

District I
1625 N French Dr , Hobbs, NM 88240
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

Form C-
May 27, 2

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

RECEIVED

MAR 17 2008

HOBBS OCD

Submit to appropriate District Of

☐ AMENDED REPC

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

¹ Operator Name and Address CHEVRON U S A INC 15 SMITH ROAD MIDLAND, TEXAS 79705		² OGRID Number 4323
		³ API Number 30 - 025-31539
³ Property Code 29908	⁵ Property Name B F HARRISON B	⁶ Well No. 6
⁹ Proposed Pool 1 PENROSE SKELLY GRAYBURG		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no F	Section 9	Township 22-S 23S	Range 37-E	Lot Idn	Feet from the 1654	North/South line NORTH	Feet from the 1700	East/West line WEST	County LEA
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⁸ 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
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Additional Well Information

¹¹ Work Type Code P	¹² Well Type Code O	¹³ Cable/Rotary	¹⁴ Lease Type Code S P	¹⁵ Ground Level Elevation 3313'
¹⁶ Multiple NO	¹⁷ Proposed Depth	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ Spud Date
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit Liner Synthetic <input type="checkbox"/> _____ mils thick Clay <input type="checkbox"/> Pit Volume _____ bbls		Drilling Method Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>		

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
NO CHANGE					

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

CHEVRON U S A INC INTENDS TO RECOMPLETE THE SUBJECT WELL TO THE GRAYBURG RESERVOIR

THE INTENDED PROCEDURE & CURRENT & PROPOSED WELLBORE DIAGRAMS ARE ATTACHED FOR YOUR APPROVAL

A PIT WILL NOT BE USED FOR THIS WORK

Permit Expires 2 Years From Approval

Date Unless Drilling Underway

Plugback

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

Printed name: Denise Pinkerton

Title: Regulatory Specialist

E-mail Address: lcakej@chevron.com

Date: 03-14-2008

Phone: 432-687-7375

OIL CONSERVATION DIVISION

Approved by

Title: OC DISTRICT SUPERVISOR/GENERAL MANAGER

Approval Date

Expiration Date

Conditions of Approval Attached ☐

B.F. Harrison B # 6
Penrose Skelly
T23S, R37E, Section 10
Job: PB to Grayburg Formation, Acidize, And Frac

Procedure:

1. *This procedure is based on the most recent information regarding wellbore configuration and equipment that could be found in the Midland Office well files and computer databases as of 2/13/2008. Verify what is in the hole with the well file in the Eunice Field office. Discuss w/ WEO Engineer, Workover Rep, OS, ALS, and FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.*
2. Displace flowline with fresh water. Have field specialist close valve at header. Pressure line according to the type of line. Buried fiberglass lines will be tested with 300 psi. All polypipe (SDR7 and SDR11) will be tested w/100 psi. All steel lines will be tested w/500 psi. If a leak is found, contact Donnie Ives for repair/replacement. If test is good, bleed off pressure and **open valve** at header. Document this process in the morning report.
3. MI & RU workover unit. Bleed pressure from well, if any. Pump down csg with 8.6 PPG cut brine water, if necessary to kill well. POH & LD rods. Remove WH. Install BOP's and test as required. POH and LD 2-7/8" tbg.
4. PU and GIH with 4-3/4" MT bit, 4000' of 2 7/8" New Class "A" tbg, & 2-7/8" WS as needed. Circulate well clean from 6250' using 8.6 PPG cut brine water, if possible. Foam air if necessary. POH with tbg string and bit. LD bit.
5. MI & RU WL. GIH w/ CIBP to 6235'. Set 5-1/2" CIBP at 6235'. Pressure test casing and CIBP to 500 psi. If CIBP does not test isolate leak POH. LD setting tool.
6. GIH and conduct GR/CBL/CCL from 5500' up to 100' above top of cement. Run log with 500 psi on casing. POH. Inspect logs for good cement bond from approximately 4100' up to 3400'. If bond does not appear to be good across proposed completion interval, discuss with Engineering before proceeding.
7. GIH with 3 1/8" slick casing guns and perforate the following intervals with 4 JSPF at 120 degree phasing using 23 gram premium charges:

Top Perf	Bottom Perf	Net Feet	Total Holes
3900	3910	10	40
3860	3870	10	40
3838	3845	7	28
3824	3830	6	24

3809	3818	9	36
3778	3788	10	40
3755	3765	10	40
3745	3750	5	20
3728	3735	7	28
3702	3712	10	40
	Total	84	336

8. POH. GIH and dump bail 35' of cement on top of CIBP at 6235'. POH RD & release WL.
Note: Use Halliburton Spectral Density Dual Spaced Neutron Log Dated 10/26/1992.
9. RIH w/ 5-1/2" PPI packer w/ SCV and 12' element spacing. Test PPI packer in blank pipe. Mark Settings.
10. MI & RU DS Services. Acidize perfs 3702-3870' with 2,000 gals 15% NEFE HCl acid* at a maximum rate of $1\frac{1}{2}$ BPM and a maximum surface pressure of **4000 psi** as follows:

Top Perf	Bottom Perf	Net Feet	Acid Volume	Rate	PPI Setting
3900	3910	10	200	1/2 BPM	3899-3911
3860	3870	10	200	1/2 BPM	3859-71
3838	3845	7	200	1/2 BPM	3836-48
3824	3830	6	200	1/2 BPM	3821-33
3809	3818	9	200	1/2 BPM	3808-20
3778	3788	10	200	1/2 BPM	3777-89
3755	3765	10	200	1/2 BPM	3754-66
3745	3750	5	200	1/2 BPM	3740-52
3728	3735	7	200	1/2 BPM	3726-38
3702	3712	10	200	1/2 BPM	3701-13
	Total	84	2000		

Displace acid with 8.6 PPG cut brine water -- do not over displace. Use a SCV to control displacement fluid. Record ISIP, 5 & 10 minute SIP's. RD and release DS services.

* Acid system to contain: 1 GPT A264 Corrosion Inhibitor

8 GPT L63
2 PPT A179
20 GPT U66
2 GPT W53

Iron Control Agents
Iron Control Aid
Mutual Solvent
Non-Emulsifier

11. Release PPI & PU to approximately 3600'. Set pkr @ 3600'. Fish SCV & SV. Swab back all intervals together. Recover 100% of treatment and load volumes before shutting well in for night, if possible. Report recovered volumes, pressures, and/or swabbing fluid levels. **Note: Selectively swab perfs as directed by engineering if excessive water is produced.**
12. Open well. Release PPI pkr. POH w/ tbg and PPI pkr. LD PPI tool.
13. PU and GIH w/ 5-1/2" Arrow-Set 10k pkr & On-Off tool w/ 2.25" "F" profile and 114 jts of 3-1/2" EUE 8R L-80 work string, testing to 8000 psi. Set pkr at approximately 3600'. Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to aid in observing communication.
14. MI & RU DS Services and Rita Dickey (432-553-2526). Frac well down 3 1/2" tubing at **40 BPM** with 88,000 gals of YF125, 176,000 lbs. 16/30 mesh Jordan Sand, and 30,000 lbs **resin-coated** 16/30 mesh CR1630 proppant. Observe a maximum surface treating pressure of **7500 psi**. Pump job as follows:

Pump 2,000 gals 2% KCL water containing 55 gals Baker RE 4777-SCW Scale Inhibitor at **6 BPM**
Pump 1,000 gals 2% KCL water spacer at **20 BPM**
Pump 14,000 gals YF125 pad containing 5 GPT J451 Fluid Loss Additive at **40 BPM**
Pump 14,000 gals YF125 containing 0.5 PPG 16/30 mesh Jordan Sand & 5 GPT J451 FL Additive
Pump 12,000 gals YF125 containing 1.5 PPG 16/30 mesh Jordan Sand
Pump 12,000 gals YF125 containing 2.5 PPG 16/30 mesh Jordan Sand
Pump 14,000 gals YF125 containing 3.5 PPG 16/30 mesh Jordan Sand
Pump 16,000 gals YF125 containing 4.5 PPG 16/30 mesh Jordan Sand
Pump 6,000 gals YF125 containing 5 PPG **resin-coated** 16/30 mesh CR1630 proppant.

Flush to 3702' (1 bbl short) with 1,372 gal WF125. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release DS Services. **Leave well SI overnight.**
15. Open well. Bleed pressure from well, if any. Release pkr. POH LD 3 1/2" work string, on-off tool, and pkr.
16. PU and GIH with 4-3/4" MT bit on 4,000' of 2-7/8" new Class "A" tbg & WS to approximately 4200'. If fill is tagged above 4200', cleanout to 4200' using 8.6# PPG cut brine water using air unit if necessary. POH with 2 7/8" tbg and bit. LD bit.
17. PU & GIH with 5-1/2" pkr on 2 7/8" tbg string to 3600'. Set pkr at 3600'. Open well. GIH and swab well until there is no sand inflow
18. Release pkr. POH 2-7/8" tubing and pkr.

19. RIH w/ 2-7/8" production tubing and hang off per ALS recommendation. NDBOP. NUWH.
RIH w/ rods and pump per ALS.
20. RD Key PU & RU. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

Engineer – Lonnie Grohman
432-687-7420 Office
432-238-9233 Cell

B.F. Harrison B #6

Location:

Sec-9, T-22S, R-37E 1654' FNL & 1700 FWL
 Unit Letter: F
 Field: North Teague
 County: Lea
 State: NM

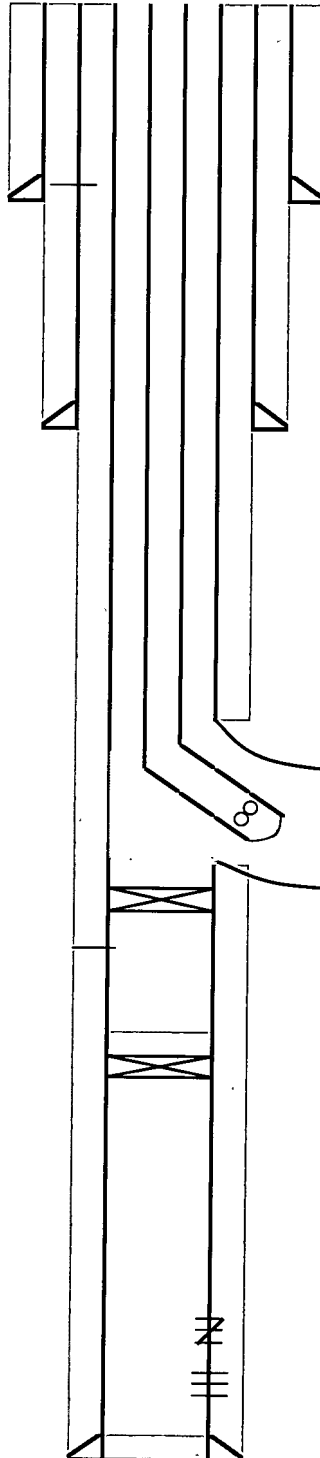
Well Info:

Spud Date: 10/7/1992
 API: 30-025-31539
 Cost Center: UCU52800
 WBS#:
 RefNO: QU1928
 Lease: FEE

Elevations:

DF: 3329
 KB: 3330
 GL: 3313

Current Wellbore Diagram



Surface Casing

Size: 13-3/8" 54 5# J-55 & 61# HC-80 STC
 Set @: 1180'
 With: 900 sks
 Hole Size: 17-1/2"
 TOC @ Surface
 By: Circulation

Intermediate Casing

Size: 9-5/8" 40# J-55 & S-80
 Set @: 3750'
 With: 1625 sks
 Hole Size: 12-1/4"
 TOC: Surface
 By: Circulation

North Teague Drinkard-Abo

Perfs: Formation: Status:
 8822-30' Fusselman Squeezed
 8868-70' Fusselman open below CIBP

Production Casing

Size: 5-1/2" 17# J-55 LTC
 Set @: 8950
 With: 2100
 Hole Size: 8-3/4"
 TOC: Surface
 By: Circulation

DV Tool @ 1089'

This wellbore diagram is based on the most recent information regarding wellbore configuration and equipment that could be found in the Midland Office well files and computer databases as of the update date below. Verify what is in the hole with the well file in the Eunice Field Office. Discuss w/ WFO Engineer, WFO Rep, OS, ALS & FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.

TOW- 6299'

BOW- 6308'

Whipstock @ 6293'

RBP @ 6317'

14' of sand, TOS @ 6303'

DV Tool @ 7007'

CIBP @ 8860 w/35' cmt

# Jts:	Description:	Length:
191	2 7/8 6 5# 8rd J55 Tbg	6034 12
	5 1/2 X 2 7/8 TAC	2 70
7	2 7/8 6 5# 8rd J55 Tbg	220 10
1	2 7/8 6 5# 8rd J55 Tbg TK-99	32 25
	2 3/8 SN	1 10
1	2 3/8 4 7# 8rd J55 Tbg	29 84
	2 3/8 Perf Sub w/ Bull Plug	4 70
Total Length		6324 81

PBTD:

TD: 8,950'

Updated: 13-Feb-08

By: lgek

B.F. Harrison B #6

State

Location:

Sec-9, T-22S, R-37E 1654' FNL & 1700 FWL
Unit Letter: F
Field: North Teague
County: Lea
State: NM

Well Info:

Spud Date: 10/7/1992
API: 30-025-31539
Cost Center: UCU52800
WBS#:
RefNO: QU1928
Lease: FEE

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DF: 3329
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GL: 3313

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This wellbore diagram is based on the most recent information regarding wellbore configuration and equipment that could be found in the Midland Office well files and computer databases as of the update date below. Verify what is in the hole with the well file in the Eunice Field Office. Discuss w/ WED Engineer, WED Rep, OS, ALS & FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.

TOW- 6299'
BOW- 6308'
Whipstock @ 6293'
RBP @ 6317'
14' of sand, TOS @ 6303'

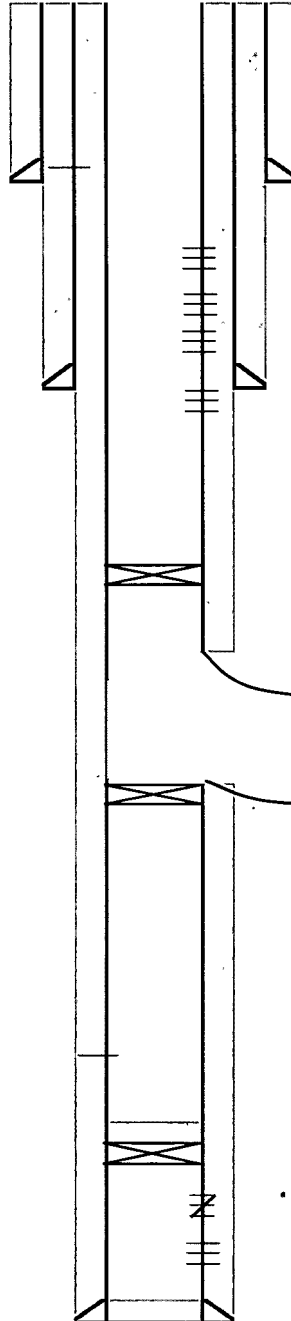
# Jts:	Description:	Length:
191	2 7/8 6 5# 8rd J55 Tbg	6034.12
	5 1/2 X 2 7/8 TAC	2.70
7	2 7/8 6 5# 8rd J55 Tbg	220.10
1	2 7/8 6 5# 8rd J55 Tbg TK-99	32.25
	2 3/8 SN	1.10
1	2 3/8 4 7# 8rd J55 Tbg	29.84
	2 3/8 Perf Sub w/ Bull Plug	4.70
Total Length		6324.81

DV Tool @ 7007'

CIBP @ 8860 w/35' cmt

PBTD:
TD: 8,950'
Updated: 13-Feb-08
By: lgek

Current PROPOSED Wellbore Diagram



Surface Casing

Size: 13-3/8" 54 5# J-55 & 61# HC-80 STC
Set @: 1180'
With: 900 sks
Hole Size: 17-1/2"
TOC @ Surface
By: Circulation

Perfs:	Formation:	Status:
3702-12'	Grayburg	Proposed
3728-35'	Grayburg	Proposed
3745-50'	Grayburg	Proposed
3755-65'	Grayburg	Proposed
3778-88'	Grayburg	Proposed
3809-18'	Grayburg	Proposed
3824-30'	Grayburg	Proposed
3838-45'	Grayburg	Proposed
3860-70'	Grayburg	Proposed
3900-10'	Grayburg	Proposed

Intermediate Casing

Size: 9-5/8" 40# J-55 & S-80
Set @: 3750'
With: 1625 sks
Hole Size: 12-1/4"
TOC: Surface
By: Circulation

North Teague Drnkard-Abo

Perfs:	Formation:	Status:
8822-30'	Fusselman	Squeezed
8868-70'	Fusselman	open below CIBP

Production Casing

Size: 5-1/2" 17# J-55 LTC
Set @: 8950
With: 2100
Hole Size: 8-3/4"
TOC: Surface
By: Circulation

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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

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-31539	² Pool Code 50350	³ Pool Name PENROSE SKELLY GRAYBURG
⁴ Property Code 29908	⁵ Property Name B.F. HARRISON B	⁶ Well Number 6
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3313'

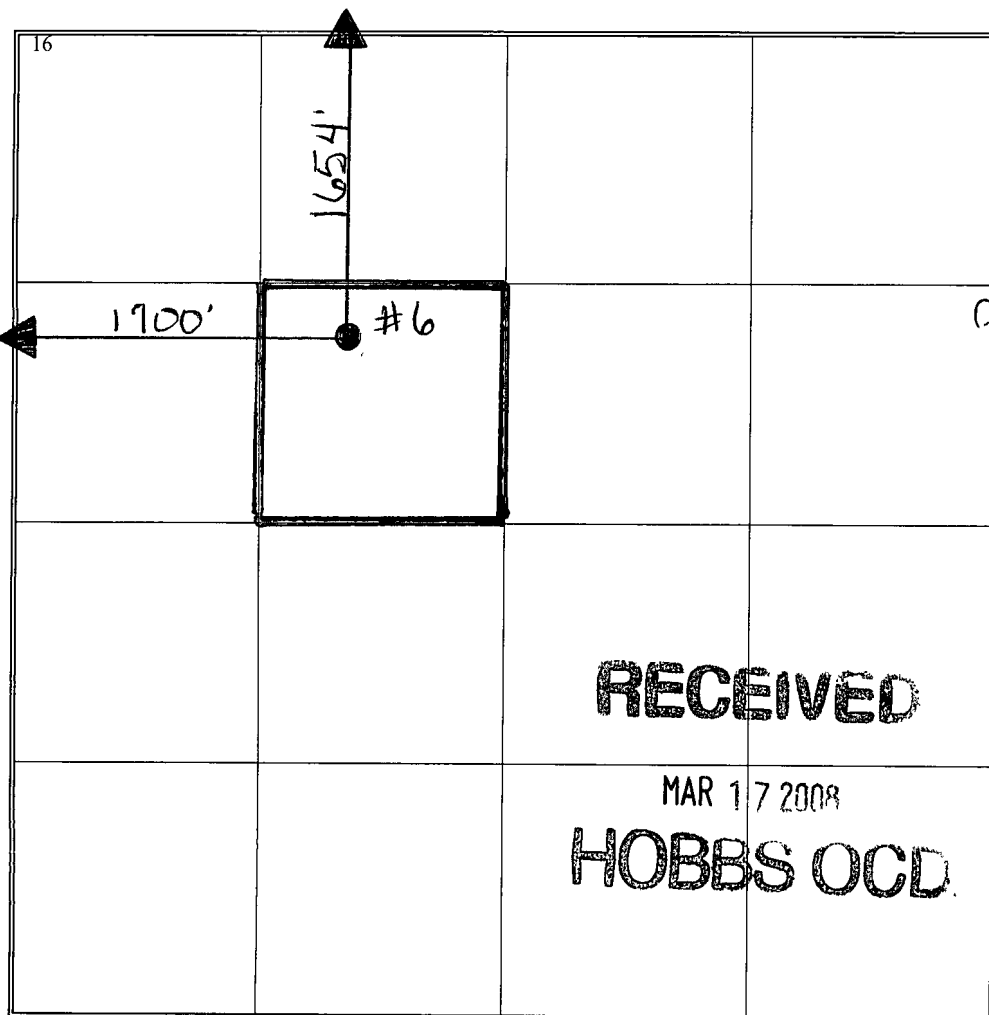
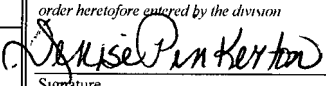
¹⁰ Surface Location

UL or lot no. F	Section 9	Township 22-S 23S	Range 37-E	Lot Idn	Feet from the 1654	North/South line NORTH	Feet from the 1700	East/West line WEST	County LEA
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¹¹ 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
¹² Dedicated Acres 40	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 	¹⁷ OPERATOR CERTIFICATION <i>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>  03-14-2008 Signature Date DENISE PINKERTON REGULATORY SPECIALIST Printed Name
	¹⁸ SURVEYOR CERTIFICATION <i>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</i> Date of Survey Signature and Seal of Professional Surveyor Certificate Number

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