

Form 3160-4 (April 2004)

# DEPART BUREAU

UNITED STATES .	4 7 3	, , , , , , , , , , , , , , , , , , ,
DEPARTMENT OF THE INTERIOR	1 Th. 1.	FORM APPROVED
BUREAU OF LAND MANAGEMENT	(A, ', ', ')	OMBNO 1004-0137
BUREAU OF LAND MANAGEMENT	\ \A	Expires March 31, 2007
WELL COMPLETION OR RECOMPLETION REPORT AND LOG	<b>~</b> ~ ⊢	
WELL CONFILERON OF RECONFLETION REPORT AND LOG		Lagra Carval No.

					<b>O</b>	.2001111 22				D 200				NM-3	Senal No. 36194			
а Турео	f Well	Oil W	Vell /	Gas W	'ell	Dry Do	her						6	If India	an, Allottee	or Tribe Name	=	
b Type of Completion New Well Work Over Deepen Plug Back Diff Resvr,									r,									
			Other _										7	Unit o	r CA Agree	ment Name and No.		
2. Name of Operator McKay Oil Corporation API#30-005-63766													8 Lease Name and Well No South Four Mile Draw C Fed					
3 Address PO Box 2014 Roswell, NM 88202-2014 3a Phone No (include area code) 505-623-4735											le)	9	9 AFT Well No 1H 3 1 005 63					
4 Location of Well (Report location clearly and in accordance with Federal requirements)*													10		nd Pool, or	Exploratory	6	•
44															Pecos AB		_	
At top prod interval reported below												11	Survey or Area SEC22, T6S, R22E					
At total depth Bottom Hole Location: 2637' FNL & 1017' FWL													12 County or Parish 13 State Chaves NM					
14 Date S 07/14	pudded /2006		15	Date T D 08/28/		ned		16 Date C	•	d 08/29 ✓ Ready			17	Elevat 4326'		RKB, RT, GL)*		
18. Total I	Depth M	ID			19. Pl	lug Back T D	MD		-	20. Dep			Set	MD			-	
	T	VD <sub>4532</sub>	•				TVD							IVT	)			
21. Type I	lectric &	Other Me	chanica	al Logs R	Run (Su	bmit copy of e	ach)	<del></del>		1	_	cored?				mıt analysis)		
Ceme	nt, CNL (	mailed d	lirectly	to Schl	umber	ger)					S DST	run <sup>9</sup> Il Survey			Yes (Subr	mit report) Submit copy)		
23. Casın	g and Line	r Record	(Repo	rt all st	rings s	et in well)				I				<u> </u>	1, 63 (3	aonii copy)	-	
Hole Size	Size/Gra	de Wt	(#/ft )	Top (	MD)	Bottom (MD)		ge Cementer Depth		of Sks & of Cement	SI	urry Vol (BBL)		Cement	Top*	Amount Pulled	-	
12 1/4"	8 5/8"	24	#		· · · · · ·	1063'	+	Deptii	—	ks Cls C						-		
								~	w/6%	6 CaCl2							-	
7 7/8"	5 1/2"	17/	¥			3167'			<u> </u>		<del> </del>		- -			<u> </u>	_	
Liner	3 1/2"			1734	,	4251'	<del> </del>		105s	ks 50/50	+		-				-	
										6FL52A							_	
24. Tubing	<del></del>								·								_ /	
Size 2 -1/16"	Depth 3449'	Set (MD)	Packe n/a	r Depth (	(MD)	Size	Dep	oth Set (MD)	Packer	Depth (MI	)	Size		Depth	Set (MD)	Packer Depth (MD)	_	
25 Produc		ıls	11/4				26.	. Perforation	l Record	d				L		l	-	
	Formation			Тор		Bottom	1	Perforated			Size	N	o. Ho	les	F	Perf. Status	-	
A) Abo				3550'		3800'	355	50' - 3800'				2sp	of		open	,	-	
B)								· · · · · · · · · · · · · · · · · · ·				_					_	
C)							ļ										-	
D) 27 Acid. I	racture, Tr	eatment (	Cement S	Gueeze.	etc		.1		_									
	Depth Inter	<u> </u>						A	mount a	and Type of	Mate	rıal						
Zone A	3550' - 38	300'				,000 gal FAW												
		<del></del>		Frac w	//56,29	6 gal 70% C0	2 w/3(	0# Linear G	el + 31	1,385 lbs	12/20	Brown	Sand		<del></del>		_	
	ction - Inte		r =-			T: T:						T					_	
Date First Produced	Test Date	Hours Tested	Test Produc	. 1	ı! BL		Vater BBL	Oil Gra	vity Pi	Gas Gravit	iλ.	Producti	ion M	thod				
09/02/2006	08/29/1006	4		0			0	n/a				Flowin						
Choke Size	The Press Flug	Csg Press	24 Hr Rate	O B	il BL	Gas MCF	Vater BBL	Gas/Oil Ratio		Well St	atus			400	EPTE	D FOR REC	OKL	ì
24/64	SI	92	<u> </u>	0		3492	0	11/2				Produ	icing					
28a. Prodi			17			TCan I'll	later	love	·	10		( n .	<u> </u>			7 5560	_	
Produced	Test Date	Hours Tested	Test Product	tion B	ıl BL		ater BL	Oil Grav Corr A		Gas Gravity		Product	ion (M	chod	MAY	3 2007		
Choke	Tbg Press Flug	Csg Press.	24 Hr	O <sub>1</sub>	ıl BL	Gas V MCF	Vater BL	Gas/Oil Ratio		Well St	atus		$\top$			V COURLEY		
Size	SI	1 1535.	Rate			luce 1		1440						E	GAR FTROI	Y GOURLEY EUM ENGINE	ER	
*(See ins	tructions a	nd spaces	for addi	tional di	ata on p	age 2)		. <u></u> l					<u>L</u>		<u> </u>			

201 D I	action - Inte	1 C												
Date First	Test	Hours	Test	Oil	I Grs	Water	Ol Gravity	Gas	Production Method					
Produced	Date	Tested	Production	BBL	Gas MCF	BBL	Oil Gravity Corr. API	Gravity	Production Medica					
Choke Size	Tbg Press. Flug SI	Csg Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Orl Ratio	Well Status						
28c. Prod	uction - Int	erval D	· · · · · · · · · · · · · · · · · · ·		<b>—</b>	<u> </u>								
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method					
Choke Size	Tbg. Press. Flwg. SI	Csg Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	Well Status					
29. Disp	osition of C	Gas (Sold,	used for fuel,	vented, et	c)		·							
Sol	d								· · · · · · · · · · · · · · · · · · ·					
30. Sum	mary of Po	rous Zones	(Include Aq	uifers):				31. Forma	tion (Log) Markers					
tests	w all impor , including recoveries.	tant zones depth inter	of porosity val tested, cu	and conten shion used	its thereof: , time tool o	Cored interva pen, flowing	als and all drill-ste and shut-in pressu	em res						
Fon	mation	Тор	Bottom		Desc	riptions, Cont	ents, etc.		Name	Top Meas. Depth				
Yeso		1077'												
Tubb		2573'												
Abo		2801'												
								•						
										}				
									<u>-</u>					
32. Addi	itional rema	rks (includ	le plugging p	rocedure):						ı				
									-					
23 India	nte which is	tmes have	haan awast-	d by placi-	a a abaale !=	the appropri	ate hoves:							
			ogs (1 full s				_	ort 📝 Directio	and Current					
			ging and cem			eologic Repo fore Analysis	===	ou [A] Duecou	nai Survey					
34. Iher	eby certify	that the for	egoing and a	ttached inf	ormation is o	complete and	correct as determin	ned from all avail	able records (see attached instru	ctions)*				
ž.							, ···							
Name	:(please pri	int) Caro	l Shanks		····		Title Pro	Title Production Analyst						
Signature Charles Signature							Date 10/2	25/2006						

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.

#### Crescent Directional Drilling

Survey Report

Company:

Conquest Energy Services of N M

Project:

Chaves County, New Mexico

Site: Well: South Four Mile Draw C Federal # 1H

Wellbore: Design:

Sidetrack Sidetrack

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method:

Database:

Well Federal # 1H

RKB + 12" @ 4338 Oft (Rig Unknown) RKB + 12" @ 4338.0ft (Rig Unknown)

Grid

Minimum Curvature

EDM 2003.14 Single User Db

Project

Map Zone:

Chaves County, New Mexico

Map System: Geo Datum:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

New Mexico East 3001

System Datum:

Mean Sea Level

Site

South Four Mile Draw C

Site Position:

From: Position Uncertainty:

Lat/Long

Easting:

Northing: Slot Radius: 1,013,902.30ft 384,330.80 ft Latitude:

Longitude:

Grid Convergence:

33° 47' 11.570 N 104° 42' 50.510 W

-0 21 °

Well

Federal # 1H

Sidetřack

Well Position

+N/-S +E/-W

0 0 ft

0 0 ft

0 0 ft 0 0 ft

Easting:

Northing:

Wellhead Elevation:

1,013,902.30 ft 384,330 80 ft

Latitude:

0 0 ft

Longitude: Ground Level:

33° 47' 11.570 N 104° 42' 50.510 W

4,326 0 ft

**Position Uncertainty** 

Wellbore Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle

Field Strength

IGRF200510

2006-10-02

61 54

49,903

Design

Sidetrack

**Audit Notes:** 

Version:

1.0

Phase:

ACTUAL

Tie On Depth:

Vertical Section:

Depth From (TVD) (ft) 0.0

+N/-S

(ft)

0.0

+E/-W (ft) 0.0

Direction (°) 180.00

Survey Program

Date 2006-10-02

From (ft)

To

(ft) Survey (Wellbore) Tool Name

Description

1,180.0 3,182.0

3,108.0 Original Hole (Wellbore #1) 3,841.0 Sidetrack Surveys (Sidetrack)

-----

MWD MWD

MWD - Standard MWD - Standard

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0 0	0.00	0.00	0.0	0.0	0.0	0 0	0.00	0.00	0.00
1,180.0	1.80	112.30	1,179.8	-7.0	17.1	7.0	0.15	0.15	0.00
1,672.0	0 40	178.90	1,671.7	-11.7	24.3	11.7	0.34	-0.28	13.54
2,042.0	0.70	175.40	2,041.7	-15.2	24.5	15.2	0.08 -	0.08	-0.95
2,086.0	0.40	193,10	2,085.7	-15.6	24.5	15 6	0.78	-0.68	40.23
2,118.0	0.70	180.30	2,117.7	-15.9	24.5	15.9	1.01	0.94	-40.00
2,148.0	0.40	176.90	2,147.7	-16.2	24.5	16.2	- 1.01	-1.00	-11.33
2,163.0	0.70	163.20	2,162.7	-16.4	24.5	16.4	2.17	2.00	-91.33
2,180.0	0.70	149.50	2,179.7	-16.6	24.6	16 6	0.98	0.00	-80.59
2,211.0	2.70	178.20	2,210.7	-17.5	24.7	17.5	6.82	6.45	92.58
2,242.0	6.90	182.60	2,241.6	-20.0	24.7	20.0	13.59	13.55	14.19
2,274.0	11.30	182.60	2,273.1	-25.1	24.4	25.1	13.75	13.75	0.00

### **Crescent Directional Drilling**

Survey Report

Company:

Conquest Energy Services of N M Chaves County, New Mexico

Project: Site:

South Four Mile Draw C

Well: Wellbore: Federal # 1H Sidetrack

Sidetrack Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well Federal # 1H

RKB + 12" @ 4338 0ft (Rig Unknown) RKB + 12" @ 4338 0ft (Rig Unknown)

Grid

Mınimum Curvature

EDM 2003.14 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,305 0	15 50	182 40	2,303 3	-32 3	24.1	32.3	13 55	13 55	-0 65
2,337 0	18 40	182 80	2,333 9	-41.6	23 7	41.6	9.07	9 06	1 25
2,367 0	21 10	183 70	2,362 1	-51 7	23 1	51.7	9.06	9.00	3.00
2,399.0	23 60	183.20	2,391.7	-63 9	22.4	63 9	7.83	7.81	-1.56
2,430.0	26 20	182.60	2,419.8	-76 9	21.7	76 9	8 43	8 39	-1 94
2,461.0	28 70	182.10	2,447 4	-91 2	21.2	91.2	8.10	8 06	-1.61
2,491.0	30 90	182.00	2,473 4	-106 1	20.6	106 1	7.34	7 33	-0 33
2,523.0	32 80	181.50	2,500 6	-123 0	20.1	123 0	5 99	5 94	-1 56
2,554 0	34 80	181 50	2,526 3	-140 2	19 7	140.2	6 45	6 45	0 00
2,586.0	37 10	182 30	2,552 2	-159 0	19 0	159 0	7.34	7 19	2.50
2,610 0	38 90	183 40	2,571 1	-173 7	18 3	173 7	8.01	7 50	4.58
2,642 0	41 10	183 30	2,595 7	-194 3	17 1	194 3	6 88	6 87	-0 31
2,673 0	43 50	183 30	2,618 6	-215 1	15 9	215.1	7.74	7.74	0 00
2,704 0	46 20	183 00	2,640.6	-236 9	14 7	236 9	8 74	8 71	-0.97
2,736 0	48 80	182 40	2,662 2	-260 5	13 6	260 5	8 24	8 12	-1.87
2,767.0	52 00	182 30	2,681 9	-284 3	12 6	284.3	10 33	10 32	-0.32
2,798 0	54 90	182 30	2,700 4	-309 2	11 6	309 2	9.35	9 35	0 00
2,830.0	57 00	182 30	2,718 3	-335 7	10 5	335.7	6.56	6.56	0 00
2,861 0	59 60	183 10	2,734.6	-362 0	9.3	362 0	8 67	8.39	2 58
2,892 0	62 40	183 90	2,749.6	-389 1	7 6	389 1	9 31	9 03	2.58
2,923.0	65 10	185 00	2,763 3	-416 8	5 5	416 8	9.27	8 71	3 55
2,953 0	67 70	185 50	2,775 3	-444 2	3.0	444.2	8 80	8 67	1.67
2,984.0	70 40	185 40	2,786 4	-473 0	0 2	473.0	8.71	8 71	-0.32
3,015 0	72 80	185 60	2,796.2	-502.3	-2.6	502.3	7.77	7 74	0 65
3,046 0	75 40	185 30	2,804.7	-532 0	-5 4	532 0	8.44	8 39	-0.97
3,077 0	78.00	184 90	2,811.8	-562 0	-8.1	562 0	8.48	8 39	-1.29
3,108 0	80.80	184.50	2,817.5	-592.4	-10.6	592 4	9.12	9 03	-1.29
3,182.0	85 10	183 20	2,826.6	-665.6	-15.5	665.6	6.07	5 81	-1.76
3,221 0	87.50	177.90	2,829.1	-704 5	-15.9	704.5	14.89	6.15	-13.59
3,266.0	93 10	172.90	2,828 9	-749 4	-12.3	749.4	16.68	12 44	-11.11
3,296.0	94 20	172.30	2,827.0	-779.0	-8.5	779.0	4.17	3.67	-2.00
3,327.0	94.10	173.10	2,824.7	-809.7	-4.5	809.7	2.59	-0.32	2.58
3,358.0	90 80	172.90	2,823.4	-840.5	-0.7	840.5	10.66	-10.65	-0.65
3,390.0	88 10	170.40	2,823.7	-872.1	3.9	872.1	11.50	-8.44	-7.81
3,421.0	89 10	169.80	2,824.5	-902.6	9.2	902.6	3.76	3.23	-1.94
3,453.0	91 10	169.60	2,824.4	-934.1	14.9	934.1	6.28	6.25	-0.62
3,485.0	88 40	170.70	2,824.6	-965.6	20.4	965.6	9.11	-8 44	3.44
3,516.0	87 60	171.10	2,825.6	-996.2	25.3	996.2	2.88	-2.58	1.29
3,547.0	89.50	172.50	2,826.4	-1,026.9	29.7	1,026.9	7.61	6.13	4.52
3,578.0	90.20	172.90	2,826.5	-1,057.7	33.7	1,057.7	2.60	2.26	1.29
3,608 0	90.50	174 60	2,826.3	-1,087.5	36.9	1,087.5	5.75	1.00	5.67
3,640.0	90.70	175.30	2,826.0	-1,119.3	39.8	1,119.3	2.27	0.62	2.19
3,669.0	91 40	174 60	2,825.5	-1,148.2	42.3	1,148.2	3.41	2.41	-2.41
3,701.0	91.80	176.20	2,824.6	-1,180.1	44.9	1,180.1	5.15	1.25	5.00
3,732.0	93.40	175.80	2,823.2	-1,211.0	47.0	1,211.0	5.32	5.16	-1.29
3,763.0	93.80	176.00	2,821.2	-1,241.9	49.3	1,241.9	1.44	1.29	0.65
3,793.0	92.90	175.80	2,819.5	-1,271.7	51.4	1,271.7	3.07	-3.00	-0.67
3,841.0	91.10	174.40	2,817.8	-1,319.5	55.5	1,319.5	4.75	-3.75	-2.92

Approved By: Checked By:







## NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

#### BILL RICHARDSON

Governor Joanna Prukop Cabinet Secretary

Mark E. Fesmire, P.E. Director Oil Conservation Division

May 2, 2007

Southwest Petroleum Land Services, LLC Attn: James L. Schultz 100 N. Pennsylvania Roswell, NM 88203

Administrative Order NSL-5612

Re:

McKay Oil Corp.

South Four Mile Draw C Federal Well No. 1H

API No. 30-005-63766 Prot Viv

**Chaves County** 

Dear Mr. Schultz:

Reference is made to the following:

- (a) your application (administrative application reference No. pCLP07-10034102) submitted to the New Mexico Oil Conservation Division (the Division) in Santa Fe, New Mexico on April 9, 2007, on behalf of McKay Oil Corp. (McKay), and
  - (b) the Division's records pertinent to this request.

McKay has requested to complete its South Four Mile Draw C Federal Well No. 1H (API No. 30-005-63766) as a horizontal well at an unorthodox Abo gas well location. The well was commenced from an orthodox surface location 660 feet from the North line and 890 feet from the West line (Unit D) of Section 22, Township 6 South, Range 22 East, N.M.P.M., in Chaves County, New Mexico; intercepts the Abo formation at an orthodox penetration point approximately 1260 feet from the North line and 890 feet from the West line of said Section 22; and proceeds laterally to an unorthodox terminus, or bottom-hole location, 2637 feet from the North line and 1017 feet from the West line (Unit E) of Section 22. The NW/4 of Section 22 will be dedicated to this well in order to form a standard 160-acre gas spacing unit and project area in the West Pecos Slope-Abo Gas Pool (82740).

This pool is governed by the Special Rules and Regulations for the West Pecos Slope-Abo Gas Pool, as amended by Order No. R-9976-D, issued February 4, 2004, which provide for 160-acres units, with wells located at least 660 feet from a unit outer boundary. These rules further mandate that there shall be no more than two wells in this pool in any 160-acre unit. This location is unorthodox because the terminus is less than 660 feet from the southern unit boundary. Also McKay has four wells completed in the Abo in this unit.

Your application on behalf of McKay has been duly filed under the provisions of Division Rules 104.F and 1210.A(2).

It is our understanding that McKay is seeking this location for geologic reasons, in order to penetrate the maximum amount of productive area within this formation in this unit.

It is also understood that McKay owns 100% of the working interest in the adjoining spacing unit to the south. Accordingly, notice of this application to offsetting operators or owners in unnecessary.

Pursuant to the authority granted me under the provisions of Division Rule 104.F(2) and Rule 5 of the Special Rules and Regulations for the West Pecos Slope-Abo Gas Pool, the above-described unorthodox location is hereby approved.

This approval is CONDITIONED, HOWEVER, such that this well SHALL NOT BE PRODUCED unless and until McKay causes at least two of the following wells to be shut in:

South Four Mile Draw Federal Well No. 1 (API No. 30-005-62309), located 660 feet from the North line and 1780 feet from the West line (Unit C) of Section 22;

South Four Mile Draw B Federal Well No. 1 (API No. 30-005-63155), located 2058 feet from the North line and 1890 feet from the West line (Unit F) of Section 22; and

Four Mile Draw Federal C Well No. 7H (ARI No. 30-005-63921), located 660 feet from the North line and 820 feet from the West line (Unit D) of Section 22.

The wells so shut in may be plugged or placed in approved temporary abandonment status, but, in any event, SHALL REMAIN SHUT IN so long as the subject well is produced, unless the Division otherwise order following a hearing.

Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

Sincerely,

Mark E. Fesmire, P.E.

Director

MEF/db

cc: New Mexico Oil Conservation Division - Artesia United States Bureau of Land Management - Roswell

 $I_{i}$