

OCD-ARTESIA

ATS-10-494
EA-11-65Form 3160-3
(April 2004)

SECRETARY'S POTASH

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. <u>BHL- SML-NMELC-063613</u> <u>NM10560353</u>	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Chi Operating, Inc. ✓ <u>4378</u>		7. If Unit or CA Agreement, Name and No.	
3a. Address P.O. Box 1799 Midland, TX 79702		8. Lease Name and Well No. Wizard Federal Com., Well No. 6	
3b. Phone No. (include area code) 432-685-5001		9. API Well No. <u>30-015-38543</u>	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 10' FNL & 2310' FEL (Horizontal) ✓ At proposed prod. zone 330' FSL & 2310' FEL		10. Field and Pool, or Exploratory <u>Hobbs Bone Spring, North NM2</u>	
11. Sec., T. R. M. or Blk. and Survey or Area Sec. 1-T19S-R30E		12. County or Parish Eddy	
13. State NM		14. Distance in miles and direction from nearest town or post office* 35 miles SE of Artesia, NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 10' 330'	16. No. of acres in lease 280	17. Spacing Unit dedicated to this well 160 acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1940'	19. Proposed Depth TVD 8688' MD 13418'	20. BLM/BIA Bond No. on file NM-1616	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3518' GL ✓	22. Approximate date work will start* 11/22/2010	23. Estimated duration 5-6 weeks	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall 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 shall 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 authorized officer.

25. Signature <u>George R. Smith</u>	Name (Printed/Typed) George R. Smith	Date 9/17/10
Title POA agent for Chi Operating, Inc.		

Approved by (Signature) <u>rs/ Linda S.C. Rundell</u>	Name (Printed/Typed) NM STATE OFFICE	Date FEB 11 2011
Title STATE DIRECTOR		Office NM STATE 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.

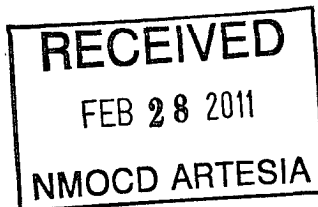
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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.

*(Instructions on page 2)

Capitan Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPLICATION FOR DRILLING

CHI OPERATING, INC.

Wizard Federal Com., Well No. 6

Surface Hole: 10' FNL & 2310' FEL -Sec. 1-T19S-R30E

Bottom Hole: 330' FSL & 2310' FEL -Sec. 1-T19S-R30E (horizontal drill)

Eddy County, New Mexico

Lease No.: LC-063613

(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Chi Operating, Inc. submits the following items of pertinent information in accordance with BLM requirements:

- The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
- The estimated tops of geologic markers are as follows:

Anhydrite	400'	Bone Spring	6090'
Yates	2210	1 st Bone Spring	7560'
Seven Rivers	2430'	2 nd Bone Spring	8480'
Queen	3080'	TVD.	8688'
Delaware	4030'		

- The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water between 100' - 300'.

Oil: Possible in the Delaware and the Bone Spring.

Gas: Possible in the Delaware

- Proposed New Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH FACTOR	COLLAPSE DESIGN FACTOR	BURST DESIGN FACTOR	TENSION DESIGN FACTOR
17 1/2"	13 3/8"	48.0#	H-40	ST&C	515'	2.88	6.46	15.32
12 1/4"	8 5/8"	32.0#	K-55	ST&C	2,050'	2.41	3.75	7.33
8 3/4"	No Csg	Pilot hole			8,950'	Open hole	For logging	
8 3/4"	7"	26.0#	P-110	LT&C	8,200'	1.46	2.34	3.43
6 1/8"	4 1/2"	11.6#	P-110	LT&C	8M-13414'	1.67	2.36	3.35

- Cement Program

CASING	SETTING DEPTH	QUANTITY OF CEMENT	TOC	YIELD
13 3/8"	515'	600 sx Premium Plus +3% salt + 2%CaCl2 (wt. 14.8)	Surface	1.34
8 5/8"	2,050'	Lead:360 sx EconoCem + 3% salt + 2%CaCl2+3 lbm/sk Gilsonite Tail: 650 sx Premium Plus + 1% CaCl 2	"	2.06 1.34
7"	8,200' csg 8950 hole	Lead: 360 sx EconoCem + 3% salt + 5 lbm/sk gilsonite Tail: 365 sx Halcem	"	1.71 1.34
2 7/8" tubing fiberglass	8200'to 8950'	Tubing used to circulate cement to surface		
4 1/2" lateral		No cement required. Open hole completion assembly		

Note: DV tool @ +/- 3700' if necessary. See COA

13 3/8" See COA

6. Proposed Control Equipment: A ~~13 3/8"~~ 5000 psi wp Shaffer Type E double gate hydraulic ram BOP with an annular preventer will be installed on the 13 3/8" casing. Casing and BOP will be tested to 500 psi before drilling out with the 12 1/4". Prior to drilling out the 8 3/4" casing shoe, the BOP will be tested as per Onshore Oil & Gas Order #2, with a 3,000 psi test. The pipe rams will be operated and checked daily, plus each time drill pipe is out of hole. This will be documented on driller's log. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head as needed. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the floor. BOP will be tested by an independent service company to 250 psi low and 3,000 psi high. The hydrill will be tested to 250 psi low and 1500 psi high. See Exhibit "E".

7. MUD PROGRAM See COA

MUD PROGRAM		MUD WEIGHT	VIS.	W/L CONTROL
DEPTH	MUD			
0' - 515'	Fresh water mud:	8.4 - 8.6 ppg	28	No W/L control
515' - 2050'	Brine water	10 ppg	30-32	NC
2050' - 8950'	Brine, Fresh water *	8.4 - 9.5 ppg	30-32	NC
8688 - 13419MD	2% KCl	8.4 ppg	28-32	NC
*NOTE:	Switch to fresh water mud if loose circulation			

8. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, pit level monitor, flow sensors and stabbing valve.

9. Testing, Logging, and Coring Program:

Drill Stem Tests: None

Open Hole Logs: 8950' to 6300': GR-CAL-CNL-LDT-
GR-CAL-DLL-Micro

8950' to Surface: GR-Neutron

Coring: Rotary Sidewall: None Planned

Mud Logging: 10' samples-2000' to TD (2 sets of samples).

10. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated evacuated BHP = 3,795 psi with a temperature of 147° and surface pressure of 2,960 psi.

11. H₂S: None expected. None in the previous drilling of wells in area, but the Mud Log Unit will be cautioned to use a gas trap to detect H₂S and if any is detected the mud weight will be increased along with H₂S inhibitors sufficient to control the gas. This well is being drilled in a close proximity to other wells. The well will be shut down until a mud separator and flare line can be installed on the choke manifold if the H₂S gas monitor continues to rise and approaches 10.

12. Anticipated starting date: November 1, 2010

Anticipated completion of drilling operations: Approximately 5-6 weeks.



Weatherford

Drilling Services

Proposal



WIZARD FEDERAL #6H

EDDY COUNTY, NM

WELL FILE: PLAN 2

MAY 5, 2010

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1.432.561.8892 Main

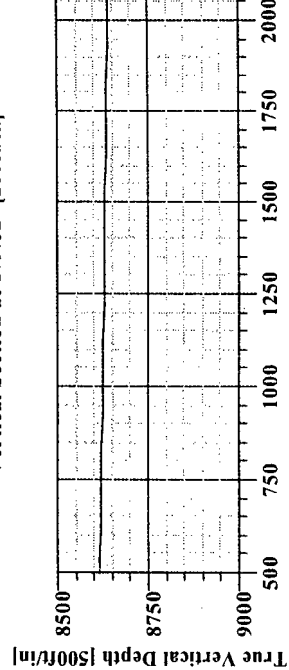
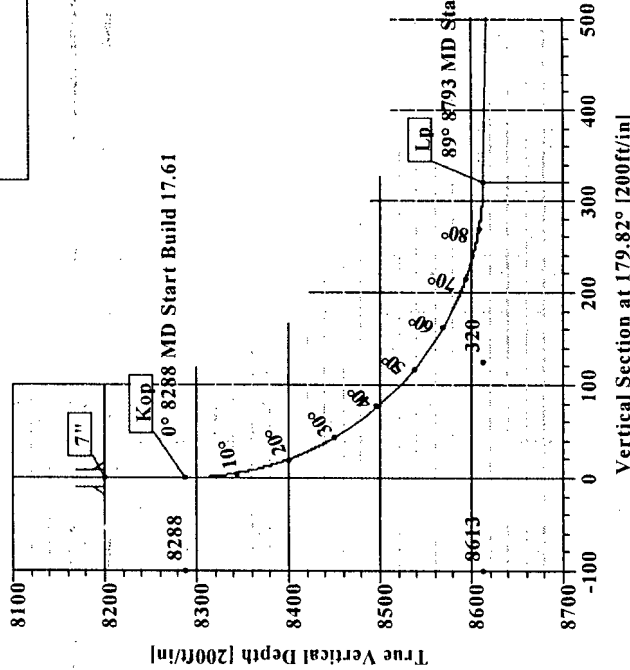
+1.432.561.8895 Fax

www.weatherford.com



Wizard Federal #6H Eddy Co, NM

KB ELEV: NA
GL ELEV: 3523



Vertical Section at 179.82° [200ft/in]

Vertical Section at 179.82° [500ft/in]

SECTION DETAILS

Sec	MD	Inc	Azi	TYD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	179.82	0.00	0.00	0.00	0.00	0.00	0.00	"
2	8287.76	0.00	179.82	8287.76	0.00	0.00	0.00	0.00	0.00	Lp
3	8793.43	89.07	179.82	8613.00	-320.00	1.03	17.61	179.82	320.00	Lp
4	13418.56	89.07	179.82	8688.00	-4944.50	15.90	0.00	12.20	4944.53	Pbhl

TARGET DETAILS

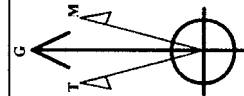
Name	TYD	+N/-S	+E/-W	Northing	Eastng	Latitude	Longitude	Shape
Lp	8613.00	-320.00	1.03	617016.30	625951.43	103°55'26.080W		Point
Pbhl	8688.00	-4944.50	15.90	612391.80	625966.30			Point

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Eastng	Latitude	Longitude	Slot
Wizard Federal #6H	0.00	0.00	617336.30	625950.40	32°41'47.355N	103°55'26.080W	N/A

CASING DETAILS

No.	TYD	MD	Name	Size
1	8200.00	8200.00	7"	7.000

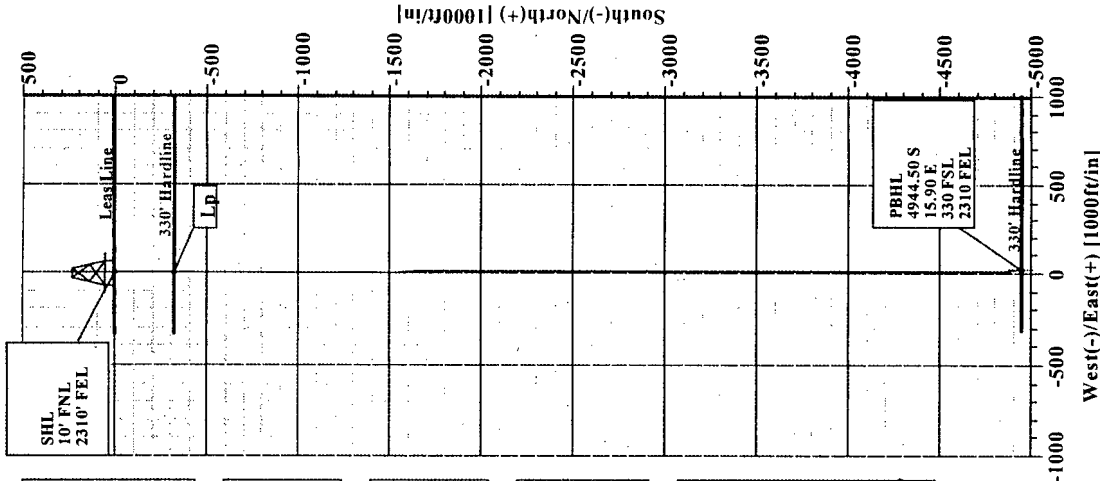


Azimuths to Grid North
True North: -0.22°
Magnetic North: 7.68°
Magnetic Field
Strength: 48981nT
Dip Angle: 60.59°
Date: 7/5/2010
Model: IGRF2010

Total Correction To Grid North 7.68°



Weatherford



Plan: Plan #2 (Wizard Federal #6H/1)

Created By: Russell W Joyner

Date: 5/5/2010

Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: Chi Energy Date: 5/5/2010 Time: 10:59:54 Page: 1
 Field: Eddy Co., NM Co-ordinate(NE) Reference: Well: Wizard Federal #6H, Grid North
 Site: Wizard Federal #6H Vertical (TVD) Reference: SITE 0.0
 Well: Wizard Federal #6H Section (VS) Reference: Well (0.00N,0.00E,179.82Azi)
 Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Field: Eddy Co., NM

Map System: US State Plane Coordinate System 1927
 Geo Datum: NAD27 (Clarke 1866)
 Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
 Coordinate System: Well Centre
 Geomagnetic Model: IGRF2010

Site: Wizard Federal #6H

Site Position: Northing: 617336.30 ft Latitude: 32 41 47.355 N
 From: Map Easting: 625950.40 ft Longitude: 103 55 26.080 W
 Position Uncertainty: 0.00 ft North Reference: Grid
 Ground Level: 3518.00 ft Grid Convergence: 0.22 deg

Well: Wizard Federal #6H

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 617336.30 ft Latitude: 32 41 47.355 N
 +E/-W 0.00 ft Easting: 625950.40 ft Longitude: 103 55 26.080 W
 Position Uncertainty: 0.00 ft

Wellpath: 1

Current Datum: SITE Height 0.00 ft Drilled From: Surface
 Magnetic Data: 7/5/2010 Tie-on Depth: 0.00 ft
 Field Strength: 48983 nT Above System Datum: Mean Sea Level
 Vertical Section: Depth From (TVD) +N/-S Declination: 7.90 deg
 ft ft +E/-W Mag Dip Angle: 60.59 deg
 ft ft Direction
 0.00 0.00 0.00 179.82

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	179.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8287.76	0.00	179.82	8287.76	0.00	0.00	0.00	0.00	0.00	0.00	
8793.43	89.07	179.82	8613.00	-320.00	1.03	17.61	17.61	0.00	179.82	Lp
13418.56	89.07	179.82	8688.00	-4944.50	15.90	0.00	0.00	0.00	12.20	Pbhl

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8200.00	0.00	179.82	8200.00	0.00	0.00	0.00	0.00	617336.30	625950.40	7"
8287.76	0.00	179.82	8287.76	0.00	0.00	0.00	0.00	617336.30	625950.40	Kop
8300.00	2.16	179.82	8300.00	-0.23	0.00	0.23	17.61	617336.07	625950.40	
8400.00	19.77	179.82	8397.79	-19.17	0.06	19.17	17.61	617317.13	625950.46	
8500.00	37.38	179.82	8485.26	-66.82	0.22	66.82	17.61	617269.48	625950.62	
8600.00	55.00	179.82	8554.21	-138.70	0.45	138.70	17.61	617197.60	625950.85	
8700.00	72.61	179.82	8598.18	-228.08	0.73	228.08	17.61	617108.22	625951.13	
8793.43	89.07	179.82	8613.00	-320.00	1.03	320.00	17.61	617016.30	625951.43	Lp
8800.00	89.07	179.82	8613.11	-326.57	1.05	326.57	0.00	617009.73	625951.45	
8900.00	89.07	179.82	8614.73	-426.55	1.37	426.56	0.00	616909.75	625951.77	
9000.00	89.07	179.82	8616.35	-526.54	1.69	526.54	0.00	616809.76	625952.09	
9100.00	89.07	179.82	8617.98	-626.53	2.02	626.53	0.00	616709.77	625952.42	
9200.00	89.07	179.82	8619.60	-726.51	2.34	726.52	0.00	616609.79	625952.74	
9300.00	89.07	179.82	8621.22	-826.50	2.66	826.50	0.00	616509.80	625953.06	
9400.00	89.07	179.82	8622.84	-926.48	2.98	926.49	0.00	616409.82	625953.38	
9500.00	89.07	179.82	8624.47	-1026.47	3.30	1026.48	0.00	616309.83	625953.70	
9600.00	89.07	179.82	8626.09	-1126.46	3.63	1126.46	0.00	616209.84	625954.03	
9700.00	89.07	179.82	8627.71	-1226.44	3.95	1226.45	0.00	616109.86	625954.35	
9800.00	89.07	179.82	8629.33	-1326.43	4.27	1326.44	0.00	616009.87	625954.67	
9900.00	89.07	179.82	8630.96	-1426.42	4.59	1426.42	0.00	615909.88	625954.99	

Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: Chi Energy Field: Eddy Co., NM Site: Wizard Federal #6H Well: Wizard Federal #6H Wellpath: 1	Date: 5/5/2010 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Survey Calculation Method:	Time: 10:59:54 Well: Wizard Federal #6H, Grid North SITE 0.0 Well (0.00N,0.00E,179.82Azi) Minimum Curvature	Page: 2 Db: Sybase
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Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
10000.00	89.07	179.82	8632.58	-1526.40	4.91	1526.41	0.00	615809.90	625955.31	
10100.00	89.07	179.82	8634.20	-1626.39	5.23	1626.40	0.00	615709.91	625955.63	
10200.00	89.07	179.82	8635.82	-1726.38	5.56	1726.38	0.00	615609.92	625955.96	
10300.00	89.07	179.82	8637.45	-1826.36	5.88	1826.37	0.00	615509.94	625956.28	
10400.00	89.07	179.82	8639.07	-1926.35	6.20	1926.36	0.00	615409.95	625956.60	
10500.00	89.07	179.82	8640.69	-2026.33	6.52	2026.34	0.00	615309.97	625956.92	
10600.00	89.07	179.82	8642.31	-2126.32	6.84	2126.33	0.00	615209.98	625957.24	
10700.00	89.07	179.82	8643.93	-2226.31	7.16	2226.32	0.00	615109.99	625957.56	
10800.00	89.07	179.82	8645.56	-2326.29	7.48	2326.31	0.00	615010.01	625957.88	
10900.00	89.07	179.82	8647.18	-2426.28	7.81	2426.29	0.00	614910.02	625958.21	
11000.00	89.07	179.82	8648.80	-2526.27	8.13	2526.28	0.00	614810.03	625958.53	
11100.00	89.07	179.82	8650.42	-2626.25	8.45	2626.27	0.00	614710.05	625958.85	
11200.00	89.07	179.82	8652.04	-2726.24	8.77	2726.25	0.00	614610.06	625959.17	
11300.00	89.07	179.82	8653.66	-2826.22	9.09	2826.24	0.00	614510.08	625959.49	
11400.00	89.07	179.82	8655.28	-2926.21	9.41	2926.23	0.00	614410.09	625959.81	
11500.00	89.07	179.82	8656.91	-3026.20	9.74	3026.21	0.00	614310.10	625960.14	
11600.00	89.07	179.82	8658.53	-3126.18	10.06	3126.20	0.00	614210.12	625960.46	
11700.00	89.07	179.82	8660.15	-3226.17	10.38	3226.19	0.00	614110.13	625960.78	
11800.00	89.07	179.82	8661.77	-3326.16	10.70	3326.17	0.00	614010.14	625961.10	
11900.00	89.07	179.82	8663.39	-3426.14	11.02	3426.16	0.00	613910.16	625961.42	
12000.00	89.07	179.82	8665.01	-3526.13	11.34	3526.15	0.00	613810.17	625961.74	
12100.00	89.07	179.82	8666.63	-3626.12	11.66	3626.13	0.00	613710.18	625962.06	
12200.00	89.07	179.82	8668.25	-3726.10	11.99	3726.12	0.00	613610.20	625962.39	
12300.00	89.07	179.82	8669.87	-3826.09	12.31	3826.11	0.00	613510.21	625962.71	
12400.00	89.07	179.82	8671.50	-3926.07	12.63	3926.09	0.00	613410.23	625963.03	
12500.00	89.07	179.82	8673.12	-4026.06	12.95	4026.08	0.00	613310.24	625963.35	
12600.00	89.07	179.82	8674.74	-4126.05	13.27	4126.07	0.00	613210.25	625963.67	
12700.00	89.07	179.82	8676.36	-4226.03	13.59	4226.06	0.00	613110.27	625963.99	
12800.00	89.07	179.82	8677.98	-4326.02	13.91	4326.04	0.00	613010.28	625964.31	
12900.00	89.07	179.82	8679.60	-4426.01	14.23	4426.03	0.00	612910.29	625964.63	
13000.00	89.07	179.82	8681.22	-4525.99	14.56	4526.02	0.00	612810.31	625964.96	
13100.00	89.07	179.82	8682.84	-4625.98	14.88	4626.00	0.00	612710.32	625965.28	
13200.00	89.07	179.82	8684.46	-4725.97	15.20	4725.99	0.00	612610.33	625965.60	
13300.00	89.07	179.82	8686.08	-4825.95	15.52	4825.98	0.00	612510.35	625965.92	
13400.00	89.07	179.82	8687.70	-4925.94	15.84	4925.96	0.00	612410.36	625966.24	
13418.56	89.07	179.82	8688.00	-4944.50	15.90	4944.53	0.00	612391.80	625966.30	Pbhl

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
								Deg	Min	Sec	Deg	Min	Sec
Lp			8613.00	-320.00	1.03	617016.30	625951.43	32	41	44.189 N	103	55	26.083 W
Pbhl			8688.00	-4944.50	15.90	612391.80	625966.30	32	40	58.427 N	103	55	26.118 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
8200.00	8200.00	7.000	8.500	7"

Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: Chi Energy
Field: Eddy Co., NM
Site: Wizard Federal #6H
Well: Wizard Federal #6H
Wellpath: 1

Date: 5/5/2010 Time: 10:59:54 Page: 3
Co-ordinate(NE) Reference: Well: Wizard Federal #6H, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,179.82Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Annotation

MD ft	TVD ft	
8287.76	8287.76	Kop
8793.43	8613.00	Lp
13418.56	8688.00	Pbhl

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: May 05, 2010

Job Number: _____

Customer: Chi Energy

Well Name: Wizard Federal #6H

API Number: _____

Rig Name: _____

Location: Eddy Co., NM

Block: _____

Engineer: R Joyner

US State Plane 1927

Geodetic Latitude / Longitude

System: New Mexico East 3001 (NON-EXACT) System: Latitude / Longitude

Projection: SPC27 Transverse Mercator

Projection: Geodetic Latitude and Longitude

Datum: NAD 1927 (NADCON CONUS)

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Ellipsoid: Clarke 1866

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North/South 617336.300 USFT

Latitude 32.6964876 DEG

East/West 625950.400 USFT

Longitude -103.9239112 DEG

Grid Convergence: .22°

Total Correction: +7.68°

Geodetic Location WGS84

Elevation = 0.0 Meters

Latitude = 32.69649° N 32° 41 min 47.355 sec

Longitude = 103.92391° W 103° 55 min 26.080 sec

Magnetic Declination = 7.90° [True North Offset]

Local Gravity = .9988 g CheckSum = 6806

Local Field Strength = 48979 nT Magnetic Vector X = 23825 nT

Magnetic Dip = 60.59° Magnetic Vector Y = 3307 nT

Magnetic Model = IGRF-2010g11 Magnetic Vector Z = 42665 nT

Spud Date = Jul 05, 2010 Magnetic Vector H = 24054 nT

Signed: _____

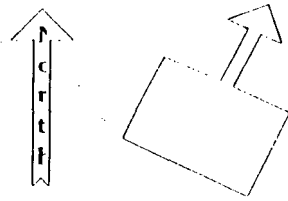
Date: _____

EXHIBIT C-1



EXHIBIT C-2

EXHIBIT "E"
CHI OPERATING, INC.
Wizard Federal Com., Well No. 6
BOP Specifications



Flare Pit & Wall >
(not on location pad)

≥5M (H₂S <100ppm)

Generic Drill Site Layout

Mud Logger

Vent lines may be buried to Flare Pit b4 moving equipment on location

Roll off
Truck

Cuttings Bin

Cuttings Bin

Open Suction Tank
Mud Storage Pre mix

Shale Tank/ Shaker(s) /
Centrifuge(s) / ect.

Mud Pump
Mud Pump

Drig Mud Flowline >
Buffer is Optional

Mud-Gas Separator

Choke Manifold

Light Plant

H₂ O

H₂ O

Parts

Fuel

Lube

Motor Shed

Rig
Substructure
Doghouse

Accum

≥150 ft (H₂S >100ppm)

Pipe Racks

Preplanning reasonable accommodations to achieve necessary and useable "Closed Loop" drillsite features is challenging. Specific considerations must be custom fitted to each well site. This generic plat was prepared to emphasize desired APD planning elements for higher pressured wells with little to no potential for H₂S gas. As a minimum the location plat should show: a north arrow, prevailing wind direction, access road and flare location. Include truck routing for removal of cuttings bins. Consider an overpressured situation, with the BOPE (& mud flowline) closed. Show locations for choke manifold, mud gas separator, and a piping system to vent overpressured fluid and gas to the flare. Also consider the normal drilling need for fluid/gas separation, with the fluid discharged to mud tanks and the gas being vented to a flare. *OPTIONAL*

Tool Pusher Housing

Company man Housing

