







# ROGER L. MARTIN

INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

## GEOLOGIST'S REPORT

### DRILLING TIME AND SAMPLE LOG

COMPANY VESS OIL CORPORATION  
LEASE CHESNEY A #241  
FIELD EL DORADO  
LOCATION 1000' FNL & 2610' FEL  
SECTION 21 TOWNSHIP 25S RANGE 05E  
COUNTY BUTLER STATE KANSAS

#### ELEVATIONS

KB 1350' GL 1344'

#### Measurements Are All

From KB: 1350'

API 15-015-24087-00-00

CONTRACTOR C & G DRILLING CO RIG#1

SPUD 8/11/17 COMP 8/18/17

RTD 2499' (-1150) LTD NA

#### ELECTRICAL SURVEYS

NO OPEN HOLE E-LOGS

5 DST's by TRILOBITE TESTING INC.

#### CASING

SURFACE 8&5/8" @ 262' w/ 150sx

Class A cmt w/ 3% CaCl

PRODUCTION NONE

P & A

#### FORMATION TOPS

#### LOG

#### SAMPLES

#### CHRONOLOGY

FORMATION TOPS	LOG	SAMPLES
ADMIRE 550'	--	520' (+830)
ADMIRE 650'	--	619' (+731)
WHITE CLOUD LS	--	860' (+490)
WHITE CLOUD SD	--	871' (+477)
OREAD	--	1336' (+14)
HEEBNER	--	1375' (-25)
TORONTO	--	1387' (-37)
DOUGLAS SH	--	1406' (-56)
DOUGLAS SD	--	1448' (-98)
IATAN	--	1574' (-224)
LANSING	--	1653' (-303)
KANSAS CITY	--	1936' (-586)
STARK	--	2040' (-690)
BASE KANSAS CITY	--	2100' (-750)
CHECKERBOARD	--	2173' (-823)
HEPLER SD	--	2205' (-855)
ALTAMONT	--	2221' (-871)
CHEROKEE	--	2301' (-951)
ARDMORE	--	2368' (-1018)
VIOLA	--	2398' (-1048)
SIMPSON SD	--	2420' (-1070)
BASAL SIMPSON SD	--	2488' (-1038)
ARBUCKLE	--	2491' (-1141)
RTD	--	2499' (-1150)

08/09/2017- MIRU C&G Rig #1. Perform rig repairs. Hogoboom hauled spud mud from Scully #25.

08/10/2017- C&G on location, making repairs to rig.

08/11/2017- Start drilling rathole @ 7:45AM. Surface hole started at 9:15AM. TD @ 262' @ 1:50PM. Run 7 jts of 8-5/8" 23#/FT L.S. casing, Tally = 254', Set @ 262'KB. Consolidated cemented w/150 sx Class A, 3% cc; Circulate cement. Plug down @ 3:25 PM.

08/12/2017- 7:30AM Drlg @ 1025'. Drill out under surface @ 1:15AM. 1:00PM Back on bottom after bit trip. PDC out and button bit in. Mud 9.1#, 33 Vis

08/13/2017- 3:16AM DST #1 on bottom. 6:03 PM Drlg @ 1653'.

08/14/2017- 7:30AM Drlg @ 1924. Mud 9.3#, 40 Vis. 10:15 AM CFS @ 1960', GSO.

08/15/2017- 8:00AM Drlg @ 2389', Mud 9.2#, 36 Vis, 7:50AM Bit @ 2400', CFS. DST #2.

08/16/2017- 4:00AM TOOH for DST #3.

08/17/2017- Running DST #4, Lwr Simpson & Upper Ar buckle.

08/18/2017- 12:33 AM TOOH for DST #5. 8:30 AM Decision to P&A well.

#### REMARKS:

The decision was made to P&A the Vess Oil Corporation Chesney 'A' #241.  
35 sx above the Ar buckle.

35 sx @ 50'  
 Below 8-5/8 20 sx @ 60'-0'  
 Rathole 20 sx

Respectfully submitted,  
 Roger L. Martin, Geologist (Wellsite)

LITH	POROSITY	DRILLING TIME MIN/FT	DST	SAMPLE DESCRIPTION	REMARKS
				310'spl} Abndt cement(cmt); Rare(Rr) LS: wh-gy-bf-tn, microXln(ux) to fnXln, w/ Trc MdX's- 2nd ReX; sm fos- Pkst; V.rare(Vrr) pr-Fr pin point(pp) Porosity(Poro), Inter-fos(l.fos), Inter-Granular(IGr), InterXln.Poro(IXP) w/ spt'd to subsaturated(subsat) Oil Stain(STN) & Fluorecence (FLR) & Trace (Trc) Show Free Oil (SFO) Very Slight (Vsl) Odor(Odr).	{Trc SFO}
				341'spl} increase(incrs) LS: wh-gy-tn, sm fos- Pkst; & ux-fnXln, w/ Vrr MdX- 2nd ReX; pred pr visbl Poro: As Above(AA) Trc Fr Poro; Vrr FLR & STN & Trc SFO & Cut, Vsl Odor; (~30%LS) & SH: gray(gy) & green(gn).	{Trc SFO}
				372'spl} V.Abundant(Abndt) (~90%) SH: bk subcarb to carb, & calc, & V.dk gy; Rr LS: gy-wh & tn-STN, sm fos- Pkst; & ux-fnXln; & granlr Pkst-Grst: fos & ool w/ pr-Fr Poro: IGr & pp & IXP & Trc Gd Poro: IGr; w/ spt'd to saturated(sat) rich tn STN & brt FLR & VSI-SI SFO & Cut, Trc Fr Cut; Trc sat.STN & FLR w/ Fr SFO & Cut, SI Odor.	{VSI-SI SFO}
				403'spl} Pred SH: bk & dk-gy- AA; incrs LS: AA; gy-wh, sm dn & sm chlky, sm Pkst-Grst w/ pr-Fr Poro; Trc Gd Poro; & sm ux-fnXln w/ sm IXP; <10% w/ spt'd-sat STN & FLR & VSI-SISFO & Cut, & VSI Odor.	{VSI-SI SFO}

-c-{connection}

-300

-c-

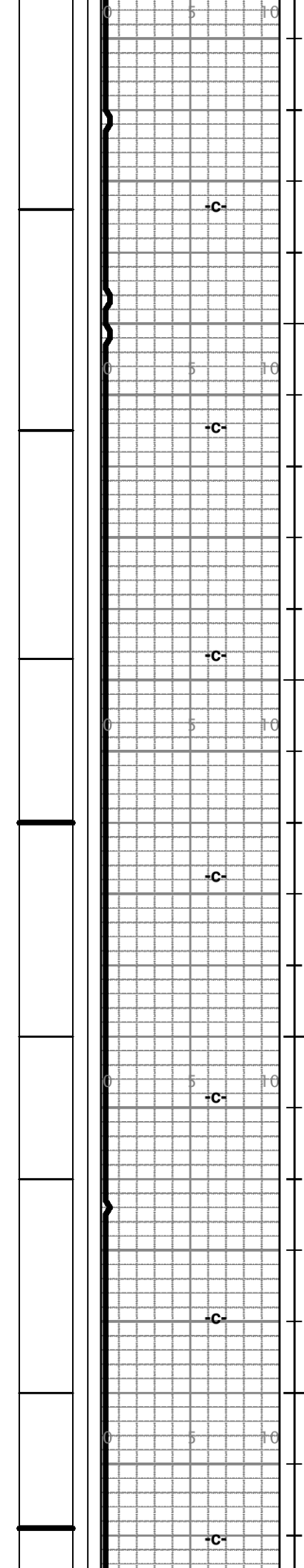
-350

-c-

-c-

-400

-c-



434'spl} (Vrr LS:AA w/ Poro w/ FLR-STN-SFO-Cut) incrs LS: pred gy-wh, Vfnly granlr & subchlky to chlky w/ Vpr to pr visbl Poro w/ NS; sm dn Mdst;& sm gy-bk SH.

465'spl} incrs SH: md-dk-gy, & bk- sm carb; & LS: md-dk-gy, pred dn & argil LS- Mdst & ux-cryptoxln-dn w/ Vpr Poro to No Visible Porosity {Vpr-NVP} w/ No Show (NS) & sm wh-chlky LS w/ NS.

-450

497'spl} V.Abndt (~70%) LS: cm-bf-tn, & gy-wh, ux-VfnXln, & Vfnly Granlr, sm silty & Vfnly Sndy; sm semichlky; Vpr-pr visbl Poro w/ NS; sm SH: pred gy-bk, sm pyrct.

-500

528'spl} ~50% SH: dk-gy-bk, Rr bk carb; ~49% LS: tn-gy-bn, & cm, sm mot; Wkst-Pkst- fos; & ux-fnX & dn- argil w/ pred Vpr-NVP w/ NS;

528'spl.cont'd} Admire 550' Sd} Trc SS: Sd Clusters (~1%) gy w/ tn-STN, VfnGr'd, silty, sm micac, subfribl-fribl w/ pr-Fr visbl Poro: u-IGr.Poro w/ subsat-sat FLR & STN & SI-Fr SFO, & SI to Gd Cut, VSI Odor.

**520'(+830)  
ADMIRE 550'  
{SI SFO}**

559'spl} Admire550'Sd} Trc SS: Sd Clust: AA w/ Poro FLR & STN & SFO & Cut; Trc Sndy SILTS w/ FLR & STN & SFO & Cut, SI Odor; Abndt gn-gy SH & SILTS; & LS: cm-tn-gy, pred dn- ux w/ Trc fnX's; sm Mdst: sm argil-shly w/ Vpr-NVP w/ NS.

**{SI SFO}**

-550

590'spl} SH: gy-bk, sm bk carb, & gn-gy, sm calc; LS: cm-bf-gy, pred dn Mdst-Wkst, sm granlr & sm argil; Rr tn ux-fnX w/ pr-NVP w/ NS.

621'spl} Pred SH: gy-bk, sm bk carb, & sm gn-gy SH; & sm LS:AA; pred dn & argil, sm pyrct, sm ux-fnX w/ pred Vpr-NVP w/ NS; & sm SILTS: Lt-gy, micac, sm Sndy: VfnGr'd; Trc Silty Sd Clusters & Sndy SILTS: w/ Vpr-pr Visbl Poro w/ subsat FLR & STN & VSI SFO & Cut.

**{VSI SFO}**

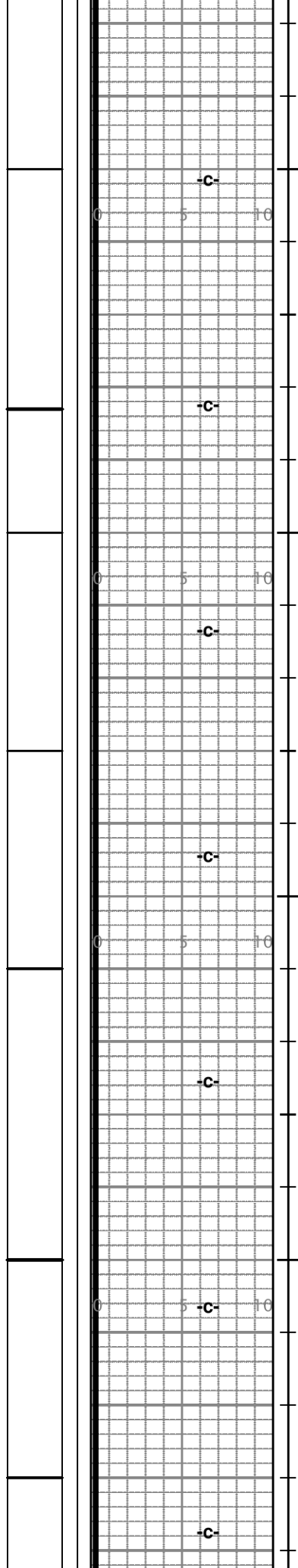
-600

653'spl} Vrr LS: gy-bk, V. argil, dn; Abndt SH: Lt-dk-gy-bk, sm micac, sm calc, & sm bk carb; & SILTS: Lt-dk-gy, sm calc, sm micac; Vpr Visbl Poro w/ Vrr FLR & SFO & milky Cut, Vsl Odor.

**{VSI SFO}**

653'spl.cont'd} Admire650'Sd} SS: (~10%<20%) Sd Clusters: av w/ tn-STN, Vfn-Md Gr'd, pred Vfn-fn Gr'd.

**619' (+731)  
ADMIRE 650'  
{Gd SFO}**



Rnd'd to subanglr, Hi to Low Sphr, well cmt'd to fribl w/ pr-Fr IGr.Poro, Trc Gd Poro, spt'd to sat FLR & tn-bn-STN w/ SI-Fr SFO & milky Cut, Trc Gd Strmg.Cut, Fr Odor.

683'spl} Vrr (<5%) Sd Clust:AA, w/ Poro w/ FLR & STN & SFO & Cut- AA; & Vrr SILTS:AA w/ FLR & STN & SFO & Cut, SI Odor.

-650

683'drlg.spl} (<5% Sd Clust:AA w/ Poro w/ FLR-STN-SFO-Cut-AA, SI Odor)

Pred SH: dk-gy-bk; sm LS: tn-gy, sm mot- Wkst-Pkst; & sm dn Mdst, & ux-fnX; sm argil- shly; Vpr-NVP w/ NS.

683'+15min.circ.spl} (<5% Sd Clust:AA w/ Poro w/ FLR-STN-SFO-Cut-Odor-AA)  
Pred SH:AA; & sm LS:AA.

-C-

714'spl} (Trc SILTS & SS- Silty Sd Clust: AA w/ FLR-STN-SFO-Cut-Odor)

Pred SILTS-SH: Lt-dk-gy, micac, sm calc.

{SFO}

**Mud Checks by:**  
**Twister Mud**  
**Co.,LLC**  
**wt 9.0,Vis 30**  
**PV 5,YP 3**  
**WL 22,pH 11.58**  
**LCM .5,Ci 780**

-700

745'spl} (Trc Sd Clust: AA: Vfn-fn Gr'd silty w/ pr-Fr Poro w/ subsat-sat FLR-STN-SFO-Cut-AA)

SILTS & Silty SH: Lt-dk-gy, micac; Vrr Sndy SILTS & Silty SS- Sd Clust: Pred Vfn Gr'd w/ pr Visbl Poro w/ subsat FLR & STN & VSISFO & Cut & Vsl Odor (incrs in Sndy SILTS & Silty Sd Clust w/ FLR-STN-SFO-Cut).

{VSI SFO}

776'spl} (Vrr SILTS & Silty SS-Sd Clust:AA w/ FLR-STN-SFO-Cut-Vsl.Odor)

Pred SH & Silty SH: dk-gy.

-C-

-750

807'spl} Abndt (~60%) LS: tn-gy-wh, sm mot-Wkst-Pkst, sm chlky, sm ux-fnXln, Vrr Md-VCrs Calc.X's; pred pr Visbl Poro to NVP w/ NS; ~40% SH:AA.

-C-

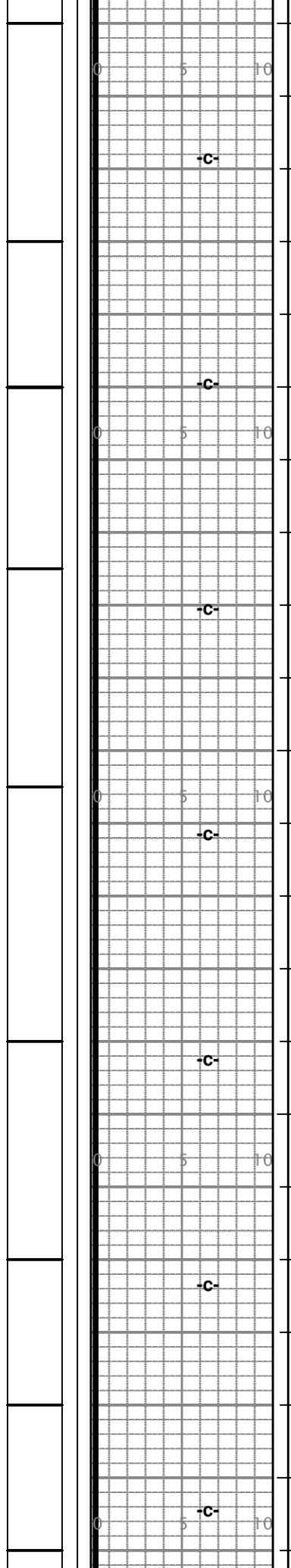
-800

838'spl} Abndt LS: wh-gy-tn, pred dn, sm Xln- ux w/ Rr fnX to V.CrsX's- 2nd ReX; & sm wh-chlky, pr Visbl Poro-NVP w/ NS (>60%LS & <40%SH:AA).

-C-

869'spl} Pred SH: dk-gy-bk subcarb; (sm LS:AA) & LS: tn-gy, argil-shly Wkst-Pkst w/ Vpr-NVP w/ NS.

-C-



-850

900'spl) V.Abndt SH: dk-gy-bk, sm bk carb (Trc LS:AA; Trc SILTS & Silty Sd Clust:AA w/ Trc FLR-STN-SFO-Cut) Trc LS: gy-tn-wh, pred dn, & semichlky, & ux, & argil-Wkst;

**860' (+490)  
WHITE CLOUD LS**

-C-

900'spl.cont'd) sm SILTS: Lt-md-gy, sl calc; Trc Silty Sd Clust: gy w/ tn-STN; Vfn Gr'd, argil-silty w/ pr-Fr Poro w/ subsat-sat FLR & STN, & VSISFO & milky Cut, Trc Odor {>1%}.

**871' (+477')  
WHITE CLOUD SD  
{SI SFO}**

931'spl) Pred SH- Silty SH: dk-md-gy, sm micac; (Trc Sd Clust:AA).

-900

962'spl) SH: md-dk-gy, sm calc, sm silty; Sm LS: Lt-dk-gy-tn, dn & argil Mdst-Wkst w/ Vpr-NVP w/ NS.

-C-

993'spl) SH: gy-bk; SILTS: md-dk-gy, micac, sm calc; Vrr Sndy SILTS & Silty Sd Clust.

-950

1024'spl) AA; & <2% Sd Clusters: gy w/ tn O.STN, Vfn Gr'd to fn Gr'd, Rnd'd to subanglr, silty, pr Visbl Poro w/ subsat FLR & STN & SI milky Cut, Trc SFO.

**{Trc SFO}**

-C-

-1000

1055'spl) Vrr LS: gy-wh & tn, dn & argil & sm chlky, & ux-fnX; Vpr-NVP; NS; Pred silty SH: md-dk-gy, micac; (Trc Sd Clust:AA w/ FLR-SFO-STN-Cut).

-C-

1086'spl) Abndt LS: tn-gy-wh, sm mot- fos- Pkst & Wkst, sm chlky, sm ux-fnX, pred pr Visbl Poro: pred Barren fos-mold Poro.

-1050

1117'spl) LS: cm-tn, ux-fnXln, pred VfnXln- sucro- sl dolomc, w/ pr-Fr Visbl Poro: pp-vug & IXP w/ spt'd to sat FLR & Lt-tn-STN & VSISFO & milky Cut, Vsl Odor; Pred Barren- dn- ux-fnX; & sm argil LS.

**{VSI SFO}**

-C-

1148'spl) SH: gy-bn, Abndt lmy & calc. (Trc LS AA w/FLR-SFO-STN-Cut)



SFO- STN-Cut)

1179' spl} SH: Pred gy-blk (~40%)  
~60% LS: wh-tn-gy, prt chlky, sm fos Wkst- Pkst & ux-  
fnxln, Pred Pr- NVP w/SFO, VRr blk carb.  
(Trc LS AA w/FLR-STN-TrcSFO-Cut)

{SFO}

-1100

1211' spl} sm SH: gy-blk & LS: tn-gy-wh, mot Wkst- Pkst  
& ux-fnxln, VRr Mdx-2Rx, Pred Pr visbl Por: pp- vug Por,  
IX Por, VRr <5% w/spt'd FLR- Lt STN, TrcSFO, TrcSFO  
IGr Poro.

{Trc SFO}

-1150

1242' spl} ~40% SH: gy-blk & gn-gy & blk carb.  
LS:gy-tn-wh, ux-fnxln, sm 2Rx & Wkst- Pkst, SI fos, Pred  
Pr Poro: ulX Poro, ulGr Poro, Trc FLR- STN, Trc SFO &  
Cut (<1%)

{Trc SFO}

-1200

1273' spl} LS: wh-tn-gy, Prt chlky, prt fnx- Mdxln, Rr prt  
CrsXln- VCrsX's- 2Rx, sm Fr visbl Poro- Gd aprnt Poro: IX  
Poro, vug Poro, <5% w/FLR-STN, Trc SFO & Cut.

{Trc SFO}

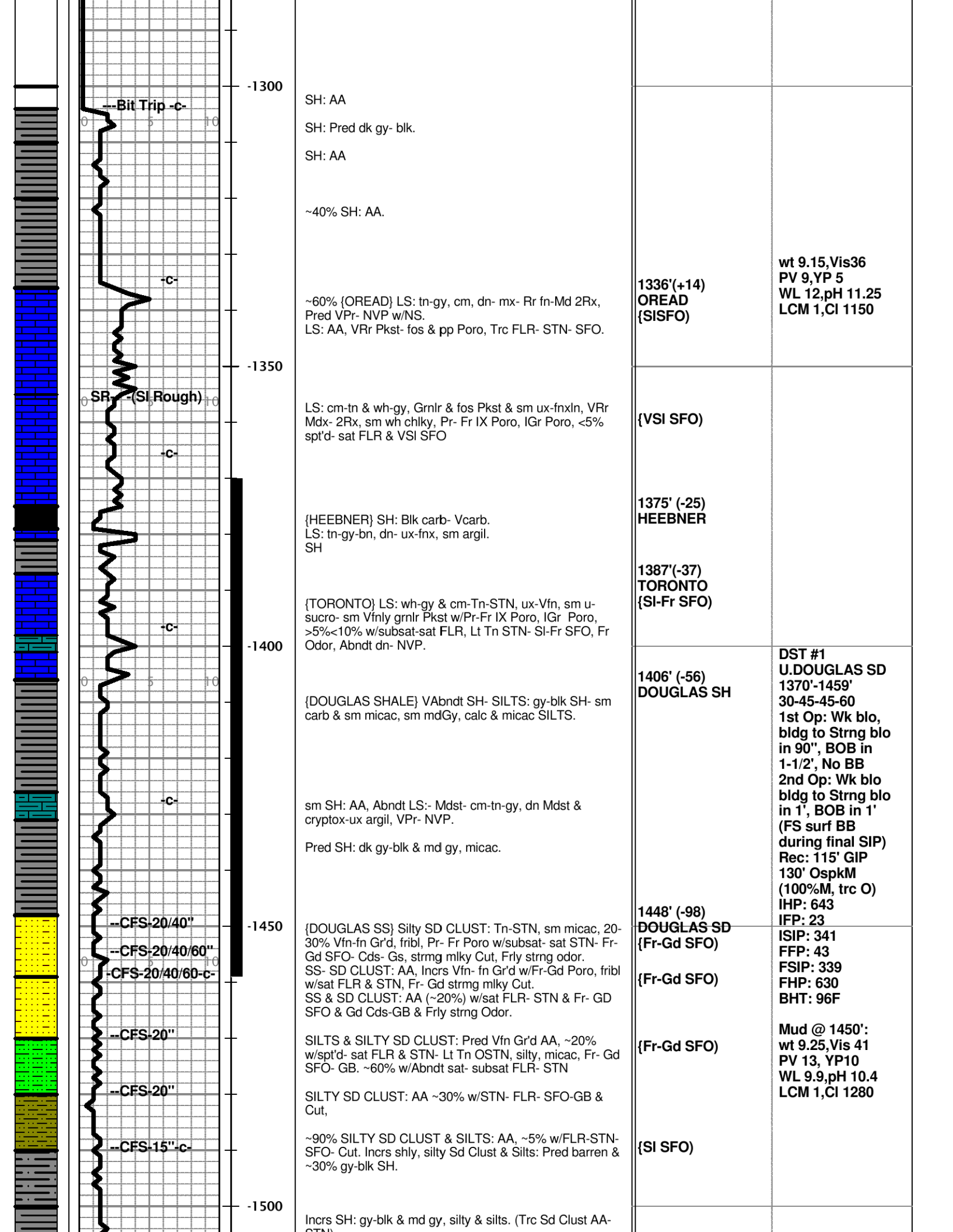
**wt 9.3,Vis29.3  
PV 7,YP 3  
WL 17.3,pH 11.18  
LCM trc,CI 1450**

-1250

1304' spl} LS: wh-tn-gy, sm mot Wkst- Pkst, sm fos, prt  
chlky, prt fn-Mdxln w/Rr CrsX's- VCrsX's- 2Rx, Pr- Fr  
Poro: IGr Poro, IX Poro, vug Poro, VRr Gd Poro, Trc FLR,  
Trc STN, Trc SFO- Cut, >99% barren. (>90% LS AA)

{Trc SFO}

1304' spl} VAbndt SH: lt-dk gy, micac. (>90% SH)



-1300

--Bit Trip -c-

SH: AA  
 SH: Pred dk gy- blk.  
 SH: AA  
 ~40% SH: AA.

1336'(+14)  
**OREAD**  
 {SISFO}

wt 9.15,Vis36  
 PV 9,YP 5  
 WL 12,pH 11.25  
 LCM 1,Ci 1150

-1350

SR (SI Rough)

LS: cm-tn & wh-gy, Grnlr & fos Pkst & sm ux-fnxln, VRr Mdx- 2Rx, sm wh chiky, Pr- Fr IX Poro, IGr Poro, <5% spt'd- sat FLR & VSI SFO  
 {HEEBNER} SH: Blk carb- Vcarb.  
 LS: tn-gy-bn, dn- ux-fnx, sm argil.  
 SH

{VSI SFO}

1375' (-25)  
**HEEBNER**

1387'(-37)  
**TORONTO**  
 {SI-Fr SFO}

-1400

{TORONTO} LS: wh-gy & cm-Tn-STN, ux-Vfn, sm u-sucro- sm Vfnly grnlr Pkst w/Pr-Fr IX Poro, IGr Poro, >5%<10% w/subsat-sat FLR, Lt Tn STN- SI-Fr SFO, Fr Odor, Abndt dn- NVP.

1406' (-56)  
**DOUGLAS SH**

DST #1  
**U.DOUGLAS SD**  
 1370'-1459'  
 30-45-45-60  
 1st Op: Wk blo, bldg to Strng blo in 90", BOB in 1-1/2', No BB  
 2nd Op: Wk blo bldg to Strng blo in 1', BOB in 1' (FS surf BB during final SIP)  
 Rec: 115' GIP  
 130' OspkM (100%M, trc O)  
 IHP: 643  
 IFP: 23

-1450

--CFS-20/40"

{DOUGLAS SHALE} VAbndt SH- SILTS: gy-blk SH- sm carb & sm micac, sm mdGy, calc & micac SILTS.  
 sm SH: AA, Abndt LS:- Mdst- cm-tn-gy, dn Mdst & cryptox-ux argil, VPr- NVP.  
 Pred SH: dk gy-blk & md gy, micac.

1448' (-98)  
**DOUGLAS SD**  
 {Fr-Gd SFO}

ISIP: 341  
 FFP: 43  
 FSIP: 339  
 FHP: 630  
 BHT: 96F

--CFS-20/40/60"

--CFS-20/40/60-c-

{DOUGLAS SS} Silty SD CLUST: Tn-STN, sm micac, 20-30% Vfn-fn Gr'd, fribl, Pr- Fr Poro w/subsat- sat STN- Fr-Gd SFO- Cds- Gs, strng mlky Cut, Frly strng odor.  
 SS- SD CLUST: AA, Incrs Vfn- fn Gr'd w/Fr-Gd Poro, fribl w/sat FLR & STN, Fr- Gd strng mlky Cut.  
 SS & SD CLUST: AA (~20%) w/sat FLR- STN & Fr- GD SFO & Gd Cds-GB & Frly strng Odor.

{Fr-Gd SFO}

--CFS-20"

SILTS & SILTY SD CLUST: Pred Vfn Gr'd AA, ~20% w/spt'd- sat FLR & STN- Lt Tn OSTN, silty, micac, Fr- Gd SFO- GB. ~60% w/Abndt sat- subsat FLR- STN

--CFS-20"

SILTY SD CLUST: AA ~30% w/STN- FLR- SFO-GB & Cut,

--CFS-15"-c-

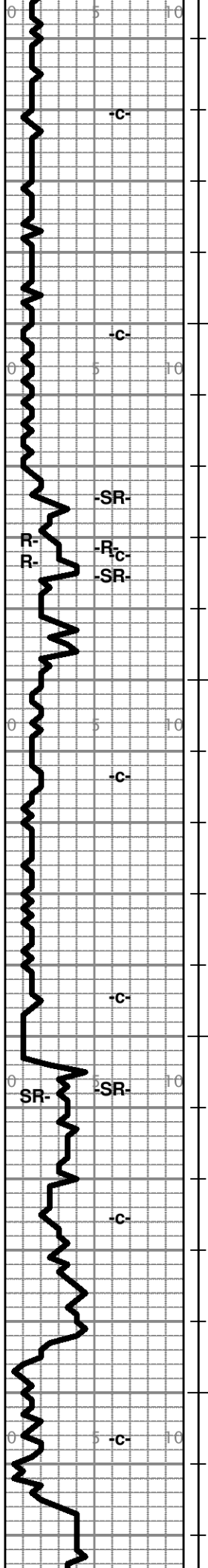
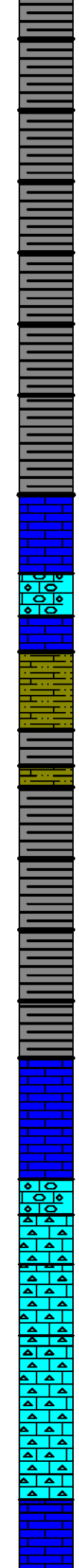
~90% SILTY SD CLUST & SILTS: AA, ~5% w/FLR-STN-SFO- Cut. Incrs shly, silty Sd Clust & Silts: Pred barren & ~30% gy-blk SH.

{SI SFO}

-1500

Incrs SH: gy-blk & md gy, silty & silts. (Trc Sd Clust AA-CTM)

Mud @ 1450':  
 wt 9.25,Vis 41  
 PV 13, YP10  
 WL 9.9,pH 10.4  
 LCM 1,Ci 1280



STN)

Pred SH: gy-blk, micac.

+C-

SH: md-dk gy, micac & silty.

SH- SILTS: AA & silty SH.

sm gy Silts- micac.

-1550

-C-

Pred SH: gy-blk.

SH: gy-blk subcarb.

-SR-

R- R-

-R-C-

-SR-

{IATAN} LS: gy-wh & Tn-OSTN, prt chilky, grnlr-frag Pkst, fos & ux-fnxln w/Pr- Fr IGr Poro, lfos Poro, pp Poro, IX Poro w/spt'd- sat Lt STN & FLR- VSI- SI SFO & mlky cut, Fr Odor. LS: cm-bf, sm prt ool & VRr prt oomlc w.Fr loolmldc Ooro w.spt'd-subsat STN- FLR & SI SFO & Cut.

LS: gy-tn, dn Mdst & ux-dn.

-1600

Abndt LS & SILTS: gy, sndy & micac & calc.

+C-

Pred SH: gy-blk, micac.

SH: AA, sm blk carb.

Pred dk gy SH.

-1650

-C-

SH: AA, gy-blk.

-SR-

-SR-

{LANSING} LS: cm-tn, Mdst- Wkst, pred dn, Rr Pkst & ux-fnxln, Trc Poro FLR- SFO- STN w/NS, Trc SFO- STN.

LS: wh-bf-gy w/Tn OSTN, sm fn- Mdxln w/Rr Crs-VCrsX's, sm ool & fos & SI mldc Pkst, ~30% w/Pr- Fr Poro, VRr Gd Poro, spt'd- sat FLR & STN, VSI - SI SFO, SI- Fr mlky Cut, Odor, sm wh chilky, sm dn.

LS: wh-gy-tn, Pred dn- Wkst & Pkst w/Pr- NVP. NS. Cherty- cm-bf-gy, opq, shrp.

-1700

-C-

LS: cm-bf w/rich Tn OSTN in >60%, Pred sat STN & FLR, grnlr Pkst- Grst & ux-fnxln w/sm Mdx-VCrsx's, Fr- VGd Poro: IGr Poro, IX Poro, pp Poro- vug Poro, sm VGd vug & mldc Poro w/STN, SI SFO- Gsy & flmy w/Fr- Gd Cut, Frly strng Odor, SI- Fr SFO & Fr- Gd Cut.

LS: Pred dn- ux, cm-tn-gy, sm chilky, Pred Pr- NVP.

{VSI- SISFO}

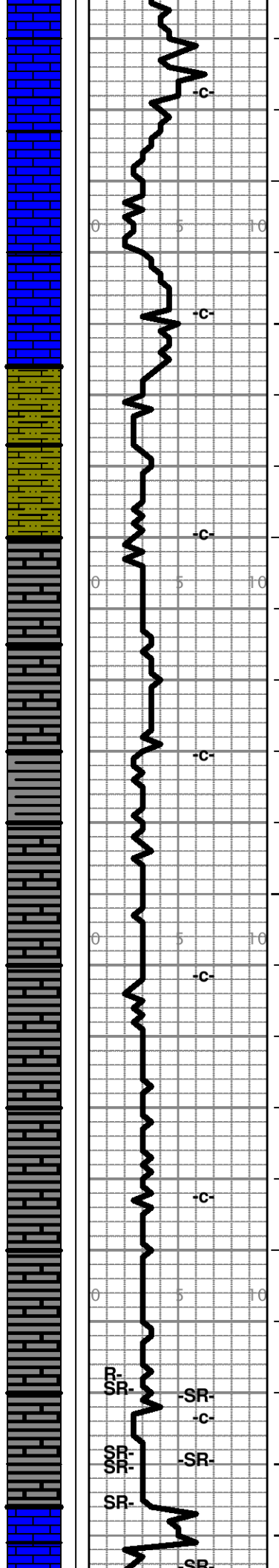
**1574' (-224)**  
**IATAN**  
{VSI-SI SFO}

{SI SFO}

**1653' (-303)**  
**LANSING**  
{Trc SFO}

{VSI- SI SFO}

{Fr SFO}



LS: cm-tn-gy, mot Pkst & Wkst, sm prt wh chlky w/VPr-  
NVP w/NS.

-1750

LS: wh-cm-bf, prt chlky, grnlr Pkst- Grst & ux-fnx Rr Md-  
VCRsx's- 2Rx, sm Fr- Gd IGr & IX Poro w/NS in >99%. Trc  
STN- FLR- SFO- Cut.

{Trc SFO}

LS: gy-tn-wh, sm mot- Wkst- Pkst, prt chlky, sm dn Mdst  
w/VPr- NVP. sm Vargil, dn LS.

SILTS: dk-lt gy, cacl, Vfnly sndy.

SILTS: lt-dk gy, sm Vcalc & lmy, sndy & SH: gy-blk, micac  
& calc.

-1800

SH- SILTY SH: dk gy-blk, sm calc & micac.

SH: gy, calc, silty, SI micac.

SH: gy-blk & sm calc, AA.

SH: md-dk gy, sm calc & sm micac.

-1850

SH: AA, gy, micac & calc.

SH: gy, AA.

-1900

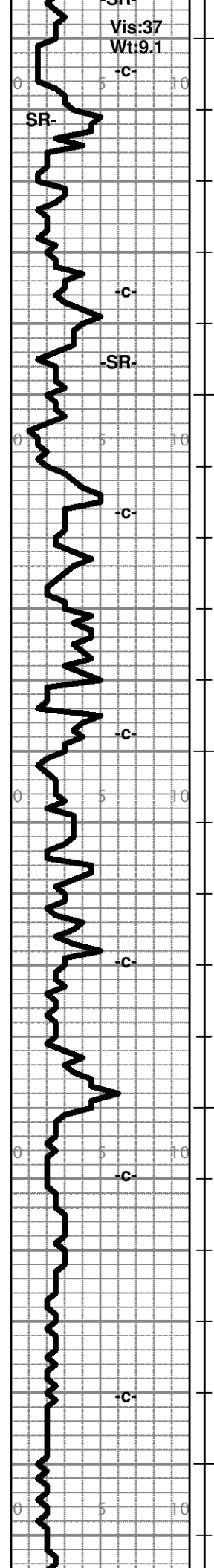
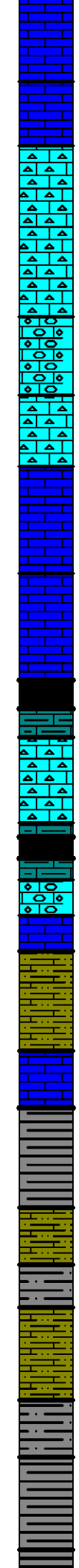
SH: dk gy, sm calc, Rr blk fis.

SH: gy, calc, Rr pyrct.

Rr LS: gy-tn-cm, dn- ux & Wkst- Pkst.

{KANSAS CITY} LS: gy & wh, Pred dn- ux, Rr fnx, Mdst-  
Wkst, <5% cm-Tn grnlr & xln w/Pr- Fr STN- FLR, SI SFO.

1936' (-586)  
KANSAS CITY  
{SI SFO}



Vis:37  
Wt:9.1

-1950

SR-

LS: cm-bf w/rich Tn OSTN (~80%), ux-fnxln, Rr prt Mdx-Crsx- 2Rx, Fr- Gd Poro: IX Poro, IGr Poro, ~90% subsat-sat brt FLR & ~80% sat & subsat STN w/Fr- Gd SFO-Gsy, Fr- Gd strmg mlky Cut, VStrng Odor.

LS: prt chlky Wkst- Pkst w/Rr STN- FLR- SFO, sm blk SH & argil-dk gy LS, SI Cherty, SI- Fr SFO- Cds-Gs.

LS: wh-cm-Tn-OSTN, ux- prt fnx- Mdx- 2Rx, VRr Mdx-Crsx, ~20% w/Fr- Gd Poro: pp- vug Poro, uIX Poro, IGr Poro, Vfn Mldc Poro, spt'd- sat Lt Tn STN- FLR, Fr- Gd strmg mlky Cut, SI Cherty.

LS: tn-gy-cm mot- Pkst ool w/Pr- Fr lool Poro, VRr FLR-STN- SFO & Cut.

LS: Incrs in ool & fos Pkst, Pr- Fr Poro, AA, spt'd- subsat STN- FLR, SI SFO & Cut, SI Cherty.

LS: cm-bf w/sm Tn OSTN, sm grnlr Pkst- Grst- ool & fos, lool- fos, pp- vug Poro, ~20% w/spt'd- subsat STN, FLR & SI SFO, SI- Fr Cut, SI Odor.

LS: Pred dn to chlky. (Abndt gy-blk SH)

LS: tn-gy-cm, dn ux-fnx, Pred VPr- NVP w/Pred NS.

{STARK} SH: Abndt blk carb & Vcarb & gy-blk.

LS: cm-tn, dn- ux, sm chlky.

-2050

LS: wh-cm-bf, prt chlky- subchlky, uxln & Wkst- Pkst w/Pred Pr visbl Poro, Trc FLR, Trc STN, Trc SFO.

SH: VAbndt blk carb & subcarb.

LS: cm-tn-gy, sm mot Pkst, mx- fnxln, VRr prt Mdxln, VRr Fr- Gd IGr, IX & vug Poro, 5%-10% spt'd- sat FLR- STN, SI- Fr SFO & Cut, SI Odor. Trc oomldc w/Gd Poro- STN- FLR- SFO.

LS: cm-bf, mx- fnxln, sm sucro, SI dolomc, sm argil.

SILTS- SH: sm calc & micac.

LS: tn-gy-bn & cm, mot ool & fos Pkst, VPr- Pr Poro, NS.

-2100

{BASE KANSAS CITY} SH: blk subcarb- carb, sm pyrct.

SH: dk gy-blk, sm micac, sm pyrct.

SILTS: gy, calc, micac.

SILTY SH: gy, micac, sm calc.

SILTY SH: gy, micac, sm calc.

-2150

SILTY SL: gy, micac, sm calc.

SH: dk gy-blk SH, micac

{Fr- Gd SFO}

{SI- Fr SFO}

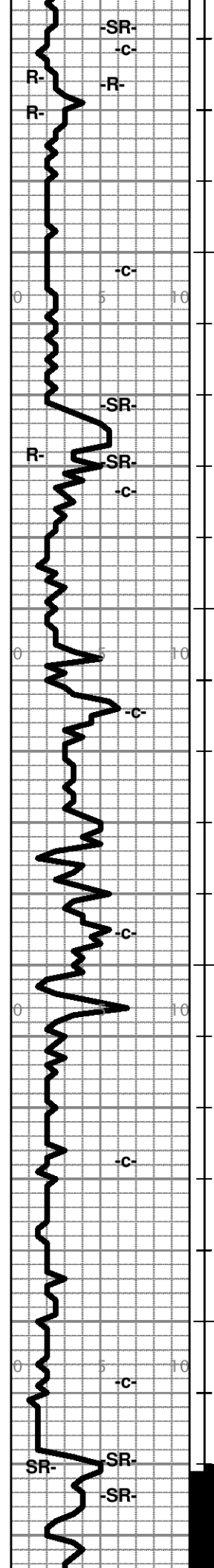
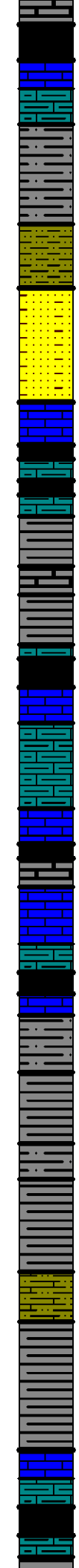
{SI SFO}

{SI SFO}

{Trc SFO}

{SI- Fr SFO}

**2100'(-750)**  
**BASE KANSAS CITY**



SH: dk gy-blk sh, micac.

SH: gy-bk fis, sm carb, sm lmy. & LS: tn-wh, dn- chlky.

{CHECKERBOARD} LS: tn-gy-wh, sm dn Mdst, Abndt mot Wkst- Pkst, Pred dn, sm silty- shly, argil, sm fos- ool, VPr- NVP, NS.

SH & SILTY SH: dk-lt gn-gy, sm micac & pyrct.

SILTS: lt- md gy & gn-gy, micac, sm Vfnly sndy.

{HEPLER} SS- SILTY SD CLUST: gy-wh & gn-gy, Vfn Gr'd, Rr Vfn- fn Gr'd, Rnd'd- subanglr w/sm Pr- Fr IGr Poro, Sl- Fr SFO- Gsy Conds, VSI Cut.

{ALTAMONT} LS: tn-gy-wh, Pred dn, sm Mdst- Wkst, dn to chlky w/VPr- NVP.

SH: sm blk carb & subcarb & gy-blk & gn-gy.

LS: gy-tn-cm, Pred dn, sm chlky, sm argil, VPr- NVP.

SH: gy-blk, sm pyrct.

SH: AA & blk Vcarb, sm pyrct, sm calc- lmy.

LS: tn-gy-cm, Pred dn Mdst- Wkst, Rr Pkst, Pr- NVP, NS, sm shly- argil.

LS: dk-lt gy & tn & wh, Pred dn AA & sm chlky, VPr- NVP.

SH: blk carb- Vcarb & dk gy.

sm calc & lmy SH.

LS: dk-lt gy-tn-bn, dn- ux Mdst w/ VPr- NVP, NS.

{CHEROKEE} SH: blk carb- Vcarb.

LS: gy, dn & grnlr Pkst, ux- frx,

SILTY SH: lt to md gy, micac.

SH- SILTS: lt-md gy, micac.

SH- SILTS: lt-md gy, micac.

SH: dk gy-blk, sm carb, sm silty, sm pyrct.

Abndt SILTS: dk gy-blk, micac, calc, Rr LS: gy-blk, dn & argil.

SH: blk subcarb- carb & pyrct & dk gy, sm micac.

{ARDMORE} LS: tn-gy-bf, sm mot Wkst- Pkst, sm dn Mdst, VPr- NVP, NS, sm argil.

SH: blk carb- Vcarb & Vpyrct.

**2173' (-823)  
CHECKERBOARD**

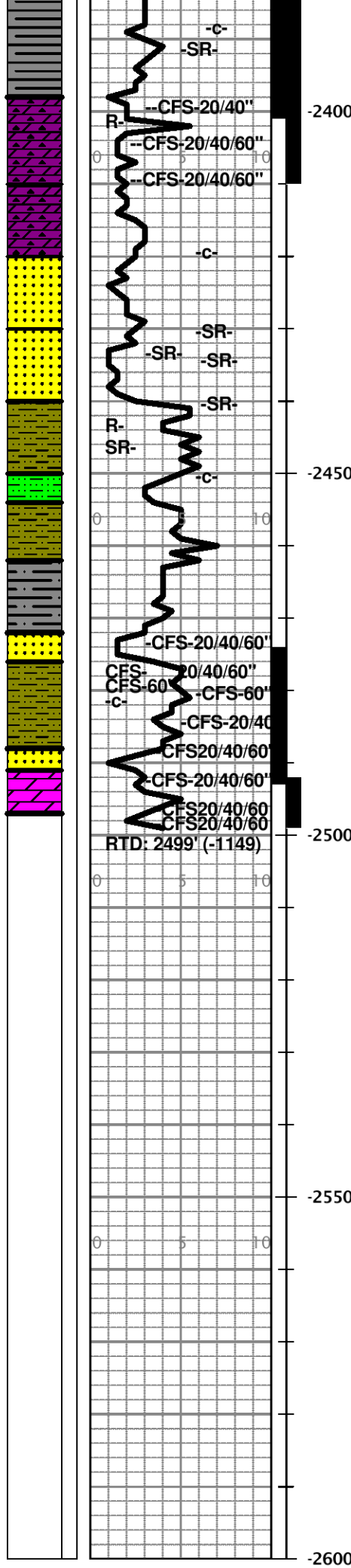
**2205' (-855)  
HEPLER SD  
{Fr SFO}**

**2221' (-871)  
ALTAMONT**

**2301' (-951)  
CHEROKEE**

**2368' (-1018)  
ARDMORE**

**DST#2 VIOLA  
2371'-2401'  
30-45-45-60  
1st Op: 1/4" in  
30", No BB  
2nd Op: No  
blo, No BB  
Rec: 10'M  
IHP: 1115  
IFP: 26-35  
ISIP:731  
FFP: 26-27  
ESP: 671**



LS: dk-lt gy, Vargil, dn w/VPr- NVP.

SH: AA & gn-gy, VRr Tn, dn Lithogr Mdst.

{VIOLA} 2400' 40 min spl} Shrp incrs Viola (~50%) ~60% DOLO: bf-Tn, rich Tn-bn OSTN, ux- Vfnxln, u-sucro-sucro, ~30% w/Fr- Gd Poro: IX Poro, pp- vug Poro, sat STN, brt FLR, Fr- Gd SFO & strmg-milky cut; sm ux-vfnxln, prt dn w/Pr- Fr por, spt'd- subsat STN- FLR, VCherty: ~30%-40% CHERT: wh-gy-Tn-STN, opq, sm Tripolc & dolomc w/IGr Por, spt'd- subsat STN- FLR- SFO & Cut.

{SIMPSON} Abndt SD CLUST: bf-gy-wh, Vfn Gr'd- fn Gr'd, Rr fn- Md Gr'd, well cmt'd- fribl w/Pr- Fr Porp, Rr Gd Poro, subsat STN, Sl- Fr SFO-Gsy, sm pyrct.

VAbndt SD CLUST: bf-tn, Lt OSTN, Vfn- Md Gr'd, Pred fn Gr'd, well rnd'd- sub rnd'd, Fribl w/Pr- Gd Poro, sat- subsat STN- FLR, Fr SFO- Gs, Odor.

SH- SILTS: aqua- turq-gn, Vfnly sndy, sm pyrct, well cmt'd SD CLUST: Vfn- md Gr'd, well rnd'd- anglr, argil, shly w/VPr- NVP w/NS. sm sndy, NS.

SILTS- SH: lt-dk gy & gn-gy, Vfn- Md Gr'd AA & gn-gy micac SH.

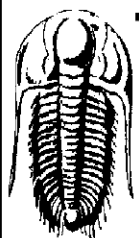
SS- SD CLUST: Vfn- md Gr'd, rnd- anglr, well cmt- fribl, Fr- Gd SFO- FLR- STN, sm DOLO: tn-gy, ux- Mdx, Pr- Fr Poro, spt'd- subsat STN- SFO.

VAbndt F.SD: VAbndt turq-gn SH: smi wxy, sm silty & sndy turq-gn SH.

{BASAL SIMPSON SD} 2489' 40 min spl} VAbndt SD CLUST: (~70%) Rich Tn bn- sat OSTN, Vfn- Md Gr'd, Pred Vfn- fn Gr'd, Rnd'd- subanglr, well sort'd to mod well sort'd, well cmt'd to fribl, VGd SFO- Cds- Gsy & VGd Cut, VStrng Odor.

{ARBUCKLE} 2493' 40 min spl} Incrs DOLO: bf-cm, ux- Vfnxln, Vfnly grnlr, Sl pyrct, VPr- Pr visbl Poro, sm spt'd FLR & Lt STN & SI SFO, Frly Strng Odor; sm mx- fnxln- sucro w/spt'd vug Poro w/Fr visbl Poro: IX & vug Poro w/spt'd- subsat STN & FLR & SI SFO & Cut. (~10% Sd AA), Frly Strng Odor.

		FSP: 671 FHP: 1112 BHT: 108F
2398' (-1048) <b>VIOLA</b> {Fr- Gd SFO}	DST #3 VIOLA 2370'-2410' 30-45-45-60 1st Op: BOB in 2" 2nd Op: BOB in 3" Rec: 1050'TF: 520' MCW(85%W) 530'DM Tool spl: 7%M,93%W IHP: 1152 IFP: 74-295 ISIP: 752 FFP: 323-481 FSIP: 763 FHP: 1107 BHT:107F	
2420' (-1070) <b>SIMPSON</b> {SI- Fr SFO}	DST #4 Lwr SIMP/ARB 2474'-2493' 30-45-45-60 1st Op: Wk blo, bldg to strng blo, BOB in 5', No BB 2nd Op: Wk blo, bldg to strng blo, BOB in 5', No BB Rec: 955' TF: 10' FO 945' OCW Tool spl: OMCW 1%O,95%W,4%M IHP: 1184 IFP: 35-211 ISIP: 958 FFP: 224-437 FSIP: 960 FHP: 1160 BHT 110F	
{SI SFO}		
2488' (-1138) <b>B.SIMPSON SD</b> {VGd SFO} 2491' (-1141) <b>ARBUCKLE</b> {Gd SFO}	DST #5 ARBUCKLE 2492'-2499' 30-45-45-60 1st Op: BOB 15", No BB 2nd Op: BOB 20", No BB Rec: 2165' TF: 1855' OMCW (2%O,95%W,3%M) 125'HMCWtrcO (61%W,39%M) 185'OHWCW (1%O,25%W, 74%M) Tool Spl: 5%O,82%W,13%M IHP:1187 IFP:426 ISIP: 964 FFP: 899 FSIP: 973 FHP: 1169 BHT: 108F	
Mud@ 2478: wt 8.9,Vis57 PV 19,YP19 WL 9.6,pH 10.8 LCM 1.5,C11200		
VES OIL CORP CHESNEY A 241 1000'FNL&2610'FWL Sec 21-25S-05E BUTLER CO.,KS API#15-015-24087		



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Vess Oil Corp.  
1700 Waterfront Parkway  
Building 500  
Wichit, KS 67206  
ATTN: Casey Coats/Roger Ma

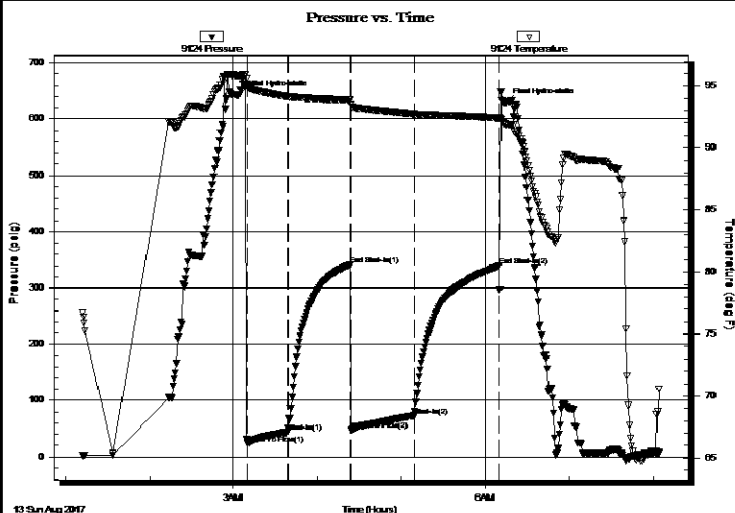
**21/25S/5E Butler, KS**  
**Chesney A #241**  
Job Ticket: 63585      **DST#: 1**  
Test Start: 2017.08.13 @ 01:12:00

### GENERAL INFORMATION:

Formation: **Douglas Sand**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 03:09:40  
Time Test Ended: 08:03:20  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Jimmy Ricketts  
Unit No: 80  
Interval: **1370.00 ft (KB) To 1459.00 ft (KB) (TVD)**  
Reference Elevations: 1353.00 ft (KB)  
Total Depth: 1459.00 ft (KB) (TVD)                      1347.00 ft (CF)  
Hole Diameter: 6.88 inches Hole Condition: Fair                      KB to GR/CF: 6.00 ft

**Serial #: 9124      Inside**  
Press@RunDepth: 73.13 psig @ 1371.00 ft (KB)                      Capacity: 8000.00 psig  
Start Date: 2017.08.13      End Date: 2017.08.13                      Last Calib.: 2017.08.13  
Start Time: 01:12:05      End Time: 08:03:20                      Time On Btm: 2017.08.13 @ 03:03:50  
Time Off Btm: 2017.08.13 @ 06:14:39

**TEST COMMENT:** IF - Weak blow building to strong blow 90 seconds into initial flow period.  
FF - Weak blow building to strong blow 1 minute into final flow period.  
FS - Surface blow back during final shut-in period.  
Tool Sample - Oil cut mud 4% O & 96% M.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	642.59	95.82	Initial Hydro-static
6	23.42	95.15	Open To Flow (1)
35	43.23	94.12	Shut-In(1)
80	341.03	93.85	End Shut-In(1)
81	47.41	93.47	Open To Flow (2)
125	73.13	92.72	Shut-In(2)
186	339.16	92.39	End Shut-In(2)
191	629.94	91.90	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
130.00	Slight oil spotted mud trace O & 100% M	0.64
0.00	115: Gas in pipe 100% G	0.00

### Gas Rates

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



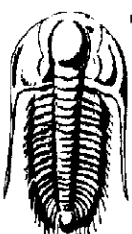


0.00	115; Gas in pipe 100% G	0.00
0.00	Tool Sample Oil cut mud 4% O & 96% M	0.00

Trilobite Testing, Inc

Ref. No: 63585

Printed: 2017.08.13 @ 09:42:33

 <b>TRILOBITE TESTING, INC</b>	<b>DRILL STEM TEST REPORT</b>	<b>FLUID SUMMARY</b>
	Vess Oil Corp. 1700 Waterfront Parkway Building 500 Wichit, KS 67206 ATTN: Casey Coats/Roger Ma	<b>21/25S/5E Butler, KS</b>  <b>Chesney A #241</b> Job Ticket: 63585 Test Start: 2017.08.13 @ 01:12:00

**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:	ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1320.00 ppm			
Filter Cake: inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
130.00	Slight oil spotted mud trace O & 100% M	0.639
0.00	115; Gas in pipe 100% G	0.000
0.00	Tool Sample Oil cut mud 4% O & 96% M	0.000

Total Length: 130.00 ft      Total Volume: 0.639 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

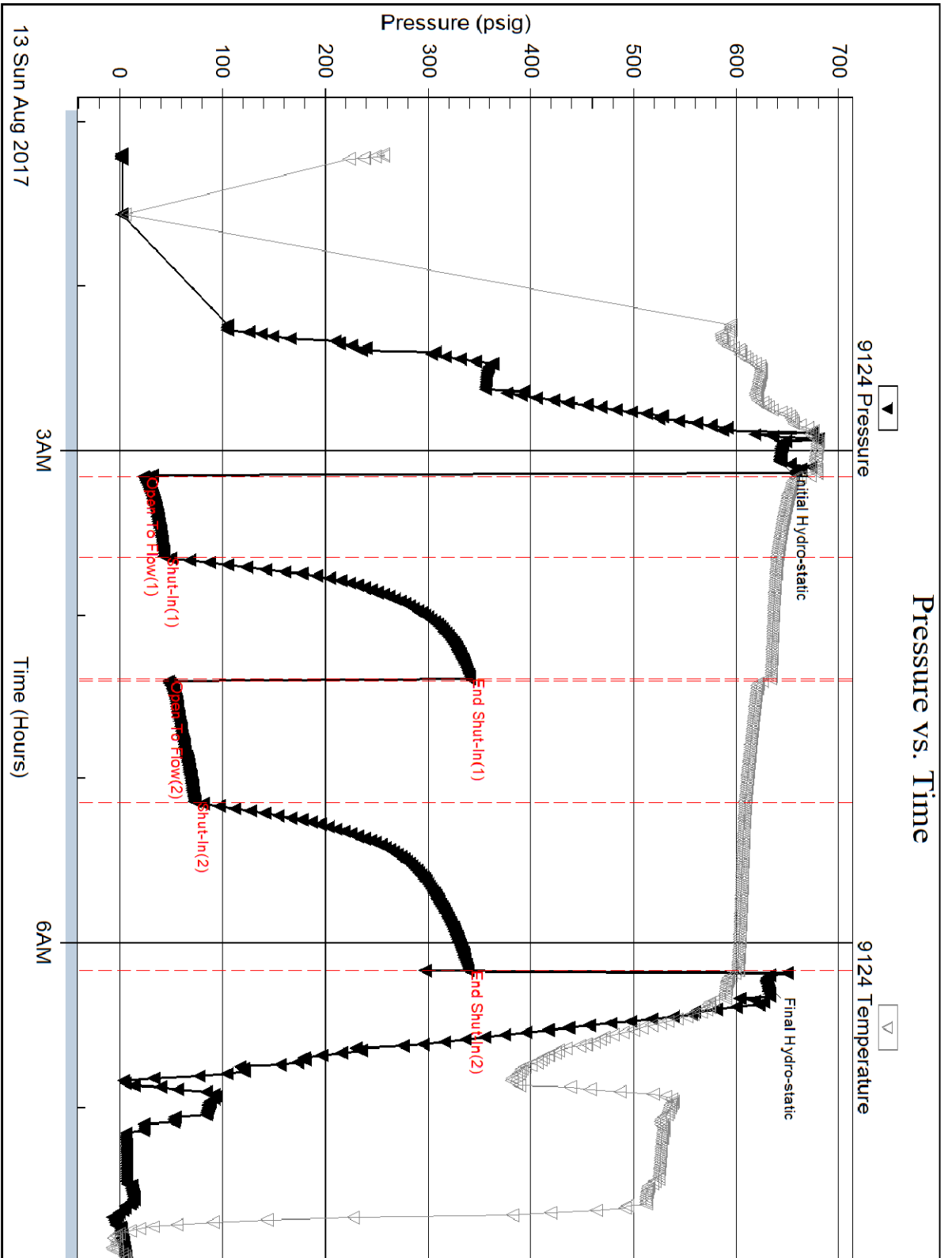
Serial #: 9124

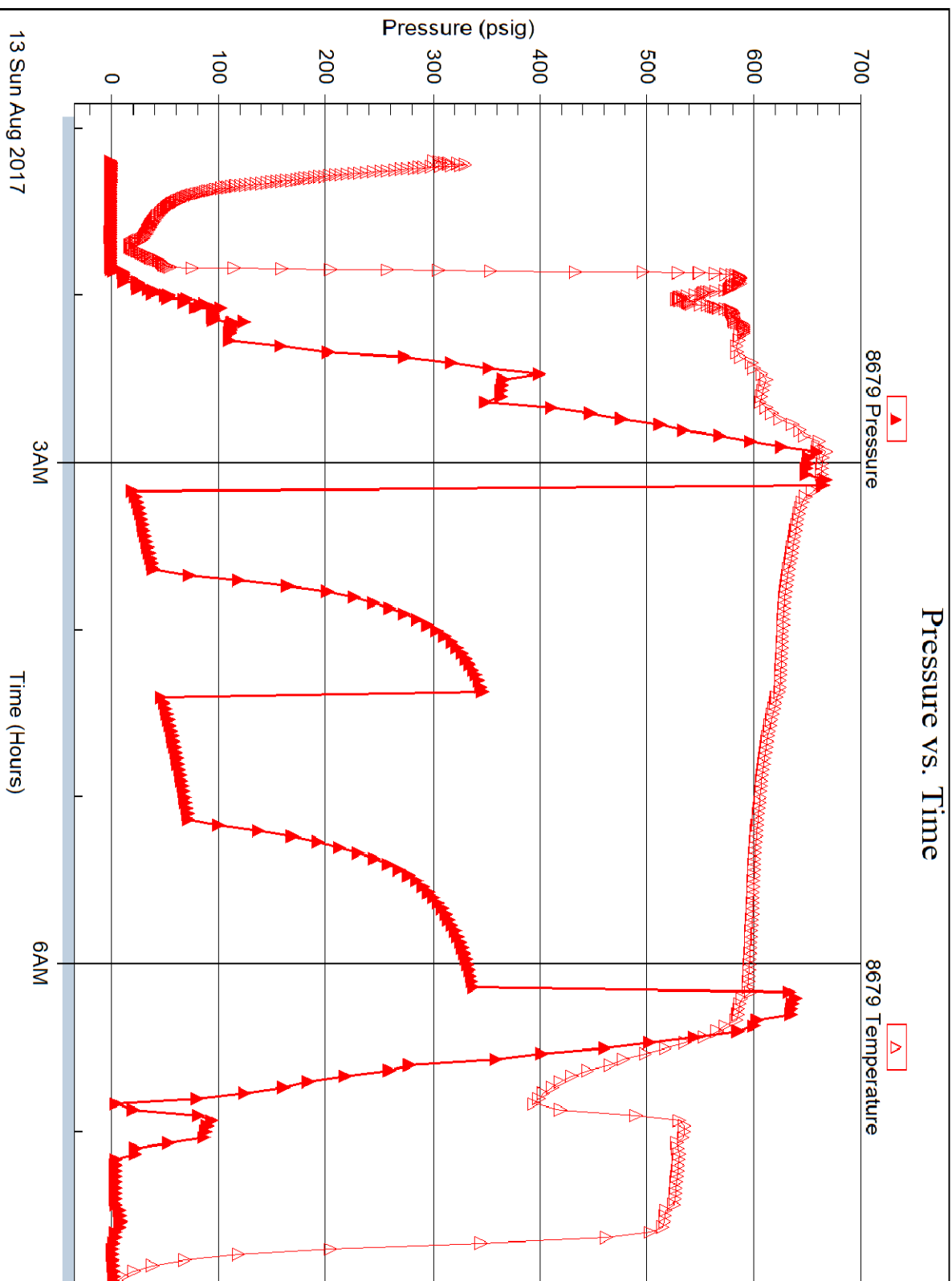
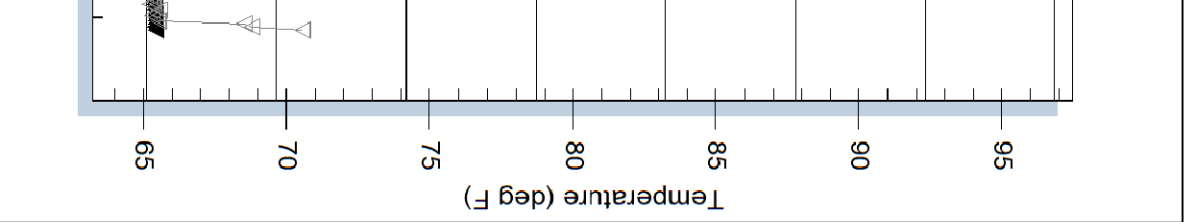
Inside

Vess Oil Corp.

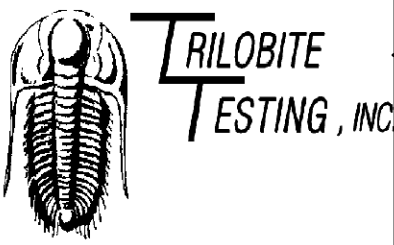
Chesney A #241

DST Test No.









## DRILL STEM TEST REPORT

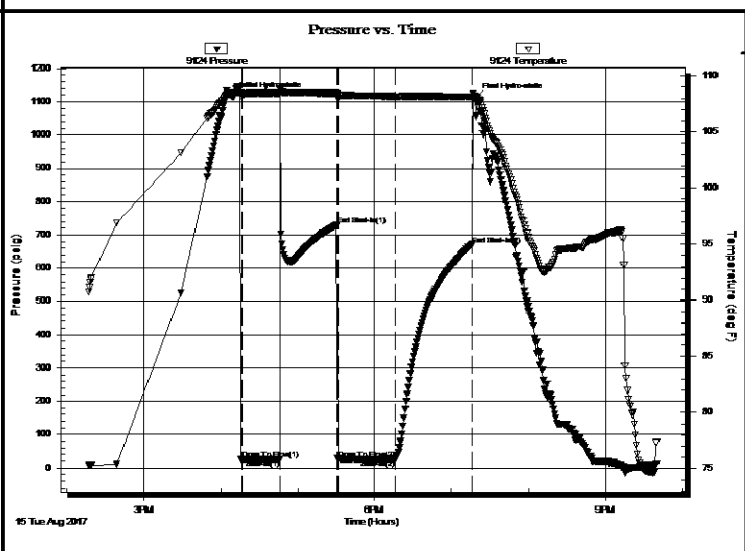
Vess Oil Corp. 1700 Waterfront Parkway Building 500 Wichit, KS 67206 ATTN: Casey Coats/Roger Ma	<b>21/25S/5E Butler, KS</b>  <b>Chesney A #241</b> Job Ticket: 63586 <b>DST#: 2</b> Test Start: 2017.08.15 @ 14:17:00
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**GENERAL INFORMATION:**

Formation: <b>Viola</b> Deviated: No Whipstock: ft (KB) Time Tool Opened: 16:16:30 Time Test Ended: 21:39:30  <b>Interval: 2371.00 ft (KB) To 2401.00 ft (KB) (TVD)</b> Total Depth: 2401.00 ft (KB) (TVD) Hole Diameter: 6.88 inches Hole Condition: Fair	Test Type: Conventional Bottom Hole (Initial) Tester: Jimmy Ricketts Unit No: 80  Reference Elevations: 1353.00 ft (KB) 1347.00 ft (CF) KB to GR/CF: 6.00 ft
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<b>Serial #: 9124</b>	<b>Inside</b>				
Press@RunDepth: 26.52 psig @ 2372.00 ft (KB)	Capacity: 8000.00 psig				
Start Date: 2017.08.15	End Date: 2017.08.15	Last Calib.: 1899.12.30			
Start Time: 14:17:05	End Time: 21:39:29	Time On Btm: 2017.08.15 @ 16:09:40			
		Time Off Btm: 2017.08.15 @ 19:18:09			

**TEST COMMENT:** IF - Weak blow building to 1/4 inch initial flow period.  
 FF - No blow.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1115.45	108.38	Initial Hydro-static
7	25.86	108.32	Open To Flow (1)
37	25.16	108.42	Shut-In(1)
81	730.66	108.43	End Shut-In(1)
82	26.35	108.28	Open To Flow (2)
127	26.52	108.16	Shut-In(2)
187	671.24	108.11	End Shut-In(2)
189	1112.47	108.08	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	Drilling mud 100% M	0.05

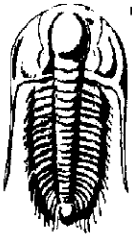
Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)




Trilobite Testing, Inc

Ref. No: 63586

Printed: 2017.08.15 @ 22:39:33

 <p style="font-size: 2em; font-weight: bold; margin: 0;">TRILOBITE TESTING, INC</p>	DRILL STEM TEST REPORT	FLUID SUMMARY
	<p>Vess Oil Corp.</p> <p>1700 Waterfront Parkway Building 500 Wichit, KS 67206 ATTN: Casey Coats/Roger Ma</p>	<p><b>21/25S/5E Butler, KS</b></p> <p><b>Chesney A #241</b></p> <p>Job Ticket: 63586      <b>DST#: 2</b></p> <p>Test Start: 2017.08.15 @ 14:17:00</p>

**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:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.19 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 950.00 ppm			
Filter Cake: inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
10.00	Drilling mud 100% M	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

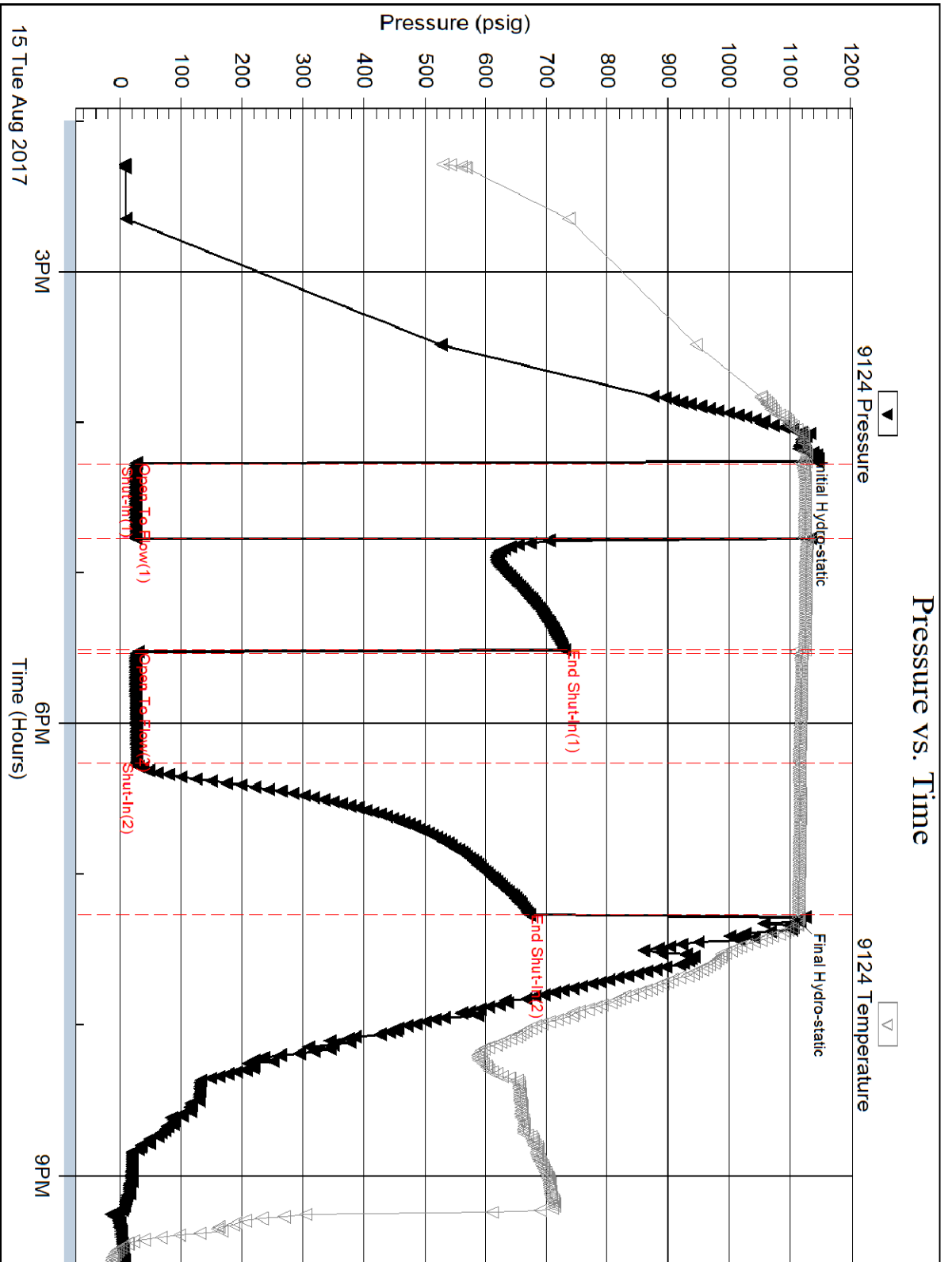
Serial #: 9124

Inside

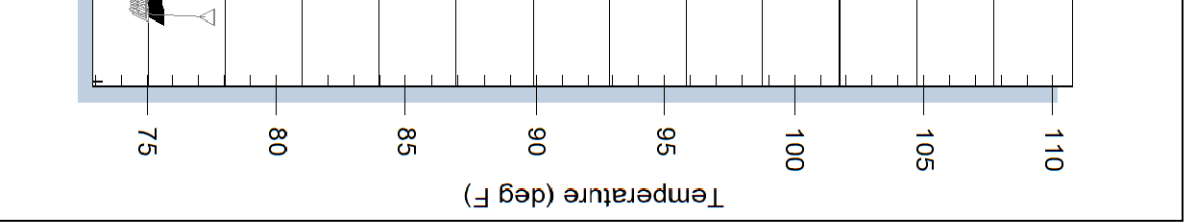
Vess Oil Corp.

Chesney A #241

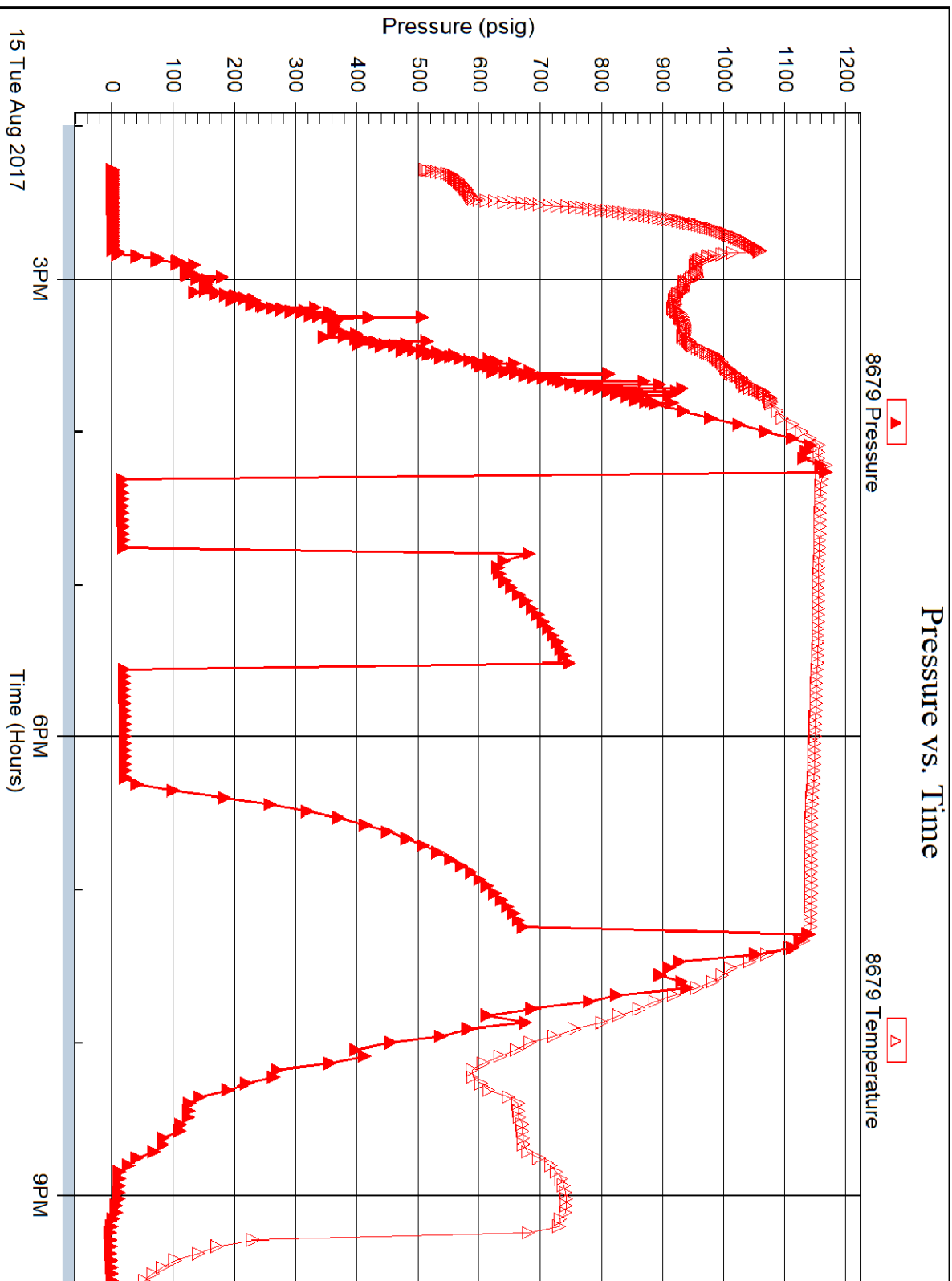
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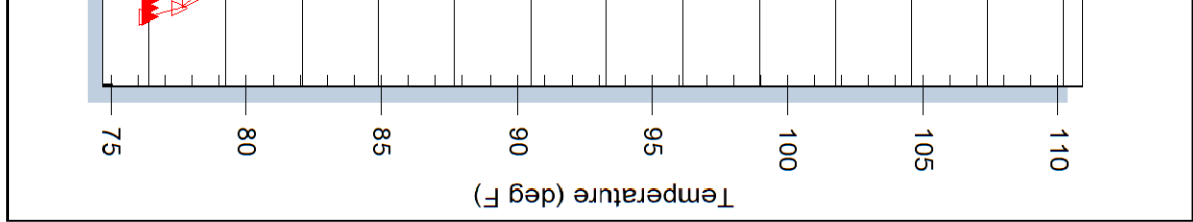
15 @ 22:39:33

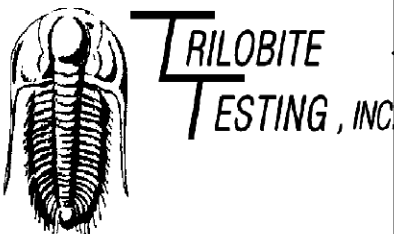


Trilobite Testing, Inc

Ref. No: 63586

Printed: 2017.08





## DRILL STEM TEST REPORT

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Vess Oil Corp.  
1700 Waterfront Parkway  
Building 500  
Wichit, KS 67206  
ATTN: Casey Coats/Roger Ma

**21/25S/5E Butler, KS**  
**Chesney A #241**  
Job Ticket: 63587      **DST#: 3**  
Test Start: 2017.08.16 @ 04:59:05

**GENERAL INFORMATION:**

Formation: **Viola**  
 Deviated: No Whipstock:                      ft (KB)  
 Time Tool Opened: 07:00:00  
 Time Test Ended: 12:33:09

**Interval: 2370.00 ft (KB) To 2410.00 ft (KB) (TVD)**  
 Total Depth: 2410.00 ft (KB) (TVD)  
 Hole Diameter: 6.88 inches Hole Condition: Fair

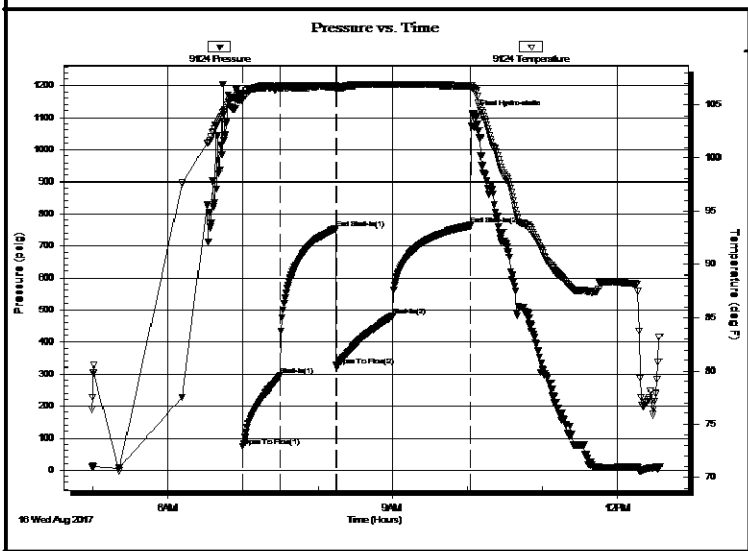
Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jimmy Ricketts  
 Unit No: 80

Reference Elevations: 1353.00 ft (KB)  
 1347.00 ft (CF)  
 KB to GR/CF: 6.00 ft

**Serial #: 9124      Inside**

Press@RunDepth: 480.68 psig @ 2371.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2017.08.16      End Date: 2017.08.16	Last Calib.: 2017.08.16
Start Time: 04:59:05      End Time: 12:33:10	Time On Btm: 2017.08.16 @ 06:59:00
	Time Off Btm: 2017.08.16 @ 10:04:50

**TEST COMMENT:** IF - Weak blow building to strong blow 2 minutes into initial flow period.  
 FF - Weak blow building to strong blow 3 minutes into final flow period.  
 TS - Mud cut water 7% M & 93% W.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1151.69	106.09	Initial Hydro-static
1	74.48	105.53	Open To Flow (1)
31	295.35	106.72	Shut-In(1)
76	752.25	106.73	End Shut-In(1)
77	322.86	106.62	Open To Flow (2)
121	480.68	106.86	Shut-In(2)
184	763.02	106.78	End Shut-In(2)
186	1107.04	106.48	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
520.00	Mud cut water 15% M & 85% W	4.24
530.00	Drilling mud 100% M	5.74

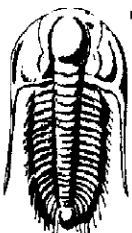
Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

0.00	Tool Sample - mud cut w ater 7%M & 93%0.00

Trilobite Testing, Inc

Ref. No: 63587

Printed: 2017.08.16 @ 13:22:28

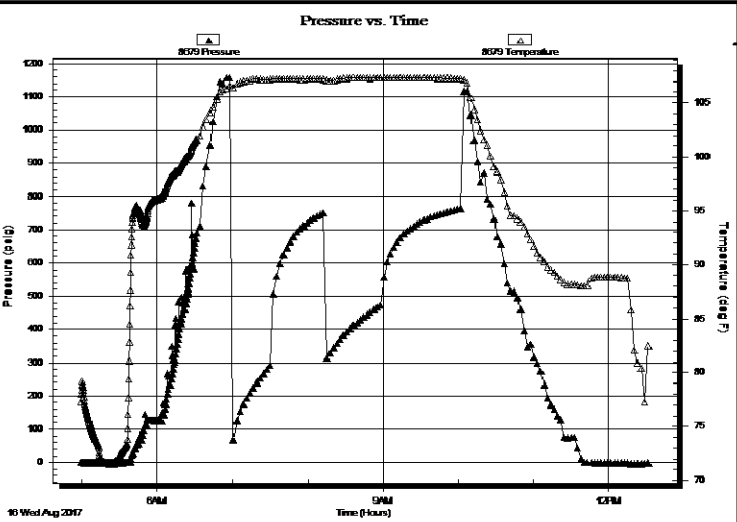
 <b>TRILOBITE TESTING, INC</b>	<b>DRILL STEM TEST REPORT</b>	
	Vess Oil Corp. 1700 Waterfront Parkway Building 500 Wichit, KS 67206 ATTN: Casey Coats/Roger Ma	<b>21/25S/5E Butler, KS</b>  <b>Chesney A #241</b> Job Ticket: 63587 <b>DST#: 3</b> Test Start: 2017.08.16 @ 04:59:05

**GENERAL INFORMATION:**

Formation: <b>Viola</b>	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: ft (KB)	Tester: Jimmy Ricketts
Time Tool Opened: 07:00:00	Unit No: 80
Time Test Ended: 12:33:09	Reference Elevations: 1353.00 ft (KB)
<b>Interval: 2370.00 ft (KB) To 2410.00 ft (KB) (TVD)</b>	1347.00 ft (CF)
Total Depth: 2410.00 ft (KB) (TVD)	KB to GR/CF: 6.00 ft
Hole Diameter: 6.88 inches Hole Condition: Fair	

<b>Serial #: 8679</b>	<b>Outside</b>	Capacity: 8000.00 psig
Press@RunDepth: psig @ 2371.00 ft (KB)	Start Date: 2017.08.16	End Date: 2017.08.16
Start Time: 04:59:01	End Time: 12:33:20	Last Calib.: 1899.12.30
		Time On Btm:
		Time Off Btm:

**TEST COMMENT:** IF - Weak blow building to strong blow 2 minutes into initial flow period.  
 FF - Weak blow building to strong blow 3 minutes into final flow period.  
 TS - Mud cut w ater 7% M & 93% W.



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

Recovery		
Length (ft)	Description	Volume (bbl)
520.00	Mud cut water 15% M & 85% W	4.24
530.00	Drilling mud 100% M	5.74

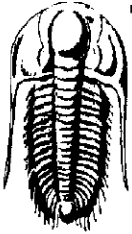
Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

0.00	Tool Sample - mud cut w ater 7%M & 93%W	0.00

Trilobite Testing, Inc

Ref. No: 63587

Printed: 2017.08.16 @ 13:22:28

 <p><b>TRILOBITE TESTING, INC</b></p>	<b>DRILL STEM TEST REPORT</b>	<b>FLUID SUMMARY</b>
	<p>Vess Oil Corp. 1700 Waterfront Parkway Building 500 Wichit, KS 67206 ATTN: Casey Coats/Roger Ma</p>	<p><b>21/25S/5E Butler, KS</b> <b>Chesney A #241</b> Job Ticket: 63587 Test Start: 2017.08.16 @ 04:59:05</p>

**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: 18000 ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.48 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1200.00 ppm		
Filter Cake: inches		

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
520.00	Mud cut w ater 15% M & 85% W	4.238
530.00	Drilling mud 100% M	5.744
0.00	Tool Sample - mud cut w ater 7%M & 93%W	0.000

Total Length: 1050.00 ft      Total Volume: 9.982 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

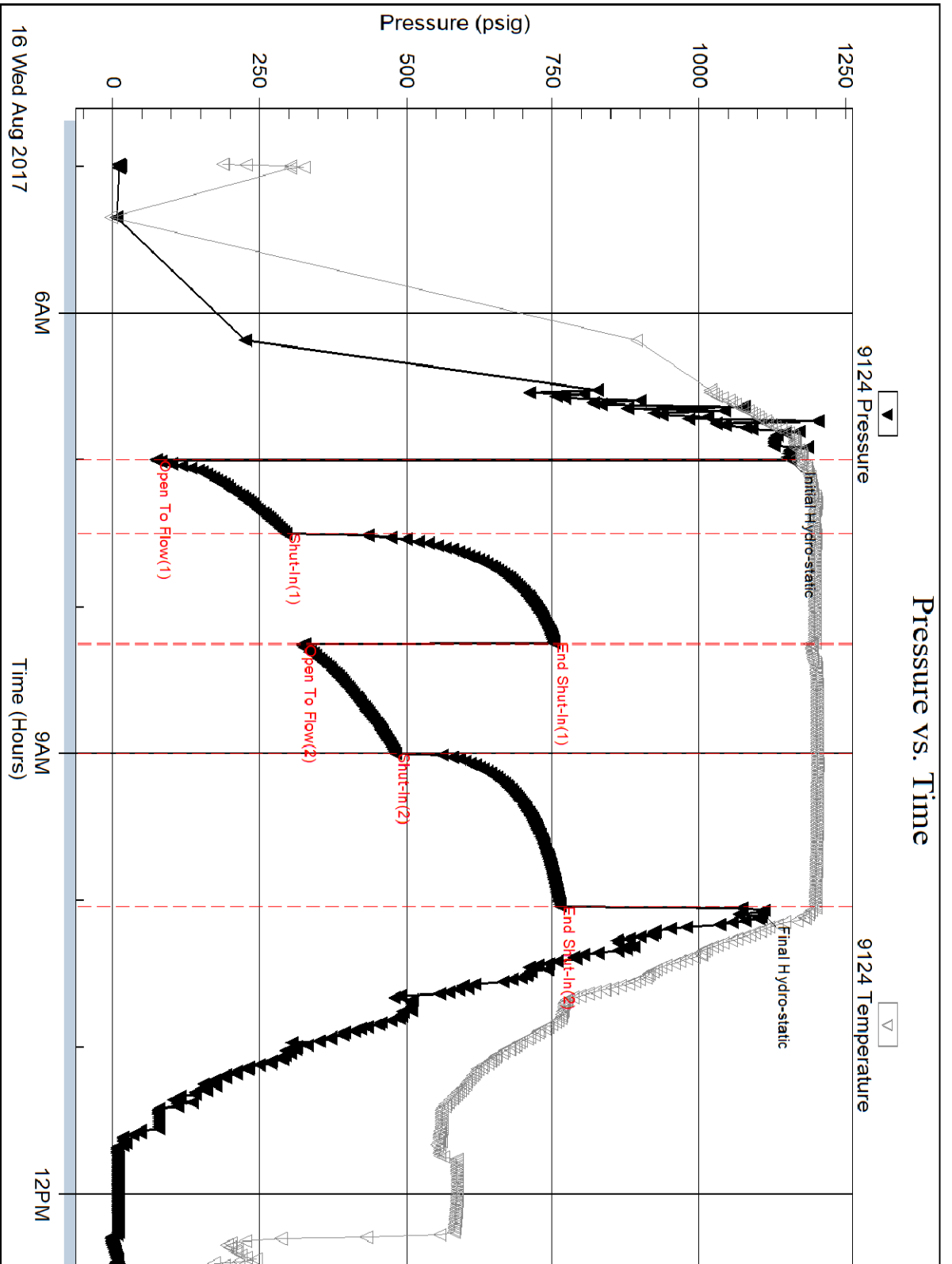
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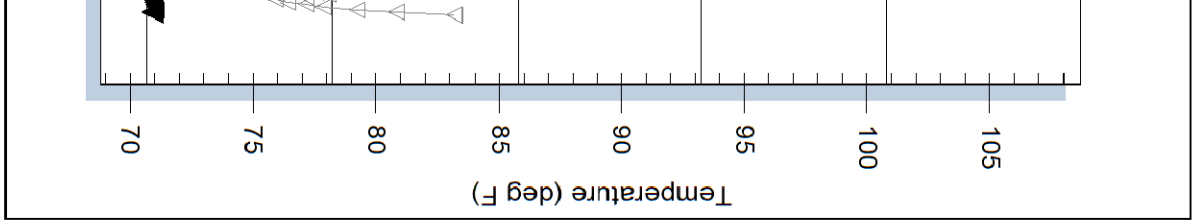
Inside

Vess Oil Corp.

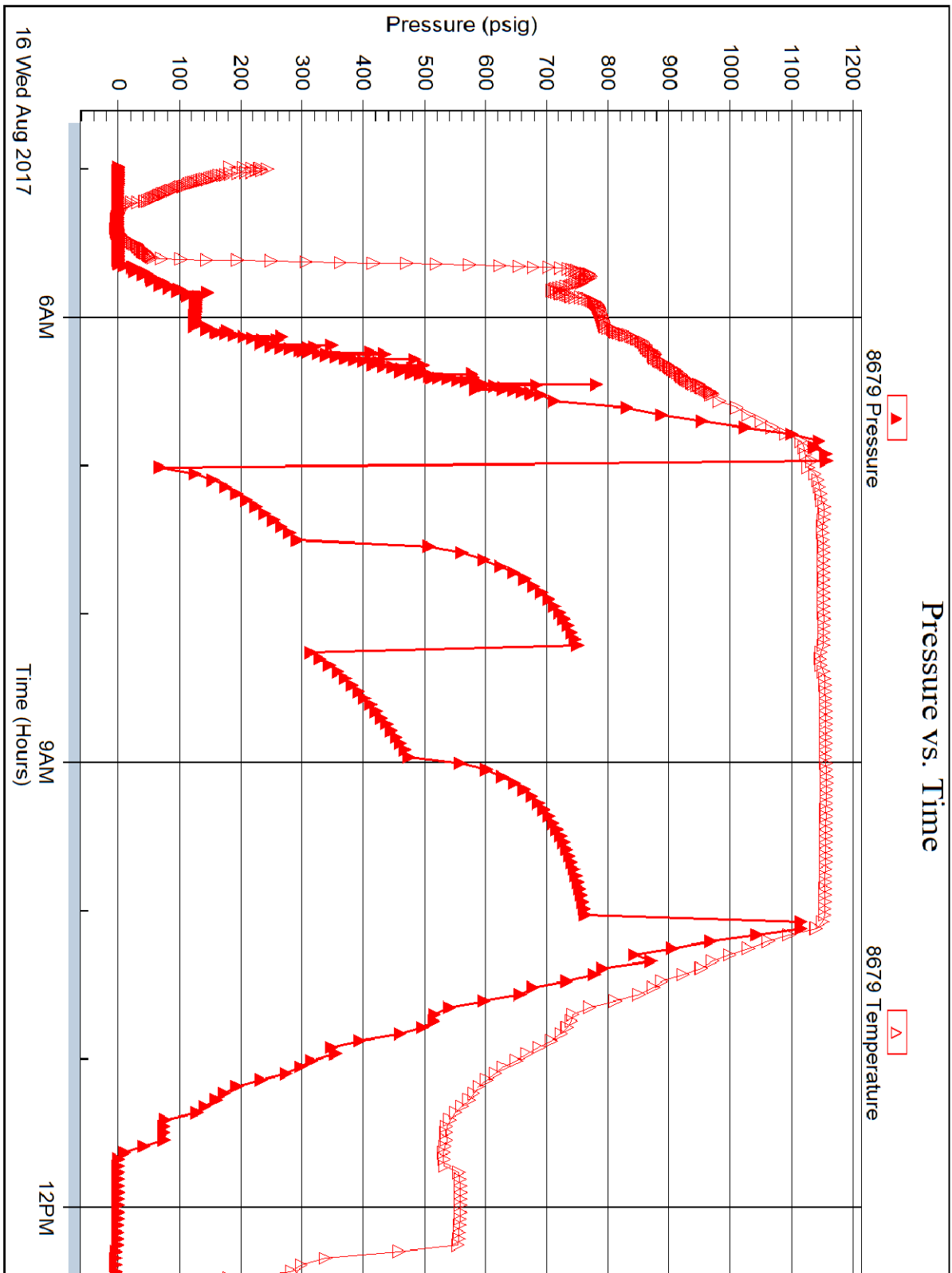
Chesney A #241

DST Test Nu





16 @ 13:22:29



Trilobite Testing, Inc

Ref. No: 63587

Printed: 2017.08

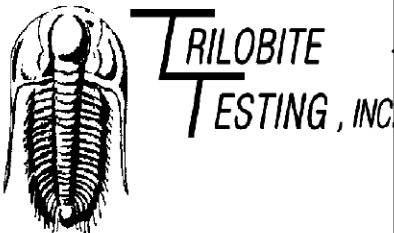


10.00	Clean oil 100% O	0.11
0.00	TS O & M cut W 1%O 95%W & 4%M	0.00

Trilobite Testing, Inc

Ref. No: 63588

Printed: 2017.08.17 @ 22:07:10

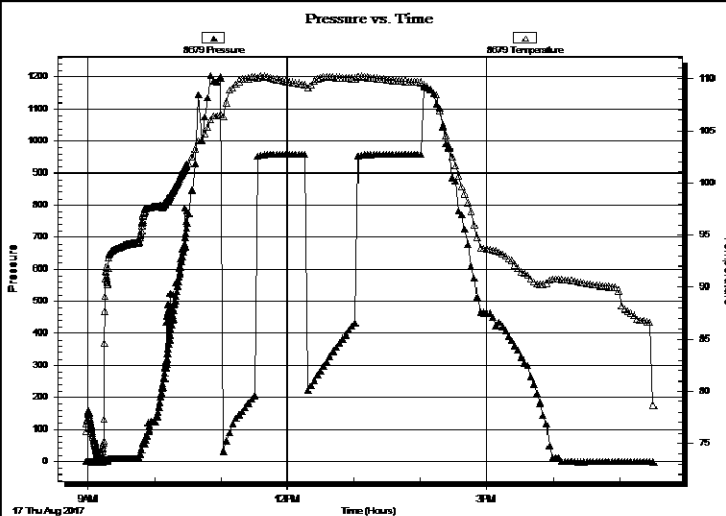
	<b>DRILL STEM TEST REPORT</b>	
	Vess Oil Corp. 1700 Waterfront Parkway Building 500 Wichita, KS 67206 ATTN: Casey Coats/Roger Ma	<b>21/25S/5E Butler, KS</b>  <b>Chesney A #241</b> Job Ticket: 63588 <b>DST#: 4</b> Test Start: 2017.08.17 @ 08:58:00

**GENERAL INFORMATION:**

Formation: <b>BsI Simpson Sand &amp; A</b>	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: ft (KB)	Tester: Jimmy Ricketts
Time Tool Opened: 11:01:40	Unit No: 80
Time Test Ended: 17:31:30	Reference Elevations: 1353.00 ft (KB)
Interval: <b>2474.00 ft (KB) To 2493.00 ft (KB) (TVD)</b>	1347.00 ft (CF)
Total Depth: 2493.00 ft (KB) (TVD)	KB to GR/CF: 6.00 ft
Hole Diameter: 6.88 inches Hole Condition: Fair	

<b>Serial #: 8679</b>	<b>Outside</b>				
Press@RunDepth: psig @ 2475.00 ft (KB)	Capacity: 8000.00 psig				
Start Date: 2017.08.17	End Date: 2017.08.17	Last Calib.: 1899.12.30			
Start Time: 08:58:01	End Time: 17:31:40	Time On Btm:			
		Time Off Btm:			

**TEST COMMENT:** IF - Weak blow building to strong blow 5 minutes into initial flow period.  
 FF - Weak blow building to strong blow 5 minutes into final flow period.  
 TS - Oil and mud cut w water 1% oil, 95% water & 4% mud.



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

Recovery		
Length (ft)	Description	Volume (bbl)
575.00	Tr Oil & mud cut w water tr O 95%W & 5%M	14.83
370.00	O & heavy M cut W 5%O 53%W & 42%M	4.01

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

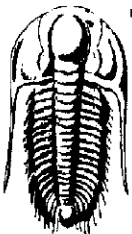


10.00	Clean oil 100% O	0.11
0.00	TS O & M cut W 1%O 95%W & 4%M	0.00

Trilobite Testing, Inc

Ref. No: 63588

Printed: 2017.08.17 @ 22:07:10

 <b>TRILOBITE TESTING, INC</b>	<b>DRILL STEM TEST REPORT</b>	<b>FLUID SUMMARY</b>
	Vess Oil Corp. 1700 Waterfront Parkway Building 500 Wichit, KS 67206 ATTN: Casey Coats/Roger Ma	<b>21/25S/5E Butler, KS</b> <b>Chesney A #241</b> Job Ticket: 63588 <b>DST#: 4</b> Test Start: 2017.08.17 @ 08:58:00

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type:	Oil API: 36.6 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 26000 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.29 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1200.00 ppm		
Filter Cake: inches		

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
575.00	Tr Oil & mud cut water tr O 95%W & 5%M	4.834
370.00	O & heavy M cut W 5%O 53%W & 42%	4.010
10.00	Clean oil 100% O	0.108
0.00	TS O & M cut W 1%O 95%W & 4%M	0.000

Total Length: 955.00 ft      Total Volume: 8.952 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

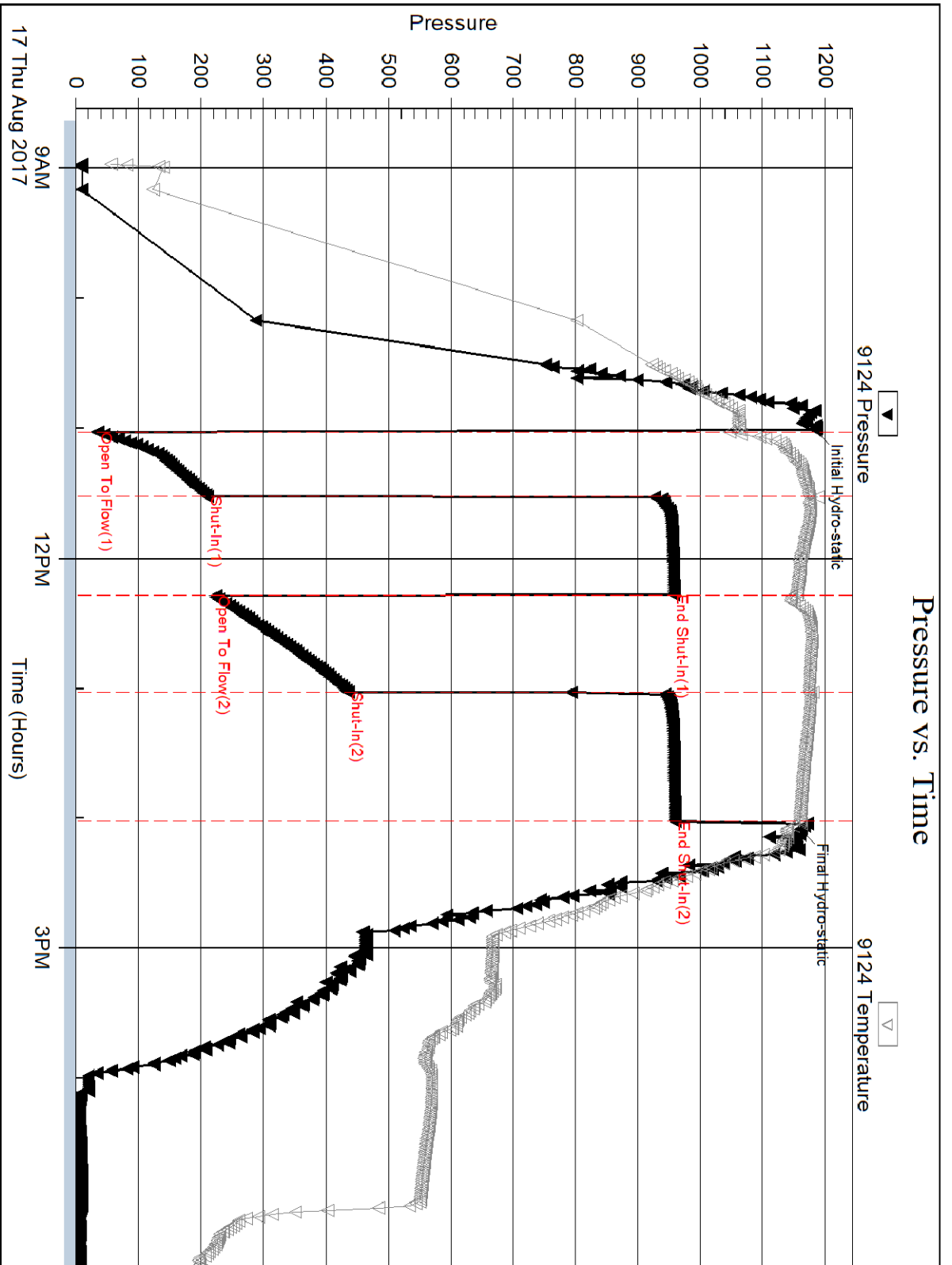
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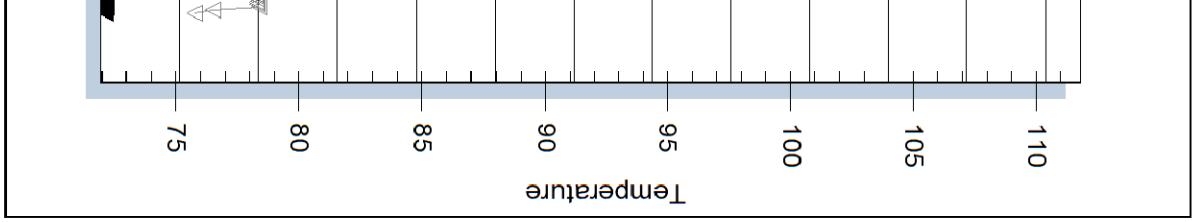
Inside

Vess Oil Corp.

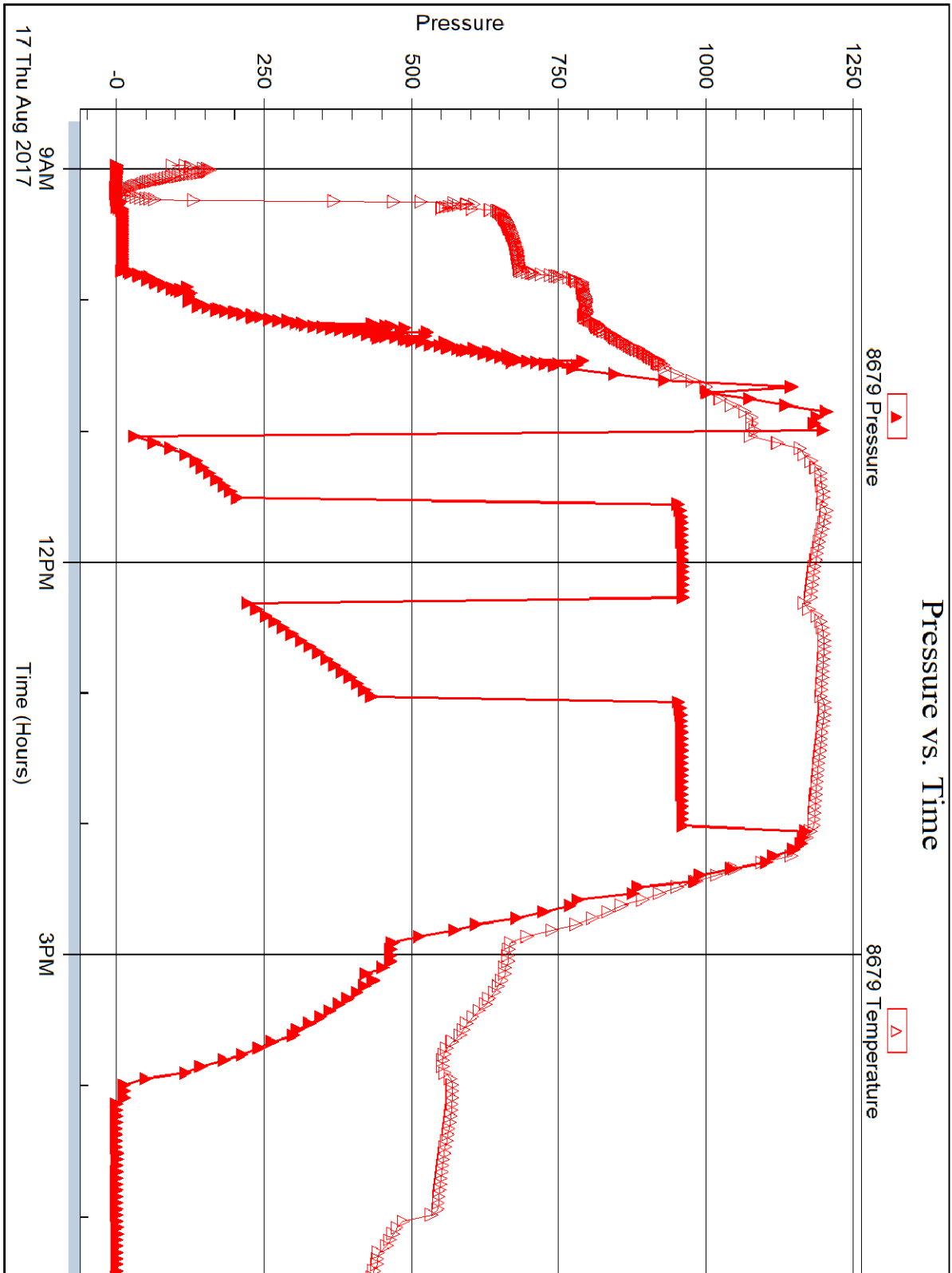
Cheyney A #241

DST Test Nu





17 @ 22:07:10



Tribolite Testing, Inc

Ref. No: 63588

Printed: 2017.08



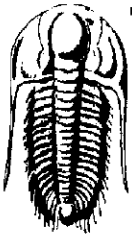


185.00	Oil & heavy W cut M 1%O 25%W & 74%M	2.00
0.00	TS - O & M cut W 5%O 82%W & 13%M	0.00

Trilobite Testing, Inc

Ref. No: 63589

Printed: 2017.08.18 @ 11:14:46

 <b>TRILOBITE TESTING, INC</b>	<b>DRILL STEM TEST REPORT</b>	<b>FLUID SUMMARY</b>
	Vess Oil Corp. 1700 Waterfront Parkway Building 500 Wichit, KS 67206 ATTN: Casey Coats/Roger Ma	<b>21/25S/5E Butler, KS</b>  <b>Chesney A #241</b> Job Ticket: 63589 Test Start: 2017.08.18 @ 01:57:00

**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:	21000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.09 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1580.00 ppm			
Filter Cake: inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
1855.00	Oil & mud cut w ater 2%O 95%W & 3%M	18.705
125.00	Tr O heavy M cut W 61%W & 39%M	1.355
185.00	Oil & heavy W cut M 1%O 25%W & 74%M	2.005
0.00	TS - O & M cut W 5%O 82%W & 13%M	0.000

Total Length: 2165.00 ft      Total Volume: 22.065 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

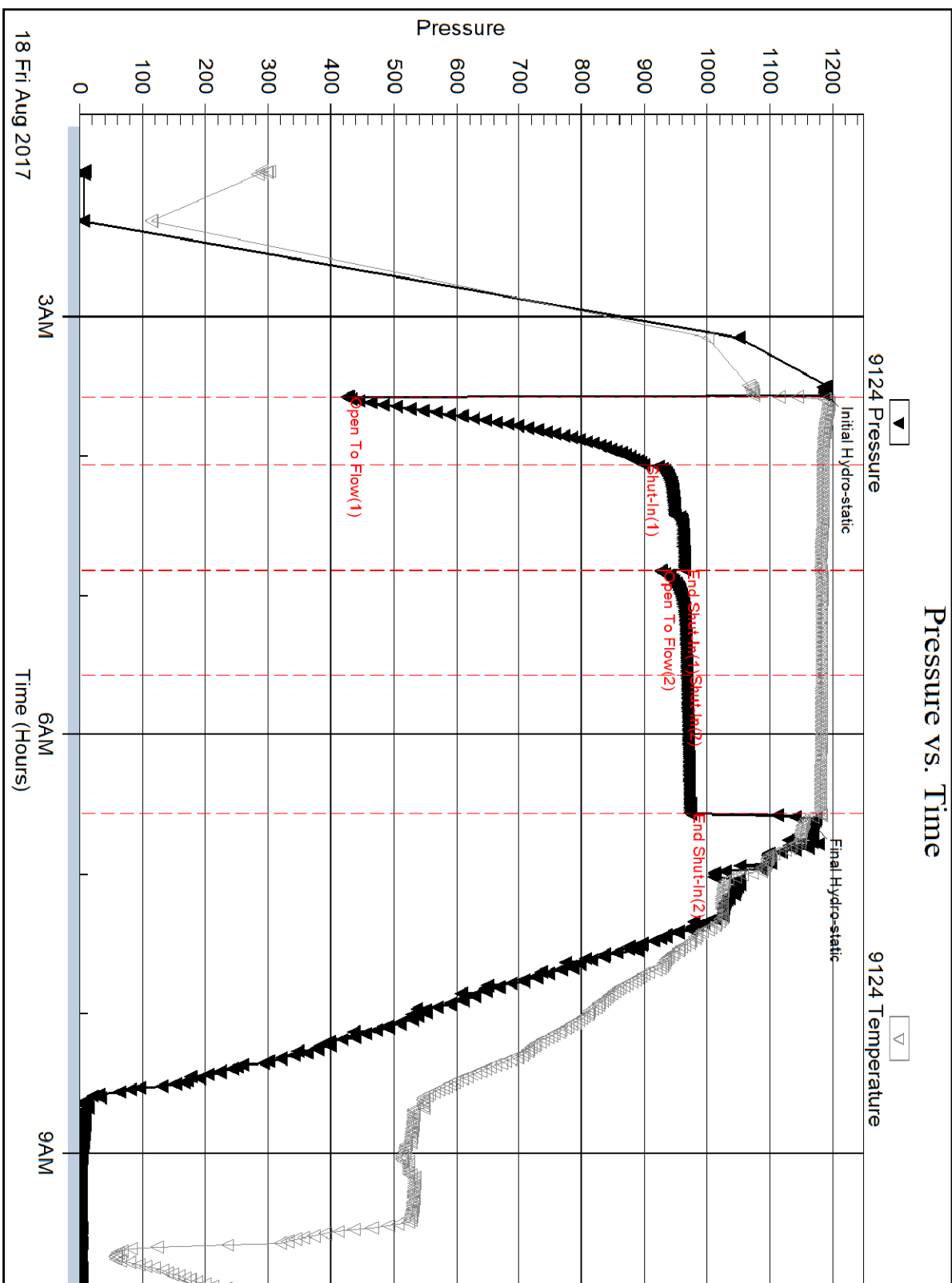
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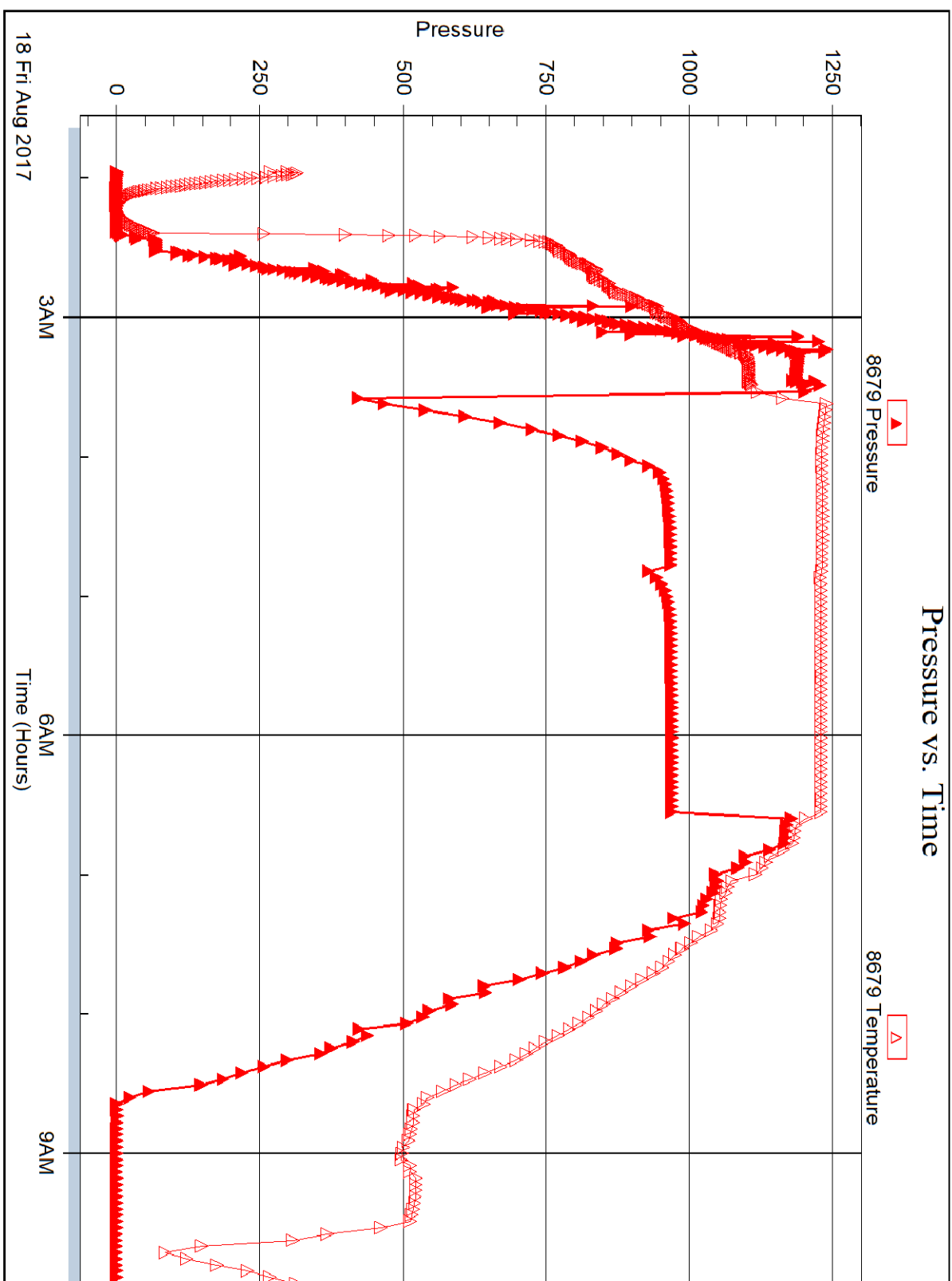
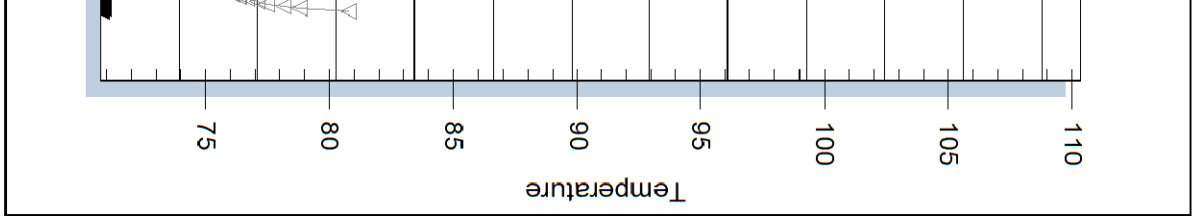
Inside

Vess Oil Corp.

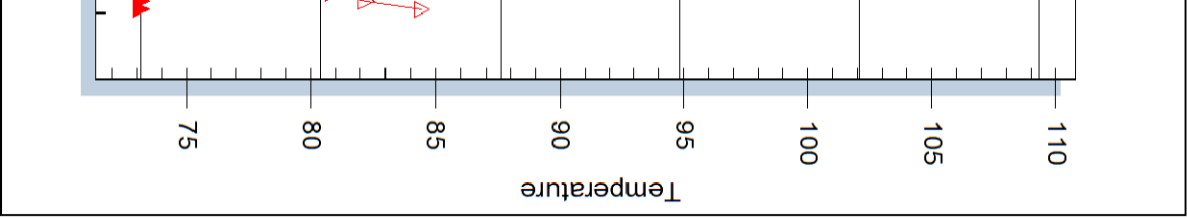
Chesney A #241

DST Test Num











PRESSURE PUMPING LLC  
 PO Box 884, Chanute, KS 66720  
 620-431-9210 or 800-467-8676

8841 / 8731

TICKET NUMBER 54698

LOCATION Eldorado

FOREMAN Brad Butler

FIELD TICKET & TREATMENT REPORT  
 CEMENT

INVOICE # 81026

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8-11-17	8511	Chesney A #241	21	25s	5E	Butter
CUSTOMER Vess Oil Corporation			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS 1700 WATER FRONT PKWAY Bld. 500			446	Jeremy M		
CITY STATE ZIP CODE Wichita Ks. 67206			681	Tracy		
			702	Brad		

JOB TYPE Surface	HOLE SIZE 12 1/4"	HOLE DEPTH 263'	CASING SIZE & WEIGHT 8 7/8" - 23lb
CASING DEPTH 262'	DRILL PIPE	TUBING	OTHER
SLURRY WEIGHT 15.2 lb	SLURRY VOL 32 Blk	WATER gal/sk 5.3	CEMENT LEFT in CASING 20'
DISPLACEMENT 15.3 Blk	DISPLACEMENT PSI	MIX PSI	RATE

REMARKS: Safety Meeting: Rig up to 8 7/8" casing, break circulation with fresh water  
 Mixed 15D slks. Regular cement w/ chemicals, displac. cement with 15.3 Blks WATER (shut down)  
 closed casing in with good cement returns - 7 Blks slurry  
 Job complete - Tear down

"Thank you"

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE 0450	1	PUMP CHARGE	1500.00	1500.00
CE 0002	4	MILEAGE	7.15	28.60
CE 0711	M/L	Bulk Truck charge	660.00	660.00
CC 5800A	150 sacks	Regular - class A	20.00	3000.00
CC 5325	425 lbs	CaCl2 3%	1.25	531.25
CC 6075	75 lbs	Poly Flake - 1/2 lb P/SK	2.00	150.00
				5841.25
		45% Discount		2628.56
				3212.69
		6.75%	SALES TAX	136.66
			ESTIMATED TOTAL	3349.35

Ravin 3737

AUTHORIZATION TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



PRESSURE PUMPING LLC  
 PO Box 884, Chanute, KS 66720  
 620-431-9210 or 800-467-8676

TICKET NUMBER 54657  
 LOCATION Eldorado FS  
 FOREMAN Jeremy Austin

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8-18-14	8571	Chesney A 241	21	25	05	Butler
CUSTOMER Ness Oil Co			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS 1700 Waterfront Pkwy BLD 500			866	Jeremy A		
CITY Wichita			446	Jeremy M		
STATE KS			667	Jude		
ZIP CODE 67206						

JOB TYPE Plug HOLE SIZE \_\_\_\_\_ HOLE DEPTH \_\_\_\_\_ CASING SIZE & WEIGHT \_\_\_\_\_  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT \_\_\_\_\_ SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT \_\_\_\_\_ DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting looked up to drill pipe pumped 35' SKS on bottom then pulled up to 350' pumped another 35' SKS then pumped 20 SKS from 60' to surface then 20 SKS in rat hole

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0451	1	PUMP CHARGE	1900.00	1900.00
CE0062	4	MILEAGE	7.15	NIC
CE0411	1	min bulk delivery	660.00	660.00
CC5829	110	60/40 496	16.00	1760.00
		Subtotal	=	4320.00
		Discount	45%	1944.00
		Total		2376.00
		SALES TAX		=
		ESTIMATED TOTAL		2376.00

RAVIN 3737  
 AUTHORIZATION TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

ATTACHMENT TO ACO-1

Chesney A-241 – API #15-015-24087-0000  
1000'FNL,2610'FEL  
Sec. 21-25S-05E  
Butler County, KS

**DST#1 1370'-1459' Zone: Upper Douglas Sand**

Times: 30-45-45-60  
1<sup>st</sup> open: Weak blow building to Strong blow in 90 sec, BOB in 1-1/2 minutes- NO BB  
2<sup>nd</sup> open: Weak blow building to Strong blow in 1 min. BOB in 1 minute (FS surface  
blowback during final shut-in period).  
Rec.: 115' GIP (100% gas), 130' Oil spec Mud (100% mud, trace oil)  
Tool: 4 % Oil, 96 % mud.  
IHP: 643 FHP: 630  
IFP: 23 FFP: 43  
ISIP: 341 FSIP: 339 Temp: 96 degrees F

**DST#2 2371'-2401' Zone: Uppermost Viola**

Times: 30-45-45-60  
1<sup>st</sup> open: ¼" in 30 min, ISI: No BB  
2<sup>nd</sup> open: NO BLOW FSI: No BB  
Rec.: 10' MUD  
IHP: 1115 FHP: 1112  
IFP: 26-25 FFP: 26-27  
ISIP: 731 FSIP: 671 Temp: 108 degrees F

**DST#3 2370'-2410' Zone: Upper Viola**

Times: 30-45-45-60  
1<sup>st</sup> open: BOB in 2 min.  
2<sup>nd</sup> open: BOB in 3 min.  
Rec: 1050' TF: 520' MCW (85% W) + 530' DM  
TOOL: 7% mud & 93% water.  
IHP: 1152 FHP: 1107  
IFP: 74-295 FFP: 323-481  
ISIP: 752 FSIP: 763 Temp: 107 degrees F





## DRILL STEM TEST REPORT

Prepared For: **Vess Oil Corp.**

1700 Waterfront Parkway  
Building 500  
Wichit, KS 67206

ATTN: Casey Coats/Roger Ma

**Chesney A #241**

**21-25S-5E Butler, KS**

Start Date: 2017.08.13 @ 01:12:00

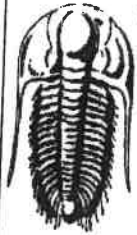
End Date: 2017.08.13 @ 08:03:20

Job Ticket #: 63585                      DST #: 1

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Vess Oil Corp.  
 1700 Waterfront Parkway  
 Building 500  
 Wichita, KS 67206  
 ATTN: Casey Coats/Roger Ma

**21-25S-5E Butler, KS**  
**Chesney A #241**  
 Job Ticket: 63585 **DST#: 1**  
 Test Start: 2017.08.13 @ 01:12:00

## GENERAL INFORMATION:

Formation: **Douglas Sand**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 03:09:40  
 Time Test Ended: 08:03:20

Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jimmy Ricketts  
 Unit No: 80

Interval: **1370.00 ft (KB) To 1459.00 ft (KB) (TVD)**  
 Total Depth: 1459.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1353.00 ft (KB)  
 1347.00 ft (CF)  
 KB to GR/CF: 6.00 ft

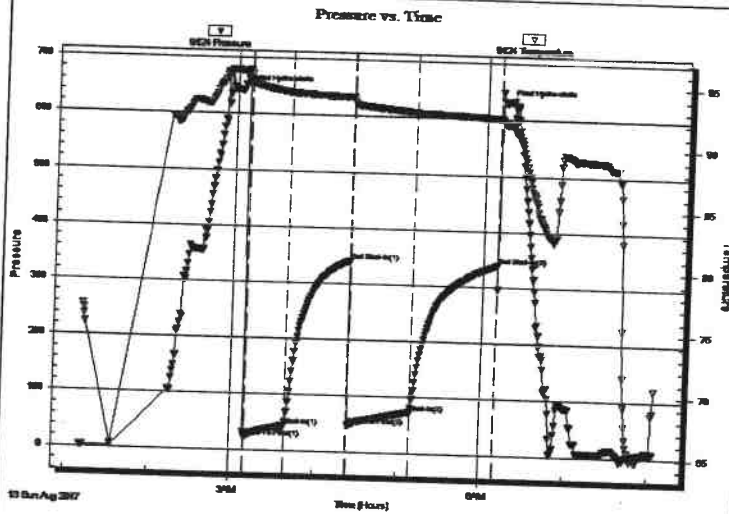
**Serial #: 9124**

**Inside**

Press@RunDepth: 73.13 psig @ 1371.00 ft (KB)  
 Start Date: 2017.08.13 End Date: 2017.08.13  
 Start Time: 01:12:05 End Time: 08:03:20

Capacity: 8000.00 psig  
 Last Calib.: 2017.08.13  
 Time On Btm: 2017.08.13 @ 03:03:50  
 Time Off Btm: 2017.08.13 @ 06:14:39

**TEST COMMENT:** IF - Weak blow building to strong blow in 90 seconds  
 FF - Weak blow building to strong blow in 1 minute  
 FS - Surface blow back during final shut-in period.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	642.59	95.82	Initial Hydro-static
6	23.42	95.15	Open To Flow (1)
35	43.23	94.12	Shut-In(1)
80	341.03	93.85	End Shut-In(1)
81	47.41	93.47	Open To Flow (2)
125	73.13	92.72	Shut-In(2)
186	339.16	92.39	End Shut-In(2)
191	629.94	91.90	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
130.00	Slight oil spotted mud trace O & 100% M	0.64
0.00	115' GIP 100% G	0.00
0.00	Tool Sample Oil cut mud 4% O & 96% M	0.00

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Vess Oil Corp.

**21-25S-5E Butler, KS**

1700 Waterfront Parkway

**Chesney A #241**

Building 500

Job Ticket: 63585

**DST#: 1**

Wichit, KS 67206

ATTN: Casey Coats/Roger Ma

Test Start: 2017.08.13 @ 01:12:00

### Tool Information

Drill Pipe:	Length: 1183.00 ft	Diameter: 3.34 inches	Volume: 12.82 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 177.00 ft	Diameter: 2.25 inches	Volume: 0.87 bbl	Weight to Pull Loose: 36000.00 lb
			<u>Total Volume: 13.69 bbl</u>	Tool Chased 1.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	1370.00 ft			Final 36000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	89.00 ft			
Tool Length:	117.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			1343.00	
Shut In Tool	5.00			1348.00	
Hydraulic tool	5.00			1353.00	
Jars	5.00			1358.00	
Safety Joint	3.00			1361.00	
Packer	4.00			1365.00	28.00 Bottom Of Top Packer
Packer	5.00			1370.00	
Stubb	1.00			1371.00	
Recorder	0.00	8679	Outside	1371.00	
Recorder	0.00	9124	Inside	1371.00	
Perforations	20.00			1391.00	
Change Over Sub	1.00			1392.00	
Blank Spacing	59.00			1451.00	
Change Over Sub	1.00			1452.00	
Perforations	2.00			1454.00	
Bullnose	5.00			1459.00	89.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>117.00</b>				



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Vess Oil Corp.

21-25S-5E Butler, KS

1700 Waterfront Parkway  
Building 500  
Wichit, KS 67206

**Chesney A #241**

Job Ticket: 63585

**DST#: 1**

ATTN: Casey Coats/Roger Ma

Test Start: 2017.08.13 @ 01:12:00

### 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:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.75 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1320.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
130.00	Slight oil spotted mud trace O & 100% M	0.639
0.00	115' GIP 100% G	0.000
0.00	Tool Sample Oil cut mud 4% O & 96% M	0.000

Total Length: 130.00 ft

Total Volume: 0.639 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

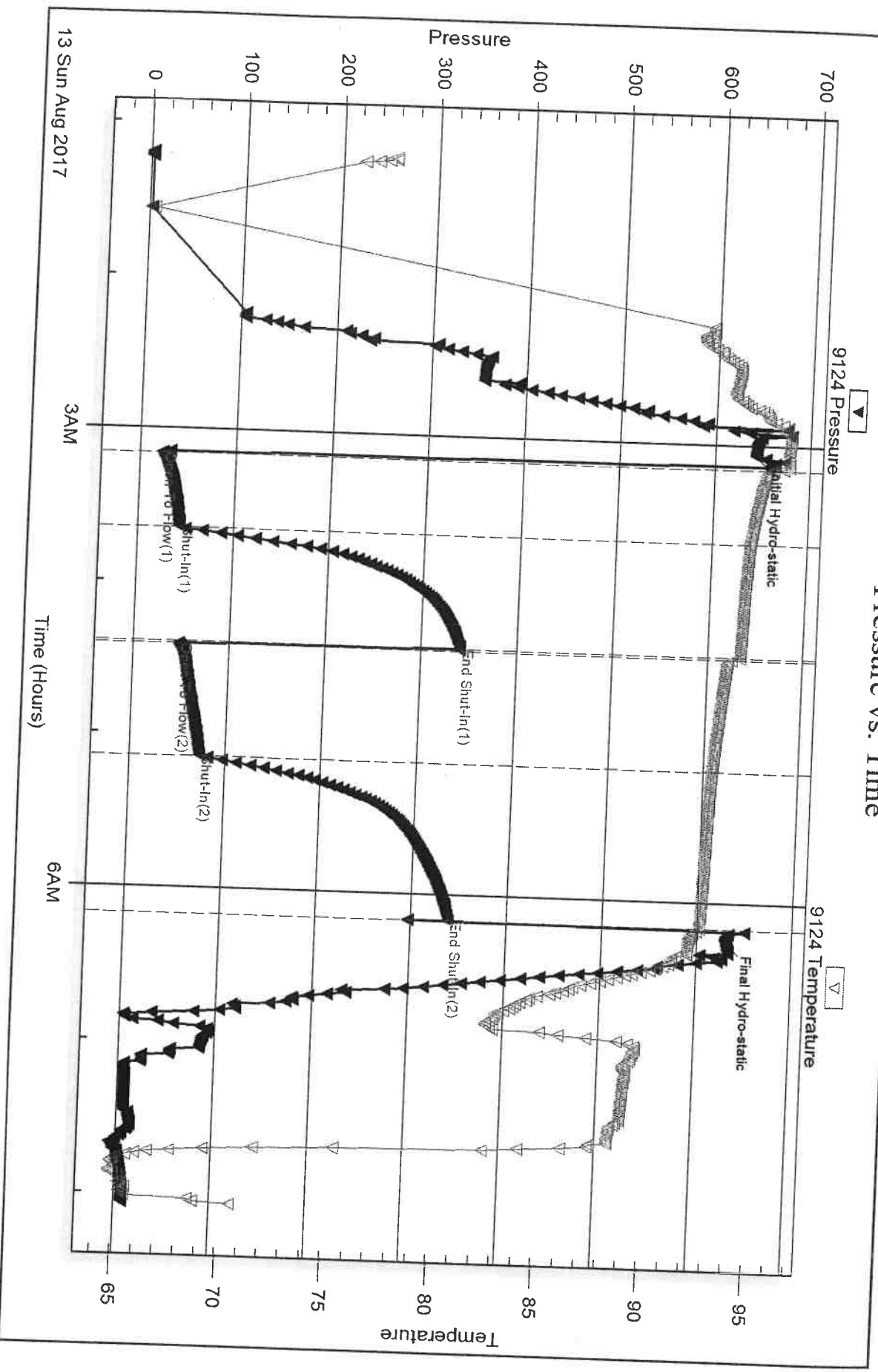
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time

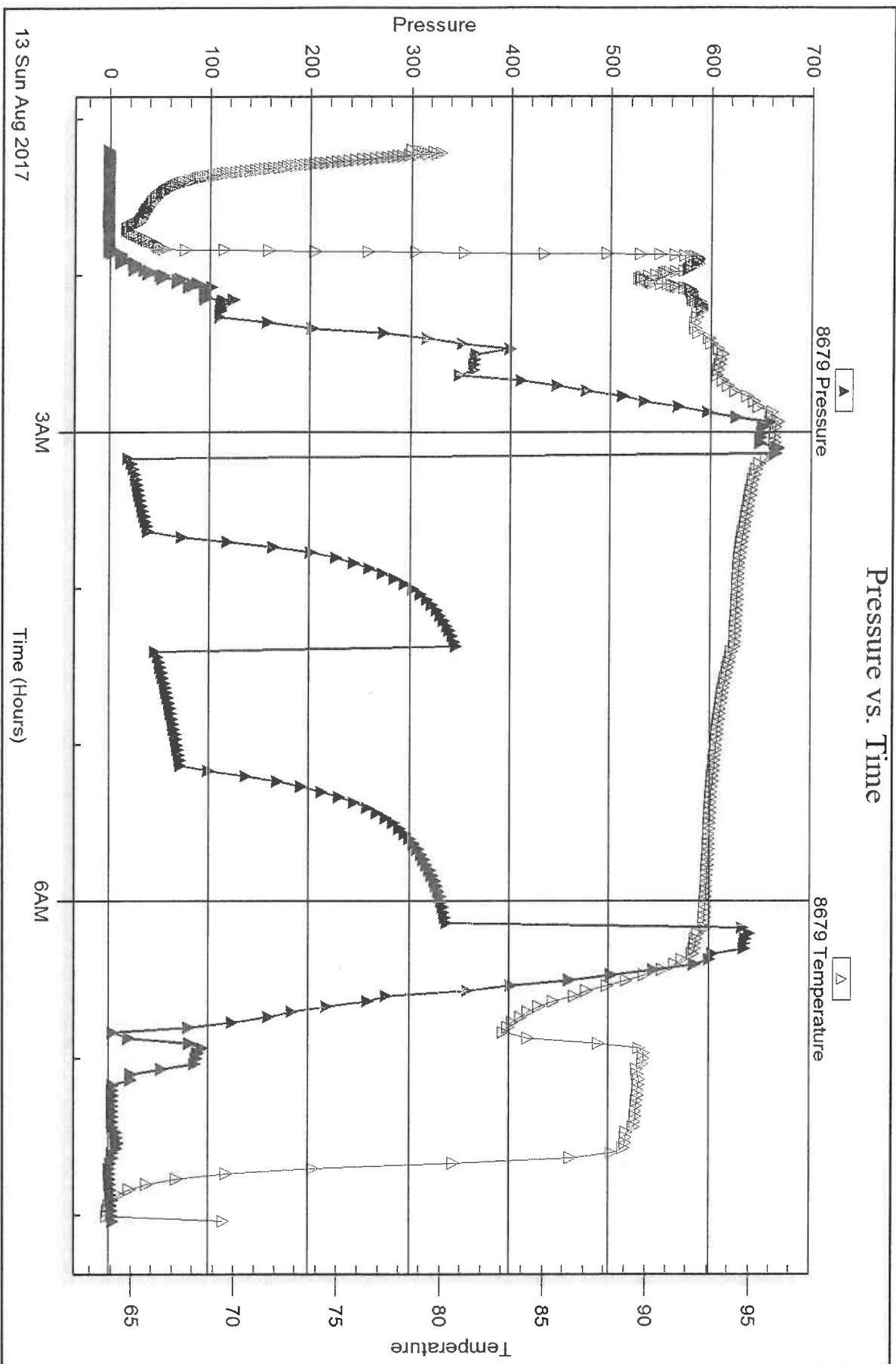


Serial #: 8679

Outside Vess Oil Corp.

Chesney A #241

DST Test Number: 1



13 Sun Aug 2017

3AM

Time (Hours)

6AM

Pressure

Temperature

8679 Pressure

8679 Temperature



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Vess Oil Corp.  
 1700 Waterfront Parkway  
 Building 500  
 Wichit, KS 67206  
 ATTN: Casey Coats/Roger Ma

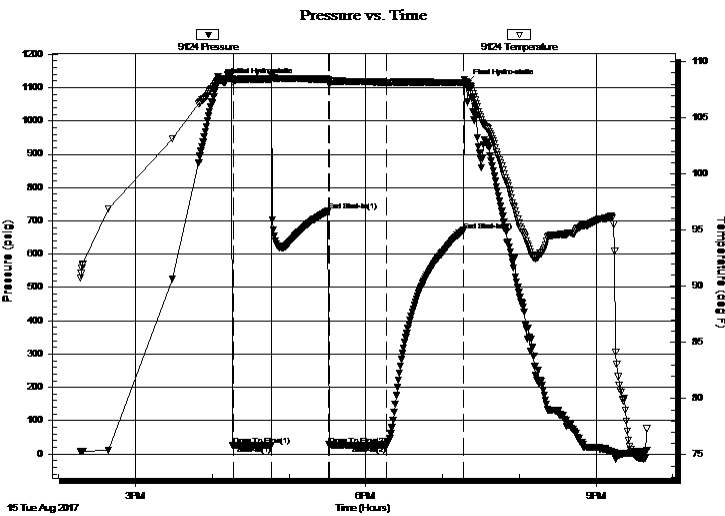
**21/25S/5E Butler, KS**  
**Chesney A #241**  
 Job Ticket: 63586 **DST#: 2**  
 Test Start: 2017.08.15 @ 14:17:00

## GENERAL INFORMATION:

Formation: **Viola**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:16:30  
 Time Test Ended: 21:39:30  
 Interval: **2371.00 ft (KB) To 2401.00 ft (KB) (TVD)**  
 Total Depth: 2401.00 ft (KB) (TVD)  
 Hole Diameter: 6.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jimmy Ricketts  
 Unit No: 80  
 Reference Elevations: 1353.00 ft (KB)  
 1347.00 ft (CF)  
 KB to GR/CF: 6.00 ft

**Serial #: 9124 Inside**  
 Press@RunDepth: 26.52 psig @ 2372.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.08.15 End Date: 2017.08.15 Last Calib.: 1899.12.30  
 Start Time: 14:17:05 End Time: 21:39:29 Time On Btm: 2017.08.15 @ 16:09:40  
 Time Off Btm: 2017.08.15 @ 19:18:09

TEST COMMENT: IF - Weak blow building to 1/4 inch initial flow period.  
 FF - No blow .



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1115.45	108.38	Initial Hydro-static
7	25.86	108.32	Open To Flow (1)
37	25.16	108.42	Shut-In(1)
81	730.66	108.43	End Shut-In(1)
82	26.35	108.28	Open To Flow (2)
127	26.52	108.16	Shut-In(2)
187	671.24	108.11	End Shut-In(2)
189	1112.47	108.08	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Drilling mud 100% M	0.05

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Vess Oil Corp.  
1700 Waterfront Parkway  
Building 500  
Wichit, KS 67206  
ATTN: Casey Coats/Roger Ma

**21/25S/5E Butler, KS**  
**Chesney A #241**  
Job Ticket: 63586      **DST#: 2**  
Test Start: 2017.08.15 @ 14:17:00

## 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:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.19 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 950.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Drilling mud 100% M	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

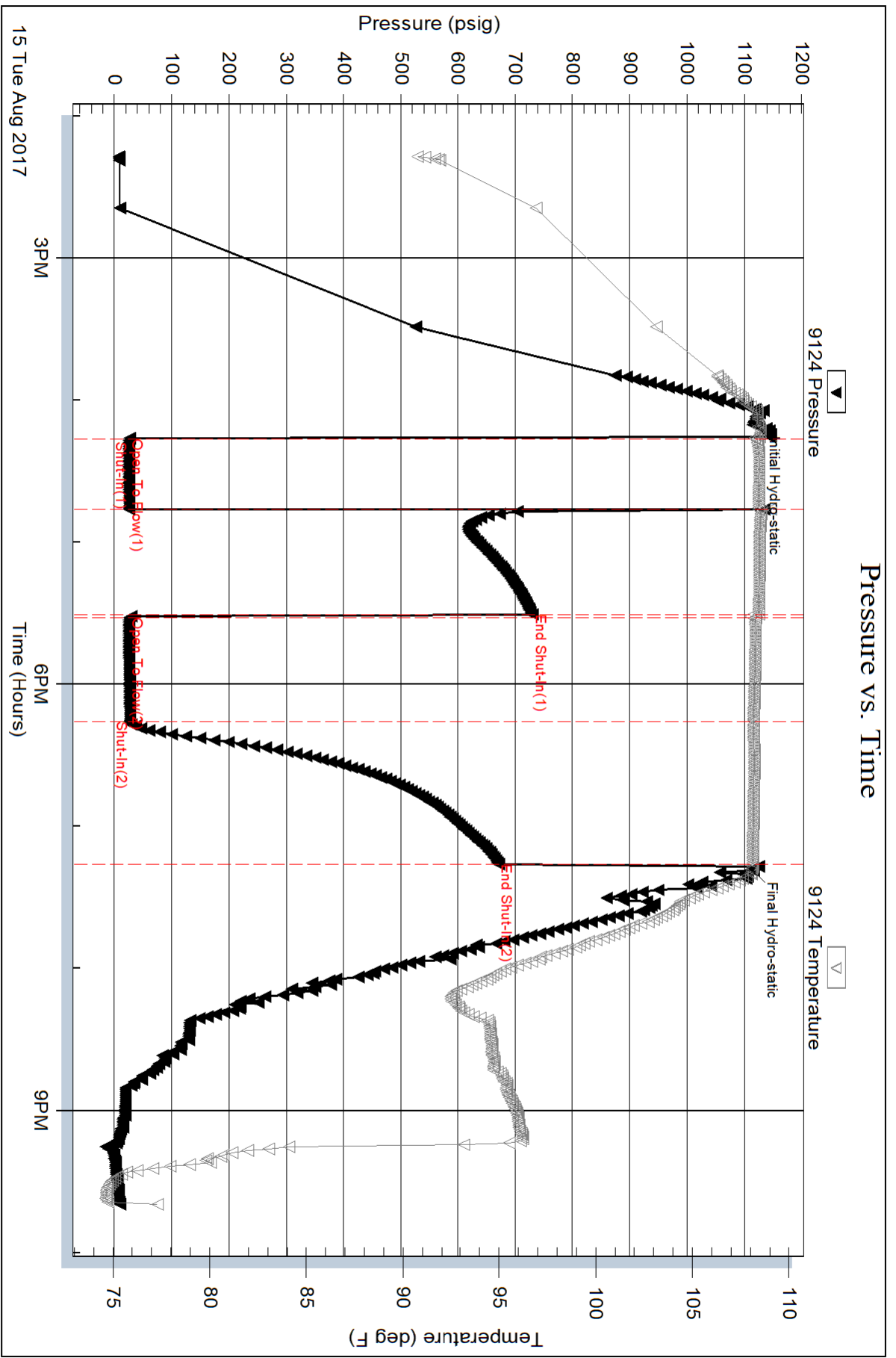
Serial #: 9124

Inside

Vess Oil Corp.

Chesney A #241

DST Test Number: 2



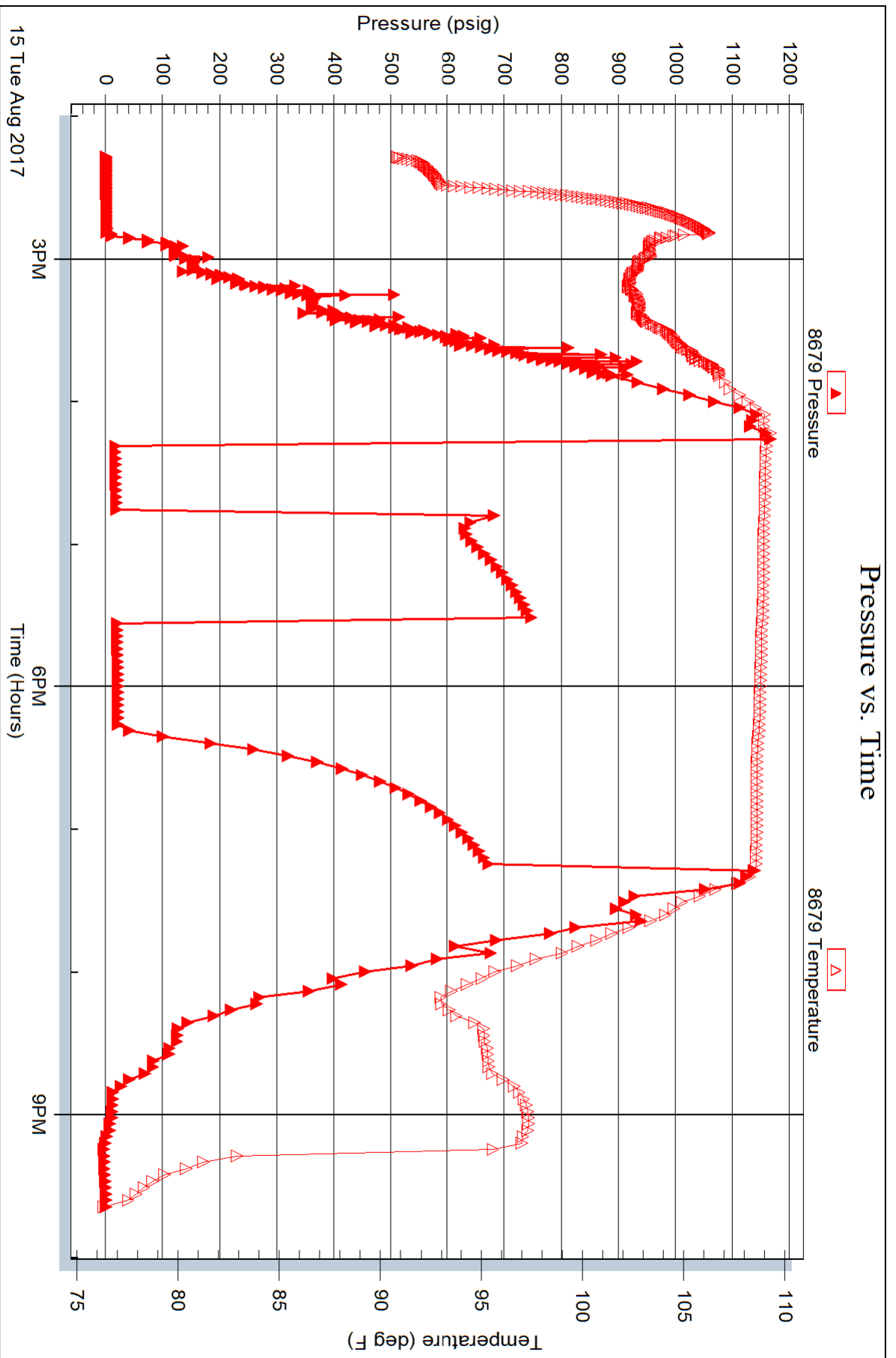


Serial #: 8679

Outside Vess Oil Corp.

Chesney A #241

DST Test Number: 2









**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Vess Oil Corp.  
1700 Waterfront Parkway  
Building 500  
Wichit, KS 67206  
ATTN: Casey Coats/Roger Ma

**21/25S/5E Butler, KS**  
**Chesney A #241**  
Job Ticket: 63587      **DST#: 3**  
Test Start: 2017.08.16 @ 04:59:05

## 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:	18000 ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.48 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1200.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
520.00	Mud cut w ater 15% M & 85% W	4.238
530.00	Drilling mud 100% M	5.744
0.00	Tool Sample - mud cut w ater 7%M & 93%W	0.000

Total Length: 1050.00 ft      Total Volume: 9.982 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

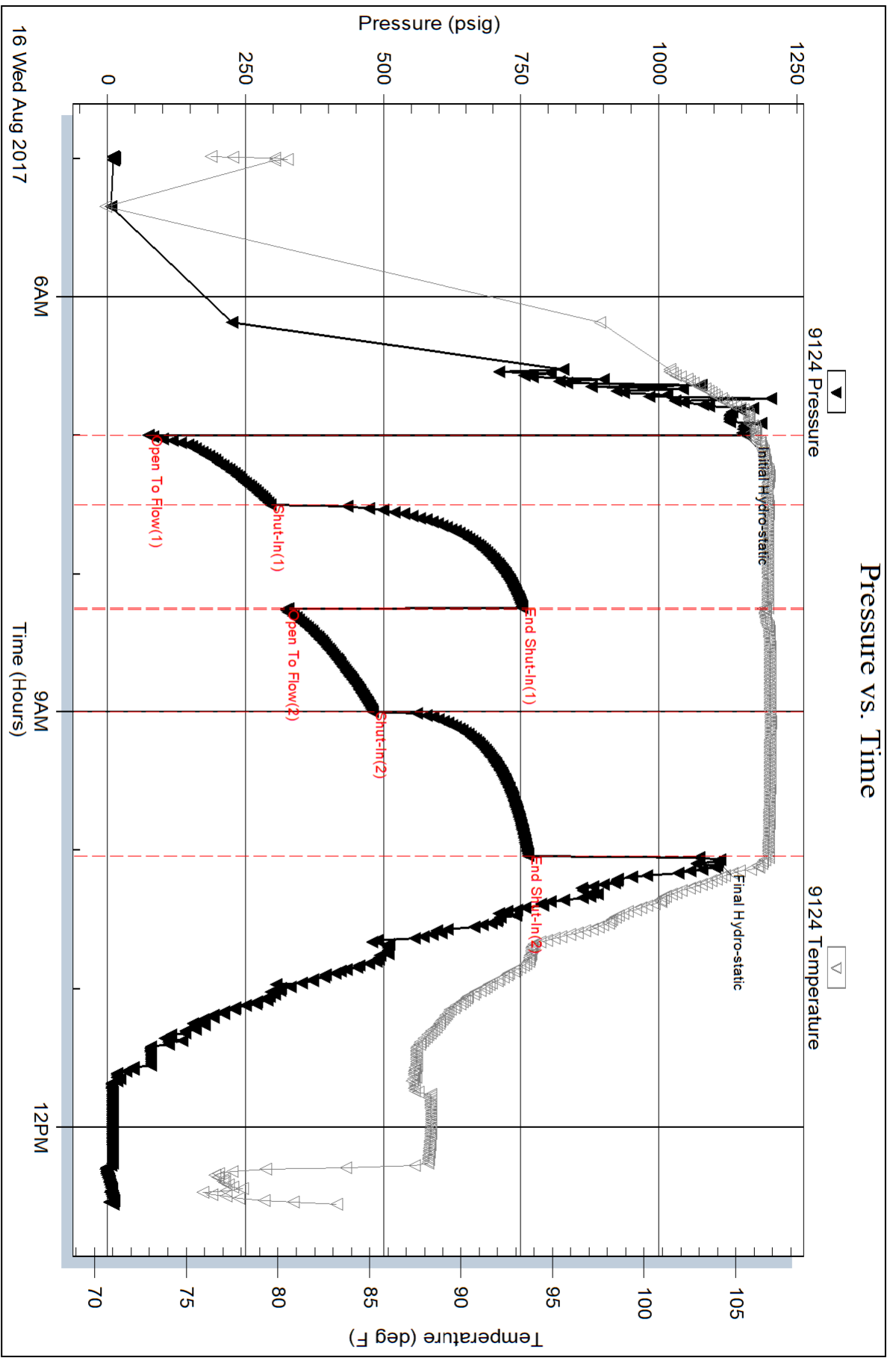
Serial #: 9124

Inside

Vess Oil Corp.

Chesney A #241

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63587

Printed: 2017.08.16 @ 13:22:29

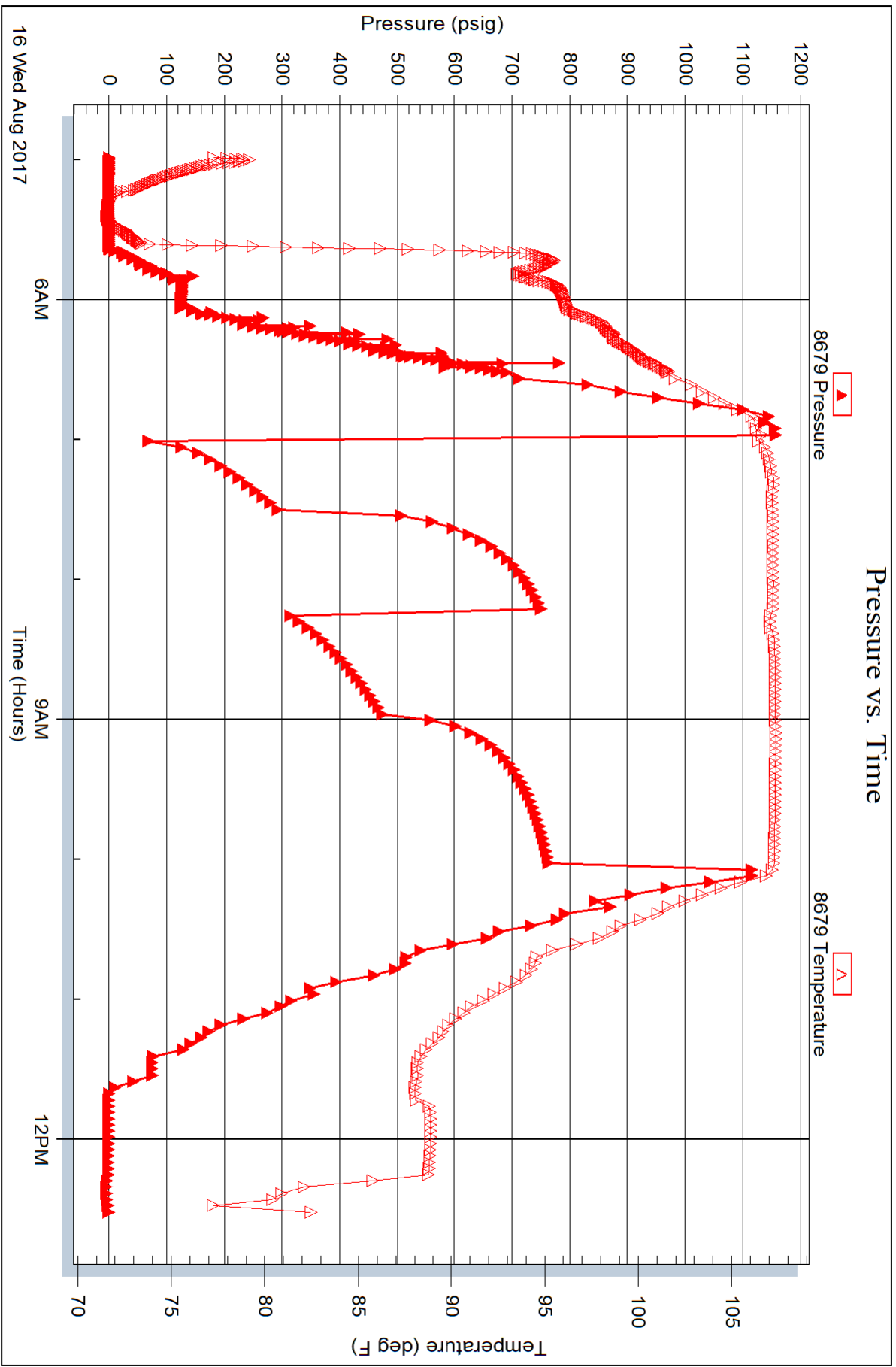
Serial #: 8679

Outside

Vess Oil Corp.

Chesney A #241

DST Test Number: 3











**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Vess Oil Corp.  
1700 Waterfront Parkway  
Building 500  
Wichit, KS 67206  
ATTN: Casey Coats/Roger Ma

**21/25S/5E Butler, KS**  
**Chesney A #241**  
Job Ticket: 63588      **DST#: 4**  
Test Start: 2017.08.17 @ 08:58:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 36.6 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 26000 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.29 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1200.00 ppm		
Filter Cake: inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
575.00	Tr Oil & mud cut water tr O 95%W & 5%M	4.834
370.00	O & heavy M cut W 5%O 53%W & 42%	4.010
10.00	Clean oil 100% O	0.108
0.00	TS O & M cut W 1%O 95%W & 4%M	0.000

Total Length: 955.00 ft      Total Volume: 8.952 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

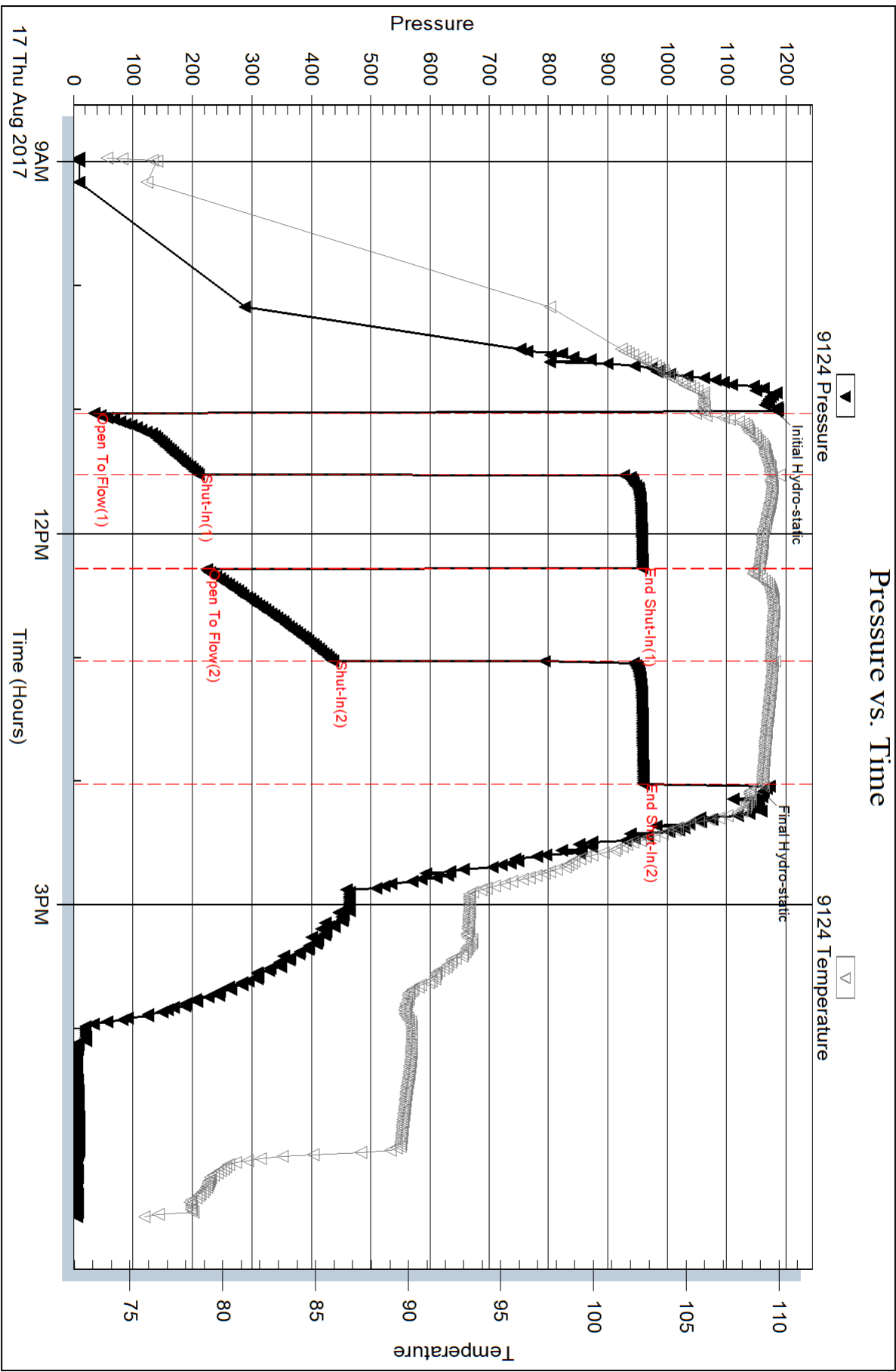
Serial #: 9124

Inside

Vess Oil Corp.

Chesney A #241

DST Test Number: 4

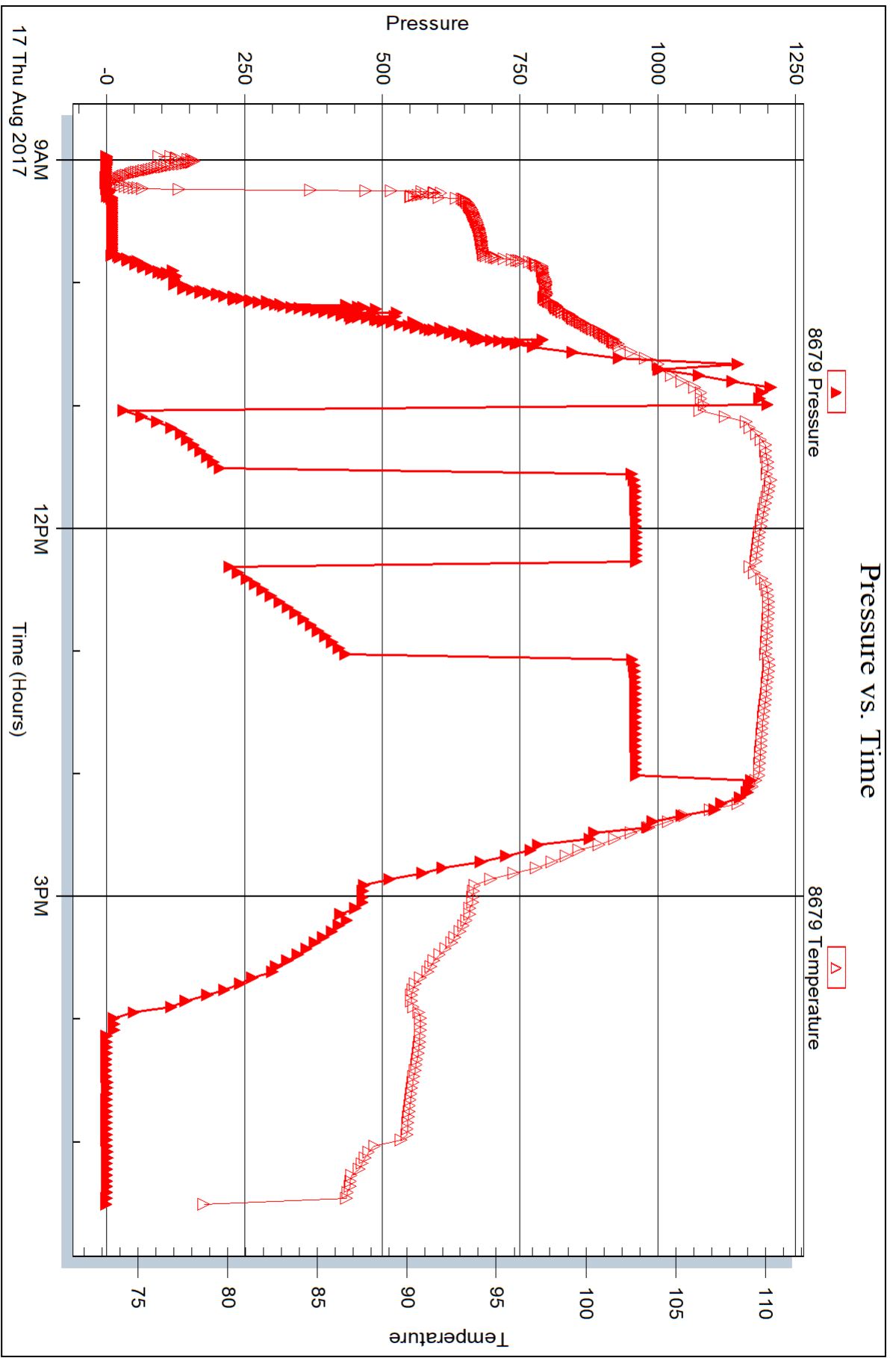


Serial #: 8679

Outside Vess Oil Corp.

Chesney A #241

DST Test Number: 4





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Vess Oil Corp.  
 1700 Waterfront Parkway  
 Building 500  
 Wichit, KS 67206  
 ATTN: Casey Coats/Roger Ma

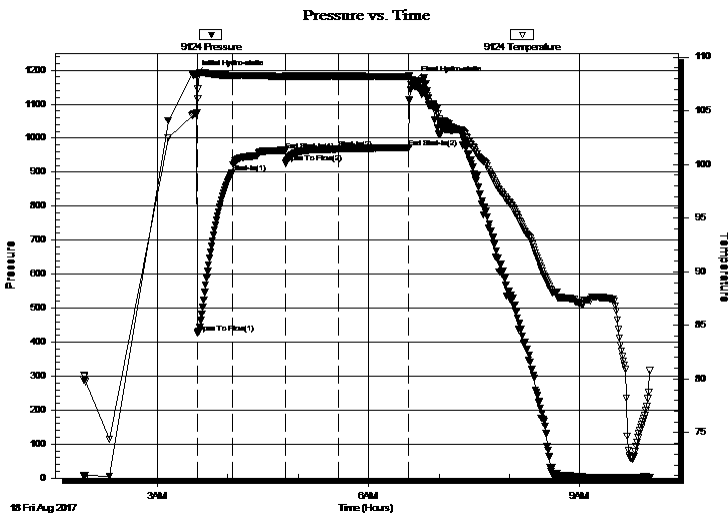
**21/25S/5E Butler, KS**  
**Chesney A #241**  
 Job Ticket: 63589 **DST#: 5**  
 Test Start: 2017.08.18 @ 01:57:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 03:34:20 Tester: Jimmy Ricketts  
 Time Test Ended: 09:59:30 Unit No: 80  
 Interval: **2492.00 ft (KB) To 2499.00 ft (KB) (TVD)** Reference Elevations: 1353.00 ft (KB)  
 Total Depth: 2499.00 ft (KB) (TVD) 1347.00 ft (CF)  
 Hole Diameter: 6.88 inches Hole Condition: Fair KB to GR/CF: 6.00 ft

**Serial #: 9124 Inside**  
 Press@RunDepth: 968.08 psig @ 2493.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.08.18 End Date: 2017.08.18 Last Calib.: 2017.08.18  
 Start Time: 01:57:05 End Time: 09:59:29 Time On Btm: 2017.08.18 @ 03:32:40  
 Time Off Btm: 2017.08.18 @ 06:38:39

**TEST COMMENT:** IF - Strong blow throughout initial flow period.  
 FF - Strong blow throughout final flow period. Blow stopped at 22 minutes into final flow period.  
 TS - Oil and mud cut w ater 5% Oil, 82% Water, and 13% Mud.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1187.06	104.76	Initial Hydro-static
2	425.81	106.10	Open To Flow (1)
31	898.87	108.28	Shut-In(1)
76	964.22	108.19	End Shut-In(1)
77	926.44	108.18	Open To Flow (2)
122	968.08	108.24	Shut-In(2)
182	972.96	108.17	End Shut-In(2)
186	1168.96	107.27	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1855.00	Oil & mud cut w ater 2%O 95%W & 3%M	18.71
125.00	Tr O heavy M cut W 61%W & 39%M	1.35
185.00	Oil & heavy W cut M 1%O 25%W & 74%M	12.00
0.00	TS - O & M cut W 5%O 82%W & 13%M	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Vess Oil Corp.  
1700 Waterfront Parkway  
Building 500  
Wichit, KS 67206  
ATTN: Casey Coats/Roger Ma

**21/25S/5E Butler, KS**  
**Chesney A #241**  
Job Ticket: 63589      **DST#: 5**  
Test Start: 2017.08.18 @ 01:57:00

## 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:	21000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.09 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1580.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1855.00	Oil & mud cut water 2%O 95%W & 3%M	18.705
125.00	Tr O heavy M cut W 61%W & 39%M	1.355
185.00	Oil & heavy W cut M 1%O 25%W & 74%M	2.005
0.00	TS - O & M cut W 5%O 82%W & 13%M	0.000

Total Length: 2165.00 ft      Total Volume: 22.065 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

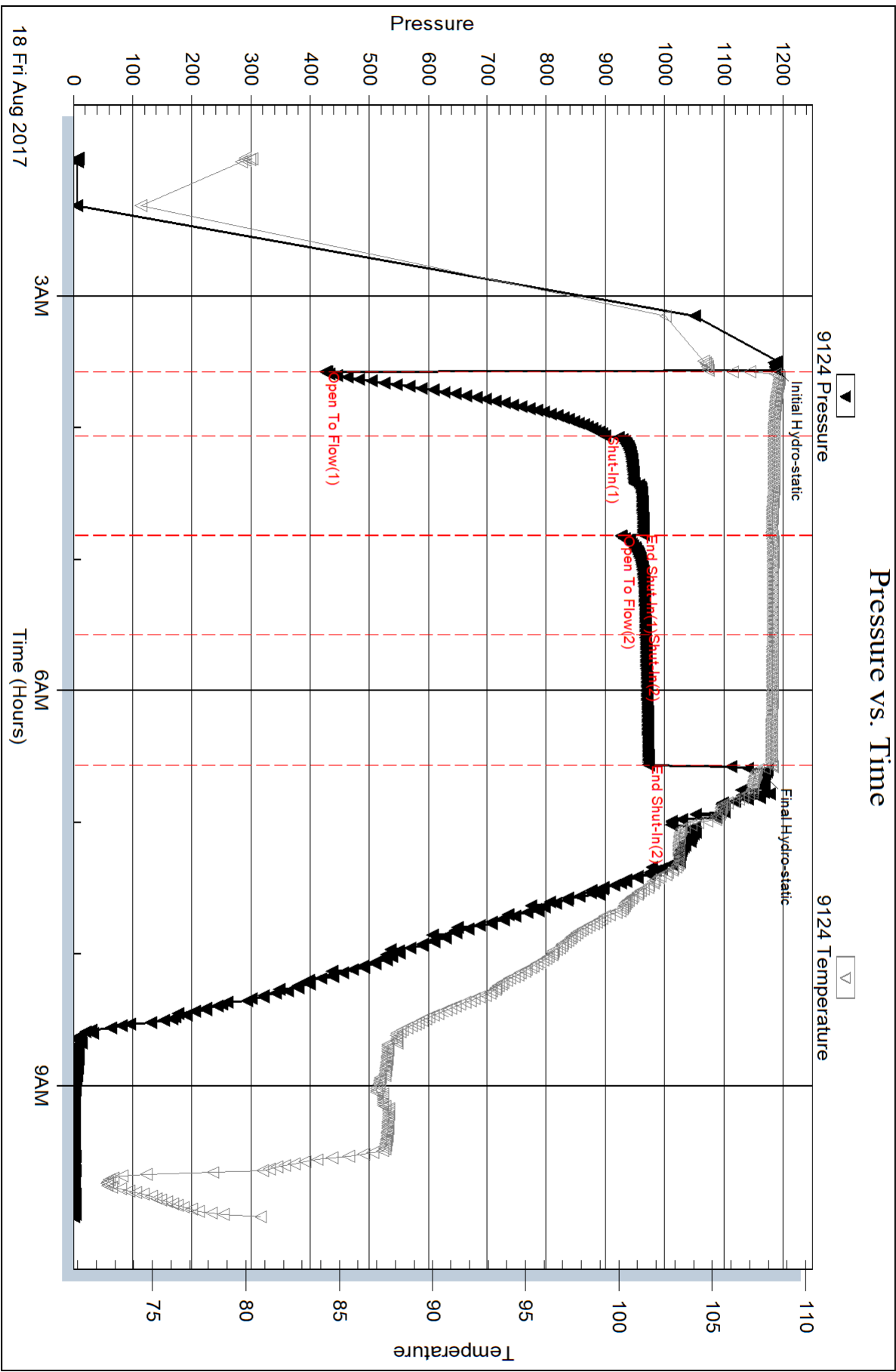
Serial #: 9124

Inside

Vess Oil Corp.

Chesney A #241

DST Test Number: 5



Serial #: 8679

Outside

Vess Oil Corp.

Chesney A #241

DST Test Number: 5

