

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 Road, 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

Form C-101
Revised July 18, 2013

HOBBS OCEnergy Minerals and Natural Resources

Oil Conservation Division

☐ AMENDED REPORT

AUG 22 2013

1220 South St. Francis Dr.

Santa Fe, NM 87505

RECEIVED

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Fasken Oil and Ranch, Ltd. 6101 Holiday Hill Road, Midland, TX 79707		² OGRID Number 151416
³ Property Code 36547		⁴ API Number 30-025-41366
⁵ Quail "16" State		⁶ Well No. 8H

POTASH AREA

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
0	16	20S	34E		262'	South	2080'	East	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
B	16	20S	34E		330'	North	2080'	East	Lea

9. Pool Information

Lea; Bone Spring, South	Pool Name	Pool Code 37570
-------------------------	-----------	--------------------

Additional Well Information

¹¹ Work Type N	¹² Well Type O	¹³ Cable/Rotary R	¹⁴ Lease Type S	¹⁵ Ground Level Elevation 3637' GL
¹⁶ Multiple No	¹⁷ Proposed Depth 15,490 MD; 10,944' TVD	¹⁸ Formation Bone Spring	¹⁹ Contractor Patterson #187	²⁰ Spud Date 9-1-2013
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☐ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17 1/2"	13 3/8"	48 & 54.5	1600'	1250 sx "C"	Surface
Inter.	12 1/4"	9 5/8"	40	5200'	650 sx HLC & "C"	Surface
Prod.	8 3/4"	5 1/2"	17	15,527'	2650 sx Versacem	5000'

Casing/Cement Program: Additional Comments

Inter. - DV Tool @ 4000' cemented w/ 1500 sx HLC & "C"

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	2500	Schaffer
Doubleram	5000	5000	Schaffer

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.

Signature: *Kim Tyson*

Printed name: Kim Tyson

Title: Regulatory Analyst

E-mail Address: kimt@for1.com

Date: 8-20-2013

Phone: 432-687-1777

OIL CONSERVATION DIVISION

Approved By:

[Signature]
Petroleum Engineer

Title:

Approved Date: 08/29/13

Expiration Date: 08/29/15

Conditions of Approval Attached

There are no potash lessee's adjacent to this section, therefore no notice is required.

SEP 04 2013

PM

FASKEN OIL AND RANCH, LTD.

303 W. WALL AVE.

SUITE 1800

MIDLAND, TEXAS 79701-5116.

CONTINGENCY PLAN FOR HYDROGEN SULFIDE DISCHARGE

DRILLING OPERATIONS

CONTINGENCY PLAN FOR HYDROGEN SULFIDE DISCHARGE

DRILLING OPERATIONS

- I. **HYDROGEN SULFIDE PHYSICAL PROPERTIES AND TOXICITY** - Hydrogen sulfide is extremely toxic. The acceptable concentration for eight-hour exposure is 20 ppm, which is .002% by volume. Hydrogen sulfide is heavier than air (specific gravity - 1.192) and is colorless. It forms an explosive mixture with air between 4.3 and 46.0 volume percent. Toxicity data for hydrogen sulfide and various gasses are compared in the table below.

Common Name	Chemical Formula	Sp. Gravity (Air =1)	Threshold Limit	Hazardous Limit	Lethal Conc.
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm	300 ppm
Hydrogen Sulfide	H ₂ S	1.18	10 ppm * 20 ppm **	250 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21	5 ppm	--	1000 ppm
Chlorine	Cl ₂	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO ₂	1.52	5000 ppm	5%	10%
Methane	CH ₄	0.55	9%	Combustable above 5% in air	---

*Threshold Limit - concentration at which it is believed that all workers may be repeatedly exposed day after day without adverse effects, 10 ppm = 1972 ACGIH concentration (American Conference of Governmental Industrial Hygienist).

**Threshold Limit = 20 ppm - 1966 ANSI acceptable ceiling concentration for eight-hour exposure (based on a 40-hour week) per OSHA Rules and Regulations (Federal Register, Vol. 37, #202, Part II, dated October 18, 1972).

- II. **PHYSICAL EFFECTS OF HYDROGEN SULFIDE** - The physiological effects of hydrogen sulfide are summarized in the table below.

<u>Percent Vol.</u>	<u>Concentration ppm</u>	<u>Physical Effects</u>
0.001	10	obvious and unpleasant odor.
0.002	20	Safe for 8-hour exposure.
0.01	100	Kills smell in 3 to 15 minutes, may sting eyes and throat.
0.02	200	Kills smell shortly, stings eyes and throat.
0.05	500	Dizziness, breathing ceases in a few minutes, needs prompt artificial resuscitation.
0.07	700	Unconscious quickly, death will result if not rescued promptly.
0.10	1000	Unconscious at once, followed by death within minutes.

- III. **ACCIDENTAL RELEASE OF HYDROGEN SULFIDE** - The possible release of hydrogen sulfide gas could result from leakage at either wellhead, flow lines, separators or drill string at this drilling location.

- A. In the event of an accidental release, the tool pusher, supervisor or agent of the operator in the vicinity at the time of the discharge will be in charge of all activities on the ground and shall be responsible for the following.
1. Notify all personnel, Company or outside, that are in the area to evacuate as soon as possible. This includes drilling rig crews, roustabout gangs, supervisory personnel, maintenance personnel, sales representatives, farm or ranch hands, visitors and all others that may be in the vicinity.
 2. Notify the County Sheriff's office, and the Department of Public Safety, and request their assistance to provide road blocks and direct traffic away from the drilling location. They should also be asked to assist in the evacuation of residents, if any, in affected area.
 3. Alert local Hospital and Fire Department in the event that medical services or ambulance assistance is needed.

4. Call the Operations Manager in the Midland Office and advise him of the nature and extent of the emergency situation.
- B. Operations Manager or his assistant will notify the appropriate state and federal agencies that the contingency plan has been activated and what level and type of reaction has already been initiated.
- C. Fasken's Senior Representative or employee on the scene will be in charge and shall initiate measures necessary to bring the gas flow under control securing whatever additional personnel and equipment are necessary to control the flow in the shortest time thereby reducing potential exposure of the general public to hydrogen sulfide.
- IV. **WEATHER CONDITIONS** - During adverse weather conditions such as drizzle, rain, fog, calm winds, and snow, hydrogen sulfide collects in low lying areas. These areas should be avoided, any personnel in such areas should be evacuated, and law enforcement personnel should be requested to keep people and traffic from entering. Should moderate, unidirectional winds be blowing hydrogen sulfide from the source of the discharge toward a populated area, residents and other personnel should be evacuated by law enforcement personnel who should then maintain an exclusion perimeter to avoid people from reentering the area until the emergency is over.
- V. **TERMINATION OF EMERGENCY AND FOLLOW-UP PROCEDURES** - Fasken's Senior Representative or employee on the scene, with the cooperation of the Senior Law Enforcement Officer in whose jurisdiction the emergency occurred, will declare the emergency terminated when there is no further danger to oilfield personnel or general public. This will occur only after a sufficient number of gas measurements in the vicinity have been made by a qualified technician showing that hydrogen sulfide concentration is below the 20 ppm threshold. In addition, the Operator's Senior Representative or employee will perform the following duties connected with the emergency:
 - A. Notify all cooperating law enforcement agencies and emergency medial services that the emergency has been terminated.
 - B. Notify all evacuees that they may return safely to their residences or job sites.
 - C. Make an estimate of damages and/or expenses incurred in the control of the emergency, the evacuation of any persons and the destruction of property, if any, including domestic animals and livestock. He is to make an itemized list of all such damages and/or expenses along with their addresses, and any other specific information pertinent to the situation. He is to deliver this list to the Operations Manager as soon as possible.
 - D. **UNDER NO CIRCUMSTANCE** are damage estimates, names of affected personnel, if any, or any other information pertaining to the emergency to be given to the press. Public information regarding the emergency will be issued by headquarters office in Midland, Texas.
- VI. Copies of the Contingency Plan are available in Fasken's office in Midland, Texas.
- VII. This plan is subject to approval of the state and federal agencies and shall be revised as required.

Fasken Oil and Ranch, Ltd.

H2S Contingency Plan

Emergency Phone Numbers

Quail "16" State No. 8H

Fasken Oil and Ranch, Ltd.

432 687-1777

Key Personnel

Tommy Taylor, Drilling Manager

432 556-2228

Cory Frederick, Drilling Engineer

432-288-0086

Deryl Briles, Drilling Foreman

432 556-4269

Jimmy Davis, Operations Manager

432 557-5668

Hobbs, Lea County, New Mexico

Ambulance

911

State Police

911 or 575 392-5580

Sheriff's Office

911 or 575 396-3611

Fire Department

911 or 575 397-9308

Local Emergency Planning Committee

575 393-2870

New Mexico Oil Conservation Division

575 393-6161

Carlsbad, Eddy County, New Mexico

Ambulance

911

State Police

911 or 575 885-3138

Sheriff's Department

911 or 575 887-7551

Fire Department

911 or 575 885-3125

Local Emergency Planning Committee

575 887-7553

Bureau of Land Management

575 887-6544

New Mexico Oil Conservation Division (Artesia)

575 748-1283

Statewide and National Emergency Numbers

New Mexico Department of Homeland Security And Emergency Management	505 476-9600
New Mexico State Emergency Operations Center (24 Hour Number)	505 476-9635
National Emergency Response Center	800 424-8802

Other Numbers for Emergency Response

Boots & Coots IWC	800 256-9688 or 281 931-8884
Cudd Pressure Control	432 563-3356
MCH Care Star Flight Service (air ambulance)	432 640-4000
Aerocare (air ambulance)	806 725-1111

FASKEN OIL AND RANCH, LTD.

QUAIL "16" STATE NO. 8H, PLANNED SURVEYS

SHL: SEC. 16, T. 20N-R34E, 262' FSL & 2080' FEL

BHL: SEC. 16, T. 20N-R34E, 330' FNL & 2080' FEL, TVD AT BHL (LATERAL TERMINUS) IS 10,944', MD IS 15,488'.

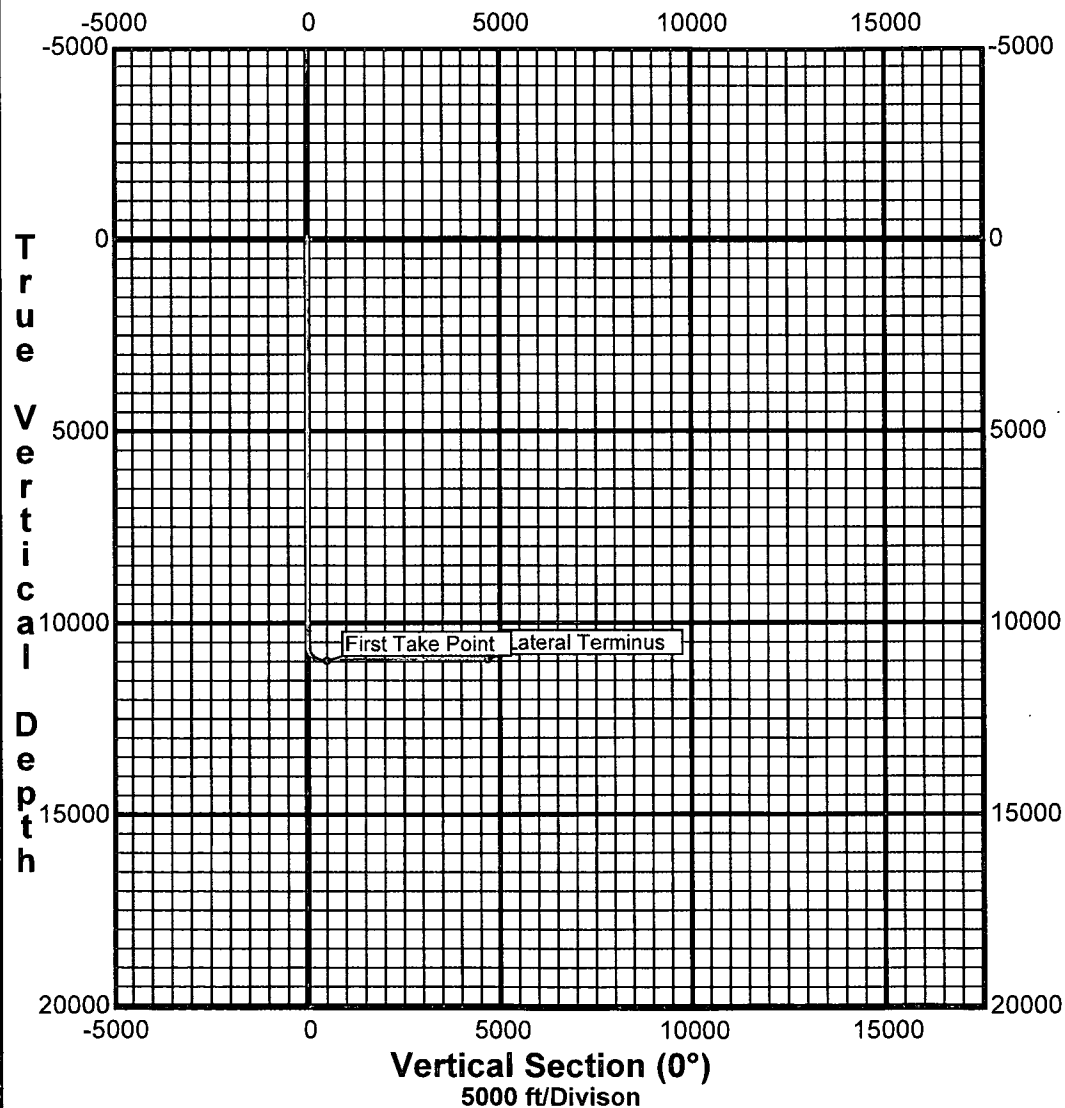
FIRST TAKE POINT IS AT 10,982' TVD, 11,220' MD, AND IS AT A POINT 415' NORTH OF THE SURFACE LOCATION, 677' FROM THE SOUTH LEASE LINE AND 2080' FROM THE EAST LEASE LINE.

Measured Depth	INC	AZM	TVD	EW	NS	VS	Closure	Walk Rate	Build Rate	DLS	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10572.78	0.00	0.00	10572.78	0.00	0.01	0.01	0.01	0.00	0.00	0.00	
10592.78	2.80	0.00	10592.77	0.00	0.50	0.50	0.50	0.00	14.00	14.00	
10612.78	5.60	0.00	10612.72	0.00	1.96	1.96	1.96	0.00	14.00	14.00	
10632.78	8.40	0.00	10632.57	0.00	4.40	4.40	4.40	0.00	14.00	14.00	
10652.78	11.20	0.00	10652.27	0.00	7.80	7.80	7.80	0.00	14.00	14.00	
10672.78	14.00	0.00	10671.79	0.00	12.17	12.17	12.17	0.00	14.00	14.00	
10692.78	16.80	0.00	10691.07	0.00	17.48	17.48	17.48	0.00	14.00	14.00	
10712.78	19.60	0.00	10710.07	0.00	23.72	23.72	23.72	0.00	14.00	14.00	
10732.78	22.40	0.00	10728.74	0.00	30.89	30.89	30.89	0.00	14.00	14.00	
10752.78	25.20	0.00	10747.03	0.00	38.96	38.96	38.96	0.00	14.00	14.00	
10772.78	28.00	0.00	10764.91	0.00	47.91	47.91	47.91	0.00	14.00	14.00	
10792.78	30.80	0.00	10782.34	0.00	57.73	57.73	57.73	0.00	14.00	14.00	
10812.78	33.60	0.00	10799.26	0.00	68.39	68.39	68.39	0.00	14.00	14.00	
10832.78	36.40	0.00	10815.64	0.00	79.86	79.86	79.86	0.00	14.00	14.00	
10852.78	39.20	0.00	10831.44	0.00	92.11	92.11	92.11	0.00	14.00	14.00	
10872.78	42.00	0.00	10846.63	0.00	105.13	105.13	105.13	0.00	14.00	14.00	
10892.78	44.80	0.00	10861.16	0.00	118.87	118.87	118.87	0.00	14.00	14.00	
10912.78	47.60	0.00	10875.00	0.00	133.30	133.30	133.30	0.00	14.00	14.00	
10932.78	50.40	0.00	10888.12	0.00	148.40	148.40	148.40	0.00	14.00	14.00	
10952.78	53.20	0.00	10900.48	0.00	164.11	164.11	164.11	0.00	14.00	14.00	
10972.78	56.00	0.00	10912.07	0.00	180.41	180.41	180.41	0.00	14.00	14.00	
10992.78	58.80	0.00	10922.84	0.00	197.26	197.26	197.26	0.00	14.00	14.00	
11012.78	61.60	0.00	10932.78	0.00	214.61	214.61	214.61	0.00	14.00	14.00	
11032.78	64.40	0.00	10941.86	0.00	232.43	232.43	232.43	0.00	14.00	14.00	
11052.78	67.20	0.00	10950.06	0.00	250.67	250.67	250.67	0.00	14.00	14.00	
11072.78	70.00	0.00	10957.35	0.00	269.29	269.29	269.29	0.00	14.00	14.00	
11092.78	72.80	0.00	10963.73	0.00	288.24	288.24	288.24	0.00	14.00	14.00	
11112.78	75.60	0.00	10969.18	0.00	307.49	307.49	307.49	0.00	14.00	14.00	
11132.78	78.40	0.00	10973.68	0.00	326.97	326.97	326.97	0.00	14.00	14.00	
11152.78	81.20	0.00	10977.22	0.00	346.65	346.65	346.65	0.00	14.00	14.00	
11172.78	84.00	0.00	10979.79	0.00	366.49	366.49	366.49	0.00	14.00	14.00	
11192.78	86.80	0.00	10981.40	0.00	386.42	386.42	386.42	0.00	14.00	14.00	
11212.78	89.60	0.00	10982.03	0.00	406.41	406.41	406.41	0.00	14.00	14.00	
11219.43	90.53	0.00	10982.02	0.00	413.06	413.06	413.06	0.00	14.00	14.00	
11221.37	90.53	0.00	10982.00	0.00	415.00	415.00	415.00	0.00	0.00	0.01	
11222.19	90.51	0.00	10981.99	0.00	415.82	415.82	415.82	0.00	-2.53	2.53	
15488.54	90.51	0.00	10944.00	0.00	4682.00	4682.00	4682.00	0.00	0.00	0.00	

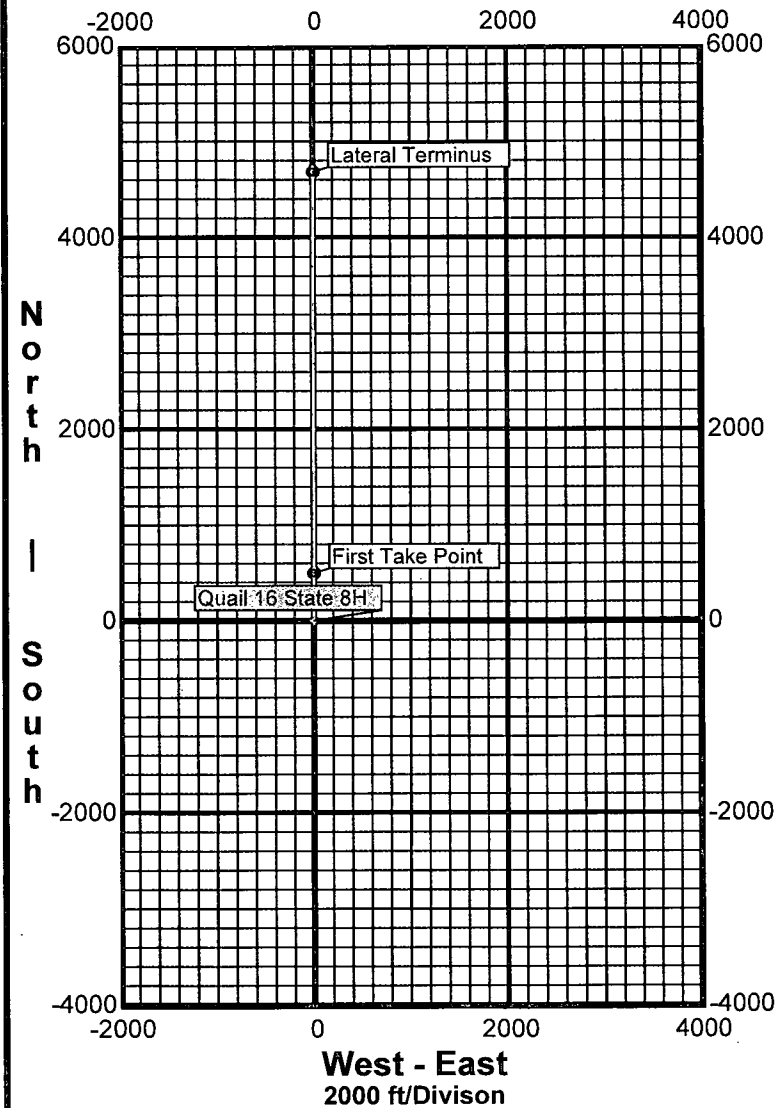
Job ID : QUAIL
Company : Fasken Oil and Ranch, Ltd.
Location : Sec. 16, T20S-R34E
API JOB # :
Rig Name :
State/Province : NM
County/Parish : Lea
Country : Usa

RKB : 0 ft
Elevation (To MSL) : 0 ft
Field :
Township :
Range :
SECTION :

Vertical Section Plot



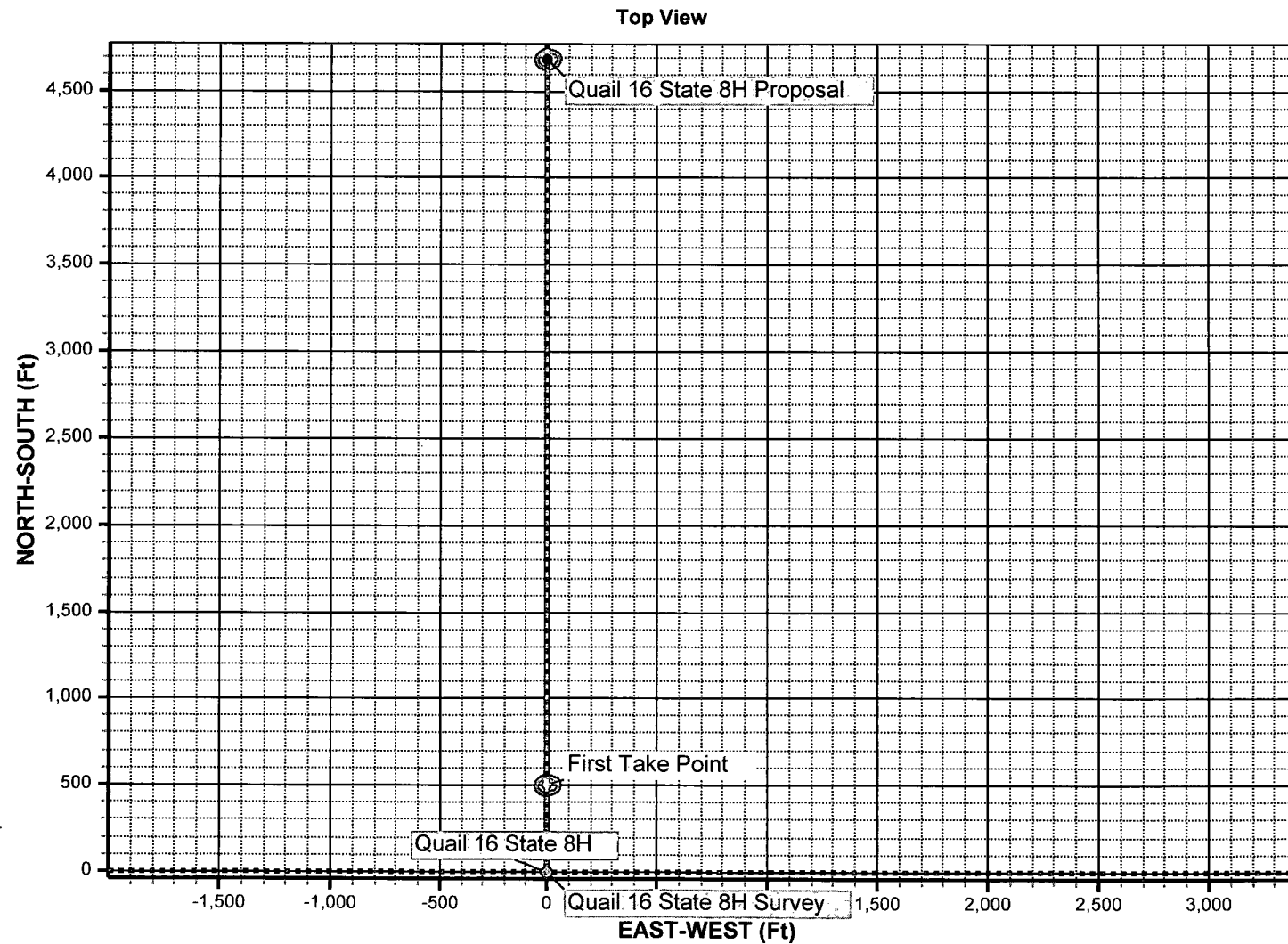
Horizontal Plot





Job Number: QUAIL
Company: Fasken Oil and Ranch, Ltd.
Lease/Well: Quail "16" State No. 8H
Location: Sec. 16, T20S-R34E
Rig Name:
State/Country: NM

Declination: 0.00
Grid: Grid North
File Name: N/A
Date/Time: 8/19/2013 2:28:36 PM

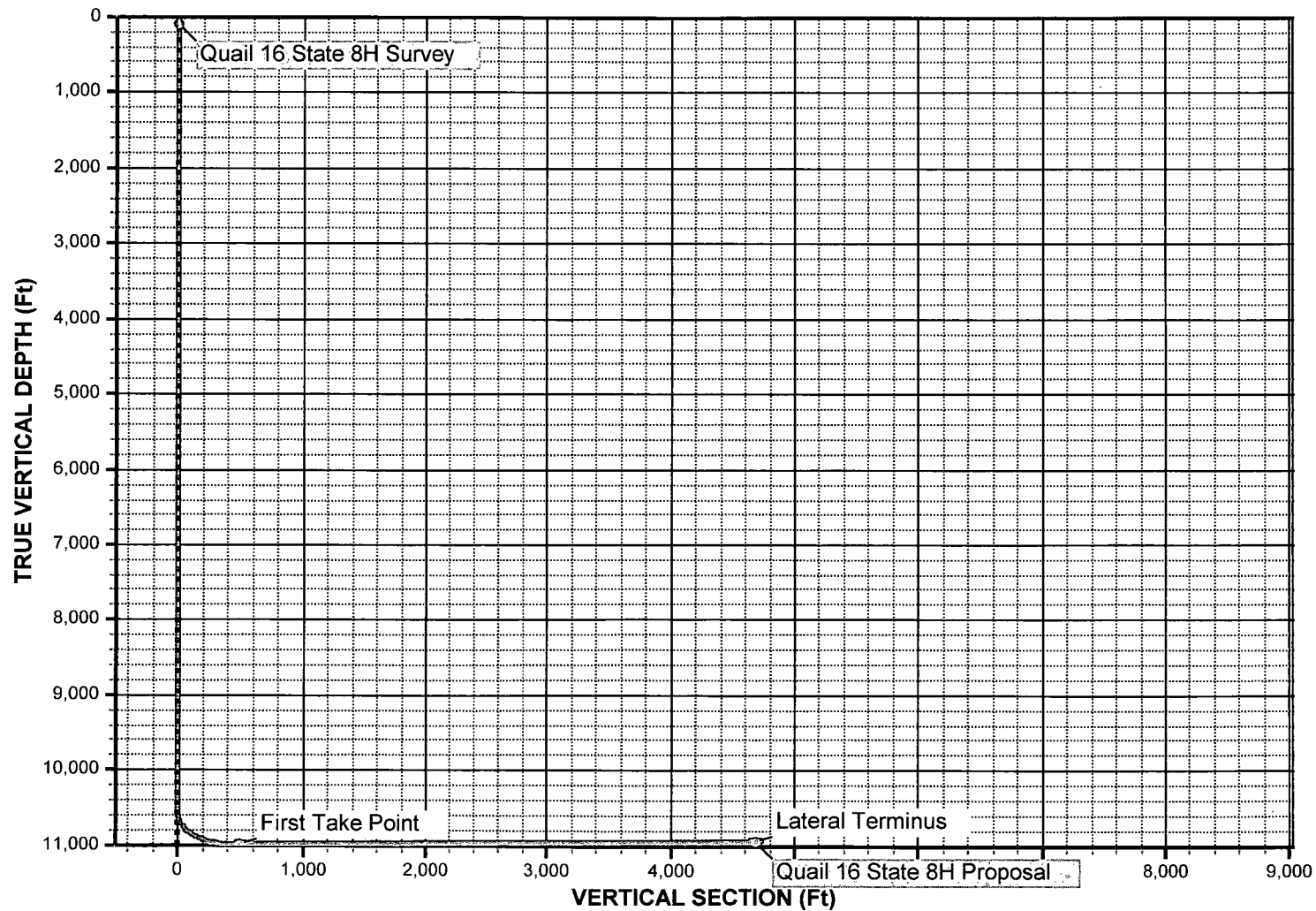


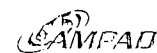


Job Number: QUAIL
Company: Fasken Oil and Ranch, Ltd.
Lease/Well: Quail "16" State No. 8H
Location: Sec. 16, T20S-R34E
Rig Name:
State/Country: NM

Declination: 0.00
Grid: Grid North
File Name: N/A
Date/Time: 8/19/2013 2:28:36 PM

Vertical Section Plane





22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS

Fasken Oil and Ranch, Ltd.

- ① 4" Series 900 Valves
- ② Series 900 Annular preventor
- ③ Series 900 Ram type preventor
- ④ 2" Series 900 Check Valve
- ⑤ 2" Series 900 choke
- ⑥ 2" Series 900 Valves
- ⑦ 3" Series 900 Valves

