

EP WELLS DAILY OPERATIONS REPORT

Report 1

02/02/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	0.94
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	0.48
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	1,525.00
Engineer	POWER CHARLES	TVD(ft)	1,519.01
Other Supervisor	JOHNNY BRASSELL	24 Hr Progress(ft)	1,525.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	12.250
THF Datum			
Daily NPT(hr/%)	0.50/2.22	Last Casing MD	20.000in@145.65ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	9.625in@4,500.00ft
		Current Fluid Density(ppg)	8.45
		LOT/FIT EMW(ppg)	
		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	10/13/2016	112	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	5 5
Safety Comments:	H2S SAFETY, USE OF PERSONAL MONITORS						

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	15
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test				

Operations Summary

24 Hour Summary
READY & WALK RIG, PRE-SPUD & DROPS INSP.,N/U CONDUCTOR, DRESS OUT RIG FLOOR EQUIP TO SPUD(BELLS,ELEV,ETC), RIG SER, M/U BHA, DRLG F/ 134' T/ 169',RE-TORQ, CONDUCTOR LEAKING, DRLG & SLIDE F/ 169' T/ 1071', INST ROT-HEAD, DRLG F/ 1071' T/ 1525'
Update Since Report Time
DRLG @ 2404'
24 Hour Forecast
CONT DRLG 12.25 SEC AS PER PLAN

EP WELLS DAILY OPERATIONS REPORT

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02/02/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
1:30	6.00	SRF1	WLK		145.65	0	PULL MOUSE HOLES, LAY OVER V-DOOR,RIG DOWN BACK YARD,MOVE CROWN STAND,WALK CATWALK & RIG 20', RAISE V-DOOR & ADJUST
7:30	1.00	SRF1	SSD		145.65	0	PRE-SPUD & DROPS INSP.
8:30	1.00	SRF1	RUP		145.65	0	N/U CONDUCTOR
9:30	0.50	SRF1	RUP		145.65	0	DRESS OUT RIG FLOOR EQUIP TO SPUD(BELLS,ELEV,ETC)
10:00	0.50	SRF1	SVC		145.65	0	RIG SERVICE
10:30	2.00	SRF1	BHA		145.65	0	M/U BHA
12:30	0.50	SRF1	DRL		169.00	0	ROTATE F/ 145.65' T/ 169' (23.35' @ 70 FPH) WOB : 10K RPM : SURFACE 30 MOTOR 50 BIT 80 PRESSURE/FLOW : 300 PSI @ 305 GPM TORQUE : ON BOT 5-6K OFF BOT 2K STRING WEIGHT : P/U 45K S/O 45K ROT 45K MW : 8.8 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
13:00	0.50	SRF1	DRL		169.00	1	NPT-RE-TORQ, CONDUCTOR LEAKING
13:30	0.50	SRF1	DRL		205.00	0	ROTATE F/ 169' T/ 205' (36' @ 72 FPH) WOB : 10K RPM : SURFACE 30 MOTOR 50 BIT 80 PRESSURE/FLOW : 300 PSI @ 305 GPM TORQUE : ON BOT 5-6K OFF BOT 2K STRING WEIGHT : P/U 45K S/O 45K ROT 45K MW : 8.8 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
14:00	1.00	SRF1	DRL		328.00	0	SLIDE F/ 205' T/ 328' (123' @ 123 FPH) WOB : 10-20K RPM : SURFACE 0 MOTOR 64 BIT 185 PRESSURE/FLOW : 900 PSI @ 400 GPM STRING WEIGHT : P/U 55K S/O 55K ROT 0K MW : 9.1 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
15:00	6.00	SRF1	DRL		1,071.00	0	ROTATE F/ 328' T/ 1071' (743' @ 123 FPH) WOB : 30K RPM : SURFACE 80 MOTOR 131 BIT 210 PRESSURE/FLOW : 2950 PSI @ 820 GPM TORQUE : ON BOT 5-10K OFF BOT 5K STRING WEIGHT : P/U 115K S/O 105K ROT 110K MW : 9.1 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
21:00	0.50	SRF1	DRL		1,071.00	0	INST ROT-HEAD
21:30	2.50	SRF1	DRL		1,525.00	0	ROTATE F/ 1071' T/ 1525' (454' @ 181 FPH) WOB : 30K RPM : SURFACE 80 MOTOR 131 BIT 210 PRESSURE/FLOW : 2950 PSI @ 820 GPM TORQUE : ON BOT 5-10K OFF BOT 5K STRING WEIGHT : P/U 115K S/O 105K ROT 110K MW : 9.1 PPG

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
							MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
Total	22.50						

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
02/02/2017 13:00	SHELL	BOP & Pressure Control Equipment	169.00	DRL	EN	Conductor		0.50		OPEN
Description: RE-TORQ, CONDUCTOR LEAKING						Title: RE-TORQ, CONDUCTOR LEAKING				
Total								0.50		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
625.00	6.07	140.55	623.21	-27.11	25.98	37.55	0.23	PTW UNKNOWN_2016
813.00	5.63	140.52	810.23	-41.90	38.15	56.65	0.23	PTW UNKNOWN_2016
996.00	5.05	145.15	992.44	-55.44	48.46	73.55	0.39	PTW UNKNOWN_2016
1,175.00	5.50	142.35	1,170.68	-68.70	58.21	89.86	0.29	PTW UNKNOWN_2016
1,354.00	5.53	139.86	1,348.85	-82.08	69.01	106.99	0.13	PTW UNKNOWN_2016

Fluid Details

Mud type	Spud Mud	Oil/Water (%)	0.00/99.10	pH/Pm (cc)	8.00/0.00
MD (ft)	1,525.00	TS/HGS/LGS (%)	0.40//	Pf/Mf (cc)	0.00/0.20
Mud Density (ppg)	8.45	Sand (%)	0.00	Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	7600
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	8.450	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		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
1	12.250	NATIONAL OILWE	SK619M			A231037	3x14, 6x15	145.65		-----

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)
169.00	10.0/10.0	30	305.0	300.00	34.12	11.37	6.07	0.50	23.35	46.7	0.50	23.35	46.7
205.00	10.0/10.0	30	305.0	300.00	34.12	11.37	6.07	0.50	36.00	72.0	1.00	59.35	59.3
328.00	10.0/20.0	0	400.0	900.00	60.69	6.74	14.16	1.00	123.00	123.0	2.00	182.35	91.2
1,071.00	30.0/30.0	80	820.0	2,950.00	255.05	8.65	122.00	6.00	743.00	123.8	8.00	925.35	115.7
1,525.00	30.0/30.0	80	820.0	2,950.00	236.84	8.03	113.29	2.50	454.00	181.6	10.50	1,379.35	131.4

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5" DRILL PIPE	18	541.07	5.000		4.276	4 1/2 IF			RIG
5" HWDP	12	375.65	5.000			4-1/2 IF-B			RIG

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Wellbore UNIVERSITY 19 PW UNIT 1504H

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
CROSSOVER	1	3.39	6.750		2.750	4-1/2 IF-B			DR19254
6.5" DCS	15	466.35	6.500			4-1/2 XH-B			RIG
CROSSOVER	1	3.01	6.500		2.875	4-1/2 XH-B			DR24728
FILTER SUB	1	4.63	8.062		3.375	6-5/8 REG-B			MR800-113
STEEL STABILIZER	1	7.96	8.250		2.875	6-5/8 REG-B			DR32591
NMDC	1	28.59	8.062		3.250	6-5/8 REG-B			DR26737
NON-MAG STABILIZER	1	7.54	8.062		3.000	6-5/8 REG-B			DR21599
GAP SUB	1	3.55	8.062			6-5/8 REG-B			G800-003
CARRIER	1	8.52	8.250			6-5/8 REG-B			C800-0031
LANDING SUB	1	3.75	8.062			6-5/8 REG-B			L800-0005
CROSSOVER	1	3.27	8.000		3.250	6-5/8 REG-B			X800-0038
NMDC	1	28.84	8.000		3.125	6-5/8 REG-B			DR15919
STEEL STABILIZER	1	5.87	8.000		2.875	6-5/8 REG-B			DR17388
8" BICO MUD MOTOR, 7/8 LOBE, 4.0 STG. 1.5 FBH. RPG: 0.16 SN: BIT #1 RUN #1 12.25" NOV	1	31.99	8.000			6-5/8 REG-B			G629
SK619M. 3X14's. 6X15'S SN:	1	1.02	12.250	12.250		6-5/8 REG-P			A231037

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
02/02/2017 12:30				1	983.93		DRILL 12.25" SURFACE 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)
169.00	45.0	45.00	45.00	0.00	6,000.0	2,000.0	23.35
205.00	45.0	45.00	45.00	0.00	6,000.0	2,000.0	36.00
328.00	55.0	55.00	0.00	55.00	0.0	0.0	123.00
1,071.00	115.0	105.00	110.00	5.00	10,000.0	5,000.0	743.00
1,525.00	115.0	105.00	110.00	5.00	10,000.0	5,000.0	454.00

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

DIESEL ON HAND : 7307 GAL
DIESEL USED : 851 GAL
DIESEL RECEIVED : GAL
LNG USED : 44.50 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 2

02/03/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	1.94
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	1.48
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	4,800.00
Engineer	POWER CHARLES	TVD(ft)	4,786.83
Other Supervisor	JOHNNY BRASSELL	24 Hr Progress(ft)	3,275.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	12.250
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	20.000in@145.65ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	9.625in@4,500.00ft
		Current Fluid Density(ppg)	
		LOT/FIT EMW(ppg)	
		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	10/13/2016	113	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	3 8
Safety Comments:	CLOSING OUT OF CAR REPORT						

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	13 1
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test				

Operations Summary

24 Hour Summary
DRLG & SLIDE F/ 1525' T/ 2415', RIG SERVICE, DRLG & SLIDE F/ 2415' T/ 3843', RIG SERVICE, DRLG F/ 3843' T/ 4800', RIG SERVICE
Update Since Report Time
TOH TO RUN CSG.
24 Hour Forecast
COMPLETE TOH, N/D CONDUCTOR, R/U & RUN 9.5/8s CSG

EP WELLS DAILY OPERATIONS REPORT

Report 2

02/03/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	4.00	SRF1	DRL		2,325.00	0	ROTATE F/ 1525' T/ 2325' (800' @ 200 FPH) WOB : 30K RPM : SURFACE 80 MOTOR 131 BIT 210 PRESSURE/FLOW : 2950 PSI @ 820 GPM TORQUE : ON BOT 5-10K OFF BOT 5K STRING WEIGHT : P/U 115K S/O 105K ROT 110K MW : 9.1 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
4:00	0.50	SRF1	DRL		2,365.00	0	SLIDE F/ 2325' T/ 2365' (40' @ 80 FPH) WOB : 20-40K RPM : SURFACE 0 MOTOR 131 BIT 131 PRESSURE/FLOW : 900 PSI @ 820 GPM STRING WEIGHT : P/U 115K S/O 105K ROT 0K MW : 9.1 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
4:30	0.50	SRF1	DRL		2,415.00	0	ROTATE F/ 2365' T/ 2415' (50' @ 100 FPH) WOB : 40K RPM : SURFACE 80 MOTOR 131 BIT 210 PRESSURE/FLOW : 2950 PSI @ 820 GPM TORQUE : ON BOT 5-10K OFF BOT 5K STRING WEIGHT : P/U 115K S/O 105K ROT 110K MW : 9.6 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
5:00	0.50	SRF1	SVC		2,415.00	0	RIG SERVICE
5:30	2.50	SRF1	DRL		2,862.00	0	ROTATE F/ 2415' T/ 2862' (447' @ 178 FPH) WOB : 40K RPM : SURFACE 80 MOTOR 131 BIT 210 PRESSURE/FLOW : 2950 PSI @ 820 GPM TORQUE : ON BOT 5-10K OFF BOT 5K STRING WEIGHT : P/U 130K S/O 120K ROT 125K MW : 9.6 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
8:00	1.00	SRF1	DRL		2,897.00	0	SLIDE F/ 2862' T/ 2897' (35' @ 35 FPH) WOB : 20-40K RPM : SURFACE 0 MOTOR 131 BIT 131 PRESSURE/FLOW : 3200 PSI @ 820 GPM STRING WEIGHT : P/U 135K S/O 125K ROT 0K MW : 9.6 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
9:00	6.50	SRF1	DRL		3,843.00	0	ROTATE F/ 2897' T/ 3843' (946' @ 145 FPH) WOB : 40K RPM : SURFACE 80 MOTOR 138 BIT 218 PRESSURE/FLOW : 3700 PSI @ 860 GPM TORQUE : ON BOT 5-10K OFF BOT 5K STRING WEIGHT : P/U 140K S/O 130K ROT 135K MW : 9.6 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE

EP WELLS DAILY OPERATIONS REPORT

Report 2

02/03/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
15:30	0.50	SRF1	SVC		3,843.00	0	RIG SERVICE
16:00	7.50	SRF1	DRL		4,800.00	0	ROTATE F/ 3843' T/ 4800' (957' @ 127 FPH) WOB : 40K RPM : SURFACE 80 MOTOR 138 BIT 218 PRESSURE/FLOW : 3700 PSI @ 860 GPM TORQUE : ON BOT 5-10K OFF BOT 5K STRING WEIGHT : P/U 140K S/O 130K ROT 135K MW : 9.6 PPG MOTOR : 0.16 RPG GAS : NONE FLARE : NONE
23:30	0.50	SRF1	SVC		4,800.00	0	RIG SERVICE
Total	24.00						

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
3,322.00	0.89	17.81	3,310.44	-161.82	161.52	227.32	0.33	PTW UNKNOWN_2016
3,501.00	1.84	41.40	3,489.39	-158.34	163.84	226.95	0.61	PTW UNKNOWN_2016
3,680.00	1.81	18.17	3,668.30	-153.50	166.63	226.07	0.41	PTW UNKNOWN_2016
3,859.00	2.47	55.10	3,847.18	-148.60	170.67	226.14	0.83	PTW UNKNOWN_2016
4,038.00	3.13	55.40	4,025.96	-143.62	177.86	228.60	0.37	PTW UNKNOWN_2016

Fluid Details

Mud type MD (ft) Mud Density (ppg) Vis (s/qt) PV/YP (cp/lbf/100ft²) Gels 10 s/m (lbf/100ft²) API/HTHP WL (cc/30min) FC/HTHP FC (32nd") FL temp. (°F)	Spud Mud	Oil/Water (%) TS/HGS/LGS (%) Sand (%) MBT (lbm/bbl) LCM (lbm/bbl) ECD (ppg) H2S (gas unit) KCl (%) Ditch Magnet in Last 24hrs/Cum. (gm)	pH/Pm (cc) Pf/Mf (cc) Ca+ (ppm) Cl- (ppm) R600/300 (°) R200/100 (°) R6/3 (°)
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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	12.250	NATIONAL OILWE	SK619M			A231037	3x14, 6x15	145.65		-----

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.
5" DRILL PIPE	122	3,816.07	5.000		4.276	4 1/2 IF			RIG
5" HWDP	12	375.65	5.000			4-1/2 IF-B			RIG
CROSSOVER	1	3.39	6.750		2.750	4-1/2 IF-B			DR19254
6.5" DCS	15	466.35	6.500			4-1/2 XH-B			RIG
CROSSOVER	1	3.01	6.500		2.875	4-1/2 XH-B			DR24728

EP WELLS DAILY OPERATIONS REPORT

Report 2

02/03/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
FILTER SUB	1	4.63	8.062		3.375	6-5/8 REG-B			MR800-113
STEEL STABILIZER	1	7.96	8.250		2.875	6-5/8 REG-B			DR32591
NMDC	1	28.59	8.062		3.250	6-5/8 REG-B			DR26737
NON-MAG STABILIZER	1	7.54	8.062		3.000	6-5/8 REG-B			DR21599
GAP SUB	1	3.55	8.062			6-5/8 REG-B			G800-003
CARRIER	1	8.52	8.250			6-5/8 REG-B			C800-0031
LANDING SUB	1	3.75	8.062			6-5/8 REG-B			L800-0005
CROSSOVER	1	3.27	8.000		3.250	6-5/8 REG-B			X800-0038
NMDC	1	28.84	8.000		3.125	6-5/8 REG-B			DR15919
STEEL STABILIZER	1	5.87	8.000		2.875	6-5/8 REG-B			DR17388
8" BICO MUD MOTOR, 7/8 LOBE, 4.0 STG. 1.5 FBH. RPG: 0.16 SN:	1	31.99	8.000			6-5/8 REG-B			G629
BIT #1 RUN #1 12.25" NOV SK619M. 3X14's. 6X15'S SN:	1	1.02	12.250	12.250		6-5/8 REG-P			A231037

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
02/02/2017 12:30		1	983.93		DRILL 12.25" SURFACE 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

DIESEL ON HAND : 12217 GAL
DIESEL USED : 2598 GAL
DIESEL RECEIVED : 7508 GAL
LNG USED : 100.03 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 4

02/15/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	3.04
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	2.58
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	4,854.00
Engineer	POWER CHARLES	TVD(ft)	4,840.75
Other Supervisor	JOHNNY BRASSELL	24 Hr Progress(ft)	0.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	12.250
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	20.000in@145.65ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	9.625in@4,854.00ft
Actual cost to date/AFE	452,959/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.15	LOT/FIT EMW(ppg)	
Daily Cost	10,055	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/13/2016	125	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	1500
Safety Comments:	PD PRE-SPUD CHECK LIST & DROPS BEING DONE						

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			3	

Operations Summary

24 Hour Summary
RIGGING DOWN & PREP RIG TO WALK TO 1504H., WALK RIG F/ 1505H T/ 1504H, LEVEL & SQ RIG, R/U ON 1504H, NOTE: HELD PAUSE, OVER HOISTING OPERATIONS & SECUREMENT OF HOIST WHLIE NOT IN USE, LOOK UP AT TDS INSURE CABLE IS CLEAR, AND ALL PTW's ARE REVIEWED FOR EVERY TASK
Update Since Report Time
R/U ON 1504H
24 Hour Forecast
COMP R/U ON 1504H, M/U 8.3/4 VERT BHA, TIH, DRILL DV-TOOL, TIH, DRILL SHOE TRACK, & NEW FORMATION.

EP WELLS DAILY OPERATIONS REPORT

Report 4

02/15/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
16:00	6.50	SRF1	RCC		4,854.00	0		RIGGING DOWN & PREP RIG TO WALK TO 1504H.
22:30	1.50	INT1	WLK		4,854.00	0		WALK RIG F/ 1505H T/ 1504H, LEVEL & SQ RIG, R/U ON 1504H, NOTE: HELD PAUSE, OVER HOISTING OPERATIONS & SECUREMENT OF HOIST WHLIE NOT IN USE, LOOK UP AT TDS INSURE CABLE IS CLEAR, AND ALL PTW's ARE REVIEWED FOR EVERY TASK
Total	8.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
3,322.00	0.89	17.81	3,310.44	-161.82	161.52	227.32	0.33	PTW UNKNOWN_2016
3,501.00	1.84	41.40	3,489.39	-158.34	163.84	226.95	0.61	PTW UNKNOWN_2016
3,680.00	1.81	18.17	3,668.30	-153.50	166.63	226.07	0.41	PTW UNKNOWN_2016
3,859.00	2.47	55.10	3,847.18	-148.60	170.67	226.14	0.83	PTW UNKNOWN_2016
4,038.00	3.13	55.40	4,025.96	-143.62	177.86	228.60	0.37	PTW UNKNOWN_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	pH/Pm (cc) Pf/Mf (cc) Ca+ (ppm) Cl- (ppm) R600/300 (°) R200/100 (°) R6/3 (°)
MD (ft)		TS/HGS/LGS (%)	
Mud Density (ppg)		Sand (%)	
Vis (s/qt)		MBT (lbm/bbl)	
PV/YP (cp/lbf/100ft²)		LCM (lbm/bbl)	
Gels 10 s/m (lbf/100ft²)		ECD (ppg)	
API/HTHP WL (cc/30min)		H2S (gas unit)	
FC/HTHP FC (32nd")		KCl (%)	
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

DIESEL ON HAND : 12634 GAL
DIESEL USED : 617 GAL
DIESEL RECEIVED : 0 GAL
LNG USED : 21.04 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 5

02/16/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	4.04
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	3.58
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	4,854.00
Engineer	POWER CHARLES	TVD(ft)	4,841.27
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	0.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	1.50/6.25	Last Casing MD	9.625in@4,848.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@12,200.00ft
Actual cost to date/AFE	493,849/2,985,039.00	Current Fluid Density(ppg)	9.55
Actual divided by AFE	0.17	LOT/FIT EMW(ppg)	
Daily Cost	40,891	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/13/2016	126	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2 3 20 1500
Safety Comments:	PIN THAT HELD ONE OF THE PULLEYS ON FOR THE CLIMB ASSIST WEIGHT BUCKET CAME OUT, CAUSING THE PULLEY TO DESCEND TO THE RIG FLOOR. NO ONE WAS ON THE FLOOR AT THE TIME. INVESTIGATION IN PROGRESS.						

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	5
Last BOP function test			Days Since Last Drill	4
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary
FINISH R/U. M/U BHA AND TIH, DRILL DV TOOL, TIH TO FLOAT COLLAR, SLIP AND CUT DRILL LINE.
Update Since Report Time
@ 04:00 - DRILLING AHEAD AT 5446'.
24 Hour Forecast
DRILL AHEAD IN 8 3/4" HOLE.

EP WELLS DAILY OPERATIONS REPORT

Report 5

02/16/2017

Well
WellboreUNIVERSITY 19 PW UNIT 1504H
UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	INT1	WLK		4,854.00	0		ADJUST SUITCASES. MOVE MATTING AROUND TO CLOSE GAPS. ELECTRICIAN WORKING ON SHAKER #3. WORK THROUGH PRE-SPUD CHECKLIST. R/U CLIMB ASSIST AND GERONIMO LINE. LOWER BOP ONTO WELLHEAD. N/U FLOWLINE, F/U LINE, AND CATCH CAN DRAIN HOSES. R/U 4" AND 12" LINES ON FLARE SUITCASES. HAD SAFETY STANDDOWN FROM 0330 TO 0400 ON WEIGHT BUCKET INCIDENT. AFTER WALKING RIG AND GOING BACK UP TO FLOOR, CREW NOTICED PULLEY FROM WEIGHT BUCKET ON THE FLOOR.
6:00	6.00	INT1	WLK		4,854.00	0		R/U PVC FROM SHAKER PIT. FINISH R/U 12" FLARE LINE, FABRICATE 4" PANIC LINE. CENTER STACK AND TIGHTEN TURNBUCKLES. CHANGE OUT SHAKER SCREENS. REMOVE WEIGHT BUCKETS FOR CLIMB ASSIST.
12:00	1.00	INT1	PUP		4,854.00	0		L/O BHA. INSTALL WEAR BUSHING.
13:00	2.00	INT1	BHA		4,854.00	0		M/U BHA. INSTALL NEW WEIGHT BUCKET FOR CLIMB ASSIST.
15:00	1.00	INT1	TIH		4,854.00	0		TIH WITH DC'S FROM 124' TO 591'.
16:00	1.50	INT1	TIH		4,854.00	1		NPT - REMOVE FLOWLINE AND INSTALL NEW GASKET DUE TO LEAK.
17:30	0.50	INT1	TIH		4,854.00	0		TIH FROM 591' TO 970'.
18:00	0.50	INT1	TIH		4,854.00	0		TIH FROM 970' TO DV TOOL AT 1204'.
18:30	0.50	INT1	TIH		4,854.00	0		FILL PIPE AND BREAK CIRCULATION, CHECK ALL LINES FOR LEAKS.
19:00	0.50	INT1	DCM		4,854.00	0		DRILL OUT DV TOOL.
19:30	2.50	INT1	TIH		4,854.00	0		TIH FROM 1204' TO 4726'.
22:00	1.50	INT1	CUT		4,854.00	0		SLIP AND CUT 90'. PERFORM BRAKE CAPACITY TEST.
23:30	0.50	INT1	DCM		4,854.00	0		FILL PIPE, BREAK CIRCULATION, TAG FLOAT COLLAR AT 4759'.
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
02/16/2017 16:00	PRECISION DRILLING COMPANY LP	Rig/Work Unit Misc	4,854.00	TIH	N			1.50		OPEN
Description: REMOVE FLOWLINE AND INSTALL NEW GASKET DUE TO LEAK						Title: REMOVE FLOWLINE AND INSTALL NEW GASKET DUE TO LEAK				
Total								1.50		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
4,038.00	3.13	55.40	4,025.96	-143.62	177.86	223.49	0.37	PTW UNKNOWN_2016
4,217.00	2.47	49.93	4,204.75	-138.36	184.83	227.35	0.40	PTW UNKNOWN_2016
4,396.00	2.36	37.77	4,383.59	-132.97	190.04	229.56	0.29	PTW UNKNOWN_2016
4,575.00	1.97	49.14	4,562.47	-128.04	194.62	231.44	0.32	PTW UNKNOWN_2016
4,774.00	2.30	55.65	4,761.33	-123.55	200.51	234.67	0.21	PTW UNKNOWN_2016

EP WELLS DAILY OPERATIONS REPORT

Report 5

02/16/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/92.00	pH/Pm (cc)	8.50/0.10
MD (ft)	4,825.00	TS/HGS/LGS (%)	0.60/0.00/0.50	Pf/Mf (cc)	0.00/0.05
Mud Density (ppg)	9.55	Sand (%)	0.10	Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	128,000
PV/YP (cp/lbf/100ft ²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lb/100ft ²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)		R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		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
2	8.750	NATIONAL OILWE	TK76			E234668	7x16	4,854.00		-----

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.
5" DRILL PIPE	123	3,883.63	5.000		4.276				RIG
(4) STANDS HWDP	12	375.65				4-1/2 IF-B			RIG
CROSSOVER	1	3.39	6.750		2.750	4-1/2 IF-B			DR19254
(5) STANDS DCS	15	466.35	6.500			4-1/2 XH-B			RIG
FILTER SUB	1	4.68	6.750		3.250	4-1/2 XH-P			MR675-101
STEEL STABILIZER	1	5.13	6.187		2.500	4-1/2 XH-B			DR16738
NMDC	1	30.66	6.375		2.812	4-1/2 XH-B			DR13763
GAP SUB	1	3.58	6.500			4-1/2 XH-B			G650-0171
CARRIER	1	8.53	6.625			4-1/2 XH-B			C650-0108
LANDING SUB	1	3.50	6.625			4-1/2 XH-B			L650-0081
CROSSOVER	1	3.59	6.500		2.812	4-1/2 XH-B			X650-0070
NM STABILIZER	1	5.97	6.812		3.250	4-1/2 XH-B			DR30858
NMPC	1	12.70	6.500		3.250	4-1/2 XH-B			DR15698
STEEL STABILIZER	1	4.33	6.250		2.500	4-1/2 XH-B			DR16732
CROSSOVER	1	2.19	6.687		3.562	4-1/2 XH-B			DR26769
6-3/4" SCIENTIFIC MUD MOTOR, 7/8 LOBE, 9.4 STG, 1.5° FXD	1	39.12	7.000			5-1/2 FH-B			SP1700007
BIT #2 RUN #1 8.75" NOV TK76 7X16'S, SN: E234668	1	1.00	8.750	8.750		4-1/2 REG-P			E234668

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
02/16/2017 15:00		2	970.37		DRILL 8.75" INTERMEDIATE 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						

EP WELLS DAILY OPERATIONS REPORT

Report 5

02/16/2017

Well
WellboreUNIVERSITY 19 PW UNIT 1504H
UNIVERSITY 19 PW UNIT 1504H

Remarks

DIESEL ON HAND : 12007 GAL
DIESEL USED : 627 GAL
DIESEL RECEIVED : 0 GAL
LNG USED : 32.85 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 6

02/17/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	5.04
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	4.58
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	7,604.00
Engineer	POWER CHARLES	TVD(ft)	7,590.40
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	2,750.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@4,848.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@12,200.00ft
Actual cost to date/AFE	550,092/2,985,039.00	Current Fluid Density(ppg)	9.20
Actual divided by AFE	0.18	LOT/FIT EMW(ppg)	
Daily Cost	56,042	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/13/2016	127	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	1 4 20 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	4
Last BOP function test			Days Since Last Drill	5
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary
DRILLED SHOE TRACK. DRILL IN 8 3/4" HOLE FROM 4854' TO 7604' WITH LOSSES.
Update Since Report Time
@ 03:30 - DRILLING AHEAD AT 8026'.
24 Hour Forecast
DRILL AHEAD IN 8 3/4" HOLE TO KOP.

EP WELLS DAILY OPERATIONS REPORT

Report 6

02/17/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.00	INT1	DCM		4,854.00	0		DRILL SHOE TRACK FROM 4759' TO 4854'.
1:00	1.00	INT1	DRL		4,995.00	0		ROTATE F/ 4854' T/ 4995' (141' @ 141 FPH) WOB: 30-40K RPM: SURFACE 20 MOTOR 200 BIT 220 PRESSURE & FLOW: 3600 PSI @ 710 GPM TORQUE: 11.3K ON BOT 6.5K OFF BOT WEIGHTS: P/U 235K S/O 192K ROT 210K MW: 9.3 PPG MOTOR: 0.28 RPG GAS: BG 350 CG 500 FLARE: NONE
2:00	1.00	INT1	DRL		5,215.00	0		ROTATE F/ 4995' T/ 5215' (220' @ 220 FPH) WOB: 40-45K RPM: SURFACE 80 MOTOR 165 BIT 245 PRESSURE & FLOW: 2700 PSI @ 588 GPM TORQUE: ON BOT 11.3K OFF BOT 6.5K WEIGHTS: P/U 237K S/O 194K ROT 215K MW: 9.3 PPG MOTOR: 0.28 RPG GAS: BG 350 CG 500 FLARE: NONE *ENCOUNTERED FULL LOSSES @ 5000', CUT PUMP RATE BACK AND PUMPED FRESH WATER, REGAINED RETURNS @ 5090'.
3:00	2.00	INT1	DRL		5,650.00	0		ROTATE F/ 5215' T/ 5650' (435' @ 218 FPH) WOB: 40-45K RPM: SURFACE 80 MOTOR 200 BIT 280 PRESSURE & FLOW: 3400 PSI @ 710 GPM TORQUE: ON BOT 11.3K OFF BOT 6.5K WEIGHTS: P/U XXXK S/O XXXK ROT XXXK MW: 9.3 PPG MOTOR: 0.28 RPG GAS: BG 350 CG 500 FLARE: NONE
5:00	14.00	INT1	DRL		6,990.00	0		ROTATE F/ 5650' T/ 6990' (1340' @ 96 FPH) WOB: 20-40K RPM: SURFACE 80 MOTOR 140 BIT 220 PRESSURE & FLOW: 2000 PSI @ 500 GPM TORQUE: ON BOT 12K OFF BOT 8K WEIGHTS: P/U 264K S/O 218K ROT 223K MW: 9.1 PPG MOTOR: 0.28 RPG GAS: BG 700 CG 850 FLARE: NONE *ENCOUNTERED FULL LOSSES @ 5650', CUT PUMP RATE BACK AND PUMPED FRESH WATER, REGAINED PARTIAL RETURNS @ 6400'.
19:00	1.00	INT1	DRL		6,990.00	0		PICK UP OFF BOTTOM AND PUMP FRESH WATER AT REDUCED RATE TO TRY AND ESTABLISH FULL RETURNS. MW DOWN TO 8.9 PPG, 75% RETURNS.
20:00	4.00	INT1	DRL		7,604.00	0		ROTATE F/ 6990' T/ 7604' (614' @ 154 FPH) WOB: 40-45K RPM: SURFACE 20 MOTOR 140 BIT 160 PRESSURE & FLOW: 2600 PSI @ 500 GPM TORQUE: ON BOT 13.7K OFF BOT 8.5K WEIGHTS: P/U 278K S/O 228K ROT 234K MW: 8.8 PPG MOTOR: 0.28 RPG GAS: BG 1100 CG 1100

EP WELLS DAILY OPERATIONS REPORT

Report 6

02/17/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								FLARE: NONE
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
6,711.00	1.28	9.71	6,697.61	-83.55	232.33	165.42	0.12	PTW UNKNOWN_2016
6,890.00	1.17	1.09	6,876.57	-79.75	232.70	162.04	0.12	PTW UNKNOWN_2016
7,069.00	1.21	349.79	7,055.53	-76.07	232.40	158.52	0.13	PTW UNKNOWN_2016
7,247.00	1.28	303.81	7,233.49	-73.11	230.42	155.03	0.55	PTW UNKNOWN_2016
7,426.00	1.30	301.97	7,412.45	-70.92	227.03	151.72	0.03	PTW UNKNOWN_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/95.50	pH/Pm (cc)	7.00/0.05
MD (ft)	6,785.00	TS/HGS/LGS (%)	3.10/1.70/1.30	Pf/Mf (cc)	0.00/0.05
Mud Density (ppg)	9.20	Sand (%)	0.10	Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	26,000
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	9.330	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		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
2	8.750	NATIONAL OILWE	TK76			E234668	7x16	4,854.00		-----

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)
4,995.00	30.0/40.0	20	710.0	3,600.00	228.56	6.35	94.66	1.00	141.00	141.0	1.00	141.00	141.0
5,215.00	40.0/45.0	80	588.0	2,700.00	156.76	5.81	53.77	1.00	220.00	220.0	2.00	361.00	180.5
5,650.00	40.0/45.0	80	710.0	3,400.00	228.56	6.72	94.66	2.00	435.00	217.5	4.00	796.00	199.0
6,990.00	20.0/40.0	80	500.0	2,000.00	110.91	5.55	32.35	14.00	1,340.00	95.7	18.00	2,136.00	118.7
7,604.00	40.0/45.0	20	500.0	2,600.00	107.25	4.13	31.28	4.00	614.00	153.5	22.00	2,750.00	125.0

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5" DRILL PIPE	211	6,633.63	5.000		4.276				RIG
(4) STANDS HWDP	12	375.65				4-1/2 IF-B			RIG
CROSSOVER	1	3.39	6.750		2.750	4-1/2 IF-B			DR19254
(5) STANDS DCS	15	466.35	6.500			4-1/2 XH-B			RIG
FILTER SUB	1	4.68	6.750		3.250	4-1/2 XH-P			MR675-101
STEEL STABILIZER	1	5.13	6.187		2.500	4-1/2 XH-B			DR16738
NMDC	1	30.66	6.375		2.812	4-1/2 XH-B			DR13763
GAP SUB	1	3.58	6.500			4-1/2 XH-B			G650-0171
CARRIER	1	8.53	6.625			4-1/2 XH-B			C650-0108
LANDING SUB	1	3.50	6.625			4-1/2 XH-B			L650-0081

EP WELLS DAILY OPERATIONS REPORT

Report 6

02/17/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
CROSSOVER	1	3.59	6.500		2.812	4-1/2 XH-B			X650-0070
NM STABILIZER	1	5.97	6.812		3.250	4-1/2 XH-B			DR30858
NMPC	1	12.70	6.500		3.250	4-1/2 XH-B			DR15698
STEEL STABILIZER	1	4.33	6.250		2.500	4-1/2 XH-B			DR16732
CROSSOVER	1	2.19	6.687		3.562	4-1/2 XH-B			DR26769
6-3/4" SCIENTIFIC MUD MOTOR, 7/8 LOBE, 9.4 STG, 1.5° FXD.	1	39.12	7.000			5-1/2 FH-B			SP1700007
BIT #2 RUN #1 8.75" NOV TK76 7X16'S. SN: E234668	1	1.00	8.750	8.750		4-1/2 REG-P			E234668

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
02/16/2017 15:00				2	970.37		DRILL 8.75" INTERMEDIATE 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)
4,995.00	235.0	192.00	210.00	25.00	11,300.0	6,500.0	141.00
5,215.00	237.0	194.00	215.00	22.00	11,300.0	6,500.0	220.00
5,650.00				0.00	11,300.0	6,500.0	435.00
6,990.00	264.0	218.00	223.00	41.00	12,000.0	8,000.0	1,340.00
7,604.00	278.0	228.00	234.00	44.00	13,700.0	8,500.0	614.00

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

DIESEL ON HAND : 11090 GAL
DIESEL USED : 917 GAL
DIESEL RECEIVED : 0 GAL
LNG USED : 121.65 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 7

02/18/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	6.04
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	5.58
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	9,647.00
Engineer	POWER CHARLES	TVD(ft)	9,632.04
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	2,043.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@4,848.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@12,200.00ft
Actual cost to date/AFE	590,375/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.20	LOT/FIT EMW(ppg)	
Daily Cost	40,283	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/13/2016	128	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	4 1 20 1500
Safety Comments:							

Drills

Drill Category	Drill Type	Detection (sec)	Complete (sec)	Crew drilled	Pass / Fail	PIC	Comments
Well Control Crew	BOP	10.00	45.00	Day/Night	Pass	KEVIN BERGERON	GOOD DRILL

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	3
Last BOP function test			Days Since Last Drill	6
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary
DRILLED IN 8 3/4" HOLE FROM 7604' TO 9647'.
Update Since Report Time
@ 04:30 - DRILLED TO 9800' WHERE ROP FELL OFF TO 20-30 FPH. CURRENTLY TOOHT AT 8000'.
24 Hour Forecast
DRILL AHEAD TO KOP AT 10960'.

EP WELLS DAILY OPERATIONS REPORT

Report 7

02/18/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	4.50	INT1	DRL		8,124.00	0		ROTATE F/ 7604' T/ 8124' (520' @ 116 FPH) WOB: 40-45K RPM: SURFACE 20 MOTOR 140 BIT 160 PRESSURE & FLOW: 2600 PSI @ 500 GPM TORQUE: ON BOT 13.5K OFF BOT 8.5K WEIGHTS: P/U 278K S/O 228K ROT 234K MW: 8.8 PPG MOTOR: 0.28 RPG GAS: BG 1100 CG 1100 FLARE: NONE
4:30	0.50	INT1	SVC		8,124.00	0		RIG SERVICE
5:00	13.50	INT1	DRL		9,200.00	0		ROTATE F/ 8124' T/ 9200' (1076' @ 80 FPH) WOB: 40-45K RPM: SURFACE 20 MOTOR 140 BIT 160 PRESSURE & FLOW: 2900 PSI @ 500 GPM TORQUE: ON BOT 13.5K OFF BOT 8.5K WEIGHTS: P/U 302K S/O 260K ROT 271K MW: 8.8 PPG MOTOR: 0.28 RPG GAS: BG 1100 CG 1100 FLARE: NONE
18:30	5.50	INT1	DRL		9,647.00	0		ROTATE F/ 9200' T/ 9647' (447' @ 82 FPH) WOB: 40-45K RPM: SURFACE 60 MOTOR 182 BIT 242 PRESSURE & FLOW: 3300 PSI @ 650 GPM TORQUE: ON BOT 14K OFF BOT 8.5K WEIGHTS: P/U 320K S/O 274K ROT 280K MW: 8.8 PPG MOTOR: 0.28 RPG GAS: BG 1100 CG 1100 FLARE: NONE
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
8,858.00	1.97	230.07	8,843.96	-72.69	195.89	206.05	0.14	PTW UNKNOWN_2016
9,037.00	3.31	223.20	9,022.76	-78.44	190.00	203.80	0.77	PTW UNKNOWN_2016
9,216.00	3.46	211.85	9,201.45	-86.79	183.61	202.43	0.38	PTW UNKNOWN_2016
9,395.00	3.08	215.44	9,380.16	-95.30	177.97	201.79	0.24	PTW UNKNOWN_2016
9,574.00	0.89	224.39	9,559.05	-100.21	174.21	200.97	1.23	PTW UNKNOWN_2016

Fluid Details

Mud type MD (ft) Mud Density (ppg) Vis (s/qt) PV/YP (cp/lbf/100ft²) Gels 10 s/m (lbf/100ft²) API/HTHP WL (cc/30min) FC/HTHP FC (32nd") FL temp. (°F)	NaCl Brine	Oil/Water (%) TS/HGS/LGS (%) Sand (%) MBT (lbm/bbl) LCM (lbm/bbl) ECD (ppg) H2S (gas unit) KCl (%)	pH/Pm (cc) Pf/Mf (cc) Ca+ (ppm) Cl- (ppm) R600/300 (°) R200/100 (°) R6/3 (°)
		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	8.750	NATIONAL OILWE	TK76			E234668	7x16	4,854.00		-----

EP WELLS DAILY OPERATIONS REPORT

Report 7

02/18/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

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.
5" DRILL PIPE	275	8,676.63	5.000		4.276				RIG
(4) STANDS HWDP	12	375.65				4-1/2 IF-B			RIG
CROSSOVER	1	3.39	6.750		2.750	4-1/2 IF-B			DR19254
(5) STANDS DCS	15	466.35	6.500			4-1/2 XH-B			RIG
FILTER SUB	1	4.68	6.750		3.250	4-1/2 XH-P			MR675-101
STEEL STABILIZER	1	5.13	6.187		2.500	4-1/2 XH-B			DR16738
NMDC	1	30.66	6.375		2.812	4-1/2 XH-B			DR13763
GAP SUB	1	3.58	6.500			4-1/2 XH-B			G650-0171
CARRIER	1	8.53	6.625			4-1/2 XH-B			C650-0108
LANDING SUB	1	3.50	6.625			4-1/2 XH-B			L650-0081
CROSSOVER	1	3.59	6.500		2.812	4-1/2 XH-B			X650-0070
NM STABILIZER	1	5.97	6.812		3.250	4-1/2 XH-B			DR30858
NMPC	1	12.70	6.500		3.250	4-1/2 XH-B			DR15698
STEEL STABILIZER	1	4.33	6.250		2.500	4-1/2 XH-B			DR16732
CROSSOVER	1	2.19	6.687		3.562	4-1/2 XH-B			DR26769
6-3/4" SCIENTIFIC MUD MOTOR, 7/8 LOBE, 9.4 STG, 1.5° FXD.	1	39.12	7.000			5-1/2 FH-B			SP1700007
BIT #2 RUN #1 8.75" NOV TK76 7X16'S SN: E234668	1	1.00	8.750	8.750		4-1/2 REG-P			E234668

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
02/16/2017 15:00		2	970.37		DRILL 8.75" INTERMEDIATE 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

DIESEL ON HAND : 9445 GAL
DIESEL USED : 1645 GAL
DIESEL RECEIVED : 0 GAL
LNG USED : 111.94 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 8

02/19/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	7.04
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	6.58
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	9,800.00
Engineer	POWER CHARLES	TVD(ft)	9,785.02
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	153.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@4,848.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@12,200.00ft
Actual cost to date/AFE	628,366/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.21	LOT/FIT EMW(ppg)	
Daily Cost	39,137	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/13/2016	129	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	3 1 20 1500
Safety Comments:	PERFORMED HAZZARD HUNT.						

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	7 7
Last Derrick Inspection	02/08/2017	11		
Last BOP function test	02/08/2017	11		
Last BOP Test	03/01/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILL FROM 9647' TO 9800' WHERE ROP FELL OFF. PUMP SLUG AND TOO. R/B BHA AND BREAK BIT. CHANGE SLIDES AND SAVER SUB ON TOPDRIVE.
Update Since Report Time
@ 04:00 - TIH AT 2700'.
24 Hour Forecast
TIH, DRILL TO KOP AT 10960', TOO. AND P/U CURVE ASSEMBLY.

EP WELLS DAILY OPERATIONS REPORT

Report 8

02/19/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.00	INT1	DRL		9,800.00	0		ROTATE F/ 9647' T/ 9800' (153' @ 51 FPH) WOB: 40-45K RPM: SURFACE 60 MOTOR 182 BIT 242 PRESSURE & FLOW: 3300 PSI @ 650 GPM TORQUE: ON BOT 14K OFF BOT 8.5K WEIGHTS: P/U 320K S/O 274K ROT 280K MW: 8.8 PPG MOTOR: 0.28 RPG GAS: BG 1100 CG 1100 FLARE: NONE
3:00	0.50	INT1	CDM		9,800.00	0		NPT - PUMP SLUG.
3:30	6.50	INT1	TOH		9,800.00	0		NPT - TOOH FROM 9800' TO 147'.
10:00	0.50	INT1	TOH		9,800.00	0		NPT - RACK BACK DIRECTIONAL TOOLS, BREAK BIT. BIT GRADE 2-8-BT-A-X-I-RO-ROP.
10:30	4.00	INT1	BOP		9,800.00	0		NPT - CLEAN AND CLEAR RIG FLOOR. FUNCTION TEST ALL BOP EQUIPMENT. CHECK SAVER SUB. PERFORM HAZZARD HUNT AND MITIGATE FINDINGS.
14:30	9.00	INT1	TOH		9,800.00	0		NPT - PRECISION - CHANGE OUT SLIDES ON TOPDRIVE. ALL ALLEN BOLTS FROZE UP. HAD TO CUT SLIDES AWAY WITH SAWZALL AND REMOVE BOLTS WITH PIPE WRENCH. INSTALL NEW SLIDES AND SHIM TOPDRIVE.
23:30	0.50	INT1	BHA		9,800.00	0		NPT - CHANGE OUT SAVER SUB.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
8,858.00	1.97	230.07	8,843.96	-72.69	195.89	206.05	0.14	PTW UNKNOWN_2016
9,037.00	3.31	223.20	9,022.76	-78.44	190.00	203.80	0.77	PTW UNKNOWN_2016
9,216.00	3.46	211.85	9,201.45	-86.79	183.61	202.43	0.38	PTW UNKNOWN_2016
9,395.00	3.08	215.44	9,380.16	-95.30	177.97	201.79	0.24	PTW UNKNOWN_2016
9,574.00	0.89	224.39	9,559.05	-100.21	174.21	200.97	1.23	PTW UNKNOWN_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	pH/Pm (cc)
MD (ft)		TS/HGS/LGS (%)	Pf/Mf (cc)
Mud Density (ppg)		Sand (%)	Ca+ (ppm)
Vis (s/qt)			Cl- (ppm)
PV/YP (cp/lbf/100ft²)		MBT (lbm/bbl)	
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	
API/HTHP WL (cc/30min)		ECD (ppg)	R600/300 (°)
FC/HTHP FC (32nd")		H2S (gas unit)	R200/100 (°)
		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
2	8.750	NATIONAL OILWE	TK76			E234668	7x16	4,854.00	9,800.00	2-8-BT-A-1-I-RO-PR

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

02/19/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5" DRILL PIPE	280	8,829.63	5.000		4.276				RIG
(4) STANDS HWDP	12	375.65				4-1/2 IF-B			RIG
CROSSOVER	1	3.39	6.750		2.750	4-1/2 IF-B			DR19254
(5) STANDS DCS	15	466.35	6.500			4-1/2 XH-B			RIG
FILTER SUB	1	4.68	6.750		3.250	4-1/2 XH-P			MR675-101
STEEL STABILIZER	1	5.13	6.187		2.500	4-1/2 XH-B			DR16738
NMDC	1	30.66	6.375		2.812	4-1/2 XH-B			DR13763
GAP SUB	1	3.58	6.500			4-1/2 XH-B			G650-0171
CARRIER	1	8.53	6.625			4-1/2 XH-B			C650-0108
LANDING SUB	1	3.50	6.625			4-1/2 XH-B			L650-0081
CROSSOVER	1	3.59	6.500		2.812	4-1/2 XH-B			X650-0070
NM STABILIZER	1	5.97	6.812		3.250	4-1/2 XH-B			DR30858
NMPC	1	12.70	6.500		3.250	4-1/2 XH-B			DR15698
STEEL STABILIZER	1	4.33	6.250		2.500	4-1/2 XH-B			DR16732
CROSSOVER	1	2.19	6.687		3.562	4-1/2 XH-B			DR26769
6-3/4" SCIENTIFIC MUD MOTOR, 7/8 LOBE, 9.4 STG. 1.5° FXD.	1	39.12	7.000			5-1/2 FH-B			SP1700007
BIT #2 RUN #1 8.75" NOV TK76 7X16'S, SN: E234668	1	1.00	8.750	8.750		4-1/2 REG-P			E234668

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
02/16/2017 15:00	02/19/2017 10:30	2	970.37		DRILL 8.75" INTERMEDIATE 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

DIESEL ON HAND : 8801 GAL
DIESEL USED : 1144 GAL
DIESEL RECEIVED : 0 GAL
LNG USED : 0.0 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 9

02/20/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	8.04
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	7.58
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	10,935.00
Engineer	POWER CHARLES	TVD(ft)	10,919.25
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	1,135.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	8.50/35.42	Last Casing MD	9.625in@4,848.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@12,200.00ft
Actual cost to date/AFE	695,272/2,985,039.00	Current Fluid Density(ppg)	8.80
Actual divided by AFE	0.23	LOT/FIT EMW(ppg)	
Daily Cost	62,752	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/13/2016	130	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	8
Last Derrick Inspection	02/19/2017	1		
Last BOP function test	02/08/2017	12		
Last BOP Test	03/01/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
FINISH CHANGING SAVER SUB, TIH AND DRILL FROM 9800' TO KOP AT 10935'. TOO H TO P/U CURVE ASSEMBLY.
Update Since Report Time
@ 04:00 - M/U CURVE BHA.
24 Hour Forecast
FINISH TOO H, P/U CURVE ASSEMBLY, TIH AND DRILL CURVE.

EP WELLS DAILY OPERATIONS REPORT

Report 9

02/20/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.00	INT1	BHA		9,800.00	1		NPT - CHANGE OUT SAVER SUB.
1:00	1.00	INT1	BHA		9,800.00	1		NPT - P/U MOTOR AND NEW BIT.
2:00	6.00	INT1	TIH		9,800.00	1		NPT - TIH TO 9800' WITH NO RETURNS.
8:00	0.50	INT1	TIH		9,800.00	1		NPT - WASH AND REAM DOWN TO BOTTOM.
8:30	1.50	INT1	DRL		9,916.00	0		ROTATE F/ 9800' T/ 9916' (116' @ 77 FPH) WOB: 20-25K RPM: SURFACE 50 MOTOR 140 BIT 190 PRESSURE & FLOW: 2300 PSI @ 500 GPM TORQUE: ON BOT 14.5K OFF BOT 8.5K WEIGHTS: P/U 352K S/O 275K ROT 290K MW: 8.8 PPG MOTOR: 0.28 RPG GAS: BG 300 CG 2500 FLARE: NONE
10:00	8.00	INT1	DRL		10,643.00	0		ROTATE F/ 9916' T/ 10643' (727' @ 91 FPH) WOB: 35-40K RPM: SURFACE 70 MOTOR 168 BIT 238 PRESSURE & FLOW: 2900 PSI @ 600 GPM TORQUE: ON BOT 15K OFF BOT 8.5K WEIGHTS: P/U 356K S/O 277K ROT 300K MW: 8.8 PPG MOTOR: 0.28 RPG GAS: BG 300 CG 2700 FLARE: NONE
18:00	3.00	INT1	DRL		10,935.00	0		ROTATE F/ 10643' T/ 10935' (292' @ 98 FPH) WOB: 35-40K RPM: SURFACE 70 MOTOR 168 BIT 238 PRESSURE & FLOW: 2900 PSI @ 600 GPM TORQUE: ON BOT 15K OFF BOT 8.5K WEIGHTS: P/U 356K S/O 277K ROT 300K MW: 8.8 PPG MOTOR: 0.28 RPG GAS: BG 300 CG 2700 FLARE: NONE
21:00	0.75	INT1	CDM		10,935.00	0		PUMP SWEEPS, PUMP SLUG.
21:45	2.25	INT1	TOH		10,935.00	0		TOOH FROM 10935' TO 5237'. HOLE TAKING SLIGHTLY MORE THAN CALCULATED FILL.
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
02/19/2017 14:30	PRECISION DRILLING COMPANY LP	Rig/Work Unit Misc	9,800.00	TOH	EN	Top Drive/Power Swivel	1.50	10.50	2	OPEN
Description: CHANGE SLIDES, SHIM TOPDRIVE, CHANGE SAVER SUB.						Title: TOPDRIVE REPAIR				
Total							1.50	10.50		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
10,290.00	1.65	303.42	10,274.47	-79.98	157.94	121.05	0.21	PTW UNKNOWN_2016
10,469.00	1.11	334.07	10,453.42	-77.00	155.03	117.38	0.50	PTW UNKNOWN_2016

EP WELLS DAILY OPERATIONS REPORT

Report 9

02/20/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
10,649.00	1.42	311.81	10,633.38	-73.95	152.61	113.76	0.32	PTW UNKNOWN_2016
10,828.00	1.85	305.14	10,812.31	-70.81	148.59	109.62	0.26	PTW UNKNOWN_2016
10,935.00	1.85	305.14	10,919.25	-68.82	145.77	106.92	0.00	PTW UNKNOWN_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/97.30	pH/Pm (cc)	10.00/0.50
MD (ft)	10,275.00	TS/HGS/LGS (%)	0.80//	Pf/Mf (cc)	0.10/0.20
Mud Density (ppg)	8.80	Sand (%)	0.05	Ca+ (ppm)	35,000
Vis (s/qt)	28.00			Cl- (ppm)	
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	8.960	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		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
3	8.750	NATIONAL OILWE	TK76			A234670	7x16	9,800.00		-----

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)
9,916.00	20.0/25.0	50	500.0	2,300.00	107.25	4.66	31.28	1.50	116.00	77.3	1.50	116.00	77.3
10,643.00	35.0/40.0	70	600.0	2,900.00	154.45	5.33	54.06	8.00	727.00	90.9	9.50	843.00	88.7
10,935.00	35.0/40.0	70	600.0	2,900.00	154.45	5.33	54.06	3.00	292.00	97.3	12.50	1,135.00	90.8

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5" DRILL PIPE	317	9,963.63	5.000		4.276				RIG
(4) STANDS HWDP	12	375.65				4-1/2 IF-B			RIG
CROSSOVER	1	3.39	6.750		2.750	4-1/2 IF-B			DR19254
(5) STANDS DCS	15	466.35	6.500			4-1/2 XH-B			RIG
FILTER SUB	1	4.68	6.750		3.250	4-1/2 XH-P			MR675-101
STEEL STABILIZER	1	5.13	6.187		2.500	4-1/2 XH-B			DR16738
NMDC	1	30.66	6.375		2.812	4-1/2 XH-B			DR13763
GAP SUB	1	3.58	6.500			4-1/2 XH-B			G650-0171
CARRIER	1	8.53	6.625			4-1/2 XH-B			C650-0108
LANDING SUB	1	3.50	6.625			4-1/2 XH-B			L650-0081
CROSSOVER	1	3.59	6.500		2.812	4-1/2 XH-B			X650-0070
NM STABILIZER	1	5.97	6.812		3.250	4-1/2 XH-B			DR30858
NMPC	1	12.70	6.500		3.250	4-1/2 XH-B			DR15698
STEEL STABILIZER	1	4.33	6.250		2.500	4-1/2 XH-B			DR16732
CROSSOVER	1	2.19	6.687		3.562	4-1/2 XH-B			DR26769
6-3/4" SCIENTIFIC MUD MOTOR, 7/8 LOBE, 9.4 STG, 1.5° FXD	1	40.12	7.000			5-1/2 FH-B			SP1700007
BIT #3 RUN #1 8.75" NOV TK76 7X16'S SN: A234670	1	1.00	8.750	8.750					A234670

EP WELLS DAILY OPERATIONS REPORT

Report 9

02/20/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
02/20/2017 04:00				3	971.37		DRILL 8.75" INTERMEDIATE 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)
9,916.00	352.0	275.00	290.00	62.00	14,500.0	8,500.0	116.00
10,643.00	356.0	277.00	300.00	56.00	15,000.0	8,500.0	727.00
10,935.00	356.0	277.00	300.00	56.00	15,000.0	8,500.0	292.00

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

DIESEL ON HAND : 14871 GAL
DIESEL USED : 1429 GAL
DIESEL RECEIVED : 7499 GAL
LNG USED : 35.66 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 10

02/21/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	9.04
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	8.58
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,649.00
Engineer	POWER CHARLES	TVD(ft)	11,478.10
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	714.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	1.00/4.17	Last Casing MD	9.625in@4,848.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@12,200.00ft
Actual cost to date/AFE	732,694/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.25	LOT/FIT EMW(ppg)	
Daily Cost	36,743	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/13/2016	131	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	0 5 20 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	5 9
Last Derrick Inspection	02/19/2017	2		
Last BOP function test	02/08/2017	13		
Last BOP Test	03/01/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
TOOH, P/U CURVE ASSEMBLY, TIH, DRILL 8 3/4" CURVE FROM 10935' TO 11649'. WORK AND FREE STUCK PIPE AT 11649'.
Update Since Report Time
@ 04:00 - PERFORMING C/U CYCLES AT TD PREPARING TO TOOH.
24 Hour Forecast
TD CURVE, PUMP C/U CYLES AND TOOH, R/U AND RUN 7" CASING.

EP WELLS DAILY OPERATIONS REPORT

Report 10

02/21/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.50	INT1	TOH		10,935.00	0		TOOH FROM 5237' TO 986'. HOLE TAKING SLIGHTLY MORE THAN CALCULATED FILL.
1:30	0.50	INT1	TOH		10,935.00	0		REMOVE ROTATING HEAD.
2:00	1.00	INT1	TOH		10,935.00	0		TOOH WITH HWDP AND DC'S FROM 986' TO BHA.
3:00	2.00	INT1	BHA		10,935.00	0		HANDLE BHA. L/D STABILIZERS, P/U NMFC, RACK BACK BHA, BREAK BIT, L/D BIT AND MOTOR. P/U NEW MOTOR, M/U FLOAT SUB AND BIT.
5:00	8.00	INT1	TIH		10,935.00	0		TIH FROM BHA TO 10935'. HOLE GIVING PROPER DISPLACMENT.
13:00	10.00	INT1	DRL		11,649.00	0		SLIDE DRILLING PARAMETERS : WOB: 30-60K RPM: SURFACE 0 MOTOR 300 BIT 300 PRESSURE & FLOW: 2950 PSI @ 600 GPM MW: 9.0 PPG MOTOR: 0.5 RPG GAS: BG 1000 CG 2700 FLARE: NONE ROTATE DRILLING PARAMETERS : WOB: 20K RPM: SURFACE 20 MOTOR 300 BIT 320 PRESSURE & FLOW: 2900 PSI @ 600 GPM TORQUE: ON BOT 13-15K OFF BOT 8-10K WEIGHTS: P/U 320K S/O 230K ROT 270K MW: 9.0 PPG MOTOR: 0.5 RPG GAS: BG 1000 CG 2700 FLARE: NONE SLIDE FROM 10935' TO 11155' (220' @ 44 FPH) ROTATE TO 11195' (40' @ 80 FPH) SLIDE TO 11245' (50' @ 100 FPH) ROTATE TO 11305' (60' @ 120 FPH) SLIDE TO 11334' (29' @ 116 FPH) ROTATE TO 11379' (45' @ 90 FPH) SLIDE TO 11424' (45' @ 180 FPH) ROTATE TO 11464' (40' @ 80 FPH) SLIDE TO 11514' (50' @ 100 FPH) ROTATE TO 11558' (44' @ 88 FPH) SLIDE TO 11604' (46' @ 92 FPH) ROTATE TO 11633' (29' @ 116 FPH) SLIDE TO 11649' (16' @ 64 FPH)
23:00	1.00	INT1	DRL		11,649.00	1		NPT-GOT STUCK AT 11649' WHILE ON BOTTOM DRILLING. WORK PIPE WITH 20K TORQUE AND PULL 75K OVER TO FREE.
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
02/21/2017 23:00	SHELL	BH Stuck Pipe	11,649.00	DRL	N		0.00	0.00		OPEN
Description: GOT STUCK AT 11649' WHILE ON BOTTOM DRILLING. WORK PIPE WITH 20K TORQUE AND PULL 75K OVER TO FREE						Title: WORK STUCK PIPE				
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
11,282.00	36.72	170.86	11,238.29	-188.39	161.05	225.98	7.71	PTW UNKNOWN_2016
11,372.00	41.17	170.90	11,308.27	-244.23	170.02	282.10	4.94	PTW UNKNOWN_2016

EP WELLS DAILY OPERATIONS REPORT

Report 10

02/21/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,462.00	49.15	170.56	11,371.68	-307.16	180.30	345.39	8.87	PTW UNKNOWN_2016
11,551.00	55.00	166.13	11,426.37	-375.84	194.58	415.31	7.65	PTW UNKNOWN_2016
11,641.00	60.72	162.97	11,474.24	-449.23	214.93	491.46	7.02	PTW UNKNOWN_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	pH/Pm (cc)
MD (ft)		TS/HGS/LGS (%)	Pf/Mf (cc)
Mud Density (ppg)		Sand (%)	Ca+ (ppm)
Vis (s/qt)			Cl- (ppm)
PV/YP (cp/lbf/100ft²)		MBT (lbm/bbl)	
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	
API/HTHP WL (cc/30min)		ECD (ppg)	R600/300 (°)
FC/HTHP FC (32nd")		H2S (gas unit)	R200/100 (°)
		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
3	8.750	NATIONAL OILWE	TK76			A234670	7x16	9,800.00	10,935.00	-----

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.
5" DRILL PIPE	317	9,963.63	5.000		4.276				RIG
(4) STANDS HWDP	12	375.65				4-1/2 IF-B			RIG
CROSSOVER	1	3.39	6.750		2.750	4-1/2 IF-B			DR19254
(5) STANDS DCS	15	466.35	6.500			4-1/2 XH-B			RIG
FILTER SUB	1	4.68	6.750		3.250	4-1/2 XH-P			MR675-101
STEEL STABILIZER	1	5.13	6.187		2.500	4-1/2 XH-B			DR16738
NMDC	1	30.66	6.375		2.812	4-1/2 XH-B			DR13763
GAP SUB	1	3.58	6.500			4-1/2 XH-B			G650-0171
CARRIER	1	8.53	6.625			4-1/2 XH-B			C650-0108
LANDING SUB	1	3.50	6.625			4-1/2 XH-B			L650-0081
CROSSOVER	1	3.59	6.500		2.812	4-1/2 XH-B			X650-0070
NM STABILIZER	1	5.97	6.812		3.250	4-1/2 XH-B			DR30858
NMPC	1	12.70	6.500		3.250	4-1/2 XH-B			DR15698
STEEL STABILIZER	1	4.33	6.250		2.500	4-1/2 XH-B			DR16732
CROSSOVER	1	2.19	6.687		3.562	4-1/2 XH-B			DR26769
6-3/4" SCIENTIFIC MUD MOTOR, 7/8 LOBE, 9.4 STG, 1.5° FXD.	1	40.12	7.000			5-1/2 FH-B			SP1700007
BIT #3 RUN #1 8.75" NOV TK76 7X16'S, SN: A234670	1	1.00	8.750	8.750					A234670

EP WELLS DAILY OPERATIONS REPORT

Report 10

02/21/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
02/20/2017 08:30	02/21/2017 03:00	3	971.37		DRILL 8.75" INTERMEDIATE 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

DIESEL ON HAND : 13575 GAL
DIESEL USED : 1296 GAL
DIESEL RECEIVED : 0 GAL
LNG USED : 53.97 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 11

02/22/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	10.04
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	9.58
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,900.00
Engineer	POWER CHARLES	TVD(ft)	11,540.65
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	251.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	1.50/6.25	Last Casing MD	9.625in@4,848.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@12,200.00ft
Actual cost to date/AFE	821,130/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.28	LOT/FIT EMW(ppg)	
Daily Cost	75,777	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/13/2016	132	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	13 4 20 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	02/19/2017	3	JSA's/Toolbox Talks	12
Last BOP function test	02/08/2017	14	Days Since Last Drill	10
Last BOP Test	03/01/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILLED TO TD AT 11900', PUMPED C/U CYCLES, TOO H AND L/D BHA. R/U EXPRESS AND RAN 7" CASING TO 5617'.
Update Since Report Time
@ 04:00 - TIH WITH 7" CASING AT 9850'.
24 Hour Forecast
RUN 7" TO TD, LAND HANGER, PUMP CEMENT JOB.

EP WELLS DAILY OPERATIONS REPORT

Report 11

02/22/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	INT1	DRL		11,649.00	1		NPT-GOT STUCK AT 11649' WHILE ON BOTTOM DRILLING. WORK PIPE WITH 20K TORQUE AND PULL 75K OVER TO FREE.
0:30	3.25	INT1	DRL		11,900.00	0		SLIDE DRILLING PARAMETERS : WOB: 30-60K RPM: SURFACE 0 MOTOR 300 BIT 300 PRESSURE & FLOW: 2950 PSI @ 600 GPM MW: 9.0 PPG MOTOR: 0.5 RPG GAS: BG 500 CG 500 FLARE: NONE ROTATE DRILLING PARAMETERS : WOB: 20K RPM: SURFACE 20 MOTOR 300 BIT 320 PRESSURE & FLOW: 2900 PSI @ 600 GPM TORQUE: ON BOT 13-15K OFF BOT 8-10K WEIGHTS: P/U 320K S/O 230K ROT 270K MW: 9.0 PPG MOTOR: 0.5 RPG GAS: BG 500 CG 500 FLARE: NONE SLIDE FROM 11649' TO 11693' (44' @ 176 FPH) ROTATE TO 11708' (15' @ 60 FPH) SLIDE TO 11782' (74' @ 74 FPH) ROTATE TO 11801' (19' @ 76 FPH) SLIDE TO 11862' (61' @ 82 FPH) ROTATE TO 11900' (38' @ 51 FPH) PTB @ 11900' IS 87°
3:45	3.25	INT1	CBU		11,900.00	0		PERFORMED C/U CYLES. PUMPED TWO 30 BBLs SWEEPS AND HOLE WAS STILL UNLOADING. CUTTINGS WERE SHOWING SOME SIGNS OF SLOUGHING AND CAVING. PUMPED 3RD SWEEP, HOLE CLEANED UP. **TRRC WAS INFORMED OF CASING RUN AND CEMENT JOB - AUDREY (OPERATOR#2)**
7:00	0.50	INT1	TOH		11,900.00	0		PULLED 5 STANDS OFF BOTTOM WET TO SEE HOW IT WOULD ACT, PULLED SMOOTH.
7:30	0.25	INT1	TOH		11,900.00	0		PUMPED SLUG.
7:45	4.75	INT1	TOH		11,900.00	0		TOOH FROM 10450' TO BHA.
12:30	1.00	INT1	TOH		11,900.00	0		L/D BHA. BIT GRADE 1-2-CT-N-X-I-NO-TD.
13:30	0.50	INT1	TOH		11,900.00	0		PULL WEAR BUSHING.
14:00	1.00	INT1	RIC		11,900.00	0		R/U EXPRESS.
15:00	0.50	INT1	RIC		11,900.00	0		M/U SHOE TRACK, TESTED SAME.
15:30	4.50	INT1	CLR		11,900.00	0		TIH WITH 7" LTC CASING FROM 95' TO 3385'. HOLE GIVING PROPER DISP.
20:00	1.50	INT1	CLR		11,900.00	0		TIH WITH 7" TSHB CASING FROM 3385' TO 4562'. HOLE GIVING PROPER DISP.
21:30	0.50	INT1	SVC		11,900.00	0		RIG SERVICE.
22:00	1.00	INT1	CLR		11,900.00	1		NPT-FIX HYDRAULIC HOSE ON CATWALK.
23:00	1.00	INT1	CLR		11,900.00	0		TIH WITH 7" TSHB CASING FROM 4562' TO 5617'. HOLE GIVING PROPER DISP.
Total	24.00							

EP WELLS DAILY OPERATIONS REPORT

Report 11

02/22/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

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
02/22/2017 22:00	PRECISION DRILLING COMPANY LP	Rig/Work Unit Misc	11,900.00	CLR	EN	Pipe Rack System	1.00	1.00		OPEN
Description: FIX HYDRAULIC HOSE ON CATWALK						Title: FIX HYDRAULIC HOSE ON CATWALK				
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
11,641.00	60.72	162.97	11,474.24	-449.23	214.93	491.46	7.02	PTW UNKNOWN_2016
11,730.00	70.54	164.84	11,510.92	-527.03	237.33	572.43	11.20	PTW UNKNOWN_2016
11,819.00	80.67	167.07	11,533.02	-610.56	258.18	658.45	11.64	PTW UNKNOWN_2016
11,846.00	84.30	165.31	11,536.55	-636.54	264.57	685.19	14.92	PTW UNKNOWN_2016
11,900.00	87.00	167.00	11,540.65	-688.82	277.45	738.98	5.89	PTW UNKNOWN_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	pH/Pm (cc)
MD (ft)		TS/HGS/LGS (%)	
Mud Density (ppg)		Sand (%)	
Vis (s/qt)			
PV/YP (cp/lbf/100ft²)			
Gels 10 s/m (lbf/100ft²)		MBT (lbm/bbl)	Pf/Mf (cc)
API/HTHP WL (cc/30min)		LCM (lbm/bbl)	Ca+ (ppm)
FC/HTHP FC (32nd")		ECD (ppg)	Cl- (ppm)
FL temp. (°F)		H2S (gas unit)	R600/300 (°)
		KCl (%)	R200/100 (°)
			R6/3 (°)
		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	8.750	SECURITY DBS	MMD64C			12851364	6x16	10,935.00	11,900.00	1-2-CT-N-X-I-NO-TD

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.
5" DRILL PIPE	320	10,319.20	5.000		4.276	4 1/2 IF			RIG
(4) STANDS HWDP	12	375.65	5.000		3.000	4 1/2 IF			RIG
5" DRILL PIPE	36	1,073.50	5.000		4.276	4 1/2 IF-B			RIG
CROSSOVER	1	3.39	6.750		2.750	4 1/2 IF-B			DR19254
FILTER SUB	1	4.68	6.750		3.250	4-1/2 XH-B			MR675-101
NON-MAG FLEX COLLAR	1	29.96	6.187		3.000	4-1/2 XH-B			DR13137
NMDC	1	30.66	6.375		2.812	4-1/2 XH-B			DR13763
GAP SUB	1	3.58	6.500			4-1/2 XH-B			G650-0171
CARRIER	1	8.53	6.625			4-1/2 XH-B			C650-0108
LANDING SUB	1	3.50	6.625			4-1/2 XH-B			L650-0081

EP WELLS DAILY OPERATIONS REPORT

Report 11

02/22/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
CROSSOVER	1	3.59	6.500		2.812	4-1/2 XH-B			X650-0070
NMPC	1	12.70	6.500		3.250	4-1/2 XH-B			DR15698
FLOAT SUB	1	2.23	6.250		2.875	4-1/2 XH-B			DR20740
7" NOV MUD MOTOR, 4/5 LOBE, 7 STG. 2.38° FXD. RPG: 0.50 SN:	1	27.98	7.000			4-1/2 XH-B			W960035-1
BIT #4 RUN #1 8.75" SECURITY MMD64C 6X16'S SN: 12851364	1	0.85	8.750	8.750		4 1/2 REG			12851364

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
02/21/2017 03:00	02/22/2017 13:30	4	507.30		DRILL 8.75" CURVE 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

DIESEL ON HAND : 13575 GAL
DIESEL USED : 1296 GAL
DIESEL RECEIVED : 0 GAL
LNG USED : 24.87 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 12

02/23/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	11.04
Objective	Drill - Wolfcamp Shale	Original Spud Date	02/02/2017	Days Since Spud	10.29
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,900.00
Engineer	POWER CHARLES	TVD(ft)	11,540.65
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@4,848.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@11,883.00ft
Actual cost to date/AFE	1,177,524/2,985,039.00	Current Fluid Density(ppg)	8.90
Actual divided by AFE	0.39	LOT/FIT EMW(ppg)	
Daily Cost	359,024	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/13/2016	133	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	11
Last Derrick Inspection	02/19/2017	4		
Last BOP function test	02/08/2017	15		
Last BOP Test	03/01/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
RUN 7" TO TD, LAND HANGER, PERFORM CEMENT JOB, SET PACK OFF, BIT GUIDE, AND BPV, INSTALL CAP AND RELEASE TO 1503H AT 17:00.
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 12

02/23/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	INT1	CLR		11,900.00	0		TIH WITH 7" TSHB CASING FROM 5617' TO 11883' AND LAND HANGER. HOLE GIVING PROPER DISP.
6:00	1.50	INT1	RCC		11,900.00	0		R/D EXPRESS AND R/U BAKER.
7:30	3.00	INT1	CEM		11,900.00	0		PJSM. PUMP 7" JOB AS FOLLOWS. 180 BBLs OF 11.0 PPG LEAD CEMENT 102 BBLs OF 14.5 PPG TAIL CEMENT SHUT DOWN AND DROP PLUG 438 BBLs OF 9.0 PPG MUD BUMPED PLUG, PRESSURED UP AND TESTED CASING TO 2500 PSI FOR 30 MINS, BLED OFF, FLOATS HELD. FULL RETURNS DURING JOB AND GOOD LIFT PRESSURE.
10:30	0.50	INT1	LCH		11,900.00	0		R/D BAKER.
11:00	2.50	INT1	RDP		11,900.00	0		WELL FLOWING, SHUT IN AND MONITOR. BUILD HEAVY MUD IN CASE WE NEEDED TO KILL WELL PROIR TO SETTING PACK OFF. PULL MOUSE HOLES, PREP CATWALK, REMOVE TURNBUCKLES, PREPARE TO N/D.
13:30	3.50	INT1	WHD		11,900.00	0		OPEN WELL UP, NO FLOW. PULL LANDING JOINT, DRAIN STACK, SET PACK OFF, TEST SAME. SET BIT GUIDE AND BPV, INSTALL CAP AND RELEASE AT 17:00 ON 2-23-17.
Total	17.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,641.00	60.72	162.97	11,474.24	-449.23	214.93	491.46	7.02	PTW UNKNOWN_2016
11,730.00	70.54	164.84	11,510.92	-527.03	237.33	572.43	11.20	PTW UNKNOWN_2016
11,819.00	80.67	167.07	11,533.02	-610.56	258.18	658.45	11.64	PTW UNKNOWN_2016
11,846.00	84.30	165.31	11,536.55	-636.54	264.57	685.19	14.92	PTW UNKNOWN_2016
11,900.00	87.00	167.00	11,540.65	-688.82	277.45	738.98	5.89	PTW UNKNOWN_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/96.70	pH/Pm (cc)	9.50/0.10
MD (ft)	11,900.00	TS/HGS/LGS (%)	1.30//	Pf/Mf (cc)	0.00/0.05
Mud Density (ppg)	8.90	Sand (%)	0.05	Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	36,000
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	8.900	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		KCl (%)		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						

EP WELLS DAILY OPERATIONS REPORT

Report 13

03/16/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	11.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	11.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,900.00
Engineer	POWER CHARLES	TVD(ft)	11,540.65
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.000in@11,900.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,580.00ft
Actual cost to date/AFE	1,285,392/2,985,039.00	Current Fluid Density(ppg)	13.60
Actual divided by AFE	0.43	LOT/FIT EMW(ppg)	
Daily Cost	26,102	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	136	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	3 5 0 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	7 12
Last Derrick Inspection	03/16/2017	0		
Last BOP function test	03/16/2017	0		
Last BOP Test	03/16/2017			
Next BOP Test	04/06/2017			

Operations Summary

24 Hour Summary
SKID RIG, TEST BOPS, P/U BHA, TIH WITH DP.
Update Since Report Time
@ 0430 - SLIPPING AND CUTTING DRILLLINE.
24 Hour Forecast
TIH TO SHOE TRACK, DRILL SAME WHILE DISPLACING TO OBM, DRILL AHEAD IN LATERAL SECTION.

EP WELLS DAILY OPERATIONS REPORT

Report 13

03/16/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
4:00	1.00	MNH1	WLK		11,900.00	0		LAY OVER V-DOOR. WALK CATWALK 20' FORWARD. PRE-WALK INSPECTION ON RIG.
5:00	2.00	MNH1	WLK		11,900.00	0		WALK RIG, CENTER OVER WELL, LEVEL RIG.
7:00	1.00	MNH1	WLK		11,900.00	0		WALK CATWALK TO RIG, RAISE V-DOOR, INSTALL DERRICK RACK, ADJUST SUITCASES.
8:00	1.00	MNH1	RUP		11,900.00	0		ACCEPT RIG AT 08:00. PERFORM PRE-SPUD CHECKLIST. INSTALL BUSTER LINES AMD FLARE LINES.
9:00	0.50	MNH1	RUP		11,900.00	0		N/U BOP TO WELLHEAD. TIGHTEN QUICK CONNECT.
9:30	8.50	MNH1	RUP		11,900.00	0		INSTALL BUFEER ZONE, PERFORM BOP TEST, CONTINUE WORKING ON PRE-SPUD CHECKLIST.
18:00	2.50	MNH1	BHA		11,900.00	0		INSPECT TOPDRIVE. INSTALL PUMP TO SUCK OUT OPEN TOP. L/O BHA.
20:30	3.00	MNH1	BHA		11,900.00	0		M/U BHA. INSTALL NEW BIT AND MOTOR, ENDED UP HAVING TO CHANGE OUT CARRIER SUB FOR MWD TOOL DUE TO SLOP IN MWD TOOL WHEN SET IN PLACE.
23:30	0.50	MNH1	TIH		11,900.00	0		FUNCTION TOP RAMS, TIH WITH DP TO 348'.
Total	20.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,641.00	60.72	162.97	11,474.24	-449.23	214.93	491.46	7.02	PTW UNKNOWN_2016
11,730.00	70.54	164.84	11,510.92	-527.03	237.33	572.43	11.20	PTW UNKNOWN_2016
11,819.00	80.67	167.07	11,533.02	-610.56	258.18	658.45	11.64	PTW UNKNOWN_2016
11,846.00	84.30	165.31	11,536.55	-636.54	264.57	685.19	14.92	PTW UNKNOWN_2016
11,900.00	87.00	167.00	11,540.65	-688.82	277.45	738.98	5.89	PTW UNKNOWN_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	57.00/14.00	POM (cc)	
MD (ft)	11,900.00	TS/HGS/LGS (%)	28.20//	CaCl2 (%)	
Mud Density (ppg)	13.60	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	76.00	Oil/Water Ratio (%)	80.30/19.70	ACT	
PV/YP (cp/lbf/100ft²)	23.00/12.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	0.00
Gels 10 s/m (lbf/100ft²)	9.000/12.000	ECD (ppg)	13.600	ES (Volts)	0.0
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)	182,821			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	TD405FX			7162913	5x16	11,900.00		-----

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.
4" DRILL PIPE	207	6,519.60	4.000		3.340	XT-39B			RIG
SHOCK SUB	1	12.02	5.000		2.062	XT-39B			SHTL0500
(40 STANDS) DRILL PIPE	111	3,592.76	4.000		3.340	XT-39B			RIG

EP WELLS DAILY OPERATIONS REPORT

Report 13

03/16/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
AGITATOR	1	20.29	5.000		2.062	XT-39B			W1857330
(17 STANDS) DRILL PIPE	48	1,526.78	4.000		3.340	XT-39B			RIG
DOGLEG REAMER	1	4.26	5.000		2.688	XT-39B			A199541
(1 STAND) DRILL PIPE	3	89.76	4.000		3.340	XT-39B			RIG
CROSSOVER	1	2.99	5.250		2.500	XT-39B			DR28536
FILTER SUB	1	4.71	4.750		2.688	3-1/2 IF-B			MR475-109
FLOAT SUB	1	1.90	4.812		2.750	3-1/2 IF-B			DR21050
NMFC	1	30.23	4.750		2.625	3-1/2 IF-B			DR18713
NMDC	1	28.76	4.750		2.688	3-1/2 IF-B			DR26536
GAP SUB	1	3.68	4.938			3-1/2 IF-B			G475-0082
CARRIER	1	8.30	5.000			3-1/2 IF-B			C475-0012
LANDING SUB	1	3.42	5.062			3-1/2 IF-B			L475-0051
CROSSOVER	1	3.58	4.750		2.688	3-1/2 IF-B			X475-0049
NMPC	1	13.81	4.750		2.688	3-1/2 IF-B			DR31740
5" BICO MUD MOTOR, 6/7 LOBE, 8.0 STG. 1.83° FXD. RPG: 0.81	1	31.98	5.000			3-1/2 IF-B			G2001
BIT #5 RUN #1 6-1/8" BAKER TD405FX. 5X16's SN: 7162913	1	1.17	6.125	6.125		3-1/2 REG-P			7162913

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/16/2017 20:30		5	171.10		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						

EP WELLS DAILY OPERATIONS REPORT

Report 15

03/18/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	13.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	13.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,900.00
Engineer	POWER CHARLES	TVD(ft)	11,540.65
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	24.00/100.00	Last Casing MD	7.000in@11,900.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,580.00ft
Actual cost to date/AFE	1,379,158/2,985,039.00	Current Fluid Density(ppg)	13.35
Actual divided by AFE	0.46	LOT/FIT EMW(ppg)	
Daily Cost	53,897	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	138	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	3 1 0 1500
Safety Comments:							

Drills

Drill Category	Drill Type	Detection (sec)	Complete (sec)	Crew drilled	Pass / Fail	PIC	Comments
Well Control Crew	BOP	15.00	56.00	Night	Pass	ROSS GRAHAM	WELL SECURED

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	03/16/2017	2	JSA's/Toolbox Talks	8
Last BOP function test	03/16/2017	2	Days Since Last Drill	14
Last BOP Test	04/06/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
TOOH, FOUND THAT BHA HAD PARTED AT GAP SUB. WAIT ON FISHING TOOLS TO ARRIVE ON LOCATION. M/U FISHING BHA AND TIH TO 11712', WORK PIPE TO RECOVER FISH.
Update Since Report Time
@ 04:00 - TOOH AT 4700'.
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 15

03/18/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

TOOH, SEE IF WE RECOVERED FISH.

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	MNH1	TOH		11,900.00	1		NPT - TOOH FROM 1300' TO BHA.
0:30	1.00	MNH1	FSHU		11,900.00	1		NPT - FOUND THAT BHA HAD PARTED AT GAP SUB. CALL OUT FISHING TOOLS. L/D MWD AND PIECE OF GAP SUB.
1:30	0.50	MNH1	FSHU		11,900.00	1		NPT - BOP DRILL. WELL SECURED IN 56 SECONDS. DISCUSSED KICK WARNING SIGNS AND SHUT IN PROCEDURES.
2:00	4.00	MNH1	FSHU		11,900.00	1		NPT - WAIT ON FISHING TOOLS.
6:00	7.50	MNH1	FSHU		11,900.00	1		NPT - WAIT ON FISHING TOOLS.
13:30	2.00	MNH1	FSHU		11,900.00	1		NPT - M/U FISHING BHA.
15:30	2.50	MNH1	FSHU		11,900.00	1		NPT - TIH FROM BHA TO 3923'.
18:00	5.00	MNH1	FSHU		11,900.00	1		NPT - TIH FROM 3923' TO 11646'.
23:00	1.00	MNH1	FSHU		11,900.00	1		NPT - WORK DOWN AND TAG TOP OF FISH AT 11712'. WORK DOWN OVER TOP OF FISH TO 11716'. USE SLIGHT ROTATION AND FLOW. WORKED UP AND DOWN SEVERAL TIMES. ONLY INDICATOR SEEN WAS 50 PSI IN PUMP PRESSURE INCREASE OFF BOTTOM. PREPARE TO PUMP SLUG AND TOOH TO SEE IF WE RECOVERED FISH.
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
03/18/2017 00:30	SHELL	Drillstring/B HA Bottom Hole Assembly	11,900.00	FSHU	N		0.00	0.00		OPEN
Description: FOUND OUT THAT BHA PARTED AT GAP SUB. WAIT ON FISHING TOOLS, THEN BEGIN ATTEMPT TO RETRIEVE TOOLS DOWNHOLE						Title: FISHING OPERATIONS				
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
11,641.00	60.72	162.97	11,474.24	-449.23	214.93	491.46	7.02	PTW UNKNOWN_2016
11,730.00	70.54	164.84	11,510.92	-527.03	237.33	572.43	11.20	PTW UNKNOWN_2016
11,819.00	80.67	167.07	11,533.02	-610.56	258.18	658.45	11.64	PTW UNKNOWN_2016
11,846.00	84.30	165.31	11,536.55	-636.54	264.57	685.19	14.92	PTW UNKNOWN_2016
11,900.00	87.00	167.00	11,540.65	-688.82	277.45	738.98	5.89	PTW UNKNOWN_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	57.00/16.00	POM (cc)	2.59 413.0
MD (ft)	11,900.00	TS/HGS/LGS (%)	26.00//	CaCl2 (%)	
Mud Density (ppg)	13.35	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	80.00	Oil/Water Ratio (%)	78.10/21.90	ACT	
PV/YP (cp/lbf/100ft²)	25.00/14.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	9.000/15.000	ECD (ppg)	13.350	ES (Volts)	
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)	179,923	Ditch Magnet in Last 24hrs/Cum. (gm)		R6/3 (°)	
FL temp. (°F)					

EP WELLS DAILY OPERATIONS REPORT

Report 15

03/18/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

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	TD405FX			7162913	5x16	11,900.00	11,900.00	-----

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.
4" DRILL PIPE	207	6,519.60	4.000		3.340	XT-39B			RIG
SHOCK SUB	1	12.02	5.000		2.062	XT-39B			SHTL0500
(40 STANDS) DRILL PIPE	111	3,592.76	4.000		3.340	XT-39B			RIG
AGITATOR	1	20.29	5.000		2.062	XT-39B			W1857330
(17 STANDS) DRILL PIPE	48	1,526.78	4.000		3.340	XT-39B			RIG
DOGLEG REAMER	1	4.26	5.000		2.688	XT-39B			A199541
(1 STAND) DRILL PIPE	3	89.76	4.000		3.340	XT-39B			RIG
CROSSOVER	1	2.99	5.250		2.500	XT-39B			DR28536
FILTER SUB	1	4.71	4.750		2.688	3-1/2 IF-B			MR475-109
FLOAT SUB	1	1.90	4.812		2.750	3-1/2 IF-B			DR21050
NMFC	1	30.23	4.750		2.625	3-1/2 IF-B			DR18713
NMDC	1	28.76	4.750		2.688	3-1/2 IF-B			DR26536
GAP SUB	1	3.68	4.938			3-1/2 IF-B			G475-0082
CARRIER	1	8.30	5.000			3-1/2 IF-B			C475-0012
LANDING SUB	1	3.42	5.062			3-1/2 IF-B			L475-0051
CROSSOVER	1	3.58	4.750		2.688	3-1/2 IF-B			X475-0049
NMPC	1	13.81	4.750		2.688	3-1/2 IF-B			DR31740
5" BICO MUD MOTOR, 6/7 LOBE, 8.0 STG. 1.83" FXD. RPG: 0.81	1	31.98	5.000			3-1/2 IF-B			G2001
BIT #5 RUN #1 6-1/8" BAKER TD405FX. 5X16's SN: 7162913	1	1.17	6.125	6.125		3-1/2 REG-P			7162913

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/16/2017 20:30	03/18/2017 00:30	5	171.10		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

DIESEL ON HAND : 12007 GAL
DIESEL USED : 627 GAL
DIESEL RECEIVED : 0 GAL
CNG USED : 10.19 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 16

03/19/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	14.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	14.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,900.00
Engineer	POWER CHARLES	TVD(ft)	11,540.65
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	24.00/100.00	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	1,413,509/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.47	LOT/FIT EMW(ppg)	
Daily Cost	34,911	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	139	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2 4 0 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	7
Last BOP function test	03/16/2017	3	Days Since Last Drill	15
Last BOP Test	03/16/2017	3		
Next BOP Test	04/06/2017			

Operations Summary

24 Hour Summary
TOOH TO SEE IF WE RECOVERED FISH. ONLY RECOVERED 7 MORE METAL RINGS. DECISION WAS MADE TO MAKE ONE MORE FISHING ATTEMPT. M/U NEW FISHING BHA AND TIH TO 330'.
Update Since Report Time
@ 04:00 - TIH AT 8400' WITH FISHING TOOLS.
24 Hour Forecast
TIH, SCREW INTO FISH WITH TAPPERED TAP, TOOH.

EP WELLS DAILY OPERATIONS REPORT

Report 16

03/19/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	MNH1	FSHU		11,900.00	1		NPT - WORK DOWN AND TAG TOP OF FISH AT 11712'. WORK DOWN OVER TOP OF FISH TO 11716'. USE SLIGHT ROTATION AND FLOW. WORKED UP AND DOWN SEVERAL TIMES. ONLY INDICATOR SEEN WAS 50 PSI IN PUMP PRESSURE INCREASE OFF BOTTOM. PREPARE TO PUMP SLUG AND TOOH TO SEE IF WE RECOVERED FISH.
0:30	0.50	MNH1	FSHU		11,900.00	1		NPT - PUMP SLUG.
1:00	5.00	MNH1	FSHU		11,900.00	1		NPT - TOOH FROM 11716' TO SURFACE. NO FISH, ONLY RECOVERED 5 RINGS FROM GAP SUB.
6:00	1.00	MNH1	FSHU		11,900.00	1		NPT - DISCUSS GO FORWARD PLAN. DECISION WAS MADE TO MAKE ONE MORE RUN WITH SAME FISHING BHA. IF UNSUCCESSFUL, WE WILL SET WHIPSTOCK AND SIDETRACK.
7:00	0.50	MNH1	FSHU		11,900.00	1		NPT - M/U BHA.
7:30	6.50	MNH1	FSHU		11,900.00	1		NPT - TIH FROM BHA TO TOP OF FISH AT 11712'.
14:00	1.00	MNH1	FSHU		11,900.00	1		NPT - WORK OVERSHOT OVER FISH. SAW SLIGHT PRESSURE INCREASE BUT NO GOOD INDICATION THAT WE LATCHED FISH.
15:00	0.25	MNH1	FSHU		11,900.00	1		NPT - PUMP SLUG.
15:15	2.75	MNH1	FSHU		11,900.00	1		NPT - TOOH FROM 11717' TO 5990'.
18:00	0.50	MNH1	FSHU		11,900.00	1		NPT - CLEAN AND CLEAR FLOOR, HAVE CREW CHANGE MEETING.
18:30	3.00	MNH1	FSHU		11,900.00	1		NPT - TOOH FROM 5990' TO BHA. NO FISH. RECOVERED 7 MORE RINGS.
21:30	1.00	MNH1	FSHU		11,900.00	1		NPT - DUE TO THE NUMBER OF RINGS RECOVERED, AND HOW THEY WERE ORIENTED IN THE OVERSHOT, DECISION WAS MADE TO TIH WITH TAPERED TAP AND ATTEMPT TO SCREW INTO ID OF FISH.
22:30	0.50	MNH1	FSHU		11,900.00	1		NPT - M/U NEW FISHING BHA.
23:00	0.50	MNH1	FSHU		11,900.00	1		NPT - RIG SERVICE.
23:30	0.50	MNH1	FSHU		11,900.00	1		NPT - TIH FROM BHA TO 330'.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,641.00	60.72	162.97	11,474.24	-449.23	214.93	491.46	7.02	PTW UNKNOWN_2016
11,730.00	70.54	164.84	11,510.92	-527.03	237.33	572.43	11.20	PTW UNKNOWN_2016
11,819.00	80.67	167.07	11,533.02	-610.56	258.18	658.45	11.64	PTW UNKNOWN_2016
11,846.00	84.30	165.31	11,536.55	-636.54	264.57	685.19	14.92	PTW UNKNOWN_2016
11,900.00	87.00	167.00	11,540.65	-688.82	277.45	738.98	5.89	PTW UNKNOWN_2016

Fluid Details

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

EP WELLS DAILY OPERATIONS REPORT

Report 16

03/19/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

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

DIESEL ON HAND : 11025 GAL
DIESEL USED : 982 GAL
DIESEL RECEIVED : 0 GAL
CNG USED : 13.26 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 17

03/20/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171.00

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	15.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	15.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,900.00
Engineer	POWER CHARLES	TVD(ft)	11,540.65
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	0.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	24.00/100.00	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	1,440,526/2,985,039.00	Current Fluid Density(ppg)	13.50
Actual divided by AFE	0.48	LOT/FIT EMW(ppg)	
Daily Cost	31,935	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	140	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	5 1 0 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	8 16
Last Derrick Inspection	03/16/2017	4		
Last BOP function test	03/16/2017	4		
Last BOP Test	04/06/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
TIH, SCREW INTO AND FREE FISH, TOO, LOST FISH ALONG THE WAY, M/U AND RIH WITH CIBP TO 11690', WAIT ON WIRELINE.
Update Since Report Time
@ 05:00 - RIH WITH WIRELINE AND CCL.
24 Hour Forecast
SET CIBP, TOO, P/U WHIPSTOCK AND MILLING ASSEMBLY, TIH, SET WHIPSTOCK AND MILL WINDOW.

EP WELLS DAILY OPERATIONS REPORT

Report 17

03/20/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	MNH1	FSHU		11,900.00	1		NPT - TIH FROM 330' TO 11712'.
6:00	2.00	MNH1	FSHU		11,900.00	1		NPT - STAB INTO FISH WITH TAPERED TAP. APPLY 8000 FT-LBS OF RIGHT HAND TORQUE AND VERIFY WE WERE SCREWED IN. PRESSURE CAME UP 150 PSI AND PICKED UP STRING WEIGHT. WORK FISH UP AND DOWN, GOT FISH FREE. STILL HAD EXTRA PUMP PRESSURE.
8:00	0.50	MNH1	FSHU		11,900.00	1		NPT - PUMP SLUG.
8:30	5.00	MNH1	FSHU		11,900.00	1		NPT - TOOH FROM 11712' TO SURFACE. NO FISH. THREADS ON TAPER TAP WERE WORN FLAT. COULDNT TELL WHERE WE LOST IT.
13:30	0.50	MNH1	FSHU		11,900.00	1		NPT - RIG SERVICE.
14:00	1.50	MNH1	FSHU		11,900.00	1		NPT - MAKE CALLS AND DISCUSS GO FORWARD PLAN. IT WAS DECIDED TO END FISHING OPERATIONS AND SIDETRACK.
15:30	0.50	MNH1	PBAU		11,900.00	1		NPT - M/U CIBP AND SETTING TOOL.
16:00	2.00	MNH1	PBAU		11,900.00	1		NPT - TIH FROM SURFACE TO 3450'.
18:00	0.50	MNH1	PBAU		11,900.00	1		NPT - CLEAN AND CLEAR FLOOR, HAVE CREW CHANGE MEETING.
18:30	4.00	MNH1	PBAU		11,900.00	1		NPT - TIH FROM 3450' TO 11690'.
22:30	1.50	MNH1	PBAU		11,900.00	1		NPT - WAIT ON WIRELINE WITH CCL.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,819.00	80.67	167.07	11,533.02	-610.62	258.08	658.49	11.64	PTW MWD+HDGM_2016
11,819.00	80.67	167.07	11,533.02	-610.56	258.18	658.45	11.64	PTW UNKNOWN_2016
11,846.00	84.30	165.31	11,536.55	-636.61	264.47	685.23	14.92	PTW MWD+HDGM_2016
11,846.00	84.30	165.31	11,536.55	-636.54	264.57	685.19	14.92	PTW UNKNOWN_2016
11,900.00	87.00	167.00	11,540.65	-688.82	277.45	738.98	5.89	PTW UNKNOWN_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/16.00	POM (cc)	
MD (ft)	11,900.00	TS/HGS/LGS (%)	26.90/16.80/10.1	CaCl2 (%)	
			0		
Mud Density (ppg)	13.50	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	80.00	Oil/Water Ratio (%)	77.80/22.20	ACT	
PV/YP (cp/lbf/100ft²)	23.00/14.000			XS Lime(lbm/bbl)	2.59
Gels 10 s/m (lbf/100ft²)	13.000/22.000	LCM (lbm/bbl)		ES (Volts)	361.0
API/HTHP WL (cc/30min)	/12.0	ECD (ppg)	13.500	R600/300 (°)	
FC/HTHP FC (32nd")	/4.0	H2S (gas unit)		R200/100 (°)	
WPS (ppm)	186,802	KCl (%)		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

DIESEL ON HAND : 10519 GAL
DIESEL USED : 506 GAL
DIESEL RECEIVED : 0 GAL
CNG USED : 9.16 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 18

03/21/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171.00

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	16.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	16.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,900.00
Engineer	POWER CHARLES	TVD(ft)	11,540.65
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	0.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	24.00/100.00	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	1,476,757/2,985,039.00	Current Fluid Density(ppg)	13.50
Actual divided by AFE	0.49	LOT/FIT EMW(ppg)	
Daily Cost	34,849	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	141	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	3 9 20 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	6
Last BOP function test	03/16/2017	5	Days Since Last Drill	17
Last BOP Test	03/16/2017	5		
Next BOP Test	04/06/2017			

Operations Summary

24 Hour Summary
R/U AND RIH WITH WIRELINE, TAG UP ON BALL SEAT AND START LOGGING, R/D WIRELINE, DROP BALL AND SET CIBP, TOO H, M/U MILLING ASSEMBLY AND WHIPSTOCK, TIH TO 5750'.
Update Since Report Time
@ 03:30 - TIH AT 8550'.
24 Hour Forecast
TIH TO 11690', ORIENT WHIPSTOCK AND SET SAME, MILL WINDOW IN 7" CASING.

EP WELLS DAILY OPERATIONS REPORT

Report 18

03/21/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.00	MNH1	PBAU		11,900.00	1		NPT - WAIT ON WIRELINE WITH CCL.
3:00	1.00	MNH1	PBAU		11,900.00	1		NPT - R/U WIRELINE AND M/U TOOLS.
4:00	3.00	MNH1	PBAU		11,900.00	1		NPT - TIH WITH WIRELINE, TAG UP ON BALL SEAT INSIDE CIBP SETTING TOOL, P/U AND START LOGGING. VERFIY THAT PLUG IS SET SO THAT WE WONT MILL THROUGH A CASING COLLAR.
7:00	0.50	MNH1	PBAU		11,900.00	1		NPT - R/D WIRELINE.
7:30	0.50	MNH1	PBAU		11,900.00	1		NPT - DROP BALL AND PUMP DOWN. LAND ON BALL SEAT. PRESSURE UP TO 4400 PSI, SET AND RELEASE FROM CIBP. P/U AND VERIFY WE WERE RELEASED. SET DOWN 40K AND VERIFY IT WAS SET. CIBP SET AT 11690'.
8:00	0.50	MNH1	PBAU		11,900.00	1		NPT - PUMP SLUG.
8:30	3.00	MNH1	PBOU		11,900.00	1		NPT - TOOH FROM 11690' TO 5000'.
11:30	1.75	MNH1	PBOU		11,900.00	1		NPT - SLIP AND CUT DRILL LINE. PERFORM BRAKE CAPACITY TEST.
13:15	2.25	MNH1	PBOU		11,900.00	1		NPT - TOOH FROM 5000' TO SURFACE.
15:30	0.25	MNH1	PBOU		11,900.00	1		NPT - L/D RUNNING TOOL.
15:45	0.25	MNH1	PBOU		11,900.00	1		NPT - CLEAN AND CLEAR RIG FLOOR.
16:00	2.50	MNH1	PBOU		11,900.00	1		NPT - P/U WHIPSTOCK, MILLS, AND MWD TOOLS TO FLOOR. M/U BHA AND SCRIBE MWD. ATTACH WHIPSTOCK TO MILLING ASSEMBLY.
18:30	5.50	MNH1	PBOU		11,900.00	1		NPT - TIH FROM SURFACE TO 5750' AT 3 MIN/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
11,819.00	80.67	167.07	11,533.02	-610.62	258.08	658.49	11.64	PTW MWD+HDGM_2016
11,819.00	80.67	167.07	11,533.02	-610.56	258.18	658.45	11.64	PTW UNKNOWN_2016
11,846.00	84.30	165.31	11,536.55	-636.61	264.47	685.23	14.92	PTW MWD+HDGM_2016
11,846.00	84.30	165.31	11,536.55	-636.54	264.57	685.19	14.92	PTW UNKNOWN_2016
11,900.00	87.00	167.00	11,540.65	-688.82	277.45	738.98	5.89	PTW UNKNOWN_2016

Fluid Details

Mud type MD (ft)	Invermul 11,900.00	Oil/Water (%) TS/HGS/LGS (%)	56.00/16.00 27.00/16.80/10.2 0	POM (cc) CaCl2 (%)	2.59 377.0
Mud Density (ppg)	13.50	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	81.00	Oil/Water Ratio (%)	77.80/22.20	ACT	
PV/YP (cp/lbf/100ft²)	24.00/11.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	13.000/20.000	ECD (ppg)		ES (Volts)	
API/HTHP WL (cc/30min)	/12.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/4.0	KCl (%)		R200/100 (°)	
WPS (ppm)	179,923			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						

EP WELLS DAILY OPERATIONS REPORT

Report 18

03/21/2017

Well
WellboreUNIVERSITY 19 PW UNIT 1504H
UNIVERSITY 19 PW UNIT 1504H

Remarks

DIESEL ON HAND : 9875 GAL
DIESEL USED : 644 GAL
DIESEL RECEIVED : 0 GAL
CNG USED : 7.84 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 20

03/23/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30259585 / 4230133171.00

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	18.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	18.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,712.00
Engineer	POWER CHARLES	TVD(ft)	11,504.63
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	21.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	23.50/97.92	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	1,593,627/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.53	LOT/FIT EMW(ppg)	
Daily Cost	34,156	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	143	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	8 4 20 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	7
Last BOP function test	03/16/2017	7	Days Since Last Drill	19
Last BOP Test	03/16/2017	7		
Next BOP Test	04/06/2017			

Operations Summary

24 Hour Summary
FINISH MILLING TO 11696', TOO H AND L/D MILLING BHA, P/U LATERAL BHA, TIH, DRILL FROM 11696' TO 11712'.
Update Since Report Time
@ 05:00 - DRILLING AHEAD AT 11920'.
24 Hour Forecast
DRILL AHEAD IN LATERAL

EP WELLS DAILY OPERATIONS REPORT

Report 20

03/23/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	4.00	MNH1	TDLU		11,696.00	1		NPT - MILL WINDOW FROM 11691' TO 11696'.
4:00	1.00	MNH1	TDLU		11,696.00	1		NPT - SHUT PUMPS DOWN AND TRIP THROUGH WINDOW SEVERAL TIMES, NO DRAG. PUMP SWEEP TO CLEAN METAL OUT OF WELLBORE. PUMP SLUG.
5:00	0.75	MNH1	TDLU		11,696.00	1		NPT - TOO H FROM 11696' TO 10400'.
5:45	0.50	MNH1	TDLU		11,696.00	1		NPT - RIG SERVICE.
6:15	3.75	MNH1	TDLU		11,696.00	1		NPT - TOO H FROM 10400' TO BHA.
10:00	1.00	MNH1	TDLU		11,696.00	1		NPT - L/D UBHO, MWD, FLOAT SUB, AND MILLING ASSEMBLY.
11:00	0.50	MNH1	TDLU		11,696.00	1		NPT - CLEAN AND CLEAR RIG FLOOR.
11:30	0.50	MNH1	TDLU		11,696.00	1		NPT - RIG SERVICE.
12:00	1.00	MNH1	TDLU		11,696.00	1		NPT - P/U NMFC, BREAK OFF FLOAT SUB AND XO. P/U REMAINING DIRECTIONAL TOOLS TO FLOOR.
13:00	2.00	MNH1	TDLU		11,696.00	1		NPT - M/U BHA AND SCRIBE.
15:00	2.00	MNH1	TDLU		11,696.00	1		NPT - TIH FROM BHA TO 4500'.
17:00	1.00	MNH1	TDLU		11,696.00	1		NPT - SHUT DOWN DUE TO HIGH WINDS.
18:00	4.50	MNH1	TDLU		11,696.00	1		NPT - TIH FROM 4500' TO 11675'.
22:30	1.00	MNH1	TDLU		11,696.00	1		NPT - WASH DOWN TO 11696'.
23:30	0.50	MNH1	TDLU		11,712.00	0		SLIDE FROM 11696' TO 11712' (16' @ 32 FPH) WOB: 30-35K RPM: SURFACE 0 MOTOR 228 BIT 228 PRESSURE & FLOW: 4550 PSI @ 281 GPM STRING WEIGHT: P/U XXXK S/O XXXK ROT XXXK MW: 13.3 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
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
03/23/2017 17:00	SHELL	Wait On Weather	11,696.00	TDLU	N		1.00	1.00		OPEN
Description: SHUT DOWN DUE TO HIGH WINDS						Title: HIGH WINDS				
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
11,462.00	49.15	170.56	11,371.68	-307.23	180.20	345.42	8.87	PTW MWD+HDGM_2016
11,551.00	55.00	166.13	11,426.37	-375.90	194.47	415.35	7.65	PTW MWD+HDGM_2016
11,551.00	55.00	166.13	11,426.37	-375.84	194.58	415.31	7.65	PTW UNKNOWN_2016
11,641.00	60.72	162.97	11,474.24	-449.29	214.82	491.50	7.02	PTW MWD+HDGM_2016
11,641.00	60.72	162.97	11,474.24	-449.23	214.93	491.46	7.02	PTW UNKNOWN_2016

EP WELLS DAILY OPERATIONS REPORT

Report 20

03/23/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)		Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft ²)		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

DIESEL ON HAND : 12426 GAL
DIESEL USED : 1231 GAL
DIESEL RECEIVED : 0 GAL
CNG USED : 14.52 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 21

03/24/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H ST01
WBS No/API No	30259585 / 4230133171.01

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	19.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	19.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	13,362.00
Engineer	POWER CHARLES	TVD(ft)	11,533.68
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	1,650.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	5.25/21.88	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	1,636,622/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.55	LOT/FIT EMW(ppg)	
Daily Cost	37,645	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	144	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	6 6 20 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	14
Last BOP function test	03/16/2017	8	Days Since Last Drill	21
Last BOP Test	03/16/2017	8		
Next BOP Test	04/06/2017			

Operations Summary

24 Hour Summary
DRILLED CURVE FROM 11712' TO 11877', DRILLED LATERAL FROM 11877' TO 13362'.
Update Since Report Time
@ 05:00 - DRILLING AHEAD AT 13900'
24 Hour Forecast
DRILL AHEAD IN LATERAL.

EP WELLS DAILY OPERATIONS REPORT

Report 21

03/24/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	4.50	MNH1	DRL		11,877.00	1		SLIDE FROM 11712' TO 11877' (165' @ 37 FPH) WOB: 30-35K RPM: SURFACE 0 MOTOR 228 BIT 228 PRESSURE & FLOW: 4750 PSI @ 281 GPM STRING WEIGHT: P/U XXXK S/O XXXK ROT XXXK MW: 13.2 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
4:30	0.50	MNH1	DRL		11,926.00	0		ROTATE FROM 11877' TO 11926' (49' @ 98 FPH) WOB: 30-35K RPM: SURFACE 60 MOTOR 243 BIT 303 TORQUE: ON BOT 8.5K OFF BOT 4.5K PRESSURE & FLOW: 5600 PSI @ 300 GPM STRING WEIGHT: P/U 193K S/O 150K ROT 174K MW: 13.2 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
5:00	0.25	MNH1	SVC		11,926.00	0		RIG SERVICE
5:15	0.75	MNH1	DRL		11,989.00	0		ROTATE FROM 11926' TO 11989' (63' @ 84 FPH) WOB: 30-35K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8.0K OFF BOT 4.5K PRESSURE & FLOW: 5600 PSI @ 300 GPM STRING WEIGHT: P/U 193K S/O 150K ROT 174K MW: 13.2 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
6:00	0.75	MNH1	DRL		11,989.00	1		NPT - PULL UP AND GET SURVEY.
6:45	0.75	MNH1	DRL		12,027.00	0		ROTATE FROM 11989' TO 12027' (38' @ 51 FPH) WOB: 30K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8.8K OFF BOT 4.5K PRESSURE & FLOW: 5600 PSI @ 300 GPM STRING WEIGHT: P/U 193K S/O 150K ROT 174K MW: 13.2 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
7:30	0.75	MNH1	DRL		12,043.00	0		SLIDE FROM 12027' TO 12043' (16' @ 21 FPH) WOB: 25K RPM: SURFACE 0 MOTOR 243 BIT 243 PRESSURE & FLOW: 5000 PSI @ 300 GPM MW: 13.2 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
8:15	1.00	MNH1	DRL		12,196.00	0		ROTATE FROM 12043' TO 12196' (153' @ 153 FPH) WOB: 25-30K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8.6K OFF BOT 4.5K PRESSURE & FLOW: 5700 PSI @ 300 GPM STRING WEIGHT: P/U 193K S/O 150K ROT 174K MW: 13.1 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
9:15	1.00	MNH1	DRL		12,250.00	0		SLIDE FROM 12196' TO 12250' (54' @ 54 FPH) WOB: 5-20K RPM: SURFACE 0 MOTOR 243 BIT 243 PRESSURE & FLOW: 5200 PSI @ 300 GPM MW: 13.1 PPG

EP WELLS DAILY OPERATIONS REPORT

Report 21

03/24/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
10:15	0.50	MNH1	DRL		12,307.00	0		ROTATE FROM 12250' TO 12307' (57' @ 114 FPH) WOB: 20K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8.3K OFF BOT 4.5K PRESSURE & FLOW: 5650 PSI @ 300 GPM STRING WEIGHT: P/U 193K S/O 150K ROT 174K MW: 13.1 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
10:45	0.75	MNH1	DRL		12,350.00	0		SLIDE FROM 12307' TO 12350' (43' @ 57 FPH) WOB: 25K RPM: SURFACE 0 MOTOR 243 BIT 243 PRESSURE & FLOW: 5400 PSI @ 300 GPM MW: 13.1 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
11:30	0.75	MNH1	DRL		12,386.00	0		ROTATE FROM 12350' TO 12386' (36' @ 48 FPH) WOB: 20K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 9.2K OFF BOT 4.5K PRESSURE & FLOW: 5750 PSI @ 300 GPM STRING WEIGHT: P/U 193K S/O 150K ROT 174K MW: 13.1 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
12:15	0.50	MNH1	DRL		12,431.00	0		SLIDE FROM 12386' TO 12431' (45' @ 90 FPH) WOB: 25K RPM: SURFACE 0 MOTOR 243 BIT 243 PRESSURE & FLOW: 5400 PSI @ 300 GPM MW: 13.1 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
12:45	0.75	MNH1	DRL		12,491.00	0		ROTATE FROM 12431' TO 12491' (60' @ 80 FPH) WOB: 20K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8.7K OFF BOT 4.5K PRESSURE & FLOW: 5600 PSI @ 300 GPM STRING WEIGHT: P/U 193K S/O 150K ROT 174K MW: 13.1 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
13:30	1.00	MNH1	DRL		12,524.00	0		SLIDE FROM 12491' TO 12524' (33' @ 33 FPH) WOB: 15-25K RPM: SURFACE 0 MOTOR 243 BIT 243 PRESSURE & FLOW: 5150 PSI @ 300 GPM MW: 13.1 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
14:30	0.50	MNH1	DRL		12,566.00	0		ROTATE FROM 12524' TO 12566' (42' @ 84 FPH) WOB: 25K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 8.5K OFF BOT 4.5K PRESSURE & FLOW: 5650 PSI @ 300 GPM STRING WEIGHT: P/U 193K S/O 150K ROT 174K MW: 13.1 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A

EP WELLS DAILY OPERATIONS REPORT

Report 21

03/24/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
15:00	1.00	MNH1	DRL		12,607.00	0		SLIDE FROM 12566' TO 12607' (41' @ 41 FPH) WOB: 20-30K RPM: SURFACE 0 MOTOR 243 BIT 243 PRESSURE & FLOW: 5500 PSI @ 300 GPM MW: 13.1 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
16:00	0.75	MNH1	DRL		12,667.00	0		ROTATE FROM 12607' TO 12667' (60' @ 80 FPH) WOB: 17-23K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 9.1K OFF BOT 4.5K PRESSURE & FLOW: 5900 PSI @ 300 GPM STRING WEIGHT: P/U 193K S/O 150K ROT 174K MW: 13.2 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
16:45	0.50	MNH1	DRL		12,692.00	0		SLIDE FROM 12667' TO 12692' (25' @ 50 FPH) WOB: 15-25K RPM: SURFACE 0 MOTOR 243 BIT 243 PRESSURE & FLOW: 5300 PSI @ 300 GPM MW: 13.2 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
17:15	4.25	MNH1	DRL		13,093.00	0		ROTATE FROM 12692' TO 13093' (401' @ 94 FPH) WOB: 30K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 9.0K OFF BOT 4.5K PRESSURE & FLOW: 5850 PSI @ 300 GPM STRING WEIGHT: P/U 198K S/O 138K ROT 177K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
21:30	2.50	MNH1	DRL		13,362.00	0		ROTATE FROM 13093' TO 13362' (269' @ 108 FPH) WOB: 30K RPM: SURFACE 80 MOTOR 275 BIT 355 TORQUE: ON BOT 9.8K OFF BOT 5.0K PRESSURE & FLOW: 6850 PSI @ 340 GPM STRING WEIGHT: P/U 198K S/O 138K ROT 177K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: N/A FLARE: N/A
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
03/24/2017 06:00	PREMIER DIRECTIONAL DRILLING LP	Directional (MWD Measurement While Drilling/gyro)	11,989.00	DRL	N		0.75	0.75		OPEN
Description: PULL UP AND GET SURVEY						Title: PULL UP AND GET SURVEY				
Total							0.75	0.75		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
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EP WELLS DAILY OPERATIONS REPORT

Report 21

03/24/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
12,951.00	92.18	162.30	11,535.29	-1,711.96	504.26	1,784.67	4.81	PTW MWD+HDGM_2016
13,041.00	92.06	162.82	11,531.96	-1,797.76	531.21	1,874.59	0.59	PTW MWD+HDGM_2016
13,130.00	91.56	162.62	11,529.15	-1,882.70	557.63	1,963.53	0.61	PTW MWD+HDGM_2016
13,220.00	88.00	160.32	11,529.50	-1,968.02	586.23	2,053.44	4.71	PTW MWD+HDGM_2016
13,310.00	88.51	161.04	11,532.24	-2,052.91	615.99	2,143.27	0.98	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)		Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft²)			XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	ES (Volts)
API/HTHP WL (cc/30min)		ECD (ppg)	R600/300 (°)
FC/HTHP FC (32nd")		H2S (gas unit)	R200/100 (°)
WPS (ppm)		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
6	6.125	BAKER HUGHES	TD405FX			7162161	5x16	11,696.00		-----

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.
4" DRILL PIPE	256	8,078.51	4.000		3.340	XT-39			RIG
SHOCK SUB	1	12.02	5.000		2.062	XT-39			SHTL0500-0011
(40 STANDS) DRILL PIPE	114	3,592.76	4.000		3.340	XT-39			RIG
AGITATOR	1	20.29	5.000		2.062	XT-39B			W1857330
(17 STANDS) DRILL PIPE	48	1,526.78	4.000		3.340	XT-39B			RIG
CROSSOVER	1	2.62	4.687		2.812	XT-39B			DR15468
FILTER SUB	1	4.71	4.750		2.688	3-1/2 IF-B			MR475-110
FLOAT SUB	1	1.77	4.625		2.250	3-1/2 IF-B			DR16365
NMFC	1	30.61	4.687		2.250	3-1/2 IF-B			DR6009
NMDC	1	28.72	4.750		2.500	3-1/2 IF-B			DR24403
GAP SUB	1	3.69	5.125			3-1/2 IF-B			0058
CARRIER	1	8.35	5.125			3-1/2 IF-B			0030
LANDING SUB	1	3.43	5.125			3-1/2 IF-B			0048
CROSSOVER	1	1.60	4.750		2.750	3-1/2 IF-B			0028
NMPC	1	13.24	4.813		2.813	3-1/2 IF-B			DR14410
5" BICO MUD MOTOR, 6/7 LOBE, 8.0 STG. 1.83° FXD. RPG: 0.81	1	31.99	5.000			3-1/2 IF-B			G483
BIT #6 RUN #1 6-1/8" BAKER TD405FX. 5X16's SN: 7162161	1	0.91	6.125	6.125		3-1/2 REG-P			7162161

EP WELLS DAILY OPERATIONS REPORT

Report 21

03/24/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/23/2017 22:30		6	163.95		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

DIESEL ON HAND : 9230 GAL
DIESEL USED : 3196 GAL
DIESEL RECEIVED : 0 GAL
CNG USED : 85.33 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 22

03/25/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H ST01
WBS No/API No	30259585 / 4230133171.01

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	20.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	20.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	15,742.00
Engineer	POWER CHARLES	TVD(ft)	11,533.57
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	2,380.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	1,698,251/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.57	LOT/FIT EMW(ppg)	
Daily Cost	66,266	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	145	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	7 5 20 1500
Safety Comments:							

Drills

Drill Category	Drill Type	Detection (sec)	Complete (sec)	Crew drilled	Pass / Fail	PIC	Comments
Well Control Crew	BOP	15.00	52.00	Night	Pass	ROSS GRAHAM	

HSE Drills

Drills/Tests	Date	Days Since Last	
Last Derrick Inspection	03/16/2017	9	JSA's/Toolbox Talks
Last BOP function test	03/16/2017	9	Days Since Last Drill
Last BOP Test	04/06/2017		
Next BOP Test			

Operations Summary

24 Hour Summary
DRILLED IN LATERAL FROM 13362' TO 15742'.
Update Since Report Time
@ 03:00 - DRILLING AHEAD AT 16100'.
24 Hour Forecast
DRILL AHEAD IN LATERAL.

EP WELLS DAILY OPERATIONS REPORT

Report 22

03/25/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	5.50	MNH1	DRL		13,991.00	0		ROTATE FROM 13362' TO 13991' (629' @ 114 FPH) WOB: 30-35K RPM: SURFACE 80 MOTOR 275 BIT 355 TORQUE: ON BOT 9.2K OFF BOT 5.0K PRESSURE & FLOW: 7000 PSI @ 340 GPM STRING WEIGHT: P/U 205K S/O 113K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
5:30	2.00	MNH1	DRL		14,182.00	0		ROTATE FROM 13991' TO 14182' (191' @ 96 FPH) WOB: 20-25K RPM: SURFACE 80 MOTOR 210 BIT 290 TORQUE: ON BOT 9.5K OFF BOT 5.0K PRESSURE & FLOW: 5000 PSI @ 260 GPM STRING WEIGHT: P/U 205K S/O 113K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
7:30	1.00	MNH1	DRL		14,225.00	0		SLIDE FROM 14182' TO 14225' (43' @ 43 FPH) WOB: 35K RPM: SURFACE 0 MOTOR 210 BIT 210 PRESSURE & FLOW: 4400 PSI @ 260 GPM STRING WEIGHT: P/U 205K S/O 113K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
8:30	1.75	MNH1	DRL		14,362.00	0		ROTATE FROM 14225' TO 14362' (137' @ 78 FPH) WOB: 30K RPM: SURFACE 80 MOTOR 210 BIT 290 TORQUE: ON BOT 9.8K OFF BOT 5.0K PRESSURE & FLOW: 5100 PSI @ 260 GPM STRING WEIGHT: P/U 205K S/O 113K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
10:15	1.25	MNH1	DRL		14,403.00	0		SLIDE FROM 14362' TO 14403' (41' @ 33 FPH) WOB: 35K RPM: SURFACE 0 MOTOR 267 BIT 267 PRESSURE & FLOW: 6100 PSI @ 330 GPM STRING WEIGHT: P/U 205K S/O 113K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
11:30	2.00	MNH1	DRL		14,619.00	0		ROTATE FROM 14403' TO 14619' (216' @ 108 FPH) WOB: 20-30K RPM: SURFACE 80 MOTOR 210 BIT 290 TORQUE: ON BOT 9.5K OFF BOT 5.0K PRESSURE & FLOW: 5150 PSI @ 260 GPM STRING WEIGHT: P/U 205K S/O 113K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
13:30	4.00	MNH1	DRL		15,158.00	0		ROTATE FROM 14619' TO 15158' (539' @ 135 FPH) WOB: 35K RPM: SURFACE 80 MOTOR 263 BIT 343 TORQUE: ON BOT 10.5K OFF BOT 5.0K PRESSURE & FLOW: 6950 PSI @ 325 GPM STRING WEIGHT: P/U 215K S/O 110K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG

EP WELLS DAILY OPERATIONS REPORT

Report 22

03/25/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								GAS: BG 500 CG 1500 FLARE: N/A
17:30	0.25	MNH1	SVC		15,158.00	0		RIG SERVICE
17:45	4.25	MNH1	DRL		15,695.00	0		ROTATE FROM 15158' TO 15695' (537' @ 126 FPH) WOB: 30-40K RPM: SURFACE 80 MOTOR 259 BIT 339 TORQUE: ON BOT 10.9K OFF BOT 5.2K PRESSURE & FLOW: 6950 PSI @ 320 GPM STRING WEIGHT: P/U 215K S/O 110K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
22:00	2.00	MNH1	DRL		15,742.00	0		SLIDE FROM 15695' TO 15742' (47' @ 23 FPH) WOB: 30-38K RPM: SURFACE 0 MOTOR 259 BIT 259 PRESSURE & FLOW: 6000 PSI @ 320 GPM STRING WEIGHT: P/U 215K S/O 110K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
15,375.00	90.27	164.28	11,536.37	-4,031.19	1,202.76	4,206.73	1.22	PTW MWD+HDGM_2016
15,465.00	90.46	165.47	11,535.80	-4,118.07	1,226.25	4,296.71	1.34	PTW MWD+HDGM_2016
15,555.00	90.96	165.90	11,534.68	-4,205.27	1,248.50	4,386.65	0.73	PTW MWD+HDGM_2016
15,645.00	90.33	166.38	11,533.67	-4,292.64	1,270.05	4,476.56	0.88	PTW MWD+HDGM_2016
15,735.00	89.82	160.68	11,533.55	-4,378.91	1,295.56	4,566.52	6.36	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)		Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft²)			XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	ES (Volts)
API/HTHP WL (cc/30min)		ECD (ppg)	R600/300 (°)
FC/HTHP FC (32nd")		H2S (gas unit)	R200/100 (°)
WPS (ppm)		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
6	6.125	BAKER HUGHES	TD405FX			7162161	5x16	11,696.00		-----

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.
4" DRILL PIPE	332	10,458.51	4.000		3.340	XT-39			RIG

EP WELLS DAILY OPERATIONS REPORT

Report 22

03/25/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
SHOCK SUB	1	12.02	5.000		2.062	XT-39			SHTL0500-0011
(40 STANDS) DRILL PIPE	114	3,592.76	4.000		3.340	XT-39			RIG
AGITATOR	1	20.29	5.000		2.062	XT-39B			W1857330
(17 STANDS) DRILL PIPE	48	1,526.78	4.000		3.340	XT-39B			RIG
CROSSOVER	1	2.62	4.687		2.812	XT-39B			DR15468
FILTER SUB	1	4.71	4.750		2.688	3-1/2 IF-B			MR475-110
FLOAT SUB	1	1.77	4.625		2.250	3-1/2 IF-B			DR16365
NMFC	1	30.61	4.687		2.250	3-1/2 IF-B			DR6009
NMDC	1	28.72	4.750		2.500	3-1/2 IF-B			DR24403
GAP SUB	1	3.69	5.125			3-1/2 IF-B			0058
CARRIER	1	8.35	5.125			3-1/2 IF-B			0030
LANDING SUB	1	3.43	5.125			3-1/2 IF-B			0048
CROSSOVER	1	1.60	4.750		2.750	3-1/2 IF-B			0028
NMPC	1	13.24	4.813		2.813	3-1/2 IF-B			DR14410
5" BICO MUD MOTOR, 6/7 LOBE, 8.0 STG. 1.83° FXD. RPG: 0.81	1	31.99	5.000			3-1/2 IF-B			G483
BIT #6 RUN #1 6-1/8" BAKER TD405FX. 5X16's SN: 7162161	1	0.91	6.125	6.125		3-1/2 REG-P			7162161

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/23/2017 22:30		6	163.95		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

DIESEL ON HAND : 12634 GAL
DIESEL USED : 3996 GAL
DIESEL RECEIVED : 7400 GAL
CNG USED : 109.04 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 23

03/26/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H ST01
WBS No/API No	30259585 / 4230133171.01

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	21.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	21.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	17,416.00
Engineer	POWER CHARLES	TVD(ft)	11,539.84
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	1,674.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	1,749,354/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.59	LOT/FIT EMW(ppg)	
Daily Cost	42,082	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	146	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	6 5 20 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	12
Last BOP function test	03/16/2017	10	Days Since Last Drill	23
Last BOP Test	03/16/2017	10		
Next BOP Test	04/06/2017			

Operations Summary

24 Hour Summary
DRILLED IN LATERAL FROM 15742' TO 17416'.
Update Since Report Time
@ 3:30 - DRILLING AHEAD AT 17539'.
24 Hour Forecast
DRILL AHEAD IN LATERAL.

EP WELLS DAILY OPERATIONS REPORT

Report 23

03/26/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	7.00	MNH1	DRL		16,517.00	0		ROTATE FROM 15742' TO 16517' (775' @ 111 FPH) WOB: 30-40K RPM: SURFACE 80 MOTOR 255 BIT 335 TORQUE: ON BOT 12K OFF BOT 5.4K PRESSURE & FLOW: 7000 PSI @ 315 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
7:00	2.50	MNH1	DRL		16,553.00	0		SLIDE FROM 16517' TO 16553' (36' @ 15 FPH) WOB: 15-50K RPM: SURFACE 0 MOTOR 251 BIT 251 PRESSURE & FLOW: 6000 PSI @ 310 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
9:30	4.50	MNH1	DRL		17,177.00	0		ROTATE FROM 16553' TO 17177' (624' @ 139 FPH) WOB: 25-38K RPM: SURFACE 80 MOTOR 251 BIT 331 TORQUE: ON BOT 12.2K OFF BOT 6.2K PRESSURE & FLOW: 6900 PSI @ 310 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
14:00	3.00	MNH1	DRL		17,220.00	0		SLIDE FROM 17177' TO 17220' (43' @ 14 FPH) WOB: 20-35K RPM: SURFACE 0 MOTOR 251 BIT 251 PRESSURE & FLOW: 5900 PSI @ 310 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
17:00	0.25	MNH1	SVC		17,220.00	0		RIG SERVICE
17:15	0.75	MNH1	DRL		17,320.00	0		ROTATE FROM 17220' TO 17320' (100' @ 133 FPH) WOB: 35K RPM: SURFACE 80 MOTOR 247 BIT 327 TORQUE: ON BOT 12.6K OFF BOT 7K PRESSURE & FLOW: 6800 PSI @ 305 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
18:00	5.50	MNH1	DRL		17,380.00	0		SLIDE FROM 17320' TO 17380' (60' @ 11 FPH) WOB: 15-45K RPM: SURFACE 0 MOTOR 247 BIT 247 PRESSURE & FLOW: 5750 PSI @ 305 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
23:30	0.50	MNH1	DRL		17,416.00	0		ROTATE FROM 17380' TO 17416' (36' @ 72 FPH) WOB: 35K RPM: SURFACE 80 MOTOR 247 BIT 327 TORQUE: ON BOT 13.4K OFF BOT 8K PRESSURE & FLOW: 6800 PSI @ 305 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.3 PPG

EP WELLS DAILY OPERATIONS REPORT

Report 23

03/26/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								MOTOR: 0.81 RPG GAS: BG 500 CG 1500 FLARE: N/A
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
16,992.00	88.76	161.79	11,541.86	-5,566.45	1,703.89	5,820.90	1.82	PTW MWD+HDGM_2016
17,082.00	90.27	165.97	11,542.62	-5,652.88	1,728.87	5,910.88	4.94	PTW MWD+HDGM_2016
17,172.00	90.73	171.46	11,541.84	-5,741.10	1,746.47	6,000.50	6.12	PTW MWD+HDGM_2016
17,261.00	90.30	166.12	11,541.04	-5,828.37	1,763.77	6,089.11	6.02	PTW MWD+HDGM_2016
17,351.00	90.50	168.72	11,540.41	-5,916.20	1,783.37	6,178.92	2.90	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)		Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft²)			XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	ES (Volts)
API/HTHP WL (cc/30min)		ECD (ppg)	R600/300 (°)
FC/HTHP FC (32nd")		H2S (gas unit)	R200/100 (°)
WPS (ppm)		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
6	6.125	BAKER HUGHES	TD405FX			7162161	5x16	11,696.00		-----

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.
4" DRILL PIPE	385	12,132.51	4.000		3.340	XT-39			RIG
SHOCK SUB	1	12.02	5.000		2.062	XT-39			SHTL0500-0011
(40 STANDS) DRILL PIPE	114	3,592.76	4.000		3.340	XT-39			RIG
AGITATOR	1	20.29	5.000		2.062	XT-39B			W1857330
(17 STANDS) DRILL PIPE	48	1,526.78	4.000		3.340	XT-39B			RIG
CROSSOVER	1	2.62	4.687		2.812	XT-39B			DR15468
FILTER SUB	1	4.71	4.750		2.688	3-1/2 IF-B			MR475-110
FLOAT SUB	1	1.77	4.625		2.250	3-1/2 IF-B			DR16365
NMFC	1	30.61	4.687		2.250	3-1/2 IF-B			DR6009
NMDC	1	28.72	4.750		2.500	3-1/2 IF-B			DR24403
GAP SUB	1	3.69	5.125			3-1/2 IF-B			0058
CARRIER	1	8.35	5.125			3-1/2 IF-B			0030

EP WELLS DAILY OPERATIONS REPORT

Report 23

03/26/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
LANDING SUB	1	3.43	5.125			3-1/2 IF-B			0048
CROSSOVER	1	1.60	4.750		2.750	3-1/2 IF-B			0028
NMPC	1	13.24	4.813		2.813	3-1/2 IF-B			DR14410
5" BICO MUD MOTOR, 6/7 LOBE, 8.0 STG. 1.83° FXD. RPG: 0.81	1	31.99	5.000			3-1/2 IF-B			G483
BIT #6 RUN #1 6-1/8" BAKER TD405FX. 5X16's SN: 7162161	1	0.91	6.125	6.125		3-1/2 REG-P			7162161

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/23/2017 22:30		6	163.95		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

DIESEL ON HAND : 12634 GAL
DIESEL USED : 5115 GAL
DIESEL RECEIVED : 0 GAL
CNG USED : XXX.XX MCF

EP WELLS DAILY OPERATIONS REPORT

Report 24

03/27/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H ST01
WBS No/API No	30259585 / 4230133171.01

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	22.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	22.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	18,816.00
Engineer	POWER CHARLES	TVD(ft)	11,551.81
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	1,400.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	1,821,197/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.61	LOT/FIT EMW(ppg)	
Daily Cost	82,425	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	147	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	5 6 20 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	13 24
Last Derrick Inspection	03/16/2017	11		
Last BOP function test	03/16/2017	11		
Last BOP Test	04/06/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILLED IN LATERAL FROM 17,416' TO 18,816'.
Update Since Report Time
@ 04:00 - DRILLING AHEAD AT 19000'.
24 Hour Forecast
DRILL AHEAD IN LATERAL TO TD AROUND 20,300'.

EP WELLS DAILY OPERATIONS REPORT

Report 24

03/27/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.25	MNH1	DRL		17,450.00	0		ROTATE FROM 17416' TO 17450' (34' @ 136 FPH) WOB: 35K RPM: SURFACE 80 MOTOR 247 BIT 327 TORQUE: ON BOT 13.3K OFF BOT 8K PRESSURE & FLOW: 6800 PSI @ 305 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.2+ PPG MOTOR: 0.81 RPG GAS: BG 250 CG 500 FLARE: N/A
0:15	2.75	MNH1	DRL		17,486.00	0		SLIDE FROM 17450' TO 17486' (36' @ 13 FPH) WOB: 15-30K RPM: SURFACE 0 MOTOR 247 BIT 247 PRESSURE & FLOW: 5800 PSI @ 305 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.2+ PPG MOTOR: 0.81 RPG GAS: BG 200 CG 500 FLARE: N/A
3:00	3.75	MNH1	DRL		17,874.00	0		ROTATE FROM 17486' TO 17874' (388' @ 104 FPH) WOB: 30-40K RPM: SURFACE 80 MOTOR 247 BIT 327 TORQUE: ON BOT 14.2K OFF BOT 8.4K PRESSURE & FLOW: 6850 PSI @ 305 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 250 CG 500 FLARE: N/A
6:45	3.25	MNH1	DRL		17,916.00	0		SLIDE FROM 17874' TO 17916' (42' @ 13 FPH) WOB: 25-35K RPM: SURFACE 0 MOTOR 211 BIT 211 PRESSURE & FLOW: 4600 PSI @ 260 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.2+ PPG MOTOR: 0.81 RPG GAS: BG 200 CG 500 FLARE: N/A
10:00	3.25	MNH1	DRL		18,235.00	0		ROTATE FROM 17916' TO 18235' (319' @ 98 FPH) WOB: 30-40K RPM: SURFACE 80 MOTOR 247 BIT 327 TORQUE: ON BOT 14.0K OFF BOT 8.2K PRESSURE & FLOW: 6950 PSI @ 305 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.2 PPG MOTOR: 0.81 RPG GAS: BG 250 CG 500 FLARE: N/A
13:15	2.00	MNH1	DRL		18,428.00	0		ROTATE FROM 18235' TO 18428' (193' @ 97 FPH) WOB: 20-30K RPM: SURFACE 80 MOTOR 211 BIT 291 TORQUE: ON BOT 11.8K OFF BOT 8.0K PRESSURE & FLOW: 5750 PSI @ 260 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.2 PPG MOTOR: 0.81 RPG GAS: BG 250 CG 500 FLARE: N/A
15:15	2.50	MNH1	DRL		18,671.00	0		ROTATE FROM 18428' TO 18671' (243' @ 97 FPH) WOB: 20-30K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 12.0K OFF BOT 8.0K PRESSURE & FLOW: 6900 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.2 PPG MOTOR: 0.81 RPG

EP WELLS DAILY OPERATIONS REPORT

Report 24

03/27/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								GAS: BG 250 CG 500 FLARE: N/A
17:45	5.00	MNH1	DRL		18,718.00	0		SLIDE FROM 18671' TO 18718' (47' @ 9 FPH) WOB: 40K RPM: SURFACE 0 MOTOR 243 BIT 243 PRESSURE & FLOW: 6000 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.2 PPG MOTOR: 0.81 RPG GAS: BG 200 CG 500 FLARE: N/A
22:45	1.25	MNH1	DRL		18,816.00	0		ROTATE FROM 18718' TO 18816' (98' @ 78 FPH) WOB: 25-40K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 12.0K OFF BOT 8.0K PRESSURE & FLOW: 6800 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 91K ROT 166K MW: 13.2 PPG MOTOR: 0.81 RPG GAS: BG 250 CG 500 FLARE: N/A
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
18,249.00	88.19	162.11	11,541.33	-6,768.44	2,061.59	7,074.98	0.94	PTW MWD+HDGM_2016
18,339.00	87.78	161.55	11,544.49	-6,853.90	2,089.64	7,164.87	0.77	PTW MWD+HDGM_2016
18,428.00	90.74	164.23	11,545.64	-6,938.94	2,115.82	7,253.84	4.49	PTW MWD+HDGM_2016
18,518.00	89.53	162.28	11,545.43	-7,025.11	2,141.75	7,343.83	2.55	PTW MWD+HDGM_2016
18,608.00	88.64	167.17	11,546.87	-7,111.90	2,165.45	7,433.78	5.52	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)		Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		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 (°)
WPS (ppm)			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
6	6.125	BAKER HUGHES	TD405FX			7162161	5x16	11,696.00		-----

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.
4" DRILL PIPE	430	13,532.51	4.000		3.340	XT-39			RIG

EP WELLS DAILY OPERATIONS REPORT

Report 24

03/27/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
SHOCK SUB	1	12.02	5.000		2.062	XT-39			SHTL0500-0011
(40 STANDS) DRILL PIPE	114	3,592.76	4.000		3.340	XT-39			RIG
AGITATOR	1	20.29	5.000		2.062	XT-39B			W1857330
(17 STANDS) DRILL PIPE	48	1,526.78	4.000		3.340	XT-39B			RIG
CROSSOVER	1	2.62	4.687		2.812	XT-39B			DR15468
FILTER SUB	1	4.71	4.750		2.688	3-1/2 IF-B			MR475-110
FLOAT SUB	1	1.77	4.625		2.250	3-1/2 IF-B			DR16365
NMFC	1	30.61	4.687		2.250	3-1/2 IF-B			DR6009
NMDC	1	28.72	4.750		2.500	3-1/2 IF-B			DR24403
GAP SUB	1	3.69	5.125			3-1/2 IF-B			0058
CARRIER	1	8.35	5.125			3-1/2 IF-B			0030
LANDING SUB	1	3.43	5.125			3-1/2 IF-B			0048
CROSSOVER	1	1.60	4.750		2.750	3-1/2 IF-B			0028
NMPC	1	13.24	4.813		2.813	3-1/2 IF-B			DR14410
5" BICO MUD MOTOR, 6/7 LOBE, 8.0 STG. 1.83° FXD. RPG: 0.81	1	31.99	5.000			3-1/2 IF-B			G483
BIT #6 RUN #1 6-1/8" BAKER TD405FX. 5X16's SN: 7162161	1	0.91	6.125	6.125		3-1/2 REG-P			7162161

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/23/2017 22:30		6	163.95		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

DIESEL ON HAND : 10733 GAL
DIESEL USED : 4286 GAL
DIESEL RECEIVED : 7500 GAL
CNG USED : 112.02 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 25

03/28/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H ST01
WBS No/API No	30259585 / 4230133171.01

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	23.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	23.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TOMMY DOWNES	Measured Depth(ft)	19,715.00
Engineer	POWER CHARLES	TVD(ft)	11,560.22
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	899.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	1,886,387/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.63	LOT/FIT EMW(ppg)	
Daily Cost	57,765	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	148	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	3 9 20 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	11
Last BOP function test	03/16/2017	12	Days Since Last Drill	25
Last BOP Test	03/16/2017	12		
Next BOP Test	04/06/2017			

Operations Summary

24 Hour Summary
DRILLED IN LATERAL FROM 18816' TO 19715'.
Update Since Report Time
@ 04:00 - DRILLING AHEAD AT 20112'.
24 Hour Forecast
DRILL TO TD, PUMP C.U CYCLES, TOOHT TO RUN 4 1/2" LINER.

EP WELLS DAILY OPERATIONS REPORT

Report 25

03/28/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.50	MNH1	DRL		18,976.00	0		ROTATE FROM 18816' TO 18976' (160' @ 107 FPH) WOB: 30-35K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 13.5K OFF BOT 8.0K PRESSURE & FLOW: 6950 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 90K ROT 162K MW: 13.2+ PPG MOTOR: 0.81 RPG GAS: BG 250 CG 500 FLARE: N/A
1:30	3.50	MNH1	DRL		19,004.00	0		SLIDE FROM 18976' TO 19004' (28' @ 8 FPH) WOB: 25-42K RPM: SURFACE 0 MOTOR 243 BIT 243 PRESSURE & FLOW: 6000 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 90K ROT 162K MW: 13.2+ PPG MOTOR: 0.81 RPG GAS: BG 200 CG 500 FLARE: N/A
5:00	0.50	MNH1	SVC		19,004.00	0		RIG SERVICE.
5:30	3.00	MNH1	DRL		19,311.00	0		ROTATE FROM 19004' TO 19311' (307' @ 102 FPH) WOB: 20-35K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 13.5-14.5K OFF BOT 8.0K PRESSURE & FLOW: 7000 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 90K ROT 162K MW: 13.2+ PPG MOTOR: 0.81 RPG GAS: BG 250 CG 500 FLARE: N/A
8:30	5.75	MNH1	DRL		19,358.00	0		SLIDE FROM 19311' TO 19358' (47' @ 8 FPH) WOB: 40-55K RPM: SURFACE 0 MOTOR 211 BIT 211 PRESSURE & FLOW: 4800 PSI @ 260 GPM STRING WEIGHT: P/U 220K S/O 90K ROT 162K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 150 CG 500 FLARE: N/A
14:15	2.25	MNH1	DRL		19,486.00	0		ROTATE FROM 19358' TO 19486' (128' @ 57 FPH) WOB: 20-30K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 12-14K OFF BOT 8.0K PRESSURE & FLOW: 6950 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 90K ROT 162K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 130 CG 500 FLARE: N/A
16:30	6.00	MNH1	DRL		19,556.00	0		SLIDE FROM 19486' TO 19556' (70' @ 12 FPH) WOB: 30-40K RPM: SURFACE 0 MOTOR 243 BIT 243 PRESSURE & FLOW: 6000 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 90K ROT 162K MW: 13.3 PPG MOTOR: 0.81 RPG GAS: BG 150 CG 500 FLARE: N/A
22:30	1.50	MNH1	DRL		19,715.00	0		ROTATE FROM 19556' TO 19715' (159' @ 106 FPH) WOB: 30-35K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 12-14K OFF BOT 8.0K PRESSURE & FLOW: 7000 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 90K ROT 162K MW: 13.3 PPG

EP WELLS DAILY OPERATIONS REPORT

Report 25

03/28/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								MOTOR: 0.81 RPG GAS: BG 130 CG 500 FLARE: N/A
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,326.00	90.30	174.08	11,552.34	-7,808.68	2,333.25	8,149.66	2.32	PTW MWD+HDGM_2016
19,416.00	88.51	168.98	11,553.28	-7,897.66	2,346.50	8,238.79	6.01	PTW MWD+HDGM_2016
19,506.00	88.74	165.88	11,555.44	-7,985.47	2,366.08	8,328.56	3.45	PTW MWD+HDGM_2016
19,596.00	88.57	156.62	11,557.56	-8,070.58	2,394.97	8,418.36	10.29	PTW MWD+HDGM_2016
19,685.00	88.78	159.81	11,559.62	-8,153.19	2,427.99	8,506.91	3.59	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)		Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft²)			XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	ES (Volts)
API/HTHP WL (cc/30min)		ECD (ppg)	R600/300 (°)
FC/HTHP FC (32nd")		H2S (gas unit)	R200/100 (°)
WPS (ppm)		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
6	6.125	BAKER HUGHES	TD405FX			7162161	5x16	11,696.00		-----

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.
4" DRILL PIPE	458	14,431.51	4.000		3.340	XT-39			RIG
SHOCK SUB	1	12.02	5.000		2.062	XT-39			SHTL0500-0011
(40 STANDS) DRILL PIPE	114	3,592.76	4.000		3.340	XT-39			RIG
AGITATOR	1	20.29	5.000		2.062	XT-39B			W1857330
(17 STANDS) DRILL PIPE	48	1,526.78	4.000		3.340	XT-39B			RIG
CROSSOVER	1	2.62	4.687		2.812	XT-39B			DR15468
FILTER SUB	1	4.71	4.750		2.688	3-1/2 IF-B			MR475-110
FLOAT SUB	1	1.77	4.625		2.250	3-1/2 IF-B			DR16365
NMFC	1	30.61	4.687		2.250	3-1/2 IF-B			DR6009
NMDC	1	28.72	4.750		2.500	3-1/2 IF-B			DR24403
GAP SUB	1	3.69	5.125			3-1/2 IF-B			0058
CARRIER	1	8.35	5.125			3-1/2 IF-B			0030

EP WELLS DAILY OPERATIONS REPORT

Report 25

03/28/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
LANDING SUB	1	3.43	5.125			3-1/2 IF-B			0048
CROSSOVER	1	1.60	4.750		2.750	3-1/2 IF-B			0028
NMPC	1	13.24	4.813		2.813	3-1/2 IF-B			DR14410
5" BICO MUD MOTOR, 6/7 LOBE, 8.0 STG. 1.83° FXD. RPG: 0.81	1	31.99	5.000			3-1/2 IF-B			G483
BIT #6 RUN #1 6-1/8" BAKER TD405FX. 5X16's SN: 7162161	1	0.91	6.125	6.125		3-1/2 REG-P			7162161

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/23/2017 22:30		6	163.95		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

DIESEL ON HAND : 13251 GAL
DIESEL USED : 4982 GAL
DIESEL RECEIVED : 7500 GAL
CNG USED : 105.42 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 26

03/29/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H ST01
WBS No/API No	30259585 / 4230133171.01

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	24.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	24.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TOMMY DOWNES	Measured Depth(ft)	20,600.00
Engineer	POWER CHARLES	TVD(ft)	11,558.19
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	885.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	2,089,660/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.70	LOT/FIT EMW(ppg)	
Daily Cost	190,068	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	149	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	4 7 20 1500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	9 26
Last Derrick Inspection	03/16/2017	13		
Last BOP function test	03/16/2017	13		
Last BOP Test	04/06/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILLED FROM 19715' TO TD AT 20600'. PUMPED C/U CYCLES AND TOOHP TO 1500'.
Update Since Report Time
@ 05:00 - M/U SHOETRACK.
24 Hour Forecast
TOOH, L/D MOTOR AND BIT, R/B BHA, R/U AND RUN 4 1/2" LINER.

EP WELLS DAILY OPERATIONS REPORT

Report 26

03/29/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	4.50	MNH1	DRL		20,185.00	0		ROTATE FROM 19715' TO 20185' (470' @ 104 FPH) WOB: 25-35K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 12-14K OFF BOT 8.0K PRESSURE & FLOW: 7000 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 90K ROT 162K MW: 13.3+ PPG MOTOR: 0.81 RPG GAS: BG 130 CG 500 FLARE: N/A
4:30	3.00	MNH1	DRL		20,453.00	0		ROTATE FROM 20185' TO 20453' (268' @ 90 FPH) WOB: 25-35K RPM: SURFACE 80 MOTOR 211 BIT 291 TORQUE: ON BOT 12-13K OFF BOT 8.0K PRESSURE & FLOW: 5800 PSI @ 260 GPM STRING WEIGHT: P/U 220K S/O 90K ROT 162K MW: 13.3+ PPG MOTOR: 0.81 RPG GAS: BG 130 CG 500 FLARE: N/A
7:30	1.50	MNH1	DRL		20,600.00	0		ROTATE FROM 20453' TO 20600' (147' @ 98 FPH) WOB: 25-35K RPM: SURFACE 80 MOTOR 243 BIT 323 TORQUE: ON BOT 12-14K OFF BOT 8.0K PRESSURE & FLOW: 7000 PSI @ 300 GPM STRING WEIGHT: P/U 220K S/O 90K ROT 162K MW: 13.3+ PPG MOTOR: 0.81 RPG GAS: BG 130 CG 500 FLARE: N/A
9:00	3.50	MNH1	CBU		20,600.00	0		PUMP C/U CYCLES. 315 GPM AND 100 RPM. PUMP SLUG. DROP RABBIT.
12:30	5.25	MNH1	TOH		20,600.00	0		TOOH FROM 20600' TO 11681'. HOLE TAKING PROPER FILL.
17:45	0.50	MNH1	SVC		20,600.00	0		RIG SERVICE.
18:15	2.00	MNH1	TOH		20,600.00	0		TOOH FROM 11681' TO 5283'. HOLE TAKING PROPER FILL.
20:15	0.25	MNH1	BHA		20,600.00	0		L/D SHOCK SUB.
20:30	0.50	MNH1	TOH		20,600.00	0		TOOH FROM 5283' TO 3925'. HOLE TAKING PROPER FILL.
21:00	1.00	MNH1	CBU		20,600.00	0		PIPE PULLING WET. CLEAN RIG FLOOR AND PUMP 2ND SLUG.
22:00	1.75	MNH1	TOH		20,600.00	0		TOOH FROM 3925' TO 1678'. HOLE TAKING PROPER FILL.
23:45	0.25	MNH1	BHA		20,600.00	0		L/D AGITATOR AND SHOCK SUB.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
20,314.00	91.29	172.51	11,559.72	-8,761.16	2,583.53	9,134.11	3.00	PTW MWD+HDGM_2016
20,404.00	89.62	174.71	11,559.00	-8,850.59	2,593.54	9,222.76	3.07	PTW MWD+HDGM_2016
20,494.00	91.00	173.21	11,558.52	-8,940.08	2,603.01	9,311.32	2.26	PTW MWD+HDGM_2016
20,546.00	89.91	173.91	11,558.10	-8,991.75	2,608.85	9,362.55	2.49	PTW MWD+HDGM_2016
20,600.00	89.91	173.91	11,558.19	-9,045.44	2,614.58	9,415.70	0.00	PTW MWD+HDGM_2016

EP WELLS DAILY OPERATIONS REPORT

Report 26

03/29/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)		Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft ²)		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)	

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
6	6.125	BAKER HUGHES	TD405FX			7162161	5x16	11,696.00		-----

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.
4" DRILL PIPE	486	15,316.51	4.000		3.340	XT-39			RIG
SHOCK SUB	1	12.02	5.000		2.062	XT-39			SHTL0500-0011
(40 STANDS) DRILL PIPE	114	3,592.76	4.000		3.340	XT-39			RIG
AGITATOR	1	20.29	5.000		2.062	XT-39B			W1857330
(17 STANDS) DRILL PIPE	48	1,526.78	4.000		3.340	XT-39B			RIG
CROSSOVER	1	2.62	4.687		2.812	XT-39B			DR15468
FILTER SUB	1	4.71	4.750		2.688	3-1/2 IF-B			MR475-110
FLOAT SUB	1	1.77	4.625		2.250	3-1/2 IF-B			DR16365
NMFC	1	30.61	4.687		2.250	3-1/2 IF-B			DR6009
NMDC	1	28.72	4.750		2.500	3-1/2 IF-B			DR24403
GAP SUB	1	3.69	5.125			3-1/2 IF-B			0058
CARRIER	1	8.35	5.125			3-1/2 IF-B			0030
LANDING SUB	1	3.43	5.125			3-1/2 IF-B			0048
CROSSOVER	1	1.60	4.750		2.750	3-1/2 IF-B			0028
NMPC	1	13.24	4.813		2.813	3-1/2 IF-B			DR14410
5" BICO MUD MOTOR, 6/7 LOBE, 8.0 STG. 1.83" FXD. RPG: 0.81	1	31.99	5.000			3-1/2 IF-B			G483
BIT #6 RUN #1 6-1/8" BAKER TD405FX. 5X16's SN: 7162161	1	0.91	6.125	6.125		3-1/2 REG-P			7162161

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/23/2017 22:30		6	163.95		DRILL 6.125" PRODUCTION SECTION

EP WELLS DAILY OPERATIONS REPORT

Report 26

03/29/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

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

DIESEL ON HAND : 10305 GAL
DIESEL USED : 2946 GAL
DIESEL RECEIVED : 0 GAL
CNG USED : 48.89 MCF

EP WELLS DAILY OPERATIONS REPORT

Report 27

03/30/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H ST01
WBS No/API No	30259585 / 4230133171.01

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	25.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	25.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TOMMY DOWNES	Measured Depth(ft)	20,600.00
Engineer	POWER CHARLES	TVD(ft)	11,558.19
Other Supervisor	KEITH IMMATTY	24 Hr Progress(ft)	0.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	2,212,549/2,985,039.00	Current Fluid Density(ppg)	13.55
Actual divided by AFE	0.74	LOT/FIT EMW(ppg)	
Daily Cost	108,939	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	02/05/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/31/2016	150	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	0 5 20 1500
Safety Comments:	NO HSE ISSUES TO REPORT						

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	03/16/2017 03/16/2017 04/06/2017	14 14		

Operations Summary

24 Hour Summary
TOOH AND L/D BHA. RUN 4.5" 13.5# DQX LINER TO 7089' AND 4.5" 13.5# HYD563 LINER TO 9680'. P/U HANGER AND PACKER ASSEMBLY. RIH W/4" DP T/18897'
Update Since Report Time
RIH W/4" DP T/20585'. SET HANGER. PUMP CEMENT
24 Hour Forecast
SET PACKER. CIRCULATE CEMENT OUT. POSITIVE PRESSURE TEST. DIPLACE TO BRINE HOLDING CONSTANT BHP. TOOH. SET BPV. N/D BOP. SKID RIG

EP WELLS DAILY OPERATIONS REPORT

Report 27

03/30/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	MNH1	TOH		20,600.00	0		TOOH T/BHA
0:30	1.50	MNH1	BHA		20,600.00	0		L/D MWD TOOL, MOTOR AND BIT
2:00	0.50	MNH1	SVC		20,600.00	0		CLEAN AND CLEAR RIG FLOOR
2:30	1.00	MNH1	RIC		20,600.00	0		R/U CASING RUNNING TOOLS
3:30	0.50	MNH1	RIC		20,600.00	0		PJSM W/CASING RUNNING CREW
4:00	2.00	MNH1	CLR		20,600.00	0		M/U SHOE TRACK AND TEST FLOATS. RIH W/4.5" 13.5# DQX LINER T/500'
6:00	5.00	MNH1	CLR		20,600.00	0		RIH W/4.5" 13.5# DQX LINER F/500' T/7089'
11:00	0.50	MNH1	SVC		20,600.00	0		RIG SERVICE
11:30	2.00	MNH1	CLR		20,600.00	0		RIH W/4.5" 13.5# HYD LINER F/7089' T/9679'
13:30	0.50	MNH1	LCH		20,600.00	0		P/U AND M/U HANGER
14:00	0.50	MNH1	RCC		20,600.00	0		R/D CASING CREW
14:30	2.50	MNH1	TIH		20,600.00	0		TIH W/4" DP F/9717' T/12900'
17:00	0.50	MNH1	TIH		20,600.00	0		INSTALL ROTATING HEAD
17:30	0.50	MNH1	TIH		20,600.00	0		TIH W/4" DP F/12900' T/13129'
18:00	6.00	MNH1	TIH		20,600.00	0		TIH W/4" DP F/13129' T/18897'. WORKED THROUGH TIGHT SPOTS AT 17401', 17551', 17622' AND 18896'
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
20,314.00	91.29	172.51	11,559.72	-8,761.16	2,583.53	9,134.11	3.00	PTW MWD+HDGM_2016
20,404.00	89.62	174.71	11,559.00	-8,850.59	2,593.54	9,222.76	3.07	PTW MWD+HDGM_2016
20,494.00	91.00	173.21	11,558.52	-8,940.08	2,603.01	9,311.32	2.26	PTW MWD+HDGM_2016
20,546.00	89.91	173.91	11,558.10	-8,991.75	2,608.85	9,362.55	2.49	PTW MWD+HDGM_2016
20,600.00	89.91	173.91	11,558.19	-9,045.44	2,614.58	9,415.70	0.00	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/16.00	POM (cc)	
MD (ft)	20,600.00	TS/HGS/LGS (%)	26.70/16.60/10.1	CaCl2 (%)	
			0		
Mud Density (ppg)	13.55	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	76.00	Oil/Water Ratio (%)	77.80/22.20	ACT	
PV/YP (cp/lbf/100ft²)	23.00/11.000			XS Lime(lbm/bbl)	2.98
Gels 10 s/m (lbf/100ft²)	15.000/18.000	LCM (lbm/bbl)	13.550	ES (Volts)	469.0
API/HTHP WL (cc/30min)	/10.6	ECD (ppg)		R600/300 (°)	
FC/HTHP FC (32nd")	/4.0	H2S (gas unit)		R200/100 (°)	
WPS (ppm)	232,699	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
6	6.125	BAKER HUGHES	TD405FX			7162161	5x16	11,696.00	20,600.00	-----

EP WELLS DAILY OPERATIONS REPORT

Report 27

03/30/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H 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.
4" DRILL PIPE	486	15,316.51	4.000		3.340	XT-39			RIG
SHOCK SUB	1	12.02	5.000		2.062	XT-39			SHTL0500-0 011
(40 STANDS) DRILL PIPE	114	3,592.76	4.000		3.340	XT-39			RIG
AGITATOR	1	20.29	5.000		2.062	XT-39B			W1857330
(17 STANDS) DRILL PIPE	48	1,526.78	4.000		3.340	XT-39B			RIG
CROSSOVER	1	2.62	4.687		2.812	XT-39B			DR15468
FILTER SUB	1	4.71	4.750		2.688	3-1/2 IF-B			MR475-110
FLOAT SUB	1	1.77	4.625		2.250	3-1/2 IF-B			DR16365
NMFC	1	30.61	4.687		2.250	3-1/2 IF-B			DR6009
NMDC	1	28.72	4.750		2.500	3-1/2 IF-B			DR24403
GAP SUB	1	3.69	5.125			3-1/2 IF-B			0058
CARRIER	1	8.35	5.125			3-1/2 IF-B			0030
LANDING SUB	1	3.43	5.125			3-1/2 IF-B			0048
CROSSOVER	1	1.60	4.750		2.750	3-1/2 IF-B			0028
NMPC	1	13.24	4.813		2.813	3-1/2 IF-B			DR14410
5" BICO MUD MOTOR, 6/7 LOBE, 8.0 STG. 1.83° FXD. RPG: 0.81	1	31.99	5.000			3-1/2 IF-B			G483
BIT #6 RUN #1 6-1/8" BAKER TD405FX. 5X16's SN: 7162161	1	0.91	6.125	6.125		3-1/2 REG-P			7162161

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/23/2017 22:30	03/30/2017 02:00	6	163.95		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						

EP WELLS DAILY OPERATIONS REPORT

Report 28

03/31/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H ST01
WBS No/API No	30259585 / 4230133171.01

Event Summary

Event Type	Drilling only	Event Start Date	02/02/2017	Days on Location	26.58
Objective	Drill - Wolfcamp Shale HZ	Original Spud Date	02/02/2017	Days Since Spud	26.12
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TOMMY DOWNES	Measured Depth(ft)	20,600.00
Engineer	POWER CHARLES	TVD(ft)	11,558.19
Other Supervisor	KEITH IMMATTY	24 Hr Progress(ft)	0.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0.50/2.08	Last Casing MD	7.000in@11,883.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,400.00ft
Actual cost to date/AFE	2,521,830/2,985,039.00	Current Fluid Density(ppg)	
Actual divided by AFE	0.84	LOT/FIT EMW(ppg)	
Daily Cost	293,011	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	151	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	1
Last Derrick Inspection	03/16/2017	15		
Last BOP function test	03/16/2017	15		
Last BOP Test	04/06/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
RIH 4.5" LINER W/4" DP TO 20,588'. SET HANGER. PUMP CEMENT. CIRCULATE OUT CEMENT. PERFORM POSITIVE PRESSURE TEST-GOOD TEST. DISPLACE TO BRINE HOLDING CONSTANT BHP. PERFORM NEGATIVE PRESSURE TEST-GOOD TEST. TOOH AND L/D RUNNING TOOLS. REMOVE BIT GUIDE AND INSTALL BPV.
**RELEASE RIG AT 0000HRS ON 04/01/2017
Update Since Report Time
SKID RIG TO UNIVERSITY 19 PW UNIT 1505H. REMOVE BPV AND BIT GUIDE. INSTALL TEST PLUG. PRESSURE TEST BOP
24 Hour Forecast
FINISH TESTING BOP. P/U LATERAL BHA. TIH. D/O SHOE TRACK. DRILL LATERAL

EP WELLS DAILY OPERATIONS REPORT

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Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	4.50	MNH1	TIH		20,600.00	0		TIH W/4" DP F/18885' T/20588'
								REAMED THROUGH TIGHT SPOTS AS NEEDED
4:30	1.50	MNH1	RCC		20,600.00	0		RACK BACK ONE STAND. P/U AND M/U CEMENT HEAD
6:00	0.50	MNH1	RCC		20,600.00	0		CIRCULATE BALL DOWN TO SET BALL SEAT AT 70SPM. PRESSURE INCREASED TO 300PSI
6:30	0.50	MNH1	RCC		20,600.00	0		SET HANGER AND RELEASE RUNNING TOOL
7:00	1.00	MNH1	RCC		20,600.00	0		HOLD PJSM WITH CEMENTERS AND FINISH RIGGING UP CEMENTERS
8:00	2.50	MNH1	CEM		20,600.00	0		PRESSURE TEST LINES TO 8500PSI. PUMP CEMENT AS FOLLOWS: 50BBLS 14PPG SPACER 185BBLS 14.5PPG CEMENT 140BBLS BRINE DISPLACEMENT 20BBLS FW SPACER 101BBLS OBM DISPLACEMENT BUMP PLUGS AND TEST FLOATS- FLOATS HELD
10:30	0.50	MNH1	LCH		20,600.00	0		R/D CEMENT IRON. L/D CEMENT HEAD
11:00	1.00	MNH1	LCH		20,600.00	0		CIRCULATE CEMENT OUT OF THE HOLE
12:00	0.50	MNH1	SLP		20,600.00	0		CONDUCT POSITIVE PRESSURE TEST AT 2500PSI FOR 10MINS-GOOD TEST
12:30	2.50	MNH1	CDM		20,600.00	0		DISPLACE TO 9.7PPG BRINE HOLDING CONSTANT BOTTOM HOLE PRESSURE
15:00	0.50	MNH1	SLP		20,600.00	0		CONDUCT NEGATIVE PRESSURE TEST-GOOD TEST
15:30	2.00	MNH1	TOH		20,600.00	0		POOH W/4" DP F/10870' T/4713'
17:30	0.50	MNH1	SVC		20,600.00	0		RIG SERVICE
18:00	2.00	MNH1	TOH		20,600.00	0		POOH F/4713' T/RUNNING TOOLS. L/D RUNNING TOOLS
20:00	0.50	MNH1	WHD		20,600.00	1		NPT(CAMERON): REQUESTED FOR SERVICE HANDS TO BE ON LOCATION AT 1900HRS. THEY ARRIVED AT 2030HRS
20:30	2.00	MNH1	WHD		20,600.00	0		REMOVE BIT GUIDE. INSTALL BPV. L/D MOUSEHOLE
22:30	0.50	MNH1	WHD		20,600.00	0		REMOVE QUICK CONNECT. INSTALL DUST CAP
23:00	1.00	RIGM	RGD		20,600.00	0		PREPARE TO SKID
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
03/31/2017 20:00	CAMERON INTERNATIONAL CORPORATION	Wait On Personnel	20,600.00	WHD	N		0.50	0.50		
Description: REQUESTED FOR SERVICE HANDS TO BE ON LOCATION AT 1900HRS. THEY ARRIVED AT 2030HRS						Title: WAIT ON CAMERON				
Total							0.50	0.50		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
20,314.00	91.29	172.51	11,559.72	-8,761.16	2,583.53	9,134.11	3.00	PTW MWD+HDGM_2016

EP WELLS DAILY OPERATIONS REPORT

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03/31/2017

Well UNIVERSITY 19 PW UNIT 1504H
Wellbore UNIVERSITY 19 PW UNIT 1504H ST01

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
20,404.00	89.62	174.71	11,559.00	-8,850.59	2,593.54	9,222.76	3.07	PTW MWD+HDGM_2016
20,494.00	91.00	173.21	11,558.52	-8,940.08	2,603.01	9,311.32	2.26	PTW MWD+HDGM_2016
20,546.00	89.91	173.91	11,558.10	-8,991.75	2,608.85	9,362.55	2.49	PTW MWD+HDGM_2016
20,600.00	89.91	173.91	11,558.19	-9,045.44	2,614.58	9,415.70	0.00	PTW MWD+HDGM_2016

Fluid Details

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