Form 3160-3
(June 2015)

OCD – HOBBS
09/29/2020
RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM134888

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.: EL CAMPEON FED COM 403H [328509]

2. Name of Operator: TITUS OIL AND GAS PRODUCTION LLC [373986]

9. API Well No.: 30-025-47827

3a. Address: 420 Throckmorton St., Suite 1150 Fort Worth TX 76102

3b. Phone No. *(include area code)*: (817)852-6358

10. Field and Pool, or Exploratory: [96776] WC-025 G-09 S263619C / WOLFCAMP

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SWSE / 581 FSL / 1972 FEL / LAT 32.0231149 / LONG -103.3872733

At proposed prod. zone: LOT 2 / 10 FSL / 2308 FEL / LAT 32.0003209 / LONG -103.3883341

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 20 / T26S / R35E / NMP

14. Distance in miles and direction from nearest town or post office*: 13 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 581 feet

16. No of acres in lease: 200

17. Spacing Unit dedicated to this well: 240

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 30 feet

19. Proposed Depth: 12592 feet / 20843 feet

20. BLM/BIA Bond No. in file: FED: NMB001532

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3175 feet

22. Approximate date work will start*: 06/01/2020

23. Estimated duration: 45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Ryan DeLong / Ph: (817)852-6370	07/11/2019

Title: Regulatory Manager

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	09/15/2020

Title	Office
Assistant Field Manager Lands & Minerals	CARLSBAD

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

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.

GCP Rec 09/29/2020

SL

APPROVED WITH CONDITIONS

KZ 10/18/2020

Approval Date: 09/15/2020

(Continued on page 2)

*(Instructions on page 2)

APD ID: 10400043561 **Submission Date:** 07/11/2019

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400043561 **Tie to previous NOS?** **Submission Date:** 07/11/2019

BLM Office: CARLSBAD **User:** Ryan DeLong **Title:** Regulatory Manager

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM134888 **Lease Acres:** 200

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** TITUS OIL AND GAS PRODUCTION LLC

Operator letter of designation:

Operator Info

Operator Organization Name: TITUS OIL AND GAS PRODUCTION LLC

Operator Address: 420 Throckmorton St., Suite 1150

Zip: 76102

Operator PO Box:

Operator City: Fort Worth **State:** TX

Operator Phone: (817)852-6358

Operator Internet Address: rdelong@titusoil.com

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: EL CAMPEON FED COM **Well Number:** 403H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** WC-025 G-09 S263619C **Pool Name:** WOLFCAMP

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** EL CAMPEON PAD **Number:** 3

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 13 Miles **Distance to nearest well:** 30 FT **Distance to lease line:** 581 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: El_Campeon_Fed_Com_403H_C_102_20200128155312.pdf

El_Campeon_Fed_Com_403H_Additional_points_20200128155324.pdf

Well work start Date: 06/01/2020 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:**

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	581	FSL	1972	FEL	26S	35E	20	Aliquot SWSE	32.0231149	-103.3872733	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 134888	3175	0	0	
KOP Leg #1	749	FSL	2101	FEL	26S	35E	20	Tract O	32.023574	-103.387691	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 134888	-8853	12030	12028	

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-1	0	FNL	2135	FEL	26S	35E	20	Tract B	32.021516	-103.387798	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 125400	-9425	13096	12600	
EXIT Leg #1	10	FSL	2308	FEL	26S	35E	32	Lot 2	32.0003209	-103.3883341	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-9417	20843	12592	
BHL Leg #1	10	FSL	2308	FEL	26S	35E	32	Lot 2	32.0003209	-103.3883341	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-9417	20843	12592	

APD ID: 10400043561 **Submission Date:** 07/11/2019

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
495722	QUATERNARY	3171	0	0	ALLUVIUM	NONE	N
495723	RUSTLER	2096	1075	1075	ANHYDRITE	USEABLE WATER	N
495724	SALADO	1638	1542	1542	SALT	NONE	N
495728	BASE OF SALT	-1854	5034	5034	SALT	NONE	N
495729	LAMAR	-2168	5339	5339	LIMESTONE	NONE	N
495730	DELAWARE	-2208	5379	5379	SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL	N
495733	BONE SPRING LIME	-6074	9245	9245	LIMESTONE	NATURAL GAS, OIL	N
495734	BONE SPRING 1ST	-7267	10438	10438	LIMESTONE, SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL	N
495735	BONE SPRING 2ND	-7836	11007	11007	LIMESTONE, SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL	N
495736	BONE SPRING 3RD	-8956	12127	12127	LIMESTONE, SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL	N
495737	WOLFCAMP	-9310	12481	12811	SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M **Rating Depth:** 12592

Equipment: See attached 5M Annular Variance Well Control plan for Titus Oil & Gas Production, LLC. BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.   Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart. A variance is requested for the use of a 5M annular with the 10M BOPE. See attached

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

5M Annular Variance Well Control plan.

Testing Procedure: Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.

Choke Diagram Attachment:

10M___H_P_614___BOP__CHOKE__FLEX_HOSE_APD_INFORMATION_20200128092902.pdf

BOP Diagram Attachment:

10M___H_P_614___BOP__CHOKE__FLEX_HOSE_APD_INFORMATION_20200128092916.pdf

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Pressure Rating (PSI): 3M **Rating Depth:** 11800

Equipment: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.

Testing Procedure: Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.

Choke Diagram Attachment:

3M___H_P_614___BOP__CHOKE__FLEX_HOSE_APD_INFORMATION_20200128093053.pdf

BOP Diagram Attachment:

3M___H_P_614___BOP__CHOKE__FLEX_HOSE_APD_INFORMATION_20200129143652.pdf

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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 length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	13.5	10.75	NEW	API	N	0	1100	0	1100			1100	J-55	45.5	BUTT	4.15	1	DRY	14.29	DRY	14.29
2	PRODUCTION	6.75	5.5	NEW	API	Y	0	11300	0	11300			11300	P-110	23	BUTT	1.64	1.67	DRY	3.22	DRY	3.22
3	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11800	0	11800	3171	-8729	11800	L-80	29.7	BUTT	1.13	1.17	DRY	2.07	DRY	2.07

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

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 length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
4	PRODUCTION	6.75	5.0	NEW	API	Y	11300	20843	11300	12592			9543	P-110	18	BUTT	1.64	1.67	DRY	3.22	DRY	3.22

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Assumptions___Deep_Wells_20200128093426.docx

Casing ID: 2 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Tapered_String_Spec_El_Campeon_Fed_Com_403H_20200625143155.JPG

Casing Design Assumptions and Worksheet(s):

Casing_Assumptions___Deep_Wells_20200128093716.docx

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

Casing Attachments

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Assumptions___Deep_Wells_20200128093536.docx

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Tapered_String_Spec_El_Campeon_Fed_Com_403H_20200625143229.JPG

Casing Design Assumptions and Worksheet(s):

Casing_Assumptions___Deep_Wells_20200128093935.docx

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1100	470	1.75	13.5	822.5	50	Class C	4% Gel 1% CaCl2
SURFACE	Tail		0	1100	250	1.34	14.8	335	50	Class C	2% Cacl2
INTERMEDIATE	Lead		0	11800	1440	3.6	10.3	5184	50	TXI Lightweight Blend	N/A
INTERMEDIATE	Tail		0	11800	250	1.27	15	317.5	50	85:15 Class H	N/A
PRODUCTION	Lead		0	20843	400	2.5	11.9	1000	35	50:50:10 H Blend	N/A

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Tail		0	20843	1070	1.24	14.4	1326.8	35	50:50:2 Class H Blend	N/A
PRODUCTION	Lead		0	20843	400	2.5	11.9	1000	35	50:50:10 H Blend	N/A
PRODUCTION	Tail		0	20843	1070	1.24	14.4	1326.8	35	50:50:2 Class H Blend	N/A

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: PVT/Pason/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
0	1100	WATER-BASED MUD	8.6	8.8							
1100	11800	OTHER : Nova N-Gauge	8.4	9							
11800	12592	OIL-BASED MUD	10	13.5							

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

Section 6 - Test, Logging, Coring

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

GR from TD to surface (horizontal well - vertical portion of hole). Logs run will be stated in the completion report and submitted to the BLM.

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

DS

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7535 **Anticipated Surface Pressure:** 4763

Anticipated Bottom Hole Temperature(F): 180

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

El_Campeon_Fed_Com_403H_H2S_Plan_20200128091850.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

El_Campeon_Fed_Com_403H_Wall_Plot_20200128091134.pdf
El_Campeon_Fed_Com_403H_AC_20200128091145.pdf
El_Campeon_Fed_Com_403H_Survey_Report_6_23_2020_20200625143301.pdf

Other proposed operations facets description:

DRILLING PROGRAM
GAS CAPTURE PLAN
INT CASING SPEC SHEET

Other proposed operations facets attachment:

El_Campeon_CTB_20___Gas_Capture_Plan_20200128091209.docx
El_Campeon_Fed_Com_403H___APD_Drilling_Portion_20200604160402.pdf
Pipe_Body_and_API_Connections_Performance_Data_7.6250_29.7000_0.3750__L80_HP_20200604160425.pdf

Other Variance attachment:

Slim_Hole___5M_Variance_Well_Plan_7.8.2019_20200128091236.pdf
10M___H_P_614___BOP__CHOKE__FLEX_HOSE_APD_INFORMATION_20200128091304.pdf

Titus Oil & Gas Production, LLC - El Campeon South 20-29-32 Fed 431H

1. Geologic Formations

TVD of target	12,735' EOL	Pilot hole depth	NA
MD at TD:	18,027'	Deepest expected fresh water:	250'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1035	Water	
Top of Salt	1542	Salt	
Base of Salt	5034	Salt	
Lamar	5334	Salt Water	
Delaware	5374	Salt Water	
Bone Spring Lime	9260	Oil/Gas	
1st Bone Spring	10503	Oil/Gas	
2nd Bone Spring	11057	Oil/Gas	
3rd Bone spring	12127	Oil/Gas	
Wolfcamp	12496	Oil/Gas	
Wolfcamp XY Sand	12524	Oil/Gas	
Wolfcamp 100	12630	Target Oil/Gas	
Wolfcamp 200	12939	Not Penetrated	
0	0	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body
	From	To							
13.5"	0	1060	10.75"	45.5	J55	BTC	4.31	0.82	14.82
9.875"	0	11900	7.875"	29.7	L80HP	BTC	1.12	1.22	2.05
6.75"	0	11400	5.5"	23	P110	BTC	1.99	2.10	3.18
6.75"	11400	18,027	5"	18	P110	BTC	1.99	2.10	3.18
			BLM Minimum Safety Factor				1.125	1	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing.to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5" casing will be run back 500' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

Casing Assumptions – Deep Wells

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse.

Variance requested to waive minimum SF for surface casing burst. Surface SF Burst > 0.7 frac gradient at the shoe. Casing burst is stronger than the next intervals formation FG.

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5" casing will be run back 500' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

El Campeon Casing Assumptions – Titus Oil & Gas Production, LLC

Intermediate casing will be kept at least 1/3 full while running casing.to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and

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TITUS

Oil & Gas LLC

TITUS Oil & Gas Production, LLC

100 Throckmorton Street
Suite 1630
Fort Worth, TX 76102

Hydrogen Sulfide (H_2S) Contingency Plan

For

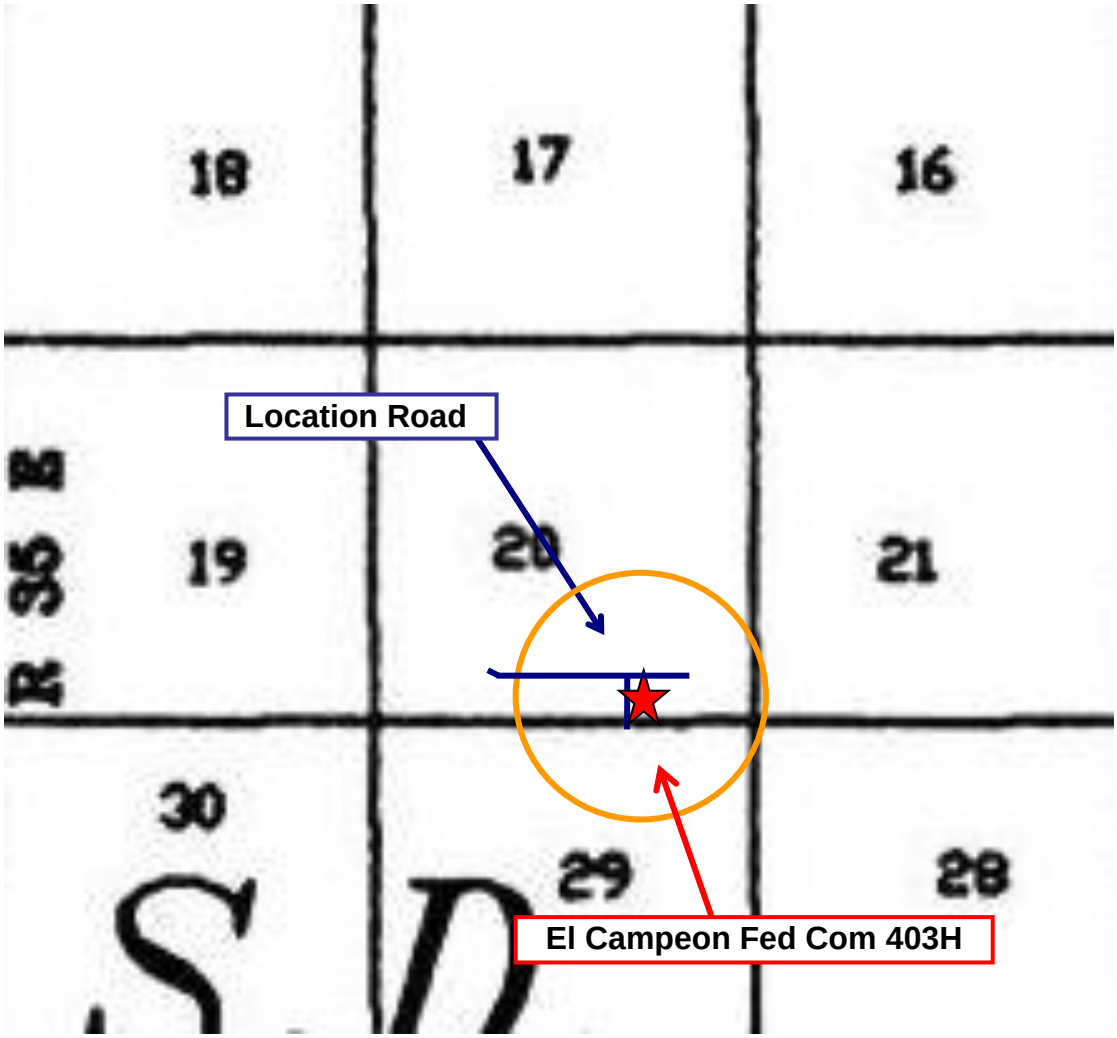
El Campeon Fed Com 403H

Sec-20 T-26S R-35E
581 FSL & 1972' FEL
LAT. = 32.02311493' N (NAD83)
LONG = 103.38727332' W

Lea County NM

El Campeon Fed Com 403H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.



Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H2S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- **Isolate the area and prevent entry by other persons into the 100 ppm ROE.**
- **Evacuate any public places encompassed by the 100 ppm ROE.**
- **Be equipped with H_2S monitors and air packs in order to control the release.**
- **Use the "buddy system" to ensure no injuries occur during the response**
- **Take precautions to avoid personal injury during this operation.**
- **Contact operator and/or local officials to aid in operation. See list of phone numbers attached.**
- **Have received training in the**
  - **Detection of H_2S, and**
  - **Measures for protection against the gas,**
  - **Equipment used for protection and emergency response.**

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Titus Oil & Gas personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Titus Oil & Gas Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H_2S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H_2S)

2. The proper use and maintenance of personal protective equipment and life support systems.

3. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H_2S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.

3. The contents and requirements of the H_2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S.

1. **Well Control Equipment**

   A. Flare line

   B. Choke manifold – Remotely Operated

   C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit

   D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

   E. Mud/Gas Separator

2. **Protective equipment for essential personnel:**

   30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. **H_2S detection and monitoring equipment:**

   Portable H_2S monitors positioned on location for best coverage and response. These units have warning lights which activate when H_2S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

   - **Bell nipple**
   - **Rig floor**
   - **Cellar**
   - **Possum Belly/Shale shaker**
   - **Choke manifold**

   Visual warning systems:

   A. Wind direction indicators as shown on well site diagram

   B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

4. **Mud program:**

   The mud program has been designed to minimize the volume of H_2S circulated to surface. Proper mud weight, safe drilling practices and the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.

5. **Metallurgy:**

   A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H_2S trim.

   B. All elastomers used for packing and seals shall be H_2S trim.

6. **Communication:**

   A. Company personnel have/use cellular telephones in the field.

   B. Land line (telephone) communications at Office

7. **Well testing:**

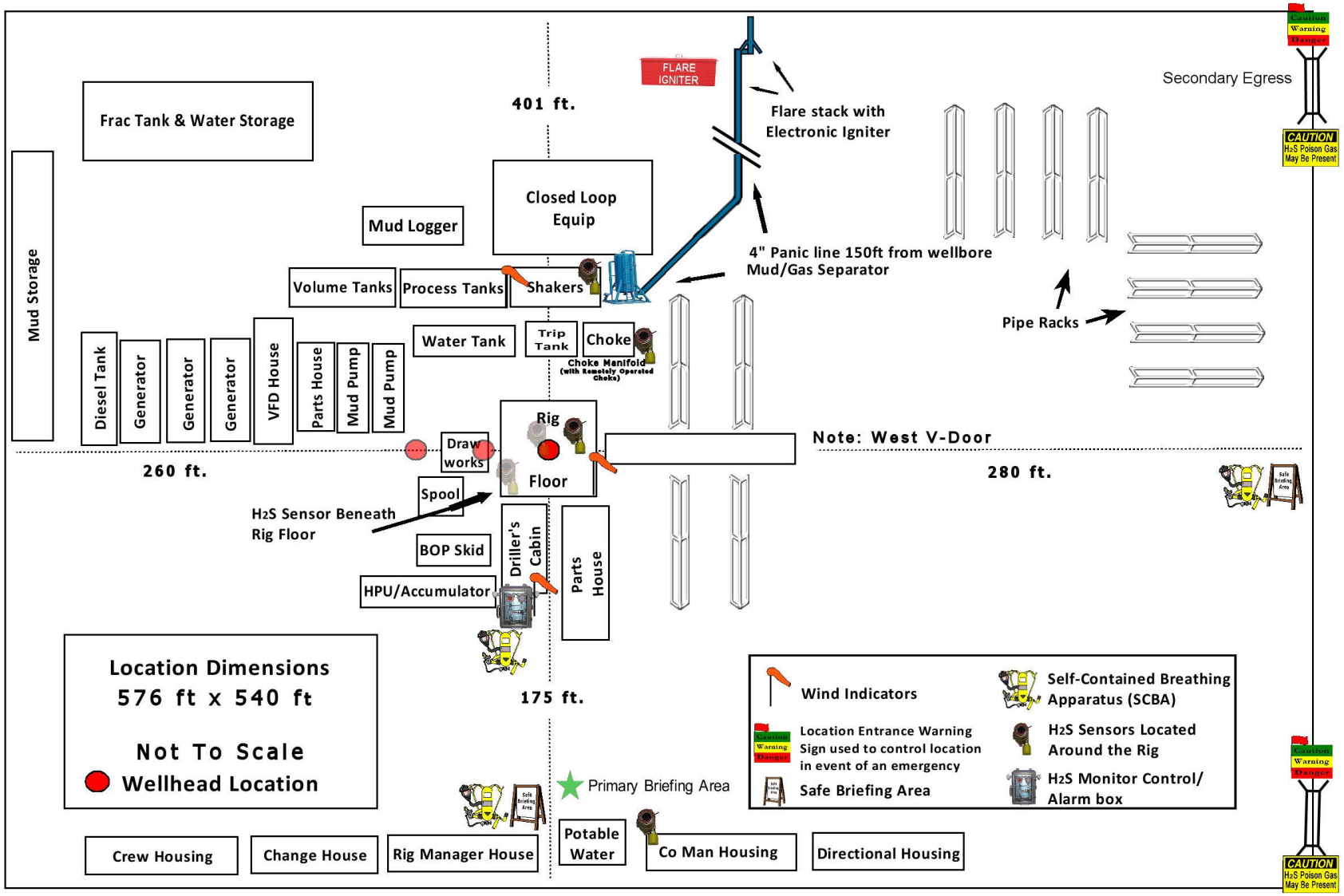
   A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H_2S environment will use the closed chamber method of testing.

   B. There will be no drill stem testing.

Titus Oil & Gas Company Call List			
Drilling Supervisor –			
Ryan DeLong -	**Office** (817) 852-6370 **Mobile** (405) 664-5188		
Agency Call List			
Lea County (575)	**Hobbs**		
	Lea County Communication Authority		393-3981
	State Police		392-5588
	City Police		397-9265
	Sheriff's Office		393-2515
	Ambulance		**911**
	Fire Department		397-9308
	LEPC (Local Emergency Planning Committee)		393-2870
	NMOCD		393-6161
	US Bureau of Land Management		393-3612
Eddy County (575)	**Carlsbad**		
	State Police		885-3137
	City Police		885-2111
	Sheriff's Office		887-7551
	Ambulance		**911**
	Fire Department		885-3125
	LEPC (Local Emergency Planning Committee)		887-3798
	US Bureau of Land Management		887-6544
	NM Emergency Response Commission (Santa Fe)		(505) 476-9600
	24 HR		(505) 827-9126
	National Emergency Response Center		(800) 424-8802
	National Pollution Control Center: Direct		(703) 872-6000
	For Oil Spills		(800) 280-7118
	Emergency Services		
	Wild Well Control		(281) 784-4700
	Cudd Pressure Control	915-699-0139	(915) 563-3356
	Halliburton		(575) 746-2757
	B. J. Services		(575) 746-3569
Give GPS position:	Native Air – Emergency Helicopter – Hobbs		(575) 392-6429
	Flight For Life - Lubbock, TX		(806) 743-9911
	Aerocare - Lubbock, TX		(806) 747-8923
	Med Flight Air Amb - Albuquerque, NM		(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM		(800) 222-1222
	Poison Control (24/7)		(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service		(800) 364-4366
	NOAA – Website - www.nhc.noaa.gov		

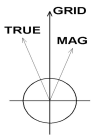
Prepared in conjunction with
Dave Small SHARP communications and consulting

TITUS Oil & Gas Production - Well Pad
Rig Location Layout
Safety Equipment Location



TITUS OIL GAS LLC

Well Name	El Campeon Fed Com 403H
Latitude	32° 1' 23.214" N
Longitude	103° 23' 14.184" W
CRS	NAD83 / New Mexico East (ftUS)

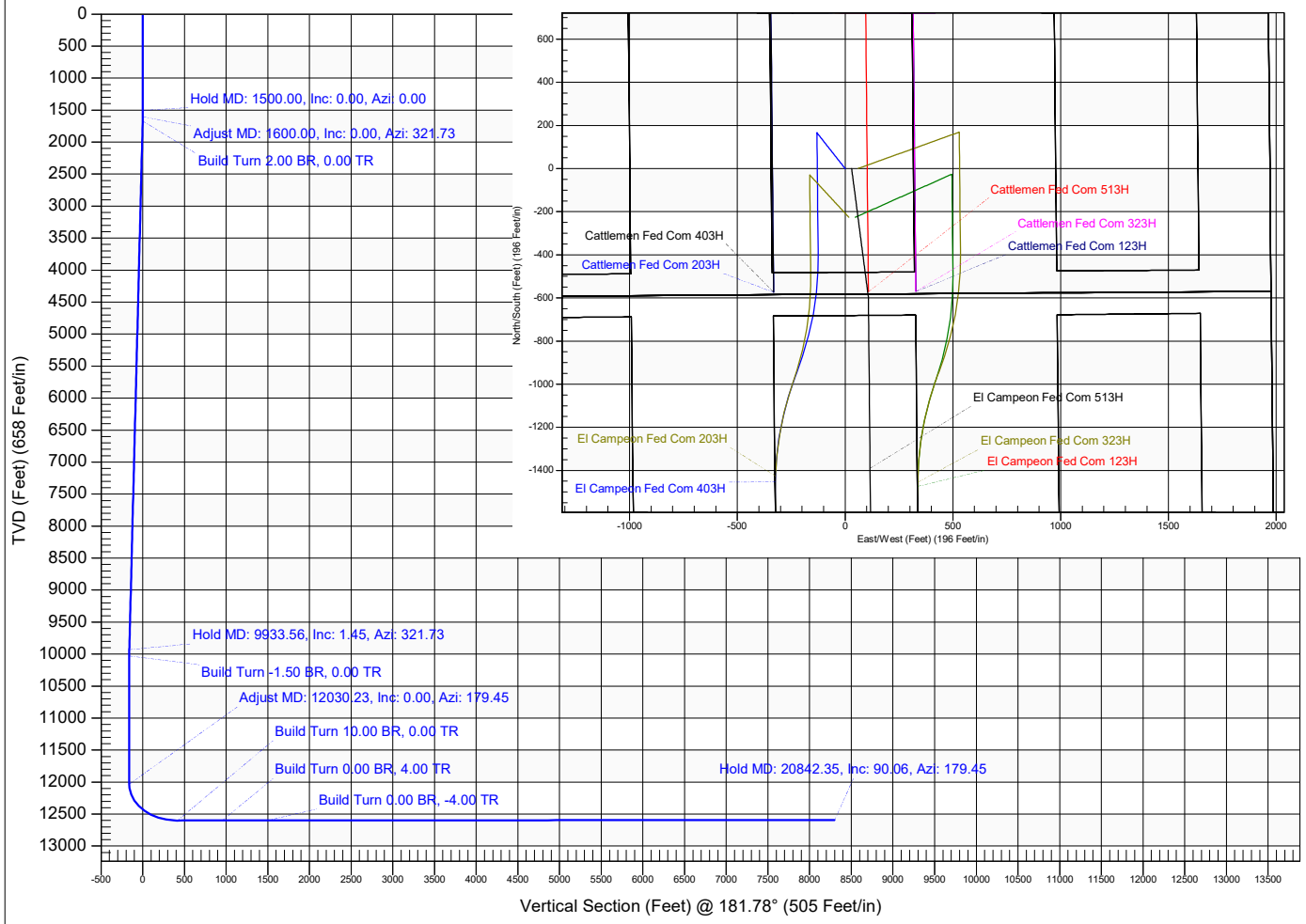


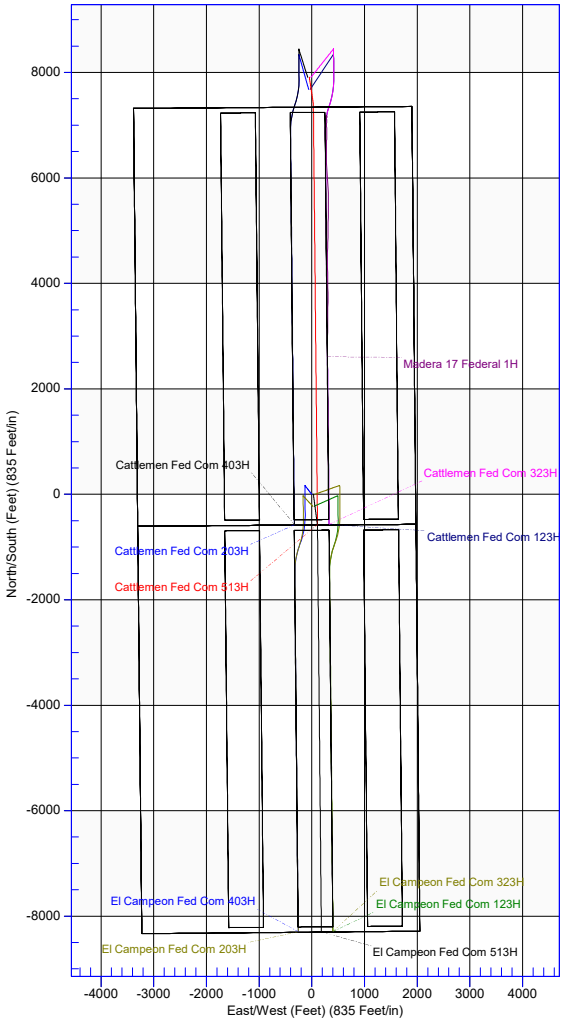
North Reference	GRID
Magnetic Declination	6.569
Grid Convergence	0.50
Dip angle	59.872
Magnetic Model	IGRF12.COF
Total Field (nT)	47572.252
Date	24/1/2020
TRUE to GRID:	Add -0.50
MAG to GRID:	Add 6.07

Well Name	El Campeon Fed Com 403H
RTE Elevation	0.00 Ft above Ground Level
GL Elevation	0.00 Ft above Ground Level
Calculation Method	Minimum Curvature
Local Co-Ordinate Ref	Well Centered
Grid East	834537.09 US survey foot
Grid North	373431.66 US survey foot
Local North	-15243.85 Ft
Local East	3462.68 Ft
Latitude	32° 1' 23.214" N
Longitude	103° 23' 14.184" W
CRS	NAD83 / New Mexico East (ftUS)
VS Origin	Well
North Ref	GRID
Depth Datum	Default
Grid Convergence	0.502

Plan Sections

MD(ft)	INC(°)	AZI(°)	TVD(ft)	NS(ft)	EW(ft)	VS(ft)	DLS(°/100ft)	Tool face	Method
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	HOLD_CL
1600.00	0.00	321.73	1600.00	0.00	0.00	0.00	0.00	321.73	ADJ_CL
1672.50	1.45	321.73	1672.49	0.72	-0.57	-0.70	2.00	321.73	BT_INC
9933.56	1.45	321.73	9930.91	164.84	-130.04	-160.72	0.00	0.00	HOLD_CL
10030.23	0.00	321.73	10027.56	165.80	-130.80	-161.66	1.50	180.00	BT_INC
12030.23	0.00	179.45	12027.56	165.80	-130.80	-161.66	0.00	179.45	ADJ_CL
12930.83	90.06	179.45	12600.52	-407.73	-125.29	411.43	10.00	179.45	BT_INC
13480.83	90.06	201.45	12599.94	-945.29	-224.44	951.81	4.00	89.99	BT_AZI
14030.83	90.06	179.45	12599.35	-1482.85	-323.59	1492.19	4.00	-89.99	BT_AZI
20843.35	90.06	179.45	12592.22	-8295.05	-258.19	8299.07	0.00	0.00	HOLD_CL





Titus Oil & Gas, LLC
County: LEA
EL CAMP PROJECT
El Campeon Fed Com 403H
El Campeon Fed Com 403H

Geographic Survey Report

23 June 2020

Operator	Titus Oil & Gas, LLC	**Local co-ord ref**	Well Centered
Field	County: LEA	**TVD Reference**	Default
Facility	EL CAMP PROJECT	**North Reference**	GRID
Well	El Campeon Fed Com 403H	**Survey Calc Method**	Minimum Curvature
Wellbore	El Campeon Fed Com 403H		

Field	County: LEA		
CRS	NAD83 / New Mexico East (ftUS)		
Apply Scale Factor	NO	**Scale Factor**	0.99991
System Datum	Ground Level	**Depth Datum->MSL**	0.00 UsFt

Facility	EL CAMP PROJECT		
Map Northing	388675.48 US survey foot	**Map Easting**	831074.42 US survey foot
Latitude	32° 3' 54.350" N	**Longitude**	103° 23' 52.868" W
Vertical Uncertainty	0.00 UsFt	**Horizontal Uncertainty**	0.00 UsFt
Grid Convergence	0.497		

Well	El Campeon Fed Com 403H		
Local North	-15243.82 UsFt	**Local East**	3462.67 UsFt
Map Northing	373431.66 US survey foot	**Map Easting**	834537.09 US survey foot
Latitude	32° 1' 23.214" N	**Longitude**	103° 23' 14.184" W
Depth Datum	Default	**Datum Elevation**	0.00 UsFt
GL Elevation	0.00 UsFt		
Grid Convergence	0.502		

Well bore	El Campeon Fed Com 403H		
Magnetic Model	IGRF12.COF	**Date**	24/1/2020
Total Field (nT)	47572.252	**Dip Angle (°)**	59.872
Declination (°)	6.569		
VS Origin	Well	**VS Azimuth**	181.78
VS Orgin NS	0.00 UsFt	**VS Origin EW**	0.00 UsFt

Survey Program	El Campeon Fed Com 403H		
Depth From (UsFt)	**Depth To (UsFt)**	**Survey**	**Survey Tool**
0.00	20843.31	El Campeon Fed Com 403H	

Survey Report

MD UsFt	Inc °	Azi °	TVD UsFt	NS UsFt	EW UsFt	VS UsFt	DLS (°/100 UsFt)	BR (°/100 UsFt)	TR (°/100 UsFt)	TF °	CL UsFt	TVD SS UsFt	Map Northing US survey foot	Map Easting US survey foot	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-3253.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-3153.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-3053.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2953.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2853.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2753.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2653.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2553.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2453.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2353.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2253.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2153.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2053.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-1953.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-1853.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
1500.00	0.00	321.73	1500.00	0.00	0.00	0.00	0.00	0.00	38.27	321.73	100.00	-1753.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
1600.00	0.00	321.73	1600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-1653.99	373431.66	834537.09	32° 1' 23.214" N	103° 23' 14.184" W
1700.00	1.45	321.73	1699.99	0.99	-0.78	-0.97	1.45	1.45	0.00	321.73	100.00	-1554.00	373431.96	834536.85	32° 1' 23.217" N	103° 23' 14.187" W
1800.00	1.45	321.73	1799.96	2.98	-2.35	-2.91	0.00	0.00	0.00	0.00	100.00	-1454.04	373432.57	834536.38	32° 1' 23.223" N	103° 23' 14.192" W
1900.00	1.45	321.73	1899.93	4.97	-3.92	-4.84	0.00	0.00	0.00	0.00	100.00	-1354.07	373433.18	834535.90	32° 1' 23.229" N	103° 23' 14.198" W
2000.00	1.45	321.73	1999.89	6.95	-5.49	-6.78	0.00	0.00	0.00	0.00	100.00	-1254.10	373433.78	834535.42	32° 1' 23.235" N	103° 23' 14.203" W
2100.00	1.45	321.73	2099.86	8.94	-7.05	-8.72	0.00	0.00	0.00	0.00	100.00	-1154.13	373434.39	834534.94	32° 1' 23.241" N	103° 23' 14.209" W
2200.00	1.45	321.73	2199.83	10.93	-8.62	-10.65	0.00	0.00	0.00	0.00	100.00	-1054.16	373434.99	834534.47	32° 1' 23.247" N	103° 23' 14.214" W
2300.00	1.45	321.73	2299.80	12.91	-10.19	-12.59	0.00	0.00	0.00	0.00	100.00	-954.20	373435.60	834533.99	32° 1' 23.253" N	103° 23' 14.219" W
2400.00	1.45	321.73	2399.77	14.90	-11.75	-14.53	0.00	0.00	0.00	0.00	100.00	-854.23	373436.20	834533.51	32° 1' 23.259" N	103° 23' 14.225" W
2500.00	1.45	321.73	2499.73	16.89	-13.32	-16.46	0.00	0.00	0.00	0.00	100.00	-754.26	373436.81	834533.03	32° 1' 23.265" N	103° 23' 14.230" W
2600.00	1.45	321.73	2599.70	18.87	-14.89	-18.40	0.00	0.00	0.00	0.00	100.00	-654.29	373437.41	834532.56	32° 1' 23.271" N	103° 23' 14.236" W
2700.00	1.45	321.73	2699.67	20.86	-16.46	-20.34	0.00	0.00	0.00	0.00	100.00	-554.32	373438.02	834532.08	32° 1' 23.277" N	103° 23' 14.241" W
2800.00	1.45	321.73	2799.64	22.85	-18.02	-22.28	0.00	0.00	0.00	0.00	100.00	-454.36	373438.63	834531.60	32° 1' 23.283" N	103° 23' 14.247" W
2900.00	1.45	321.73	2899.61	24.83	-19.59	-24.21	0.00	0.00	0.00	0.00	100.00	-354.39	373439.23	834531.12	32° 1' 23.289" N	103° 23' 14.252" W
3000.00	1.45	321.73	2999.57	26.82	-21.16	-26.15	0.00	0.00	0.00	0.00	100.00	-254.42	373439.84	834530.64	32° 1' 23.295" N	103° 23' 14.258" W
3100.00	1.45	321.73	3099.54	28.81	-22.73	-28.09	0.00	0.00	0.00	0.00	100.00	-154.45	373440.44	834530.17	32° 1' 23.301" N	103° 23' 14.263" W
3200.00	1.45	321.73	3199.51	30.79	-24.29	-30.02	0.00	0.00	0.00	0.00	100.00	-54.48	373441.05	834529.69	32° 1' 23.307" N	103° 23' 14.269" W
3300.00	1.45	321.73	3299.48	32.78	-25.86	-31.96	0.00	0.00	0.00	0.00	100.00	45.48	373441.65	834529.21	32° 1' 23.313" N	103° 23' 14.274" W
3400.00	1.45	321.73	3399.44	34.77	-27.43	-33.90	0.00	0.00	0.00	0.00	100.00	145.45	373442.26	834528.73	32° 1' 23.319" N	103° 23' 14.280" W
3500.00	1.45	321.73	3499.41	36.75	-28.99	-35.83	0.00	0.00	0.00	0.00	100.00	245.42	373442.86	834528.26	32° 1' 23.325" N	103° 23' 14.285" W
3600.00	1.45	321.73	3599.38	38.74	-30.56	-37.77	0.00	0.00	0.00	0.00	100.00	345.39	373443.47	834527.78	32° 1' 23.331" N	103° 23' 14.291" W
3700.00	1.45	321.73	3699.35	40.73	-32.13	-39.71	0.00	0.00	0.00	0.00	100.00	445.36	373444.07	834527.30	32° 1' 23.337" N	103° 23' 14.296" W

Survey Report

MD	Inc	Azi	TVD	NS	EW	VS	DLS	BR	TR	TF	CL	TVD SS	Map Northing	Map Easting	Latitude	Longitude
UsFt	°	°	UsFt	UsFt	UsFt	UsFt	(°/100 UsFt)	(°/100 UsFt)	(°/100 UsFt)	°	UsFt	UsFt	US survey foot	US survey foot		
3800.00	1.45	321.73	3799.32	42.71	-33.70	-41.65	0.00	0.00	0.00	0.00	100.00	545.32	373444.68	834526.82	32° 1' 23.343" N	103° 23' 14.302" W
3900.00	1.45	321.73	3899.28	44.70	-35.26	-43.58	0.00	0.00	0.00	0.00	100.00	645.29	373445.29	834526.34	32° 1' 23.349" N	103° 23' 14.307" W
4000.00	1.45	321.73	3999.25	46.69	-36.83	-45.52	0.00	0.00	0.00	0.00	100.00	745.26	373445.89	834525.87	32° 1' 23.356" N	103° 23' 14.313" W
4100.00	1.45	321.73	4099.22	48.67	-38.40	-47.46	0.00	0.00	0.00	0.00	100.00	845.23	373446.50	834525.39	32° 1' 23.362" N	103° 23' 14.318" W
4200.00	1.45	321.73	4199.19	50.66	-39.97	-49.39	0.00	0.00	0.00	0.00	100.00	945.20	373447.10	834524.91	32° 1' 23.368" N	103° 23' 14.324" W
4300.00	1.45	321.73	4299.16	52.65	-41.53	-51.33	0.00	0.00	0.00	0.00	100.00	1045.16	373447.71	834524.43	32° 1' 23.374" N	103° 23' 14.329" W
4400.00	1.45	321.73	4399.12	54.63	-43.10	-53.27	0.00	0.00	0.00	0.00	100.00	1145.13	373448.31	834523.96	32° 1' 23.380" N	103° 23' 14.335" W
4500.00	1.45	321.73	4499.09	56.62	-44.67	-55.21	0.00	0.00	0.00	0.00	100.00	1245.10	373448.92	834523.48	32° 1' 23.386" N	103° 23' 14.340" W
4600.00	1.45	321.73	4599.06	58.61	-46.23	-57.14	0.00	0.00	0.00	0.00	100.00	1345.07	373449.52	834523.00	32° 1' 23.392" N	103° 23' 14.346" W
4700.00	1.45	321.73	4699.03	60.59	-47.80	-59.08	0.00	0.00	0.00	0.00	100.00	1445.04	373450.13	834522.52	32° 1' 23.398" N	103° 23' 14.351" W
4800.00	1.45	321.73	4799.00	62.58	-49.37	-61.02	0.00	0.00	0.00	0.00	100.00	1545.00	373450.74	834522.05	32° 1' 23.404" N	103° 23' 14.357" W
4900.00	1.45	321.73	4898.96	64.57	-50.94	-62.95	0.00	0.00	0.00	0.00	100.00	1644.97	373451.34	834521.57	32° 1' 23.410" N	103° 23' 14.362" W
5000.00	1.45	321.73	4998.93	66.55	-52.50	-64.89	0.00	0.00	0.00	0.00	100.00	1744.94	373451.95	834521.09	32° 1' 23.416" N	103° 23' 14.368" W
5100.00	1.45	321.73	5098.90	68.54	-54.07	-66.83	0.00	0.00	0.00	0.00	100.00	1844.91	373452.55	834520.61	32° 1' 23.422" N	103° 23' 14.373" W
5200.00	1.45	321.73	5198.87	70.53	-55.64	-68.76	0.00	0.00	0.00	0.00	100.00	1944.88	373453.16	834520.13	32° 1' 23.428" N	103° 23' 14.379" W
5300.00	1.45	321.73	5298.84	72.51	-57.21	-70.70	0.00	0.00	0.00	0.00	100.00	2044.84	373453.76	834519.66	32° 1' 23.434" N	103° 23' 14.384" W
5400.00	1.45	321.73	5398.80	74.50	-58.77	-72.64	0.00	0.00	0.00	0.00	100.00	2144.81	373454.37	834519.18	32° 1' 23.440" N	103° 23' 14.390" W
5500.00	1.45	321.73	5498.77	76.49	-60.34	-74.58	0.00	0.00	0.00	0.00	100.00	2244.78	373454.97	834518.70	32° 1' 23.446" N	103° 23' 14.395" W
5600.00	1.45	321.73	5598.74	78.47	-61.91	-76.51	0.00	0.00	0.00	0.00	100.00	2344.75	373455.58	834518.22	32° 1' 23.452" N	103° 23' 14.401" W
5700.00	1.45	321.73	5698.71	80.46	-63.48	-78.45	0.00	0.00	0.00	0.00	100.00	2444.71	373456.19	834517.75	32° 1' 23.458" N	103° 23' 14.406" W
5800.00	1.45	321.73	5798.68	82.45	-65.04	-80.39	0.00	0.00	0.00	0.00	100.00	2544.68	373456.79	834517.27	32° 1' 23.464" N	103° 23' 14.412" W
5900.00	1.45	321.73	5898.64	84.43	-66.61	-82.32	0.00	0.00	0.00	0.00	100.00	2644.65	373457.40	834516.79	32° 1' 23.470" N	103° 23' 14.417" W
6000.00	1.45	321.73	5998.61	86.42	-68.18	-84.26	0.00	0.00	0.00	0.00	100.00	2744.62	373458.00	834516.31	32° 1' 23.476" N	103° 23' 14.423" W
6100.00	1.45	321.73	6098.58	88.41	-69.74	-86.20	0.00	0.00	0.00	0.00	100.00	2844.59	373458.61	834515.84	32° 1' 23.482" N	103° 23' 14.428" W
6200.00	1.45	321.73	6198.55	90.39	-71.31	-88.13	0.00	0.00	0.00	0.00	100.00	2944.55	373459.21	834515.36	32° 1' 23.488" N	103° 23' 14.433" W
6300.00	1.45	321.73	6298.52	92.38	-72.88	-90.07	0.00	0.00	0.00	0.00	100.00	3044.52	373459.82	834514.88	32° 1' 23.494" N	103° 23' 14.439" W
6400.00	1.45	321.73	6398.48	94.37	-74.45	-92.01	0.00	0.00	0.00	0.00	100.00	3144.49	373460.42	834514.40	32° 1' 23.500" N	103° 23' 14.444" W
6500.00	1.45	321.73	6498.45	96.35	-76.01	-93.95	0.00	0.00	0.00	0.00	100.00	3244.46	373461.03	834513.92	32° 1' 23.506" N	103° 23' 14.450" W
6600.00	1.45	321.73	6598.42	98.34	-77.58	-95.88	0.00	0.00	0.00	0.00	100.00	3344.43	373461.64	834513.45	32° 1' 23.512" N	103° 23' 14.455" W
6700.00	1.45	321.73	6698.39	100.33	-79.15	-97.82	0.00	0.00	0.00	0.00	100.00	3444.39	373462.24	834512.97	32° 1' 23.518" N	103° 23' 14.461" W
6800.00	1.45	321.73	6798.36	102.31	-80.72	-99.76	0.00	0.00	0.00	0.00	100.00	3544.36	373462.85	834512.49	32° 1' 23.524" N	103° 23' 14.466" W
6900.00	1.45	321.73	6898.32	104.30	-82.28	-101.69	0.00	0.00	0.00	0.00	100.00	3644.33	373463.45	834512.01	32° 1' 23.530" N	103° 23' 14.472" W
7000.00	1.45	321.73	6998.29	106.29	-83.85	-103.63	0.00	0.00	0.00	0.00	100.00	3744.30	373464.06	834511.54	32° 1' 23.537" N	103° 23' 14.477" W
7100.00	1.45	321.73	7098.26	108.27	-85.42	-105.57	0.00	0.00	0.00	0.00	100.00	3844.27	373464.66	834511.06	32° 1' 23.543" N	103° 23' 14.483" W
7200.00	1.45	321.73	7198.23	110.26	-86.98	-107.50	0.00	0.00	0.00	0.00	100.00	3944.23	373465.27	834510.58	32° 1' 23.549" N	103° 23' 14.488" W
7300.00	1.45	321.73	7298.20	112.25	-88.55	-109.44	0.00	0.00	0.00	0.00	100.00	4044.20	373465.87	834510.10	32° 1' 23.555" N	103° 23' 14.494" W
7400.00	1.45	321.73	7398.16	114.23	-90.12	-111.38	0.00	0.00	0.00	0.00	100.00	4144.17	373466.48	834509.63	32° 1' 23.561" N	103° 23' 14.499" W
7500.00	1.45	321.73	7498.13	116.22	-91.69	-113.32	0.00	0.00	0.00	0.00	100.00	4244.14	373467.09	834509.15	32° 1' 23.567" N	103° 23' 14.505" W
7600.00	1.45	321.73	7598.10	118.21	-93.25	-115.25	0.00	0.00	0.00	0.00	100.00	4344.11	373467.69	834508.67	32° 1' 23.573" N	103° 23' 14.510" W
7700.00	1.45	321.73	7698.07	120.19	-94.82	-117.19	0.00	0.00	0.00	0.00	100.00	4444.07	373468.30	834508.19	32° 1' 23.579" N	103° 23' 14.516" W
7800.00	1.45	321.73	7798.04	122.18	-96.39	-119.13	0.00	0.00	0.00	0.00	100.00	4544.04	373468.90	834507.71	32° 1' 23.585" N	103° 23' 14.521" W
7900.00	1.45	321.73	7898.00	124.17	-97.96	-121.06	0.00	0.00	0.00	0.00	100.00	4644.01	373469.51	834507.24	32° 1' 23.591" N	103° 23' 14.527" W
8000.00	1.45	321.73	7997.97	126.15	-99.52	-123.00	0.00	0.00	0.00	0.00	100.00	4743.98	373470.11	834506.76	32° 1' 23.597" N	103° 23' 14.532" W
8100.00	1.45	321.73	8097.94	128.14	-101.09	-124.94	0.00	0.00	0.00	0.00	100.00	4843.95	373470.72	834506.28	32° 1' 23.603" N	103° 23' 14.538" W
8200.00	1.45	321.73	8197.91	130.13	-102.66	-126.88	0.00	0.00	0.00	0.00	100.00	4943.91	373471.32	834505.80	32° 1' 23.609" N	103° 23' 14.543" W
8300.00	1.45	321.73	8297.88	132.11	-104.22	-128.81	0.00	0.00	0.00	0.00	100.00	5043.88	373471.93	834505.33	32° 1' 23.615" N	103° 23' 14.549" W
8400.00	1.45	321.73	8397.84	134.10	-105.79	-130.75	0.00	0.00	0.00	0.00	100.00	5143.85	373472.54	834504.85	32° 1' 23.621" N	103° 23' 14.554" W
8500.00	1.45	321.73	8497.81	136.09	-107.36	-132.69	0.00	0.00	0.00	0.00	100.00	5243.82	373473.14	834504.37	32° 1' 23.627" N	103° 23' 14.560" W
8600.00	1.45	321.73	8597.78	138.07	-108.93	-134.62	0.00	0.00	0.00	0.00	100.00	5343.79	373473.75	834503.89	32° 1' 23.633" N	103° 23' 14.565" W
8700.00	1.45	321.73	8697.75	140.06	-110.49	-136.56	0.00	0.00	0.00	0.00	100.00	5443.75	373474.35	834503.41	32° 1' 23.639" N	103° 23' 14.571" W
8800.00	1.45	321.73	8797.72	142.05	-112.06	-138.50	0.00	0.00	0.00	0.00	100.00	5543.72	373474.96	834502.94	32° 1' 23.645" N	103° 23' 14.576" W
8900.00	1.45	321.73	8897.68	144.03	-113.63	-140.43	0.00	0.00	0.00	0.00	100.00	5643.69	373475.56	834502.46	32° 1' 23.651" N	103° 23' 14.582" W
9000.00	1.45	321.73	8997.65	146.02	-115.20	-142.37	0.00	0.00	0.00	0.00	100.00	5743.66	373476.17	834501.98	32° 1' 23.657" N	103° 23' 14.587" W
9100.00	1.45	321.73	9097.62	148.01	-116.76	-144.31	0.00	0.00	0.00	0.00	100.00	5843.63	373476.77	834501.50	32° 1' 23.663" N	103° 23' 14.593" W
9200.00	1.45	321.73	9197.59	149.99	-118.33	-146.25	0.00	0.00	0.00	0.00	100.00	5943.59	373477.38	834501.03	32° 1' 23.669" N	103° 23' 14.598" W
9300.00	1.45	321.73	9297.56	151.98	-119.90	-148.18	0.00	0.00	0.00	0.00	100.00	6043.56	373477.98	834500.55	32° 1' 23.675" N	103° 23' 14.604" W
9400.00	1.45	321.73	9397.52	153.97	-121.46	-150.12	0.00	0.00	0.00	0.00	100.00	6143.53	373478.59	834500.07	32° 1' 23.681" N	103° 23' 14.609" W
9500.00	1.45	321.73	9497.49	155.95	-123.03	-152.06	0.00	0.00	0.00	0.00	100.00	6243.50	373479.20	834499.59	32° 1' 23.687" N	103° 23' 14.615" W
9600.00	1.45	321.73	9597.46	157.94	-124.60	-153.99	0.00	0.00	0.00	0.00	100.00	6343.47	373479.80	834499.12	32° 1' 23.693" N	103° 23' 14.620" W
9700.00	1.45	321.73	9697.43	159.93	-126.17	-155.93	0.00	0.00	0.00	0.00	100.00	6443.43	373480.41	834498.64	32° 1' 23.699" N	103° 23' 14.626" W
9800.00	1.45	321.73	9797.40	161.91	-127.73	-157.87	0.00	0.00	0.00	0.00	100.00	6543.40	373481.01	834498.16	32° 1' 23.705" N	103° 23' 14.631" W
9900.00	1.45	321.73	9897.36	163.90	-129.30	-159.80	0.00	0.00	0.00	0.00	100.00	6643.37	373481.62	834497.68	32° 1' 23.711" N	103° 23' 14.636" W
10000.00	0.45	321.73	9997.35	165.20	-130.33	-161.08	1.00	-1.00	0.00	180.00	100.00	6743.36	373482.02	834497.37	32° 1' 23.715" N	103° 23' 14.640" W
10100.00	0.00	179.45	10097.35	165.51	-130.57	-161.38	0.45	-0.45	-142.28	-180.00	100.00	6843.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
10200.00	0.00	179.45	10197.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	6943.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
10300.00	0.00	179.45	10297.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	7043.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
10400.00	0.00	179.45	10397.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	7143.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
10500.00	0.00	179.45	10497.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	7243.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
10600.00	0.00	179.45	10597.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	7343.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
10700.00	0.00	179.45	10697.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	7443.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
10800.00	0.00	179.45	10797.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	7543.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
10900.00	0.00	179.45	10897.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	7643.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
11000.00	0.00	179.45	10997.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	7743.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
11100.00	0.00	179.45	11097.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	7843.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
11200.00	0.00	179.45	11197.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	7943.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
11300.00	0.00	179.45	11297.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	8043.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
11400.00	0.00	179.45	11397.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	8143.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
11500.00	0.00	179.45	11497.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	8243.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W

Survey Report

MD	Inc	Azi	TVD	NS	EW	VS	DLS	BR	TR	TF	CL	TVD SS	Map Northing	Map Easting	Latitude	Longitude
UsFt	°	°	UsFt	UsFt	UsFt	UsFt	(°/100 UsFt)	(°/100 UsFt)	(°/100 UsFt)	°	UsFt	UsFt	US survey foot	US survey foot		
11600.00	0.00	179.45	11597.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	8343.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
11700.00	0.00	179.45	11697.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	8443.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
11800.00	0.00	179.45	11797.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	8543.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
11900.00	0.00	179.45	11897.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	8643.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
12000.00	0.00	179.45	11997.35	165.51	-130.57	-161.38	0.00	0.00	0.00	0.00	100.00	8743.35	373482.11	834497.29	32° 1' 23.716" N	103° 23' 14.641" W
12100.00	6.98	179.45	12097.10	159.43	-130.52	-155.30	6.98	6.98	0.00	179.45	100.00	8843.11	373480.26	834497.31	32° 1' 23.698" N	103° 23' 14.641" W
12200.00	16.98	179.45	12194.80	138.70	-130.32	-134.59	10.00	10.00	0.00	0.00	100.00	8940.80	373473.94	834497.37	32° 1' 23.636" N	103° 23' 14.641" W
12300.00	26.98	179.45	12287.41	101.32	-129.96	-97.24	10.00	10.00	0.00	0.00	100.00	9033.42	373462.54	834497.48	32° 1' 23.523" N	103° 23' 14.641" W
12400.00	36.98	179.45	12372.13	48.43	-129.45	-44.38	10.00	10.00	0.00	0.00	100.00	9118.13	373446.42	834497.64	32° 1' 23.363" N	103° 23' 14.641" W
12500.00	46.98	179.45	12446.37	-18.37	-128.81	22.36	10.00	10.00	0.00	0.00	100.00	9192.38	373426.06	834497.83	32° 1' 23.162" N	103° 23' 14.640" W
12600.00	56.98	179.45	12507.89	-97.05	-128.05	100.98	10.00	10.00	0.00	0.00	100.00	9253.89	373402.08	834498.06	32° 1' 22.924" N	103° 23' 14.640" W
12700.00	66.98	179.45	12554.81	-185.21	-127.21	189.07	10.00	10.00	0.00	0.00	100.00	9300.81	373375.21	834498.32	32° 1' 22.659" N	103° 23' 14.640" W
12800.00	76.98	179.45	12585.70	-280.18	-126.30	283.97	10.00	10.00	0.00	0.00	100.00	9331.71	373346.26	834498.60	32° 1' 22.372" N	103° 23' 14.640" W
12900.00	86.98	179.45	12599.63	-379.07	-125.35	382.78	10.00	10.00	0.00	0.00	100.00	9345.64	373316.12	834498.89	32° 1' 22.074" N	103° 23' 14.639" W
13000.00	90.06	182.22	12602.22	-479.00	-126.80	482.71	4.14	3.08	2.77	41.98	100.00	9348.22	373285.66	834498.44	32° 1' 21.772" N	103° 23' 14.648" W
13100.00	90.06	186.22	12602.11	-578.71	-134.16	582.60	4.00	0.00	4.00	89.99	100.00	9348.12	373255.27	834496.20	32° 1' 21.472" N	103° 23' 14.677" W
13200.00	90.06	190.22	12602.00	-677.67	-148.45	681.95	4.00	0.00	4.00	90.00	100.00	9348.01	373225.11	834491.85	32° 1' 21.174" N	103° 23' 14.730" W
13300.00	90.06	194.22	12601.90	-775.38	-169.61	780.28	4.00	-0.00	4.00	90.00	100.00	9347.90	373195.32	834485.40	32° 1' 20.880" N	103° 23' 14.808" W
13400.00	90.06	198.22	12601.79	-871.38	-197.53	877.10	4.00	-0.00	4.00	90.00	100.00	9347.80	373166.06	834476.89	32° 1' 20.591" N	103° 23' 14.910" W
13500.00	90.06	200.68	12601.69	-965.67	-230.83	972.37	2.46	-0.00	2.46	90.01	100.00	9347.69	373137.33	834466.74	32° 1' 20.307" N	103° 23' 15.031" W
13600.00	90.06	196.68	12601.58	-1060.38	-262.85	1068.03	4.00	0.00	-4.00	-89.99	100.00	9347.59	373108.46	834456.98	32° 1' 20.023" N	103° 23' 15.147" W
13700.00	90.06	192.68	12601.47	-1157.09	-288.19	1165.49	4.00	0.00	-4.00	-89.99	100.00	9347.48	373078.98	834449.25	32° 1' 19.732" N	103° 23' 15.240" W
13800.00	90.06	188.68	12601.37	-1255.34	-306.72	1264.26	4.00	0.00	-4.00	-90.00	100.00	9347.37	373049.03	834443.60	32° 1' 19.436" N	103° 23' 15.309" W
13900.00	90.06	184.68	12601.26	-1354.64	-318.36	1363.88	4.00	-0.00	-4.00	-90.00	100.00	9347.27	373018.77	834440.06	32° 1' 19.137" N	103° 23' 15.353" W
14000.00	90.06	180.68	12601.16	-1454.51	-323.04	1463.84	4.00	-0.00	-4.00	-90.01	100.00	9347.16	372988.33	834438.63	32° 1' 18.835" N	103° 23' 15.373" W
14100.00	90.06	179.45	12601.05	-1554.51	-323.15	1563.80	1.23	-0.00	-1.23	-90.01	100.00	9347.06	372957.85	834438.60	32° 1' 18.534" N	103° 23' 15.376" W
14200.00	90.06	179.45	12600.95	-1654.51	-322.19	1663.72	0.00	0.00	0.00	0.00	100.00	9346.95	372927.37	834438.89	32° 1' 18.232" N	103° 23' 15.376" W
14300.00	90.06	179.45	12600.84	-1754.50	-321.23	1763.63	0.00	0.00	0.00	0.00	100.00	9346.85	372896.89	834439.18	32° 1' 17.931" N	103° 23' 15.375" W
14400.00	90.06	179.45	12600.74	-1854.50	-320.27	1863.55	0.00	0.00	0.00	0.00	100.00	9346.74	372866.41	834439.47	32° 1' 17.629" N	103° 23' 15.375" W
14500.00	90.06	179.45	12600.63	-1954.49	-319.31	1963.47	0.00	0.00	0.00	0.00	100.00	9346.64	372835.93	834439.77	32° 1' 17.327" N	103° 23' 15.375" W
14600.00	90.06	179.45	12600.53	-2054.49	-318.35	2063.38	0.00	0.00	0.00	0.00	100.00	9346.53	372805.45	834440.06	32° 1' 17.026" N	103° 23' 15.375" W
14700.00	90.06	179.45	12600.42	-2154.48	-317.39	2163.30	0.00	0.00	0.00	0.00	100.00	9346.43	372774.97	834440.35	32° 1' 16.724" N	103° 23' 15.374" W
14800.00	90.06	179.45	12600.32	-2254.48	-316.43	2263.22	0.00	0.00	0.00	0.00	100.00	9346.32	372744.50	834440.64	32° 1' 16.423" N	103° 23' 15.374" W
14900.00	90.06	179.45	12600.21	-2354.47	-315.47	2363.14	0.00	0.00	0.00	0.00	100.00	9346.22	372714.02	834440.94	32° 1' 16.121" N	103° 23' 15.374" W
15000.00	90.06	179.45	12600.11	-2454.47	-314.51	2463.05	0.00	0.00	0.00	0.00	100.00	9346.12	372683.54	834441.23	32° 1' 15.819" N	103° 23' 15.373" W
15100.00	90.06	179.45	12600.00	-2554.46	-313.55	2562.97	0.00	0.00	0.00	0.00	100.00	9346.01	372653.06	834441.52	32° 1' 15.518" N	103° 23' 15.373" W
15200.00	90.06	179.45	12599.90	-2654.46	-312.59	2662.89	0.00	0.00	0.00	0.00	100.00	9345.91	372622.58	834441.82	32° 1' 15.216" N	103° 23' 15.373" W
15300.00	90.06	179.45	12599.79	-2754.45	-311.63	2762.81	0.00	0.00	0.00	0.00	100.00	9345.80	372592.10	834442.11	32° 1' 14.915" N	103° 23' 15.372" W
15400.00	90.06	179.45	12599.69	-2854.45	-310.67	2862.72	0.00	0.00	0.00	0.00	100.00	9345.70	372561.62	834442.40	32° 1' 14.613" N	103° 23' 15.372" W
15500.00	90.06	179.45	12599.59	-2954.45	-309.71	2962.64	0.00	0.00	0.00	0.00	100.00	9345.59	372531.14	834442.69	32° 1' 14.311" N	103° 23' 15.372" W
15600.00	90.06	179.45	12599.48	-3054.44	-308.75	3062.56	0.00	0.00	0.00	0.00	100.00	9345.49	372500.67	834442.99	32° 1' 14.010" N	103° 23' 15.372" W
15700.00	90.06	179.45	12599.38	-3154.44	-307.79	3162.47	0.00	0.00	0.00	0.00	100.00	9345.38	372470.19	834443.28	32° 1' 13.708" N	103° 23' 15.371" W
15800.00	90.06	179.45	12599.27	-3254.43	-306.83	3262.39	0.00	0.00	0.00	0.00	100.00	9345.28	372439.71	834443.57	32° 1' 13.406" N	103° 23' 15.371" W
15900.00	90.06	179.45	12599.17	-3354.43	-305.87	3362.31	0.00	0.00	0.00	0.00	100.00	9345.17	372409.23	834443.86	32° 1' 13.105" N	103° 23' 15.371" W
16000.00	90.06	179.45	12599.06	-3454.42	-304.91	3462.23	0.00	0.00	0.00	0.00	100.00	9345.07	372378.75	834444.16	32° 1' 12.803" N	103° 23' 15.370" W
16100.00	90.06	179.45	12598.96	-3554.42	-303.95	3562.14	0.00	0.00	0.00	0.00	100.00	9344.96	372348.27	834444.45	32° 1' 12.502" N	103° 23' 15.370" W
16200.00	90.06	179.45	12598.85	-3654.41	-302.99	3662.06	0.00	0.00	0.00	0.00	100.00	9344.86	372317.79	834444.74	32° 1' 12.200" N	103° 23' 15.370" W
16300.00	90.06	179.45	12598.75	-3754.41	-302.03	3761.98	0.00	0.00	0.00	0.00	100.00	9344.75	372287.32	834445.03	32° 1' 11.898" N	103° 23' 15.369" W
16400.00	90.06	179.45	12598.64	-3854.40	-301.07	3861.90	0.00	0.00	0.00	0.00	100.00	9344.65	372256.84	834445.33	32° 1' 11.597" N	103° 23' 15.369" W
16500.00	90.06	179.45	12598.54	-3954.40	-300.11	3961.81	0.00	0.00	0.00	0.00	100.00	9344.54	372226.36	834445.62	32° 1' 11.295" N	103° 23' 15.369" W
16600.00	90.06	179.45	12598.43	-4054.39	-299.15	4061.73	0.00	0.00	0.00	0.00	100.00	9344.44	372195.88	834445.91	32° 1' 10.994" N	103° 23' 15.369" W
16700.00	90.06	179.45	12598.33	-4154.39	-298.19	4161.65	0.00	0.00	0.00	0.00	100.00	9344.33	372165.40	834446.20	32° 1' 10.692" N	103° 23' 15.368" W
16800.00	90.06	179.45	12598.22	-4254.38	-297.23	4261.56	0.00	0.00	0.00	0.00	100.00	9344.23	372134.92	834446.50	32° 1' 10.390" N	103° 23' 15.368" W
16900.00	90.06	179.45	12598.12	-4354.38	-296.27	4361.48	0.00	0.00	0.00	0.00	100.00	9344.13	372104.44	834446.79	32° 1' 10.089" N	103° 23' 15.368" W
17000.00	90.06	179.45	12598.01	-4454.38	-295.31	4461.40	0.00	0.00	0.00	0.00	100.00	9344.02	372073.97	834447.08	32° 1' 9.787" N	103° 23' 15.367" W
17100.00	90.06	179.45	12597.91	-4554.37	-294.35	4561.32	0.00	0.00	0.00	0.00	100.00	9343.92	372043.49	834447.37	32° 1' 9.485" N	103° 23' 15.367" W
17200.00	90.06	179.45	12597.80	-4654.37	-293.39	4661.23	0.00	0.00	0.00	0.00	100.00	9343.81	372013.01	834447.67	32° 1' 9.184" N	103° 23' 15.367" W
17300.00	90.06	179.45	12597.70	-4754.36	-292.43	4761.15	0.00	0.00	0.00	0.00	100.00	9343.71	371982.53	834447.96	32° 1' 8.882" N	103° 23' 15.366" W
17400.00	90.06	179.45	12597.60	-4854.36	-291.47	4861.07	0.00	0.00	0.00	0.00	100.00	9343.60	371952.05	834448.25	32° 1' 8.581" N	103° 23' 15.366" W
17500.00	90.06	179.45	12597.49	-4954.35	-290.51	4960.99	0.00	0.00	0.00	0.00	100.00	9343.50	371921.57	834448.54	32° 1' 8.279" N	103° 23' 15.366" W
17600.00	90.06	179.45	12597.39	-5054.35	-289.55	5060.90	0.00	0.00	0.00	0.00	100.00	9343.39	371891.09	834448.84	32° 1' 7.977" N	103° 23' 15.366" W
17700.00	90.06	179.45	12597.28	-5154.34	-288.59	5160.82	0.00	0.00	0.00	0.00	100.00	9343.29	371860.61	834449.13	32° 1' 7.676" N	103° 23' 15.365" W
17800.00	90.06	179.45	12597.18	-5254.34	-287.63	5260.74	0.00	0.00	0.00	0.00	100.00	9343.18	371830.14	834449.42	32° 1' 7.374" N	103° 23' 15.365" W
17900.00	90.06	179.45	12597.07	-5354.33	-286.67	5360.65	0.00	0.00	0.00	0.00	100.00	9343.08	371799.66	834449.71	32° 1' 7.073" N	103° 23' 15.365" W
18000.00	90.06	179.45	12596.97	-5454.33	-285.71	5460.57	0.00	0.00	0.00	0.00	100.00	9342.97	371769.18	834450.01	32° 1' 6.771" N	103° 23' 15.364" W
18100.00	90.06	179.45	12596.86	-5554.32	-284.75	5560.49	0.00	0.00	0.00	0.00	100.00	9342.87	371738.70	834450.30	32° 1' 6.469" N	103° 23' 15.364" W
18200.00	90.06	179.45	12596.76	-5654.32	-283.79	5660.41	0.00	0.00	0.00	0.00	100.00	9342.76	371708.22	834450.59	32° 1' 6.168" N	103° 23' 15.364" W
18300.00	90.06	179.45	12596.65	-5754.31	-282.83	5760.32	0.00	0.00	0.00	0.00	100.00	9342.66	371677.74	834450.89	32° 1' 5.866" N	103° 23' 15.363" W
18400.00	90.06	179.45	12596.55	-5854.31	-281.87	5860.24	0.00	0.00	0.00	0.00	100.00	9342.55	371647.26	834451.18	32° 1' 5.565" N	103° 23' 15.363" W
18500.00	90.06	179.45	12596.44	-5954.31	-280.91	5960.16	0.00	0.00	0.00	0.00	100.00	9342.45	371616.79	834451.47	32° 1' 5.263" N	103° 23' 15.363" W
18600.00	90.06	179.45	12596.34	-6054.30	-279.95	6060.08	0.00	0.00	0.00	0.00	100.00	9342.35	371586.31	834451.76	32° 1' 4.961" N	103° 23' 15.363" W
18700.00	90.06	179.45	12596.23	-6154.30	-278.99	6159.99	0.00	0.00	0.00	0.00	100.00	9342.24	371555.83	834452.06	32° 1' 4.660" N	103° 23' 15.362" W
18800.00	90.06	179.45	12596.13	-6254.29	-278.03	6259.91	0.00	0.00	0.00	0.00	100.00	9342.14	371525.35	834452.35	32° 1' 4.358" N	103° 23' 15.362" W
18900.00	90.06	179.45	12596.02	-6354.29	-277.07	6359.83	0.00	0.00	0.00	0.00	100.00	9342.03	371494.87	834452.64	32° 1' 4.056" N	103° 23' 15.362" W
19000.00	90.06	179.45	12595.92	-6454.28	-276.11	6459.74	0.00	0.00	0.00	0.00	100.00	9341.93	371464.39	834452.93	32° 1' 3.755" N	103° 23' 15.361" W
19100.00	90.06	179.45	12595.82	-6554.28	-275.15	6559.66	0.00	0.00	0.00	0.00	100.00	9341.82	371433.91	834453.23	32° 1' 3.453" N	103° 23' 15.361" W
19200.00	90.06	179.45	12595.71	-6654.27	-274.19	6659.58	0.00	0.00	0.00	0.00	100.00	9341.72	371403.44	834453.52	32° 1' 3.152" N	103° 23' 15.361" W
19300.00	90.06	179.45	12595.61	-6754.27	-273.23	6759.50	0.00	0.00	0.00	0.00	100.00	9341.61	371372.96	834453.81	32° 1' 2.850" N	103° 23' 15.360" W

Survey Report

MD	Inc	Azi	TVD	NS	EW	VS	DLS	BR	TR	TF	CL	TVD SS	Map Northing	Map Easting	Latitude	Longitude
UsFt	°	°	UsFt	UsFt	UsFt	UsFt	(°/100 UsFt)	(°/100 UsFt)	(°/100 UsFt)	°	UsFt	UsFt	US survey foot	US survey foot		
19400.00	90.06	179.45	12595.50	-6854.26	-272.27	6859.41	0.00	0.00	0.00	0.00	100.00	9341.51	371342.48	834454.10	32° 1' 2.548" N	103° 23' 15.360" W
19500.00	90.06	179.45	12595.40	-6954.26	-271.31	6959.33	0.00	0.00	0.00	0.00	100.00	9341.40	371312.00	834454.40	32° 1' 2.247" N	103° 23' 15.360" W
19600.00	90.06	179.45	12595.29	-7054.25	-270.36	7059.25	0.00	0.00	0.00	0.00	100.00	9341.30	371281.52	834454.69	32° 1' 1.945" N	103° 23' 15.360" W
19700.00	90.06	179.45	12595.19	-7154.25	-269.40	7159.17	0.00	0.00	0.00	0.00	100.00	9341.19	371251.04	834454.98	32° 1' 1.644" N	103° 23' 15.359" W
19800.00	90.06	179.45	12595.08	-7254.24	-268.44	7259.08	0.00	0.00	0.00	0.00	100.00	9341.09	371220.56	834455.27	32° 1' 1.342" N	103° 23' 15.359" W
19900.00	90.06	179.45	12594.98	-7354.24	-267.48	7359.00	0.00	0.00	0.00	0.00	100.00	9340.98	371190.08	834455.57	32° 1' 1.040" N	103° 23' 15.359" W
20000.00	90.06	179.45	12594.87	-7454.24	-266.52	7458.92	0.00	0.00	0.00	0.00	100.00	9340.88	371159.61	834455.86	32° 1' 0.739" N	103° 23' 15.358" W
20100.00	90.06	179.45	12594.77	-7554.23	-265.56	7558.83	0.00	0.00	0.00	0.00	100.00	9340.77	371129.13	834456.15	32° 1' 0.437" N	103° 23' 15.358" W
20200.00	90.06	179.45	12594.66	-7654.23	-264.60	7658.75	0.00	0.00	0.00	0.00	100.00	9340.67	371098.65	834456.44	32° 1' 0.135" N	103° 23' 15.358" W
20300.00	90.06	179.45	12594.56	-7754.22	-263.64	7758.67	0.00	0.00	0.00	0.00	100.00	9340.57	371068.17	834456.74	32° 0' 59.834" N	103° 23' 15.357" W
20400.00	90.06	179.45	12594.45	-7854.22	-262.68	7858.59	0.00	0.00	0.00	0.00	100.00	9340.46	371037.69	834457.03	32° 0' 59.532" N	103° 23' 15.357" W
20500.00	90.06	179.45	12594.35	-7954.21	-261.72	7958.50	0.00	0.00	0.00	0.00	100.00	9340.36	371007.21	834457.32	32° 0' 59.231" N	103° 23' 15.357" W
20600.00	90.06	179.45	12594.24	-8054.21	-260.76	8058.42	0.00	0.00	0.00	0.00	100.00	9340.25	370976.73	834457.61	32° 0' 58.929" N	103° 23' 15.357" W
20700.00	90.06	179.45	12594.14	-8154.20	-259.80	8158.34	0.00	0.00	0.00	0.00	100.00	9340.15	370946.26	834457.91	32° 0' 58.627" N	103° 23' 15.356" W
20800.00	90.06	179.45	12594.03	-8254.20	-258.84	8258.26	0.00	0.00	0.00	0.00	100.00	9340.04	370915.78	834458.20	32° 0' 58.326" N	103° 23' 15.356" W
20843.30	90.06	179.45	12593.99	-8297.50	-258.42	8301.52	0.00	0.00	0.00	0.00	43.30	9340.00	370902.58	834458.33	32° 0' 58.195" N	103° 23' 15.356" W

Titus Oil & Gas Production, LLC - El Campeon Fed Com 403H

1. Geologic Formations

TVD of target	12,592' EOL	Pilot hole depth	NA
MD at TD:	20,843'	Deepest expected fresh water:	250'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1075	Water	
Top of Salt	1542	Salt	
Base of Salt	5034	Salt	
Lamar	5339	Salt Water	
Delaware	5379	Oil/Gas	
Bone Spring Lime	9245	Oil/Gas	
1st Bone Spring	10438	Oil/Gas	
2nd Bone Spring	11007	Oil/Gas	
3rd Bone spring	12127	Oil/Gas	
Wolfcamp	12481	Oil/Gas	
Wolfcamp X Sand	12509	Target Oil/Gas	
Wolfcamp Y Sand	12573	Not Penetrated	
Wolfcamp A	12605	Not Penetrated	
Wolfcamp B	12919	Not Penetrated	

2. Casing Program

Hole Size	Casing From	Casing To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body
13.5"	0	1100	10.75"	45.5	J55	BTC	4.15	0.82	14.29
9.875"	0	11800	7.625"	29.7	L80HP	BTC	1.13	1.17	2.07
6.75"	0	11300	5.5"	23	P110	BTC	1.64	1.67	3.22
6.75"	11300	20,843	5"	18	P110	BTC	1.64	1.67	3.22
			BLM Minimum Safety Factor				1.125	1	1.6 Dry
									1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse.

Variance requested to waive minimum SF for surface casing burst. Surface SF Burst > 0.7 frac gradient at the shoe. Casing burst is stronger than the next intervals formation FG.

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5” casing will be run back 500’ into the intermediate casing to ensure the coupling OD clearance is greater than .422” for the cement bond tie in.

Titus Oil & Gas Production, LLC - El Campeon Fed Com 403H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	470	13.5	1.75	9	8	Lead: Class C + 4% Gel + 1% CaCl2
	250	14.8	1.34	6.34	4	Tail: Class C + 2% CaCl2
Inter.	1440	10.3	3.6	21.48	16	TXI Lightwieght Blend
	250	15	1.27	5.7	4	Tail: 85:15 Class H
Prod	400	11.9	2.5	19	72	Lead: 50:50:10 H Blend
	1070	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results
Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0’	50%
1st Intermediate	0’	50%
Production	11,300'	35% OH in Lateral (KOP to EOL)

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
9-7/8"	13-5/8"	3M	Annular	x	3000 psi
			Blind Ram		3M
			Pipe Ram		
			Double Ram		
			Other*		
6-3/4"	13-5/8"	10M	Annular	x	50% testing pressure
			Blind Ram	x	5M
			VBR Ram	x	
			VBR Ram	x	
			Other*		

See attached 5M Annular Variance Well Control plan for TItus Oil & Gas Production, LLC.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2.
	On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	N Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	9-5/8" Int shoe	Nova N-Gauge	8.4 - 9	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	10 - 13.5	35-45	<20

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 13.5 ppg may be utilized.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7535 psi at 12592' TVD
Abnormal Temperature	NO 180 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other Facets of Operation

Y	Is it a walking operation?
N	Is casing pre-set?

x	H2S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

U. S. Steel Tubular Products

7.625" 29.70lbs/ft (0.375" Wall) L80 HP

4/10/2020 9:23:25 AM

MECHANICAL PROPERTIES	Pipe	BTC	LTC	STC	
Minimum Yield Strength	85,000	--	--	--	psi
Maximum Yield Strength	95,000	--	--	--	psi
Minimum Tensile Strength	95,000	--	--	--	psi
DIMENSIONS	**Pipe**	**BTC**	**LTC**	**STC**	
Outside Diameter	7.625	8.500	8.500	--	in.
Wall Thickness	0.375	--	--	--	in.
Inside Diameter	6.875	6.875	6.875	--	in.
Standard Drift	6.750	6.750	6.750	6.750	in.
Alternate Drift	--	--	0.000	--	in.
Nominal Linear Weight, T&C	29.70	--	--	--	lbs/ft
Plain End Weight	29.06	--	--	--	lbs/ft
PERFORMANCE	**Pipe**	**BTC**	**LTC**	**STC**	
Minimum Collapse Pressure	6,220	6,220	6,220	6,220	psi
Minimum Internal Yield Pressure	7,310	7,310	7,310	7,310	psi
Minimum Pipe Body Yield Strength	726	--	--	--	1,000 lbs
Joint Strength	--	733	591	--	1,000 lbs
Reference Length	--	16,453	13,272	--	ft
MAKE-UP DATA	**Pipe**	**BTC**	**LTC**	**STC**	
Make-Up Loss	--	4.69	4.13	--	in.
Minimum Make-Up Torque	--	--	4,430	--	ft-lbs
Maximum Make-Up Torque	--	--	7,390	--	ft-lbs

U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com

1. Component and Preventer Compatibility Table

The table below covers drilling and casing of the 10M MASP portion of the well and outlines the tubulars and the compatible preventers in use. Combined with the mud program, the below documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

Component	OD	Preventer	RWP
Drill pipe	4.5”	Upper 4.5-7” VBR Lower 4.5-7” VBR	10M
HWDP	4.5”		
Jars	4.5”		
Drill collars and MWD tools	4.75-5.75”		
Mud Motor	4.75-5.75”		
Production casing	5.5” x 5”		
ALL	0 - 13-5/8”	Annular	5M
Open-hole	-	Blind Rams	10M

VBR = Variable Bore Ram with compatible range listed in chart.

2. Well Control and Shut-In Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are minimum tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. The maximum pressure at which well control is transferred from the annular to another compatible ram is 2500 psi.

Drilling:

1. Sound the alarm (alert rig crew)
2. Space out the drill string
3. Shut down pumps and stop the rotary
4. Shut-in the well with the annular with HCR and choke in closed position
5. Confirm the well is shut-in
6. Notify contractor and company representatives
7. Read and record the following data
    - Time of shut-in
    - SIDPP and SICP
    - Pit gain
8. If pressure has increased to or is anticipated to increase to 2500 psi, confirm spacing and close the upper pipe rams.
9. Prepare for well kill operation.

Tripping:

1. Sound alarm (alert rig crew)
2. Stab full opening safety valve and close the valve
3. Space out the drill string
4. Shut-in the well with the annular with HCR and choke in closed position
5. Confirm shut-in
6. Notify contractor and company representatives
7. Read and record the following data:

- Time of shut-in
- SIDPP and SICP
- Pit gain

8. If pressure has increased to or is anticipated to increase to 2500 psi, confirm spacing and close the upper pipe rams.
9. Prepare for well kill operation.

Running Casing

1. Sound alarm (alert rig crew)
2. Stab crossover and valve and close the valve
3. Shut-in the well with annular with HCR and choke in closed position
4. Confirm shut-in
5. Notify contractor and company representatives
6. Read and record the following data
   - Time of shut-in
   - SIDPP and SICP
   - Pit gain
7. If pressure has increased to or is anticipated to increase to 2500 psi, confirm spacing and close the upper pipe rams.
8. Prepare for well kill operation

No Pipe in Hole (Open Hole)

1. Well will be shut in with blind rams and choke in closed position, while HCR is open at any point when pipe or BHA are not in BOP stack. If pressure increase is observed:
2. Sound alarm (alert crew)
3. Confirm shut-in
4. Notify contractor and company representatives
5. Read and record the following data
   - Time of shut-in
   - Time of pressure increase
   - SICP
6. Prepare for well kill operation

Pulling BHA through BOP Stack

1. Prior to pulling last joint/stand of drillpipe through the stack, perform a flow check. If well is flowing:
   a. Sound alarm (alert crew)
   b. Stab full opening safety valve and close the valve
   c. Space out the drill string
   d. Shut-in the well with the annular with HCR and choke in closed position
   e. Confirm shut-in
   f. Notify contractor and company representatives
   g. Read and record the following data
      - Time of shut-in
      - SIDPP and SICP
      - Pit gain
   h. If pressure has increased to or is anticipated to increase to 2500 psi, confirm spacing and close the upper pipe rams.
   i. Prepare for well kill operation.

2. With BHA in the stack:
    a. If possible to pick up high enough, pull BHA clear of the stack
        i. Follow "Open Hole" procedure above
    b. If impossible to pick up high enough to pull BHA clear of the stack:
        i. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
        ii. Space out drill string with tooljoint just beneath the upper pipe ram.
        iii. Shut-in the well with upper pipe ram with HCR and choke in closed position
        iv. Confirm shut-in
        v. Notify contractor and company representatives
        vi. Read and record the following:
            - Time of shut-in
            - SIDPP and SICP
            - Pit gain
        vii. Prepare for well kill operation.

3. Well Control Drills

Well control drills are specific to the rig equipment, personnel and operation at the time a kick occurs. Each crew will execute one drill weekly relevant to ongoing operations, but will make a reasonable attempt to vary the type of drills. The drills will be recorded in the daily drilling log. Below are minimum tasks for respective well control drills.

Drilling/Pit:

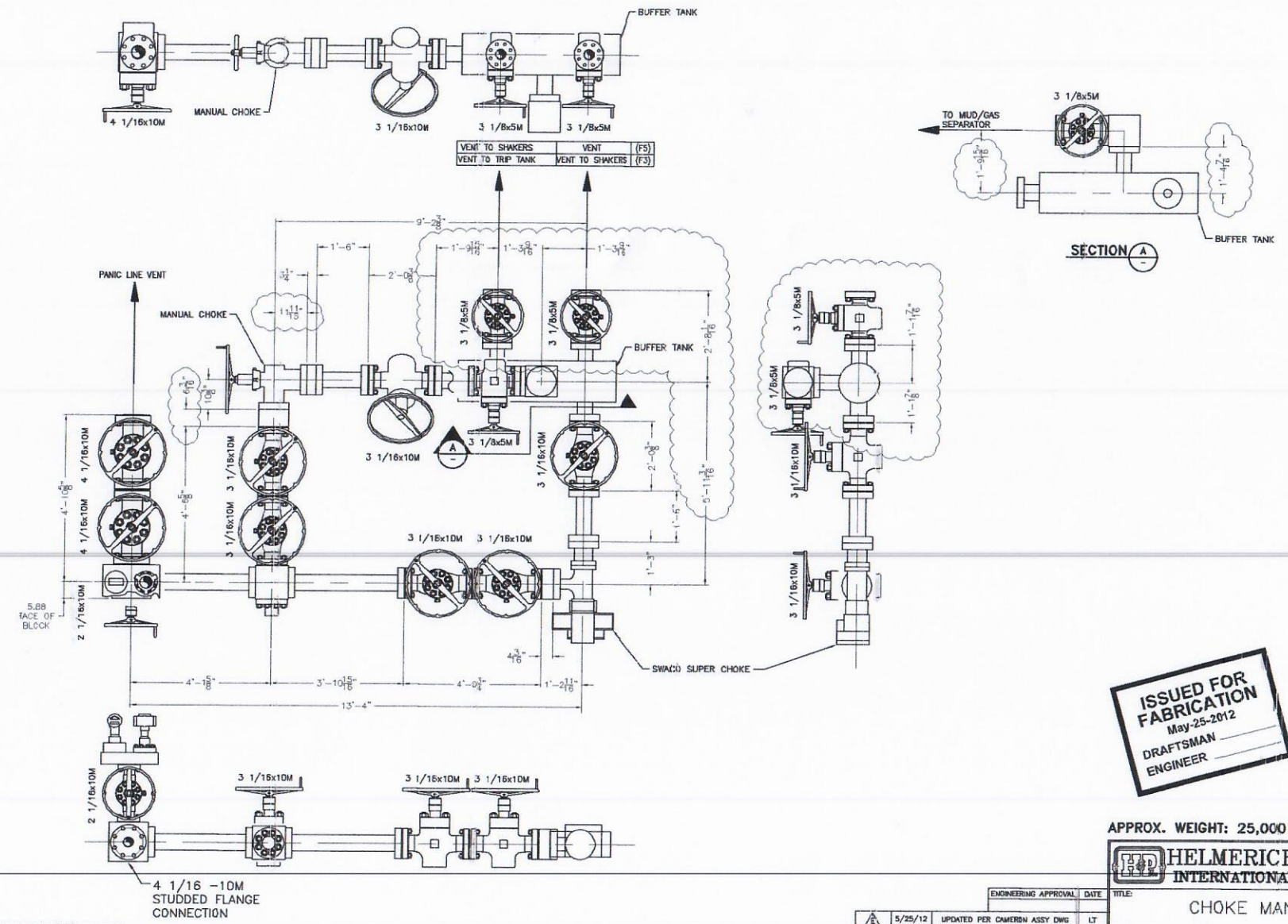
Action	Responsible Party
Initiate Drill • Lift Flow Sensor or Pit Float to indicate a kick • Immediately record start time	Company Representative / Rig Manager
Recognition • Driller and/or Crew recognizes indicator • Driller stop drilling, pick up off bottom and spaces out drill string, stop pumps and rotary • Conduct flow check	Driller
Initiate Action • Sound alarm, notify rig crew that the well is flowing	Company Representative / Rig Manager
Reaction • Driller moves BOP remote and stands by • Crew is at their assigned stations • Time is stopped • Record time and drill type in the Drilling Report	Driller / Crew

Tripping Pit Drills (either in the hole or out of the hole)

Action	Responsible Party
Initiate Drill • Lift Flow Sensor or Pit Float to indicate a kick • Immediately record start time	Company Representative / Rig Manager
Recognition • Driller recognizes indicator • Suspends tripping operations • Conduct Flow Check	Driller
Initiate Action • Sound alarm, notify rig crew that the well is flowing	Company Representative / Rig Manager
Reaction • Position tool joint above rotary and set slips • Stab FOSV and close valve • Driller moves to BOP remote and stands by • Crew is at their assigned stations • Time is stopped • Record time and drill type in the Drilling Report	Driller / Crew

Choke

Action	Responsible Party
• Have designated choke operator on station at the choke panel • Close annular preventer • Pressure annulus up 200-300 psi • Pump slowly to bump the float and obtain SIDPP • At choke operator instruction, slowly bring pumps online to slow pump rate while holding casing pressure constant at the SICP. • Allow time for the well to stabilize. Mark and record circulating drillpipe pressure. • Measure time lag on drillpipe gauge after choke adjustments. • Hold casing pressure constant as pumps are slowed down while choke is closed. • Record time and drill type in the Drilling Report	Company Man / Rig Manager & Rig Crew



ISSUED FOR FABRICATION
May-25-2012
DRAFTSMAN
ENGINEER

APPROX. WEIGHT: 25,000 LBS

REV	DATE	DESCRIPTION	BY
		ENGINEERING APPROVAL	DATE
7	5/25/12	UPDATED PER CAMERON ASSY DWG	LT
6	5/3/12	REV. DIM. PANIC LINE (WAS 4'-11 5/8") ADD (F3) & (F5) NOTES, ADD FACE DIM.	RDM
5	4/20/12	REV. SIZE OF CHOKE INLET; ADD NOTE	RDM
4	1/10/11	LABELED LINES; CORRECTED CHOKE INLET	CC
3	10/15/02	ADJUST DIM TO FIELD CONFIRMED DIM	RAV

HELMERICH & PAYNE INTERNATIONAL DRILLING CO.

TITLE: CHOKE MANIFOLD

CUSTOMER: H&P

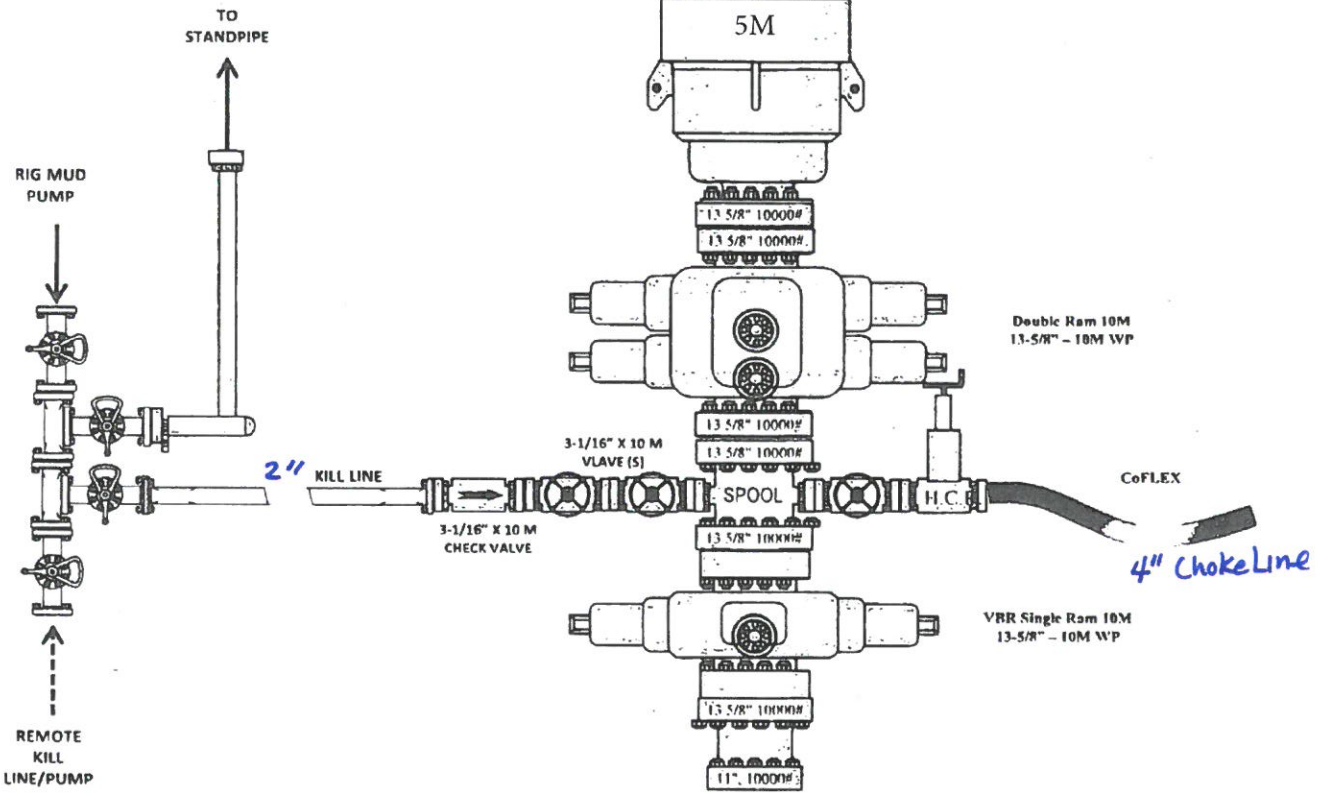
PROJECT: FLEXRIG3

DRAWN: MTS | DATE: 2-28-02 | DWG. NO.: 216-P1-05 | REV: E

SCALE: 3/4"=1" | SHEET 1 OF 1

10M BOP Stack

10M REMOTE KILL SCHEMATIC



10M BOP Stack

5M ANNULAR VARIANCE
(SEE ATTACHED WELL CONTROL PLAN)

APD ID: 10400043561 **Submission Date:** 07/11/2019

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM **Well Number:** 403H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

09/29/2020

APD ID: 10400043561

Submission Date: 07/11/2019

Operator Name: TITUS OIL AND GAS PRODUCTION LLC

Well Name: EL CAMPEON FED COM

Well Number: 403H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001532

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

OCD – HOBBS
09/29/2020
RECEIVED

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-47827	96776	JABALINA;WOLFCAMP, SOUTHWEST

4 Property Code	5 Property Name	6 Well Number
328509	EL CAMPEON FED COM	403H

7 OGRID No.	8 Operator Name	9 Elevation
373986	TITUS OIL & GAS PRODUCTION LLC	3175'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	20	26-S	35-E		581'	SOUTH	1972'	EAST	LEA

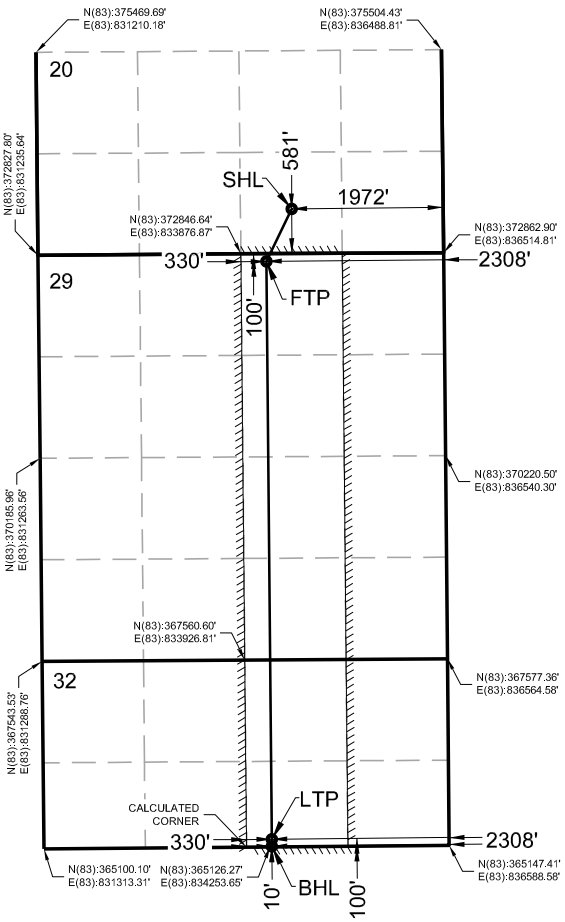
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	32	26-S	35-E		10'	SOUTH	2308'	EAST	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
240	Y		

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

[16]



SURFACE HOLE LOCATION (SHL)
NEW MEXICO EAST - NAD 83
X= 834537.09 LAT.= 32.02311493° N
Y= 373431.66 LONG.= 103.38727332° W
NEW MEXICO EAST - NAD 27
X= 793348.76 LAT.= 32.02298837° N
Y= 373374.47 LONG.= 103.38681353° W
581' FSL, 1972' FEL - SECTION 20

FIRST TAKE POINT (FTP)
NEW MEXICO EAST - NAD 83
X=834207.81 LAT.= 32.02124560° N
Y=372748.68 LONG.= 103.38835495° W
NEW MEXICO EAST - NAD 27
X=793019.45 LAT.= 32.02111905° N
Y=372691.51 LONG.= 103.38789523° W
100' FNL, 2308' FEL - SECTION 29
100' FNL, 330' FWL - LEASE

LAST TAKE POINT (LTP)
NEW MEXICO EAST - NAD 83
X=834279.94 LAT.= 32.00056824° N
Y=365226.51 LONG.= 103.38833443° W
NEW MEXICO EAST - NAD 27
X=793091.25 LAT.= 32.00044158° N
Y=365169.54 LONG.= 103.38787587° W
100' FSL, 2308' FEL - SECTION 32
100' FSL, 330' FWL - LEASE

BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST - NAD 83
X=834280.83 LAT.= 32.00032086° N
Y=365136.52 LONG.= 103.38833409° W
NEW MEXICO EAST - NAD 27
X=793092.14 LAT.= 32.00019420° N
Y=365079.55 LONG.= 103.38787555° W
10' FSL, 2308' FEL - SECTION 32
10' FSL, 330' FWL - LEASE

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 1/22/2020

Ryan DeLong - Regulatory Manager
Printed Name

rdelong@titusoil.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyor

GARRETT J SMELKER
NEW MEXICO
25036
01/15/2020
PROFESSIONAL SURVEYOR

Certificate Number

Intent [X] As Drilled [ ]

API #
30-025-47827

Operator Name:	Property Name:	Well Number
Titus Oil & Gas Production, LLC	El Campeon Fed Com	403H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
O	20	26S	35E			NORTH		FEL	LEA

Latitude	Longitude	NAD
		83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
O	20	26S	35E		100	NORTH	2308	EAST	LEA

Latitude	Longitude	NAD
32.02124560	-103.38835495	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	32	26S	35E	2	100	SOUTH	2308	EAST	LEA

Latitude	Longitude	NAD
32.00056824	-103.38833443	83

Is this well the defining well for the Horizontal Spacing Unit? [YES]

Is this well an infill well? [ ]

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original
to Appropriate
District Office

OCD – HOBBS
09/29/2020
RECEIVED

GAS CAPTURE PLAN

Date: 1/17/2020

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: 373986

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – El Campeon CTB 20

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
El Campeon South Fed Com 111H		Sec 29, T26S, R35E	1828' FNL & 632' FWL			El Campeon CTB 20 will be utilized
El Campeon South Fed Com 201H		Sec 29, T26S, R35E	1828' FNL & 707' FEL			El Campeon CTB 20 will be utilized
El Campeon South Fed Com 321H		Sec 29, T26S, R35E	1828' FNL & 657' FWL			El Campeon CTB 20 will be utilized
El Campeon South Fed Com 431H		Sec 29, T26S, R35E	1828' FNL & 682' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 032H		Sec 20, T26S, R35E	353' FSL & 2077' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 112H		Sec 20, T26S, R35E	353' FSL & 2107' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 122H		Sec 20, T26S, R35E	353' FSL & 2137' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 322H		Sec 20, T26S, R35E	579' FSL & 2077' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 432H		Sec 20, T26S, R35E	579' FSL & 2137' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 512H		Sec 20, T26S, R35E	579' FSL & 2107' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 123H		Sec 20, T26S, R35E	355' FSL & 1927' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 203H		Sec 20, T26S, R35E	355' FSL & 1957' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 323H		Sec 20, T26S, R35E	581' FSL & 1912' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 403H *	30-025-47827	Sec 20, T26S, R35E	581' FSL & 1972' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 513H		Sec 20, T26S, R35E	581' FSL & 1942' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 034H		Sec 20, T26S, R35E	332' FSL & 590' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 114H		Sec 20, T26S, R35E	332' FSL & 650' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 204H		Sec 20, T26S, R35E	332' FSL & 620' FEL			El Campeon CTB 20 will be utilized

El Campeon South 404H		Sec 20, T26S, R35E	558' FSL & 590' FEL			El Campeon CTB 20 will be utilized
El Campeon South 514H		Sec 20, T26S, R35E	558' FSL & 620' FEL			El Campeon CTB 20 will be utilized

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, where a gas transporter system is in place. The gas produced from production facility is dedicated to Lucid and is connected to a Lucid low pressure gathering system located in Lea County, New Mexico. Titus provides (periodically) to Lucid a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Titus and Lucid have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at a Lucid's Red Hills Plant located in Sec 13, T24S, R33E near Jal, NM. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the well(s) start flowing through the production facilities, unless there are operational issues on Lucid's system at that time. Based on current information, it is Titus's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines