandon

Formation Fluids



<PRE-P&A EXISTING ITEMS LISTED RIGHT>

Surface Casing

13.375", 55.0# Csg. (17.5" Hole) @ 519'

575 sx - Circulated to Surface

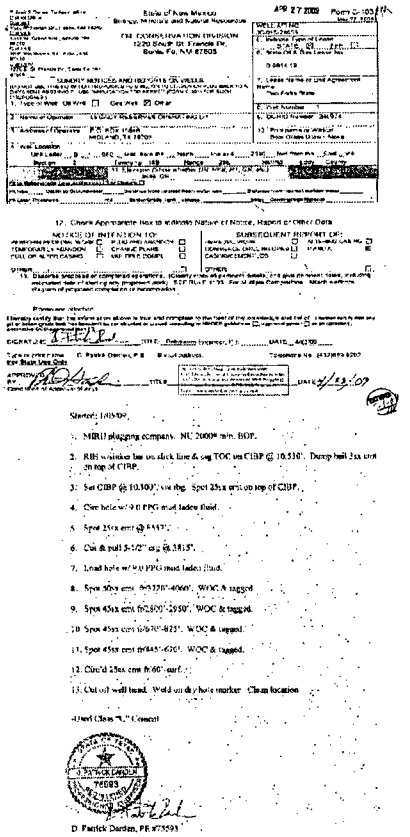
Intermediate Casing

8.625", 32.0# csg. (11.0" Hole) @ 2899'

1150 sx - Circulated to Surface

(Finished off w/ 1" 830 sx of total) - Circ. 30 sx to Surf.

<P&A SUBSEQUENT SUNDRY>



Production Casing

5.5", 17.0 & 20.0# Csg (7.875" Hole) @ 10985'

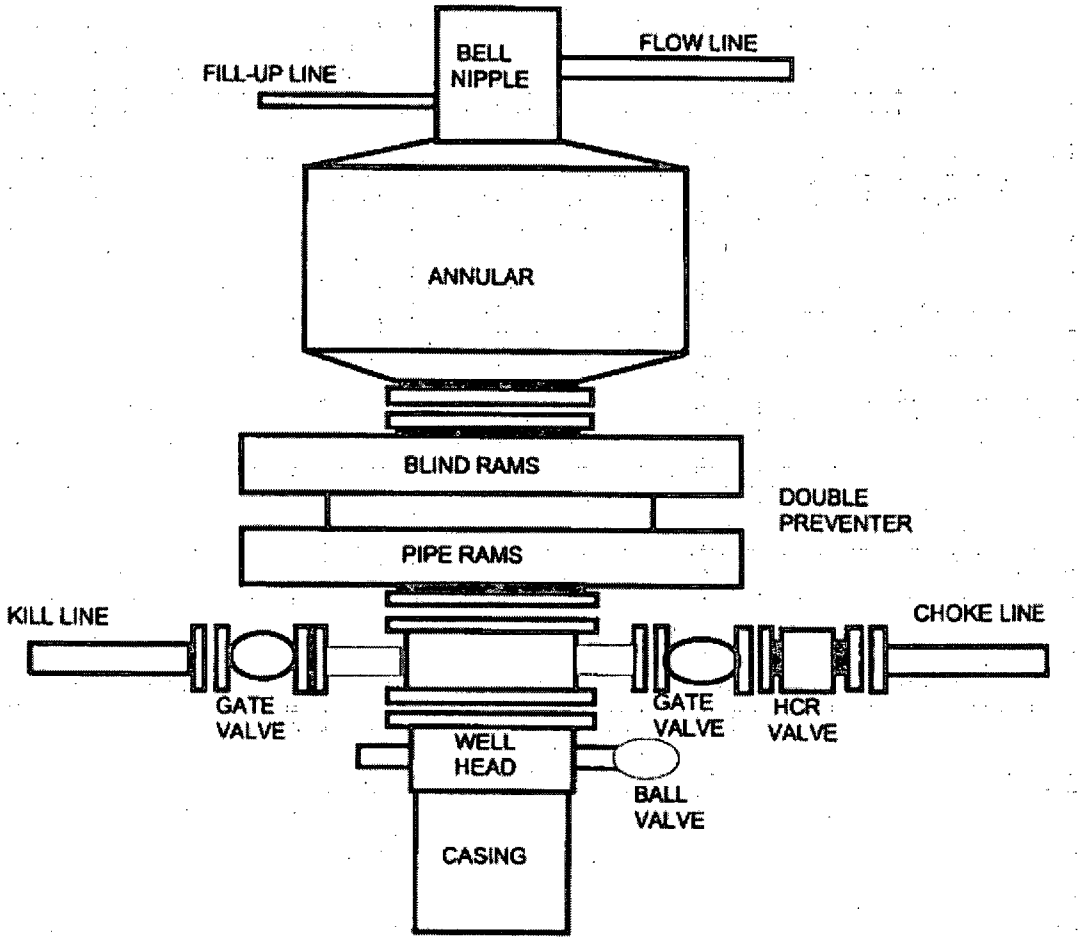
1075 sxs Cls H - TOC @ 4380' by Temp

SOS Consulting, LLC

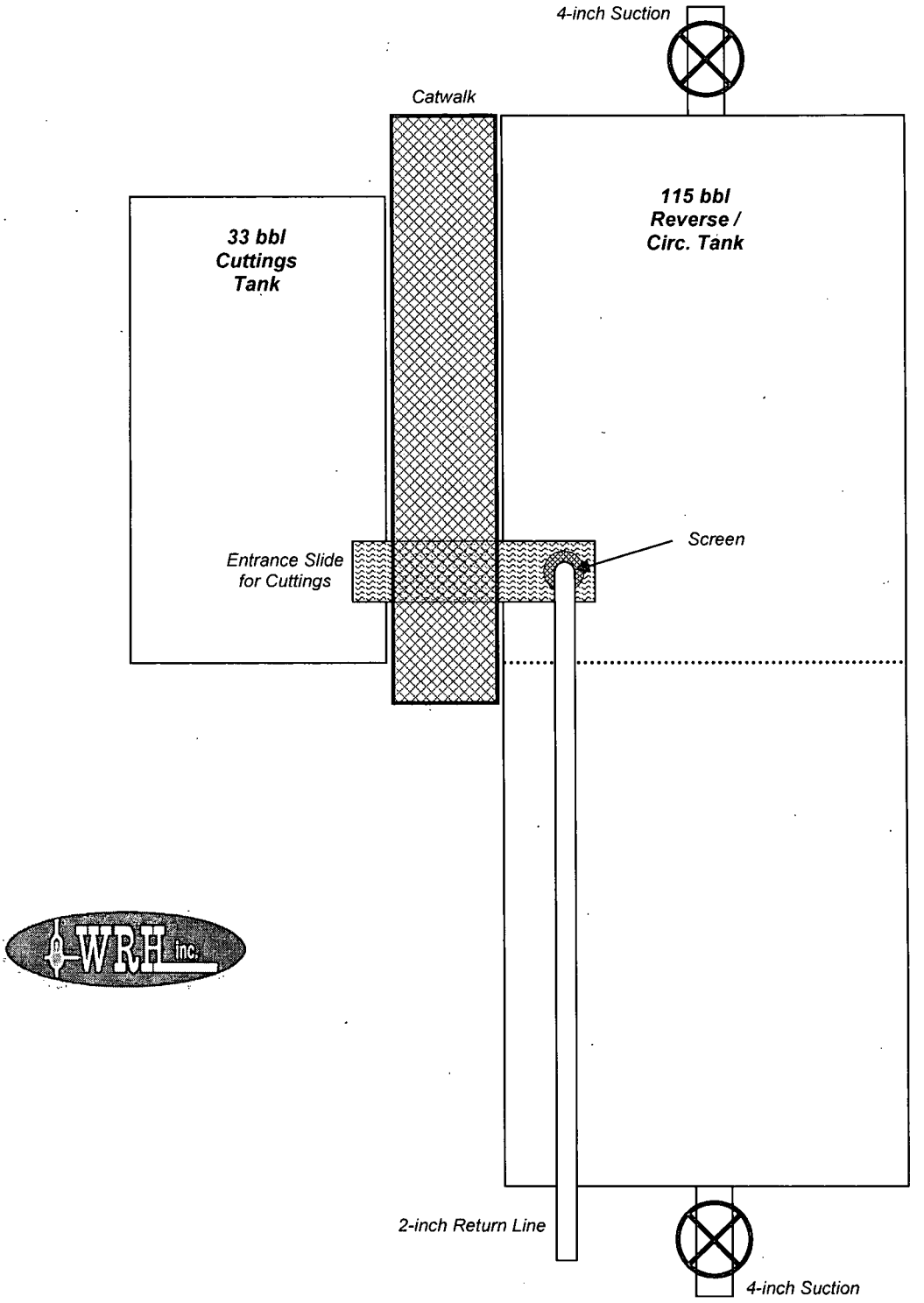
Drawn by: Ben Stone, 2/20/2014

BLOWOUT PREVENTER DIAGRAM

3000 PSI WORKING PRESSURE



Reverse / Circulation Tank for Workovers & Drillouts



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

1. Blow Out Preventer tested prior to any operations. Notify OCD at least 4 hours prior.

2. Visual monitoring maintained on returns. Proceed with drillout operations accordingly.

3. Cuttings / waste hauled to specified facility. CRI - LEA COUNTY

4. Spills contained & cleaned up immediately. Repair or otherwise correct the situation within 48 hours before resuming operations. Notify OCD 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.

TYPICAL CLOSED-LOOP REVERSE UNIT / CIRCULATION SETUP