

EP WELLS DAILY OPERATIONS REPORT

Report 4

12/13/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	3.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	0.00
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TOMMY DOWNES	Measured Depth(ft)	11,220.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,220.00
Other Supervisor	KEITH IMMATTY	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	91,503/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.02	LOT/FIT EMW(ppg)	
Daily Cost	25,511	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	408	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	10
Safety Comments:							
NO HSE ISSUES TO REPORT							
MAN HOURS: 510							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test			JSA's/Toolbox Talks Days Since Last Drill	3

Operations Summary

24 Hour Summary
RIG DOWN 100%. RIG UP 80%
Update Since Report Time
PREPARE TAHITI 55-2-43 LOV 1H LOCATION FOR FRAC VALVE AND TUBING SPOOL INSTALL. TRANSFER OBM
24 Hour Forecast
FINISH RIGGING UP. CONDUCT PRE-SPUD INSPECTIONS AND COMPLETE CHECKLISTS. TEST BOP. MAKE CLEANOUT RUN

EP WELLS DAILY OPERATIONS REPORT

Report 4

12/13/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	24.00	RIGM	RGU		11,220.00	0		RIG DOWN 100%. RIG UP 80%
Total	24.00							

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

EP WELLS DAILY OPERATIONS REPORT

Report 5

12/14/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	4.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	0.00
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TOMMY DOWNES	Measured Depth(ft)	11,220.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,220.00
Other Supervisor	KEITH IMMATTY	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	141,634/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.03	LOT/FIT EMW(ppg)	
Daily Cost	50,132	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	409	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	10
Safety Comments:							
NO HSE ISSUES TO REPORT							
MAN HOURS: 510							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test			4	

Operations Summary

24 Hour Summary
RIG UP AT THE UNIVERSITY 20 PW 2003 ST01. PERFORM PRE-SPUD INSPECTIONS. ACCEPT RIG AT 2000HRS
Update Since Report Time
TRANSFER OBM. N/U BOP. INSTALL SPACER SPOOL
24 Hour Forecast
TEST BOP. P/U SCRAPPER ASSEMBLY AND PERFORM CLEANOUT RUN

EP WELLS DAILY OPERATIONS REPORT

Report 5

12/14/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	RIGM	RGU		11,220.00	0		RIG UP. RAISE RIG. DRESS OUT FLOOR. INSTALL HANDRAILS. PRE-RAISE INSPECTION ON SUBS. SECURE DRILL LINE TO DERRICK. RAISE AND PIN SUBS. INSTALL FLOWLINES AND R/U TURNBUCKLES. R/U TOPDRIVE CABLES. C/O 4" VALVE ON STAND PIPE
6:00	12.00	RIGM	RGU		11,220.00	0		RIG UP. R/U CHOKE LINES AND DUMP LINE. R/U VENT LINE. R/U RETURN LINE. R/U CATWALK AND V-DOOR. INSTALL DRILL LINE ON DRUM AND WRAPS ON DEADMAN ANCHOR. UNHAND BLOCK AND ATTACH TOP-DRIVE. REMOVE KNIVES. FUNCTION TOPDRIVE. CALIBRATE BLOCKS.
18:00	2.00	RIGM	RGU		11,220.00	0		RIG UP. M/U FLARE LINE AND FLARE STACK. M/U STANDPIPE. CONTINUE PERFORMING PRE-SPUD INSPECTIONS.
20:00	4.00	RIGM	RGU		11,220.00	0		**ACCEPT RIG AT 20:00HRS R/U KATCH KAN. M/U ROTATING HEAD, ORBIT VALVE AND FLOW SLEEVE. TORQUE UP ASSEMBLY. M/U BOP VALVES. INSTALL CHOKE HOSE. PREPARE FOR OBM TRANSFER
Total	24.00							

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND: 8600GALS
FUEL DELIVERED: 7400GALS

EP WELLS DAILY OPERATIONS REPORT

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12/15/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	5.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	0.00
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TOMMY DOWNES	Measured Depth(ft)	11,220.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,220.00
Other Supervisor	KEITH IMMATTY	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	5.00/20.83	Last Casing MD	/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	400,560/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.09	LOT/FIT EMW(ppg)	
Daily Cost	231,423	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	410	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	10
<div>Safety Comments:</div> <div>NO HSE ISSUES TO REPORT</div> <div>MAN HOURS: 297</div>							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	5
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test				

Operations Summary

24 Hour Summary
INSTALL SPACER SPOOL ON WELLHEAD. REMOVE BPV BUSHING AND INSTALL BIT GUIDE. ATTEMPT TO TEST BOP WITHOUT SUCCESS DUE TO SCARRING INSIDE THE BIT GUIDE
Update Since Report Time
WAITING ON NEW BIT GUIDE TO ARRIVE ON LOCATION. L/O AND STRAP DRILL PIPE
24 Hour Forecast
C/O BIT GUIDE. TEST BOP. P/U SCRAPER ASSEMBLY AND PERFORM CLEANOUT RUN. DISPLACE TO OBM. TOO H

EP WELLS DAILY OPERATIONS REPORT

Report 6

12/15/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.00	PLTH	RUP		11,220.00	0		INSTALL KILL LINE VALVES. P/U STACK TO WELLHEAD. M/U QUICK CONNECT
3:00	1.00	PLTH	RUP		11,220.00	1		NPT- BREAK BOLTS OFF DSA. BOLTS WOULD NOT BREAK
4:00	2.00	PLTH	RUP		11,220.00	0		BREAK OFF NUTS FROM WELLHEAD WITH TORQUE CREW. L/O BOP
6:00	5.50	PLTH	RUP		11,220.00	0		BACK OUT STUDS ON THE WELLHEAD AND INSTALL SPACER SPOOL
11:30	3.00	PLTH	RUP		11,220.00	0		SET BOP IN PLACE. TORQUE UP STUDS. INSTALL CHOKE LINE AND FLOWLINE. COVER CELLAT. INSTALL CONTROL LINES. TIGHTEN TURNBUCKLES
14:30	0.50	PLTH	RUP		11,220.00	0		REMOVE BPV AND INSTALL TWO WAY CHECK VALVE
15:00	0.50	PLTH	RUP		11,220.00	0		INSTALL MOUSEHOLE. P/U TIW AND GREY VALVE
15:30	0.50	PLTH	RUP		11,220.00	0		M/U TIW AND GREY VALVE. SEND DOWN TO TESTERS
16:00	2.00	PLTH	BOP		11,220.00	0		FILL STACK AND TEST BLIND RAMS-GOOD TEST. PULL CHECK VALVE. REMOVE BPV BUSHING
18:00	1.00	PLTH	RUP		11,220.00	0		INSTALL BIT GUIDE. RUN IN PINS AND LOCK IN BIT GUIDE. PULL RUNNING TOOL
19:00	1.00	PLTH	RUP		11,220.00	0		M/U TEST PLUG AND RIH
20:00	4.00	PLTH	BOP		11,220.00	1		NPT- ATTEMPT TO TEST ANNULAR. FLUID LEAKING THOUGH TEST PORT ON DP. PULL DP AND CHECK ALL CONNECTIONS. ATTEMPT TO TEST AGAIN. FLUID WAS STILL LEAKING. PULLED BIT GUIDE FOR INSPECTION. SCARRING WAS NOTICED INSIDE THE BIT GUIDE WHERE THE TEST PLUG SEALS. PUT TEST PLUG IN BIT GUIDE ON SURFACE AND FILLED BIT GUIDE WITH WATER. FLUID PASSED THROUGH THE SEALS. REQUESTED CAMERON FOR NEW BIT GUIDE
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/15/2017 03:00	PRECISION DRILLING COMPANY LP	Rig/Work Unit Misc	11,220.00	RUP	EN	BOP Surface	1.00	1.00		OPEN
Description: BREAK BOLTS OFF DSA. BOLTS WOULD NOT BREAK						Title: DSA BOLTS WOULD NOT BREAK				
12/15/2017 20:00	CAMERON INTERNATIONAL CORPORATION D	BOP & Pressure Control Equipment	11,220.00	BOP	EN	BOP Surface	0.00	0.00		OPEN
Description: ATTEMPT TO TEST ANNULAR. FLUID LEAKING THOUGH TEST PORT ON DP. PULL DP AND CHECK ALL CONNECTIONS. ATTEMPT TO TEST AGAIN. FLUID WAS STILL LEAKING. PULLED BIT GUIDE FOR INSPECTION. SCARRING WAS NOTICED INSIDE THE BIT GUIDE WHERE THE TEST PLUG SEALS. PUT TEST PLUG IN BIT GUIDE ON SURFACE AND FILLED BIT GUIDE WITH WATER. FLUID PASSED THROUGH THE SEALS. REQUESTED CAMERON FOR NEW BIT GUIDE						Title: TROUBLESHOOT BIT GUIDE				
Total							1.00	1.00		

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

EP WELLS DAILY OPERATIONS REPORT

Report 6 12/15/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Remarks

FUEL ON HAND: 15400GALS
FUEL DELIVERED: 7500GALS
FUEL USED: 700GALS

EP WELLS DAILY OPERATIONS REPORT

Report 7

12/16/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	6.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	0.00
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TOMMY DOWNES	Measured Depth(ft)	11,220.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,220.00
Other Supervisor	KEITH IMMATTY	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	15.50/64.58	Last Casing MD	12.90/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	460,113/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.10	LOT/FIT EMW(ppg)	
Daily Cost	44,873	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	411	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	10
<div>Safety Comments:</div> <div>NO HSE ISSUES TO REPORT</div> <div>MAN HOURS: 273</div>							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test			6	

Operations Summary

24 Hour Summary
TEST BOP WITHOUT SUCCESS. C/O BIT GUIDE AND TEST PLUG. C/O CHOKE HOSE AND BONNETS ON LOWER RAMS. TEST BOP-GOOD TEST. P/U CLEANOUT ASSEMBLY. TIH T/3253'
Update Since Report Time
TIH T/9344' W/CLEANOUT ASSEMBLY
24 Hour Forecast
TIH T/11200'. TAG CIBP. DISPLACE TO OBM. TOO. P/U WHIPSTOCK AND MILL ASSEMBLY. TIH. MILL CASING

EP WELLS DAILY OPERATIONS REPORT

Report 7

12/16/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	PLTH	NOA		11,220.00	1		NPT- WAIT ON NEW BIT GUIDE. L/O AND STRAP DRILL PIPE
6:00	2.00	PLTH	NOA		11,220.00	1		NPT- WAIT ON NEW BIT GUIDE. CLEAR MANIFOLD AND HOSES OF ICE PLUGS
8:00	4.50	PLTH	BOP		11,220.00	1		NPT- INSTALL NEW BIT GUIDE AND LOCK INTO PLACE. CLOSE BOTTOM RAMS. SEAL STILL LEAKING. PULL TEST PLUG. BREAK OFF SETTING TOOL AND L/D. M/U NEW TEST PLUG
12:30	3.00	PLTH	BOP		11,220.00	1		NPT- ATTEMPT TO TEST WITHOUT SUCCESS. C/O CHOKE HOSE AND BONNETS FOR LOWER RAMS
15:30	2.00	PLTH	BOP		11,220.00	0		TEST BOPS- GOOD TEST
17:30	1.00	PLTH	BOP		11,220.00	0		PJSM W/TESTERS AND WEATHERFORD REP DURING CREW CHANGE. TEST LINES TO MUD PUMPS
18:30	0.50	PLTH	BOP		11,220.00	0		R/D TESTING EQUIPMENT
19:00	1.50	PLTH	BHA		11,220.00	0		P/U AND M/U SCRAPER ASSEMBLY
20:30	1.00	PLTH	TIH		11,220.00	0		P/U AND M/U 6JNTS OF 4-3/4" DC'S
21:30	2.50	PLTH	TIH		11,220.00	0		P/U AND M/U 4" DP AND TIH T/3253'
Total	24.00							

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/19.70	POM (cc)	
MD (ft)	11,220.00	TS/HGS/LGS (%)	22.10//	CaCl2 (%)	
Mud Density (ppg)	12.90	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	109.00	Oil/Water Ratio (%)	74.00/26.00	ACT	
PV/YP (cp/lbf/100ft²)	28.00/14.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	2.85
Gels 10 s/m (lbf/100ft²)	7.000/14.000	ECD (ppg)	12.900	ES (Volts)	400.0
API/HTHP WL (cc/30min)	0.0/	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	0.0/4.0	KCl (%)		R200/100 (°)	
WPS (ppm)	266,778			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
								11,220.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	350	11,015.13	4.000		3.340	XT-39			
CROSSOVER	1	2.66	4.937		2.250	XT-39			
6 DRILL COLLARS	6	183.01	4.750		2.250	3 1/2 IF			
CROSSOVER	1	1.46	4.750		2.250	3 1/2 IF			
WATERMELON MILL	1	3.56	6.125		1.500	3 1/2 REG			
PONY COLLAR	1	5.24	4.750		1.375	3 1/2 REG			
WATERMELON MILL	1	3.59	6.125		1.500	3 1/2 REG			
SCRAPER	1	3.80	6.125		1.375	3 1/2 REG			

EP WELLS DAILY OPERATIONS REPORT

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12/16/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
WINDOW MILL	1	1.55	6.125		1.500	3 1/2 REG			

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/16/2017 19:00		1	204.87		SCRAPING ASSEMBLY

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND: 14376GALS
FUEL USED: 1024GALS

EP WELLS DAILY OPERATIONS REPORT

Report 8

12/17/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	7.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	0.00
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TOMMY DOWNES	Measured Depth(ft)	11,220.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,220.00
Other Supervisor	KEITH IMMATTY	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0.50/2.08	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	489,231/4,448,670.00	Current MW / BH EMW(ppg)	13.00/
Actual divided by AFE	0.11	LOT/FIT EMW(ppg)	
Daily Cost	28,615	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	412	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	10
<div>Safety Comments:</div> <div>NO HSE ISSUES TO REPORT</div> <div>MAN HOURS: 273</div>							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test			JSA's/Toolbox Talks Days Since Last Drill	7

Operations Summary

24 Hour Summary
TIH W/SCRAPPER ASSEMBLY FOR CLEANOUT RUN. TAG CIBP AT 11215'. P/U AND DISPLACE TO OBM. TOO. P/U WHIPSTOCK AND MILL ASSEMBLY. TIH T/2935'
Update Since Report Time
TIH T/7314'
24 Hour Forecast
TIH T/11210'. RUN GYRO, ORIENT AND SET WHIPSTOCK. MILL WINDOW AND DRILL RATHOLE. TOO. TO P/U CURVE ASSEMBLY

EP WELLS DAILY OPERATIONS REPORT

Report 8

12/17/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	4.50	PLTH	TIH		11,220.00	0		TIH T/8510'
4:30	0.50	PLTH	TIH		11,220.00	0		VERIFY TALLY, RE-ORGANIZE AND L/O PIPE ON PIPE RACKS
5:00	1.00	PLTH	TIH		11,220.00	0		TIH T/9524'
6:00	1.50	PLTH	TIH		11,220.00	0		TIH T/11215'. TAG PLUG AT 11215'
7:30	3.00	PLTH	CDM		11,220.00	0		DISPLACE TO OBM. PUMP SLUG
10:30	1.00	PLTH	TOH		11,220.00	0		TOOH T/9078'
11:30	0.50	PLTH	SVC		11,220.00	1		NPT- SERVICE IRON ROUGHNECK. SWITCH TO RIG TONGS. PJSM TO COVER JOB SCOPE CHANGE
12:00	4.50	PLTH	TOH		11,220.00	0		TOOH T/120'
16:30	0.50	PLTH	TOH		11,220.00	0		RACK BACK DRILL COLLARS
17:00	0.50	PLTH	BHA		11,220.00	0		L/D SCRAPER ASSEMBLY
17:30	0.50	PLTH	SVC		11,220.00	0		RIG SERVICE
18:00	3.00	PLTH	BHA		11,220.00	0		P/U AND M/U BHA. SCRIBE AND ADJUST UBHO. P/U AND M/U WHIPSTOCK
21:00	3.00	PLTH	TIH		11,220.00	0		TIH T/2935'. TRIP SPEED: 3MINS/STAND
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/17/2017 11:30	PRECISION DRILLING COMPANY LP	Rig/Work Unit Misc	11,220.00	SVC	EN	Rig Power Tong	0.50	0.50		OPEN
Description: SERVICE IRON ROUGHNECK. SWITCH TO RIG TONGS. PJSM TO COVER JOB SCOPE CHANGE						Title: TROUBLESHOOT IRON ROUGHNECK				
Total							0.50	0.50		

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/19.70	POM (cc)	2.85 401.0
MD (ft)	11,215.00	TS/HGS/LGS (%)	22.10//	CaCl2 (%)	
Mud Density (ppg)	13.00	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	109.00	Oil/Water Ratio (%)	74.00/26.00	ACT	
PV/YP (cp/lbf/100ft²)	28.00/14.000	LCM (lbm/bbl) ECD (ppg) H2S (gas unit) KCl (%)	13.000	XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	7.000/14.000			ES (Volts)	
API/HTHP WL (cc/30min)	0.0/			R600/300 (°)	
FC/HTHP FC (32nd")	0.0/4.0			R200/100 (°)	
WPS (ppm)	266,778			R6/3 (°)	
FL temp. (°F)				Ditch Magnet in Last 24hrs/Cum. (gm)	

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
1	6.125							11,220.00	11,220.00	-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

EP WELLS DAILY OPERATIONS REPORT

Report 8

12/17/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	350	11,015.13	4.000		3.340	XT-39			
CROSSOVER	1	2.66	4.937		2.250	XT-39			
6 DRILL COLLARS	6	183.01	4.750		2.250	3 1/2 IF			
CROSSOVER	1	1.46	4.750		2.250	3 1/2 IF			
WATERMELON MILL	1	3.56	6.125		1.500	3 1/2 REG			
PONY COLLAR	1	5.24	4.750		1.375	3 1/2 REG			
WATERMELON MILL	1	3.59	6.125		1.500	3 1/2 REG			
SCRAPPER	1	3.80	6.125		1.375	3 1/2 REG			
WINDOW MILL	1	1.55	6.125	6.125	1.500	3 1/2 REG			

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/16/2017 19:00	12/17/2017 17:30	1	204.87		SCRAPING ASSEMBLY

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
								11,220.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	349	10,976.67	4.000		3.340	XT-39			
CROSSOVER	1	2.66	4.937		2.250	XT-39			
(6) DRILL COLLARS	6	183.01	4.750		2.250	3 1/2 IF			
UBHO	1	3.70	4.687			3 1/2 IF			
FLOAT SUB	1	2.46	4.750			3 1/2 IF			
SSM	1	30.42	3.500		2.375	3 1/2 IF			
FLEX MILL	1	5.39	6.125		1.500	3 1/2 IF			
LEAD MILL	1	1.79	6.125		2.062	3 1/2 REG			
MECQC WHIPSTOCK	1	13.90	5.500			36K			

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/17/2017 17:30		2	448.20		SET WHIPSTOCK

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

EP WELLS DAILY OPERATIONS REPORT

Report 8 12/17/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Remarks

FUEL ON HAND: 14254GALS
FUEL USED: 122GALS

EP WELLS DAILY OPERATIONS REPORT

Report 9

12/18/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	8.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	2.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TOMMY DOWNES	Measured Depth(ft)	11,219.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,158.55
Other Supervisor	KEITH IMMATTY	24 Hr Progress(ft)	4.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	12.80/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	534,861/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.12	LOT/FIT EMW(ppg)	
Daily Cost	39,111	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	413	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	10
Safety Comments:							
NO HSE ISSUES TO REPORT							
MAN HOURS: 261							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	8
Last Derrick Inspection	12/16/2017	2		
Last BOP function test	12/16/2017	2		
Last BOP Test	01/06/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
TIH W/WHIPSTOCK AND MILL ASSEMBLY TO 11215'. ORIENTAND SET WHIPSTOCK(TOP OF WHIPSTOCK AT 11202'. KOP 11211'). MILL CASING AND DRILL 8' RATHOLE. CIRCULATE AND CLEAN WELL. TOOH T/8165'
Update Since Report Time
TOOH T/120'. L/D DRILL COLLARS. L/D MILL ASSEMBLY
24 Hour Forecast
P/U CURVE BHA. TIH P/U 4" DP. DRILL CURVE

EP WELLS DAILY OPERATIONS REPORT

Report 9

12/18/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	PLTH	TIH		11,215.00	0		TIH T/8338'. TRIP SPEED: 3MINS/STAND
6:00	1.00	PLTH	TIH		11,215.00	0		INSTALL ROTATING HEAD. PJSM W/DAY CREW, WEATHERFORD AND SCIENTIFIC
7:00	3.00	PLTH	TIH		11,215.00	0		TIH T/11187'. P/U A JOINT OF HWDP
10:00	1.50	PLTH	TIH		11,215.00	0		FILL PIPE AND BREAK CIRCULATION. R/U WIRELINE
11:30	3.00	PLTH	TIH		11,215.00	0		STAB AND RUN WIRELINE GYRO. WORK PIPE TO ORIENT WHIPSTOCK TO 9.23DEG. PULL WIRELINE AND QC GYRO TOOL-GOOD TEST
14:30	0.50	PLTH	SCW		11,215.00	0		SET WHIPSTOCK. TOP OF WHIPSTOCK AT 11202'. SHEAR BOLT
15:00	6.50	PLTH	TDLU		11,219.00	0		MILL F/11202' T/11219' WOM: 30K PRESSURE AND FLOW: 2700PSI AND 210GPM RPM: SURFACE 120 TORQUE: 3-6K STRING WEIGHT: P/U 200 S/O 150 ROT 180 MW: 12.7PPG GAS: 100
21:30	1.50	PLTH	TDLU		11,219.00	0		WORK THROUGH WINDOW AND RATHOLE- MILL ASSEMBLY PASSED THROUGH SLICK. CIRCULATED HOLE CLEAN. PERFORM FLOW CHECK-NO FLOW. PUMP SLUG
23:00	1.00	PLTH	TOH		11,219.00	0		TOOH T/8165'
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,125.00	1.29	271.10	11,064.57	-423.80	-707.08	-423.80	0.00	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/20.00	POM (cc)	
MD (ft)	11,218.00	TS/HGS/LGS (%)	21.80/14.00/7.80	CaCl2 (%)	
Mud Density (ppg)	12.80	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	109.00	Oil/Water Ratio (%)	73.70/26.30	ACT	
PV/YP (cp/lbf/100ft²)	28.00/13.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	2.85
Gels 10 s/m (lbf/100ft²)	7.000/14.000	ECD (ppg)	13.810	ES (Volts)	400.0
API/HTHP WL (cc/30min)	/10.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/4.0	KCl (%)		R200/100 (°)	
WPS (ppm)	263,832			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
2	6.136							11,220.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	349	10,975.67	4.000		3.340	XT-39			
CROSSOVER	1	2.66	4.937		2.250	XT-39			

EP WELLS DAILY OPERATIONS REPORT

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12/18/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
(6) DRILL COLLARS	6	183.01	4.750		2.250	3 1/2 IF			
UBHO	1	3.70	4.687			3 1/2 IF			
FLOAT SUB	1	2.46	4.750			3 1/2 IF			
SSM	1	30.42	3.500		2.375	3 1/2 IF			
FLEX MILL	1	5.39	6.125		1.500	3 1/2 IF			
LEAD MILL	1	1.79	6.125	6.136	2.062	3 1/2 REG			
MECQC WHIPSTOCK	1	13.90	5.500			36K			

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/17/2017 17:30		2	243.33		SET WHIPSTOCK

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND: 13251GALS
FUEL USED: 1003GALS

EP WELLS DAILY OPERATIONS REPORT

Report 10

12/19/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	9.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	3.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,225.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,164.45
Other Supervisor	KEITH IMMATTY	24 Hr Progress(ft)	6.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	1.50/6.25	Last Casing MD	4.500in@20,016.00ft 12.70/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	577,368/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.13	LOT/FIT EMW(ppg)	
Daily Cost	39,872	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	414	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	10
Safety Comments:							
NO HSE ISSUES TO REPORT							
MAN HOURS: 264							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	9
Last Derrick Inspection	12/16/2017	3		
Last BOP function test	12/16/2017	3		
Last BOP Test	01/06/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
TOOH AND L/D MILLING TOOL. P/U CURVE BHA. TIH P/U 4" DP. DRILL T/11225'
Update Since Report Time
BUILD CURVE T/11255'
24 Hour Forecast
LAND CURVE AT ~90DEG. TOOH. P/U LATERAL BHA

EP WELLS DAILY OPERATIONS REPORT

Report 10

12/19/2017

Well
WellboreUNIVERSITY 20 PW UNIT 2003H
UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	2.50	PLTH	TOH		11,219.00	0		TOOH T/120'
2:30	0.50	PLTH	TOH		11,219.00	0		PULL ROTATING HEAD RUBBER
3:00	1.00	PLTH	TOH		11,219.00	0		L/D 4" DC
4:00	1.00	PLTH	TOH		11,219.00	0		L/D MILLING ASSEMBLY
5:00	0.50	MNH1	PUP		11,219.00	0		P/U DIRECTIONAL TOOLS
5:30	0.50	MNH1	SVC		11,219.00	0		RIG SERVICE
6:00	1.50	MNH1	PUP		11,219.00	0		P/U, M/U AND SCRIBE DIRECTIONAL TOOLS
7:30	1.50	MNH1	PUP		11,219.00	1		NPT- SCIENTIFIC DRILLING - TEST GWD TOOL-BAD TEST. PULL GWD TOOL AND TROUBLESHOOT. TEST GWD TOOL-GOOD TEST
9:00	1.00	MNH1	TIH		11,219.00	0		TIH W/12JNTS OF HWDP
10:00	8.00	MNH1	TIH		11,219.00	0		TIH P/U 4" DP T/7500'
18:00	2.00	MNH1	TIH		11,219.00	0		TIH P/U 4" DP T/9411'
20:00	0.50	MNH1	TIH		11,219.00	0		INSTALL ROTATING HEAD RUBBER
20:30	1.50	MNH1	BHA		11,219.00	0		TIH W/CURVE BHA T/11210'
22:00	2.00	MNH1	DRL		11,225.00	0		ORIENT MOTOR. TIH T/11219'. DRILL 6' T/11225' WOB: 25K PRESSURE & FLOW: 3800PSI & 220GPM RPM: SURFACE 20 MOTOR 19 BIT 39 TORQUE: OFF BOTTOM 3K ON BOTTOM 5K STRING WEIGHT: P/U 198 S/O 162 ROT 180 MW: 12.7PPG MOTOR: 0.085RPG PASON GAS: CG 300 BG 160
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/19/2017 07:30	SCIENTIFIC DRILLING INTERNATIONAL	Drillstring/B HA Bottom Hole Assembly	11,219.00	PUP	N			1.50		OPEN
Description: PULL GWD TOOL AND TROUBLESHOOT. TEST GWD TOOL-GOOD TEST						Title: SCIENTIFIC DRILLING - TEST GWD TOOL-BAD TEST.				
Total								1.50		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,125.00	1.29	271.10	11,064.57	-423.80	-707.08	824.36	0.00	PTW MWD_2016
11,147.00	1.41	268.91	11,086.57	-423.80	-707.60	824.80	0.59	PTW MWD_2016

EP WELLS DAILY OPERATIONS REPORT

Report 10

12/19/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Fluid Details

Mud type	Invermul	Oil/Water (%)	49.00/30.00	POM (cc)	2.85 308.0
MD (ft)	11,218.00	TS/HGS/LGS (%)	18.70/16.50/2.20	CaCl2 (%)	
Mud Density (ppg)	12.70	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	118.00	Oil/Water Ratio (%)	62.00/38.00	ACT	
PV/YP (cp/lbf/100ft²)	38.00/19.000	LCM (lbm/bbl) ECD (ppg) H2S (gas unit) KCl (%)	12.700	XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	9.000/15.000			ES (Volts)	
API/HTHP WL (cc/30min)	/10.2			R600/300 (°)	
FC/HTHP FC (32nd")	/4.0			R200/100 (°)	
WPS (ppm)	203,459			R6/3 (°)	
FL temp. (°F)				Ditch Magnet in Last 24hrs/Cum. (gm)	

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
3	6.125	BAKER HUGHES				5271431	1x18, 4x16	11,219.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
11,225.00	25.0/25.0	20	220.0	3,800.00	52.96	1.39	6.80	2.00	6.00	3.0	2.00	6.00	3.0

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	340	10,711.33	4.000		3.340	XT-39			RIG
12 JTS HWDP	12	376.83	5.000		2.625	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
PULSER SUB	1	5.38	4.687		2.687	3 1/2 IFB			65-259
NMFDC	1	29.68	4.687		2.687	3 1/2 IFB			475-30-3037
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
CATHEDRAL 5" MUD MOTOR, 6/7 LOBE, 8 STG. FIXED @ 2.0°	1	29.06	5.000			3 1/2 IFB			127034
BIT #3 RUN #1 6.125" BAKER 4x16's. 1x18's. SN: 5271431	1	0.75	6.125	6.125		3 1/2 REGP			5271431

Drillstring Details

Date/Time in	Date/Time out			BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/19/2017 20:30				3	513.67		DRILL 6.125" CURVE SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
11,225.00	198.0	162.00	180.00	18.00	5,000.0	3,000.0	6.00

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
2	6.136							11,215.00	11,219.00	-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

EP WELLS DAILY OPERATIONS REPORT

Report 10

12/19/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	349	10,975.67	4.000		3.340	XT-39			
CROSSOVER	1	2.66	4.937		2.250	XT-39			
(6) DRILL COLLARS	6	183.01	4.750		2.250	3 1/2 IF			
UBHO	1	3.70	4.687			3 1/2 IF			
FLOAT SUB	1	2.46	4.750			3 1/2 IF			
SSM	1	30.42	3.500		2.375	3 1/2 IF			
FLEX MILL	1	5.39	6.125		1.500	3 1/2 IF			
LEAD MILL	1	1.79	6.125	6.136	2.062	3 1/2 REG			
MECQC WHIPSTOCK	1	13.90	5.500			36K			

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/17/2017 17:30	12/19/2017 05:00	2	757.00		SET WHIPSTOCK

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND: 12426GALS
FUEL USED: 825GALS

EP WELLS DAILY OPERATIONS REPORT

Report 11

12/20/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	10.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	4.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,630.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,557.64
Other Supervisor	KEITH IMMATTY	24 Hr Progress(ft)	405.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	4.00/16.67	Last Casing MD	4.500in@20,016.00ft 12.90/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	713,760/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.16	LOT/FIT EMW(ppg)	
Daily Cost	139,978	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	415	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	10
Safety Comments:							
NO HSE ISSUES TO REPORT							
MAN HOURS: 264							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	10
Last Derrick Inspection	12/16/2017	4		
Last BOP function test	12/16/2017	4		
Last BOP Test	01/06/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILL CURVE T/11630'(INC AT SURVEY DEPTH: 22DEG)
NPT: 4HRS - SCIENTIFIC DRILLING - TROUBLESHOOT GWD TOOL
Update Since Report Time
DRILL CURVE T/11700'
24 Hour Forecast
DRILL CURVE TILL DLN~ 6DEG. TOO. P/U LATERAL BHA. TIH. FINISH CURVE AND DRILL LATERAL

EP WELLS DAILY OPERATIONS REPORT

Report 11

12/20/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	MNH1	DRL		11,231.00	0		ROTATE DRILL F/11225' T/11231' WOB: 25K PRESSURE & FLOW: 3800PSI & 220GPM RPM: SURFACE 20 MOTOR 19 BIT 39 TORQUE: OFF BOTTOM 3K ON BOTTOM 5K STRING WEIGHT: P/U 198 S/O 162 ROT 180 MW: 12.7PPG MOTOR: 0.085RPG PASON GAS: CG 300 BG 160
0:30	4.50	MNH1	DRL		11,266.00	0		SLIDE DRILL F/11231' T/11266' WOB: 25K PRESSURE & FLOW: 3800PSI & 220GPM RPM: SURFACE 0 MOTOR 19 BIT 19 STRING WEIGHT: P/U 198 S/O 162 ROT 180 MW: 12.7PPG MOTOR: 0.085RPG PASON GAS: CG 300 BG 160
5:00	1.00	MNH1	DRL		11,280.00	0		ROTATE DRILL F/11266' T/11280' WOB: 25K PRESSURE & FLOW: 4200PSI & 220GPM RPM: SURFACE 20 MOTOR 19 BIT 39 TORQUE: OFF BOTTOM 3K ON BOTTOM 5K STRING WEIGHT: P/U 198 S/O 162 ROT 180 MW: 12.7PPG MOTOR: 0.085RPG PASON GAS: CG 300 BG 160
6:00	1.50	MNH1	DRL		11,361.00	0		ROTATE DRILL F/11280' T/11361' WOB: 25K PRESSURE & FLOW: 4500PSI & 300GPM RPM: SURFACE 20 MOTOR 26 BIT 46 TORQUE: OFF BOTTOM 3K ON BOTTOM 5K STRING WEIGHT: P/U 198 S/O 162 ROT 180 MW: 12.7PPG MOTOR: 0.085RPG PASON GAS: CG 600 BG 160
7:30	1.50	MNH1	DRL		11,361.00	1		NPT- SCIENTIFIC DRILLING - TROUBLESHOOT GWD TOOL
9:00	2.50	MNH1	DRL		11,451.00	0		ROTATE DRILL F/11361' T/11451' WOB: 25K PRESSURE & FLOW: 4500PSI & 300GPM RPM: SURFACE 20 MOTOR 26 BIT 46 TORQUE: OFF BOTTOM 3K ON BOTTOM 5K STRING WEIGHT: P/U 198 S/O 162 ROT 180 MW: 12.7PPG MOTOR: 0.085RPG PASON GAS: CG 600 BG 160
11:30	0.50	MNH1	DRL		11,451.00	1		NPT- SCIENTIFIC DRILLING - TROUBLESHOOT GWD TOOL
12:00	1.00	MNH1	DRL		11,500.00	0		ROTATE DRILL F/11451' T/11500' WOB: 25K PRESSURE & FLOW: 4500PSI & 300GPM RPM: SURFACE 20 MOTOR 26 BIT 46 TORQUE: OFF BOTTOM 3K ON BOTTOM 5K STRING WEIGHT: P/U 198 S/O 162 ROT 180 MW: 12.8PPG MOTOR: 0.085RPG PASON GAS: CG 600 BG 160
13:00	1.00	MNH1	DRL		11,500.00	1		NPT- SCIENTIFIC DRILLING - TROUBLESHOOT GWD TOOL
14:00	3.00	MNH1	DRL		11,543.00	0		SLIDE DRILL F/11500' T/11543'

EP WELLS DAILY OPERATIONS REPORT

Report 11

12/20/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								WOB: 25K PRESSURE & FLOW: 4500PSI & 300GPM RPM: SURFACE 0 MOTOR 26 BIT 26 STRING WEIGHT: P/U 198 S/O 162 ROT 180 MW: 12.8PPG MOTOR: 0.085RPG PASON GAS: CG 600 BG 160
17:00	0.50	MNH1	SVC		11,543.00	0		RIG SERVICE
17:30	1.00	MNH1	DRL		11,543.00	1		NPT- SCIENTIFIC DRILLING - TROUBLESHOOT GWD TOOL - DOWNLINK AND SWITCH OVER TO MWD SINCE THERE WAS ENOUGH SEPARATION FROM CASING
18:30	5.50	MNH1	DRL		11,630.00	0		SLIDE DRILL F/11543' T/11630' WOB: 25K PRESSURE & FLOW: 4700PSI & 300GPM RPM: SURFACE 0 MOTOR 26 BIT 26 STRING WEIGHT: P/U 200 S/O 165 ROT 180 MW: 12.9PPG MOTOR: 0.085RPG PASON GAS: CG 700 BG 200
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/20/2017 07:30	SCIENTIFIC DRILLING INTERNATIONAL	Drillstring/B HA Bottom Hole Assembly	11,361.00	DRL	N		1.50	1.50		OPEN
Description: TROUBLESHOOT GWD TOOL						Title: TROUBLESHOOT GWD TOOL				
12/20/2017 11:30	SCIENTIFIC DRILLING INTERNATIONAL	Drillstring/B HA Bottom Hole Assembly	11,451.00	DRL	N		0.50	0.50		OPEN
Description: TROUBLESHOOT GWD TOOL						Title: TROUBLESHOOT GWD TOOL				
12/20/2017 13:00	SCIENTIFIC DRILLING INTERNATIONAL	Drillstring/B HA Bottom Hole Assembly	11,500.00	DRL	N		1.00	1.00		OPEN
Description: TROUBLESHOOT GWD TOOL						Title: TROUBLESHOOT GWD TOOL				
12/20/2017 17:30	SCIENTIFIC DRILLING INTERNATIONAL	Drillstring/B HA Bottom Hole Assembly	11,543.00	DRL	N		1.00	1.00		OPEN
Description: DOWNLINK AND SWITCH OVER TO MWD SINCE THERE WAS ENOUGH SEPARATION FROM CASING						Title: TROUBLESHOOT GWD TOOL				
Total							4.00	4.00		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,237.00	6.16	12.10	11,176.45	-420.87	-708.46	824.04	11.83	PTW MWD_2016
11,326.00	10.12	14.12	11,264.54	-408.61	-705.55	815.26	4.46	PTW MWD_2016
11,445.00	9.11	351.11	11,381.91	-389.16	-704.45	804.35	3.31	PTW MWD_2016
11,488.00	8.68	349.43	11,424.39	-382.61	-705.57	801.95	1.17	PTW MWD_2016
11,578.00	21.80	341.71	11,511.04	-359.96	-712.09	795.94	14.72	PTW MWD_2016

EP WELLS DAILY OPERATIONS REPORT

Report 11

12/20/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Fluid Details

Mud type	Invermul	Oil/Water (%)	50.00/26.00	POM (cc)	4.14 243.0	
MD (ft)	11,531.00	TS/HGS/LGS (%)	21.70/15.20/6.50	CaCl2 (%)		
Mud Density (ppg)	12.90	Sand (%)	0.00	Caom/Clom (ppm)		
Vis (s/qt)	98.00	Oil/Water Ratio (%)	65.80/34.20	ACT		
PV/YP (cp/lbf/100ft²)	31.00/14.000	LCM (lbm/bbl)	14.480	XS Lime(lbm/bbl)		
Gels 10 s/m (lbf/100ft²)	7.000/9.000	ECD (ppg)		ES (Volts)		
API/HTHP WL (cc/30min)	/10.8	H2S (gas unit)		R600/300 (°)		
FC/HTHP FC (32nd")	/4.0	KCl (%)		R200/100 (°)		
WPS (ppm)	221,112	Ditch Magnet in Last 24hrs/Cum. (gm)		R6/3 (°)		
FL temp. (°F)						

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
3	6.125	BAKER HUGHES				5271431	1x18, 4x16	11,219.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
11,231.00	25.0/25.0	20	220.0	3,800.00	53.79	1.42	6.90	0.50	6.00	12.0	2.50	12.00	4.8
11,266.00	25.0/25.0	0	220.0	3,800.00	52.96	1.39	6.80	4.50	35.00	7.8	7.00	47.00	6.7
11,280.00	25.0/25.0	20	220.0	4,200.00	53.79	1.28	6.90	1.00	14.00	14.0	8.00	61.00	7.6
11,361.00	25.0/25.0	20	300.0	4,500.00	100.03	2.22	17.50	1.50	81.00	54.0	9.50	142.00	14.9
11,451.00	25.0/25.0	20	300.0	4,500.00	100.03	2.22	17.50	2.50	90.00	36.0	12.00	232.00	19.3
11,500.00	25.0/25.0	20	300.0	4,500.00	100.03	2.22	17.50	1.00	49.00	49.0	13.00	281.00	21.6
11,543.00	25.0/25.0	0	300.0	4,500.00	100.03	2.22	17.50	3.00	43.00	14.3	16.00	324.00	20.2
11,630.00	25.0/25.0	0	300.0	4,700.00	100.03	2.13	17.50	5.50	87.00	15.8	21.50	411.00	19.1

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	353	10,706.33	4.000		3.340	XT-39			RIG
12 JTS HWDP	12	376.83	5.000		2.625	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
PULSER SUB	1	5.38	4.687		2.687	3 1/2 IFB			65-259
NMFDC	1	29.68	4.687		2.687	3 1/2 IFB			475-30-3037
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
CATHEDRAL 5" MUD MOTOR, 6/7 LOBE, 8 STG. FIXED @ 2.0°	1	29.06	5.000			3 1/2 IFB			127034
BIT #3 RUN #1 6.125" BAKER 4x16's. 1x18's. SN: 5271431	1	0.75	6.125	6.125		3 1/2 REGP			5271431

EP WELLS DAILY OPERATIONS REPORT

Report 11

12/20/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/19/2017 20:30				3	513.67		DRILL 6.125" CURVE SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
11,231.00	198.0	162.00	180.00	18.00	5,000.0	3,000.0	6.00
11,266.00	198.0	162.00	0.00	198.00	0.0	0.0	35.00
11,280.00	198.0	162.00	180.00	18.00	5,000.0	3,000.0	14.00
11,361.00	198.0	162.00	180.00	18.00	5,000.0	3,000.0	81.00
11,451.00	198.0	162.00	180.00	18.00	5,000.0	3,000.0	90.00
11,500.00	198.0	162.00	180.00	18.00	5,000.0	3,000.0	49.00
11,543.00	198.0	162.00	180.00	18.00	0.0	0.0	43.00
11,630.00	200.0	165.00	0.00	200.00	0.0	0.0	87.00

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND: 7945GALS
FUEL USED: 4481GALS

EP WELLS DAILY OPERATIONS REPORT

Report 12

12/21/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	11.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	5.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,856.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,715.04
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	226.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	1.00/4.17	Last Casing MD	4.500in@20,016.00ft 12.70/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	830,148/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.19	LOT/FIT EMW(ppg)	
Daily Cost	116,862	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	416	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							

Drills

Drill Category	Drill Type	Detection (sec)	Complete (sec)	Crew drilled	Pass / Fail	PIC	Comments
Well Control Crew	BOP	15.00	58.00	Day	Pass	DARRYL ROUX	GOOD DRILL

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	11
Last Derrick Inspection	12/16/2017	5		
Last BOP function test	12/16/2017	5		
Last BOP Test	01/06/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILLED CURVE FROM 11630' TO 11856'. TOO H AND L/D CURVE BHA, P/U LATERAL BHA.
Update Since Report Time
@ 04:30 - TIH AT 3782'.
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 12

12/21/2017

Well
WellboreUNIVERSITY 20 PW UNIT 2003H
UNIVERSITY 20 PW UNIT 2003H ST01

FINISH P/U LATERAL BHA, TIH, DRILL AHEAD IN LATERAL.

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	2.00	MNH1	DRL		11,673.00	0		SLIDE DRILL F/11630' T/11673' WOB: 25K PRESSURE & FLOW: 4700PSI & 300GPM RPM: SURFACE 0 MOTOR 26 BIT 26 STRING WEIGHT: P/U 200 S/O 165 ROT 180 MW: 12.9PPG MOTOR: 0.085RPG PASON GAS: CG 700 BG 200
2:00	1.00	MNH1	DRL		11,673.00	1		NPT - CHANGE GASKET ON VIBRATOR HOSE.
3:00	3.00	MNH1	DRL		11,713.00	0		SLIDE DRILL F/11673' T/11713' WOB: 25K PRESSURE & FLOW: 4700PSI & 300GPM RPM: SURFACE 0 MOTOR 26 BIT 26 STRING WEIGHT: P/U 200 S/O 165 ROT 180 MW: 12.9PPG MOTOR: 0.085RPG PASON GAS: CG 700 BG 200
6:00	0.50	MNH1	SVC		11,713.00	0		RIG SERVICE.
6:30	8.50	MNH1	DRL		11,856.00	0		SLIDE AND ROTATE FROM 11713' TO 11856' WOB: 25K PRESSURE & FLOW: 4700PSI & 300GPM RPM: SURFACE 0 MOTOR 26 BIT 26 STRING WEIGHT: P/U 210 S/O 165 ROT 180 MW: 12.9PPG MOTOR: 0.085RPG PASON GAS: CG 700 BG 200
15:00	1.00	MNH1	CBU		11,856.00	0		CBU AND BUILD SLUG. PREPARE TO TOOH AND L/D CURVE ASSEMBLY AND P/U LATERAL BHA.
16:00	6.00	MNH1	TOH		11,856.00	0		TOOH FROM 11856' TO BHA.
22:00	2.00	MNH1	BHA		11,856.00	0		HANDLE BHA. L/D BIT, MOTOR, AND MWD. L/O NEW TOOLS BY CATWALK.
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/21/2017 02:00	PRECISION DRILLING COMPANY LP	Rig/Work Unit Misc	11,673.00	DRL	EN	Hoses	1.00	1.00		OPEN
Description: CHANGE GASKET ON VIBRATOR HOSE						Title: CHANGE GASKET ON VIBRATOR HOSE				
Total							1.00	1.00		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,578.00	21.80	341.71	11,511.04	-359.96	-712.09	795.94	14.72	PTW MWD_2016
11,668.00	37.14	343.26	11,589.16	-317.83	-725.24	785.63	17.06	PTW MWD_2016
11,758.00	45.34	348.49	11,656.80	-260.33	-739.48	768.38	9.88	PTW MWD_2016
11,802.00	52.99	351.16	11,685.56	-227.58	-745.32	756.61	17.98	PTW MWD_2016
11,840.00	59.00	352.00	11,706.80	-196.43	-749.92	744.59	15.92	PTW MWD_2016

EP WELLS DAILY OPERATIONS REPORT

Report 12

12/21/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Fluid Details

Mud type	Invermul	Oil/Water (%)	53.00/24.00	POM (cc)	4.01 287.0
MD (ft)	11,856.00	TS/HGS/LGS (%)	21.00/14.90/6.00	CaCl2 (%)	
Mud Density (ppg)	12.70	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	72.00	Oil/Water Ratio (%)	68.80/31.20	ACT	
PV/YP (cp/lbf/100ft²)	25.00/12.000	LCM (lbm/bbl) ECD (ppg) H2S (gas unit) KCl (%)	12.700	XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	10.000/12.000			ES (Volts)	
API/HTHP WL (cc/30min)	/10.8			R600/300 (°)	
FC/HTHP FC (32nd")	/4.0			R200/100 (°)	
WPS (ppm)	218,310			R6/3 (°)	
FL temp. (°F)				Ditch Magnet in Last 24hrs/Cum. (gm)	

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
3	6.125	BAKER HUGHES				5271431	1x18, 4x16	11,219.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
11,673.00	25.0/25.0	0	300.0	4,700.00	100.03	2.13	17.50	2.00	43.00	21.5	23.50	454.00	19.3
11,713.00	25.0/25.0	0	300.0	4,700.00	100.03	2.13	17.50	3.00	40.00	13.3	26.50	494.00	18.6
11,856.00	25.0/25.0	0	300.0	4,700.00	100.03	2.13	17.50	8.50	143.00	16.8	35.00	637.00	18.2

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	360	11,342.33	4.000		3.340	XT-39			RIG
12 JTS HWDP	12	376.83	5.000		2.625	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
PULSER SUB	1	5.38	4.687		2.687	3 1/2 IFB			65-259
NMFDC	1	29.68	4.687		2.687	3 1/2 IFB			475-30-3037
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
CATHEDRAL 5" MUD MOTOR, 6/7 LOBE, 8 STG. FIXED @ 2.0°	1	29.06	5.000			3 1/2 IFB			127034
BIT #3 RUN #1 6.125" BAKER 4x16's. 1x18's. SN: 5271431	1	0.75	6.125	6.125		3 1/2 REGP			5271431

Drillstring Details

Date/Time in	Date/Time out			BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/19/2017 20:30				3	513.67		DRILL 6.125" CURVE SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
11,673.00	200.0	165.00	0.00	200.00	0.0	0.0	43.00
11,713.00	200.0	165.00	0.00	200.00	0.0	0.0	40.00
11,856.00	210.0	165.00	0.00	210.00	0.0	0.0	143.00

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

EP WELLS DAILY OPERATIONS REPORT

Report 13

12/22/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	12.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	6.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	12,202.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,872.63
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	346.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	4.500in@20,016.00ft 12.80/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	870,972/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.20	LOT/FIT EMW(ppg)	
Daily Cost	40,451	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	417	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	12
Last Derrick Inspection	12/16/2017	6		
Last BOP function test	12/16/2017	6		
Last BOP Test	01/06/2018			

Operations Summary

24 Hour Summary
M/U BHA, TIH, SLIP AND CUT, WASH LAST JOINT DOWN, DRILL CURVE FROM 11856' TO 12202'.
Update Since Report Time
@ 05:30 - DRILLING AHEAD AT 12366'.
24 Hour Forecast
DRILL AHEAD IN LATERAL.

EP WELLS DAILY OPERATIONS REPORT

Report 13

12/22/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	2.50	MNH1	BHA		11,856.00	0		HANDLE BHA. P/U NEW MOTOR, BIT, AND MWD.
2:30	1.00	MNH1	TIH		11,856.00	0		TIH FROM 171' TO 2222'.
3:30	0.50	MNH1	BHA		11,856.00	0		P/U AGITATOR AND SHOCK SUB. PRESSURE BEFORE WAS 1650 PSI, PRESSURE AFTER WAS 1900 PSI. TEST MWD TOOL WHILE PUMPING.
4:00	1.00	MNH1	TIH		11,856.00	0		TIH FROM 2222' TO 5223'. P/U SECOND SHOCK SUB.
5:00	0.50	MNH1	SVC		11,856.00	0		RIG SERVICE.
5:30	0.50	MNH1	TIH		11,856.00	0		INSTALL ROTATING HEAD.
6:00	3.00	MNH1	TIH		11,856.00	0		TIH FROM 5223' TO 11200'.
9:00	1.50	MNH1	CUT		11,856.00	0		SLIP AND CUT DRILL LINE. GREASE CROWN. SET EMERGENCY STOPS AND PERFORM BRAKE TEST.
10:30	0.50	MNH1	TIH		11,856.00	0		DROPS INSPECTION ON DERRICK.
11:00	2.00	MNH1	TIH		11,856.00	0		TIH FROM 11200' TO 11856'. WENT THROUGH WINDOW WITHOUT ANY ISSUES. WASH LAST STAND DOWN.
13:00	11.00	MNH1	DRL		12,202.00	0		DRILL CURVE FROM 11856' TO 12202' ROTATE PARAMETERS WOB: 20K PRESSURE & FLOW: 5400 PSI @ 300 GPM RPM: SURFACE 20 MOTOR 243 BIT 263 TORQUE: ON BOT 8K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 300 BG 300 SLIDE PARAMETERS WOB: 15-30K PRESSURE & FLOW: 5200 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,857.00	59.21	350.31	11,717.09	-183.39	-753.72	741.17	13.94	PTW MWD+AXIAL_2016
11,857.00	59.21	350.31	11,717.23	-183.53	-753.74	741.26	14.08	PTW MWD_2016
11,947.00	58.45	349.64	11,763.82	-107.70	-767.14	713.90	1.06	PTW MWD_2016
12,037.00	61.26	349.76	11,809.01	-31.13	-781.05	686.59	3.12	PTW MWD_2016
12,127.00	67.67	350.00	11,847.78	48.77	-795.31	657.88	7.13	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	52.50/24.00	POM (cc)	
MD (ft)	12,040.00	TS/HGS/LGS (%)	21.30/15.20/6.20	CaCl2 (%)	
Mud Density (ppg)	12.80	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	83.00	Oil/Water Ratio (%)	68.60/31.40	ACT	
PV/YP (cp/lbf/100ft²)	26.00/12.000			XS Lime(lbm/bbl)	3.88
Gels 10 s/m (lbf/100ft²)	7.000/11.000	LCM (lbm/bbl)		ES (Volts)	344.0
API/HTHP WL (cc/30min)	/10.4	ECD (ppg)	14.060	R600/300 (°)	
FC/HTHP FC (32nd")	/4.0	H2S (gas unit)		R200/100 (°)	
WPS (ppm)	226,775	KCl (%)		R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

EP WELLS DAILY OPERATIONS REPORT

Report 13

12/22/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
4	6.125	BAKER HUGHES	TD405FX			7163143	5x16	11,856.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
12,202.00	20.0/20.0	20	300.0	5,400.00	110.94	2.05	19.41	11.00	346.00	31.5	11.00	346.00	31.5

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	223	7,010.25	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	4.937		2.000	XT-39			1522746-14
33 STANDS 4" DRILL PIPE	94	2,959.38	4.000		2.800	XT-39			RIG
AGITATOR (1.45 PLATE) / SHOCK SUB	1	22.24	4.937		2.000	XT-39			W1619484-1
23 STANDS 4" DRILL PIPE	65	2,061.10	4.000		2.800	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
GAP SUB	1	3.80	5.062		3.500	3-1/2 IFB			G475-0121
CENTRALIZER SUB (EVO)	1	8.34	5.812		3.625	3-1/2 IFB			C475-0093
LANDING SUB (EVO)	1	3.42	5.812		3.125	3 1/2 IFB			L475-0112
CROSSOVER SUB (EVO)	1	2.40	4.750		3.750	3 1/2 IFB			X475-0042
NMPC	1	15.06	4.625		2.687	3 1/2 IFB			475-15-2233
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
BICO 5" MUD MOTOR, 6/7 LOBE, 8 STG. FBH SLICK @ 1.83".	1	32.01	5.000			3 1/2 IFB			475-D5-1211
BIT #4 RUN #1 6.125" BAKER TD405FX, 5x16's, SN: 7163143	1	0.89	6.125	6.125		3 1/2 REGP			7163143

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/22/2017 04:00				4	171.27		DRILL 6.125" PRODUCTION SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
12,202.00	210.0	164.00	181.00	29.00	8,000.0	5,000.0	346.00

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND: 9230 GAL

EP WELLS DAILY OPERATIONS REPORT

Report 14

12/23/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	13.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	7.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	13,361.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,914.68
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	1,159.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	1.00/4.17	Last Casing MD	4.500in@20,016.00ft 13.00/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	951,254/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.21	LOT/FIT EMW(ppg)	
Daily Cost	80,658	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	418	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	13
Last Derrick Inspection	12/16/2017	7		
Last BOP function test	12/16/2017	7		
Last BOP Test	01/06/2018			

Operations Summary

24 Hour Summary
DRILLED FROM 12202' TO 13361' IN LATERAL.
Update Since Report Time
@ 03:30 - DRILLING AHEAD AT 13629'.
24 Hour Forecast
DRILL AHEAD IN LATERAL.

EP WELLS DAILY OPERATIONS REPORT

Report 14

12/23/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	5.50	MNH1	DRL		12,366.00	0		DRILL CURVE FROM 12202' TO 12366' ROTATE PARAMETERS WOB: 20K PRESSURE & FLOW: 5400 PSI @ 300 GPM RPM: SURFACE 20 MOTOR 243 BIT 263 TORQUE: ON BOT 8K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 300 BG 300 SLIDE PARAMETERS WOB: 15-30K PRESSURE & FLOW: 5200 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243
5:30	0.50	MNH1	SVC		12,366.00	0		RIG SERVICE.
6:00	2.50	MNH1	DRL		12,425.00	0		DRILL CURVE FROM 12366' TO 12425' ROTATE PARAMETERS WOB: 20K PRESSURE & FLOW: 5400 PSI @ 300 GPM RPM: SURFACE 20 MOTOR 243 BIT 263 TORQUE: ON BOT 8K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 300 BG 300 SLIDE PARAMETERS WOB: 15-30K PRESSURE & FLOW: 5200 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243
8:30	3.00	MNH1	DRL		12,655.00	0		ROTATE FROM 12425' TO 12655' (230' @ 77 FPH) WOB: 20-30K PRESSURE & FLOW: 5600 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8-9K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 1300 BG 1100
11:30	0.50	MNH1	DRL		12,705.00	0		SLIDE FROM 12655' TO 12705' (50' @ 100 FPH) WOB: 20-50K PRESSURE & FLOW: 5400 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 1300 BG 1100
12:00	1.00	MNH1	DRL		12,770.00	0		ROTATE FROM 12705' TO 12770' (65' @ 65 FPH) WOB: 15-20K PRESSURE & FLOW: 5700 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8-9K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 1300 BG 1100
13:00	0.50	MNH1	DRL		12,784.00	0		SLIDE FROM 12770' TO 12784' (14' @ 28 FPH) WOB: 20-50K

EP WELLS DAILY OPERATIONS REPORT

Report 14

12/23/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								PRESSURE & FLOW: 5400 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 1300 BG 1100
13:30	0.50	MNH1	DRL		12,784.00	1		NPT - REPLACE GASKET ON KICKER HOSE.
14:00	5.00	MNH1	DRL		13,044.00	0		SLIDE FROM 12784' TO 13044' (260' @ 52 FPH) WOB: 20-50K PRESSURE & FLOW: 5600 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 1300 BG 1100
19:00	0.50	MNH1	DRL		13,044.00	1		NPT - REPLACE GASKET ON KICKER HOSE.
19:30	1.00	MNH1	DRL		13,128.00	0		ROTATE FROM 13044' TO 13128' (84' @ 84 FPH) WOB: 15-20K PRESSURE & FLOW: 5700 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8-9K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 3000 BG 750
20:30	2.00	MNH1	DRL		13,218.00	0		SLIDE FROM 13128' TO 13218' (90' @ 45 FPH) WOB: 35K PRESSURE & FLOW: 5350 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 1000 BG 650
22:30	1.50	MNH1	DRL		13,361.00	0		ROTATE FROM 13218' TO 13361' (143' @ 95 FPH) WOB: 30K PRESSURE & FLOW: 5750 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8-9K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 1800 BG 750
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/23/2017 13:30	PRECISION DRILLING COMPANY LP	Rig/Work Unit Misc	12,784.00	DRL	EN	Hoses		0.50		OPEN
Description: REPLACE GASKET ON KICKER HOSE						Title: REPLACE GASKET ON KICKER HOSE				
12/23/2017 19:00	PRECISION DRILLING COMPANY LP	Rig/Work Unit Misc	13,044.00	DRL	EN	Hoses		0.50		OPEN
Description: REPLACE GASKET ON KICKER HOSE.						Title: REPLACE GASKET ON KICKER HOSE.				
Total								1.00		

EP WELLS DAILY OPERATIONS REPORT

Report 14

12/23/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
12,933.00	88.53	349.78	11,908.01	841.43	-887.87	1,059.49	6.28	PTW MWD_2016
13,023.00	88.51	341.12	11,910.34	928.43	-910.45	1,149.32	9.62	PTW MWD_2016
13,112.00	88.90	345.31	11,912.35	1,013.60	-936.14	1,238.27	4.73	PTW MWD_2016
13,202.00	89.68	342.75	11,913.46	1,100.11	-960.90	1,328.25	2.97	PTW MWD_2016
13,291.00	89.34	343.10	11,914.23	1,185.19	-987.03	1,417.24	0.55	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	54.50/21.00	POM (cc)	3.63 477.0
MD (ft)	12,896.00	TS/HGS/LGS (%)	22.10/16.00/6.10	CaCl2 (%)	
Mud Density (ppg)	13.00	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	70.00	Oil/Water Ratio (%)	72.20/27.80	ACT	
PV/YP (cp/lbf/100ft²)	24.00/14.000	LCM (lbm/bbl) ECD (ppg) H2S (gas unit) KCl (%)	14.370	XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	8.000/11.000			ES (Volts)	
API/HTHP WL (cc/30min)	/10.0			R600/300 (°)	
FC/HTHP FC (32nd")	/4.0			R200/100 (°)	
WPS (ppm)	268,266			R6/3 (°)	
FL temp. (°F)				Ditch Magnet in Last 24hrs/Cum. (gm)	

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
4	6.125	BAKER HUGHES	TD405FX			7163143	5x16	11,856.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
12,366.00	20.0/20.0	20	300.0	5,400.00	110.94	2.05	19.41	5.50	164.00	29.8	16.50	510.00	30.9
12,425.00	20.0/20.0	20	300.0	5,400.00	110.94	2.05	19.41	2.50	59.00	23.6	19.00	569.00	29.9
12,655.00	20.0/30.0	80	300.0	5,600.00	111.80	2.00	19.56	3.00	230.00	76.7	22.00	799.00	36.3
12,705.00	20.0/50.0	0	300.0	5,400.00	111.80	2.07	19.56	0.50	50.00	100.0	22.50	849.00	37.7
12,770.00	15.0/20.0	80	300.0	5,700.00	111.80	1.96	19.56	1.00	65.00	65.0	23.50	914.00	38.9
12,784.00	20.0/50.0	0	300.0	5,400.00	111.80	2.07	19.56	0.50	14.00	28.0	24.00	928.00	38.7
13,044.00	20.0/50.0	0	300.0	5,600.00	111.80	2.00	19.56	5.00	260.00	52.0	29.00	1,188.00	41.0
13,128.00	15.0/20.0	80	300.0	5,700.00	111.80	1.96	19.56	1.00	84.00	84.0	30.00	1,272.00	42.4
13,218.00	35.0/35.0	0	300.0	5,350.00	111.80	2.09	19.56	2.00	90.00	45.0	32.00	1,362.00	42.6
13,361.00	30.0/30.0	80	300.0	5,750.00	111.80	1.94	19.56	1.50	143.00	95.3	33.50	1,505.00	44.9

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	259	8,169.25	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	4.937		2.000	XT-39			1522746-14
33 STANDS 4" DRILL PIPE	94	2,959.38	4.000		2.800	XT-39			RIG
AGITATOR (1.45 PLATE) / SHOCK SUB	1	22.24	4.937		2.000	XT-39			W1619484-1
23 STANDS 4" DRILL PIPE	65	2,061.10	4.000		2.800	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
GAP SUB	1	3.80	5.062		3.500	3-1/2 IFB			G475-0121

EP WELLS DAILY OPERATIONS REPORT

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12/23/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
CENTRALIZER SUB (EVO)	1	8.34	5.812		3.625	3-1/2 IFB			C475-0093
LANDING SUB (EVO)	1	3.42	5.812		3.125	3 1/2 IFB			L475-0112
CROSSOVER SUB (EVO)	1	2.40	4.750		3.750	3 1/2 IFB			X475-0042
NMPC	1	15.06	4.625		2.687	3 1/2 IFB			475-15-2233
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
BICO 5" MUD MOTOR, 6/7 LOBE, 8 STG. FBH SLICK @ 1.83°	1	32.01	5.000			3 1/2 IFB			475-D5-1211
BIT #4 RUN #1 6.125" BAKER TD405FX. 5x16's. SN: 7163143	1	0.89	6.125	6.125		3 1/2 REGP			7163143

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/22/2017 04:00				4	171.27		DRILL 6.125" PRODUCTION SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
12,366.00	210.0	164.00	181.00	29.00	8,000.0	5,000.0	164.00
12,425.00	210.0	164.00	181.00	29.00	8,000.0	5,000.0	59.00
12,655.00	210.0	164.00	181.00	29.00	9,000.0	5,000.0	230.00
12,705.00	210.0	164.00	0.00	210.00	0.0	0.0	50.00
12,770.00	210.0	164.00	181.00	29.00	9,000.0	5,000.0	65.00
12,784.00	210.0	164.00	0.00	210.00	0.0	0.0	14.00
13,044.00	210.0	164.00	0.00	210.00	0.0	0.0	260.00
13,128.00	210.0	164.00	181.00	29.00	9,000.0	5,000.0	84.00
13,218.00	210.0	164.00	0.00	210.00	0.0	0.0	90.00
13,361.00	210.0	164.00	181.00	29.00	9,000.0	5,000.0	143.00

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND : 6054 GAL
FUEL USED : 3176 GAL
FUEL DELIVERED : 0 GAL

EP WELLS DAILY OPERATIONS REPORT

Report 15

12/24/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	14.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	8.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	15,428.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,937.88
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	2,067.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,016.00ft
Actual cost to date/AFE	999,192/4,448,670.00	Current MW / BH EMW(ppg)	13.00/
Actual divided by AFE	0.22	LOT/FIT EMW(ppg)	
Daily Cost	41,292	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	419	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/16/2017	8	JSA's/Toolbox Talks	14
Last BOP function test	12/16/2017	8	Days Since Last Drill	
Last BOP Test	01/06/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILLED FROM 13361' TO 15428' IN LATERAL.
Update Since Report Time
@ 05:00 - DRILLING AHEAD AT 15776'
24 Hour Forecast
DRILL AHEAD IN LATERAL.

EP WELLS DAILY OPERATIONS REPORT

Report 15

12/24/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.00	MNH1	DRL		13,442.00	0		ROTATE FROM 13361' TO 13442' (81' @ 81 FPH) WOB: 30K PRESSURE & FLOW: 5750 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8-9K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
1:00	1.50	MNH1	DRL		13,532.00	0		SLIDE FROM 13442' TO 13532' (90' @ 60 FPH) WOB: 30-50K PRESSURE & FLOW: 5600 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
2:30	2.00	MNH1	DRL		13,795.00	0		ROTATE FROM 13532' TO 13795' (263' @ 132 FPH) WOB: 30K PRESSURE & FLOW: 5900 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8-9K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
4:30	0.50	MNH1	SVC		13,795.00	0		RIG SERVICE.
5:00	1.00	MNH1	DRL		13,862.00	0		SLIDE FROM 13795' TO 13862' (67' @ 67 FPH) WOB: 30-50K PRESSURE & FLOW: 5650 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
6:00	1.00	MNH1	DRL		13,992.00	0		ROTATE FROM 13862' TO 13992' (130' @ 130 FPH) WOB: 30K PRESSURE & FLOW: 5900 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8-9K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
7:00	1.00	MNH1	DRL		14,044.00	0		SLIDE FROM 13992' TO 14044' (52' @ 52 FPH) WOB: 30-50K PRESSURE & FLOW: 5650 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
8:00	1.50	MNH1	DRL		14,170.00	0		ROTATE FROM 14044' TO 14170' (126' @ 84 FPH) WOB: 30K PRESSURE & FLOW: 5900 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8-9K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K

EP WELLS DAILY OPERATIONS REPORT

Report 15

12/24/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
9:30	1.00	MNH1	DRL		14,249.00	0		SLIDE FROM 14170' TO 14249' (79' @ 79 FPH) WOB: 30-50K PRESSURE & FLOW: 5700 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
10:30	0.50	MNH1	DRL		14,272.00	0		ROTATE FROM 14249' TO 14272' (23' @ 46 FPH) WOB: 30K PRESSURE & FLOW: 5900 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8-9K OFF BOT 5K STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
11:00	1.00	MNH1	DRL		14,323.00	0		SLIDE FROM 14272' TO 14323' (51' @ 51 FPH) WOB: 30-50K PRESSURE & FLOW: 5600 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 210K S/O 164K ROT 181K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
12:00	3.00	MNH1	DRL		14,703.00	0		ROTATE FROM 14323' TO 14703' (380' @ 127 FPH) WOB: 30K PRESSURE & FLOW: 6100 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 9-10K OFF BOT 5.5K STRING WEIGHT: P/U 215K S/O 140K ROT 176K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
15:00	3.00	MNH1	DRL		14,857.00	0		SLIDE FROM 14703' TO 14857' (154' @ 51 FPH) WOB: 30-50K PRESSURE & FLOW: 5700 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 215K S/O 140K ROT 176K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
18:00	3.50	MNH1	DRL		15,238.00	0		ROTATE FROM 14857' TO 15238' (381' @ 109 FPH) WOB: 30K PRESSURE & FLOW: 6200 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 10-11K OFF BOT 5.5K STRING WEIGHT: P/U 215K S/O 140K ROT 176K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
21:30	1.00	MNH1	DRL		15,282.00	0		SLIDE FROM 15238' TO 15282' (44' @ 44 FPH) WOB: 30-50K PRESSURE & FLOW: 5700 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 215K S/O 140K ROT 176K MW: 13.0 PPG

EP WELLS DAILY OPERATIONS REPORT

Report 15

12/24/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
22:30	1.50	MNH1	DRL		15,428.00	0		ROTATE FROM 15282' TO 15428' (146' @ 97 FPH) WOB: 30K PRESSURE & FLOW: 6300 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 10-11K OFF BOT 5.5K STRING WEIGHT: P/U 215K S/O 140K ROT 176K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
14,996.00	88.59	338.13	11,933.65	2,831.65	-1,418.70	3,118.46	1.19	PTW MWD_2016
15,086.00	88.47	336.67	11,935.96	2,914.71	-1,453.28	3,207.92	1.63	PTW MWD_2016
15,176.00	89.06	335.68	11,937.90	2,997.02	-1,489.62	3,297.18	1.28	PTW MWD_2016
15,265.00	92.03	337.85	11,937.05	3,078.78	-1,524.73	3,385.55	4.13	PTW MWD_2016
15,355.00	88.66	335.41	11,936.51	3,161.38	-1,560.42	3,474.89	4.62	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	55.50/20.00	POM (cc)	
MD (ft)	14,780.00	TS/HGS/LGS (%)	22.30/16.10/6.20	CaCl2 (%)	
Mud Density (ppg)	13.00	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	67.00	Oil/Water Ratio (%)	73.50/26.50	ACT	
PV/YP (cp/lbf/100ft²)	23.00/16.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	5.05
Gels 10 s/m (lb/100ft²)	9.000/11.000	ECD (ppg)	14.600	ES (Volts)	517.0
API/HTHP WL (cc/30min)	/10.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/4.0	KCl (%)		R200/100 (°)	
WPS (ppm)	264,647			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
4	6.125	BAKER HUGHES	TD405FX			7163143	5x16	11,856.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
13,442.00	30.0/30.0	80	300.0	5,750.00	111.80	1.94	19.56	1.00	81.00	81.0	34.50	1,586.00	46.0
13,532.00	30.0/50.0	0	300.0	5,600.00	111.80	2.00	19.56	1.50	90.00	60.0	36.00	1,676.00	46.6
13,795.00	30.0/30.0	80	300.0	5,900.00	111.80	1.89	19.56	2.00	263.00	131.5	38.00	1,939.00	51.0
13,862.00	30.0/50.0	0	300.0	5,650.00	111.80	1.98	19.56	1.00	67.00	67.0	39.00	2,006.00	51.4
13,992.00	30.0/30.0	80	300.0	5,900.00	111.80	1.89	19.56	1.00	130.00	130.0	40.00	2,136.00	53.4
14,044.00	30.0/50.0	0	300.0	5,650.00	111.80	1.98	19.56	1.00	52.00	52.0	41.00	2,188.00	53.4
14,170.00	30.0/30.0	80	300.0	5,900.00	111.80	1.89	19.56	1.50	126.00	84.0	42.50	2,314.00	54.4
14,249.00	30.0/50.0	0	300.0	5,700.00	111.80	1.96	19.56	1.00	79.00	79.0	43.50	2,393.00	55.0
14,272.00	30.0/30.0	80	300.0	5,900.00	111.80	1.89	19.56	0.50	23.00	46.0	44.00	2,416.00	54.9
14,323.00	30.0/50.0	0	300.0	5,600.00	111.80	2.00	19.56	1.00	51.00	51.0	45.00	2,467.00	54.8
14,703.00	30.0/30.0	80	300.0	6,100.00	111.80	1.83	19.56	3.00	380.00	126.7	48.00	2,847.00	59.3
14,857.00	30.0/50.0	0	300.0	5,700.00	111.80	1.96	19.56	3.00	154.00	51.3	51.00	3,001.00	58.8
15,238.00	30.0/30.0	80	300.0	6,200.00	111.80	1.80	19.56	3.50	381.00	108.9	54.50	3,382.00	62.1
15,282.00	30.0/50.0	0	300.0	5,700.00	111.80	1.96	19.56	1.00	44.00	44.0	55.50	3,426.00	61.7
15,428.00	30.0/30.0	80	300.0	6,300.00	111.80	1.77	19.56	1.50	146.00	97.3	57.00	3,572.00	62.7

EP WELLS DAILY OPERATIONS REPORT

Report 15

12/24/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	325	10,236.25	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	4.937		2.000	XT-39			1522746-14
33 STANDS 4" DRILL PIPE	94	2,959.38	4.000		2.800	XT-39			RIG
AGITATOR (1.45 PLATE) / SHOCK SUB	1	22.24	4.937		2.000	XT-39			W1619484-1
23 STANDS 4" DRILL PIPE	65	2,061.10	4.000		2.800	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
GAP SUB	1	3.80	5.062		3.500	3-1/2 IFB			G475-0121
CENTRALIZER SUB (EVO)	1	8.34	5.812		3.625	3-1/2 IFB			C475-0093
LANDING SUB (EVO)	1	3.42	5.812		3.125	3 1/2 IFB			L475-0112
CROSSOVER SUB (EVO)	1	2.40	4.750		3.750	3 1/2 IFB			X475-0042
NMPC	1	15.06	4.625		2.687	3 1/2 IFB			475-15-2233
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
BICO 5" MUD MOTOR, 6/7 LOBE, 8 STG. FBH SLICK @ 1.83°.	1	32.01	5.000			3 1/2 IFB			475-D5-1211
BIT #4 RUN #1 6.125" BAKER TD405FX. 5x16's. SN: 7163143	1	0.89	6.125	6.125		3 1/2 REGP			7163143

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/22/2017 04:00				4	171.27		DRILL 6.125" PRODUCTION SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
13,442.00	210.0	164.00	181.00	29.00	9,000.0	5,000.0	81.00
13,532.00	210.0	164.00	0.00	210.00	0.0	0.0	90.00
13,795.00	210.0	164.00	181.00	29.00	9,000.0	5,000.0	263.00
13,862.00	210.0	164.00	0.00	210.00	0.0	0.0	67.00
13,992.00	210.0	164.00	181.00	29.00	9,000.0	5,000.0	130.00
14,044.00	210.0	164.00	0.00	210.00	0.0	0.0	52.00
14,170.00	210.0	164.00	181.00	29.00	9,000.0	5,000.0	126.00
14,249.00	210.0	164.00	0.00	210.00	0.0	0.0	79.00
14,272.00	210.0	164.00	181.00	29.00	9,000.0	5,000.0	23.00
14,323.00	210.0	164.00	0.00	210.00	0.0	0.0	51.00
14,703.00	215.0	140.00	176.00	39.00	10,000.0	5,500.0	380.00
14,857.00	215.0	140.00	0.00	215.00	0.0	0.0	154.00
15,238.00	215.0	140.00	176.00	39.00	11,000.0	5,500.0	381.00
15,282.00	215.0	140.00	0.00	215.00	0.0	0.0	44.00
15,428.00	215.0	140.00	176.00	39.00	11,000.0	5,500.0	146.00

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

EP WELLS DAILY OPERATIONS REPORT

Report 15 12/24/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Remarks

FUEL ON HAND : 10327 GAL
FUEL USED : 3125 GAL
FUEL DELIVERED : 7398 GAL

EP WELLS DAILY OPERATIONS REPORT

Report 16

12/25/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	15.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	9.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	16,224.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,974.31
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	796.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,016.00ft
Actual cost to date/AFE	1,078,106/4,448,670.00	Current MW / BH EMW(ppg)	12.90/
Actual divided by AFE	0.24	LOT/FIT EMW(ppg)	
Daily Cost	78,666	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	420	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/16/2017	9	JSA's/Toolbox Talks	15
Last BOP function test	12/16/2017	9	Days Since Last Drill	
Last BOP Test	01/06/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILLED FROM 15428' TO 16224', INCLINATION STARTED FALLING OFF WHILE SLIDING HIGHSIDE, TOO H TO TROUBLESHOOT. TOO H FROM 16224' TO 8458'.
Update Since Report Time
@ 03:30 - TOO H AT 350'.
24 Hour Forecast
TOO H, P/U NEW MOTOR, BIT, AND MWD. TIH AND DRILL AHEAD.

EP WELLS DAILY OPERATIONS REPORT

Report 16

12/25/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.00	MNH1	DRL		15,481.00	0		SLIDE FROM 15428' TO 15481' (53' @ 53 FPH) WOB: 30K PRESSURE & FLOW: 5700 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 215K S/O 140K ROT 176K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
1:00	2.00	MNH1	DRL		15,699.00	0		ROTATE FROM 15481' TO 15699' (218' @ 109 FPH) WOB: 30K PRESSURE & FLOW: 6400 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 10-11K OFF BOT 6K STRING WEIGHT: P/U 215K S/O 140K ROT 176K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
3:00	1.00	MNH1	DRL		15,746.00	0		SLIDE FROM 15699' TO 15746' (47' @ 47 FPH) WOB: 30K PRESSURE & FLOW: 5700 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 215K S/O 140K ROT 176K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
4:00	0.50	MNH1	DRL		15,776.00	0		ROTATE FROM 15746' TO 15776' (30' @ 60 FPH) WOB: 30K PRESSURE & FLOW: 6400 PSI @ 300 GPM RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 10-11K OFF BOT 6K STRING WEIGHT: P/U 215K S/O 140K ROT 176K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
4:30	0.50	MNH1	SVC		15,776.00	0		RIG SERVICE.
5:00	14.00	MNH1	DRL		16,224.00	0		SLIDE FROM 15776' TO 16224' (448' @ 32 FPH) WOB: 30K PRESSURE & FLOW: 5700 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 243 BIT 243 STRING WEIGHT: P/U 215K S/O 140K ROT 176K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
19:00	1.00	MNH1	CBU		16,224.00	0		NPT - CBU AND BUILD SLUG. INCLINATION STARTED FALLING OFF EVEN WHILE SLIDING HIGH-SIDE. DECISION MADE TO TOOH AND CHECK BHA.
20:00	1.00	MNH1	TOH		16,224.00	0		NPT - TOOH WET FOR FIRST 5 STANDS, PULLED SMOOTH, PUMP SLUG.
21:00	3.00	MNH1	TOH		16,224.00	0		NPT - TOOH FROM 15681' TO 8458'. HOLE TAKING PROPER FILL.
Total	24.00							

EP WELLS DAILY OPERATIONS REPORT

Report 16

12/25/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/25/2017 19:00	SHELL	Drillstring/B HA Bottom Hole Assembly	16,224.00	CBU	N		0.00	0.00		OPEN
Description: TOO H WET FOR FIRST 5 STANDS, PULLED SMOOTH, PUMP SLUG. TOO H FROM 15681' TO 8458'. HOLE TAKING PROPER FILL.						Title: INCLINATION STARTED FALLING OFF EVEN WHILE SLIDING HIGH-SIDE. DECISION MADE TO TOO H AND CHECK BHA.				
Total							0.00	0.00		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
15,893.00	89.60	357.49	11,945.33	3,682.83	-1,671.34	4,006.34	0.20	PTW MWD_2016
15,983.00	88.01	359.31	11,947.21	3,772.77	-1,673.85	4,093.27	2.68	PTW MWD_2016
16,073.00	83.10	354.63	11,954.18	3,862.32	-1,678.58	4,180.46	7.52	PTW MWD_2016
16,162.00	82.04	347.71	11,965.70	3,949.48	-1,692.11	4,267.86	7.80	PTW MWD_2016
16,224.00	82.00	344.00	11,974.31	4,009.00	-1,707.11	4,329.19	5.93	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	57.00/18.00	POM (cc)	4.53 566.0
MD (ft)	16,188.00	TS/HGS/LGS (%)	23.00/14.90/8.10	CaCl2 (%)	
Mud Density (ppg)	12.90	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	64.00	Oil/Water Ratio (%)	76.00/24.00	ACT	
PV/YP (cp/lbf/100ft²)	23.00/11.000			XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	7.000/11.000	LCM (lbm/bbl)		ES (Volts)	
API/HTHP WL (cc/30min)	/10.0	ECD (ppg)	14.640	R600/300 (°)	
FC/HTHP FC (32nd")	/4.0	H2S (gas unit)		R200/100 (°)	
WPS (ppm)	270,980	KCl (%)		R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
4	6.125	BAKER HUGHES	TD405FX			7163143	5x16	11,856.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
15,481.00	30.0/30.0	0	300.0	5,700.00	111.80	1.96	19.56	1.00	53.00	53.0	58.00	3,625.00	62.5
15,699.00	30.0/30.0	80	300.0	6,400.00	111.80	1.75	19.56	2.00	218.00	109.0	60.00	3,843.00	64.0
15,746.00	30.0/30.0	0	300.0	5,700.00	111.80	1.96	19.56	1.00	47.00	47.0	61.00	3,890.00	63.8
15,776.00	30.0/30.0	80	300.0	6,400.00	111.80	1.75	19.56	0.50	30.00	60.0	61.50	3,920.00	63.7
16,224.00	30.0/30.0	0	300.0	5,700.00	111.80	1.96	19.56	14.00	448.00	32.0	75.50	4,368.00	57.9

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	350	11,032.25	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	4.937		2.000	XT-39			1522746-14
33 STANDS 4" DRILL PIPE	94	2,959.38	4.000		2.800	XT-39			RIG
AGITATOR (1.45 PLATE) / SHOCK SUB	1	22.24	4.937		2.000	XT-39			W1619484-1
23 STANDS 4" DRILL PIPE	65	2,061.10	4.000		2.800	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921

EP WELLS DAILY OPERATIONS REPORT

Report 16

12/25/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
GAP SUB	1	3.80	5.062		3.500	3-1/2 IFB			G475-0121
CENTRALIZER SUB (EVO)	1	8.34	5.812		3.625	3-1/2 IFB			C475-0093
LANDING SUB (EVO)	1	3.42	5.812		3.125	3 1/2 IFB			L475-0112
CROSSOVER SUB (EVO)	1	2.40	4.750		3.750	3 1/2 IFB			X475-0042
NMPC	1	15.06	4.625		2.687	3 1/2 IFB			475-15-2233
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
BICO 5" MUD MOTOR, 6/7 LOBE, 8 STG. FBH SLICK @ 1.83°	1	32.01	5.000			3 1/2 IFB			475-D5-1211
BIT #4 RUN #1 6.125" BAKER TD405FX. 5x16's. SN: 7163143	1	0.89	6.125	6.125		3 1/2 REGP			7163143

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/22/2017 04:00				4	171.27		DRILL 6.125" PRODUCTION SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
15,481.00	215.0	140.00	0.00	215.00	0.0	0.0	53.00
15,699.00	215.0	140.00	176.00	39.00	11,000.0	6,000.0	218.00
15,746.00	215.0	140.00	0.00	215.00	0.0	0.0	47.00
15,776.00	215.0	140.00	176.00	39.00	11,000.0	6,000.0	30.00
16,224.00	215.0	140.00	0.00	215.00	0.0	0.0	448.00

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND : 10733 GAL
FUEL USED : 4593 GAL
FUEL DELIVERED : 4999 GAL

EP WELLS DAILY OPERATIONS REPORT

Report 17

12/26/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	16.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	10.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	16,493.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,969.99
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	269.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	20.00/83.33	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,016.00ft
Actual cost to date/AFE	1,130,662/4,448,670.00	Current MW / BH EMW(ppg)	13.00/
Actual divided by AFE	0.25	LOT/FIT EMW(ppg)	
Daily Cost	50,288	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	421	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/16/2017	10	JSA's/Toolbox Talks	
Last BOP function test	12/16/2017	10	Days Since Last Drill	16
Last BOP Test	01/06/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
TOOH, SWAP OUT BIT, MOTOR, AND MWD. TIH, DRILL FROM 16224' TO 16493'.
Update Since Report Time
@ 03:30 - DRILLING AHEAD AT 16848'.
24 Hour Forecast
DRILL AHEAD IN LATERAL.

EP WELLS DAILY OPERATIONS REPORT

Report 17

12/26/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.50	MNH1	TOH		16,224.00	1		NPT - TOOH FROM 8458' TO 131'. HOLE TAKING PROPER FILL.
3:30	4.50	MNH1	BHA		16,224.00	1		NPT - HANDLE BHA. L/D FILTER SUB AND 2 NMDCS. COME UP AND DRAIN MOTOR. BREAK BIT. 1-1-NO-A-X-I-NO-BHA. CHECK SCRIBE, FOUND IT TO BE 23° OFF. COME DOWN AND CHECK MWD TOOL. PULLED CASTLE NUT, NO PLAY IN TOOL. PULL TOOL ENSURING NO ROTATION, CAME OUT ON SCRIBE RIGHT WHERE IT SHOULD OF. LOWERED TOOL BACK IN AND ROTATED 360°, ONLY LOCKED INTO PROPER SPOT SO NO WASH IN COLLAR. L/D 1.83° MOTOR AND P/U 2.0° MOTOR, SCRIBE SAME. L/D OLD MWD AND P/U NEW. M/U NEW BIT. P/U NMDC'S AND FILTER SUB.
8:00	0.50	MNH1	TOH		16,224.00	1		NPT - CLEAN AND CLEAR FLOOR.
8:30	1.00	MNH1	TIH		16,224.00	1		NPT - TIH FROM 131' TO 2200'.
9:30	0.50	MNH1	BHA		16,224.00	1		NPT - P/U AGITATOR AND SHOCK SUB. PRESSURE BEFORE = 700 PSI @ 130 GPM, PRESSURE AFTER = 900 PSI @ 130 GPM.
10:00	4.50	MNH1	TIH		16,224.00	1		NPT - TIH FROM 2200' TO 11195'.
14:30	0.50	MNH1	SVC		16,224.00	1		NPT - RIG SERVICE.
15:00	1.50	MNH1	BHA		16,224.00	1		NPT - CHANGE OUT SAVER SUB.
16:30	2.50	MNH1	TIH		16,224.00	1		NPT - TIH FROM 11195' TO 15925'.
19:00	1.00	MNH1	TIH		16,224.00	1		NPT - WASH DOWN FROM 15925' TO 16224'.
20:00	1.00	MNH1	DRL		16,251.00	0		SLIDE FROM 16224' TO 16251' (27' @ 27 FPH) WOB: 30-40K PRESSURE & FLOW: 6000 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 13.0 PPG MOTOR: 0.85 RPG GAS: CG 2000 BG 1000
21:00	0.50	MNH1	DRL		16,326.00	0		ROTATE FROM 16251' TO 16326' (75' @ 150 FPH) WOB: 30K PRESSURE & FLOW: 6700 PSI @ 300 GPM RPM: SURFACE 50 MOTOR 255 BIT 305 TORQUE: ON BOT 13K OFF BOT 7K STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
21:30	1.00	MNH1	DRL		16,350.00	0		SLIDE FROM 16326' TO 16350' (24' @ 24 FPH) WOB: 30-40K PRESSURE & FLOW: 6000 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 13.0 PPG MOTOR: 0.85 RPG GAS: CG 2000 BG 1000
22:30	1.50	MNH1	DRL		16,493.00	0		ROTATE FROM 16350' TO 16493' (143' @ 95 FPH) WOB: 30K PRESSURE & FLOW: 6700 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 13-15K OFF BOT 7K STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000

EP WELLS DAILY OPERATIONS REPORT

Report 17

12/26/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Total 24.00

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
16,073.00	83.10	354.63	11,954.18	3,862.32	-1,678.58	4,180.46	7.52	PTW MWD_2016
16,162.00	82.04	347.71	11,965.70	3,949.48	-1,692.11	4,267.86	7.80	PTW MWD_2016
16,252.00	88.76	341.31	11,972.93	4,035.83	-1,716.07	4,357.45	10.29	PTW MWD_2016
16,342.00	90.48	338.06	11,973.52	4,120.21	-1,747.31	4,447.24	4.09	PTW MWD_2016
16,432.00	91.61	336.61	11,971.88	4,203.24	-1,781.98	4,536.71	2.04	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	57.00/18.00	POM (cc)	3.88 588.0
MD (ft)	16,224.00	TS/HGS/LGS (%)	23.00/15.70/7.30	CaCl2 (%)	
Mud Density (ppg)	13.00	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	84.00	Oil/Water Ratio (%)	76.00/24.00	ACT	
PV/YP (cp/lbf/100ft²)	20.00/13.000			XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	7.000/10.000	LCM (lbm/bbl)	13.000	ES (Volts)	
API/HTHP WL (cc/30min)	/8.0	ECD (ppg)		R600/300 (°)	
FC/HTHP FC (32nd")	/3.0	H2S (gas unit)		R200/100 (°)	
WPS (ppm)	270,980	KCl (%)		R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
5	6.125	BAKER HUGHES	DD405T			5273997	5x16	16,224.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
16,251.00	30.0/40.0	0	300.0	6,000.00	111.80	1.86	19.56	1.00	27.00	27.0	1.00	27.00	27.0
16,326.00	30.0/30.0	50	300.0	6,700.00	111.80	1.67	19.56	0.50	75.00	150.0	1.50	102.00	68.0
16,350.00	30.0/40.0	0	300.0	6,000.00	111.80	1.86	19.56	1.00	24.00	24.0	2.50	126.00	50.4
16,493.00	30.0/30.0	60	300.0	6,700.00	111.80	1.67	19.56	1.50	143.00	95.3	4.00	269.00	67.2

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	359	11,304.48	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	4.937		2.000	XT-39			1522746-14
33 STANDS 4" DRILL PIPE	94	2,959.38	4.000		2.800	XT-39			RIG
AGITATOR (1.45 PLATE) / SHOCK SUB	1	22.24	4.937		2.000	XT-39			W1619484-1
23 STANDS 4" DRILL PIPE	65	2,061.10	4.000		2.800	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
GAP SUB	1	3.80	5.062		3.500	3-1/2 IFB			G475-0121
CENTRALIZER SUB (EVO)	1	8.34	5.812		3.625	3-1/2 IFB			C475-0093
LANDING SUB (EVO)	1	3.42	5.812		3.125	3 1/2 IFB			L475-0112
CROSSOVER SUB (EVO)	1	2.40	4.750		3.750	3 1/2 IFB			X475-0042

EP WELLS DAILY OPERATIONS REPORT

Report 17

12/26/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
NMPC	1	15.06	4.625		2.687	3 1/2 IFB			475-15-2233
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
CATHEDRAL 5" MUD MOTOR, 6/7 LOBE, 8 STG. FBH SLICK @	1	28.77	5.000			3 1/2 IFB			488611
BIT #5 RUN #1 6.125" BAKER DD405T, 5x16's, SN: 5273997	1	0.90	6.125	6.125		3 1/2 REGP			5273997

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/26/2017 08:30				5	168.04		DRILL 6.125" PRODUCTION SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
16,251.00	230.0	140.00	0.00	230.00	0.0	0.0	27.00
16,326.00	230.0	140.00	175.00	55.00	13,000.0	7,000.0	75.00
16,350.00	230.0	140.00	0.00	230.00	0.0	0.0	24.00
16,493.00	230.0	140.00	175.00	55.00	15,000.0	7,000.0	143.00

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
4	6.125	BAKER HUGHES	TD405FX			7163143	5x16	11,856.00	16,224.00	1-1-NO-A-X-I-NO-BHA

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	350	11,032.25	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	4.937		2.000	XT-39			1522746-14
33 STANDS 4" DRILL PIPE	94	2,959.38	4.000		2.800	XT-39			RIG
AGITATOR (1.45 PLATE) / SHOCK SUB	1	22.24	4.937		2.000	XT-39			W1619484-1
23 STANDS 4" DRILL PIPE	65	2,061.10	4.000		2.800	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
GAP SUB	1	3.80	5.062		3.500	3-1/2 IFB			G475-0121
CENTRALIZER SUB (EVO)	1	8.34	5.812		3.625	3-1/2 IFB			C475-0093
LANDING SUB (EVO)	1	3.42	5.812		3.125	3 1/2 IFB			L475-0112
CROSSOVER SUB (EVO)	1	2.40	4.750		3.750	3 1/2 IFB			X475-0042
NMPC	1	15.06	4.625		2.687	3 1/2 IFB			475-15-2233
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
BICO 5" MUD MOTOR, 6/7 LOBE, 8 STG. FBH SLICK @ 1.83°	1	32.01	5.000			3 1/2 IFB			475-D5-1211
BIT #4 RUN #1 6.125" BAKER TD405FX, 5x16's, SN: 7163143	1	0.89	6.125	6.125		3 1/2 REGP			7163143

EP WELLS DAILY OPERATIONS REPORT

Report 17

12/26/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/22/2017 04:00	12/26/2017 08:00	4	339.31		DRILL 6.125" PRODUCTION SECTION

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND : 9445 GAL
FUEL USED : 1288 GAL
FUEL DELIVERED : 0 GAL

EP WELLS DAILY OPERATIONS REPORT

Report 18

12/27/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	17.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	11.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	18,553.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,956.87
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	2,060.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,016.00ft
Actual cost to date/AFE	1,223,695/4,448,670.00	Current MW / BH EMW(ppg)	12.85/
Actual divided by AFE	0.28	LOT/FIT EMW(ppg)	
Daily Cost	45,408	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	422	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/16/2017	11	JSA's/Toolbox Talks	17
Last BOP function test	12/16/2017	11	Days Since Last Drill	
Last BOP Test	01/06/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILLED FROM 16493' TO 18553'.
Update Since Report Time
@ 04:30 - DRILLING AHEAD AT 18942'.
24 Hour Forecast
DRILL TO TD ~19968', PUMP C/U CYCLES AND TOO H.

EP WELLS DAILY OPERATIONS REPORT

Report 18

12/27/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	2.00	MNH1	DRL		16,775.00	0		ROTATE FROM 16493' TO 16775' (282' @ 141 FPH) WOB: 30K PRESSURE & FLOW: 6700 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 13-15K OFF BOT 7K STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 13.0 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
2:00	1.00	MNH1	DRL		16,797.00	0		SLIDE FROM 16775' TO 16797' (22' @ 22 FPH) WOB: 30-50K PRESSURE & FLOW: 6000 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 750
3:00	0.50	MNH1	DRL		16,874.00	0		ROTATE FROM 16797' TO 16874' (77' @ 154 FPH) WOB: 30K PRESSURE & FLOW: 6700 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 13-14K OFF BOT 7K STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 1000
3:30	1.00	MNH1	DRL		16,891.00	0		SLIDE FROM 16874' TO 16891' (17' @ 17 FPH) WOB: 30-50K PRESSURE & FLOW: 5900 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 2000 BG 750
4:30	6.50	MNH1	DRL		17,760.00	0		ROTATE FROM 16891' TO 17760' (869' @ 134 FPH) WOB: 30K PRESSURE & FLOW: 6800 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 13-15K OFF BOT 7K STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 3000 BG 1000
11:00	5.00	MNH1	DRL		17,870.00	0		SLIDE FROM 17760' TO 17870' (110' @ 22 FPH) WOB: 30-50K PRESSURE & FLOW: 5900 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 2200 BG 900
16:00	1.00	MNH1	DRL		17,935.00	0		ROTATE FROM 17870' TO 17935' (65' @ 65 FPH) WOB: 30K PRESSURE & FLOW: 6700 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 13-14K OFF BOT 7K STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 12.9 PPG MOTOR: 0.81 RPG

EP WELLS DAILY OPERATIONS REPORT

Report 18

12/27/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								GAS: CG 1800 BG 750
17:00	1.00	MNH1	DRL		17,957.00	0		SLIDE FROM 17935' TO 17957' (22' @ 22 FPH) WOB: 30-50K PRESSURE & FLOW: 6000 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 2200 BG 900
18:00	1.50	MNH1	DRL		18,121.00	0		ROTATE FROM 17957' TO 18121' (164' @ 110 FPH) WOB: 30K PRESSURE & FLOW: 6700 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 13-14K OFF BOT 7K STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 1800 BG 750
19:30	1.00	MNH1	DRL		18,137.00	0		SLIDE FROM 18121' TO 18137' (16' @ 16 FPH) WOB: 30-50K PRESSURE & FLOW: 5900 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 2200 BG 900
20:30	3.50	MNH1	DRL		18,553.00	0		ROTATE FROM 18137' TO 18553' (416' @ 119 FPH) WOB: 30K PRESSURE & FLOW: 6700 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 13-14K OFF BOT 7K STRING WEIGHT: P/U 230K S/O 140K ROT 175K MW: 12.9 PPG MOTOR: 0.81 RPG GAS: CG 1800 BG 750
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
18,136.00	89.71	342.27	11,954.84	5,786.99	-2,399.18	6,230.65	2.58	PTW MWD_2016
18,225.00	89.84	342.86	11,955.19	5,871.90	-2,425.84	6,319.64	0.68	PTW MWD_2016
18,315.00	89.51	343.21	11,955.70	5,957.98	-2,452.10	6,409.64	0.53	PTW MWD_2016
18,405.00	89.64	343.26	11,956.36	6,044.15	-2,478.06	6,499.63	0.15	PTW MWD_2016
18,494.00	89.78	344.02	11,956.81	6,129.55	-2,503.13	6,588.63	0.87	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	58.00/18.00	POM (cc)	
MD (ft)	17,920.00	TS/HGS/LGS (%)	22.00/15.60/6.40	CaCl2 (%)	
Mud Density (ppg)	12.85	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	70.00	Oil/Water Ratio (%)	76.30/23.70	ACT	
PV/YP (cp/lbf/100ft²)	21.00/12.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	5.31
Gels 10 s/m (lbf/100ft²)	8.000/11.000	ECD (ppg)	14.720	ES (Volts)	606.0
API/HTHP WL (cc/30min)	/8.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/3.0	KCl (%)		R200/100 (°)	
WPS (ppm)	266,074			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

EP WELLS DAILY OPERATIONS REPORT

Report 18

12/27/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
5	6.125	BAKER HUGHES	DD405T			5273997	5x16	16,224.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
16,775.00	30.0/30.0	60	300.0	6,700.00	111.80	1.67	19.56	2.00	282.00	141.0	6.00	551.00	91.8
16,797.00	30.0/50.0	0	300.0	6,000.00	110.94	1.85	19.41	1.00	22.00	22.0	7.00	573.00	81.9
16,874.00	30.0/30.0	60	300.0	6,700.00	110.94	1.66	19.41	0.50	77.00	154.0	7.50	650.00	86.7
16,891.00	30.0/50.0	0	300.0	5,900.00	110.94	1.88	19.41	1.00	17.00	17.0	8.50	667.00	78.5
17,760.00	30.0/30.0	60	300.0	6,800.00	110.94	1.63	19.41	6.50	869.00	133.7	15.00	1,536.00	102.4
17,870.00	30.0/50.0	0	300.0	5,900.00	110.94	1.88	19.41	5.00	110.00	22.0	20.00	1,646.00	82.3
17,935.00	30.0/30.0	60	300.0	6,700.00	110.94	1.66	19.41	1.00	65.00	65.0	21.00	1,711.00	81.5
17,957.00	30.0/50.0	0	300.0	6,000.00	110.94	1.85	19.41	1.00	22.00	22.0	22.00	1,733.00	78.8
18,121.00	30.0/30.0	60	300.0	6,700.00	110.94	1.66	19.41	1.50	164.00	109.3	23.50	1,897.00	80.7
18,137.00	30.0/50.0	0	300.0	5,900.00	110.94	1.88	19.41	1.00	16.00	16.0	24.50	1,913.00	78.1
18,553.00	30.0/30.0	60	300.0	6,700.00	110.94	1.66	19.41	3.50	416.00	118.9	28.00	2,329.00	83.2

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	424	11,304.48	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	4.937		2.000	XT-39			1522746-14
33 STANDS 4" DRILL PIPE	94	2,959.38	4.000		2.800	XT-39			RIG
AGITATOR (1.45 PLATE) / SHOCK SUB	1	22.24	4.937		2.000	XT-39			W1619484-1
23 STANDS 4" DRILL PIPE	65	2,061.10	4.000		2.800	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
GAP SUB	1	3.80	5.062		3.500	3-1/2 IFB			G475-0121
CENTRALIZER SUB (EVO)	1	8.34	5.812		3.625	3-1/2 IFB			C475-0093
LANDING SUB (EVO)	1	3.42	5.812		3.125	3 1/2 IFB			L475-0112
CROSSOVER SUB (EVO)	1	2.40	4.750		3.750	3 1/2 IFB			X475-0042
NMPC	1	15.06	4.625		2.687	3 1/2 IFB			475-15-2233
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
CATHEDRAL 5" MUD MOTOR, 6/7 LOBE. 8 STG. FBH SLICK @	1	28.77	5.000			3 1/2 IFB			488611
BIT #5 RUN #1 6.125" BAKER DD405T, 5x16's. SN: 5273997	1	0.90	6.125	6.125		3 1/2 REGP			5273997

EP WELLS DAILY OPERATIONS REPORT

Report 18

12/27/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/26/2017 08:30				5	168.04		DRILL 6.125" PRODUCTION SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
16,775.00	230.0	140.00	175.00	55.00	15,000.0	7,000.0	282.00
16,797.00	230.0	140.00	0.00	230.00	0.0	0.0	22.00
16,874.00	230.0	140.00	175.00	55.00	14,000.0	7,000.0	77.00
16,891.00	230.0	140.00	0.00	230.00	0.0	0.0	17.00
17,760.00	230.0	140.00	175.00	55.00	15,000.0	7,000.0	869.00
17,870.00	230.0	140.00	0.00	230.00	0.0	0.0	110.00
17,935.00	230.0	140.00	175.00	55.00	14,000.0	7,000.0	65.00
17,957.00	230.0	140.00	0.00	230.00	0.0	0.0	22.00
18,121.00	230.0	140.00	175.00	55.00	14,000.0	7,000.0	164.00
18,137.00	230.0	140.00	0.00	230.00	0.0	0.0	16.00
18,553.00	230.0	140.00	175.00	55.00	14,000.0	7,000.0	416.00

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND : 4843 GAL
FUEL USED : 4602 GAL
FUEL DELIVERED : 0 GAL

EP WELLS DAILY OPERATIONS REPORT

Report 19

12/28/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	18.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	12.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	19,473.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,949.87
Other Supervisor	YU LIU	24 Hr Progress(ft)	920.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	4.500in@20,016.00ft 12.90/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,265,700/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.28	LOT/FIT EMW(ppg)	
Daily Cost	41,606	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	423	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
NO HSE ISSUES							
MAN HOURS - 326 HRS							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	18
Last Derrick Inspection	12/16/2017	12		
Last BOP function test	12/16/2017	12		
Last BOP Test	12/16/2017			
Next BOP Test	01/06/2018			

Operations Summary

24 Hour Summary
ROTATE/SLIDE FROM 18,553' T/19,473'
Update Since Report Time
ROTATE/SLIDE T/19815' @3:40AM
24 Hour Forecast
PERFORM CLEAN UP CYCLES, POOH

EP WELLS DAILY OPERATIONS REPORT

Report 19

12/28/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.50	MNH1	DRL		18,748.00	0		ROTATE FROM 18553' TO 18748' (195' @ 130 FPH) WOB: 32K PRESSURE & FLOW: 6700 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 313 TORQUE: ON BOT 16K OFF BOT 7K STRING WEIGHT: P/U 220K S/O 100K ROT 175K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 1800 BG 750
1:30	1.00	MNH1	DRL		18,763.00	0		SLIDE FROM 18748' TO 18763' (15' @ 15 FPH) WOB: 25K PRESSURE & FLOW: 6100 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 220K S/O 100K ROT 175K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 2200 BG 900
2:30	1.50	MNH1	DRL		18,933.00	0		ROTATE FROM 18763' TO 18933' (170' @ 113 FPH) WOB: 32K PRESSURE & FLOW: 6700 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 313 TORQUE: ON BOT 16K OFF BOT 7K STRING WEIGHT: P/U 220K S/O 100K ROT 175K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 1800 BG 750
4:00	1.00	MNH1	DRL		18,953.00	0		SLIDE FROM 18933' TO 18953' (20' @ 20 FPH) WOB: 25K PRESSURE & FLOW: 6100 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 220K S/O 100K ROT 175K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 2200 BG 900
5:00	0.50	MNH1	DRL		19,002.00	0		ROTATE FROM 18953' TO 19002' (49' @ 98 FPH) WOB: 32K PRESSURE & FLOW: 6700 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 313 TORQUE: ON BOT 16K OFF BOT 7K STRING WEIGHT: P/U 220K S/O 100K ROT 175K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 1800 BG 750
5:30	0.50	MNH1	SVC		19,002.00	0		GREASE TOP DRVIE
6:00	1.50	MNH1	DRL		19,195.00	0		ROTATE FROM 19002' TO 19195' (193' @ 129 FPH) WOB: 30K PRESSURE & FLOW: 6880 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 16K OFF BOT 7K STRING WEIGHT: P/U 245K S/O 120K ROT 163K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 1800 BG 750
7:30	2.00	MNH1	DRL		19,206.00	0		SLIDE FROM 19195' TO 19206' (11' @ 5.5 FPH) WOB: 25K PRESSURE & FLOW: 6100 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 220K S/O 100K ROT 175K

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Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 2200 BG 900
9:30	1.50	MNH1	LDS		19,206.00	0		RACK BACK WASHED STAND, CHANGE OUT SUB ON TOP DRIVE
11:00	2.00	MNH1	CDM		19,206.00	0		CONDITION MUD AND CIRCULATE CLEAN UP CYCLE
13:00	5.00	MNH1	DRL		19,250.00	0		SLIDE FROM 19206' TO 19250' (44' @ 8.8 FPH) WOB: 25K PRESSURE & FLOW: 6100 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 220K S/O 100K ROT 175K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 2200 BG 900
18:00	0.50	MNH1	DRL		19,255.00	0		SLIDE FROM 19250' TO 19255' (5' @ 10 FPH) WOB: 25K PRESSURE & FLOW: 6100 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 220K S/O 100K ROT 175K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 2200 BG 900
18:30	0.50	MNH1	DRL		19,269.00	0		ROTATE FROM 19255' TO 19269' (14' @ 28 FPH) WOB: 30K PRESSURE & FLOW: 6880 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 12K OFF BOT 6K STRING WEIGHT: P/U 240K S/O 120K ROT 170K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 1800 BG 750
19:00	0.50	MNH1	SVC		19,269.00	0		GREASE TOP DRIVE
19:30	0.50	MNH1	DRL		19,316.00	0		ROTATE FROM 19269' TO 19316' (47' @ 94 FPH) WOB: 30K PRESSURE & FLOW: 6880 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 12K OFF BOT 6K STRING WEIGHT: P/U 240K S/O 120K ROT 170K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 1800 BG 750
20:00	2.50	MNH1	DRL		19,360.00	0		SLIDE FROM 19316' TO 19360' (44' @ 17.6 FPH) WOB: 25K PRESSURE & FLOW: 6100 PSI @ 300 GPM RPM: SURFACE 0 MOTOR 255 BIT 255 STRING WEIGHT: P/U 220K S/O 100K ROT 175K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 2200 BG 900
22:30	1.50	MNH1	DRL		19,473.00	0		ROTATE FROM 19360' TO 19473' (113' @ 75 FPH) WOB: 30K PRESSURE & FLOW: 6880 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 12K OFF BOT 6K STRING WEIGHT: P/U 240K S/O 120K ROT 170K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 1800 BG 750

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Total 24.00

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,122.00	90.45	334.20	11,953.86	6,724.25	-2,701.37	7,215.17	5.27	PTW MWD_2016
19,122.00	90.45	334.20	11,953.86	6,724.33	-2,700.98	7,215.13	5.27	PTW MWD+HDGM_2016
19,212.00	90.04	331.78	11,953.47	6,804.43	-2,742.24	7,303.66	2.73	PTW MWD_2016
19,301.00	91.81	336.39	11,952.03	6,884.44	-2,781.12	7,391.44	5.55	PTW MWD_2016
19,391.00	90.05	342.69	11,950.57	6,968.71	-2,812.55	7,481.17	7.27	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	59.50/16.00	POM (cc)	5.05 704.0
MD (ft)	19,235.00	TS/HGS/LGS (%)	22.70/15.50/7.10	CaCl2 (%)	
Mud Density (ppg)	12.90	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	65.00	Oil/Water Ratio (%)	78.80/21.20	ACT	
PV/YP (cp/lbf/100ft²)	22.00/11.000	LCM (lbm/bbl) ECD (ppg) H2S (gas unit) KCl (%)	14.920	XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	7.000/11.000			ES (Volts)	
API/HTHP WL (cc/30min)	/8.0			R600/300 (°)	
FC/HTHP FC (32nd")	/3.0			R200/100 (°)	
WPS (ppm)	283,103			R6/3 (°)	
FL temp. (°F)				Ditch Magnet in Last 24hrs/Cum. (gm)	

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
5	6.125	BAKER HUGHES	DD405T			5273997	5x16	16,224.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
18,748.00	32.0/32.0	60	300.0	6,700.00	110.94	1.66	19.41	1.50	195.00	130.0	29.50	2,524.00	85.6
18,763.00	25.0/25.0	0	300.0	6,100.00	110.94	1.82	19.41	1.00	15.00	15.0	30.50	2,539.00	83.2
18,933.00	32.0/32.0	60	300.0	6,700.00	110.94	1.66	19.41	1.50	170.00	113.3	32.00	2,709.00	84.7
18,953.00	25.0/25.0	0	300.0	6,100.00	110.94	1.82	19.41	1.00	20.00	20.0	33.00	2,729.00	82.7
19,002.00	32.0/32.0	60	300.0	6,700.00	110.94	1.66	19.41	0.50	49.00	98.0	33.50	2,778.00	82.9
19,195.00	30.0/30.0	60	300.0	6,880.00	110.94	1.61	19.41	1.50	193.00	128.7	35.00	2,971.00	84.9
19,206.00	25.0/25.0	0	300.0	6,100.00	110.94	1.82	19.41	2.00	11.00	5.5	37.00	2,982.00	80.6
19,250.00	25.0/25.0	0	300.0	6,100.00	110.94	1.82	19.41	5.00	44.00	8.8	42.00	3,026.00	72.0
19,255.00	25.0/25.0	0	300.0	6,100.00	110.94	1.82	19.41	0.50	5.00	10.0	42.50	3,031.00	71.3
19,269.00	30.0/30.0	60	300.0	6,880.00	110.94	1.61	19.41	0.50	14.00	28.0	43.00	3,045.00	70.8
19,316.00	30.0/30.0	60	300.0	6,880.00	110.94	1.61	19.41	0.50	47.00	94.0	43.50	3,092.00	71.1
19,360.00	25.0/25.0	0	300.0	6,100.00	110.94	1.82	19.41	2.50	44.00	17.6	46.00	3,136.00	68.2
19,473.00	30.0/30.0	60	300.0	6,880.00	110.94	1.61	19.41	1.50	113.00	75.3	47.50	3,249.00	68.4

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	453	14,284.48	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	4.937		2.000	XT-39			1522746-14
33 STANDS 4" DRILL PIPE	94	2,959.38	4.000		2.800	XT-39			RIG
AGITATOR (1.45 PLATE) / SHOCK SUB	1	22.24	4.937		2.000	XT-39			W1619484-1
23 STANDS 4" DRILL PIPE	65	2,061.10	4.000		2.800	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511

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Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
GAP SUB	1	3.80	5.062		3.500	3-1/2 IFB			G475-0121
CENTRALIZER SUB (EVO)	1	8.34	5.812		3.625	3-1/2 IFB			C475-0093
LANDING SUB (EVO)	1	3.42	5.812		3.125	3 1/2 IFB			L475-0112
CROSSOVER SUB (EVO)	1	2.40	4.750		3.750	3 1/2 IFB			X475-0042
NMPC	1	15.06	4.625		2.687	3 1/2 IFB			475-15-2233
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
CATHEDRAL 5" MUD MOTOR, 6/7 LOBE, 8 STG. FBH SLICK @	1	28.77	5.000			3 1/2 IFB			488611
BIT #5 RUN #1 6.125" BAKER DD405T .5x16's. SN: 5273997	1	0.90	6.125	6.125		3 1/2 REGP			5273997

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/26/2017 08:30				5	168.04		DRILL 6.125" PRODUCTION SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
18,748.00	220.0	100.00	175.00	45.00	16,000.0	7,000.0	195.00
18,763.00	220.0	100.00	0.00	220.00	0.0	0.0	15.00
18,933.00	220.0	100.00	175.00	45.00	16,000.0	7,000.0	170.00
18,953.00	220.0	100.00	0.00	220.00	0.0	0.0	20.00
19,002.00	220.0	100.00	175.00	45.00	16,000.0	7,000.0	49.00
19,195.00	245.0	120.00	163.00	82.00	16,000.0	7,000.0	193.00
19,206.00	220.0	100.00	0.00	220.00	0.0	0.0	11.00
19,250.00	220.0	100.00	0.00	220.00	0.0	0.0	44.00
19,255.00	220.0	100.00	0.00	220.00	0.0	0.0	5.00
19,269.00	240.0	120.00	170.00	70.00	12,000.0	6,000.0	14.00
19,316.00	240.0	120.00	170.00	70.00	12,000.0	6,000.0	47.00
19,360.00	220.0	100.00	0.00	220.00	0.0	0.0	44.00
19,473.00	240.0	120.00	170.00	70.00	12,000.0	6,000.0	113.00

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND : 5839 GAL
FUEL USED : 4004 GAL
FUEL DELIVERED : 5000 GAL

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Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	19.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	13.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	19,950.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,948.67
Other Supervisor	YU LIU	24 Hr Progress(ft)	477.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	4.500in@20,016.00ft 13.10/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,305,668/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.29	LOT/FIT EMW(ppg)	
Daily Cost	39,968	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	424	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
NO HSE ISSUES							
MAN HOURS - 332 HRS							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks Days Since Last Drill	19
Last BOP function test	12/16/2017	13		
Last BOP Test	12/16/2017	13		
Next BOP Test	01/06/2018			

Operations Summary

24 Hour Summary
DRILL F/19,473' T/19,950', POOH T/8,930', POOH AND L/D DP F/8,930' T/2,035'
Update Since Report Time
POOH AND L/D DP, L/D BHA @4:30AM
24 Hour Forecast
RUN 4.5" LINER, CONDUCT CEMENT JOB, SET PACKER, UNSTING AND CIRCULATE OUT CEMENT, CONDUCT POSITIVE TEST, DISPLACE OBM WITH BRINE, CONDUCT NEGATIVE TEST, POOH AND L/D DP

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	5.00	MNH1	DRL		19,950.00	0		ROTATE FROM 19473' TO 19950' (477' @ 95.4 FPH) WOB: 30K PRESSURE & FLOW: 6880 PSI @ 300 GPM RPM: SURFACE 60 MOTOR 255 BIT 315 TORQUE: ON BOT 12K OFF BOT 6K STRING WEIGHT: P/U 240K S/O 120K ROT 170K MW: 12.9 PPG MOTOR: 0.85 RPG GAS: CG 1800 BG 750
5:00	0.50	MNH1	LDS		19,950.00	0		TAKE LAST SURVEY, LAY DOWN ONE SINGLE
5:30	0.50	MNH1	SVC		19,950.00	0		SERVICE TOP DRIVE
6:00	3.50	MNH1	CBU		19,950.00	0		CIRCULATE 3 BOTTOMS UP, PUMP SWEEPS
9:30	7.00	MNH1	TOH		19,950.00	0		POOH W/DP F/19950' T/14650'
16:30	0.50	MNH1	TOH		19,950.00	0		BOP DRILL
17:00	0.50	MNH1	TOH		19,950.00	0		POOH F/14650' T/10976'
17:30	0.50	MNH1	TOH		19,950.00	0		SERVICE TOP DRIVE
18:00	1.00	MNH1	TOH		19,950.00	0		POOH W/DP F/10976' T/8930'
19:00	3.00	MNH1	LDS		19,950.00	0		L/D DP F/8930' T/5200'
22:00	0.50	MNH1	BHA		19,950.00	0		L/D SHOCK SUB
22:30	1.50	MNH1	LDS		19,950.00	0		L/D DP F/4200' T/2350'
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,571.00	91.47	349.47	11,947.79	7,144.33	-2,851.31	7,660.55	0.71	PTW MWD_2016
19,661.00	90.35	347.83	11,946.36	7,232.56	-2,869.02	7,750.17	2.21	PTW MWD_2016
19,750.00	90.31	348.16	11,945.85	7,319.61	-2,887.53	7,838.89	0.37	PTW MWD_2016
19,840.00	89.12	348.38	11,946.30	7,407.73	-2,905.83	7,928.57	1.34	PTW MWD_2016
19,891.00	88.66	348.45	11,947.29	7,457.68	-2,916.07	7,979.36	0.91	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	58.00/16.00	POM (cc)	
MD (ft)	19,550.00	TS/HGS/LGS (%)	24.20/15.30/8.90	CaCl2 (%)	
Mud Density (ppg)	13.10	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	76.00	Oil/Water Ratio (%)	78.40/21.60	ACT	
PV/YP (cp/lbf/100ft²)	22.00/11.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	6.35
Gels 10 s/m (lbf/100ft²)	7.000/12.000	ECD (ppg)	13.100	ES (Volts)	758.0
API/HTHP WL (cc/30min)	/4.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/2.0	KCl (%)		R200/100 (°)	
WPS (ppm)	282,522			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
5	6.125	BAKER HUGHES	DD405T			5273997	5x16	16,224.00		-----

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12/29/2017

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Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
19,950.00	30.0/30.0	60	300.0	6,880.00	110.94	1.61	19.41	5.00	477.00	95.4	52.50	3,726.00	71.0

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	469	14,761.48	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	4.937		2.000	XT-39			1522746-14
33 STANDS 4" DRILL PIPE	94	2,959.38	4.000		2.800	XT-39			RIG
AGITATOR (1.45 PLATE) / SHOCK SUB	1	22.24	4.937		2.000	XT-39			W1619484-1
23 STANDS 4" DRILL PIPE	65	2,061.10	4.000		2.800	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
GAP SUB	1	3.80	5.062		3.500	3-1/2 IFB			G475-0121
CENTRALIZER SUB (EVO)	1	8.34	5.812		3.625	3-1/2 IFB			C475-0093
LANDING SUB (EVO)	1	3.42	5.812		3.125	3 1/2 IFB			L475-0112
CROSSOVER SUB (EVO)	1	2.40	4.750		3.750	3 1/2 IFB			X475-0042
NMPC	1	15.06	4.625		2.687	3 1/2 IFB			475-15-2233
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
CATHEDRAL 5" MUD MOTOR, 6/7 LOBE, 8 STG. FBH SLICK @	1	28.77	5.000			3 1/2 IFB			488611
BIT #5 RUN #1 6.125" BAKER DD405T, 5x16's, SN: 5273997	1	0.90	6.125	6.125		3 1/2 REGP			5273997

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/26/2017 08:30				5	168.04		DRILL 6.125" PRODUCTION SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
19,950.00	240.0	120.00	170.00	70.00	12,000.0	6,000.0	477.00

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND : 4057 GAL
FUEL USED : 1782 GAL
FUEL DELIVERED : GAL

EP WELLS DAILY OPERATIONS REPORT

Report 21

12/30/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	20.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	14.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	19,950.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,948.67
Other Supervisor	YU LIU	24 Hr Progress(ft)	19,950.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	4.500in@20,016.00ft 13.30/
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,415,157/4,448,670.00	Current MW / BH EMW(ppg)	
Actual divided by AFE	0.32	LOT/FIT EMW(ppg)	
Daily Cost	49,067	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	425	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
NO HSE ISSUES MAN HOURS - 367 HRS							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	20
Last Derrick Inspection	12/16/2017	14		
Last BOP function test	12/16/2017	14		
Last BOP Test	01/06/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
POOH AND L/D 4" DP, L/D BHA, R/U CASING CREW, RUN 4.5" LINER T/8837', P/U PACKER ASSEMBLY, RUN 4.5" LINER W/DP F/8837' T/19950'
Update Since Report Time
DROP BALL AND CIRCULATE, WAIT FOR BJ CEMENT TRUCK @4:00AM
24 Hour Forecast
CONDUCT CEMENT JOB, SET PACKER, UNSTING AND CIRCULATE CEMENT OUT, PERFORM POSITIVE TEST, CIRCULATE OUT OBM WITH BRINE, PERFORM NEGATIVE TEST, POOH AND L/D DP, PULL BIT GUIDE AND INSTALL BPV. PREPARE FOR RIG MOVE.

EP WELLS DAILY OPERATIONS REPORT

Report 21

12/30/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	MNH1	BHA		19,950.00	0		L/D AGITATOR
0:30	0.50	MNH1	LDS		19,950.00	0		L/D 4"DP F/2350' T/1424'
1:00	0.50	MNH1	TOH		19,950.00	0		PULL ROTATING HEAD
1:30	0.50	MNH1	TOH		19,950.00	0		POOH W/DP WET F/1424' T/107'
2:00	2.00	MNH1	BHA		19,950.00	0		PJSM, L/D BHA
4:00	0.50	MNH1	TOH		19,950.00	0		CLEAN RIG FLOOR
4:30	0.50	MNH1	SVC		19,950.00	0		GREASE TOP DRIVE
5:00	1.00	MNH1	RIC		19,950.00	0		PJSM, R/U CASING CREW
6:00	0.50	MNH1	RIC		19,950.00	0		PJSM
6:30	8.00	MNH1	CLR		19,950.00	0		RUN 4.5" LINER T/8837
14:30	0.50	MNH1	RCC		19,950.00	0		R/D CASING CREW
15:00	0.50	MNH1	RCC		19,950.00	0		CLEAN RIG FLOOR
15:30	1.00	MNH1	TIH		19,950.00	0		P/U HANGER ASSEMBLY, TIH W/DP F/8837' T/11041'
16:30	0.50	MNH1	TIH		19,950.00	0		INSTALL ROTATING HEAD
17:00	1.00	MNH1	TIH		19,950.00	0		TIH W/DP F/11041'
18:00	6.00	MNH1	TIH		19,950.00	0		TIH W/DP T/19950'
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,571.00	91.47	349.47	11,947.79	7,144.33	-2,851.31	7,660.55	0.71	PTW MWD_2016
19,661.00	90.35	347.83	11,946.36	7,232.56	-2,869.02	7,750.17	2.21	PTW MWD_2016
19,750.00	90.31	348.16	11,945.85	7,319.61	-2,887.53	7,838.89	0.37	PTW MWD_2016
19,840.00	89.12	348.38	11,946.30	7,407.73	-2,905.83	7,928.57	1.34	PTW MWD_2016
19,891.00	88.66	348.45	11,947.29	7,457.68	-2,916.07	7,979.36	0.91	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	58.00/16.00	POM (cc)	
MD (ft)	19,950.00	TS/HGS/LGS (%)	24.20/17.00/7.20	CaCl2 (%)	
Mud Density (ppg)	13.30	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	82.00	Oil/Water Ratio (%)	78.40/21.60	ACT	
PV/YP (cp/lbf/100ft²)	22.00/12.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	5.57
Gels 10 s/m (lbf/100ft²)	7.000/11.000	ECD (ppg)	13.300	ES (Volts)	766.0
API/HTHP WL (cc/30min)	/4.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/2.0	KCl (%)		R200/100 (°)	
WPS (ppm)	283,103			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
5	6.125	BAKER HUGHES	DD405T			5273997	5x16	16,224.00	19,950.00	-----

EP WELLS DAILY OPERATIONS REPORT

Report 21

12/30/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DRILL PIPE	469	14,761.48	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	4.937		2.000	XT-39			1522746-14
33 STANDS 4" DRILL PIPE	94	2,959.38	4.000		2.800	XT-39			RIG
AGITATOR (1.45 PLATE) / SHOCK SUB	1	22.24	4.937		2.000	XT-39			W1619484-1
23 STANDS 4" DRILL PIPE	65	2,061.10	4.000		2.800	XT-39			RIG
CROSSOVER SUB	1	4.10	5.250		2.500	XT-39			WST5921
FILTER SUB	1	4.62	5.000		2.750	3 1/2 IFB			MR47511
NMDC	1	30.28	4.625		2.750	3 1/2 IFB			475-30-4051
NMDC	1	30.27	4.687		2.750	3 1/2 IFB			475-30-4331
GAP SUB	1	3.80	5.062		3.500	3-1/2 IFB			G475-0121
CENTRALIZER SUB (EVO)	1	8.34	5.812		3.625	3-1/2 IFB			C475-0093
LANDING SUB (EVO)	1	3.42	5.812		3.125	3 1/2 IFB			L475-0112
CROSSOVER SUB (EVO)	1	2.40	4.750		3.750	3 1/2 IFB			X475-0042
NMPC	1	15.06	4.625		2.687	3 1/2 IFB			475-15-2233
FLOAT SUB	1	2.70	4.562		2.250	3 1/2 IFB			1872
CATHEDRAL 5" MUD MOTOR, 6/7 LOBE .8 STG. FBH SLICK @	1	28.77	5.000			3 1/2 IFB			488611
BIT #5 RUN #1 6.125" BAKER DD405T. 5x16's. SN: 5273997	1	0.90	6.125	6.125		3 1/2 REGP			5273997

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/26/2017 08:30	12/30/2017 02:00	5	168.04		DRILL 6.125" PRODUCTION SECTION

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND : 3500 GAL
FUEL USED : 5057 GAL
FUEL DELIVERED : GAL

EP WELLS DAILY OPERATIONS REPORT

Report 22

12/31/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	21.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	15.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	19,950.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,948.67
Other Supervisor	YU LIU	24 Hr Progress(ft)	0.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	6.50/27.08	Last Casing MD	4.500in@19,950.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,693,888/4,448,670.00	Current MW / BH EMW(ppg)	10.00/
Actual divided by AFE	0.38	LOT/FIT EMW(ppg)	
Daily Cost	237,318	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	426	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
NO HSE ISSUES MAN HOURS - 410 HRS							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	21
Last Derrick Inspection	12/16/2017	15		
Last BOP function test	12/16/2017	15		
Last BOP Test	12/16/2017			
Next BOP Test	01/06/2018			

Operations Summary

24 Hour Summary
WAIT FOR BJ CEMENT TRUCK. CEMENT 4.5" LINER, LAND PLUG WITH 1000 PSI OVER AND HOLD FOR 5 MINS, BLED BACK 2.25 BBLs, SET PACKER, UNSTING OUT AND CIRCULATE CEMENT OUT, CONDUCT POSITIVE TEST AT 2500 PSI FOR 5 MINS AND PASS THE SAME, DISPLACE OBM WITH BRINE WHILE HOLDING CONSTANT BOTTOM HOLE PRESSURE, CONDUCT NEGATIVE TEST AND PASS THE SAME, POOH AND L/D 4" DP F/11082' T/3930'
Update Since Report Time
CONT POOH AND L/D 4" DP TO SURFACE, TIH HWDP AND L/D THE SAME @4:00AM
24 Hour Forecast
POOH, PULL BIT GUIDE, INSTALL PACK OFF AND BPV, N/D BOP, INSTALL NIGHT CAP, PREPARE FOR RIG MOVE

EP WELLS DAILY OPERATIONS REPORT

Report 22

12/31/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	MNH1	CLR		19,950.00	0		PICK UP CEMENT HEAD AND DROP THE BALL
0:30	0.50	MNH1	CLR		19,950.00	0		P/U CEMENT HEAD
1:00	1.00	MNH1	CLR		19,950.00	0		CIRCULATE BALL DOWN
2:00	0.50	MNH1	CLR		19,950.00	0		LAND THE BALL, SHEAR RUNNING TOOL FROM LINER, BLOW BALL SEAT W/3500PSI
2:30	3.50	MNH1	CBU		19,950.00	1		NPT - CIRCULATE WHILE WAITING FOR BJ CEMENT BULK TRUCK
6:00	3.00	MNH1	CBU		19,950.00	1		NPT - CIRCULATE WHILE WAITING FOR BJ CEMENT BULK TRUCK
9:00	0.50	MNH1	RCC		19,950.00	0		R/U CEMENT LINES
9:30	3.50	MNH1	CEM		19,950.00	0		CEMENT 4.5" LINER TEST LINES TO 8000 PSI PUMP 50 BBLS 13.5 PPG ULTRA HV SPACER AT 4 BPM PUMP 185 BBLS 14.5 PPG PREMIUM H TAIL CEMENT AT 4 BPM SHUT DOWN AND WASH TO PIT PUMP 20 BBLS SUGAR WATER AT 3 BPM PUMP 105 BBLS 10 PPG BRINE AT 2 BPM PUMP 20 BBLS SUGAR WATER AT 2 BPM PUMP 110 BBLS 13.5 PPG OBM AT 3 BPM CHANGE RATE TO 3 BPM IN LAST 20 BBLS PUMP PLUG W/1000 PSI OVER FCP AT 3700 PSI BLED BACK 2.25 BBLS
13:00	4.00	MNH1	SLP		19,950.00	0		SET PACKER. UNSTING OUT AND CIRCULATE OUT CEMENT. CONDUCT POSTIVE TEST AT 2500 PSI FOR 5 MINS. DISPLACE OBM WITH BRINE WHILE HOLD CONST BTM PRESSURE. CONDUCT NEGATIVE TEST.
17:00	1.00	MNH1	TOH		19,950.00	0		BLOW OUT TOP DRIVE AND CHOKE LINES
18:00	6.00	MNH1	TOH		19,950.00	0		POOH AND L/D DP F/11082' T/3930'
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/31/2017 02:30	BJ SERVICES LLC	Wait On Personnel	19,950.00	CBU	N		6.50	6.50		OPEN
Description: CIRCULATE WHILE WAITING FOR BJ CEMENT BULK TRUCK						Title: WAIT ON BJ CEMENT BULK TRUCK				
Total							6.50	6.50		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,571.00	91.47	349.47	11,947.79	7,144.33	-2,851.31	7,660.55	0.71	PTW MWD_2016
19,661.00	90.35	347.83	11,946.36	7,232.56	-2,869.02	7,750.17	2.21	PTW MWD_2016
19,750.00	90.31	348.16	11,945.85	7,319.61	-2,887.53	7,838.89	0.37	PTW MWD_2016
19,840.00	89.12	348.38	11,946.30	7,407.73	-2,905.83	7,928.57	1.34	PTW MWD_2016
19,891.00	88.66	348.45	11,947.29	7,457.68	-2,916.07	7,979.36	0.91	PTW MWD_2016

EP WELLS DAILY OPERATIONS REPORT

Report 22

12/31/2017

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)	19,950.00	TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)	10.00	Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft ²)	1.00/3.000	LCM (lbm/bbl)	XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft ²)		ECD (ppg)	ES (Volts)
API/HTHP WL (cc/30min)		H2S (gas unit)	R600/300 (°)
FC/HTHP FC (32nd")		KCl (%)	R200/100 (°)
WPS (ppm)			R6/3 (°)
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)	

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND : 1080 GAL
FUEL USED : 1420 GAL
FUEL DELIVERED : GAL

EP WELLS DAILY OPERATIONS REPORT

Report 23

01/01/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	22.25
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	16.73
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	19,950.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,948.67
Other Supervisor	YU LIU	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	4.500in@19,950.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,731,297/4,448,670.00	Current MW / BH EMW(ppg)	10.00/
Actual divided by AFE	0.39	LOT/FIT EMW(ppg)	
Daily Cost	38,208	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	427	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
NO HSE ISSUES MAN HOURS - 359 HRS							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	22
Last Derrick Inspection	12/16/2017	16		
Last BOP function test	12/16/2017	16		
Last BOP Test	12/16/2017			
Next BOP Test	01/06/2018			

Operations Summary

24 Hour Summary
POOH AND L/D 4" DP. TIH WITH 4" HWDP AND L/D THE SAME. PULL BIT GUIDE, INSTALL BPV, INSTALL PACKOFF. N/D BOP. INSTALL NIGHT CAP. CLEAN TANKS.
Update Since Report Time
CONT PREPARE FOR RIG MOVE.
24 Hour Forecast
RIG MOVE

EP WELLS DAILY OPERATIONS REPORT

Report 23

01/01/2018

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.00	MNH1	TOH		19,950.00	0		POOH AND L/D DP F/3930' T/SURFACE. CLEAN PITS
3:00	0.50	MNH1	TOH		19,950.00	0		ATTEMP TO PULL ROTATING HEAD, UN FREEZE LINES
3:30	0.50	MNH1	TOH		19,950.00	0		L/D WEATHERFORD RUNNING TOOLS
4:00	1.00	MNH1	TOH		19,950.00	0		TIH W/4" HWDP AND L/D THE SAME
5:00	1.00	MNH1	RDP		19,950.00	0		M/U BIT GUIDE PULLING TOOL, SET IN WELL. BACK OUT 16 LOCK IN PINS.
6:00	4.00	MNH1	RDP		19,950.00	0		CONT CLEANING PITS. PULL BIT GUIDE. INSTALL BPV. INSTALL PACK OFF.
10:00	4.00	MNH1	RDP		19,950.00	0		CONT CLEANING PITS. N/D BOP. R/D ACCUMULATOR HOSES, KILL LINE, FLOWLINE. CLEAN CATCH CAN. REMOVE TURBUCKLES. L/D BOP. INSTALL WELL CAP.
14:00	4.00	RIGM	RGD		19,950.00	0		CLEAN CLEANING PITS. SET TOP DRIVE ON KNIVES AND SECURE SERVICE LOOP. UNSPOOL DRAWWORKS. INSTALL TOP DRIVE CARRIER.
18:00	1.50	RIGM	RGD		19,950.00	0		CONT CLEANING TANKS. PREP TO LOWER SUB. REMOVE CHOKE LINES.
19:30	1.00	RIGM	RGD		19,950.00	0		CLEANING TANKS. LOWER AND PIN SUBS.
20:30	2.50	RIGM	RGD		19,950.00	0		CONT CLEANING TANKS. MOVE CATWALK.
23:00	1.00	RIGM	RGD		19,950.00	0		CONT CLEANING TANKS. LOWER DERRICK ON DERRICK STAND.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,571.00	91.47	349.47	11,947.79	7,144.33	-2,851.31	7,660.55	0.71	PTW MWD_2016
19,661.00	90.35	347.83	11,946.36	7,232.56	-2,869.02	7,750.17	2.21	PTW MWD_2016
19,750.00	90.31	348.16	11,945.85	7,319.61	-2,887.53	7,838.89	0.37	PTW MWD_2016
19,840.00	89.12	348.38	11,946.30	7,407.73	-2,905.83	7,928.57	1.34	PTW MWD_2016
19,891.00	88.66	348.45	11,947.29	7,457.68	-2,916.07	7,979.36	0.91	PTW MWD_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)	19,950.00	TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)	10.00	Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft²)	1.00/3.000	LCM (lbm/bbl)	XS Lime(lbm/bbl)
Gels 10 s/m (lb/100ft²)		ECD (ppg)	ES (Volts)
API/HTHP WL (cc/30min)		H2S (gas unit)	R600/300 (°)
FC/HTHP FC (32nd")		KCl (%)	R200/100 (°)
WPS (ppm)			R6/3 (°)
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)	

PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

Remarks

FUEL ON HAND : 1080 GAL
FUEL USED : GAL
FUEL DELIVERED : GAL

EP WELLS DAILY OPERATIONS REPORT

Report 24

01/02/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 PW UNIT 2003H
Wellbore	UNIVERSITY 20 PW UNIT 2003H ST01
WBS No/API No	30242159 / 4230132937.01

Event Summary

Event Type	Drilling only	Event Start Date	12/10/2017	Days on Location	22.50
Objective	Drill - Sidetrack	Original Spud Date	07/29/2016	Days Since Spud	16.98
Est. Days	19.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	THOMAS DOWNES	Measured Depth(ft)	19,950.00
Engineer	JEFF MANKOWSKI	TVD(ft)	11,948.67
Other Supervisor	YU LIU	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,806.00 / 2,780.00	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	4.500in@19,950.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,776,081/4,448,670.00	Current MW / BH EMW(ppg)	10.00/
Actual divided by AFE	0.40	LOT/FIT EMW(ppg)	
Daily Cost	7,685	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	428	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
NO HSE ISSUES							
MAN HOURS - 325 HRS							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks Days Since Last Drill	23
Last BOP function test	12/16/2017	17		
Last BOP Test	12/16/2017	17		
Next BOP Test	01/06/2018			

Operations Summary

24 Hour Summary
CLEAN TANKS, PREPARE FOR RIG MOVE. RELEASE WELL TO UNIVERSITY 19 UNIT 1903 @6:00AM
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 24

01/02/2018

Well UNIVERSITY 20 PW UNIT 2003H
Wellbore UNIVERSITY 20 PW UNIT 2003H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	RIGM	RGD		19,950.00	0		CONT CLEANING TANKS. LOWER DERRICK. ROLL UP CABLES. RELEASE TO UNIVERSITY 19 PW UNIT 1903 @6:00AM
Total	6.00							

Deepest 5 Surveys

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MD (ft)	19,950.00	TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)	10.00	Sand (%)	Caom/Clom (ppm)
Vis (s/qt)	3.00	Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft²)		LCM (lbm/bbl)	XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)		ECD (ppg)	ES (Volts)
API/HTHP WL (cc/30min)		H2S (gas unit)	R600/300 (°)
FC/HTHP FC (32nd")		KCl (%)	R200/100 (°)
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