

AAPP

Form 3160-5
(August 2007)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 20105. Lease Serial No.
NMNM0557729

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No.
RIGEL 20 FED COM 6H2. Name of Operator
DEVON ENERGY PRODUCTION CO. LP
Contact: TRINA C COUCH
Email: trina.couch@devn.com9. API Well No.
30-015-415133a. Address
DEVON ENERGY PRODUCTION CO. LP 333 WEST
OKLAHOMA CITY, OK 73102-50153b. Phone No. (include area code)
SHERIDAN 202 280 7201 OKLAHOMA CITY, OK 73102-5001
10. Field and Pool, or Exploratory
SACBERRY; BONE SPRING, N.4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 20 T19S R31E 1699FNL 265FWL11. County or Parish, and State
EDDY COUNTY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

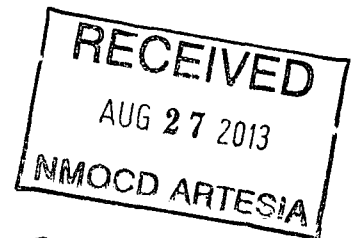
Devon Energy Production Company, L.P. respectfully requests approval to change the SHL to the following:

Current location: SHL: 1699 FNL & 265 FWL

TO

Proposed location: SHL: 1699 FNL & 315 FWL

RDade 8/28/2013
Accepted for record
NMOC



Provide signed C102 to NMOC

Eng. OK 8/14/13 CRW URS OK 8-20-13

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #216317 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION CO. LP, sent to the Carlsbad
Committed to AFMSS for processing by JOHNNY DICKERSON on 08/09/2013 ()

Name (Printed/Typed) TRINA C COUCH

Title REGULATORY ASSOCIATE

Signature (Electronic Submission)

Date 08/07/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

FIELD MANAGER

Date

8/23/13

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

CARLSBAD FIELD OFFICE

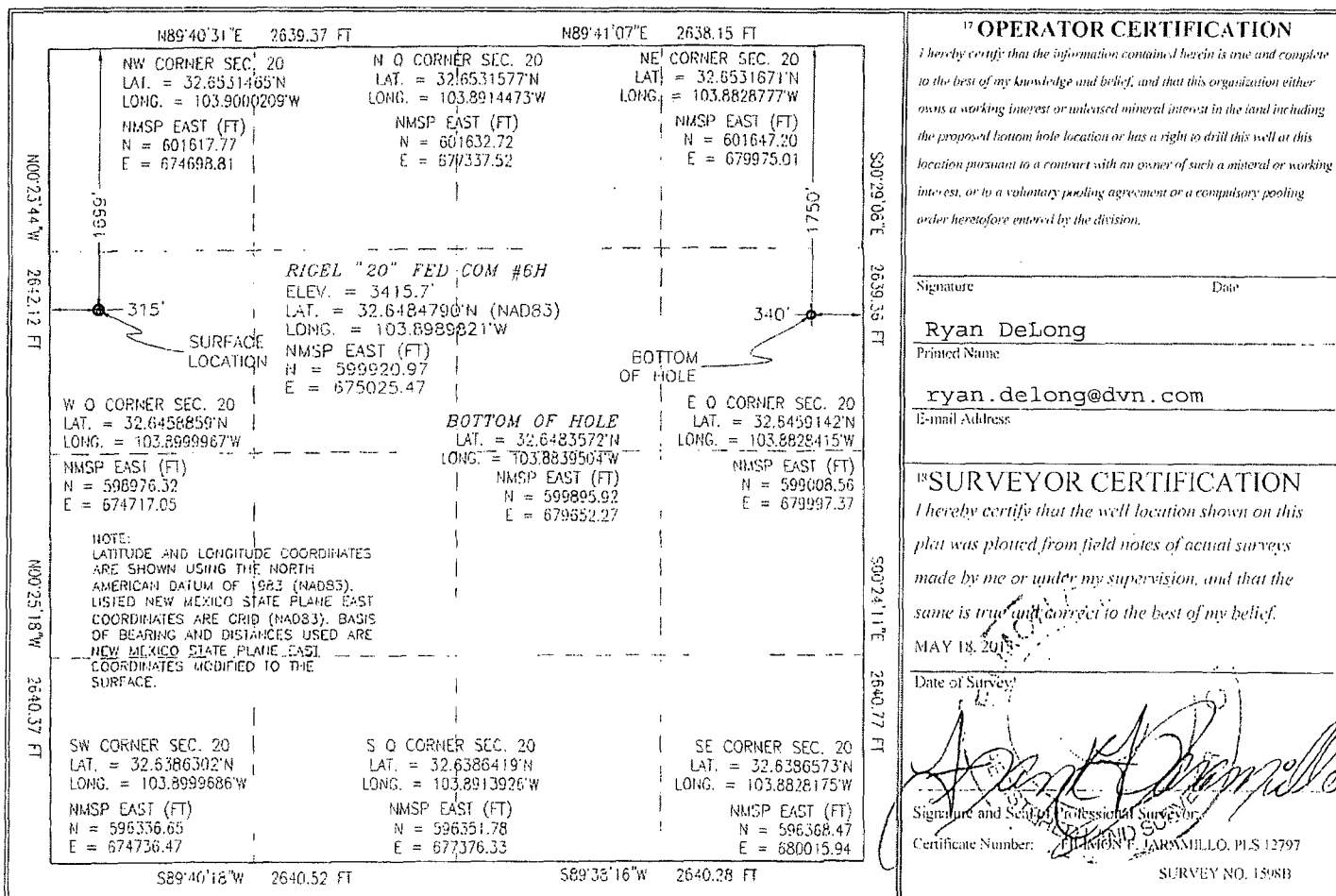
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Additional data for EC transaction #216317 that would not fit on the form

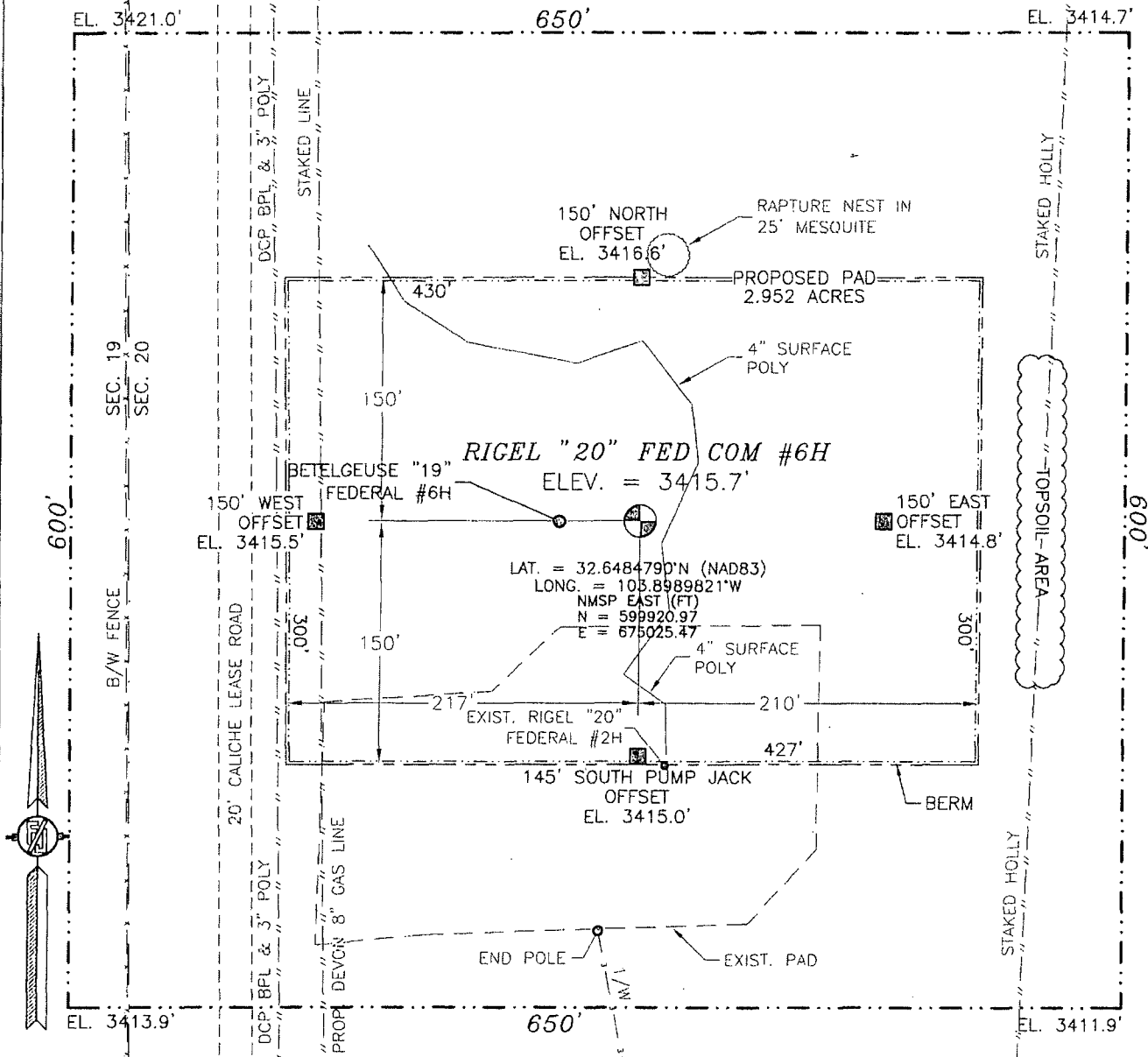
32. Additional remarks, continued

Attachments:
Drilling Plan
Directional Survey
Proposal Report
C-102



SECTION 20, TOWNSHIP 19 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE



010 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF SR 360 (BLUESTEM ROAD) AND CR 222 (SHUGART ROAD) GO EAST ON CR 222 4.95 MILES TO CALICHE LEASE ROAD JUST PAST CATTLE GUARD ON LEFT, GO NORTH ON CALICHE LEASE ROAD 1.8 MILES. SITE IS APPROX. 200 FT. ON RIGHT.

DEVON ENERGY PRODUCTION COMPANY, L.P.

RIGEL "20" FED COM #6H

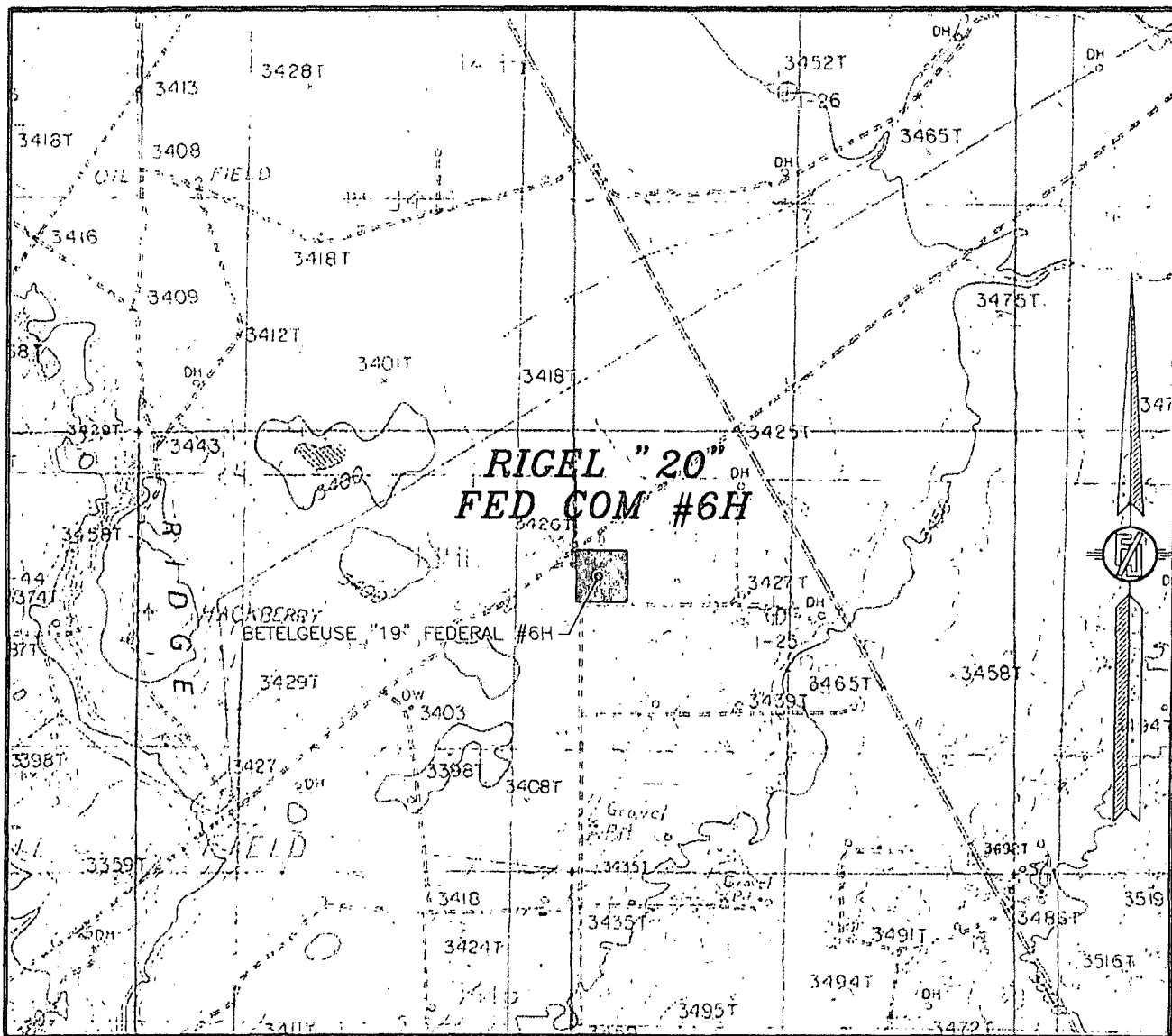
LOCATED 1699 FT. FROM THE NORTH LINE
AND 315 FT. FROM THE WEST LINE OF
SECTION 20, TOWNSHIP 19 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 18, 2013

SURVEY NO. 1598B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

20, TOWNSHIP 19 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
HACKBERRY LAKE

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

RIGEL "20" FED COM #6H

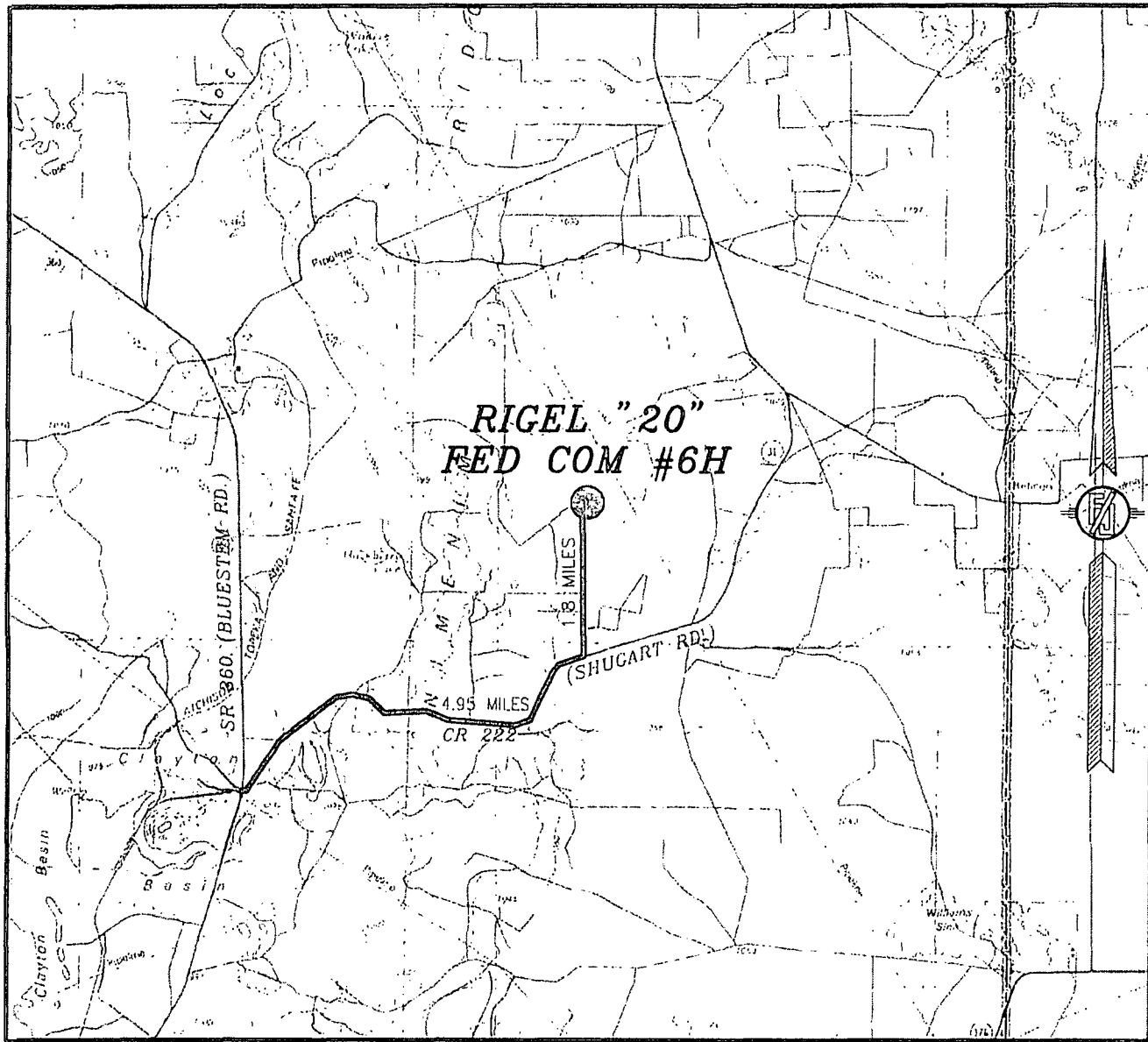
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(575) 234-3341

SECTION 20, TOWNSHIP 19 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

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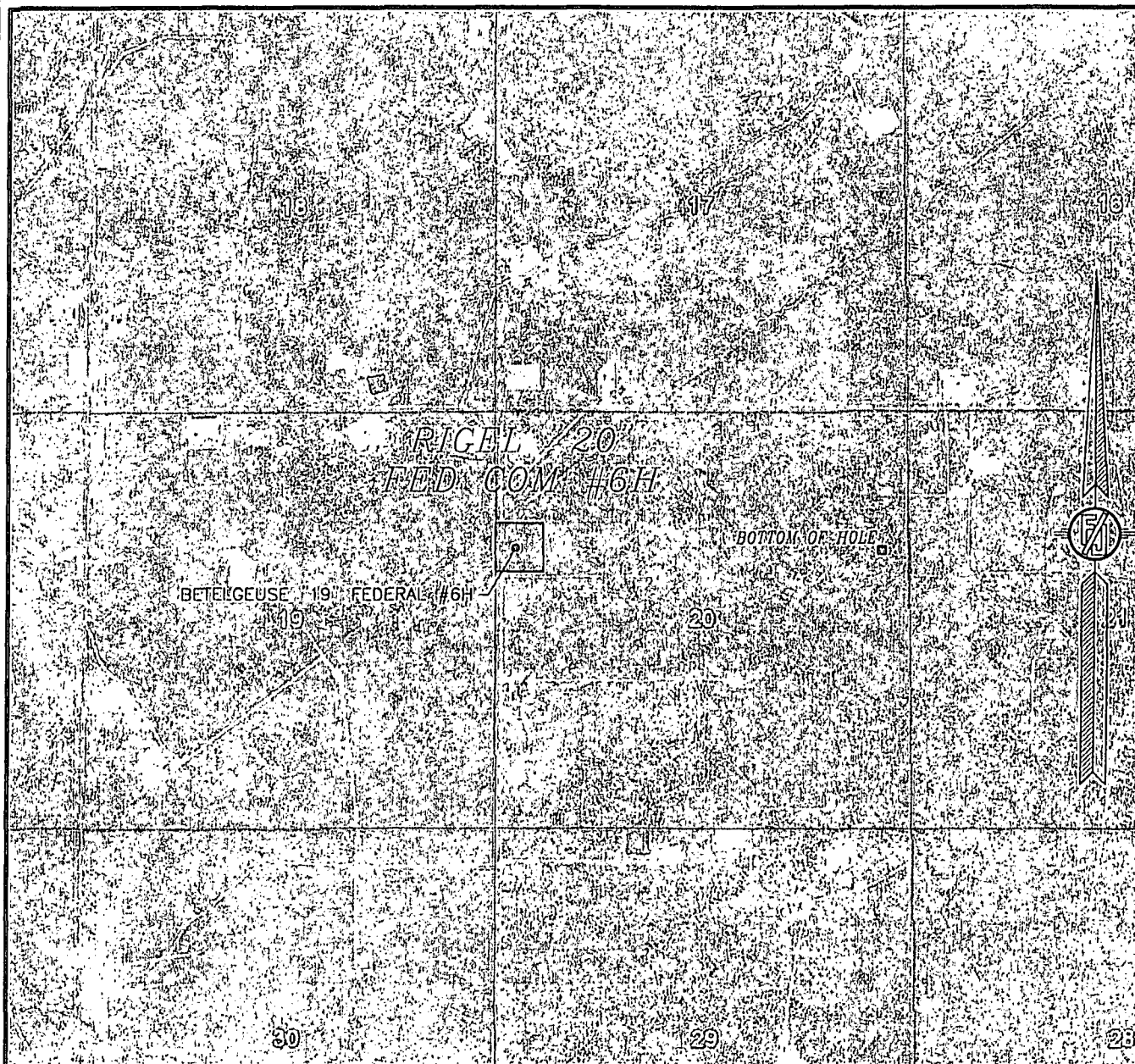
FROM THE INTERSECTION OF SR 360 (BLUESTEM ROAD) AND CR 222
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LEASE ROAD JUST PAST CATTLE GUARD ON LEFT, GO NORTH ON
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MAY 18, 2013

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SECTION 20, TOWNSHIP 19 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MARCH 2012

DEVON ENERGY PRODUCTION COMPANY, L.P.

RIGEL "20" FED COM #6H

LOCATED 1699 FT. FROM THE NORTH LINE
AND 315 FT. FROM THE WEST LINE OF
SECTION 20, TOWNSHIP 19 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 18, 2013

SURVEY NO. 1598B

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

Casing Program

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
26"	0 - 520 350	20"	0 - 520	94#	BTC	J/K-55
17-1/2"	0 - 2190 2450	13-3/8"	0 - 2190	61#	BTC	J-55
12-1/4"	2190 - 4450 3950	9-5/8"	0 - 4450	40#	LTC	J-55
8-3/4"	4450 - 7300	5-1/2"	0 - 7300	17#	LTC	P-110
8-3/4"	7300 - 12371	5-1/2"	7300 - 12371	17#	BTC	P-110

Note: only new casing will be utilized

MAXIMUM LATERAL TVD **8,020**

Design Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
20"	2.14	8.67	28.68
13-3/8"	1.71	3.03	7.66
9-5/8"	1.23	1.90	2.92
5-1/2" 17# P-110 LTC	2.44	3.03	2.10
5-1/2" 17# P-110 BTC	2.29	2.83	6.88

Mud Program:

Depth	Mud Wt.	Visc.	Fluid Loss	Type System
0 - 520 350	8.4 – 9.0	28 – 30	N/C	FW
0 - 2190 2450	9.6 – 10.0	28 – 32	N/C	Brine
2190 - 4450 3950	8.4 – 9.0	28 – 30	N/C	FW
4450 - 12371	8.4 – 9.0	28 – 29	N/C	FW

Pressure Control Equipment:

The BOP system used to drill the 17-1/2" hole will consist of a **20" 2M Annular preventer**. The BOP system will be tested as per BLM Onshore Oil and Gas Order #2 as a **2M system** prior to drilling out the casing shoe.

The BOP system used to drill the 12-1/4" and 8-3/4" holes will consist of a **13-5/8" 3M Double Ram and Annular preventer**. The BOP system will be tested as per BLM Onshore Oil and Gas Order #2 as a **3M system** prior to drilling out the casing shoe.

The pipe rams will be operated and checked as per Onshore Order #2. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at **3,000 psi WP**.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line), if an H&P rig is used. The line will be kept as straight as possible with minimal turns.

Cementing Program (cement volumes based on at least 75% excess)

26" Surface

Lead: 605 sacks Class C Cement + 0.125 lbs/sack Cello Flake + 1% bwoc Calcium Chloride + 4% bwoc Bentonite + 81.1% Fresh Water, 13.5 ppg
Yield: 1.73 cf/sk
Tail: 300 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water, 14.8 ppg
Yield: 1.35 cf/sk
TOC @ surface

13-3/8" Intermediate I

Lead: 1200 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 3 lbs/sack LCM-1 + 0.25% bwoc FL-52 + 1.5% bwoc Sodium Metasilicate + 83.7% Fresh Water, 12.8 ppg
Yield: 1.66 cf/sk
Tail: 450 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.5% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.3% Fresh Water, 13.8 ppg
Yield: 1.38 cf/sk

9-5/8" Intermediate II

1" Stage

Lead: 645 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 3 lbs/sack LCM-1 + 0.25% bwoc FL-52 + 1% bwoc Sodium Metasilicate + 89.6% Fresh Water, 12.6 ppg
Yield: 1.73 cf/sk
Tail: 300 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.1% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.2% Fresh Water, 13.8 ppg
Yield: 1.38 cf/sk

DV TOOL at 2350 ft

2nd Stage

Lead: 450 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 3 lbs/sack LCM-1 + 0.25% bwoc FL-52 + 1.5% bwoc Sodium Metasilicate + 83.7% Fresh Water, 12.8 ppg
Yield: 1.66 cf/sk
Tail: 150 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.5% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.3% Fresh Water, 13.8 ppg
Yield: 1.38 cf/sk

5-1/2" Production

1" Stage

Lead: 555 sacks (35:65) Poz (Fly Ash):Class H Cement + 3% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.7% bwoc FL-52 + 0.3% bwoc ASA-301 + 6% bwoc Bentonite + 105.6% Fresh Water, 12.5 ppg
Yield: 2.01 cf/sk
Tail: 1180 sacks (50:50) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.5% bwoc FL-52 + 0.3% bwoc Sodium Metasilicate + 57.2% Fresh Water 14.2 ppg
Yield: 1.28 cf/sk

DV TOOL at 5000 ft

2nd Stage

Lead: 275 sacks Class C Cement + 1% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.3% bwoc FL-52 + 3% bwoc Sodium Metasilicate + 157% Fresh Water 11.4 ppg
Yield: 2.88 cf/sk
Tail: 150 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.1% Fresh Water, 13.8 ppg
Yield: 1.37cf/sk

TOC @ 3950

TOC for All Strings:

Surface:	0
Intermediate I:	0
Intermediate II:	0
Production:	3950 ft

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER OR CALIPER LOG DATA.

Devon Rigel 20 Fed Com #6H Rev1 MDT 7Jun13 Proposal Geodetic Report

(Def Plan)

Report Date: June 07, 2013 - 11:43 AM
Client: Devon
Field: NM Eddy County (NAD 83)
Structure / Slot: Devon Rigel 20 Fed Com #6H / Devon Rigel 20 Fed Com #6H
Well: Devon Rigel 20 Fed Com #6H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Devon Rigel 20 Fed Com #6H Rev1 MDT 7Jun13
Survey Date: March 26, 2013
Tor / AHD / DDI / ERD Ratio: 89.577 ° / 4627.203 ft / 5.806 / 0.577
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 38' 54.52432", W 103° 53' 56.33563"
Location Grid N/E Y/X: N 599920.970 ftUS, E 675025.470 ftUS
CRS Grid Convergence Angle: 0.2343 °
Grid Scale Factor: 0.99992956

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 86.740 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3441.700 ft above
Seabed / Ground Elevation: 3415.700 ft above
Magnetic Declination: 7.659 °
Total Gravity Field Strength: 998.5207mgn (9.80665 Based)
Total Magnetic Field Strength: 48633.170 nT
Magnetic Dip Angle: 60.440 °
Declination Date: March 26, 2013
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.2343 °
Total Corr Mag North->Grid North: 7.4245 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	90.31	0.00	0.00	0.00	0.00	N/A	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	100.00	0.00	90.31	100.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	200.00	0.00	90.31	200.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	300.00	0.00	90.31	300.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	400.00	0.00	90.31	400.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	500.00	0.00	90.31	500.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	600.00	0.00	90.31	600.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	700.00	0.00	90.31	700.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	800.00	0.00	90.31	800.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	900.00	0.00	90.31	900.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	1000.00	0.00	90.31	1000.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	1100.00	0.00	90.31	1100.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	1200.00	0.00	90.31	1200.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	1300.00	0.00	90.31	1300.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	1400.00	0.00	90.31	1400.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	1500.00	0.00	90.31	1500.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	1600.00	0.00	90.31	1600.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	1700.00	0.00	90.31	1700.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	1800.00	0.00	90.31	1800.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	1900.00	0.00	90.31	1900.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	2000.00	0.00	90.31	2000.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	2100.00	0.00	90.31	2100.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	2200.00	0.00	90.31	2200.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	2300.00	0.00	90.31	2300.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	2400.00	0.00	90.31	2400.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	2500.00	0.00	90.31	2500.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	2600.00	0.00	90.31	2600.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	2700.00	0.00	90.31	2700.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	2800.00	0.00	90.31	2800.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	2900.00	0.00	90.31	2900.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	3000.00	0.00	90.31	3000.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	3100.00	0.00	90.31	3100.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	3200.00	0.00	90.31	3200.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	3300.00	0.00	90.31	3300.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	3400.00	0.00	90.31	3400.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	3500.00	0.00	90.31	3500.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	3600.00	0.00	90.31	3600.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	3700.00	0.00	90.31	3700.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	3800.00	0.00	90.31	3800.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	3900.00	0.00	90.31	3900.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	4000.00	0.00	90.31	4000.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	4100.00	0.00	90.31	4100.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	4200.00	0.00	90.31	4200.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	4300.00	0.00	90.31	4300.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	4400.00	0.00	90.31	4400.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	4500.00	0.00	90.31	4500.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	4600.00	0.00	90.31	4600.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	4700.00	0.00	90.31	4700.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	4800.00	0.00	90.31	4800.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	4900.00	0.00	90.31	4900.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	5000.00	0.00	90.31	5000.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	5100.00	0.00	90.31	5100.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	5200.00	0.00	90.31	5200.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	5300.00	0.00	90.31	5300.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	5400.00	0.00	90.31	5400.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	5500.00	0.00	90.31	5500.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	5600.00	0.00	90.31	5600.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	5700.00	0.00	90.31	5700.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	5800.00	0.00	90.31	5800.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	5900.00	0.00	90.31	5900.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	6000.00	0.00	90.31	6000.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	6100.00	0.00	90.31	6100.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	6200.00	0.00	90.31	6200.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	6300.00	0.00	90.31	6300.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	6400.00	0.00	90.31	6400.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6500.00	0.00	90.31	6500.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	6600.00	0.00	90.31	6600.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	6700.00	0.00	90.31	6700.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	6800.00	0.00	90.31	6800.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	6900.00	0.00	90.31	6900.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	7000.00	0.00	90.31	7000.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	7100.00	0.00	90.31	7100.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	7200.00	0.00	90.31	7200.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	7300.00	0.00	90.31	7300.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	7400.00	0.00	90.31	7400.00	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
KOP/ Build @ 10°/100'	7417.06	0.00	90.31	7417.06	0.00	0.00	0.00	0.00	599920.97	675025.47	N 32 38 54.52	W 103 53 56.34
	7500.00	8.29	90.31	7499.71	5.98	-0.03	5.99	10.00	599920.94	675031.46	N 32 38 54.52	W 103 53 56.27
	7600.00	18.29	90.31	7596.91	28.90	-0.16	28.96	10.00	599920.81	675054.43	N 32 38 54.52	W 103 53 56.00
	7700.00	28.29	90.31	7688.64	68.32	-0.37	68.45	10.00	599920.60	675093.92	N 32 38 54.52	W 103 53 55.54
	7800.00	38.29	90.31	7772.12	123.04	-0.67	123.28	10.00	599920.30	675148.74	N 32 38 54.51	W 103 53 54.89
1st Bone Spring Sand	7900.00	48.29	90.31	7844.81	191.39	-1.04	191.76	10.00	599919.93	675217.22	N 32 38 54.51	W 103 53 54.09
1st Bone Spring Upper SS	7907.86	49.08	90.31	7850.00	197.28	-1.07	197.66	10.00	599919.90	675223.12	N 32 38 54.51	W 103 53 54.02
	7956.05	53.90	90.31	7880.00	234.91	-1.27	235.36	10.00	599919.70	675260.82	N 32 38 54.50	W 103 53 53.58
	8000.00	58.29	90.31	7904.51	271.31	-1.47	271.83	10.00	599919.50	675297.28	N 32 38 54.50	W 103 53 53.16
	8100.00	68.29	90.31	7949.39	360.35	-1.95	361.05	10.00	599919.02	675386.49	N 32 38 54.49	W 103 53 52.11
1st Bone Spring Middle SS	8165.16	74.81	90.31	7970.00	422.01	-2.29	422.83	10.00	599918.68	675448.26	N 32 38 54.48	W 103 53 51.39
	8200.00	78.29	90.31	7978.10	455.82	-2.47	456.70	10.00	599918.50	675482.14	N 32 38 54.48	W 103 53 50.99
	8300.00	88.29	90.31	7989.76	554.82	-3.01	555.89	10.00	599917.96	675581.32	N 32 38 54.47	W 103 53 49.83
Landing Point	8312.83	89.58	90.31	7990.00	567.62	-3.08	568.71	10.00	599917.89	675594.14	N 32 38 54.47	W 103 53 49.68
	8400.00	89.58	90.31	7990.65	654.62	-3.55	655.89	0.00	599917.42	675681.31	N 32 38 54.46	W 103 53 48.67
	8500.00	89.58	90.31	7991.39	754.43	-4.09	755.88	0.00	599916.88	675781.30	N 32 38 54.45	W 103 53 47.50
	8600.00	89.58	90.31	7992.12	854.23	-4.63	855.88	0.00	599916.34	675881.29	N 32 38 54.44	W 103 53 46.33
	8700.00	89.58	90.31	7992.86	954.03	-5.18	955.87	0.00	599915.80	675981.27	N 32 38 54.43	W 103 53 45.16
	8800.00	89.58	90.31	7993.60	1053.84	-5.72	1055.87	0.00	599915.25	676081.26	N 32 38 54.42	W 103 53 43.99
	8900.00	89.58	90.31	7994.34	1153.64	-6.26	1155.86	0.00	599914.71	676181.25	N 32 38 54.42	W 103 53 42.82
	9000.00	89.58	90.31	7995.08	1253.44	-6.80	1255.86	0.00	599914.17	676281.24	N 32 38 54.41	W 103 53 41.65
	9100.00	89.58	90.31	7995.82	1353.25	-7.34	1355.86	0.00	599913.63	676381.23	N 32 38 54.40	W 103 53 40.48
	9200.00	89.58	90.31	7996.56	1453.05	-7.88	1455.85	0.00	599913.09	676481.22	N 32 38 54.39	W 103 53 39.31
	9300.00	89.58	90.31	7997.30	1552.85	-8.42	1555.85	0.00	599912.55	676581.21	N 32 38 54.38	W 103 53 38.14
	9400.00	89.58	90.31	7998.04	1652.66	-8.96	1655.84	0.00	599912.01	676681.19	N 32 38 54.37	W 103 53 36.97
	9500.00	89.58	90.31	7998.78	1752.46	-9.51	1755.84	0.00	599911.46	676781.18	N 32 38 54.36	W 103 53 35.80
	9600.00	89.58	90.31	7999.52	1852.26	-10.05	1855.84	0.00	599910.92	676881.17	N 32 38 54.35	W 103 53 34.63
	9700.00	89.58	90.31	8000.26	1952.06	-10.59	1955.83	0.00	599910.38	676981.16	N 32 38 54.34	W 103 53 33.46
	9800.00	89.58	90.31	8000.99	2051.87	-11.13	2055.83	0.00	599909.84	677081.15	N 32 38 54.33	W 103 53 32.29
	9900.00	89.58	90.31	8001.73	2151.67	-11.67	2155.82	0.00	599909.30	677181.14	N 32 38 54.32	W 103 53 31.12
	10000.00	89.58	90.31	8002.47	2251.47	-12.21	2255.82	0.00	599908.76	677281.13	N 32 38 54.31	W 103 53 29.95
	10100.00	89.58	90.31	8003.21	2351.28	-12.75	2355.81	0.00	599908.22	677381.11	N 32 38 54.30	W 103 53 28.78
	10200.00	89.58	90.31	8003.95	2451.08	-13.30	2455.81	0.00	599907.67	677481.10	N 32 38 54.29	W 103 53 27.62
	10300.00	89.58	90.31	8004.69	2550.88	-13.84	2555.81	0.00	599907.13	677581.09	N 32 38 54.28	W 103 53 26.45
	10400.00	89.58	90.31	8005.43	2650.69	-14.38	2655.80	0.00	599906.59	677681.08	N 32 38 54.27	W 103 53 25.28
	10500.00	89.58	90.31	8006.17	2750.49	-14.92	2755.80	0.00	599906.05	677781.07	N 32 38 54.26	W 103 53 24.11
	10600.00	89.58	90.31	8006.91	2850.29	-15.46	2855.79	0.00	599905.51	677881.06	N 32 38 54.25	W 103 53 22.94
	10700.00	89.58	90.31	8007.65	2950.10	-16.00	2955.79	0.00	599904.97	677981.05	N 32 38 54.25	W 103 53 21.77
	10800.00	89.58	90.31	8008.39	3049.90	-16.54	3055.79	0.00	599904.43	678081.03	N 32 38 54.24	W 103 53 20.60
	10900.00	89.58	90.31	8009.12	3149.70	-17.09	3155.78	0.00	599903.89	678181.02	N 32 38 54.23	W 103 53 19.43
	11000.00	89.58	90.31	8009.86	3249.51	-17.63	3255.78	0.00	599903.34	678281.01	N 32 38 54.22	W 103 53 18.26
	11100.00	89.58	90.31	8010.60	3349.31	-18.17	3355.77	0.00	599902.80	678381.00	N 32 38 54.21	W 103 53 17.09
	11200.00	89.58	90.31	8011.34	3449.11	-18.71	3455.77	0.00	599902.26	678480.99	N 32 38 54.20	W 103 53 15.92
	11300.00	89.58	90.31	8012.08	3548.92	-19.25	3555.76	0.00	599901.72	678580.98	N 32 38 54.19	W 103 53 14.75
	11400.00	89.58	90.31	8012.82	3648.72	-19.79	3655.76	0.00	599901.18	678680.97	N 32 38 54.18	W 103 53 13.58
	11500.00	89.58	90.31	8013.56	3748.52	-20.33	3755.76	0.00	599900.64	678780.95	N 32 38 54.17	W 103 53 12.41
	11600.00	89.58	90.31	8014.30	3848.33	-20.88	3855.75	0.00	599899.10	678880.94	N 32 38 54.16	W 103 53 11.24
	11700.00	89.58	90.31	8015.04	3948.13	-21.42	3955.75	0.00	599898.55	678980.93	N 32 38 54.15	W 103 53 10.07
	11800.00	89.58	90.31	8015.78	4047.93	-21.96	4055.74	0.00	599898.01	679080.92	N 32 38 54.14	W 103 53 8.90
	11900.00	89.58	90.31	8016.52	4147.74	-22.50	4155.74	0.00	599897.47	679180.91	N 32 38 54.13	W 103 53 7.73
	12000.00	89.58	90.31	8017.25	4247.54	-23.04	4255.73	0.00	599896.93	679280.90	N 32 38 54.12	W 103 53 6.57
	12100.00	89.58	90.31	8017.99	4347.34	-23.58	4355.73	0.00	599896.39	679380.89	N 32 38 54.11	W 103 53 5.40
	12200.00	89.58	90.31	8018.73	4447.15	-24.12	4455.73	0.00	599895.85	679480.87	N 32 38 54.10	W 103 53 4.23
	12300.00	89.58	90.31	8019.47	4546.95	-24.67	4555.72	0.00	599895.31	679580.86	N 32 38 54.09	W 103 53 3.06
Devon Rigel 20 Fed Com #6H PBHL	12371.42	89.58	90.31	8020.00	4618.22	-25.05	4627.14	0.00	599895.92	679652.17	N 32 38 54.09	W 103 53 2.22

Survey Type: Del Plan

Survey Error Model: ISCSWA Rev 0 *** 3-D 95.00% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	26.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Borehole / Devon Rigel 20 Fed Com #6H Rev1 MDT
	26.000	12371.416	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Devon Rigel 20 Fed Com #6H Rev1 MDT

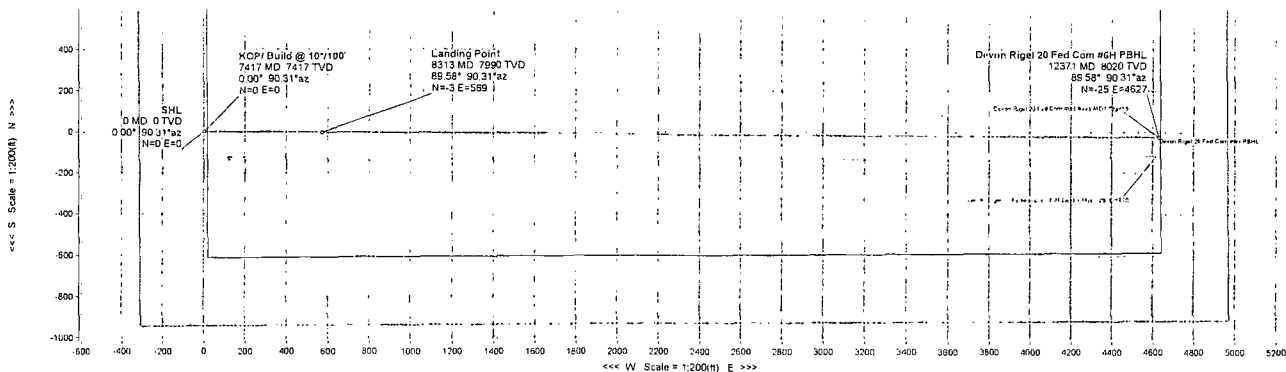
WELL					FIELD					STRUCTURE					
Devon Rigel 20 Fed Com #6H					NM Eddy County (NAD 83)					H&P 300					
Metadata Parameters															
Model:	BGN12012	Dip:	60.140°	Date:	March 21, 2013	Surface Location:		NAD83 New Mexico State Plane, Valero Zone, U.S. Feet			Miscellaneous				
Map Date:	7/1/12	Map Date:	7/1/12	FS:	18655.507	Lat:	N 32.38 51.524	Northing:	675025.47	Grid Cont:	0.214	Shot:	Rigel 20 Fed Com #6H	TVD Ref:	RKB0141 "B above J"
						Lon:	W 103.53 56.336	Easting:	675594.14	Scale Fact:	0.99997550	Shot Date:	March 20, 2013	Shot Date:	March 20, 2013



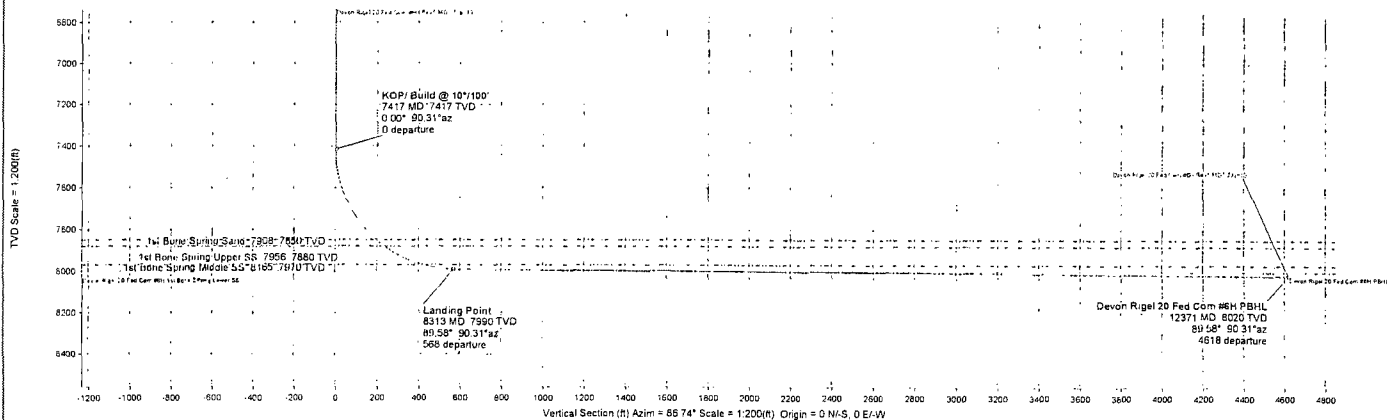
Grid North
Tot Corr (M->G)
7.4245°
Mag Dec (7.659°)
Grid Conv (0.234°)

Legend

Devon Rigel 20 Fed Com #6H PBHL
Devon Rigel 20 Fed Com #6H 1st Bone Spring Lower SS
Devon Rigel 20 Fed Com #6H 1st Bone Spring Upper SS
Devon Rigel 20 Fed Com #6H 1st Bone Spring Middle SS
Devon Rigel 20 Fed Com #6H 1st Bone Spring Upper SS
Devon Rigel 20 Fed Com #6H 1st Bone Spring Middle SS
Devon Rigel 20 Fed Com #6H 1st Bone Spring Upper SS



Comments	Survey (MD)	Function (deg)	Azimuth (deg)	TVD (ft)	Sub-Sea TVD (ft)	NS (ft)	EW (ft)	Northing (US)	Easting (US)	Latitude (deg)	Longitude (deg)	DLS (100m)	Tool Face (deg)
SHL	0.00	0.00	90.31	0.00	-3441.70	0.00	0.00	599920.97	675025.47	N 32.38 54.524	W 103.53 56.336	90.31	
KOP/Build @ 10°/100'	7417.06	0.00	90.31	7417.06	3975.36	0.00	0.00	599920.97	675025.47	N 32.38 54.524	W 103.53 56.336	0.00	0.00
1st Bone Spring Sand	7907.86	49.08	90.31	7850.00	4408.30	197.28	-1.07	599919.90	675223.12	N 32.38 54.506	W 103.53 54.024	10.00	0.00
1st Bone Spring Upper SS	7956.05	53.90	90.31	7880.00	4438.30	234.91	-1.27	599919.70	675260.82	N 32.38 54.502	W 103.53 53.583	10.00	0.00
1st Bone Spring Middle SS	8165.16	74.81	90.31	7970.00	4528.30	422.01	-2.29	599918.68	675448.26	N 32.38 54.485	W 103.53 51.391	10.00	90.31
Landing Point	8312.83	89.58	90.31	7990.00	4548.30	567.62	-3.08	599917.89	675594.14	N 32.38 54.471	W 103.53 49.685	10.00	0.00
Devon Rigel 20 Fed Com #6H PBHL	12371.42	89.58	90.31	8020.00	4578.30	4618.22	-25.05	599895.92	679652.27	N 32.38 54.086	W 103.53 2.222	0.00	



Drawn By: Current User
Date Created: June 07, 2013 11:22:47 AM
Checked By:
Checked Date:
Approved By:
Approved Date: