Initial

Application

Part I

Received: <u>11/20/2019</u>

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

E1ILM-191120-C-1080

Revised March 23, 2017

RECEIVED: REVIEWER: APP NO: 11/20/19

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Geological & Engineering Bureau -



1220 South St. Francis Drive, Santa Fe, NM 87505 ADMINISTRATIVE APPLICATION CHECKLIST THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE OGRID Number: 371643 Applicant: Solaris Water Midstream, LLC API: 30-015-xxxx Well Name: Skyhook State SWD #1 Pool: Proposed; SWD; Devonian-Fusselman Pool Code: 97869 SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW 1) TYPE OF APPLICATION: Check those which apply for [A] A. Location – Spacing Unit – Simultaneous Dedication SWD-2322 \square NSL NSP (PROJECT AREA) NSP (PRORATION UNIT) B. Check one only for [1] or [1] [1] Commingling - Storage - Measurement \square PLC \square PC \square OLS Поім DHC LICTB [II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery ■ WFX ■ PMX ■ SWD ■ IPI FOR OCD ONLY 2) **NOTIFICATION REQUIRED TO:** Check those which apply. Notice Complete A. Offset operators or lease holders B. Royalty, overriding royalty owners, revenue owners **Application** C. Application requires published notice Content D. Notification and/or concurrent approval by SLO Complete E. Notification and/or concurrent approval by BLM F. Surface owner G. For all of the above, proof of notification or publication is attached, and/or, H. ☐ No notice required 3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division. Note: Statement must be completed by an individual with managerial and/or supervisory capacity. 9/25/19 Date Whitney McKee Print or Type Name 432-203-9020

Signature

whitney.mckee@solarismidstream.com

e-mail Address

Phone Number

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, New Mexico 87505 FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE:Secondary RecoveryPressure MaintenanceXXDisposalStorage Application qualifies for administrative approval? _X_XYesNo
II.	OPERATOR: Solaris Water Midstream, LLC
	ADDRESS: 70701 Tradewinds Blvd., Suite C Midland, TX 797066
	CONTACT PARTY:Drew Dixon 832-304-7028
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
IV.	Is this an expansion of an existing project? YesXNo If yes, give the Division order number authorizing the project:
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. See Addendum
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. See Addendum
VII.	Attach data on the proposed operation, including:
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a
	chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). See Addendum
VIII.	VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, the depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg,l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval See Addendum
IX.	Describe the proposed stimulation program, if any. Stimulations program- A conventional acid job may be performed to clean and open the formation.
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). Well Logs will be filed with OCD.
	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any tion or disposal well showing location of wells and dates samples were taken.nj
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water. See Addendum
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form. "Proof of notice" portion has been completed and attached. All parties have been notified.
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and
	belief.
	NAME:Whitney McKeeTITLE: Regulatory Specialist Solaris Water Midstream, LLC
XV.	SIGNATURE: Date: 9/25/19
XVI.	E-MAIL ADDRESS:whitney.mckee@solarismidstream.cIf the information required under Sections VI, VMI, X, and X resubmitted. Please show the date and circumstances of the earth west in the control of the contro

Side 2

III. WELL DATA See Addendum

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.
- C. PROOF OF NOTICE See Addendum

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location. Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.



Sept. 25, 2019

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

Attn: Ms. Adrianne Sandoval, Director

Re: Application of Solaris Water Midstream, LLC to drill and permit for saltwater disposal The Skyhook State SWD Well #1, to be located in Section 2, Township 23 South, Range 32 East, NMPM, Lea County, New Mexico.

Dear Ms. Sandoval,

Please find the enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request for saltwater disposal. The well will be operated as a commercial endeavor offering operators in the area additional options for produced water disposal.

Solaris Water Midstream is a major provider of saltwater disposal services to operators in southeast New Mexico and seeks to optimize efficiency, both economically and operationally, of all its operations. Approval of this application is consistent with that goal as well as the NMOCD's mission of preventing waste and protection of correlative rights.

I would point out that this application for a proposed Devonian SWD interval is part of a larger produced water recycling facility. A published legal notice will run this week in the Hobbs News Sun and all offset operators and other interested parties have been notified individually. The legal notice affidavit will be forwarded upon receipt. This application also includes a wellbore schematic, area of review maps, affected party plat and other required information for a complete Form C-108. The well is located on State Trust Land and minerals. There are state lands & minerals and private minerals within the one-mile radius notice area; the State Land Office and offset operators have been notified of this application.

I respectfully request that the approval of this salt water disposal well proceed swiftly and if you or your staff requires additional information or has any questions, please do not hesitate to call or email me.

Thank you,

Whitney McKee

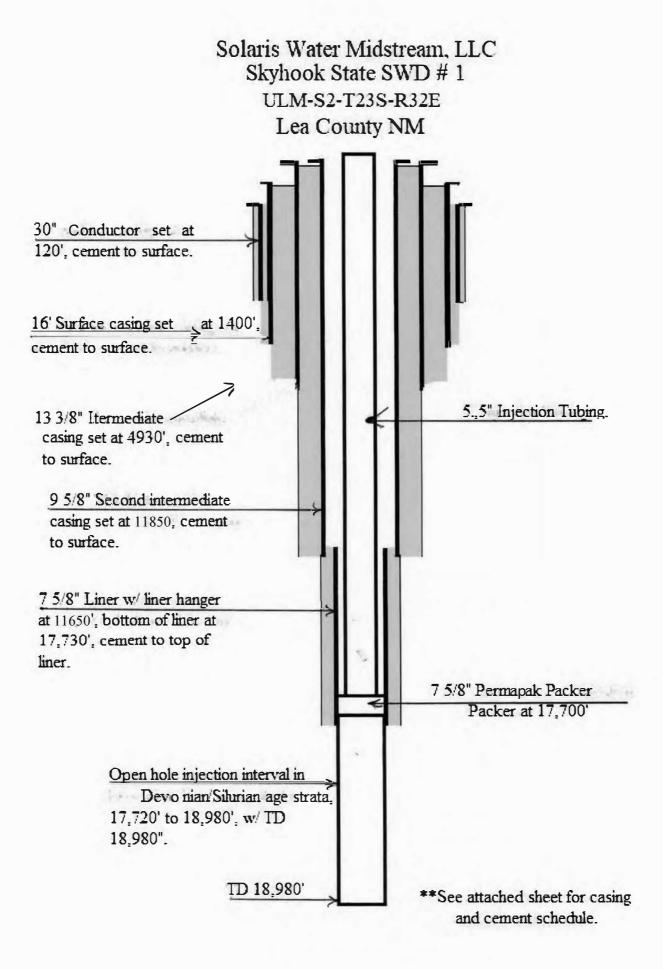
Solaris Water Midstream, LLC

Regulatory Specialist

Side 1	IN	JECTION WELL DATA SHE	ET		
OPERATOR:	Solaris Water Mids	tream, LLC			
WELL NAME & NUMBER: _	Skyhook State SWI	D#1			
WELL LOCATION:860' FSI FOOTAG	L & 275 'FWL GE LOCATION		S: 2 SECTION	T:23STOWNSHIP	R:32E RANGE
WELLBORE SCHI	<u>EMATIC</u>		WELL C Surface	CONSTRUCTION DAT Casing	<u>~A</u>
		Hole Size:	18.125"	Casing Size:	16"
		Cemented with:4	-00 sx.	or	ft ³
		Top of Cement:SU	JRFACE	Method Determine	d:CIRCULATE
			<u>Intermedia</u>	ate Casing	
		Hole Size: 14.7	5"_ and 12.25"	Casing Size:_ 13.3	75" and
		Cemented with: 1200	sx. and 4100 sx	9.625" <i>or</i>	
		Top of Cement:	SURFACE	Method Determine	d: CIRCULA ³ TE
			Production	on Casing	
		Hole Size:	_9.625"	Casing Size:	7.625" <i>or</i>
		Cemented with:6	570 sx.		ft ³
		Top of Cement:	12,405	Method Determine	d: _CBL
		Total Depth:	Liner @ 17,205'	& TD@ 18,980	
			Injection	n Interval	
		_	9.675" Hole Size	17,720 <u>to 18,</u> 980 <u>fee</u>	<u>et</u>
			Open Hole;		

INJECTION WELL DATA SHEET

Tul	bing Size:5"Lining Material:Douline GlassboreType
of P	Packer:Nickel plated double grip retrievable
Pac	cker Setting Depth:17,700
Oth	ner Type of Tubing/Casing Seal (if applicable):
	Additional Data
1.	Is this a new well drilled for injection?XYesNo
	If no, for what purpose was the well originally drilled?
2.	Name of the Injection Formation:Devonian, Fusselman,
3.	Name of Field or Pool (if applicable):SWD Devonian
4.	Has the well ever been perforated in any other zone(s)? List all such perforated
	intervals and give plugging detail, i.e. sacks of cement or plug(s) usedNo
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection
	zone in this area:Over: Bell Canyon (5,200'), Cherry Canyon (6,350'), Brushy Canyon
	(7,500'), 1st BS Sand (10,225'), 2nd BS Sand (10,875'), 3rd BS Sand (11,925'), Wolfcamp
	(13,125'), Strawn (14,150'), Atoka (14,400'), Morrow (14,950')
	Under:NONE



Solaris Water Midstream, LLC Casing and cement schedule. Skyhook SWD # 1 ULM-S2-T23S-R32E Lea County, NM

Casing Size	Weight (lbs)	Hole Size	Sacks Cement
30"	157.6	36"	275
16"	84.0	17.5"	400
13 3/8"	68.0	14.75"	1200
9 5/8"	36.0	12.25"	4100
7 5/8"	39.0	9.675"	670

^{**}Sacks cement are to approximate fill up. Excess volume pumped will be determined per drilling conditions.

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 Phone (575) 393-6161 Fax: (575) 393-0720 DISTRICT II 811 S. First St., Artesia, NM 88210 Phone (575) 748-1283 Fax: (575) 748-9720

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised August 1, 2011

Submit one copy to appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr. Santa Fe, New Mexico 87505

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone (505) 476-3460 Fax: (505) 476-3462 □ AMENDED REPORT WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Pool Code Pool Name Property Code Property Name Well Number SKYHOOK STATE SWD 1 Operator Name OGRID No. Elevation 3711 SOLARIS WATER MIDSTREAM, LLC Surface Location North/South line UL or lot No. Lot Idn Feet from the Feet from the East/West line Section Township Range County 2 32 E 860 SOUTH М 23 S 275 WEST LEA Bottom Hole Location If Different From Surface UL or lot No. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County Joint or Infill Dedicated Acres Consolidation Code Order No. NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION N:488486.0 N:488458.3 751147 4 OPERATOR CERTIFICATION (NAD 83) OPERATOR CERTIFICATION

I hereby certify that the information
contained herein is true and complete to
the best of my knowledge and belief, and that
this organization either owns a working
interest or unLEAsed mineral interest in the
land including the proposed bottom hole
location or has a right to drill this well at
this location pursuant to a contract with an
owner of such a mineral or working interest,
or to a voluntary pooling agreement or a
compulsory pooling order heretofore entered by
the division. (NAD 83) (NAD 83) LOT 2 LOT 1 LOT 3 LOT 4 Signature Date Printed Name Email Address SURVEYOR CERTIFICATION N:485855.9 N:458805.4 I hereby certify that the well location shown :751165.6 (NAD 83) (NAD 83) on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief. SURFACE LOCATION Lat – N 32.328821° Long – W 103.653083° NMSPCE – N 484024.4 E 751453.1 AUCUST 23, 2019 Signa (NAD-83) sional Prof 275 N SURVE N:483190.4 E:753818.7 500' 1000' 1500' 2000 SCALE: 1" = 1000 (NAD 83) (NAD 83) (NAD 83) WO Num.: 34813

SECTION 2, TOWNSHIP 23 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

3709.0 3712.6 400 5.51 ACRES 3706.7

SKYHOOK STATE SWD #1 ELEV. - 3711'

Lat - N 32.328821° Long - W 103.653083° NMSPCE- N 484024.4 E 751453.1 (NAD-83)

0.4 miles

JAL, NM IS ± 29 MILES TO THE SOUTHEAST OF LOCATION.

200

200

400 FEET

Solaris water midstream, LLC

SCALE: 1" = 200'

DIRECTIONS TO LOCATION: DIRECTIONS TO LOCATION: FROM HIGHWAY 128 (MILE MARKER 19) GO NORTHEAST ON LEASE ROAD 5.6 MILES, THEN NORTHWEST 1.5 MILES, THEN NORTHEAST 1.5 MILES THEM WEST 0.4 MILES TO PROPOSED ROAD.

focused on excellence in the oilfield

P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241

(575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

SKYHOOK STATE SWD #1 / WELL PAD TOPO

THE SKYHOOK STATE SWD #1 LOCATED 860' FROM THE SOUTH LINE AND 275' FROM THE WEST LINE OF SECTION 2, TOWNSHIP 23 SOUTH, RANGE 32 EAST,

N.M.P.M., LEA COUNTY, NEW MEXICO.

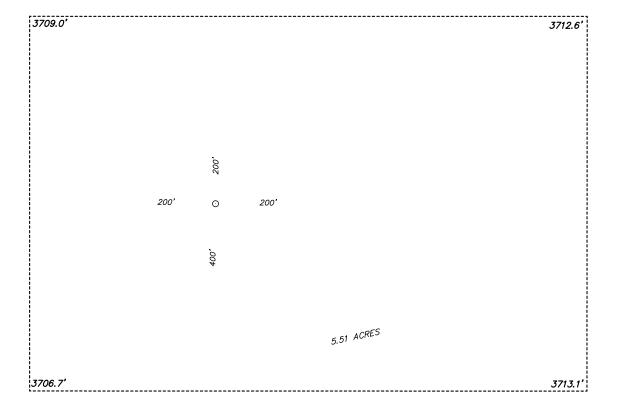
W.O. Number: 34813

Drawn By: K. GOAD Date: 08-26-2019

Survey Date: 08-23-2019

Sheet 1 Sheets

SECTION 2, TOWNSHIP 23 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.



100 100 200 FEET SCALE: 1" = 100'

Solaris water midstream, llc

SKYHOOK STATE SWD #1 / WELL PAD TOPO

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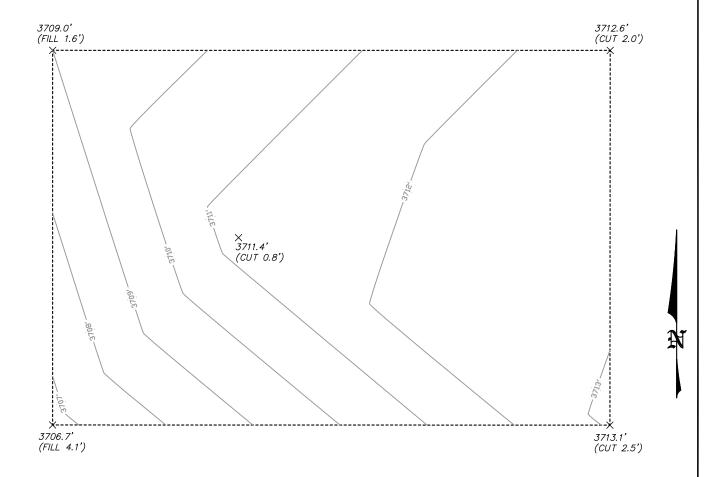
34813 Drawn By: K. GOAD W.O. Number:

Date: 08-26-2019

Survey Date: 08-23-2019

Sheet 1

SECTION 2, TOWNSHIP 23 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.



100 100 200 FEET SCALE: 1" = 100'



Solaris water midstream, LLC

SKYHOOK STATE SWD #1 / CUT & FILL

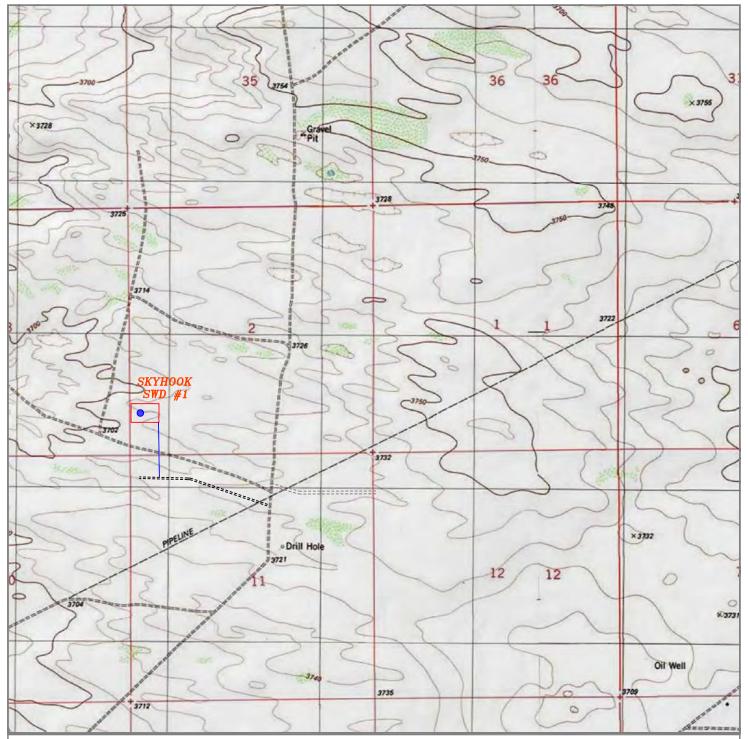
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N.M.P.M., LEA COUNTY, NEW MEXICO.

P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241

(575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

34813 Drawn By: K. GOAD Sheet 1 of 1 W.O. Number: Date: 08-26-2019 Survey Date: 08-23-2019



SKYHOOK STATE SWD #1

Located 860' FSL & 275' FWL Section 2, Township 23 South, Range 32 East, N.M.P.M., Lea County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393—7316 — Office (575) 392—2206 — Fax basinsurveys.com

	0' 1000' 2000' 3000' 4000' SCALE: 1" = 2000'	
1	W.O. Number: JG — 34813	
9	Survey Date: 08-23-2019	%
	YELLOW TINT — USA LAND BLUE TINT — STATE LAND NATURAL COLOR — FFF LAND	





SKYHOOK STATE SWD #1

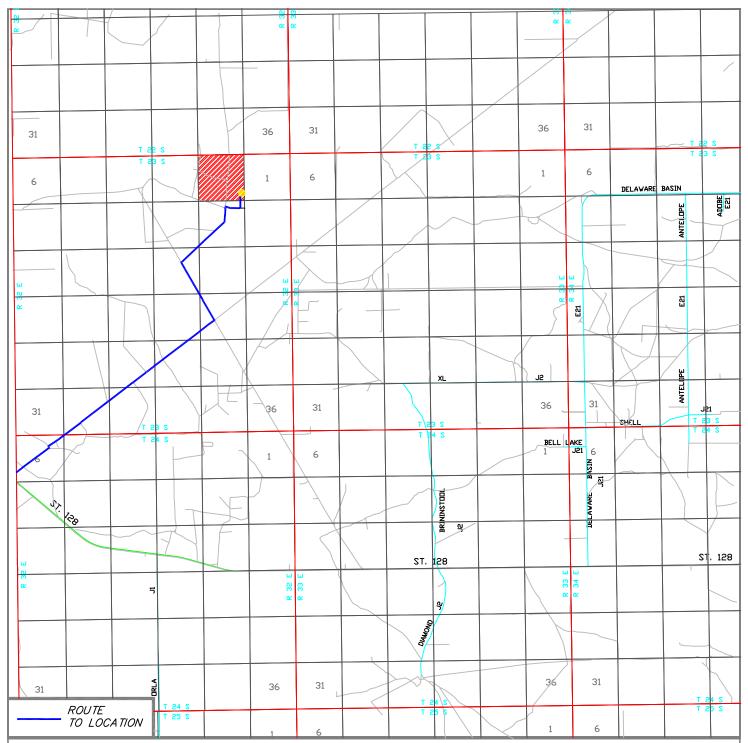
Located 860' FSL & 275' FWL Section 2, Township 23 South, Range 32 East, N.M.P.M., Lea County, New Mexico.



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0' 1000' 2000' 3000' 4000' SCALE: 1" = 2000'	
W.O. Number: JG — 34813	
Survey Date: 08-23-2019	¶.
YELLOW TINT — USA LAND BLUE TINT — STATE LAND NATURAL COLOR — FEE LAND	





SKYHOOK STATE SWD #1

Located 860' FSL & 275' FWL Section 2, Township 23 South, Range 32 East, N.M.P.M., Lea County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

0 1 MI 2 MI 3 MI 4 MI SCALE: 1" = 2 MILES	
W.O. Number: JG — 34813	
Survey Date: 08-23-2019	4
YELLOW TINT — USA LAND BLUE TINT — STATE LAND NATURAL COLOR — FEE LAND	

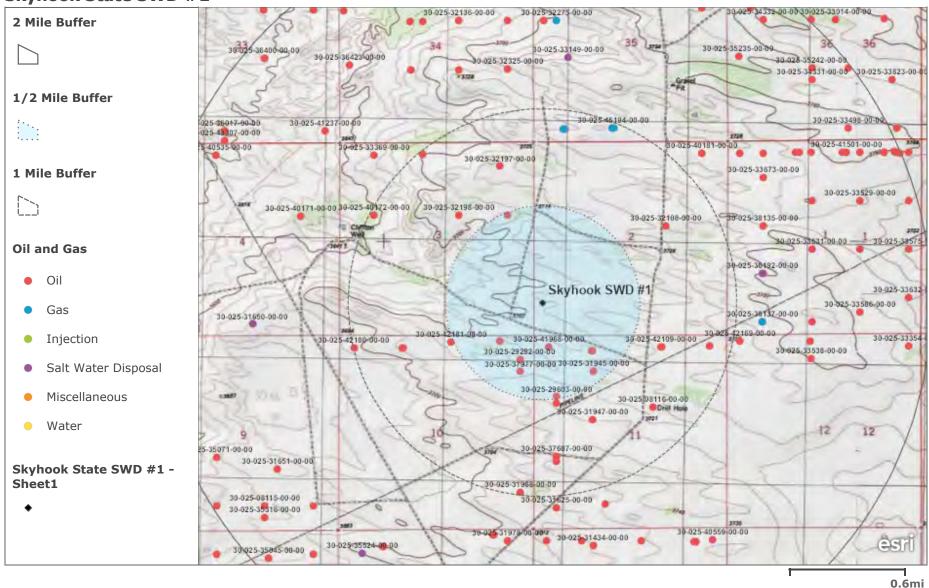


C- 108 Item VI Area of Review Well Data

Skyhook State SWD #1

There are no wells which penetrate the proposed Devonian formation in the one mile area of review.

Skyhook State SWD #1



Copyright: © 2013 National Geographic Society, i-cubed

C- 108 Item X Logs and Available Test Data

Skyhook State SWD #1

A Standard Suite of Logs will be run after drilling the well and submitted to the Division.

C- 108 Item VII Proposed Operation

Skyhook State SWD #1

Commercial SWD Facility

Upon approval of all permits for SWD, operations would begin within 30 days. Completion of the well operations will take approximately 6-8 weeks. Facility construction including installation of the tank battery, berms, plumbing and other and associated equipment would be occurring during the same interval but at a different location from the well. In any event, it is not expected for the construction phase of the project to last more than 60 days, depending on availability of contractors and equipment.

Configure for Salt Water Disposal

Prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well for SWD and will detail the completion workover including all work otherwise described above, any change to the procedure noted herein and to perform mechanical integrity pressure test per OCD test procedures. (Notify NMOCD 24 hours prior.) The casing/tubing annulus will be monitored for communication with injection fluid or loss of casing integrity.

Operational Summary

The SWD facility will not be fenced so that trucks may access for load disposal 24/7.

The well and injection equipment will be a closed system and equipped with pressure limiting devices and volume meters. The annulus, loaded with an inert, anti-corrosion packer fluid, will be monitored for pressure.

The tanks will be equipped with telemetry devices and visual alarms to alert the operator and customers of full tanks or an overflow situation.

Anticipated daily maximum volume is 40,000 bpd and an average of 25,000 bpd at a maximum surface injection pressure of 3,546 psi (.2 psi/ft gradient – maximum pressure will be adjusted If the top of interval is modified after well logs are run).

Potential releases will be contained and cleaned up immediately. The operator shall repair or otherwise correct the situation within 48 hours before resuming operations. OCD will be notified within 24 hours of any release greater than 5 bbls. If required, remediation will start as soon as practicable. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as necessary and appropriate.

C- 108 Item VII Produced Water Analyses

Skyhook State SWD #1

Item VII.4- Water Analysis of Source Zone Water

Delaware Bone Spring

Item VII.5- Water Analysis of Disposal Zone Water

Devonian

Water Analyses follow this page.

wellname	section	township	range	unit	ftgns	ftgew	ph		ds mgL	sodium mgL o	ralcium mati	ron mal	magnesium	manganese (hloride mal	hicarhonato	sulfate mgL c	o2 mal
DIAMONDTAIL 24 FEDERAL #001	Section	24 235	32E	L	19805	660W	pii	8.5	172490.2	59465.3	5813.5	121.6	1016.4	2.3	103630	199.2	2	700
TOMCAT 21 FEDERAL #001		21 235	32E	F	1980N	1880W		5.4	246335.6	67632.8	16223.4	47.5	2611.1	3.16	157130.6	61	0	440
TOMCAT 21 FEDERAL #003		21 235	32E	E	1980N	660W		5.6	258460.4	66996.2	21006.5	27.5	3246.8	4.96	163589.5	85.4	0	460
TOMCAT 17 FEDERAL #001		17 23S	32E	P	660S	660E		5.4	254754.8	75267	19088.7	38.3	3181.3	3.69	154115.3	109.8	0	410
TOMCAT 17 FEDERAL #002		17 23S	32E	0	660S	1980E		5.6	259999.9	71731	19634.8	33.2	3172.9	4.66	162178.7	73.2	0	350
TOMCAT 17 FEDERAL #003		17 23S	32E	i	1980S	660E		5.7	264290.8	70140.2	21551.8	30	3406.5	5.31	165588.8	85.4	0	410
TOMCAT 16 STATE #003		16 23S	32E	i	19805	660W		5.51	282155.2	71636.9	27669.4	42.4	4186.8	15.6	175393.6	52.8	0	560
TOMCAT 17 FEDERAL #004		17 235	32E	ī	20805	2080E		6	214893.4	56533.4	20158.6	47.9	3255	6.51	131133.5	158.6	0	440
TOMCAT 16 STATE #007		16 23S	32E	ĸ	1980S	1980W		5.6	244760.3	71577.7	14674.1	78.8	2396.2	3.39	153409.7	73.2	0	450
TOMCAT 16 STATE #008		16 235	32E	N	660S	1830W		5.6	234317.5	71909.8	14412.9	43.1	2385.3	2.59	142924.3	97.6	0	450
TOMCAT 20 FEDERAL #002		20 235	32E	В	660N	1980E		5.4	270134.8	77379.6	21951.6	35.2	3491.7	5.17	163530.8	97.6	0	450
TOMCAT 16 STATE #006		16 23S	32E	Н	1980N	660E		5.4	277945.7	73900.1	24711.5	37.9	3853.4	7.16	171388.5	85.4	0	460
TOMCAT 16 STATE #010		16 235	32E	В	761N	1881E		5.6	279186.4	77799.6	25199.4	36.1	3983.2	7.10	167901	73.2	0	540
TOMCAT 17 FEDERAL #005		17 23S	32E	N	460S	2180W		5.8	263310.1	72419.8	20760.4	31.3	3336.6	4.62	163470.4	61	0	560
TOMCAT 17 FEDERAL #005		17 23S	32E	K	1880S	2080W		6	212591.3	55454.4	19593.7	47.4	3169.4	6.31	130585.8	170.8	0	510
TOMCAT 17 FEDERAL #000		21 235	32E	D	660N	660W		5.8	267412.2	72365.2	22048.5	68.1	3505.6	6.22	165712.8	85.4	0	490
TOMCAT 21 FEDERAL #004		20 235	32E	Н	1980N	660E		5.6	268827.3	80098	22840.1	36.5	3635.1	5.35	158372.6	61	0	450
TOMCAT 20 FEDERAL #003		20 235	32E	G	1980N	1980E		5.7	286428.9	81700.4	25986.7	38.8	4121.7	7.63	170121.3	85.4	0	440
TOMCAT 20 FEDERAL #004		20 235	32E	ı	1980S	660E		5.8	289125	82158.6	27842	40.5	4402.1	12.29	170749.7	73.2	0	460
TOMCAT 20 TEDERAE #005		16 23S	32E	A	660N	660E		5.7	281858.5	76891.4	24467.2	30.2	3873.1	7.57	172401.4	73.2	0	440
TOMCAT 10 STATE #013		20 235	32E	Ĵ	19805	1980E		5.8	289144.8	80888.6	27354.5	38.6	4324.5	11.81	172664.1	61	0	490
TOMCAT 20 FEDERAL #000		21 235	32E	L	1980S	660W		5.8	263615.7	71175.7	23328.1	40.7	3550.5	6.23	161630.3	85.4	0	460
TOMCAT 21 FEDERAL #008		20 235	32E	P	660S	660E		5.8	271016.7	67263	23326.1	33	3691	10.14	173080.7	61	0	520
FALCON 32 STATE #003		32 23S	32E	K	1980S	1980W		5.5	249184.8	71161.3	16116.1	33	2496.1	3.96	156337.9	85.4	0	410
FALCON 32 STATE #003 FALCON 32 STATE #004		32 23S 32 23S	32E	C	660N	2150W		5.8	241993.3	72965.6	14328.7	29.4	2268.5	3.28	149603.8	97.6	0	340
FALCON 32 STATE #004 FALCON 32 STATE #005Y		32 23S	32E	M	351S	842W		5.9	239678.9	74767.3	13436.5	40.6	2234	2.32	146645.4	73.2	0	420
TRESNOR MITCHELL 30 FEDERAL #001		30 23S	32E	N	330S	2310W		5.6	249571.5	64522.7	19862.2	37.7	3105.9	6.36	159003.4	73.2	0	500
FREIDA AFR FEDERAL #001		3 235	32E	A	660N	860E		6.2	149595	85000	2110	0	1000	0.30	147800	95	2450	300
FREIDA AFR FEDERAL #001 FREIDA AFR FEDERAL #001		3 23S	32E	A	660N	860E		6.65	149595	84893	2000	0	1000		136000	80	2450	
THYME APY FEDERAL #002		1 23S	32E	G	1650N	1650E		6.1	172896	04033	2000	0	2025		104976	781	1150	
									254950.9	68892.9	20721	-			157297	54		
DIAMONDTAIL 23 FEDERAL #002 TOMCAT 21 FEDERAL #003		23 23S 21 23S	32E 32E	H E	1980N 1980N	660E 660W		5.5 5.77	271021.3	74712.7	22456	15	3986 3204		166833	36.6	386 414	410
TOMCAT 21 FEDERAL #003		21 235 17 23S	32E	E P	660S	660E		5.92	191165.8	56534.2	12620	29 26	2197		117118	36.6	675	240
TOMCAT 17 FEDERAL #001		17 235 16 23S	32E	E	1650N	460W		6.02	271775.9	74413.3	21773	23	3968		167535	36.6	471	420
TOMCAT 16 STATE #004 TOMCAT 20 FEDERAL #003		20 23S	32E	H	1980N	460W 660E		5.71	306731	86277.4	23540	25 26	3870		188841	36.6	471	410
FALCON 32 STATE #003		20 235 32 23S	32E	П К	1980N 1980S	1980W		6.25	257563.7	75558.1	23540 17577	28	2869		158008	97.6		410
TRESNOR MITCHELL 30 FEDERAL #001		32 233 30 23S	32E	N N	330S	2310W		6.6	268970.5	72128.3	21665.9	39.2	3444	6.81	168477.5	148	564 34	440
BOUNDARY RAIDER 6 FEDERAL #002H		7 23S	32E	A	200N	200E		5.5	198828.3	63822.8	9826.5	65.2	1403.5	2.6	121113.4	183	34 17	480
				F										2.0			5	0
TRESNOR MITCHELL 30 FEDERAL #002 TRESNOR MITCHELL 30 FEDERAL #002		30 23S 30 23S	32E 32E	F	2310N 2310N	2310W 2310W		6.5 7	253732 274346.8	66510.2 69620.8	21000 25364	300 191	6587 4427		159281 168593	48.8 83	1202	1500
TOMCAT 16 STATE #002		16 23S	32E	r M	660S	660W		6.03	258574.8	71555.9	21503	21	3027		159299	24.4	388	120
TOMCAT 16 STATE #002 TOMCAT 17 FEDERAL #001		16 23S 17 23S	32E	D IVI	660S	660E		5.7	273483	71555.9	23392	23	3428		168676	12.2	366	130
TOMCAT 17 FEDERAL #001 TOMCAT 15 FEDERAL COM #001		17 233 15 23S	32E	Ĺ	1980S	660W		6.5	301084.5	109935.3	1670	13	3466		180000	104	4800	130
DIAMONDTAIL 24 FEDERAL #001		24 235	32E	L	1980S	660W		6.4	204001.8	63879.5	10949	52	1736		124319	331.8	561	260
DIAMONDTAIL 23 FEDERAL #001		23 235	32E	Н	1980N	660E		6.1	250482.4	68273	20951	35	3279		154286	124.4	407	220
HORNET 6 FEDERAL #001		6 235	32E	A	660N	660E		5.5	274093.6	76944.1	20931	29	3694	5	168926	41.5	363	220
TOMCAT 16 STATE #003		16 23S	32E	L	1980S			6.5	257411.4	68023.5	21922	21	4210	9.5	158521	767.4	260	340
TRESNOR MITCHELL 30 FEDERAL #003		30 23S	32E	C	330N	660W 2240W		5.8	257411.4	76656.7	17566	53.7	2979.1	3.53	154409	767.4 61	2.5	40
																	2.5 17	
BOUNDARY RAIDER 6 FEDERAL #002F CORIANDER AOC STATE #002	1	7 23S 1 23S	32E 32E	A H	200N 1650N	200E 330E		6 5.23	117284.4	36911	5399.2 24176	88.1 0	706.6 3815	1.33	71443.9 167962	378 61.1	165	200
APRIL APZ STATE #001		12 235	32E	A	330N	330E		5.21	277437.6	74200 4	20.1	0	12.2	4.0	35.5	61.1	48.8	
TOMCAT 15 FEDERAL #001		20 23\$	32E	A D	560N	560E		5.4	27/437.6	74399.4	21280.6	37.6	3402.2	4.9 9	174776.4	40	302.8	640
TOMCAT 15 FEDERAL #003		15 23\$	32E	_	660N	660W		5.7		80765.3	14109	130	2423	-	157409	49	1187	640
HORNET 6 FEDERAL #001 DIAMONDTAIL 24 FEDERAL #001		6 23S 24 23S	32E 32E	A L	660N 1980S	660E 660W		5.6	312483.3 241833.8	91476.8 74628.3	21517 13385	21 178	3787 2531	4	191582	61 634	1305 598	700
		24 23S 23 23S	32E 32E	H	1980S 1980N			6.67	257547	74628.3	19374	178 37	3454	3.5	147579 158521	122	398 396	F0
DIAMONDTAIL 23 FEDERAL #002		23 233	32E	п	TAOOIN	660E		7.2	25/54/	/2403.5	195/4	37	5454	3.5	126321	122	396	50

C- 108 Item VIII Geologic Information

Skyhook State SWD #1

The Devonian consist of carbonates including light colored dolomite and chert intervals interspersed with some tight limestone intervals. Several thick sections of porous dolomite capable of taking water are believed present within the subject formations in the area. Depth control data was inferred from deep wells to the south and east. If the base of Devonian come in as expected the well will only be drilled deep enough for adequate logging rathole.

At a proposed injection interval of 17,730-18,980' BGL (Below Ground Level) the well will TD at approximately 18,980'. Mud logging through the interval will ensure the target interval remains in Devonian and Fusselman. Once Devonian is determined, the casing shoe depth will be set at an approximate maximum upper depth of 17,730 BGL. Injection will occur through the resulting openhole interval. Should mud or other logs indicate depth adjustment is required to exploit the desired formation as described; sundries with appropriate data will be filed with the OCD.

The Devonian is overlain by the Woodford, Mississippian LM, Barnett and by the Morrow and Atoka.

Fresh water in the area is generally available from the Rustler formation and some alluvial deposits. State Engineer's records show water wells in a 5 mile radius with a depth to groundwater of 400-800 feet.

Solaris Water Midstream, LLC Estimated Formation Tops Skyhook State SWD # 1 ULM-S2-T23S-R32E Lea County, NM

Surface Elevation: 3711'

Est Tops	Depths (BGL)
Accumulation of Quaternary alluvium.	Surface
Rustler	1,325'
Salt	1,450'
Base of Salt	4,860'
Bell Canyon	5,200'
Cherry Canyon	6,350'
Brushy Canyon	7,500'
Bone Spring Lime	9,100'
1st Bone Spring Sand	10,225'
2nd Bone Spring Sand	10,875'
3rd Bone Spring Sand	11,925'
Wolfcamp	13,125'
Strawn	14,150'
Atoka	14,400'
Morrow	14,950'
Barnett	16,700'
Mississippi Lime	17,050'
Woodford	17,500'
Devonian	17,725
Fusselman	18,475'
Montoya	19,200'
Simpson	19,725'
Ellenburger	20,375'

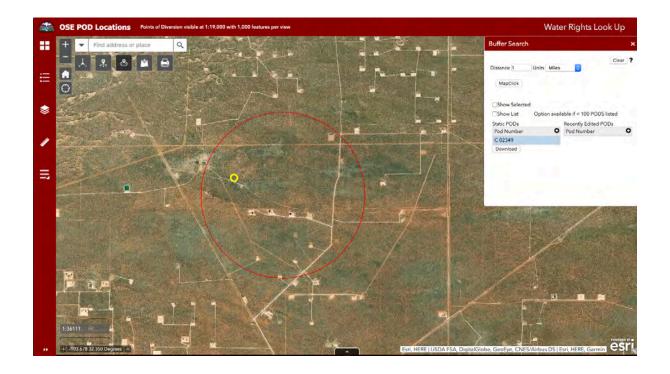
Since no Devonian/Silurian depth well bore exists in the vicinity of this well for reference, tops below Bone Spring Sands are estimated. A log suite will be ran on this well to identify markers as soon as drilling is completed, and before liner setting depth is determined. Logs will be presented for agency review.

Known production intervals penetrated :

Bell Canyon Cherry Canyon Brushy Canyon Bone Spring Sands

C- 108 Item VIII & XI Groundwater Basins- Water Column/ Depth to Groundwater Water Wells in AOR

Skyhook State SWD #1 Water Well Map



The subject well is located within the Carlsbad Basin.

Fresh water in the area is generally available from valley and basin fill of the Carlsbad-Pecos segment of the lower Pecos Valley complex of Quaternary alluvial sand and gravel deposits. State Engineer's records show water wells in surrounding area with an average depth to water at 700 ft.

There is one livestock water well located within one mile of the proposed SWD.

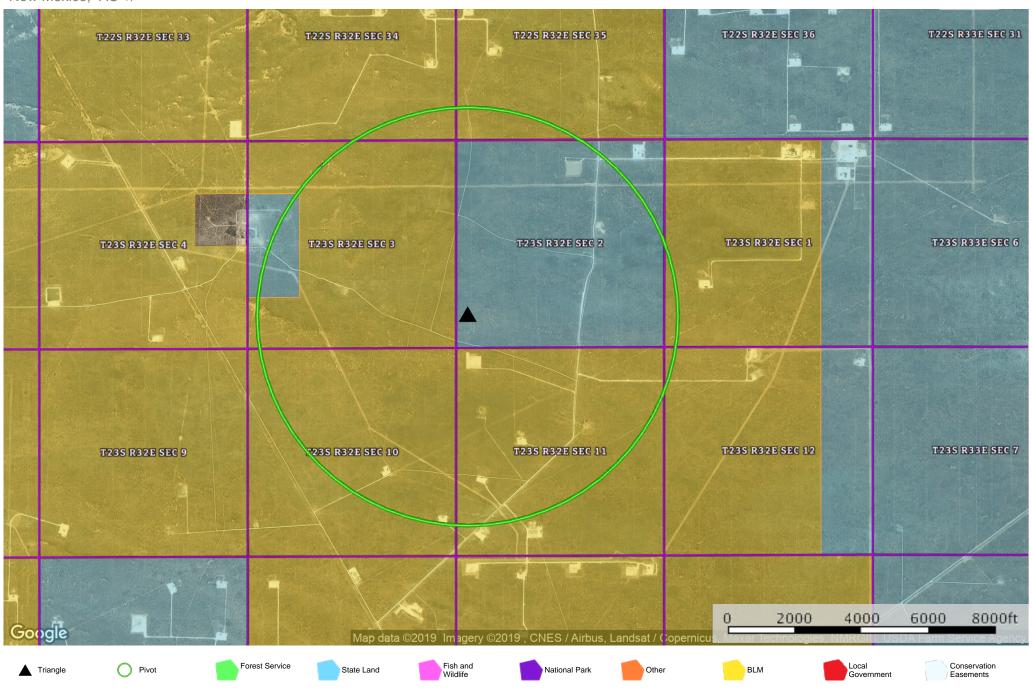
C- 108 Item XII Geologic Affirmation

Skyhook State SWD #1

C- 108 Item XIII Proof of Notification Affected Parties List

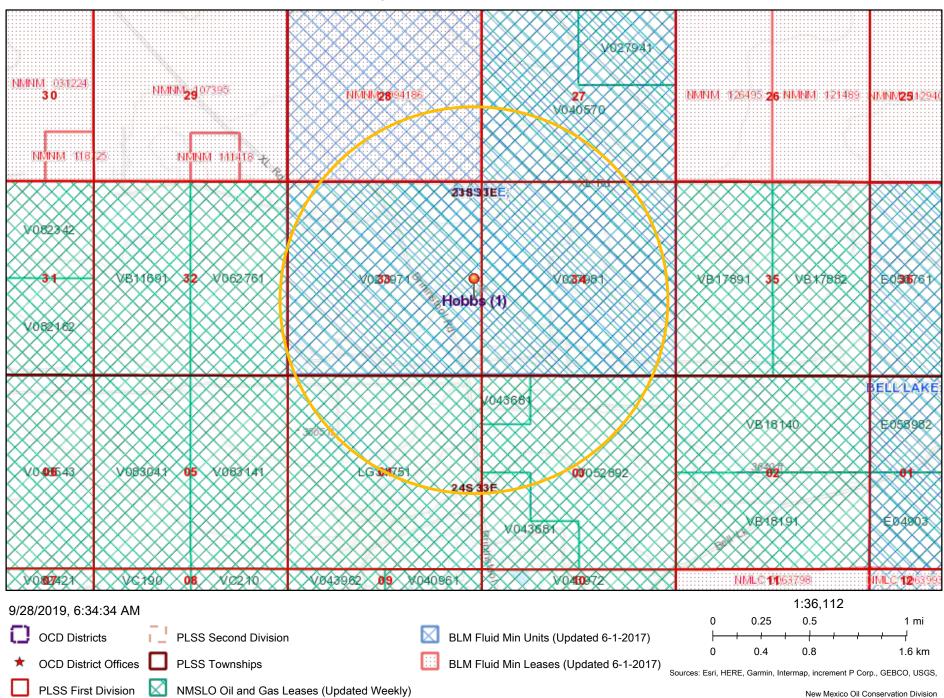
Skyhook State SWD #1

New Mexico, AC +/-



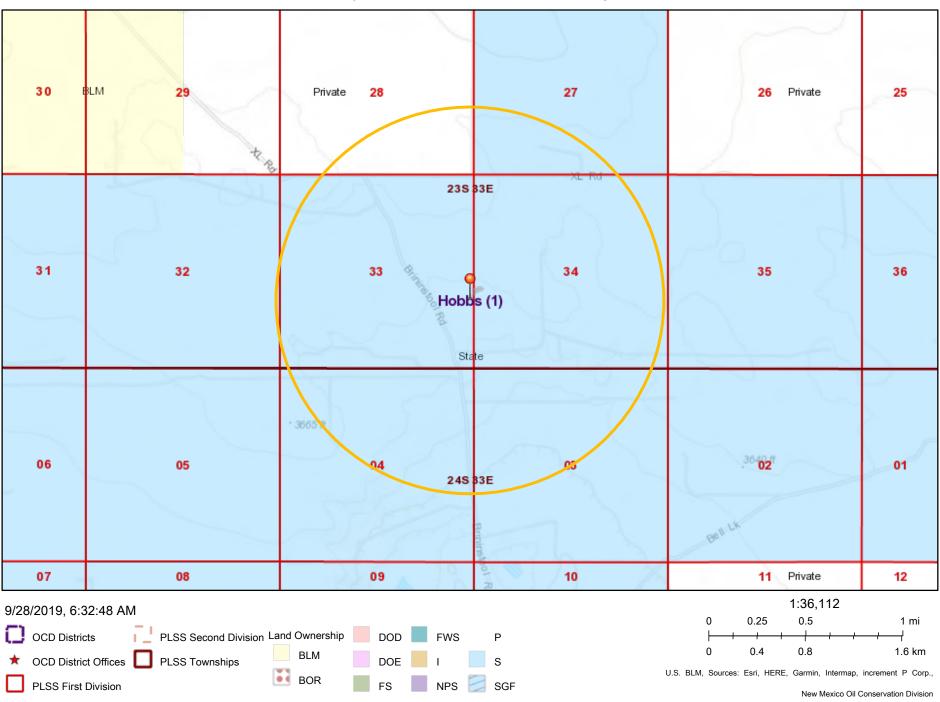
completeness or accuracy thereof.

Skyhook Mineral Lease



NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/: New Mexico Oil Conservation Division

Skyhook Mineral Ownership



	Skyhook State SWD #1								
Owner Category	Name	Address	Location	Source	Info				
			35-22S-32E						
Well Operator	Matador Production Company			OCD					
Well Operator	Marathon Oil Permian LLC		10, 11-23S-32E	OCD					
Well Operator	Strata Production Co.	PO Drawer 1030, Roswell, NM 88202	10, 11-23S-32E	OCD					
Lessee	Crown Oil Partners V LP		34-22S-32E	BLM Records	NMNM-134875				
					NMNM-077060				
Lessee	OXYUSA	PO Box 4294, Houston TX 77210	34, 35-22S-32E	BLM Records	NMNM- 086150				
			03, 11-23S-32E		NMNM-077062				
Lessee	Cimarex Energy	600 N. Marienfeld Street, Midland, TX 79701	·	BLM Records	NMNM-126969				
					NMNM- 085939				
			10, 11-23S-32E		NMNM-085940				
Lessee	Strata Production Co.	PO Drawer 1030, Roswell, NM 88202		BLM Records	NMNM-084728				
			27, 33, 34, 35-23S-33E						
			4,3,2- 24S-33E						
Mineral Owner	New Mexico State Land Office	310 Old Santa Fe Trail, Santa Fe, NM 87504		Lea County Assessor					
			27, 33, 34, 35-23S-33E						
			4,3,2- 24S-33E						
Mineral Owner	Bureau of Land Management	620 East Greene Street, Carlsbad, NM 88220		BLM Records					
			28-23S-33E						
Surface Owner	Hughes Properties LLC	PO Box 5097, Carlsbad NM 88221		Lea County Assessor					
			27, 33, 34, 35-23S-33E						
			4,3,2- 24S-33E						
Surface Owner	New Mexico State Land Office	310 Old Santa Fe Trail, Santa Fe, NM 87504		Lea County Assessor					



Sept. 25th, 2019

NOTIFICATION TO INTERESTED PARTIES

Via U.S. Certified Mail- Return Receipt Requested

To whom it may concern,

Solaris Water Midstream, LLC, Midland, Texas, has made an application to the New Mexico Oil Conservation Division to drill and complete, for salt water disposal, the Skyhook State SWD No. 1. The proposed commercial operation will be for produced water disposal from area operators. As indicated in the notice below, the well is located in Section 2, Township 23 South, Range 32 East in Lea County, New Mexico.

The published notice states that the interval will be from 17,730 feet to 18,980 feet into the Devonian and Fusselman Formations.

Following is the notice to be published in the Hobbs News Sun, Hobbs, New Mexico on or about Sept. 24th, 2019.

LEGAL NOTICE

Solaris Water Midstream, LLC, 907 Tradewinds Blvd., Suite B, Midland, TX 79706 filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Skyhook State SWD No. 1 will be located 860 feet from the South line and 275 feet from the West line, Section 2, Township 23 South, Range 32 East, Lea County, New Mexico. Produced water from area production will be commercially disposed into the Devonian and Fusselman Formations at a depth of 17,730 feet to 18,890 feet at a maximum surface pressure of 3,546 psi and an average injection rate of 40,000 barrels per day. (Final completion depths may be adjusted per mudlogging and reported to the NMOCD on form C-105; pressure will remain at the standard gradient of 0.2 psi/ft of the uppermost injection interval depth). The proposed SWD well is located approximately 25 miles NE of Malaga, NM.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 S. St. Francis Dr., Santa Fe, NM 87505 (505) 476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, Gavilan Solutions, LLC, 505-360-9819 or email: awhite@gavilansolutions.com.

You have been identified as a party who may be interested as an offset lessee or operator.

You are entitled to a full copy of the application. A full copy in PDF format is available for immediate download with the link below.

URL Link: https://www.dropbox.com/sh/cbckn94r470uusv/AADr1fKjcyLGVFMGnfg2lpTva?dl=0

You may also receive a copy by emailing awhite@gavilansolutions.com with your request Please use a subject like Skyhook State SWD #1 request.

Thank you for your attention to this matter.

Whitney McKee

Solaris Water Midstream, LLC Regulatory Specialist

C- 108 Item XIV Proof of Notice Certified Mail Receipts

Skyhook State SWD #1





C- 108 Item XIV Proof of Notice Legal Notice in Newspaper of General Circulation

Skyhook State SWD #1

Below is the affidavit of publication from the Hobbs Sun News.

Affidavit of Publication

STATE OF NEW MEXICO COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

> Beginning with the issue dated September 21, 2019 and ending with the issue dated September 21, 2019.

Publisher

Sworn and subscribed to before me this 21st day of September 2019.

Business Manager

My commission expires

January 29, 2023

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
Aty Commission Expires

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said



LEGAL NOTICE Staris
Water state and 107
Tanger of the Conservation of Application for Conservation of Trision seeking admirately approval for a seeking admirately and 100 feet from the Skyhory State SWD No. 1 will be seeking admirately and 275 feet from the New Cline, Section 2, Townson 22 South, Range 32, East Lee Country, New Marketo.

Produced water from the seeking and 275 feet from the New Marketo. Produced water from the serious and Fusselman Formation at a depth of 17, 750 feet for 18,890 feet at a maximum surface pressure of 3,546 pel and an average injection rate of 40,000 barrets per day. Interested Darttea wishing to object to the proposed application must file with the New Mexico Oli Conservation Division, 1220 C. St. Francis Dr., Santa Fe, NM 87505 (505) 475 3460 within 16 days of the file of this notice. Additional information may be standed from the applicants seeming control of this notice.

67115886

00233642

ASHLEY WHITE GAVILAN SOLUTIONS, LLC 4533 17TH AVE NE RIO RANCHO, NM 87144

C- 108 Item XIV Seismic Maps

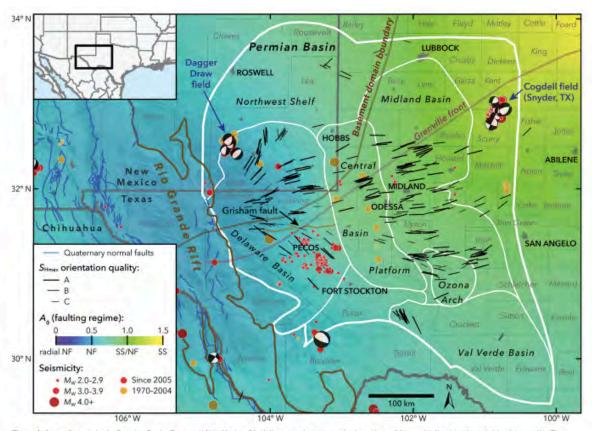


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of S_{tross}, with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the A_o parameter (see text for details) of Simpson (1997). Blue lines are fault traces known to have experienced normal-sense offset within the past 1.6 Ma, from the USGS Quaternary Faults and Folds Database (Crone and Wheeler, 2000). The boundary between the Shawnee and Mazatzal basement domains is from Lund et al. (2015), and the Precambrian Grenville Front is from Thomas (2006). The Permian Basin boundary is from the U.S. Energy Information Administration, and the subbasin boundaries are from the Texas Bureau of Economic Geology Permian Basin Geological Synthesis Project. Earthquakes are from the USGS National Earthquake Information Center, the TexNet Seismic Monitoring Program, and Gan and Frohlich (2013). Focal mechanisms are from Saint Louis University (Herrmann et al., 2011).

Solaris Water Midstream, LLC Skyhook State SWD #1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1

Well Information						
Lease Name	Skyhook SWD					
Well No.	1					
Location	S 2 T23S - R32E					
Footage Location	860' FSL & 275' FWL					

2

a) Wellbore Description

Casing Information										
Type Surface Intermediate 1 Intermediate 2 Liner										
OD	16"	13.375"	9.625"	7.625"						
wT	84 lb/ft	68 lb/ft	53.50 lb/ft	39 lb/ft						
ID	15.010"	12.415"	8.535"	6.625"						
Drift ID	14.822"	12.259"	8.500"	6.500"						
Weight	84 lb/ft	68 lb/ft	53.50 lb/ft	39 lb/ft						
Grade	N-80	L-80, EZ-GO FJ3	HCP-110, BTC	P-110, BTC						
Hole Size	17-1/8"	14-3/4"	12-1/4"	8-1/2"						
Depth Set	1,400'	4,930'	11,850'	17,675'						
	ope	n hole from 17,730' to	18,980'							

b) Cementing Program

Cement Information						
Casing String	Surface	Intermediate 1	Intermediate 2	Liner		
Lead Cement	100 Class C Premium	65:10:25 Class C Premium Compass Poz-Mix	100 TXI Lightweight Cement	100 HSLD 87 Cement		
Lead Cement Volume (sacks)	590	1,000	1,730	455		
Lead Cement Density (ft3/sack)	13.5	12.7	10.6	15.6		
Tail Cement	100 Class C Premium	50:50 Class H Premium Compass Poz-Mix	85:15 Class H Premium Compass Poz-Mix	-		
Tail Cement Volume (sacks)	180	335	200	-		
Tail Cement Density (ft3/sack)	14.8	14.8	15.0	-		
Cement Excess	100% 50%	250% 65%	75% 50%	40%		

Total Sacks	770	1,335	1,930	455
тос	Surface	Surface	Surface	Top: 11,650' Bottom: 17,675'
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3 Tubing Desctiption

Tubing Information				
	5.5"			
OD	5.0"			
	20#			
WT	18#			
	4.778"			
ID	4.276"			
	4.653"			
Drift ID	4.151"			
	20#			
Weight	18#			
Grade	P-110			