NM OIL CONSERVATION
OCD Artesia DISTRICT
JUL 10 2017

Form 3160-3
(March 2012)

RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. NMNM118702
	6. If Indian, Allotee or Tribe Name
	7. If Unit or CA Agreement, Name and No.
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☑ Multiple Zone	8. Lease Name and Well No. SECRETARIAT 3 FED COM 501H 318324
2. Name of Operator EOG RESOURCES INC 7377	9. API Well No. 30-015-44291
3a. Address 1111 Bagby Sky Lobby2 Houston TX 77002 / 3b. Phone No. (include area code) (713)651-7000	10. Field and Pool, or Exploratory WC-015 G-03 ~~LOCO HILLS~~ / ~~WC-015 S182732P; BON~~
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface NESE / 2421 FSL / 898 FEL / LAT 32.6893257 / LONG -104.2606259 At proposed prod. zone SESE / 230 FSL / 330 FEL / LAT 32.6687098 / LONG -104.2593295	11. Sec., T. R. M. or Blk. and Survey or Area 31927031 SEC 3 / T19S / R27E / NMP Bone Spring 98239
14. Distance in miles and direction from nearest town or post office* 15 miles	12. County or Parish EDDY / 13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 230 feet	16. No. of acres in lease 320	17. Spacing Unit dedicated to this well 240
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 0 feet	19. Proposed Depth 6412 feet / 13765 feet	20. BLM/BIA Bond No. on file FED: NM2308
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3460 feet	22. Approximate date work will start* 08/01/2017	23. Estimated duration 25 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature (Electronic Submission)	Name (Printed/Typed) Stan Wagner / Ph: (432)686-3689	Date 02/10/2017
Title Regulatory Specialsit		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 07/06/2017
Title Supervisor Multiple Resources	Office CARLSBAD	

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.

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS

RJP 7-25-17

APD ID: 10400011221
Operator Name: EOG RESOURCES INC
Well Name: SECRETARIAT 3 FED COM
Well Type: OIL WELL

Submission Date: 02/10/2017
Federal/Indian APD: FED
Well Number: 501H
Well Work Type: Drill

Highlight All Changes

Application

Section 1 - General

APD ID: 10400011221
Tie to previous NOS?
Submission Date: 02/10/2017
BLM Office: CARLSBAD
User: Stan Wagner
Title: Regulatory Specialsit
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM118702
Lease Acres: 320
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? NO
Permitting Agent? NO
APD Operator: EOG RESOURCES INC
Operator letter of designation:
Keep application confidential? NO

Operator Info

Operator Organization Name: EOG RESOURCES INC
Operator Address: 1111 Bagby Sky Lobby2
Zip: 77002
Operator PO Box:
Operator City: Houston
State: TX
Operator Phone: (713)651-7000
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Mater Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** LOCO HILLS **Pool Name:** WC-015 S182732P; BONE SPRING

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Describe other minerals:

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: 15 Miles **Distance to nearest well:** 0 FT **Distance to lease line:** 230 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: Secretariat 3 Fed Com 501H signed C-102_02-10-2017.pdf

Well work start Date: 08/01/2017 **Duration:** 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number:

	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	2421	FSL	898	FEL	19S	27E	3	Aliquot NESE	32.6893257	-104.2606259	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 118702	3460	0	0
KOP Leg #1	2553	FSL	358	FEL	19S	27E	3	Aliquot NESE	32.689687	-104.2589689	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 118702	-2351	5843	5811
PPP Leg #1	2271	FSL	330	FEL	19S	27E	3	Aliquot NESE	32.6889194	-104.2587935	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 118702	-2797	6403	6257

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

	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
EXIT Leg #1	330	FSL	330	FEL	19S	27E	10	Aliquot SESE	32.6689854	-104.2593183	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 1530	-2950	13665	6410
BHL Leg #1	230	FSL	330	FEL	19S	27E	10	Aliquot SESE	32.6687098	-104.2593295	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 1530	-2952	13765	6412

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
15319	SEVEN RIVERS	2887	573	573	ANHYDRITE	NONE	No
15318	QUEEN	1675	1212	1212		NONE	No
15314	SAN ANDRES	894	1993	1993		NONE	No
17721	BONE SPRING LIME	-192	3079	3079	LIMESTONE	NONE	No
15338	BONE SPRING 1ST	-1052	3939	3939	SANDSTONE	NATURAL GAS,OIL	No
17737	BONE SPRING 2ND	-3043	5930	5930	SANDSTONE	NATURAL GAS,OIL	No
17691	UNKNOWN	-3513	6400	6400		NATURAL GAS	Yes
17691	UNKNOWN	-3513	6400	6400		NATURAL GAS	Yes
17691	UNKNOWN	-3513	6400	6400		OIL	Yes
17691	UNKNOWN	-3513	6400	6400	SANDSTONE	OIL	Yes
17691	UNKNOWN	-3513	6400	6400		NONE	Yes
17691	UNKNOWN	-3513	6400	6400		OIL	Yes

Section 2 - Blowout Prevention

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

Pressure Rating (PSI): 5M **Rating Depth:** 6412

Equipment: The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil and Gas order No. 2.

Requesting Variance? YES

Variance request: Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line). Variance is requested to wave the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation. Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Testing Procedure: Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

Choke Diagram Attachment:

Secretariat 3 Fed Com 501H 5 M Choke Manifold Diagram (3-21-14)_02-10-2017.pdf

BOP Diagram Attachment:

Secretariat 3 Fed Com 501H 5 M BOP Diagram (8-14-14)_02-10-2017.pdf

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	300	0	300	3460	3160	300	J-55	54.5	STC	1.125	1.25	BUOY	1.6	BUOY	1.
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	3100	0	3100	3460	360	3100	J-55	40	LTC	1.125	1.25	BUOY	1.6	BUOY	1.
3	PRODUCTION	8.75	5.5	NEW	API	N	0	13765	0	6412	3460	-2952	13765	HCP-110	17	LTC	1.125	1.25	BUOY	1.6	BUOY	1.

Casing Attachments

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

Casing Attachments

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

Inspection Document:

Spec Document:

Taperd String Spec:

Casing Design Assumptions and Worksheet(s):

Secretariat 3 Fed Com 501H BLM Plan_02-10-2017.doc

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

Inspection Document:

Spec Document:

Taperd String Spec:

Casing Design Assumptions and Worksheet(s):

Secretariat 3 Fed Com 501H BLM Plan_02-10-2017.pdf

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

Inspection Document:

Spec Document:

Taperd String Spec:

Casing Design Assumptions and Worksheet(s):

Secretariat 3 Fed Com 501H BLM Plan_02-10-2017.pdf

Section 4 - Cement

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	300	325	1.73	13.5	562	25	Class C	Class C + 4.0% Bentonite + 0.6% CD-
SURFACE	Tail		300	300	200	1.34	14.8	268	25	Class C	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake +
INTERMEDIATE	Lead		0	3100	500	2.22	12.7	1110		Class C	Lead: Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-
INTERMEDIATE	Tail		3100	3100	200	1.38	14.8	276	25	Class C	Tail: Class 'C' + 0.25 lb/sk Cello Flake +
PRODUCTION	Lead		1700	13765	425	3.67	10.8	1559.75		Class H	Lead: 60:40:0 Class 'C' + 15.00 lb/sk BA-90 +
PRODUCTION	Tail		13765	13765	900	1.28	14.2	1152	25	Class H	Tail: 50:50:2 Class 'H' + 0.65% FL-52 + 0.20%

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: (A) A Kelly cock will be kept in the drill string at all times. (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times. (C) H2S monitoring and detection equipment will be utilized from surface casing point to TD.
Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) will be utilized on the circulating system to monitor pit volume, flow rate, pump pressure and stroke rate.

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
300	3100	SALT SATURATED	8.8	10							
3100	13765	SALT SATURATED	9	10							
0	300	WATER-BASED MUD	8.6	8.8							

Section 6 - Test, Logging, Coring

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

Open-hole logs are not planned for this well.

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

DS

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3334 **Anticipated Surface Pressure:** 1923.36

Anticipated Bottom Hole Temperature(F): 130

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Secretariat 3 Fed Com 501H H2S Plan Summary_02-10-2017.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Secretariat 3 Fed Com 501H Wall Plot_02-10-2017.pdf

Secretariat 3 Fed Com 501H Planning Report_02-10-2017.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Secretariat 3 Fed Com 501H Co-Flex Hose Certification_02-10-2017.PDF

Secretariat 3 Fed Com 501H Co-Flex Hose Test Chart_02-10-2017.pdf

Secretariat 3 Fed Com 501H Proposed Wellbore_02-10-2017.pdf

Secretariat 3 Fed Com 501H Rig Layout_02-10-2017.pdf

Other Variance attachment:

Secretariat 3 Fed Com 501H Co-Flex Hose Test Chart_02-10-2017.pdf

Secretariat 3 Fed Com 501H Co-Flex Hose Certification_02-10-2017.PDF

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Secretariat 3 Fed Com 501H vicinity map_02-10-2017.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** YES

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:

Secretariat Fed Com 501H infrastructure sketch_02-10-2017.pdf

New road type: RESOURCE

Length: 4498 Feet **Width (ft.):** 24

Max slope (%): 2 **Max grade (%):** 20

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 24

New road access erosion control: Newly constructed or reconstructed roads will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road. We plan to grade and water twice a year.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: 6" of Compacted Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: An adequate amount of topsoil/root zone will be stripped by dozer from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram / survey plat.

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: No drainage crossings

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Secretariat 3 Fed Com 501H radius map_02-10-2017.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Estimated Production Facilities description:

Production Facilities description: Production facility on well site.

Production Facilities map:

Secretariat 3 Fed Com 501H interim reclamation_02-10-2017.pdf

Secretariat Fed Com 501H infrastructure sketch_02-10-2017.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

Water source use type: OTHER **Water source type:** RECYCLED

Describe type:

Source latitude: **Source longitude:**

Source datum:

Water source permit type: WATER RIGHT

Source land ownership: FEDERAL

Water source transport method: PIPELINE,TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 0 **Source volume (acre-feet):** 0

Source volume (gal): 0

Water source and transportation map:

Secretariat Fed Com 501H Water Source and Caliche_02-10-2017.pdf

Water source comments:

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

Construction Materials description: Caliche will be supplied from pits shown on the attached caliche source map. Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows: * -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. 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 federal land.

Construction Materials source location attachment:

Secretariat Fed Com 501H Water Source and Caliche_02-10-2017.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. After drilling and completion operations; trash, chemicals, salts, frac sand, and other waste material will be removed and disposed of properly at a state approved disposal facility.

Amount of waste: 0 barrels

Waste disposal frequency : Daily

Safe containment description: Steel Tanks

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to NMOCD 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

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Closed Loop System. Drill cuttings will be disposed of into steel tanks and taken to an NMOCD approved disposal facility.

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:

Secretariat 3 Fed Com 501H pad site_02-10-2017.pdf

Secretariat 3 Fed Com 501H well site_02-10-2017.pdf

Secretariat 3 Fed Com 501H Rig Layout_02-10-2017.pdf

Comments: Exhibit 2A-Wellsite & Exhibit 2B-Padsite Rig Layout Exhibit 4

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

Secretariat 3 Fed Com 501H interim reclamation_02-10-2017.pdf

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

Drainage/Erosion control reclamation: The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Wellpad long term disturbance (acres): 3.185262 **Wellpad short term disturbance (acres):** 3.856749

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

Access road long term disturbance (acres): 2.478237 **Access road short term disturbance (acres):** 2.478237

Pipeline long term disturbance (acres): 1.5158402 **Pipeline short term disturbance (acres):** 2.5264003

Other long term disturbance (acres): 0 **Other short term disturbance (acres):** 0

Total long term disturbance: 7.1793394 **Total short term disturbance:** 8.861386

Reconstruction method: In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will 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 including cuts and fills. 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.

Soil treatment: Re-seed according to BLM standards. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

Existing Vegetation at the well pad: Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respreads evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

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: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

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

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Stan **Last Name:** Wagner

Phone: (432)686-3689 **Email:** stan_wagner@eogresources.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds. Weeds will be treated if found.
Weed treatment plan attachment:

Monitoring plan description: Reclamation will be completed within 6 months of well plugging. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds.
Monitoring plan attachment:

Success standards: N/A

Pit closure description: NA

Pit closure attachment:

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

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: Oliver Kiehne **Fee Owner Address:** P.O. Box 135 Orla, TX 79770

Phone: (575)399-9281 **Email:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: surface use agreement

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information: An onsite meeting was conducted 01/26/16. Poly lines are planned to transport water for operations. Will truck if necessary. See attached SUPO Plan.
Use a previously conducted onsite? YES

Previous Onsite information: Onsite meeting conducted 01/26/16.

Other SUPO Attachment

Secretariat 3 Fed Com_501H SUPO_02-10-2017.pdf
Secretariat 3 Fed Com 501H interim reclamation_02-10-2017.pdf
Secretariat 3 Fed Com 501H pad site_02-10-2017.pdf
Secretariat 3 Fed Com 501H radius map_02-10-2017.pdf
Secretariat 3 Fed Com 501H L
Secretariat 3 Fed Com 501H vicinity map_02-10-2017.pdf
Secretariat 3 Fed Com 501H well site_02-10-2017.pdf
Secretariat Fed Com 501H infrastructure sketch_02-10-2017.pdf
Secretariat Fed Com 501H Water Source and Caliche_02-10-2017.pdf
Secretariat 3 Fed Com 501H Rig Layout_02-10-2017.pdf
Secretariat 3 Fed Com 501H signed C-102_02-10-2017.pdf
SECRETARIAT_3_FED_COM_501H_GAS_SALES_S_03-23-2017.pdf
SECRETARIAT_3_FED_COM_501H_SITE_03-23-2017.PDF

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

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:

Decribe 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:

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 surface owner: **PWD disturbance (acres):**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe 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?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

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):**

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

Other regulatory requirements attachment:

Bond Information

Federal/Indian APD: FED

BLM Bond number: NM2308

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:

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently 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 the company I represent, 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.

NAME: Stan Wagner **Signed on:** 02/10/2017

Title: Regulatory Specialsit

Street Address: 5509 Champions Drive

City: Midland **State:** TX **Zip:** 79702

Phone: (432)686-3689

Email address: Stan_Wagner@eogresources.com

Field Representative

Representative Name: Michael Yemm

Street Address: 5509 Champions Drive

Operator Name: EOG RESOURCES INC

Well Name: SECRETARIAT 3 FED COM **Well Number:** 501H

City: Midland **State:** TX **Zip:** 79706

Phone: (432)556-7258

Email address: michael_yemm@eogresources.com

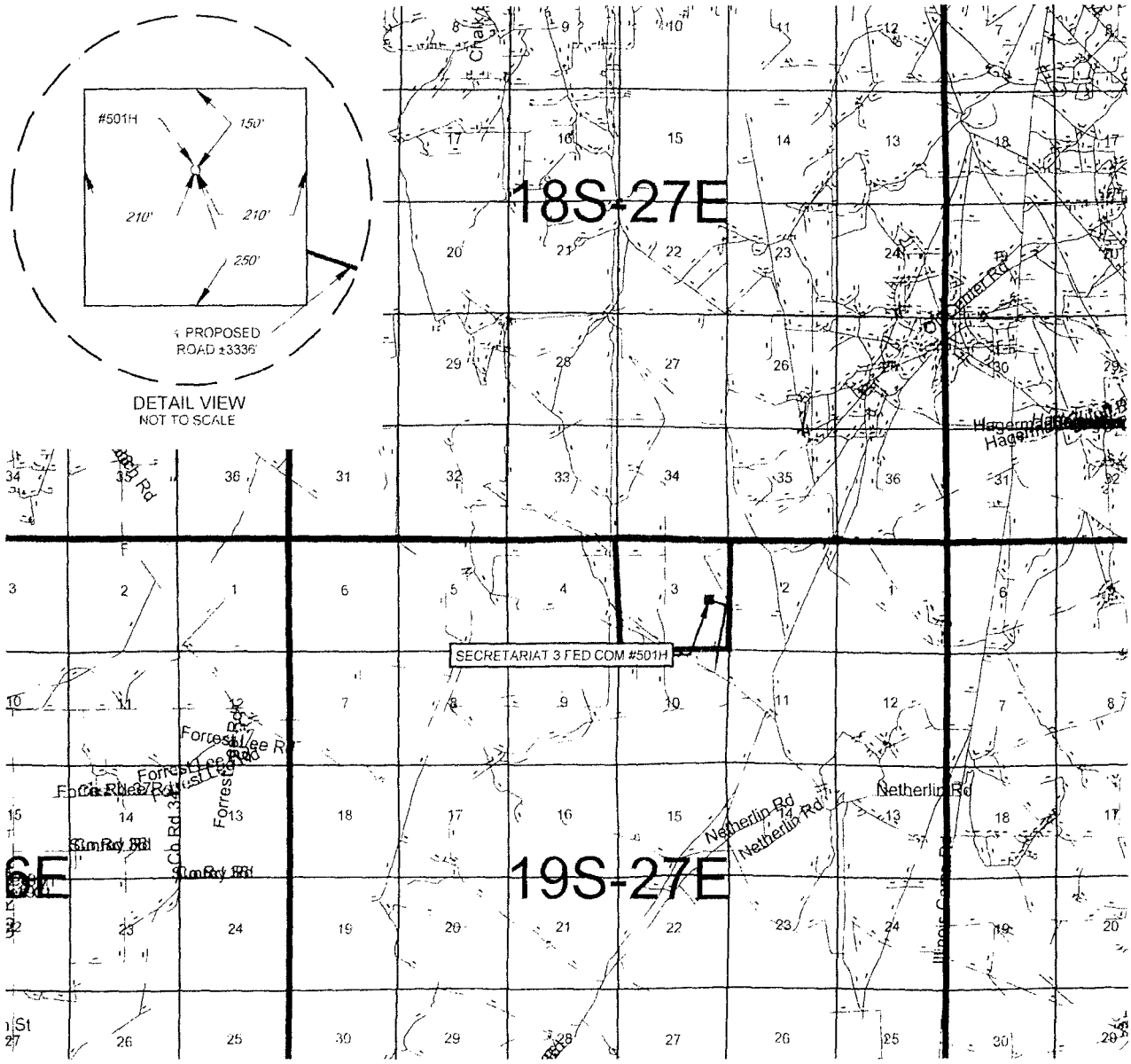
Payment

APD Fee Payment Method: PAY.GOV

pay.gov Tracking ID: 260JRR6K

EXHIBIT 2

VICINITY MAP



eog resources, inc.

LEASE NAME & WELL NO. SECRETARIAT 3 FED COM #501H

SECTION 3 TWP 19-S RGE 27-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 2421' FSL & 898' FEL

DISTANCE & DIRECTION

FROM INT. OF US-82 & NM. 360, GO WEST ON US-82 ±1.6 MILES, THENCE SOUTH (LEFT) ON ILLINOIS CAMP RD. ±7.2 MILES, THENCE WEST (RIGHT) ON LEASE RD. ±2.5 MILES, THENCE SOUTH (LEFT) ON LEASE RD. ±0.5 MILES, TO A POINT ±981 FEET EAST OF THE LOCATION.

N

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THE SURVEY IS CERTIFIED FOR THE TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET.

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LOYALTY · INNOVATION · LEGACY
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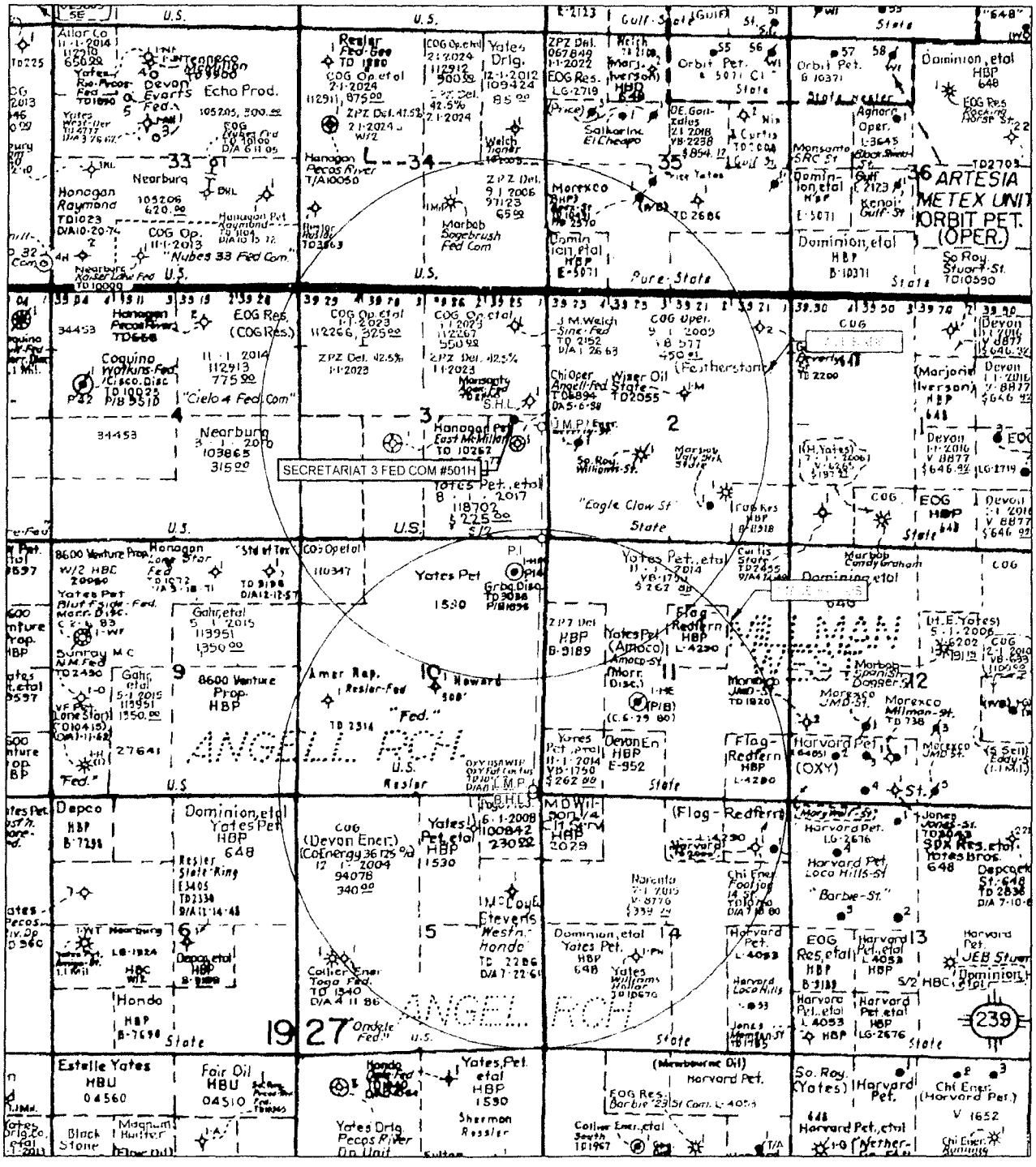
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX: (432) 682-1742
WWW.TOPOGRAPHIC.COM

EXHIBIT 3

SECTION 3, TOWNSHIP 19-S, RANGE 27-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

eog resources, inc.



LEASE NAME & WELL NO. SECRETARIAT 3 FED COM #501H

SCALE NTS

#501H LATITUDE N 32.6892101 #501H LONGITUDE W 104.2601141

-N-

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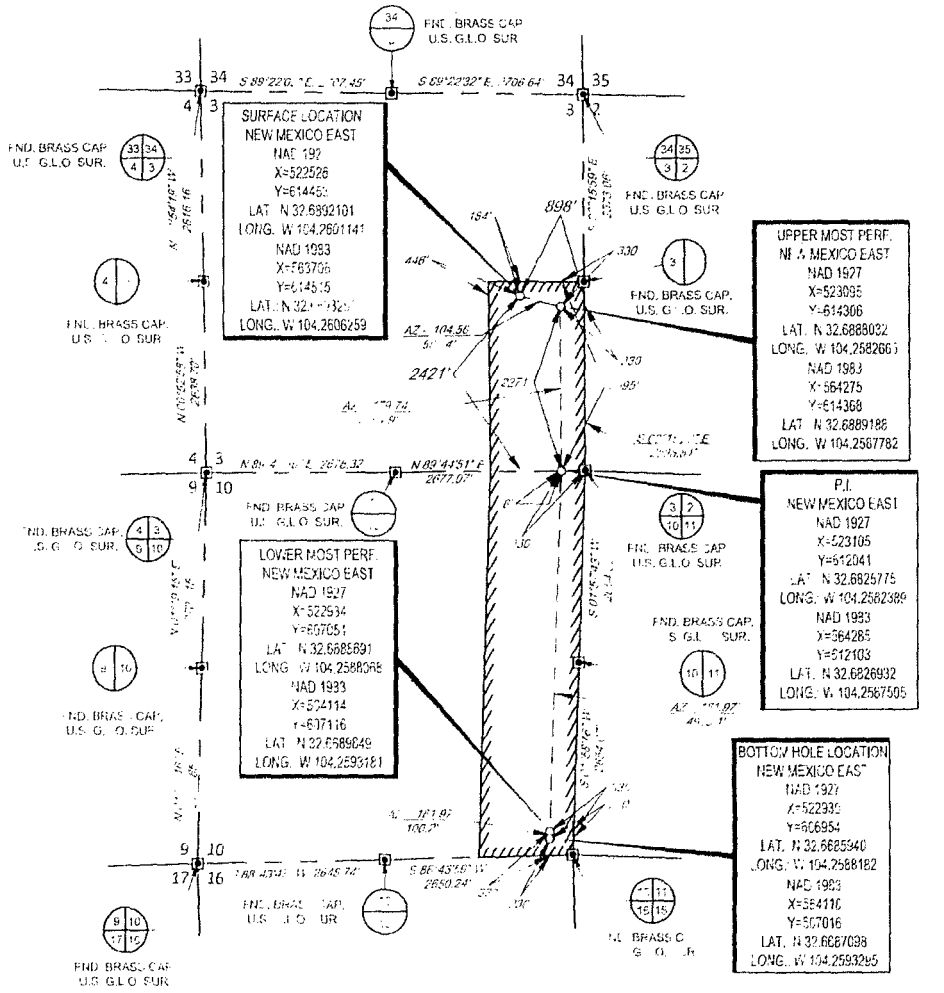
EXHIBIT 2A

SECTION 3, TOWNSHIP 19-S, RANGE 27-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO. SECRETARIAT 3 FED COM #501H

SECTION 3 TWP 19-S RGE 27-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 2421' FSL & 898' FEL

DISTANCE & DIRECTION

FROM INT. OF US-82 & NM. 360, GO WEST ON US-82 ±1.6 MILES, THENCE SOUTH (LEFT) ON ILLINOIS CAMP RD. ±7.2 MILES, THENCE WEST (RIGHT) ON LEASE RD. ±2.5 MILES, THENCE SOUTH (LEFT) ON LEASE RD. ±0.5 MILES, TO A POINT ±981 FEET EAST OF THE LOCATION.

NOTE: BEARINGS, DISTANCES AND COORDINATE VALUES SHOWN HEREON ARE BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1927. ALL DISTANCES ARE GROUND DISTANCES IN U.S. SURVEY FEET.

EASEMENTS RESERVATIONS AND RESTRICTIONS SHOWN HEREON ARE BASED UPON MY SUPERVISION AND INTERPRETATION OF THE LAND SURVEY AND DATA PROVIDED BY EOG RESOURCES, INC. REFERENCE IS MADE TO CERTIFICATION IS MADE TO PERSONS REVIEWED SHOWN ON THIS PLAT. SURVEY IS CERTIFIED FOR THIS STRAND ONLY AND LIMITED AND NOT FOR

MICHAEL B. BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
FEBRUARY 8, 2017

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
45 EVERMAN PARKWAY FORT WORTH, TEXAS 76140
TELEPHONE (817) 744-7511 FAX (817) 744-7555
3555 REX R BIG SPRING MIDLAND, TEXAS
WWW.TOPO.COM

EXHIBIT 2B

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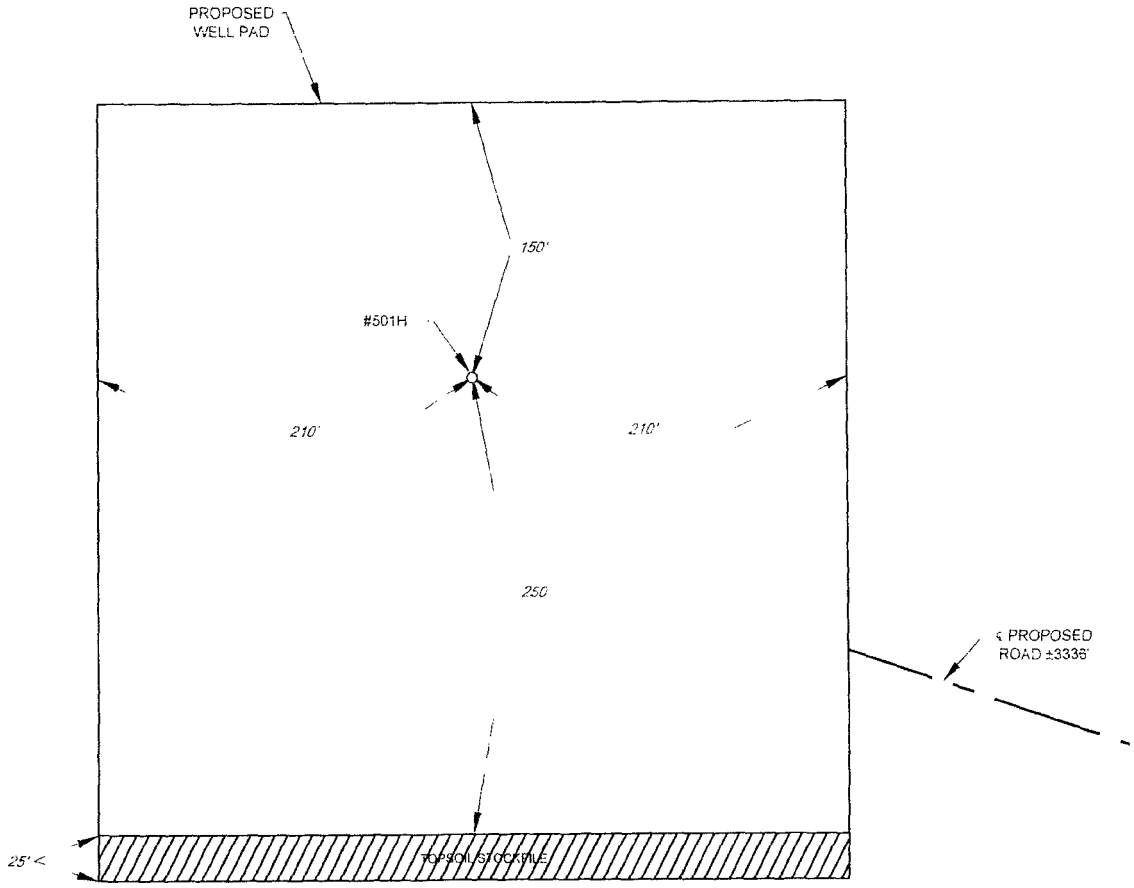
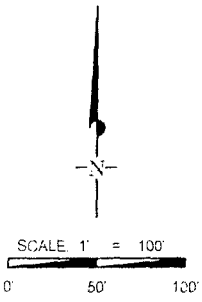
SECTION 3, TOWNSHIP 19-S, RANGE 27-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE 1" = 100'



LEASE NAME & WELL NO.: SECRETARIAT 3 FED COM #501H
#501H LATITUDE N 32.6892101 #501H LONGITUDE W 104.2601141



ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM - EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

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TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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ORIGINAL DOCUMENT SIZE: 8.5" X 11"

SCALE: 1" = 1000'

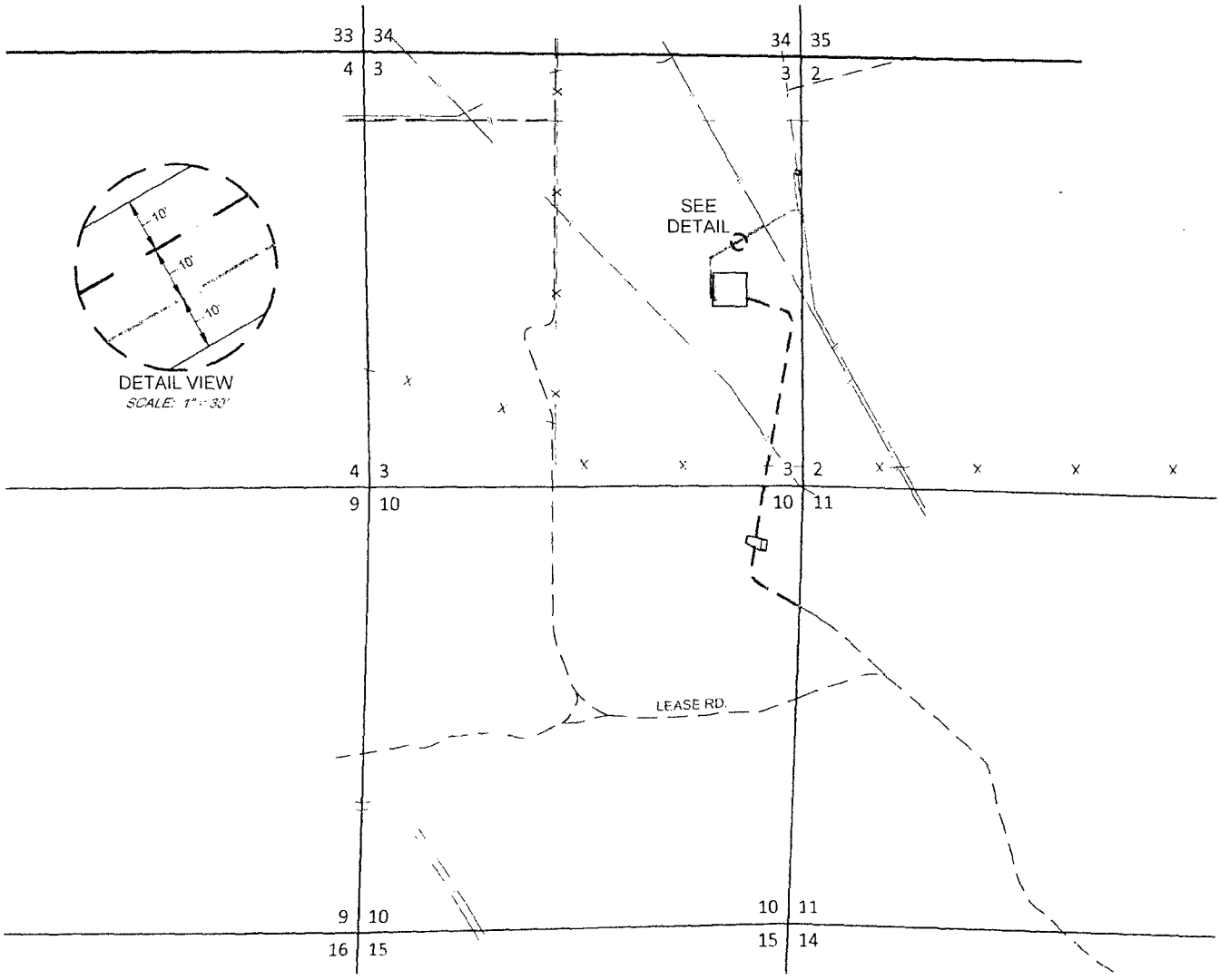
0' 500' 1000'

SKETCH

SECTIONS 3 & 10, TOWNSHIP 19-S, RANGE 27-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SECRETARIAT
FED COM #501H

N



eog resources, Inc.

SECRETARIAT FED COM #501H	REVISION: INT	DATE
DATE: 02/09/17		
FILE: SK_SECRETARIAT_FED_COM_501H_REV1		
DRAWN BY: GLH		
SHEET: 1 OF 1		

PROPOSED ROAD TOTAL FOOTAGES 4,496 FT

PROPOSED OIL LINE TOTAL FOOTAGES 2,201 FT

PROPOSED GAS LINE TOTAL FOOTAGES 1,326 FT

EOG RESOURCES, INC.
SECRETARIAT 3 FED COM NO. 501H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Seven Rivers	573'
Queen	1,212'
San Andres	1,993'
Bone Spring Lime	3,079'
1st Bone Spring Sand	3,939'
2nd Bone Spring Shale	4,288'
2nd Bone Spring Sand	5,930'
TD	6,300'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 300'	Fresh Water
Queen	1,212'	Oil
San Andres	1,993'	Oil
1st Bone Spring Sand	3,939'	Oil
2nd Bone Spring Shale	4,288'	Oil
2nd Bone Spring Sand	5,930'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13.375" casing at 300' and circulating cement back to surface.

See COA

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5"	0' – ~~300'~~ 350'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0 – 3,100'	9.625"	40#	J55	LTC	1.125	1.25	1.60
8.75"	0' – 13,765'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft^3/ft	Mix Water Gal/sk	Slurry Description
13-3/8" 300'	325	13.5	1.73	9.13	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	6.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
9-5/8" 3,100'	500	12.7	2.22	12.38	Lead: Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free (TOC @ surface)
	200	14.8	1.38	6.48	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
5-1/2" 13,765'	225	10.8	3.67	21.7	Lead: 60:40:0 Class 'C' + 15.00 lb/sk BA-90 + 4.00% MPA-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free (TOC @ 1700')
	200	11.8	2.38	13.25	Middle: 50:50:10 Class 'H' + 0.80% FL-52 + 0.45% ASA-301 + 0.40% SMS + 2.00% Salt + 3.00 lb/sx LCM-1 + 0.20% R-21 + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
	900	14.2	1.28	5.75	Tail: 50:50:2 Class 'H' + 0.65% FL-52 + 0.20% CD-32 + 0.15% SMS + 2.00% Salt + 0.10% R-3 + 0.005 lb/sk Static Free

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 300'	Fresh - Gel	8.6-8.8	28-34	N/c
300' – 3,100'	Brine	8.8-10.0	28-34	N/c
3,100' – 13,765' Lateral	Cut Brine	9.0-10.0	28-34	N/c

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

(C) H_2S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR–CCL Will be run in cased hole during completions phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND

POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 130 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 3334 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 5000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Stream Flo FBD100 Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Both the surface and intermediate casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

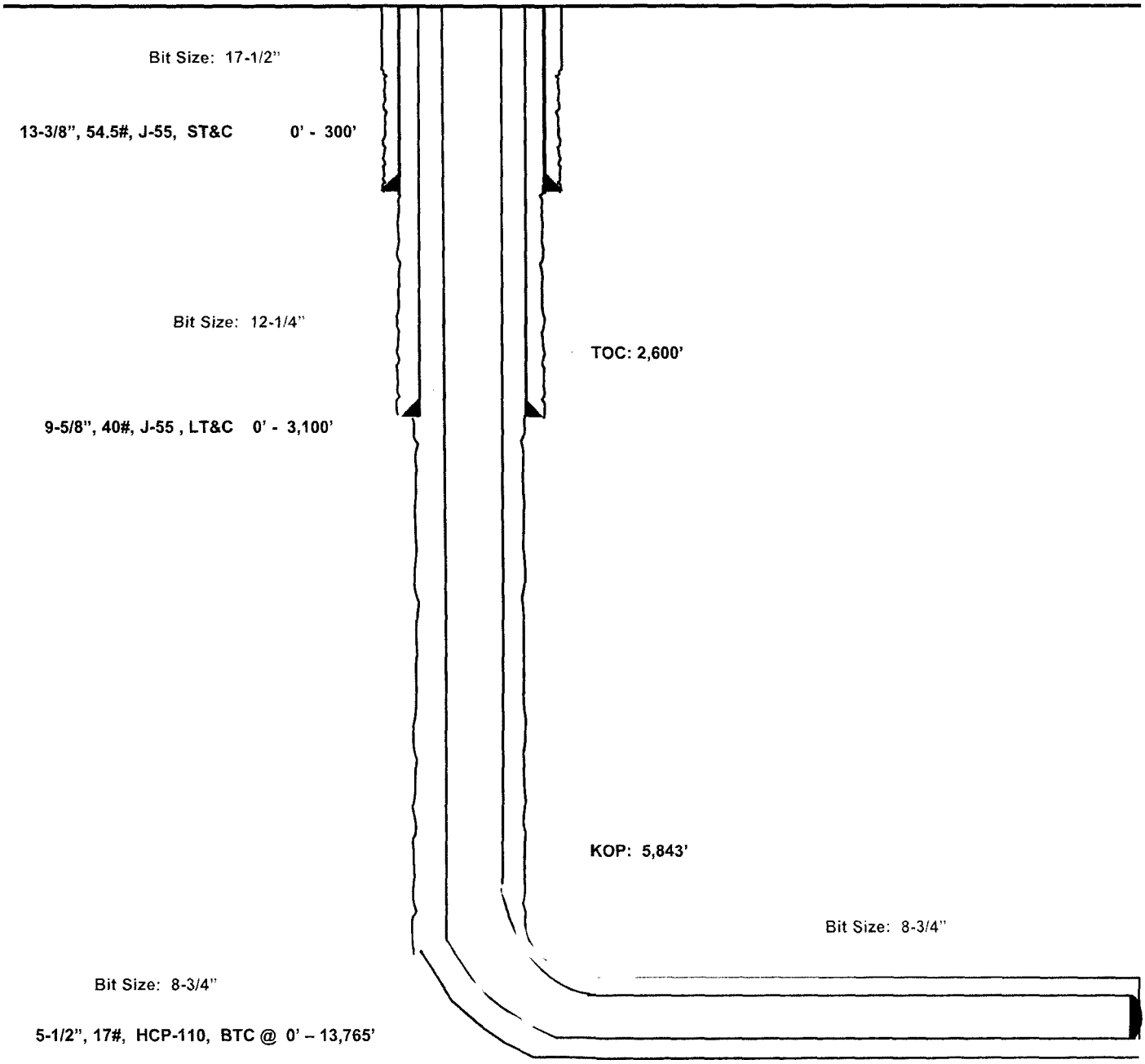
Secretariat 3 Fed Com #501H

Eddy County, New Mexico
Proposed Wellbore

2421' FSL
898' FEL
Section 19
T-19-S, R-27-E

API: 30-015-*****

KB: 3,485'
GL: 3,460'



Lateral: 13,765' MD, 6,412' TVD
Upper Most Perf:
2271' FSL & 330' FEL Sec. 3
Lower Most Perf:
330' FSL & 330' FEL Sec. 10
BH Location: 230' FSL & 330' FEL
Section 10
T-29-S, R-27-E

EOG Resources - Midland

Eddy County, NM (NAD 27 NME)
Secretariat 3 Fed Com
#501H

OH

Plan: Plan #0.1

Standard Planning Report

10 February, 2017

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #501H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3485.0usft
Project:	Eddy County, NM (NAD 27 NME)	**MD Reference:**	KB = 25' @ 3485.0usft
Site:	Secretariat 3 Fed Com	**North Reference:**	Grid
Well:	#501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Project	Eddy County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Secretariat 3 Fed Com

Site Position:		**Northing:**	614,453.00 usft	**Latitude:**	32° 41' 21.152 N
From:	Map	**Easting:**	522,526.00 usft	**Longitude:**	104° 15' 36.413 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.04 °

Well #501H

Well Position	**+N/-S**	0.0 usft	**Northing:**	614,453.00 usft	**Latitude:**	32° 41' 21.152 N
	+E/-W	0.0 usft	**Easting:**	522,526.00 usft	**Longitude:**	104° 15' 36.413 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	3,460.0 usft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	2/10/2017	7.35	60.38	48,175

Design Plan #0.1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	6,300.0	0.0	0.0	176.92	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,905.1	7.05	75.46	1,903.3	10.9	41.9	1.00	1.00	0.00	75.46	
5,843.0	7.05	75.46	5,811.5	132.3	509.8	0.00	0.00	0.00	0.00	
6,600.0	89.10	179.74	6,300.0	-337.3	569.6	12.00	10.84	13.78	104.29	
8,675.0	89.10	179.74	6,332.5	-2,412.0	579.0	0.00	0.00	0.00	0.00	P.I.(Secretariat 3 Fed
8,787.8	89.10	182.00	6,334.3	-2,524.7	577.3	2.00	0.00	2.00	89.91	
13,765.7	89.10	182.00	6,412.1	-7,499.0	404.0	0.00	0.00	0.00	0.00	PBHL (Secretariat 3 F

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #501H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3485.0usft
Project:	Eddy County, NM (NAD 27 NME)	**MD Reference:**	KB = 25' @ 3485.0usft
Site:	Secretariat 3 Fed Com	**North Reference:**	Grid
Well:	#501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	1.00	75.46	1,300.0	0.2	0.8	-0.2	1.00	1.00	0.00
1,400.0	2.00	75.46	1,400.0	0.9	3.4	-0.7	1.00	1.00	0.00
1,500.0	3.00	75.46	1,499.9	2.0	7.6	-1.6	1.00	1.00	0.00
1,600.0	4.00	75.46	1,599.7	3.5	13.5	-2.8	1.00	1.00	0.00
1,700.0	5.00	75.46	1,699.4	5.5	21.1	-4.3	1.00	1.00	0.00
1,800.0	6.00	75.46	1,798.9	7.9	30.4	-6.2	1.00	1.00	0.00
1,905.1	7.05	75.46	1,903.3	10.9	41.9	-8.6	1.00	1.00	0.00
2,000.0	7.05	75.46	1,997.5	13.8	53.2	-10.9	0.00	0.00	0.00
2,100.0	7.05	75.46	2,096.7	16.9	65.1	-13.4	0.00	0.00	0.00
2,200.0	7.05	75.46	2,196.0	20.0	77.0	-15.8	0.00	0.00	0.00
2,300.0	7.05	75.46	2,295.2	23.1	88.9	-18.2	0.00	0.00	0.00
2,400.0	7.05	75.46	2,394.5	26.1	100.7	-20.7	0.00	0.00	0.00
2,500.0	7.05	75.46	2,493.7	29.2	112.6	-23.1	0.00	0.00	0.00
2,600.0	7.05	75.46	2,593.0	32.3	124.5	-25.6	0.00	0.00	0.00
2,700.0	7.05	75.46	2,692.2	35.4	136.4	-28.0	0.00	0.00	0.00
2,800.0	7.05	75.46	2,791.5	38.5	148.3	-30.4	0.00	0.00	0.00
2,900.0	7.05	75.46	2,890.7	41.5	160.1	-32.9	0.00	0.00	0.00
3,000.0	7.05	75.46	2,989.9	44.6	172.0	-35.3	0.00	0.00	0.00
3,100.0	7.05	75.46	3,089.2	47.7	183.9	-37.7	0.00	0.00	0.00
3,200.0	7.05	75.46	3,188.4	50.8	195.8	-40.2	0.00	0.00	0.00
3,300.0	7.05	75.46	3,287.7	53.9	207.7	-42.6	0.00	0.00	0.00
3,400.0	7.05	75.46	3,386.9	57.0	219.6	-45.1	0.00	0.00	0.00
3,500.0	7.05	75.46	3,486.2	60.0	231.4	-47.5	0.00	0.00	0.00
3,600.0	7.05	75.46	3,585.4	63.1	243.3	-49.9	0.00	0.00	0.00
3,700.0	7.05	75.46	3,684.6	66.2	255.2	-52.4	0.00	0.00	0.00
3,800.0	7.05	75.46	3,783.9	69.3	267.1	-54.8	0.00	0.00	0.00
3,900.0	7.05	75.46	3,883.1	72.4	279.0	-57.3	0.00	0.00	0.00
4,000.0	7.05	75.46	3,982.4	75.4	290.8	-59.7	0.00	0.00	0.00
4,100.0	7.05	75.46	4,081.6	78.5	302.7	-62.1	0.00	0.00	0.00
4,200.0	7.05	75.46	4,180.9	81.6	314.6	-64.6	0.00	0.00	0.00
4,300.0	7.05	75.46	4,280.1	84.7	326.5	-67.0	0.00	0.00	0.00
4,400.0	7.05	75.46	4,379.4	87.8	338.4	-69.4	0.00	0.00	0.00
4,500.0	7.05	75.46	4,478.6	90.9	350.2	-71.9	0.00	0.00	0.00
4,600.0	7.05	75.46	4,577.8	93.9	362.1	-74.3	0.00	0.00	0.00
4,700.0	7.05	75.46	4,677.1	97.0	374.0	-76.8	0.00	0.00	0.00
4,800.0	7.05	75.46	4,776.3	100.1	385.9	-79.2	0.00	0.00	0.00
4,900.0	7.05	75.46	4,875.6	103.2	397.8	-81.6	0.00	0.00	0.00
5,000.0	7.05	75.46	4,974.8	106.3	409.7	-84.1	0.00	0.00	0.00
5,100.0	7.05	75.46	5,074.1	109.4	421.5	-86.5	0.00	0.00	0.00
5,200.0	7.05	75.46	5,173.3	112.4	433.4	-89.0	0.00	0.00	0.00
5,300.0	7.05	75.46	5,272.6	115.5	445.3	-91.4	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #501H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3485.0usft
Project:	Eddy County, NM (NAD 27 NME)	**MD Reference:**	KB = 25' @ 3485.0usft
Site:	Secretariat 3 Fed Com	**North Reference:**	Grid
Well:	#501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	7.05	75.46	5,371.8	118.6	457.2	-93.8	0.00	0.00	0.00
5,500.0	7.05	75.46	5,471.0	121.7	469.1	-96.3	0.00	0.00	0.00
5,600.0	7.05	75.46	5,570.3	124.8	480.9	-98.7	0.00	0.00	0.00
5,700.0	7.05	75.46	5,669.5	127.8	492.8	-101.1	0.00	0.00	0.00
5,800.0	7.05	75.46	5,768.8	130.9	504.7	-103.6	0.00	0.00	0.00
5,843.0	7.05	75.46	5,811.5	132.3	509.8	-104.6	0.00	0.00	0.00
5,850.0	6.89	82.22	5,818.4	132.4	510.6	-104.8	12.00	-2.28	97.13
5,875.0	7.14	106.89	5,843.2	132.2	513.6	-104.3	12.00	1.00	98.65
5,900.0	8.51	126.66	5,868.0	130.6	516.6	-102.6	12.00	5.47	79.10
5,925.0	10.57	139.92	5,892.6	127.8	519.6	-99.6	12.00	8.25	53.02
5,950.0	13.00	148.59	5,917.1	123.6	522.5	-95.3	12.00	9.71	34.70
5,975.0	15.63	154.49	5,941.3	118.2	525.4	-89.7	12.00	10.50	23.59
6,000.0	18.36	158.69	5,965.2	111.4	528.3	-82.9	12.00	10.95	16.83
6,025.0	21.17	161.83	5,988.8	103.5	531.1	-74.8	12.00	11.23	12.54
6,050.0	24.02	164.26	6,011.8	94.3	533.9	-65.4	12.00	11.41	9.71
6,075.0	26.91	166.19	6,034.4	83.9	536.7	-54.9	12.00	11.53	7.75
6,100.0	29.81	167.78	6,056.4	72.3	539.3	-43.2	12.00	11.62	6.34
6,125.0	32.73	169.11	6,077.8	59.6	541.9	-30.4	12.00	11.68	5.31
6,150.0	35.66	170.24	6,098.5	45.8	544.4	-16.4	12.00	11.73	4.53
6,175.0	38.60	171.22	6,118.4	30.9	546.9	-1.4	12.00	11.76	3.92
6,200.0	41.55	172.08	6,137.5	15.0	549.2	14.6	12.00	11.79	3.45
6,225.0	44.51	172.85	6,155.8	-1.9	551.4	31.6	12.00	11.82	3.07
6,250.0	47.46	173.54	6,173.2	-19.8	553.6	49.5	12.00	11.83	2.76
6,275.0	50.43	174.17	6,189.6	-38.5	555.6	68.3	12.00	11.85	2.51
6,300.0	53.39	174.74	6,205.0	-58.1	557.5	88.0	12.00	11.86	2.31
6,325.0	56.36	175.28	6,219.4	-78.5	559.2	108.4	12.00	11.87	2.13
6,350.0	59.33	175.77	6,232.7	-99.6	560.9	129.6	12.00	11.88	1.99
6,375.0	62.30	176.24	6,244.9	-121.3	562.4	151.4	12.00	11.89	1.87
6,400.0	65.28	176.69	6,255.9	-143.7	563.8	173.8	12.00	11.89	1.77
6,420.7	67.74	177.04	6,264.1	-162.6	564.8	192.8	12.00	11.90	1.70
FTP (Secretariat 3 Fed Com #501H)									
6,425.0	68.25	177.11	6,265.8	-166.7	565.0	196.8	12.00	11.90	1.66
6,450.0	71.23	177.51	6,274.4	-190.1	566.1	220.3	12.00	11.90	1.62
6,475.0	74.20	177.91	6,281.9	-213.9	567.1	244.1	12.00	11.91	1.57
6,500.0	77.18	178.29	6,288.0	-238.1	567.9	268.3	12.00	11.91	1.52
6,525.0	80.16	178.66	6,292.9	-262.6	568.5	292.8	12.00	11.91	1.49
6,550.0	83.14	179.02	6,296.6	-287.4	569.0	317.6	12.00	11.91	1.46
6,575.0	86.12	179.38	6,298.9	-312.3	569.4	342.4	12.00	11.91	1.44
6,600.0	89.10	179.74	6,300.0	-337.3	569.6	367.4	12.00	11.91	1.43
6,700.0	89.10	179.74	6,301.5	-437.2	570.0	467.2	0.00	0.00	0.00
6,800.0	89.10	179.74	6,303.1	-537.2	570.5	567.1	0.00	0.00	0.00
6,900.0	89.10	179.74	6,304.7	-637.2	570.9	667.0	0.00	0.00	0.00
7,000.0	89.10	179.74	6,306.2	-737.2	571.4	766.8	0.00	0.00	0.00
7,100.0	89.10	179.74	6,307.8	-837.2	571.9	866.7	0.00	0.00	0.00
7,200.0	89.10	179.74	6,309.4	-937.1	572.3	966.6	0.00	0.00	0.00
7,300.0	89.10	179.74	6,311.0	-1,037.1	572.8	1,066.4	0.00	0.00	0.00
7,400.0	89.10	179.74	6,312.5	-1,137.1	573.2	1,166.3	0.00	0.00	0.00
7,500.0	89.10	179.74	6,314.1	-1,237.1	573.7	1,266.2	0.00	0.00	0.00
7,600.0	89.10	179.74	6,315.7	-1,337.1	574.1	1,366.0	0.00	0.00	0.00
7,700.0	89.10	179.74	6,317.2	-1,437.1	574.6	1,465.9	0.00	0.00	0.00
7,800.0	89.10	179.74	6,318.8	-1,537.1	575.0	1,565.8	0.00	0.00	0.00
7,900.0	89.10	179.74	6,320.4	-1,637.1	575.5	1,665.6	0.00	0.00	0.00
8,000.0	89.10	179.74	6,321.9	-1,737.0	575.9	1,765.5	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #501H
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Project:	Eddy County, NM (NAD 27 NME)	**MD Reference:**	KB = 25' @ 3485.0usft
Site:	Secretariat 3 Fed Com	**North Reference:**	Grid
Well:	#501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,100.0	89.10	179.74	6,323.5	-1,837.0	576.4	1,865.4	0.00	0.00	0.00
8,200.0	89.10	179.74	6,325.1	-1,937.0	576.8	1,965.2	0.00	0.00	0.00
8,300.0	89.10	179.74	6,326.7	-2,037.0	577.3	2,065.1	0.00	0.00	0.00
8,400.0	89.10	179.74	6,328.2	-2,137.0	577.8	2,165.0	0.00	0.00	0.00
8,500.0	89.10	179.74	6,329.8	-2,237.0	578.2	2,264.8	0.00	0.00	0.00
8,600.0	89.10	179.74	6,331.4	-2,337.0	578.7	2,364.7	0.00	0.00	0.00
8,675.0	89.10	179.74	6,332.5	-2,412.0	579.0	2,439.7	0.00	0.00	0.00
P.I.(Secretariat 3 Fed Com #501H)									
8,700.0	89.10	180.24	6,332.9	-2,436.9	579.0	2,464.6	2.00	0.00	2.00
8,787.8	89.10	182.00	6,334.3	-2,524.7	577.3	2,552.1	2.00	0.00	2.00
8,800.0	89.10	182.00	6,334.5	-2,536.9	576.9	2,564.3	0.00	0.00	0.00
8,900.0	89.10	182.00	6,336.1	-2,636.8	573.4	2,663.9	0.00	0.00	0.00
9,000.0	89.10	182.00	6,337.6	-2,736.8	569.9	2,763.5	0.00	0.00	0.00
9,100.0	89.10	182.00	6,339.2	-2,836.7	566.4	2,863.1	0.00	0.00	0.00
9,200.0	89.10	182.00	6,340.8	-2,936.6	562.9	2,962.6	0.00	0.00	0.00
9,300.0	89.10	182.00	6,342.3	-3,036.5	559.5	3,062.2	0.00	0.00	0.00
9,400.0	89.10	182.00	6,343.9	-3,136.5	556.0	3,161.8	0.00	0.00	0.00
9,500.0	89.10	182.00	6,345.5	-3,236.4	552.5	3,261.4	0.00	0.00	0.00
9,600.0	89.10	182.00	6,347.0	-3,336.3	549.0	3,361.0	0.00	0.00	0.00
9,700.0	89.10	182.00	6,348.6	-3,436.3	545.5	3,460.6	0.00	0.00	0.00
9,800.0	89.10	182.00	6,350.1	-3,536.2	542.1	3,560.2	0.00	0.00	0.00
9,900.0	89.10	182.00	6,351.7	-3,636.1	538.6	3,659.8	0.00	0.00	0.00
10,000.0	89.10	182.00	6,353.3	-3,736.0	535.1	3,759.4	0.00	0.00	0.00
10,100.0	89.10	182.00	6,354.8	-3,836.0	531.6	3,859.0	0.00	0.00	0.00
10,200.0	89.10	182.00	6,356.4	-3,935.9	528.1	3,958.6	0.00	0.00	0.00
10,300.0	89.10	182.00	6,358.0	-4,035.8	524.6	4,058.2	0.00	0.00	0.00
10,400.0	89.10	182.00	6,359.5	-4,135.7	521.2	4,157.8	0.00	0.00	0.00
10,500.0	89.10	182.00	6,361.1	-4,235.7	517.7	4,257.4	0.00	0.00	0.00
10,600.0	89.10	182.00	6,362.7	-4,335.6	514.2	4,357.0	0.00	0.00	0.00
10,700.0	89.10	182.00	6,364.2	-4,435.5	510.7	4,456.6	0.00	0.00	0.00
10,800.0	89.10	182.00	6,365.8	-4,535.5	507.2	4,556.2	0.00	0.00	0.00
10,900.0	89.10	182.00	6,367.3	-4,635.4	503.8	4,655.8	0.00	0.00	0.00
11,000.0	89.10	182.00	6,368.9	-4,735.3	500.3	4,755.4	0.00	0.00	0.00
11,100.0	89.10	182.00	6,370.5	-4,835.2	496.8	4,855.0	0.00	0.00	0.00
11,200.0	89.10	182.00	6,372.0	-4,935.2	493.3	4,954.6	0.00	0.00	0.00
11,300.0	89.10	182.00	6,373.6	-5,035.1	489.8	5,054.1	0.00	0.00	0.00
11,400.0	89.10	182.00	6,375.2	-5,135.0	486.4	5,153.7	0.00	0.00	0.00
11,500.0	89.10	182.00	6,376.7	-5,234.9	482.9	5,253.3	0.00	0.00	0.00
11,600.0	89.10	182.00	6,378.3	-5,334.9	479.4	5,352.9	0.00	0.00	0.00
11,700.0	89.10	182.00	6,379.9	-5,434.8	475.9	5,452.5	0.00	0.00	0.00
11,800.0	89.10	182.00	6,381.4	-5,534.7	472.4	5,552.1	0.00	0.00	0.00
11,900.0	89.10	182.00	6,383.0	-5,634.6	468.9	5,651.7	0.00	0.00	0.00
12,000.0	89.10	182.00	6,384.5	-5,734.6	465.5	5,751.3	0.00	0.00	0.00
12,100.0	89.10	182.00	6,386.1	-5,834.5	462.0	5,850.9	0.00	0.00	0.00
12,200.0	89.10	182.00	6,387.7	-5,934.4	458.5	5,950.5	0.00	0.00	0.00
12,300.0	89.10	182.00	6,389.2	-6,034.4	455.0	6,050.1	0.00	0.00	0.00
12,400.0	89.10	182.00	6,390.8	-6,134.3	451.5	6,149.7	0.00	0.00	0.00
12,500.0	89.10	182.00	6,392.4	-6,234.2	448.1	6,249.3	0.00	0.00	0.00
12,600.0	89.10	182.00	6,393.9	-6,334.1	444.6	6,348.9	0.00	0.00	0.00
12,700.0	89.10	182.00	6,395.5	-6,434.1	441.1	6,448.5	0.00	0.00	0.00
12,800.0	89.10	182.00	6,397.1	-6,534.0	437.6	6,548.1	0.00	0.00	0.00
12,900.0	89.10	182.00	6,398.6	-6,633.9	434.1	6,647.7	0.00	0.00	0.00
13,000.0	89.10	182.00	6,400.2	-6,733.8	430.7	6,747.3	0.00	0.00	0.00
13,100.0	89.10	182.00	6,401.7	-6,833.8	427.2	6,846.9	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #501H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3485.0usft
Project:	Eddy County, NM (NAD 27 NME)	**MD Reference:**	KB = 25' @ 3485.0usft
Site:	Secretariat 3 Fed Com	**North Reference:**	Grid
Well:	#501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,200.0	89.10	182.00	6,403.3	-6,933.7	423.7	6,946.5	0.00	0.00	0.00
13,300.0	89.10	182.00	6,404.9	-7,033.6	420.2	7,046.0	0.00	0.00	0.00
13,400.0	89.10	182.00	6,406.4	-7,133.6	416.7	7,145.6	0.00	0.00	0.00
13,500.0	89.10	182.00	6,408.0	-7,233.5	413.3	7,245.2	0.00	0.00	0.00
13,600.0	89.10	182.00	6,409.6	-7,333.4	409.8	7,344.8	0.00	0.00	0.00
13,700.0	89.10	182.00	6,411.1	-7,433.3	406.3	7,444.4	0.00	0.00	0.00
13,765.7	89.10	182.00	6,412.1	-7,499.0	404.0	7,509.9	0.00	0.00	0.00
PBHL (Secretariat 3 Fed Com #501H)									

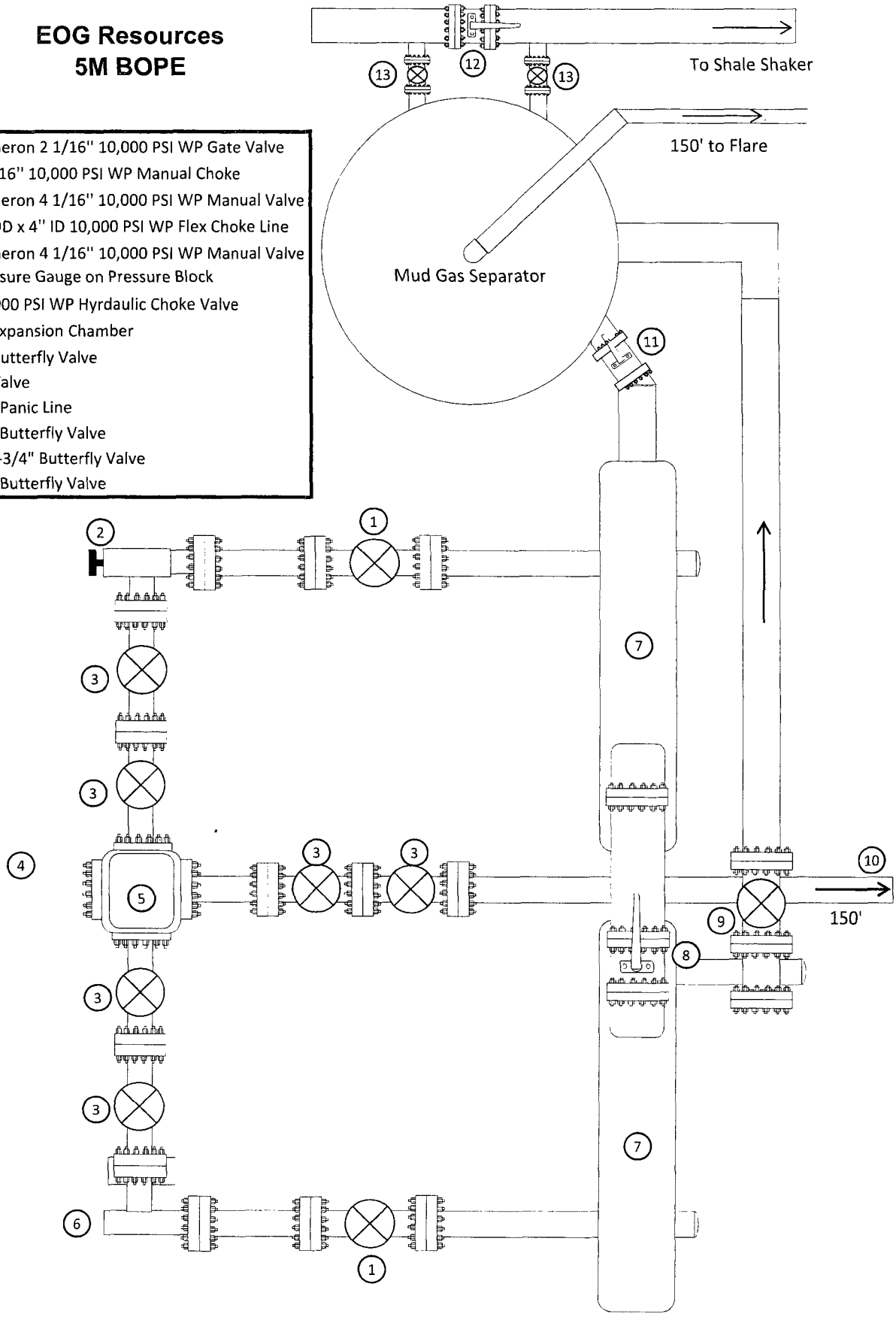
Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Secretariat 3 Fed C	0.00	0.00	6,300.0	-147.0	569.0	614,306.00	523,095.00	32° 41' 19.693 N	104° 15' 29.756 W
- plan misses target center by 39.3usft at 6420.7usft MD (6264.1 TVD, -162.6 N, 564.8 E)									
- Point									
P.I.(Secretariat 3 Fed Cc	0.00	0.00	6,332.5	-2,412.0	579.0	612,041.00	523,105.00	32° 40' 57.280 N	104° 15' 29.657 W
- plan hits target center									
- Point									
PBHL (Secretariat 3 Fed	0.00	0.00	6,412.1	-7,499.0	404.0	606,954.00	522,930.00	32° 40' 6.942 N	104° 15' 31.747 W
- plan hits target center									
- Point									

Exhibit 1a

EOG Resources
5M BOPE

1. Cameron 2 1/16" 10,000 PSI WP Gate Valve
2. 4 1/16" 10,000 PSI WP Manual Choke
3. Cameron 4 1/16" 10,000 PSI WP Manual Valve
4. 8" OD x 4" ID 10,000 PSI WP Flex Choke Line
5. Cameron 4 1/16" 10,000 PSI WP Manual Valve & Pressure Gauge on Pressure Block
6. 10,000 PSI WP Hyrdaulic Choke Valve
7. 8" Expansion Chamber
8. LP Butterfly Valve
9. LP Valve
10. 4" Panic Line
11. 6" Butterfly Valve
12. 10-3/4" Butterfly Valve
13. 6" Butterfly Valve



EOG 5M Choke Manifold Diagram (rev. 3/21/14)

Exhibit 1
EOG Resources
5M BOPE

Rig Floor

1. 13 5/8" Rotating Head
2. NOV 13 5/8" 5,000 PSI WP GK Annular Preventor
3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors
4. 2 1/16" - 10,000 PSI WP Check Valve
5. 10,000 PSI WP - 1502 Union to kill line
6. 2 1/16" - 10,000 PSI WP Manual Valves
7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool
8. 4 1/16" 10,000 PSI WP HCR Valve
9. 4 1/16" 10,000 PSI WP Manual Valve
10. 6" OD x 3" ID 10,000 PSI WP Steel Armoured Flex Choke Line
11. DSA - 13 5/8" 10,000 PSI WP x 13 5/8" 5,000 PSI WP
12. Mud Cross - 13 5/8" 10,000 PSI WP
13. Blind Rams
14. Pipe Rams
15. 13 5/8" Cameron Type "U" 10,000 PSI WP Pipe Rams
16. Flow Line
17. 2" Fill Line

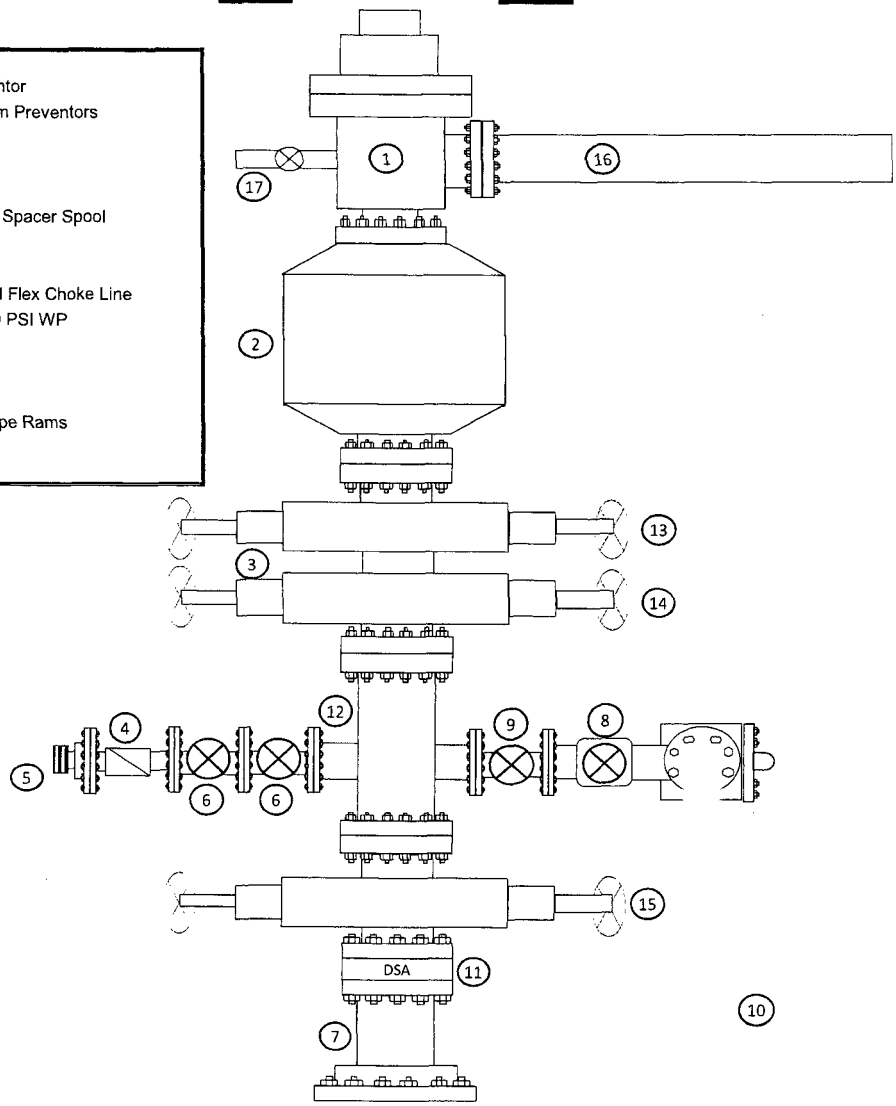
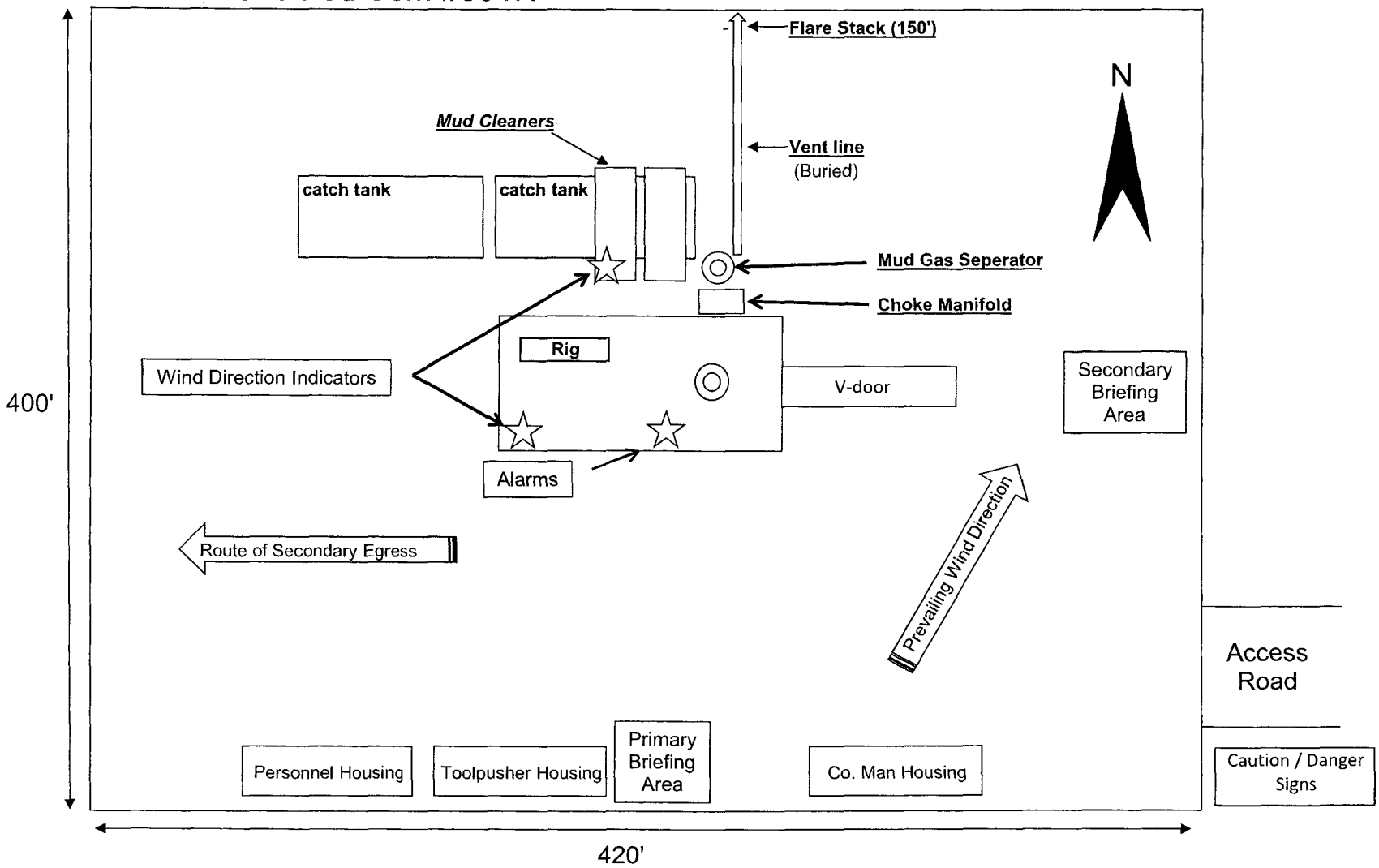


Exhibit 4

EOG Resources
Secretariat 3 Fed Com #501H

Well Site Diagram



EOG RESOURCES, INC.
SECRETARIAT 3 FED COM #501H

Hydrogen Sulfide Plan Summary

A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  a. Flare line 150' from wellhead to be ignited by flare gun.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

- Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor th sufficient air hose not to restrict work activity.
  c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

  Auxiliary Rescue Equipment:
  a. Stretcher
  b. Two OSHA full body harness
  c. 100 ft 5/8 inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:
  The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
  (Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  c. Two wind socks will be placed in strategic locations, visible from all angles.

EOG RESOURCES, INC.
SECRETARIAT 3 FED COM #501H

- Mud program:
  The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

- Metallurgy:
  All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

- Communication:
  Communication will be via cell phones and land lines where available.

EOG RESOURCES, INC.
SECRETARIAT 3 FED COM #501H

Emergency Assistance Telephone List

PUBLIC SAFETY:	**911 or**
Eddy County Sheriff's Department	(575) 887-7551
Kent Waller	
Fire Department:	
Carlsbad	(575) 885-3125
Artesia	(575) 746-5050
Hospitals:	
Carlsbad	(575) 887-4121
Artesia	(575) 748-3333
Hobbs	(575) 392-1979
Dept. of Public Safety/Carlsbad	(575) 748-9718
Highway Department	(575) 885-3281
New Mexico Oil Conservation	(575) 476-3440
U.S. Dept. of Labor	(575) 887-1174

EOG Resources, Inc.	
EOG / Midland	Office (432) 686-3600

Company Drilling Consultants:	
David Dominque	Cell (985) 518-5839
Mike Vann	Cell (817) 980-5507

Drilling Engineer	
Steve Munsell	Office (432) 686-3609
	Cell (432) 894-1256

Drilling Manager	
Heath Work	Office (432) 686-6716
	Cell (903) 780-1179

Drilling Superintendent	
Jason Fitzgerald	Office (432) 848-9029
	Cell (318) 347-3916

H&P Drilling	
H&P Drilling	Office (432) 563-5757
H&P 651 Drilling Rig	Rig (903) 509-7131

Tool Pusher:	
Johnathan Craig	Cell (817) 760-6374
Brad Garrett	

Safety	
Brian Chandler (HSE Manager)	Office (432) 686-3695
	Cell (817) 239-0251

EOG RESOURCES, INC.
SECRETARIAT 3 FED COM #501H

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EOG RESOURCES, INC.
SECRETARIAT 3 FED COM #501H

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SECRETARIAT 3 FED COM #501H

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Hospitals:	
Carlsbad	(575) 887-4121
Artesia	(575) 748-3333
Hobbs	(575) 392-1979
Dept. of Public Safety/Carlsbad	(575) 748-9718
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New Mexico Oil Conservation	(575) 476-3440
U.S. Dept. of Labor	(575) 887-1174

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Drilling Superintendent	
Jason Fitzgerald	Office (432) 848-9029
	Cell (318) 347-3916

H&P Drilling	
H&P Drilling	Office (432) 563-5757
H&P 651 Drilling Rig	Rig (903) 509-7131

Tool Pusher:	
Johnathan Craig	Cell (817) 760-6374
Brad Garrett	

Safety	
Brian Chandler (HSE Manager)	Office (432) 686-3695
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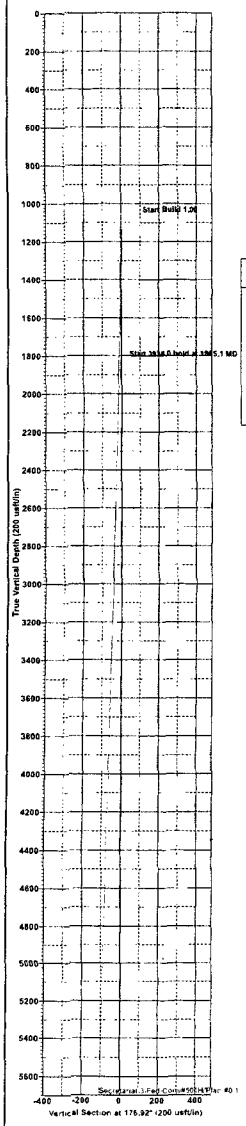
Eddy County, NM (NAD 27 NME)

Secretariat 3 Fed Com #501H

Plan #0.1



Azimuths to Grid North
True North: -0.04°
Magnetic North: 7.30°

Magnetic Field
Strength: 48175.3snT
Dip Angle: 60.38°
Date: 2/10/2017
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 7.31°
To convert a Magnetic Direction to a True Direction, Add 7.35° East
To convert a True Direction to a Grid Direction, Subtract 0.04°

PROJECT DETAILS: Eddy County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: #501H

Ground Level: 3460.0
KB = 25' @ 3485.0usft

Northing	Easting	Latitude	Longitude
614453.00	522526.00	32° 41' 21.152 N	104° 15' 36.413 W

SECTION DETAILS

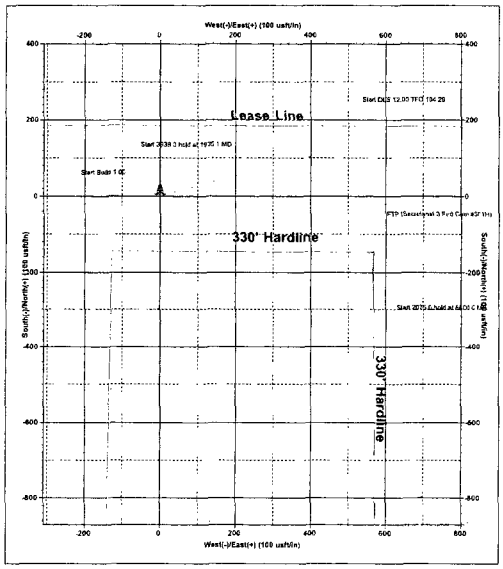
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1905.1	7.05	75.46	1903.3	10.9	41.9	1.00	75.46	-8.6	
4	5843.0	7.05	75.46	5811.5	132.3	509.8	0.00	0.00	-104.6	
5	6600.0	89.10	179.74	6300.0	-337.3	569.6	12.00	104.29	367.4	
6	8675.0	89.10	179.74	6332.5	-2412.0	579.0	0.00	0.00	2439.7	P.I.(Secretariat 3 Fed Com #501H)
7	8787.8	89.10	182.00	6334.3	-2524.7	577.3	2.00	89.91	2552.1	
8	13765.7	89.10	182.00	6412.1	-7499.0	404.0	0.00	0.00	7509.9	PBHL (Secretariat 3 Fed Com #501H)

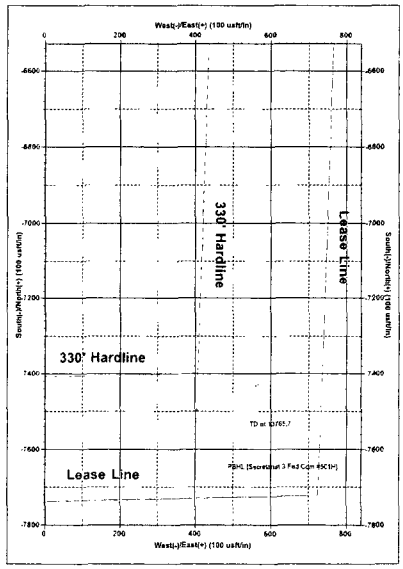
CASING DETAILS

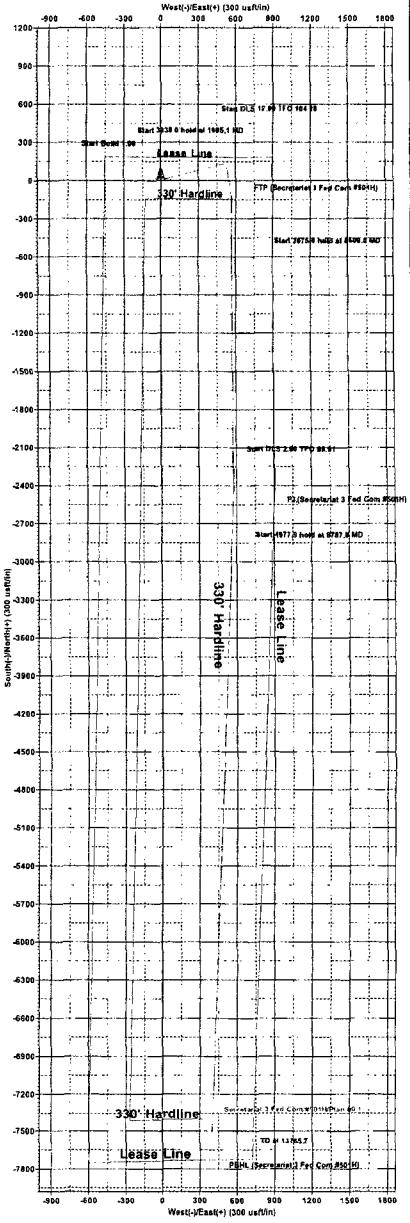
No casing data is available

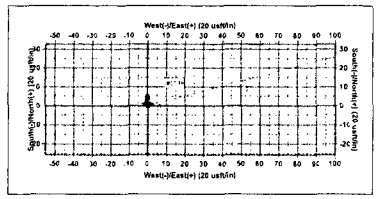
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

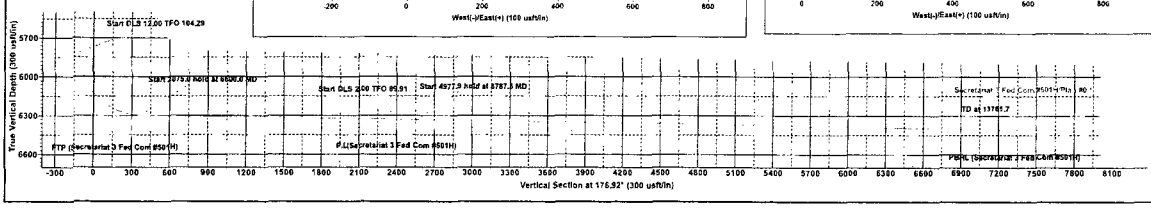
Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP (Secretariat 3 Fed Com #501H)	6300.0	-147.0	569.0	614306.00	523095.00
P.I.(Secretariat 3 Fed Com #501H)	6332.5	-2412.0	579.0	612041.00	523105.00
PBHL (Secretariat 3 Fed Com #501H)	6412.1	-7499.0	404.0	606954.00	522930.00

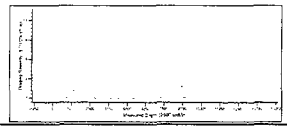


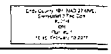












Manufacturer: Midwest Hose & Specialty

Serial Number: SN#90067

Length: 35'

Size: OD = 8" ID = 4"

Ends: Flanges Size: 4-1/16"

WP Rating: 10,000 psi Anchors required by manfacturer: No

MIDWEST

HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT		
Customer: CACTUS		**P.O. Number:** RIG #123
		Asset # M10761
HOSE SPECIFICATIONS		
Type: CHOKE LINE		**Length:** 35'
I.D. 4" *INCHES*		**O.D.** 8" *INCHES*
WORKING PRESSURE 10,000 *PSI*	**TEST PRESSURE** 15,000 *PSI*	**BURST PRESSURE** *PSI*
COUPLINGS		
Type of End Fitting 4 1/16 10K FLANGE		
Type of Coupling: SWEDGED	**MANUFACTURED BY** MIDWEST HOSE & SPECIALTY	
PROCEDURE		
Hose assembly pressure tested with water at ambient temperature.		
TIME HELD AT TEST PRESSURE 1 *MIN.*	**ACTUAL BURST PRESSURE:** 0 *PSI*	
COMMENTS: SN#90067 M10761 Hose is covered with stainless steel armour cover and wraped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes		
Date: 6/6/2011	**Tested By:** BOBBY FINK	**Approved:** MENDI JACKSON

Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: CACTUS

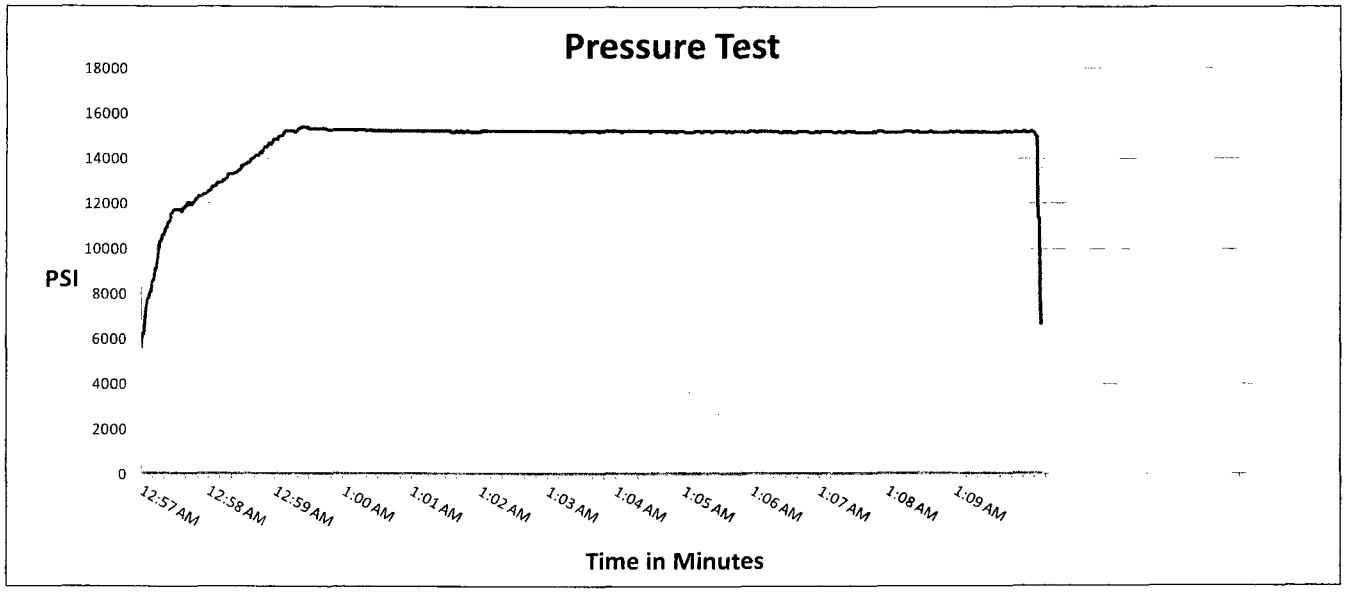
SALES ORDER# 90067

Hose Specifications

Hose Type	Length
C & K	35'
I.D.	**O.D.**
4"	8"
Working Pressure	**Burst Pressure**
10000 PSI	Standard Safety Multiplier Applies

Verification

Type of Fitting	Coupling Method
4 1/16 10K	Swage
Die Size	**Final O.D.**
6.62"	6.68"
Hose Serial #	**Hose Assembly Serial #**
	90067



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	11 1/4 Minutes		15439 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: *Bobby Fink*

Approved By: *Mendi Jackson*

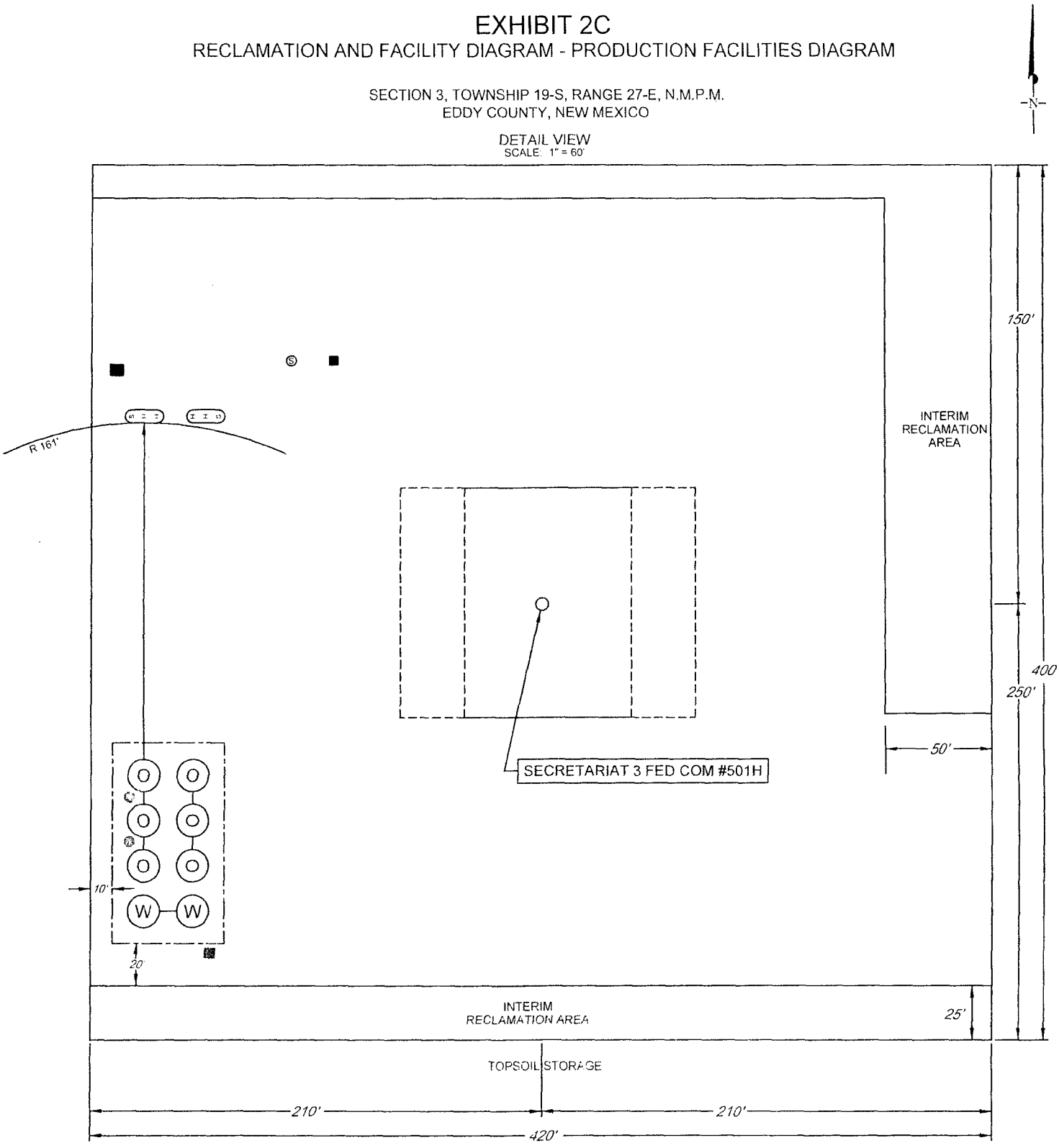
X Mendi Jackson

EXHIBIT 2C

RECLAMATION AND FACILITY DIAGRAM - PRODUCTION FACILITIES DIAGRAM

SECTION 3, TOWNSHIP 19-S, RANGE 27-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 60'



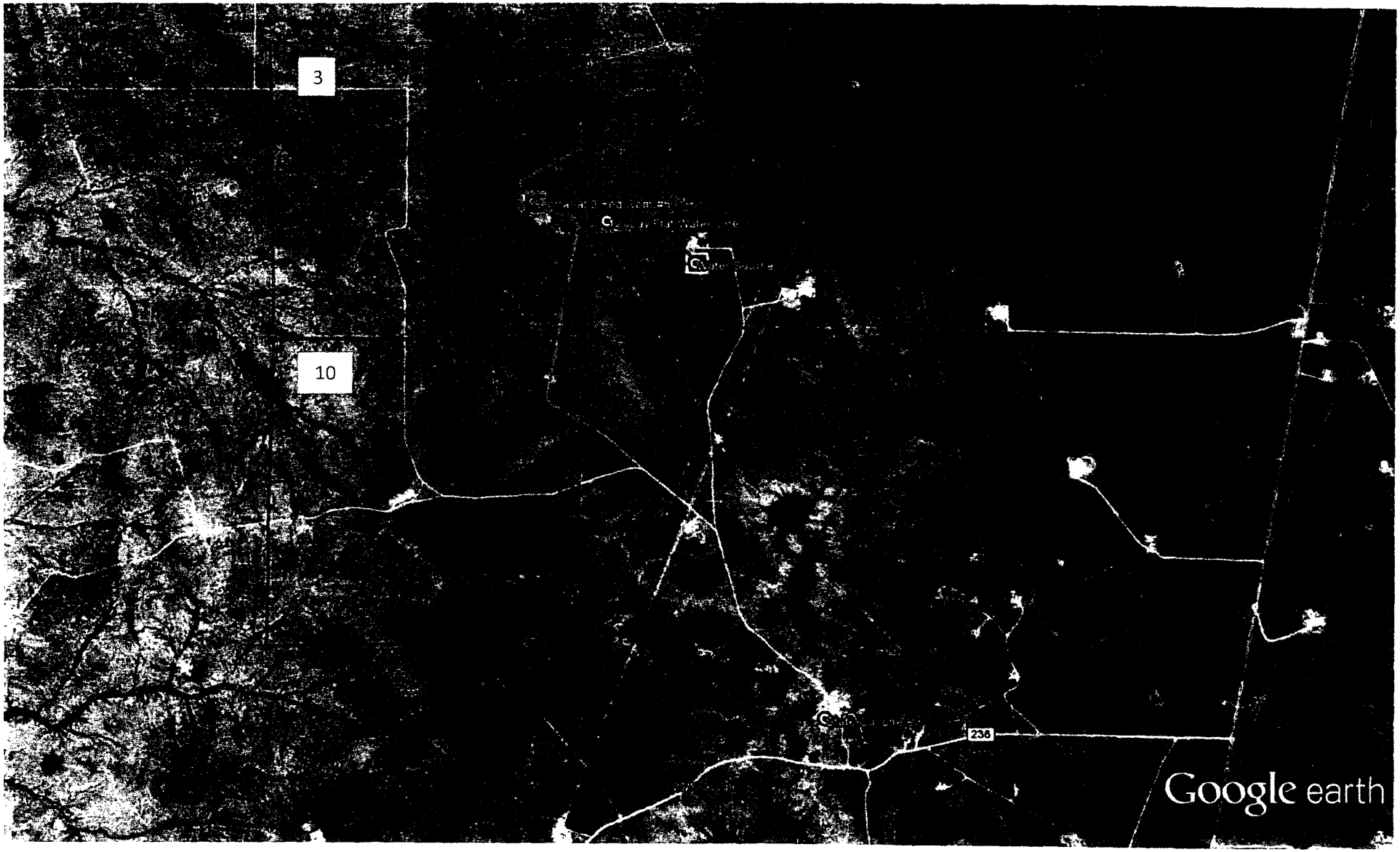
LEASE NAME & WELL NO. SECRETARIAT 3 FED COM #501H

#501H LATITUDE N 32.6892101 #501H LONGITUDE W 104.2601141

LEGEND

O	500 BBL OIL TANK	S	FLARE SEPARATOR
W	500 BBL WATER TANK		VRU
	36 x 15 HEATER/ SEPARATOR		48 X 25 VRT
			FP FLARE
			OP FLARE

S:\SURVEY\EOG_MIDLAND\SECRETARIAT_3_FED_COM\FINAL_PRODUCTS\LO_SECRETARIAT_3_FED_COM_501H.DWG 2/9/2017 9:48:23 AM casten



Secretariat Fed Com 501H Water Source and Caliche Map

Section 3, T19S-R27E, Eddy County NM

Surface Use Plan of Operations

Introduction

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what was submitted in this surface use plan. If any other surface disturbance is needed after the APD is approved, a BLM approved sundry notice or right of way application will be acquired prior to any new surface disturbance.

Before any surface disturbance is created, stakes or flagging will be installed to mark boundaries of permitted areas of disturbance, including soils storage areas. As necessary, slope, grade, and other construction control stakes will be placed to ensure construction in accordance with the surface use plan. All boundary markers will be maintained in place until final construction cleanup is completed. If disturbance boundary markers are disturbed or knocked down, they will be replaced before construction proceeds.

If terms and conditions are attached to the approved APD and amend any of the proposed actions in this surface use plan, we will adhere to the terms and conditions.

1. Existing Roads

a. The existing access road route to the proposed project is depicted on Secretariat Fed Com 501H vicinity map. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of this surface use plan..

b. The existing access road route to the proposed project does not cross lease or unit boundaries, so a BLM right-of-way grant will not be acquired for this proposed road route.

c. The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.

d. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.

2. New or Reconstructed Access Roads

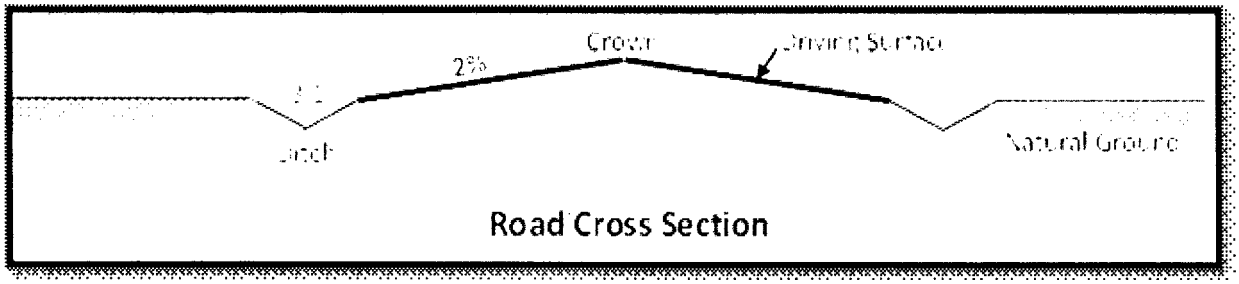
a. An access road will be needed for this proposed project. See the survey plat for the location of the access road.

b. The length of access road needed to be constructed for this proposed project is about 4498 feet.

c. The maximum driving width of the access road will be 24 feet. The maximum width of surface disturbance when constructing the access road will not exceed 25 feet. All areas outside of the driving surface will be revegetated.

d. The access road will be constructed with 6 inches of compacted Caliche.

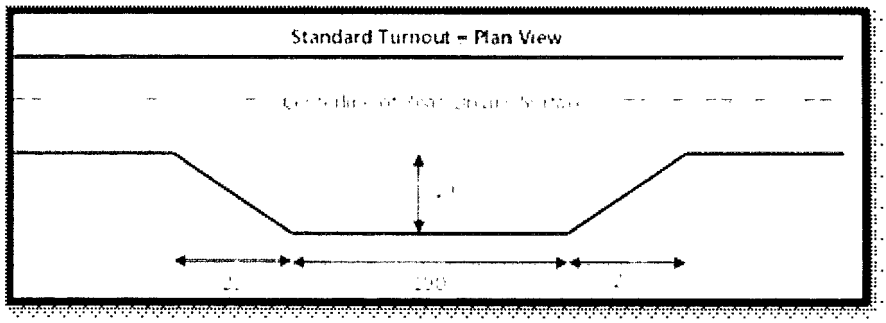
e. When the road travels on fairly level ground, the road will be crowned and ditched with a 2% slope from the tip of the road crown to the edge of the driving surface. The ditches will be 3 feet wide with 3:1 slopes. See Road Cross Section diagram below.



f. The access road will be constructed with a ditch on each side of the road.

g. The maximum grade for the access road will be 2 percent.

h. Turnouts will be constructed for the proposed access road and will be constructed to the dimensions shown in the diagram below. See survey plat or map for location of the turnouts.



i. An appropriately sized cattleguard sufficient to carry out the project will be installed and maintained at the fence crossing(s). Prior to cutting the fence, the fence will be braced and tied off on both sides of the passageway with H braces to protect the integrity of the fence line. See the survey plat for the location of the proposed cattle guard.

j. No BLM right-of-way grant is needed for the construction of this access road.

k. An appropriately sized culvert will be installed where drainages cross the access road. The culvert(s) will be no less than 18 inches in diameter and covered with no less than 12 inches of surfacing material. Each culvert will be marked with reflectors attached to T-Posts on both sides of the road. The uphill and downhill opening of the culvert will have rip-rap (cobble stone) extending 3 feet out and 12 inches deep to slow water flow entering and exiting the culvert. Standards in the BLM Gold Book will be used. The culvert will be maintained in its original condition throughout the life of the road. See survey plat for location of culvert(s).

l. No low water crossings will be constructed for the access road.

m. Since the access road is on level ground, no lead-off ditches will be constructed for the proposed access road.

n. Newly constructed or reconstructed roads, on surface under the jurisdiction of the Bureau of Land Management, will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.

3. Location of Existing Wells

a. Secretariat Fed Com 501H radius map of the APD depicts all known wells within a one mile radius of the proposed well.

b. There is no other information regarding wells within a one mile radius.

4. Location of Existing and/or Proposed Production Facilities

a. All permanent, lasting more than 6 months, above ground structures including but not limited to pumpjacks, storage tanks, barrels, pipeline risers, meter housing, etc. that are not subject to safety requirements will be painted a non-reflective paint color, Shale Green, from the BLM Standard Environmental Colors chart, unless another color is required in the APD Conditions of Approval.

b. If any type of production facilities are located on the well pad, they will be strategically placed to allow for maximum interim reclamation, recontouring, and revegetation of the well location.

c. A production facility is proposed to be installed on the proposed well location. Production from the well will be processed on site in the production facility. Secretariat Fed Com infrastructure sketch depicts the location of the production facilities as they relate to the well and well pad.

d. The proposed production facility will have a secondary containment structure that is constructed to hold the capacity of 1-1/2 times the largest tank, plus freeboard to account for percipitation, unless more stringent protective requirements are deemed necessary.

e. Secretariat Fed Com 501H pad site depicts the production facility as well.

If any plans change regarding the production facility or other infrastructure (pipeline, electric line, etc.), we will submit a sundry notice or right of way (if applicable) prior to installation or construction.

Additional Pipeline(s)

We propose to install 2 additional pipeline(s):

1. Buried oil sales pipeline:

   a. We plan to install a 8 inch buried steel pipeline from the production facility to the oil sales tie-in. The proposed length of the pipeline will be 2201 feet. The working pressure of the pipeline will be about 125 psi. A 50 feet wide work area will be needed to install the buried pipeline. We will need an extra 10 foot wide area near corners to safely install the pipeline. In areas where blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent subsidence. No berm over the pipeline will be evident.

   b. Secretariat Fed Com 501H infrastructure sketch depicts the proposed oil sales pipeline route.

   c. The proposed pipeline does not cross lease boundaries, so a right of way grant will not need to be acquired from the BLM.

2. Buried gas sales pipeline:

   a. We plan to install a 12 inch buried steel pipeline from the production facility to the gas sales tie-in. The proposed length of the pipeline will be 1326 feet. The working pressure of the pipeline will be about 125 psi. A 50 feet wide work area will be needed to install the buried pipeline. We will need an extra 10 foot wide area near corners to safely install the pipeline. In areas where blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent

subsidence. No berm over the pipeline will be evident.

b. Secretariat Fed Com 501H infrastructure sketch depicts the proposed gas sales pipeline route.

c. The proposed pipeline does not cross lease boundaries, so a right of way grant will not need to be acquired from the BLM.

Electric Line(s)

a. An electric line will be applied for through a sundry notice or BLM right of way at a later date.

5. Location and Types of Water

a. The source and location of the water supply are as follows: Water will be supplied from the frac pond as shown on the attached water source map This location will be drilled using a combination of water mud systems (outlined in the drilling program) The water will be obtained from commercial water stations in the area or recycled treated water and hauled to location by trucks or poly pipelines using existing and proposed roads depicted on the proposed existing access road maps In these cases where a poly pipeline is used to transport fresh water for drilling purposes_ proper authorizations will be secured by the contractor.

b. Secretariat Fed Com 501H water source and caliche map depicts the proposed route for a 12 inch poly temporary (<90 days) water pipeline supplying water for drilling operations.

6. Construction Material

a. Caliche will be supplied from pits shown on the attached caliche source map.
Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows:
*
-An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat.
-An area will be used within the proposed well site dimensions to excavate caliche.
Subsoil will be removed and stockpiled within the surveyed well pad dimensions.
-Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions.
-Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available).
-Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. 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 federal land.

7. Methods for Handling Waste

a. Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.

b. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.

c. Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.

d. After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at a state approved disposal facility.

e. The well will be drilled utilizing a closed loop system. Drill cutting will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

8. Ancillary Facilities

a. No ancillary facilities will be needed for this proposed project.

9. Well Site Layout

a. The following information is presented in the well site survey plat or diagram:

i. reasonable scale (near 1":50')

ii. well pad dimensions

iii. well pad orientation

iv. drilling rig components

v. proposed access road

vi. elevations of all points

vii. topsoil stockpile

viii. reserve pit location/dimensions if applicable

ix. other disturbances needed (flare pit, stinger, frac farm pad, etc.)

x. existing structures within the 600' x 600' archaeoligical surveyed area (pipelines, electric lines, well pads, etc

b. The proposed drilling pad was staked and surveyed by a professional surveyor. The attached survey plat of the well site depicts the drilling pad layout as staked.

c. A title of a well site diagram is Secretariat Fed Com 501H rig layout. This diagram depicts the rig layout.

d. Topsoil Salvaging

i. Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respread evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

10. Plans for Surface Reclamation

Reclamation Objectives

i. The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.

ii. The long-term objective of final reclamation is to return the land to a condition similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.

iii. The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.

iv. If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. We will gain written permission from the BLM if more time is needed.

v. Interim reclamation will be performed on the well site after the well is drilled and completed. Secretariat Fed Com 501H interim reclamation depicts the location and dimensions of the planned interim reclamation for the well site.

Interim Reclamation Procedures (If performed)

1. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production.

2. In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.

3. 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.

4. Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. 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.

5. Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.

6. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Final Reclamation (well pad, buried pipelines, etc.)

1. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.

2. All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.

3. All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends

indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

4. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. 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.

5. Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.

6. All unused equipment and structures including pipelines, electric line poles, tanks, etc. that serviced the well will be removed.

7. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

11. Surface Ownership

a. The surface ownership of the proposed project is federal.

12. Other Information

a. An onsite meeting was conducted 01/26/16.
We plan to use a 12-inch lay flat hose to transport water.
We are asking for 2 associated off pad pipelines all depicted on the attached Secretariat Fed Com infrastructure sketch:
One 8-inch oil sales line from the production facility to the oil sales tie-in.
One 12-inch gas sales line from the production facility to the gas sales tie-in.
Additionally:
One 3-inch flex steel gas lift line onsite from the production facility to the well will be laid.
One 4-inch poly production flowline onsite from the production facility to the well will be laid.
The well is planned to be produced using gas lift as the artificial lift method.

13. Maps and Diagrams

Secretariat Fed Com 501H vicinity map - Existing Road
Secretariat Fed Com 501H radius map - Wells Within One Mile
Secretariat Fed Com infrastructure sketch - Production Facilities Diagram
Secretariat Fed Com 501H pad site - Additional Production Facilities Diagram
Secretariat Fed Com 501H infrastructure sketch - oil sales Pipeline
Secretariat Fed Com 501H infrastructure sketch - gas sales Pipeline
Secretariat Fed Com 501H water source and caliche map - Drilling Water Pipeline
Secretariat Fed Com 501H rig layout - Well Site Diagram
Secretariat Fed Com 501H interim reclamation - Interim Reclamation

PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG Resources Inc
LEASE NO.:	NM118702
WELL NAME & NO.:	Secretariat 3 Fed Com – 501H
SURFACE HOLE FOOTAGE:	2421'/S & 898'/E
BOTTOM HOLE FOOTAGE	230'/S & 330'/E, sec. 10
LOCATION:	Sec. 3, T. 19 S, R. 27 E
COUNTY:	Eddy County

I.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)

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Grayburg formation**. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

1. 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.**

2. 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.

3. **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.

II.CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. 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. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE.

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 water flows in the Queen.
- Possibility of lost circulation in the San Andres and Artesia Group.
- High Cave/Karst
- H2S reported within 1 mile radius of well.

A. The **13 3/8** inch surface casing shall be set at approximately **350** feet (in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least 25 feet above the salt) and cemented to the surface.

   1. 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.

2. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

3. 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.

4. If cement falls back, remedial cementing will be done prior to drilling out that string.

Formation below the 13 3/8 inch shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

B. 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.

Formation below the 9 5/8 inch shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

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

☒ Cement should tie-back at least **200** feet into previous casing string. Operator shall provide method of verification. **Additional cement may be needed. Excess cement only calculates to negative 20%.**

D. 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.

III.PRESSURE CONTROL

A. 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 RP 53 Sec. 17.

B. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored

according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

C. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi.**

   a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
   b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
   c. **Manufacturer representative shall install the test plug for the initial BOP test.**
   d. **Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.**
   e. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be Acut off, cementing operations performed and another wellhead installed.**

5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

D. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   1. 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).

2. 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).

3. 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.

4. The results of the test shall be reported to the appropriate BLM office.

5. 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.**

6. 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.

7. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **3rd Bone Spring Sandstone** if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

IV.DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **3rd Bone Spring Sandstone** and **Wolfcamp** formation, and shall be used until production casing is run and cemented.

V.DRILL STEM TEST

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

VI.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.

VII.SPECIAL REQUIREMENT(S)

Communitization Agreement:

1. The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, 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.

2. 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.

3. 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.

High Cave/Karst

A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH. THEREFORE, ONE INCH OPERATIONS ARE NOT SUFFICIENT TO PROTECT CAVE KARST RESOURCES. A CASING DESIGN THAT HAS A ONE INCH JOB PERFORMED DOES NOT COUNT AS A SOLID SHEATH.

CLN 5252017

EOG RESOURCES, INC.
SECRETARIAT 3 FED COM NO. 501H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Seven Rivers	573'
Queen	1,212'
San Andres	1,993'
Bone Spring Lime	3,079'
1st Bone Spring Sand	3,939'
2nd Bone Spring Shale	4,288'
2nd Bone Spring Sand	5,930'
TD	6,300'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 300'	Fresh Water
Queen	1,212'	Oil
San Andres	1,993'	Oil
1st Bone Spring Sand	3,939'	Oil
2nd Bone Spring Shale	4,288'	Oil
2nd Bone Spring Sand	5,930'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13.375" casing at 300' and circulating cement back to surface.

See COA

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5"	0' – ~~300'~~ 350'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0 – 3,100'	9.625"	40#	J55	LTC	1.125	1.25	1.60
8.75"	0' – 13,765'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG Resources Inc
LEASE NO.:	NM118702
WELL NAME & NO.:	Secretariat 3 Fed Com – 501H
SURFACE HOLE FOOTAGE:	2421'/S & 898'/E
BOTTOM HOLE FOOTAGE	230'/S & 330'/E, sec. 10
LOCATION:	Section 3, T. 19 S., R. 27 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. 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, Sundry Notices and Reports on Wells, 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.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings 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. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. 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.

V. SPECIAL REQUIREMENT(S)

Cave and Karst Conditions of Approval

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:
In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction and no further construction will be done until clearance has been issued by the Authorized Officer. Special restoration stipulations or realignment may be required.

No Blasting:
No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:
The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

Tank Battery Liners and Berms:
Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing, or equivalent, to prevent tears or

punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:
A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:
Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

Range

Fence Requirement

Where entry is granted across a fence line, the fence must be braced and tied off on both sides of the passageway with H-braces prior to cutting. The fence will be restored to its prior condition or better, once the work is completed. The operator will notify the private surface landowner or the grazing allotment holder prior to crossing any fence.

Cattle Guards

Appropriately sized cattle guards, sufficient to carry out the Proposed Action, will be installed and maintained at road-fence crossings. Existing cattle guards will be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator is responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations. A gate will be constructed on one side of the cattle guard and fastened securely to H-braces.

Damage to structures that provide water to livestock must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

Soils

IR will be conducted on all disturbed areas not needed for production. Caliche will be removed during reclamation and reused on other projects. Stockpiled topsoil will be redistributed to enhance reclamation. Topsoil provides more fertile soils than subsoils and helps reestablish organisms essential to the development of a soil crust. Seeding IR areas with the proper BLM seed mixture will also reduce temporal soil impacts.

Watershed

The well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the site in the unlikely event a spill or leak occurs. No water flow from the uphill side of the pad will be allowed to enter the pad. The berm will be maintained through the life of the well and after IR has been completed.

Any water erosion that occurs due to pad construction will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required on the well pads. The top soil will be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and will not be used for berming or erosion control.

Vegetation

Construction of the Proposed Action will initially remove 8.94 acres of vegetation. However, approximately 2.97 acres of those impacts are temporary, and will be reclaimed/restored and seeded (utilizing the proper BLM seed mix) following the installation of production facilities. The IR well pads gas sales line, and oil sales line will be reclaimed following well completion and installation of production facilities.

Redistribution of the topsoil will provide a good seed bed. Proper seeding techniques will increase seedling success and provide rangeland habitat within two or three growing seasons. Impacts to vegetation will be reduced to the maximum extent practicable by following Standard Practices such as utilizing existing surface disturbance; minimizing total surface disturbance as much as practicable; minimizing vehicular use; locating surfacing parking and staging areas within caliche pads; and reclaiming/revegetating areas not necessary for production.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

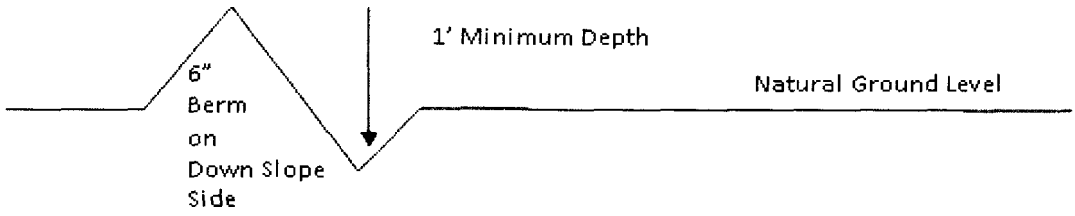
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route 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 guards that are in place and are utilized during lease operations.

Fence Requirement

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

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

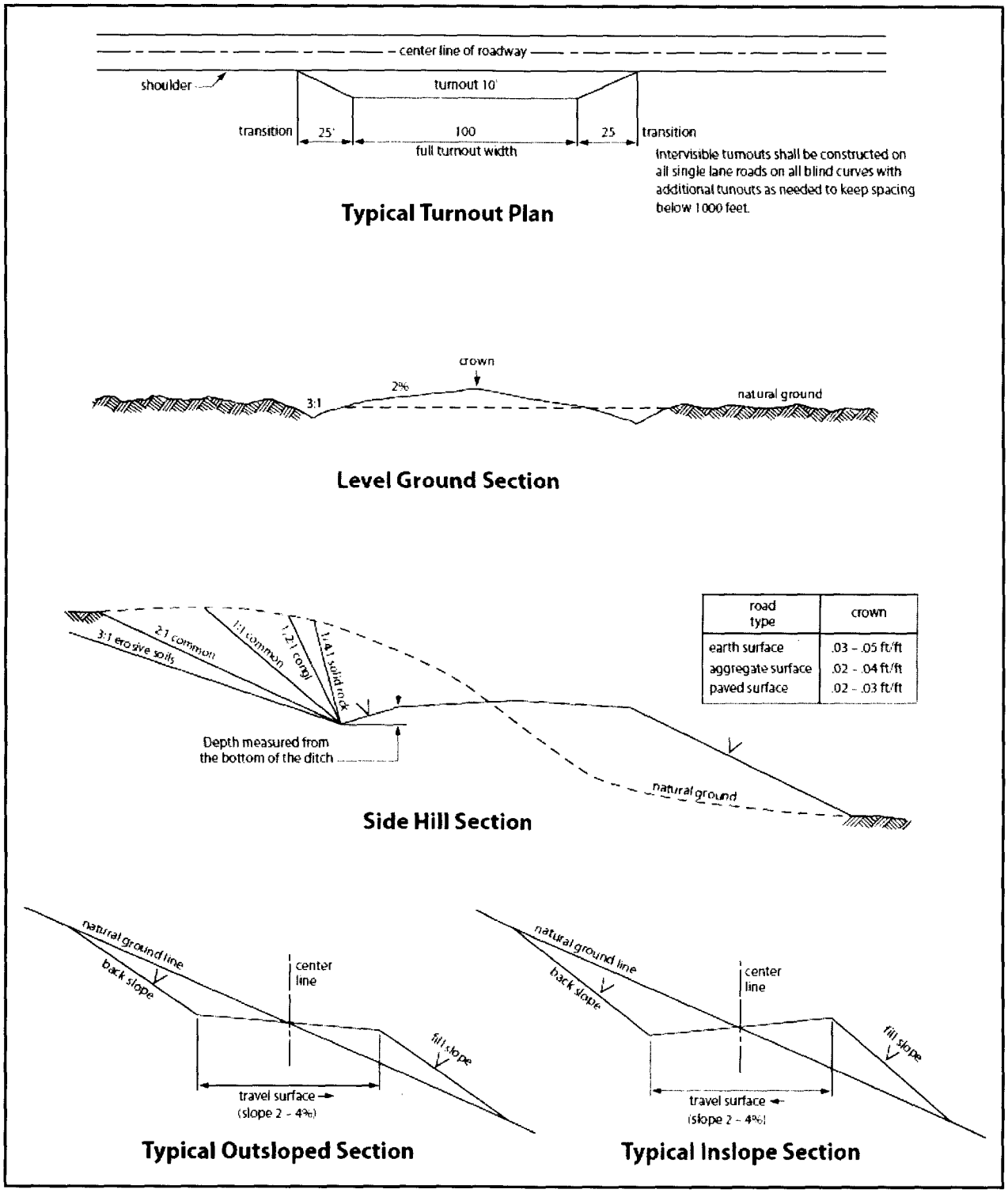


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

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. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
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. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

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, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. 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 revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

(Insert Seed Mixture Here)