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District IV
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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 30-015-21711

4. Property Code	5. Property Name	6. Well No.
TBD	DHY 'A' State SWD	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
J	15	19 S	28E		1980'	South	1650'	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; San Andres-Glorieta	96127

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
P	S	R	S	3449'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	3165' PBTD	Glorieta	TBD	12/15/2021

Depth to Ground water:	Distance from nearest fresh water well	Distance to nearest surface water
~265'	>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"	12.75"	40.0#	420'	400 'C'	Circ. to Surf.
Intermediate	11.0"	8.625"	32.0#	2800'	1500 'C'	Circ. to Surf.
Production *	7.875"	5.5"	17.0#	9523'	900 'H'	Calc. to Circ.

Casing/Cement Program: Additional Comments

Set CIBP @ 3200' and spot 35 feet cement for estimated 3165' PBTD

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:		OIL CONSERVATION DIVISION	
		Approved By:	
Printed name: Ben Stone		Title:	
Title: Agent for Ray Westall Operating, Inc.		Approved Date:	Expiration Date:
E-mail Address: ben@sosconsulting.us			
Date: 11/11/2021	Phone: 903-488-9850	Conditions of Approval Attached	

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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

[X] AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-21711	96127	SWD; San Andres-Glorieta

[4] Property Code	[5] Property Name	[6] Well Number
TBD 315051	DHY 'A' State SWD	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
119305	Ray Westall Operating, Inc.	3449 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
J	15	19-S	28-E		1980	South	1650	East	Eddy

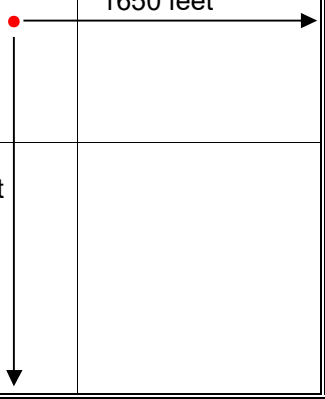
[11] Bottom Hole Location If Different From Surface

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-1793

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: 8/31/2021

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.

December 30, 1975
Date of Survey

Signature and Seal of Professional Surveyor:
Herschel L. Jones

NM Cert. No.3640
Certificate Number

Ray Westall Operating, Inc.
DHY 'A' State SWD Well No.1
Section 15, Twp 19-S, Rng 28-E
Eddy County, New Mexico

Well Recompletion Program

Objective: Recomplete from Cisco-Canyon SWD to San Andres-Glorieta SWD per SWD-1793. The wellbore was configured per SWD-1556 w/ new 5-1/2" casing and initial injection tests performed. The injection rate was non-economic and the well has been static since June 2017. A new C-108 was submitted September 2018 and SWD-1793 was issued August 26, 2021. The well will be plugged back to 3165' and perforated in the San Andres and Glorieta formations, acidized and new tubulars run to configure for salt water disposal.

1. **Geologic Information** - The proposed interval is the San Andres and in spite of being pooled in the area with the Yates, Seven Rivers, Queen and Grayburg formations, there are distinct characteristics we believe support the confinement to the San Andres for a low-rated disposal well. Notably in the lower portion of the Grayburg the porosity and permeability are not well-developed and anhydrite cementation is common in these completions. Below the proposed interval lies the Glorieta, Yeso and Abo formations and while not considered confining, nor are they productive in the area. The next production down is the Morrow and there is no chance that disposal operations in the DHY A State SWD #1 would have any impact whatsoever.

Given that the proposal is for standard gradient pressure through perforations targeting the best porosity, particularly of the lower San Andres interval, we expect the injectates to be reasonably and appropriately confined to the intended intervals.

There is a potential source of drinking water in the overlying sands occurring at a depth from surface of up to 250 feet. (Note: there are no known domestic water wells within one mile of the proposed SWD well.) The upper part of the section on average consists of 200 ft of Holocene alluvial deposits of caliche, sand, gravel, and clay. Included in this interval are red sandstone and shale of the Chinle formation and Santa Rosa sandstone and similar deposits of the Dewey Lake formation. These formations are underlain by the Rustler and Salado formations.

Formation Tops

Yates	850
Queen	1675
Grayburg	2337
San Andres	2440
Bone Spring	4616
Wolfcamp	8808
Canyon	9720
Strawn	9980
Atoka	10280
Morrow	10710

2. **Completion Procedure**

a) MIRU pulling unit, reverse unit (if required) and associated equipment. Install B.O.P.
b) MIRU mud/ cement plug equipment.
c) RIH, set CIBP ~9505' and cap w/ 50' cement.
d) RIH and Spot 9.5-10.0# mud-ladened fluid ~9500' to 3200'; POOH.

Well Recompletion Program (cont.)

e) RIH and spot cement plugs: 8858'-8758' (tag) and 4666' to 4566" (tag). POOH.
f) RIH, set CIBP ~3200' and cap w/ 35' cement.
g) RU wireline; RIH w/ perforators; selectively perf 2450'-3130' and AVOID interval from 8.625" shoe depth and 50 feet above, e.g. 2800' to 2750'.
h) Acidize w/ ~3500 gals HCl'. Swab and/or circulate hole clean.
i) RIH with nickel plated 5.5" or equiv. VFE retrievable packer or equivalent on 4.5", 3.5" or 2.875" IPC or equiv. tubing w/ PKR @ 2350'+, pump clean fresh water containing corrosion inhibitor, biocide and oxygen scavenger down annulus, set packer. Prepare to run MIT test and notify OCD to witness 24 hours in advance.
j) Plumb well to existing injection facility and start water disposal. Per SWD-1793; limit injection pressure to 490 psi.

Note: **SWD-1793 supersedes** Administrative Order SWD-1556-O which is rescinded. 2. The operator shall recomplete the Well as proposed in the Form C-108 application and shall include the placement of two additional 100-foot cement plugs: a. One plug set 50 feet above and 50 feet below the top of the Wolfcamp formation at 8808 feet below surface; and b. One plug set 50 feet above and 50 feet below the top at the top of the Bone Spring formation at 4616 feet below surface. 3. Operator shall not perforate either the shoe or the 50 feet above the shoe of the 8.625-inch intermediate casing which is set at 2800 feet below surface.

3. **Tubular program** - The well casing is set as described above. (See attached Proposed Well Schematic) 2-7/8" (3.5" optionally) internally coated tubing will be run and set in a packer located at approximately 2350' (within 100' of the uppermost injection perf interval @ 2450').

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	12.75"	40.0#	17.5" hole	420'	400 sx 'C'	Circ to Surf
Intermediate	8.625"	32.0#	11.0" hole	2800'	1500 sx 'C'	Circ to Surf
Production	5.5"	17.0#	7.875" hole	9523'	900 sx 'H'	Calc. to Circ.
Set CIBP @ 3200' and spot 35 feet cement for estimated 3165' PBTD						

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

Well Recompletion Program (cont.)

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 4500 psi and the maximum anticipated bottom hole temperature is 110° F for drillout depth and working PBTD . 1500 psi @ 90° 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. **Anticipated Start Date** – Ready now – MIRU 12/15/2021. 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.

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:

December 15, 2021.

13. **Configure for Salt Water Disposal** – SWD Permit No. SWD-1793. 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 ~2,500 bpd at a maximum surface injection pressure of 490 psi.

HYDROGEN SULFIDE CONTINGENCY PLAN

POLICY OF

RAY WESTALL OPERATING, INC.

FOR OPERATIONS IN SOUTHEAST NEW MEXICO

MUST BE REVIEWED BY ALL PERSONNEL
PRIOR TO COMMENCEMENT OF OPERATIONS

PREFACE

PLAN ACTIVATION

AT A MINIMUM, THE PLAN MUST BE ACTIVATED WHENEVER A RELEASE MAY CREATE A CONCENTRATION OF H2S OF MORE THAN 100 PPM IN ANY PUBLIC AREA, 500 PPM AT ANY PUBLIC ROAD OR 100 PPM 3,000 FEET FROM THE SITE OF RELEASE.

OPERATIONAL DISTINCTION OF CONDITION

FOR ALL OPERATIONS, RAY WESTALL OPERATING, INC. WILL APPLY THESE CRITERIA TO DETERMINE THE OPERATIONAL CONDITION:

A. NORMAL / LOW CONDITIONS: KNOWN H2S *IS AT OR LESS THAN 10 PPM.*

PURSUANT TO NMOCD RULES AND REGULATIONS, RAY WESTALL OPERATING, INC. MAY PETITION THE NEW MEXICO OIL CONSERVATION DIVISION DIRECTOR FOR AN *EXEMPTION* TO ANY REQUIREMENT OF THIS SECTION.

FOR NORMAL / LOW CONDITION OPERATIONS, OTHER THAN AN AWARNESS OF THIS PLAN AND BASIC MONITORING AND WIND DIRECTION INDICATORS, AN EXEMPTION WILL BE REQUESTED AND DETAILED INFORMATION NOT OTHERWISE PROVIDED FOR IN THE NORMAL REGULATORY PERMITTING PROCESS MAY BE OMITTED.

B. HIGH RISK CONDITIONS: KNOWN H2S *MAY APPROACH OR BE MORE THAN 100 PPM.*

IMPLEMENTATION

THIS PLAN DETAILS PROCEDURES AND ACTIVITIES PARTICULARY GEARED TOWARDS HIGH RISK OPERATIONAL CONDITIONS .

ADDITIONAL INFORMATION SHALL BE FURHISHED IN THE FORM OF SITE SPECIFICS AND MAPS WHEN THE OPERATIONAL CONDITION IS DERTIMINED TO BE HIGH RISK.

PREFACE (continued)

A. NOTIFICATION / COORDIATION OF EMERGENCY SERVICES

PRIOR TO COMMENCING ACTIVITIES AT A HIGH RISK SITE, THE APPROPIRATE EMERGENCY PERSONNEL FOR THE AREA WILL BE ALERTED TO THE ACTIVITY INCLUDING DATES, ANTICIPATED WORK TIMES, A COPY OF THIS PLAN AND THE FOLLOWING ITEMS SUCH THAT EMERGENCY PERSONNEL IS FULLY APPRISED OF THE OPERATION AND POTENTIAL OCURRANCES NO MATTER HOW UNLIKELY. *(REFER TO EMERGENCY TELEPHONE LIST IN SECTION 5 OF THE PLAN, PAGES 8-9.)*

B. SITE SPECIFICS SHALL INCLUDE:

WELL OR FACILTIY NAME, LOCATION (INCLUDING GIS COORDINATES) TYPE, DEPTH, ANTICIPATED OR MEASURED H2S CONCENTRATION, WELL OR LINE PRESSURES, PRESSURE AND FLOW CONTROL EQUIPMENT AND A SCHEMATIC DIAGRAM.

C. MAPS SHALL INDICATE:

1. LOCATION OF WELL OF FACILITY WITH LOCATION IN RELATION TO ROADS, PUBLIC AREAS AND TOWNS AS APPLICABLE.
DIRECTION AND SPEED OF PREVAILING WINDS AT THE SITE, AS CURRENT AS POSSIBLE.

2. INGRESS / EGRESS TO THE SITE AS WELL AS TYPICAL ACCESS ROUTES FROM THE NEAREST TOWN WITH EMERGENCY SERVICES.

3. POTENTIAL ROAD CLOSURE AREAS SHALL BE COORDINATED WITH EMERGENCY PERSONNEL AND MAPPED BASED ON CRITERIA ABOVE.

PLAN DEVELOPMENT

THIS PLAN HAS BEEN DEVELOPED IN ACCORDANCE WITH TITLE 19 NATURAL RESOURCES AND WILDLIFE CHAPTER 15 OIL AND GAS PART 11 HYDROGEN SULFIDE GAS AND ALL PARTS CONTAINED THEREIN.

IT FURTHER MEETS AS APPLICABLE, OSHA REQUIREMENTS AND API H2S PUBLICATIONS:

- 'RECOMMENDED PRACTICE FOR OIL AND GAS WELL SERVICING AND WORKOVER OPERATIONS INVOLVING HYDROGEN SULFIDE', RP-68 (API);
- 'RECOMMENDED PRACTICES FOR DRILLING AND WELL SERVICING OPERATIONS INVOLVING WELLS CONTAINING HYDROGEN SULFIDE', RP-49 (API);
- 'H2S AT CRUDE OIL PUMP STATIONS, PRODUCING WELLS, TANK BATTERIES AND ASSOCIATED PRODUCTION FACILITIES, PIPELINES, REFINERIES, GAS PLANTS AND COMPRESSOR STATIONS', RP-55 (API)

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

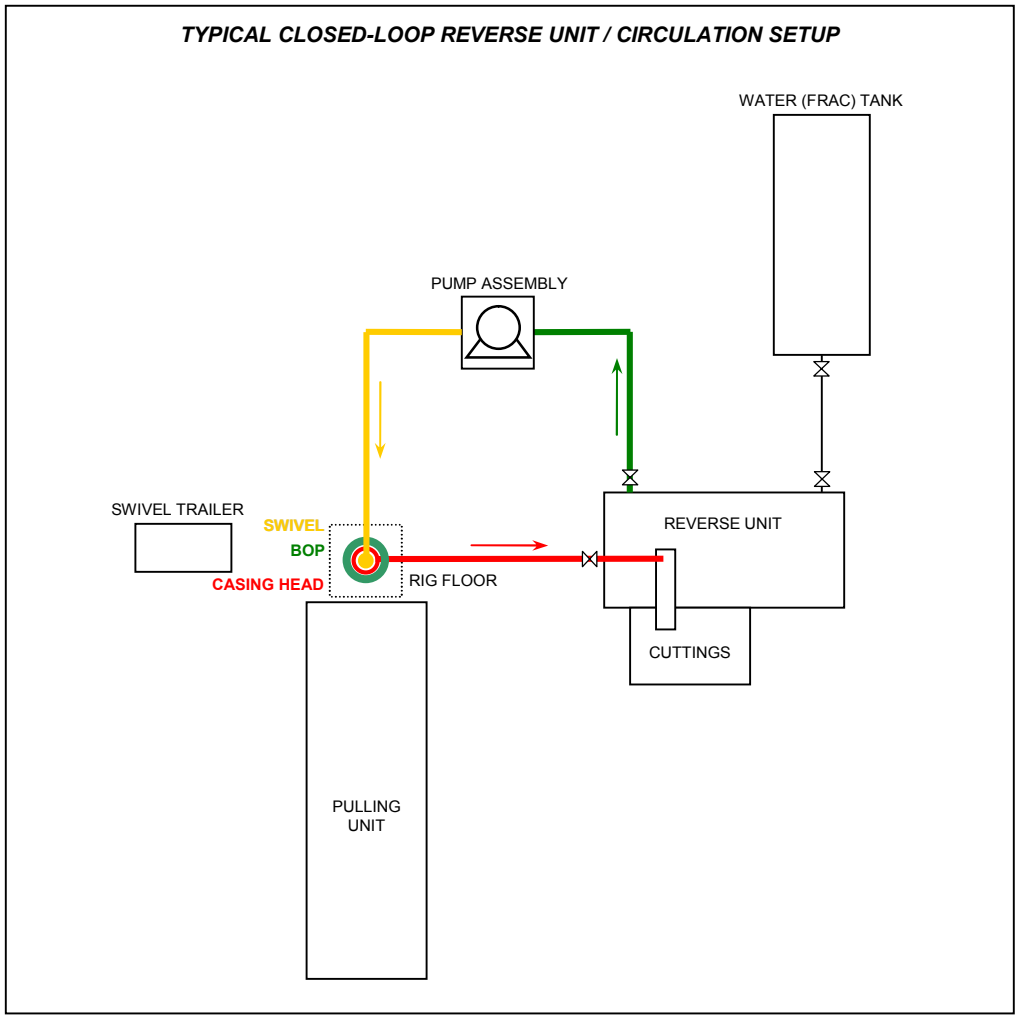
1. Blow Out Preventer tested prior to any operations. Notify OCD at least 4 hours prior.

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

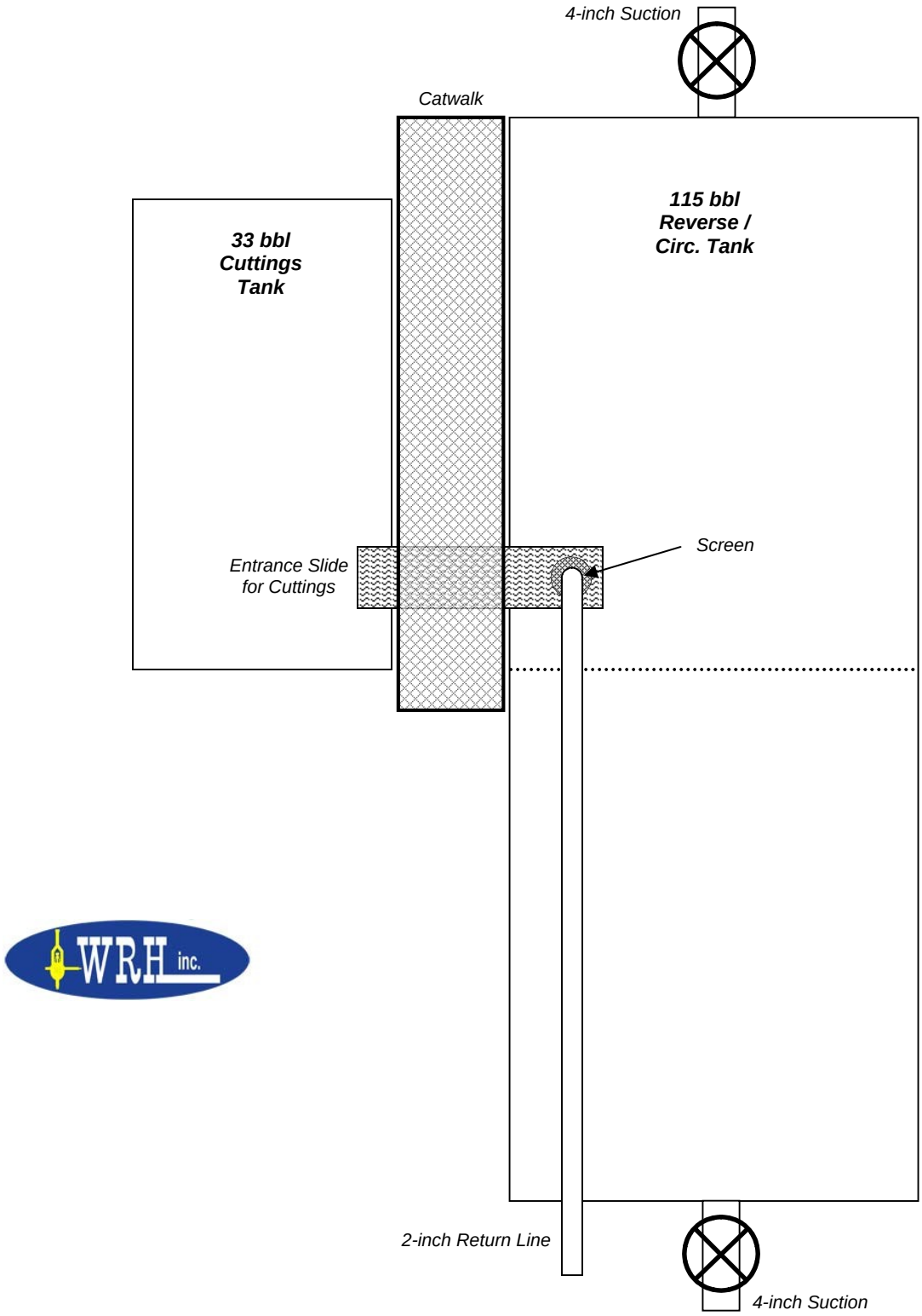
3. Cuttings / waste hauled to specified facility. CRI - LEA COUNTY

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.



Reverse / Circulation Tank for Workovers & Drillouts



Ray Westall Operating, Inc.
DHY 'A' State SWD Well No.1
Section 15, Twp 19-S, Rng 28-E
Eddy County, New Mexico

Well Recompletion Program

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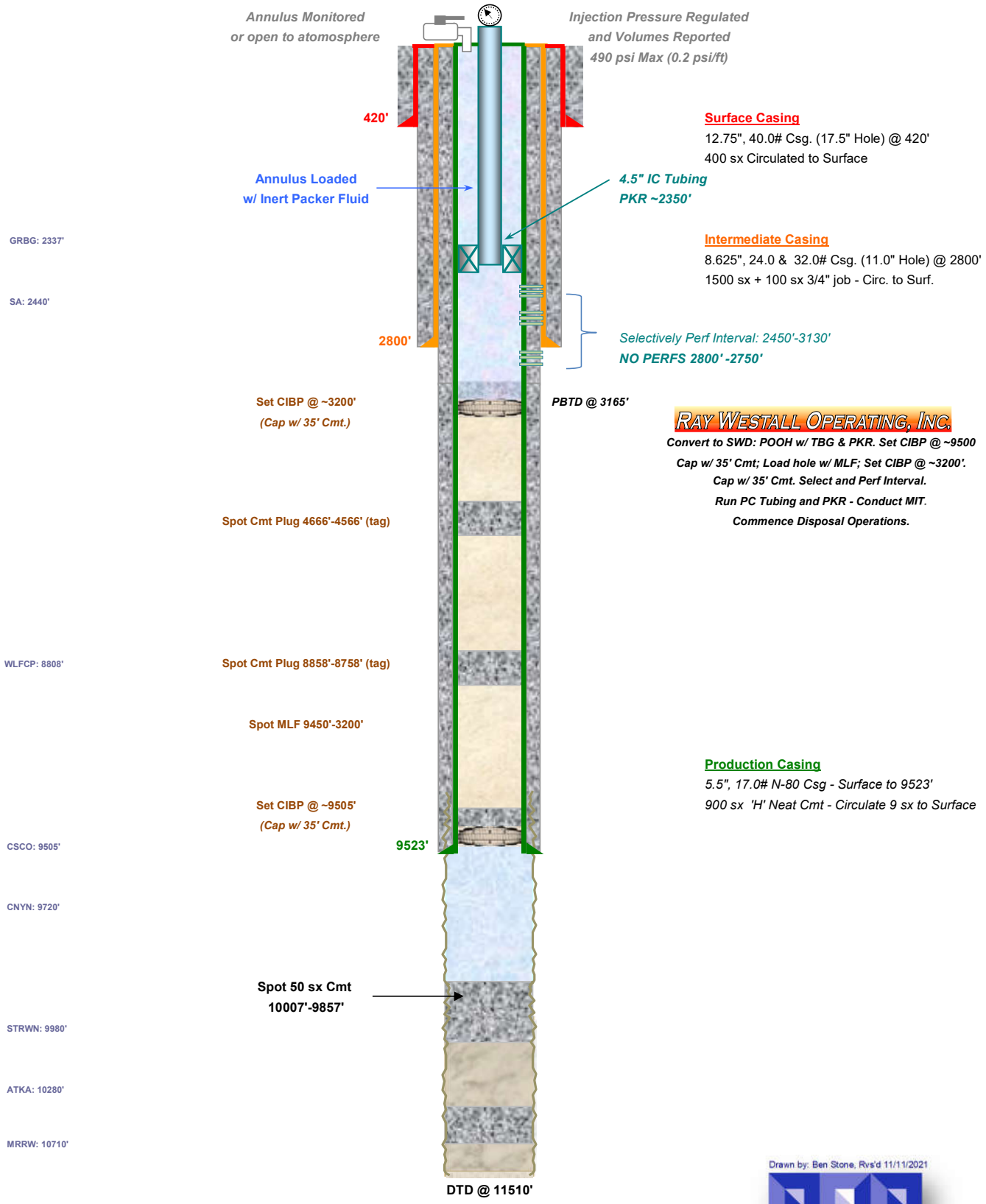
d) RIH and Spot 9.5-10.0# mud-ladened fluid ~9500' to 3200'; POOH.

WELL SCHEMATIC - PROPOSED
DHY 'A' State Well No.1 SWD

CONFIGURE PER SWD-1793
(Issued 8/26/2021)

API 30-015-21711
1980' FSL & 1650' FEL, SEC. 15-T19S-R28E
EDDY COUNTY, NEW MEXICO

SWD; San Andres-Glorieta (96127)
P&A Date: 3/17/1976
Re-Config Date: ~11/15/2018

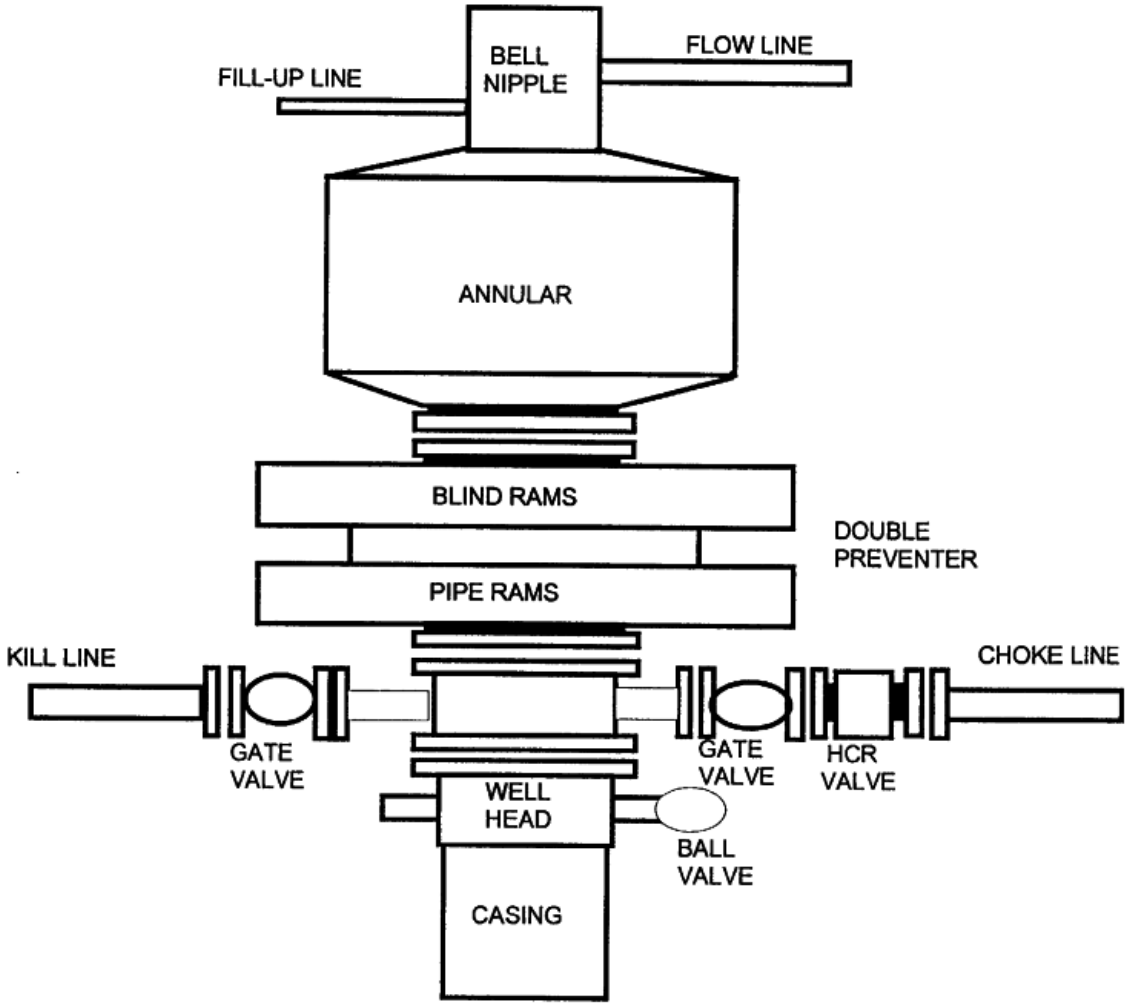


Drawn by: Ben Stone, Rvs'd 11/11/2021

SOS Consulting, LLC

Blow Out Preventer Diagram

3000 PSI WORKING PRESSURE



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

COMMENTS

Action 61366

COMMENTS

Operator: RAY WESTALL OPERATING, INC. P.O. Box 4 Loco Hills, NM 88255	OGRID: 119305
	Action Number: 61366
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 11/23/2021	11/23/2021
kpickford	SWD-1793	11/23/2021

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State of New Mexico
Energy, Minerals and Natural Resources
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CONDITIONS

Action 61366

CONDITIONS

Operator: RAY WESTALL OPERATING, INC. P.O. Box 4 Loco Hills, NM 88255	OGRID: 119305
	Action Number: 61366
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	11/23/2021