

30-025-41325

Surface Use Plan  
COG Operating, LLC  
Bufflehead 10 Federal SWD #1  
SL: 1980' FSL & 990' FEL      UL I  
Section 10, T26S, R32E  
Lea County, New Mexico

HOBBS OCD

AUG 08 2013

RECEIVED

# Surface Use & Operating Plan

## Bufflehead 10 Federal SWD #1

- Surface Tenant: Oliver Kiehne, P O Box 135, Orla, TX 79770.
- New Road: Approximately 2961'
- Flow Line: on well pad
- Facilities: will be constructed on well pad – see Exhibit 3

### Well Site Information

V Door: Northeast

Topsoil: Northwest

Interim Reclamation: Southwest and northwest

### Notes

Onsite: May 7, 2013 – Tanner Nygren (BLM) and Gerald Herrera (COG)

AUG 16 2013

## **SURFACE USE AND OPERATING PLAN**

### **1. Existing & Proposed Access Roads**

- A. The well site survey and elevation plat for the proposed well is attached with this application. It was staked by John West Surveying Company, Hobbs, NM.
- B. All roads to the location are shown in Exhibit #2A. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling the well will be done where necessary. The road route to the well site is depicted in Exhibit #2A. The road highlighted in Exhibit #2A will be used to access the well.
- C. Directions to location: See 600 x 600 plat for directions to location.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease. Roads will be maintained according to specifications in section 2A of this Surface Use and Operating Plan.

### **2. Proposed Access Road:**

The Elevation Plat shows that 2961' of new access road will be required for this location. If any road is required it will be constructed as follows:

- A. The maximum width of the running surface will be 14'. The road will be crowned, ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.
- E. Surfacing material will consist of native caliche. Caliche will be obtained from the actual well site if available. If not available onsite, caliche will be hauled from the nearest BLM approved caliche pit.

**3. Location of Existing Well:**

The One-Mile Radius Map shows existing wells within a one-mile radius of surface hole location and the bottom hole location.

There are numerous wells producing from the Bone Spring formation within the one-mile radius area.

**4. Location of Existing and/or Proposed Facilities:**

- 1) An SWD facility will be constructed as shown on Exhibit 3.
- 2) The facility will be installed according to API specifications.
- 3) Any additional caliche will be obtained from the actual well site. If caliche does not exist or is not plentiful from the well site, the caliche will be hauled from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.
- 4) It will be necessary to run electric power if this well is productive. Power will be provided by Xcel Energy and they will submit a separate plan and ROW for service to the well location.
- 5) Rehabilitation plans will include the following:
  - The original topsoil from the well site will be returned to the location, and the site will be re-contoured as close as possible to the original site.

**5. Location and Type of Water Supply:**

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Exhibit #2A. If a commercial fresh water source is nearby, fast line may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

**6. Source of Construction Materials and Location "Turn-Over" Procedure:**

Obtaining caliche: One primary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to obtaining caliche. 2400 cubic yards is the maximum amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:

- a. The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.
- b. An approximate 160' X 160' area is used within the proposed well site to remove caliche.
- c. Subsoil is removed and stockpiled within the surveyed well pad.
- d. When caliche is found, material will be stock piled within the pad site to build the location and road.
- e. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
- f. Once well is drilled, the stock piled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced.
- g. Neither caliche, nor subsoil will be stock piled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat.

In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or land.

**7. Methods of Handling Water Disposal:**

- A. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to an NMOCD approved disposal site.
- B. Drilling fluids will be contained in steel mud pits.
- C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility.
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. No toxic waste or hazardous chemicals will be produced by this operation.

- E. Human waste and grey water will need to be properly contained and disposed of. Proper disposal and elimination of waste and grey water may include but are not limited to portable septic systems and/or portable waste gathering systems (i.e. portable toilets).
- F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

**8. Ancillary Facilities:**

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

**9. Well Site Layout:**

- A. The drill pad layout, with elevations staked by John West Surveying Company, is shown in the Elevation Plat. Dimensions of the pad and pits are shown on the Rig Layout. V door direction is **Northeast**. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- B. The Rig Layout Closed-Loop exhibit shows the proposed orientation of closed loop system and access road. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

**10. Plans for Restoration of the Surface:**

- A. Interim Reclamation will take place after the well has been completed. The pad will be downsized by reclaiming the areas not needed for production operations. The portions of the pad that are not needed for production operations will be re-contoured to its original state as much as possible. The caliche that is removed will be reused to either build another pad site or for road repairs within the lease. The stockpiled topsoil will then be spread out reclaimed area and reseeded with a BLM approved seed mixture. In the event that the well must be worked over or maintained, it may be necessary to drive, park, and/or operate machinery on reclaimed land. This area will be repaired or reclaimed after work is complete.
- B. Final Reclamation: Upon plugging and abandoning the well all caliche for well pad and lease road will be removed and surface will be recountoured to reflect its surroundings as much as possible. Caliche will be recycled for road repair or reused for another well pad within the lease. If any topsoil remains, it will be spread out and the area will be reseeded with a BLM approved mixture and re-vegetated as per BLM orders.

**11.Surface Ownership:**

- A. The surface is owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is multiple uses with the primary uses of the region for grazing of livestock and the production of oil and gas.
- B. The surface tenant is Oliver Kiehne, P O Box 135, Orla, TX 79770.
- C. The proposed road routes and surface location will be restored as directed by the BLM

**12.Other Information:**

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is moderately sparse with native prairie grasses, some mesquite and shinnery oak. No wildlife was observed but it is likely that mule deer, rabbits, coyotes and rodents traverse the area.
- B. There is no permanent or live water in the immediate area.
- C. There are no dwellings within 2 miles of this location.
- D. If needed, a Cultural Resources Examination is being prepared by Southern New Mexico Archaeological Services, Inc. P.O. Box 1, Bent New Mexico, 88314, phone # 505-671-4797 and the results will be forwarded to your office in the near future. Otherwise, **COG will be participating in the Permian Basin MOA Program.**

**13. Bond Coverage:**

Bond Coverage is Statewide Bonds # NMB000215 and NMB000740

**14. Lessee's and Operator's Representative:**

The COG Operating LLC representative responsible for assuring compliance with the surface use plan is as follows:

Sheryl Baker  
Drilling Superintendent  
COG Operating LLC  
2208 West Main Street  
Artesia, NM 88210  
Phone (575) 748-6940 (office)  
(432) 934-1873 (cell)

Ray Peterson  
Drilling Manager  
COG Operating LLC  
One Concho Center  
600 W Illinois Ave  
Midland, TX 79701  
Phone (432) 685-4304 (office)  
(432) 818-2254 (business)

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or COG Operating, LLC, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed this 5th day of April, 2013.

Signed: 

Printed Name: Melanie J. Parker  
Position: Regulatory Analyst  
Address: 2208 W. Main Street, Artesia, NM 88210  
Telephone: (575) 748-6940  
Field Representative (if not above signatory): Rand French  
E-mail: [mparker@concho.com](mailto:mparker@concho.com)



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is  
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD		Q Q Q								Depth	Depth	Water		
POD Number	Code	Subbasin	County	64	16	4	Sec	Tws	Rng	X	Y	Well	Water Column	
<u>C 02271</u>			LE	3	2	3	21	26S	32E	624348	3544010*	300	260	40
<u>C 02274</u>			LE	2	1	2	31	26S	32E	621742	3541730*	300	295	5
<u>C 02323</u>		C	LE	3	2	3	21	26S	32E	624348	3544010*	405	405	0
<u>C 03537 POD1</u>		C	LE	3	2	3	21	26S	32E	624250	3543985	850		

Average Depth to Water: **320 feet**

Minimum Depth: **260 feet**

Maximum Depth: **405 feet**

**Record Count: 4**

**PLSS Search:**

**Township: 26S**

**Range: 32E**

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.





# *New Mexico Office of the State Engineer* **Water Column/Average Depth to Water**

No records found.

**PLSS Search:**

**Section(s):** 10

**Township:** 26S

**Range:** 32E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

State of New Mexico  
Energy, Minerals and Natural Resources Department

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Susana Martinez  
Governor

John Bemis  
Cabinet Secretary

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

Jami Bailey  
Division Director  
Oil Conservation Division



Administrative Order SWD-1395  
February 8, 2013

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Under the provisions of 19.15.26.8B NMAC, COG Operating LLC, seeks an administrative order to utilize its proposed Bufflehead 10 Federal SWD Well No. 1 (API 30-025-NA) to be located 1980 feet from the South line and 990 feet from the East line, Unit letter I of Section 10, Township 26 South, Range 32 East, NMPM, Lea County, New Mexico, for produced water disposal purposes.

**THE DIVISION DIRECTOR FINDS THAT:**

The application has been duly filed under the provisions of 19.15.26.8B NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.

**IT IS THEREFORE ORDERED THAT:**

The applicant, COG Operating LLC, is hereby authorized to utilize its proposed Bufflehead 10 Federal SWD Well No. 1 (API 30-025-NA) to be located 1980 feet from the South line and 990 feet from the East line, Unit letter I of Section 10, Township 26 South, Range 32 East, NMPM, Lea County, New Mexico, for disposal of oil field produced water (UIC Class II only) into the Cherry Canyon member of the Delaware Mountain Group through perforations from approximately 5700 feet to 6420 feet through internally coated tubing and a packer set within 100 feet of the permitted interval.

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

The wellhead injection pressure on the well shall be limited to **no more than 1140 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate-Test.

The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any MIT test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

The injection authority granted under this order is not transferable except upon division approval. The division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two years after the effective date of this order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.



JAMI BAILEY  
Director

JB/wvjj

cc: Oil Conservation Division – Hobbs District Office  
Bureau of Land Management – Carlsbad Field Office

7/4/12 *Noted by Newborn/BLM (F450-7200) (OK)*

DATE IN 12/3/12	SUSPENSE	ENGINEER <i>WJS</i>	LOGGED IN	TYPE <i>2.0</i>	APP NO. <i>P KVR 1225155 935</i>
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*RESUBMITTED  
ALSO moved LOCATION  
TO THE EAST*

WITH CONTRACTED *Intervention and Performance*  
**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



## ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

### Application Acronyms:

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

- [1] **TYPE OF APPLICATION - Check Those Which Apply for [A]** *Buffalhead 10 Federal SW #1*
- [A] Location - Spacing Unit - Simultaneous Dedication *I/10/26S/32E/LEA*
- ☐ NSL ☐ NSP ☐ SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement *5700' 6420' bbls*
- ☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM *30-025-NA*
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
- ☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR
- [D] Other: Specify \_\_\_\_\_

- [2] **NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply**
- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☒ Offset Operators, Leaseholders or Surface Owner
- [C] ☒ Application is One Which Requires Published Legal Notice
- [D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

<u>BRIAN COLLINS</u> Print or Type Name	<u><i>Brian Collins</i></u> Signature	<u>SENIOR OPERATIONS ENGINEER</u> Title	<u>10/19/2012</u> Date
		<u>bcollins@concho.com</u> e-mail Address	



RECEIVED OCD

November 20, 2012

2012 DEC -3 P 1:37

New Mexico Oil Conservation Division  
Attn: William V. Jones  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Application For Authorization To Inject  
Bufflehead 10 Federal SWD #1  
Township 26 South, Range 32 East, N.M.P.M.  
Section 10: 1980' FSL & 990' FEL  
Lea County, New Mexico

Dear Mr. Jones:

COG Operating LLC respectfully requests administrative approval for authorization to inject for the Bufflehead 10 Federal #1 SWD well as referenced above. Attached, for your review, is a copy of the C-108 application. Once we receive the newspaper publication and all certified return receipts, I will send you a copy.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

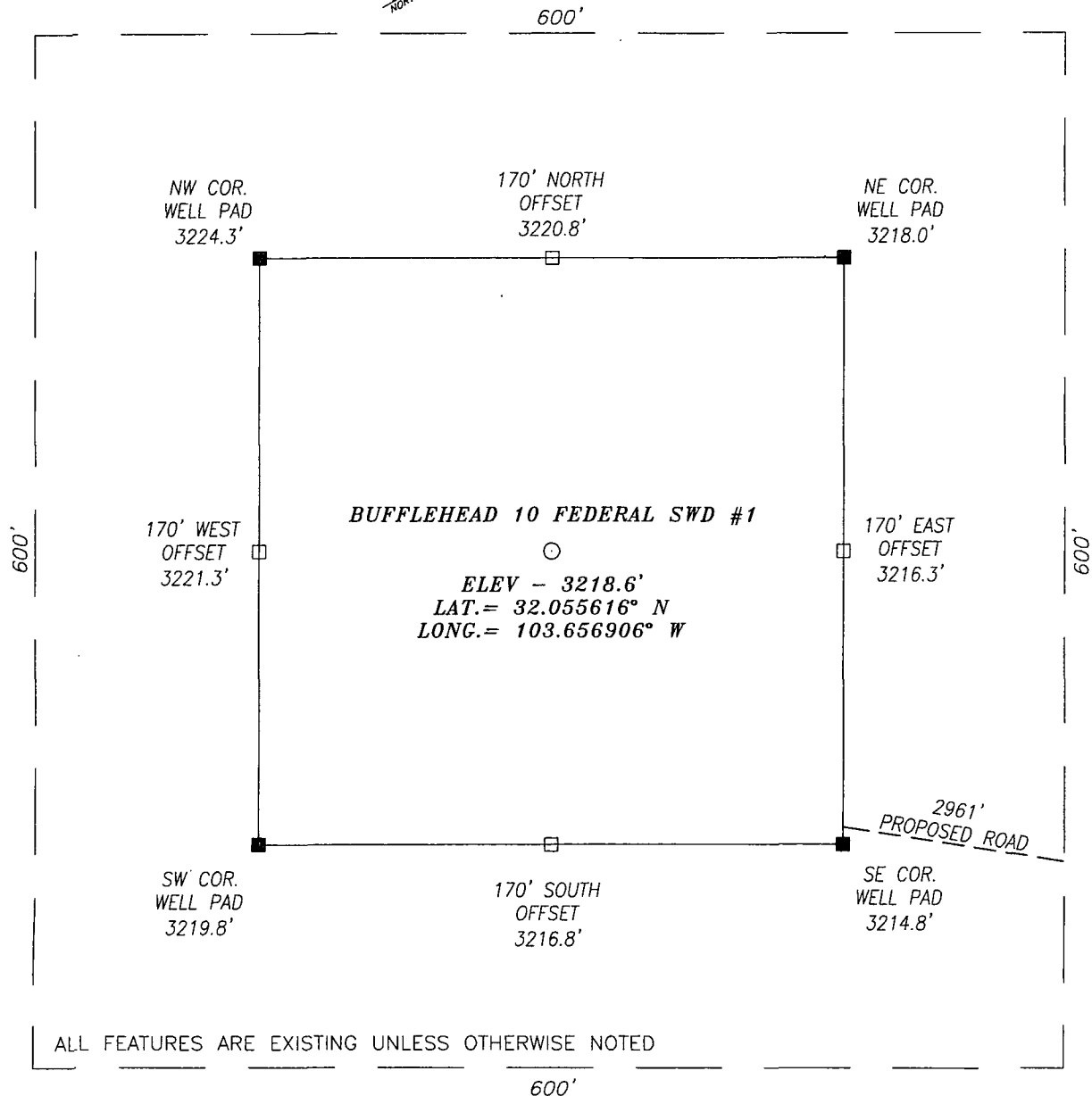
Sincerely,

A handwritten signature in cursive script, appearing to read "Brian Collins".

Brian Collins  
Senior Operations Engineer

BC/sw  
Enclosures

## NEW MEXICO



BUFFLEHEAD 10 FEDERAL SWD #1 WELL  
LOCATED 990 FEET FROM THE EAST LINE  
AND 1980 FEET FROM THE SOUTH LINE OF SECTION 10,  
TOWNSHIP 26 SOUTH, RANGE 32 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO

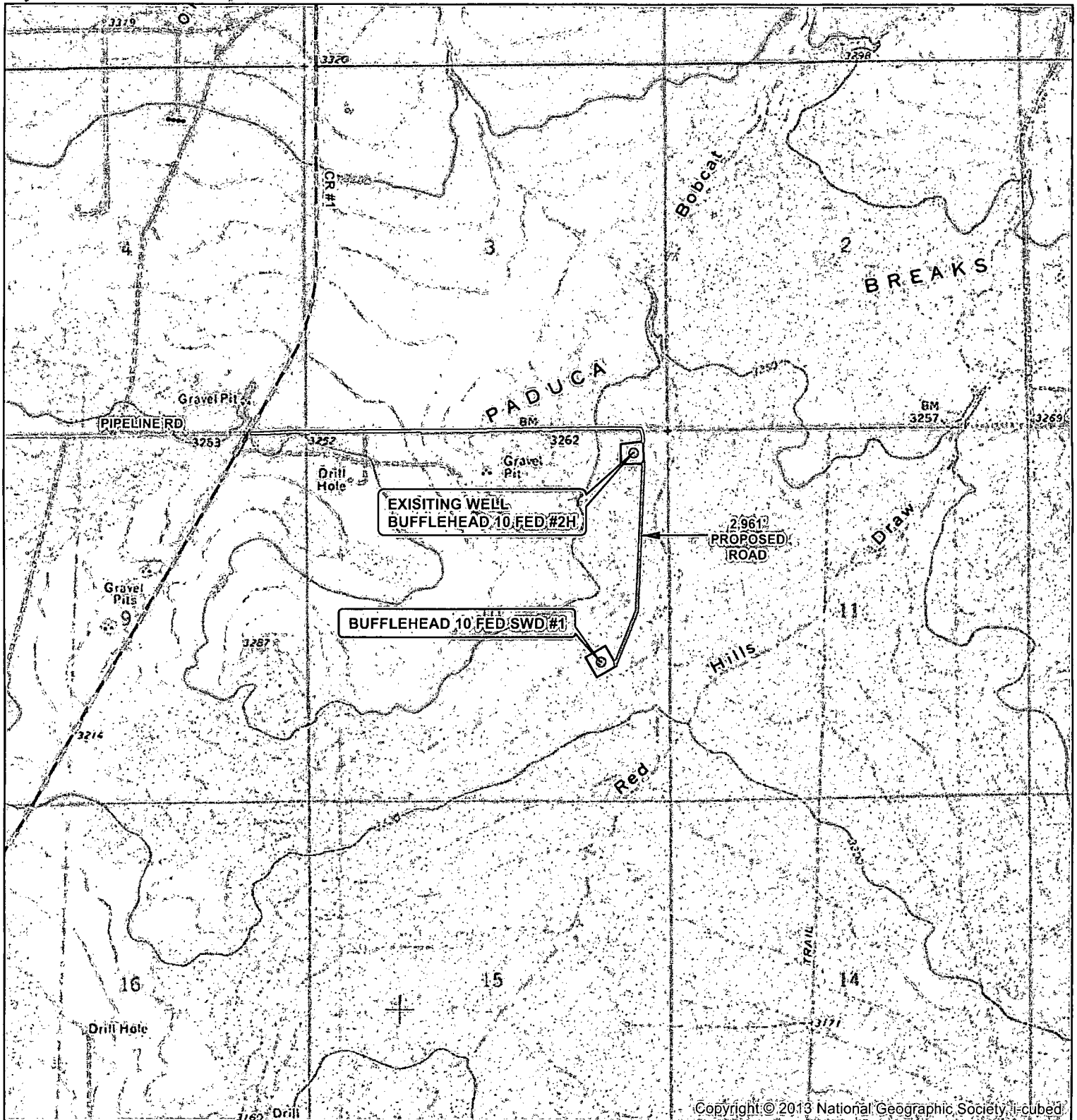
PAGE: 1 OF 1

APPROVED BY: CH

DRAWN BY: VD

FILE: 13-277

# LOCATION VERIFICATION MAP EXHIBIT 2



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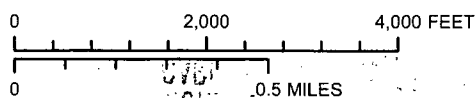
SEC. 10, TWP. 26S, RGE. 32E  
 SURVEY: N.M.P.M  
 COUNTY: LEA STATE: NEW MEXICO  
 DESCRIPTION: BUFFLEHEAD 10 FED SWD #1  
 990' FEL & 1980' FSL

ELEVATION: 3218.6'  
 OPERATOR: COG OPERATING LLC  
 LEASE: BUFFLEHEAD 10 FED

W.O. # 13-277

- ⊙ WELL
- WELL PAD
- MAIN ROAD
- PROPOSED ROAD

1 IN = 2,000 FT



HARCROW SURVEYING, LLC  
 1107 WATSON, ARTESIA N.M. 88210  
 PH: (575) 513-2570 FAX: (575) 746-2158  
 chad\_harcrow77@yahoo.com



MAP DATE: 5/9/2013



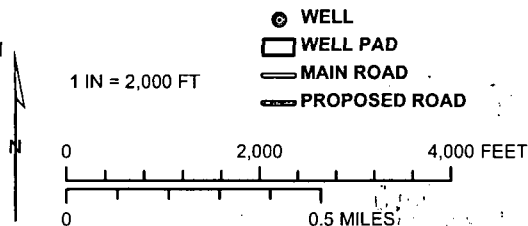
# LOCATION VERIFICATION MAP Exhibit 2A



SEC. 10, TWP. 26S, RGE. 32E  
 SURVEY: N.M.P.M  
 COUNTY: LEA STATE: NEW MEXICO  
 DESCRIPTION: BUFFLEHEAD 10 FED SWD #1  
 990' FEL & 1980' FSL

ELEVATION: 3218.6'  
 OPERATOR: COG OPERATING LLC  
 LEASE: BUFFLEHEAD 10 FED

W.O. # 13-277

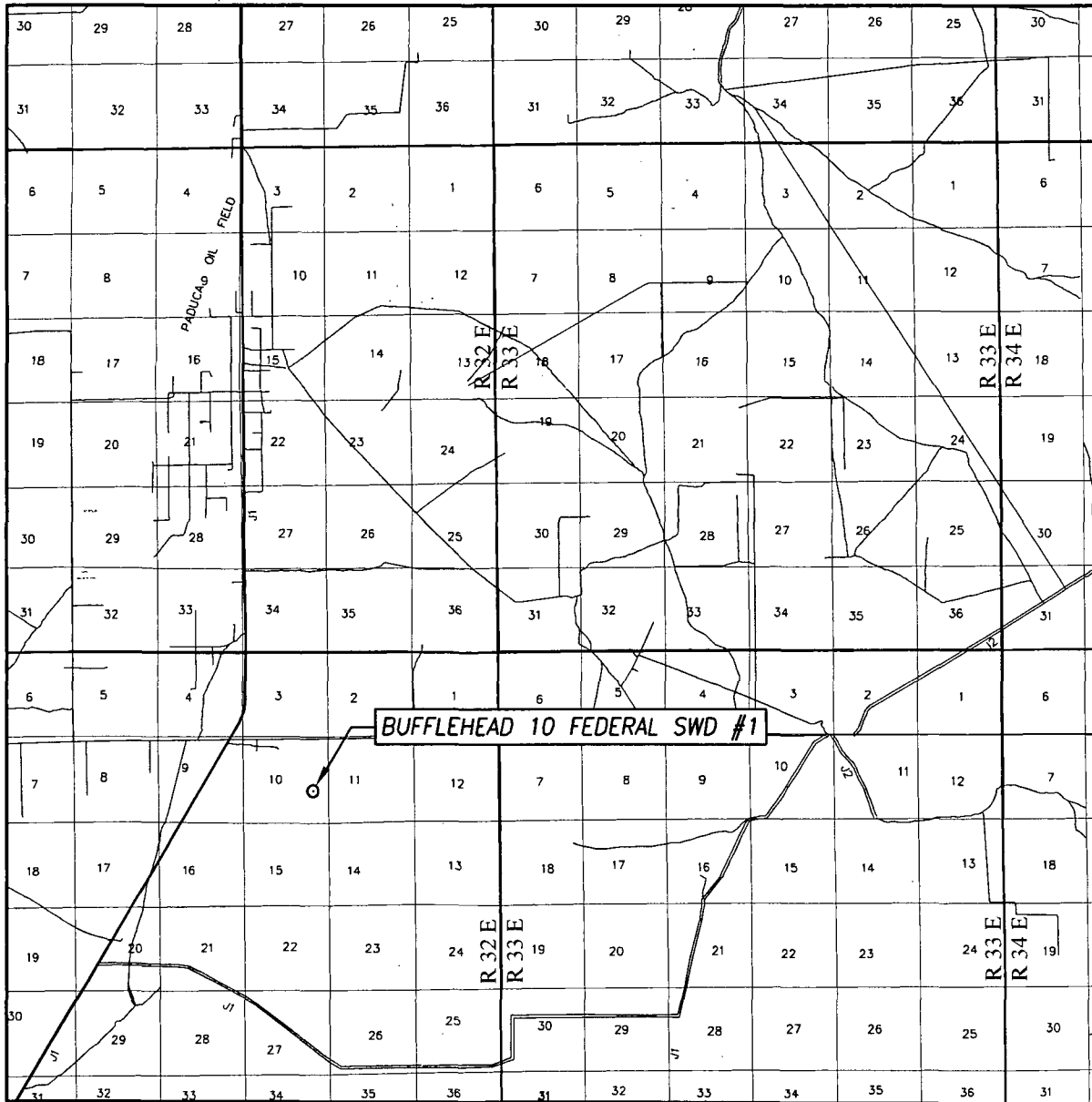


HARCROW SURVEYING, LLC  
 1107 WATSON, ARTESIA N.M. 88210  
 PH: (575) 513-2570 FAX: (575) 746-2158  
 chad\_harcrow77@yahoo.com



MAP DATE: 5/9/2013

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 10 TWP. 26-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1980' FSL & 990' FEL

ELEVATION 3219'

OPERATOR COG OPERATING, LLC

LEASE BUFFLEHEAD 10 FEDERAL SWD

