Form 3160-3 (September 2001)

#### UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

APPLICATION FOR PERMIT TO DRILL OR REENTER 2008 SEP

SCUD NOUTS OF FORM APPROVED OMB No. 1004-0136 Expires January 31, 2004

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elf-Indian.				

Aliottee No. 01031459 7. If Unit or CA Agreement, Name and No. la. Type of Work: ☑ DRILL ☐ REENTER 070 FAR! 8. Lease Name and Well No. ☐ Oil Well ☐ Gas Well ☐ Other ☐ Multiple Zone 1b. Type of Well: 2. Name of Operator 9. API Well No. 30-031-SG Interests I. LTD c/o NIKA Energy Operating 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 3a. Address (970) 259-2701 P.O. Box 2677 Durango, CO 81302 Basin Fruitland Coal 11. Sec., T., R., M., or Blk. and Survey or Area 4. Location of Well (Report location clearly and in accordance with any State requirements. \*) 1156' FNL & 1200' FEL At surface H Section 6, 20N, 6W At proposed prod. zone 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13. State approximately 23 miles southeast of Counselors, New Mexico McKinley Distance from proposed\* 17. Spacing Unit dedicated to this well 16. No. of Acres in lease location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 120.00 1156 18. Distance from proposed location\* 19. Proposed Depth 20. BLM/BIA Bond No. on file to nearest well, drilling, completed, applied for, on this lease, ft.

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

See attached map

1. Well plat certified by a registered surveyor.

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

2. A Drilling Plan.

6,685 GR

- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).

23. Estimated duration

1 month

PIB0003277

5. Operator certification.

22. Approximate date work will start\*

as soon as permitted

24. Attachments

6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed)	Date
Um Sexuality mas	William Schwab III	9/6/04
Title		
President NIKA Energy Apperating/ Agent for SG Interests I, I	.TD	
Approved by (Signature)	Name (Printed/Typed)	Date 11/13/06
Title AFM	Office FFO	
Application approval does not warrant or certify that the applicant holds le	gal or equitable title to those rights in the subject lease	which would entitle the applicant to conduct

operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

SG Interests I, LTD. proposes to drill a well to develop the Basin Fruitland Coal formation at the above described location in accordance with the attached drilling and surface use plans.

The surface is Navajo Allotted under jurisdiction of the Bureau of Indian Affairs (BIA) and the Federal Indian Minerals Office (FIMO).

This location has been archaeologically surveyed by Aztec Archaeological Consultants. Copies of their report have been submitted directly to the BIA, FIMO as well as the Farmington Field Office of the Bureau of Land Management (FFO/BLM).

An approximate 1,320.24-foot gas and produced water pipeline ties would be constructed, connecting into the existing SG Interests I LTD, pipeline systems.

B 11/15/06

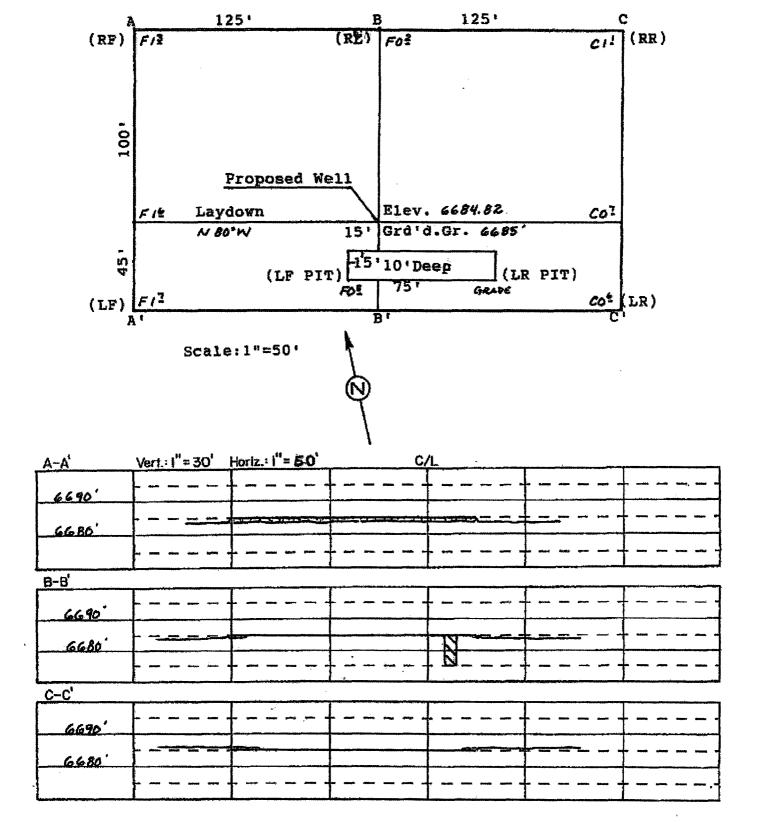
DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

. . . . . . . . . .

	District I 1625 N. French Dr., Hobbs, NM 88246 District II 1301 W. Grand Avenue, Artesia, NM 88216 District III 1660 Rio Brazos Rd., Aziec, NM 87410 District IV 1226 S. St. Francis Dr., Santa Fe, NM 87505				State of New Mexico  Energy, Minerals & Natural Resources Department 2  OIL CONSERVATION DIVISION  1220 South St. Francis, Dr. EIVED  Santa Fe, NM 87505 RMINGTON NM					Appropri State Fee	Form C-102 sed June 10, 2003 ate District Office e Lease - 4 Copies e Lease - 3 Copies			
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Submit 3 Copies To Appropriate District Office	State of New Me Energy, Minerals and Natu		Form C-103 May 27, 2004
District I 1625 N. French Dr., Hobbs, NM 88240	Ellergy, Willierals and Ivado	iai Resources	WELL API NO. 30-031-21096
District II 1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATION		5. Indicate Type of Lease
District III 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Fran Santa Fe, NM 87		STATE FEE Navajo Allotted
<u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM		, 5 05	6. State Oil & Gas Lease No.
87505 SUNDRY NOTI	CES AND REPORTS ON WELLS		7. Lease Name or Unit Agreement Name
(DO NOT USE THIS FORM FOR PROPODIFFERENT RESERVOIR. USE "APPLIC	SALS TO DRILL OR TO DEEPEN OR PL	UG BACK TO A	
PROPOSALS.)	Gas Well Other	JK 50011	Federal 20-6-6  8. Well Number #1
1. Type of Well: Oil Well   2. Name of Operator SG Inter	rests I, Ltd		9. OGRID Number
			10. Pool name or Wildcat
3. Address of Operator C/O Nika Energy Operating,	PO Box 2677, Durango, CO,	81303	Basin Fruitland Coal
4. Well Location			
	tet from the North line and _1200_	-	<b>;</b>
Section 6 Townsh	ip 20N Range 6W  11. Elevation (Show whether DR	NMPM , RKB, RT, GR, etc.)	County McKinley
Pit or Below-grade Tank Application ⊠ o	6,685'		
		sh water well >1000 ft	Distance from nearest surface water_>500 ft
Pit Liner Thickness: 12 mi			onstruction Material Synthetic
12. Check A	Appropriate Box to Indicate N	lature of Notice,	Report or Other Data
NOTICE OF IN	TENTION TO:	SUB	SEQUENT REPORT OF:
PERFORM REMEDIAL WORK	PLUG AND ABANDON 🔲	REMEDIAL WOR	K ☐ ALTERING CASING ☐
TEMPORARILY ABANDON DULL OR ALTER CASING	CHANGE PLANS	CASING/CEMENT	<del></del>
_			_
OTHER: Pit Application  13. Describe proposed or comp	leted operations. (Clearly state all	OTHER:	d give pertinent dates, including estimated date
			tach wellbore diagram of proposed completion
Drilling/Completion pit to be located			i-use drilling and completion to avoid
			tubing set. Pit to be 75 feet long by 15 ewith NMOCD guidelines and SGI
procedures.	, ,		· ·
I hereby certify that the information	above is true and complete to the b	est of my knowledge	e and belief. I further certify that any pit or below- or an (attached) alternative OCD-approved plan
SIGNATURE Ulm Salu	A	Agent for SG Int	1.1.
Type or print name William Schw	N-1.	pp@nikaenergy.com	• • •
For State Use Only			•
APPROVED BY:  Conditions of Approval (if any):	TITLE	TY OIL & GAS INSPE	CTOR, DIST. DATE DATE

SG INTERESTS I, LTD.
NAVAJO 20-6-6 #1
1156'FNL & 1200'FEL
Sec.6,T20N,R6W,NMPM
McKinley Co., NM



# SG Interests I, Ltd. (Agent: Nika Energy Operating, LLC) PO Box 2677 Durango, CO 81302 (970) 259-2701

Navajo 20-6-6 #1 SENE Sec 6-20N-R6W 1156' FNL & 1200' FEL McKinley County, New Mexico

#### EIGHT POINT DRILLING PROGRAM

1. Estimated Formation Tops:

Ojo Alamo	235'
Kirtland	405'
Fruitland	575'
PC	795'
Total Depth	945'

2. Estimated Depth of Anticipated Minerals:

Fruitland (Gas)

770'

3. Minimum Specifications for Pressure Control Equipment:

BOP equipment and accessories will meet or exceed BLM requirements outlined in 43 CFR Part 3160.

A 2000 psig double ram hydraulic BOP will be used (see attached diagram). Accessories to the BOP will meet BLM requirements for a 2000 psig system. The accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. Fill line, kill line and line to choke manifold will be 2". BOP's will be function tested every 24 hours and will be recorded on IADC log.

Surface casing will be tested to 1500 psig for 30 minutes.

Eight Point Drilling Program - Navajo 20-6-6 #1 Page 2

Accessories to BOPE will include upper and lower Kelly cocks with handles, stabbing valve to fit drill pipe on floor at all times, string float at bit, 2000 psig choke manifold with 2" adjustable and 2" positive chokes, and pressure gauge.

#### 4. Casing and Cementing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>Csq Size</u>	Wt, Grd, Jt
12-1/4"	0-150'	8-5/8"	24#, J-55, ST&C
7-7/8"	0-945'	4-1/2"	10.5#, J-55, ST&C

Surface Casing will be cemented with 140 sx (165 cu ft) class B w/2% CaCl and 1/4#/sx of celloflake (Yield = 1.18 cuft/sx, Weight = 15.6 #/gal). Cement volumes include excess to circulate cement to surface. A guide shoe, insert float and three (3) centralizers will be used. WOC time is 8 hours. The casing will be pressure tested to 1500 psig.

Production Casing will be cemented with 100 sx (118 cu ft) class B w/2% CaCl and 1/4#/sx celloflake (Yield = 1.18 cuft/sx, Weight = 15.6 #/gal). Cement volume includes excess to circulate cement to surface. In the event cement is not circulated a temperature survey will be run to determine the actual cement top. Cementing equipment will include a guide shoe, float collar and 7 centralizers. Class G or H cement may be used depending on availability of Class B.

# 5. Mud Program:

A native water based mud system (FW) will be used initially followed by a low-solids, non-dispersed gel system (LSND) as needed to condition the hole for logs. Adequate amounts of lost circulation and weighting material will be on location if needed as well as sorbitive agents to handle potential spills of fuel or lubricants.

<u>Depth</u>	Type	<u> Wt (ppg)</u>	<u>Vis (sec)</u>	Wtr loss
0-150'	FW	± 8.5	30-33	NC
150'-TD	FW & LSND	± 8.7-9.1	30-50	8-10 cc

Eight Point Drilling Program - Navajo 20-6-6 #1 Page 3

## 6. Testing, Coring and Logging Program:

No DST's or cones are planned. Openhole logs will include GR, Induction, Density and Caliper Logs. The GR-Density logs will be run from TD to the top of the Fruitland formation. GR-Induction-Caliper logs will be run from TD to the bottom of the surface casing.

#### 7. Anticipated Abnormal Pressures and Temperatures:

No abnormal pressures or temperatures are expected in this well. Maximum anticipated Fruitland reservoir pressure is 300 psig with a normal temperature gradient.

#### 8. Operations:

Anticipated spud date is September 2006 or as soon as permits are received and work can be scheduled. Estimated drilling time is 4 - 5 days. The Fruitland will be completed as a cased hole completion, perforated and hydraulically fracture stimulated. Completion operations are expected to take 5 - 7 days and will commence as soon after completion of drilling operations and scheduling allow.

# NIKA ENERGY OPERATING, LLC SG INTERESTS I, LTD.

WELL NAME:

Navajo 20-6-6 #1

FIELD NAME:

Basin Fruitland Coal

LOCATION:

Sec 6-T20N-R6W

Unit: H 1156' FNL & 1200' FEL McKinley County, New Mexico

PROPOSED TD:

945

DRILLING SKELETON:

Interval	Hole <u>Size</u>	Casing <u>Size</u>	<u>Depth</u>
Surface	12-1/4"	8-5/8"	150'
Production	7-7/8"	4-1/2"	945'

#### MUD PROGRAM:

<u>Interval</u>	Mud	Mud	Funnel	Water
	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Loss</u>
0 - 150'	Native	8.5 - 9.1	30 - 50	N/C
150' - TD	Native/LSND	8.5 - 9.1	30 - 50	8 - 10 cc

CORE PROGRAM: None

ELECTRICAL LOGGING PROGRAM: Openhole logs will include a GR/Caliper and a DIL/Formation Density log from TD to the surface casing shoe

Fruitland Drilling Program - Navajo 20-6-6 #1 Page 2

#### CASING AND CEMENTING PROGRAM:

<u>Interval</u>	Size, Wt, Grade, Thread	<u>Depth</u>	<u>Cement</u>
Surface	8-5/8", 24#, J-55, ST&C	150'	150 sx Class B w/2% CaCl + 1/4#/sx celloflake
Production	4-1/2", 10.5#, J-55, ST&C	TD	240 sx Class B. Both slurries to contain 1/4#/sx celloflake.

WELLHEAD:

3000# Independent Style

# BLOWOUT PREVENTION EQUIPMENT REQUIREMENTS:

Description	<u>Rating</u>
Double Ram Type Preventer	2000 psi
Rotating Head	2000 psi

BOPE testing will be done by third party testers in accordance with Onshore Order No. 2. The test must be performed and recorded using a test pump, calibrated test gauges and properly calibrated strip or chart recorder. The test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. The test must be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for 5 minutes and a high pressure test requirement held for 10 minutes. Casing pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the test.

Fruitland Drilling Program - Navajo 20-6-6 #1 Page 3

#### GEOLOGIC PROGNOSIS:

Elevations:

GL ~ 6685', KB ~ 6690'

#### Formation Tops:

Formation	<u>Depth</u>
Ojo Alamo	235'
Kirtland	405'
Fruitland	575'
Coal Top	770′
PC.	795'
Total Depth	945'

Note: TD will be 200' below the lowest coal. The company man will be on location once coals are penetrated until TD to monitor drilling breaks and to insure that 150' of rathole is drilled. When the hole is logged, if a coal zone is indicated within 150' of bottom, additional hole is to be drilled to provide 150' of rathole. Log of offset well(s) (Federal 20-6-34 #3, Federal 20-6-6 #2) are enclosed for correlation.

#### MUD PROGRAM:

A fresh water native mud (using lime, benex & gel additions) will be used to drill the surface hole. The 7-7/8" hole should be drilled with native mud and a LSND mud as necessary for hole stability just before the top of the Fruitland formation is encountered.

At the top of the Fruitland formation mud weights should be sufficient to control pressures; viscosity should be in the 30 - 50 sec range with a water loss of 8 - 10 cc, as needed.

The Fruitland Coals are expected to be under-pressured to normal-pressured and may encounter lost circulation. LCM should be stored on location and used as needed in the event of lost circulation. Barite should also be on location in the event an over-pressured zone is encountered and a kick is taken.

Fruitland Drilling Program - Navajo 20-6-6 #1
Page 4

#### CASING AND CEMENTING PROCEDURE:

Note: Notify BLM 24 hours prior to spud and testing of BOP's and cementing. 505-599-8907. Note the new (June 1, 2005) Federal (BLM) requirements for the testing and test recording of the Blow-out Preventer Equipment. A copy is attached to the approved APD.

#### Surface Casing:

- 1. Drill to a minimum of 150' to accommodate tallied 8-8/5" casing plus 3'. Casing tally to be taken on location.
- 2. Use a landing joint of 8-8/5" casing to set casing at ground level. Guide shoe on casing should be not more than 2 feet off bottom. Casing head flange to be set at ground level.
- 3. Displace hole with casing volume of fresh water ahead of cement.
- 4. Pump Class B cement with 2% CaCl at 5-7 barrel per minute.
- 5. Drop top plug and displace with fresh water when preflush returns are observed at the surface. Do not over-displace.
- 6. If plug does not bump, hold pressure for a minimum of three hours.
  - a. Wait on cement a minimum of 8 hours or until surface samples are hard \*, whichever is longer <u>before</u> nippling up the BOP. Install test plug in casing head and pressure test stack to 2000 psig for 30 minutes.
    - 1. \* Note: The BLM requirement is a minimum of 250 psi @ 60degrees F compressive strength <u>before</u> BOP may be nippled up.
    - 2. Notes: Use a standard 8-8/5" guide shoe, a 8-8/5" insert float, 3 centralizers and 1 stop ring. Set insert on top of first joint. Bakerlok shoe, float collar and bottom two joints of casing.

Fruitland Drilling Program - Navajo 20-6-6 #1 Page 6

#### Production Casing cont.

15. Set slips, cut off casing and nipple down BOP. A thread protector or some other appropriate obstruction should be place on the top of the casing stub to prevent loss of material downhole.

## Cement Slurry Designs and Notes

Slurry		water		
	Cement & Additives	<u>Requirements</u>	<u>Weight</u>	<u>Yield</u>
Surface	Class B + 1/4#/sx celloflake	5.2 gals/sx	15.6 ppg	1.18 cu.ft/sk.
Production	Class B + 1/4#/sx celloflake	5.2 gals/sx	15.6 ppg	1.18 cu.ft/sk.

Figure slurry volume as follows: Calculate slurry using caliper volume + 50% excess. Cement volume shown in this prognosis is based on hole and casing size and surface/long string annular volumes plus percentage excess shown above.

# NOTES:

- 1. Pump rates should be a minimum of 4 BPM through displacement.
- 2. Slurry weights should be measured using a mud balance at least every 10 minutes during mixing.
- 3. At least two samples of the tail should be caught and monitored at room temperature for thickening time.
- 4. Run Temperature Log if cement does not circulate.

