

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018HOBBS OCT 7 2019
AUG 27 2019
RECEIVED

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.

5. Lease Serial No.
NMNM62924

6. If Indian, Allottee or Tribe Name

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

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No.
MINIS 1 FED WCA 16H

2. Name of Operator

CHISHOLM ENERGY OPERATING LLC

Contact: JENNIFER ELROD

Email: jelrod@chisholmenergy.com

9. API Well No.

30-025-44853-00-X1

3a. Address

801 CHERRY STREET SUITE 1200 UNIT 20
FORT WORTH, TX 76102

3b. Phone No. (include area code)

Ph: 817-953-3728

10. Field and Pool or Exploratory Area

HAT MESA
WOLFCAMP

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 1 T21S R32E 280FNL 1208FEL
32.521935 N Lat, 103.623810 W Lon

11. County or Parish, State

LEA COUNTY, NM

12. CHECK THE 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	☐ Hydraulic Fracturing	☐ 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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

REVISED WELLBORE PATH & CASING DESIGN UPDATED

**CHANGE LANDING POINT/FIRST TAKE POINT

FROM: 330 FNL & 528 FEL

TO: 330 FNL & 350 FEL

**CHANGE BOTTOM HOLE LOCATION/LAST TAKE POINT

FROM: 330 FSL & 528 FEL

OCD Hobbs

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

Electronic Submission #474579 verified by the BLM Well Information System
For CHISHOLM ENERGY OPERATING LLC, sent to the Hobbs
Committed to AFMSS for processing by TANJA BACA on 07/24/2019 (19TAB0003SE)

Name (Printed/Typed) JENNIFER ELROD

Title SR. REGULATORY ANALYST

Signature (Electronic Submission)

Date 07/22/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By NDUNGU KAMAU

Title PETROLEUM ENGINEER

Date 08/01/2019

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 Hobbs

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)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Additional data for EC transaction #474579 that would not fit on the form

32. Additional remarks, continued

TO: 330 FSL & 350 FEL

****PLEASE SEE ATTACHED WBD WITH CSG/CMNT CHANGES AS WELL AS UPDATED DRILLING PLAN W/CASING/CMNT CHANGES**

SURFACE CSG:

FROM: 1500'

TO: 1570'

690 SXS CLASS C LEAD CMNT @ 2.01 YIELD/625 SXS CLASS C TAIL CMNT @ 1.33 YIELD TOC @ SURFACE (100% EXCESS)

INTERMEDIATE CSG:

FROM 5400'

TO: 5750'

STAGE 1-527 SXS CLASS C LEAD CMNT @ 2.43 YIELD/307 SXS CLASS C TAIL CMNT @ 1.08 YIELD (100 % EXCESS); STAGE 2-882 SXS CLASS C LEAD CMNT @ 2.38 YEILD TOC @ SURFACE (200% EXCESS)

PRODUCTION CSG:

FROM: 18992'

TO: 19065' (11589'TVD)

507 SXS CLASS H LEAD CMNT @ 2.62 YIELD/1355 SXS CLASS H TAIL CMNT @ 1.82 YEILD; EST TOC @ 4750'(10% EXCESS)

Revisions to Operator-Submitted EC Data for Sundry Notice #474579

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM62924	NMNM62924
Agreement:		
Operator:	CHISHOLM ENERGY OPERATING, LLC 801 CHERRY STREET SUITE 1200-UNIT 20 FORT WORTH, TX 76102 Ph: 817-953-3728	CHISHOLM ENERGY OPERATING LLC 801 CHERRY STREET SUITE 1200 UNIT 20 FORT WORTH, TX 76102 Ph: 817 953 6063
Admin Contact:	JENNIFER ELROD SR. REGULATORY ANALYST E-Mail: jelrod@chisholmenergy.com Cell: 817-953-3728 Ph: 817-953-3728	JENNIFER ELROD SR. REGULATORY ANALYST E-Mail: jelrod@chisholmenergy.com Cell: 817-953-3728 Ph: 817-953-3728
Tech Contact:	JENNIFER ELROD SR. REGULATORY ANALYST E-Mail: jelrod@chisholmenergy.com Cell: 817-953-3728 Ph: 817-953-3728	JENNIFER ELROD SR. REGULATORY ANALYST E-Mail: jelrod@chisholmenergy.com Cell: 817-953-3728 Ph: 817-953-3728
Location:		
State:	NM	NM
County:	LEA	LEA
Field/Pool:	WC025G08S213201D;WOLFCAMP	HAT MESA WOLFCAMP
Well/Facility:	MINIS 1 FED COM WCA 16H Sec 1 T21S R32E Mer NMP 280FNL 1208FEL 32.521579 N Lat, 103.623774 W Lon	MINIS 1 FED WCA 16H Sec 1 T21S R32E 280FNL 1208FEL 32.521935 N Lat, 103.623810 W Lon

**PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL**

**OPERATOR'S NAME: CHISHOLM ENERGY OPERATING
LEASE NO.: NMNM62924
COUNTY: LEA**

MINIS 1 FED COM 3BS 6H

LOCATION: Section 1, T.21 S., R.32 E., NMPM
SURFACE HOLE FOOTAGE: 280'/N & 1238'/E
BOTTOM HOLE FOOTAGE: 100'/S & 917'/E

MINIS 1 FED WCA 16H

LOCATION: Section 1, T.21 S., R.32 E., NMPM
SURFACE HOLE FOOTAGE: 280'/N & 1208'/E
BOTTOM HOLE FOOTAGE: 330'/S & 350'/E

ALL PREVIOUS COAs STILL APPLY.

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H₂S) Drilling Plan shall be activated 500 feet prior to drilling into the **Bone Spring** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Casing Design:

1. The 13-3/8 inch surface casing shall be set at approximately **1570 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength,

whichever is greater.

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept 1/3 fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash. Excess calculates to 21% - additional cement might be required.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval.

If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Excess calculates to 9% - additional cement might be required.**

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.

C. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Chaves and Roosevelt Counties

Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.

During office hours call (575) 627-0272.

After office hours call (575)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a

larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been

done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test

does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

NMK812019

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA

Well Number: 16H

5M_Choke_Manifold_Diagram_08_16_2017_20171013133708.jpg

BOP Diagram Attachment:

5m_BOP_Diagram_08_16_2017_20171013133731.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.625	NEW	API	N	0	1500 1570	0	1500 1570	3721	2221	1500	J-55	54.5	BUTT	1.72 1.5	4.47 3.65	DRY	11.1 12.36	DRY	10.4 11.48
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5400 5750	0	5400 5750	3721	-1679	5400	J-55	40	LTC	1.35 1.29	1.38 1.32	DRY	2.41 2.47	DRY	2.92 3.23
3	PRODUCTION	8.75	5.5	NEW	API	N	0	18992 19069	0	11535 11589	3721	-7814	18992	P-110	20	BUTT	1.95 1.94	2.22 2.21	DRY	2.89 3.37	DRY	2.78 3.24

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Assumptions_WCA_20171013134221.pdf

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA

Well Number: 16H

Casing Attachments

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Assumptions_WCA_20171013134452.pdf

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Assumptions_WCA_20171013134714.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1150 1000	584 690	2.53 2.01	12 12.8	1478 1387	86 100	Class C	Sodium Metasilicate, Defoamer, KCL
SURFACE	Tail		1150 1000	1500 1570	341 625	1.32 1.33	14.8	450 831	85 100	Class C	none
INTERMEDIATE	Lead	3500 3200	0	3500 3200	740 852	2.43 2.38	12 11.5	4797 2099	100 200	Class C	Sodium Metasilicate, Defoamer, KCL, Kol-Seal, Cellophane Flakes, ROF SealCheck

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA

Well Number: 16H

String Type	Lead/Tail	Stage Tool	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead	3500 3200	3500	5050	420	2.31	12	974	100	Class M C	Sodium Metasilicate, Defoamer, KCL, Kol-Seal, Cellophane Flakes, ROF SealCheck
INTERMEDIATE	Tail		5050 5250	5400 5750	180 307	4.22 1.08	14.4	219 332	100	Class M C	Fluid Loss, Dispercent, Retarder
PRODUCTION	Lead		4900 4750	1103 9500	474 507	3.87 2.42	12 11.3	1909 1328	25 10	Class H	Bentonite, Compressive Strength Enhancer, Silica Fume Alternative, Fluid Loss, Defoamer, Sodium Metasilicate, Retarder
PRODUCTION	Tail		1103 5 9500	1899 2	2185 1355	4.45 1.82	15.8 13.2	2512 2446	25 10	Class H	Fluid Loss, Suspension Agent, Retarder, Defoamer, Dispersant

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: PVE, Pason/CanRig, visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
5750	1906		9.3	9.8							
3400	1158	OIL-BASED	8.8	9.5							

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: MINIS 1 FED WCA

Well Number: 16H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1500 1570	SPUD MUD	8.5	9.2							
1500 1570	5400 5750	WATER-BASED MUD	9.8 10.0	10.2 10.3							

BRINE

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

None

List of open and cased hole logs run in the well:

DBL,DS,GR,MWD

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: ~~5600~~ 5794 Anticipated Surface Pressure: 3062.3

Anticipated Bottom Hole Temperature(F): 160

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Lea_County_H2S_plan_20180322133530.pdf

Casing Program: Minis 1 Fed Com WCA 16H

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Body Tension (klbs)	Joint Tension (klbs)	Air Weight (lbs)	Bouyant Weight (lbs)	Body Tension SF (1.8)	Joint Tension SF (1.8)
Surface																			
17.5"	0'	1,570'	1,570'	13 3/8"	54.5	J-55	BTC	New	9.2	2740	3.65	1130	1.50	853,000	909,000	85,565	73,536	11.60	12.36
Intermediate																			
12.25"	0'	5,750'	5,750'	9 5/8"	40	J-55	LTC	New	10	3950	1.32	2570	1.29	630,000	520,000	230,000	194,853	3.23	2.67
Production																			
8.75"	8400	19,065'	11,589'	5 1/2"	20	P-110	BTC	New	9.5	12640	2.21	11100	1.94	641,000	667,000	231,780	198,132	3.24	3.37

Casing Design Criteria and Casing Loading Assumptions:

Surface

Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of: 9.2 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of: 9.2 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of: 9.2 ppg

Intermediate

Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of: 10 ppg
Collapse A 1.125 design factor with 1/3 TVD internal evacuation and collapse force equal to a mud gradient of: 10 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of: 10 ppg

Production

Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of: 9.5 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of: 9.5 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of: 9.5 ppg

Chisholm Minis 1 Fed Com WCA 16H Rev0 BT 14JUN19 Proposal Geodetic Report (Def Plan)

Report Date: June 19, 2019 - 06:34 PM
 Client: Chisholm
 Field: NM Lea County (NAD 83)
 Structure / Slot: Chisholm Minis 1 Fed Com WCA 16H / New Slot
 Well: Chisholm Minis 1 Fed Com WCA 16H
 Borehole: Original Borehole
 UWI / APB: Unknown / Unknown
 Survey Name: Chisholm Minis 1 Fed Com WCA 16H Rev0 BT 14JUN19
 Survey Date: June 14, 2019
 Tort / AHD / DDI / ERO Ratio: 101.801' / 8814.308 ft / 8.158 / 0.743
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 31' 17.88315", W 103° 37' 25.58585"
 Location Grid N/E Y/X: N 554209.100 RUS, E 780040.800 RUS
 CRS Grid Convergence Angle: 0.3815°
 Grid Scale Factor: 0.9998387
 Version / Patch: 2.10.254.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 179.560° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3753.000 ft above MSL
 Seabed / Ground Elevation: 3722.000 ft above MSL
 Magnetic Declination: 6.877°
 Total Gravity Field Strength: 998.4819mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48135.274 nT
 Magnetic Dip Angle: 80.370°
 Declination Date: June 14, 2019
 Magnetic Declination Model: HDGM 2019
 North Reference: Grid North
 Grid Convergence Used: 0.3815°
 Total Corr Mag North->Grid North: 6.2951°
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL	0.00	0.00	173.04	0.00	0.00	0.00	0.00	N/A	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	100.00	0.00	74.65	100.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	200.00	0.00	74.65	200.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	300.00	0.00	74.65	300.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	400.00	0.00	74.65	400.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	500.00	0.00	74.65	500.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	600.00	0.00	74.65	600.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	700.00	0.00	74.65	700.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	800.00	0.00	74.65	800.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	900.00	0.00	74.65	900.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	1000.00	0.00	74.65	1000.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	1100.00	0.00	74.65	1100.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	1200.00	0.00	74.65	1200.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	1300.00	0.00	74.65	1300.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
	1400.00	0.00	74.65	1400.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
Build 1" DLS	1500.00	0.00	74.65	1500.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.59
Rustler	1534.00	0.34	74.65	1534.00	-0.03	0.03	0.10	1.00	554209.13	780040.70	N 32 31 17.88	W 103 37 25.58
	1600.00	1.00	74.65	1599.99	-0.22	0.23	0.84	1.00	554209.33	780041.44	N 32 31 17.89	W 103 37 25.58
	1700.00	2.00	74.65	1699.98	-0.90	0.92	3.37	1.00	554210.02	780043.97	N 32 31 17.89	W 103 37 25.55
	1800.00	3.00	74.65	1799.98	-2.02	2.08	7.57	1.00	554211.18	780048.17	N 32 31 17.70	W 103 37 25.50
Salado	1900.00	4.00	74.65	1899.98	-3.59	3.69	13.48	1.00	554212.79	780054.08	N 32 31 17.72	W 103 37 25.43
	1912.36	4.12	74.65	1912.00	-3.82	3.93	14.30	1.00	554213.03	780054.90	N 32 31 17.72	W 103 37 25.42
	2000.00	5.00	74.65	1999.37	-5.61	5.77	21.03	1.00	554214.87	780061.62	N 32 31 17.74	W 103 37 25.34
	2100.00	6.00	74.65	2098.90	-8.07	8.31	30.27	1.00	554217.41	780070.87	N 32 31 17.76	W 103 37 25.23
Hold	2100.22	6.00	74.65	2099.13	-8.08	8.31	30.29	1.00	554217.41	780070.89	N 32 31 17.76	W 103 37 25.23
	2200.00	6.00	74.65	2198.36	-10.76	11.07	40.35	0.00	554220.17	780080.95	N 32 31 17.79	W 103 37 25.11
	2300.00	6.00	74.65	2297.81	-13.45	13.84	50.44	0.00	554222.94	780091.03	N 32 31 17.82	W 103 37 25.00
	2400.00	6.00	74.65	2397.26	-16.14	16.61	60.52	0.00	554225.71	780101.12	N 32 31 17.84	W 103 37 24.88
	2500.00	6.00	74.65	2496.71	-18.83	19.38	70.60	0.00	554228.48	780111.20	N 32 31 17.87	W 103 37 24.76
	2600.00	6.00	74.65	2596.16	-21.52	22.14	80.69	0.00	554231.24	780121.28	N 32 31 17.90	W 103 37 24.64
	2700.00	6.00	74.65	2695.61	-24.21	24.91	90.77	0.00	554234.01	780131.37	N 32 31 17.92	W 103 37 24.52
	2800.00	6.00	74.65	2795.07	-26.90	27.68	100.86	0.00	554236.78	780141.45	N 32 31 17.95	W 103 37 24.41
	2900.00	6.00	74.65	2894.52	-29.59	30.45	110.94	0.00	554239.54	780151.53	N 32 31 17.98	W 103 37 24.29
	3000.00	6.00	74.65	2993.97	-32.28	33.21	121.02	0.00	554242.31	780161.62	N 32 31 18.00	W 103 37 24.17
	3100.00	6.00	74.65	3093.42	-34.97	35.98	131.11	0.00	554245.08	780171.70	N 32 31 18.03	W 103 37 24.05
	3200.00	6.00	74.65	3192.87	-37.66	38.75	141.19	0.00	554247.85	780181.79	N 32 31 18.06	W 103 37 23.93
Yates	3207.17	6.00	74.65	3200.00	-37.88	38.95	141.91	0.00	554248.04	780182.51	N 32 31 18.06	W 103 37 23.93
	3300.00	6.00	74.65	3292.33	-40.35	41.52	151.27	0.00	554250.81	780191.87	N 32 31 18.08	W 103 37 23.82
	3400.00	6.00	74.65	3391.78	-43.04	44.28	161.36	0.00	554253.58	780201.95	N 32 31 18.11	W 103 37 23.70
	3500.00	6.00	74.65	3491.23	-45.73	47.05	171.44	0.00	554256.35	780212.04	N 32 31 18.14	W 103 37 23.58
	3600.00	6.00	74.65	3590.68	-48.42	49.82	181.53	0.00	554259.12	780222.12	N 32 31 18.16	W 103 37 23.46
Capitan Reef	3602.33	6.00	74.65	3593.00	-48.48	49.88	181.78	0.00	554259.98	780222.35	N 32 31 18.16	W 103 37 23.46
	3700.00	6.00	74.65	3690.13	-51.11	52.58	191.61	0.00	554261.68	780232.20	N 32 31 18.19	W 103 37 23.34
	3800.00	6.00	74.65	3789.58	-53.80	55.35	201.69	0.00	554264.45	780242.29	N 32 31 18.22	W 103 37 23.23
	3900.00	6.00	74.65	3889.04	-56.49	58.12	211.78	0.00	554267.22	780252.37	N 32 31 18.24	W 103 37 23.11
	4000.00	6.00	74.65	3988.49	-59.18	60.89	221.86	0.00	554269.98	780262.45	N 32 31 18.27	W 103 37 22.99
	4100.00	6.00	74.65	4087.94	-61.87	63.65	231.95	0.00	554272.75	780272.54	N 32 31 18.30	W 103 37 22.87
	4200.00	6.00	74.65	4187.39	-64.56	66.42	242.03	0.00	554275.52	780282.62	N 32 31 18.32	W 103 37 22.75
	4300.00	6.00	74.65	4286.84	-67.25	69.19	252.11	0.00	554278.29	780292.70	N 32 31 18.35	W 103 37 22.64
	4400.00	6.00	74.65	4386.29	-69.94	71.96	262.20	0.00	554281.05	780302.79	N 32 31 18.38	W 103 37 22.52
	4500.00	6.00	74.65	4485.75	-72.63	74.72	272.28	0.00	554283.82	780312.87	N 32 31 18.40	W 103 37 22.40
	4600.00	6.00	74.65	4585.20	-75.32	77.49	282.36	0.00	554286.59	780322.95	N 32 31 18.43	W 103 37 22.28
	4700.00	6.00	74.65	4684.65	-78.01	80.26	292.45	0.00	554289.36	780333.04	N 32 31 18.46	W 103 37 22.16
	4800.00	6.00	74.65	4784.10	-80.70	83.03	302.53	0.00	554292.12	780343.12	N 32 31 18.48	W 103 37 22.05
	4900.00	6.00	74.65	4883.55	-83.39	85.79	312.62	0.00	554294.89	780353.20	N 32 31 18.51	W 103 37 21.93
	5000.00	6.00	74.65	4983.01	-86.08	88.56	322.70	0.00	554297.66	780363.29	N 32 31 18.54	W 103 37 21.81
	5100.00	6.00	74.65	5082.48	-88.77	91.33	332.78	0.00	554300.42	780373.37	N 32 31 18.56	W 103 37 21.69
	5200.00	6.00	74.65	5181.91	-91.46	94.10	342.87	0.00	554303.19	780383.45	N 32 31 18.59	W 103 37 21.57
	5300.00	6.00	74.65	5281.38	-94.15	96.88	352.95	0.00	554305.96	780393.54	N 32 31 18.62	W 103 37 21.46
	5400.00	6.00	74.65	5380.81	-96.84	99.65	363.04	0.00	554308.73	780403.62	N 32 31 18.64	W 103 37 21.34
	5500.00	6.00	74.65	5480.28	-99.53	102.40	373.12	0.00	554311.49	780413.71	N 32 31 18.67	W 103 37 21.22
	5600.00	6.00	74.65	5579.72	-102.22	105.17	383.20	0.00	554314.26	780423.79	N 32 31 18.70	W 103 37 21.10
	5700.00	6.00	74.65	5679.17	-104.91	107.93	393.29	0.00	554317.03	780433.87	N 32 31 18.73	W 103 37 20.98
Delaware Min Gr	5722.98	6.00	74.65	5702.00	-105.53	108.57	395.60	0.00	554317.66	780436.19	N 32 31 18.73	W 103 37 20.98
	5800.00	6.00	74.65	5778.82	-107.80	110.70	403.37	0.00	554319.80	780443.98	N 32 31 18.75	W 103 37 20.87
	5900.00	6.00	74.65	5878.07	-110.29	113.47	413.46	0.00	554322.58	780454.04	N 32 31 18.78	W 103 37 20.75
	6000.00	6.00	74.65	5977.52	-112.98	116.23	423.54	0.00	554325.33	780464.12	N 32 31 18.81	W 103 37 20.63
	6100.00	6.00	74.65	6076.98	-115.67	119.00	433.62	0.00	554328.10	780474.21	N 32 31 18.83	W 103 37 20.51
	6200.00	6.00	74.65	6176.43	-118.36	121.77	443.71	0.00	554330.86	780484.29	N 32 31 18.86	W 103 37 20.39
	6300.00	6.00	74.65	6275.88	-121.05	124.54	453.79	0.00	554333.63	780494.37	N 32 31 18.89	W 103 37 20.28
	6400.00	6.00	74.65	6375.33	-123.74	127.30	463.87	0.00	554336.40	780504.46	N 32 31 18.91	W 103 37 20.16
	6500.00	6.00	74.65	6474.78	-126.43	130.07	473.96	0.00	554339.17	780514.54	N 32 31 18.94	W 103 37 20.04
	6600.00	6.00	74.65	6574.23	-129.12	132.84	484.04	0.00	554341.93	780524.62	N 32 31 18.97	W

Comments	MD (m)	Incl (°)	Azim (°)	TVD (m)	VSEC (m)	NS (m)	EW (m)	DLS (°/1000)	Northing (mUS)	Easting (mUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7100.00	8.00	74.85	7071.49	-142.57	148.88	534.48	0.00	554355.77	780575.04	N 32 31 19.10	W 103 37 19.33
	7200.00	8.00	74.85	7170.94	-145.28	149.44	544.55	0.00	554358.54	780585.12	N 32 31 19.13	W 103 37 19.21
	7300.00	8.00	74.85	7270.40	-147.95	152.21	554.83	0.00	554361.30	780595.21	N 32 31 19.15	W 103 37 19.10
	7400.00	8.00	74.85	7369.85	-150.64	154.98	564.71	0.00	554364.07	780605.29	N 32 31 19.18	W 103 37 18.98
	7500.00	8.00	74.85	7469.30	-153.33	157.75	574.80	0.00	554366.84	780615.38	N 32 31 19.21	W 103 37 18.86
	7600.00	8.00	74.85	7568.75	-156.02	160.51	584.88	0.00	554369.61	780625.46	N 32 31 19.23	W 103 37 18.74
	7700.00	8.00	74.85	7668.20	-158.71	163.28	594.96	0.00	554372.37	780635.54	N 32 31 19.26	W 103 37 18.62
	7800.00	8.00	74.85	7767.65	-161.40	166.05	604.95	0.00	554375.14	780645.63	N 32 31 19.29	W 103 37 18.51
	7900.00	8.00	74.85	7867.11	-164.09	168.81	615.13	0.00	554377.91	780655.71	N 32 31 19.31	W 103 37 18.39
	8000.00	8.00	74.85	7966.56	-166.78	171.58	625.22	0.00	554380.68	780665.79	N 32 31 19.34	W 103 37 18.27
	8100.00	8.00	74.85	8066.01	-169.47	174.35	635.30	0.00	554383.44	780675.88	N 32 31 19.37	W 103 37 18.15
	8200.00	8.00	74.85	8165.46	-172.16	177.12	645.38	0.00	554386.21	780685.96	N 32 31 19.39	W 103 37 18.03
	8300.00	8.00	74.85	8264.91	-174.85	179.88	655.47	0.00	554388.98	780696.04	N 32 31 19.42	W 103 37 17.92
	8400.00	8.00	74.85	8364.37	-177.54	182.65	665.55	0.00	554391.74	780706.13	N 32 31 19.45	W 103 37 17.80
	8500.00	8.00	74.85	8463.82	-180.23	185.42	675.64	0.00	554394.51	780716.21	N 32 31 19.47	W 103 37 17.68
	8600.00	8.00	74.85	8563.27	-182.92	188.19	685.72	0.00	554397.28	780726.29	N 32 31 19.50	W 103 37 17.56
	8700.00	8.00	74.85	8662.72	-185.60	190.95	695.80	0.00	554400.05	780736.38	N 32 31 19.53	W 103 37 17.44
	8774.69	8.00	74.85	8737.00	-187.91	193.02	703.33	0.00	554402.11	780743.91	N 32 31 19.55	W 103 37 17.36
	8800.00	8.00	74.85	8782.17	-188.29	193.72	705.89	0.00	554402.81	780748.48	N 32 31 19.55	W 103 37 17.33
	8900.00	8.00	74.85	8861.83	-190.88	196.49	715.97	0.00	554405.58	780758.54	N 32 31 19.58	W 103 37 17.21
	9000.00	8.00	74.85	8961.08	-193.67	199.26	726.05	0.00	554408.35	780768.63	N 32 31 19.61	W 103 37 17.09
	9100.00	8.00	74.85	9060.53	-196.38	202.02	736.14	0.00	554411.12	780778.71	N 32 31 19.63	W 103 37 16.97
	9200.00	8.00	74.85	9159.98	-199.05	204.79	746.22	0.00	554413.88	780788.79	N 32 31 19.66	W 103 37 16.86
	9300.00	8.00	74.85	9259.43	-201.74	207.56	756.31	0.00	554416.65	780798.88	N 32 31 19.69	W 103 37 16.74
	9400.00	8.00	74.85	9358.88	-204.43	210.33	766.39	0.00	554419.42	780808.96	N 32 31 19.71	W 103 37 16.62
	9500.00	8.00	74.85	9458.34	-207.12	213.09	776.47	0.00	554422.18	780819.04	N 32 31 19.74	W 103 37 16.50
	9600.00	8.00	74.85	9557.79	-209.81	215.86	786.56	0.00	554424.95	780829.13	N 32 31 19.77	W 103 37 16.38
	9700.00	8.00	74.85	9657.24	-212.50	218.63	796.64	0.00	554427.72	780839.21	N 32 31 19.79	W 103 37 16.27
1st Bone Spring SS	9777.18	6.00	74.85	9734.00	-214.58	220.76	804.43	0.00	554429.88	780844.99	N 32 31 19.81	W 103 37 16.17
	9800.00	8.00	74.85	9758.69	-215.19	221.40	808.73	0.00	554430.49	780847.30	N 32 31 19.82	W 103 37 16.15
	9900.00	8.00	74.85	9858.14	-217.88	224.16	818.81	0.00	554433.25	780857.38	N 32 31 19.85	W 103 37 16.03
Drop 1" DLS	9991.23	8.00	74.85	9948.87	-220.34	226.89	828.01	0.00	554435.78	780868.58	N 32 31 19.87	W 103 37 15.92
	10000.00	5.91	74.85	9955.60	-220.57	228.93	828.69	1.00	554436.02	780867.46	N 32 31 19.87	W 103 37 15.91
	10100.00	4.91	74.85	10055.15	-223.00	229.43	835.99	1.00	554438.52	780876.55	N 32 31 19.90	W 103 37 15.80
	10200.00	3.91	74.85	10154.85	-224.98	231.46	843.41	1.00	554440.55	780883.98	N 32 31 19.92	W 103 37 15.72
	10300.00	2.91	74.85	10254.67	-226.51	233.04	849.15	1.00	554442.13	780889.72	N 32 31 19.93	W 103 37 15.65
2nd Bone Spring SS	10307.34	2.84	74.85	10282.00	-226.61	233.14	849.51	1.00	554442.23	780890.08	N 32 31 19.93	W 103 37 15.65
	10400.00	1.91	74.85	10354.58	-227.59	234.15	853.22	1.00	554443.24	780893.78	N 32 31 19.94	W 103 37 15.60
	10500.00	0.91	74.85	10454.55	-228.23	234.81	855.60	1.00	554443.90	780898.16	N 32 31 19.95	W 103 37 15.58
Hold	10591.45	0.00	74.85	10546.00	-228.42	235.00	856.30	0.00	554444.09	780898.87	N 32 31 19.95	W 103 37 15.57
	10600.00	0.00	74.85	10554.55	-228.42	235.00	856.30	0.00	554444.09	780898.87	N 32 31 19.95	W 103 37 15.57
	10700.00	0.00	74.85	10654.55	-228.42	235.00	856.30	0.00	554444.09	780898.87	N 32 31 19.95	W 103 37 15.57
	10800.00	0.00	74.85	10754.55	-228.42	235.00	856.30	0.00	554444.09	780898.87	N 32 31 19.95	W 103 37 15.57
	10900.00	0.00	74.85	10854.55	-228.42	235.00	856.30	0.00	554444.09	780898.87	N 32 31 19.95	W 103 37 15.57
	11000.00	0.00	74.85	10954.55	-228.42	235.00	856.30	0.00	554444.09	780898.87	N 32 31 19.95	W 103 37 15.57
KOP, Build 10" DLS	11011.45	0.00	74.85	10986.00	-228.42	235.00	856.30	0.00	554444.09	780898.87	N 32 31 19.95	W 103 37 15.57
	11100.00	8.85	179.57	11054.19	-221.59	228.17	856.35	10.00	554437.28	780896.92	N 32 31 19.88	W 103 37 15.57
	11200.00	18.85	179.57	11151.16	-197.67	204.28	856.53	10.00	554413.35	780897.10	N 32 31 19.65	W 103 37 15.57
3rd Bone Spring SS	11244.88	23.34	179.57	11193.00	-181.53	188.12	856.65	10.00	554397.21	780897.22	N 32 31 19.49	W 103 37 15.57
	11300.00	28.85	179.57	11242.50	-157.28	163.87	856.84	10.00	554372.98	780897.41	N 32 31 19.25	W 103 37 15.57
	11400.00	38.85	179.57	11325.44	-101.65	108.23	857.26	10.00	554317.33	780897.83	N 32 31 18.70	W 103 37 15.57
	11500.00	48.85	179.57	11397.48	-32.45	39.04	857.76	10.00	554246.14	780898.35	N 32 31 18.01	W 103 37 15.57
	11600.00	58.85	179.57	11458.37	48.20	-41.61	858.39	10.00	554167.49	780898.98	N 32 31 17.21	W 103 37 15.56
Wallcamp	11621.21	60.88	179.57	11467.00	68.55	-58.96	858.53	10.00	554149.15	780899.10	N 32 31 17.03	W 103 37 15.56
	11700.00	68.85	179.57	11500.38	137.85	-131.28	859.07	10.00	554077.84	780899.64	N 32 31 16.33	W 103 37 15.56
	11800.00	78.85	179.57	11528.15	233.79	-227.19	859.80	10.00	553981.92	780900.36	N 32 31 15.38	W 103 37 15.56
	11900.00	88.85	179.57	11538.84	333.09	-326.49	860.55	10.00	553882.02	780901.11	N 32 31 14.40	W 103 37 15.56
Landing Point, Hold to TD	11907.42	89.80	179.57	11538.94	340.51	-333.91	860.80	10.00	553875.21	780901.17	N 32 31 14.32	W 103 37 15.56
	12000.00	89.80	179.57	11539.80	433.08	-426.48	861.30	0.00	553782.83	780901.87	N 32 31 13.41	W 103 37 15.56
	12100.00	89.80	179.57	11540.30	533.08	-526.48	862.06	0.00	553682.84	780902.63	N 32 31 12.42	W 103 37 15.56
	12200.00	89.80	179.57	11541.00	633.08	-626.47	862.82	0.00	553582.85	780903.38	N 32 31 11.43	W 103 37 15.56
	12300.00	89.80	179.57	11541.71	733.08	-726.47	863.57	0.00	553482.86	780904.14	N 32 31 10.44	W 103 37 15.56
	12400.00	89.80	179.57	11542.41	833.07	-826.46	864.33	0.00	553382.87	780904.90	N 32 31 9.45	W 103 37 15.56
	12500.00	89.80	179.57	11543.12	933.07	-926.46	865.08	0.00	553282.88	780905.65	N 32 31 8.46	W 103 37 15.56
	12600.00	89.80	179.57	11543.82	1033.07	-1026.45	865.84	0.00	553182.89	780906.41	N 32 31 7.47	W 103 37 15.56
	12700.00	89.80	179.57	11544.53	1133.07	-1126.44	866.60	0.00	553082.70	780907.16	N 32 31 6.48	W 103 37 15.55
	12800.00	89.80	179.57	11545.23	1233.06	-1226.44	867.35	0.00	552982.71	780907.92	N 32 31 5.49	W 103 37 15.55
	12900.00	89.80	179.57	11545.93	1333.06	-1326.43	868.11	0.00	552882.72	780908.68	N 32 31 4.50	W 103 37 15.55
	13000.00	89.80	179.57	11546.64	1433.06	-1426.43	868.87	0.00	552782.73	780909.43	N 32 31 3.51	W 103 37 15.55
	13100.00	89.80	179.57	11547.34	1533.06	-1526.42	869.62	0.00	552682.73	780910.19	N 32 31 2.52	W 103 37 15.55
	13200.00	89.80	179.57	11548.05	1633.05	-1626.42	870.38	0.00	552582.74	780910.95	N 32 31 1.53	W 103 37 15.55
	13300.00	89.80	179.57	11548.75	1733.05	-1726.41	871.13	0.00	552482.75	780911.70	N 32 31 0.54	W 103 37 15.55
	13400.00	89.80	179.57	11549.45	1833.05	-1826.41	871.89	0.00	552382.76	780912.46	N 32 30 59.55	W 103 37 15.55
	13500.00	89.80	179.57	11550.16	1933.05	-1926.40	872.65	0.00	552282.77	780913.21	N 32 30 58.56	W 103 37 15.54
	13600.00	89.80	179.57	11550.86	2033.04	-2026.40	873.40	0.00	552182.78	780913.97	N 32 30 57.57	W 103 37 15.54
	13700.00	89.80	179.57	11551.57	2133.04	-2126.39	874.16	0.00	552082.79	780914.73	N 32 30 56.58	

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 ° ' ")
	16600.00	89.60	179.57	11571.98	5032.97	-5028.24	898.09	0.00	549183.05	780938.88	N 32 30 27.88	W 103 37 15.51
	16700.00	89.60	179.57	11572.89	5132.97	-5128.23	898.85	0.00	549083.08	780937.41	N 32 30 26.90	W 103 37 15.51
	16800.00	89.60	179.57	11573.40	5232.98	-5228.23	897.80	0.00	548983.07	780938.17	N 32 30 25.91	W 103 37 15.51
	16900.00	89.60	179.57	11574.10	5332.98	-5328.22	898.38	0.00	548883.08	780938.93	N 32 30 24.92	W 103 37 15.51
	17000.00	89.60	179.57	11574.81	5432.98	-5428.22	899.12	0.00	548783.09	780939.68	N 32 30 23.93	W 103 37 15.51
	17100.00	89.60	179.57	11575.51	5532.98	-5528.21	899.87	0.00	548683.10	780940.44	N 32 30 22.94	W 103 37 15.51
	17200.00	89.60	179.57	11576.22	5632.98	-5628.20	900.63	0.00	548583.11	780941.20	N 32 30 21.96	W 103 37 15.51
	17300.00	89.60	179.57	11576.92	5732.95	-5728.20	901.39	0.00	548483.12	780941.95	N 32 30 20.97	W 103 37 15.51
	17400.00	89.60	179.57	11577.62	5832.95	-5828.19	902.14	0.00	548383.13	780942.71	N 32 30 19.98	W 103 37 15.50
	17500.00	89.60	179.57	11578.33	5932.95	-5928.19	902.90	0.00	548283.14	780943.46	N 32 30 18.99	W 103 37 15.50
	17600.00	89.60	179.57	11579.03	6032.95	-6028.18	903.68	0.00	548183.15	780944.22	N 32 30 18.00	W 103 37 15.50
	17700.00	89.60	179.57	11579.74	6132.94	-6128.18	904.41	0.00	548083.16	780944.98	N 32 30 17.01	W 103 37 15.50
	17800.00	89.60	179.57	11580.44	6232.94	-6228.17	905.17	0.00	547983.16	780945.73	N 32 30 16.02	W 103 37 15.50
	17900.00	89.60	179.57	11581.15	6332.94	-6328.17	905.92	0.00	547883.17	780946.49	N 32 30 15.03	W 103 37 15.50
	18000.00	89.60	179.57	11581.85	6432.94	-6428.16	906.68	0.00	547783.18	780947.25	N 32 30 14.04	W 103 37 15.50
	18100.00	89.60	179.57	11582.55	6532.93	-6528.16	907.44	0.00	547683.19	780948.00	N 32 30 13.05	W 103 37 15.50
	18200.00	89.60	179.57	11583.26	6632.93	-6628.15	908.19	0.00	547583.20	780948.76	N 32 30 12.06	W 103 37 15.50
	18300.00	89.60	179.57	11583.98	6732.93	-6728.15	908.95	0.00	547483.21	780949.51	N 32 30 11.07	W 103 37 15.50
	18400.00	89.60	179.57	11584.67	6832.93	-6828.14	909.71	0.00	547383.22	780950.27	N 32 30 10.08	W 103 37 15.49
	18500.00	89.60	179.57	11585.37	6932.92	-6928.14	910.48	0.00	547283.23	780951.03	N 32 30 9.09	W 103 37 15.49
	18600.00	89.60	179.57	11586.08	7032.92	-7028.13	911.22	0.00	547183.24	780951.78	N 32 30 8.10	W 103 37 15.49
	18700.00	89.60	179.57	11586.78	7132.92	-7128.12	911.97	0.00	547083.25	780952.54	N 32 30 7.11	W 103 37 15.49
	18800.00	89.60	179.57	11587.48	7232.92	-7228.12	912.73	0.00	546983.26	780953.30	N 32 30 6.12	W 103 37 15.49
	18900.00	89.60	179.57	11588.19	7332.91	-7328.11	913.49	0.00	546883.27	780954.05	N 32 30 5.13	W 103 37 15.49
	19000.00	89.60	179.57	11588.89	7432.91	-7428.11	914.24	0.00	546783.27	780954.81	N 32 30 4.15	W 103 37 15.49
Chisholm Minis 1 Fed Com WCA 16H - BHL	19065.02	89.60	179.57	11589.35	7487.93	-7491.13	914.73	0.00	546718.26	780955.30	N 32 30 3.50	W 103 37 15.49

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	31.000	1/100.000	30.000	30.000		NAL_MWD_1.0_DEG-Depth Only	Original Borehole / Chisholm Minis 1 Fed Com WCA 16H Rev0 BT 14JUN19
	1	31.000	19065.021	1/100.000	30.000	30.000		NAL_MWD_1.0_DEG	Original Borehole / Chisholm Minis 1 Fed Com WCA 16H Rev0 BT

Chisholm Minis 1 Fed Com WCA 16H Rev0 BT 14JUN19 Proposal Geodetic Report

(Def Plan)

Report Date: June 19, 2019 - 08:35 PM
 Client: Chisholm
 Field: NM Lea County (NAD 83)
 Structure / Slot: Chisholm Minis 1 Fed Com WCA 16H / New Slot
 Well: Chisholm Minis 1 Fed Com WCA 16H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Chisholm Minis 1 Fed Com WCA 16H Rev0 BT 14JUN19
 Survey Date: June 14, 2019
 Tort / AHD / DDI / ERD Ratio: 101.801' / 8814.308 ft / 6.158' / 0.743
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 31' 17.88315", W 103° 37' 25.58585"
 Location Grid N/E Y/X: N 554209.100 RUS, E 780040.800 RUS
 CRS Grid Convergence Angle: 0.3815 °
 Grid Scale Factor: 0.99996387
 Version / Patch: 2.10.254.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 179.580 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3753.000 ft above MSL
 Seabed / Ground Elevation: 3722.000 ft above MSL
 Magnetic Declination: 8.877 °
 Total Gravity Field Strength: 998.481mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48135.274 nT
 Magnetic Dip Angle: 80.370 °
 Declination Date: June 14, 2019
 Magnetic Declination Model: HDGM 2019
 North Reference: Grid North
 Grid Convergence Used: 0.3815 °
 Total Corr Mag North->Grid North: 8.2951 °
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ° °)	Longitude (E/W ° ° °)
SHL	0.00	0.00	173.04	0.00	0.00	0.00	0.00	N/A	554209.10	780040.80	N 32 31 17.88	W 103 37 25.58
Build 1" DLS	1500.00	0.00	74.85	1500.00	0.00	0.00	0.00	0.00	554209.10	780040.80	N 32 31 17.88	W 103 37 25.58
Hold	2100.22	0.00	74.85	2099.13	-8.08	8.31	30.29	1.00	554217.41	780070.89	N 32 31 17.76	W 103 37 25.23
Drop 1" DLS	9991.23	0.00	74.85	9946.87	-220.34	226.69	826.01	0.00	554435.78	780886.58	N 32 31 19.87	W 103 37 15.92
Hold	10591.45	0.00	74.85	10546.00	-228.42	235.00	856.30	1.00	554444.09	780896.87	N 32 31 19.95	W 103 37 15.57
KOP, Build 10" DLS	11011.45	0.00	74.85	10968.00	-228.42	235.00	856.30	0.00	554444.09	780896.87	N 32 31 19.95	W 103 37 15.57
Landing Point, Hold to TD	11907.42	89.80	179.57	11538.94	340.51	-333.91	860.80	10.00	553875.21	780901.17	N 32 31 14.32	W 103 37 15.58
Chisholm Minis 1 Fed Com WCA 16H - BHL	19065.02	89.80	179.57	11589.35	7497.93	-7491.13	914.73	0.00	548718.28	780855.30	N 32 30 3.50	W 103 37 15.49

Survey Type: Def Plan

Survey Error Model: ISCHWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
 Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	31.000	1/100.000	30.000	30.000		NAL_MWD_1.0_DEG-Depth Only	Original Borehole / Chisholm Minis 1 Fed Com WCA 16H Rev0 BT 14JUN19
	1	31.000	19065.021	1/100.000	30.000	30.000		NAL_MWD_1.0_DEG	Original Borehole / Chisholm Minis 1 Fed Com WCA 16H Rev0

Chisholm Minis 1 Fed Com WCA 16H Rev0 BT 14JUN19 Anti-Collision Summary Report

Analysis Date: 24hr Time: June 19, 2019 - 18:34

Client: Chisholm
Field: NM Lee County (NAD 83)
Structure: Chisholm Minis 1 Fed Com WCA 16H
Sic: New Sic
Well: Chisholm Minis 1 Fed Com WCA 16H
Borehole: Original Borehole
Scan MD Range: 0.00ft - 19065.02ft

3D Least Distance
Chisholm Minis 1 Fed Com WCA 16H Rev0 BT 14JUN19 (Def Plan)
Every 10.00 Measured Depth (ft)
NAL Procedure: D&M Anti-Collision Standard S002
All local minima indicated.
2.10.254.0
Version / Patch:
Database / Project:
ut1153app462.dtr.eib.com/drilling -NM Lee County 2.10

ISCVSAO 3-D 95.00% Confidence 2.7655 sigma, for subject well. For
offset wells, error model version is specified with each well respectively.

Offset Trajectories Summary

Trajectory Error Model:

Offset Selection Criteria

Wellhead distance scan:

Selection filter:

Not performed:

Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans

- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation		Allow		Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level	Alert		Status
	Cl-Cl (ft)	MAS (ft)	EQ (ft)	Dev. (ft)			MD (ft)	TYD (ft)		Minor	Major	

Regada Highlighted: Sep-Factor separation < 1.00 ft

35-025-02008 E72 Deep Well
(Def Plan) (Band 0 to 10300ft)
(Def Survey)

3068.42	32.81	3063.32	3033.81	N/A		MAS = 10.00 (m)	0.00	0.00				Surface
3068.38	32.81	3062.25	3033.59	1874.69		MAS = 10.00 (m)	31.00	31.00				WRP
3068.35	453.74	2783.96	2812.85	10.18		OSF1.50	1500.00	1600.00				MHP-OC
3119.73	938.98	2482.81	2180.75	4.89		OSF1.50	3050.00	3043.70				Enter Alert
3483.87	344.79	1159.84	-0.02	1.50		OSF1.50	11180.00	11141.87				Enter Minor
3612.64	3612.64	-2.77	-1208.84	1.00		OSF1.50	12570.00	11543.81				Enter Major
2408.90	3612.64	-2.77	-1208.84	1.00		OSF1.50	14900.00	11567.81		OSF<1.00		MHP
3620.80	1129.69	-2332.85	0.53			OSF1.50	14810.00	11567.81				MHP
3620.94	1129.70	-2332.85	0.53			OSF1.50	14810.00	11567.81				MHP
3620.94	-8.74	-1212.30	1.00			OSF1.50	18840.00	11572.78		OSF>1.00		Exit Minor
3622.21	3622.21	1206.82	-0.99	1.50		OSF1.50	17800.00	11581.78				Exit Minor
3623.43	3624.12	1206.82	-0.99	1.50		OSF1.50	17800.00	11581.78				Exit Minor
4643.95	3626.12	2225.71	1017.84	1.92		OSF1.50	18005.02	11580.35		OSF>1.50		TD

Offset Trajectory	Separation			Allow	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	CI-CI (m)	MAS (m)	EOU (m)				MD (m)	TYD (m)	Alert	Minor	Major		

30-025-44800 Chisholm Minis
Fed Com 3 BS 8701 7H (Offset)
Active - MWD 0 to 10300H
(Def Survey)

148.11	32.81	145.81	115.30	N/A		MAS = 10.00 (m)	0.00	0.00					Surface
147.77	32.81	145.27	114.95	N/A		MAS = 10.00 (m)	10.00	10.00					MinPts
147.77	32.81	145.27	114.95	176359.63		MAS = 10.00 (m)	31.00	31.00					WRP
142.93	32.81	134.06	110.12	22.14		MAS = 10.00 (m)	1470.00	1470.00					MinPts
142.97	32.81	133.99	110.17	21.86		MAS = 10.00 (m)	1500.00	1500.00					MINPT-O-EQU
176.22	32.81	164.41	143.41	18.65		MAS = 10.00 (m)	2380.00	2387.31					MinPt-O-SF
178.04	32.81	168.13	145.23	18.65		MAS = 10.00 (m)	2410.00	2407.20					MinPt-O-SF
627.41	42.75	588.07	584.95	23.22		OSF1.50	6340.00	6315.66					MinPt-O-SF
650.21	44.09	628.56	614.52	23.35		OSF1.50	6690.00	6633.91					MinPt-O-SF
693.34	48.88	661.26	646.47	23.35		OSF1.50	7000.00	6972.04					MinPt-O-SF
848.54	57.43	809.42	791.11	23.10		OSF1.50	8620.00	8563.16					MinPt-O-SF
968.79	66.42	921.68	900.37	22.63		OSF1.50	9950.00	9905.87					MinPt-O-SF
1000.92	63.48	957.78	937.44	24.55		OSF1.50	10820.00	10574.55					MinPt-O-SF
1003.37	63.63	960.12	939.75	24.59		OSF1.50	10710.00	10604.55					MinPts
1753.60	242.37	1591.18	1511.23	10.85		OSF1.50	14310.00	11555.88					MinPt-CICI
1776.85	480.63	1455.63	1296.25	5.67		OSF1.50	17200.00	11576.22					MinPt-CICI
1776.31	535.09	1417.75	1240.22	4.80		OSF1.50	17840.00	11580.72					Enter Alert
1772.27	659.02	1368.75	1213.25	4.77		OSF1.50	18140.00	11582.84	OSF<5.00				MinPt-CICI
1789.47	635.61	1364.89	1153.89	4.23		OSF1.50	19085.02	11589.35					MinPts

Chisholm Minis 1 Fed Com 2B5
11H 0H to 18273H Detrieve
(Def Survey)

184.26	32.81	181.78	151.45	N/A		MAS = 10.00 (m)	0.00	0.00					Surface
183.63	32.81	181.42	151.12	22787.42		MAS = 10.00 (m)	10.00	10.00					MinPts
183.93	32.81	181.43	151.12	295541.38		MAS = 10.00 (m)	20.00	20.00					MinPts
183.93	32.81	181.43	151.12	60336.16		MAS = 10.00 (m)	31.00	31.00					WRP
173.77	32.81	164.21	140.99	24.27		MAS = 10.00 (m)	1560.00	1560.00					MinPts
173.79	32.81	164.15	140.98	24.12		MAS = 10.00 (m)	1610.00	1606.99					MINPT-O-EQU
177.06	32.81	166.99	144.25	23.09		MAS = 10.00 (m)	1690.00	1629.60					MinPt-O-SF
187.81	32.81	177.38	155.00	23.35		MAS = 10.00 (m)	2100.22	2099.13					MinPt-O-SF
227.09	32.81	215.32	194.29	24.23		MAS = 10.00 (m)	2500.00	2498.71					MinPt-O-SF
303.01	32.81	287.67	270.20	23.40		MAS = 10.00 (m)	3420.00	3411.67					MinPt-O-SF
608.93	34.63	545.07	534.39	25.62		OSF1.50	5370.00	5350.98					MinPt-O-SF
619.66	37.50	563.83	562.17	26.45		OSF1.50	5760.00	5768.67					MinPt-O-SF
808.41	51.39	773.32	767.02	24.73		OSF1.50	7910.00	7877.05					MinPt-O-SF
832.00	52.88	795.92	779.12	24.70		OSF1.50	8120.00	8085.90					MinPt-O-SF
942.97	60.14	902.04	882.83	24.47		OSF1.50	9210.00	9199.93					MinPt-O-SF
1000.28	63.99	959.77	938.27	24.34		OSF1.50	9790.00	9746.75					MinPt-O-SF
1880.07	43.34	1850.34	1836.73	68.95		OSF1.50	11950.00	11639.24					MinPts
1910.52	51.69	1875.22	1858.83	58.18		OSF1.50	12050.00	11539.95					MINPT-O-EQU
1968.38	101.53	1929.80	1898.85	30.23		OSF1.50	12840.00	11544.10					MinPt-O-ADP
1999.50	102.86	1930.09	1898.84	29.85		OSF1.50	12870.00	11544.31					MinPt-CICI
2007.14	120.02	1929.29	1887.12	25.69		OSF1.50	12900.00	11545.63					MINPT-O-EQU
2008.82	124.68	1924.74	1884.04	24.65		OSF1.50	13000.00	11546.04					MinPt-O-ADP
2010.11	126.40	1925.01	1883.70	24.30		OSF1.50	13040.00	11546.82					MinPt-CICI
2027.82	150.44	1926.47	1877.15	20.63		OSF1.50	13330.00	11548.06					MinPt-CICI
2024.82	170.00	1910.45	1854.62	18.11		OSF1.50	13590.00	11550.79					MinPt-CICI
2015.75	183.10	1888.19	1822.85	15.84		OSF1.50	13890.00	11552.91					MinPt-CICI
2013.20	204.76	1875.84	1808.41	14.91		OSF1.50	14040.00	11553.98					MinPt-CICI
2013.72	219.92	1868.35	1783.88	13.88		OSF1.50	14230.00	11555.30					MinPt-CICI
2008.70	258.65	1835.50	1750.15	11.75		OSF1.50	14700.00	11558.61					MinPt-CICI
1997.74	349.07	1784.18	1646.89	8.64		OSF1.50	15790.00	11606.29					MinPt-CICI
2000.45	357.77	1781.08	1642.85	8.44		OSF1.50	15940.00	11607.34					MINPT-O-EQU
2004.23	377.16	1751.95	1627.06	8.01		OSF1.50	16130.00	11598.68					MinPt-CICI
2007.03	386.71	1748.39	1620.32	7.83		OSF1.50	16290.00	11599.81					MINPT-O-EQU
2009.76	390.01	1748.92	1619.75	7.77		OSF1.50	16350.00	11570.23					MinPt-O-ADP
2020.44	418.51	1740.80	1601.63	7.28		OSF1.50	16820.00	11572.13					MinPt-CICI
2023.41	428.02	1737.23	1595.39	7.12		OSF1.50	16780.00	11573.28					MINPT-O-EQU
2024.81	448.15	1728.34	1578.46	6.84		OSF1.50	16950.00	11574.48					MinPt-CICI
2022.75	486.94	1710.82	1555.81	6.52		OSF1.50	17200.00	11578.22					MinPt-CICI
1996.77	579.87	1609.36	1416.90	5.18		OSF1.50	18560.00	11585.79					MinPt-CICI
2004.05	603.02	1601.20	1401.03	5.00		OSF1.50	18880.00	11587.91	OSF<5.00				Enter Alert
2007.35	622.00	1591.85	1385.35	4.85		OSF1.50	19085.02	11589.35					MinPts