

Confidentiality Requested:

Yes No

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

**WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Recompletion Date _____ Date Reached TD _____ Completion Date or Recompletion Date _____

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 2614

Date	11-18-21	Sec.	32	Twp.	17	Range	11	County	Barton	State	Ks	On Location		Finish	11:30 PM
------	----------	------	----	------	----	-------	----	--------	--------	-------	----	-------------	--	--------	----------

Location Claflin 2w to 110 Ave, 1/2 N

Lease Bortz - 1 Well No. 585 32-1 Owner E/Ints

Contractor Southwind #1
Type Job Surface
To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 12 1/4" T.D. 319' Charge To Black Dahlia oil + gas

Csg. 8 5/8" Depth 318' Street

Tbg. Size Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 18' Shoe Joint 18' Cement Amount Ordered 180 60/40 4% CC 2% Gel

Meas Line Displace 19 BLS

EQUIPMENT

Pumptrk 16 No. Cementer David Common 110

Bulktrk 14 No. Driver Jordan Poz. Mix 70

Bulktrk P.U. No. Driver Rick Gel. 8
Calcium 3

JOB SERVICES & REMARKS

Remarks: Cement did Circulate Hulls

Rat Hole Flowseal

Mouse Hole Kol-Seal

Centralizers Mud CLR 48

Baskets CFL-117 or CD110 CAF 38

D/V or Port Collar Sand

Handling 191

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Pumptrk Charge Surface

Mileage 21

Signature [Signature] Tax

Discount

Total Charge

Thanks

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 2615

Date	11-24-21	Sec.	32	Twp.	17	Range	11	County	Barton	State	Ks	On Location		Finish	7:30 PM
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Lease **Bortz 1** Well No. **5B5-32-1** Owner **Clafin - 2w to 110 Ave, 1/2 N, E/Int**

Contractor **Southwind #1** To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Type Job **Plug** Charge To **Black Dahlia**

Hole Size **7 7/8"** T.D. **3400'**

Csg. **4 1/2" D.R.** Depth **3325'** Street

Tbg. Size **4 1/2" D.R.** Depth **3325'** City State

Tool **4 1/2" D.R.** Depth **3325'** The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. **230 5x 60/40 4% Gel** Shoe Joint

Meas Line **H2O mud** Displace **1/4# Flo-seal**

EQUIPMENT Common **138**

Pumptrk **16** No. **David** Poz. Mix **92**

Bulktrk **1** No. **Doug** Gel. **8**

~~Bulktrk~~ **P.U.** No. **Rick** Calcium

JOB SERVICES & REMARKS Hulls

Remarks: Salt

Rat Hole Flowseal **50#**

Mouse Hole Kol-Seal

Centralizers **3325' - 505x** Mud CLR 48

Baskets **700' - 505x** CFL-117 or CD110 CAF 38

D/V or Port Collar **375' - 755x** Sand

40' - 105x w/plug Handling **238**

Rathole - 305x Mileage

Mousehole - 155x

Cement did Circulate **FLOAT EQUIPMENT**

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down **8 5/8" Day hole plug**

Pumptrk Charge **Plug**

Mileage **24**

Thanks

Signature **Frank J. Rane** Tax

Discount

Total Charge

OPERATOR

Company: Black Dahlia Oil Gas Co.
 Address: 2926 Canada Drive
 Glendale, CA 91208-2078

Contact Geologist: Jim Musgrove
 Contact Phone Nbr: 620-786-0839
 Well Name: Bortz -1 SBS 32-1
 Location: 32-17s-11w SW-NW-SE-NW
 API: 15-009-26319-00-00
 Pool:
 State: Kansas

Field:
 Country: USA

Scale 1:240 Imperial

Well Name: Bortz -1 SBS 32-1
 Surface Location: 32-17s-11w SW-NW-SE-NW
 Bottom Location:
 API: 15-009-26319-00-00
 License Number: 30795
 Spud Date: 11/15/2021
 Region: Barton
 Drilling Completed: 11/24/2021
 Surface Coordinates: 1850' FNL & 1400' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1815.00ft
 K.B. Elevation: 1825.00ft
 Logged Interval: 2750.00ft
 Total Depth: 3400.00ft
 Formation: Arbuckle
 Drilling Fluid Type: Chemical/Fresh Water Gel

Time: 12:00 AM
 Time: 12:00 AM
 To: 3400.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 Latitude:
 N/S Co-ord: 1850' FNL
 E/W Co-ord: 1400' FWL

LOGGED BY



Company: James C Musgrove Petroleum LLC
Address: 212 Main Street/PO Box 215
Claflin, KS 67525

Phone Nbr: 620-588-4250 620-786-0839
Logged By: KLG #307

Name: James C Musgrove

CONTRACTOR

Contractor: Southwind Drilling Company
Rig #: 1
Rig Type: mud rotary
Spud Date: 11/15/2021
TD Date: 11/24/2021
Rig Release:
Time: 12:00 AM
Time: 12:00 AM
Time:

ELEVATIONS

K.B. Elevation: 1825.00ft
K.B. to Ground: 10.00ft
Ground Elevation: 1815.00ft

NOTES


The Black Dahlia Oil & Gas Co., Bortz #1 SBS 32-1, was plugged and abandoned at the Rotary Total Depth 3400 (-1575).

Respectfully Submitted,

James C Musgrove
Petroleum Geologist

well comparison sheet

Formation	BORTZ #1 SB 32-1 BLACK DAHLIA OIL & GAS CO SW-NE-SE-NW 32-17s-11w 1825 KB				SCHNEWEIS 31 GRADY BOLDING CORP NW-SW-NE 31-17s-11w 1835 KB				BORTZ VICKERS PETRO CO SE-NE-NW 32-17s-11w 1820 KB			
							Structural Relationship				Structural Relationship	
	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Sample	Sub-Sea	Sample	Log
Anhydrite			660	1165	670	1165		0				
Base Anhydrite			680	1145								
Topeka									2694	-874		
Heebner			2925	-1100	2936	-1101		1				
Toronto			2942	-1117	2953	-1118		1				
Douglas			2955	-1130	2968	-1133		3				
Brown Lime			3030	-1205	3043	-1208		3				
Lansing			3045	-1220	3058	-1223		3	3045	-1225	-5	
Base Kansas City			3297	-1472	3304	-1469		-3				
Conglomerate			3310	-1485	3318	-1483		-2	3312	-1492	-7	
Arbuckle			3345	-1520	3354	-1519		-1	3360	-1540	-20	
Rotary Total Depth			3400	-1575	3445	-1610		35				
Total Depth			3405	-1580	3445	-1610		30	3401	-1581	-1	

 <p style="font-size: 2em; font-weight: bold; margin: 0;">TRILOBITE TESTING, INC</p>	DRILL STEM TEST REPORT	
	Black Dahlia Oil & Gas Co 2926 Canada Blvd Glendale CA 91208-2078 ATTN: Jim Mugrove	32-17s-11w Barton KS Bortz 1-SB #32-1 Job Ticket: 68322 DST#: 1 Test Start: 2021.11.22 @ 04:20:00
GENERAL INFORMATION:		
Formation: LKO B-F Deviated: No Whipstock: Time Tool Opened: 05:16:07	ft. (KB)	Test Type: Conventional Bottom Hole (Initial) Tester: Spencer J Staab Line No: A4

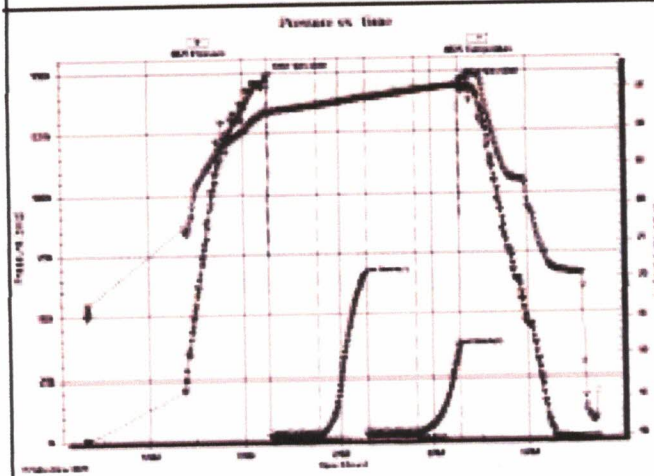
Interval: 3048.00 ft (KB) To 3120.00 ft (KB) (TVD)
 Total Depth: 3120.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1827.00 ft (ML)
 1817.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8875

Inside
 Press @ Run Depth: 20.04 psig @ 3053.00 ft (KB) Capacity: psig
 Start Date: 2021.11.22 End Date: 2021.11.22 Last Calib.: 2021.11.22
 Start Time: 04:20:01 End Time: 09:43:12 Time On Btm: 2021.11.22 @ 05:16:02
 Time Off Btm: 2021.11.22 @ 08:17:37

TEST COMMENT: 30-IF-Surface to 1/4"
 30-IG-No Return
 30-IF-Surface Blow
 30-FG-No Return



PRESSURE SUMMARY

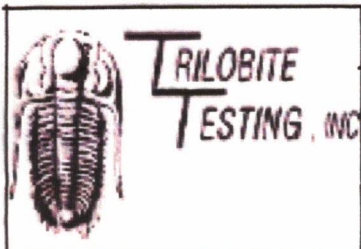
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1487.35	92.19	Initial Hydro-static
1	13.41	91.75	Open To Flow (1)
31	16.47	92.93	Shut-in (1)
61	566.76	93.90	End Shut-in (1)
62	17.21	93.77	Open To Flow (2)
93	20.04	94.72	Shut-in (2)
121	365.08	95.52	End Shut-in (2)
122	1453.34	96.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100%M	0.14

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



DRILL STEM TEST REPORT

Black Dahlia Oil & Gas Co
 2926 Canada Blvd
 Glendale CA 91208-2078
 ATTN: Jim Mugrove

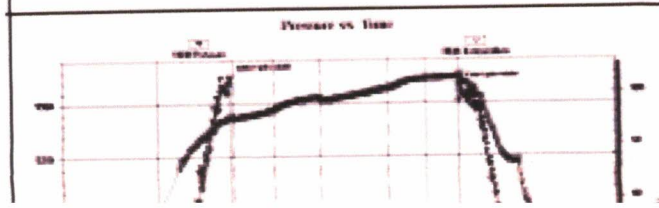
32-17s-11w Barton KS
 Bortz 1-SB #32-1
 Job Ticket: 68323 DST#: 2
 Test Start: 2021.11.23 @ 02:12:00

GENERAL INFORMATION:

Formation: LKC
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:49:42
 Time Test Ended: 07:51:11
 Interval: 3211.00 ft (KB) To 3304.00 ft (KB) (TVD)
 Total Depth: 3304.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 1927.00 ft (KB)
 1917.00 ft (CF)
 KB to GRVP: 10.00 ft

Serial #: 6838 Inside
 Press @ Run Depth: 33.88 psig @ 3214.00 ft (KB) Capacity: psig
 Start Date: 2021.11.23 End Date: 2021.11.23 Last Calib.: 2021.11.23
 Start Time: 02:12:01 End Time: 07:51:12 Time On Btm: 2021.11.23 @ 03:49:32
 Time Off Btm: 2021.11.23 @ 05:22:47

TEST COMMENT: 30-F-Surface to 1.25" Died back to 1/2"
 30-ID-No Return
 45-F-Surface to 3/4"
 45-FD-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1518.60	95.44	Initial Hydro-static
1	14.02	94.88	Open To Flow (1)
28	21.68	95.69	Shut-in (1)
59	966.10	99.14	End Shut-in (1)

Serial #: 6838**Incide**

Press @ Run Depth:

66.96 psig @

3292.00 ft (KB)

Capacity:

00g

Start Date:

2021.11.23

End Date:

2021.11.24

Last Call:

2021.11.24

Start Time:

18:57:01

End Time:

00:53:32

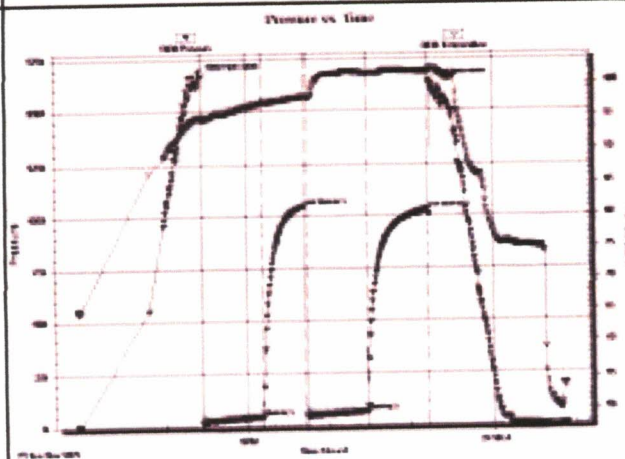
Time On Btm:

2021.11.23 @ 20:27:27

Time Off Btm:

2021.11.23 @ 23:13:37

TEST COMMENT:
 45-IF-Surface to 3.5"
 30-IG-No Return
 45-IF-Surface to 4"
 45-FO-No Return

**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1665.05	95.00	Initial Hydro-static
1	16.82	94.62	Open To Flow (1)
45	44.85	97.01	Shut-in (1)
76	1032.92	97.95	End Shut-in (1)
77	46.34	97.83	Open To Flow (2)
121	66.96	101.58	Shut-in (2)
166	1032.45	101.85	End Shut-in (2)
187	1530.79	102.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	900M 5%O 95%M	1.13
20.00	GO 10%G 90%O	0.28

* Recovery from multiple tests

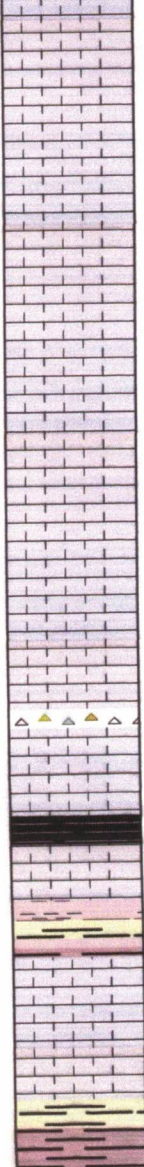
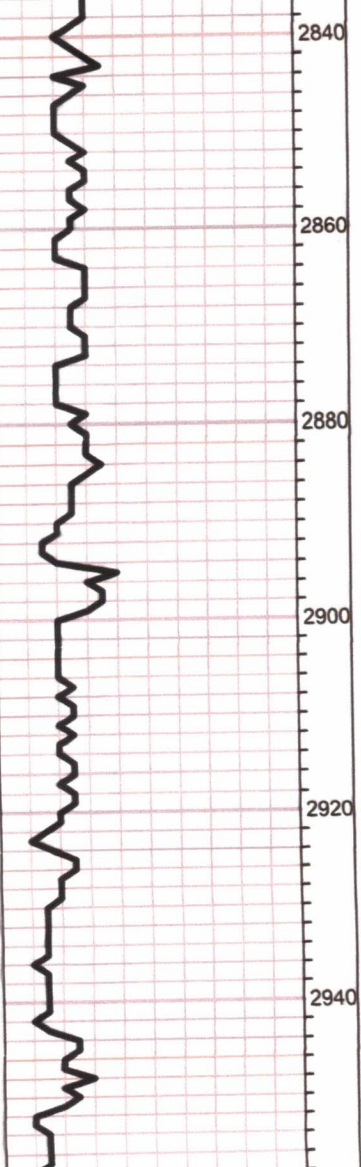
Gas Rates

	Core (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Triobite Testing, Inc

Ref No: 68324

Printed: 2021.11.24 @ 07:04:05



Limestone,gray,tan,medium crystalline,foossiliferous,chalky

Limestone,tan,foossiliferous,poor visible porosity

Limestone,tan,highly oolitic,chalky,granular,scattered porosity..no shows

as above,chalky

Chert,gray,boney

HEEBNER 2922(-1097)

Shale,black,carbonaceous

Limestone,tan,fine crystalline,slightly cherty,(dense)

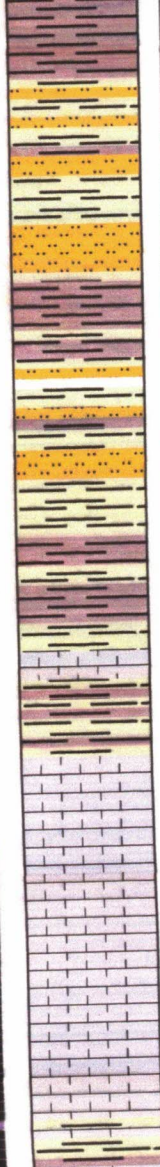
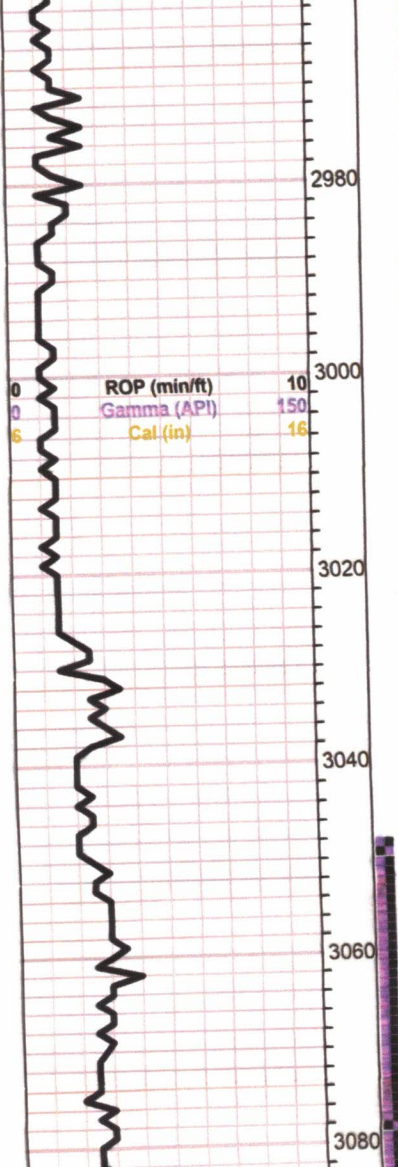
Shale,gray,grayish green,soft

TORONTO 2938(-1113)

Limestone,gray,white,foossiliferous,chalky,poorly developed porosity

DOUGLAS 2958(-1133)

Shale,gray,grayish green,silty ,soft



as above

Shale, turquoise, aqua marine, rusty brown, silty with iron pyrite

ditto as above

ditto

Shale, green, rusty brown, soft, silty

increase in gray, dark gray silty shale

BROWN LIME 3027(-1202)

Limestone, tan, brown, finely crystalline, few cherty (dense)

LANSING 3041(-1216)

Limestone, gray, tan, fine crystalline, fossiliferous in part, poor visible porosity

Limestone, tan, gray, cherty, poor fractured type porosity, brown spotty stain, no free oil and no odor

Limestone as above with Chert, white, gray, opaque

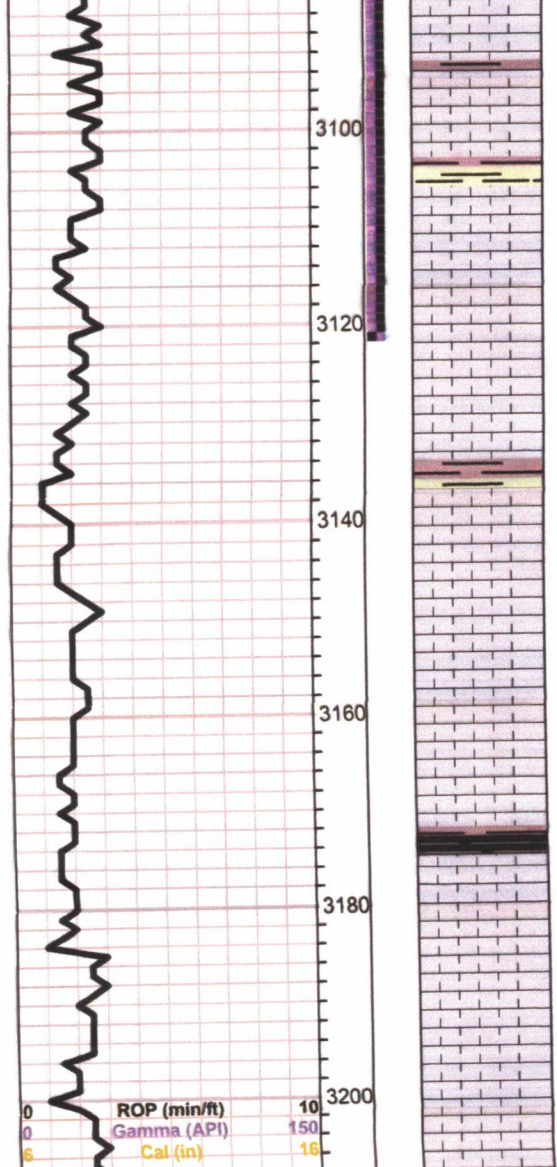
Limestone, white, cream, chalky, few with pinpoint type porosity, trace spotted brown stain, no free oil and no odor

Shale gray, grayish green, soft

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100
0	C5 (units)	100

DST#1 3048-3120
30-30-30-30
Blow, weak (1/4 inch)
2nd opening; weak (surface)
Recovery; 10' oil spotted mud
Pressure
ISIP 666psi
FSIP 365 psi

FFP 17-20psi
 HSH 1487-
 1453psi



Limestone,gray,highly oolitic,poor brown edge staining,no free oil and no odor

Limestone,white,gray,fossiliferous in part,few oolitic,brown to gray spotty stain,trace free oil and faint odor

Limestone,gray,white,chalky,dense

Shale,gray,dark gray,green

Limestone,tan,brown,oomoldic,fair to good oomoldic porosity (barren)

Limestone,gray,light gray,chalky in part

as above

Shale,black,gray,splintery ,soft

Limestone,tan,suboomoldic,chalky,poor visible porosity,trace iron pyrite

Limestone,white,gray,oolitic,chalky.poor visible porosity.no shows

aa

0	Total Gas (units)	10
0	C1 (units)	10
0	C2 (units)	10
0	C3 (units)	10

Limestone, white, gray, oomoldic, fair oomoldic porosity, trace spotted stain, trace of free oil and questionable odor

Slug gray, dark gray, green shale

Limestone, white, gray, finely crystalline, fossiliferous, chalky, trace light brown and gray stain, no free oil and no odor

Limestone, white, gray, chalky, dense

Shale, black, gray

Limestone, tan, fossiliferous, chalky, poor visible porosity, poor spotted stain, show of free oil and faint odor samples broken

BASE KANSAS CITY 3296(-1471)

Shale, gray, maroon, grayish green

Limestone, maroon tinted, dense

CONGLOMERATE 3310(-1485)

Chert, orange, white, peach, boney to opaque with Limestone, green, tinted and Shale, rusty brown, red, blocky to blood red soft Shale, some sandy (Washes Red)

Varied colored oolitic opaque Chert with varied colored boney and opaque Chert in matrix of blood red, maroon, blocky semi sandy Shales

DST#2 3211-
3:30-30-45-45
Blow; weak (1 1/4 inch)
2nd opening: weak (3/4 inch)
Rec; 60' muddy water
Pressure
ISIP 966 psi
FSIP 957 psi
IFP 14-21 psi
FFP 24-33psi
HSH 1618-
1573psi

DST#3 3288-3359
45-30-45-30
Blow, weak (3 1/2 inches)
2nd opening :weak (4 inches)
Recovery 20' clean oil
80'slightly oil cut
mud (5%oil, 95% mud)
Pressure

ARBUCKLE 3344(-1519)

Dolomite,gray,pink,fine crystalline,sucrosic,slightly cherty,poor visible porosity,black stain,no free oil and no odor

FSIP 1032psi
IFP 16-44 psi
FFP 46-66psi
HSH 1665-1630psi

Dolomite,as above,with gray,white,oolitic,cherty,dolomite,scattered porosity,brown ,dark brown stain,show of free oil and faint odor

Dolomite,gray,tan,sucrosic,scattered pinpoint type porosity,light brown spotted stain ,trace of free oil and faint odor,few with some pyrite pinpoint porosity infill.

Dolomite,gray,pink,finely crystalline,sucrosic,slightly cherty,dense,trace black dead stain,no free oil and no odor

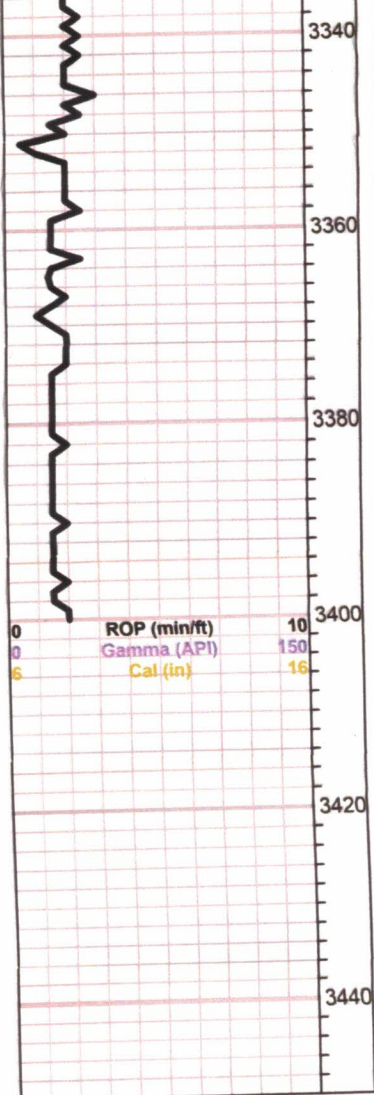
Dolomite,white,gray,finely crystalline,sucrosic,poor visible porosity.no shows

as above sandy in part

Dolomite,white,gray,medium crystalline,fair porosity,glaucanitic,with white Chalk. no shows

ROTARY TOTAL DEPTH 3400(-1525)

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100
0	C5 (units)	100





DRILL STEM TEST REPORT

Prepared For: **Black Dahlia Oil & Gas Co**

2926 Canada Blvd
Glendale CA 91208+2078

ATTN: Jim Musgrove

Bortz 1-SB #32-1

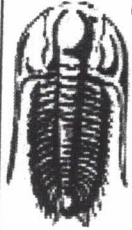
32-17s-11w Barton,KS

Start Date: 2021.11.23 @ 02:12:00

End Date: 2021.11.23 @ 07:51:11

Job Ticket #: 68323 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Black Dahlia Oil & Gas Co

2926 Canada Blvd
Glendale CA 91208+2078

ATTN: Jim Musgrove

32-17s-11w Barton,KS

Bortz 1-SB #32-1

Job Ticket: 68323

DST#: 2

Test Start: 2021.11.23 @ 02:12:00

GENERAL INFORMATION:

Formation: **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:49:42
Time Test Ended: 07:51:11

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

Interval: **3211.00 ft (KB) To 3304.00 ft (KB) (TVD)**

Total Depth: 3304.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1827.00 ft (KB)

1817.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6838

Inside

Press@RunDepth: 33.88 psig @ 3214.00 ft (KB)

Start Date: 2021.11.23

End Date:

2021.11.23

Start Time: 02:12:01

End Time:

07:51:11

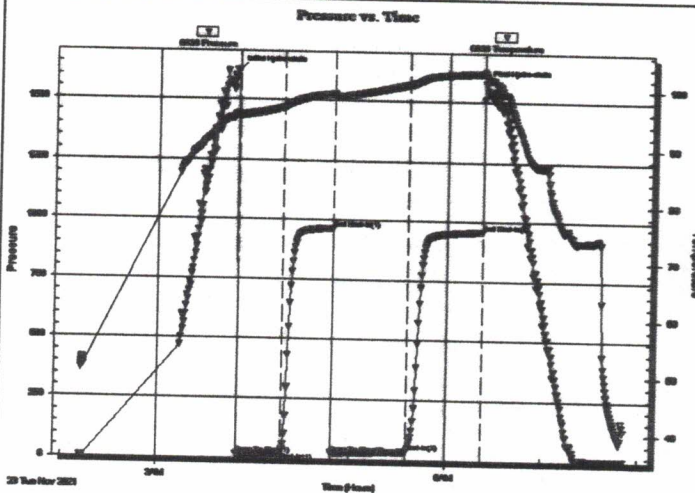
Capacity: psig

Last Calib.: 2021.11.23

Time On Btm: 2021.11.23 @ 03:49:32

Time Off Btm: 2021.11.23 @ 06:22:47

TEST COMMENT: 30-IF-Surface to 1.25" Died back to 1/2"
30-ISI-No Return
45-FF-Surface to 3/4"
45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1618.60	95.44	Initial Hydro-static
1	14.02	94.88	Open To Flow (1)
28	21.68	96.69	Shut-In(1)
59	966.10	99.14	End Shut-In(1)
60	24.81	98.90	Open To Flow (2)
106	33.88	100.86	Shut-In(2)
153	957.67	103.00	End Shut-In(2)
154	1573.91	102.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 50%M 50%W	0.85

* Recovery from multiple tests

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Dahlia Oil & Gas Co

2926 Canada Blvd
Glendale CA 91208+2078

ATTN: Jim Musgrove

32-17s-11w Barton, KS

Bortz 1-SB #32-1

Job Ticket: 68323

DST#: 2

Test Start: 2021.11.23 @ 02:12:00

GENERAL INFORMATION:

Formation: **LKC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:49:42
 Time Test Ended: 07:51:11
 Interval: **3211.00 ft (KB) To 3304.00 ft (KB) (TVD)**
 Total Depth: 3304.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 1827.00 ft (KB)
 1817.00 ft (CF)
 KB to GR/CF: 10.00 ft

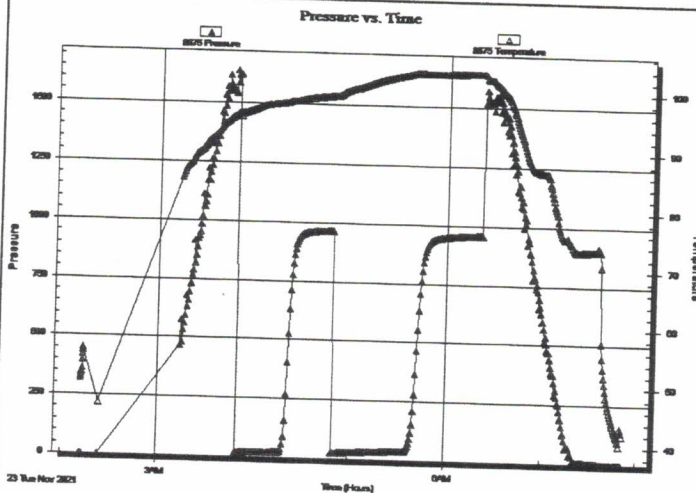
Serial #: 8875

Inside

Press@RunDepth: psig @ 3214.00 ft (KB)
 Start Date: 2021.11.23 End Date: 2021.11.23
 Start Time: 02:12:01 End Time: 07:51:52

Capacity: psig
 Last Calib.: 2021.11.23
 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Surface to 1.25" Died back to 1/2"
 30-ISI-No Return
 45-FF-Surface to 3/4"
 45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

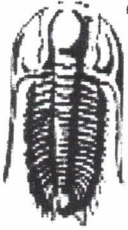
Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 50%M 50%W	0.85

* Recovery from multiple tests

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Dahlia Oil & Gas Co

32-17s-11w Barton,KS

2926 Canada Blvd
Glendale CA 91208+2078

Bortz 1-SB #32-1

Job Ticket: 68323

DST#: 2

ATTN: Jim Musgrove

Test Start: 2021.11.23 @ 02:12:00

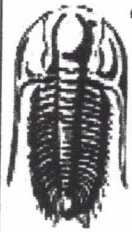
Tool Information

Drill Pipe:	Length: 3200.00 ft	Diameter: 3.82 inches	Volume: 45.36 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 42000.00 lb
			Total Volume: - bbl	Tool Chased ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 41000.00 lb
Depth to Top Packer:	3211.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	93.00 ft			
Tool Length:	114.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3191.00	
Change Over Sub	1.00			3192.00	
Shut In Tool	5.00			3197.00	
Hydraulic tool	5.00		Fluid	3202.00	
Packer	5.00			3207.00	21.00 Bottom Of Top Packer
Packer	4.00			3211.00	
Stubb	1.00			3212.00	
Perforations	1.00			3213.00	
Change Over Sub	1.00			3214.00	
Recorder	0.00	6838	Inside	3214.00	
Recorder	0.00	8875	Inside	3214.00	
Drill Pipe	63.00			3277.00	
Change Over Sub	1.00			3278.00	
Perforations	23.00			3301.00	
Bullnose	3.00			3304.00	93.00 Bottom Packers & Anchor
Total Tool Length:	114.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Dahlia Oil & Gas Co

32-17s-11w Barton,KS

2926 Canada Blvd
Glendale CA 91208+2078

Bortz 1-SB #32-1

Job Ticket: 68323

DST#: 2

ATTN: Jim Musgrove

Test Start: 2021.11.23 @ 02:12:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	38000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MW 50%M 50%W	0.851

Total Length: 60.00 ft Total Volume: 0.851 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: 1.5#LCM
RW=.538@25F

Serial #: 6838

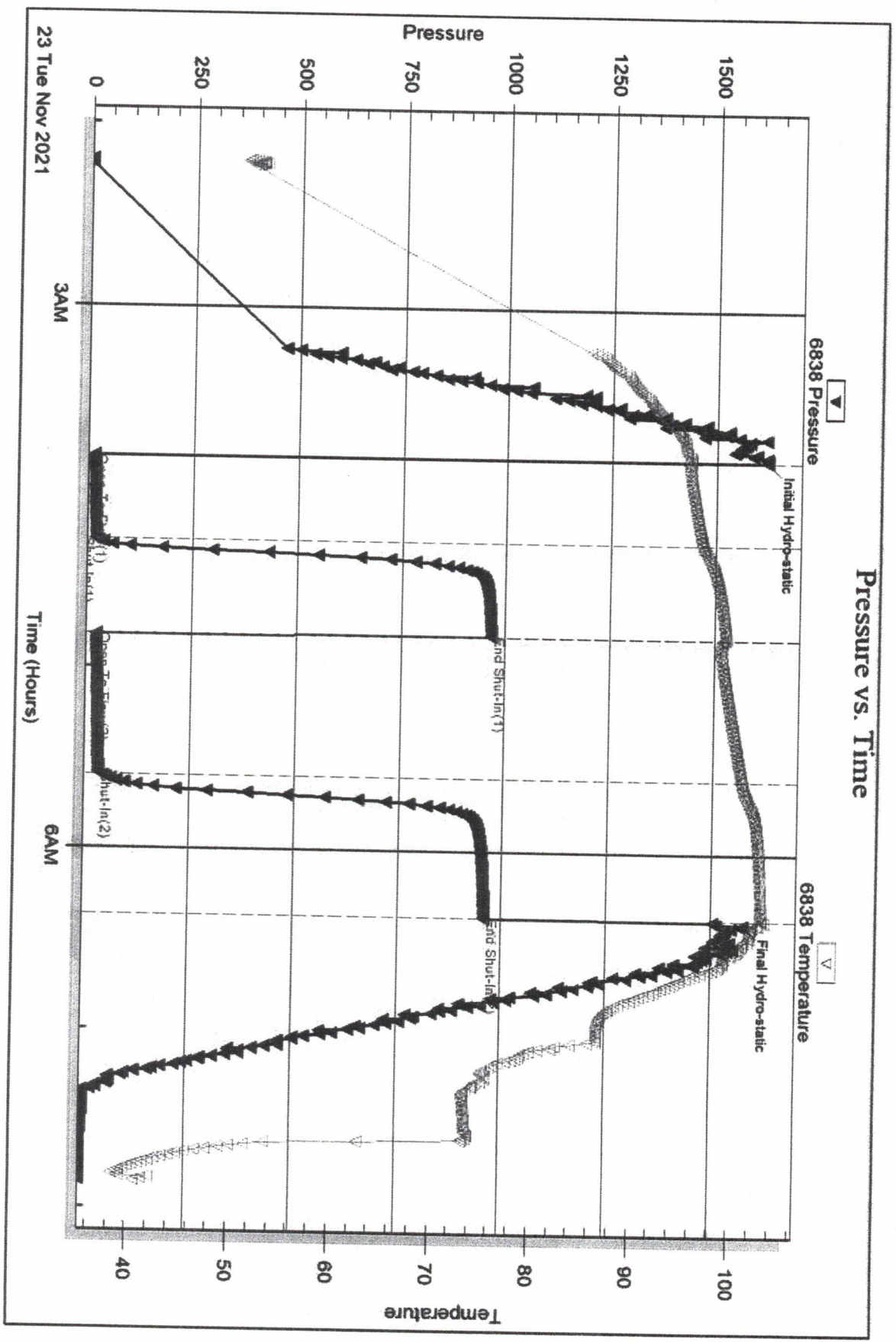
Inside

Black Dahlia Oil & Gas Co

Bortz 1-SB #32-1

DST Test Number: 2

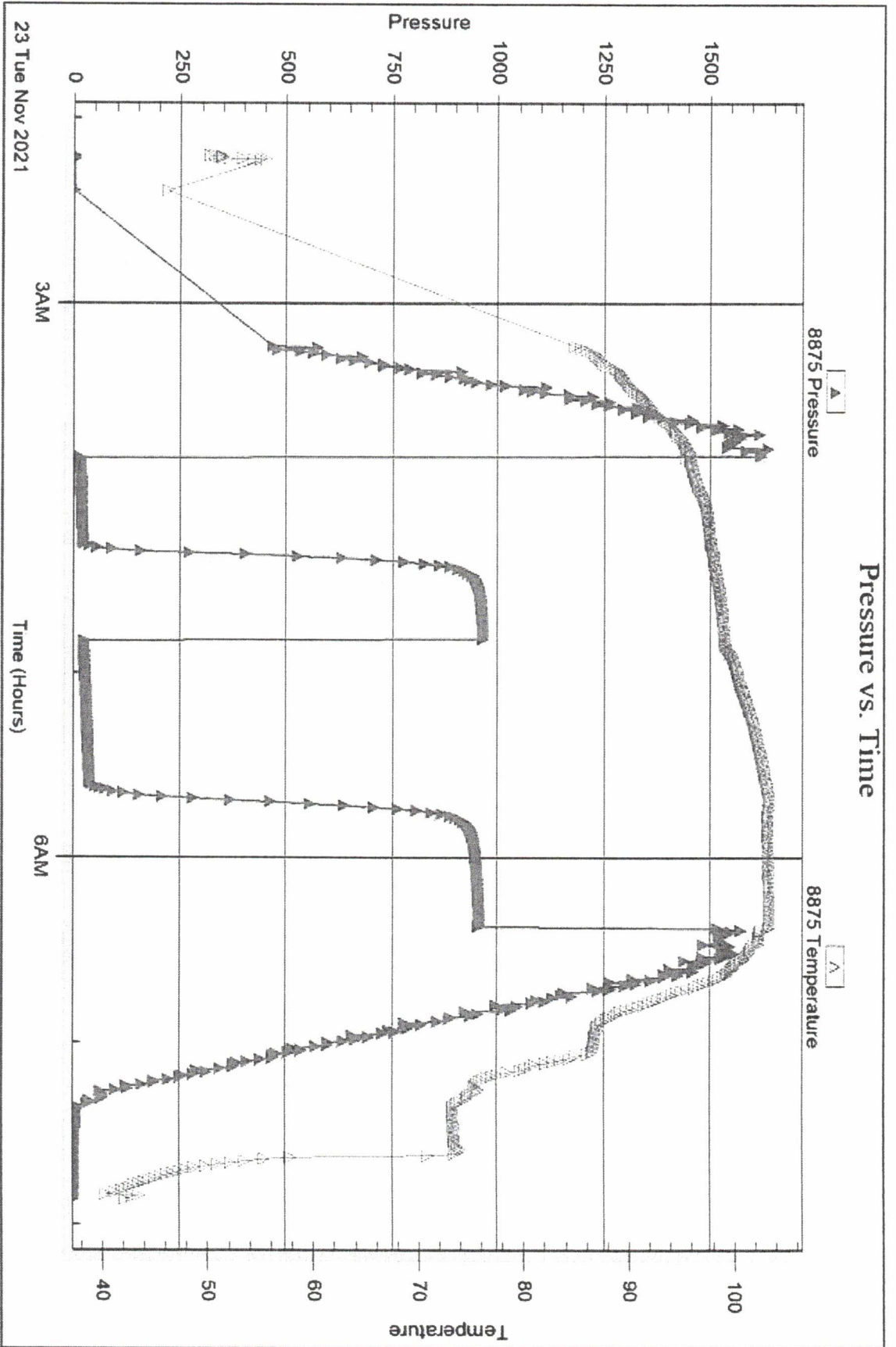
Pressure vs. Time

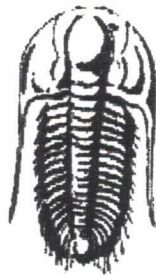


Triobite Testing, Inc

Ref. No: 68323

Printed: 2021.11.24 @ 14:00:35





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Black Dahlia Oil & Gas Co**

2926 Canada Blvd
Glendale CA 91208+2078

ATTN: Jim Musgrove

Bortz 1-SB #32-1

32-17s-11w Barton,KS

Start Date: 2021.11.23 @ 18:57:00

End Date: 2021.11.24 @ 00:53:32

Job Ticket #: 68324 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Black Dahlia Oil & Gas Co

32-17s-11w Barton, KS

2926 Canada Blvd
Glendale CA 91208+2078

Bortz 1-SB #32-1

Job Ticket: 68324

DST#: 3

ATTN: Jim Musgrove

Test Start: 2021.11.23 @ 18:57:00

GENERAL INFORMATION:

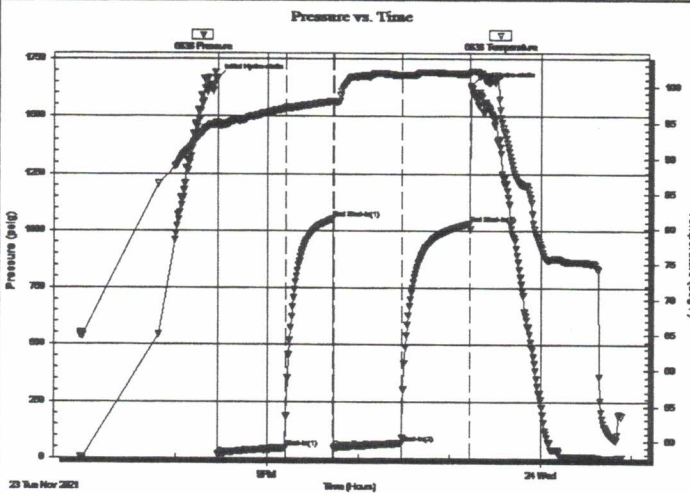
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 20:27:42 Tester: Spencer J Staab
 Time Test Ended: 00:53:32 Unit No: 84
 Interval: **3288.00 ft (KB) To 3359.00 ft (KB) (TVD)** Reference Elevations: 1827.00 ft (KB)
 Total Depth: 3359.00 ft (KB) (TVD) 1817.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 6838

Inside

Press@RunDepth: 66.96 psig @ 3292.00 ft (KB) Capacity: psig
 Start Date: 2021.11.23 End Date: 2021.11.24 Last Calib.: 2021.11.24
 Start Time: 18:57:01 End Time: 00:53:32 Time On Btm: 2021.11.23 @ 20:27:27
 Time Off Btm: 2021.11.23 @ 23:13:37

TEST COMMENT: 45-IF-Surface to 3.5"
 30-ISI-No Return
 45-FF-Surface to 4"
 45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1665.05	95.00	Initial Hydro-static
1	16.82	94.62	Open To Flow (1)
45	44.85	97.01	Shut-In(1)
76	1052.92	97.96	End Shut-In(1)
77	46.34	97.83	Open To Flow (2)
121	66.96	101.58	Shut-In(2)
166	1032.45	101.85	End Shut-In(2)
167	1630.79	102.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	SOCM 5%O 95%M	1.13
20.00	GO 10%G 90%O	0.28

* Recovery from multiple tests

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Black Dahlia Oil & Gas Co
 2926 Canada Blvd
 Glendale CA 91208+2078
 ATTN: Jim Musgrove

32-17s-11w Barton,KS

Bortz 1-SB #32-1

Job Ticket: 68324 **DST#: 3**

Test Start: 2021.11.23 @ 18:57:00

GENERAL INFORMATION:

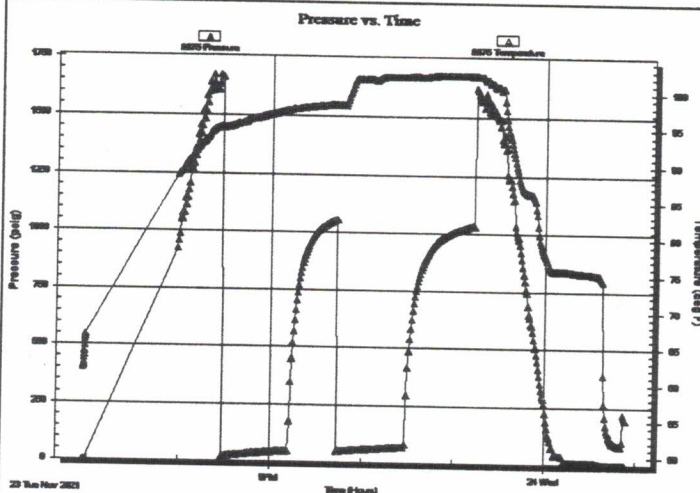
Formation: Arbuckle			Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock:		ft (KB)	Tester: Spencer J Staab
Time Tool Opened: 20:27:42			Unit No: 84
Time Test Ended: 00:53:32			Reference Elevations: 1827.00 ft (KB)
Interval: 3288.00 ft (KB) To 3359.00 ft (KB) (TVD)			1817.00 ft (CF)
Total Depth: 3359.00 ft (KB) (TVD)			KB to GR/CF: 10.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Fair		

Serial #: 8875

Inside

Press@RunDepth:	psig @	3292.00 ft (KB)	Capacity:	psig
Start Date:	2021.11.23	End Date:	2021.11.24	Last Calib.:
Start Time:	18:57:01	End Time:	00:53:32	Time On Btm:
				Time Off Btm:

TEST COMMENT: 45-IF-Surface to 3.5"
 30-ISI-No Return
 45-FF-Surface to 4"
 45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

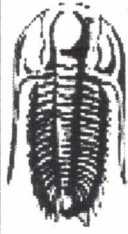
Recovery

Length (ft)	Description	Volume (bbl)
80.00	SOCM 5%O 95%M	1.13
20.00	GO 10%G 90%O	0.28

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Dahlia Oil & Gas Co
2926 Canada Blvd
Glendale CA 91208+2078
ATTN: Jim Musgrove

32-17s-11w Barton,KS
Bortz 1-SB #32-1
Job Ticket: 68324 **DST#: 3**
Test Start: 2021.11.23 @ 18:57:00

Tool Information

Drill Pipe:	Length: 3292.00 ft	Diameter: 3.82 inches	Volume: 46.67 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3288.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	71.00 ft			
Tool Length:	92.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3268.00	
Change Over Sub	1.00			3269.00	
Shut In Tool	5.00			3274.00	
Hydraulic tool	5.00		Fluid	3279.00	
Packer	5.00			3284.00	21.00 Bottom Of Top Packer
Packer	4.00			3288.00	
Stubb	1.00			3289.00	
Perforations	2.00			3291.00	
Change Over Sub	1.00			3292.00	
Recorder	0.00	6838	Inside	3292.00	
Recorder	0.00	8875	Inside	3292.00	
Drill Pipe	63.00			3355.00	
Change Over Sub	1.00			3356.00	
Bullnose	3.00			3359.00	71.00 Bottom Packers & Anchor

Total Tool Length: 92.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Dahlia Oil & Gas Co

32-17s-11w Barton,KS

2926 Canada Blvd
Glendale CA 91208+2078

Bortz 1-SB #32-1

ATTN: Jim Musgrove

Job Ticket: 68324

DST#: 3

Test Start: 2021.11.23 @ 18:57:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 6000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: 34 deg API

Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	SOCM 5%O 95%M	1.134
20.00	GO 10%G 90%O	0.284

Total Length: 100.00 ft Total Volume: 1.418 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

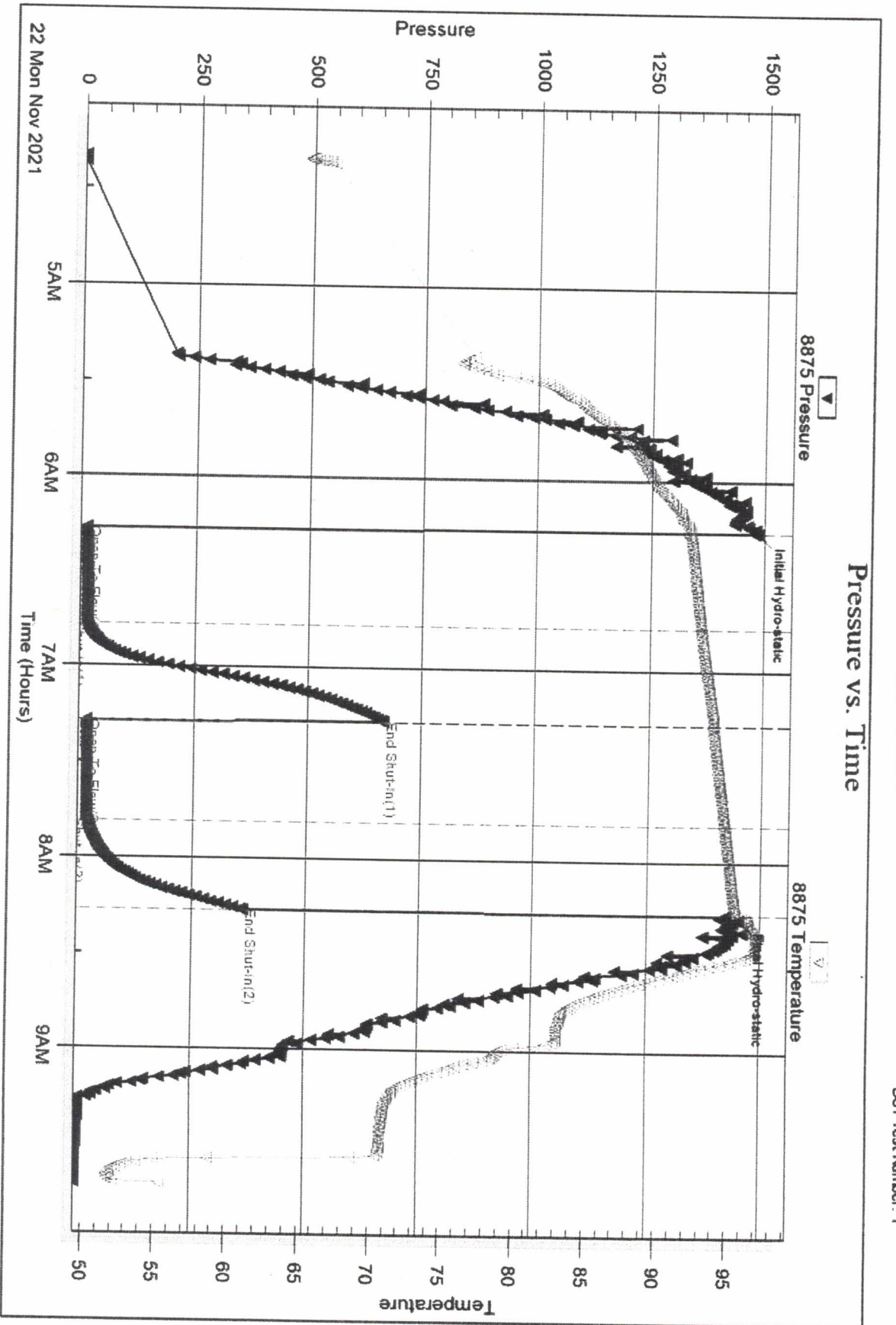
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1.5#LCM

Pressure vs. Time



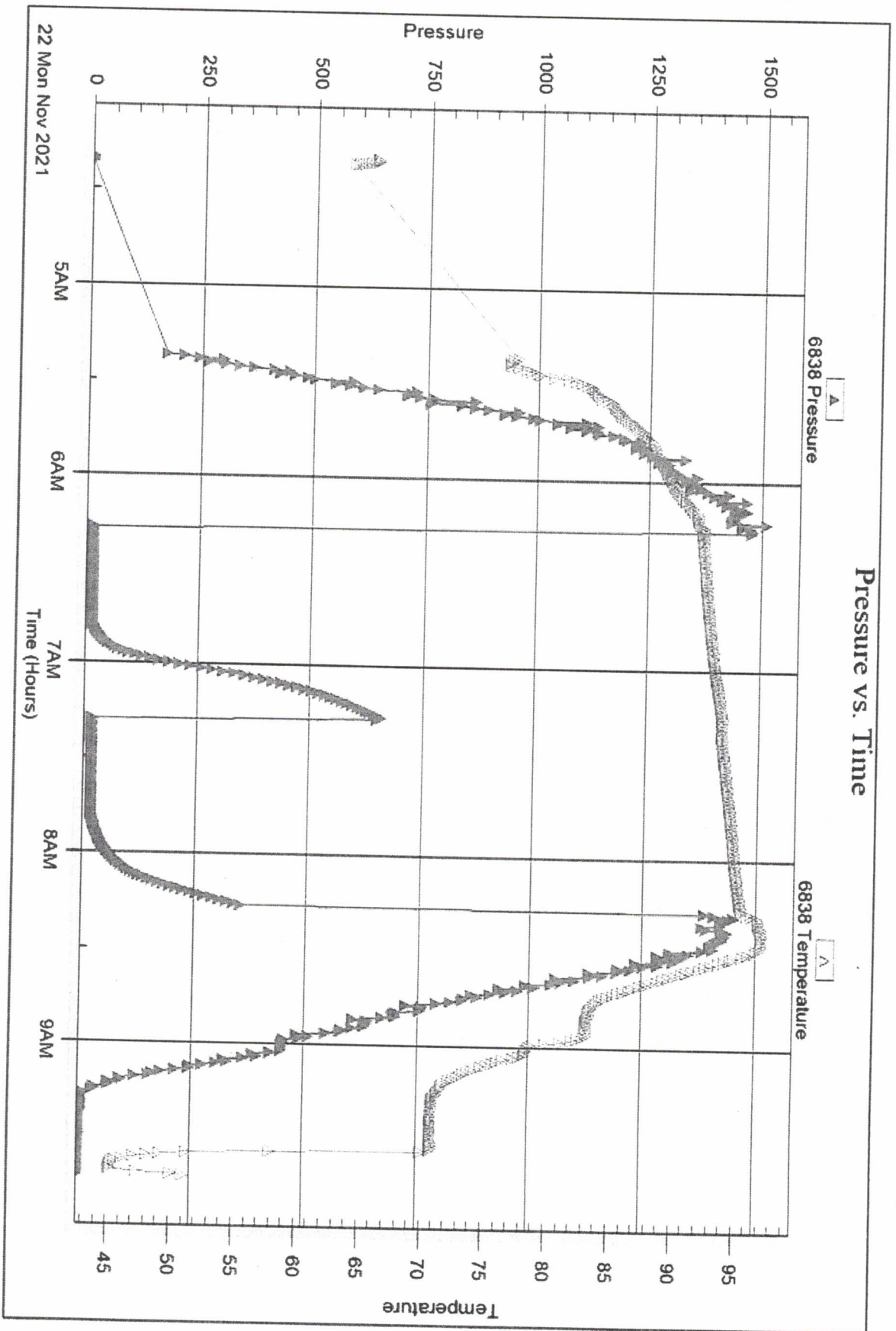
Serial #: 6838

Inside

Back Dahlia Oil & Gas Co

Bortz 1-SB #32-1

DST Test Number: 1



Trioble Testing, Inc

Ref. No: 68322

Printed 2021 11 24 @ 14:03:32

Serial #: 6838

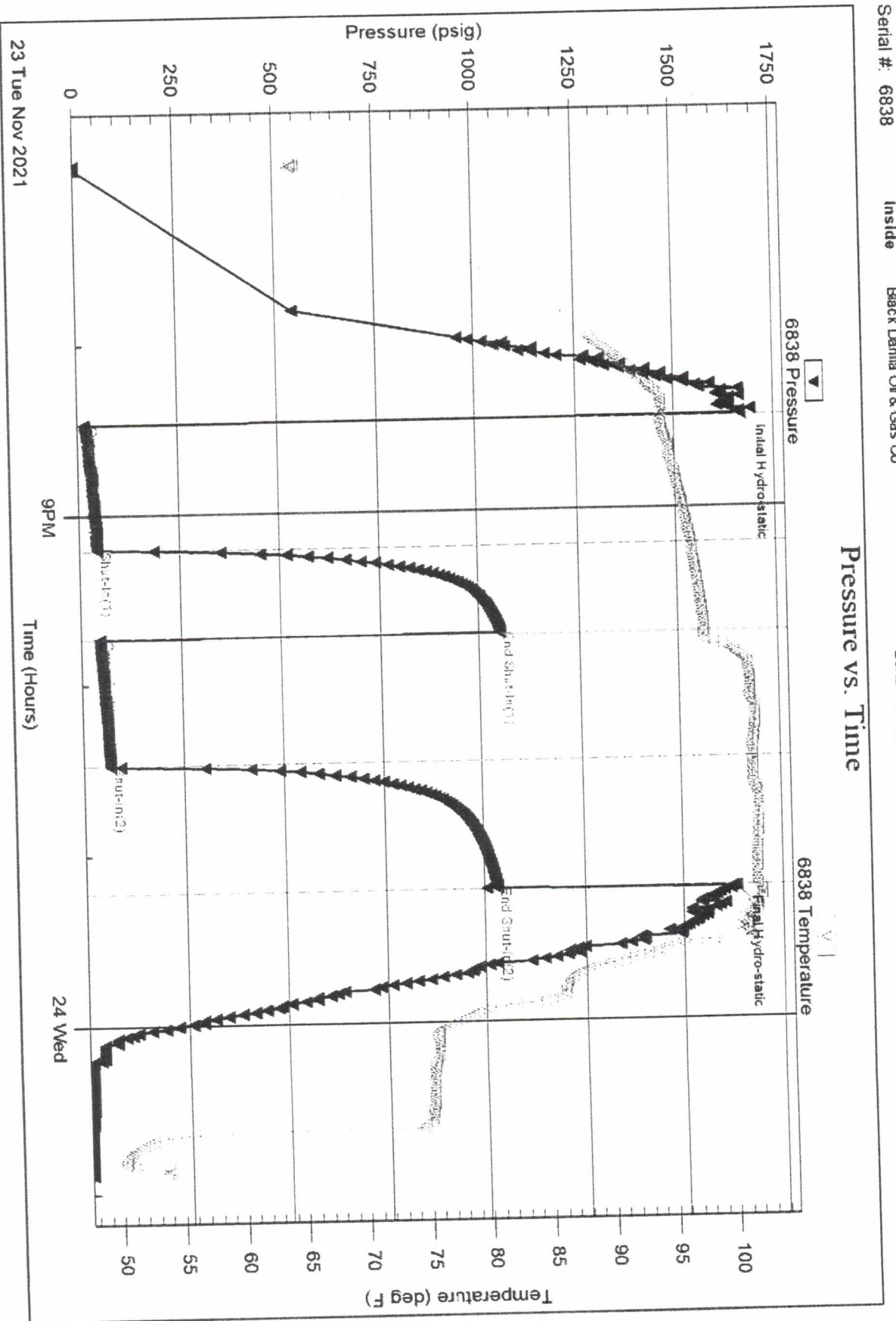
Inside

Black Dahlia Oil & Gas Co

Bortz 1-SB #32-1

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 68324

Printed 2021 11 24 @ 13 53 56

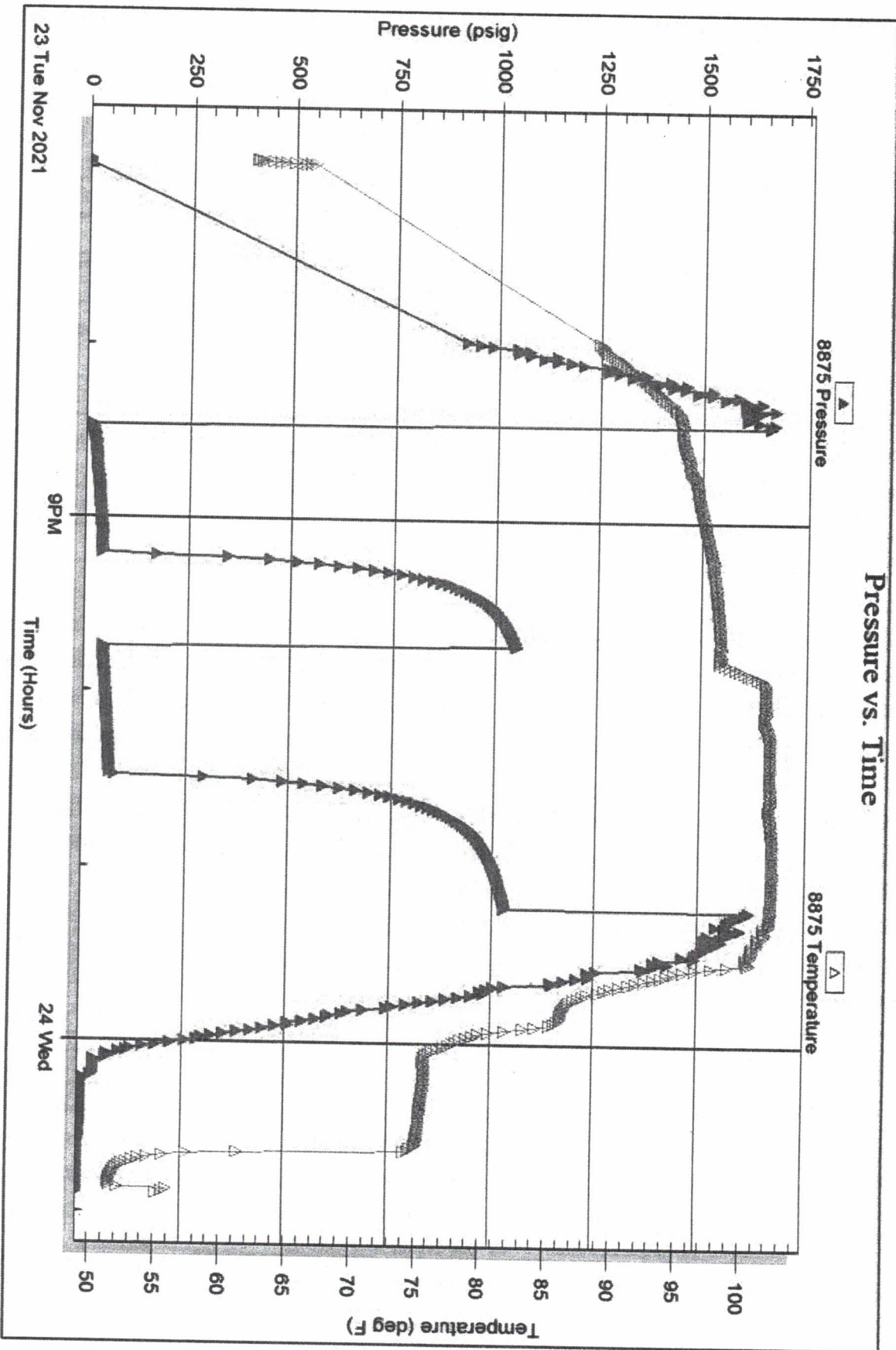
Serial #: 8875

Inside

Black Dahlia Oil & Gas Co

Bohr: 1-SB #32-1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 68324

Printed: 2021.11.24 @ 13:53:59



TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 68322

Well Name & No. Borty-1 SB # 32-1 Test No. 1 Date 11/22/2021
 Company A. Black Gallia Oil & Gas Co Elevation 1827 KB 1817 GL
 Address 2926 Canada Blvd - Glendale CA 91208 + 2078
 Co. Rep / Geo. Jim Musgrove Rig Southwind #1
 Location: Sec. 32 Twp 17s Rge. 11w Co. Barton State KS

Interval Tested 3048' - 3120' Zone Tested LKC B-7
 Anchor Length 72' Drill Pipe Run 3040' Mud Wt. 8.8
 Top Packer Depth 3043' Drill Collars Run - Vis 48
 Bottom Packer Depth 3048' Wt. Pipe Run - WL 8.8
 Total Depth 3120' Chlorides 2500 ppm System LCM 1 1/2#

Blow Description 57 - Surface to 1/4"
58 - No Return
77 - Surface Blow
78 - No Return

Rec	Feet of	%gas	%oil	%water	%mud
10'	ASM			100	

Rec Total 10' BHT 95° Gravity - API RW - @ - F Chlorides - ppm

(A) Initial Hydrostatic 1487 Test 1300 T-On Location 03:00
 (B) First Initial Flow 13 Jars _____ T-Started 04:20
 (C) First Final Flow 16 Safety Joint _____ T-Open 06:15
 (D) Initial Shut-In 666 Circ Sub _____ T-Pulled 08:15
 (E) Second Initial Flow 17 Hourly Standby _____ T-Out 09:42
 (F) Second Final Flow 20 Mileage 131 RT 162.50 Comments _____
 (G) Final Shut-In 365 Sampler _____
 (H) Final Hydrostatic 1453 Straddle _____

Initial Open 30 Shale Packer _____
 Initial Shut-In 30 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 30 Day Standby _____
 Sub Total 1462.50 Accessibility _____
 Total 1462.50 EM Tool _____
 MP/DST Disc't _____ Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1462.50

Approved By _____ Our Representative _____
 Tribolite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 68323

Well Name & No. Borty-1 S.B. #32-1 Test No. 2 Date 11/23/2021
 Company Black Dahlia Oil & Gas Co Elevation 1827 KB 1817 GL
 Address 2926 Canada Blvd Mendota CA 91708 + 2078
 Co. Rep / Geo. Jim Musgrove Rig Southwind #1
 Location: Sec. 32 Twp 174 Rge. 11w Co. Barton State Ks

Interval Tested 3211' - 3304' Zone Tested LAC
 Anchor Length 93' Drill Pipe Run 3200' Mud Wt. 9.1
 Top Packer Depth 3206' Drill Collars Run - Vls .50
 Bottom Packer Depth 3211' Wt. Pipe Run - WL 8.8
 Total Depth 3304' Chlorides 3000 ppm System LCM 1 1/2#

Blow Description: 77 - Surface to 1 1/4"; Died back to 1/2"
78 - No Return
77 - Surface to 3/4"
78 - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>60'</u>	<u>MLW</u>		<u>50</u>	<u>50</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 60' BHT 10:30 Gravity - API RW .535 @ 25° F Chlorides 38,000 ppm

(A) Initial Hydrostatic 1618 Test 1300 T-On Location 01:17
 (B) First Initial Flow 14 Jars - T-Started 02:12
 (C) First Final Flow 21 Safety Joint - T-Open 03:47
 (D) Initial Shut-In 966 Circ Sub - T-Pulled 06:17
 (E) Second Initial Flow 24 Hourly Standby - T-Out 07:50
 (F) Second Final Flow 33 Mileage 130.27 162.50 Comments -
 (G) Final Shut-In 957 Sampler -
 (H) Final Hydrostatic 1573 Straddle -

EM Tool -
 Ruined Shale Packer -
 Ruined Packer -
 Extra Copies -
 Sub Total 0
 Total 1462.50
 MP/DST Disc't -

Approved By _____ Our Representative _____

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 68324

Well Name & No. Borty - 1 SB #32-1 Test No. 3 Date 11/23/2021
 Company Black Dahlia Oil & Gas Elevation 1827 KB 1817 GL
 Address 2926 Canada Blvd Mendocino CA 91208 + 2078
 Co. Rep / Geo. Jim Musgrove Rig Southwind #1
 Location: Sec. 32 Twp 17S Rge. 11W Co. Barton State KS

Interval Tested 3288' - 3359' Zone Tested Arbuckle
 Anchor Length 71' Drill Pipe Run 3292' Mud Wt. 9.2
 Top Packer Depth 3283' Drill Collars Run — Vis .50
 Bottom Packer Depth 3288' Wt. Pipe Run — WL 8.8
 Total Depth 3359' Chlorides 6000 ppm System LCM 1 1/2#

Blow Description 77 - Surface to 3 1/2"
78 - No Return
79 - Surface to 4"
78 - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>80'</u>	<u>Secm</u>	<u>5</u>	<u>95</u>	<u>—</u>	<u>—</u>
<u>20'</u>	<u>GC</u>	<u>10</u>	<u>90</u>	<u>—</u>	<u>—</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 100' BHT 101° Gravity .340 API RW — @ — °F Chlorides — ppm
 Test 1300 T-On Location 18:22
 Jars _____ T-Started 18:57
 Safety Joint _____ T-Open 20:25
 Circ Sub _____ T-Pulled 23:10
 Hourly Standby _____ T-Out 00:51
 Mileage 130.27 @ 162.50+ Comments Loaded @ 8:30
 Sampler 162.50 11/24/2021
 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1625 MP/DST Disc't _____

Initial Open 45
 Initial Shut-In 30
 Final Flow 45
 Final Shut-In 30

Sub Total 0
 Total 1625

For KCC Use: Effective Date: 10/30/2021
District # 4
SGA? Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

NOTICE OF INTENT TO DRILL

Must be approved by KCC five (5) days prior to commencing well

Form KSONA-1, Certification of Compliance with the Kansas Surface Owner Notification Act, MUST be submitted with this form.

Expected Spud Date: 11/05/2021
month day year

OPERATOR: License# 30795
Name: Black Dahlia Oil & Gas Co.
Address 1: 2926 Canada Blvd
Address 2:
City: Glendale State: CA Zip: 91208 + 2078
Contact Person: William Hafeman
Phone: 818-399-5066

CONTRACTOR: License# 33350
Name: Southwind Drilling, Inc.

Spot Description:
SW - NW - SE - NW Sec. 32 Twp. 17 S. R. 11 E W
(a/a/a/a) 1850 feet from N / S Line of Section
1400 feet from E / W Line of Section

Is SECTION: Regular Irregular?
(Note: Locate well on the Section Plat on reverse side)

County: Barton
Lease Name: Bortz-1 Well #: SBS 32-1
Field Name: Unnamed

Is this a Prorated / Spaced Field? Yes No
Target Formation(s): Arbuckle

Nearest Lease or unit boundary line (in footage): 790
Ground Surface Elevation: 1817 Estimated feet MSL

Water well within one-quarter mile: Yes No
Public water supply well within one mile: Yes No

Depth to bottom of fresh water: 180
Depth to bottom of usable water: 260

Surface Pipe by Alternate: I II
Length of Surface Pipe Planned to be set: 400

Length of Conductor Pipe (if any):
Projected Total Depth: 3450

Formation at Total Depth: Arbuckle

Water Source for Drilling Operations:
 Well Farm Pond Other:

DWR Permit #: (Note: Apply for Permit with DWR)

Will Cores be taken? Yes No
If Yes, proposed zone:

Well Drilled For: Well Class: Type Equipment:

- Oil Enh Rec Infield Mud Rotary
- Gas Storage Pool Ext. Air Rotary
- Seismic; # of Holes Wildcat Cable
- Other: Other

If OWWO: old well information as follows:
Operator:
Well Name:
Original Completion Date: Original Total Depth:

Directional, Deviated or Horizontal wellbore? Yes No
If Yes, true vertical depth:
Bottom Hole Location:
KCC DKT #:

AFFIDAVIT

The undersigned hereby affirms that the drilling, completion and eventual plugging of this well will comply with K.S.A. 55 et. seq.

It is agreed that the following minimum requirements will be met:

1. Notify the appropriate district office prior to spudding of well;
2. A copy of the approved notice of intent to drill shall be posted on each drilling rig;
3. The minimum amount of surface pipe as specified below shall be set by circulating cement to the top; in all cases surface pipe shall be set through all unconsolidated materials plus a minimum of 20 feet into the underlying formation.
4. If the well is dry hole, an agreement between the operator and the district office on plug length and placement is necessary prior to plugging;
5. The appropriate district office will be notified before well is either plugged or production casing is cemented in;
6. If an ALTERNATE II COMPLETION, production pipe shall be cemented from below any usable water to surface within 120 DAYS of spud date. Or pursuant to Appendix "B" - Eastern Kansas surface casing order #133,891-C, which applies to the KCC District 3 area, alternate II cementing must be completed within 30 days of the spud date or the well shall be plugged. In all cases, NOTIFY district office prior to any cementing.

Submitted Electronically

For KCC Use ONLY
API # 15 - 15-009-26319-00-00
Conductor pipe required 0 feet
Minimum surface pipe required 280 feet per ALT. I II
Approved by: Rick Hestermann 11/09/2021
This authorization expires: 10/25/2022
(This authorization void if drilling not started within 12 months of approval date.)
Spud date: Agent:

Remember to:

- File Certification of Compliance with the Kansas Surface Owner Notification Act (KSONA-1) with Intent to Drill;
- File Drill Pit Application (form CDP-1) with Intent to Drill;
- File Completion Form ACO-1 within 120 days of spud date;
- File acreage attribution plat according to field proration orders;
- Notify appropriate district office 48 hours prior to workover or re-entry;
- Submit plugging report (CP-4) after plugging is completed (within 60 days);
- Obtain written approval before disposing or injecting salt water.
- If well will not be drilled or permit has expired (See: authorized expiration date) please check the box below and return to the address below.

Well will not be drilled or Permit Expired Date:
Signature of Operator or Agent:

32 17 11 E W

For KCC Use ONLY
API # 15 - 15-009-26319-00-00

IN ALL CASES PLOT THE INTENDED WELL ON THE PLAT BELOW

In all cases, please fully complete this side of the form. Include items 1 through 5 at the bottom of this page.

Operator: Black Dahlia Oil & Gas Co.
Lease: Bortz-1
Well Number: SBS 32-1
Field: Unnamed
Number of Acres attributable to well: _____
QTR/QTR/QTR/QTR of acreage: SW - NW - SE - NW

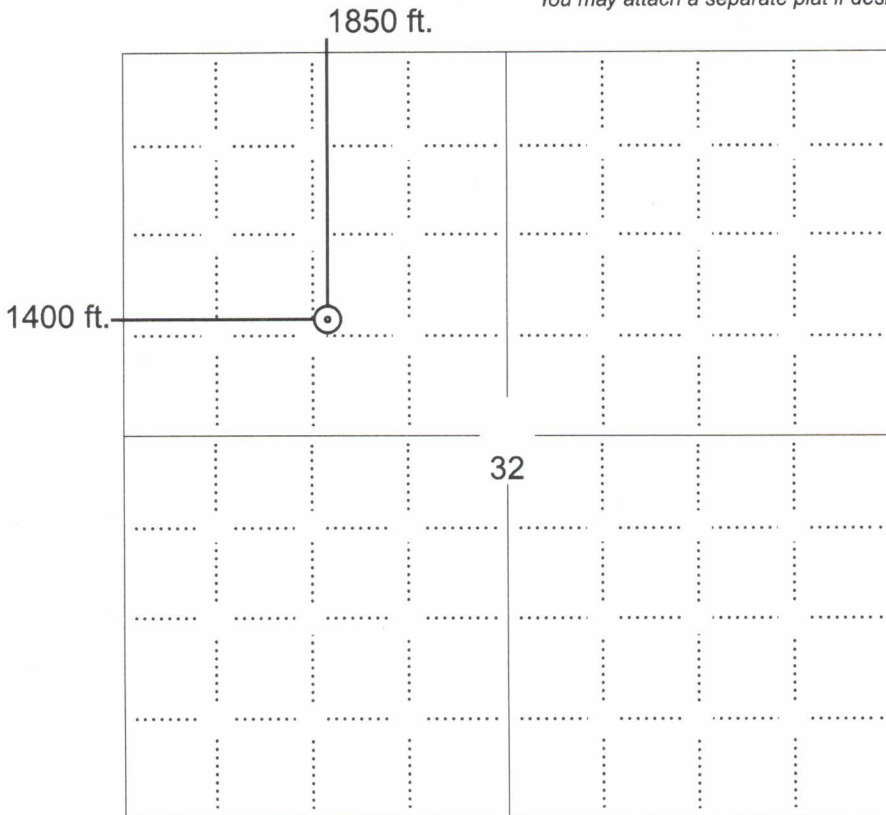
Location of Well: County: Barton
1850 _____ feet from N / S Line of Section
1400 _____ feet from E / W Line of Section
Sec. 32 Twp. 17 S. R. 11 E W

Is Section: Regular or Irregular

If Section is Irregular, locate well from nearest corner boundary.
Section corner used: NE NW SE SW

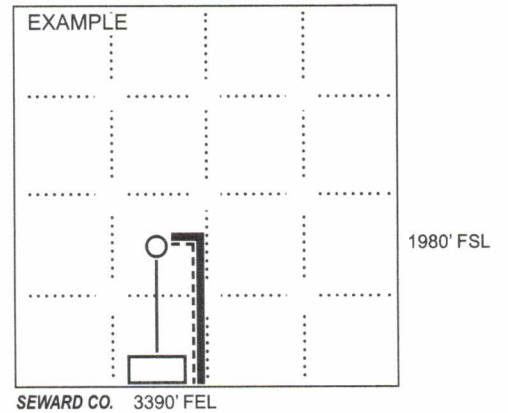
PLAT

Show location of the well. Show footage to the nearest lease or unit boundary line. Show the predicted locations of lease roads, tank batteries, pipelines and electrical lines, as required by the Kansas Surface Owner Notice Act (House Bill 2032).
You may attach a separate plat if desired.



LEGEND

- Well Location
- Tank Battery Location
- Pipeline Location
- Electric Line Location
- Lease Road Location



NOTE: In all cases locate the spot of the proposed drilling location.

In plotting the proposed location of the well, you must show:

1. The manner in which you are using the depicted plat by identifying section lines, i.e. 1 section, 1 section with 8 surrounding sections, 4 sections, etc.
2. The distance of the proposed drilling location from the south / north and east / west outside section lines.
3. The distance to the nearest lease or unit boundary line (in footage).
4. If proposed location is located within a prorated or spaced field a certificate of acreage attribution plat must be attached: (CO-7 for oil wells; CG-8 for gas wells).
5. The predicted locations of lease roads, tank batteries, pipelines, and electrical lines.

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISIONForm CDP-1
May 2010
Form must be Typed

APPLICATION FOR SURFACE PIT

Submit in Duplicate

Operator Name: Black Dahlia Oil & Gas Co.		License Number: 30795	
Operator Address: 2926 Canada Blvd		Glendale CA 91208	
Contact Person: William Hafeman		Phone Number: 818-399-5066	
Lease Name & Well No.: Bortz-1 SBS 32-1		Pit Location (QQQQ): SW - NW - SE - NW	
Type of Pit: <input type="checkbox"/> Emergency Pit <input type="checkbox"/> Burn Pit <input type="checkbox"/> Settling Pit <input checked="" type="checkbox"/> Drilling Pit <input type="checkbox"/> Workover Pit <input type="checkbox"/> Haul-Off Pit <i>(If WP Supply API No. or Year Drilled)</i>	Pit is: <input checked="" type="checkbox"/> Proposed <input type="checkbox"/> Existing If Existing, date constructed: _____ Pit capacity: 2226 (bbls)	Sec. 32 Twp. 17 R. 11 <input type="checkbox"/> East <input checked="" type="checkbox"/> West 1850 Feet from <input checked="" type="checkbox"/> North / <input type="checkbox"/> South Line of Section 1400 Feet from <input type="checkbox"/> East / <input checked="" type="checkbox"/> West Line of Section Barton County	
Is the pit located in a Sensitive Ground Water Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Chloride concentration: _____ mg/l <i>(For Emergency Pits and Settling Pits only)</i>	
Is the bottom below ground level? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Artificial Liner? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	How is the pit lined if a plastic liner is not used? Sealed with Bentonite	
Pit dimensions (all but working pits): 50 Length (feet) 50 Width (feet) <input type="checkbox"/> N/A: Steel Pits		Depth from ground level to deepest point: 5 (feet) <input type="checkbox"/> No Pit	
If the pit is lined give a brief description of the liner material, thickness and installation procedure.		Describe procedures for periodic maintenance and determining liner integrity, including any special monitoring.	
Distance to nearest water well within one-mile of pit: 1446 feet Depth of water well 133 feet		Depth to shallowest fresh water 38 feet. Source of information: <input type="checkbox"/> measured <input type="checkbox"/> well owner <input type="checkbox"/> electric log <input checked="" type="checkbox"/> KDWR	
Emergency, Settling and Burn Pits ONLY: Producing Formation: _____ Number of producing wells on lease: _____ Barrels of fluid produced daily: _____ Does the slope from the tank battery allow all spilled fluids to flow into the pit? <input type="checkbox"/> Yes <input type="checkbox"/> No		Drilling, Workover and Haul-Off Pits ONLY: Type of material utilized in drilling/workover: Drilling Mud Number of working pits to be utilized: 3 Abandonment procedure: Allow contents to evaporate and backfill. Drill pits must be closed within 365 days of spud date.	
Submitted Electronically			

KCC OFFICE USE ONLY

Date Received: **11/09/2021** Permit Number: **15-009-26319-00-00** Permit Date: **10/25/2021** Lease Inspection: Yes No

Liner Steel Pit RFAC RFAS

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form KSONA-1
January 2014
Form Must Be Typed
Form must be Signed
All blanks must be Filled

**CERTIFICATION OF COMPLIANCE WITH THE
KANSAS SURFACE OWNER NOTIFICATION ACT**

This form must be submitted with all Forms C-1 (Notice of Intent to Drill); CB-1 (Cathodic Protection Borehole Intent); T-1 (Request for Change of Operator Transfer of Injection or Surface Pit Permit); and CP-1 (Well Plugging Application). Any such form submitted without an accompanying Form KSONA-1 will be returned.

Select the corresponding form being filed: C-1 (Intent) CB-1 (Cathodic Protection Borehole Intent) T-1 (Transfer) CP-1 (Plugging Application)

OPERATOR: License # 30795
Name: Black Dahlia Oil & Gas Co.
Address 1: 2926 Canada Blvd
Address 2: _____
City: Glendale State: CA Zip: 91208 + 2078
Contact Person: William Hafeman
Phone: (818) 399-5066 Fax: (_____) _____
Email Address: marcwaveman@gmail.com

Well Location:
SW NW SE NW Sec. 32 Twp. 17 S. R. 11 East West
County: Barton
Lease Name: Bortz-1 Well #: SBS 32-1

If filing a Form T-1 for multiple wells on a lease, enter the legal description of the lease below:

Surface Owner Information:

Name: Aaron Bortz
Address 1: 1107 NE 120 Rd
Address 2: _____
City: Claffin State: KS Zip: 67525 + _____

When filing a Form T-1 involving multiple surface owners, attach an additional sheet listing all of the information to the left for each surface owner. Surface owner information can be found in the records of the register of deeds for the county, and in the real estate property tax records of the county treasurer.

If this form is being submitted with a Form C-1 (Intent) or CB-1 (Cathodic Protection Borehole Intent), you must supply the surface owners and the KCC with a plat showing the predicted locations of lease roads, tank batteries, pipelines, and electrical lines. The locations shown on the plat are preliminary non-binding estimates. The locations may be entered on the Form C-1 plat, Form CB-1 plat, or a separate plat may be submitted.

Select one of the following:

I certify that, pursuant to the Kansas Surface Owner Notice Act (House Bill 2032), I have provided the following to the surface owner(s) of the land upon which the subject well is or will be located: 1) a copy of the Form C-1, Form CB-1, Form T-1, or Form CP-1 that I am filing in connection with this form; 2) if the form being filed is a Form C-1 or Form CB-1, the plat(s) required by this form; and 3) my operator name, address, phone number, fax, and email address.

I have not provided this information to the surface owner(s). I acknowledge that, because I have not provided this information, the KCC will be required to send this information to the surface owner(s). To mitigate the additional cost of the KCC performing this task, I acknowledge that I must provide the name and address of the surface owner by filling out the top section of this form and that I am being charged a \$30.00 handling fee, payable to the KCC, which is enclosed with this form.

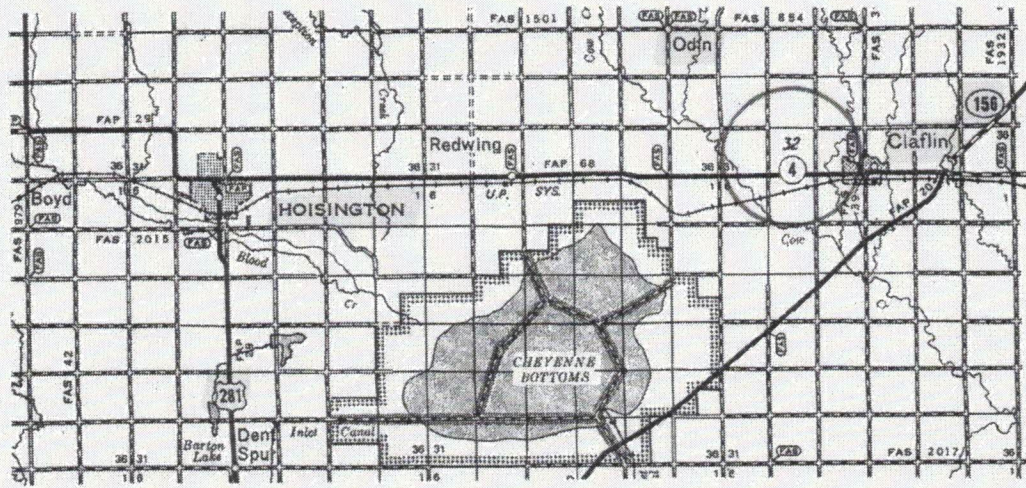
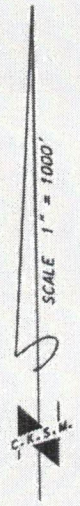
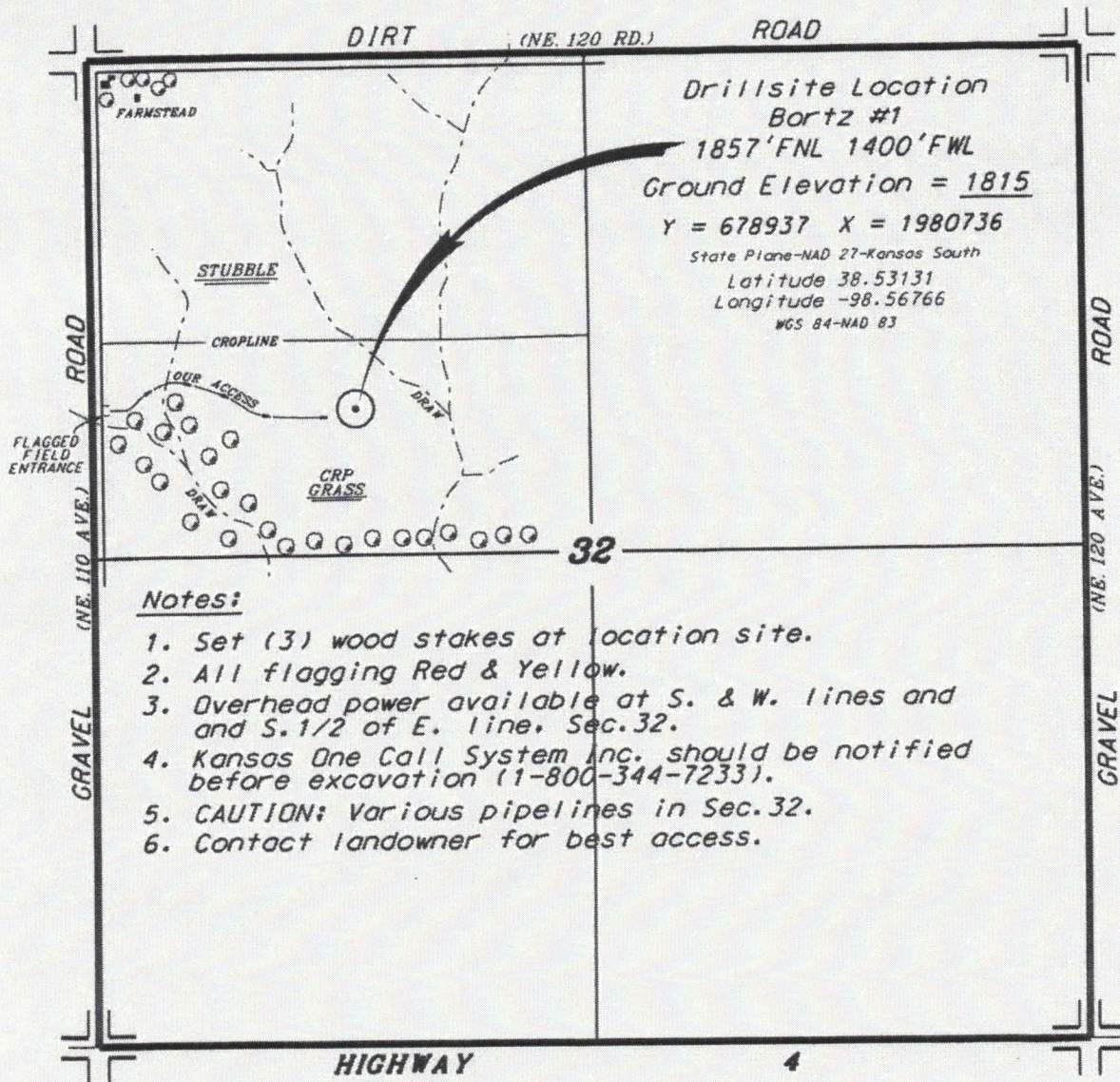
If choosing the second option, submit payment of the \$30.00 handling fee with this form. If the fee is not received with this form, the KSONA-1 form and the associated Form C-1, Form CB-1, Form T-1, or Form CP-1 will be returned.

I Submitted Electronically

I

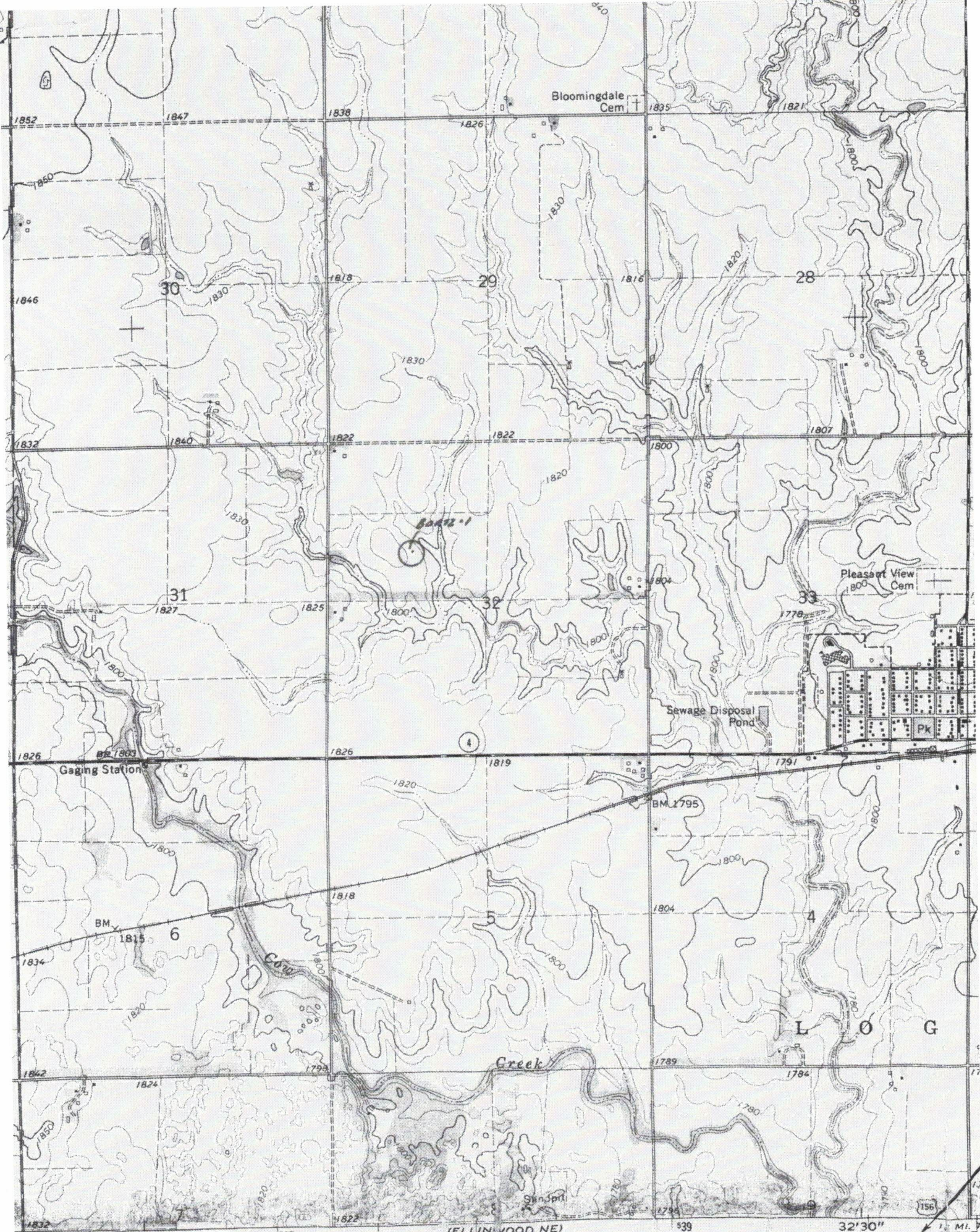
**BLACK DAHLIA OIL & GAS COMPANY
BORTZ LEASE
NW. 1/4, SECTION 32, T17S, R11W
BARTON COUNTY, KANSAS**

*Ingress and egress to location as shown on this plat is per usage only and may not be legally opened for public use. Contact landowner, tenant and county road department for access.



• Controlling data is based upon the best maps and photographs available to us and upon a regular section of land containing 640 acres.
 • Approximate section lines were determined using the normal standard of care of oilfield surveyors practicing in the state of Kansas. The section corners, which establish the precise section lines, were not necessarily located, and the exact location of the drillsite location in the section is not guaranteed. Therefore, the operator securing this service and accepting this plat and all other parties relying thereon agree to hold Central Kansas Oilfield Services, Inc., its officers and employees harmless from all losses, costs and expenses and said entities released from any liability from incidental or consequential damages.
 • Elevations derived from National Geodetic Vertical Datum.

Date **October 22, 2021**



R. 11 W. 536

35'

537

(ELLIN WOOD NE)
62° 0' 1" NE
SCALE 1:24 300

539

32' 30"

1 1/2 MI. TO GREAT

Summary of Changes

Lease Name and Number: Bortz-1 SBS 32-1

API/Permit #: 15-009-26319-00-00

Doc ID: 1598578

Correction Number: 1

Approved By: Rick Hestermann 11/09/2021

Field Name	Previous Value	New Value
Contractor License Number	34743	33350
Contractor Name	White Knight Drilling LLC	Southwind Drilling, Inc.
KCC Only - Approved By	CeLena Peterson 10/25/2021	Rick Hestermann 11/09/2021
KCC Only - Approved Date	10/25/2021	11/09/2021
KCC Only - Date Received	10/22/2021	11/09/2021
Lease Name	SBS 32-1	Bortz-1

Summary of Attachments

Lease Name and Number: Bortz-1 SBS 32-1

API: 15-009-26319-00-00

Doc ID: 1598578

Correction Number: 1

Approved By: Rick Hestermann 11/09/2021

Attachment Name

Plat Plan for Bortz

MORNING DRILLING REPORT

SOUTHWIND DRILLING, INC.

For: Black Dahlia Oil & Gas Co

RIG No. 1

Well Name: Bortz 1 #SBS 32-1
 Location: 1850' FNL & 1400' FWL
 Section: 32-17S-11W
 County: Barton
 API: 15-009-26319-00-00

GL Elevation: 1815' Rig No. 1 (Pusher Frank Rome) 620-566-7324
 KB: 1825' Rig No. 1 (Doghouse) 620-566-7094
 Est. TD: 3450' Southwind Drilling Office 620-564-3800
 Surface Pipe: 400'
 Surface Casing: Ran 7 joints of used 20#, 8 5/8" casing, tally @ 306', set @ 318', used 180 sacks of 60/40, 4% cc, 2% gel, cement circulated, by Quality, ticket #2614, plug down @ 11:30pm on 11.18.21.



Plugging Info: Plugged well with 230 sacks of 60/40, 4% gel, 1/2# flo-seal, 1st plug @ 3325' w/ 50 sacks, 2nd plug @ 700' w/ 50 sacks, 3rd plug @ 375' w/ 75 sacks, 4th plug @ 40' w/ 10 sacks & wiper plug, 30 sacks for RH, 15 sacks for MH, by Quality, ticket #2815, completed @ 7:30pm on 11.24.21.

Rotary Total Depth: 3400'
 Log Total Depth: 3405' Geologist: Jim Musgrove

7:00 A.M. Depth: 3400'

CURRENT OPERATION: TEAR DOWN

Spud Date & Time:	11/18/21	11/19/21	11/20/21	11/21/21	11/22/21	11/23/21	11/24/21	11/25/21	Total
11/18/21 @ 4:30pm	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	
Total Depth (7:00am)	0	319	1878	2766	3120	3304	3372	3400	3400
Daily Progress	319	1559	888	354	184	68	28		49.45
Ft. Per Hr.	91.14	78.94	41.30	25.75	25.38	24.73	112.00		
Current Operation (7:00am)	Rig Up	WOC	Drilling	Drilling	DST #1	TOWT	Drilling		
Formation	Surface	Shale	Shale	Shale	Shale	LKC	Arbuckle		
Fuel Used (39.6 Gal/Inch)	158.40	435.60	356.40	396.00	297.00	237.60	138.60		2019.60
Survey (degree & depth)	1° @ 319'				3/4° @ 3120'				
Mud Cost	\$0.00	\$1,411.85	\$0.00	\$3,923.30	\$1,016.65	\$0.00			\$6,351.80
Weight (# / Gal)		9.2	8.7		9.2	9.2			
Vis (Funnel)			54		56	50			
Water Loss (cc)			7.2						
Bit #1									
Bit Make / Type	JZ RT								
Bit Size	12 1/4								3.50
Bit Hours	3.50								
Bit #2									
Bit Make / Type		JZ HA23C	JZ HA23C	JZ HA23C	JZ HA23C	JZ HA23C	JZ HA23C		
Bit Size		7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	7 7/8		
Bit Hours		19.75	21.50	13.75	7.25	2.75	0.25		65.25
Bit Cumulative Hours	3.50	19.75	21.50	13.75	7.25	2.75	0.25	0.00	68.75
Weight on Bit (WOB)		30,000	30,000	34,000	30,000	32,000			
Pump Pressure		760		840	700	720			
Drilling (Rotating) Hours	3.50	19.75	21.50	13.75	7.25	2.75	0.25	0.00	68.75
Daywork Hrs. (Operator's time)									
Rat Hole (>.75 Hrs)									0.00
Wait on Cement	7.50	0.50							8.00
Short Trip				1.25					1.25
Trip				3.00	5.50	7.25	2.75		18.50
Circulate				4.50	6.25	9.75	1.25		21.75
Tool				0.25	1.00	1.00			2.25
Testing				0.75	3.75	2.75			7.25
Cl Floor after DST / Dump Oil									0.00
Logging							4.00		4.00
Survey (Operator Request)									0.00
LDDP / LDCC							3.50		3.50
Wait on Tester									0.00
Run Casing / Circ / Cement	1.50								1.50
Jet Cellar / Set Slips									0.00
Nipple Down							0.75		0.75
Billable Hours	9.00	0.50	0.00	9.75	16.50	20.75	12.25	0.00	68.75
Non-Billable Hours (Southwind's time)									
Rig Up / Tear Down	9.00						3.50		12.50
Wait on Cement (NB)									0.00
Drill Rat Hole (<.75 hrs)	0.50								0.50
Drill Plug									0.00
Bit Trip									0.00
Circulate / Trip (Surface)	0.50								0.50
Rig Repair						0.50			0.50
Connections	1.00	3.00	1.50	0.50	0.25				6.25
Jet/Displace	0.25	0.75	1.00						2.00
Surveys	0.25								0.25
Rig Check									0.00
Circulate / Trip (NB)									0.00
Lost Circulation (< 2 hrs)									0.00
Lay Down Kelly / MH & RH									0.00
Non-Billable Hrs.	11.50	3.75	2.50	0.50	0.25	0.50	3.50	0.00	22.50
Footage Cost	\$ 3,987.50	\$ 19,487.50	\$ 11,100.00	\$ 4,425.00	\$ 2,300.00	\$ 850.00	\$ 225.00	\$ -	\$ 42,375.00
Daywork Cost	\$ 3,150.00	\$ 175.00	\$ -	\$ 3,412.50	\$ 5,775.00	\$ 7,262.50	\$ 4,287.50	\$ -	\$ 24,062.50
Combined Est. Cost*	\$ 7,137.50	\$ 19,662.50	\$ 11,100.00	\$ 7,837.50	\$ 8,075.00	\$ 8,112.50	\$ 4,512.50	\$ -	\$ 66,437.50

*Please note that this is estimated footage & daywork cost only. Additional charges will apply on invoice (fuel surcharge, water transfer pump, etc)

<p>DST #1 Info - Footage Interval: 3048' - 3120' Recovery: 10' Mud LKC "B-F"</p>	<p>DST #2 Info - Footage Interval: 3211' - 3304' Recovery:</p>
<p>DST #3 Info - Footage Interval: 3304' - 3359' Recovery: 20' Oil 80' Oil Cut Mud Arbuckle</p>	<p>DST #4 Info - Footage Interval: Recovery:</p>

9025 4th St. Bldg. C
 Great Bend, KS 67530
 (620) 792-1822
 mobile: (620) 793-2609

15-009-26319
 Bill's Bit Sales

ANHYDRITE
 672-690

DISPLACE
 2671-2693

CRT

LTD-3406

CONTRACTOR Southwind Drilling RIG NO. 1 SURVEY SECTION 32 TOWNSHIP 17 RANGE 11 BLOCK 11

TOOL PUSHER Frank Rome

OIL COMPANY Black Dahlia

REPRESENTATIVE Mark Hafeman

STATE Kansas

WELL NO. SBS 32-1

MUD TYPE/DEPTH Chemico

Engines (1) _____ (2) _____ (3) _____

RIG MAKE AND MODEL TSM 6000

NO. 1 PUMP MAKE AND MODEL D-375

NO. 2 PUMP MAKE AND MODEL _____

SPUD DATE 4:30 PM 11-18-21

DRILL PIPE SIZE/TYPE _____

DRILL COLLARS: NO. 16 O.D. _____ I.D. _____

DRILL COLLARS: NO. _____ O.D. _____ I.D. _____

HEAVY WEIGHT: _____ SIZE/TYPE _____ LENGTH _____

BIT NO.	BIT SIZE	BIT MFG.	BIT TYPE	BIT SERIAL NO.	JET SIZE OR TPA	DEPTH OUT	FTG	HOURS RUN	ACC HOURS	FT/HR	WOB	RPM	VERT DEV	PUMP PRESS	PUMPS NO. LIN	SPM	WT	MUD VIS	DULL CODE		REASON PULLED	DATE (REMARKS)	
																			OUTTING STRUCTURE TO	MOOD LOC.			
1	1 1/4	JZ	Tooth	Rerun	3/16	319	319	3 1/2	3 1/2		10/15	110	1°	380									
2	7/8	JZ	HA23C	new	3/15	3400	3081	6 1/2	69		20/35	80		830									
Dst#1	1/2	KC "B"	F-3048	3120	Rec. 10' mud																		
Dst#2	1/2	KC	Bottom K.C.	3211-3304																			
Dst#3		An buckle	3304-3359	Rec. 20' OIL	80' PCM																		
					Plugged																		
					50x2 3325																		
					30x2 Bot, 15x Mouse																		
					7:30 PM 11-24-2021																		
					Geo - Jim Musgrave																		
					LOG - Midwest																		
					Hank's Waterline Pumped from Pond 3/4 Mile West																		
					Trash Trailer & Port A Potty -> Mike's Septic																		
					Electric Pump -> Bit To Rig																		
					End Mud Cost - 6351.80																		
					End For 1 - 34"																		

REASON PULLED: New Piston - Off Backwheel Side
 Slipped 50' Drive Line
 Oil Change - Drives 65,719
 - Pump 25,712
 1/2 # Flashed Per Seck

WELL NAME: BOLTZ #1		OPERATOR: Black Dahlia #1	
DATE: 11-18	7AM DEPTH:	7AM OPERATION:	RIG #: 1
CURRENT FUEL (ln): 72	FUEL USED (ln):	7AM MUD: WT: VIS: WL: DAILY \$:	TOTAL \$:

BIT #	SIZE	MAKE & TYPE	IN	OUT	DEPTH	HOURS
#1	12 1/4	J2 RT RR	0			

OPERATIONS SUMMARY

SURVEY: (degree)		(depth)		BIT INFO:				
DEPTH INTERVAL:				FORMATION:				
M O R N I N G T O U R	TIME			DESCRIPTION OF OPERATIONS				
	From	To	Hours					
	11:00PM							
								MID-TOUR
								PUMP PRESSURE:
								MUD PROP:
								WOB:
								END-TOUR
								PUMP PRESSURE:
								MUD PROP:
							WOB:	
Drig:	Conn:	Jet/Disp:	Survey:	Rig v:	WOC:	Drill Plug:	RH/MH	Repair:
Trip:	Tool:	Test:	Circ:	Casing:	LDDP/DC:	Nip Down:	Set Slips:	RU/TD:

SURVEY: (degree)		(depth)		BIT INFO: #1 J2 RT RR 12 1/4				
DEPTH INTERVAL:				FORMATION:				
D A Y L I G H T S	TIME			DESCRIPTION OF OPERATIONS				
	From	To	Hours					
	7:00AM	3:00	8	Move + Rig up				
								MID-TOUR
								PUMP PRESSURE:
								MUD PROP:
								WOB:
								END-TOUR
								PUMP PRESSURE:
								MUD PROP:
							WOB:	
Drig:	Conn:	Jet/Disp:	Survey:	Rig v:	WOC:	Drill Plug:	RH/MH	Repair:
Trip:	Tool:	Test:	Circ:	Casing:	LDDP/DC:	Nip Down:	Set Slips:	RU/TD: 8

SURVEY: (degree)		(depth)		BIT INFO: #1 J2 RT RR 12 1/4 3 1/2 50				
DEPTH INTERVAL: 0 - 319				FORMATION: Surface				
E V E N I N G	TIME			DESCRIPTION OF OPERATIONS				
	From	To	Hours					
	3:00PM	4:00	1	Rig up				
	4:00	4:30	1/2	Drill RAH				MID-TOUR
	4:30	9:00	4 1/2	Drill w/conn 1hr				PUMP PRESSURE:
	9:00	9:30	1/2	Conn / Set collar				MUD PROP:
	9:30	10:40	1 1/2	STA / Tower				WOB:
	10:40	11:00	1	Run 8 5/8 Cement				END-TOUR
								PUMP PRESSURE:
								MUD PROP:
							WOB:	
Drig: 3 1/2	Conn: 1	Jet/Disp: 1/2	Survey: 1/2	Rig v: 1/2	WOC:	Drill Plug:	RH/MH 1/2	Repair:
Trip: 1/2	Tool:	Test:	Circ: 6	Casing: 1	LDDP/DC:	Nip Down:	Set Slips:	RU/TD:

DST #	DST #
FORMATION	FORMATION
RECOVERY	RECOVERY

OTHER INFO:
 (i.e. anhydrite displacement, iron pyrite, loss circ)
 Nov 18 90 C-15, S-24" F72"

RTD:
LTD:

WELL NAME: Bort 2 #1 OPERATOR: Black Dahlia
 DATE: 11-19-21 7AM DEPTH: 319 7AM OPERATION: W.O.C. RIG #: 1
 CURRENT FUEL (ln): 68 FUEL USED (ln): 4 7AM MUD: WT: VIS: WL: DAILY\$: TOTAL\$:

BIT #	SIZE	MAKE & TYPE	IN	OUT	DEPTH	HOURS

OPERATIONS SUMMARY

SURVEY: (degree) 10 (depth) 319		BIT INFO:		
DEPTH INTERVAL: 319		FORMATION:		
M O R N I N G T O U R	TIME		DESCRIPTION OF OPERATIONS	
	From	To		Hours
	11:00PM	11:30	1/2	Cement
	11:30	7:00	7 1/2	W.O.C.
				MID-TOUR
				PUMP PRESSURE:
				MUD PROP:
				WOB:
				END-TOUR
				PUMP PRESSURE:
			MUD PROP:	
			WOB:	
Drig:	Conn:	Jet/Disp:	Survey: Rig #: WOC: 7 1/2 Drill Plug: RH/MH Repair:	
Trip:	Tool:	Test:	Circ: Casing: 1/2 LDDP/DC: Nip Down: Set Slips: RU/TD:	

SURVEY: (degree) (depth)		BIT INFO: #2 52 HAZSC 6 hrs		
DEPTH INTERVAL: 319-832		FORMATION:		
D A Y L I G H T S	TIME		DESCRIPTION OF OPERATIONS	
	From	To		Hours
	7:00AM	7:30	1/2	W.O.C.
	7:30	1:30	6	Drig. w/ 1 hr. Conn.
	1:30	1:45	1/4	Jet #1 @ 769
	1:45	3:00	1 1/4	Drig. w/ 1/4 hr. Conn.
				MID-TOUR
				PUMP PRESSURE: 575
				MUD PROP: Water
				WOB: 25,000
			END-TOUR	
			PUMP PRESSURE: 650	
			MUD PROP: 9.0 Water	
			WOB: 28K	
Drig: 6	Conn: 1/4	Jet/Disp: 1/4	Survey: Rig #: WOC: 1/2 Drill Plug: RH/MH Repair:	
Trip:	Tool:	Test:	Circ: Casing: LDDP/DC: Nip Down: Set Slips: RU/TD:	

SURVEY: (degree) (depth)		BIT INFO: #2 52 HAZSC 12 3/4 hrs		
DEPTH INTERVAL: 832-1466		FORMATION: clay + S.O.		
E V E N I N G T O U R	TIME		DESCRIPTION OF OPERATIONS	
	From	To		Hours
	3:00PM	6:30	3 1/2	Drig welcome 1/2
	6:30	6:45	1/4	Jet #1 @ 1180
	6:45	11:00	4 1/4	Drig welcome 1/2
				MID-TOUR
				PUMP PRESSURE: 720
				MUD PROP: 9.1 water
				WOB: 24,000
				END-TOUR
			PUMP PRESSURE: 760	
			MUD PROP: 9.3	
			WOB: 25,000	
Drig: 6 3/4	Conn: 1	Jet/Disp: 1/4	Survey: Rig #: WOC: Drill Plug: RH/MH Repair:	
Trip:	Tool:	Test:	Circ: Casing: LDDP/DC: Nip Down: Set Slips: RU/TD:	

DST #	DST #
FORMATION	FORMATION
RECOVERY	RECOVERY

OTHER INFO: (i.e. anhydrite, displacement, iron pyrite, loss circ) RTD:
LTD:

DNHY 672-690

WELL NAME: Bort 2 #1	OPERATOR: Black Dahlia					
DATE: 11-20-21 7AM DEPTH: 1878	7AM OPERATION: Drilling RIG #: 1					
CURRENT FUEL (ln): 57 FUEL USED (ln): 8 7AM MUD: WT: VIS: WL: DAILY \$: 1411 TOTAL \$: 1411.85						
BIT #	SIZE	MAKE & TYPE	IN	OUT	DEPTH	HOURS
2	7/8	J2 HA23C	319			1934

OPERATIONS SUMMARY

SURVEY: (degree) 1° (depth) 319	BIT INFO: J2 HA23C	1934 hrs			
DEPTH INTERVAL: 1466-1878	FORMATION: Shale				
MORNING	TIME		DESCRIPTION OF OPERATIONS	MID-TOUR PUMP PRESSURE: 760 MUD PROP: Water WOB: 30,000 END-TOUR PUMP PRESSURE: 760 MUD PROP: 9.2 WOB: 30,000	
	From	To			Hours
	11:00PM	4:15	5/4		Drill w/ 1/2 hr conn
	4:15	4:30	1/4		Set #1 @ 1783
	4:30	7:00	2 1/2		Drill w/ 1/4 hr conn
	Drig: 7 Conn: 34 Jet/Disp: X Survey: Rlg: WOC: Drill Plug: RH/MH Repair:				
	Trip: Tool: Test: Circ: Casing: LDDP/DC: Nip Down: Set Slips: RU/TD:				

SURVEY: (degree) (depth)	BIT INFO: #2 J2 HA23C	2674 hrs.			
DEPTH INTERVAL: 1878-2210	FORMATION: Shale + Lime				
DAYS	TIME		DESCRIPTION OF OPERATIONS	MID-TOUR PUMP PRESSURE: 750 MUD PROP: 9.4 Water WOB: 321c END-TOUR PUMP PRESSURE: 750 MUD PROP: 9.3 Water WOB: 351c	
	From	To			Hours
	7:00AM	12:00	5		Drig. w/ 1/2 hr. Conn Flush Hole @ 1920'
	12:00	12:15	1/4		Set #1 @ 2069
	12:15	3:00	2 3/4		Drig. w/ 1/4 hr. Conn.
	Drig: 7 Conn: 34 Jet/Disp: X Survey: Rlg: WOC: Drill Plug: RH/MH Repair:				
	Trip: Tool: Test: Circ: Casing: LDDP/DC: Nip Down: Set Slips: RU/TD:				

SURVEY: (degree) (depth)	BIT INFO: #2 J2 HA23C	34 hrs			
DEPTH INTERVAL: 2210-2510	FORMATION: Lime + Shale				
EVENING	TIME		DESCRIPTION OF OPERATIONS	MID-TOUR PUMP PRESSURE: 800 MUD PROP: water 9.2 WOB: 25,000 END-TOUR PUMP PRESSURE: 820 MUD PROP: WOB: 30,000	
	From	To			Hours
	3:00PM	4:30	1 1/2		Drig w/ conn 1/4
	4:30	4:45	1/4		Set #2 @ 2291
	4:45	11:00	6 1/4		Drig w/ conn 1/4
	Drig: 7 1/2 Conn: 1/2 Jet/Disp: 1/2 Survey: Rlg: WOC: Drill Plug: RH/MH Repair:				
	Trip: Tool: Test: Circ: Casing: LDDP/DC: Nip Down: Set Slips: RU/TD:				

DST #	DST #
FORMATION	FORMATION
RECOVERY	RECOVERY

OTHER INFO: (i.e. anhydrite, displacement, iron pyrite, loss circ) **Chang MPDC** RTD: LTD:

DATE: 11-22-21	1/AM DEPTH: 3120	TAM OPERATION: Testing	RIG #: 1			
CURRENT FUEL (in): 38	FUEL USED (in): 10	TAM MUD: WT: VIS: WL: DAILY \$:	TOTAL: 5335.15			
BIT #	SIZE	MAKE & TYPE	IN	OUT	DEPTH	HOURS
2	7 7/8	SZ HA23C	319			55 1/4

OPERATIONS SUMMARY

SURVEY: (degree) 514	(depth) 3120	BIT INFO: SZ HA23C	55 1/4 hrs					
DEPTH INTERVAL: 3090-3120	FORMATION: Shale							
M O R N I N G T O U R	TIME		DESCRIPTION OF OPERATIONS					
	From	To	Hours					
	11:00PM	11:30	1/2	Drill				
	11:30	12:45	1 1/4	CFS @ 3120	MID-TOUR			
	12:45	2:00	1 1/4	Short Trip	PUMP PRESSURE:			
	2:00	3:00	1	CTCH	MUD PROP:			
	3:00	6:15	3 1/4	Strap out - Tool - TIH Tool	WOB:			
	6:15	7:00	3/4	Testing	END-TOUR			
					PUMP PRESSURE:			
					MUD PROP:			
				WOB:				
Drig: 1/2	Conn:	Jet/Disp:	Survey:	Rig v:	WOC:	Drill Plug:	RH/MH	Repair:
Trip: 4 1/2	Tool:	Test: 3/4	Circ: 2 1/4	Casing:	LDDP/DC:	Nip Down:	Set Slips:	RU/TD:

SURVEY: (degree)	(depth)	BIT INFO: #2 JZ HA23C	57 hrs.					
DEPTH INTERVAL: 3120-3160	FORMATION: LKC.							
D A Y L I N G H T S	TIME		DESCRIPTION OF OPERATIONS					
	From	To	Hours					
	7:00AM	8:15	1 1/4	Testing				
	8:15	11:15	3	ToH 1/2 H. Tool TIH	MID-TOUR			
	11:15	12:15	1	C.T.C.H. @ 3120	PUMP PRESSURE:			
	12:15	1:30	1 1/4	Drig.	MUD PROP:			
	1:30	2:30	1 1/2	C.F.S. @ 3152	WOB:			
	2:30	3:00	1/2	Drig.	END-TOUR			
					PUMP PRESSURE:			
					MUD PROP:			
				WOB: 35K				
Drig: 1 3/4	Conn:	Jet/Disp:	Survey:	Rig v:	WOC:	Drill Plug:	RH/MH	Repair:
Trip: 2 1/2	Tool: 1/2	Test: 1 1/4	Circ: 2	Casing:	LDDP/DC:	Nip Down:	Set Slips:	RU/TD:

SURVEY: (degree)	(depth)	BIT INFO: #2 HA23C	62 hrs					
DEPTH INTERVAL: 3160-3285	FORMATION: LKC							
E V E N I N G T O U R	TIME		DESCRIPTION OF OPERATIONS	690psi / 9.0/52/1 #				
	From	To	Hours					
	3:00PM	5:00	2	Drig w/conn				
	5:00	6:15	1 1/4	CFS @ 3220	MID-TOUR			
	6:15	9:00	2 3/4	Drig w/conn to 3281	PUMP PRESSURE: 690			
	9:00	10:30	1 1/2	CFS @ 3281 (20/40/60)	MUD PROP: 9.1/52/1 #			
	10:30	11:00	1/2	Drig.	WOB: 35,000			
					END-TOUR			
					PUMP PRESSURE: 600			
					MUD PROP: 50/9.1/1 #			
				WOB: 0				
Drig: 5	Conn: 1 1/4	Jet/Disp:	Survey:	Rig v:	WOC:	Drill Plug:	RH/MH	Repair:
Trip:	Tool:	Test:	Circ: 2 3/4	Casing:	LDDP/DC:	Nip Down:	Set Slips:	RU/TD:

DST # 1	3048-3120	DST #
FORMATION	LKC "B-F"	FORMATION
RECOVERY	10' mud	RECOVERY

OTHER INFO: (i.e. anhydrite, displacement, iron pyrite, loss circ) RTD:
LTD:

WELL NAME: Bart 2 #1	OPERATOR: Black Dahlia					
DATE: 11-23-21 7AM DEPTH: 3304	7AM OPERATION: Testing RIG #: 1					
CURRENT FUEL (ln): 2 1/2 FUEL USED (ln): 7 1/2 7AM MUD: WT: VIS: WL: DAILY\$: 1016 TOTAL\$: 6351.80						
BIT #	SIZE	MAKE & TYPE	IN	OUT	DEPTH	HOURS
2	7/8	52 HA23C	319			62 1/2

38

OPERATIONS SUMMARY

SURVEY: (degree) 0 (depth) 319		BIT INFO: 52 HA23C		62 1/2 hrs				
DEPTH INTERVAL: 3185 - 3304		FORMATION: Shale						
M O R N I N G T O U R	TIME		DESCRIPTION OF OPERATIONS					
	From	To	Hours					
	11:00PM	11:30	1/2	Drilling				
	11:30	1:00	1 1/2	CFS @ 3304				
	1:00	3:45	2 3/4	T.O.H 1/2 bit - Tool - T.I.H 1/2 bit				
	3:45	6:15	2 1/2	Testing				
	6:15	7:00	3/4	Pull Tool				
				PUMP PRESSURE: 700				
				MUD PROP: 56 9.2 #				
				WOB: 30,000				
			END-TOUR					
			PUMP PRESSURE:					
			MUD PROP:					
			WOB:					
Drig:	Conn:	Jet/Disp:	Survey:	Rig v:	WOC:	Drill Plug:	RH/MH	Repair:
Trip:	Tool:	Test:	Circ:	Casing:	LDDP/DC:	Nip Down:	Set Slips:	RU/TD:

SURVEY: (degree) 0 (depth) 3304		BIT INFO: 52 J2 HA23C		63 3/4 hrs				
DEPTH INTERVAL: 3304 - 3345		FORMATION: ARB.						
D A Y L I G H T S	TIME		DESCRIPTION OF OPERATIONS					
	From	To	Hours					
	7:00AM	9:15	2 1/4	T.O.H 1/2 bit Tool T.I.H				
	9:15	10:15	1	C.T.C.H. @ 3304				
	10:15	11:00	3/4	DT19				
	11:00	12:00	1	C.F.S. @ 3325				
	12:00	12:15	1/4	DT19				
	12:15	1:15	1	C.F.S. @ 3335				
	1:15	1:45	1/2	Change Valve Scot MP				
	1:45	2:00	1/4	DT19				
2:00	3:00	1	C.F.S. @ 3345					
Drig:	Conn:	Jet/Disp:	Survey:	Rig v:	WOC:	Drill Plug:	RH/MH	Repair: 1/2
Trip:	Tool:	Test:	Circ: 4	Casing:	LDDP/DC:	Nip Down:	Set Slips:	RU/TD:

SURVEY: (degree) 0 (depth) 3345		BIT INFO: 52 HA23C		64 1/4 hrs				
DEPTH INTERVAL: 3345 - 3359		FORMATION: ARB.						
E V E N I N G	TIME		DESCRIPTION OF OPERATIONS					
	From	To	Hours					
	3:00PM	3:15	1/4	DT19				
	3:15	4:15	1	CFS @ 3351 (20/40/60)				
	4:15	4:30	1/4	DT19 @ 3359				
	4:30	5:45	1 1/4	CFS @ 3359				
	5:45	8:30	2 3/4	T.O.H 1/2 bit Tool T.I.H 1/2 bit				
	8:30	11:00	2 1/2	Testing				
				PUMP PRESSURE: 730 psi				
				MUD PROP: 9.2/51/14 #				
			WOB:					
			END-TOUR					
			PUMP PRESSURE:					
			MUD PROP:					
			WOB:					
Drig:	Conn:	Jet/Disp:	Survey:	Rig v:	WOC:	Drill Plug:	RH/MH	Repair:
Trip:	Tool:	Test:	Circ: 2 1/2	Casing:	LDDP/DC:	Nip Down:	Set Slips:	RU/TD:

DST # 2 3211-3304	DST # 3
FORMATION	FORMATION ARB.
RECOVERY	RECOVERY

OTHER INFO: (i.e. anhydrite, displacement, iron pyrite, loss circ) RTD: **0**
LTD:

WELL NAME: Bort 2 #1			OPERATOR: Black Dahlia			
DATE: 11-24-21		7AM DEPTH: 3372		7AM OPERATION: Drilling		RIG #: 1
CURRENT FUEL (ln): 243		FUEL USED (ln): 6		7AM MUD: WT: VIS: WL: DAILY \$:		TOTAL \$: 6351.80
BIT #	SIZE	MAKE & TYPE	IN	OUT	DEPTH	HOURS
2	7/8	J2 HA23C	319			65 1/4

OPERATIONS SUMMARY

SURVEY: (degree) 1° (depth) 3120			BIT INFO: J2 HA23C 65 1/4 hrs						
DEPTH INTERVAL: 3359 - 3372			FORMATION: ARDUCKLE						
M O R N I N G T O U R	TIME			DESCRIPTION OF OPERATIONS					
	From	To	Hours						
	11:00PM	11:15	1/4	Testing					
	11:15	1:00	1 3/4	TOH w/ Tool - TOOL					
	1:00	2:30	1 1/2	T.H.W./Bit					
	2:30	3:30	1	CTCH @ 3359					
	3:30	3:45	1/4	Drill					
	3:45	5:00	1 1/4	CFS @ 3366					
	5:00	5:15	1/4	Drill					
	5:15	6:30	1 1/4	CFS @ 3372					
	6:30	7:00	1/2	Drilling					
	Drig: 1/2	Conn:	Jet/Disp:	Survey:	Rig v:	WOC:	Drill Plug:	RH/MH	Repair:
	Trip:	Tool:	Test: 1/4	Circ:	Casing:	LDDP/DC:	Nip Down:	Set Slips:	RU/TD:

SURVEY: (degree) (depth)			BIT INFO: # 2 J2 HA23C 65 1/2 hrs						
DEPTH INTERVAL: 3372 - 3400			FORMATION: A.R.B.						
D A Y L I N G H T S	TIME			DESCRIPTION OF OPERATIONS					
	From	To	Hours						
	7:00AM	7:15	1/4	Drig.					
	7:15	8:30	1 1/4	C.F.S. @ 3400					
	8:30	10:00	1 1/2	T.O.H. For Log					
	10:00	2:00	4	Logging					
	2:00	2:30	1/2	T.H. w/ collars					
	2:30	3:00	1/2	L.O.D.C.					
				Change oil DW 65719					
				MP 25712					
	Drig: 1/4	Conn:	Jet/Disp:	Survey:	Rig v: 094	WOC:	Drill Plug:	RH/MH	Repair:
	Trip: 2	Tool:	Test:	Circ: 1/4	Casing:	LDDP/DC: 1/2	Nip Down:	Set Slips:	RU/TD:

SURVEY: (degree) (depth)			BIT INFO:						
DEPTH INTERVAL:			FORMATION:						
E V E N I N G	TIME			DESCRIPTION OF OPERATIONS					
	From	To	Hours						
	3:00PM	4:00	1	LDDP + Nip down 3/4					
	4:00	4:45	3/4	T.H.W. Plugging Strds					
	4:45	7:30	2 3/4	LDDP + Plug					
	7:30	11:00	3 1/2	Tear Down					
				End Fuel 34"					
	Drig:	Conn:	Jet/Disp:	Survey:	Rig v:	WOC:	Drill Plug:	RH/MH	Repair:
	Trip:	Tool:	Test:	Circ:	Casing:	LDDP/DC:	Nip Down:	Set Slips:	RU/TD:

DST # 3 3304-3359	DST #
FORMATION ARBUCKLE	FORMATION
RECOVERY 20' 0.8 90' oil cut mud	RECOVERY

OTHER INFO: Delivered 500 Gal Fuel 11-24-21 RTD: 3400
 (i.e. anhydrite, displacement, iron pyrite, loss circ) Start 22" End 35" LTD: 3405



Engineer Brandon Mendez

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DRILLING MUD REPORT

REPORT NO. 1 DATE 11/17/2021 DEPTH

OPERATOR	Black Dahlia Oil & Gas Co	CONTRACTOR	Southwind Drilling	RIG NO.	1
ADDRESS	Co	ADDRESS	Rig	SPUD DATE	11/18/2021
REPORT FOR	William Hafeman	REPORT FOR	Frank Rome	SEC,TWN,RNG	32-17-11W
WELL NAME AND NO.	Bortz-1 # SBS 32-1	COUNTY AREA	Barton	STATE	Kansas

DRILLING ASSEMBLY			CASING			MUD VOLUME (BBL)			
Bit Size	7 7/8	No. Bits	2	Surface		Hole	50.0	Pits	400
Drill Pipe Size	4 1/2	Weight on Bit	30,000	8 5/8 @	400 ft.	Total Circulating Volume	450.0		
Type	XH	Flowing Temp.		Intermediate		Mud Up Depth	2500		
Drill Collar Size	6 1/4			@	ft.	Mud Type	Chemical-Pac		
Bit RPM	60			Production		Activity	Drilling		
Sample from flowline	X	Pit		@	ft.	Pits Used	3		

MUD PROPERTIES				CIRCULATION DATA							
Time Sample Taken	8am			Pump Size	6X14		Annular Vel (Ft/Min)				
Depth (ft.)	0			Pump Model		Assumed Eff.	90%	DP	197	DC	356
Weight (ppg)				Bbl/Stroke	0.139	Stroke/Min.	60	Circulation Pressure (PSI)			800
Mud Gradient (psi/ft.)	0			Bbl/Min	8.34	Gal/Min.	350	Bottoms Up (Min.)			6.0
Funnel Viscosity (sec/qt.)				Elevation	1817ft		Total Circ Time (Min.)			54.0	
Plastic Viscosity											
Yield Point (lb./100 sq. ft.)				Daily Cost				Total			
Gel Strength (lb./100 sq. ft.) 10 sec./10 min.				Product	On Hand	Add Del.	Used	Cost			
pH (Strip)				Premium Gel							
Filtrate API (ml./30 min.)				Hulls							
API HP-HT Filtrate (ml/30 min.)	XXX			Soda Ash							
Cake Thickness 32nd in. API	1/32			Caustic							
Alkalinity, Mud (Pm)				Lignite							
Alkalinity, Filtrate (Pf/Mf)				Lime							
Chlorides (ppm)				Drispac							
Calcium (ppm)				Desco							
Sand Content (% by Vol.)	TR			PHPA							
Solids Content (% by Vol.)				Barite							
Oil Content (% by Vol.)	XXX			Cedar Fiber							
Water Content (% by Vol.)	100			Pol-E-Flake							
LCM, #/bbl											
Methylene Blue Capacity	XXX										

REMARKS	MUD PROPERTIES SPECIFICATIONS				
	Weight	< 9.5	Viscosity	36	Filtrate

REMARKS	RECOMMENDED TOUR TREATMENT			
	Keep hole full at all times IF losing fluid pull 5 stands then work to get returns back Call with any issues or complications 786-656-3259 Use PHPA at drillstring for tight connections	Under surface run plenty of water and jet often to keep mud weight below 9.5#/gal Displace at geologist request or 100ft before first samples Have frac and premix full when ready to displace Frac loads: Premix 80bbbls water 22 gel 2 soda ash 1 caustic 1 lig 1/4 pac 4 hulls ~Run 100bbl freshwater flush ahead of displacement mud/ use premix first incase volume tank is needed		

Reserve Pit Chlorides=	Calcium=	Volume=
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The recommendations made hereon shall not be construed as authorizing the infringement of any valid patent, and are made without assumption of any liability by Andy's Mud & Chemical Co., LLC or its agents, and are statements of opinion only.



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DRILLING MUD REPORT

REPORT NO. **1** DATE 11/19/2021 DEPTH 1069

OPERATOR	Black Dahlia Oil & Gas Co	CONTRACTOR	Southwind Drilling	RIG NO.	1
ADDRESS	Co	ADDRESS	Rig	SPUD DATE	11/18/2021
REPORT FOR	William Hafeman	REPORT FOR	Frank Rome	SEC,TWN,RNG	32-17-11W
WELL NAME AND NO.	Bortz-1 # SBS 32-1	COUNTY AREA	Barton	STATE	Kansas

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)	
Bit Size	7 7/8	No. Bits	2	Surface	Hole	117.3 Pits
Drill Pipe Size	4 1/2	Weight on Bit	30,000	8 5/8 @	400 ft.	Total Circulating Volume
Type	XH	Flowing Temp.		Intermediate		Mud Up Depth
Drill Collar Size	6 1/4			@	ft.	Mud Type
Bit RPM	60			Production		Activity
Sample from flowline	X	Pit		@	ft.	Pits Used

MUD PROPERTIES			CIRCULATION DATA			
Time Sample Taken	8am		Pump Size	6X14		Annular Vel (Ft/Min)
Depth (ft.)	1069		Pump Model	Assumed Eff.	90%	DP
Weight (ppg)	9.1		Bbl/Stroke	0.139	Stroke/Min.	60
Mud Gradient (psi/ft.)	0.4732		Bbl/Min	8.34	Gal/Min.	350
Funnel Viscosity (sec/qt.)	27		Elevation	1817ft		DC
Plastic Viscosity						356
Yield Point (lb./100 sq. ft.)						Circulation Pressure (PSI)
Gel Strength (lb./100 sq. ft.) 10 sec./10 min.						800
pH (Strip)						Bottoms Up (Min.)
Filtrate API (ml./30 min.)						14.1
API HP-HT Filtrate (ml/30 min.)	XXX					Total Circ Time (Min.)
Cake Thickness 32nd in. API	1/32					62.0
Alkalinity, Mud (Pm)						
Alkalinity, Filtrate (Pf/Mf)						
Chlorides (ppm)						
Calcium (ppm)						
Sand Content (% by Vol.)	TR					
Solids Content (% by Vol.)						
Oil Content (% by Vol.)	XXX					
Water Content (% by Vol.)	100					
LCM, #/bbl						
Methylene Blue Capacity	XXX					

MUD PROPERTIES SPECIFICATIONS		MUD PROPERTIES SPECIFICATIONS	
Weight	< 9.5	Viscosity	36
Filtrate		NC	

REMARKS	RECOMMENDED TREATMENT
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Keep hole full at all times

IF losing fluid pull 5 stands then work to get returns back

Call with any issues or complications
786-656-3259

Use PHPA at drillstring for tight connections

Under surface run plenty of water and jet often to keep mud weight below 9.5#/gal

Displace at geologist request or 100ft before first samples

Have frac and premix full when ready to displace

Frac loads: Premix 80bbls water
22 gel
2 soda ash
1 caustic
1 lig
1/4 pac
4 hulls

~Run 100bbl freshwater flush ahead of displacement mud/ use premix first incase volume tank is needed

Reserve Pit Chlorides=	Calcium=	Volume=
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DRILLING MUD REPORT

REPORT NO. 2 DATE 11/21/2021 DEPTH 2825

OPERATOR	Black Dahlia Oil & Gas Co	CONTRACTOR	Southwind Drilling	RIG NO.	1
ADDRESS	Co	ADDRESS	Rig	SPUD DATE	11/18/2021
REPORT FOR	William Hafeman	REPORT FOR	Frank Rome	SEC,TWN,RNG	32-17-11W
WELL NAME AND NO.	Bortz-1 # SBS 32-1	COUNTY AREA	Barton	STATE	Kansas

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)	
Bit Size	7 7/8	No. Bits	2	Surface	Hole	228.0 Pits
Drill Pipe Size	4 1/2	Weight on Bit	30,000	8 5/8 @	Total Circulating Volume	628.0
Type	XH	Flowing Temp.		Intermediate	Mud Up Depth	2690
Drill Collar Size	6 1/4			@	Mud Type	Chemical-Pac
Bit RPM	60			Production	Activity	Drilling
Sample from flowline	X	Pit		@	Pits Used	3

MUD PROPERTIES			CIRCULATION DATA			
Time Sample Taken	8am	Pump Size	6X14	Annular Vel (Ft/Min)		
Depth (ft.)	2825	Pump Model		DP	197	DC
Weight (ppg)	8.8	Bbl/Stroke	0.139	Assumed Eff.	90%	356
Mud Gradient (psi/ft.)	0.4576	Bbl/Min	8.34	Stroke/Min.	60	Circulation Pressure (PSI)
Funnel Viscosity (sec/qt.)	48	Elevation	1817ft	Gal/Min.	350	Bottoms Up (Min.)
Plastic Viscosity	10					Total Circ Time (Min.)
Yield Point (lb./100 sq. ft.)	14					75.3

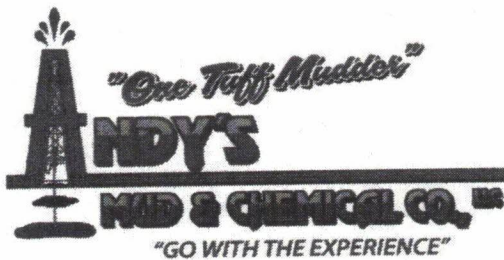
MUD PROPERTIES		Daily Cost		Total		Cost
Gel Strength (lb./100 sq. ft.) 10 sec./10 min.	10/20	Product	\$3,923.30	Add Del.	Used	\$5,335.15
pH (Strip)	10.5	Premium Gel	183		100	
Filtrate API (ml./30 min.)	8.8	Hulls	65		14	
API HP-HT Filtrate (ml/30 min.)	XXX	Soda Ash	18		10	
Cake Thickness 32nd in. API	1/32	Caustic	8		5	
Alkalinity, Mud (Pm)	2.3	Lignite	7		5	
Alkalinity, Filtrate (Pf/Mf)	1.2	Lime	6		0	
Chlorides (ppm)	2500	Drispac	5		1	
Calcium (ppm)	TR	Desco	0		0	
Sand Content (% by Vol.)	TR	PHPA	2		0	
Solids Content (% by Vol.)	2.6	Barite				
Oil Content (% by Vol.)	XXX	Cedar Fiber				
Water Content (% by Vol.)	97.4	Pol-E-Flake				
LCM, #/bbl	1.5#					

REMARKS		MUD PROPERTIES SPECIFICATIONS			
		Weight	< 9.5	Viscosity	48-50
				Filtrate	8-10CC

REMARKS	RECOMMENDED TREATMENT
Keep hole full at all times	Maintain viscosity of 48-50 while drilling and for DST/LOG
IF losing fluid pull 5 stands then work to get returns back	Keep weight below 9.5/run water to rehydrate mud and to achieve low solids content
Call with any issues or complications 786-656-3259	Maintain 1.5-2#LCM
Use PHPA at drillstring for tight connections	~Fill premix with pitmud~ 15 gel 2 soda ash 4 hulls ~Add tank over 1 hr through pump

Reserve Pit Chlorides= 35000ppm Calcium= 800ppm Volume= 600bbl

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DRILLING MUD REPORT

REPORT NO. 3 DATE 11/22/2021 DEPTH 3140

OPERATOR	Black Dahlia Oil & Gas Co	CONTRACTOR	Southwind Drilling	RIG NO.	1
ADDRESS	Co	ADDRESS	Rig	SPUD DATE	11/18/2021
REPORT FOR	William Hafeman	REPORT FOR	Frank Rome	SEC,TWN,RNG	32-17-11W
WELL NAME AND NO.	Bortz-1 # SBS 32-1	COUNTY AREA	Barton	STATE	Kansas

DRILLING ASSEMBLY				CASING		MUD VOLUME (BBL)			
Bit Size	7 7/8	No. Bits	2	Surface		Hole	247.8	Pits	400
Drill Pipe Size	4 1/2	Weight on Bit	30,000	8 5/8 @	400 ft.	Total Circulating Volume	647.8		
Type	XH	Flowing Temp.		Intermediate		Mud Up Depth	2690		
Drill Collar Size	6 1/4			@	ft.	Mud Type	Chemical-Pac		
Bit RPM	60			Production		Activity	DST		
Sample from flowline	X	Pit		@	ft.	Pits Used	3		

MUD PROPERTIES				CIRCULATION DATA							
Time Sample Taken	8am			Pump Size	6X14		Annular Vel (Ft/Min)				
Depth (ft.)	3140			Pump Model		Assumed Eff.	90%	DP	197	DC	356
Weight (ppg)	9.1			Bbl/Stroke	0.139	Stroke/Min.	60	Circulation Pressure (PSI)	800		
Mud Gradient (psi/ft.)	0.4732			Bbl/Min	8.34	Gal/Min.	350	Bottoms Up (Min.)	29.7		
Funnel Viscosity (sec/qt.)	50			Elevation	1817ft		Total Circ Time (Min.)	77.7			

MUD PROPERTIES				DAILY COST					
Plastic Viscosity	12			Daily Cost	\$1,016.65		Total	\$6,351.80	
Yield Point (lb./100 sq. ft.)	16			Product	On Hand	Add Del.	Used	Cost	
Gel Strength (lb./100 sq. ft.) 10 sec./10 min.	11/21			Premium Gel	153		30		
pH (Strip)	10			Hulls	58		7		
Filtrate API (ml./30 min.)	8.8			Soda Ash	16		2		
API HP-HT Filtrate (ml/30 min.)	XXX			Caustic	7		1		
Cake Thickness 32nd in. API	1/32			Lignite	6		0		
Alkalinity, Mud (Pm)	1.8			Lime	6		0		
Alkalinity, Filtrate (Pf/Mf)	0.9			Drispac	5		0		
Chlorides (ppm)	3000			Desco	0		0		
Calcium (ppm)	TR			PHPA	2		0		
Sand Content (% by Vol.)	TR			Barite					
Solids Content (% by Vol.)	2.9			Cedar Fiber					
Oil Content (% by Vol.)	XXX			Pol-E-Flake					
Water Content (% by Vol.)	97.1								
LCM, #/bbl	1.5#								

MUD PROPERTIES SPECIFICATIONS						
REMARKS	Weight	< 9.5	Viscosity	48-50	Filtrate	8-10CC

REMARKS	RECOMMENDED TREATMENT
Keep hole full at all times	Maintain viscosity of 48-50 while drilling and for DST/LOG
IF losing fluid pull 5 stands then work to get returns back	Keep weight below 9.5/run water to rehydrate mud and to achieve low solids content
Call with any issues or complications 786-656-3259	Maintain 1.5-2#LCM
Use PHPA at drillstring for tight connections	~No treatment~
	~If needed for vis fill premix with pitmud 15-18 gel 2 soda ash 5 hulls 1/4 pac

Reserve Pit Chlorides=	35000ppm	Calcium=	800ppm	Volume=	600bbl
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DRILLING MUD REPORT

REPORT NO. **4** DATE **11/23/2021** DEPTH **3305**

OPERATOR	Black Dahlia Oil & Gas Co	CONTRACTOR	Southwind Drilling	RIG NO.	1
ADDRESS	Co	ADDRESS	Rig	SPUD DATE	11/18/2021
REPORT FOR	William Hafeman	REPORT FOR	Frank Rome	SEC,TWN,RNG	32-17-11W
WELL NAME AND NO.	Bortz-1 #SBS 32-1	COUNTY AREA	Barton	STATE	Kansas

DRILLING ASSEMBLY				CASING		MUD VOLUME (BBL)	
Bit Size	7 7/8	No. Bits	2	Surface		Hole	258.2 Pits
Drill Pipe Size	4 1/2	Weight on Bit	30,000	8 5/8 @	400 ft.	Total Circulating Volume	658.2
Type	XH	Flowing Temp.		Intermediate		Mud Up Depth	2690
Drill Collar Size	6 1/4			@	ft.	Mud Type	Chemical-Pac
Bit RPM	60			Production		Activity	TIH
Sample from flowline	X	Pit		@	ft.	Pits Used	3

MUD PROPERTIES			CIRCULATION DATA				
Time Sample Taken	8am	Pump Size	6X14	Assumed Eff.	90%	Annular Vel (Ft/Min)	
Depth (ft.)	3305	Pump Model		Stroke/Min.	60	DP	197
Weight (ppg)	9.2	Bbl/Stroke	0.139	Gal/Min.	350	DC	356
Mud Gradient (psi/ft.)	0.4784	Bbl/Min	8.34	Elevation	1817ft	Circulation Pressure (PSI)	800
Funnel Viscosity (sec/qt.)	51					Bottoms Up (Min.)	31.0
Plastic Viscosity	15					Total Circ Time (Min.)	78.9

MUD PROPERTIES		DAILY COST		TOTAL		COST	
Yield Point (lb./100 sq. ft.)	20	Product	On Hand	Add Del.	Used		
Gel Strength (lb./100 sq. ft.) 10 sec./10 min.	12/25	Premium Gel	153				
pH (Strip)	10	Hulls	58				
Filtrate API (ml./30 min.)	8.8	Soda Ash	16				
API HP-HT Filtrate (ml/30 min.)	XXX	Caustic	7				
Cake Thickness 32nd in. API	1/32	Lignite	6				
Alkalinity, Mud (Pm)	1.5	Lime	6				
Alkalinity, Filtrate (Pf/Mf)	0.7	Drispac	5				
Chlorides (ppm)	6000	Desco	0				
Calcium (ppm)	TR	PHPA	2				
Sand Content (% by Vol.)	TR	Barite					
Solids Content (% by Vol.)	3.1	Cedar Fiber					
Oil Content (% by Vol.)	XXX	Pol-E-Flake					
Water Content (% by Vol.)	96.9						
LCM, #/bbl	1/2#						
Methylene Blue Capacity	XXX						

REMARKS		MUD PROPERTIES SPECIFICATIONS			
		Weight	< 9.5	Viscosity	48-50
				Filtrate	8-10CC

RECOMMENDED TOUR TREATMENT	
Keep hole full at all times	Maintain viscosity of 48-50 while drilling and for DST/LOG
IF losing fluid pull 5 stands then work to get returns back	Keep weight below 9.5/run water to rehydrate mud and to achieve low solids content
Call with any issues or complications 786-656-3259	Maintain 1.5-2#LCM
Use PHPA at drillstring for tight connections	~Mix 12 hulls and 3 soda ash to pitmud when back to bottom~
	~If needed for vis fill premix with pitmud
	15-18 gel
	3 soda ash
	5 hulls
	1/4 pac

Reserve Pit Chlorides=	35000ppm	Calcium=	800ppm	Volume=	600bbl
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