

Form 3160-3  
(August 2007)

FORM APPROVED  
OMB No. 1004-0137  
Expires July 31, 2010

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. IMDA 751-05-1025, Tract A
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Ute Mountain Ute
2. Name of Operator Elk San Juan, LLC		7. If Unit or CA Agreement, Name and No. NA
3a. Address 1401 17th Street, Suite 700 Denver, CO 80202	3b. Phone No. (include area code) 303-296-4505	8. Lease Name and Well No. Ute Mountain Tribal 30# 23
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1930' FNL, 1980' FEL, SWNE Section 30-T31N-R14W At proposed prod. zone 1930' FNL, 1980' FEL, SWNE Section 30-T31N-R14W		9. API Well No. 30-045-34992
14. Distance in miles and direction from nearest town or post office* Approximately 12 miles North of Kirtland, New Mexico		10. Field and Pool, or Exploratory Verde Gallup
15. Distance from proposed* location to nearest property or lease line, ft. 610' (Also to nearest drig. unit line, if any)	16. No. of acres in lease 7040.0	11. Sec., T. R. M. or Blk. and Survey or Area SWNE Section 30, T31N, R14W, NMPM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2200'	19. Proposed Depth 4500'	12. County or Parish San Juan County
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5571' GL	22. Approximate date work will start* 01/30/2009	13. State NM
17. Spacing Unit dedicated to this well 40 acres RCVD JUN 19 '09 OIL CONS. DIV.		
20. BLM/BIA Bond No. on file B001404 DIST. 3		
23. Estimated duration 25 Days		

24. Attachments

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

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature <i>Robert E. Fielder</i>	Name (Printed/Typed) Robert E. Fielder	Date 01/06/2009
Title Agent		APPROVED FOR A PERIOD NOT TO EXCEED 2 YEARS
Approved by (Signature) /s/ Richard A. Rymerson	Name (Printed/Typed)	Date JUN 17 2009
Title MINERALS STAFF CHIEF	Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

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

(Continued on page 2)

Venting / Flaring approved for 30 days  
per NTL-4A

\*(Instructions on page 2)

Approval of this agreement does not warrant or certify that the operator thereof and other holders of operating rights hold legal or equitable title to those rights in the subject lease which are committed hereto...

SEE ATTACHED  
CONDITIONS OF APPROVAL

RECEIVED

JAN - 8 2009

Bureau of Land Management  
Durango, Colorado

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised October 12, 2005  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30045.34992	*Pool Code 62510	*Pool Name VERDE GALLUP
*Property Code 35229 36217	*Property Name UTE MOUNTAIN TRIBAL 30	*Well Number <del>30</del> 23
*GRID No. 234144	*Operator Name ELK SAN JUAN, INC.	*Elevation 5571'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	30	31N	14W		1930	NORTH	1980	EAST	SAN JUAN

11 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
12 Dedicated Acres 40.0 Acres - SW/4 NE/4					13 Joint or Infill		14 Consolidation Code		15 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

16	1313.40'	1320.00'	2640.00'	17 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.  Robert E. Fielder 01/06/2009 Signature Date Robert E. Fielder Printed Name
	LOT 1			
	LOT 2			
	LOT 3			
	LOT 4			
	1320.00'	1320.00'	2640.00'	18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief Survey Date: OCTOBER 2, 2006 Signature and Seal of Professional Surveyor  JASON C. EDWARDS Certificate Number 15269

Elk San Juan, LLC

UTE Mountain Tribal 30-23

SWNE SEC 30 T31N R14W  
San Juan County, New Mexico

RECEIVED

MAY 22 2009

Bureau of Land Management  
Durango Colorado

1. ESTIMATED FORMATION TOPS

FORMATION	TOP (feet)	COMMENTS
Lewis	Surface	
Cliff House	1541	
Menefee	1693	Potential water zone
Point Lookout	2403	Potential water zone
Upper Mancos	2839	
Gallup*	3864	
Tocito*	3928	Anticipated oil & gas zone
Sanastee*	4109	Anticipated oil & gas zone
Jauna Lopez*	4290	Anticipated oil & gas zone
TD	4500	

\*PROSPECTIVE PAY INTERVALS

NOTE: SURFACE ELEVATION: 5571 feet (GL)

2. CASING & CENTRALIZER PROGRAM

HOLE SIZE	DEPTH SET	CSG SIZE	WGHT	GRD	ID	THRD	CAP (bbl/ft)
12 1/4	200'	9 5/8	36.0	J-55	8.921	LTC	0.07731
8 3/4	3100'	7	23.0	J-55	6.366	LTC	0.03936
6 1/4	TD	4 1/2	11.6	J-55	4.000	LTC	0.01554

NOTE: All casing depth intervals are to surface unless otherwise noted.

*Casing & Tubing Specs*

SIZE (in)	ID (in)	DRIFT DIA (in)	WALL THICKNESS (in)	COLLASPE RESISTANCE (psi)	INTERNAL YEILD (psi)	TENSILE YEILD (lbm)	JOINT STRENGTH (lbm)
9 5/8	8.921	8.765	0.352	2020	3520	564000	394000
7	6.366	6.241	0.317	3270	4360	366000	284000
4 1/2	4.000	3.871	0.250	4960	5350	184000	154000

### **CENTRALIZER PLAN** (spring-bow centralizers)

- 9 5/8"** AT EVERY JOINT. SHOE: Cement nose guide shoe.  
FLOAT EQUIPMENT: Cement nose guide shoe.
- 7"** 1ST 5 JNTS: every joint. REMAINDER: every 5<sup>th</sup> joint.  
FLOAT EQUIPMENT: Cement nose guide shoe and float collar (1 jnt above shoe).
- 4 1/2"** 1ST 30 JNTS: every joint. NEXT 15 JNTS: every third joint (~500' into intermediate).  
4 TURBOLIZERS: 1<sup>st</sup> turbolizer 100' off bottom; then every 5 jnts.  
FLOAT EQUIPMENT: Float shoe and float collar (1 jnt above float shoe).

- A)** Prior to drilling out intermediate, unload hole to displace fluid and prepare air system.
- B)** The BLM will be notified 72 hours prior to running casing and cementing.
- C)** Intermediate (7") casing will be drifted for 6.25" prior to running in the hole.
- D)** As per 43 CFR 3160, Onshore Oil and Gas Order No. 2, Drilling Operations, B. Casing and Cementing Requirements:
- a) All waiting on cement times shall be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drill out;
  - b) All casing strings will be pressure tested to 0.22 psi/ft of casing length or 1500 psi, whichever is greater, but not to exceed 70% of minimum internal yield. Pressure decline must be less than 10% in 30 minutes.

### **3. CEMENT PROGRAM**

**SURFACE (9 5/8)** Total Slurry Volume: ~40 bbls 100% excess

HSR + 3% Calcium Chloride + 0.25 lb/sk Super Flake

**INTERMEDIATE (7)** Total Slurry Volume: ~110 bbls 50% excess

Lead: 246 sks: 35:65 POZ:HSR + 6% Bentonite + 5 lb/sk Gilsonite + 0.25 lb/sk Super Flake

Tail: 100 sks: HSR + 1% Calcium Chloride + 5 lb/sk Gilsonite + 0.25 lb/sk Super Flake

**PRODUCTION (4 1/2)** Total Slurry Volume: ~80 bbls

94 skc Premium Lite FM + 5% bwoc CSE + 5% bwoc LCM-1 + 95% bwoc LW-6 + 0.5% bwoc Sodium Metesilicate + 0.5% bwoc FL-63 + 0.4% bwoc R-3 + 0.2% bwoc CD-32 + 164% Fresh Water

NOTE: Slurry design may change due to actual conditions.

- A)** For Surface cement, if cement falls or does not circulate to surface, cement will be topped off.
- B)** Cement will not be placed down annulus with a 1" pipe unless BLM is present.
- C)** Surface and Intermediate cement programs are designed to bring cement to surface. Production program is designed to bring cement 500 ft into Intermediate.

#### 4. MUD PROGRAM

INTERVAL	HOLE SIZE	MUD WGHT	VISC	FLUID LOSS	COMMENTS
SURFACE – 200'	12 ¼	8.4-8.8	28-35	NA	FRESH H2O
200 – 3100'	8 ¾	8.4-9.0	28-40	8-10	FRESH H2O w/polymer sweeps (as required)
3100 – 4500'	6 ¼	NA	NA	NA	AIR/AIR MIST

NOTE: Mud weight increases will be directed by hole conditions. No abnormal pressures are anticipated.

- A) Pump high viscosity sweeps as needed for hole cleaning.
- B) While air drilling, mud will remain in tanks in the event of well control issues. Higher air flow will be used first to flush out formation water. If required, air-mist will then be used to control fluid influx into wellbore.
- C) As per 43 CFR 3160, Onshore Oil and Gas Order No. 2, Drilling Operations, C. Mud Program Requirements:
  - a) Elk San Juan, LLC will record slow pump speed on daily drilling report after mudding up;
  - b) A mud test will be performed at least every 24 hours after mudding up to determine density, viscosity, gel strength, filtration, and pH;
  - c) A flare system will be used that gathers and burns all gas. The flare line(s) shall discharge at least 100 feet from the well head with straight lines and shall be positioned downwind of the prevailing wind direction and shall be anchored.

#### 5. BOP & PRESSURE CONTAINMENT

INTERVAL	HOLE SIZE	PRESSURE TESTING	BOP EQUIPMENT
SURF – 200'	12 ¼	NA	No BOPE required
200 – 3100'	8 ¾	200# (5 min) 2000# (10 min)	2M BOP STACK DOUBLE RAM
3100 – 4500'	6 ¼	200# (5 min) 2000# (10 min)	2M BOP STACK DOUBLE RAM $((9 \text{ ppg} \times 0.052) - 0.22) \times 4500 = 1116 \text{ psi}$

- A) The BOPE shall be pressure tested when initially installed, whenever any seal subject to pressure testing is broken, or after repairs.
- B) BLM will be notified 72 hours prior to BOP pressure tests.
- C) All BOP tests will be performed with a test plug in place.
- D) BOP will be tested to full stack working pressure.
- E) The BOPE shall be closed whenever the well is unattended.
- F) As per 43 CFR 3160, Onshore Oil and Gas Order No. 2, Drilling Operations, C. Well Control Requirements:
  - a) For choke manifold equipment, all chokes lines shall be straight lines unless turns use tee blocks or are targeted with running tees, and shall be anchored to prevent whip and reduce vibration;
  - b) 2M system accumulator shall have sufficient capacity to close all BOP's and retain 200 psi above precharge;
  - c) Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing if BOP stack is not isolated

from casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer.

#### **WELLHEAD**

**Casing Head:** C-22, 11" 3000# x 9 5/8" SOW with 2-2" LPO

**Tubing Head:** TCM 11" 3000# x 7 1/16" 5000# with 2 1/16" studed outlets,

### **6. SURVEY & LOGGING PROGRAMS**

- A) Directional Drilling: If required, directional tools may be to minimize doglegs.
- B) Open Hole Logs: No log run for intermediate. TD into intermediate casing (~2600'): MultiExpress Dual Formation Resistivity, Gamma Ray, Litho-Density, Epithermal Neutron to be logged from. Gamma Ray-Neutron to surface. There will not be fluid in the hole.
- C) Mud Logs: If required, mud logger may come on at 200' (out of surface) and will remain on until TD. The computerized 2-person logging unit would catch and describe 30 foot samples to intermediate casing point; 10 foot samples to TD; record and monitor gas shows and record drill times (normal mud logging duties).
- D) Cores: No cores will be taken.

### **7. AUXILIARY EQUIPMENT**

- A) Upper Kelly Cock (with handle available).

### **8. CONTACTS**

CONTACT		OFFICE No.	CELL No.
Anna Ilhan	Operations	(303) 339-1934	(303) 884-5138
John Whisler	Operations	(303) 339-1925	(303) 862-2822
Ric Kopp	Geology	(303) 339-1921	(303) 506-1336
Main Office		(303) 296-4505	FAX: (303) 339-1917



**RECEIVED**

**JAN 21 2009**

**Bureau of Land Management  
Durango, Colorado**

January 19, 2009

Bureau of Land Management  
San Juan Field Office  
15 Burnett Court  
Durango, CO 81301

**RE: Designation of Agent or Representative – Elk San Juan, LLC**

To Whom It May Concern:

Elk San Juan, LLC hereby designates Bob Fielder, Property Management & Consulting, Inc., as an agent or representative for all permitting and regulatory actions with the Bureau of Land Management, San Juan Field Office as related to our ongoing projects. This designation shall remain in effect until written notice is provided by Elk San Juan, LLC to terminate the agent or representative relationship.

Bob Fielder  
Property Management & Consulting, Inc.  
9 Road 5285  
Bloomfield, NM 87413

PO Box 2596  
Farmington, NM 87499  
(505) 325-5220

Should you have any questions or need additional information please do not hesitate to contact me at 303-296-4505.

Sincerely,

Richard P. Crist  
Executive Vice President Business Development

cc: John Whisler

Elk San Juan, LLC  
Tribal IMDA: 751-05-1025  
Well: Ute Mountain Tribal #30-23  
Surface Location: 1930' FNL & 1980' FEL  
Sec. 30, T. 31 N., R. 14 W.  
San Juan County, New Mexico

3160

**Conditions of Approval - Drilling Plan**

1. All drilling locations must be built as drilled and not constructed 'back to back' prior to drilling.
2. No additional zones will be commingled without UMU Tribal and BLM approval.
3. Stabilized Bottom hole pressures must be taken from each perforated zone.
4. Notify this office at least **3 days** prior to:
  - a. spudding the well
  - b. running casing strings and cementing
  - c. BOP tests
  - d. Drill Stem Testing

**For the above procedures, Operators must talk to BLM personnel directly. Do not leave messages on answering machines.**

5. All BOP tests will be performed with a test plug in place. BOP will be tested to full stack working pressure and annular preventer to 50% maximum stack working pressure. All accumulators will be function tested as per Onshore Order #2. All 2M or greater systems require **adjustable** chokes as per Onshore Order #2.
6. If a BLM Inspector is not present during the initial BOP test, please provide chart record.
7. Submit copies of all logs to this office both paper and in Log ASCII Standard (LAS) format.
8. **If any operations are to start over the weekend, notify this office by noon Friday. If any problems arise after hours or on weekends, call BLM personnel using the home phone numbers listed on the following 'INFORMATIONAL NOTICE - APD's'. Do not leave messages on answering machines.**

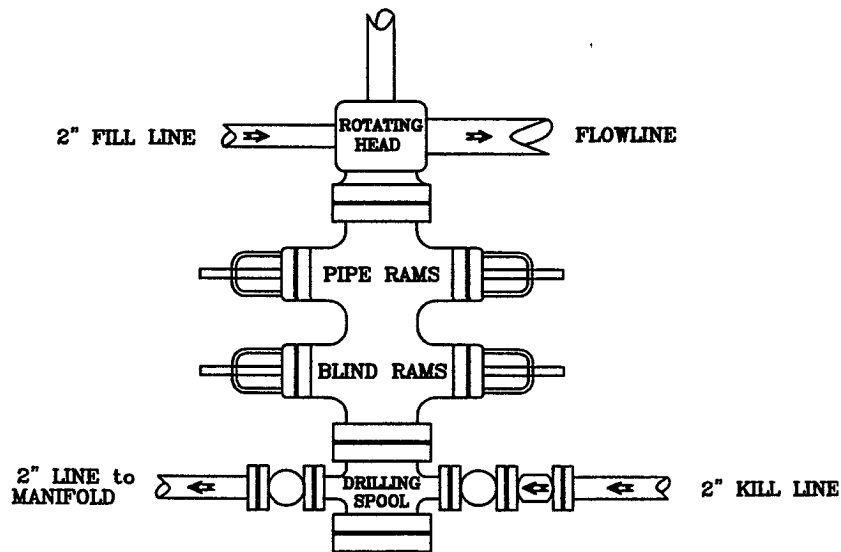
Continued on Page number 2.



9. The BLM must witness the topping-off of the Surface Casing Cement
10. A CBL is required if cement is not circulated to the surface on either casing string. BLM verbal approval will be required prior to squeezing.
11. See attached sheet regarding comingling.
12. The tops of all major identifiable geologic units (formations) from surface to TD will be logged and recorded.
13. Stabilized bottomhole pressure measurements and flowrates must be collected.
14. Well File Information: Please provide copies of the items on the attached sheet if available.
15. The Surface casing is to be set to a minimum depth of 300 ft as per your NOI dated 5/20/2009.

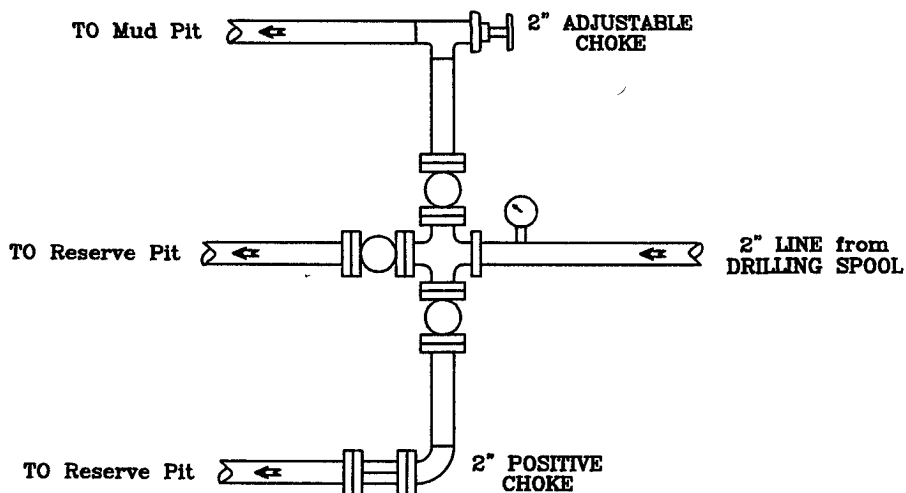
# PRESSURE CONTROL

## Wellhead Assembly



Preventer and Spools are to have a  
6" Bore or larger and a 2000 PSI  
or higher Pressure Rating

## Choke Manifold



*Elk San Juan, LLC*

Ute Mountain Tribal No. 30-23

1930' FNL - 1980' FEL

Section 30, T31N, R14W, NMPM

San Juan County, New Mexico