

OCT 23 2019

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM132065
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator MARSHALL & WINSTON INCORPORATED		8. Lease Name and Well No. HI BOB FEDERAL 2H 325167
3a. Address 6 Desta Drive, Suite 3100 Midland TX 79705	3b. Phone No. (include area code) (432)684-6373	9. API Well No. 30-005-64342
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSW / 600 FSL / 400 FWL / LAT 33.024816 / LONG -104.057845 At proposed prod. zone SWSW / 1300 FSL / 400 FWL / LAT 33.012248 / LONG -104.057889		10. Field and Pool, or Exploratory ROUND TANK / SAN ANDRES
11. Sec., T. R. M. or Blk. and Survey or Area SEC 8 / T15S / R29E / NMP		12. County or Parish CHAVES
13. State NM		14. Distance in miles and direction from nearest town or post office* 16 miles
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 400 feet	16. No of acres in lease 1405.32	17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 220 feet	19. Proposed Depth 3215 feet / 7582 feet	20. BLM/BIA Bond No. in file FED: NMB000807
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3787 feet	22. Approximate date work will start* 09/01/2019	23. Estimated duration 30 days
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) Stormi Davis / Ph: (918)491-4339	Date 07/15/2019
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Ruben J Sanchez / Ph: (575)627-0250	Date 10/21/2019
Title Assistant Field Manager, Lands & Minerals		
Office ROSWELL		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED WITH CONDITIONS

Additional Operator Remarks

Location of Well

1. SHL: SWSW / 600 FSL / 400 FWL / TWSP: 15S / RANGE: 29E / SECTION: 8 / LAT: 33.024816 / LONG: -104.057845 (TVD: 0 feet, MD: 0 feet)
PPP: SWSW / 130 FSL / 400 FWL / TWSP: 15S / RANGE: 29E / SECTION: 8 / LAT: 33.023524 / LONG: -104.057846 (TVD: 3215 feet, MD: 3487 feet)
PPP: NWNW / 0 FNL / 400 FWL / TWSP: 15S / RANGE: 29E / SECTION: 17 / LAT: 33.0231671 / LONG: -104.0578477 (TVD: 3215 feet, MD: 3617 feet)
BHL: SWSW / 1300 FSL / 400 FWL / TWSP: 15S / RANGE: 29E / SECTION: 17 / LAT: 33.012248 / LONG: -104.057889 (TVD: 3215 feet, MD: 7582 feet)

BLM Point of Contact

Name: Meighan M Salas
Title: Land Law Examiner
Phone: 5756270228
Email: mmsalas@blm.gov

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Review and Appeal Rights

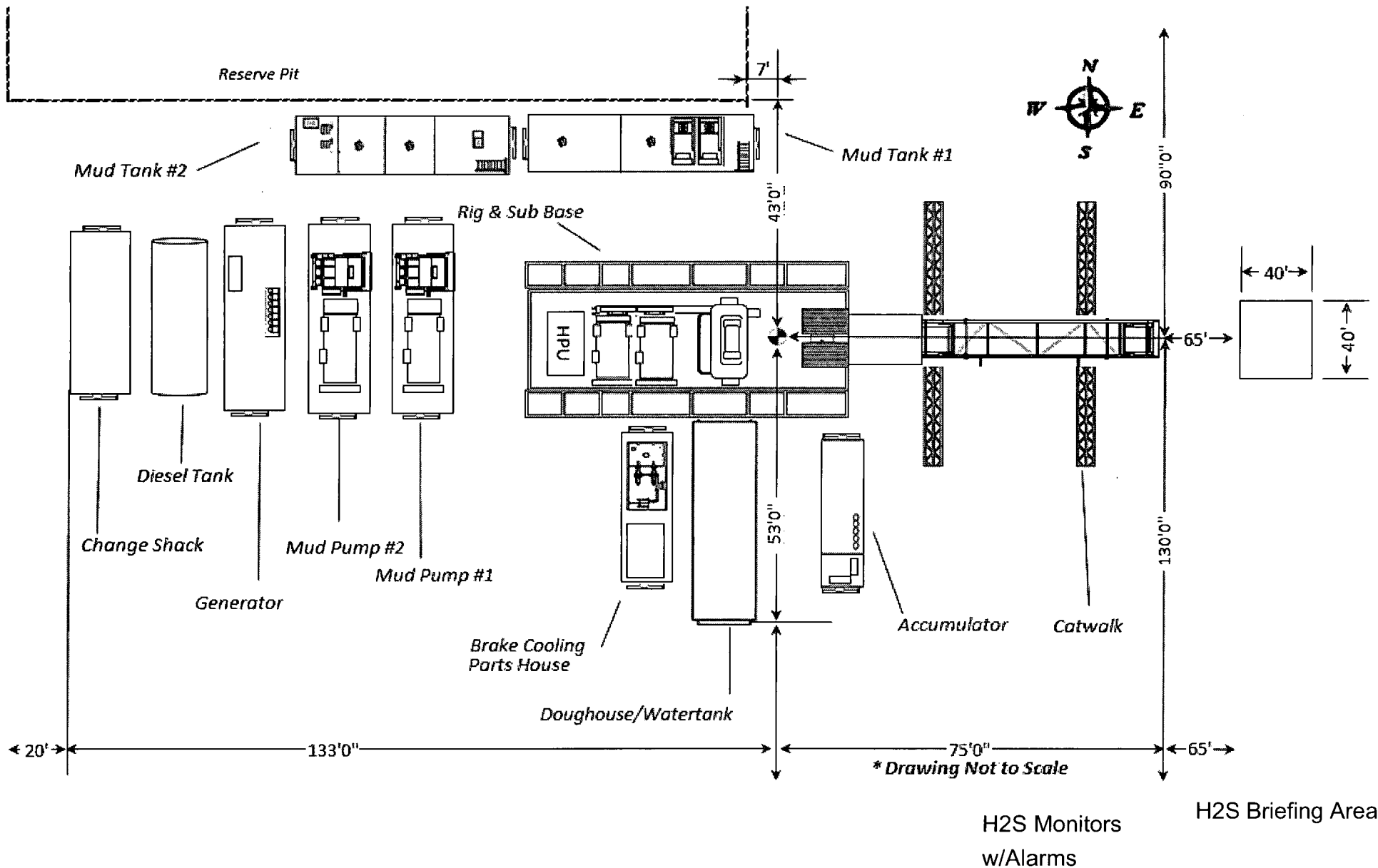
A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

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Norton Energy Drilling Rig #4

Prevailing Winds



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Marshall & Winston Inc.
LEASE NO.:	NMNM-132065
WELL NAME & NO.:	HI BOB FEDERAL 2H
SURFACE HOLE FOOTAGE:	0600' FSL & 0400' FWL
BOTTOM HOLE FOOTAGE	1300' FSL & 0400' FWL Sec. 17, T. 15 S., R 29 E.
LOCATION:	Section 08, T. 15 S., R 29 E., NMPM
COUNTY:	County, New Mexico

Operator shall submit sundry to add "COM" to the well name as the FTP is in lease NMNM-132065 and the rest of the lateral is in NMNM-121949.

Communitization Agreement

The operator will submit a Communitization Agreement to the Roswell Field Office, 2909 West 2nd St. Roswell, New Mexico 88201, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.

If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.

In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☐ **Chaves and Roosevelt Counties**

Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.

During office hours call (575) 6270272.

1. **Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**
2. **Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. **Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.**
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possibility of lost circulation in the Queen and San Andres formations.

1. The **13-3/8** inch surface casing shall be set at approximately **225** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

☐ Cement to surface. If cement does not circulate see B.1.a, c-d above.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

☐ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.

a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

BOP Spec sheet shall be on location for PET review if requested.

3. The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.

a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

a. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to

Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- b. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- c. The results of the test shall be reported to the appropriate BLM office.
- d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
- e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JAM 092419

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME: MARSHALL & WINSTON
LEASE NO.: NMNM-132065
WELL NAME & NO.: HI BOB FEDERAL 2H
SURFACE HOLE [600] ' F [S] L [400] ' F [W]
FOOTAGE: L
LOCATION: Section 8, T 15. S., R 29 E., NMPM
COUNTY: Chaves County, New Mexico

1. GENERAL PROVISIONS

Approval of the APD does not warrant that any party holds equitable or legal title. Any request for a variance shall be submitted to the Authorized Officer on Sundry Notice (Form 3160-5).

For BLM's surface operating standards and guidelines, refer to: The Gold Book, Fourth Edition - Revised 2007. To obtain a copy free of charge contact the Roswell Field Office (575) 627-0272 or visit BLM on the web at:
http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/best_management_practices/gold_book.html

All construction, operations, and reclamation shall follow the Onshore Oil and Gas Operations as described in the 43 CFR part 3160.

The Operator shall submit a Sundry Notice (Form 3160-5) to the Bureau of Land Management, Roswell Field Office (address above) for approval prior to beginning any new surface-disturbing activities or operations that are not specifically addressed and approved by this APD.

A site facility diagram and a site security plan shall be filed no later than 60 calendar days following first production (Onshore Order 3, Section III, I. and 43 CFR 3162.7-5).

2. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD (Filing of a Sundry Notice is required for this 60 day extension).

3. JURISDICTIONAL WATERS of the U.S.

The operator shall obtain appropriate permits from the U.S. Army Corps of Engineers prior to discharge or dredge and fill material into waters of the United States in accordance with Section 404 of the Clean Water Act. Contact The U.S. Army Corps of Engineers regulatory New Mexico Branch Office, 4101 Jefferson Plaza NE, Albuquerque, NM 87109-3435 at (505) 342-3678 or Email: CESPA-RD-NM@usace.army.mil if you have questions.

4. ARCHAEOLOGICAL, PALEONTOLOGICAL & HISTORICAL SITES

In the event that any cultural resource (prehistoric and historic period buildings, sites, structures, objects, and landscapes) and/or paleontological resource is discovered on public or Federal land by the holder, or any person working on behalf of the holder, the holder shall immediately halt the disturbance within 100 feet of the post-review discovery. The holder shall contact the BLM Authorized Officer within 24 hours for instructions:

BLM Authorized Officer:	If BLM Authorized Officer is
Unavailable:	
Ruben Sanchez	Courtney Carlson
Assistant Field Manager, Lands & Minerals	Archaeologist
575-627-0250	575-627-0328

The BLM Authorized Officer will coordinate with the appropriate specialists to ensure that qualified professionals evaluate the discovery, and to decide appropriate actions to prevent the loss of significant cultural or scientific values. The holder shall be responsible for the costs of evaluation, reporting, excavation, treatment, and/or disposition. Project implementation shall not proceed within 100 feet of the location of the inadvertent discovery until the BLM has concluded the post-review discovery process, and the BLM Authorized Officer has provided the holder with a written notice to proceed.

5. HUMAN REMAINS AND OBJECTS OF CULTURAL PATRIMONY

In the event that project implementation results in the inadvertent discovery of Native American human remains, funerary objects, sacred objects, and/or objects of cultural patrimony, the holder shall immediately halt the disturbance within 300 feet of the inadvertent discovery. The holder shall contact the BLM Authorized Officer within 24 hours for instructions:

BLM Authorized Officer:	If BLM Authorized Officer is
Unavailable:	
Ruben Sanchez	Quinton Franzoy
Assistant Field Manager, Lands & Minerals	Law Enforcement
Officer	
575-627-0250	575-910-0778

The holder shall be held responsible for ceasing activity and protecting the inadvertent discovery as well as for the costs of protection, evaluation, reporting, excavation, treatment, and/or disposition of the inadvertent discovery. The BLM shall use the process identified in the Native American Graves Protection and Repatriation Act (NAGPRA) and in 43 CFR 10.4 to proceed according to the rights of the culturally affiliated party, as applicable. Project implementation within 300 feet of the location of the inadvertent discovery may resume 30 days after BLM certifies the notification, or when a written Plan of Action following 43 CFR 10.3(b)(1) is approved. In either case, the BLM Authorized Officer will provide the holder with a written notice to proceed.

6. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

7. CAVE AND KARST

Any Cave or Karst feature discovered by the operator or by any person working on the operator's behalf shall immediately report

the feature to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. During drilling, previously unknown cave and karst features could be encountered. If a void is encountered while drilling and a loss of circulation occurs, lost drilling fluids can directly contaminate groundwater recharge areas, aquifers, and groundwater quality. Drilling operations can also lead to sudden collapse of underground voids.

To mitigate or lessen the probability of impacts associated with the drilling and production of oil and gas wells in karst areas, the guidelines listed in Appendix 3, Practices for Oil and Gas Drilling and Production in Cave and Karst Areas, as approved in the Roswell Resource Management Plan Amendment of 1997, page AP3-4 through AP 3-7 shall be followed.

A more complete discussion of the impacts of oil and gas drilling can be found in the *Dark Canyon Environmental Impact Statement of 1993*, published by the U.S. Department of the Interior, Bureau of Land Management.

8. CONSTRUCTION

NOTIFICATION: The BLM shall administer compliance and monitor construction of the access road and well pad. Notify Natural Resource Specialist, Ricky Flores at (575) 627-0339 or the Roswell Field Office at (575) 627-0272 at least three (3) working days prior to commencing construction of the access road and/or well pad.

A complete copy of the approved APD and the attached Conditions of Approval (COAs) **shall be kept on the well's location** for reference upon inspections.

Construction over and/or immediately adjacent to existing pipelines shall be coordinated, and in accordance with, the relevant pipeline companies' policy.

Any trench left open for (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, an agency approved monitor shall walk the entire length of the open trench and remove all trapped fauna. The bottom surface of the trench will be disturbed a minimum of 2 inches in order to

arouse any buried fauna. All fauna will be released a minimum of 100 yards from the trench.

For trenches left open for (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench. Structures will also be authorized within the trench. Metal structures will not be authorized. Structures used as escape ramps will be placed at no more than a 30 degree slope and spaced no more than 500 feet apart.

9. TOPSOIL:

When saturated soil conditions exist on access roads or location, construction shall be halted until soil material dries out or is frozen sufficiently for construction to proceed without undue damage and erosion to soils, roads and locations.

Topsoil shall be stripped following removal of vegetation during construction of well pads, pipelines, roads, or other surface facilities. This shall include all growth medium - at a minimum, the upper 2-6 inches of soil - but shall also include stripping of any additional topsoil present at a site, such as indicated by color or texture. Stripping depth may be specified during the onsite inspection. Stripped topsoil shall be stored separately from subsoil or other excavated material and replaced prior to interim seedbed preparation. No topsoil shall be stripped when soils are moisture-saturated or frozen below the stripping depth.

The topsoil will not be used to construct the containment structures or earthen dikes that are on the outside boundaries of the constructed well pad, tanks, and storage facilities.

Each construction area is site specific as to topsoil depth. It is the operator's responsibility to ensure that topsoil, caliche, or spoils are not mixed together.

(Pads): topsoil will be stripped and stored in separate piles from the spoils pile. They can be stored on opposite or adjacent sides. If topsoil and spoils must be stored on the same pad side together they shall be no closer than toe to toe, not overlapping. Each pile shall be kept within 30 feet of the pad's side. 100% of the topsoil will be used for both interim and final reclamation. 100% of topsoil will be respread over the disturbed areas during reclamation.

(Roads): topsoil shall be stripped in such a way to follow the road's edge outside of the surfacing or drivable area. During final reclamation, after removal of surface material and re-contouring, 100% of topsoil will be respread over the disturbed areas during reclamation. Vegetation in the topsoil will help hold re-seeding, moisture content, and reduce erosion.

10. WELL PAD SURFACING:

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational need. Surfacing of the well pad is not required. If the operator elects to surface the well pad, the surfacing material will be required to be removed at the time of reclamation.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattle guard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guard(s) that are in place and are utilized during lease operations. Gates or cattle guards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the authorized officer. A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

The operator shall notify the private surface landowner or the grazing allotment operator prior to crossing any fence(s). Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

11. PRODUCTION:

Storage

Fiberglass storage tanks are *not* permitted for the storage of production.

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim reclamation and re-vegetation of the well location.

Containment Structures

All production facilities shall have a lined containment structure large enough to contain **110% of the largest Tank (PLUS) 24 hours of production** (43 CFR 3162.5-1) ***Environmental Obligations***, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **OIL GREEN** (Standard Environmental Color Chart June 2008).

Completion Report

In accordance with 43 CFR 3160, Form 3160-4 (Well Completion or Re-completion Report and Log) must be submitted to the Bureau of Land Management, Roswell Field Office within 30 days after completion of the well or producer. Copies of all open hole and cased hole logs, core descriptions, core analyses, well test data, geologic summaries, sample descriptions, formation test reports, stimulation reports, directional survey (if applicable), and all other surveys or data obtained and compiled during the drilling, completion, and/or work over operations, shall be included with Form 3160-4.

12. INTERIM RECLAMATION:

Reclamation earthwork for interim and/or final reclamation shall be completed within 6 months of well completion or well plugging (weather permitting), and shall consist of: 1) backfilling pits, 2) re-contouring and stabilizing the well site, access road, cut/fill slopes, drainage channels, utility and pipeline corridors, and all other disturbed areas, to approximately the original contour, shape, function, and configuration that existed before construction (any compacted backfilling activities shall ensure proper spoils placement, settling, and stabilization, 3) surface ripping, prior to topsoil placement, to a depth of 18-24 inches deep on 18-24 inch centers to reduce compaction, 4) final grading and replacement of all topsoil so

that no topsoil's remains in the stockpile, 5) seeding in accordance with reclamation portions of the APD and these COA's.

Any subsequent re-disturbance of interim reclamation shall be reclaimed within six (6) months by the same means described above.

Prior to conducting interim reclamation, the operator is required to:

- Submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.
- Contact BLM at least three (3) working days prior to conducting any interim reclamation activities, and prior to seeding.

During reclamation, the removal of caliche is important to increasing the success of re-vegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, in order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing re-vegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be re-vegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

Use a certified noxious weed-free seed mixture. Use seed tested for viability and purity in accordance with State law(s) within nine months prior to purchase. Use a commercial seed mixture certified or registered and tagged in accordance with State law(s). Make the seed mixture labels available for BLM inspection.

13. SEED MIX:

SEE ATTACHED SEED MIX.

WELL NAME	ECOSITE (ACCESS ROAD)	ECOSITE (PAD)
HI BOB FEDERAL 2H	SHALLOW SD-3	SHALLOW SD-3

14. FINAL ABANDONMENT:

A. Upon abandonment of the well a Notice of Intent for Plug and Abandonment describing plugging procedures. Followed within 30 days you shall file with this office, a Subsequent Report of Abandonment (Form 3160-5). To be included with this report is where the plugs were placed; volumes of cement used and well bore schematic as plugged.

B. On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the Private Surface Land Owner agreements and a copy of the release is to be submitted upon abandonment.

C. The Operator shall promptly plug and abandoned each newly completed, re-completed or producing well which is not capable of producing in paying quantities. No well may be temporarily abandoned for more than 30 days without prior approval from this office. When justified by the Operator, BLM may authorize additional delays, no one of which may exceed an additional 12 months. Upon removal of drilling or producing equipment from the site of a well which is to be permanently abandoned, the surface of the lands disturbed shall be reclaimed in accordance with an approved Notice of Intent for final reclamation.

D. Final reclamation shall include: the removal of all solid waste, trash, surfacing materials, storage facilities and all other related equipment, flow lines, and meter housing, power poles, guy wires, and all other related power materials. All disturbed areas, i.e. cuts and fills, shall be re-contoured to their original surroundings. 100% of topsoil shall be used to resurface all disturbed areas including access roads. A label of the seed mix used shall be submitted with the Final Abandonment Notice (FAN) for review once reclamation is complete.

15. PIPELINE PROTECTION REQUIREMENT:

Precautionary measures shall be taken by the operator during construction of the access road to protect existing pipelines that the access road will cross over. An earthen berm; 2 feet high by 3 feet wide and 14 feet across the access road travelway (2' X 3' X 14'), shall be constructed over existing pipelines. The operator shall be held responsible for any damage to existing pipelines. If the pipeline is ruptured and/or damaged the operator shall immediately cease construction operations and repair the pipeline. The operator shall be held liable for any unsafe construction operations that threaten human life and/or cause the destruction of equipment.

16. WILDLIFE PROTECTION MEASURES – Best Management Practices (BMPs)

COA/Stipulation for above ground pipelines

- All pipelines laid on the surface will have sloped dirt berms built over them every 100 yards to allow reptiles, amphibians, small mammals, ground-dwelling birds and their broods access over them. Dirt berms should be no less than 12 inches in width and extend over all surface pipelines within the Right of Way. Berms should be maintained for the life of the project.

Wildlife Mortality - General

The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)

1. **Closed top tanks are required for any containment system.**
All tanks are required to have a closed top tank.

2. **Chemical and Fuel Secondary Containment Systems**

Chemical and Fuel Secondary Containment and Exclosure Screening
- The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. Closed-top tanks are required for any secondary containment systems.

3. Open-Vent Exhaust Stacks

Open-Vent Exhaust Stack Enclosures - The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

17. WASTE, HAZARDOUS AND SOLID:

Waste materials produced during all phases of operation will be disposed of promptly in an approved manner so it will not impact the air, soil, water, vegetation or animals. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes and equipment. All liquid waste, completion fluids and drilling products associated with oil and gas operations will be contained and then removed and deposited in an approved disposal site. Portable toilets will remain on site throughout well pad construction, drilling and reclamation.

The operator and contractors shall ensure that all use, production, storage, transportation and disposal of hazardous materials, solid wastes and hazardous wastes associated with the drilling, completion and production of this well will be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines. All project related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. A file will be maintained onsite containing current Safety Data Sheets (SDS) for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion and production operations.

18. SURFACE WATER AND GROUNDWATER PROTECTION MEASURES - Best Management Practices (BMPs)

A containment structure or earthen dike shall be constructed and maintained around the north, east, and south outside boundary of the well pad. The containment structure or earthen dike shall be constructed two (2) feet high (the containment structure or earthen dike can be constructed higher than the two (2) feet high minimum). The containment structure or earthen dike is required so that if a oilfield waste contaminant or product contaminant were leaked, spilled, and or released upon the well pad the oilfield waste contaminant or product contaminant shall be contained in order to prevent the contaminant from entering into the ephemeral drainage located to the east and downslope of the well pad location.



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report

10/21/2019

APD ID: 10400043212

Submission Date: 07/15/2019

Highlighted data
reflects the most
recent changes

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400043212

Tie to previous NOS?

Submission Date: 07/15/2019

BLM Office: ROSWELL

User: Stormi Davis

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM132065

Lease Acres: 1405.32

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? YES

APD Operator: MARSHALL & WINSTON INCORPORATED

Operator letter of designation:

Operator Info

Operator Organization Name: MARSHALL & WINSTON INCORPORATED

Operator Address: 6 Desta Drive, Suite 3100

Zip: 79705

Operator PO Box:

Operator City: Midland

State: TX

Operator Phone: (432)684-6373

Operator Internet Address: sroberts@mar-win.com

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: HI BOB FEDERAL

Well Number: 2H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: ROUND TANK

Pool Name: SAN ANDRES

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Is the proposed well in a Helium production area? N Use Existing Well Pad? NO New surface disturbance?

Type of Well Pad: SINGLE WELL

Multiple Well Pad Name:

Number:

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 16 Miles

Distance to nearest well: 220 FT

Distance to lease line: 400 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Hi_Bob_Federal_2H_C102_Revised_20190910093215.pdf

Well work start Date: 09/01/2019

Duration: 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 19-1169

Reference Datum:

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	600	FSL	400	FWL	15S	29E	8	Aliquot SWS W	33.02481 6	- 104.0578 45	CHA VES	NEW MEXI CO	NEW MEXI CO	F	NMNM 132065	378 7	0	0
KOP Leg #1	600	FSL	400	FWL	15S	29E	8	Aliquot SWS W	33.02481 6	- 104.0578 45	CHA VES	NEW MEXI CO	NEW MEXI CO	F	NMNM 132065	105 0	273 7	273 7
PPP Leg #1	0	FNL	400	FWL	15S	29E	17	Aliquot NWN W	33.02316 71	- 104.0578 477	CHA VES	NEW MEXI CO	NEW MEXI CO	F	NMNM 121949	572	361 7	321 5

Operator Name: MARSHALL & WINSTON INCORPORATED**Well Name:** HI BOB FEDERAL**Well Number:** 2H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
PPP Leg #1	0	FNL	400	FWL	15S	29E	17	Aliquot NWN W	33.02316 71	- 104.0578 477	CHA VES	NEW MEXI CO	NEW MEXI CO	F	NMNM 121949	572	361 7	321 5
PPP Leg #1	0	FNL	400	FWL	15S	29E	17	Aliquot NWN W	33.02316 71	- 104.0578 477	CHA VES	NEW MEXI CO	NEW MEXI CO	F	NMNM 121949	572	361 7	321 5
PPP Leg #1	130	FSL	400	FWL	15S	29E	8	Aliquot SWS W	33.02352 4	- 104.0578 46	CHA VES	NEW MEXI CO	NEW MEXI CO	F	NMNM 132065	572	348 7	321 5
PPP Leg #1	130	FSL	400	FWL	15S	29E	8	Aliquot SWS W	33.02352 4	- 104.0578 46	CHA VES	NEW MEXI CO	NEW MEXI CO	F	NMNM 132065	572	348 7	321 5
PPP Leg #1	130	FSL	400	FWL	15S	29E	8	Aliquot SWS W	33.02352 4	- 104.0578 46	CHA VES	NEW MEXI CO	NEW MEXI CO	F	NMNM 132065	572	348 7	321 5
EXIT Leg #1	142 0	FSL	400	FWL	15S	29E	17	Aliquot NWS W	33.01257 8	- 104.0578 88	CHA VES	NEW MEXI CO	NEW MEXI CO	F	NMNM 121949	572	746 2	321 5
BHL Leg #1	130 0	FSL	400	FWL	15S	29E	17	Aliquot SWS W	33.01224 8	- 104.0578 89	CHA VES	NEW MEXI CO	NEW MEXI CO	F	NMNM 121949	572	758 2	321 5



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

10/21/2019

APD ID: 10400043212

Submission Date: 07/15/2019

Highlighted data
reflects the most
recent changes

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	---	3787	0	0		NONE	N
2	TOP OF SALT	3537	250	250		NONE	N
3	BASE OF SALT	2997	790	790		NONE	N
4	YATES	2949	838	838		NONE	N
5	QUEEN	2219	1568	1568		NONE	N
6	SAN ANDRES	1421	2366	2366		NATURAL GAS,OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M

Rating Depth: 12000

Equipment: A 3M system will be installed according to Onshore Order #2. No flex hose will be used.

Requesting Variance? NO

Variance request:

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and 3000 psi high. The System may be upgraded to a higher pressure but still tested to the working pressure stated. If the system is upgraded all the components installed will be functional and tested.

Choke Diagram Attachment:

Hi_Bob_Federal_2H_BOP_Choke_20190627120113.pdf

BOP Diagram Attachment:

Hi_Bob_Federal_2H_BOP_Choke_20190627120122.pdf

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	225	0	225			225	H-40	48	ST&C	8.56	11.56	DRY	6.35	DRY	6.35
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	1250	0	1250			1250	J-55	40	LT&C	2.4	7.5	DRY	6.5	DRY	6.5
3	PRODUCTION	8.75	5.5	NEW	API	N	0	7582	0	3215			7582	HCP-110	17	OTHER - GB CD	6.58	8.17	DRY	5.75	DRY	5.75

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Hi_Bob_Federal_2H_Casing_Assumptions_20190627120910.pdf

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Hi_Bob_Federal_2H_Casing_Assumptions_20190627120930.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Hi_Bob_Federal_2H_Casing_Assumptions_20190627120940.pdf

5.5_17_HCP110_Data_Sheet_20190627121004.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	225	250	1.34	14.8	335	100	Class C	Calcium Chloride

INTERMEDIATE	Lead		0	1250	230	1.97	12.9	453	50	Class C	KolSeal
INTERMEDIATE	Tail		0	1250	200	1.34	14.8	268	50	Class C	Calcium Chloride

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	7582	420	2.63	11.5	1105	50	Class C	Kol Seal
PRODUCTION	Tail		0	7582	1270	1.31	14	1664	50	Class C	Kol Seal

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1250	3215	OTHER : Cut Brine	10	10.5							
225	1250	OTHER : BRINE	8.7	9							
0	225	OTHER : FRESH WATER	9	9.6							

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

None planned

List of open and cased hole logs run in the well:

DS,GR,MUDLOG

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 1800

Anticipated Surface Pressure: 1092.7

Anticipated Bottom Hole Temperature(F): 105

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Hi_Bob_Federal_Lease_H2S_Contingency_Plan_20190627131029.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Hi_Bob_Federal_2H_AC_Report_20190627131229.pdf

Hi_Bob_Federal_2H_Directional_Plan_20190627131231.pdf

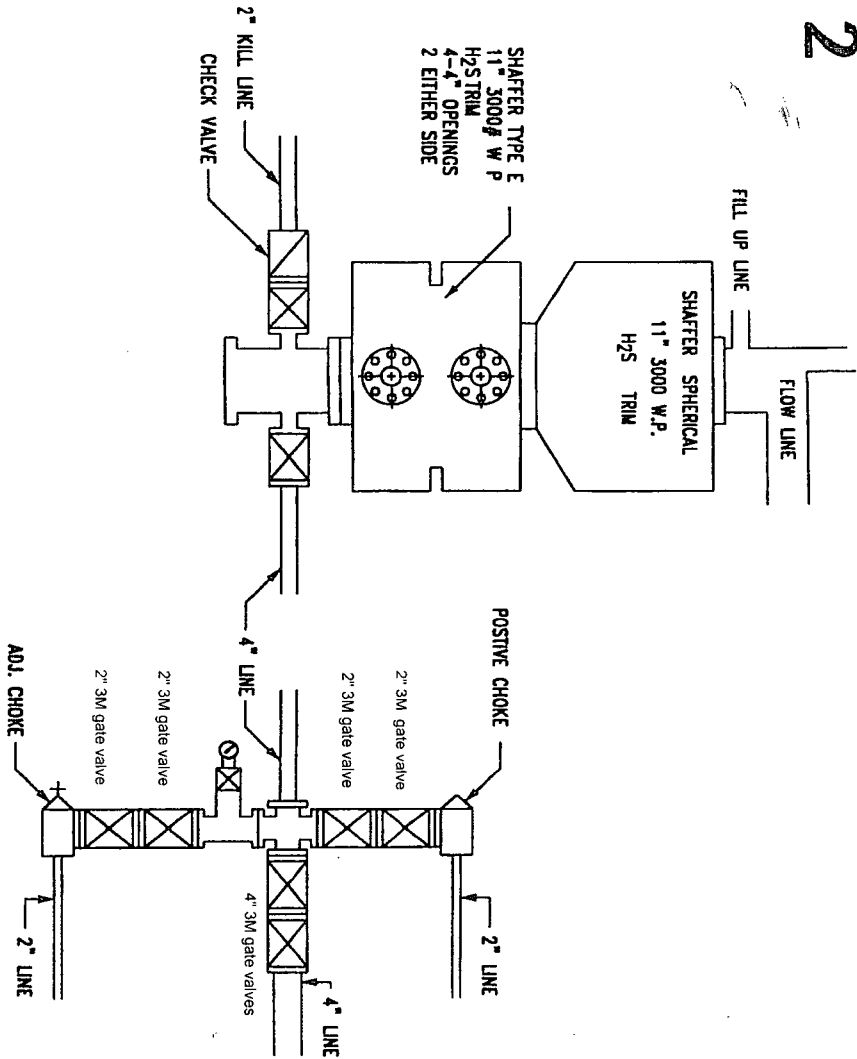
Other proposed operations facets description:

Gas Capture Plan attached

Other proposed operations facets attachment:

Hi_Bob_Federal_2H_GCP_20190627131646.pdf

Other Variance attachment:



Greasewood Federal 3H

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	C
Surface	225	13-3/8"	48	H-40	STC	
Intermediate	1250	9-5/8"	40	J-55	LTC	
Production	8947	5-1/2"	17	HPC-110	GBCD	

i Bob Federal #2H
Chaves County, New Mexico
Job No: WT-19-***
Log: Stoneham 6



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	
2	2737.54	0.00	0.00	2737.54	0.00	0.00	0.000	0.00	0.00	KOP: 12°/100' @ 2737.54' MD
3	3487.54	90.00	180.02	3215.00	-477.46	-0.17	12.000	180.02	477.46	Hold: 90.00° Inc, 180.02° Azm
4	7582.57	90.00	180.02	3215.00	-4572.50	-1.60	0.000	0.00	4572.50	TD @ 7582.57' MD/3215.00' TVD

DESIGN TARGET DETAILS						
Lane	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
BHL - Hi Bob Fed #2H	3215.00	-4572.50	-1.60	732103.30	625770.60	33° 0' 44.094 N
						104° 3' 28.402 W

PROJECT DETAILS: Chaves County, New Mexico

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

SITE DETAILS: Hi Bob Federal #2H

Site Centre Northing: 736675.80
Easting: 625772.20

Positional Uncertainty: 0.00
Convergence: 0.15
Local North: Grid

T

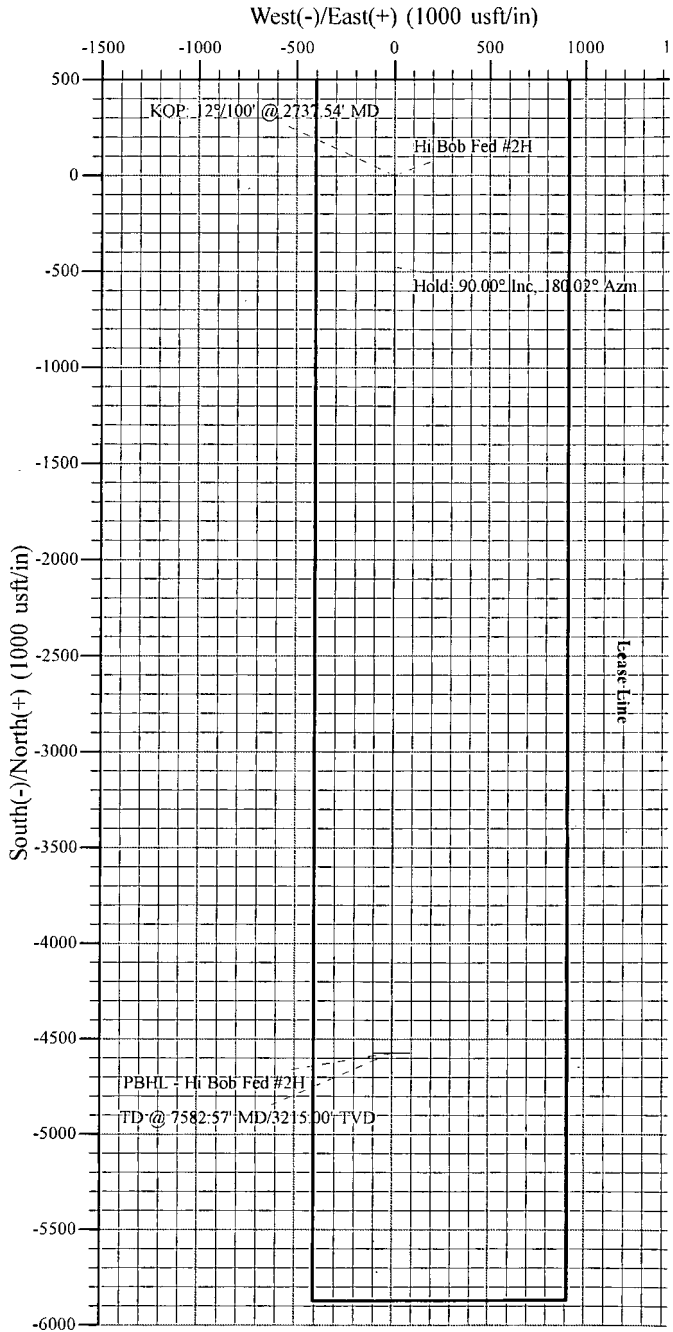
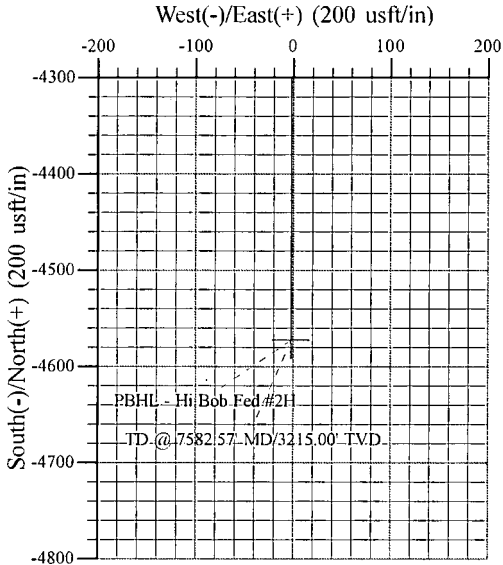
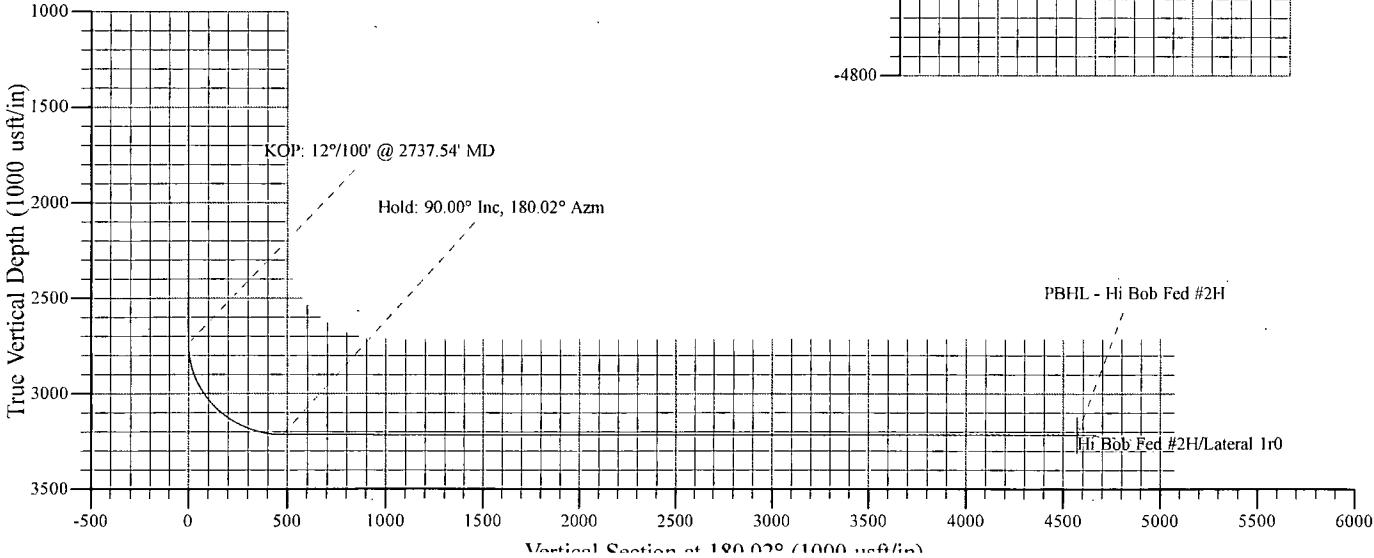
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Azimuths to Grid North
True North: -0.15°
Magnetic North: 7.19°

Magnetic Field
Strength: 48136.3nT
Dip Angle: 60.66°
Date: 9/1/2019
Model: MVHD

Drawn By: PBR
Date Created: 05/28/19
Date Revised: 05/28/19
File: Marshall & Winston - Hi Bob Federal #2H - Lateral
1r0.wpc



Survey Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Site Hi Bob Federal #2H
Project:	Chaves County, New Mexico	TVD Reference:	Well @ 3804.00usft (Stoneham 6)
Site:	Hi Bob Federal #2H	MD Reference:	Well @ 3804.00usft (Stoneham 6)
Well:	Hi Bob Fed #2H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r0	Database:	EDMRESTORED

Project	Chaves County, New Mexico		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Hi Bob Federal #2H		
-------------	--------------------	--	--

Site Position:		Northing:	736,675.80 usft	Latitude:	33° 1' 29.337 N
From:	Map	Easting:	625,772.20 usft	Longitude:	104° 3' 28.243 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.15 °

Well	Hi Bob Fed #2H				
-------------	----------------	--	--	--	--

Well Position	+N/-S	0.00 usft	Northing:	736,675.80 usft	Latitude:	33° 1' 29.337 N
	+E/-W	0.00 usft	Easting:	625,772.20 usft	Longitude:	104° 3' 28.243 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,787.00 usft

Wellbore	Planning				
-----------------	----------	--	--	--	--

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	9/1/2019	7.34	60.66	48,136.31540837

Design	Lateral 1r0				
---------------	-------------	--	--	--	--

Audit Notes:					
Version:		Phase:	PROTOTYPE	Tie On Depth:	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	180.02

Survey Tool Program	Date 5/28/2019				
----------------------------	----------------	--	--	--	--

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	7,582.58	Lateral 1r0 (Planning)	MWD+HDGM	OWSG MWD + HDGM

Planned Survey										
-----------------------	--	--	--	--	--	--	--	--	--	--

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.000	0.000	0.000
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.000	0.000	0.000
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.000	0.000	0.000
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.000	0.000	0.000
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.000	0.000	0.000
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.000	0.000	0.000
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.000	0.000	0.000

Survey Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Site Hi Bob Federal #2H
Project:	Chaves County, New Mexico	TVD Reference:	Well @ 3804.00usft (Stoneham 6)
Site:	Hi Bob Federal #2H	MD Reference:	Well @ 3804.00usft (Stoneham 6)
Well:	Hi Bob Fed #2H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r0	Database:	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.000	0.000	0.000
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.000	0.000	0.000
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.000	0.000	0.000
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.000	0.000	0.000
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.000	0.000	0.000
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.000	0.000	0.000
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.000	0.000	0.000
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.000	0.000	0.000
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.000	0.000	0.000
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.000	0.000	0.000
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.000	0.000	0.000
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.000	0.000	0.000
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.000	0.000	0.000
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.000	0.000	0.000
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.000	0.000	0.000
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.000	0.000	0.000
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.000	0.000	0.000
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.000	0.000	0.000
2,737.54	0.00	0.00	2,737.54	0.00	0.00	0.00	0.000	0.000	0.000
KOP: 12°/100' @ 2737.54' MD									
2,750.00	1.50	180.02	2,750.00	-0.16	0.00	0.16	12.000	12.000	0.000
2,775.00	4.50	180.02	2,774.96	-1.47	0.00	1.47	12.000	12.000	0.000
2,800.00	7.50	180.02	2,799.82	-4.08	0.00	4.08	12.000	12.000	0.000
2,825.00	10.50	180.02	2,824.51	-7.99	0.00	7.99	12.000	12.000	0.000
2,850.00	13.50	180.02	2,848.96	-13.18	0.00	13.18	12.000	12.000	0.000
2,875.00	16.50	180.02	2,873.11	-19.65	-0.01	19.65	12.000	12.000	0.000
2,900.00	19.50	180.02	2,896.88	-27.37	-0.01	27.37	12.000	12.000	0.000
2,925.00	22.50	180.02	2,920.22	-36.33	-0.01	36.33	12.000	12.000	0.000
2,950.00	25.50	180.02	2,943.06	-46.49	-0.02	46.49	12.000	12.000	0.000
2,975.00	28.50	180.02	2,965.33	-57.84	-0.02	57.84	12.000	12.000	0.000
3,000.00	31.50	180.02	2,986.98	-70.34	-0.02	70.34	12.000	12.000	0.000
3,025.00	34.50	180.02	3,007.95	-83.95	-0.03	83.95	12.000	12.000	0.000
3,050.00	37.50	180.02	3,028.17	-98.64	-0.03	98.64	12.000	12.000	0.000
3,075.00	40.50	180.02	3,047.60	-114.37	-0.04	114.37	12.000	12.000	0.000
3,100.00	43.50	180.02	3,066.18	-131.10	-0.05	131.10	12.000	12.000	0.000
3,125.00	46.50	180.02	3,083.85	-148.77	-0.05	148.77	12.000	12.000	0.000
3,150.00	49.50	180.02	3,100.58	-167.35	-0.06	167.35	12.000	12.000	0.000
3,175.00	52.50	180.02	3,116.31	-186.77	-0.07	186.77	12.000	12.000	0.000
3,200.00	55.50	180.02	3,131.01	-206.99	-0.07	206.99	12.000	12.000	0.000
3,225.00	58.50	180.02	3,144.62	-227.96	-0.08	227.96	12.000	12.000	0.000
3,250.00	61.50	180.02	3,157.12	-249.60	-0.09	249.60	12.000	12.000	0.000
3,275.00	64.50	180.02	3,168.48	-271.88	-0.10	271.88	12.000	12.000	0.000
3,300.00	67.50	180.02	3,178.64	-294.71	-0.10	294.71	12.000	12.000	0.000
3,325.00	70.50	180.02	3,187.60	-318.05	-0.11	318.05	12.000	12.000	0.000

Survey Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Site Hi Bob Federal #2H
Project:	Chaves County, New Mexico	TVD Reference:	Well @ 3804.00usft (Stoneham 6)
Site:	Hi Bob Federal #2H	MD Reference:	Well @ 3804.00usft (Stoneham 6)
Well:	Hi Bob Fed #2H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r0	Database:	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,350.00	73.50	180.02	3,195.33	-341.82	-0.12	341.82	12.000	12.000	0.000
3,375.00	76.50	180.02	3,201.80	-365.96	-0.13	365.96	12.000	12.000	0.000
3,400.00	79.50	180.02	3,207.00	-390.41	-0.14	390.41	12.000	12.000	0.000
3,425.00	82.50	180.02	3,210.91	-415.10	-0.15	415.10	12.000	12.000	0.000
3,450.00	85.50	180.02	3,213.53	-439.96	-0.15	439.96	12.000	12.000	0.000
3,475.00	88.50	180.02	3,214.84	-464.93	-0.16	464.93	12.000	12.000	0.000
3,487.54	90.00	180.02	3,215.00	-477.47	-0.17	477.47	11.999	11.999	0.000
Hold: 90.00° Inc, 180.02° Azm									
3,500.00	90.00	180.02	3,215.00	-489.93	-0.17	489.93	0.000	0.000	0.000
3,600.00	90.00	180.02	3,215.00	-589.93	-0.21	589.93	0.000	0.000	0.000
3,700.00	90.00	180.02	3,215.00	-689.93	-0.24	689.93	0.000	0.000	0.000
3,800.00	90.00	180.02	3,215.00	-789.93	-0.28	789.93	0.000	0.000	0.000
3,900.00	90.00	180.02	3,215.00	-889.93	-0.31	889.93	0.000	0.000	0.000
4,000.00	90.00	180.02	3,215.00	-989.93	-0.35	989.93	0.000	0.000	0.000
4,100.00	90.00	180.02	3,215.00	-1,089.93	-0.38	1,089.93	0.000	0.000	0.000
4,200.00	90.00	180.02	3,215.00	-1,189.93	-0.42	1,189.93	0.000	0.000	0.000
4,300.00	90.00	180.02	3,215.00	-1,289.93	-0.45	1,289.93	0.000	0.000	0.000
4,400.00	90.00	180.02	3,215.00	-1,389.93	-0.49	1,389.93	0.000	0.000	0.000
4,500.00	90.00	180.02	3,215.00	-1,489.93	-0.52	1,489.93	0.000	0.000	0.000
4,600.00	90.00	180.02	3,215.00	-1,589.93	-0.56	1,589.93	0.000	0.000	0.000
4,700.00	90.00	180.02	3,215.00	-1,689.93	-0.59	1,689.93	0.000	0.000	0.000
4,800.00	90.00	180.02	3,215.00	-1,789.93	-0.63	1,789.93	0.000	0.000	0.000
4,900.00	90.00	180.02	3,215.00	-1,889.93	-0.66	1,889.93	0.000	0.000	0.000
5,000.00	90.00	180.02	3,215.00	-1,989.93	-0.70	1,989.93	0.000	0.000	0.000
5,100.00	90.00	180.02	3,215.00	-2,089.93	-0.73	2,089.93	0.000	0.000	0.000
5,200.00	90.00	180.02	3,215.00	-2,189.93	-0.77	2,189.93	0.000	0.000	0.000
5,300.00	90.00	180.02	3,215.00	-2,289.93	-0.80	2,289.93	0.000	0.000	0.000
5,400.00	90.00	180.02	3,215.00	-2,389.93	-0.84	2,389.93	0.000	0.000	0.000
5,500.00	90.00	180.02	3,215.00	-2,489.93	-0.87	2,489.93	0.000	0.000	0.000
5,600.00	90.00	180.02	3,215.00	-2,589.93	-0.91	2,589.93	0.000	0.000	0.000
5,700.00	90.00	180.02	3,215.00	-2,689.93	-0.94	2,689.93	0.000	0.000	0.000
5,800.00	90.00	180.02	3,215.00	-2,789.93	-0.98	2,789.93	0.000	0.000	0.000
5,900.00	90.00	180.02	3,215.00	-2,889.93	-1.01	2,889.93	0.000	0.000	0.000
6,000.00	90.00	180.02	3,215.00	-2,989.93	-1.05	2,989.93	0.000	0.000	0.000
6,100.00	90.00	180.02	3,215.00	-3,089.93	-1.08	3,089.93	0.000	0.000	0.000
6,200.00	90.00	180.02	3,215.00	-3,189.93	-1.12	3,189.93	0.000	0.000	0.000
6,300.00	90.00	180.02	3,215.00	-3,289.93	-1.15	3,289.93	0.000	0.000	0.000
6,400.00	90.00	180.02	3,215.00	-3,389.93	-1.19	3,389.93	0.000	0.000	0.000
6,500.00	90.00	180.02	3,215.00	-3,489.93	-1.22	3,489.93	0.000	0.000	0.000
6,600.00	90.00	180.02	3,215.00	-3,589.93	-1.26	3,589.93	0.000	0.000	0.000
6,700.00	90.00	180.02	3,215.00	-3,689.93	-1.29	3,689.93	0.000	0.000	0.000
6,800.00	90.00	180.02	3,215.00	-3,789.93	-1.33	3,789.93	0.000	0.000	0.000
6,900.00	90.00	180.02	3,215.00	-3,889.93	-1.36	3,889.93	0.000	0.000	0.000

Survey Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Site Hi Bob Federal #2H
Project:	Chaves County, New Mexico	TVD Reference:	Well @ 3804.00usft (Stoneham 6)
Site:	Hi Bob Federal #2H	MD Reference:	Well @ 3804.00usft (Stoneham 6)
Well:	Hi Bob Fed #2H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r0	Database:	EDMRESTORED

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
7,000.00	90.00	180.02	3,215.00	-3,989.93	-1.40	3,989.93	0.000	0.000	0.000	
7,100.00	90.00	180.02	3,215.00	-4,089.93	-1.43	4,089.93	0.000	0.000	0.000	
7,200.00	90.00	180.02	3,215.00	-4,189.93	-1.47	4,189.93	0.000	0.000	0.000	
7,300.00	90.00	180.02	3,215.00	-4,289.93	-1.50	4,289.93	0.000	0.000	0.000	
7,400.00	90.00	180.02	3,215.00	-4,389.93	-1.54	4,389.93	0.000	0.000	0.000	
7,500.00	90.00	180.02	3,215.00	-4,489.93	-1.57	4,489.93	0.000	0.000	0.000	
7,582.57	90.00	180.02	3,215.00	-4,572.50	-1.60	4,572.50	0.000	0.000	0.000	
TD @ 7582.57' MD/3215.00' TVD - PBHL - Hi Bob Fed #2H										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
PBHL - Hi Bob Fed #2	0.00	0.00	3,215.00	-4,572.50	-1.60	732,103.30	625,770.60	33° 0' 44.094 N	104° 3' 28.402 W	
- plan hits target center										
- Point										

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2738	2738	0	0	KOP: 12°/100' @ 2737.54' MD	
3488	3215	-477	0	Hold: 90.00° Inc, 180.02° Azm	
7583	3215	-4572	-2	TD @ 7582.57' MD/3215.00' TVD	

Checked By: _____	Approved By: _____	Date: _____
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U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

SUPO Data Report

10/21/2019

APD ID: 10400043212

Submission Date: 07/15/2019

Highlighted data
reflects the most
recent changes

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Hi_Bob_Federal_2H_Existing_Roads_20190627131749.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Hi_Bob_Federal_2H_Access_Roads_20190627131843.pdf

New road type: RESOURCE

Length: 580

Feet

Width (ft.): 25

Max slope (%): 2

Max grade (%): 2

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 15

New road access erosion control: Road construction requirements and regular maintenance would alleviate potential impacts to the access road from water erosion damage.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Turnout? N

Access surfacing type: OTHER

Access topsoil source: BOTH

Access surfacing type description: Native caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description: Material will be obtained from BLM caliche pit in SWNE Section 34-T15S-R29E or BLM pit in SENE Section 1-T16S-R30E

Onsite topsoil removal process: The top 6 inches of topsoil is pushed off and stockpiled along the side of the location. An approximate 150' X 150' area is used within the proposed well site to remove caliche. Subsoil is removed and stockpiled within the pad site to build the location and road. Then subsoil is pushed back in the hole and caliche is spread accordingly across proposed access road.

Access other construction information:

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Proposed access road will be crowned and ditched and constructed of 6 inch rolled and compacted caliche. Water will be diverted where necessary to avoid ponding, maintain good drainage, and to be consistent with local drainage patterns.

Road Drainage Control Structures (DCS) description: The ditches will be 3' wide with 3:1 slopes

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Hi_Bob_Federal_2H_1_MILE_MAP_20190627133712.pdf

Hi_Bob_Federal_2H_1_Mile_Wells_20190627133713.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: Battery will include 250# 2-phase separator, 6' x 20' Heater treater, 4 500bbl steel tanks and 3 500 bbl fiberglass tanks set on the north or south side of location.

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: BRINE WATER

Water source use type: INTERMEDIATE/PRODUCTION
CASING

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER

Describe transportation land ownership:

Water source volume (barrels): 20000

Source volume (acre-feet): 2.577862

Source volume (gal): 840000

Water source type: OTHER

Describe type: FRESH WATER

Water source use type: STIMULATION
OTHER
SURFACE CASING

Describe use type: ROAD & PAD CONSTRUCTION

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER

Describe transportation land ownership:

Water source volume (barrels): 250000

Source volume (acre-feet): 32.223274

Source volume (gal): 10500000

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Water source and transportation map:

Hi_Bob_Federal_Water_Source_Map_20190627134126.pdf

Water source comments: Water source transportation land ownership is a mixture of Federal, State and County.

New water well? NO

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: On site caliche will be used for construction if sufficient. In the event insufficient quantities of caliche are available onsite, caliche will be trucked in from BLM's caliche pit in SWNE Section 34-T15S-R29E or SENE Section 1-T16S-R30E.

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling fluids and cuttings

Amount of waste: 4000 barrels

Waste disposal frequency : One Time Only

Safe containment description: All drilling fluids will be stored safely and disposed of properly

Safe containant attachment:

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Waste type: SEWAGE

Waste content description: Human waste and grey water

Amount of waste: 1000 gallons

Waste disposal frequency : One Time Only

Safe containment description: Waste material will be stored safely and disposed of properly

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Trucked to an approved disposal facility.

Waste type: GARBAGE

Waste content description: Miscellaneous trash

Amount of waste: 500 pounds

Waste disposal frequency : One Time Only

Safe containment description: Trash produced during drilling and completion operations will be collected in a trash container and disposed of properly

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Cuttings will be stored in roll off bins

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Hi_Bob_Federal_2H_Wellpad_Layout_20190627134328.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name:

Multiple Well Pad Number:

Recontouring attachment:

Drainage/Erosion control construction: During construction proper erosion control methods will be used to control erosion, runoff and siltation of the surrounding area.

Drainage/Erosion control reclamation: Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Well pad proposed disturbance (acres): 3.673095	Well pad interim reclamation (acres): 0.734619	Well pad long term disturbance (acres): 3.673095
Road proposed disturbance (acres): 0.332874	Road interim reclamation (acres): 0.199725	Road long term disturbance (acres): 0.332874
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 0	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): 0	Other interim reclamation (acres): 0	Other long term disturbance (acres): 0
Total proposed disturbance: 4.005969	Total interim reclamation: 0.934344	Total long term disturbance: 4.005969

Disturbance Comments:

Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations

Soil treatment: To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

Existing Vegetation at the well pad: Shinnery oak; topsoil is sandy.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Refer to "Existing Vegetation at the well pad"

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: N/A

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: N/A

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre
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Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name:

Last Name:

Phone:

Email:

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: No invasive species present. Standard regular maintenance to maintain a clear location and road.

Weed treatment plan attachment:

Monitoring plan description: Identify areas supporting weeds prior to construction; prevent the introduction and spread of weeds from construction equipment during construction; and contain weed seeds and propagules by preventing segregated topsoil from being spread to adjacent areas. No invasive species present. Standard regular maintenance to maintain a clear location and road.

Monitoring plan attachment:

Success standards: To maintain all disturbed areas as per Gold Book standards

Pit closure description: N/A

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Fee Owner: Bogle Ranch

Fee Owner Address:

Phone: (575)365-6927

Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: Surface use and compensation agreement dated October 29, 2018 between Bogle Limited Company and Marshall & Winston, Inc.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Fee Owner: Bogle Ranch

Fee Owner Address:

Phone: (575)365-6927

Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: Surface use and compensation agreement dated October 29, 2018 between Bogle Limited Company and Marshall & Winston, Inc.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

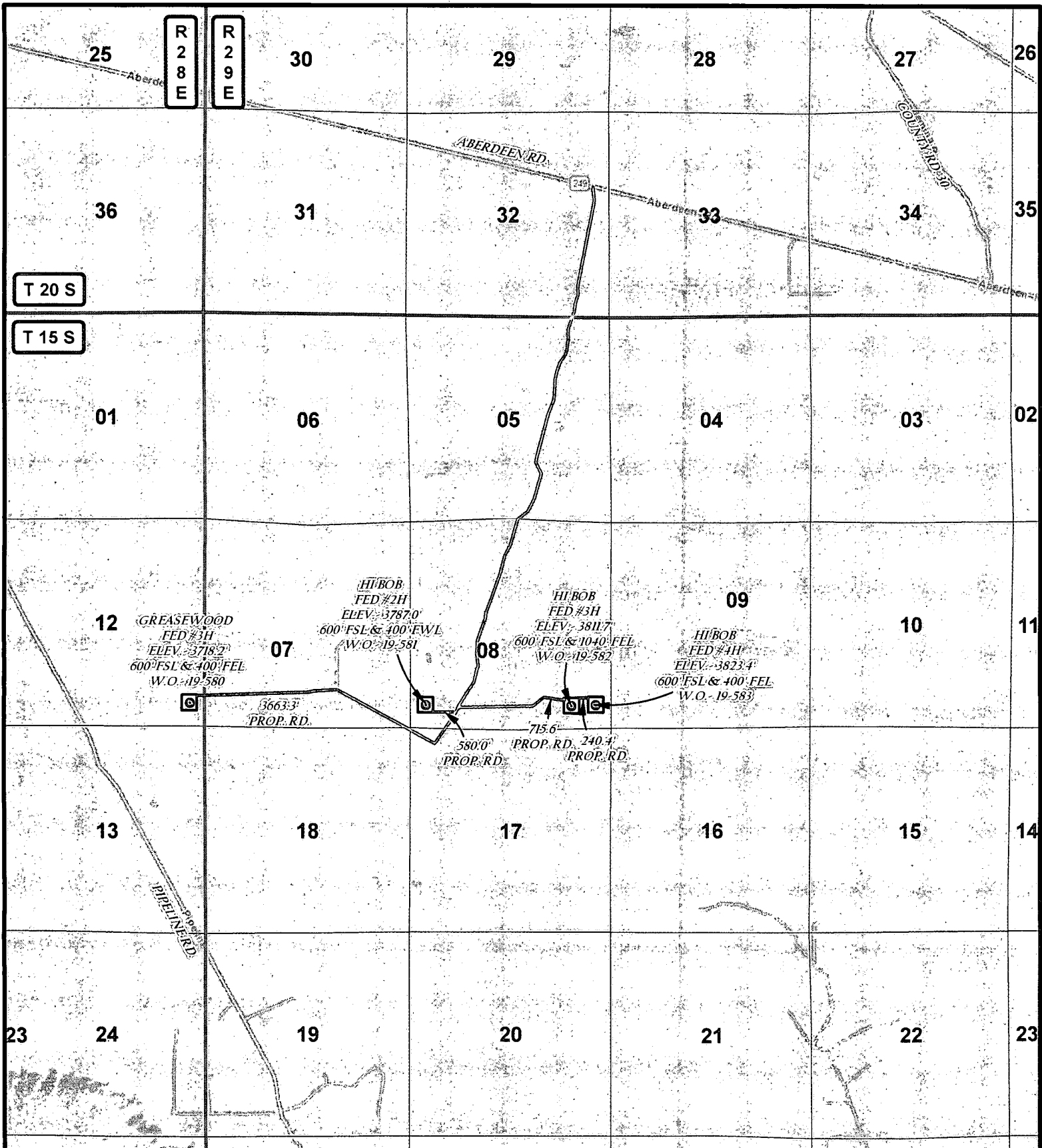
Well Number: 2H

SUPO Additional Information:





Use a previously conducted onsite? YES

Previous Onsite information: Onsite conducted 04/04/19 with BLM rep, Forrest Mayer and Marshall & Winston rep, Todd Passmore.

Other SUPO Attachment



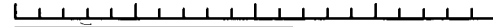
LEGEND

-  WELL
-  WELLPAD
-  EXISTING ROAD
-  PROPOSED ROAD

GREASEWOOD FEDERAL & HI BOB FEDERAL WELLS

SECTIONS: 8 & 12 TOWNSHIP: 15 S. RANGES: 28 & 29 E.
 STATE: NEW MEXICO COUNTY: CHAVES SURVEY: N.M.P.M
 W.O. # 19-(580-583) LEASE: GREASEWOOD FED / HI BOB FED

0 2,500 5,000 7,500 10,000 FEET



0 0.275 0.55 1.1 Miles

1 IN = 4,000 FT

LOCATION OVERVIEW

VICINITY

5/9/2019

J.H

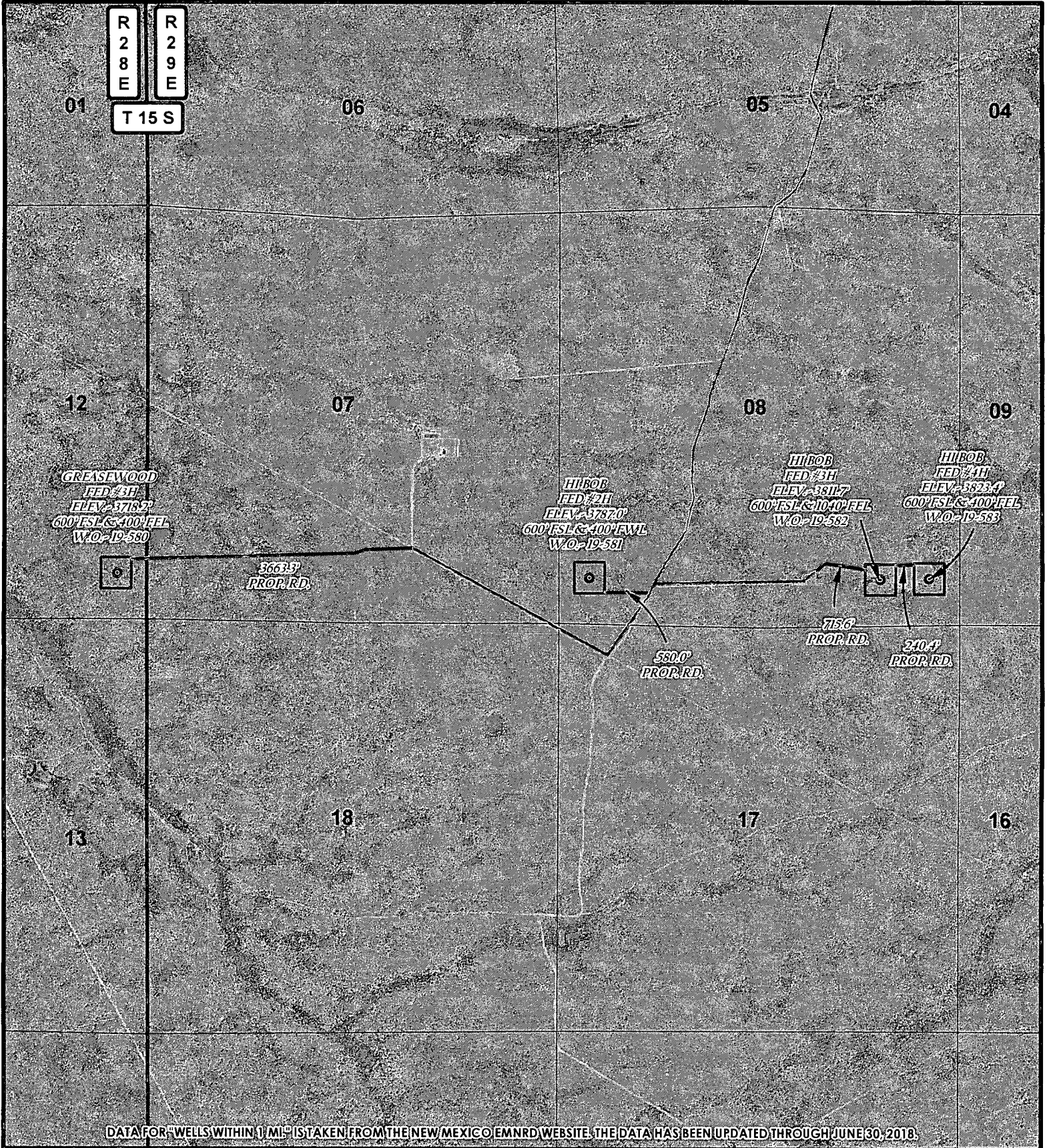


HARCROW SURVEYING, LLC.
 2316 W. MAIN ST, ARTESIA, NM 88210
 PH: (575) 746-2158
 c.harcrow@harcrowsurveying.com

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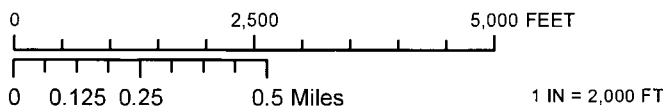
DATA FOR WELLS WITHIN 1 MI. IS TAKEN FROM THE NEW MEXICO EMNRD WEBSITE. THE DATA HAS BEEN UPDATED THROUGH JUNE 30, 2018.

LEGEND

- WELL
- WELLPAD
- EXISTING ROAD
- PROPOSED ROAD

GREASEWOOD FEDERAL & HI BOB FEDERAL WELLS

SECTIONS: 8 & 12 TOWNSHIP: 15 S. RANGES: 28 & 29 E.
 STATE: NEW MEXICO COUNTY: CHAVES SURVEY: N.M.P.M
 W.O. # 19-(580-583) LEASE: GREASEWOOD FED / HI BOB FED



LOCATION OVERVIEW

IMAGERY

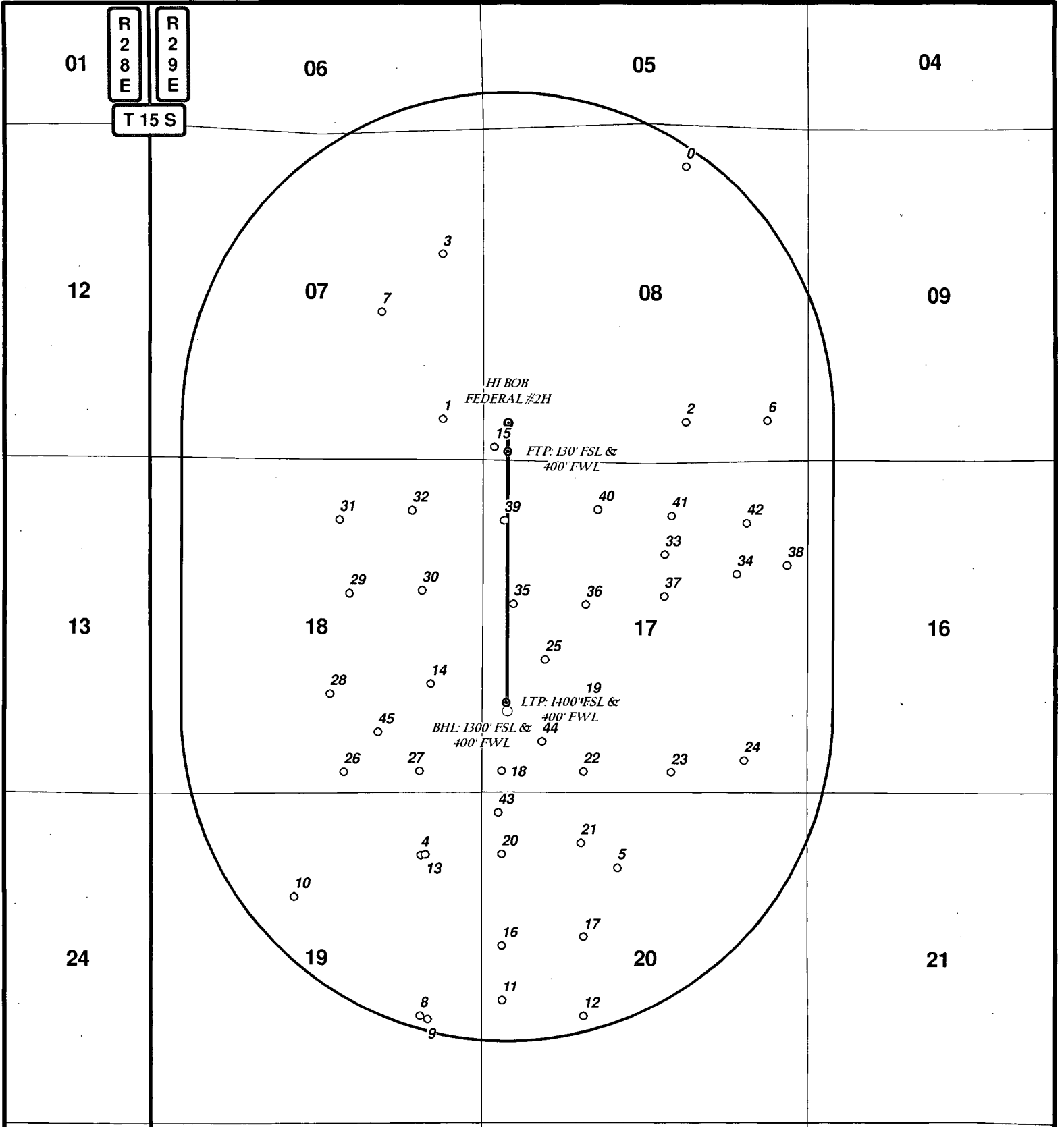
5/9/2019

J.H.



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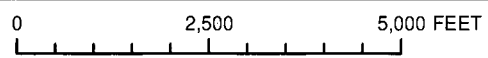
DATA FOR "WELLS WITHIN 1 MI." IS TAKEN FROM THE NEW MEXICO EMNRD WEBSITE. THE DATA HAS BEEN UPDATED THROUGH JUNE 30, 2018.

LEGEND

- WELL
- BOTTOMHOLE
- WELLS WITHIN 1 MI.
- 1 MI. BUFFER

HI BOB FEDERAL #2H

SEC: 8 TWP: 15 S. RGE: 29 E. ELEVATION: 3787.0'
 STATE: NEW MEXICO COUNTY: CHAVES 600' FSL & 400' FWL
 W.O. # 19-1169 LEASE: HI BOB FED SURVEY: N.M.P.M



1 IN = 2,500 FT

1 MILE MAP

6/26/2019

W.N.

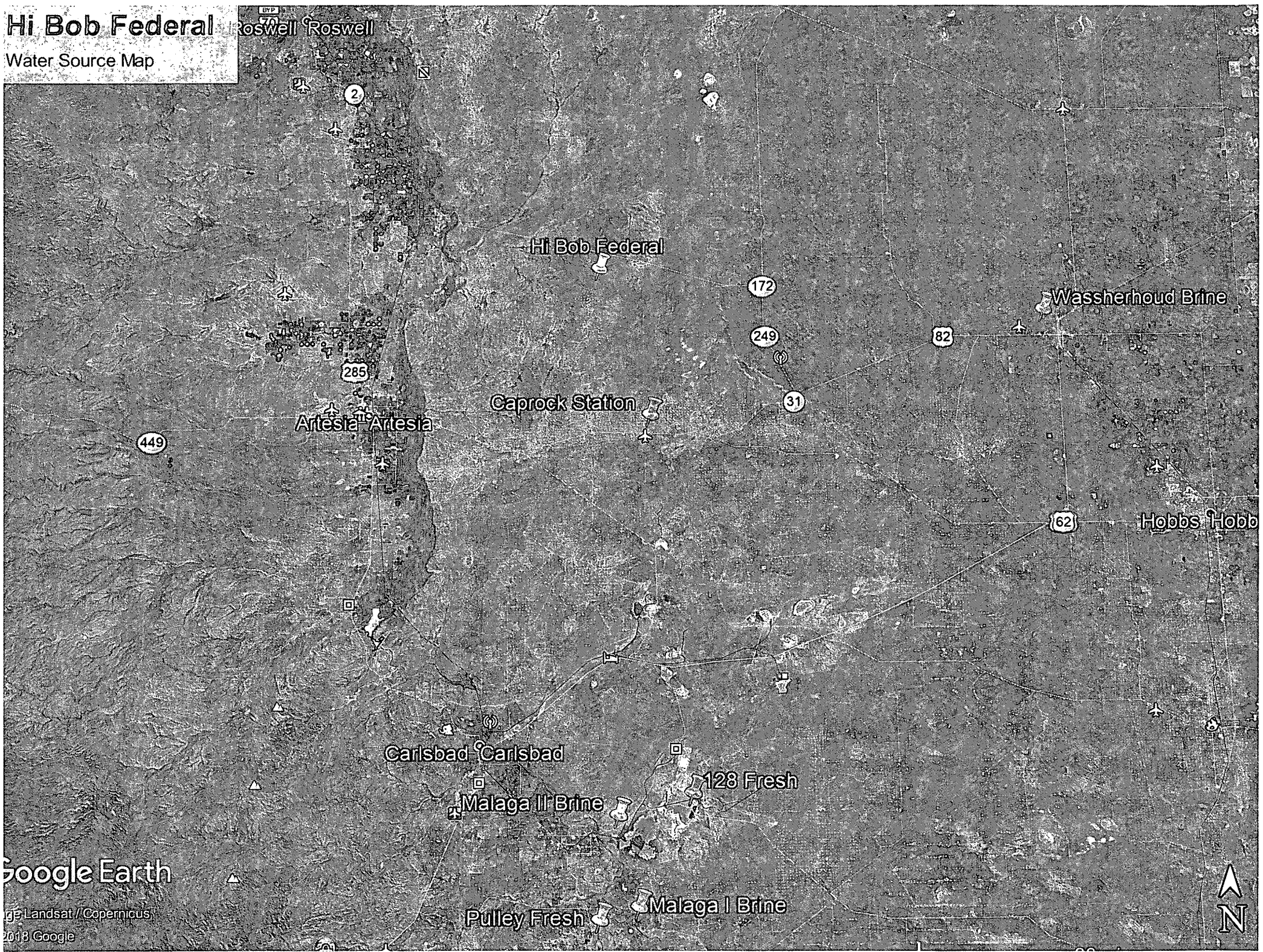


HI BOB FEDERAL #2H-1 MILE DATA (19-1169)

FID	WELL NAME	OPERATOR	API	SEC	TWN	RANGE	FTG	NS	FTG	EW	LATITUDE	LONGITUDE	COMPL STAT
0	PEPPER FED 001	MCCLELLAN OIL CORPORATION	3000560221	8	15.05	29E	660	N	1980	E	33.036079	-104.048432	Plugged
1	FEDERAL 7 001	MCCLELLAN OIL CORPORATION	3000560288	7	15.05	29E	660	S	660	E	33.025008	-104.061299	Plugged
2	PEPPER FED 002	MCCLELLAN OIL CORPORATION	3000560312	8	15.05	29E	660	S	1980	E	33.024903	-104.048456	Plugged
3	DOS PAPALOTES UT 001	MCCLELLAN OIL CORPORATION	3000560362	7	15.05	29E	1980	N	660	E	33.032199	-104.061292	Plugged
4	MO FED 001	MCCLELLAN OIL CORPORATION	3000562505	19	15.05	29E	990	N	990	E	33.005938	-104.062456	Plugged
5	EXCALIBUR 20 FEDERAL COM 001	DOMINION OKLAHOMA TEXAS EXPL. & PROD INC	3000563460	20	15.05	29E	1190	N	2180	W	33.005406	-104.052067	Plugged
6	LEANIN L FEDERAL UNIT 001	EOG Y RESOURCES, INC.	3000563738	8	15.05	29E	660	S	660	E	33.024972	-104.044128	Plugged
7	BLUE BOMBER FEDERAL 001	MACK ENERGY CORP	3000564059	7	15.05	29E	2310	S	1650	E	33.029661	-104.064512	New (Not drilled or compl)
8	SEAHAWKS FEDERAL 002	MACK ENERGY CORP	3000564093	19	15.05	29E	1650	S	990	E	32.998884	-104.062517	New (Not drilled or compl)
9	SEAHAWKS FEDERAL 002	MACK ENERGY CORP	3000564207	19	15.05	29E	1588	S	859	E	32.998714	-104.062089	New (Not drilled or compl)
10	VICTORIA FEDERAL 006	MACK ENERGY CORP	3000564209	19	15.05	29E	1650	N	2310	W	33.004117	-104.069159	New (Not drilled or compl)
11	PRINCE RUPERT FEDERAL 001	MACK ENERGY CORP	3000564222	20	15.05	29E	1900	S	330	W	32.999574	-104.058183	New (Not drilled or compl)
12	PRINCE RUPERT FEDERAL 002	MACK ENERGY CORP	3000564223	20	15.05	29E	1650	S	1650	W	32.998877	-104.053864	New (Not drilled or compl)
13	BLIND RIVER FEDERAL 001	MACK ENERGY CORP	3000564224	19	15.05	29E	990	N	890	E	33.005985	-104.062202	New (Not drilled or compl)
14	BLIND RIVER FEDERAL 005	MACK ENERGY CORP	3000564225	18	15.05	29E	1725	S	840	E	33.013449	-104.061941	New (Not drilled or compl)
15	REGINA FEDERAL 001	MACK ENERGY CORP	3000564226	8	15.05	29E	180	S	180	W	33.023793	-104.058594	New (Not drilled or compl)
16	WATERLOO FEDERAL 001	MACK ENERGY CORP	3000564227	20	15.05	29E	2460	N	330	W	33.001961	-104.058186	New (Not drilled or compl)
17	WATERLOO FEDERAL 004	MACK ENERGY CORP	3000564228	20	15.05	29E	2310	N	1650	W	33.002352	-104.053861	New (Not drilled or compl)
18	WHISTLER FEDERAL 001	MACK ENERGY CORP	3000564229	17	15.05	29E	330	S	330	W	33.009629	-104.058194	New (Not drilled or compl)
19	WHISTLER FEDERAL 006	MACK ENERGY CORP	3000564230	17	15.05	29E	1450	S	1650	W	33.012686	-104.053794	New (Not drilled or compl)
20	WATERLOO FEDERAL 002	MACK ENERGY CORP	3000564238	20	15.05	29E	990	N	330	W	33.006001	-104.058204	New (Not drilled or compl)
21	WATERLOO FEDERAL 003	MACK ENERGY CORP	3000564239	20	15.05	29E	805	N	1615	W	33.006489	-104.053994	New (Not drilled or compl)
22	WHISTLER FEDERAL 002	MACK ENERGY CORP	3000564240	17	15.05	29E	330	S	1650	W	33.009608	-104.053867	New (Not drilled or compl)
23	PRINCE RUPERT FEDERAL 003	MACK ENERGY CORP	3000564241	17	15.05	29E	330	S	2160	E	33.009585	-104.049221	New (Not drilled or compl)
24	MONTREAL FEDERAL COM 001H	MACK ENERGY CORP	3000564242	17	15.05	29E	530	S	990	E	33.010116	-104.045378	New (Not drilled or compl)
25	WHISTLER FEDERAL 005	MACK ENERGY CORP	3000564243	17	15.05	29E	2110	S	990	W	33.01451	-104.055916	New (Not drilled or compl)
26	BLIND RIVER FEDERAL 002	MACK ENERGY CORP	3000564244	18	15.05	29E	330	S	2210	E	33.009579	-104.066523	New (Not drilled or compl)
27	BLIND RIVER FEDERAL 003	MACK ENERGY CORP	3000564245	18	15.05	29E	330	S	990	E	33.00961	-104.062522	New (Not drilled or compl)
28	BLIND RIVER FEDERAL 004	MACK ENERGY CORP	3000564250	18	15.05	29E	1575	S	2460	E	33.012996	-104.067263	New (Not drilled or compl)
29	BLIND RIVER FEDERAL 006	MACK ENERGY CORP	3000564251	18	15.05	29E	2160	N	2160	E	33.017378	-104.06623	New (Not drilled or compl)
30	BLIND RIVER FEDERAL 007	MACK ENERGY CORP	3000564252	18	15.05	29E	2110	N	990	E	33.017509	-104.062396	New (Not drilled or compl)
31	BLIND RIVER FEDERAL 008	MACK ENERGY CORP	3000564253	18	15.05	29E	990	N	2310	E	33.020595	-104.066744	New (Not drilled or compl)
32	BLIND RIVER FEDERAL 009	MACK ENERGY CORP	3000564254	18	15.05	29E	840	N	1140	E	33.021001	-104.062912	New (Not drilled or compl)
33	WHISTLER FEDERAL 007	MACK ENERGY CORP	3000564255	17	15.05	29E	1500	N	2310	E	33.019105	-104.049577	New (Not drilled or compl)
34	WHISTLER FEDERAL 008	MACK ENERGY CORP	3000564256	17	15.05	29E	1800	N	1140	E	33.018251	-104.045754	New (Not drilled or compl)
35	WHISTLER FEDERAL 009	MACK ENERGY CORP	3000564257	17	15.05	29E	2310	N	480	W	33.016941	-104.057573	New (Not drilled or compl)
36	WHISTLER FEDERAL 010	MACK ENERGY CORP	3000564258	17	15.05	29E	2310	N	1650	W	33.016911	-104.053738	New (Not drilled or compl)
37	WHISTLER FEDERAL 011	MACK ENERGY CORP	3000564259	17	15.05	29E	2160	N	2310	E	33.017292	-104.049603	New (Not drilled or compl)
38	WHISTLER FEDERAL 012	MACK ENERGY CORP	3000564260	17	15.05	29E	1650	N	330	E	33.018643	-104.043093	New (Not drilled or compl)
39	WHISTLER FEDERAL 013	MACK ENERGY CORP	3000564261	17	15.05	29E	990	N	330	W	33.020573	-104.05809	New (Not drilled or compl)
40	WHISTLER FEDERAL 014	MACK ENERGY CORP	3000564262	17	15.05	29E	800	N	1850	W	33.021057	-104.053111	New (Not drilled or compl)
41	WHISTLER FEDERAL 015	MACK ENERGY CORP	3000564263	17	15.05	29E	886	N	2204	E	33.02079	-104.049206	New (Not drilled or compl)
42	WHISTLER FEDERAL 016	MACK ENERGY CORP	3000564264	17	15.05	29E	990	N	990	E	33.020473	-104.045231	New (Not drilled or compl)
43	WATERLOO FEDERAL 005	MACK ENERGY CORP	3000564274	20	15.05	29E	330	N	280	W	33.007816	-104.058376	New (Not drilled or compl)
44	CHILLIWACK FEDERAL COM 001H	MACK ENERGY CORP	3000564311	17	15.05	29E	810	S	965	W	33.010938	-104.056081	New (Not drilled or compl)
45	SASKATOON FEDERAL COM 001H	MACK ENERGY CORP	3000564313	18	15.05	29E	960	S	1675	E	33.011325	-104.064728	New (Not drilled or compl)

Hi Bob Federal

Water Source Map



Google Earth

Imagery Landsat / Copernicus
2018 Google



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

PWD Data Report

10/21/2019

APD ID: 10400043212

Submission Date: 07/15/2019

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

10/21/2019

APD ID: 10400043212

Submission Date: 07/15/2019

Highlighted data
reflects the most
recent changes

Operator Name: MARSHALL & WINSTON INCORPORATED

Well Name: HI BOB FEDERAL

Well Number: 2H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB000807

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: