

## EP WELLS DAILY OPERATIONS REPORT

Report 18

11/21/2017

|               |                             |
|---------------|-----------------------------|
| Company       | PERMIAN                     |
| Well Type     | Development                 |
| Well          | UNIVERSITY 19 PW UNIT 1404H |
| Wellbore      | UNIVERSITY 19 PW UNIT 1404H |
| WBS No/API No | 30266568 / 4230133215.00    |

## Event Summary

|            |                     |                    |                  |                  |       |
|------------|---------------------|--------------------|------------------|------------------|-------|
| Event Type | Completion only     | Event Start Date   | 10/31/2017       | Days on Location | 18.00 |
| Objective  | Install Completion  | Original Spud Date | 06/17/2017       |                  |       |
| Est. Days  | 65.00               | Contractor         | PERMIAN WELL SVC |                  |       |
| Work Unit  | PERMIAN COMPLETIONS | Days To Release    |                  |                  |       |
|            |                     | Rig Phone/FAX No.  |                  |                  |       |

## Well Status

|                                    |                          |                          |   |
|------------------------------------|--------------------------|--------------------------|---|
| Supervisor                         | John Bevans              | Measured Depth(ft)       |   |
| Engineer                           | Bobby Ramos              | TVD(ft)                  |   |
| Other Supervisor                   | Mike Johnson             | 24 Hr Progress(ft)       |   |
| Depth Ref/Grd Elev/Water Depth(ft) | DFE: 2,800.10 / 2,772.10 | Hole size(in)            |   |
| THF Datum                          |                          |                          |   |
| Daily NPT(hr/%)                    | 1.92/7.99                | Last Casing MD           |   |
| Days Ahd(-) Bhnd(+)(50/50)         |                          | Next Casing MD           |   |
| Actual cost to date/AFE            | 2,958,502/5,029,301.00   | Current MW / BH EMW(ppg) | / |
| Actual divided by AFE              | 0.59                     | LOT/FIT EMW(ppg)         |   |
| Daily Cost                         | 289,012                  | Lithology                |   |
|                                    |                          | Formation/MD Top         |   |

## HSE Summary

| Last Incident   | Date | Days | Last Incident  | Date | Days | KPI's  |  |
|---|------|------|--|------|------|--|--|
| LWC<br>RWC<br>MTC<br>FAC<br>Last casing pressure test |      |      | PSI<br>NII<br>HPI<br><b>GOAL ZERO DAYS</b><br><b>PS BARRIER EVENT</b><br><b>PS barrier bowtie review</b> |      |      | TRCF<br>LWCF<br>Safety Cards - Safe<br>Safety Card - Unsafe<br>SSE%<br>Last casing pressure(psi) |  |
| Safety Comments:                                      |      |      |  |      |      |  |  |
| 14 JSA's  |      |      |  |      |      |  |  |
| 10 safework permits                                   |      |      |  |      |      |  |  |
| 72 EE's   |      |      |  |      |      |  |  |

## HSE Drills

| Drills/Tests            | Date | Days Since Last |                       |    |
|-------------------------|------|-----------------|-----------------------|----|
| Last Derrick Inspection |      |                 | JSA's/Toolbox Talks   | 14 |
| Last BOP function test  |      |                 | Days Since Last Drill | 17 |
| Last BOP Test           |      |                 |                       |    |
| Next BOP Test           |      |                 |                       |    |

## Operations Summary

|   |
|---|
| 24 Hour Summary                                       |
| continue perf and frac operations. 38 stages complete |
| Update Since Report Time                              |
| perf. stage 39  |
| 24 Hour Forecast                                      |
| continue perf and frac operations.                    |

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Well UNIVERSITY 19 PW UNIT 1404H  
Wellbore UNIVERSITY 19 PW UNIT 1404H

## Time Summary

| Start | Hours | PH   | OPN | Detail | Drilled<br>Depth (ft) | NPT<br>level | Rig<br>Rate | Description  |
|-------|-------|------|-----|--------|-----------------------|--------------|-------------|--|
| 0:00  | 1.58  | FRAC | WLT |        |                       | 0            |             | <p>Frac stage 34 open well 4619 psi.<br/>Stage 34 Summary University 19 PW Unit 1404H<br/>Interval 14923 - 15035<br/>Open Well Pressure 4,619 psi<br/>Max Treating Pressure 9,240 psi<br/>Max Slurry Rate 60.3 bpm<br/>Average Treating Pressure 8,108 psi<br/>Average Slurry Rate 55.3 bpm<br/>Breakdown Pressure 5,964 psi<br/>Breakdown Rate 7.0 bpm<br/>Breakdown Volume 252 gal<br/>Avg HHP 10,990 hp<br/>Final ISIP 5,281 psi<br/>Frac Gradient 0.887 psi/ft<br/>Pad Volume 1,680 gal<br/>Main Body Volume 154,896 gal<br/>Flush Volume 26,208 gal<br/>100 MAZ Sand Pumped 0 lbs<br/>100 M Brown Sand Pumped 0 lbs<br/>100 M Sand Pumped 420,980 lbs<br/>Proppant in Formation 420,980 lbs<br/>Avg Proppant Concentration 3.51 lb/gal<br/>Max Proppant Concentration 4.00 lb/gal<br/>Load to Recover (incl. pumpdown) 3,760 bbls<br/>Load to Recover w/o Acid 3,760 bbls<br/>15% HCL Spearhead 0 gal<br/>Slickwater Fluid Pumped 3,608 bbls<br/>20# Linear Fluid Pumped 80 bbls<br/>20# Crosslink Fluid Pumped 0 bbls<br/>Pump down volume 72 bbls<br/>pump down rate 9.0 bpm<br/>Max pump down pressure 6,590 psi<br/>Fluid Temp 72.0 ?F<br/>Total Pump Time 1:17 hr:min<br/>Pumps Lost During Job 0<br/>Treatment Start Time 0:14 0:00 0:00<br/>Treatment End Time 1:31 0:00 0:00<br/>Diverter Slurry bbls<br/>-Proppant was pumped as a ramp from 0.50 PPA to 3.0 PPA then a 3.0 PPA, 3.5 PPA, and a 4.0 PPA step.<br/>- Ran two 40 bbl shots of gel with a 20 bbl spacer.<br/>- Ran NO 15% HCl this stage<br/>- This stage utilized a ball in seat plug.</p> <p>Time for Prop on Perfs 14.0 minutes<br/>Time between Stages (TBF) 0:59 Hours/min</p> |
| 1:35  | 2.50  | FRAC | WLT |        |                       | 0            |             | <p>Perf. stage 35 opening press. 4900 psi.<br/>3:45 Handover from frac to WL.<br/>4:05 Pick up lubricator. Remove night cap. PU tools.<br/>4:15 Stab lubricator. Fill lubricator.<br/>4:20 PT lubricator to 8000psi<br/>0:00 Open well with 4900psi.<br/>0:00 "Stage #35 Plug and Perf<br/>RIH with (4) 1' Keane guns: 2.75" OD HSC at 6SPF with 60* phased perforating guns and Boss Hog composite ball-drop frac plug. Tie into liner top @10966'. Pump down as follows:<br/>3bpm @ 4253psi11600<br/>6bpm @ 4614psi11700<br/>9bpm @ 5265psi11800<br/>10bpm @ 5629psi<br/>bpm @ psi<br/>10bpm @ 5565psi</p>   |

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Well UNIVERSITY 19 PW UNIT 1404H  
Wellbore UNIVERSITY 19 PW UNIT 1404H

## Time Summary

| Start | Hours | PH   | OPN | Detail | Drilled Depth (ft) | NPT level | Rig Rate | Description   |
|-------|-------|------|-----|--------|--------------------|-----------|----------|---|
|       |       |      |     |        |                    |           |          | Set plug @ 14899ft<br>Perforate as follows:<br>14878' - 14879'<br>14833' - 14834'<br>14788' - 14789'<br>14743' - 14744'<br>Stabilized pressure after perf: 4748psi<br>Pump down volume: 59bbl"<br>2114 POOH<br>0 Shut in well with 4650psi. Bleed off.<br>16 Break lubricator. All shots fired. Drop ball. MU night cap. LD tools and lub. Secure crown and wing valves.<br>20 Handover from WL to frac.  |
| 4:05  | 1.85  | FRAC | WLF |        |                    | 0         |          | Wait on sand and change out 2 pumps. Frac stage 35 opening press.   |
| 5:56  | 1.65  | FRAC | FRT |        |                    | 0         |          | Prime and pressure test frac.<br>Stage 35 Summary University 19 PW Unit 1404H<br>Interval 14743 - 14879<br>Open Well Pressure 4,386 psi<br>Max Treating Pressure 9,255 psi<br>Max Slurry Rate 61.9 bpm<br>Average Treating Pressure 8,162 psi<br>Average Slurry Rate 55.5 bpm<br>Breakdown Pressure 7,895 psi<br>Breakdown Rate 11.3 bpm<br>Breakdown Volume 462 gal<br>Avg HHP 11,103 hp<br>Final ISIP 5,358 psi<br>Frac Gradient 0.893 psi/ft<br>Pad Volume 1,050 gal<br>Main Body Volume 157,416 gal<br>Flush Volume 25,998 gal<br>100 M AZ Sand Pumped 0 lbs<br>100 M Brown Sand Pumped 9,000 lbs<br>100 M Sand Pumped 411,200 lbs<br>Proppant in Formation 420,200 lbs<br>Avg Proppant Concentration 3.38 lb/gal<br>Max Proppant Concentration 4.00 lb/gal<br>Load to Recover (incl. pumpdown) 3,807 bbls<br>Load to Recover w/o Acid 3,807 bbls<br>15% HCL Spearhead 0 gal<br>Slickwater Fluid Pumped 3,668 bbls<br>20# Linear Fluid Pumped 80 bbls<br>20# Crosslink Fluid Pumped 0 bbls<br>Pump down volume 59 bbls<br>pump down rate 10.0 bpm<br>Max pump down pressure 5,565 psi<br>Fluid Temp 72.0 ?F<br>Total Pump Time 1:18 hr:min<br>Pumps Lost During Job 0<br>Treatment Start Time 5:55 0:00 0:00<br>Treatment End Time 7:13 0:00 0:00<br>Diverter Slurry bbls<br>-Proppant was pumped as a ramp from 0.50 PPA to 3.5 PPA then a 3.5 PPA, and a 4.0 PPA step.<br>- Ran two 40 bbl shots of gel with a 20 bbl spacer.<br>- Ran NO 15% HCl this stage<br>- This stage utilized a ball in seat plug.<br>Time for Prop on Perfs 13.0 minutes<br>Time between Stages (TBF) 2:04 Hours/min<br>Shut in well w/ 5346 psi. Handover from Frac to WL. Wait on other pad ops.<br>Remove night cap. PU tools. Stab lubricator. Fill lubricator.<br>Pressure test lubricator to 8000 psi. Good test |
| 7:35  | 1.82  | FRAC | WLT |        |                    | 0         |          | WL Start perf University 1404H Stage 36<br>Tie into liner top at 10966 ft<br>Initial WHP 4900 psi   |

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Wellbore UNIVERSITY 19 PW UNIT 1404H

## Time Summary

| Start | Hours | PH   | OPN | Detail | Drilled Depth (ft) | NPT level | Rig Rate | Description   |
|-------|-------|------|-----|--------|--------------------|-----------|----------|---|
|       |       |      |     |        |                    |           |          | <p>Pumpdown Pressures</p> <p>3bpm 4200</p> <p>6bpm 4500 psi</p> <p>9bpm 4800 psi</p> <p>9bpm psi</p> <p>9bpm psi</p> <p>Max Pressure 5300 psi</p> <p>Total Fluid to recover 55 bbls</p> <p>Plug set @ 14699</p> <p>Boss Hog Composite Frac Plug/ Ball in place plug</p> <p>Plug OD 3.65 in</p> <p>Pre-set Tension 1810 lbs</p> <p>Post-set Tension 1360 lbs</p> <p>Pre-Perf Pressure 4700 psi</p> <p>Perforation Summary:</p> <p>(4 count) 1' Keane Guns: 2.75" OD HSC at 6 spf @ 60 deg phasing</p> <p>14680' - 14681' 6 shots Plus 18'</p> <p>14653' - 14654' 6 shots</p> <p>14608' - 14609' 6 shots</p> <p>14563' - 14564' 6 shots</p> <p>Post-Perf Pressure 4650 psi</p> <p>WL POOH 0:00</p> <p>Bump up. Grease UM valve. Shut in well with 4600 psi. Bleed off. Break lubricator. All shots fired. MU night cap. Secure crown and wing valves.</p> <p>Handover from WL to frac. Wait on other pad ops.</p>   |
| 9:24  | 0.77  | FRAC | FWL |        |                    | 0         |          | Prime and pressure test frac.   |
| 10:10 | 1.75  | FRAC | FRT |        |                    | 0         |          | <p>Stage 36 Summary University 19 PW Unit 1404H</p> <p>Interval 14563 - 14699</p> <p>Open Well Pressure 4,299 psi</p> <p>Max Treating Pressure 9,273 psi</p> <p>Max Slurry Rate 61.2 bpm</p> <p>Average Treating Pressure 7,891 psi</p> <p>Average Slurry Rate 57.7 bpm</p> <p>Breakdown Pressure 7,290 psi</p> <p>Breakdown Rate 11.8 bpm</p> <p>Breakdown Volume 294 gal</p> <p>Avg HHP 11,160 hp</p> <p>Final ISIP 5,472 psi</p> <p>Frac Gradient 0.903 psi/ft</p> <p>Pad Volume 2,100 gal</p> <p>Main Body Volume 164,010 gal</p> <p>Flush Volume 25,746 gal</p> <p>100 MAZ Sand Pumped 0 lbs</p> <p>100 M Brown Sand Pumped 9,000 lbs</p> <p>100 M Sand Pumped 411,320 lbs</p> <p>Proppant in Formation 420,320 lbs</p> <p>Avg Proppant Concentration 3.23 lb/gal</p> <p>Max Proppant Concentration 4.00 lb/gal</p> <p>Load to Recover (incl. pumpdown) 3,960 bbls</p> <p>Load to Recover w/o Acid 3,960 bbls</p> <p>15% HCL Spearhead 0 gal</p> <p>Slickwater Fluid Pumped 3,825 bbls</p> <p>20# Linear Fluid Pumped 80 bbls</p> <p>20# Crosslink Fluid Pumped 0 bbls</p> <p>Pump down volume 55 bbls</p> <p>pump down rate 9.0 bpm</p> <p>Max pump down pressure 5,300 psi</p> |

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## Time Summary

| Start | Hours | PH   | OPN | Detail | Drilled Depth (ft) | NPT level | Rig Rate | Description  |
|-------|-------|------|-----|--------|--------------------|-----------|----------|--|
|       |       |      |     |        |                    |           |          | Fluid Temp 72.0 ?F<br>Total Pump Time 1:15 hr:min<br>Pumps Lost During Job 0<br>Treatment Start Time 10:10 0:00 0:00<br>Treatment End Time 11:25 0:00 0:00<br>Diverter Slurry bbls<br>-Proppant was pumped as a ramp from 0.50 PPA to 3.5 PPA then a 3.5 PPA, and a 4.0 PPA step.<br>- Ran two 40 bbl shots of gel with a 20 bbl spacer.<br>- Ran NO 15% HCl this stage<br>- This stage utilized a ball in seat plug.<br><br>Time for Prop on Perfs 14.0 minutes<br>Time between Stages (TBF) 2:58 Hours/min<br>Shut in well w/ 5276 psi. Handover from Frac to WL. Wait on other pad ops.<br>Remove night cap. PU tools. Stab lubricator. Fill lubricator.<br>Pressure test lubricator to 8000 psi. Good test   |
| 11:55 | 1.85  | FRAC | WLT |        |                    | 0         |          | WL Start perf University 1404H Stage 37<br>Tie into liner top at 10966 ft<br>Initial WHP 4700 psi<br><br>Pumpdown Pressures<br>3bpm 4000<br>6bpm 4500 psi<br>9bpm 4800 psi<br>9bpm psi<br>9bpm psi<br><br>Max Pressure 5400 psi<br>Total Fluid to recover 52 bbls<br><br>Plug set @ 14540 PLUG 21'<br>Boss Hog Composite Frac Plug/ Ball in place plug<br>Plug OD 3.65 in<br>Pre-set Tension 1600 lbs<br>Post-set Tension 1360 lbs<br><br>Pre-Perf Pressure 4700 psi<br><br>Perforation Summary:<br>(4 count) 1' Keane Guns: 2.75" OD HSC at 6 spf @ 60 deg phasing<br><br>14518' - 14519' 6 shots<br>14473' - 14474' 6 shots<br>14428' - 14429' 6 shots<br>14383' - 14384' 6 shots<br><br>Post-Perf Pressure 4700 psi<br>WL POOH 12:46<br>Bump up. Grease UM/LM valve. Shut in well with 4350 psi. Bleed off. Break lubricator. All shots fired. MU night cap. Secure crown and wing valves<br>Handover from WL to frac. Wait on other pad ops. |
| 13:46 | 0.27  | FRAC | WLF |        |                    | 0         |          | Prime and pressure test frac.  |
| 14:02 | 1.78  | FRAC | FRT |        |                    | 0         |          | Stage 37 Summary University 19 PW Unit 1404H<br>Interval 14383 - 14519<br>Open Well Pressure 4,441 psi<br>Max Treating Pressure 9,210 psi<br>Max Slurry Rate 60.1 bpm<br>Average Treating Pressure 8,619 psi<br>Average Slurry Rate 55.2 bpm   |

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## Time Summary

| Start | Hours | PH   | OPN | Detail | Drilled Depth (ft) | NPT level | Rig Rate | Description   |
|-------|-------|------|-----|--------|--------------------|-----------|----------|---|
|       |       |      |     |        |                    |           |          | Breakdown Pressure 8,073 psi<br>Breakdown Rate 14.6 bpm<br>Breakdown Volume 924 gal<br>Avg HHP 11,661 hp<br>Final ISIP 5,175 psi<br>Frac Gradient 0.878 psi/ft<br>Pad Volume 21,714 gal<br>Main Body Volume 183,834 gal<br>Flush Volume 25,830 gal<br>100 MAZ Sand Pumped 386,780 lbs<br>100 M Brown Sand Pumped 0 lbs<br>100 M Sand Pumped 34,000 lbs<br>Proppant in Formation 420,780 lbs<br>Avg Proppant Concentration 3.28 lb/gal<br>Max Proppant Concentration 4.00 lb/gal<br>Load to Recover (incl. pumpdown) 4,429 bbls<br>Load to Recover w/o Acid 4,429 bbls<br>15% HCL Spearhead 0 gal<br>Slickwater Fluid Pumped 4,297 bbls<br>20# Linear Fluid Pumped 80 bbls<br>20# Crosslink Fluid Pumped 0 bbls<br>Pump down volume 52 bbls<br>pump down rate 9.0 bpm<br>Max pump down pressure 5,400 psi<br>Fluid Temp 72.0 ?F<br>Total Pump Time 1:46 hr:min<br>Pumps Lost During Job 2<br>Treatment Start Time 14:02 0:00 0:00<br>Treatment End Time 15:48 0:00 0:00<br>Diverter Slurry bbls<br>-Proppant was pumped as a ramp from 0.50 PPA to 3.5 PPA then a 3.5 PPA, and a 4.0 PPA step.<br>- Ran two 40 bbl shots of gel with a 20 bbl spacer.<br>- Ran NO 15% HCl this stage<br>- This stage utilized a ball in seat plug.<br>- Had to stop pumping at 14:18 due to blender problems but then resumed pumping at 14:25<br>- lost pump 10074 and 10078 due to mechanical issues<br><br>Time for Prop on Perfs 12.0 minutes<br>Time between Stages (TBF) 1:37 Hours/min<br>Shut in well w/5015 psi. Handover from Frac to WL. Wait on other pad ops. |
| 15:49 | 2.18  | FRAC | FWL |        |                    | 0         |          | Waiting on weather ( high winds)  |
| 18:00 | 1.75  | FRAC | FWL |        |                    | 0         |          | Perf stage 38<br>1600 Handover from frac to WL.<br>1800 Pick up lubricator. Remove night cap. PU tools.<br>1805 Stab lubricator. Fill lubricator.<br>1810 PT lubricator to 8000psi<br>1810 Open well with 4550psi.<br>1850 "Stage #35 Plug and Perf<br>RIH with (4) 1' Keane guns: 2.75" OD HSC at 6SPF with 60* phased perforating guns and Boss Hog composite ball-drop frac plug. Tie into liner top @10966'. Pump down as follows:<br>3bpm @ 4029psi11600<br>6bpm @ 4315psi11700<br>9bpm @ 4789psi11800<br>10bpm @ 5249psi<br>bpm @ psi<br>10bpm @ 5475psi<br><br>Set plug @ 14354ft<br>Perforate as follows:<br>14333' - 14334'<br>14290' - 14291'<br>14248' - 14249'  |

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## Time Summary

| Start        | Hours        | PH   | OPN | Detail | Drilled<br>Depth (ft) | NPT<br>level | Rig<br>Rate | Description  |
|--------------|--------------|------|-----|--------|-----------------------|--------------|-------------|--|
|              |              |      |     |        |                       |              |             | 14205' - 14206'<br>Stabilized pressure after perf: 4353psi<br>Pump down volume: 52bbl"<br>1855 POOH<br>0 Shut in well with 4500psi. Bleed off.<br>1930 Break lubricator. All shots fired. Drop ball. MU night cap.<br>LD tools and lub. Secure crown and wing valves.<br>1945 Handover from WL to frac.  |
| 19:45        | 2.33         | FRAC | FWL |        |                       | 0            |             | Prime up and test lines. frac stage 38<br>Stage 38 Summary University 19 PW Unit 1404H<br>Interval 14203 - 14339<br>Open Well Pressure 4,275 psi<br>Max Treating Pressure 9,329 psi<br>Max Slurry Rate 61.5 bpm<br>Average Treating Pressure 8,715 psi<br>Average Slurry Rate 46.5 bpm<br>Breakdown Pressure 7,899 psi<br>Breakdown Rate 8.0 bpm<br>Breakdown Volume 252 gal<br>Avg HHP 9,933 hp<br>Final ISIP 5,466 psi<br>Frac Gradient 0.903 psi/ft<br>Pad Volume 1,470 gal<br>Main Body Volume 161,574 gal<br>Flush Volume 27,720 gal<br>100 M AZ Sand Pumped 420,100 lbs<br>100 M Brown Sand Pumped 0 lbs<br>100 M Sand Pumped 0 lbs<br>Proppant in Formation 420,100 lbs<br>Avg Proppant Concentration 3.32 lb/gal<br>Max Proppant Concentration 4.00 lb/gal<br>Load to Recover (incl. pumpdown) 3,899 bbls<br>Load to Recover w/o Acid 3,899 bbls<br>15% HCL Spearhead 0 gal<br>Slickwater Fluid Pumped 3,767 bbls<br>20# Linear Fluid Pumped 80 bbls<br>20# Crosslink Fluid Pumped 0 bbls<br>Pump down volume 52 bbls<br>pump down rate 9.0 bpm<br>Max pump down pressure 5,400 psi<br>Fluid Temp 72.0 ?F<br>Total Pump Time 1:53 hr:min<br>Pumps Lost During Job 0<br>Treatment Start Time 20:13 0:00 0:00<br>Treatment End Time 22:06 0:00 0:00<br>Diverter Slurry bbls<br>-Proppant was pumped as a ramp from 0.50 PPA to 3.5 PPA then a 3.5 PPA, and a 4.0 PPA step.<br>- Ran two 40 bbl shots of gel with a 20 bbl spacer.<br>- Ran NO 15% HCl this stage<br>- This stage utilized a ball in seat plug.<br>-5 Bbls into the stage we shut down. We were unable to read blender discharge rate, the problem was corrected and operations resumed.<br><br>Time for Prop on Perfs 18.0 minutes<br>Time between Stages (TBF) 4:40 Hours/min |
| 22:05        | 1.92         | FRAC | FWL |        |                       | 1            |             | Handover to wireline, stage 39 perfs.RIH to 300' check guns, short pull out, lay down guns and check out. prepare to pickup, and truck requires regenerated .  |
| <b>Total</b> | <b>24.00</b> |      |     |        |                       |              |             |  |

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Wellbore UNIVERSITY 19 PW UNIT 1404H

## 06.00 Update

| Start | Hours | PH   | OPN | Detail | Drilled Depth (ft) | NPT level | Description  |
|-------|-------|------|-----|--------|--------------------|-----------|--|
| 0:00  | 1.25  | FRAC | FWL |        |                    | 0         | Allow wireline truck to regen.   |
| 1:15  | 1.92  | FRAC | FWL |        |                    | 0         | <p>Pickup and set on well press. test and open well 4500 psi. perf. stage 39</p> <p>22:10 Handover from frac to WL.</p> <p>22:10 Pick up lubricator. Remove night cap. PU tools.</p> <p>22:15 Stab lubricator. Fill lubricator.</p> <p>22:20 PT lubricator to 8000psi</p> <p>22:30 Open well with 4550psi.</p> <p>02:00 "Stage #35 Plug and Perf had to pull out short, regen truck 3 hours down</p> <p>RIH with (4) 1' Keane guns: 2.75" OD HSC at 6SPF with 60* phased perforating guns and Boss Hog composite ball-drop frac plug. Tie into liner top @10966'. Pump down as follows:</p> <p>3bpm @ 3966psi11600</p> <p>6bpm @ 4224psi11700</p> <p>9bpm @ 4958psi11800</p> <p>10bpm @ 6143psi</p> <p>bpm @ psi</p> <p>10bpm @ 6755psi</p> <p>Set plug @ 14169ft</p> <p>Perforate as follows:</p> <p>14158' - 14159'</p> <p>14113' - 14114'</p> <p>14068' - 14069'</p> <p>14023' - 14024'</p> <p>Stabilized pressure after perf: 5045psi</p> <p>Pump down volume: 52bbl"</p> <p>02:20 POOH</p> <p>03:00 Shut in well with 4500psi. Bleed off.</p> <p>03:05 Break lubricator. All shots fired. Drop ball. MU night cap. LD tools and lub. Secure crown and wing valves.</p> <p>03:10 Handover from WL to frac.</p> |
| 3:10  |       | FRAC | FWL |        |                    | 0         | prime up and pressure test lines 9500 psi. Frac stage 39 open w/ 4254 psi. on well   |