Form 3160-3 (June 2015)

# Carlsbad Field Off

# **UNITED STATES**

BUREAU OF LAND MANA		NMNM0002425				
APPLICATION FOR PERMIT TO DI	RILL OR F	REENTER		6. If Indian, Allotee	or Tribe Nam	ie
la. Type of work:	ENTER			7. If Unit or CA Agre	eement, Nam	e and No.
lb. Type of Well:	her			8. Lease Name and \	Well No.	
Ic. Type of Completion: Hydraulic Fracturing Sir	ngle Zone	Multiple Zone		WEST SQUARE L	AKE 4 FED	Α
				<sup>1</sup> 36	2294/	/
2. Name of Operator SEGURO OIL AND GAS LLC	3	72066		9. API Well No.	5-455	526
3a. Address	3b. Phone N	o. (include area code	2)	10. Field and Pool, o	•	
407 N, Big Spring St. Suite 215 Midland TX 79702	(432)219-07	740		SQUARE LAKE / S		
4. Location of Well (Report location clearly and in accordance w	ith any State	requirements.*)		11. Sec., T. R. M. or		vey or Area
At surface LOT 2 / 520 FNL / 1416 FEL / LAT 32.86934	116 / LONG	-103.9729719		SEC 4 / T17S / R3	DE / NMP	
At proposed prod. zone LOT 2 / 520 FNL / 1416 FEL / LA	T 32.86934	16 / LONG -103.97	29719			
14. Distance in miles and direction from nearest town or post office 3.5 miles	ce*			12. County or Parish EDDY	n 13 NA	. State 1
15. Distance from proposed* 520 feet	16. No of ac	res in lease	17. Spacii	ng Unit dedicated to the	his well	
location to nearest property or lease line, ft.  (Also to nearest drig. unit line, if any)	599.35		40			
18. Distance from proposed location*	19. Proposed	d Depth	20. BLM/	BIA Bond No. in file		
to nearest well, drilling, completed, 575 feet applied for, on this lease, ft.	4397 feet /			1B001590		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		mate date work will	start*	23. Estimated durati	on	
3722 feet	08/01/2018	<del> </del>		8 days		
	24. Attac	hments				
The following, completed in accordance with the requirements of (as applicable)	Onshore Oil	and Gas Order No.	, and the H	lydraulic Fracturing r	ule per 43 CF	FR 3162.3-3
Well plat certified by a registered surveyor.     A Drilling Plan.		4. Bond to cover the Item 20 above).	e operation	ns unless covered by ar	n existing bon	nd on file (se
3. A Surface Use Plan (if the location is on National Forest Syster SUPO must be filed with the appropriate Forest Service Office)		5. Operator certific		rmation and/or plans as	may be reque	ested by the
25. Signature	Name	(Printed/Typed)	-	<u> </u>	Date	
(Electronic Submission)		Sturdivant / Ph: (	432)219-0	740	07/13/2018	3
Title Regulatory Clerk	•					
Approved by (Signature)	Name	(Printed/Typed)			Date	
(Electronic Submission)		Layton / Ph: (575)	234-5959		11/21/2018	3
Title Assistant Field Manager Lands & Minerals		SBAD				
Application approval does not warrant or certify that the applican	t holds legal o	or equitable title to the	nose rights	in the subject lease w	hich would e	ntitle 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 section false fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

ARTESIA DISTRICT

NOV 29 2018

RECEIVED

(Continued on page 2)



\*(Instructions on page 2)

Ruf 12-6-18

#### **INSTRUCTIONS**

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

#### **NOTICES**

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

## **Additional Operator Remarks**

## **Location of Well**

1. SHL: LOT 2 / 520 FNL / 1416 FEL / TWSP: 17S / RANGE: 30E / SECTION: 4 / LAT: 32.8693416 / LONG: -103.9729719 ( TVD: 4397 feet, MD: 4397 feet )
BHL: LOT 2 / 520 FNL / 1416 FEL / TWSP: 17S / RANGE: 30E / SECTION: 4 / LAT: 32.8693416 / LONG: -103.9729719 ( TVD: 4397 feet, MD: 4397 feet )

## **BLM Point of Contact**

Name: Sipra Dahal

Title: Legal Instruments Examiner

Phone: 5752345983 Email: sdahal@blm.gov

(Form 3160-3, page 3)

## **Review and Appeal Rights**

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

(Form 3160-3, page 4)

# **Engineer Worksheet**

## **Carlsbad Field Office**

620 E. Greene St. Carlsbad, NM 88220-6292

Tracking Number:	ATS-	18-2026			County:	Eddy	
Company:	Segur	o Oil and Gas, LLC			Well Name and Number:	WEST SQ LAKE 4 F	
Surface Hole Location:	520'/\	N.& 1416'/E. SEC004 T017S, R030E			Bottom Hole Location:	520'/N.& SEC004 T R030E	1416'/E.
Lease Number:	NMN	M0002425	Prod Statu	s:		Effective:	<del></del>
Bond:	Statev	vide	Bond #:		NMB001590	Potash:	No
NOS Received:	NO		APD Rece	ived:	7-13-2018	10-Day LTR Sent:	
Acreage:			Orthodox:		Yes	COM Agr Required:	No
Deficiencies N	Noted:					<u> </u>	<del></del>
Form 3 Other Deficient Adjudication		Survey Plat Drilling Plan Surface Plan Bonding	Origi	nal Signatu	re Operator	Cert Stater	ment
Comments: GEO Report Completed	10-31-	2018					
		Technical Checklist					
Plat: Proposed	ok		Elevation:			Tanastad	C
Depth:	TVD:		MD:	4397		Targeted Formation	San : Andres
Anticipated Water-Oil, Ga	-	Fresh water at 0 feet. Oil/Gas: Yates, Seven Rivers, Queen, Penrose, Grayburg, and S	San Andres.				
Casing/Cemer Program:	nt	See COA for casing depth change / Okay					
Bottom Hole Mud Weight	9.7		BHP:	2217.8468	MASP: 1250.5068		
		☐ Horizontal ☐ Directional ⑥ Vertical ☐	Re-entry				
Well Control Prog(BOP, ET	TC)	5M BOP after surface casing.			Mud Program:	Ok	
Test-Log-Core Program:		2 man mud log from 317' to TD, Caliper, CBL, CNL, DLL, FDC, GR, Mudlog, and S	Sonic				•
H2S or Other Hazards:		H2S yes. Possible water flows from the Salado and Artesia Group. Possible lost circu	lation in the	e San Andre	es, and Grayburg.		
Water Basin:	Roswe	II			···		
Casings to Witness:		Surface Intermediate Production	on CI	T Required			
		Other Witness					
Comments:	Witnes	s surface casing.					
Mustafa Haque		11-15-2018					

Engineer Date

: 1

Adjudication Date

Adjudicator Initials

## PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME: SEGURO OIL AND GAS LLC

LEASE NO.: | NMNM0002425

WELL NAME & NO.: 1:WEST SQUARE LAKE 4 FED A

SURFACE HOLE FOOTAGE: | 520'/N & 1416'/E BOTTOM HOLE FOOTAGE | 520'/N & 1416'/E

LOCATION: T-17S, R-30E, S4. NMPM

COUNTY: | EDDY, NM

## **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.

General Provisions
Permit Expiration
Archaeology, Paleontology, and Historical Sites
Noxious Weeds
Special Requirements
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Watershed/Hydrology Mitigation Measures
☐ Construction
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
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Well Structures & Facilities
☐ Interim Reclamation
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## 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.

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## V. SPECIAL REQUIREMENT(S)

## **Wildlife Mitigation Measures:**

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

## **Timing Limitation Exceptions:**

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

## Ground-level Abandoned Well Marker to avoid raptor perching:

Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

#### Watershed/Hydrology Mitigation Measures:

The entire 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 with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. 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 water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the

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fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

## 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.

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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

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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**

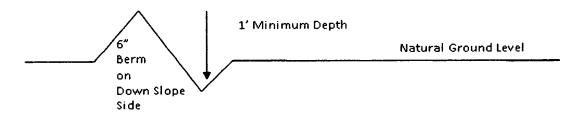
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

## 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

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## 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.

## **Livestock Watering Requirement**

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, 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.

## **Public Access**

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

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## **Construction Steps**

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

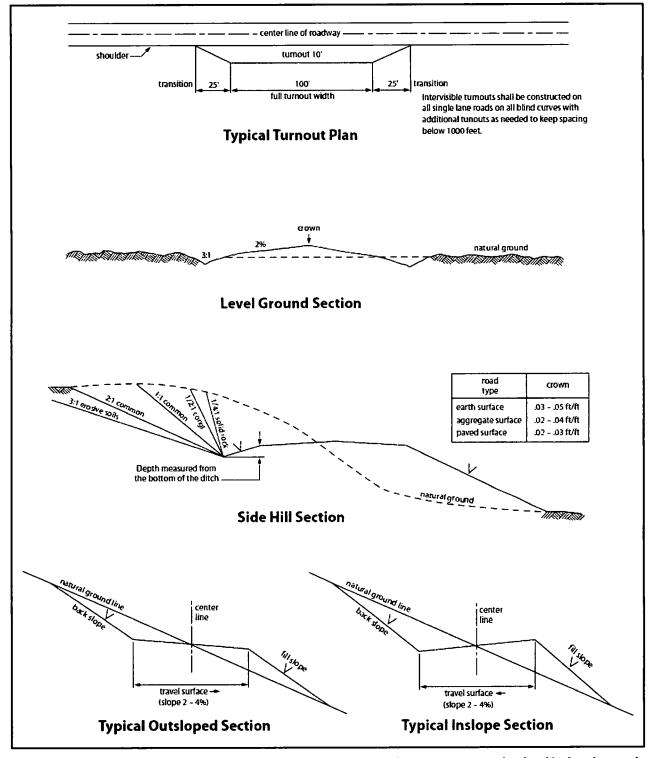


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## VI. 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.

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#### **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.

## VRM Facility Requirement 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).

## VII. 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).

## VIII. 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

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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).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

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#### Seed Mixture for LPC Sand/Shinnery Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

Species	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

<sup>\*</sup>Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed



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



## **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: Donna Sturdivant Signed on: 07/10/2018

Title: Regulatory Clerk

Street Address: 407 N, Big Spring St. Suite 215

City: Midland State: TX Zip: 79702

Phone: (432)219-0740

Email address: dmsreg2014@yahoo.com

## Field Representative

Representative Name: STEPHEN ANDERSON

Street Address: 407 N BIG SPRING STREET, SIUTE 215

City: MIDLAND State: TX Zip: 79701

Phone: (432)219-0740

Email address: PAUL@SEGURO-LLC.COM



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



APD ID: 10400031312 Submission Date: 07/13/2018

**Operator Name: SEGURO OIL AND GAS LLC** 

Well Name: WEST SQUARE LAKE 4 FED A

Well Type: OIL WELL

Well Number: 1

Well Work Type: Drill



**Show Final Text** 

## Section 1 - General

APD ID: 10400031312 **Tie to previous NOS?** 10400027598

Submission Date: 07/13/2018

**BLM Office: CARLSBAD** 

**User:** Donna Sturdivant

Title: Regulatory Clerk

Federal/Indian APD: FED

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

Lease number: NMNM0002425

Lease Acres: 599.35

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? YES** 

APD Operator: SEGURO OIL AND GAS LLC

Operator letter of designation:

## **Operator Info**

Operator Organization Name: SEGURO OIL AND GAS LLC

Operator Address: 407 N, Big Spring St. Suite 215

**Zip:** 79702

Operator PO Box: PO Box 3176

**Operator City: Midland** 

State: TX

Operator Phone: (432)219-0740

**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:

Well Name: WEST SQUARE LAKE 4 FED A

Well Number: 1

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: SQUARE LAKE

Pool Name: SAN ANDRES

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

Operator Name: SEGURO OIL AND GAS LLC

Well Name: WEST SQUARE LAKE 4 FED A Well Number: 1

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: VERTICAL Number of Legs: 1

Well Work Type: Drill
Well Type: OIL WELL
Describe Well Type:

Well sub-Type: EVALUATION

Describe sub-type:

Distance to town: 3.5 Miles Distance to nearest well: 575 FT Distance to lease line: 520 FT

Reservoir well spacing assigned acres Measurement: 40 Acres

Well plat: WSL\_4\_Federal\_A\_1\_Plats\_\_maps\_20180709143237.pdf

## **Section 3 - Well Location Table**

Survey Type: RECTANGULAR

**Describe Survey Type:** 

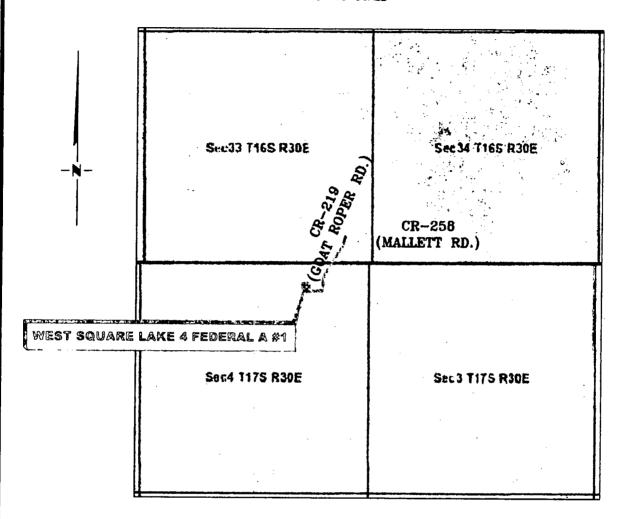
Datum: NAD83 Vertical Datum: NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type		Elevation	MD	DVT
SHL	520	FNL	141	FEL	17S	30E	4	Lot	32.86934	-	EDD	NEW	NEW	F	MMMM	372	439	439
Leg		i	6					2	16	103.9729	Υ	MEXI	MEXI		000242	2	7	7
#1										719		co	co		5			
BHL	520	FNL	141	FEL	17S	30E	4	Lot	32.86934	-	EDD	NEW	NEW	F	NMNM	-675	439	439
Leg			6					2	16	103.9729	Υ	MEXI	MEXI		000242		7	7
#1								:		719		СО	СО		5			1

## VICINITY MAP

NOT TO SCALE



SECTION 4, TWP. 17 SOUTH, RGE. 30 EAST, N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: Sequro Oil & Gas, LLC LOCATION: 520' FNL & 1416' FEL LEASE: West Square Lake 4 Federal A ELEVATION: 3722'

WELL NO.: 1

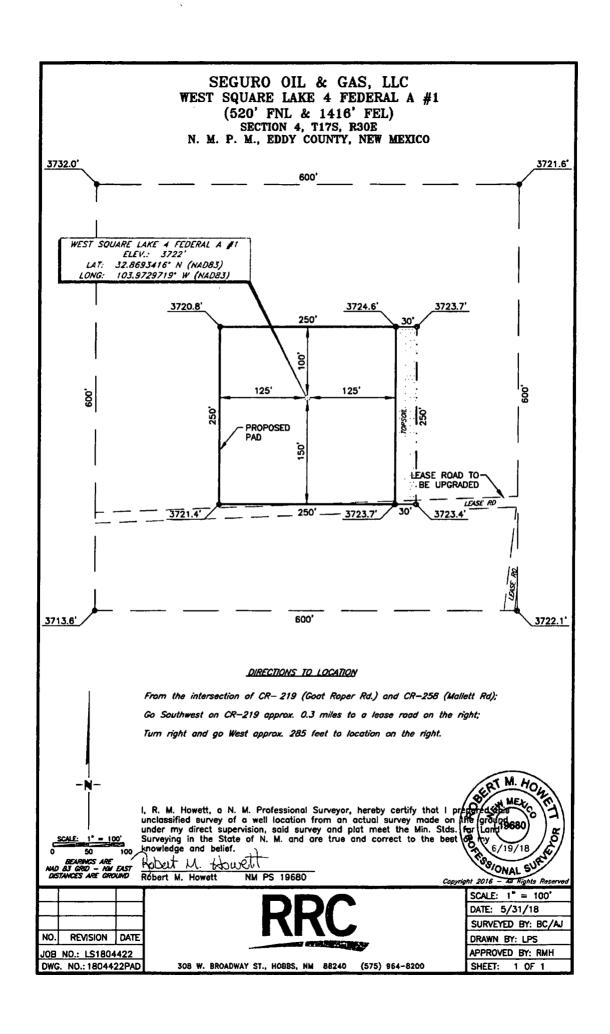
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NO. REVISION DATE JOB NO.: LS1804422 DWG. NO.: 1804422VM



308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

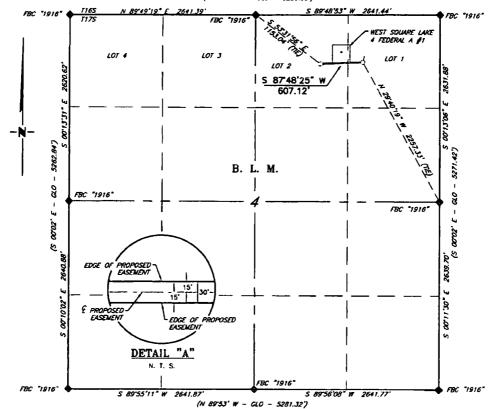
SCALE: N. T. S. DATE: 5-31-2018 SURVEYED BY: BC/AJ DRAWN BY: LPS APPROVED BY: RMH SHEET: 1 OF 1



## SEGURO OIL & GAS, LLC PROPOSED UPGRADE OF AN EXISTING ROAD FOR THE WEST SQUARE LAKE 4 FEDERAL A #1 SECTION 4, T17S, R30E.

N. M. P. M., EDDY CO., NEW MEXICO

(S 89'59' W - GLO - 5280.00')



### DESCRIPTION

A strip of land 30 feet wide, being 607.12 feet or 36.795 rods in length, lying in Section 4, Township 17 South, Range 30 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at a point in the Northeast quarter of Section 4, which bears, N 29°40′19″ W, 2,257.33 feet from a brass cap, stamped "1916", found for the East quarter corner of Section 4;

Thence S 8748'25" W, 607.12 feet, to the End of Survey, a point in the Northeast quarter of Section 4, which bears, S 53'32'22" E, 1,153.04 feet from a brass cap, stamped "1916", found for the North quarter corner of

Said strip of land contains 0.418 acres, more or less, and is allocated by forties as follows:

12.787 Rods 24.008 Rods Lot 1 Lot 2 0.145 Acres 0.273 Acres

1" = 1000" 500 1000

BENRINGS ARE GRID NAD 83 NW EAST DISTANCES ARE HORIZ. GROUND.

LEGEND RECORD DATA - GLO

FOUND MONUMENT AS NOTED

EXISTING ROAD UPGRADE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plot from an actual survey made on the ground under my direct supervision, soid survey and plot meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Hobert M. Howell NM PS 19680

Róbert M. Howett

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

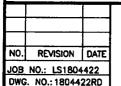
e Ortes SONAL Copyright 2016 - All Rights SCALE: 1" = 1000

DATE: 5-31-2018 SURVEYED BY: BC/AJ

HOH M.

DRAWN BY: LPS APPROVED BY: RMH

SHEET: 1 OF 1





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



**APD ID:** 10400031312

Submission Date: 07/13/2018

**Operator Name: SEGURO OIL AND GAS LLC** 

Well Name: WEST SQUARE LAKE 4 FED A

Well Number: 1

**Show Final Text** 

Well Type: OIL WELL

Well Work Type: Drill

## **Section 1 - Geologic Formations**

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing
1	QUATERNARY	3722	0	0	OTHER: Eolian Sand Dunes	USEABLE WATER	No
2	RUSTLER	3425	297	297	ANHYDRITE	POTASH	No
3	TOP SALT 3150		572	572	SALT	POTASH	No
4	BASE OF SALT	2555	1167	1167	SALT	POTASH	No
5	YATES	2390	1332	1332	SANDSTONE	NATURAL GAS	No
6	SEVEN RIVERS	2130	1592	1592	DOLOMITE	NATURAL GAS,OIL	No
7	QUEEN	1525	2197	2197	SANDSTONE	NATURAL GAS,OIL	No
8	PENROSE	1315	2407	2407	DOLOMITE	NATURAL GAS,OIL	No
9	GRAYBURG	1090	2632	2632	SANDSTONE,DOLOMIT E	NATURAL GAS,OIL	No
10	LOCO	925	2797	2797	SANDSTONE	NATURAL GAS,OIL	No
11	METEX	880	2842	2842	SANDSTONE	NATURAL GAS,OIL	No
12	PREMIER	765	2957	2957	SANDSTONE	NATURAL GAS,OIL	No
13	SAN ANDRES UPPER	750	2972	2972	DOLOMITE	NATURAL GAS,OIL	Yes
14	LOVINGTON	650	3072	3072	SANDSTONE	NATURAL GAS,OIL	No
15	SAN ANDRES	205	3517	3517	DOLOMITE	NATURAL GAS,OIL	Yes

## **Section 2 - Blowout Prevention**

Operator Name: SEGURO OIL AND GAS LLC

Well Name: WEST SQUARE LAKE 4 FED A Well Number: 1

Pressure Rating (PSI): 5M

Rating Depth: 10600

Equipment: 11" 5M BOP - Rotating Head, Kill Line, Mud Gas Separator

Requesting Variance? NO

#### Variance request:

**Testing Procedure:** BOP / BOPE will be tested by an independent service company to 250 psi low and the high pressure as listed above. The system may be upgraded to a higher pressure but still tested at percent listed for component WP as listed above. If the system is upgraded, all the components for that section will be functional and tested. Pipe rams and Annular will be functionally checked each 24 hour period. Blind rams will be operationally checked on each trip out of hole. These checks will be noted on the IADC records onsite. Other accessories to the BOP equipment will include a kelly cock, floor safety valve, inside BOP, choke manifold and lines. See attached BOPE schematics.

#### **Choke Diagram Attachment:**

Seguro\_WSL\_4\_Fed\_A\_\_\_1\_\_Choke\_Manifold\_20180702130412.pdf

## **BOP Diagram Attachment:**

Seguro\_WSL\_4\_Fed\_A\_\_1\_\_BOP\_Schem\_20180702130422.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	12.2 5	8.625	NEW	API	N	0	317	0	317			317	J-55	24	STC	8.75	15.7 7	DRY	32	DRY	50.8
1	PRODUCTI ON	7.87 5	5.5	NEW	API	N	0	4397	0	4397			4397	J-55	15.5	LTC	1.77	1.85	DRY	3.18	DRY	3.6

## Casing Attachments

Operator	Name:	SEGURO	OIL	AND	GAS	LLC
<b>-</b> p						

Well Name: WEST SQUARE LAKE 4 FED A

Well Number: 1

Casing ID: 1

String Type: SURFACE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

WSL\_4\_Fed\_A\_\_\_1\_Csg\_Design\_20180711072843.pdf

Casing ID: 2

String Type: PRODUCTION

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

WSL\_4\_Fed\_A\_\_\_1\_Csg\_Design\_20180711072853.pdf

## Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	317	200	1.34	14.8	268		l	Class C & 2% PF1 (CACL2)

ead	0	4397	340	2.06	12.6	700	Class C	Class C 35/65 & 5%
						.		PF44 (Salt) & 6% PF20
								(Gel) & 0.2% PF606
								(Fluid loss) & 0.1%
								PF13 (Retarder) & 3#
		'						PF42 (Koalseal) & 0.4#
ŀ					1			PF45 (Defoamer) &
•								

Operator Name: SEGURO OIL AND GAS LLC

Well Name: WEST SQUARE LAKE 4 FED A

Well Number: 1

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											0.125 PF29 (Cellophane)
PRODUCTION	Tail				370	1.33	14.8	492		Class C	Class C & 0.2% PF65 (Dispersant) & 0.2% PF606 (Fluid loss)

## **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: BOP, Choke Manifold, Gas Buster, Blow down Pit, Flare line with igniter, pre-mix pit, rotating head. Sufficient mud materials to maintain mud properties and meet minimum lost circulation will be kept on location at all times

Describe the mud monitoring system utilized: A Pason or similar system will be used to monitor the loss or gain of fluid.

## **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)	Hd	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
2400	4397	SALT SATURATED	9.7	9.7							
0	317	SPUD MUD	8.7	9.5							
317	2400	SALT SATURATED	9.3	9.7							

Operator Name: SEGURO OIL AND GAS LLC

Well Name: WEST SQUARE LAKE 4 FED A

Well Number: 1

## Section 6 - Test, Logging, Coring

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

Pason or Geolorgaph 1 ft drill time spud - TD 2 Man Mud Log from 317' - TD

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

CALIPER, CBL, CNL, DLL, FDC, GR, MUDLOG, SONIC

Coring operation description for the well:

Potential to take up to 75 Side Wall Cores

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure: 2000** 

**Anticipated Surface Pressure: 1032.65** 

Anticipated Bottom Hole Temperature(F): 105

Anticipated abnormal pressures, 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:

HYDROGEN\_SULFID1\_20180703132211.docx
HYDROGEN\_SULFIDE\_20180703132225.docx
WELL\_CONTROL\_EMERGENCY\_RESPONSE\_PLAN\_20180703132238.docx

## **Section 8 - Other Information**

Proposed horizontal/directional/multi-lateral plan submission:

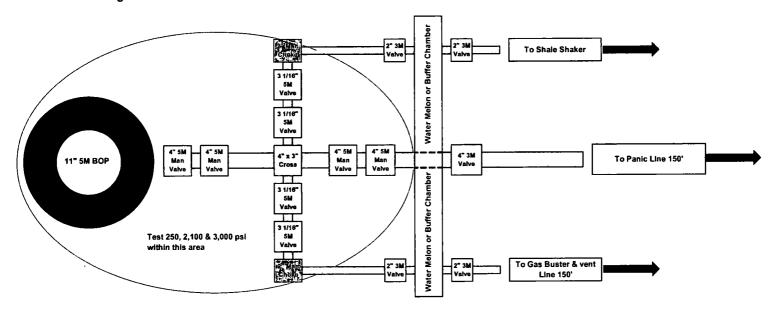
Other proposed operations facets description:

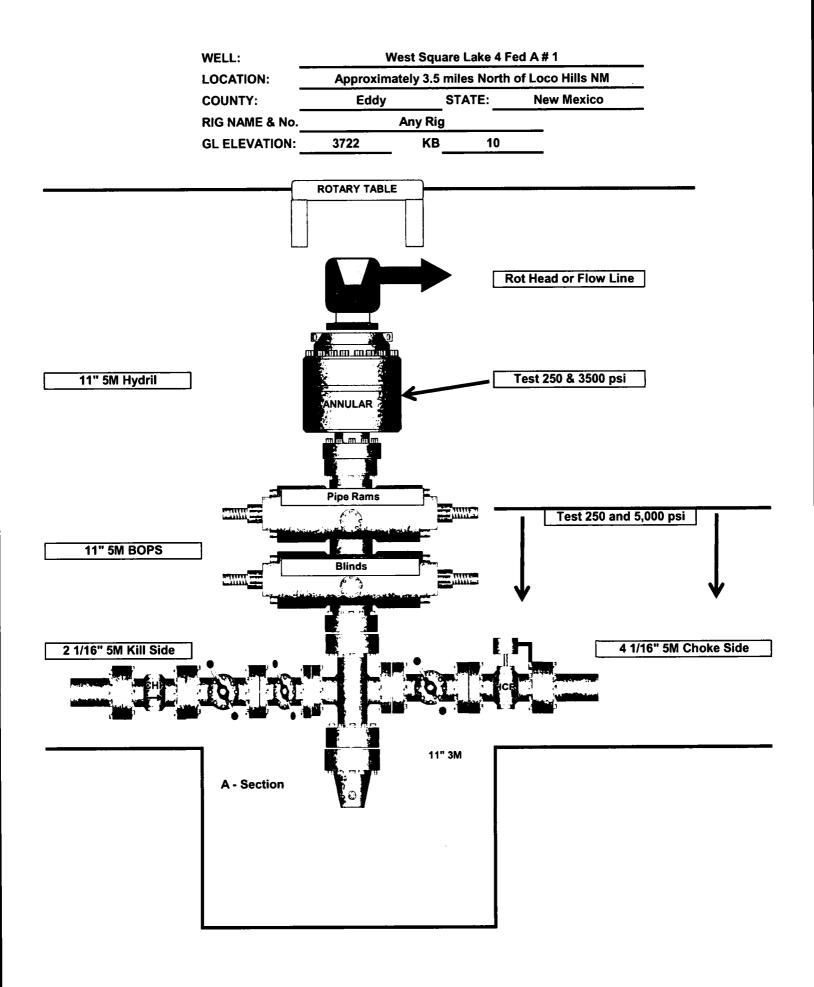
Other proposed operations facets attachment:

Other Variance attachment:

## **Choke Manifold**

## Minimum Configuration of Choke Side





	ke 4 Fe							-												
urface	8 5/8"	24# J5!	S STC						••		-									
Csg Size	Set Depth TVD	Set Depth MD	Grade	Weight	Cann	Collapse	Burst	Conn Yield	Body Yield	MD Air Weight	TVD Air Weight	Drig Mud Weight	Mud Gradient (MG)	Average Cmt or MW PPG In Annulus	Cmt Gradient (CG)	Frac Gradient (FG)	Cement	Displace Fluid Gradient (DFG)	Gas Gradient (GG)	Delta MG - DFG
8 5/8	317	317	155	24	STC	1370	2,950	244,000	381,000	7.608	7,608	9.500	0.494	13.600	0.707	0.700	8.330	0.433	0.110	0.061
esign Min SF Collaps esign Min SF Collaps		1.30	Mud Cement	Collapse / TVD * MG Collapse / TVD * CG - (Delta) MG-DFG	. 6.69	Safety Safety										Min MU To Max MU T		1,830 2,440		lbs
Pesign Min SF Burst			Mud	Burst / TVD * FG - GG	1377	12.1			Burst	Collapse	Joint					Opt MU To	orque	3,050	ft	lbs
esign Min SF Connec	ion		Top Joint	Conn Yd / MD * Wt	52.07	13 8 7		Per BLM	1.000	1.125	1.600	(Dry)				Max Opera	ating Tq	NA	ft	ibs
esign Min SF Body		2.00	Top Joint	Body Yd / MD * Wt	50.08						1.800	(Bouyed)				Conn Yield	Torque	NA	ft	lbs
	1																			
Prod Casing	5 1/2" Set	15.5 /5 Set	S LTC										Mud	Average Cmt or	Cmt	Frac		Displace	Gas	
Prod Casing  Csg Size			S LTC Grade	Weight	Conn	Collapse	Burst	Conn Yield	Body Yield	MD Air Weight	TVD Air Weight	Drig Mud Weight	Mud Gradient (MG)	Cmt or MW PPG in	Crnt Gradient (CG)	Frac Gradient (FG)	Cement	Displace Fluid Gradient (DFG)	Gas Gradient (GG)	Delta MG - DFG
	Set Depth	Set Depth		Weight	Conn	Collapse	Burst 4,810	Conn Yield	Body Yield 248,000			- 1	Gradient	Cmt or MW PPG	Gradient	Gradient	Cement Displace	Fluid Gradient	Gradient	
Csg Size	Set Depth TVD	Set Depth MD	Grade			,				Weight	Weight	Weight	Gradient (MG)	Cmt or MW PPG in Annulus	Gradient (CG)	Gradient (FG)	Cement Displace Fluid	Fluid Gradient (DFG)	Gradient (GG)	MG - DFG
Csg Size	Set Depth TVD	Set Depth MD	Grade			,		217,000	248,000 Burst	Weight 68,154 Collapse	Weight 68,154	Weight 10.000	Gradient (MG)	Cmt or MW PPG in Annulus	Gradient (CG)	Gradient (FG)	Cement Displace Fluid	Fluid Gradient (DFG)	Gradient (GG)	MG - DFG
Csg Size 5 1/2	Set Depth TVD 4,397	Set Depth MD 4,397	Grade JSS	15.5	LTC	,			248,000	Weight 68,154	Weight 68,154 Joint 1,600	Weight 10.000	Gradient (MG)	Cmt or MW PPG in Annulus	Gradient (CG) 0.702	Gradient (FG) 0.700	Cement Displace Fluid 8.330	Fluid Gradient (DFG) 0 433	Gradient (GG) 0.110	MG - DFG 0.087
Csg Size  5 1/2  Ssign Min SF Collapse	Set Depth TVD 4,397	Set Depth MD 4,397	Grade JSS	15.5  Collapse / TVD * MG	LTC	4,040		217,000	248,000 Burst	Weight 68,154 Collapse	Weight 68,154	Weight 10.000	Gradient (MG)	Cmt or MW PPG in Annulus	Gradient (CG) 0.702	Gradient (FG) 0.700	Cement Displace Fluid 8.330	Fluid Gradient (DFG) 0 433	Gradient (GG) 0.110	MG - DFG 0.087
Csg Size 5 1/2 5 sign Min SF Collapse	Set Depth TVD 4,397	Set Depth MD 4,397	Grade JSS Mud Cement	15.5  Collapse / TVD * MG Collapse / TVD * CG - (Delta) MG-DFG	1:77.	,		217,000	248,000 Burst	Weight 68,154 Collapse	Weight 68,154 Joint 1,600	Weight 10.000	Gradient (MG)	Cmt or MW PPG in Annulus	Gradient (CG) 0.702	Gradient (FG) 0.700 Min MU To Max MU To	Cement Displace Fluid 8.330	Fluid Gradient (DFG) 0 433 1,630 2,170	Gradient (GG) 0.110	MG - DFG 0.087  Obs
Csg Size  5 1/2  Ssign Min SF Collapse	Set Depth TVD 4,397	Set Depth MD 4,397 1.30 1.30	Grade JSS	15.5  Collapse / TVD * MG	LTC	4,040	4,810	217,000	248,000 Burst 1,000	68,154 Collapse 1.125	Weight 68,154 Joint 1,600 1,800	Weight 10.000 [Dry] [Bouyed]	Gradient (MG)	Cmt or MW PPG in Annulus	Gradient (CG) 0.702	Gradient (FG) 0.700	Cement Displace Fluid 8.330 orque orque	Fluid Gradient (DFG) 0 433	Gradient (GG) 0.110	MG - DFG 0.087

West Square Lake 4 red A # 1 - Ca	Xe 4 L	*	1	sing Designs				_												
Surface	8 5/8"	8 5/8" 24# 155 STC	S STC														l	l	l	
Csg Size	Set Depth TVD	Set Depth MD	Grade	Weight	Сопп	Collapse	Burst	Conn Yield	Cann Yield Bady Yield	MD Air Weight	TVD Air Weight	Drig Mud Weight	Mud Gradient (MG)	Average Cmt or MW PPG in	Cmt Gradlent (CG)	Frac Gradlent (FG)	PPG of Cement Displace	Displace Fluid Gradient (DFG)	Gas Gradient (GG)	Delta MG - DFG
8 2/8	317	317	155	. 24	STC	.1370	2,950	244,000	381,000	2,608	7,608	9.500	0.494	13.600	0.707	0.700	8.330	0.433	0.110	0.061
Design Min SF Collapse		1.30	Mud	Collapse / TVD * MG	8 75	Aş ı	_								-	Min MU Torque	ane	1,830	ftlbs	
Design Min SF Collapse		8	1.50 Cement	Collapse / TVD * CG - (Delta) MG-DFG	699	eje eje										Max MU Torque	anbu	2,440	tilbs	\$
Design Min SF Burst		1.20	1.20 Mud	Burst / TVD * FG - GG	15.77	5 I P			Burst	Codepse	Joint					Opt MU Torque	anb	3,050	₽ P	,
Design Min SF Connection	E S	28	- 1	Conn Yd / MD * Wt	63.07	nto Cris		Per 8UM	1.000	1.125	1.600	(Dry)				Max Operating To	Ing To	NA	ttlbs	,
Design Min SF Body		7 7 8	2.00 Top Joint	Body Yd / MD * Wn	50.08	,					1.800	(Bouyed)				Conn Yield Torque	ordue	Ą	ftlb	
Prod Casing	5 1/2"	S 1/2" 15.5 JSS LTC	5 LTC																	
Cog Size	ž g S	Set Depth MD	Grade	Weight	Cenn	Collapse	Burst	Conn Yield	Conn Yield Body Yield	MD Air Weight	TVD Air Weight	Drig Mud Weight	Mud Gradient (MG)		Cmt Gradient (CG)	Frac Gradient (FG)	~ *		Gradient (GG)	Delta MG - DFG
5 1/2	4,397	4,397	551	15.5	12	4,040	4,810	217,000	248,000	68,154	68,154	10.000	0.520	Annulus 13.500	0.702	+	8,330	(DFG)	0.110	0.087
									Burst	Collepse	John									
								Per BLM	П	1.125	1.600	(Dry)								
Design Min SF Collapse		2	3	Collapse / TVD * MG	1.7	, A. ().	_				1.800	(Bouned)				Min MU Torque	dne	1,630	ftlbs	\$
Design Min SF Collapse		1.50	1.50 Cement	Collapse / TVD * CG - (Delta) MG-DFG	3	olusi usna olosi otos										Max MU Torque	due	2,170	ftlbs	\$
Design Min SF Burst		25	3	Burst / TVD * FG . GG	1.85											Opt MU Torque	due	2,710	ftibs	\$
Design Min SF Connection	Ę	2	1.80 Top Joint	Conn vd / MD * Wt	3.10		Conn Yd	Conn Yd @ CurveTVD	3.18	Calculated Actual Safety.	tual Safety					Max Operating Tq	Ing Tq	NA	ftlbs	,
Design Min Sf Body		9 7	Top Joint	Body Yd / MD * Wt	30 %		Bocky Yd 6	Body Yd @ Curve TVD	3.64	Factors	Ę					Conn Yield Torque	orque	Ą	\$	•

## HYDROGEN SULFIDE (H2S) DRILLING OPERATIONS PLAN

### **Hydrogen Sulfide Training:**

All regularly assigned personnel, contracted or employed by Seguro Oil and Gas, LLC will receive training from qualified instructor(s) in the following areas prior to commencing drilling possible hydrogen sulfide bearing formations in this well:

- The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S)
- The proper use and maintenance of personal protective equipment and life support systems.
- The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing area, evacuation procedures & prevailing winds.
- The proper techniques for first aid and rescue procedures.

## Supervisory personnel will be trained in the following areas:

- The effects of H<sub>2</sub>S on metal components. If high tensile tubulars are to be utilized, personnel will be trained in their special maintenance requirements.
- Corrective action & Shut-in procedures when drilling or reworking a well & blowout prevention / well control
  procedures.
- The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan

## H₂S SAFETY EQUIPMENT AND SYSTEMS:

#### Well Control Equipment that will be available & installed if H<sub>2</sub>S is encountered:

- Flare Line with electronic igniter or continuous pilot.
- Choke manifold with a minimum of remote choke.
- Blind rams & pipe rams to accommodate all pipe sizes with properly sized closing unit.
- Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head & flare gun with flares

#### **Protective Equipment for Essential Personnel:**

• Mark II Survive-air 30-minute units located in dog house & at briefing areas, as indicated on wellsite diagram.

### **H2S Detection and Monitoring Equipment:**

- Two portable H<sub>2</sub>S monitors positioned on location for best coverage & response. These units have warning lights & audible sirens when H<sub>2</sub>S levels of 20 ppm are reached.
- One portable H<sub>2</sub>S monitor positioned near flare line.

#### **H2S Visual Warning Systems:**

- Wind direction indicators are shown on wellsite diagram.
- Caution / Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high
  visibility yellow with black letter of sufficient size to be readable at a reasonable distance from the immediate
  location. Bilingual signs will be used when appropriate.

## **Mud Program:**

• The Mud Program has been designed to minimize the volume of H<sub>2</sub>S circulated to the surface. Proper mud weights, safe drilling practices & the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

#### Metallurgy:

- All drill strings, casing, tubing, wellhead, blowout prevents, drilling spool, kill lines, choke manifold & lines, & valves will be suitable for H₂S service.
- All elastomers used for packing & seals shall be H<sub>2</sub>S trim.

#### **Communication:**

• Cellular telephone and 2-way radio communications in company vehicles, rig floor and mud logging trailer.

## HYDROGEN SULFIDE (H<sub>2</sub>S) CONTINGENCY PLAN

## **Assumed 100 ppm ROE = 3000'**

100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan

## **Emergency Procedures**

In the event of a release containing H<sub>2</sub>S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response.
- Take precautions to avoid personal injury during this operation.
- Contact operators and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the:
  - o Detection of H<sub>2</sub>S
  - Measures for protection against the gas
  - <sup>o</sup> Equipment used for protection and emergency response.

## **Ignition of Gas source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police May become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

## Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = I	10 ppm	100 ppm/hr.	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = I	2 ppm	N/A	1000 ppm

## **Contacting Authorities**

Seguro Oil and Gas, LLC personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Seguro Oil and Gas, LLC response must be in coordination with he State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

## WELL CONTROL EMERGENCY RESPONSE PLAN

## I. GENERAL PHILOSPHY

Our objective is to ensure that during an emergency, a predetermined procedure is followed so that prompt decisions can be made based on accurate information.

The best way to handle and emergency is with an experienced organization set up for the sole purpose of solving the problem. The *Well Control Emergency Response Team* was organized to handle dangerous & expensive well control problems. The *Team* is structured such that each individual can contribute the most from his area of expertise. Key decision-makers are determined prior to an emergency to avoid confusion about who is in charge.

## II. EMERGENCY PROCEDURE ON DRILLING OR COMPLETION OPERATIONS

A. In the event of an emergency the *Drilling Foreman or Tool-Pusher* will immediately contact only one of the following starting with the first name listed:

Name	Office	Mobile
Russ Ginanni – Engineer	432-683-8000	432-425-7450
Paul Anderson - President	432-219-0740 Ext. 10	432-559-6260

<sup>\*\*</sup>This one phone call will free the Drilling Foreman to devote this full time to securing the safety of personnel& equipment. This call will initial the process to mobilize the Well Control Emergency Response Team.

- B. If Russ Ginanni is out of contact, Paul Anderson will be notified.
- C. If a member of the *Emergency Response Team* is away from the job, he must be available for call back. Telephone numbers should be left with secretaries or a key decision-maker.

## **EMERGENCY RESPONSE NUMBERS:**

SHERIFF DEPARTMENT	NUMBER
Eddy County	575-887-7551
Lea County	575-396-3611
FIRE DEPARTMENT	911
Artesia	575-746-5050
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359
HOSPITALS	911
Artesia Medical Emergency	575-746-5050
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359
AGENT NOTIFICATIONS	NUMBER

	Bureau of Land Management	575-393-3612
Ī	New Mexico Oil Conservation Division	575-393-6161

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



**APD ID: 10400031312** 

Submission Date: 07/13/2018

Well Type: OIL WELL

**Operator Name: SEGURO OIL AND GAS LLC** 

Well Name: WEST SQUARE LAKE 4 FED A

Well Number: 1

Well Work Type: Drill



**Show Final Text** 

## Section 1 - Existing Roads

Will existing roads be used? YES

**Existing Road Map:** 

WSL\_4\_Federal\_A\_1\_Location\_Map\_20180710135646.pdf

**Existing Road Purpose: ACCESS** 

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Re-blade and caliche existing access road. Roads will be improved per BLM specifications as outlined during onsite.

**Existing Road Improvement Attachment:** 

WSL\_4\_Federal\_A\_1\_Upgraded\_Roads\_20180710135656.pdf

## Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

# **Section 3 - Location of Existing Wells**

**Existing Wells Map? YES** 

Attach Well map:

Well Name: WEST SQUARE LAKE 4 FED A Well Number: 1

WSL\_4\_Fed\_A\_\_1\_1mi\_Radius\_Map\_20180702142840.pdf

**Existing Wells description:** 

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

**Production Facilities description:** 

**Production Facilities map:** 

Seguro\_WSL\_4\_Fed A 1 Prod Facility 20180702143718.pdf

Section 5 - Location and Types of Water Supply

**Water Source Table** 

Water source use type: INTERMEDIATE/PRODUCTION CASING Water source type: OTHER

Describe type: Brine Water

Source latitude: 32.522205 Source longitude: -103.30162

Source datum: NAD83

Water source permit type: PRIVATE CONTRACT

Source land ownership: STATE

Water source transport method: TRUCKING
Source transportation land ownership: STATE

Water source volume (barrels): 1700 Source volume (acre-feet): 0.21911827

Source volume (gal): 71400

Water source use type: SURFACE CASING

Water source type: GW WELL

Describe type:

Source latitude: 32.49979 Source longitude: -103.59539

Source datum: NAD27

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: TRUCKING

Source transportation land ownership: PRIVATE

Water source volume (barrels): 2200 Source volume (acre-feet): 0.2835648

Source volume (gal): 92400

Well Name: WEST SQUARE LAKE 4 FED A

Well Number: 1

Water source and transportation map:

West\_Square\_Lake\_4\_A\_\_1\_Water\_Source\_Brine\_20180702150450.jpg

West\_Square\_Lake\_4\_A\_\_1\_Water\_Source\_Fresh\_20180702150453.jpg

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:

**Aguifer 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 for surfacing any proposed roads and well site will be obtained from NMSLO pit #CO-237, Mack Energy Corp. Coordinates are 32°58'32.34"N 103°58'59.18"W. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road. Copy of construction materials source location is attached.

**Construction Materials source location attachment:** 

WSL\_4\_Fed\_A\_\_1H\_Caliche\_Route\_20181012070516.pdf

Well Name: WEST SQUARE LAKE 4 FED A Well Number: 1

# **Section 7 - Methods for Handling Waste**

Waste type: DRILLING

Waste content description: Drilling fluid from well, during drilling operations will be stored safely. Any excess will be hauled

to approved NMOCD disposal facility.

Amount of waste: 3600 barrels

Waste disposal frequency: One Time Only

Safe containment description: drilling fluids will be stored in sealed frack tanks

Safe containment attachment:

Waste disposal type: RECYCLE Disposal location ownership: OTHER

Disposal type description:

Disposal location description: Operator's next well

Waste type: DRILLING

Waste content description: Excess cement returns

Amount of waste: 40 barrels

Waste disposal frequency: Weekly

Safe containment description: cement returns will be stored in steel roll-off bins, then transferred to disposal vacuum

trucks.

Safe containmant attachment:

Waste disposal type: OTHER Disposal location ownership: PRIVATE

Disposal type description: Haul to Private facility

Disposal location description: R360 6601 W. Hobbs Hwy Carlsbad, NM 88220

Waste type: GARBAGE

Waste content description: Household garbage, trash, and non-toxic mud sacks

Safe containment description: Garbage will be disposed of in portable trash trailers.

Amount of waste: 1500 pounds

Waste disposal frequency : Weekly

Safe containment attachment:

Waste disposal type: OTHER Disposal location ownership: STATE

Disposal type description: Private Landfill

Disposal location description: Lea County Landfill

Well Name: WEST SQUARE LAKE 4 FED A Well Number: 1

Waste type: SEWAGE

Waste content description: Human waste and gray water

Amount of waste: 2000

gallons

Waste disposal frequency: Weekly

Safe containment description: sewage will be stored in steel waste tanks

Safe containment attachment:

Waste disposal type: OTHER

Disposal location ownership: STATE

Disposal type description: Municipal Waste Facility

Disposal location description: Hobbs Municipal Waste 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? NO

**Description of cuttings location** 

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

Well Name: WEST SQUARE LAKE 4 FED A Well Number: 1

## **Section 8 - Ancillary Facilities**

Are you requesting any Ancillary Facilities?: NO

**Ancillary Facilities attachment:** 

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

WSL 4 Fed A 1 Rig Location 20180711080935.pdf

Comments:

## Section 10 - Plans for Surface Reclamation

Multiple Well Pad Name: Type of disturbance: New Surface Disturbance

Multiple Well Pad Number:

Recontouring attachment:

Drainage/Erosion control construction: Slight slope for water drainage

Drainage/Erosion control reclamation: reclamation is going to follow natural terrain to control erosion runoff and siltation of

surrounding area.

Well pad proposed disturbance

(acres): 1.43

Road proposed disturbance (acres): 0

Powerline proposed disturbance

(acres): 0

Pipeline proposed disturbance

(acres): 0

Other proposed disturbance (acres): 0

Total proposed disturbance: 1.43

Well pad interim reclamation (acres): 0 Well pad long term disturbance

(acres): 1.43 Road interim reclamation (acres): 0

Road long term disturbance (acres): 0

Powerline interim reclamation (acres): Powerline long term disturbance

(acres): 0

Pipeline interim reclamation (acres): 0 Pipeline long term disturbance

(acres): 0 Other interim reclamation (acres): 0

Total interim reclamation: 0

Other long term disturbance (acres): 0

Total long term disturbance: 1.43

#### **Disturbance Comments:**

Reconstruction method: After completion of drilling and/or completion operations, all equipment and other material not required for operations will be removed. The location will be cleaned of all trash and junk to leave the well site in an aesthetically pleasing condition as possible. NO reclamation required due to construction of production facility. If the proposed well is non-productive; all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible.

Topsoil redistribution: If the proposed well is non-productive; all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. Topsoil from the soil pile will be placed over the disturbed area to the extent possible.

Soil treatment: No soil treatment expected.

Existing Vegetation at the well pad: plants are sparse but include grasses, some mesquite, and shinnery oak.

Operator Name: SEGURO OIL AND GAS LLC Well Name: WEST SQUARE LAKE 4 FED A Well Number: 1 Existing Vegetation at the well pad attachment: Existing Vegetation Community at the road: plants are sparse but include grasses, some mesquite, and shinnery oak. **Existing Vegetation Community at the road attachment:** Existing Vegetation Community at the pipeline: plants are sparse but include grasses, some mesquite, and shinnery oak. **Existing Vegetation Community at the pipeline attachment:** Existing Vegetation Community at other disturbances: plants are sparse but include grasses, some mesquite, and shinnery oak. **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: 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	

Well Name: WEST SQUARE LAKE 4 FED A Well Number: 1

#### Seed reclamation attachment:

## **Operator Contact/Responsible Official Contact Info**

First Name: Paul

Last Name: Anderson

Phone: (432)219-0740

Email: paul@seguro-llc.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: Operator will consult with authorized officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

Weed treatment plan attachment:

**Monitoring plan description:** Interim reclamation, reclaimed areas, will be monitored periodically to insure vegetation has re-established, that area is not redisturbed, and erosion is controlled.

Monitoring plan attachment:

Success standards: Objective of interim reclamation is to restore vegetative cover and a portion of land form to maintain healthy, biologically active topsoil, control erosion and minimize habitat and forage loss, visual impact, and weed infestation during life of well or facilities.

Pit closure description: Not Applicable

Pit closure attachment:

## **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:

Well Name: WEST SQUARE LAKE 4 FED A

Well Number: 1

**USFWS Local Office:** 

Other Local Office:

**USFS Region:** 

**USFS** Forest/Grassland:

**USFS Ranger District:** 

**Section 12 - Other Information** 

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

**ROW Applications** 

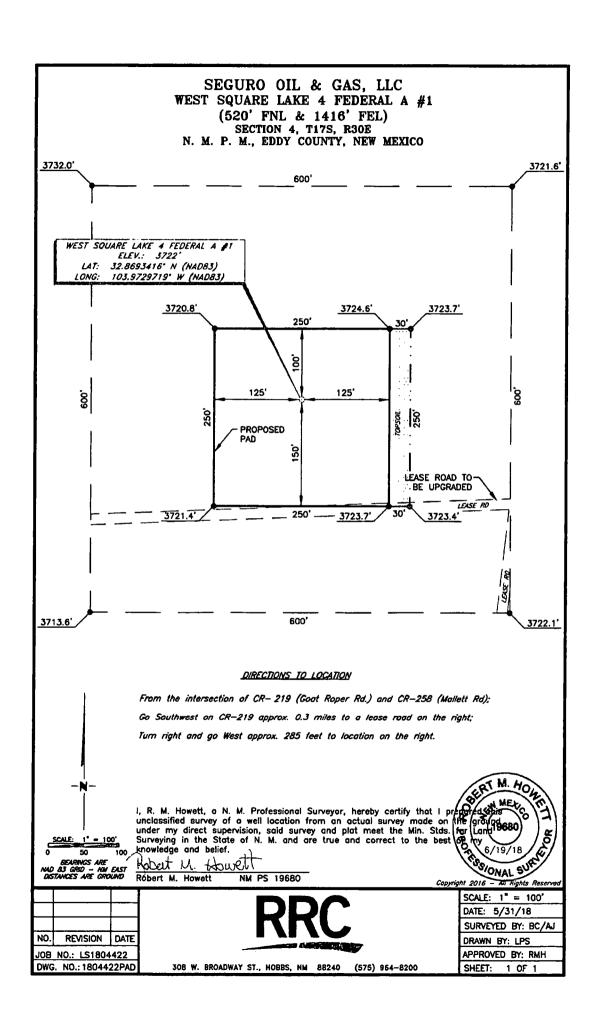
SUPO Additional Information: Power to be provided by Central Valley Electric

Use a previously conducted onsite? NO

**Previous Onsite information:** 

Other SUPO Attachment

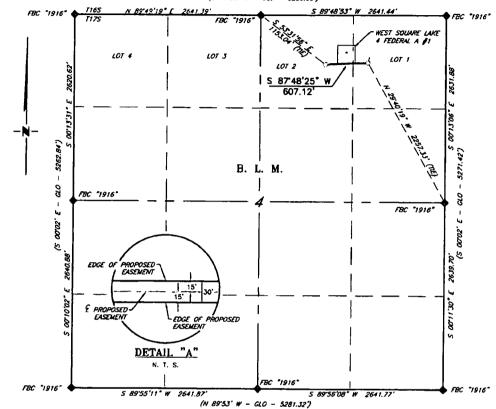
GasCapturePlan\_WSL\_4\_A\_\_1\_20181012111802.docx



## SEGURO OIL & GAS, LLC PROPOSED UPGRADE OF AN EXISTING ROAD FOR THE WEST SQUARE LAKE 4 FEDERAL A #1 SECTION 4, T17S, R30E.

N. M. P. M., EDDY CO., NEW MEXICO

(5 89'59' W - GLO - 5280.00')



#### DESCRIPTION

A strip of land 30 feet wide, being 607.12 feet or 36.795 rods in length, lying in Section 4, Township 17 South, Range 30 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at a point in the Northeast quarter of Section 4, which bears, N 29'40'19" W, 2,257.33 feet from a brass cap, stamped "1916", found for the East quarter corner of Section 4;

Thence S 87'48'25" W. 607.12 feet, to the End of Survey, a point in the Northeast quarter of Section 4, which bears, S 53'32'22" E, 1,153.04 feet from a brass cap, stamped "1916", found for the North quarter corner of Section 4.

Said strip of land contains 0.418 acres, more or less, and is allocated by forties as follows:

12.787 Rods Lot 1 Lot 2 0.145 Acres 0.273 Acres 24.008 Rods

500 1000

BEARINGS ARE GRID NAD 83 NAV EAST DISTANCES ARE HORIZ. GROUND,

<u>LEGEND</u>

RECORD DATA - GLO FOUND MONUMENT AS NOTED

EXISTING ROAD UPGRADE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Pobert M. Howell NM PS 19680

Róbert M. Howett

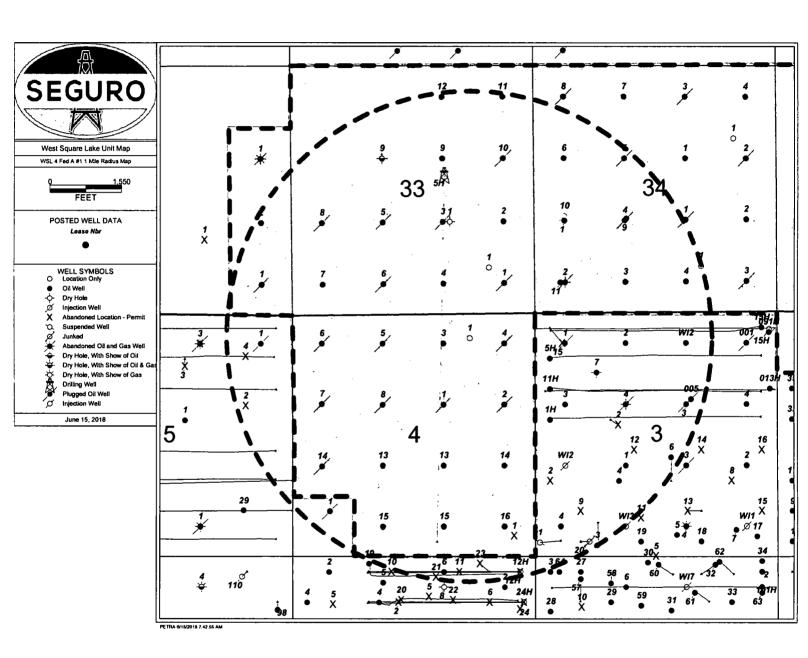


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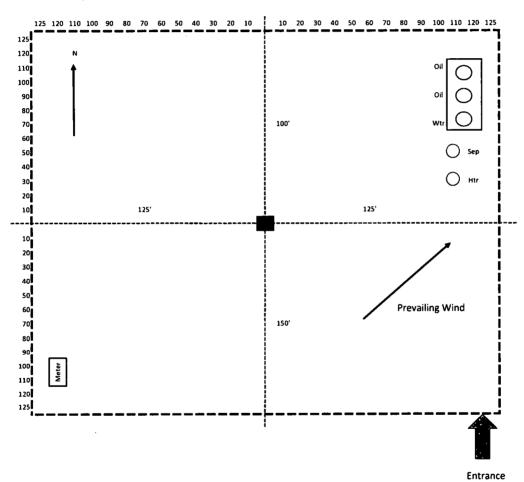
REVISION DATE JOB NO.: LS1804422 DWG. NO.: 1804422RD

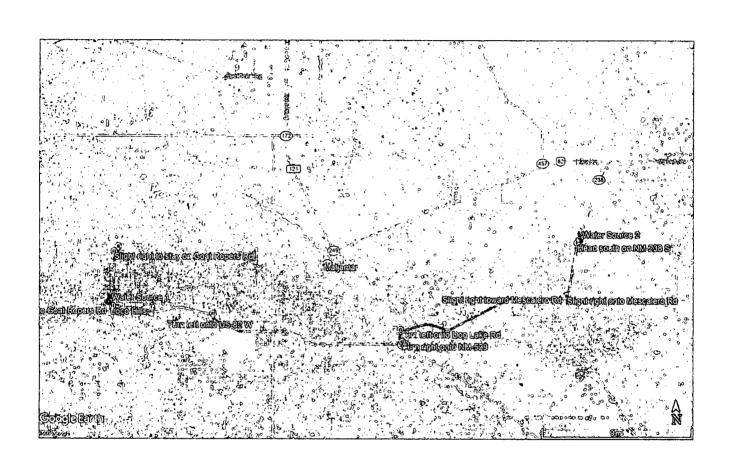
308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

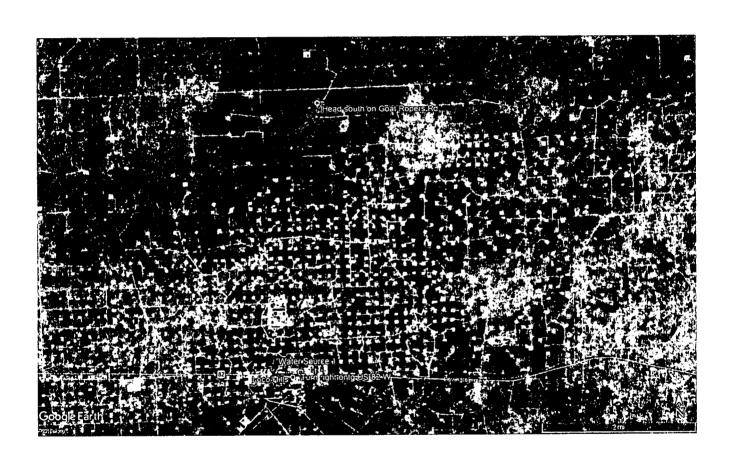
SCALE: 1" = 1000" DATE: 5-31-2018 SURVEYED BY: BC/AJ DRAWN BY: LPS APPROVED BY: RMH SHEET: 1 OF 1

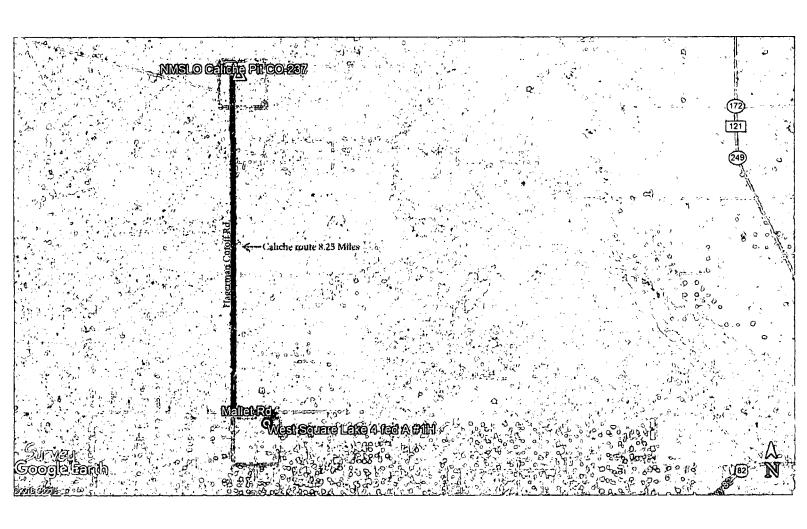


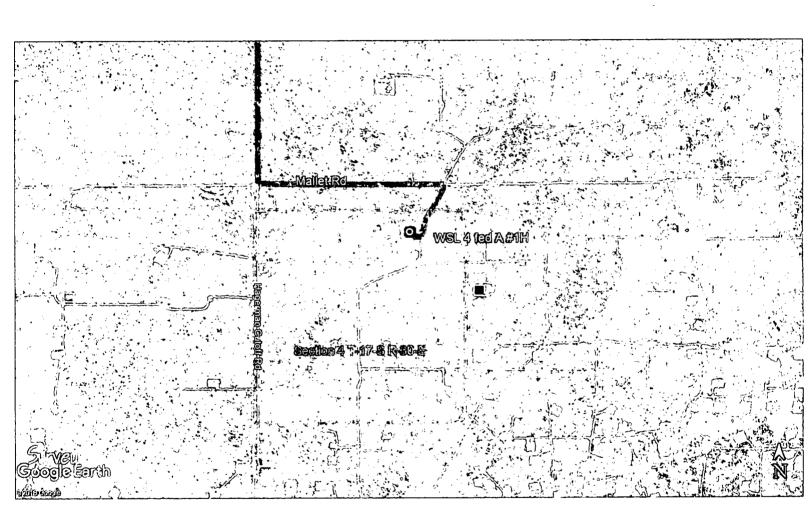
# West Square Lake 4 Fed A # 1

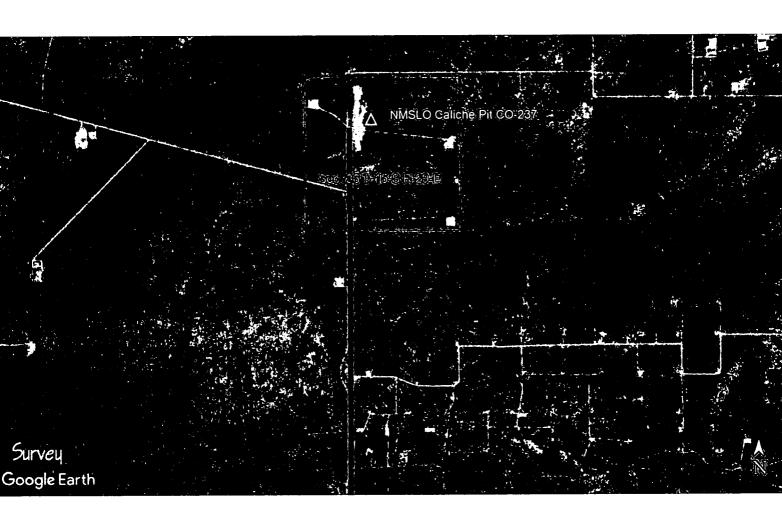




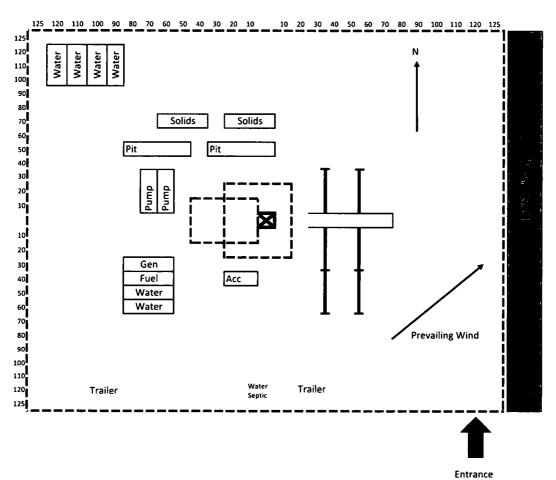








# West Square Lake 4 Fed A # 1



Produced water Disposal (PWD) Location: ONLEASE	
PWD surface owner: BLM	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? Y	
s the reclamation bond a rider under the BLM bond? Y	
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: ONLEASE	
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:

Unlinea pit Wonitor description:	
Unlined pit Monitor attachment:	
Do you propose to put the produced water to beneficial use?	res .
Beneficial use user confirmation:	
Estimated depth of the shallowest aquifer (feet):	
Does the produced water have an annual average Total Dissol that of the existing water to be protected? Y	ved Solids (TDS) concentration equal to or less than
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? Y	
Is the reclamation bond a rider under the BLM bond? Y	
Unlined pit bond number:	
Unlined pit bond amount:	
Additional bond information attachment:	
Section 4 - Injection  Would you like to utilize Injection PWD options? NO	
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Injection PWD discharge volume (bbl/day):	
Injection well mineral owner:	
Injection well type:	
Injection well number:	Injection well name:
Assigned injection well API number?	Injection well API number:
Injection well new surface disturbance (acres):	
Minerals protection information:	
Mineral protection attachment:	
Underground Injection Control (UIC) Permit? YES	
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? N	

**Surface Discharge NPDES Permit attachment:** 

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? Y

Other regulatory requirements attachment:



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

# Bond Info Data Report

# **Bond Information**

Federal/Indian APD: FED

**BLM Bond number: NMB001590** 

**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: