District I
1625 M. French Dr , Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

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<u>Pit, Closed-Loop System, Below-Grade Tank, or</u> <u>Proposed Alternative Method Permit or Closure Plan Application</u>

Proposed	Alternative Method Permit of Closure Plan Application
	Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, proposed alternative method
Instructions: Please submit one	application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request environment. Nor does approval relieve the o	does not relieve theoperator of liability should operations result in pollution of surface water, ground water or the perator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
Operator: SG Interests I, Ltd.	OGRID #:
Address: PO Box 2677, Durango, Co	lorado 81301 .
Facility or well name: Federal 21-7-18	#3
·	OCD Permit Number:
	18 Township 21N Range 07W County: Sandoval, NM .
Center of Proposed Design: Latitude 36.	04722° N Longitude <u>-107.62056° W</u> NAD: □1927 □ 1983
Surface Owner: ⊠ Federal □ State □ P	rivate 🔲 Tribal Trust or Indian Allotment
□ String-Reinforced Liner Seams: □ Welded ☑ Factory □ 3. □ Closed-loop System: Subsection H Type of Operation: □ P&A □ Drilling intent) □ Drying Pad □ Above Ground Steel □ Lined □ Unlined Liner type: Thick	Other Volume: 1675Bbls Dimensions: L65'x W40'x D10' Of 19.15.17.11 NMAC a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of Tanks Haul-off Bins Other mess mil LLDPE HDPE PVC Other
	19.15 17.11 NMAC Type of fluid: Type
_ ·	ection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
	le sidewalls only Other
Liner type: Thickness	HDPE PVC Other
5. Alternative Method: Submittal of an exception request is requi	red. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6	
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)	
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hinstitution or church)	hospital,
Four foot height, four strands of barbed wire evenly spaced between one and four feet	
Alternate. Please specify The pit will be fenced with 4' Hog wire fence with 2 strands barbed wire on top	<u> </u>
7.	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
☐ Screen ☐ Netting ☐ Other ☐ Monthly inspections (If netting or screening is not physically feasible)	
Monthly inspections (if feeting of screening is not physically leasible)	
Signs: Subsection C of 19.15.17.11 NMAC	
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	
⊠ Signed in compliance with 19.15.3 103 NMAC	
9.	
Administrative Approvals and Exceptions: Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.	
Please check a box if one or more of the following is requested, if not leave blank:	00 0
Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau consideration of approval.	office for
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying above-grade tanks associated with a closed-loop system.	priate district pproval.
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.	☐ Yes ⊠ No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☑ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits)	☐ Yes ⊠ No ☐ NA
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ⊠ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ⊠ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map, Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ⊠ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ⊠ No
Within a 100-year floodplain FEMA map	☐ Yes ⊠ No

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19 15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are
attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC
and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number:
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Proposed Closure Method. Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
15
Waste Excavation and Removal Closure Plan Checklist: (19 15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids, facilities are required.		
Disposal Facility Name:	Disposal Facility Permit Number:	
Disposal Facility Name:	Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities of ☐ Yes (If yes, please provide the information below) ☐ No	ccur on or in areas that will not be used for future ser	vice and operations?
Required for impacted areas which will not be used for future service and operation Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	e requirements of Subsection H of 19 15.17.13 NMA I of 19.15.17.13 NMAC	С
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the provided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmenta demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC	e administrative approval from the appropriate dist l Bureau office for consideration of approval. Justi	riçt office or may be
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Dat	a obtained from nearby wells	☐ Yes ☑ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Dat	a obtained from nearby wells	☐ Yes ⊠ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Dat	a obtained from nearby wells	⊠ Yes □ No □ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	nificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellite		☐ Yes ⊠ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that les watering purposes, or within 1000 horizontal feet of any other fresh water well or section of NM Office of the State Engineer - iWATERS database; Visual inspection	spring, in existence at the time of initial application.	☐ Yes ⊠ No
Within incorporated municipal boundaries or within a defined municipal fresh water adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approx	•	☐ Yes ⊠ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map, Topographic map; Visu	al inspection (certification) of the proposed site	☐ Yes ☑ No
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining	g and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geolog Society; Topographic map	y & Mineral Resources; USGS; NM Geological	☐ Yes ☑ No
Within a 100-year floodplain FEMA map		☐ Yes ⊠ No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Construction/Design Plan of Temporary Pit (for in-place burial of a drying protocols and Procedures - based upon the appropriate requirements of 19.1: Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Disposal Facility Name and Permit Number (for liquids, drilling fluids and Confirmation Plan - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	uirements of 19.15.17.10 NMAC Subsection F of 19.15.17.13 NMAC propriate requirements of 19.15.17.11 NMAC ad) - based upon the appropriate requirements of 19. 5.17.13 NMAC uirements of Subsection F of 19.15.17.13 NMAC Subsection F of 19.15.17.13 NMAC lrill cuttings or in case on-site closure standards cann H of 19.15.17.13 NMAC I of 19.15.17.13 NMAC	15.17.11 NMAC

Operator Application Certification: I hereby certify that the information submitted with this application is true, accurate	e and complete to the best of my knowledge and belief
Name (Print). William Schwab III	Title: Agent for SG Interests
Signature: Supplied to the sup	Date: March 10, 2010
e-mail address: tripp@nikaenergy.com	Telephone: 970-759-2701 .
OCD Approval: Permit Application (including closure plan) Closure Plan	(only) OCD Conditions (see attachment)
	Approval Date: 6/8/10
	OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K Instructions: Operators are required to obtain an approved closure plan prior to The closure report is required to be submitted to the division within 60 days of the section of the form until an approved closure plan has been obtained and the closure pl	implementing any closure activities and submitting the closure report. c completion of the closure activities. Please do not complete this ure activities have been completed.
	Closure Completion Date:
Closure Method: Waste Excavation and Removal On-Site Closure Method Alternation If different from approved plan, please explain.	ve Closure Method
Closure Report Regarding Waste Removal Closure For Closed-loop Systems T Instructions: Please indentify the facility or facilities for where the liquids, drilling two facilities were utilized.	
-	Disposal Facility Permit Number:
Disposal Facility Name:	Disposal Facility Permit Number:
Were the closed-loop system operations and associated activities performed on or in ☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No	n areas that will not be used for future service and operations?
Required for impacted areas which will not be used for future service and operation Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	18.
24. Closure Report Attachment Checklist: Instructions: Each of the following item	ns must be attached to the closure report. Please indicate, by a check
mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)	
On-site Closure Location: Latitude Longitud	le NAD:
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure repbelief. I also certify that the closure complies with all applicable closure requirements.	nts and conditions specified in the approved closure plan.
Name (Print).	Title:
Signature:	Date:
e-mail address:	Telephone:

Mark Kelly Bureau Of Land Management, DOI Farmington Field Office 1235 La Plata Highway, Suite A Farmington, NM 87401

RE: Federal 21-7-18 #3, API # 30-043-21073

Mark,

This is a follow up certified letter as per the requirements of the new OCD pit rule 17 requiring notification to the surface owner that we are planning to open a temporary drilling pit on the subject location. After drilling operations cease, SGI plans to close the temporary pit per the approved APD and the new NMOCD rules.

Please let me know if you have any questions or if this notification needs to be

directed to someone else.

Thank you for your time.

Tripp Schwab President

Nika Energy Operating, LLC

Agent for SG Interests.

-5	U.S. Postal Service in CERTIFIED MAIL. RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)
3.0	
<u>+</u>	For delivery information visit our website at www.usps.com
-	OFFICIAL USE
72	Postage \$ NGO CO
127	Postage \$
2000	Return Receipt Fee (Endorsement Required)
	Restricted Delivery Fee (Endorsement Required)
1300	Total P TALES OF TOTAL OF THE SPS
H	Attn: Mr. Mark Kelly
طn	Bureau of Land Mngement, DOI
7008	Street, 1235 La Plata Highway, Suite A
2	or POB Farmington, NM 87491
•	City Sta
	87401
	PS Form 3800, August 2006 See Heverse for Instructions

FED 21-7-267	+
21-7-25	# 2
21-7-27	4/
21-6-19#	4
21-7-18#	13
SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Attn: Mr. Mark Kelly Bureau of Land Mngemnt, DOI 1235 La Plata Highway, Suite A	A. Signature A. Signature Addressee B. Redelfred by (Printed Name) D. Is delivery address different from item 1? Yes If YES, enter delivery address below: No
Farmington, NM 87401	3. Service Type Certified Mail
	<u> </u>

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Tripp Schwab

From:

Tripp Schwab [tripp@nikaenergy.com]

Sent:

Tuesday, March 09, 2010 4:41 PM

To:

Mark Kelly (mark_kelly@nm.blm.gov)

Subject: Pit Notification

Re: Federal 21-7-18 #3, API 30-043-21073

Mark,

Previously I sent these to Bill Liess, but his last return e-mail said that I should communicate with you on the land owner notifications for the drilling pit applications and 48 hour notice of closures.

The requirements of the new OCD pit rule 17 requires notification to the surface owner that we are planning to open a temporary drilling pit on the subject location. After drilling operations cease, the pit will then be closed. SGI plans to close the temporary pit per approved Federal APD and NMOCD rules.

Please let me know if you have any questions or if this e-mail notification needs to be directed to someone else.

Thank you for your time.

Tripp Schwab Nika Energy - Agent for SG Interests 970-259-2701 office 970-385-1598 fax

	Information from ESET NOD32	Antivirus, version o	of virus signature	database 4930
(20100309)				

The message was checked by ESET NOD32 Antivirus.

http://www.eset.com

	FED 21-7-26#2	
	21-7-27#1	
	$\frac{21-4-19^{-4}}{21-7-18^{+3}}$	
	SENDER: COMPLETE THIS SECTION COMPLETE THIS SECTION ON DELIVERY	
	Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. A. Signature A. Signature A. Signature C. Date of Delivery D. Is delivery address different from item 1? Yes	
	1. Article Addressed to: Attn: Mr. Mark Kelly Bureau of Land Mngemnt, DOI 1235 La Plata Highway, Suite A	,
, '	Farmington, NM 87401 3. Service Type Certified Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.	٠
	2. Article Number (Transfer from service la. 7008 1300 0002 1275 7438	
	PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540	

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HYDROGEOLOGIC DATA for the Federal 21-7-18 #3

The Federal 21-7-18 #3 located in Sandoval County, is in the upper southeastern reaches of the San Juan River drainage basin and in the San Juan Underground Water Basin as defined by the New Mexico Office of the State Engineer. The surface is covered by Quaternary alluvium consisting of unconsolidated sand, gravel, silt, clay, and terrace gravel and boulder deposits. The alluvium itself is not a source for ground water. The consolidated rock outcrops along the drainage are the Tertiary Age Paleocene Nacimiento Formation which underlies the alluvium. The Nacimineto Formation is a stratified fluvial sand and shale sequence less than 200 feet thick.

The proposed well is located in the SESW quarter/quarter of section 18, T21N-R7W. Ground level elevation at this site is at 6702'. The closest know active water well (POD #SJ 03562) drilled in 2005 is located 1.2 miles to the north in section 7-21N-7W. This well found water at 240 ft with a total TD of 680 ft. The well casing perforations are top at 580 and bottom at 660 feet. This well was identified using the iWaters Database from the Office of the State Engineers.

Location (T, R, Section)	POD Number	Well Depth	Depth to Water	Water Column
21N 07W Sec 07	SJ 01824	100'	n/a	n/a
21N 07W Sec 07	SJ 03562	680'	240'	440'

The water wells located in some surrounding townships are included with the following results:

Location (T, R, Section)	POD Number	Well Depth	Depth to Water	Water Column
20N 07W Sec 17	RG 38729	252'	110'	142'
20N 07W Sec 16	SJ 01415	512'	40'	472'
20N 07W Sec 22	SJ01416	15'	5'	10'
20N 07W Sec 22	SJ 01417	620'	10'	610'
20N 07W Sec 22	SJ 01418	20'	5'	15'
20N 07W Sec 34	SJ 01419	350'	30'	320'
20N 07W Sec 08	SJ 01705	125'	88'	37'
20N 07W Sec 34	SJ 02615	360'	200'	160'
20N 06W Sec 32	SJ 00119	5007'	180'	4827'
20N 06W Sec 32	SJ 00119 Explor	e-1 5656'	255'	5401'
20N 06W Sec 11	SJ 01704	506'	229'	277'
20N 05W Sec 22	RG 91231 POD-	1 143'	78'	65'
21N 05W Sec 32	RG 29678	2238'	769'	1469'

The aquifer in this area of the San Juan Basin primarily consists of the Ojo Alamo Sandstone. The top of the Ojo Alamo at this drill site is estimated to be approximately 200 feet below the surface. The Ojo Alamo is a permeable conglomerate and medium to very coarse sandstone inter-layered with relatively impermeable shale. This aquifer contains fresh to moderately saline water. Dissolved-solids concentrations generally increase along the groundwater flow path from less than 1,000 milligrams per liter near recharge areas to about 4,000 as the formation is deeper into the basin.

Reference:

GROUND WATER ATLAS of the UNITED STATES Arizona, Colorado, New Mexico, Utah, HA 730-C, USGS, S.G. Robson and E.R. Banta, 1995

iWaters (Waters Database), New Mexico Office of the State Engineer, 2007



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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

Sub Q Q/Q Depth Depth Water Well WaterColumn **POD Number** basin Use County 64 16 4 Sec Tws Rng

SJ 01824 MUL 3 3 1 07 21N 07W 263575 3994603*

SJ 03562 SAN 21N 07W 263575 3994603* 680 240 440

> Average Depth to Water: 240 feet

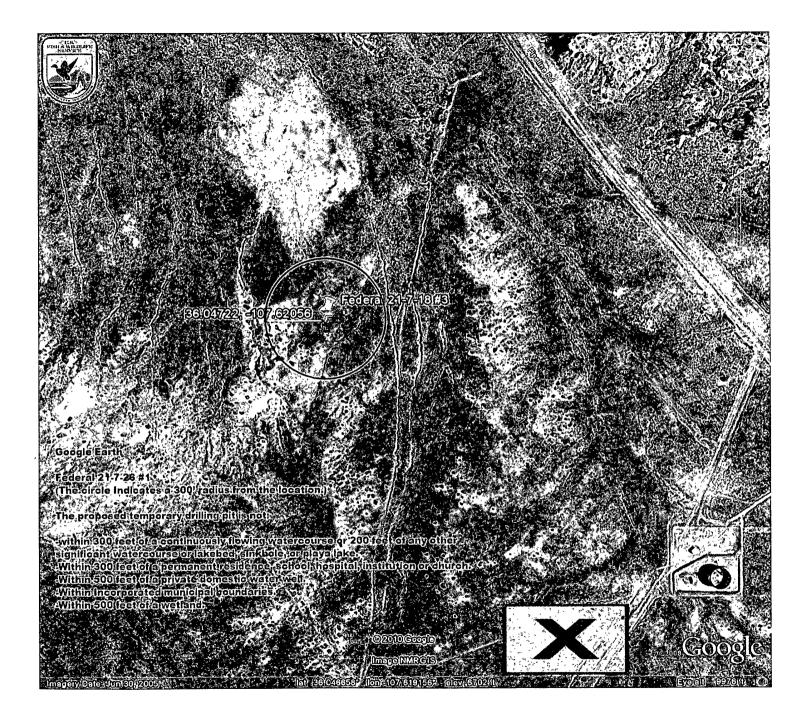
> > Minimum Depth: 240 feet

Maximum Depth: 240 feet

Record Count: 2

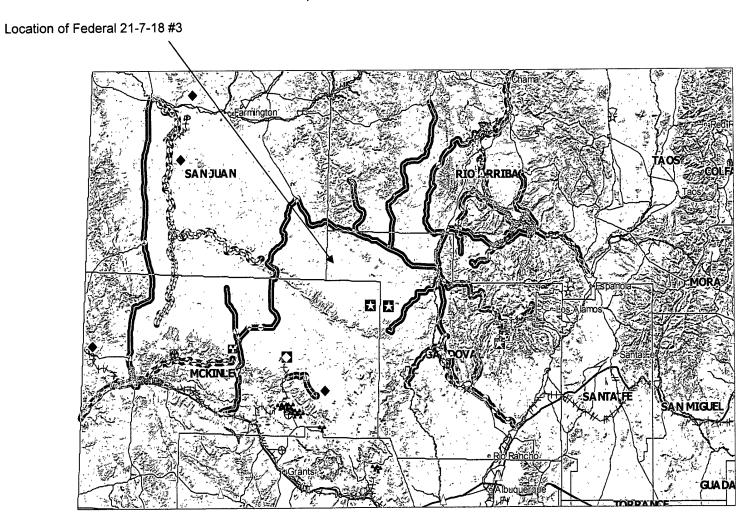
PLSS Search:

Township: 21N Range: 07W

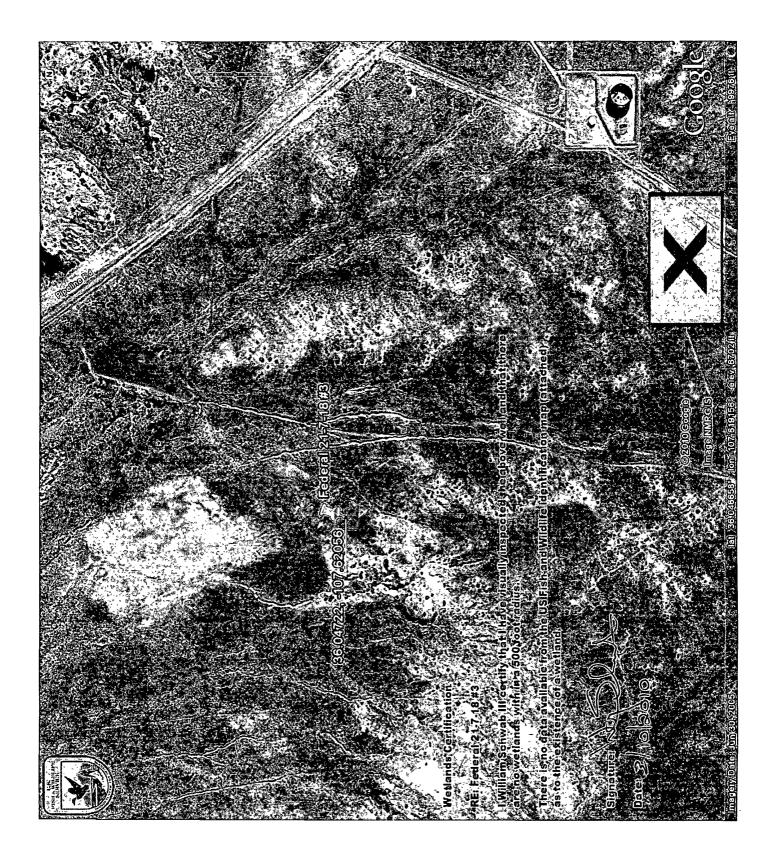


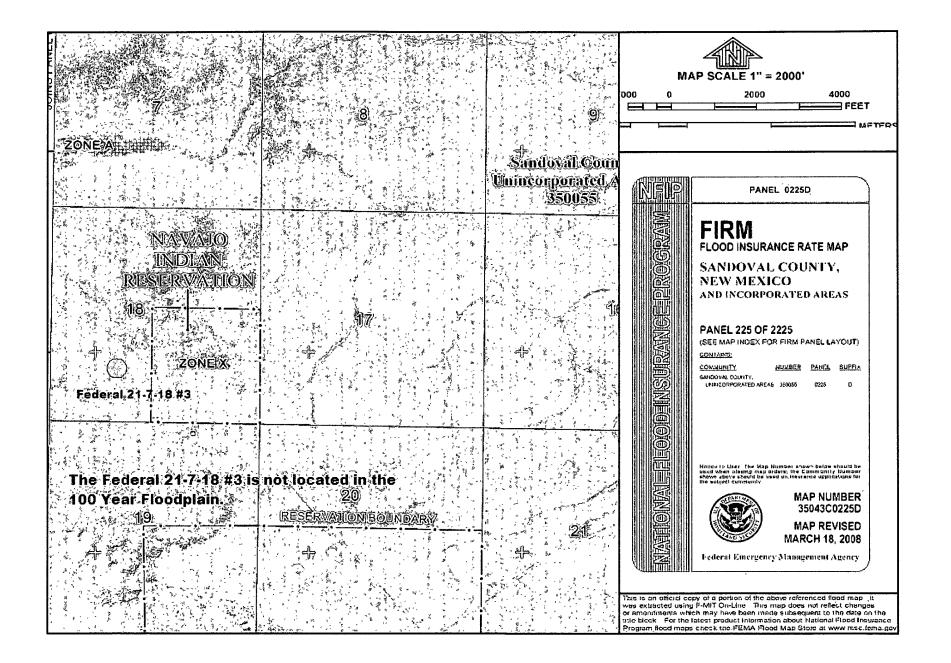
Map of Mining Sites in Area of Interest

Map from NM-EMNRD Website



The Federal 21-7-18 33 well pad is not located near any surface mines or over any subsurface mines. The Soil consists of a clay sand mixture. The location has a 5' cut and a 3' fill. The temporary drilling pit will be located in the cut of the cut side of the location.





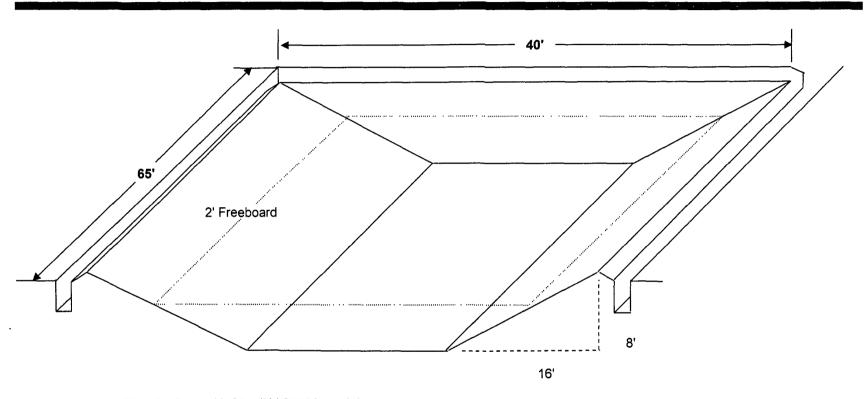
SG Interests I, Ltd.

Temporary Pit Design & Construction Plan

Re: Federal 21-7-18 #3

- 1 SG Interests will design and construct a temporary pit to contain liquids, solids, prevent contamination of fresh water, and protect public health and environment.
- 2 Prior to constructing the pit, topsoil will be stockpiled per APD for later use in reclamation.
- 3 SGI will have sign on location in compliance with 19.15.3.103 NMAC.
- 4 SGI shall construct all new fences utilizing 48" hog wire on bottom with a single strand of barbed wire on top. T-posts will be installed a minimum of every 12 feet and corners will be braced. Temporary pits will be fenced at all times except during drilling or workover operations when the rig side of the fence will be temporarily removed for operational purposes.
- 5 SGI shall construct the temporary pit so the foundation and interior slopes are compact, free of rocks, debris, sharp edges and irregularities to prevent liner failure.
- 6 SGI shall construct the pit so the slopes are no steeper than two horizontal feet to one vertical foot. Any other design will be submitted for administrative approval.
- 7 All temporary pits will be lined with a 20 mil string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements.
- 8 Geotextile will be installed beneath the liner if integrity will be compromised from sharp edges or irregularities.
- 9 Liner will be anchored in the bottom of a compacted earth filled trench at least eighteen inches deep.
- 10 Liner seams will be minimized and oriented up and down, not cross slope. Factory seams will be used wherever possible. Field seams will be overlapped four to six inches and welded by qualified personnel. Seams will be minimized in corners and irregularly shaped areas.
- 11 The liner shall be protected from any fluid force through the use of mud pit slides or a manifold system.
- 12 Diversion ditches and berms will be used to prevent natural runoff from entering pit.
- 13 Pit volume will not exceed 10 acre feet, including freeboard.
- 14 Temporary blow pits will be constructed to allow fluid discharged to unlined pit, as allowed by Rule 19.15.17.11.F.11, to gravity flow into lined pit.
- 15 Freestanding liquids will not be allowed in unlined portion of a temporary blow pit.

Temporary Pit Design Federal 21-7-18 #3



Pit to be lined with 20 mil LLDPE Material

Liner will be anchored in anchor ditch

SG Interests I, Ltd.

Temporary Pit - Maintenance & Operating Plan

Re: Federal 21-7-18 #3

- 1 SG Interests will design and construct a temporary pit to contain liquids, solids, prevent contamination of fresh water, and protect public health and environment.
- 2 SGI will dispose of drilling fluids at Basin Disposal Inc., Permit # NM-01-005.
- 3 SGI will not dispose of or store any hazardous waste in any temporary pit.
- 4 If the pit liner's integrity is compromised, or if any penetration of the liner occurs above the liquid surface, the NMOCD Aztec Division office will be notified by phone or e-mail within forty eight hours.
- 5 If a leak develops below the liquid level SGI shall remove all liquids above the damaged liner within forty eight hours and repair the damage to the liner. For leaks less than 25 Bbls SGI shall notify the NMOCD Aztec office within forty eight hours of the discovery. For leaks greater than 25 Bbls SGI shall notify the NMOCD Aztec office within twenty four hours of the discovery. In addition verbal notification shall be given to the divisions Environmental Bureau Chief.
- 6 The liner shall be protected from any fluid force through the use of mud pit slides or a manifold system.
- 7 Diversion ditches and berms will be used to prevent natural runoff from entering pit.
- 8 SGI shall immediately remove any visible layer of oil from the surface of the temporary pit. An oil absorbent boom will be used to contain and remove oil from the pits surface. An oil absorbent boom will be kept on-site until closure of pit.
- 9 Only fluids generated during the drilling or completion process will be discharged into a temporary pit.
- 10 The pit will be kept free of miscellaneous solid waste and or debris.
- 11 During drilling or completion operations, SGI will inspect the temporary pit at least once daily to insure compliance with this plan. Inspections will be logged in the IADC reports and SGI daily drilling reports. These reports will be filed with the NMOCD Aztec Division office upon closure of the pit.
- 12 -After drilling or completion operations, SGI will inspect the temporary pit at least once weekly so long as liquids are present in the pit. Inspections will be logged as a continuation of the SGI daily drilling report and will be filed with the NMOCD Aztec Division office upon closure of the pit.
- 13 The temporary pit shall always maintain a minimum of two feet of freeboard.
- 14 Freestanding liquids will be removed from a temporary pit within 30 days from the date the drilling rig is released and removed as needed thereafter until the pit is closed.
- 15 SGI will remove all freestanding liquids from a cavitation pit within 48 hours after completing a cavitation. SGI may request additional time to remove liquids from the NMOCD Aztec Division office if SGI is not able to remove liquids in 48 hours.

SG Interests I, Ltd.

Temporary Pit - Closure Plan

Re: Federal 21-7-18 #3

All closure activities will include proper documentation and be available for review upon request and will be submitted to the NMOCD Aztec Division office within 60 days of pit closure. Closure report will be filed on form C-144 and incorporate the following:

Details on capping and covering (where applicable)
Plot Plan (Pit Diagram)
Inspection Reports
Sampling Results
C-105

- 1 All freestanding liquids will be removed at the start of the pit closure process from the pit and disposed of in a division approved facility or recycle, re-use or reclaim the liquids in a manner that the appropriate division district office approves. SGI plans to dispose of drilling fluids at Basin Disposal Inc., Permit # NM-01-005, unless otherwise noted.
- 2 The method of closure for all temporary pits will be on-site burial as long as all the criteria listed in sub-section B of 19.15.17.13 NMAC are met.
- 3 The surface owner shall be notified of SGI closure plan using a means that provides proof of notice i.e., certified mail, return receipt requested or electronic mail with read receipt.
- 4 Temporary pits will be closed, re-contoured, and re-seeded 6 months after drilling rig is released.
- 5 "Notice of Closure" will be given to the NMOCD Aztec Division office within 72 hours of closure via electronic mail or verbally. The "Notification of Closure" will include:
 - i. Operators Name
 - ii. Location by Unit Letter, Section, Township, and Range
 - iii. Well Name and API number.
- 6 A five point composite sample will be taken of the pit using sampling tools and tested per 19.15.17.13.B.1.b. NMAC. Maximum limits for on-site burial are listed below:

Components	Test Method	Limit (mg/kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW 846 8021B or 8260B	50
TPH	EPA SW 846 418.1	2500
GRO/DRO	EPA SW 846 8015M	500
Chlorides	EPA 300.1	1000

In the event the criteria are not met all contents and remediation will be handled per 19.15.17.13.B.1 NMAC. If ground water is 50'-100' below the bottom of the buried waste all limits are the same except the chloride limit is reduced to 500 mg/kg. The sampling can be taken prior to mixing but if the contents exceed the parameters then contents must be sampled after mixing and meet the criteria before closure.

- 7 Pit contents shall be mixed with non waste containing earth material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanical mixing. Pit contents will be mixed with non waste, earth material to a consistency that is deemed safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
- 8 Liner of temporary pit will be removed above "mud level" after stabilization. Liner will be cut and all excessive liner will be removed and taken to a licensed disposal facility.
- 9 Upon completion of solidification and satisfactory test results the pit area will be backfilled and compacted with non-waste earth material. A minimum of four feet of cover with the top foot (or background thickness of topsoil whichever is greater) suitable to establish vegetation at the site.
- 10 The pit cover will be re-contoured and re-vegetated complying with subsections G, H, & I of 19.15.17.13 NMAC.
- 11 Notification will be sent to NMOCD Aztec Division office when reseeding is completed.
- 12 SGI will seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished by drilling on the contour whenever practical or by other division approved methods. APD stipulated seed mixes will be used on Federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds. Seed cover will be maintained thru two consecutive growing seasons. Repeat seeding or planting will be continued until successive vegetative growth occurs.
- 13 -The closed temporary pit will have a steel marker no less than four inches in diameter, extending four feet above mean ground level, extending and cemented in a hole three feet deep, in the center of the onsite burial upon completion of the closing. The marker will be permanently welded, stamped or engraved to include the operator name, lease name, well name and number, unit number, section, township, range, and indicator that the marker is an onsite burial location. SGI reserves the right to install a temporary flat plate marker, one foot by two feet, with the same information if it is deemed necessary for safe operation on the wellsite during the productive life of the well. A full size marker will then be installed upon final abandonment.