

District I
1625 N. French Dr., Hobbs, NM 88241
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

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

JUN 14 2007
Form C-101
May 27, 2004
OCD-ARTESIA
Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address Fasken Oil and Ranch, Ltd. 303 West Wall, Suite 1800 Midland, TX 79701		² OGRID Number 151416
³ Property Code 36542	⁴ Property Name Brantley "7"	⁵ API Number 30-015-35663
⁹ Proposed Pool 1 Undesignated Cass Draw; Delaware		⁶ Well No. 1
⁹ Proposed Pool 1		¹⁰ Proposed Pool 2 Undesignated Cass Draw; Bone Spring

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	7	23S	28E		330	North	1980	West	Eddy

Proposed 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
F	7	23S	28E		2280	North	1980	West	Eddy

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary Rotary	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation
¹⁶ Multiple N	¹⁷ Proposed Depth 6200' TVD, 7569' MD	¹⁸ Formation Delaware/Bone Spring	¹⁹ Contractor Unknown	²⁰ Spud Date 8/1/07
Depth to Groundwater 40'		Distance from nearest fresh water well 1/4 mile		Distance from nearest surface water greater than 1 mile
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/> Pit Volume: 10000 bbls Drilling Method: Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				
Closed-Loop System <input type="checkbox"/>				

Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2"	13 3/8"	48#	500'	500	surface
12 1/4"	9 5/8"	36#	2400'	900	surface
8 3/4"	5 1/2"	17#	6200' TVD		
			7569' MD	1000	2300' MD

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Fasken Oil and Ranch, Ltd. plans to drill the Brantley "7" No. 1 in the Delaware and/or Bone Spring formations. The well will be drilled as a vertical hole to 6200' for analysis of pay zones, then horizontally drilled to 7569' MD. Please see the attachments for plans and procedures and BOP specs. Our H2S Contingency Plan is also attached.

Surface Location: 330' FNL, 1980' FWL, Penetration Point: 660' FNL, 1980' FWL, Terminus: 2280' FNL, 1980' FWL

Fasken has reached agreement with the surface owner concerning this location and has agreed to either dig and haul pit contents or use closed loop systems.

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 the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature:

Jimmy D. Carlile

Printed name: Jimmy D. Carlile

Title: Regulatory Affairs Coordinator

E-mail Address: jimmyc@for1.com

Date: 6/13/07 Phone: 432 687-1777

OIL CONSERVATION DIVISION

Approved by:

BRYAN G. ARANT

DISTRICT II GEOLOGIST

Approval Date: JUN 14 2007

Expiration Date: JUN 14 2008

Conditions of Approval Attached ☐

Set surface casing above Salado.

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

RECEIVED

APR 12 2007

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

FASKEN OIL AND RANCH, LTD. State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code 10410	3 Pool Name Undesignated Cass Draw, Delaware
4 Property Code	5 Property Name Brantley "7"	6 Well Number Brantley "7" No. 1
7 OGRID No. 151416	8 Operator Name Fasken Oil and Ranch, Ltd.	9 Elevation

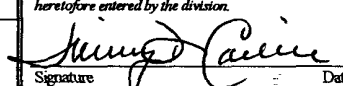
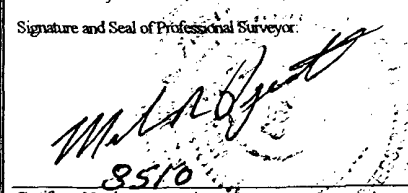
10 Surface Location

UL or lot no. C	Section 7	Township 23 S	Range 28 E	Lot Idn	Feet from the 330	North/South line FNL	Feet from the 1980	East/West line FWL	County EDDY
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11 Bottom Hole Location If Different From Surface

UL or lot no. F	Section 7	Township 23 S	Range 28 E	Lot Idn	Feet from the 2280	North/South line North	Feet from the 1980	East/West line West	County Eddy
12 Dedicated Acres 80	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 1980'	220'			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.  Signature _____ Date 4/13/07 Jimmy D. Carlile jimmyc@forl.com Regulatory Affairs Coordinator
	80 ac.			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. MARCH 13, 2007 Date of Survey _____ Signature and Seal of Professional Surveyor:  Certificate Number 8510

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
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Revised October 12, 2005

Submit to Appropriate District Office

FASKEN OIL AND RANCH, LTD. State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code 10380	3 Pool Name Undesignated Cass Draw, Bone Spring
4 Property Code	5 Property Name Brantley "7"	6 Well Number Brantley "7" No. 1
7 OGRID No. 151416	8 Operator Name Fasken Oil and Ranch, Ltd.	9 Elevation

10 Surface Location

UL or lot no. C	Section 7	Township 23 S	Range 28 E	Lot Idn	Feet from the 330	North/South line FNL	Feet from the 1980	East/West line FWL	County EDDY
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11 Bottom Hole Location If Different From Surface

UL or lot no. F	Section 7	Township 23 S	Range 28 E	Lot Idn	Feet from the 2280	North/South line North	Feet from the 1980	East/West line West	County Eddy
12 Dedicated Acres 80	13 Joint or Infill	14 Consolidation Code	15 Order No.						

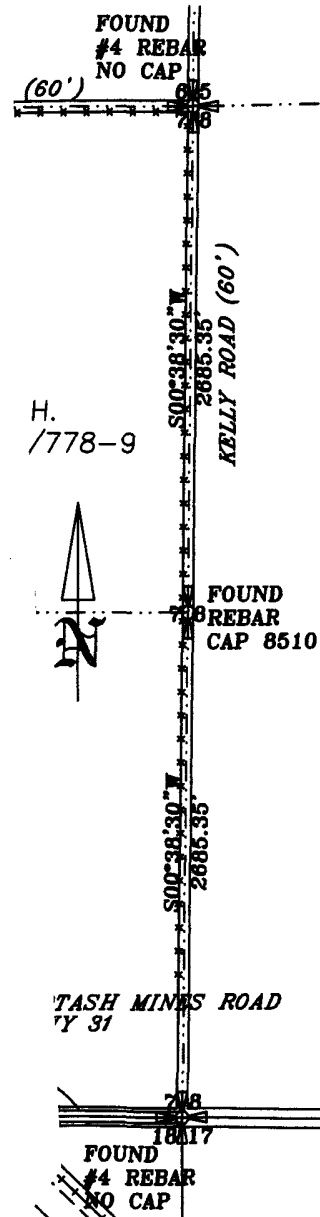
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16	1980'	330'			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. <i>Jimmy D. Carlile</i> 4/13/07 Signature Date Jimmy D. Carlile jimmyc@forl.com Printed Name Regulatory Affairs Coordinator	
					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. MARCH 13, 2007 Date of Survey Signature and Seal of Professional Surveyor: <i>M. A. D. [Signature]</i> 8510 Certificate Number	

WELL LOCATION

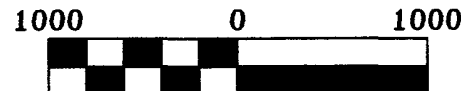
FOR BRANTLEY "7" No.1 WELL

330 FEET FROM THE NORTH LINE
AND 1980 FEET FROM WEST LINE
IN SEC 7, T23S, R28E, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

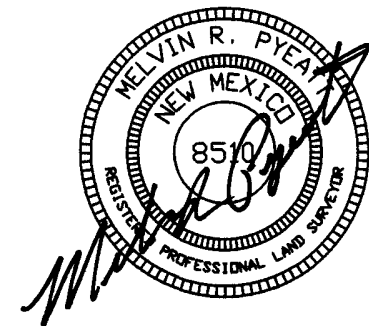


LEGEND

- x— FENCE LINE
- ⊕ SECTION CORNER
- ⊗ QUARTER CORNER
- LAND LINE
- ++++ RAILROAD



Scale 1" = 1000'

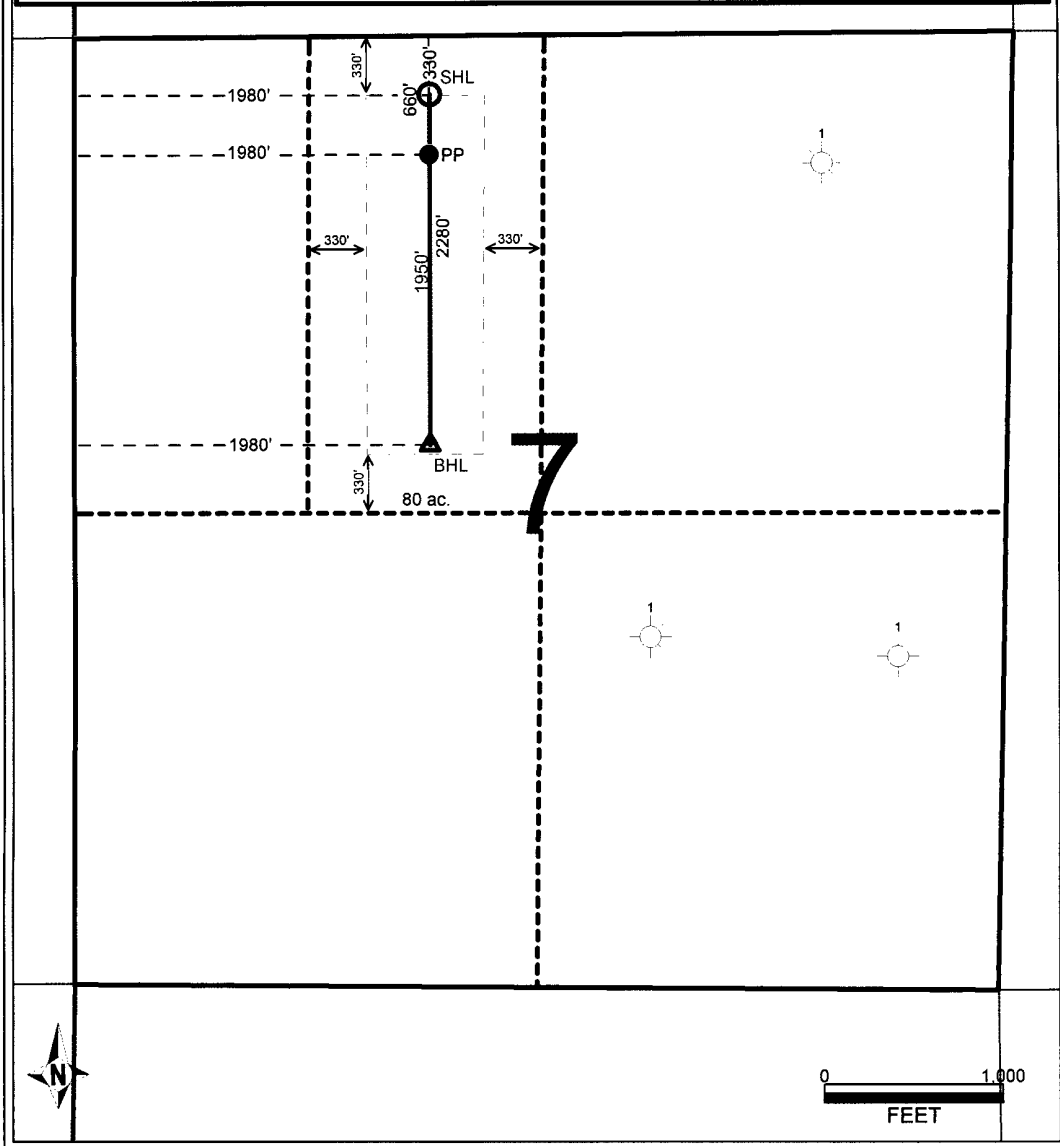


INDEXING INFORMATION	
SEC. 7	T 23S R 28E N.M.P.M.
CITY:	
COUNTY:	EDDY
STATE:	NEW MEXICO
DATE:	MARCH 13, 2007

Horizontal Plat: Fasken Oil and Ranch, Brantley "7" No. 1

Sec. 7, T23S, R28E, N.M.P.M.
Eddy County, New Mexico

- Surface Hole Location (SHL)
330' FNL & 1980' FWL
- Formation Penetration Point (PP)
660' FNL & 1980' FWL
Lower Brushy Canyon Formation
- △ Bottom Hole Location (BHL)
2280' FNL & 1980' FWL
- Horizontal Drainhole
Length: 1950'



Pathfinder Energy Planning Report

Company: Fasken Oil & Ranch						Date: 4/10/2007		Time: 08:58:35		Page: 1
Field: Brantley 7 #1						Co-ordinate(NE) Reference:		Site: Brantley 7 #1, Grid North		
Site: Brantley 7 #1						Vertical (TVD) Reference:		SITE 12.0		
Well: Brantley 7 #1						Section (VS) Reference:		Well (0.00N,0.00E,180.00Azi)		
Wellpath: OH						Plan:		Plan #1 2-9-07		
Field: Brantley 7 #1										
Map System: US State Plane Coordinate System 1927						Map Zone:		New Mexico, Eastern Zone		
Geo Datum: NAD27 (Clarke 1866)						Coordinate System:		Site Centre		
Sys Datum: Mean Sea Level						Geomagnetic Model:		igrf2005		
Site: Brantley 7 #1										
Site Position:		Northing: 563418.90 ft		Latitude: 32 32 56.161 N						
From: Map		Easting: 482438.70 ft		Longitude: 104 23 25.173 W						
Position Uncertainty: 0.00 ft				North Reference: Grid						
Ground Level: 3050.00 ft				Grid Convergence: -0.03 deg						
Well: Brantley 7 #1										
						Slot Name:				
Well Position: +N/-S 0.00 ft		Northing: 563418.90 ft		Latitude: 32 32 56.161 N						
+E/-W 0.00 ft		Easting : 482438.70 ft		Longitude: 104 23 25.173 W						
Position Uncertainty: 0.00 ft										
Wellpath: OH										
Current Datum: SITE		Height 12.00 ft		Tie-on Depth: 0.00 ft						
Magnetic Data: 2/9/2007				Above System Datum: Mean Sea Level						
Field Strength: 49197 nT				Declination: 8.49 deg						
Vertical Section: Depth From (TVD)		+N/-S		Mag Dip Angle: 60.45 deg						
ft		ft		+E/-W		Direction		deg		
0.00		0.00		0.00		180.00				
Plan: Plan #1 2-9-07										
						Date Composed: 2/9/2007				
						Version: 1				
Principal: No						Tied-to: From Surface				
Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5346.50	0.00	0.00	5346.50	0.00	0.00	0.00	0.00	0.00	0.00	
6096.56	90.00	180.00	5824.00	-477.50	0.00	12.00	12.00	0.00	180.00	
7569.06	90.00	180.00	5824.00	-1950.00	0.00	0.00	0.00	0.00	0.00	
Survey										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	0.00	1200.00							

Pathfinder Energy

Planning Report

Company: Fasken Oil & Ranch
Field: Brantley 7 #1
Site: Brantley 7 #1
Well: Brantley 7 #1
Wellpath: OH

Date: 4/10/2007 **Time:** 08:58:35 **Page:** 2
Co-ordinate(NE) Reference: Brantley 7 #1, Grid North
Vertical (TVD) Reference: SITE 12.0
Section (VS) Reference: Well (0.00N,0.00E,180.00Azi)
Plan: Plan #1 2-9-07

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	0.00	0.00	
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4100.00	0.00	0.00	4100.00	0.00	0.00	0.00	0.00	0.00	0.00	
4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	0.00	0.00	
4300.00	0.00	0.00	4300.00	0.00	0.00	0.00	0.00	0.00	0.00	
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	0.00	0.00	
4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	0.00	0.00	
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	0.00	0.00	0.00	
4700.00	0.00	0.00	4700.00	0.00	0.00	0.00	0.00	0.00	0.00	
4800.00	0.00	0.00	4800.00	0.00	0.00	0.00	0.00	0.00	0.00	
4900.00	0.00	0.00	4900.00	0.00	0.00	0.00	0.00	0.00	0.00	
5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5100.00	0.00	0.00	5100.00	0.00	0.00	0.00	0.00	0.00	0.00	
5200.00	0.00	0.00	5200.00	0.00	0.00	0.00	0.00	0.00	0.00	
5300.00	0.00	0.00	5300.00	0.00	0.00	0.00	0.00	0.00	0.00	
5346.50	0.00	0.00	5346.50	0.00	0.00	0.00	0.00	0.00	0.00	KOP@ 5346' MD/TVD
5400.00	6.42	180.00	5399.89	-2.99	0.00	2.99	12.00	12.00	0.00	
5500.00	18.42	180.00	5497.37	-24.46	0.00	24.46	12.00	12.00	0.00	
5600.00	30.42	180.00	5588.26	-65.72	0.00	65.72	12.00	12.00	0.00	
5700.00	42.42	180.00	5668.58	-124.98	0.00	124.98	12.00	12.00	0.00	
5800.00	54.42	180.00	5734.83	-199.64	0.00	199.64	12.00	12.00	0.00	
5900.00	66.42	180.00	5784.11	-286.45	0.00	286.45	12.00	12.00	0.00	
5945.00	71.81	180.00	5800.15	-328.48	0.00	328.48	12.00	12.00	0.00	Penetrate Lower Brushy Ca
6000.00	78.41	180.00	5814.27	-381.60	0.00	381.60	12.00	12.00	0.00	
6096.56	90.00	180.00	5824.00	-477.50	0.00	477.50	12.00	12.00	0.00	EOC @ 6096' MD, 5824' TVD
6100.00	90.00	180.00	5824.00	-480.94	0.00	480.94	0.00	0.00	0.00	
6200.00	90.00	180.00	5824.00	-580.94	0.00	580.94	0.00	0.00	0.00	
6300.00	90.00	180.00	5824.00	-680.94	0.00	680.94	0.00	0.00	0.00	
6400.00	90.00	180.00	5824.00	-780.94	0.00	780.94	0.00	0.00	0.00	
6500.00	90.00	180.00	5824.00	-880.94	0.00	880.94	0.00	0.00	0.00	
6600.00	90.00	180.00	5824.00	-980.94	0.00	980.94	0.00	0.00	0.00	

Pathfinder Energy

Planning Report

Company: Fasken Oil & Ranch
Field: Brantley 7 #1
Site: Brantley 7 #1
Well: Brantley 7 #1
Wellpath: OH

Date: 4/10/2007 **Time:** 08:58:35 **Page:** 3
Co-ordinate(NE) Reference: Brantley 7 #1, Grid North
Vertical (TVD) Reference: SITE 12.0
Section (VS) Reference: Well (0.00N,0.00E,180.00Azi)
Plan: Plan #1 2-9-07

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6700.00	90.00	180.00	5824.00	-1080.94	0.00	1080.94	0.00	0.00	0.00	
6800.00	90.00	180.00	5824.00	-1180.94	0.00	1180.94	0.00	0.00	0.00	
6900.00	90.00	180.00	5824.00	-1280.94	0.00	1280.94	0.00	0.00	0.00	
7000.00	90.00	180.00	5824.00	-1380.94	0.00	1380.94	0.00	0.00	0.00	
7100.00	90.00	180.00	5824.00	-1480.94	0.00	1480.94	0.00	0.00	0.00	
7200.00	90.00	180.00	5824.00	-1580.94	0.00	1580.94	0.00	0.00	0.00	
7300.00	90.00	180.00	5824.00	-1680.94	0.00	1680.94	0.00	0.00	0.00	
7400.00	90.00	180.00	5824.00	-1780.94	0.00	1780.94	0.00	0.00	0.00	
7500.00	90.00	180.00	5824.00	-1880.94	0.00	1880.94	0.00	0.00	0.00	
7569.06	90.00	180.00	5824.00	-1950.00	0.00	1950.00	0.00	0.00	0.00	

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----><--- Longitude --->			
PBHL		5824.00	-1950.00	0.00	561468.90	482438.70	32	32	36.864 N	104 23 25.161 W

Annotation

MD ft	TVD ft	
5346.50	5346.50	KOP @ 5346' MD/TVD
6096.56	5824.00	EOC @ 6096' MD, 5824' TVD
5945.00	5800.15	Penetrate Lower Brushy Canyon @ 5945' MD

Fasken Oil & Ranch

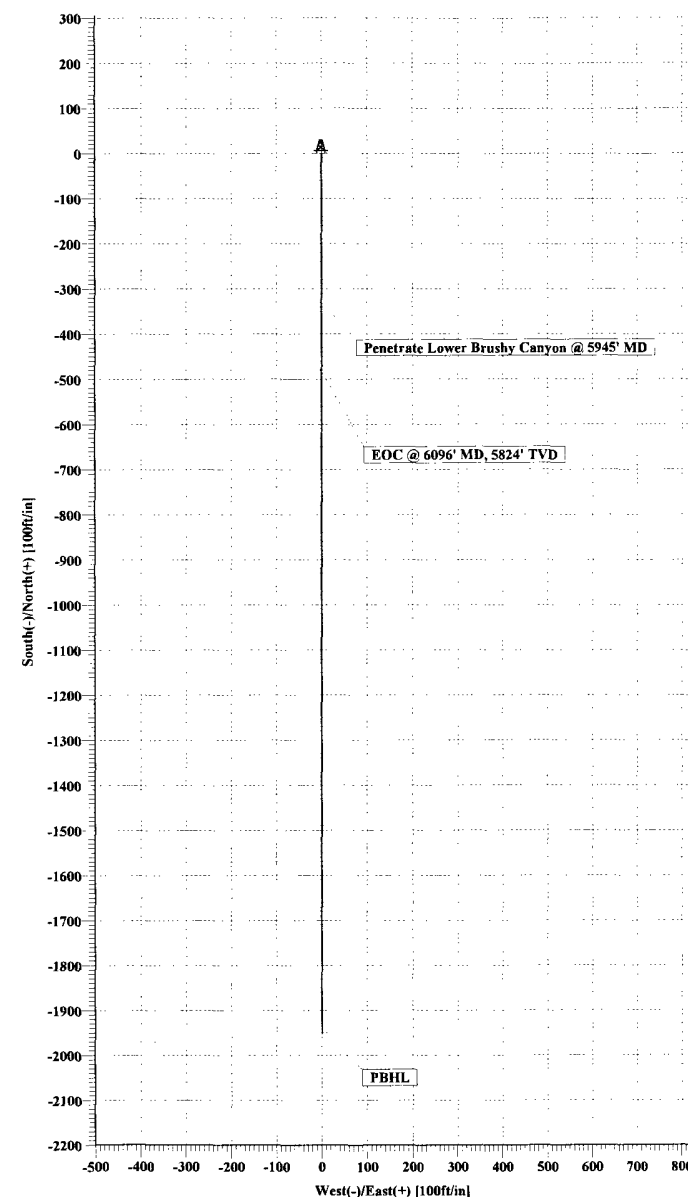
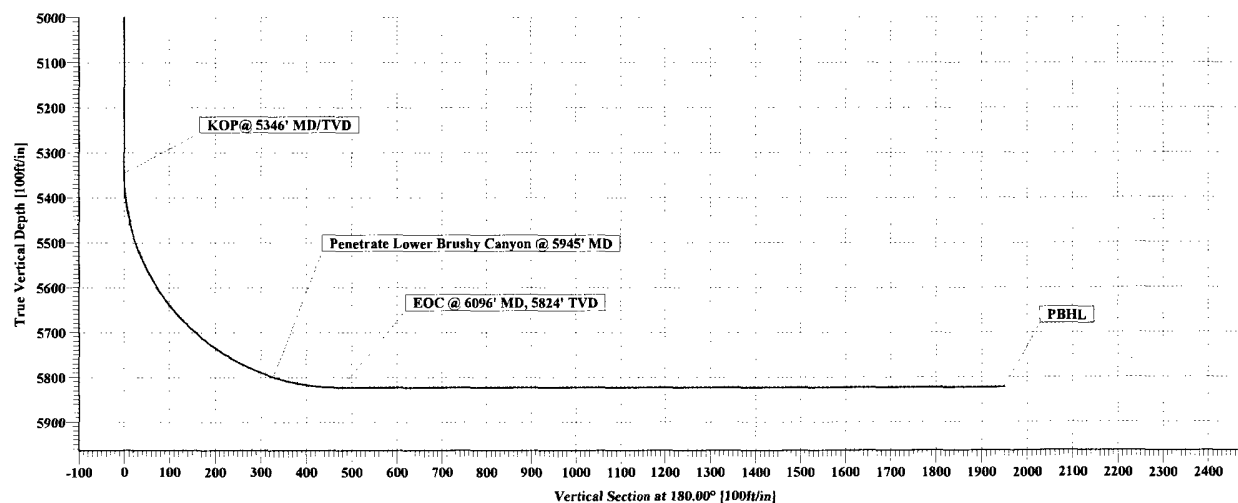
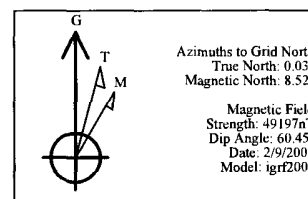
PATHFINDER

WELLPATH DETAILS				COMPANY DETAILS		SITE DETAILS	
OH				Fasken Oil & Ranch 303 W. Wall Ave., Ste. 1800 Midland, TX 79701		Brantley 7 #1	
Rig:	SITE			Calculation Method: Minimum Curvature		Site Centre Northing: 563418.90	
Ref Datum:	12.00ft			Error System: Systematic Ellipse		Easting: 482438.70	
V Section	Origin	Origin	Starting	Scan Method: Closest Approach 3D		Ground Level: 3050.00	
Angle	+N/-S	+E/-W	From TVD	Error Surface: Elliptical Conic		Positional Uncertainty: 0.00	
180.00°	0.00	0.00	0.00	Warning Method: Error Ratio		Convergence: -0.03	

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Brantley 7 #1	0.00	0.00	563418.90	482438.70	32°32'56.161N	104°23'25.173W	N/A

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5346.50	0.00	0.00	5346.50	0.00	0.00	0.00	0.00	0.00	
3	6096.56	90.00	180.00	5824.00	-477.50	0.00	12.00	180.00	477.50	
4	7569.06	90.00	180.00	5824.00	-1950.00	0.00	0.00	0.00	1950.00	

ANNOTATIONS			
No.	TVD	MD	Annotation
1	5346.50	5346.50	KOP@ 5346' MD/TVD
2	5824.00	6096.56	EOC @ 6096' MD, 5824' TVD
3	5800.15	5945.00	Penetrate Lower Brushy Canyon @ 5945' MD



Recommended Procedure

Brantley "7" No. 1

Eddy County, New Mexico

1. Install inset cattle guard with gate and build road and location with grade at 1.5' above ground elevation. Well location and road will be situated in a flooded alfalfa field.
2. Set 20" conductor at 40', drill rat hole and mouse hole. MIRU rotary tools.
3. Drill 17-1/2" hole to 500' with spud mud. Set and cement 13-3/8" casing with 500 sx Class "C" cement with 2% CaCl_2 (s.w. 14.8 ppg, yield 1.32 cuft/sx). WOC 12 hrs. Install 13-3/8" SOW x 13-5/8" 3000# bradenhead. NU 13-5/8" 3000# annular preventer.
4. Drill 12-1/4" hole to 2400' with 10 ppg brine water. Control seepage with paper. Dry drill if complete loss of returns is experienced.
5. Set and cement 9-5/8" casing at 2400' and cement with an estimated 600 sx Class "C" with 4% gel and 2% CaCl_2 (s.w. 13.50 ppg, yield 1.74 ft^3/sx) plus 200 sx Class "C" with 2% CaCl_2 (s.w. 14.8 ppg, yield 1.34 ft^3/sx). Note: If lost circulation has occurred prior to running casing, add 200 sx Thixset cement for the lead slurry. Thixset cement blend: 200 sx Class "C" with 10# Cal Seal, 10# Gilsonite and 1/8# Poly-E-Flake (s.w. 14.2 ppg, yield 1.62 ft^3/sx).
6. Install 11" x 3000 psi intermediate spool. NU 11" 3000 psi B.O.P.'s, hydriil and choke manifold. WOC 12 hours. Install H_2S monitor equipment, escape packs and briefing stations.
7. Hydrotest BOP stack, choke manifold, kelly valves and floor safety valves to 3000 psig, annular preventer to 1500 psig and 180' of 8-5/8" casing to 2360 psig. RU PVT equipment.
8. RU mud logging unit.
9. Drill 8-3/4" hole to 6200' using 9 ppg cut brine. Increase viscosity and lower water loss to 20 cc as necessary to maintain hole.
10. Log well with CNL-LDT, DLL-MSFL. Run gyro and determine BHL.
11. TIH open ended to 6000' and spot 225 sx Class "H" cement with 0.75% CFR-3 (s.w. 17.5 ppg, yield 0.93 ft^3/sx). TOH, PU 7-7/8" mill tooth bit, drill collars and TIH. WOC 24 hrs. Dress off cement plug to 50' above KOP (estimated KOP at 5364'). TOH.
12. RU Pathfinder Energy. RIW with bit and curve drilling assembly. Time drill off of kick off plug.
13. Drill curve section as per attached Pathfinder Energy Planning Report (12°/100' and 180° azimuth).
14. TOH with curve assembly, MWD and TIH with lateral assembly. Drill to measured depth of approximately 7569' with BHL of 2310' FNL and 1980' FWL at target depth as determined from Fasken Geologist.
15. Pump high vis. sweep and circulate hole clean at TD. Make short trip to KOP to check for fill.
16. POH and LD lateral assembly. RDMO Pathfinder Energy.
17. RU Halliburton loggers. PU "Toolpusher" drill pipe conveyed OH logging suite.

18. TIH to approximately 5400' MD (50' into curve section, 2169' short of TD) and install side entry sub. Insert 2" spear (wet connect) and pump spear to top of tools and latch in.
19. Continue RIW while spooling wireline to toe of lateral at 7569' MDTD.
20. Log well from TD to approximately desired hole depth.
21. LD side entry sub. POW with wet connect. POW and LD "Toolpusher" logging suite. RDMO loggers.
22. PU 8-3/4" tricone bit and RIH to MDTD of 7569' for wiper trip. Circulate hole clean. POH LD DP.
23. Set 5-1/2" casing at TD. Cement casing in two stages with DV tool/inflatable packer at approximately 5000'. Install bowspring centralizers every other joint from KOP to TD'.
 - First Stage: 10 bfw, 500 gallons Mud Clean II, 10 bfw, estimated 600 sx Class "C" with 0.6% Halad-344, 0.3% Halad-322 and 0.2% Super CBL (s.w. 14.8 ppg, yield 1.32 ft³/sx)..
 - Second Stage: 400 sx BJ Lite with 1/4# celloflake and 5# salt (s.w. 12.7 ppg, yield 1.94 ft³/sx) plus 100 sx Class "C" neat (s.w. 14.8 ppg, yield 1.33 ft³/sx). Estimate cement volumes for TOC at 2200'.
24. Set slips, cut-off casing, ND BOP and NU 11" 3000# x 7-1/16" 3000# tubinghead and flowtree.
25. RDMO drilling rig.
26. Prepare location for completion.
27. Complete well as per recommended completion procedure.

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.

FILL LINE

BELL
NIPPLE

FLOW LINE

ANNULAR
PREVENTER

②

Exhibit No. 5

① 4" SERIES 900 VALVE

② SERIES 900 ANNULAR
PREVENTER

③ SERIES 900 RAM-
TYPE PREVENTERS

④ 2" SERIES
ADJUSTABLE CHOKE

PIPE RAMS

③

BLIND RAMS

DRILLING
SPOOL

ADJUSTABLE
CHOKE

TO PIT OR SEPARATOR
2" LINE

④

4" 4" BLEED LINE TO
4" LINE

CASING
HEAD

TO PIT
2" LINE

④

HYDRAULIC LE
CHOKE

3000 PSI WORKING PRESSURE

