

# Additional Information

Updated WBD  
2/15/2023

|           |                            |                     |             |                              |
|-----------|----------------------------|---------------------|-------------|------------------------------|
| API #     | 30-015-21602               | <b>Lowenbruck 1</b> | County, ST  | Eddy County, NM              |
| Operator  | Marina SWD New Mexico, LLC |                     | Sec-Twn-Rng | B-24-21S-26E                 |
| Field     | Undesignated               |                     | Footage     | 660 FNL & 1980FEL (3184' GL) |
| Spud Date | 8/8/1975                   |                     | Survey      |                              |

| Formation (MD)       |       |
|----------------------|-------|
| Delaware Sand        | 2306  |
| Bone Springs         | 4727  |
| 3rd Bone Spring Sand | 8247  |
| Wolfcamp             | 8574  |
| Penn                 | 9650  |
| Strawn               | 9964  |
| Atoka                | 10424 |
| Morrow Clastic       | 10922 |
| B Morrow Sand        | 11344 |
|                      |       |
|                      |       |

| RKB            | 3200'        |
|----------------|--------------|
| GL             | 3184'        |
| Surface Casing |              |
| Hole Size      | 20"          |
| TOC            | surf         |
| Method         | circ returns |
| Csg Depth      | 150'         |
| Size           | 16"          |
| Weight         | 65           |
| Grade          | Unknown      |
| Connections    |              |
| Cement         | 150 sx       |

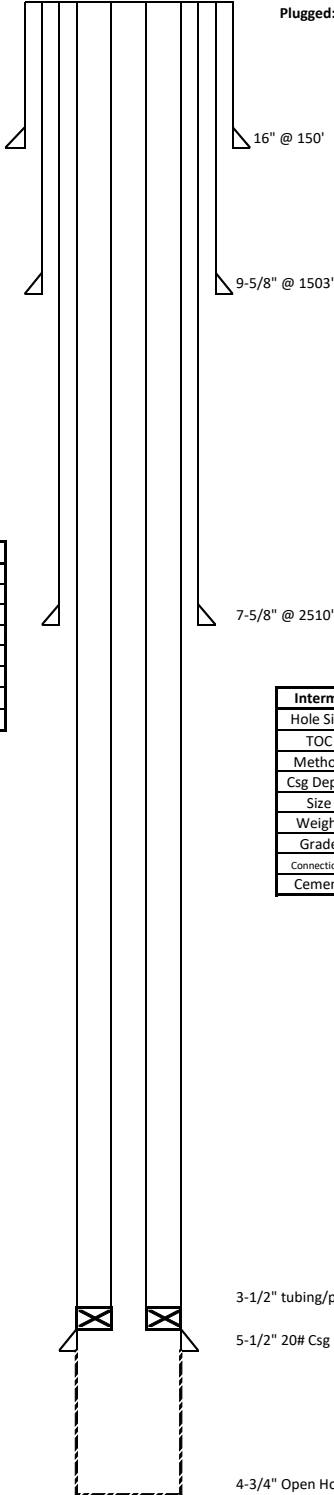
| Intermediate Casing 1 |               |
|-----------------------|---------------|
| Hole Size             | 15" & 12 1/4" |
| TOC                   | surf          |
| Method                | circ returns  |
| Csg Depth             | 1503'         |
| Size                  | 9-5/8"        |
| Weight                | 47-40-36      |
| Grade                 | Unknown       |
| Connections           |               |
| Cement                | 700 sx        |

| Plugging Details   |
|--|
| 25 sx plugs set at: 11000-10900, 10000-9900, 8625-8525, 6850-6750, 5050-4950, and 2560-2460. |
| 10 sx plug at surface - marker jt installed.   |
|  |
|  |
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|  |

| Production Casing |             |
|-------------------|-------------|
| Hole Size         | 6-3/4"      |
| TOC               | above 2500' |
| Method            | circulate   |
| Csg Top           | 0           |
| Csg Depth         |             |
| Size              | 5-1/2"      |
| Weight            | 17#         |
| Grade             | L-80        |
| Connections       | BTC         |
| Cement            |             |

|             |           |
|-------------|-----------|
| Last Update | 2/23/2022 |
| By          | LJA       |

|        |       |
|--------|-------|
| PBTD   |       |
| TD MD  | 13238 |
| TD TVD | 13238 |



Plugged: 11-13-1975

16" @ 150'

9-5/8" @ 1503'

7-5/8" @ 2510'

| Intermediate Casing 2 |         |
|-----------------------|---------|
| Hole Size             | 12-1/4" |
| TOC                   | 0       |
| Method                | circ    |
| Csg Depth             | 2510    |
| Size                  | 7-5/8"  |
| Weight                | 29.7    |
| Grade                 | Unknown |
| Connections           | SFJ-5   |
| Cement                | 1000 sx |

3-1/2" tubing/packer @ 12,090' MD

5-1/2" 20# Csg @ top of Devonian @12,238' TVD & MD

4-3/4" Open Hole to TD well in Montoya @ 13,238' TVD & MD

## Rose-Coss, Dylan, EMNRD

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**From:** Lelan Anders <landers@santopetroleum.com>  
**Sent:** Wednesday, February 15, 2023 1:18 PM  
**To:** Rose-Coss, Dylan, EMNRD; Brian Wood  
**Cc:** Jeanette Reisenburg; Goetze, Phillip, EMNRD; Gebremichael, Million, EMNRD; Schaefer, Alana, EMNRD  
**Subject:** RE: [EXTERNAL] RE: Marina - Lowenbruck SWD 1  
**Attachments:** Lowenbruck 1 - WBD.rev1.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

**Categories:** Red Category

Dylan et al,

Please see the attached Wellbore Diagram for the subject well. Our intent is to utilize the old wellbore and casing down to 2510' (saving us well over \$1MM). From there we will drill to TD of our 5-1/2" casing and cement it to surface. We will then drill 4-3/4" open hole in our desired injection interval in the Devonian formation. All critical formation tops can be seen on the top left of this WBD.

Please let me know if you need any additional information and we would be happy to provide.

Best Regards,

Lelan J Anders  
Mobile: 281-908-1752  
LAnders@SantoPetroleum.com

-----Original Message-----

**From:** Rose-Coss, Dylan, EMNRD <DylanH.Rose-Coss@emnrd.nm.gov>  
**Sent:** Wednesday, February 15, 2023 11:27 AM  
**To:** Lelan Anders <landers@santopetroleum.com>; Brian Wood <brian@permitswest.com>  
**Cc:** Jeanette Reisenburg <jeanette@permitswest.com>; Goetze, Phillip, EMNRD <phillip.goetze@emnrd.nm.gov>; Gebremichael, Million, EMNRD <Million.Gebremichael@emnrd.nm.gov>; Schaefer, Alana, EMNRD <Alana.Schaefer@emnrd.nm.gov>  
**Subject:** RE: [EXTERNAL] RE: Marina - Lowenbruck SWD 1

Lelan,

Thanks for bringing the matter to my attention. To be honest, the application is 1 of over 400 sitting in queue, so it is basically idle. However, as a result of the nudge, I was able to look into the app a little.

While the OCD prefers not to resurrect abandoned wells, there is not a policy against it, so it will be taken into consideration. The well is in a complex area near Carlsbad, the Capitan Reef and the Dagger Draw seismic response area. All of these factors make the review more complex.

Straight away I see that a liner is being proposed for the depth below 2500'. The application would be more favorably received were the cement and casing on that string be brought to the surface.

The UIC team can perform a complete administrative review to determine if there is any additional material necessary. In the meantime, if your team could submit the updated wellbore diagram, that would help us out. It would also help if the WBD was drawn more to scale, and included formation tops.

Regards,

Dylan Rose-Coss

Petroleum Specialist  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

C: (505) 372-8687

-----Original Message-----

From: Lelan Anders <landers@santopetroleum.com>  
Sent: Tuesday, February 14, 2023 10:10 AM  
To: Brian Wood <brian@permitswest.com>; Rose-Coss, Dylan, EMNRD <DylanH.Rose-Coss@emnrd.nm.gov>  
Cc: Jeanette Reisenburg <jeanette@permitswest.com>  
Subject: [EXTERNAL] RE: Marina - Lowenbruck SWD 1

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Dylan,

Any update on this SWD permit? Where are we in the process?

Thanks,  
Lelan J Anders  
VP, Operations  
11 Greenway Plaza, Suite 535  
Houston, Texas 77046  
Mobile: 281-908-1752  
Office: 713-600-7502  
LAnders@SantoPetroleum.com

-----Original Message-----

From: Brian Wood <brian@permitswest.com>  
Sent: Wednesday, January 4, 2023 12:16 PM  
To: Rose-Coss, Dylan, EMNRD <DylanH.Rose-Coss@emnrd.nm.gov>  
Cc: Lelan Anders <landers@santopetroleum.com>; Jeanette Reisenburg <jeanette@permitswest.com>  
Subject: Marina - Lowenbruck SWD 1

The C-108 application for 30-015- 21602 was uploaded June 27 2022.  
Marina still wants to re-enter, deepen, and convert this to a SWD well.

We have received no objections.  
It is on fee surface fee minerals.  
What is its status?  
Thanks