

ANDREWS UNIVERSITY 29-1 (Sprayberry-Trend)**Roberson Drilling #3****Andrews Co., TX**

AFE# 90202

Description: New Drill

Prop Num: 04003-001

4/5/09

DAS 1; PO: **PD 395'** - MIRU ROBERSON #3, DRILL F/40'-79', WO & CHANGE OUT SWIVEL. DRILL F/79'-297', WL SURVEY @ 252'. DRILL F/279'-395'. MW 8.6; VIS 30 CWC \$11,986

4/6/09

DAS 2; PO: **PD 685'** - CIRCULATE F/ CASING, DROP TOTCO & TOH, RIG UP & RUN 10 JTS 13 3/8 48# H-40 ST&C CSG. CIRCULATE, RIG DOWN CSG CREW & RIG UP O-TEX. CEMENT W/ 350 SKS CLASS "C", WT- 13.8, YIELD- 1.65, MIX WATER- 8.5 GAL/SK DISPLACE W/ 56 BBLS FW, BUMP PLUG W/ 730#, HELD 5 MIN/ FLOW BACK .5 BBL, WOC, CUT OFF WELD ON WELL HEAD & TEST TO 1000#, HELD OK. NIPPLE UP 11 X 3M DOUBLE BOP, 11X3M ANNULAR, CHOKE MANIFOLD & LINES, TEST TO 1000#- OK. PICK UP BHA & TIH, DRLG PLUG- 40' CEMENT, DRILLING F/ 395' TO 685'. MW 9.8; VIS 29 CWC \$43,912

4/7/09

DAS 3; PO: **PD 2800'** - DRILL F/685'-749', WL SURVEY @ 705'. DRILL F/749'-1035', WL SURVEY @ 992'. DRILL F/1035'-1320', WL SURVEY @ 1277'. DRILL F/1320'-1574', WL SURVEY @ 1530'. DRILL F/1574'- 1891', WL SURVEY @ 1847'. DRILL F/1891'- 2272', WL SURVEY @ 2226'. DRILL F/2272'- 2753', WL SURVEY @ 2707'. DRILL F/2753'- 2800'. MW 9.8; VIS 29 CWC \$277,574

4/8/09

DAS 4; PO: **PD 3851'** - DRILL F/2800'-3291', WL SURVEY @ 3207', CHANGE OUT SWIVEL. DRILL F/3291'-3672', WL SURVEY @ 3625'. DRILL F/3672'-3851'. MW 10; VIS 29 CWC \$307,589

4/9/09

DAS 5; PO: **PD 4710'** - DRILL F/3851'-4149', WL SURVEY @ 4106'. DRILL F/4149'-4623', WL SURVEY NO GOOD. DRILL F/4623'-4658', WL SURVEY @ 4583'. DRILL F/4658'-4710'. MW 10; VIS 29 CWC \$337,776

4/10/09

DAS 6; PO: **PD 4710'** - DRILL F/4710'-4975', PUMP SWEEP & CIRC F/ 8 5/8 CSG. DROP TOTCO & TOH, RU LD MACHINE, LD 8" DCS, RU ALLEN'S CSG CREW & RUN 8 5/8" CSG. MW 10, VIS 29 CWC \$348,065

4/11/09

DAS 7; PO: **PD 4975'** - FINISH RUNNING 120 JTS 8 5/8" CSG = 4970.72' FC @ 49734', WASH 45' TO BOTTOM, CIRCULATE, RIG UP O-TEX PUNPING, CEMENT LEAD W/ 20 BBLS FW AHEAD + 900 SKS 50/50/C + 10% GEL + 5% SALT + 1/8# CELLOFLAKE WT 13.80, YIELD 2.45 MIX WATER 13.80 GAL/SK, TAIL W/ 200 SKS CLASS "C" + 1% CACL2, WT 14.80 YIELD 1.34 MIX WATER 6.32 GAL/SK, DISPLACE WITH 305 BBLS FW, BUMP PLUG W/ 1458 PSI, PLUG HELD, RELEASED PRESSURE, FLOW BACK 1 BBL, RIG DOWN O-TEX. NIPPLE DOWN, SET SLIPS, CUT OFF, INSTALL WELL HEAD & TEST TO 1500 PSI. NIPPLE UP BOP, ROTATING HEAD, CHOKE MANIFOLD & FLOW LINE, JET & CLEAN PITS. PICK UP BHA, CUT DL, TIH TO 4925', TEST PIPE RAMS & CSG TO 500 PSI. DRLG PLUG FLOAT COLLAR & CEMENT. MW 8.4; VIS 28 CWC \$377,818

4/12/09

DAS 8; PO: **PD 5750'** - DRILL F/4875'-5463', WL SURVEY @ 5419'. DRILL F/5419'-5750'. MW 8.4; VIS 28 CWC \$408,222

4/13/09

DAS 9; PO: **PD 6941'** - DRILL F/5750'-5909', WL SURVEY @ 5863'. DRILL F/5909'-6359', WL SURVEY @ 6309'. DRILL F/6359'-6830', WL SURVEY @ 6786'. DRILL F/6830'-6941'. **NOTE: SMALL SULFUR WATER FLOW @ 5750', 6-8 BBLS/HR, WHILE DRILLING.** MW 8.4; VIS 28 CWC \$541,957

4/14/09

DAS 10; PO: **PD 7890'** - DRILL F/6941'- 7361', WL SURVEY @ 7315'. DRILL F/7361' - 7838', WL SURVEY @ 7794'. DRILL F/7838' - 7890'. MW 8.4; VIS 28 CWC \$5573,060

4/15/09

DAS 11; PO: **PD 8890'** - DRILL F/7890'-8315', WL SURVEY @ 8271'. DRILL F/8315'-8815', WL SURVEY @ 8771'. DRILL F/8815'-8890'. MW 8.5; VIS 29 CWC \$602,575

4/16/09

DAS 12; PO: **PD 9890'** - DRILL F/8890'-8919', INSTALL ROT HEAD. DRILL F/8919'-9300', WL SURVEY @ 9256'. DRILL F/9300'-9776', WL SURVEY @ 9732' - NO GOOD. DRILL F/9776'-9809', WL SURVEY @ 9765'. DRILL F/9809'-9890'. MW 8.5; VIS 29 CWC \$637,910

4/17/09

DAS 13; PO: **PD 10765'** – DRILL F/9890'-10103', RIG SERVICE. DRILL F/10103'-10324', WL SURVEY @ 10278'.
DRILL F/10324'-10765'. MW 8.6; VIS 34 CWC \$670,847

4/18/09

DAS 14; PO: **PD 11207'** – DRILL F/10765'-10829', WL SURVEY @ 10784'. DRILL F/10829'-11207'. MW 8.8; VIS 33
CWC \$694,718

4/19/09

DAS 15; PO: **PD 11,500'** - DRILL F/11207'-11270', RIG SERVICE. DRILL F/11270'-11500', CIRC BTMS UP FOR
WIPER TRIP, 25 STD WIPER TRIP TO 9090', CIRC & COND HOLD FOR LOGS. DROP TOTCO & TOH F/LOGS.
MW 8.8; VIS 34; FL 13 CWC \$711,481

4/20/09

DAS 16; PO: **PD 11,500'** – TOH F/LOGS, REPAIR AIR LINE. TOH F/LOGS, NO CORRECTION. RU
HALLIBURTON, LOG WELL W/ TRIPPLE COMBO, LOGGERS TD 11484'. TIH W/RR BIT #4, WASH 30' TO BTM,
CIRC F/ 5 ½" CSG, RU LD MACHINE, LD DP. MW 8.8; VIS 35; FL 12.2 CWC \$751,787

4/21/09

DAS 17; PO: **PD 11,500'** – FINISH LD DP & DCS, RU ALLENS CSG CREW, RUN 287 JTS 5 ½" 20# L-80 =
11518.12, FC @ 11,459', DV TOOL @ 7012.66'. WASH TO BTM & CIRC. CEMENT FIRST STAGE W/120 SKS
LEAD & 600 SKS TAIL PLUG DOWN @ 1:30AM. DROP BOMB, OPEN DV TOOL & CIRC F/SECOND STAGE. MW
8.8; VIS 35; FL 12.2 CWC \$776,074

4/22/09

DAS 18; PO: **PD 11,500'** – CIRCULATE THROUGH DV TOOL @ 7012'. CEMENT SECOND STAGE: LEAD W/ 20
BBLS FW AHEAD + 250 SKS 50/50/C + 10% GEL + .125# CELLOFLAKE + 3% SALT + 3# SK KOL-SEAL, WT
11.80, YIELD 2.42, MIX WATER 13.80 GAL/SK TAIL W/ 100 SKS CLASS "C", DISPLACE W/ 162 SKS 4% KCL
WATER, BUMP PLUG & CLOSE DV TOOL W/ 2756 PSI. FOAT HELK OK. NIPPLE DOWN, SET SLIPS, CUT OFF,
NIPPLE UP WELL HEAD & TEST TO 3000 PSI,OK. **NOTE: RIG RELEASED @ 16:00 HRS 4/21/2009. ALL
RENTAL EQUIPMENT RELEASED 4/21/2009.** CWC \$999,269

ANDREWS UNIVERSITY 29 #1, ANDREWS CO., TX CWEI GWI 80% AFE#90202/NEW DRLG

05-01-09 MIRU PU & haul 4 loads wtr f/res pit
EDC \$3230

05-04-09 AOL; unload & set pipe racks & catwalk; unload & rack 369 jts 2-7/8" L-80 8rd EUE tbg; tally & PU
tbg; RIH tg DV tool @ 7005'; RU rev unit; PU swivel & DO DV tool; tst csg to 4600'; bleed off press;
tally & PU tbg; RIH to 8250'; SIW SDFN
EDC \$65,700; ETC 68,930

05-05-09 AOL; fin PU & TIH w/tbg; tg PBTD @ 11,466' KB; PU 20'; RU Key Press Pmpg Svc; pickle tubulars
w/1000 gals Xylene & 1000 gals 15% NEFE HCL @ 2 BPM; POOH & LD 12 jts; spot 1000 gals
10% Acetic acid f/10,074' to 11,073'; POOH & LD 4 jts tbg; POOH & stand back 350 jts tbg; RU
Enertech WL Svcs; RU pmp trk; RIH w/CBL/CCL/GR logging tools; tg PBTD w/WL @ 11,431';
correlate w/GR to OHL; press up on csg to 1000# w/pmp trk; run CBL/CCL/GR to 4900'; TOC @
5660'; POOH bled off press; RD pmp trk; PU perf guns; TIH w/3-1/8"x20' slick loaded w/4 JSPF &
perf 11,060'-11,080'; POOH RD Enertech WL Svcs; SIW SDFN
EDC \$16,285; ETC \$85,215

05-06-09 AOL; 0# press; RU pkr; TIH to 10,966'; set pkr & open bypass; RU pmp trk; pmp 24 Bbls 2% KCL
FW dwn csg to transfer acid into tbg; close bypass; press up on tbg; brk dwn form 2 .5 BPM @
2000#; pmpd acid @ 1.5 BPM & 2700#; ISIP 2600#; 5 mins SIP - 2500#; 10 mins SIP 2300#; 15
mins SIP 2200#; RD pmp trk; RU swb; IFL - surf; EFL - 10,950'; made 14 runs; rec'd 72 Bbls fluid;
last 5 runs had slight blow of gas; SIW in 2 mins; tbg press @ 40#
EDC \$4160; ETC \$91,365

05-07-09 AOL; well had 740# press; opened well to TT; had fluid to surf in 7 mins; rec'd 16 BO in 40 mins;
well flwd f/3 hrs; started swbg; IFL - scattered @ 8500'; made 11 swb runs; rec'd 40 Bbls ttl fluid,
27 BO, 13 BW; EFL - 10,966'; waited 1 hr; had 6 Bbls fluid entry; tstd wtr for chlorides, 1800-3300
PPM; SIW; SDFN
EDC \$4025; ETC \$97,080

05-08-09 AOL; well had 500# TP; opened well to TT & flwd 2 hrs; rec'd 15 Bbls; made 2 swb runs; IFL @
8900'; EFL @ 10,966'; rec'd 7 BO; RD swb; POOH & LD tbg; ND BOP; flanged up 10k frac valve &
cross; RD PU; SIW SDFWE
EDC \$8125; ETC \$109,505

05-09-09 SI; WOF
EDC \$1250; ETC \$110,755

05-10-09 SI; WOF
EDC \$750; ETC \$111,505

05-11-09 Stg #1 - prev perf'd & brk dwn w/10% acetic acid; pmpd 5000 gals 15% NEFE HCL acid; brk dwn
form @ 3502# @ 15.6 BPM; ISIP 3120#; 5 mins SIP 2960#; 427 BLWTR; Stg #2 - set CBP @
11,000'; perf 10,790'-10,798', 10892'-10900', 10940'-10948'; OHL corrected to CHL; pmpd 1308
Bbls x-linked gel w/56,144# 20/40 Super LC sd; screened out on 3#/gal sd; 1247 BLWTR; Stg #3 -
perf 10105'-10110', 10122'-10127', 10154'-10159', 10168'-10173', 10186'-10191', 10260'-10265';
OHL corrected to CHL; form would not brk dwn; opened well to pit for 3 hrs; flwd back 10,000# sd;
still no brk dwn; moved to stg #4; Stg #4 - (BTA Wolfcamp); perf 9892'-9896', 9912'-9916', 9920'-
9924', 9982'-9986', 9992'-9996', 10000'-10004', 10022'-10026', 10040'-10044'; OHL corrected to
CHL; brk dwn @ 3340#; pmpd 3961 Bbls x-linked gel w/156,000# 20/40 Super LC sd; max press
5620#; avg press 4580#; ISIP 1889#; max rt 81.6 BPM; min rt 72 BPM; avg rt 80.5 BPM; 3781
BLWTR; Stg #5 - set CBP @ 9400'; perf 9030'-9035', 9080'-9085', 9130'-9140', 9194'-9214'; OHL
corrected to CHL; brk dwn @ 3698#; pmpd 2521 Bbls x-linked gel w/100,000# 20/40 Super LC sd;
max press 4150#; min press 3250#; avg press 3500#; ISIP 1063#; max rt 81 BPM; min rt 54 BPM;
avg rt 81 BPM; 2404 BLWTR; Stg #6 - set CBP @ 9000'; perf 8780'-8800', 8912'-8922', 8960'-
8970'; OHL corrected to CHL; brk dwn @ 1945#; pmpd 3013 Bbls x-linked gel w/105,000# 20/40
white Ottawa sd; max press 5118#; min press 2930#; avg press 3293#; ISIP 889#; max rt 81.4
BPM; min rt 35 BPM; avg rt 80 BPM; 2870 BLWTR; Stg #7 - set CBP @ 8550'; perf 8120'-8145',
8145'-8150', 8175'-8180', 8250'-8270'; OHL corrected to CHL; brk dwn @ 5320#; pmpd 3522 Bbls
x-linked gel w/60,000# 20/40 Super LC sd & 108,000# 20/40 white Ottawa sd; max press 6200#;
min press 2702#; avg press 3382#; ISIP 1191#; max rt 80 BPM; avg rt 75 BPM; 3313 BLWTR; Stg
#8 - set CBP @ 8100'; perf 7780'-7785', 7820'-7825', 7935'-7940', 7965'-7970', 8020'-8025',
8055'-8060', 8075'-8080'; OHL corrected to CHL; brk dwn @ 5119#; pmpd 4032 Bbls x-linked gel
w/132,000# 20/40 white Ottawa sd & 60,000# 20/40 Super LC sd; max press 5530#; min press
2775#; avg press 3825#; ISIP 1573#; max rt 80 BPM; avg rt 71 BPM; 3792 BLWTR; Stg #9 - set
CBP @ 7740'; perf 7700'-7720'; OHL corrected to CHL; brk dwn form @ 5800'; pmpd 2435 Bbls x-
linked gel w/77,000# 20/40 white Ottawa sd & 45,000# 20/40 Super LC sd; Stg #10 - set CBP @

7620'; perf 7510'-7538'; OHL corrected to CHL; brk dwn form @ 4100#; pmpd 1832 Bbls x-linked gel w/77,600# 20/40 white Ottawa sd & 16,000# 20/40 Super LC sd; max press 6100#; min press 2830#; avg press 3210#; ISIP 2028#; max rt 70 BPM; min rt 63 BPM; avg rt 67 BPM; 1832 BLWTR; set cap CBP @ 7010'; RD BJ Svcs & Enertech WL Svcs
EDC \$323,400; ETC \$434,905

05-12-09 Fin 10 st frac
EDC \$1100; ETC \$436,005

05-13-09 MIRU PU; set catwalk, pipe racks & tbgs; ND frac tree; NU prod tree; NU BOP tally tbgs; PU & TIH w/6900' tbgs; RU pwr swivel & rev unit; SIW; SDFN
EDC \$3535; ETC \$439,540

05-14-09 AOL; PU 3 jts tbgs; tg sd on top of cap plug @ 6973'; wsh out sd & DO CBP @ 7010'; PU tbgs; TIH tg sd on top of 2nd CBP @ 7561'; wsh out sd & DO CBP @ 7620'; PU tbgs; TIH tg sd on top of 3rd plug @ 7733'; wsh out sd & DO CBP @ 7740'; PU tbgs; TIH tg sd on top of 4th plug @ 7865'; DO CBP @ 8100'; PU tbgs; TIH tg sd on top of 5th plug @ 8387'; wsh out sd; circ clean f/1 hr; POOH w/tbgs above perms; left well flwg overnight on 16/64" chk; lined up wtr haulers to haul wtr overnight
EDC \$9360; ETC \$448,900

05-15-09 AOL; well had 650# FP; rec'd 440 Bbls overnight; TIH w/tbgs/tgd 5th plug 8550'; DO CBP; TIH tg sd @ 8972'; wsh out sd on top of CBP @ 9000' & DO plug; PU & TIH w/tbgs; tg sd @ 9365'; wsh out sd to CBP @ 9400'; DO plug; PU & TIH w/tbgs; tg sd @ 10,373'; wsh out sd; DO CBP @ 10,700'; PU & TIH w/tbgs to PBTD 11,446'; circ well for 1-1/2; POOH w/tbgs above perms; inst chk; left well flwg over weekend
EDC \$8450; ETC \$457,350

05-16-09 Flwd 1100 BLW; BLW 18,696; BLWR 1100 (6 %); BLWTR 17,596

05-17-09 Flwd 1200 BLW; BLW 18,696; BLWR 2300 (12 %); BLWTR 16,396

05-18-09 Flwd 1050 BLW; AOL; 150# press on 26/64" chk; RD & rel rev unit; left well flwg; BLW 18,696; BLWR 3350 (18%); BLWTR 15,346

05-19-09 AOL; NU stripper head; TIH w/142 jts tbgs to 11,457'; did not tg up; POOH & LD 142 jts tbgs; RU pmp trk; kill tbgs w/20 Bbls 10# brine; kill csg w/20 Bbls 10# brine; ND stripper head; POOH w/216 jts tbgs; SIW, SDFN; BLW 18,696; BLWR 3350 (18%); BLWTR 15,346
EDC \$5275; ETC \$472,545

05-20-09 AOL; OWU; RU pmp trk; kill tbgs & csg w/10# brine; POOH w/40 jts; PU & RIH w/236 jts 2-7/8" tbgs, 2-7/8" SN, 2-3/8"x32' gas separator, 2-7/8"x2-3/8" x-over, 5-1/2"x2-7/8" rot pkr, 5-1/2"x2-7/8" TAC, 2-7/8"x8' sd screen, 2-7/8" BP; ND BOP; NU WH; PU 2.5-1.5-RHBC-24-6-0 pmp, 26k shear tool, 4-C grade sinker bars, 92 - 3/4" HS Upco rods, 90 7/8" HS Upco rods; SIW SDFN; BLW 18,696; BLWR 3350 (18%); BLWTR 15,346
EDC \$7130; ETC \$479,675

05-21-09 AOL; flwd 200 BW overnight; fin PU rods & RIH; space out pmp; chkd pmp action w/rig; press'd up to 500#; RDMO PU; BLW 18,696; BLWR 3550 (19%); BLWTR 15,146
EDC \$7130; ETC \$479,675

05-22-09 On @ 12:50 PM

05-23-09 Prod 266 BW;

05-24-09 Prod 292 BW; BLW 18,696; BLWR 4108 (22%); BLWTR 14,588
ETC \$479,675

05-25-09 Pmpd 281 BW

05-26-09 Pmpd 291 BW; BLW 18,696; BLWR 4680 (25%); BLWTR 14,016
ETC \$479,675

05-27-09 Pmpd 276 BW; BLW 18,696; BLWR 4956 (27%); BLWTR 13,740
ETC \$479,675

05-28-09 Pmpd 287 BW; BLW 18,696; BLWR 5243 (28%); BLWTR 13,453
ETC \$479,675

05-29-09 Pmpd 290 BW

05-30-09 Pmpd 316 BW

05-31-09 Pmpd 286 BW; BLW 18,696; BLWR 6135 (33%); BLWTR 12,561
ETC \$479,675

06-01-09 Pmpd 270 BW; BLW 18,696; BLWR 6405 (34%); BLWTR 12,291
ETC \$479,675

06-02-09 Pmpd 237 BW; BLW 18,696; BLWR 6642 (36%); BLWTR 12,054; fluid level 4280 FOP; PIP = 1563 PSI; pmp card very good
ETC \$479,675

06-03-09 Pmpd 258 BW; BLW 18,696; BLWR 6900 (37%); BLWTR 11,796

ANDREWS UNIVERSITY 29 #1, ANDREWS CO., TX CWEIGWI 80% AFE#90202/NEW DRLG

	ETC \$479,675
06-04-09	Pmpd 275 BW; BLW 18,696; BLWR 7175 (38%); BLWTR 11,521 ETC \$479,675
06-05-09	Pmpd 296 BW
06-06-09	Pmpd 238 BW
06-07-09	Pmpd 260 BW; BLW 18,696; BLWR 7969 (43%); BLWTR 10,727 ETC \$479,675
06-08-09	Pmpd 242 BW; BLW 18,696; BLWR 8211 (44%); BLWTR 10,485 ETC \$479,675
06-09-09	Pmpd 230 BW; BLW 18,696; BLWR 8441 (45%); BLWTR 10,255 ETC \$479,675
06-10-09	Pmpd 239 BW; BLW 18,696; BLWR 8680 (46%); BLWTR 10,016 ETC \$479,675
06-11-09	Pmpd 33 BO + 262 BW; BLW 18,696; BLWR 8942 (48%); BLWTR 9754 ETC \$479,675
06-12-09	Pmpd 28 BO + 254 BW
06-13-09	Pmpd 36 BO + 215 BW
06-14-09	Pmpd 50 BO + 207 BW; BLW 18,696; BLWR 9618 (51%); BLWTR 9078 ETC \$479,675
06-15-09	Pmpd 47 BO + 213 BW; BLW 18,696; BLWR 9831 (53%); BLWTR 8865 ETC \$479,675
06-16-09	Pmpd 44 BO + 167 BW; BLW 18,696; BLWR 9998 (53%); BLWTR 8698 ETC \$479,675
06-17-09	Pmpd 50 BO + 187 BW; BLW 18,696; BLWR 10,185 (54%); BLWTR 8511 ETC \$479,675
06-18-09	Pmpd 44 BO + 161 BW; BLW 18,696; BLWR 10,346 (55%); BLWTR 8350 ETC \$479,675
06-19-09	Pmpd 28 BO + 123 BW
06-20-09	Pmpd 41 BO + 128 BW
06-21-09	Pmpd 41 BO + 107 BW; BLW 18,696; BLWR 10,704 (57%); BLWTR 7992
06-22-09	Pmpg with a Packer Type Gas Separator & Pmp Depth is 7455'; pmpd 14 BO + 173 BW; BLW 18,696; BLWR 10,877 (58%); BLWTR 7819