

APR 14 2023

CONSERVATION DIVISION
WICHITA, KS

OF THE STATE OF KANSAS

In the Matter of the Application of Hawkins Oil, LLC for)	Docket No.: 23-CONS- <u>3270</u> -CHOR
On Order Permitting of Its Marsh #16 Horizontal Well)	CONSERVATION DIVISION
to be Drilled in Section 6, Township 26S Range 5 East)	License No. 32693
Butler County, Kansas)	

Application

COMES NOW Hawkins Oil, LLC ("Applicant"), and for its Application seeking an Order permitting the drilling of its Marsh #16 as a horizontal well, states:

1. Applicant is a limited liability company, with its principle place of business at 427 S Boston, Ave Ste 915, Tulsa, Oklahoma 74103. The Applicant holds Kansas Corporation operator's license number 32693.
2. The Applicant owns leases in Section 6, Township 26S, Range 5 East, Butler County, Kansas (the "Lease"), and proposes to drill its Marsh #16 Horizontal well as a well deviated more than 7° to be completed in the Arbuckle formation.
3. Applicant proposes to spud the Marsh #16 well at surface location 593 feet from South line and 1145 Feet from East line of Section 6 Township 26S Range 5 East, Butler County, Kansas.
4. The Marsh #16 will be drilled to test the Arbuckle formation in the El Dorado field.
5. Concurrent with the filing of its Application, Applicant has mailed in the United States mail, postage paid, a copy of the Application as required by K.A.R. 82-3-135a(b) to each operator or lessee of record and each unleased mineral owner within One-half mile of the proposed surface well site of the Marsh #16 in Section 6, Township 26S, Range 5 East, a list is attached hereto as Exhibit "A."
6. Upon the filing of this Application, Applicant will proceed to publish notice of its Application as required by K.A.R. 82-3-135a(d) in the Butler County Gazette published in Butler County, Kansas

7. and the Wichita Eagle in Wichita, Kansas. Upon completions of the publications, Applicant will provide proof of the same to the Commission Staff.
8. Attached hereto as Exhibit "B" is a plat demonstrating the surface and bottom hole locations of the Marsh #16, in Section 6 Township 26S Range 5 B, Butler County, Kansas.
9. Attached hereto as Exhibit "C" is additional information pertinent to the drilling of the Marsh #16 including a Standard Drilling report, Standard Planning report, Plot map, and Zoom Plat map. Also attached is a copy of the Order Granting Application for the location well exception on the Marsh #16 well.
10. Applicant proposes to use C and G Drilling and Hawkeye Directional, LLC as the drilling contractors.

WHEREFORE, the Applicant respectfully requests that, after due notice as required by the Commission's Rules and Regulations, that the Commission issue an Order approving this Application and Issue an Order permitting the drilling of the Marsh #16 well as described herein.

Respectfully submitted,

By  _____

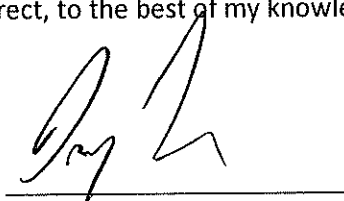
Dan Flowers
Hawkins Oil, LLC
427 S Boston AVE, STE 915
Tulsa, Oklahoma, 74103
Sonomare@outlook.com
(316) 208-7590

VERIFICATION

STATE OF KANSAS)

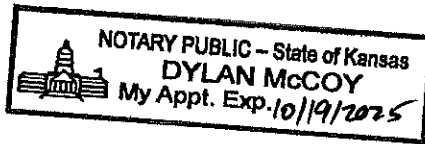
COUNTY OF SEDGWICK)

I Dan Flowers, of lawful age, being duly sworn, states: I am a representative of Hawkins Oil, LLC, Applicant in the above-captioned matter, and that I have read the above Application, know the contents and know that the statement made therein are true and correct, to the best of my knowledge and belief.



Dan Flowers

SUBSCRIBED AND SWORN to before this 14 Day of April 2023


Notary Public

My Appointment Expires: 10/19/2025

EXHIBIT "A"

KANSAS GAS & ELECTRIC CO

Mailing Address: ATTN: EVERGY PO BOX 418679 KANSAS CITY, MO
64141-9679

Tract Description: S06 , T26 , R05E , ACRES 62.9 , NE4 N RR & NE HWY
196 EXC W760 N300 LESS ROW

Situs Address: 4363 SW PARALLEL ST El Dorado 67042

Owner: HALE, MARCELLA LYNN; TOD

Mailing Address: 1567 CRYSTAL PASS ALLEN, TX 75002-0973

Tract Description: S06 , T26 , R05E , ACRES 40.2 , NE4 LYG NE HWY 196
& SE RR EXC BEG 500W & 175N SE/C N440 W320 S310 SELY340 TO POB
(SCALED)

Owner: JAAX, BOBBIE M; REV TRUST

Mailing Address: 3497 NW HWY 196 EL DORADO, KS 67042-8328

Tract Description: S06 , T26 , R05E , ACRES 206.9 , SW/4; W1570 SE/4;
E1092.7 S985.3 SE/4 EXC S211.5 E391 LESS ROW (SCALED)

Situs Address: 04498 SW 10TH ST

Owner: BURKHOLDER, STEPHEN; REV TR

Mailing Address: 4106 W CENTRAL AVE EL DORADO, KS 67042-3441

Tract Description: S06 , T26 , R05E , ACRES 2.8 , BEG 500W & 175N
SE/C NE4 N440 W320 S310 SELY340 TO POB (SCALED)

Situs Address: 04106 W CENTRAL AVE El Dorado 67042

Vess Oil Corporation

Field Name: El Dorado

Location: T26S R5E Sec 6, NE SE NE SW

Mailing Address: 1700 Waterfront #500
Wichita, Kansas 67206

EXHIBIT "B"

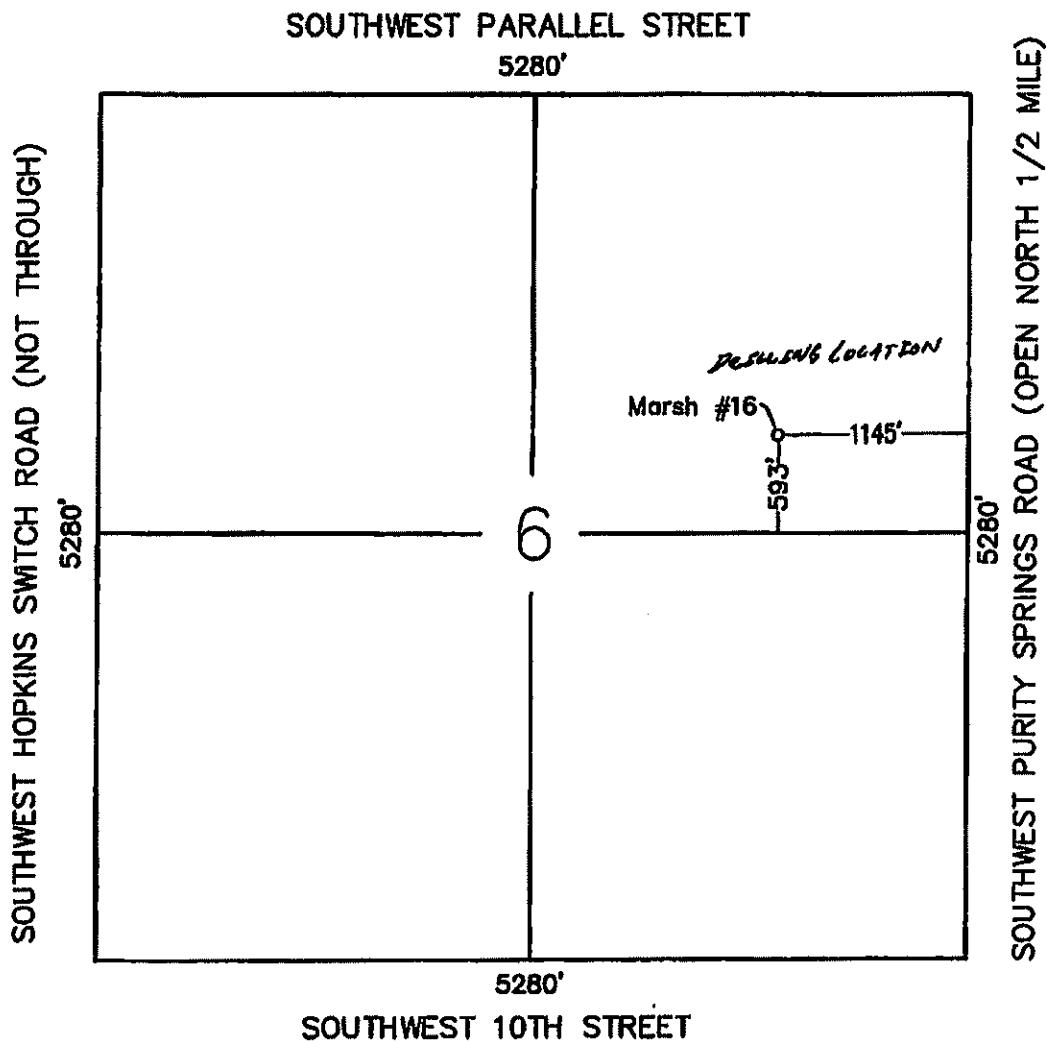
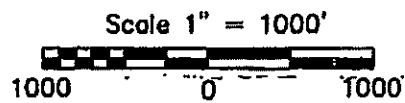


GOEDECKE SURVEYING, LLC

205 S. MAIN, PO BOX 68, EL DORADO, KS 67042
PHONE 316-321-3773, FAX 316-321-4199

OIL WELL LOCATION HAWKINS OIL OIL WELL MARSH #16

Sec.6, Twp.26S, R5E
Butler County, Ks.
Lat. = 37°49'08.62"N
Long. = 96°55'15.88"W
Elev. = 1391.64 (NGVD29)
Date October 19, 2022

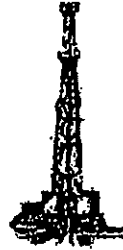




ROBERT E. MOSER, R.L.S.

Oil Field Surveying

335 N. Mission Road • Wichita, Kansas 67206
(316) 693-2853



W05591091

WELL NO.

LAWKINS OIL L.L.C.
OPERATOR

16
NO

Marsh
FARM

Butler (KS)
COUNTY

6 268 088
S T R

Per Plot below
LOCATION

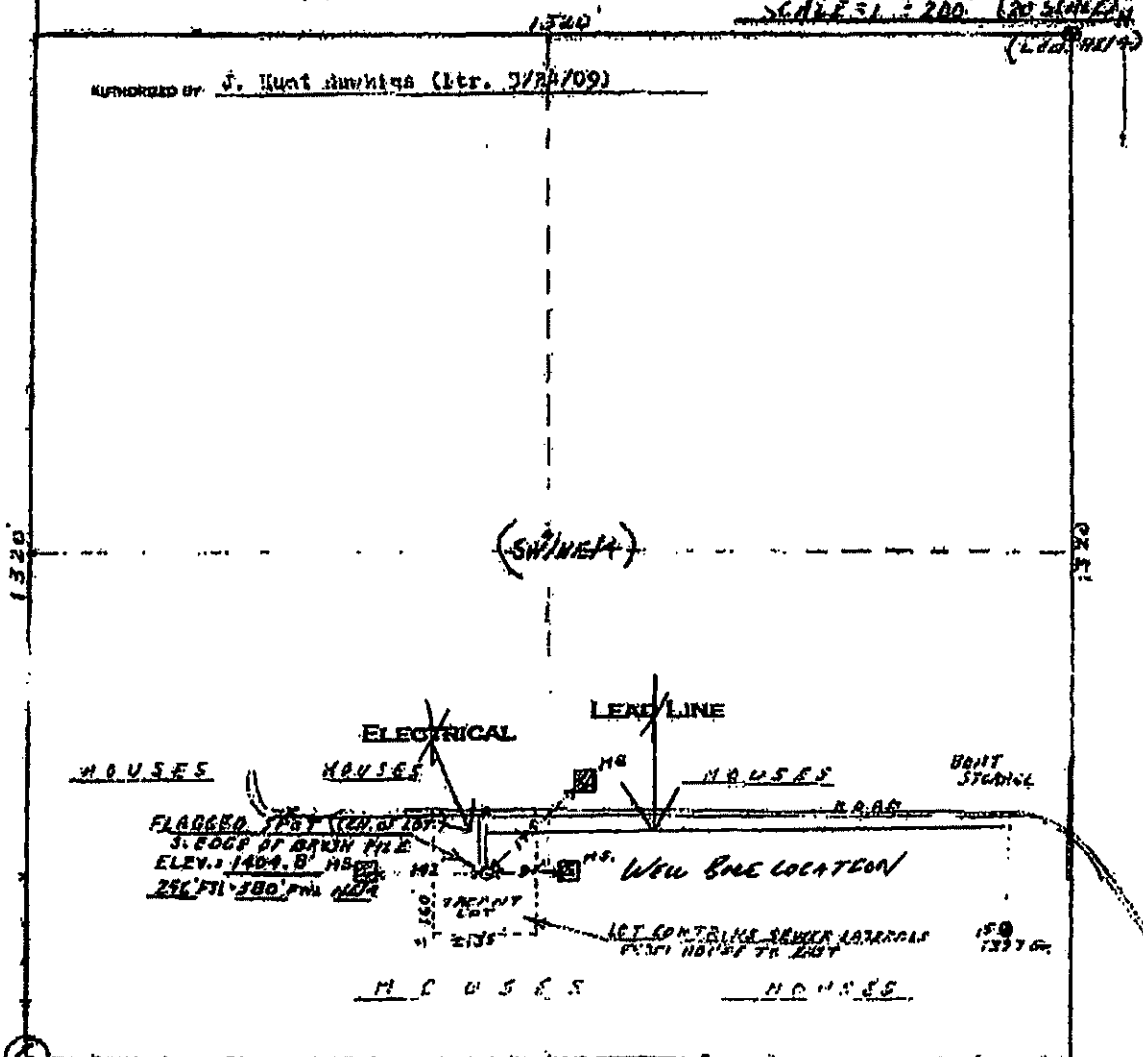
ELEVATION 1304.8' gr.
(if drill, where stkd.)

Lawkins Oil L.L.C.
427 S. Boston - Suite #915
Tulsa, Oklahoma 74103

SCALE 1" = 200' (20' SCALE)

(L.S. 11/14)

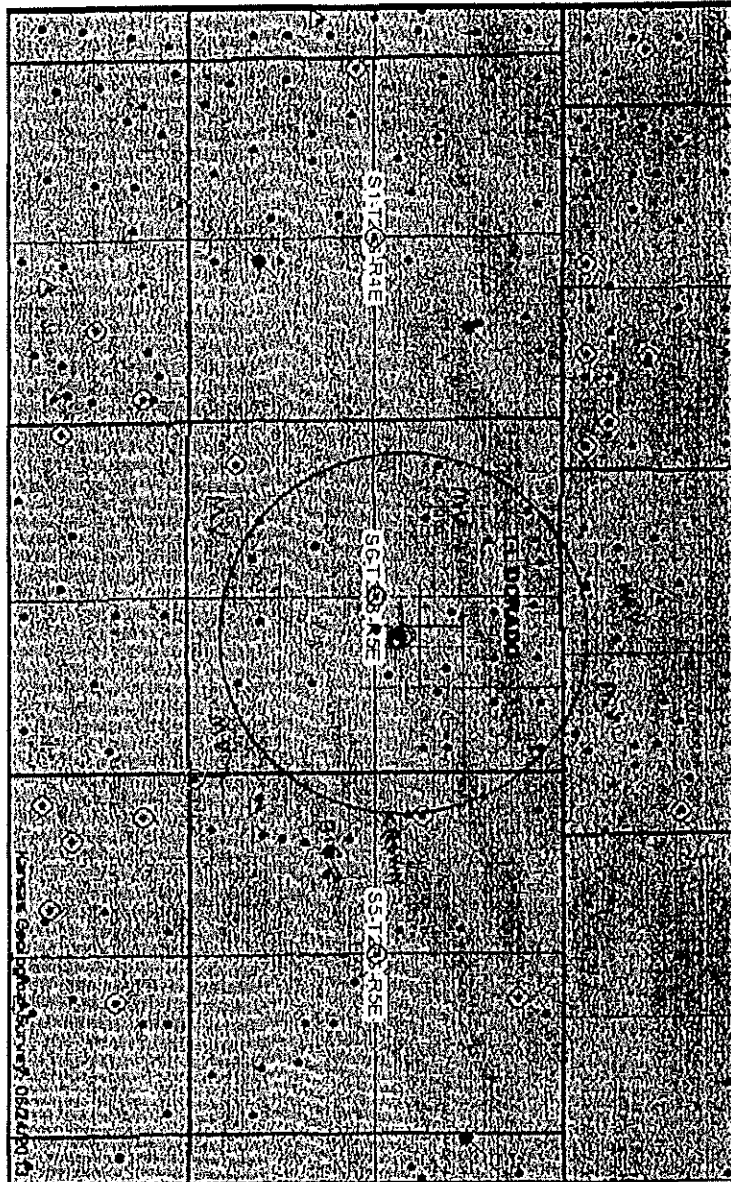
AUTHORIZED BY: J. Hunt Lawkins (Ltr. 5/22/09)



SEN 6 26' 0"
5" ON 11/15/09

Date: 1 APR 1 2009

Surveyor R. E. Moser, R.L.S., #329 K



Marsh 16-A

One inch = 1320 feet

Exhibit "A"

EXHIBIT "C"

Hawkins Oil, LLC

Project: Butler County, KS
 Site: SEC 6 - T26S - R5E
 Well: Marsh #16
 Wellbore: OH
 Design: Plan #1



PROJECT DETAILS: Butler County, KS

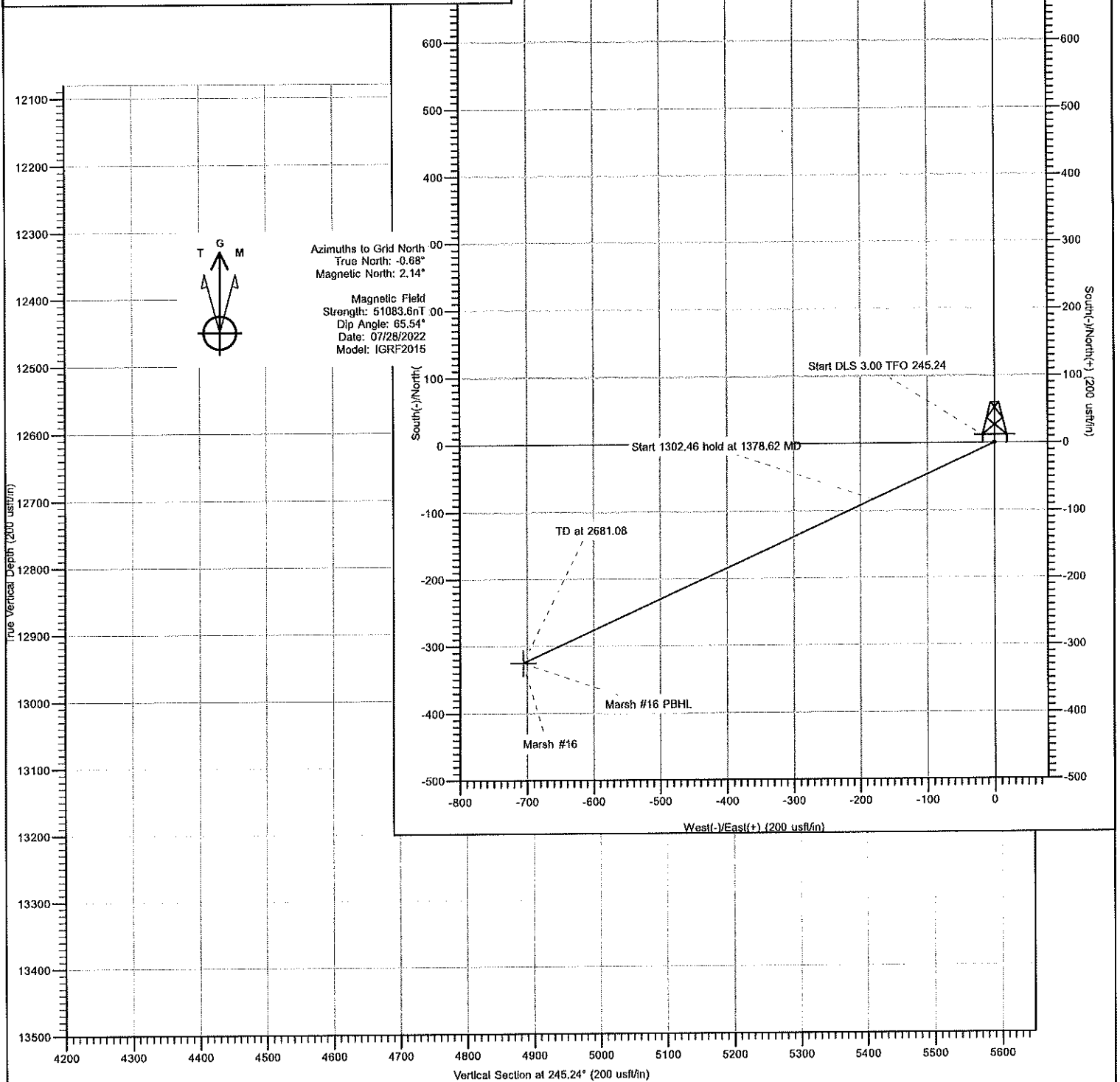
Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Kansas North 1501

North Reference: Grid
 System Datum: Mean Sea Level

To convert a True Direction to a Grid Direction, Subtract 0.68°
 To convert a Magnetic Direction to a True Direction, Add 2.82° East
 To convert a Magnetic Direction to a Grid Direction, Add 2.14°

WELL DETAILS: Marsh #16

GL 1405' + 16' KB @ 1421.00usft					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	-185251.54	2311643.38	37° 49' 10.600 N	96° 55' 17.200 W



Hawkins Oil, LLC

Project: Butler County, KS
 Site: SEC 6 - T26S - R5E,
 Well: Marsh #16
 Wellbore: OH
 Design: Plan #1



PROJECT DETAILS: Butler County, KS

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 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Kansas North 1501
 North Reference: Grid
 System Datum: Mean Sea Level

To convert a True Direction to a Grid Direction, Subtract 0.68°
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WELL DETAILS: Marsh #16

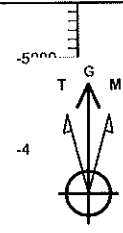
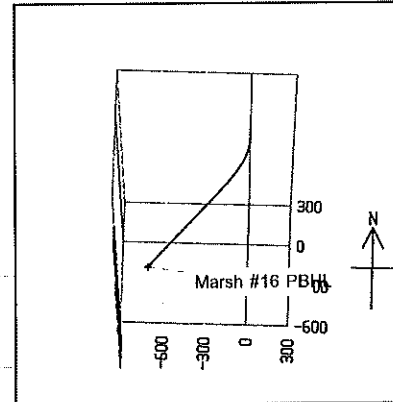
GL 1405' + 16' KB @ 1421.00usft						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	-185251.54	2311643.38	37° 49' 10.600 N	96° 55' 17.200 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSEct
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00
3	1378.62	26.36	245.24	1347.95	-83.16	-180.31	3.00	245.24	198.56
4	2681.08	26.36	245.24	2515.00	-325.34	-705.43	0.00	0.00	776.84

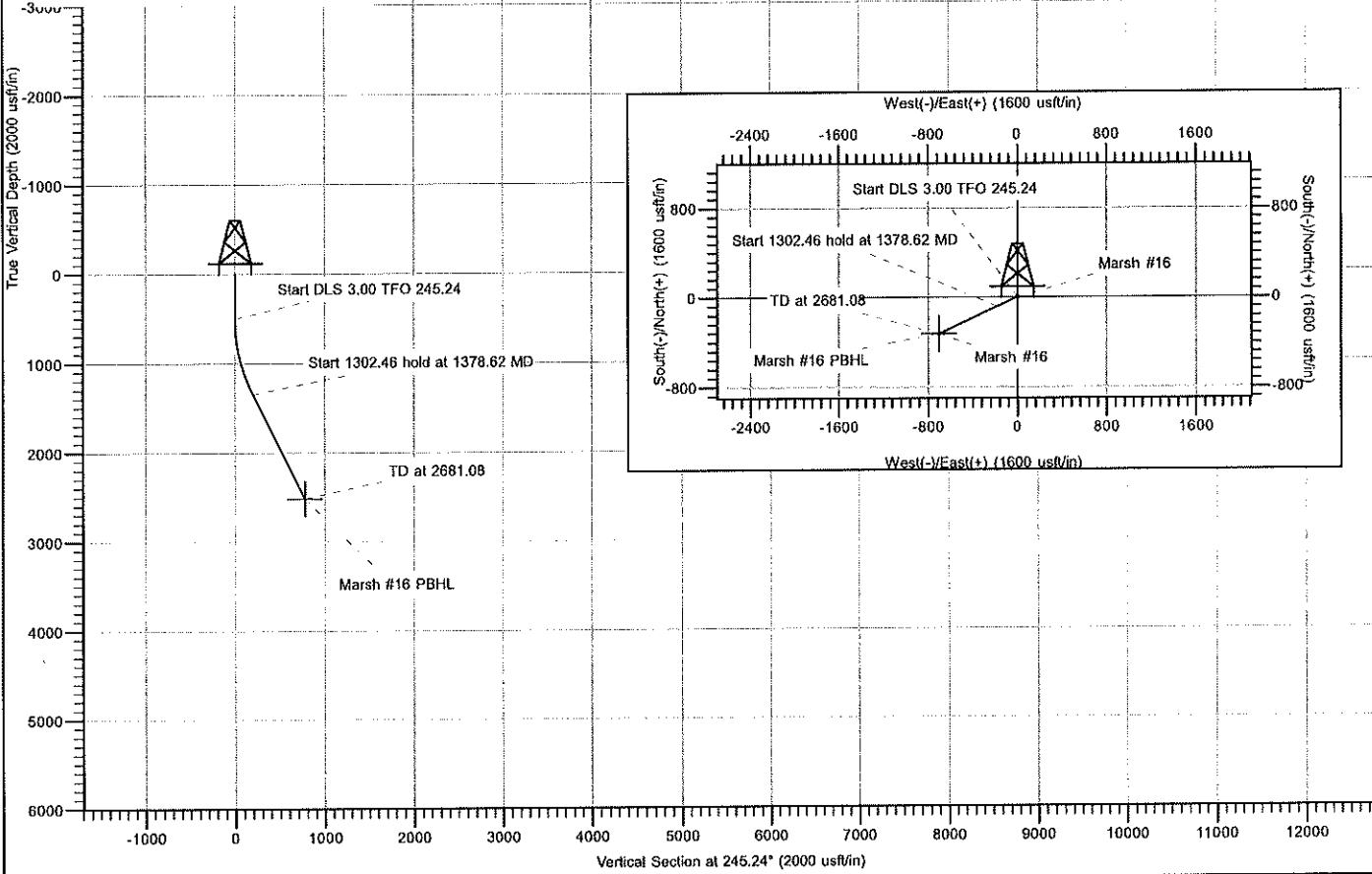
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Marsh #16 PBHL	2515.00	-325.34	-705.43	-185576.87	2310937.95	37° 49' 7.468 N	96° 55' 26.036 W



Azimuths to Grid North
 True North: -0.68°
 Magnetic North: 2.14°

Magnetic Field
 Strength: 51083.6nT
 Dip Angle: 65.54°
 Date: 07/28/2022
 Model: IGRF2015



Hawkins Oil, LLC

**Butler County, KS
SEC 6 - T26S - R5E
Marsh #16**

OH

Plan: Plan #1

Standard Planning Report - Geographic

28 July, 2022



Hawkeye Directional, LLC

Planning Report - Geographic



Database: HED_Compass_DSN
Company: Hawkins Oil, LLC
Project: Butler County, KS
Site: SEC 6 - T26S - R5E
Well: Marsh #16
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well Marsh #16
TVD Reference: GL 1405' + 16' KB @ 1421.00usft
MD Reference: GL 1405' + 16' KB @ 1421.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Butler County, KS		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Kansas North 1501		

Site	SEC 6 - T26S - R5E				
Site Position:	Northing:	-185,251.54 usft	Latitude:	37° 49' 10.600 N	
From: Lat/Long	Easting:	2,311,643.39 usft	Longitude:	96° 55' 17.200 W	
Position Uncertainty:	0.00 usft	Slot Radius:	13,200 in	Grid Convergence:	0.68 °

Well	Marsh #16					
Well Position	+N/-S	0.00 usft	Northing:	-185,251.54 usft	Latitude:	37° 49' 10.600 N
	+E/-W	0.00 usft	Easting:	2,311,643.39 usft	Longitude:	96° 55' 17.200 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	1,405.00 usft

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
	IGRF2015	07/28/22	(°)	(°)	(nT)	
			2.82	65.54	51,083.58419067	

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	245.24	

Plan Survey Tool Program	Date 07/28/22				
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks	
(usft)	(usft)				
1	0.00	2,681.08 Plan #1 (OH)	MWD	OWSG MWD - Standard	

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,378.62	26.36	245.24	1,347.95	-83.16	-180.31	3.00	3.00	-13.06	245.24	
2,681.08	26.36	245.24	2,515.00	-325.34	-705.43	0.00	0.00	0.00	0.00	Marsh #16 PBHL

Hawkeye Directional, LLC

Planning Report - Geographic



Database: HED_Compass_DSN
 Company: Hawkins Oil, LLC
 Project: Butler County, KS
 Site: SEC 6 - T26S - R5E
 Well: Marsh #16
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well Marsh #16
 TVD Reference: GL 1405' + 16' KB @ 1421.00usft
 MD Reference: GL 1405' + 16' KB @ 1421.00usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	-185,251.54	2,311,643.39	37° 49' 10.600 N	96° 55' 17.200 W
100.00	0.00	0.00	100.00	0.00	0.00	-185,251.54	2,311,643.39	37° 49' 10.600 N	96° 55' 17.200 W
200.00	0.00	0.00	200.00	0.00	0.00	-185,251.54	2,311,643.39	37° 49' 10.600 N	96° 55' 17.200 W
300.00	0.00	0.00	300.00	0.00	0.00	-185,251.54	2,311,643.39	37° 49' 10.600 N	96° 55' 17.200 W
400.00	0.00	0.00	400.00	0.00	0.00	-185,251.54	2,311,643.39	37° 49' 10.600 N	96° 55' 17.200 W
500.00	0.00	0.00	500.00	0.00	0.00	-185,251.54	2,311,643.39	37° 49' 10.600 N	96° 55' 17.200 W
Start DLS 3.00 TFO 245.24									
600.00	3.00	245.24	599.95	-1.10	-2.38	-185,252.64	2,311,641.01	37° 49' 10.589 N	96° 55' 17.230 W
700.00	6.00	245.24	699.63	-4.38	-9.50	-185,255.92	2,311,633.88	37° 49' 10.558 N	96° 55' 17.319 W
800.00	9.00	245.24	798.77	-9.85	-21.35	-185,261.39	2,311,622.03	37° 49' 10.505 N	96° 55' 17.467 W
900.00	12.00	245.24	897.08	-17.48	-37.90	-185,269.02	2,311,605.49	37° 49' 10.432 N	96° 55' 17.675 W
1,000.00	15.00	245.24	994.31	-27.25	-59.10	-185,278.80	2,311,584.29	37° 49' 10.338 N	96° 55' 17.940 W
1,100.00	18.00	245.24	1,090.18	-39.15	-84.88	-185,290.69	2,311,558.50	37° 49' 10.223 N	96° 55' 18.263 W
1,200.00	21.00	245.24	1,184.43	-53.13	-115.19	-185,304.67	2,311,528.19	37° 49' 10.088 N	96° 55' 18.643 W
1,300.00	24.00	245.24	1,276.81	-69.15	-149.94	-185,320.69	2,311,493.45	37° 49' 9.934 N	96° 55' 19.078 W
1,378.62	26.36	245.24	1,347.95	-83.16	-180.31	-185,334.70	2,311,463.07	37° 49' 9.799 N	96° 55' 19.459 W
Start 1302.46 hold at 1378.62 MD									
1,400.00	26.36	245.24	1,367.11	-87.13	-188.93	-185,338.67	2,311,454.45	37° 49' 9.761 N	96° 55' 19.567 W
1,500.00	26.36	245.24	1,456.71	-105.73	-229.25	-185,357.27	2,311,414.14	37° 49' 9.582 N	96° 55' 20.072 W
1,600.00	26.36	245.24	1,546.32	-124.32	-269.57	-185,375.86	2,311,373.82	37° 49' 9.403 N	96° 55' 20.577 W
1,700.00	26.36	245.24	1,635.92	-142.92	-309.88	-185,394.46	2,311,333.50	37° 49' 9.224 N	96° 55' 21.082 W
1,800.00	26.36	245.24	1,725.52	-161.51	-350.20	-185,413.05	2,311,293.18	37° 49' 9.045 N	96° 55' 21.587 W
1,900.00	26.36	245.24	1,815.13	-180.10	-390.52	-185,431.64	2,311,252.87	37° 49' 8.866 N	96° 55' 22.092 W
2,000.00	26.36	245.24	1,904.73	-198.70	-430.84	-185,450.24	2,311,212.55	37° 49' 8.687 N	96° 55' 22.597 W
2,100.00	26.36	245.24	1,994.33	-217.29	-471.15	-185,468.83	2,311,172.23	37° 49' 8.508 N	96° 55' 23.102 W
2,200.00	26.36	245.24	2,083.94	-235.89	-511.47	-185,487.43	2,311,131.91	37° 49' 8.329 N	96° 55' 23.607 W
2,300.00	26.36	245.24	2,173.54	-254.48	-551.79	-185,506.02	2,311,091.60	37° 49' 8.150 N	96° 55' 24.112 W
2,400.00	26.36	245.24	2,263.14	-273.07	-592.11	-185,524.62	2,311,051.28	37° 49' 7.971 N	96° 55' 24.617 W
2,500.00	26.36	245.24	2,352.75	-291.67	-632.43	-185,543.21	2,311,010.96	37° 49' 7.792 N	96° 55' 25.122 W
2,600.00	26.36	245.24	2,442.35	-310.26	-672.74	-185,561.80	2,310,970.64	37° 49' 7.613 N	96° 55' 25.627 W
2,681.08	26.36	245.24	2,515.00	-325.34	-705.43	-185,576.88	2,310,937.95	37° 49' 7.468 N	96° 55' 26.036 W
TD at 2681.08									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Marsh #16 PBHL - plan hits target center - Point	0.00	0.00	2,515.00	-325.34	-705.43	-185,576.88	2,310,937.95	37° 49' 7.468 N	96° 55' 26.036 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
500.00	500.00	0.00	0.00	Start DLS 3.00 TFO 245.24
1,378.62	1,347.95	-83.16	-180.31	Start 1302.46 hold at 1378.62 MD
2,681.08	2,515.00	-325.34	-705.43	TD at 2681.08

Hawkins Oil, LLC

**Butler County, KS
SEC 6 - T26S - R5E
Marsh #16**

OH

Plan: Plan #1

Standard Planning Report

28 July, 2022



Hawkeye Directional, LLC

Planning Report



Database: HED_Compass_DSN
Company: Hawkins Oil, LLC
Project: Butler County, KS
Site: SEC 6 - T26S - R5E
Well: Marsh #16
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well Marsh #16
TVD Reference: GL 1405' + 16' KB @ 1421.00usft
MD Reference: GL 1405' + 16' KB @ 1421.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Butler County, KS		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Kansas North 1501		

Site	SEC 6 - T26S - R5E				
Site Position:	Northing:	-185,251.54 usft	Latitude:	37° 49' 10.600 N	
From:	Lat/Long	Easting:	2,311,643.39 usft	Longitude:	96° 55' 17.200 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.68 °

Well	Marsh #16					
Well Position	+N/-S	-0.01 usft	Northing:	-185,251.54 usft	Latitude:	37° 49' 10.600 N
	+E/-W	0.00 usft	Easting:	2,311,643.39 usft	Longitude:	96° 55' 17.200 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	1,405.00 usft

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
	IGRF2015	07/28/22	(°)	(°)	(nT)	
			2.82	65.54	51,083.58419067	

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	245.24	

Plan Survey Tool Program	Date 07/28/22				
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks	
(usft)	(usft)				
1	0.00	2,681.08 Plan #1 (OH)	MWD	OWSG MWD - Standard	

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,378.62	26.36	245.24	1,347.95	-83.16	-180.31	3.00	3.00	-13.06	245.24	
2,681.08	26.36	245.24	2,515.00	-325.34	-705.43	0.00	0.00	0.00	0.00	Marsh #16 PBHL

Hawkeye Directional, LLC

Planning Report



Database: HED_Compass_DSN
Company: Hawkins Oil, LLC
Project: Butler County, KS
Site: SEC 6 - T26S - R5E
Well: Marsh #16
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well Marsh #16
TVD Reference: GL 1405' + 16' KB @ 1421.00usft
MD Reference: GL 1405' + 16' KB @ 1421.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start DLS 3.00 TFO 245.24									
600.00	3.00	245.24	599.95	-1.10	-2.38	2.62	3.00	3.00	0.00
700.00	6.00	245.24	699.63	-4.38	-9.50	10.46	3.00	3.00	0.00
800.00	9.00	245.24	798.77	-9.85	-21.35	23.51	3.00	3.00	0.00
900.00	12.00	245.24	897.08	-17.48	-37.90	41.74	3.00	3.00	0.00
1,000.00	15.00	245.24	994.31	-27.25	-59.10	65.08	3.00	3.00	0.00
1,100.00	18.00	245.24	1,090.18	-39.15	-84.88	93.48	3.00	3.00	0.00
1,200.00	21.00	245.24	1,184.43	-53.13	-115.19	126.85	3.00	3.00	0.00
1,300.00	24.00	245.24	1,276.81	-69.15	-149.94	165.12	3.00	3.00	0.00
1,378.62	26.36	245.24	1,347.95	-83.16	-180.31	198.56	3.00	3.00	0.00
Start 1302.46 hold at 1378.62 MD									
1,400.00	26.36	245.24	1,367.11	-87.13	-188.93	208.06	0.00	0.00	0.00
1,500.00	26.36	245.24	1,456.71	-105.73	-229.25	252.45	0.00	0.00	0.00
1,600.00	26.36	245.24	1,546.32	-124.32	-269.57	296.85	0.00	0.00	0.00
1,700.00	26.36	245.24	1,635.92	-142.92	-309.88	341.25	0.00	0.00	0.00
1,800.00	26.36	245.24	1,725.52	-161.51	-350.20	385.65	0.00	0.00	0.00
1,900.00	26.36	245.24	1,815.13	-180.10	-390.52	430.05	0.00	0.00	0.00
2,000.00	26.36	245.24	1,904.73	-198.70	-430.84	474.45	0.00	0.00	0.00
2,100.00	26.36	245.24	1,994.33	-217.29	-471.15	518.85	0.00	0.00	0.00
2,200.00	26.36	245.24	2,083.94	-235.89	-511.47	563.25	0.00	0.00	0.00
2,300.00	26.36	245.24	2,173.54	-254.48	-551.79	607.65	0.00	0.00	0.00
2,400.00	26.36	245.24	2,263.14	-273.07	-592.11	652.04	0.00	0.00	0.00
2,500.00	26.36	245.24	2,352.75	-291.67	-632.43	696.44	0.00	0.00	0.00
2,600.00	26.36	245.24	2,442.35	-310.26	-672.74	740.84	0.00	0.00	0.00
2,681.08	26.36	245.24	2,515.00	-325.34	-705.43	776.84	0.00	0.00	0.00
TD at 2681.08									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hi/miss target - Shape Marsh #16 PBHL - plan hits target center - Point	0.00	0.00	2,515.00	-325.34	-705.43	-185,576.88	2,310,937.95	37° 49' 7.468 N	96° 55' 26.036 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
500.00	500.00	0.00	0.00	Start DLS 3.00 TFO 245.24
1,378.62	1,347.95	-83.16	-180.31	Start 1302.46 hold at 1378.62 MD
2,681.08	2,515.00	-325.34	-705.43	TD at 2681.08

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V.Sec. (usft)	Dogleg (°/1T.Face)	Tool
0	0	0	0	0	0	0	0	0 UNDEFIN
100	0	0	100	0	0	0	0	0 MWD (1)
200	0	0	200	0	0	0	0	0 MWD (1)
300	0	0	300	0	0	0	0	0 MWD (1)
400	0	0	400	0	0	0	0	0 MWD (1)
500	0	0	500	0	0	0	0	0 MWD (1)
600	3	245.24	599.95	-1.1	-2.38	2.62	3	245.24 MWD (1)
700	6	245.24	699.63	-4.38	-9.5	10.46	3	0 MWD (1)
800	9	245.24	798.77	-9.85	-21.35	23.51	3	0 MWD (1)
900	12	245.24	897.08	-17.48	-37.9	41.74	3	0 MWD (1)
1000	15	245.24	994.31	-27.25	-59.1	65.08	3	0 MWD (1)
1100	18	245.24	1090.18	-39.15	-84.88	93.48	3	0 MWD (1)
1200	21	245.24	1184.43	-53.13	-115.19	126.85	3	0 MWD (1)
1300	24	245.24	1276.81	-69.15	-149.94	165.12	3	0 MWD (1)
1378.62	26.36	245.24	1347.95	-83.16	-180.31	198.56	3	0 MWD (1)
1400	26.36	245.24	1367.11	-87.13	-188.93	208.06	0	0 MWD (1)
1500	26.36	245.24	1456.71	-105.73	-229.25	252.45	0	0 MWD (1)
1600	26.36	245.24	1546.32	-124.32	-269.57	296.85	0	0 MWD (1)
1700	26.36	245.24	1635.92	-142.92	-309.88	341.25	0	0 MWD (1)
1800	26.36	245.24	1725.52	-161.51	-350.2	385.65	0	0 MWD (1)
1900	26.36	245.24	1815.13	-180.1	-390.52	430.05	0	0 MWD (1)
2000	26.36	245.24	1904.73	-198.7	-430.84	474.45	0	0 MWD (1)
2100	26.36	245.24	1994.33	-217.29	-471.15	518.85	0	0 MWD (1)
2200	26.36	245.24	2083.94	-235.89	-511.47	563.25	0	0 MWD (1)
2300	26.36	245.24	2173.54	-254.48	-551.79	607.64	0	0 MWD (1)
2400	26.36	245.24	2263.14	-273.07	-592.11	652.04	0	0 MWD (1)
2500	26.36	245.24	2352.75	-291.67	-632.43	696.44	0	0 MWD (1)
2600	26.36	245.24	2442.35	-310.26	-672.74	740.84	0	0 MWD (1)
2681.08	26.36	245.24	2515	-325.34	-705.43	776.84	0	0 MWD (1)