

UNIVERSITY 37 # 1
API# 42-003-44940
1980' FNL & 1980' FEL
SECTION 37 – BLOCK 9 – ABSTRACT U273
UNIVERSITY LANDS SURVEY
ANDREWS COUNTY, TEXAS
GL – 3123 KB – 3138.6 (15.6')

JOB DESCRIPTION: INITIAL COMPLETION

03/07/2013:

MIRU ARIES WELL SERVICE – UNLOAD AND RACK (295) JOINTS 2 7/8", L-80, 6.5#. 8rd, EUE TUBING – ND WH – NU BOP – MIRU GREY WIRELINE – RIH HOLE W/LOGGING TOOLS – RAN -GAMMA RAY/NEUTRON DENSITY/CCL/ CBL - LOGS - **FOUND PBTD @ 9921' – TOC @ 4369' –** POH W/LOGGING TOOLS – RIH W/4" TAG GUNS (API 60" PENETRATION) – **PERF 9334-9337' @ 4 SPF – TOTAL OF 16 SHOTS** – POH W/GUNS – ALL SHOTS FIRED –RIH W/187 JOINTS OF TBG – TALLIED REST OF TBG – SI WELL - SDFN

DAILY COSTS: \$ 72,000

CUM COSTS: \$ 72,000

03/08/2013:

CONTINUED TO RIH W/TBG AND PKR – LEFT PKR SWINGING @ 9334' – RU CUDD PRESSURE CONTROL – PUMP 1 DRUM ENDURA PRODUCTS SCAV 20 – (+) 6 BBLS 15% NeFe ACID (+) 48 BBLS 2% KCL WATER TO SPOT ACID ON PERFORATIONS. RD CUDD - POH W/16' TBG SUBS (+) 2 JOINTS TBG – SET PKR @ 9253' – LOAD CSG W/ ½ BBL 2 % - TEST TO 500# - RU CUDD – LOAD AND TEST LINES TO 6402# - START ON ACID – **INITIAL BREAK @ 3201#** -

ACID JOB PARAMETERS:

1000 GALLONS 15% NeFe W/ADDATIVES

MAX PRESSURE – 3479# MAX RATE – 2.5 BPM

AVERAGE PRESSURE – 2634# AVERAGE RATE – 2.3 BPM

ISIP = 2336# (5) = 2173# (10) = 2126# (15) = 2079#

(30) = 1800# (60) = 1625#

LTR= 162 BBLS

RD CUDD AND PREP FOR FLOW BACK – OPENED WELL ON 10/64 CHOKE – PSI DROPPED TO 1500# - FLOWING 2% KCL WATER – OPENED CHOKE TO 14/64 – PSI DROPPED TO 1000# - 2% KCL WATER – S/I WELL TO HOOK UP TO FRAC TANK FOR FLOW BACK – S/I (2) MINS – PSI ROSE TO 1350# - OPENED WELL ON 14/64 – PSI DROPPED TO 1050# - WELL FLOWED FOR 30 MINS – WHILE OPENING CHOKE TO 64/64 – PSI DROPPED TO (-) 10# PSI – STILL FLOWING 2% KCL WATER TO FRAC TANK – S/I WELL FOR 15 MINS – PSI INCREASE TO 525# - OPENED TO 64/64 – PSI INSTANT DROP TO (-) 10 PSI – FLOWING 2% KCL TO FRAC TANK – S/I WELL S/D FOR WEEKEND – RECOVERED 38 BBLS – LTR= 124 BBLS

DAILY COSTS: \$ 8,500

CUM COSTS: \$ 80,500

03/09/2013:

ARRIVE LOCATION @ 2:30 pm TO CHECK TBG PSI – TBG ON VACUUM

03/11/2013:

ARRIVED ON LOCATION – TBG ON VACUUM – RU SWAB LUBRICATOR – SWAB RUNS WENT AS FOLLOWS:

#1 – IFL @ 1300 – PULLED FROM 2500' – 100% DIRTY WATER

2 TAG @ 2300' – PULLED FROM 4300' – SAME

3 TAG @ 3640' – PULLED FROM 4800' – SAME

4 TAG @ 4200' – PULLED FROM 5775' – SAME

5 TAG @ 4700' – PULLED FROM 6000' – SAME

6 TAG @ 4900' – PULLED FROM 6330' – SAME

7 TAG @ 5300' – PULLED FROM 6880' – SAME

8 TAG @ 6000 – PULLED FROM 7200' – SAME

9 TAG @ 6300' – PULLED FROM 7600' – SAME

S/D 1 HOUR FOR LUNCH

10 TAG @ 6300' – PULLED FROM 7600' – SAME

11 TAG @ 6500' – PULLED FROM 8000' – SAME

12 TAG @ 7400' – PULLED FROM 8600' – SAME

13 TAG @ 7900' – PULLED FROM 9253 (SN) – SAME

14 TAG @ 8300' – PULL FROM SN – SAME

15 TAG @ 8400' – PULL FROM SN – SAME

16 TAG @ 8800' – PULL FROM SN – SAME

S/D FOR 30 MINS

17 TAG @ 8800' – PULLED FROM SN – SAME

18 TAG @ 8900 – PULLED FROM SN – SAME

19 TAG @ 9000' – PULLED FROM SN – SAME

20 TAG @ 9000' – PULLED FROM SN – SAME

SDFN

LTR = 33 BBLS

DAILY COSTS: \$ 4,000

CUM COSTS: \$ 84,500

03/12/2013:

ARRIVED ON LOCATION – TBG @ 0# - PREP TO MAKE SWAB RUNS – SWAB RUNS WENT AS FOLLOWS:

1 IFL @ 5000' – PULLED FROM 6500' – 100 % WATER

2 TAG @ 5600' – PULLED FROM 6900' – SAME

3 TAG @ 6500' – PULLED FROM 7500' – SAME

4 TAG @ 7000' – PULLED FROM 8400' – SAME

5 TAG @ 8000' – PULLED FROM 9253' (SN) - SAME

6 TAG @ 8500' – PULLED FROM SN – SAME

7 TAG @ 8600' – PULLED FROM SN – SAME

TOTAL OF 156 BBLS RECOVERED – (-) 6 BBLS TO RECOVER LOAD

RELEASE PKR AND POH W/TBG AND PKR – RIH W/KILL STRING – SDFN

DAILY COSTS: \$ 3,000

CUM COSTS: \$ 87,500

03/13/2013:

POH W/KILL STRING – RU GREY WIRELINE – RIH W/GAMMA RAY AND PERFORATING GUN (API 60" PENETRATION) – CORRELATE LOGS AND GET ON SPOT – **PERFORATE 9,336-9341' @ 4 SPF – TOTAL OF 24 SHOTS** – POH W/GUN – ALL SHOTS FIRED – RD GREY WIRELINE – RIH W/TBG AND PKR TO 9341' – LEFT PKR SWINGING – PUMPED 62 BBLS 2% KCL WATER TO CIRCULATE WELL - RU CUDD PRESSURE CONTROL TO SPOT CHEMICAL AND ACID – LEAD WITH 1 DRUM ENDURA PRODUCTS SCAV 20 – FOLLOW W/ 6 BBLS 15% HCL - FLUSH W/48 BBLS 2% TO GET ON SPOT – ND CUDD – POH TO **SET PKR @ 9286'** –LOAD CSG W/3 BBLS 2% KCL AND TEST TO 500# - NU CUDD TO PREP FOR ACID JOB – LOAD AND TEST LINES TO 5000# - **ACID JOB PARAMETERS AS FOLLOWS:**

2000 GALLONS 15% HCL – DROPPING 60 BALLS THRU-OUT JOB

INITIAL BREAK @ 2269#

MAX PRESSURE – 2894# MAX RATE – 3.0 BPM

AVERAGE PSI – 2708# AVERAGE RATE – 2.7 BPM

ISIP = 2546# (5) = 2338# (10) = 2269# (15) = 2222# (30) = 2000#

FLOW BACK AS FOLLOWS:

OPEN WELL ON 4/64 @ 1800# - WENT TO 8/64 – STEADY STREAM TO PIT @ 1800# - 10 MINS – OPEN TO 16/64 – PSI TO 1700# - NO FLOW INCREASE – AFTER 15 MINS – NU FLOW TO FRAC TANK - SDFN – **LTR = 196 BBLS**

DAILY COSTS: \$ 18,000

CUM COSTS: \$ 105,500

03/14/2013:

ARRIVE LOCATION – RELEASE PKR – POH W/TBG AND PKR – MIRU GREY WIRELINE – RIH W/CIBP – CORRELATE LOGS TO GET ON SPOT – **SET CIBP @ 9328'** – POH W/WL – RIH W/CEMENT DUMP BAILER – TAG CIBP – PU AND DUMP 20' OF CEMENT ON TOP OF CIBP – **NEW PBTD @ 9308'** – POH W/WL – SI WELL SD UNTIL 03/18/13 – WILL PAY 8 HOURS STAND BY TIME FOR 3/15/13 – COST WILL BE ADDED TO TODAY'S COST

DAILY COSTS: \$ 12,000

CUM COSTS: \$ 117,500

03/18/2013:

ARRIVE ON LOCATION – MIRU GREY WIRELINE – RIH W/GAMMA RAY AND PERFORATING GUN (API 60" PENETRATING) – CORRELATE LOGS TO GET ON SPOT – **PERFORATE THE FOLLOWING INTERVALS:**

8922-8924'

8944-8946'

8948-8950'

8953-8954'

TOTAL OF 11' AND 44 SHOTS

POH W/PERFORATING GUN – ALL SHOTS FIRED – RD GREY WIRELINE – RIH W/PKR AND TBG – TO 8938' – RU CUDD PRESSURE CONTROL - PUMP 1 DRUM ENDURA PRODUCTS SCAV 20 – FOLLOW W/6 BBLS 15% NeFe – FLUSH W/44 BBLS 2% KCL TO GET ACID ON SPOT –RD CUDD - POH W/12' x 2 7/8" L-80 SUB AND 3 JOINTS TBG – **SET PKR @ 8828'** – LOAD CSG W/1/2 BBL 2% KCL – TEST TO 500# - RU CUDD – PREP FOR ACID JOB – LOAD AND TEST LINES TO 5116#

ACID JOB PARAMETERS AS FOLLOWS:

5000 GALLONS 15% NeFe – DROPPING 66 BALLS THRU-OUT JOB.

INITIAL BREAK @ 2269# - ACID ON FORMATION @ 53 BBLS IN @ 2384# @ 3.1 BPM – INCREASED RATE TO 4.0 BPM @ 2662# - 74.5 BBLS IN – INCREASED RATE TO 4.5 BPM @ 2616# - 89.0 BBLS IN – INCREASED RATE TO 5.0 BPM @ 2454#

MAX PRESSURE – 2708# MAX RATE – 5.0 BPM

AVERAGE PSI – 2549# AVERAGE RATE – 4.4 BPM

ISIP = 1898# (5) = 1574# (10) = 1412# (15) = 1250# (60) = VACUUM

TOTAL LOAD TO RECOVER = 247 BBLS

RD CUDD PRESSURE CONTROL – RU SWAB LUBRICATOR – PREP TO SWAB – SWAB RUNS AS FOLLOWS:

1 – IFL @ 500' – PULLED FROM 2000' – 100% WATER

2 TAG @ 2000' – PULLED FROM 3300' – SAME

3 TAG @ 2800' – PULLED FROM 4000' – SAME

4 TAG @ 3300' – PULLED FROM 4800' – SAME

5 TAG @ 4000' – PULLED FROM 5400' – SAME

6 TAG @ 4600' – PULLED FROM 6000' – SAME

7 TAG @ 4700' – PULLED FROM 6400' – SAME

8 TAG @ 4700' – PULLED FROM 6100' – SAME

9 TAG @ 4800' – PULLED FROM 6200' – SAME

10 TAG @ 5200' – PULLED FROM 6500' – SAME

11 TAG @ 5200' – PULLED FROM 6500' – GOOD GAS – TRACE OF OIL

AFTER # 11 RUN – WELL WAS TRYING TO FLOW

NOTE – 53 BBLS DISPLACEMENT TO TOP PERF

RECOVERED 66 BBLS – LTR = 181 BBLS

SI WELL SDFN

DAILY COSTS: \$ 32,500

CUM COSTS: \$ 150,000

03/19/2013:

ARRIVED LOCATION – 100# TBG PRESSURE – TOOK 10 MINUTES TO BLOW DOWN ON 64/64 CHOKE – ALL GAS – RIG UP LUBRICATOR AND PREP FOR SWAB RUNS –

SWAB RUNS WENT AS FOLLOWS:

1 – IFL @ 4400' PULLED FROM 6300' – 50% OIL CUT ON TOP – 10% END

2 – TAG @ 4800' – PULLED FROM 6800' – 25% OIL CUT

3 – TAG @ 5200' – PULLED FROM 7400' – 25% OIL CUT – GOOD GAS

4 – TAG @ 5400' – PULLED FROM 7400' – SAME

5 – TAG @ 5400' – PULLED FROM 7400' - SAME

6 – TAG @ 6000' – PULLED FROM 7600' - SAME

7 – TAG @ 6300' – PULLED FROM 7900' – 30% OIL CUT – GOOD GAS

8 – TAG @ 6880' – PULLED FROM 8400' - SAME

9 – TAG @ 7000' – PULLED FROM 8700' - SAME

10 – TAG @ 7900' – PULLED FROM 8700' - SAME

11 – TAG @ 8300' – PULLED FROM 8700' – 35% OIL CUT – STRONG GAS

SD 30 MINS HOUR FOR LUNCH

12 – TAG @ 8000' – PULLED FROM 8500' – 35% OIL CUT – STRONG GAS

SD 1 HOUR FOR ENTRY

13 – TAG @ 7800' – PULLED FROM 8700' – STRONG GAS – 50% OIL CUT

SD 1 HOUR FOR ENTRY

14 – TAG @ 7900' – PULLED FROM 8823' (SN) – STRONG GAS - 65% OIL CUT

SD 1 HOUR FOR ENTRY

15 – TAG @ 7900' – PULLED FROM SN – STRONG GAS – 65% OIL CUT

SI WELL SDFN

LOAD RECOVERED TODAY = 102 BBLS - LTR = 79 BBLS

LOWER PENN TEST COMPLETED – COMPLETION/STIMULATION OF UPPER PENN SCHEDULED FOR THURSDAY 03/21/2013

DAILY COSTS: \$ 4,200

CUM COSTS: \$ 154,200

03/20/2013:

ARRIVED LOCATION – S/I TBG PST (14) HOURS @ 100# - TOOK 11 MINS TO BLEED DOWN ON 64/64 CHOKE – VERY STRONG GAS
– PREP TO MAKE SWAB RUNS –

SWAB RUNS AS FOLLOWS:

1 – IFL @ 6300' – PULLED FROM 7400' – 100% OIL @ TOP OF RUN – 45% AT END – W/STRONG GAS

2 – TAG @ 5100' – PULLED FROM 6800' – SAME

3 – TAG @ 6500' – PULLED FROM 7900' – SAME

RD SWAB LUBRICATOR – RELEASE PKR – POH W/TBG AND PKR – RIH W/RBP, PKR, AND TBG – SET RBP @ 8910' – POH W/TBG –
LEFT PKR SWINGING @ 8802'

PREP TO PERFORATE AND ACIDIZE UPPER PENN IN THE MORNING.

DAILY COSTS: \$ 4,500

CUM COSTS: \$ 158,700

03/21/2013:

ARRIVE LOCATION – 0# TBG PSI – DUMP 2 SACKS SAND DOWN TBG – TO COVER ON-OFF TOOL ON RBP – RU CUDD PRESSURE CONTROL – LOAD AND TEST LINES TO 5625# - PUMP 1 DRUM ENDURA PRODUCTS SCAV 20 – 6 BBLs 15% NeFe ACID – FLUSH W/2 BBLs 2% KCL – RD CUDD – POH W/TBG AND PKR – MIRU GREY WIRELINE – PREP TO RIH W/GAMMA GUN AND TAG (60" API PENETRATION) GUN – CORRELATED LOGS TO GET ON SPOT – NO FIRE – POH W/GUNS – REWIRE GUNS ON SURFACE – RIH W/GAMMA RAY AND GUNS – CORRELATE LOGS TO GET OB SPOT – NO FIRE AGAIN – POH W/GUNS – WAIT ON REPLACEMENT FIRING HEAD – RIH W/GAMMA RAY AND GUNS – CORRELATE LOGS – GET ON SPOT – **PERFORATE THE FOLLOWING INTERVAL OF THE UPPER PENN FORMATION :**

8800-8802' - (3') – 12 SHOTS

8810-8812' – (3') – 12 SHOTS

8826-8832' - (7') – 28 SHOTS

POH W/GUNS – ALL SHOTS FIRED – RIH W/GAMMA RAY AND 2nd SET OF GUNS – CORRELATE LOGS TO GET ON SPOT – **PERFORATE THE FOLLOWING INTERVAL OF THE UPPER PENN FORMATION:**

8838 – 8844' – (7') – 28 SHOTS

8860 – 8862' – (3') – 12 SHOTS

8868 – 8870' – (3') – 12 SHOTS

TOTAL OF 26' – 104 SHOTS

POH W/ GUNS – ALL SHOTS FIRED – RD GREY WIRELINE – RIH W/PKR AND TBG – **SET PKR @ 8698' – LOAD TO TEST PKR W/68 BBLs 2% KCL – TEST TO 500# - GOOD TEST – RU CUDD AND PREP FOR ACID JOB – ACID JOB PARAMETERS AS FOLLOWS – 10,000 GALLONS 15% NeFe – DROPPING 156 BALLS THRU-OUT JOB.**

JOB WENT AS FOLLOWS:

START ON ACID – CAUGHT PRESSURE @ 30 BBLs IN – RATE @ 3.0 BPM

@ 53 BBLs IN – PSI @ 1759# - INCREASED RATE TO 3.5 BPM

PSI INCREASE TO 1968#

@ 60 BBLs IN – PSI @ 2060# - INCREASED RATE TO 4.0 BPM

PSI INCREASE TO 2243#

@ 70 BBLs IN – PSI @ 2361# - INCREASED RATE TO 4.5 BPM

PSI INCREASE TO 2431#

@ 85 BBLs IN – PSI @ 2500# - INCREASED RATE TO 5.0 BPM

PSI INCREASE TO 2708#

@ 100 BBLS IN – PSI @ 2801# - INCREASED RATE TO 5.5 BPM

PSI INCREASE TO 2963#

@ 195 BBLS IN – PSI @ 3009 – INCREASED RATE TO 6.0 BPM

PSI INCREASE TO 3310#

CONTINUED REST OF JOB/FLUSH @ 6.0 BPM

SAW VERY LITTLE BALL ACTION THRU-OUT JOB (20-50# BREAKS)

MAX PRESSURE – 3287# MAX RATE – 6.0 BPM

AVERAGE PSI – 3112# AVERAGE RATE – 5.3 BPM

ISIP = 2106# (5) = 1898# (10) = 1782# (15) = 1690#

LTR = 321 BBLS

RD CUDD – S/I WELL SDFN

DAILY COSTS: \$ 47,000

CUM COSTS: \$ 205,700

03/22/2013:

ARRIVE ON LOCATION – TBG ON VACCUUM – RU TO START SWABBING – SWABBING GOES AS FOLLOWS:

RUN 1: TAGGED AT 2000', PULLED FROM 3500'

RUN 2: TAGGED AT 2700', PULLED FROM 4000'

RUN 3: TAGGED AT 2900', PULLED FROM 4200' SLIGHT GAS, TRACE OF OIL

RUN 4: TAGGED AT 3000', PULLED FROM 4300' SLIGHT GAS, TRACE OF OIL

RUN 5: TAGGED AT 3500', PULLED FROM 4800' STRONG GAS, TRACE

RUN 6: TAGGED AT 4000', PULLED FROM 4600' EXTREME GAS

RUN 7: TAGGED AT 3000', PULLED FROM 4600' 10% OIL CUTS

RUN 8: TAGGED AT 3200', PULLED FROM 4800' 15% OIL CUTS,GOOD GAS

RUN 9: TAGGED AT 3500, PULLED FROM 5200' 25% OIL CUTS, GOOD GAS

SD FOR LUNCH

RUN 10: TAGGED AT 3400' PULLED FROM 5400' STRONG GAS

RUN 11: TAGGED AT 3800, PULLED FROM 5200'

RUN 12: TAGGED AT 4200', PULLED FROM 5770' 20% OIL CUTS, GOOD GAS

RUN 13: TAGGED AT 4400', PULLED FROM 5870' GOOD GAS

RUN 14: TAGGED AT 3800', PULLED FROM 5400' GOOD GAS

RUN 15: TAGGED AT 4350', PULLED FROM 5830' 10 MINUTE FLOW

RUN 16: TAGGED AT 3500, PULLED FROM 5190'

RUN 17: TAGGED AT 4200', PULLED FROM 6200'

RUN 18: TAGGED AT 4500', PULLED FROM 6880'

RUN 19: TAGGED AT 4000', PULLED FROM 6200' 45% OIL CUTS

TOTAL RECOVERED – 139 BBLS

SDFN

DAILY COSTS:\$4800

CUME COSTS:\$210,500

03/25/2013:

ARRIVE LOCATION – 500 PSI ON TBG – 8:30 OPEN TO A 10th/ALL GAS – 2 HOURS FOR PSI TO BLEED DOWN – BEGAN SWABBING
– RUNS WENT AS FOLLOWS:

RUN 1: TAGGED AT 4200', PULLED FROM 5800', 20% OIL CUTS
RUN 2: TAGGED AT 3300', PULLED FROM 5700', 20% OIL CUTS
RUN 3: TAGGED AT 3000', PULLED FROM 5700', 30% OIL CUTS
RUN 4: TAGGED AT 3800', PULLED FROM 5800', 30% OIL CUTS
RUN 5: TAGGED AT 3800', PULLED FROM 5800', 40% OIL CUTS
RUN 6: TAGGED AT 3800', PULLED FROM 5800', 40% OIL CUTS
RUN 7: TAGGED AT 3800', PULLED FROM 5800', 70% OIL CUTS
RUN 8: TAGGED AT 3800', PULLED FROM 5800', 70% OIL CUTS
RUN 9: TAGGED AT 3800', PULLED FROM 5800', 70% OIL CUTS
AFTER RUN 9, RELEASE PKR AND POH ABOVE TOP PERFS – 77 TOTAL BBLS RECOVERED – SDFN

DAILY COSTS: \$4800

CUME COSTS: \$215,300

ARRIVE ON LOCATION – NO PSI ON WELL – POH W/ TBG, PKR, AND BHA – STARTED TO FLOW SO KILLED IT WITH WATER – ROD STRING DELIVERED AND SET UP – ROD STRING GOES AS FOLLOWS:

(62) 7/8" STEEL RODS

(72) 1" STEEL RODS

(138) 1.25" FG RODS

(17) 7/8" SINKER BARS

(1) 26' PUMP W/ 4' SUB

(1) 18' POLISH ROD

RIH W/ PUMP, STABILIZER, SHEAR TOOL, SINKER BARS, 7/8" RODS, 1" RODS, 1.25" FG RODS, POLISH ROD – GET WELL SET IN PLACE FOR PUMP IN THE MORNING – 15 BBLS TO LOAD – SN @8999 – SDFN

DAILY COSTS: \$65,200

CUME COSTS: \$280,500

FINAL REPORT OF INITIAL COMPLETION

