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

OCD – HOBBS
09/19/2019
RECEIVED

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

1. Operator Name and Address	2. OGRID Number
Goodnight Midstream Permian, LLC 5910 N Central Expressway, Suite 850 Dallas, TX 75206	372311
	3. API Number: 30-025- 46382

4. Property Code	5. Property Name	6. Well No.
322420	YAZ 28 SWD	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
A	28	21S	36E		230	N	236	E	Lea

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
N	S	R	P	3567.4'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	6200'	San Andres - Glorieta	TBD	Upon C-108 approval

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water
257' in CP 00941 POD1	~2600' north of Kily well	Pond ~ 2.1 miles east-northeast

☒ **We will be using a closed-loop system in lieu of lined pits** R-20865

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	12.25"	9.625"	40	1500'	850	GL (circulate)
Production	8.75"	7"	26	6200'	1650	GL (Circulate/CBL)

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

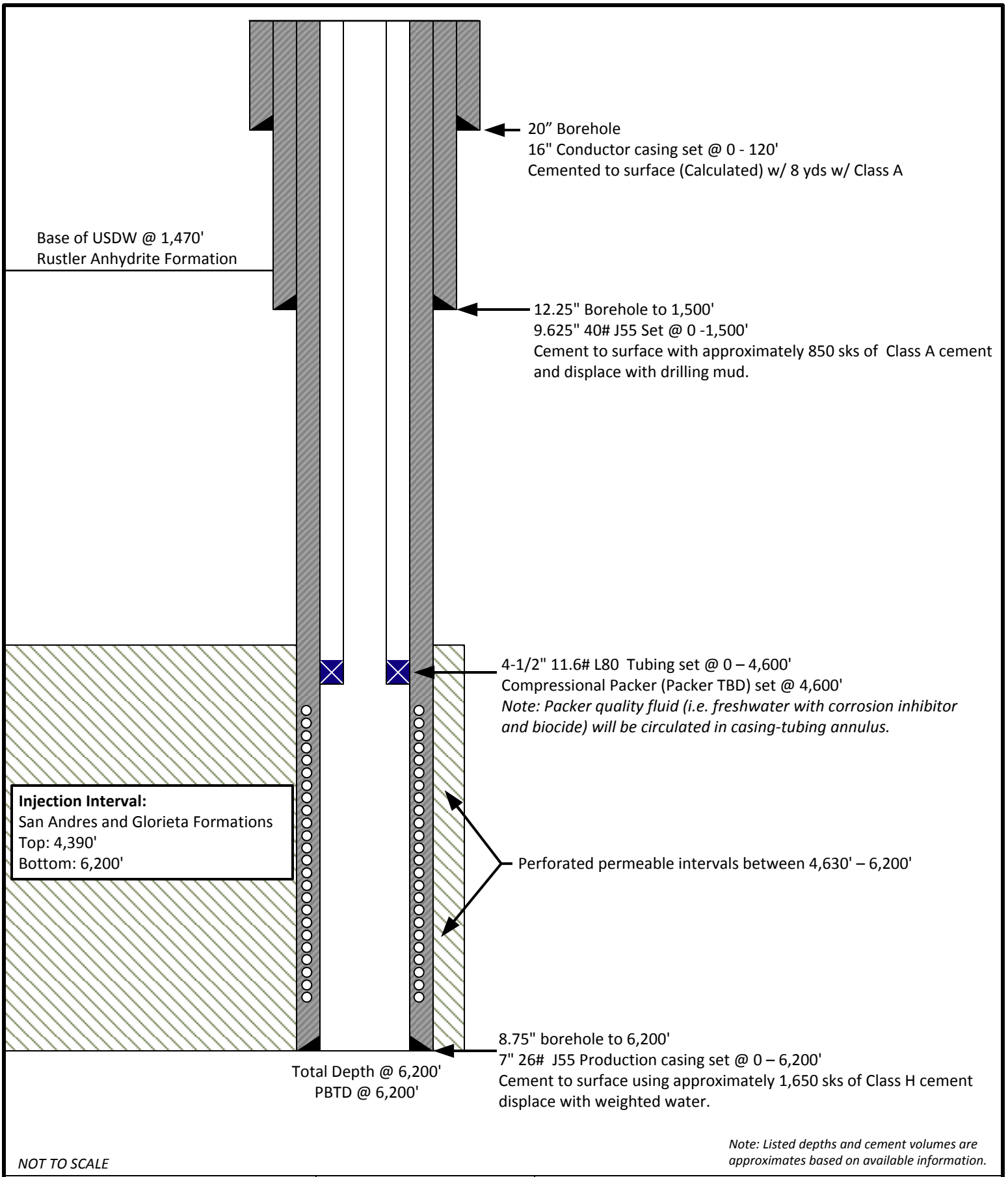
Type	Working Pressure	Test Pressure	Manufacturer
Annular & Rams	3000 psi	3000 psi	TBD

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:

Printed name: Rich Rehm
Title: COO
E-mail Address: rrehm@goodnightmidstream.com
Date: 4/12/19 Phone: (214) 891-2039

OIL CONSERVATION DIVISION

Approved By:
Title: Petroleum Engineer
Approved Date: 09/20/2019 Expiration Date: 09/20/2021
Conditions of Approval Attached: See Attached



NOT TO SCALE

Note: Listed depths and cement volumes are approximates based on available information.

Prepared by: ALL CONSULTING	Drawn by: Joshua Ticknor	Goodnight Midstream Permian, LLC
	Project Manager: Nathan Alleman	Yaz 28 SWD 1
	Date: 09/19/2019	Section 28, Twp 21S, Rng 36E 230' FNL & 236 FEL Lea County, NM

Proposed Yaz 28 SWD 1 Drilling Plan

Goodnight Midstream Permian LLC

Yaz 28 SWD 1
230' FNL & 236' FEL
Section 28 , Twp 21S, Rng 36E
Lea County, New Mexico

Proposed Drilling Plan for New SWD

1. **Geologic Information:** Permian geologic formations

The Permian San Andres and Glorieta Formations consist of interbedded carbonates rocks including dolomites, siltstones, and sands. Several thick sections of porous and permeable intervals are present within this formation in the area. Geologic information and depths of formation tops were obtained from surrounding wells within the area of interest. Total depth is 100 feet below the base of the San Andres and Glorieta Formations. The top of the Rustler Anhydrite Formation is at approximately 1470 feet plus 30 feet equals 1,500 feet to set bottom of the surface casing to protect the deepest underground sources of drinking water (USDWs).

Estimated Formation Top Depths:

Rustler Anhydrite	1,470'
Yates	2,990'
Seven Rivers	3,245'
Queen	3,580'
Penrose	3,705'
Grayburg	3,850'
San Andres	4,390'
Glorieta	5,735'
Total Depth	6,200'

2. **Proposed Drilling Plan:**

a. Move in equipment, excavate cellar and install tinhorn, and then drill conductor hole and set and cement in conductor casing.
b. Mobilize drilling rig and rig up drilling rig and associated equipment onsite. Set up H_2S wind direction indicators and monitors; brief all personnel on Emergency Evacuation Routes and ALL Consulting Site Health and Safety Plan.
c. Everyone onsite will have stop work authority.
d. Perform Job Safety Analysis (JSA) meetings before each drilling shift change and prior to any subcontractor performing any task on the location. All equipment should be inspected daily and repaired or replaced as required.
e. Drilling operations commence.
f. Have mud logger monitoring returns. All drill cuttings and waste hauled to specified waste facility.
g. After drilling the surface hole and setting and cementing the casing; if hydrogen sulfide (H_2S) levels are detected greater than 10ppm, implement H_2S Plan by ceasing operations, shut in well, employ H_2S safety trailer and personnel safety devices, install flare line, etc. – refer to plan.
h. Proper secondary containment needs to be in place. Spills need to be cleaned up

immediately. Repair or otherwise correct the situation within 48 hours before resuming operations. Notify Oil Conservation Division (OCD) within 24 hours. Remediation started as soon as possible if required. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.

i. Sundry forms need to be completed and filed as required by OCD.

3. **Proposed Casing Program:** Casing designed as follows:

STRING	HOLE SZ	DEPTH	CSG SZ	COND	WT/GRD	CLLPS/BRS (*Minimum Safety Factors*)	TNSN
Conductor	20"	0-120'	16.0"	n/a	n/a	n/a	n/a
Surface	12.25"	0-1,500'	9.625"	New	40# J55	1.125/1.1	1.8
Production	8.75"	0-6,200'	7.0"	New	26# J55	1.125/1.1	1.8
Tubing	NA	0-4,600'	4.5''	New	11.6# L80	1.125/1.1	1.8

Notes:

- ✓ A deviation survey will be conducted and submitted with the Well Completion Report (Form C-105)
- ✓ While running all casing strings, the pipe will be kept a minimum of 1/3 full at all times to avoid approaching the collapse pressure of casing.
- ✓ Based on well completions and geophysical logs on adjacent wells, 7.0" casing shoe is expected to be set at 6,200'. Similarly, total depth will be approximately 6,200' as determined by open hole geophysical logging and after suitable porosity and low resistivity values have been identified. Maximum injection interval is anticipated to be from 4,630' to 6,200', but may change based upon actual wellbore determinations. A sundry notice will document such events as a C-105 well completion report filed within 60 days.

4. **Proposed Cementing Plans:**

Surface Casing: Cemented with approximately 850 sacks of Class A cement with at least 25% excess and circulated to the surface.

Production Casing: Cement with approximately 1,650 sacks of Class H cement with at least 25% excess and cement back to surface inside the 9-5/8" surface casing string. Cement integrity to be confirmed by cement bond logging after cement has cured to appropriate compressive strength.

5. **Pressure Control:** All Blowout Preventers (BOP) and related equipment will comply with well control requirements as described OCD Rules and Regulations and API RP 53, Section 17. The BOP will be either a Hydril, Cameron or equivalent. Minimum working pressure of the BOP and related equipment required for the drilling shall be 500 psi. The maximum working pressure is anticipated at 3,000 psig and the test pressure will be 3,000 psig. The OCD Hobbs district office shall be notified a minimum of 4 hours in advance for a representative to witness all BOP pressure tests. The test shall be performed by an independent service company utilizing a test plug (no cup of J-packer). The results of the test shall be recorded on a calibrated test chart submitted to the OCD district office. BOP testing shall be conducted at:

Proposed Yaz 28 SWD 1 Drilling Plan

a. Installation;
b. After equipment or configuration changes;
c. At 30 days from any previous test, and;
d. Any time operations warrant, such as well conditions.

The BOP specifications to be used during the various phases of the drilling and casing installation are included in the table below:

Casing Size	Annular Preventer	Rams
16"	26-3/4" – 3M, with diverter	None
9.625"	11" – 5M	Pipe & Blind/Shear – 5M
7.0"	11" – 5M	Pipe & Blind/Shear – 5M

A diagram showing the representative BOP setup is included as Attachment 1.

6. **Auxiliary Well Control and Monitoring:** Hydraulic remote BOP operation and mudlogging to monitor returns.

7. **Mud Program and Monitoring:** Mud will be balanced for all operations with adjustment as needed based on actual wellbore conditions and is proposed as follows:

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	pH
0-1,500'	FW Spud Mud	8.5-9.2	70-40	20	12	NC	10.0
1,500'-6,200'	Brine Mud	9.2-10.0	28-32	NC	NC	NC	10.0

Mud and all cuttings monitored with all drill cuttings recovered for disposal. Returns shall be visually and electronically monitored. In the event of H_2S, mud shall be adjusted appropriately by weight and H_2S scavengers.

8. **H_2S Safety:** This well and related facilities are not expected to have H_2S releases. However, there may be H_2S in the area. There are no private residences or public facilities in the area but a contingency plan has been developed. Goodnight Midstream Permian, LLC will have a company representative available to personnel throughout all operations. If H_2S levels greater than 10ppm are detected or suspected, the H_2S Contingency Plan will be implemented at the appropriate level.

H_2S Safety – There is a low risk of H_2S in this area. The operator will comply with the provisions of New Mexico Administrative Code (NMAC) 19.15.11 and Bureau of Land Management (BLM) Onshore Oil and Gas Order #6.

a. Monitoring – all personnel will wear monitoring devices.
b. Warning Sign – a highly visible H_2S warning sign will be placed for obvious viewing at the vehicular entrance point onto location.
c. Wind Detection – two (2) wind direction socks will be placed on location.
d. Communications – will be via cellular phones and/or radios located within reach of the driller, the rig floor and safety trailer when applicable.
e. Alarms – will be located at the rig floor, circulating pump/reverse unit area and the flare line and will be set for visual (red flashing light) at 15 ppm and visual and

audible (115 decibel siren) at 20 ppm.

f. Mud program – If H_2S levels require, proper mud weight, safe drilling practices and H_2S scavengers will minimize potential hazards.

g. Metallurgy – all tubulars, pressure control equipment, flowlines, valves, manifolds and related equipment will be rated for H_2S service if required.

The Goodnight Midstream Permian, LLC H_2S Contingency Plan will be implemented if levels greater than 10ppm H_2S are detected.

9. **Geophysical Logging and Testing:** Goodnight Midstream Permian, LLC expects to run:

a. Geophysical logging through the proposed injection interval will ensure the target interval remains within the Glorieta.

b. An open hole gamma ray, SP, compensated density- neutron and dual resistivity log suite will be run from total depth to approximately 525'.

c. A cement bond log with gamma ray and collar locator will be run (Radial, CET or equivalent) on the production casing.

d. No cores or drill stem tests will be conducted. (The well may potentially be step rate tested in the future if additional injection pressures are required.)

10. **Potential Hazards:** H2S is a potential hazard. No abnormal pressure or temperatures are anticipated, but drilling operations will be prepared in the event that those conditions occur.

No loss of circulation is expected to occur with the exception of drilling into the target disposal zone. All onsite personnel will be familiar with the safe operation of the equipment being used to drill this well. The maximum anticipated bottom-hole pressure is 2500 psig and the maximum anticipated bottom-hole temperature is 210°F.

11. **Waste Disposal Management:** All drill cuttings, fluids, and other solid wastes associated with drilling and completion operations will be transported to a solid waste facility and commercial Class IID injection operation that has been approved and permitted by the Environmental Bureau of the OCD.

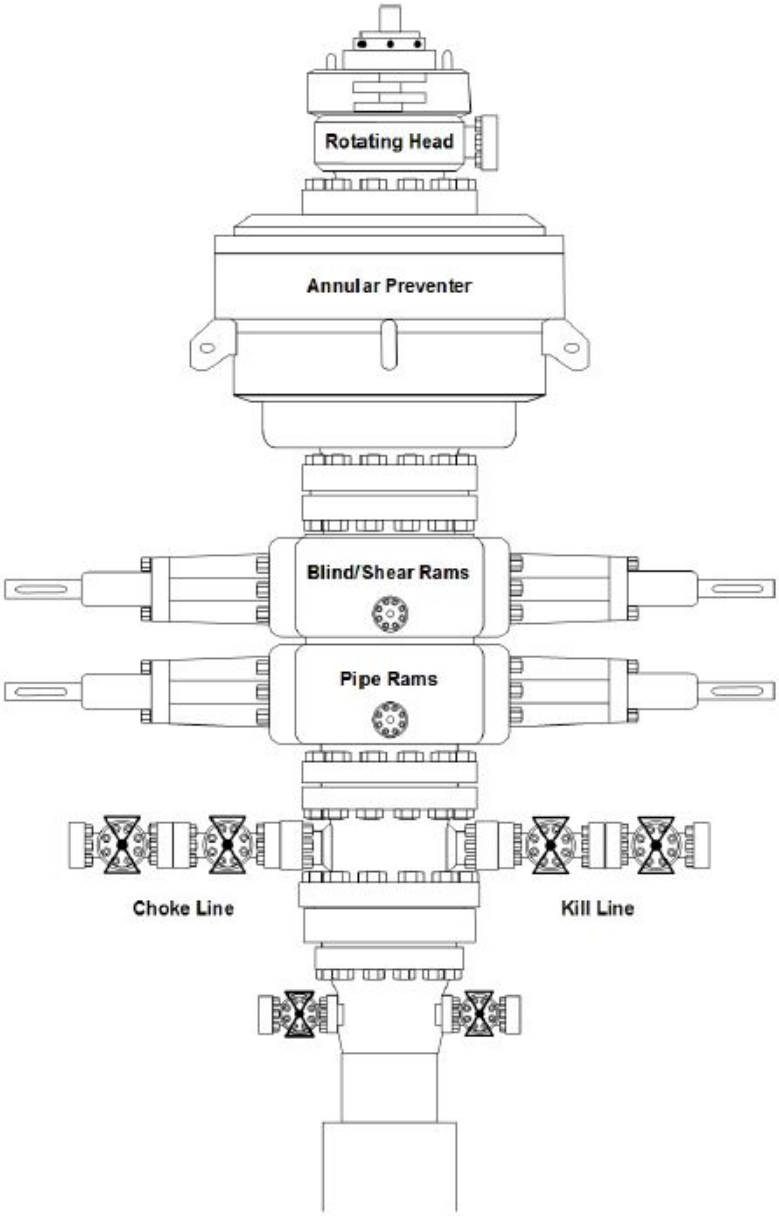
12. **Anticipated Drilling Commencement Date:** Upon approval of the permit for saltwater disposal (SWD), operations would begin within 30 days based on rig availability. Drilling and completion of the well will take approximately six to seven weeks. Installation of the surface facility such as the secondary containment and tank battery, plumbing, injection pump(s), and other treatment and filtering associated equipment would be occurring after the well is completed. In any event, it is not expected for the construction of the surface facility of the project to last more than 90 days, pending on availability of subcontractors and equipment lead times.

13. **Completion for Salt Water Disposal:** Subsequent to SWD permit issuance from OCD and prior to commencing any work, a Notice of Intent (NOI) sundry will be submitted to complete the well for SWD and will detail the completion workover including all work otherwise described above, any change to the procedure noted herein and to perform mechanical integrity pressure testing per BLM and OCD test procedures (including appropriate OCD notification).The tubing and packer will be set at a depth of approximately 4,600 feet and the casing/tubing annulus will be filled with freshwater and corrosion inhibitor and pressure tested to the required test pressure using the standard annulus pressure test. Anticipated daily maximum volume is 25,000 barrels of water per day (bpd) and average of 12,500 bpd at a

Proposed Yaz 28 SWD 1 Drilling Plan

maximum surface injection pressure of 926 psig (0.2 psi/ft to the top of the injection interval). If satisfactory disposals rates cannot be achieved at default pressure of .02 psi/ft, Goodnight Midstream Permian, LLC will conduct a step-rate test and apply for an injection pressure increase 50 psig below actual parting pressure achieved during the step-rate testing.

Attachment 1 – Representative BOP Setup



CONDITIONS OF APPROVAL

API #	Operator	Well name & Number
30-025-4	Goodnight Midstream Permian	Yaz 28 SWD # 001

Applicable conditions of approval marked with XXXXXX

Administrative Orders Required

XXXXXXXX	Review administrative order when approved for additional conditions of approval

Other wells

Casing

XXXXXXX	SURFACE & PRODUCTION CASING - Cement must circulate to surface --
XXXXXXX	**Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water. Approximate depth Rustler Anhydrite is 1500 feet**

Lost Circulation

XXXXXXX	Must notify OCD Hobbs Office if lost circulation is encountered at 575-370-3186

Stage Tool

XXXXXXX	Must notify OCD Hobbs Office prior to running Stage Tool at 575-370-3186
XXXXXXX	If using Stage Tool on Surface casing, Stage Tool must be greater than 350’ and a minimum 200 feet above surface shoe.
XXXXXXX	When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.

Completion & Production

XXXXXXX	Will require a deviational survey with the C-105
XXXXXXX	Must notify Hobbs OCD office prior to conducting MIT (575) 393-6161
XXXXXXX	Must conduct & pass MIT prior to any injection
XXXXXXX	Approval of this APD does not approve your tubing sizes. Please see SWD order for approved tubing sizes.
XXXXXXX	Must conduct & pass MIT prior to any injection