

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

David R. Catanach
Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 11-16-13

Well information;

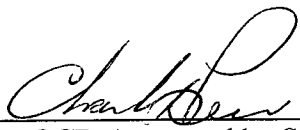
Operator Vision Energy, Well Name and Number Navajo 18#63

API# 30-045-35573, Section 18, Township 29 NS, Range 16 EW

Conditions of Approval:

(See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
 - o Hold C-104 for NSL NSP, DHC may require NSL submit deviation report
 - o Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☒ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- o Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ☒ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- ☒ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.


NMOCD Approved by Signature

1-7-2015
Date

DEC 30 2014

RECEIVED

JUL 02 2014

Form 3160-3
(March 2012)FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014UNITED 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. 11-89-IND-58
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name NAVAJO NATION
2. Name of Operator VISION ENERGY GROUP LLC		7. If Unit or CA Agreement, Name and No. N/A
3a. Address 39 OLD RIDGEBURY ROAD DANBURY CT 06810		8. Lease Name and Well No. NAVAJO 18 #63
3b. Phone No. (include area code) (203) 837-2538		9. API Well No. 30-045- 35573
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1877' FSL & 2000' FWL At proposed prod. zone SAME		10. Field and Pool, or Exploratory HOGBACK DAKOTA
14. Distance in miles and direction from nearest town or post office* 4 AIR MILES SW OF WATERFLOW, NM		11. Sec., T. R. M. or Blk. and Survey or Area NESW 18-29N-16W
15. Distance from proposed* 4600' location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease 4800	12. County or Parish SAN JUAN
17. Spacing Unit dedicated to this well NESW	13. State NM	
18. Distance from proposed location* 304' (18 #11) to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 875'	20. BLM/BIA Bond No. on file 015037275
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5155' UNGRADED	22. Approximate date work will start* 03/01/2014	23. Estimated duration 1 WEEK

24. Attachments

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

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

25. Signature <i>B. Wood</i>	Name (Printed/Typed) BRIAN WOOD (PHONE: 505 466-8120)	Date 11/16/2013
Title CONSULTANT (FAX: 505 466-9682)		
Approved by (Signature) <i>D. Mankie</i>	Name (Printed/Typed)	Date 12/24/14
Title AFM	Office FFO	

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)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

*(Instructions on page 2)
DRILLING OPERATIONS
AUTHORIZED ARE SUBJECT TO
COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

NMOCDA

District I
1625 N. French Dr., Hobbs, NM 88240
Phone (505)393-6161 Fax (505)393-0720
District II
811 S. First St., Artesia, NM 88210
Phone (505)748-1283 Fax (505)748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505)334-6178 Fax (505)334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505)476-3460 Fax (505)476-3462

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C - 102
Revised August 1, 2011
Submit one copy to appropriate
District Office

JUL 02 2014

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

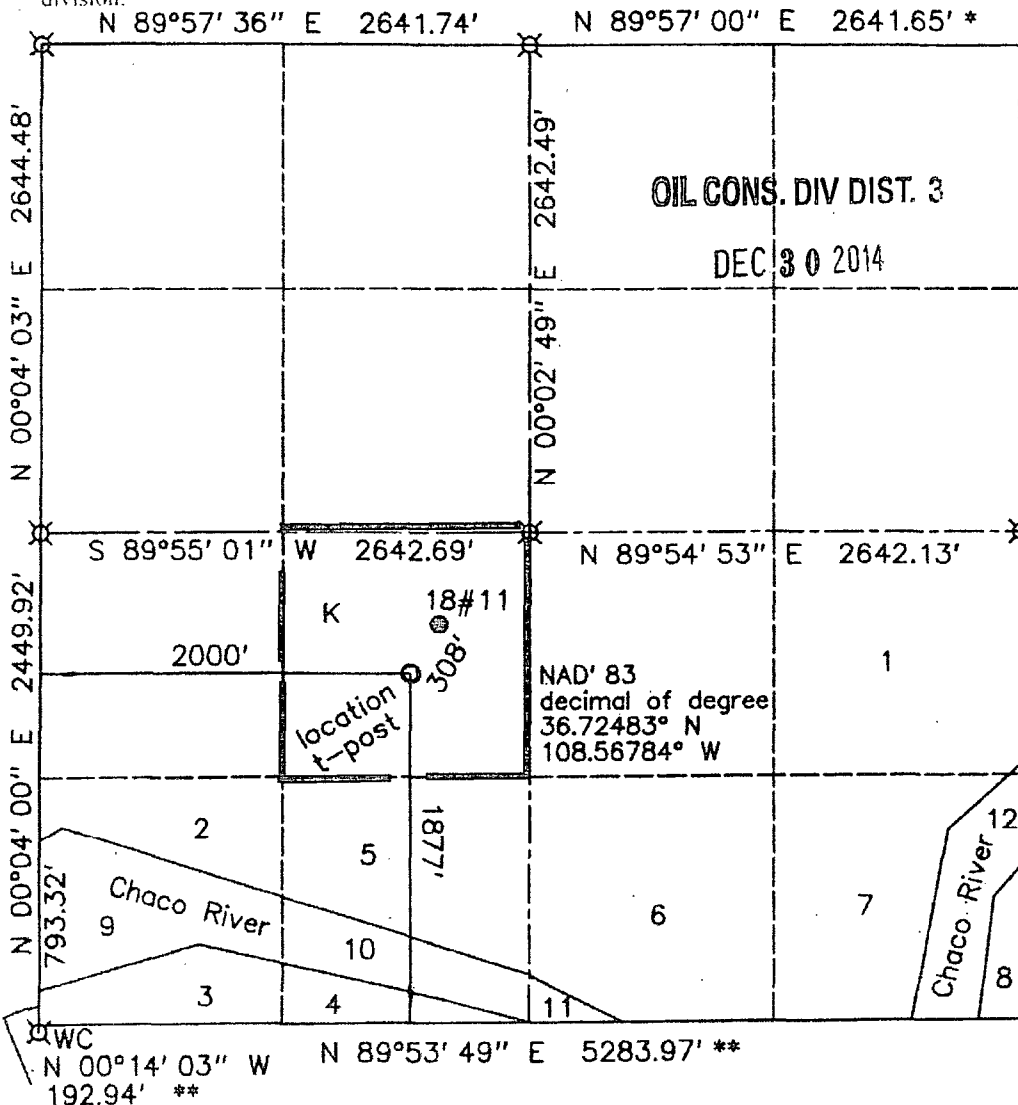
¹ API Number 30-045- 35573		² Pool Code 32680		³ Pool Name Hogback Dakota	
⁴ Property Code 310164		⁵ Property Name Navajo 18			⁶ Well Number 63
⁷ OGRID No. 280962		⁸ Operator Name Vision Energy Group LLC			⁹ Elevation 5155'

¹⁰ Surface Location									
UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
K	18	29 N.	16 W.		1877'	SOUTH	2000'	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface									
UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will assigned to this completion until all interests have been consolidated or a non standard unit has been approved by the division.



☒ BLM/GLO monument
* from 2008 BLM
** calculated

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 mineral interest in the land including the bottom hole location or has the right to drill this well at this location pursuant to a contract with the owner of a mineral interest or working interest, or is a voluntary well location on a proprietary pooling unit located by this location.	
Signature <i>Brian Wood</i>	Date 11-16-13
Printed Name brian@permitswest.com	
E-mail Address	
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.	
Date of Survey 09/20/2013	
Signature and Seal of Professional Surveyor <i>Gerald G. Hueston</i>	
Certificate Number 6844	

Vision Energy Group LLC
Navajo 18 #63
1877' FSL & 2000' FWL
Sec. 18, T. 29 N., R. 16 W.
San Juan County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Mancos shale	0'	5'	+5,155'
Tocito	132'	137'	+5,023'
Greenhorn	736'	741'	+4,419'
Graneros	797'	802'	+4,358'
Dakota sandstone	844'	849'	+4,311'
Total Depth (TD)	875'	880'	+4,280'

2. NOTABLE ZONES

<u>Gas & Oil Zone</u>	<u>Water Zone</u>	<u>Other Mineral Zone</u>
Dakota	Tocito	N/A

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded.

3. PRESSURE CONTROL

Maximum expected bottom hole pressure is \approx 200 psi. A diagram of a typical 2,000-psi Hydril bladder type BOP system is on Page 2. System will include an upper Kelly cock valve with handle available and a safety valve and subs to fit all in use strings. All checks of the BOP stack and equipment will be noted on the daily report. Vision is requesting a variance from 2 chokes due to the shallow depth, low formation pressure, and previous drilling experience in this area has shown no formation gas.

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surface pipe to hold cement in the annulus. Cement will be circulated to the surface and will be topped off with Type III neat as needed.

Production casing will be cemented to surface with 60% excess. Casing shoe will be placed on the bottom joint with a float collar placed 1 joint above the casing shoe joint. Twenty barrels of fresh water will be circulated ahead of the cement. A single stage of 42 sacks (137 cubic feet) of premium light with FM HS will be mixed at 3.26 cubic feet per sack and 12.5 pounds per gallon. W. O. C. = 12 hours

Centralizers will be placed on the shoe joint, before and after the float collar, and every third joint to the surface casing.

Cr	Collapse							
Burst	Yield * 80%							
Mud Weight	9.5							
Constant	0.052							
TVD	850	Production Casing						
TVD	200	Surface Casing						
		Size	Grade	weight / ft	Cr	Yield	Yield %	@ 80% Yield
Casing		4.5	K-55	10.5	4010	4790	80%	3832
		7	K-55	20	2270	3740	80%	2992
Formula	CR/(constant*TVD*Wm) Pass if greater than 1.25							
Production			9.549892832	>	1.25		PASS	
Surface			22.9757085	>	1.25		PASS	

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5. MUD PROGRAM

Surface casing hole will be drilled with fresh water. Production casing hole will be drilled with a fresh polymer mud. Weighting material will be drill solids or, if needed, barite. Maximum expected mud weight is 9.5 pounds per gallon. Sufficient material to maintain mud properties, control lost circulation, and contain a well control problem will be available at the well while drilling.

6. CORES, TESTS, & LOGS

No cores, tests, or logs are planned.

7. DOWN HOLE CONDITIONS

No abnormal temperature, pressure, or H₂S are expected. Maximum bottom hole pressure will be ≈200-psi.

8. MISCELLANEOUS

Anticipated spud date is upon approval. It is expected it will take ≈4 days to drill the well and ≈2 days to complete the well.

Once the top of the Dakota formation is reached, then production casing will be set. We will then circulate the hole once the cementing is done and set for 12 hours. We will nipple up mud cross and B.O.P with mate up flange from tubing head. We will pick up 3-¾ inch rock drill bit with production string 2- 3/8", J-55 tubing, and SN, and drill through float collar, cement and 3 to 4 feet into Dakota formation until good oil show back to pit. We will use heated CO₂ vapor at this point for drilling to keep air and water off the formation.

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4. PROPOSED PRODUCTION FACILITIES (See PAGE 13)

A 603.23' long power line will be buried southwest from the 18 #11 power pole. A 603.23' long $\approx 2"$ O. D. poly pipeline will be buried northeast to the Navajo 18 #11 well's pipeline. Lines will be buried $\approx 36"$ deep in the same trench and parallel with the road.

5. WATER SUPPLY

Water will be trucked from Waterflow or Kirtland.

6. CONSTRUCTION MATERIALS & METHODS

NM One Call (1-800-321-ALERT) will be called ≥ 72 hours before construction starts. Top 6" of soil will be piled north of the pad and separate from the pit subsoil. A diversion ditch will be cut north of the soil piles. Slopes will be no steeper than 3 to 1. Southeast corner of the pad will be rounded off.

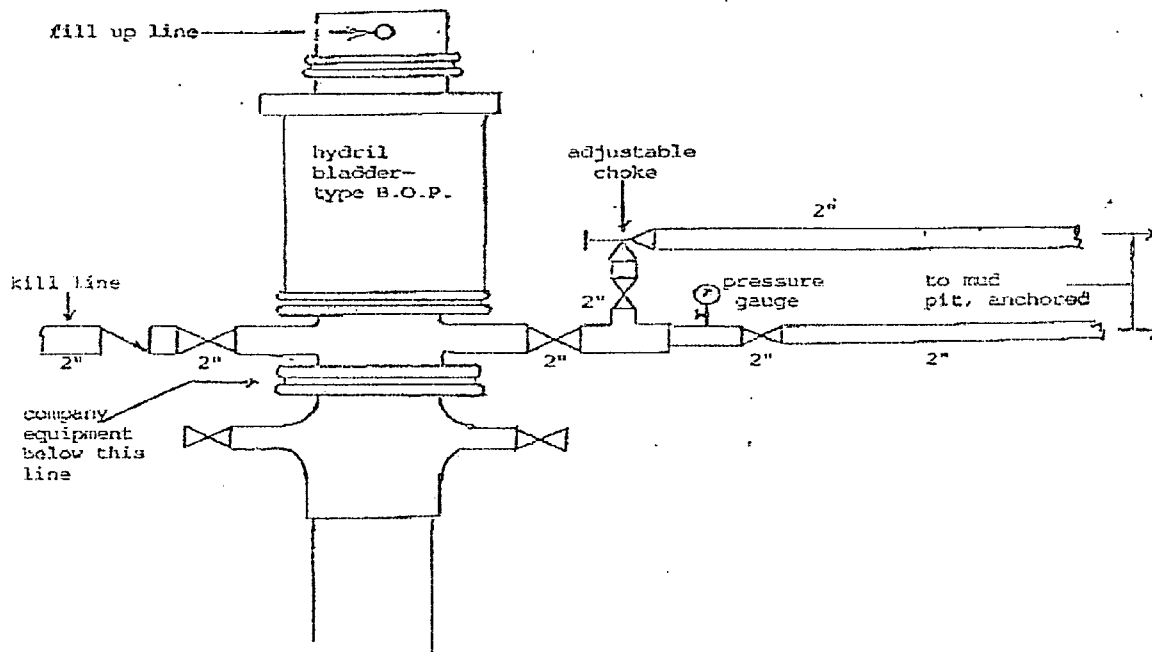
7. WASTE DISPOSAL

A ≥ 20 mil plastic liner will be installed in the reserve pit. The pit will be fenced sheep tight on 3 sides with woven wire fence topped with barbed wire. The fourth side will be fenced once the rig moves off. The fence will be kept in good repair while the pit dries. Once dry, pit contents will be buried in place.

All trash will be placed in a portable trash cage. It will be hauled to the county landfill. There will be no trash burning. Once dry, contents of the reserve pit will be buried in place. Human waste will be disposed of in chemical toilets and hauled to an approved dump station.

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4. CASING & CEMENT

Hole O. D.	Casing O. D.	#/foot	Grade	Threads	Age	Depth Set
8.75"	7"	20	K-55	LC	New	200'
6.25"	4.5"	10.5	K-55	LC	New	843'

Surface casing will be cemented to the surface with 60% excess. Will use 36 sacks (49.32 cubic feet) Type III or equivalent + additives mixed at 1.37 cubic feet per sack and 14.6 pounds per gallon. Three centralizers will be evenly spaced.

W. O. C. = 12 hours. Casing will be pressure tested to 600-psi for 30-minutes. A notched 7" collar will be used as the casing shoe. Eighty psi will be held on the