

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-101
Revised February 10, 1999
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copie
Fee Lease - 5 Copie

☐ AMENDED REPORT

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

¹ Operator Name and Address CHEVRON USA INC 15 SMITH RD, MIDLAND, TX 79705		² OGRID Number 4323
⁴ Property Code 10980 29908		³ API Number 30-025-31794
⁵ Property Name B.F. HARRISON 'B'		⁶ Well No. 7

⁷ Surface Location									
Ul or lot no. D	Section 9	Township 23S	Range 37E	Lot.Idn	Feet From The 510	North/South Line North	Feet From The 800	East/West Line West	County LEA

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
⁹ Proposed Pool 1 LANGLIE MATTIX, 7 RIVERS QUEEN-GRAYBURG (37240)					¹⁰ Proposed Pool 2				

¹¹ Work Type Code P	¹² Well Type Code O	¹³ Rotary or C.T.	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation GR-3318, KB-3336
¹⁶ Multiple No	¹⁷ Proposed Depth 9000' 5500'	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ Spud Date

²¹ Proposed Casing and Cement Program					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
	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 RECOMLETE THE SUBJECT WELL TO THE GRAYBURG RESERVOIR.

A PIT WILL NOT BE USED FOR THIS PLUGBACK. A STEEL FRAC TANK WILL UTILIZED.

THE INTENDED PROCEDURE, AND CURRENT AND PROPOSED WELLBORE DIAGRAMS ARE ATTACHED FOR YOUR APPROVAL.

Plugback

²³ I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature Denise Pinkerton		Approved By: Chris Williams	
Printed Name Denise Pinkerton		Title: DISTRICT SUPERVISOR/GENERAL MANAGER	
Title Regulatory Specialist		Approval Date: FEB 14 2007	
Date 1/18/2007		Expiration Date:	
Telephone 432-687-7375		Conditions of Approval: Attached <input type="checkbox"/>	

B. F. Harrison B # 7
Langlie Mattix Field
T23S, R37E, Section 9
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 1/10/2007. 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 and pump. Remove WH. Install BOP's and test as required. Release TAC. POH LD 2 3/8" tbg string and TAC.**
- 4. PU and GIH with 4 3/4" MT bit and 2 7/8" work string to 5550'. Reverse circulate well clean from 5500' using 8.6 PPG cut brine water. POH with work string and bit. LD bit.**
- 5. PU and GIH with tbg-set CIBP on 2 7/8" work string to 5500'. Set CIBP at 5500'. Pressure test CIBP and 5 1/2" casing to 500 psi. POH with 2 7/8" work string and setting tool. LD setting tool.**
- 6. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct GR/CBL/CCL from 5500' up to 100' above top of cement. Run log with 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. GIH with 3 1/8" slick casing guns and perforate from 3705-15', 3720-30', 3735-45', 3753-63', 3770-76', 3780-85', 3788-96', 3802-12', 3816-24', 3828-34', 3838-44', 3848-54', 3870-80', 3885-93', 3898-3904', 3920-30', and 3934-42' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. RD & release electric line unit. **Note: Use Halliburton Spectral Density Dual Spaced Neutron Log dated 12/18/1992 for depth correlation.****
- 7. PU and GIH w/ 5 1/2" PPI pkr (with 12' element spacing) and SCV on 2 7/8" work string to approximately 3700'. Test tbg to 5500 psi while GIH.**

8. MI & RU DS Services. Acidize perfs 3705-3942' with 3,400 gals anti-sludge 15% HCl acid * at a maximum rate **as shown below** and a maximum surface pressure of **3500 psi**. Spot acid across perfs at beginning of each stage and let soak to lower breakdown pressure and prevent communication. Pump job as follows:

Interval	Amt. Acid	Max Rate	PPI Setting
3934-42'	200 gals	½ BPM	3933-45'
3920-30'	200 gals	½ BPM	3919-31'
3898-3904'	200 gals	½ BPM	3896-3908'
3885-93'	200 gals	½ BPM	3882-94'
3870-80'	200 gals	½ BPM	3869-81'
3848-54'	200 gals	½ BPM	3846-58'
3838-44'	200 gals	½ BPM	3835-47'
3828-34'	200 gals	½ BPM	3825-37'
3816-24'	200 gals	½ BPM	3814-26'
3802-12'	200 gals	½ BPM	3801-13'
3788-96'	200 gals	½ BPM	3786-98'
3780-85'	200 gals	½ BPM	3776-88'
3770-76'	200 gals	½ BPM	3766-78'
3753-63'	200 gals	½ BPM	3752-64'
3735-45'	200 gals	½ BPM	3734-46'
3720-30'	200 gals	½ BPM	3719-31'
3705-15'	200 gals	½ BPM	3704-16'

Displace acid with 8.6 PPG cut brine water -- do not overdisplace. Use a SCV to control displacement fluid. Record ISIP, 5 & 10 minute SIP's. RD and release DS services. **Note:** Pickle tubing in 1 run of 500 gals acid, prior to acidizing perfs. Pickle acid is to contain only 1/2 gal A264 and 1 gal W53. Also, if communication occurs during treatment of any interval, monitor casing pressure and attempt to complete stage w/o exceeding 500 psi csg pressure. If cannot, then move PPI to next setting depth and combine treatment volumes of the intervals.

* Acid system is to contain:	1 GPT A264	Corrosion Inhibitor
	8 GPT L63	Iron Control Agent
	2 PPT A179	Iron Control Aid
	20 GPT U66	Mutual Solvent
	2 GPT W53	Non-Emulsifier

9. Release PPI pkr and PUH to approximately 3675'. Set pkr at 3675'. Fish SCV. Swab back all intervals together. Recover 100% of treatment and load volumes before shutting well in for night, if possible. Report recovered fluid volumes, pressures, and/or swabbing fluid levels. **Note:** Selectively swab perfs as directed by Engineering if excessive water is produced.
10. Open well. Release PPI pkr. POH with tbg and PPI packer. LD PPI tool.

11. PU and GIH w/ 5 ½" Lok-Set pkr & On-Off tool w/ 2.25" "F" profile and 117 jts. of 3 ½" EUE 8R L-80 work string, testing to 8500 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 observe for communication.
12. MI & RU DS Services and Tracer-Tech Services (Mike Mathis (866) 595-3115). Frac well down 3 ½" 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 **8000 psi**. Tag frac with 2 radioactive isotopes (1 in regular sand stages, and 1 in resin-coated proppant stage). 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 3600' with 1,315 gals WF125. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release DS Services and Tracer-Tech Services. **Leave well SI overnight.**
13. Open well. Bleed pressure from well, if any. Release pkr. POH LD 3 ½" work string, on-off tool, and pkr.
14. PU and GIH with 4 ¾" MT bit on 2 7/8" work string to approximately 4200'. If fill is tagged above 4200', cleanout to 4200' using 8.6 PPG cut brine water and air unit if necessary. POH with 2 7/8" work string and bit. LD bit.
15. PU & GIH with 5 ½" pkr on 2 7/8" work string to 3600'. Set pkr at 3600'. Open well. GIH and swab well until there is no sand inflow. Swab well for at least 3 hours before logging. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct after-frac PRISM GR/Temp/CCL log from 4200' up to 3300'. POH. RD & release electric line unit. **Note: Correlate logs and run flat with Baker Atlas GR/CBL/CCL Log conducted in Step # 6.**
16. Release pkr. POH LD 2 7/8" work string and pkr.
17. PU and GIH w/ BP mud anchor jt of 2 7/8" tbg, 2 7/8" x 4' perforated sub, SN, 1 jt 2 7/8" EUE 8R J-55 IPC tbg, 13 jts 2 7/8" EUE 8R J-55 tbg, TAC, and 117 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3625', with EOT at 4100' and SN at 4065'.

18. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS recommended design. RD & release pulling unit.
19. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

AMH

1/11/2007

Well: **B. F. HARRISON B # 7**

TEAGUE

Reservoir:

Location:	510' FNL
	800' FWL
Section:	9
Township:	23S
Range:	37E
County:	LEA, NM

Elevations:	
GL:	3318'
DF:	
KB:	3336'

TBG DETAIL:

KB	16.00
174 JTS 2 3/8" J-55	5431.28
TAC	2.85
2 JTS 2 3/8"	62.49
1 JT IPC	31.11
SN	1.10
PS	4.00
2 JTS BPMA	63.65
EOT	5612.48

Rod Detail:

1 1/2" POLISH ROD	26.00
1 - 7/8" GRADE 'D' CL 'B'	6.00
97 - 7/8" GRADE 'D' CL 'B'	2425.00
116 - 3/4" GRADE 'D' CL 'B'	2900.00
6 - 1 1/2" GRADE 'C' CL 'B'	150.00
2"x1 1/2" INSERT PUMP	24.00
	5531.00

TAC @ 5447'
SN @ 5543'
PERFS: 5550' - 5618'

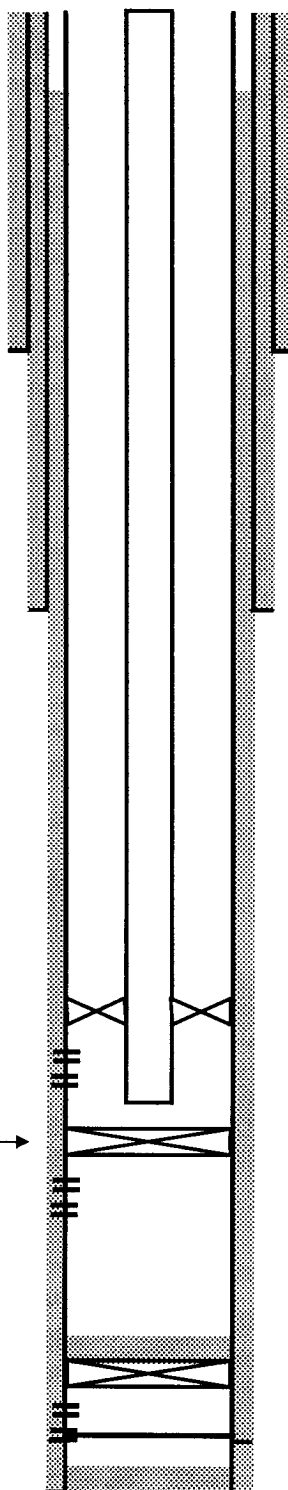
CIBP @ 5623' →

PERFS: 5640' - 5860'

CIBP @ 8800' capped w/ 35' cmt

PERFS: 8848-78'
8884-8900' (Cmt sqzd)

Current Wellbore Diagram



Well ID Info:	
Refno:	
API No:	30-025-11794
L5/L6:	
Spud Date:	
Compl. Date:	

Surf. Csg: 13 3/8"
54.5#
J-55
Set: @ 1180'
With: 900 SXS
Hole Size: 17 1/2"
Circ: YES
TOC @ SURF

Int. Csg: 9 5/8"
40#
J-55 & S-80
Set: @ 3750'
With: 1575 SXS
Hole Size: 12 1/4"
Circ: YES
TOC @ SURF

Prod. Csg: 5 1/2"
17#
S-80, K-55
Set @ 9000'
With: 1725 SXS
Hole Size: 7 7/8"
Circ: NO
TOC @ 274' TS

COTD:
PBD: 5,623'
TD: 9,000'

Updated: 19-Apr-02
By: J. M. LOVELL

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. Well site in the future Field Office. Discuss with Web Engineer. WFO Reg. PS, ALs & F-5 prior to signing up on well regarding any hazards or unknown issues pertaining to the well.

3724D

Well: B. F. HARRISON B #7

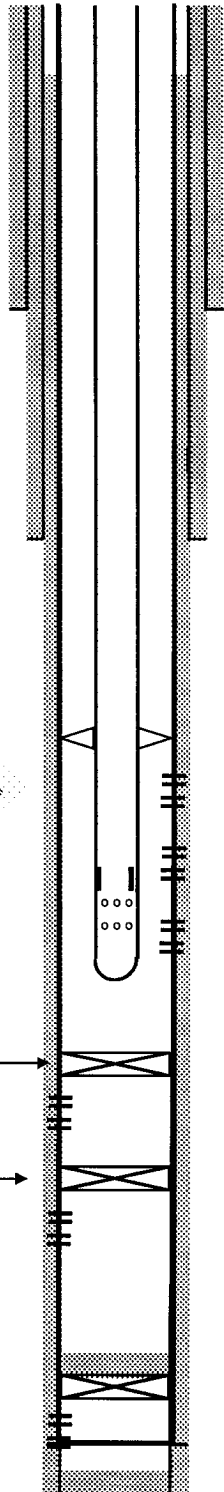
Field: Langlie Mattix

Reservoir: Grayburg

Location:	510' FNL
	800' FWL
Section:	9
Township:	23S
Range:	37E
County:	LEA, NM

Elevations:	
GL:	3318'
DF:	3335'
KB:	3336'

Proposed Wellbore Diagram



Well ID Info:	
Refno:	QU2983
API No:	0-825-11794
L5/L6:	UCU728800
Spud Date:	11/24/1992
Compl. Date:	1/27/1993

Surf. Csg:	13 3/8"
	54.5#
	J-55
Set @	1180'
With:	900 SXS
Hole Size:	17 1/2"
Circ:	YES
TOC @	SURF

Int. Csg:	9 5/8"
	40#
	J-55 & S-80
Set @	3750'
With:	1575 SXS
Hole Size:	12 1/4"
Circ:	YES
TOC @	SURF

Perfs:	Status:
3705-15'	Grayburg - Open
3720-30'	Grayburg - Open
3735-45'	Grayburg - Open
3753-63'	Grayburg - Open
3770-76'	Grayburg - Open
3780-85'	Grayburg - Open
3788-96'	Grayburg - Open
3802-12'	Grayburg - Open
3816-24'	Grayburg - Open
3828-34'	Grayburg - Open
3838-44'	Grayburg - Open
3848-54'	Grayburg - Open
3870-80'	Grayburg - Open
3885-93'	Grayburg - Open
3898-04'	Grayburg - Open
3920-30'	Grayburg - Open
3934-42'	Grayburg - Open

TBG DETAIL:		
KB		16.00
117 JTS 2 7/8" J-55		3611.00
TAC		2.85
13 JTS 2 7/8" J-55	5	403.00
1 JT 2 7/8" J-55 IPC	5	31.50
SN		1.10
PS		4.00
1 JT BPMA		31.50
EOT		4100.95

This wellbore diagram is based on the most recent information regarding wellbore construction and equipment that could be found in the field and office files and computer databases as of the date this report was prepared. Verify what is in the hole with the well log engineer, well log, etc. Discuss any changes to the wellbore with the well log engineer before making any changes to the wellbore.

CIBP @ 5500'	
PERFS: 5550' - 5618'	
CIBP @ 5623'	
PERFS: 5640' - 5860'	
CIBP @ 8800' capped w/ 35' cmt	
PERFS: 8848-78'	
8884-8900' (Cmt sqzd)	

Prod. Csg:	5 1/2"
	17#
	S-80, J-55
Set @	9000'
With:	1725 SXS
Hole Size:	7 7/8"
Circ:	NO
TOC @	274' TS

COTD:	
PBTD:	5,500'
TD:	9,000'

Updated: 10-Jan-07
By: A. M. Howell

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

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Energy, Minerals and Natural Resources Department**OIL CONSERVATION DIVISION**P.O. Box 2088
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Form C-102

Revised February 10, 1999

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copy

Fee Lease - 3 Copy

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

¹ API Number 30-025-31794	² Pool Code 37240	³ Pool Name LANGLIE MATTIX 7 RIVERS QUEEN - GRAYBURG
⁴ Property Code 10960	⁵ Property Name B.F. HARRISON 'B'	⁶ Well No. 7
⁷ OGRID Number 4323	⁸ Operator Name CHEVRON USA INC	⁹ Elevation GR-3318, KB-3336

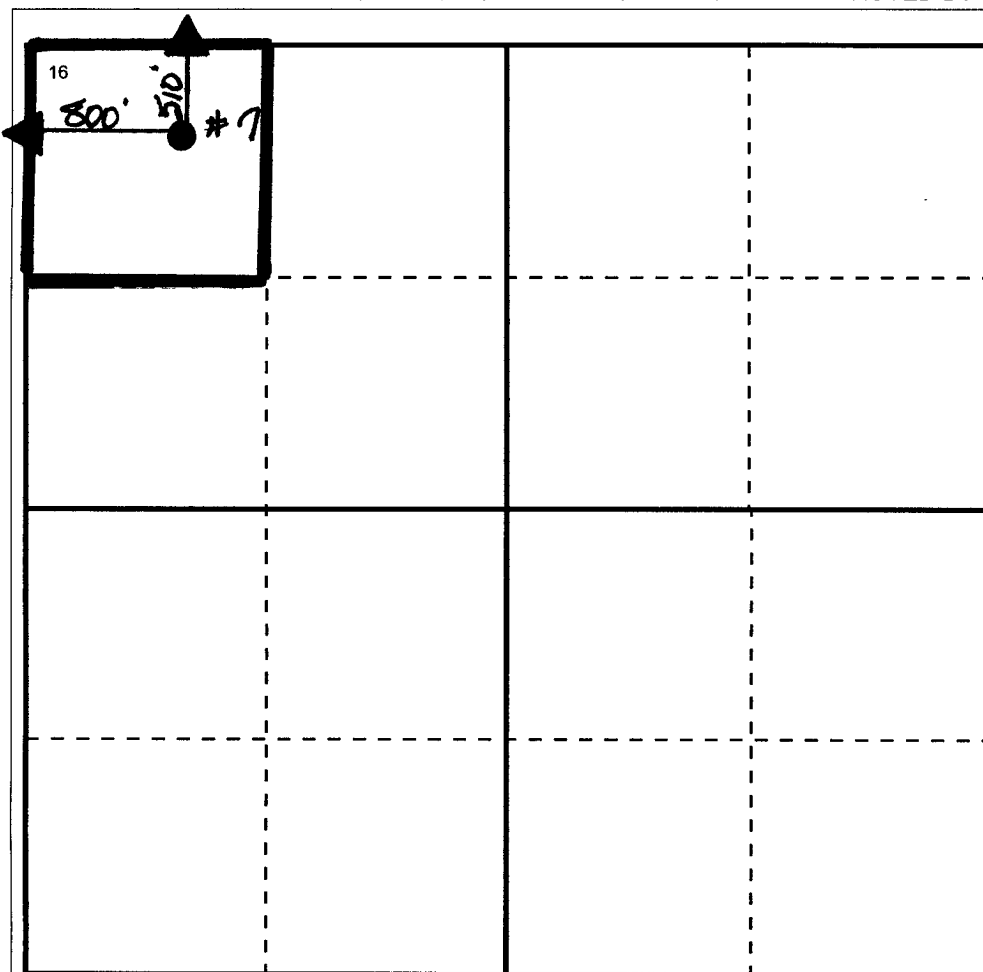
¹⁰ Surface Location

Ul or lot no D	Section 9	Township 23S	Range 37E	Lot.Idn	Feet From The 510	North/South Line North	Feet From The 800	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
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¹² Dedicated Acre 40	¹³ Joint or Infill No	¹⁴ Consolidation Code	¹⁵ Order No.
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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**17 OPERATOR CERTIFICATION**I hereby certify that the information
contained herein is true and complete to the
best of my knowledge and belief

Signature

Printed Name

Denise Pinkerton

Positio

Regulatory Specialist

Date

1/18/2007

18 SURVEYOR CERTIFICATIONI 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 knowledge and
belief.

Date Surveyed

Signature & Seal of
Professional Surveyor

Certificate No.

