

10/17/85 8407 JV-P 42 003.35045 University "23" #1 8-12-85. Proposed depth 9,500'. Location: 1,980' FNL & 1,980' FWL of Section 23; Block 1; University Land Survey; Andrews County, Texas. Elevation: 3,105' G.L.; 3,117' K.B. Contractor: FWA Drilling Co., -Rig #21. Toolpusher: Terry Cunningham. Location graded.

8407 JV-P University "23" #1 8/13/85 Proposed depth 9,500'. Will MIRT tomorrow.

8407 JV-P University "23" #1 8/14 Proposed depth 9,500'. MIRT.

8407 JV-P University "23" #1 8/15 (2 days) Depth 65' (65'). Rigged-up. SPUDDER: 6 a.m. 8-15-85. Drilling 17 1/2" hole in surface rock w/fresh wtr. CC: \$50,200.

8407 JV-P University "23" #1 8/16 (3 days) Depth 690' (625'). Drilling 17 1/2" hole in red beds w/fresh wtr. Dev: 313'-3/4"; 655'-1/2". CC: \$65,900.

8407 JV-P University "23" #1 8-17-85. (4 days) Depth 1,290' (600'). Drilling 17 1/2" hole in red beds & anhydrite w/fresh wtr. Dev: 998'-1/4". CC: \$79,700.

8-18-85. (5 days) Depth 1,660' (370'). Drilling 17 1/2" hole in red beds & shale w/fresh wtr. Dev: 1,469'-1". CC: \$90,600.

8-19-85. (6 days) Depth 1,700' (40'). Drilled 17 1/2" hole in red beds & anhydrite. Circ & POH. Dev: 1,700'-1 1/4". Cmt'd 42 jts 13 3/8" 61# J55 STC @ 1,700' w/1,400 sx. PD: 10:30 p.m. 8-19-85. Cmt'd did not circ. Ran 1" tbg to 280' & did top job w/250 sx. Cmt circ. WOC. CC: \$142,100.

8407 JV-P University "23" #1 8/20 (7 days) Depth 1,950' (250'). Cut-off, installed csg head & BOP's. WIH w/bit & drilled out. Drilling 11" hole in anhydrite w/brine. Dev: 1,842'-1 1/4". CC: \$150,700.

8-21-85 8407 JV-P University "23" #1 (8 days) Depth 2,675' (725'). Drilling 11" hole in anhydrite & salt w/brine. Dev: 2,154'-1"; 2,491'-1/2". CC: \$166,400.

8-22-85 8407 JV-P University "23" #1 (9 days) Depth 3,225' (550'). Drilling 11" hole in anhydrite w/brine. Dev: 2,838'-3/4"; 3,121'-1". CC: \$178,300.

8-23-85 8407 JV-P University "23" #1 (10 days) Depth 3,735' (510'). Drilling 11" hole in lime & anhydrite w/brine. Dev: 3,589'-3/4". CC: \$189,600.

8407 JV-P University "23" #1 BT 8-24-85. (11 days) Depth 4,100' (365'). Drilling 11" hole in lime & anhydrite w/brine. Dev: 3,869'-1 3/4"; 4,025'-3/4". CC: \$197,500.

8-25-85. (12 days) Depth 4,570' (470'). Drilling 11" hole in lime w/brine. Dev: 4,321'-1/4". CC: \$207,700.

8-26-85. (13 days) Depth 4,800' (230'). Drilled 11" hole in lime w/brine & circ. POH to run 8 5/8" csg. Dev: 4,600'-1/2". CC: \$216,300.

8407 JV-P University "23" #1 (14 days) Depth 4,800' (0'). Cmt'd 8 5/8" csg @ 4,800' w/1,600 sx. PD: 4:30 p.m. 8-26-85. Cmt circ. Set slips & cut-off, installed spool & BOP's. WOC. GIH w/bit to drill out. CC: \$290,800. 8 5/8" K55 STC csg run as follows:

Halliburton Guide Shoe	1.10'
2 jts 32#	86.89
Halliburton Float collar	1.62
63 jts 32#	2,732.15
47 jts 24#	2,013.30
TT2 jts	4,835.06
KB to top of pipe	-35.06
Csg set @	4,800'
Float Collar @	4,710'

8407 JV-P University "23" #1 8/28 (15 days) Depth 5,255' (455'). Drilling 7 7/8" hole in lime & shale w/fresh wtr. Dev: 5,121'-1/2". CC: \$300,600.

8407 JV-P  
University "23" #1

(16 days) Depth 5,820' (565'). Drilling 7 7/8" hole in lime & shale w/fresh wtr. Dev: 5,431'-3/4"; 5,742'-1/2". CC: \$313,400.

8407 JV-P  
University "23" #1

(17 days) Depth 6,420' (600'). Drilling 7 7/8" hole in lime & shale w/fresh wtr. Dev: 6,053' & 6,363'-1/2". CC: \$326,400.

8407 JV-P  
University "23" #1

8-31-85. (18 days) Depth 6,900' (480'). Drilling 7 7/8" hole in lime & shale w/fresh wtr. Dev: 6,830'-1/2". CC: \$336,800.

9-1-85. (19 days) Depth 7,511' (611'). Drilling 7 7/8" hole in lime & shale w/fresh wtr. Dev: 7,201'-3/4"; 7,480'-2". CC: \$350,100.

9-2-85. (20 days) Depth 7,735' (224'). Drilling 7 7/8" hole in lime & shale w/fresh wtr. Dev: 7,665'-1 3/4". CC: \$354,900.

8407 JV-P  
University "23" #1

9-3-85. (21 days) Depth 8,185' (450'). Drilling 7 7/8" hole in lime & shale w/fresh wtr. Dev: 8,007'-1 3/4". CC: \$364,600.

8407 JV-P  
University "23" #1  
RTA 5-9

(22 days) Depth 8,480' (295'). Drilling 7 7/8" hole in lime & shale. Dev: 8,450'-2 1/2". MW: (FW-gel) 8.7, vis 40, FL 17. CC: \$373,800.

8407 JV-P  
University "23" #1

(23 days) Depth 8,695' (215'). Drilling 7 7/8" hole in lime & shale. Dev: 8,601'-2". MW: (FW-gel) 8.9, vis 40, FL 14. CC: \$378,500.

8407 JV-P  
University "23" #1

(24 days) Depth 8,915' (220'). Drilling 7 7/8" hole in lime & shale. Dev: 8,694'-1 3/4". MW: (FW-gel) 9, vis 40, FL 13. CC: \$383,300.

8407 JV-P  
University "23" B #1

9-7-85. (25 days) Depth 9,140' (225'). Drilling 7 7/8" hole in lime & shale. Dev: 9,098'-1 1/4". MW: (FW-gel) 9.2, vis 37, FL 14, CL 3,600. CC: \$388,200.

9-8-85. (26 days) Depth 9,320' (180'). Drilling 7 7/8" hole in lime & shale. Dev: 9,223'-2". MW: (FW-gel) 9.4, vis 36, FL 13.5, CL 3,500. CC: \$392,200.

9-9-85. (27 days) TD 9,500' (180'). Drilled 7 7/8" hole in lime & shale. Circ & made short trip. Circ & cond mud to run open hole logs. MW: (FW-gel) 9.4, vis 35, FL 13. CC: \$405,000.

8407 JV-P  
University "23" B #1

(28 days) TD 9,500'. POH w/bit. Ran CNL/LDT/DIL from 9,488' to 4,800'. GIH w/bit to circ for 5 1/2" csg. MW: (FW-gel) 8.7, vis 60, FL 8.8, CL 3,300. CC: \$430,600.

8407 JV-P  
University "23" B #1

(29 days) TD 9,500' PB 9,415'. ("DV" Tool @ 6,495'). Cmt'd 5 1/2" csg @ 9,500' w/600 sx. PD: 2:30 a.m. 9-11-85. Circ "DV" Tool & WOC. Cmt circ. CC: \$523,400. 5 1/2" 17# LTC csg run as follows:

Halliburton Float Shoe	1.68'
2 jts N80	81.77
Halliburton Float Collar	1.34
35 jts N80	1,442.31
36 jts K55	1,474.91
"DV" Tool	3.06
158 jts K55	6,504.52
231 jts	9,509.59
KB to top of pipe	-9.59
Csg set @	9,500'
Float Collar @	9,415'
"DV" Tool @	6,495'

8407 JV-P  
University "23" B #1

(30 days) TD 9,500' PB 9,415'. CP @ 6,495' w/800 sx. PD: 9:15 a.m. 9-11-85. Set slips & cut-off. Released Rig: 11:15 a.m. 9-11-85. MORT. Top of cmt by temp survey @ 1,700'. CC: \$558,900.

8407 JV-P  
University "23" B #1

(31 days) TD 9,500' PB 9,415'. MIRU. WIH w/4 3/4" bit, 6-3 1/2" DC's & 2 7/8" tbq. Tag "DV" Tool @ 6,495'. CC: \$585,900.

8407 JV-P  
University "23" B #1

9-14-85. (32 days) TD 9,500' PB 9,409'.  
Test csg to 1,000 psi - OK, Drld DV  
tool & test csg to 1,000 psi - OK. Ran  
bit to PBD 9,390' & drld cmt to 9,409'.  
Displaced hole w/2% KCl wtr, spotted  
250 gal 10% acetic acid & POH w/tbg,  
DC's & bit. Ran GR-CCL, perf 9,290' -  
9,307', 9,316'-20', 9,340'-60', 9,376'-  
80' w/1SPF (49 holes). SION.  
CC: \$608,000.

9-15-85. (33 days) TD 9,500' PB 9,409'.  
WIH w/pkr & tbg. Set pkr @ 9,001'. BDP  
1400 psig. Displace acetic 3 BPM @ 2,400  
psig, ISDP 500 psig, 3 min vacuum. 70 BLW  
to rec. Swbd 3 hrs, rec 83.4 BG, 100% cut.  
BFL 800', EFL 2,400'. CC: \$611,300.

9-16-85. (34 days) TD 9,500' PB 9,409'.  
SI - no crew. This a.m.: 41 hr SITP  
0 psig. FL 1,600', 100% cut first run.  
CC: \$611,300.

8407 JV-P  
University "23" B #1

(35 days) TD 9,500' PB 9,409'. Swbd 3 hrs, rec 50.2 BG,  
100% cut, BFL 1,600', EFL 2,400', parted swab line. POH  
w/tbg & pkr. Rec swab line. WIH w/pkr & tbg, set pkr @  
9,001'. CC: \$611,800.

8407 JV-P  
University "23" B #1

(36 days) TD 9,500' PB 9,409'. A/W 5,000 gal 15% NE-FE.  
AIR 8 BPM @ 5,000 psig. Good ball action, balled out to  
6,100 psig. ISDP 200 psig, 1 min-vacuum. 185 BLW to rec.  
Swbd 10 hrs, rec 197 BG, 100% cut. BFL 800', EFL 2,700'.  
This a.m.: 11 hr SITP 20 psig, FL 1,800', 100% cut 1st run  
CC: \$619,200.

8407 JV-P  
University "23" B #1

(37 days) TD 9,500' PB 9,270'. Swbd 21 BW-100% cut in  
1 1/2 hrs. Rel pkr & POH. Set CIBP on WL @ 9,282' & capped  
w/1 sx cmt. Perf 9,100'-03', 16'-19', 28'-36', 47'-51',  
9,196'-9,204', 15'-18', 31'-36', 57'-60' w/1 SPF (45 holes).  
GIH w/2 jts 2 7/8" tail pipe, pkr & bal 2 7/8" tbg. Displ  
hole w/2% KCL wtr & spotted 250 gal 15% NE-FE acid across  
perfs. SION. CC: \$629,400.

8407 JV-P  
University "23" B #1

(38 days) TD 9,500' PB 9,270'. Set pkr @ 8,812'. Break  
formation @ 1,400 psig. A/W total 2,500 gal 15% NE-FE acid.  
AIR 6 BPM @ 3,600 psig. Balled out to 5,500 psig. ISDP  
2,400 psig, 5 min 1,910 psig, 15 min 1,550 psig. 195 BLW  
to rec. Swbd 10 hrs, rec 174 BLW, tr oil last 3 runs.  
BFL surf, EFL 6,000'. This a.m.: 12 hr SITP 25 psig, FL  
2,500', 30' oil on top. CC: \$633,400.

8407 JV-P  
University "23" B #1

9-21-85. (39 days) TD 9,500' PB 9,270'. Swbd 6 hrs, rec  
94 BG, 1/2 B/N, BFL 2,500', EFL 6,600'. POH w/tbg & pkr.  
CC: \$634,800.

9-22-85. (40 days) TD 9,500' PB 9,060'. Att to set CIBP  
& unable to get below "DV" Tool @ 6,495'. GIH w/4 3/4" bit  
on 2 7/8" tbg. Ran bit to 6,550' & POH. Set CIBP @ 9,080'  
& capped w/2 sx cmt. Perf 8,976'-84', 8,997'-9,006',  
9,012'-15', 9,025'-27', 9,032'-36', 9,042'-44' w/1 SPF  
(34 holes). GIH w/2 jts 2 7/8" tail pipe, pkr & tbg. Ran  
tbg to 9,032' & SION. CC: \$645,200.

9-23-85. (41 days) TD 9,500' PB 9,060'. SI-no crews.  
This a.m.: Prep to acidize. CC: \$645,200.

8407 JV-P  
University "23" B #1

(42 days) TD 9,500' PB 9,060'. Spotted 250 gal 15% NE-FE  
acid, PU & set pkr @ 8,587' w/end of tbg @ 8,651', A/W total  
5,000 gal 15% NE-FE w/ball sealers, AIR 6 BPM @ 3,200 psi,  
good ball action & balled out to 6,900 psi, ISDP 1,300 psi,  
5 min - 270 psi, 8 min - vacuum. 196 BLW to rec, BFL 500',  
swbd 160 BLW-100% cut in 8 hrs, EFL 2,700'. SION. 36 BLW  
to rec. This a.m.: 13 hr SITP 25 psi, BFL 2,600', 100% cut  
on first run. CC: \$651,400.

8407 JV-P  
University "23" B #1

(43 days) TD 9,500' PB 9,060'. Swbd 9 hrs, rec 226 BG-  
100% cut. BFL 2,600', EFL 2,900'. POH w/tbg & pkr.  
CC: \$652,800.

8407 JV-P  
University "23" B #1

(44 days) TD 9,500' PB 8,940'. Set CIBP @ 8,960', Cap w/25 sx cmt. Perf 8,623'-28', 8,755'-57', 79'-81', 86'-93', 8,802'-04', 14'-17', 27'-31', 8,916'-18' w/1SPF (35 holes). WIH w/2 jts tailpipe, pkr & tbg. Spot 250 gal 15% NE-FE acid. PU & set pkr @ 8,424'. Break formation @ 1,100 psig, A/total 7,500 gal 15% NE-FE acid. AIR 8 BPM @ 3,600 psig, good ball action - balled out to 6,100 psig. ISDP 1,900 psig, 5 min 1,840 psig, 15 min - 1,780 psig. 305 BLW to rec. Swbd 4 1/2 hrs, rec 140 BLW, 100% cut. BFL 0, EFL 2,700'. This a.m.: 11 hr SITP 360 psig, FL 1,500', 1,500' clean oil on top. 2nd run 75% cut. CC: \$667,800.

8407 JV-P  
University "23" B #1

(45 days) TD 9,500' PB 8,940'. Swbd 8 1/2 hrs, rec 58.4 B/N, 83.4 BLW. BFL 1,500', EFL 3,200'. POH w/tbg & pkr. CC: \$668,300.

8407 JV-P  
University "23" B #31

9-28-85. (46 days) TD 9,500' PB 8,940'. WIH w/1 jt BP MA, SN @ 8,902', 10 jts 2 7/8" tbg, tac @ 8,581', 273 2 7/8" tbg, 2 1/2" x 1 1/2" x 35' pmp, 143-7/8" steel, 139-1" fiberglass rods. Ppd 58 BN, 138 BLW in 13 hrs. 113 BLW to rec. CC: \$748,800.

9-29-85. (47 days) TD 9,500' PB 8,940'. Ppd 86 B/N, 127 BLW in 24 hrs. All load wtr recovered. CC: \$748,800.

9-30-85. (48 days) TD 9,500' PB 8,940'. Ppd 50 B/N, 16 BW in 24 hrs. CC: \$748,800.

8407 JV-P  
University "23" B #1

(49 days) TD 9,500' PB 8,940'. Ppd 33 B/N, 60 BW in 24 hrs. CC: \$748,800.

8407 JV-P  
University "23" B #1

(50 days) TD 9,500' PB 8,940'. Ppd 73 B/N, 28 BW in 24 hrs. CC: \$748,800.

8407 JV-P  
University "23" B #1

(51 days) TD 9,500' PB 8,940'. Ppd 50 B/N, 25 BW in 24 hrs. CC: \$748,800.

8407 JV-P  
University "23" B #1

(52 days) TD 9,500' PB 8,940'. Ppd 50 B/N, 23 BW in 24 hrs. CC: \$748,800.

8407 JV-P  
University "23" B #1

10-5-85. (53 days) TD 9,500' PB 8,940'. Ppd 44 B/N, 25 BW in 24 hrs. CC: \$748,800.

10-6-85. (54 days) TD 9,500' PB 8,940'. Ppd 46 B/N, 25 BW in 24 hrs. CC: \$748,800.

10-7-85. (55 days) TD 9,500' PB 8,940'. Ppd 47 B/N, 22 BW in 24 hrs. ORRC Potential Test 10-6-85. Ppd 47 BOPD + 22 BWPD, GOR 702, Gravity 40° API, perfs 8,623'-8,918', A/W 7,500 gal, completed in Andrews, S. (Wolfcamp) Field, Andrews County, Texas. FINAL REPORT