

# EP WELLS DAILY OPERATIONS REPORT

Report 45

03/13/2014

Company PERMIAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No 30197474 / 4249533544.00

## Event Summary

Event Type	Drilling only	Event Start Date	01/28/2014	Days on Location	44.29
Objective	DEV-Bone Springs 3BSS	Original Spud Date	02/04/2014	Days Since Spud	37.69
Est. Days	29.00	Contractor	PATTERSON DRILLING		
Work Unit	PATTERSON 274	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	JEFF STRINGER	Measured Depth(ft)	16,627.00
Engineer	MARK BLANCHARD	TVD(ft)	11,658.54
Other Supervisor	CLYDE ADCOCK / GABRIEL DIAZ-PEREZ	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	6.125
Rig Operating Rate(hr)	0.00	Last Casing MD	7.000in@11,947.00ft
Rig Zero Rate(hr)	0.00	Next Casing MD	4.500in@15,500.00ft
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	4,499,983/4,467,000.00	LOT/FIT EMW(ppg)	14.54
Actual divided by AFE	1.01	Lithology	5% SH / 95% SDST
Daily Cost	142,644	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	16,627.00ft
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	11/02/2013	131	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	0 6 16
Safety Comments:							
DAYS SINCE LAST HIPO: 131 DAYS SINCE LAST RECORDABLE: 131 DAYS SINCE LAST SPILL: 131 DAYS SINCE LAST PSE: 99							
Community/Security/Logistics Issues							
Permits of Interest							

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	03/01/2014 12
Last pit drill			Last BOP Test	03/01/2014 12
Last diverter drill			Next BOP Test	03/22/2014
Last H2S drill			Drill Type Today	N/A
Last Derrick Inspection			JSA's/Toolbox Talks	30
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
Continue to run 4.5" liner from 14604' to 16249' (washing down as needed).
Update Since Report Time
Wash down 4.5" liner from 16249' to 16410'.
24 Hour Forecast
Continue to run 4.5" liner to 16621', set S-3 packer, displace well, and TOOH.

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## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.00	C06	PCD		16,627.00	0		Circulate and condition mud at 14604' until a continuous 13.0 ppg MW was re-established. Observed a 25 ft max flare, 10-15 ft flare, and a 1.9 ppg mud cut.
1:00	1.00	C06	CLR		16,627.00	0		Continue TIH from 14604' to 14900'.
2:00	1.00	C06	CLR		16,627.00	0		Wash down liner from 14900' to 15079' due to tight hole (SPM = 30, SPP = 1027-1034 psi). String weight recorded at 15079': PU = 245 klbs and SO=135 klbs.
3:00	1.50	C06	PCD		16,627.00	0		CBU
4:30	1.00	C06	CLR		16,627.00	0		TIH from 15079' to 15325'.
5:30	2.00	C06	CLR		16,627.00	0		Wash down liner from 15325' to 15350'. (SPM = 31, SPP = 995-1014 psi)
7:30	2.50	C06	CLR		16,627.00	0		TIH from 15350' to 15697'.
10:00	1.50	C06	PCD		16,627.00	0		CBU
11:30	6.50	C06	CLR		16,627.00	0		Wash down liner from 15697' to 15978'. (SPM = 30, SPP = 1088-1104 psi). Pump Lubra Beads in the mud system try to help with hole drag. 3 Sweeps at 10 lbs per bbl.
18:00	6.00	C06	CLR		16,627.00	0		Wash down liner from 15978' to 16249'. (SPM = 30-36, SPP = 1091-1096 psi)

## Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
16,486.00	93.92	159.25	11,668.96	-4,396.56	1,272.48	4,576.98	0.73	EPW MWD
16,486.00	93.92	159.25	11,668.98	-4,391.20	1,285.75	4,575.56	0.73	EPW MWD
16,581.00	94.40	159.17	11,662.07	-4,485.14	1,306.11	4,671.44	0.51	EPW MWD
16,581.00	94.40	159.17	11,662.09	-4,479.78	1,319.38	4,670.02	0.51	EPW MWD
16,627.00	94.40	159.17	11,658.54	-4,528.00	1,322.41	4,717.16	0.00	EPW MWD

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)	/14.80/0.90	XS Lime(lbm/bbl) ES (Volts) R600/300 (°) R200/100 (°) R6/3 (°)
MD (ft)	16,627.00	TS/HGS/LGS (%)		
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		
WPS (ppm)		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
8	6.130	SMITH INTERNA	MDI611		M111	JH9121	1x18, 6x14	13,904.00		-----

## 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 Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/06/2014 18:00		9	101.30		DRILL LATERAL

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Wellbore UNIVERSITY 20-10 WNK 1HN

## Drillstring Components

Component type	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
Drill Pipe	505	16,525.70	4.000		3.340		16.09		
Crossover	1	3.05	5.250		0.252		54.25		AWST3943
Integral Blade Stabilizer	1	4.55	4.810		2.250		48.06		AWNT4445
Bent Housing	1	23.78	4.750						360500-0029
Crossover	1	3.11	4.810		1.560		48.06		AWST3669
Debris Removal Tool	1	3.10	4.750		2.250		44.97		DR23945
Integral Blade Stabilizer	1	4.58	4.810		2.250		8.06		AWNS4416
Agitator Sub	1	2.47	4.690		2.690		44.97		AWNT2074
Non-Mag Drill Collar	1	30.94	4.750		2.750		44.97		AWS475-30-4331
MWD Tool	1	7.21	4.940						CC4007
Orienting Sub	1	2.94	4.750		2.310		44.97		475U175
Bent Housing	1	14.57	5.000						79188
Polycrystalline Diamond Bit	1	1.00	6.125	6.130					JH9121

## 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		BOMCO / 1600 HP	12.00						
2		BOMCO / 1600 HP	12.00						

## Remarks

DIESEL ON HAND: 11,749 GALS  
DIESEL USED: 1020 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS

# EP WELLS DAILY OPERATIONS REPORT

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03/14/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No 30197474 / 4249533544.00

## Event Summary

Event Type	Drilling only	Event Start Date	01/28/2014	Days on Location	45.29
Objective	DEV-Bone Springs 3BSS	Original Spud Date	02/04/2014	Days Since Spud	38.69
Est. Days	29.00	Contractor	PATTERSON DRILLING		
Work Unit	PATTERSON 274	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	JEFF STRINGER	Measured Depth(ft)	16,627.00
Engineer	MARK BLANCHARD	TVD(ft)	11,658.54
Other Supervisor	RICH DURAN / GABRIEL DIAZ-PEREZ	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	6.125
Rig Operating Rate(hr)	0.00	Last Casing MD	7.000in@11,947.00ft
Rig Zero Rate(hr)	0.00	Next Casing MD	4.500in@15,500.00ft
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	4,716,140/4,467,000.00	LOT/FIT EMW(ppg)	14.54
Actual divided by AFE	1.06	Lithology	
Daily Cost	191,077	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	11/02/2013	132	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	0 7 16

### Safety Comments:

DAYS SINCE LAST HIPO: 132  
DAYS SINCE LAST RECORDABLE: 132  
DAYS SINCE LAST SPILL: 132  
DAYS SINCE LAST PSE: 100  
PEIR: 590

### Community/Security/Logistics Issues

Permits of Interest LO/TO--1, BUFFER ZONE--2, MANLIFT--2, FLUID TRANSFER--1

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	03/01/2014 13
Last pit drill			Last BOP Test	03/01/2014 13
Last diverter drill			Next BOP Test	03/22/2014
Last H2S drill			Drill Type Today	N/A
Last Derrick Inspection			JSA's/Toolbox Talks	26
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
WASH PIPE TO BOTTOM F/16,261' T/16456'. HOLD PJSM AND R/U HALLIBURTON PUMP TRUCK. DISPLACE LINER WITH 10.0 PPG BRINE, SET S-3 PACKER, AND TEST BACKSIDE TO 2500 PSI (GOOD TEST). DISPLACE WELL WITH 10.0 PPG AND PERFORM INFLOW TEST. TOO H F/11,111' T/8749'.
Update Since Report Time
POOH F/8749' TO SURFACE. PULL ROTATING HEAD AND L/D BAKER LINER RUNNING TOOLS.
24 Hour Forecast

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Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

CLEAR RIG FLOOR. PULL WEATHERFORD BIT GUIDE AND INSTALL BPV. RELEASE RIG FROM UNIVERSITY 20-10 WNK 1HN.  
N/D STACK, REMOVE BOP LINES, AND L/D STACK WITH WRANGLER. SKID TO UNIVERSITY 20-3 WNK 1H.

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	C06	CLR		16,627.00	0		WASH F/16,261' T/16,430'. SPM=30/850 PSI, P/U=280K, S/O=130.
6:00	6.00	C06	CLR		16,627.00	0		WASH PIPE TO BOTTOM 16,456'.
12:00	1.50	C06	RUD		16,627.00	0		HOLD SAFETY MEETING AND R/U HALLIBURTON PUMP TRUCK.
13:30	4.50	C06	CLC		16,627.00	0		PUMP 10 BBLS OF FW SPACER FOLLOWED BY 120 BBLS OF 10.0 PPG BRINE AND DROP 1.25" WIV TOOL SETTING BALL. PUMP 80 BBLS OF BRINE FOLLOWED BY 10 BBLS OF FW SPACER AND DISPLACE WITH 80 BBLS OF 13.1 PPG MUD.
18:00	1.50	C06	PRE		16,627.00	0		SET S-3 PACKER AND TEST BACKSIDE TO 2500 PSI. GOOD TEST.
19:30	0.50	C06	SAF		16,627.00	0		HELD A PAUSE AND DISCUSSED THE BEST WAY TO L/D SINGLE AND REPOSITION HALLIBURTON CIRCULATING IRON.
20:00	3.00	C06	PCD		16,627.00	0		DISPLACED HOLE WITH 10.0 PPG BRINE. PERFORMED (1) ONE HOUR INFLOW TEST AND RD HALLIBURTON CIRCULATING IRON.
23:00	1.00	C06	DRT		16,627.00	0		TOOH F/11,111' T/8749'.

## 06.00 Update

0:00	3.00				16,627.00	0		TOOH F/8749' T/ 495'.
3:00	1.00				16,627.00	0		PULL ROTATING HEAD.
4:00	0.50				16,627.00	0		TOOH F/495' TO SURFACE.
4:30	0.50				16,627.00	0		L/D BAKER LINER RUNNING TOOLS.
5:00	1.00				16,627.00	0		

## Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
16,486.00	93.92	159.25	11,668.96	-4,396.56	1,272.48	4,576.98	0.73	EPW MWD
16,486.00	93.92	159.25	11,668.98	-4,391.20	1,285.75	4,575.56	0.73	EPW MWD
16,581.00	94.40	159.17	11,662.07	-4,485.14	1,306.11	4,671.44	0.51	EPW MWD
16,581.00	94.40	159.17	11,662.09	-4,479.78	1,319.38	4,670.02	0.51	EPW MWD
16,627.00	94.40	159.17	11,658.54	-4,528.00	1,322.41	4,717.16	0.00	EPW MWD

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)	16,627.00	TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				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
8	6.130	SMITH INTERNA	MDI611		M111	JH9121	1x18, 6x14	13,904.00		-----

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Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## 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 Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
03/06/2014 18:00		9	101.30		DRILL LATERAL

## Drillstring Components

Component type	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
Drill Pipe	505	16,525.70	4.000		3.340		16.09		
Crossover	1	3.05	5.250		0.252		54.25		AWST3943
Integral Blade Stabilizer	1	4.55	4.810		2.250		48.06		AWNT4445
Bent Housing	1	23.78	4.750						360500-0029
Crossover	1	3.11	4.810		1.560		48.06		AWST3669
Debris Removal Tool	1	3.10	4.750		2.250		44.97		DR23945
Integral Blade Stabilizer	1	4.58	4.810		2.250		8.06		AWNS4416
Agitator Sub	1	2.47	4.690		2.690		44.97		AWNT2074
Non-Mag Drill Collar	1	30.94	4.750		2.750		44.97		AWS475-30-4331
MWD Tool	1	7.21	4.940						CC4007
Orienting Sub	1	2.94	4.750		2.310		44.97		475U175
Bent Housing	1	14.57	5.000						79188
Polycrystalline Diamond Bit	1	1.00	6.125	6.130					JH9121

## 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		BOMCO / 1600 HP	12.00						
2		BOMCO / 1600 HP	12.00						

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS

# EP WELLS DAILY OPERATIONS REPORT

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03/15/2014

Company PERMIAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No 30197474 / 4249533544.00

## Event Summary

Event Type	Drilling only	Event Start Date	01/28/2014	Days on Location	46.19
Objective	DEV-Bone Springs 3BSS	Original Spud Date	02/04/2014	Days Since Spud	39.58
Est. Days	29.00	Contractor	PATTERSON DRILLING		
Work Unit	PATTERSON 274	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	JEFF STRINGER	Measured Depth(ft)	16,627.00
Engineer	MARK BLANCHARD	TVD(ft)	11,658.54
Other Supervisor	RICH DURAN / GABRIEL DIAZ-PEREZ	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	6.125
Rig Operating Rate(hr)	0.00	Last Casing MD	7.000in@11,947.00ft
Rig Zero Rate(hr)	0.00	Next Casing MD	4.500in@15,500.00ft
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	5,084,729/4,467,000.00	LOT/FIT EMW(ppg)	14.54
Actual divided by AFE	1.14	Lithology	
Daily Cost	368,589	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	11/02/2013	133	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	0 4 16

### Safety Comments:

DAYS SINCE LAST HIPO: 133  
DAYS SINCE LAST RECORDABLE: 133  
DAYS SINCE LAST SPILL: 133  
DAYS SINCE LAST PSE: 101  
PEIR: 682

### Community/Security/Logistics Issues

Permits of Interest BUFFER ZONE--3, MANLIFT--2, FLUID TRANSFER--6, CONFINED--1

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	N/A
Last Derrick Inspection			JSA's/Toolbox Talks	32
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
CLEAR RIG FLOOR. CLEAN CELLAR WITH VACUUM TRUCK. PULL WEATHERFORD BIT GUIDE AND INSTALL BPV. N/D STACK, REMOVE BOP LINES, AND L/D STACK WITH WRANGLER. INSTALL & TEST WELL CAP. RELEASE RIG FROM UNIVERSITY 20-10 WNK 1HN AT 2130 HRS. FINAL REPORT.
Update Since Report Time
SKID TO UNIVERSITY 20-3 WNK 1HN.
24 Hour Forecast

# EP WELLS DAILY OPERATIONS REPORT

Report 47

03/15/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

N/A

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.00	C06	DRT		16,627.00	0		TOOH F/8749' T/495'.
3:00	1.00	C06	RUD		16,627.00	0		PULL ROTATING HEAD.
4:00	0.50	C06	DRT		16,627.00	0		TOOH F/495' TO SURFACE.
4:30	0.50	C06	RUD		16,627.00	0		L/D BAKER LINER RUNNING TOOLS.
5:00	1.00	C06	WHN		16,627.00	0		P/U CAMERON TOOLS AND REMOVE WELLHEAD STUDS IN ORDER TO PULL BIT GUIDE.
6:00	7.50	C06	RUD		16,627.00	0		PULL BIT GUIDE.
13:30	4.50	C06	BPR		16,627.00	0		N/D BOP.
18:00	3.50	C06	WHN		16,627.00	0		INSTALL AND TEST WELL CAP.
21:30	0.00	C06	NGI		16,627.00	0		RIG RELEASE FROM THE UNIVERSITY 20-10 WNK 1H AT 2130 HRS ON 3/15/2014. FINAL REPORT.

## Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
16,486.00	93.92	159.25	11,668.96	-4,396.56	1,272.48	4,576.98	0.73	EPW MWD
16,486.00	93.92	159.25	11,668.98	-4,391.20	1,285.75	4,575.56	0.73	EPW MWD
16,581.00	94.40	159.17	11,662.07	-4,485.14	1,306.11	4,671.44	0.51	EPW MWD
16,581.00	94.40	159.17	11,662.09	-4,479.78	1,319.38	4,670.02	0.51	EPW MWD
16,627.00	94.40	159.17	11,658.54	-4,528.00	1,322.41	4,717.16	0.00	EPW MWD

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)				

## PUMP/HYDRAULIC DATA

Pum p No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		BOMCO / 1600 HP	12.00						
2		BOMCO / 1600 HP	12.00						

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS



# EP WELLS DAILY OPERATIONS REPORT

Report 1

05/16/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	1.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	BILLY WOOLDRIDGE	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor		24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	14,881/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.01	Lithology	
Daily Cost	14,881	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	0	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	3
Safety Comments:							
61 PERSONNEL 28 DRIVE HOURS 712 WORK HOURS 2 SSE'S							
Community/Security/Logistics Issues							
Permits of Interest							
NO GO ZONE. OVERHEAD LIFT. PRESSURE PUMPING							

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	8
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
PRE WORK FOR FRAC
Update Since Report Time
24 Hour Forecast
CONTINUE PREWORK

# EP WELLS DAILY OPERATIONS REPORT

Report 1

05/16/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:30	0.50	CS	NGI		0.00	0		ON LOCATION . 0 PSI ON WELL
7:00	0.25	CS	SAF		0.00	0		SAFETY MEETING
7:15	0.58	CS	PRE		0.00	0		SET TEST PLUG AND TEST LMV TO 10,000 PSI. GOOD TEST.
7:50	5.17	CS	RUD		0.00	0		PULL TEST PLUG AND NU FRAC STACK
13:00	1.00	CS	PRE		0.00	0		TEST RIGHT HAND HYDRAULIC WING VALVE AND RH MANUAL VALVE 10,000 PSI. GOOD. TEST LEFT HAND HYDRAULIC WING VALVE AND LEFT HAND MANUAL TO 10000 PSI. GOOD.
14:00	2.17	CS	PRE		0.00	0		TEST HYDRAULIC MASTER VALVE AND SWAB VALVE TO NIGHT CAP TO 10,000 PSI. GOOD.
16:10	0.18	CS	PRE		0.00	0		TEST LINES TO ANNULUS VALVE TO 5650 PSI. GOOD.
16:21	0.48	CS	PCD		0.00	0		PUMP DOWN 7" BY 9 5/8" ANNULUS. ESTABLISH INJECTION RATE 3.9 BPM @ 660 PSI.
16:50	0.18	CS	PRE		0.00	0		TEST LINES TO FLOW CROSS TO 9300 PSI. GOOD. BLEED DOWN TO 1000 PSI. OPEN WELL WITH 0 PSI.
17:01	0.48	CS	PCD		0.00	0		START PUMPING TO OPEN P-SLEEVE. STOP AT 2620 PSI FOR 5 MINUTES. RESUME PUMPING TO 4049 PSI. WAIT FOR 15 MINUTES. PUMP AND OPEN P-SLEEVE @ 5230 PSI. ISIP = 3920 PSI.
17:30	0.50	CS	PCD			0		ESTABLISH INJECTION RATE 5.2 BPM @ 4600 PSI FOR 50 BBLS. SIWFN

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)				

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS

# EP WELLS DAILY OPERATIONS REPORT

Report 2

05/17/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	2.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	BILLY WOOLDRIDGE	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor		24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	41,434/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.02	Lithology	
Daily Cost	26,553	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	1	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	0
Safety Comments:							
23 PERSONNEL 28 DRIVE HOURS 111 WORK HOURS 0 SSE'S							
Community/Security/Logistics Issues							
Permits of Interest							
NO GO ZONE. OVER HEAD LIFT							

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	4
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
CONDUCT PRESSURE SURVEY
Update Since Report Time
24 Hour Forecast
PREP FOR FRAC

# EP WELLS DAILY OPERATIONS REPORT

Report 2

05/17/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
15:00	0.75	CS	SLO	RUD	0.00	0		MOVE FROM UNIVERSITY 20-3-WNK 1HN WELL. NU PRECISION DATA LUBRICATOR TO RUN GAUGE RING AND PRESSURE SURVEY.
15:45	1.25	CS	SLO	DRF	0.00	0		PRESSURE TEST LUBRICATOR TO 4500 PSI. OPEN WELL RIH WITH 3.76' OD X 2' GAUGE RING, 2 EACH 7' X 3.18" OD WEIGHT BARS, 2"OD X 10" LONG FISHING NECK ON ROPE SOCKET. RIH PAST LINER TOP @ 11,111' TO 11345'. POOH WITH SAME.
17:00	0.25	CS	SLO	RUD	0.00	0		LD LUBRICATOR AND BHA.
17:15	2.25	CS	SLO	GAI	0.00	0		TEST LUBRICATOR TO 4500 PSI. AND RIH WITH PRESSURE RECORDER TO POINT OF REFUSAL @ 11750'. RECORD FIRST PRESSURE @ 11,750' FOR 5 MINUTES, THEN EVERY 1000' FOR 2 MINUTES THERE AFTER. POOH  OOH. LD LUBRICATOR. SICP= 3830 PSI. SIWFN
<b>06.00 Update</b>								
0:00	24.00	CS	NOA			0		NO ACTIVITY. COST TRACKING

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)	/14.80/0.90	XS Lime(lbm/bbl)
MD (ft)		TS/HGS/LGS (%)		
Mud Density (ppg)	13.00	Sand (%)	14.58	ES (Volts)
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)	14.58	R600/300 (°)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R200/100 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		
WPS (ppm)				R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)				

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS

# EP WELLS DAILY OPERATIONS REPORT

Report 3

05/18/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	3.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	BILLY WOOLDRIDGE	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor		24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	
Actual cost to date/AFE	44,495/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.02	Lithology	
Daily Cost	3,061	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	2	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	
Safety Comments:							
Community/Security/Logistics Issues							
Permits of Interest							

## Operations Summary

24 Hour Summary
NO ACTIVITY. COST TRACKING
Update Since Report Time
24 Hour Forecast

**EP WELLS DAILY OPERATIONS REPORT**

Report 3

05/18/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

**Time Summary**

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	24.00	CS	NOA			0		NO ACTIVITY. COST TRACKING

# EP WELLS DAILY OPERATIONS REPORT

Report 4

05/20/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	4.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	Bud Lewing	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	Matt Jentsch & Morgan Davis	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	46,040/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.02	Lithology	
Daily Cost	1,545	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	4	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	
Safety Comments:							
Community/Security/Logistics Issues							
Permits of Interest							

## Operations Summary

24 Hour Summary
Update Since Report Time
Fracing University 20-3 WNK 1 HN.
24 Hour Forecast

# EP WELLS DAILY OPERATIONS REPORT

Report 4

05/20/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:00	18.00	CS	RUD			0		Fracing University 20-3 WNK 1 HN.

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)				

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS



# EP WELLS DAILY OPERATIONS REPORT

Report 5

05/21/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	5.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	Bud Lewing	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	Matt Jentsch & Morgan Davis	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	47,585/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.02	Lithology	
Daily Cost	1,545	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	5	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	
Safety Comments:							
Community/Security/Logistics Issues							
Permits of Interest							

## Operations Summary

24 Hour Summary
Update Since Report Time
Continue Frac operations on University 20-3 1HN
24 Hour Forecast

# EP WELLS DAILY OPERATIONS REPORT

Report 5

05/21/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:00	18.00	CS	NOA			0		Continue Frac operations on University 20-3 1HN

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)				

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS

# EP WELLS DAILY OPERATIONS REPORT

Report 6

05/22/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	6.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	Bud Lewing	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	Matt Jentsch & Morgan Davis	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	49,130/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.02	Lithology	
Daily Cost	1,545	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	6	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	
Safety Comments:							
Community/Security/Logistics Issues							
Permits of Interest							

## Operations Summary

24 Hour Summary
Update Since Report Time
Continue Frac Operations on University 20-3 1HN.
24 Hour Forecast

# EP WELLS DAILY OPERATIONS REPORT

Report 6

05/22/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:30	17.50	CS	NOA			0		Continue Frac Operations on University 20-3 1HN.

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)				

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS

# EP WELLS DAILY OPERATIONS REPORT

Report 7

05/23/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	7.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	Matthew Jentsch	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	Morgan Davis	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	50,675/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.02	Lithology	
Daily Cost	1,545	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	7	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	
Safety Comments:							
Community/Security/Logistics Issues							
Permits of Interest							

## Operations Summary

24 Hour Summary
Update Since Report Time
Continue Frac operations on University 20-3 1HN.
24 Hour Forecast

# EP WELLS DAILY OPERATIONS REPORT

Report 7

05/23/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:30	17.50	CS	NOA		0.00	0		Continue Frac operations on University 20-3 1HN

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)				

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS

# EP WELLS DAILY OPERATIONS REPORT

Report 8

05/24/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	8.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	Matthew Jentsch	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	Morgan Davis	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	52,220/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.02	Lithology	
Daily Cost	1,545	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	8	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	
Safety Comments:							
Community/Security/Logistics Issues							
Permits of Interest							

## Operations Summary

24 Hour Summary
Update Since Report Time
Continue Frac operations on University 20-3 1HN.
24 Hour Forecast

# EP WELLS DAILY OPERATIONS REPORT

Report 8

05/24/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:30	17.50	CS	NOA			0		Continue Frac operations on University 20-3 1HN.

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)				

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS



# EP WELLS DAILY OPERATIONS REPORT

Report 9

05/25/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	9.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	Matthew Jentsch	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	Morgan Davis	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	56,765/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.02	Lithology	
Daily Cost	4,545	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC			OHI			TRCF	
RWC			NII			LWCF	
MTC			HPI			Safety Cards - Safe	1
FAC			<b>GOAL ZERO DAYS</b>	05/16/2014	9	Safety Card - Unsafe	2
						SSE%	10

Safety Comments:	
Total Personnel 42	
Total Manhours 452	
Driving hours 77	
SSE (1 Express & 3 Trican)	
Pauses 3	
Audits 0	
Incidents 0	
Community/Security/Logistics Issues	
Permits of Interest	NO-GO, chemical pumping, manlift, critical lift, LOTO

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	10
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
Continue Frac operations on University 20-3 1HN.
Update Since Report Time
RU frac and flowback.
24 Hour Forecast
Start frac operations.

# EP WELLS DAILY OPERATIONS REPORT

Report 9

05/25/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
15:00	3.00	CS	RUD			0		Frac ops complete on University 20-3 1H. Move frac lines over and RU to wellhead. NU HES ball launcher. Well secured. SDFN.

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)			
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90		
Mud Density (ppg)	13.00	Sand (%)			
Vis (s/qt)	43.00	Oil/Water Ratio (%)			
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)			XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)			ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58		R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)			R200/100 (°)
WPS (ppm)					R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)					

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS

# EP WELLS DAILY OPERATIONS REPORT

Report 10

05/26/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	10.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	Matthew Jentsch	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	Morgan Davis	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	397,325/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.15	Lithology	
Daily Cost	340,560	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	10	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	8

Safety Comments:	
Total Personnel 50	
Total Manhours 414	
Driving hours 100	
SSE (1 Express & 3 Trican)	
Pauses 3	
Audits 0	
Incidents 0	
Community/Security/Logistics Issues	
Permits of Interest	NO GO, LOTO, Chemical/pumping, manlift

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	12
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
RU frac and flowback.
Update Since Report Time
Frac stages 1, 2, 3, 4.
24 Hour Forecast
Continue frac operations.

# EP WELLS DAILY OPERATIONS REPORT

Report 10

05/26/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:30	0.50	CS	SAF		0.00	0		Hold safety/jsa meeting. SICP= 3,400 psi Ann= 300 psi.
7:00	1.15	CS	PRE		0.00	0		Prime pumps and test goat head and frac lines against 7-1/16 10K swab valve to 9,500 psi. Set pop offs @ 9,000 psi.
8:09	2.45	CS	FSM		0.00	0		FRAC stage 1. Alpha-Sleeve @ 16,281'.  Stage 1 Summary Perf Depth Open Well Pressure 3399 psi Max Treating Pressure 7180 psi Max Slurry Rate 51 bpm Average Treating Pressure 6748 psi Average Slurry Rate 49.50 bpm Breakdown Pressure 5961 psi Breakdown Rate 15.00 bpm Breakdown Volume 1260 gal Avg HHP 8186.91 hp Final ISIP psi Frac Gradient 0.43 psi/ft Pad Volume 30080 gal Main Body Volume 173695 gal Flush Volume 20229 gal 100 Mesh Sand Pumped 12000 lbs 30/50 Arizona 201760 20/40 SB Excel RC 35920 lbs Proppant in Formation 249680 lbs Avg Proppant Concentration 1.81 lb/gal Max Proppant Concentration 4.09 lb/gal Load to Recover 5243 bbls 15% HCL Spearhead 119 bbls VelocityFrac Fluid Pumped 2891 bbls 20# Platinum G Pumped 476 bbls 20# Stratum HT Pumped 1757 bbls Total Pump Time 2:27 hr:min Pumps Lost During Job Treatment Start Time 8:09 AM Treatment End Time 10:36 AM
10:36	1.95	CS	FSM		0.00	0		FRAC stage 2. Sleeve @ 15,948'.  Stage 2 Summary Perf Depth Open Well Pressure psi Max Treating Pressure 7030 psi Max Slurry Rate 50.7 bpm Average Treating Pressure 6763 psi Average Slurry Rate 49.80 bpm Breakdown Pressure 7126 psi Breakdown Rate 10.00 bpm Breakdown Volume 20118 gal Avg HHP 8254.84 hp Final ISIP psi Frac Gradient 0.43 psi/ft Pad Volume 31036 gal Main Body Volume 166104 gal Flush Volume gal 100 Mesh Sand Pumped 12000 lbs 30/50 Arizona 200400 20/40 SB Excel RC 36000 lbs Proppant in Formation 248400 lbs Avg Proppant Concentration 1.78 lb/gal Max Proppant Concentration 166104 lb/gal Load to Recover 2397 bbls 15% HCL Spearhead bbls VelocityFrac Fluid Pumped bbls 20# Platinum G Pumped 475 bbls 20# Stratum HT Pumped 1922 bbls

# EP WELLS DAILY OPERATIONS REPORT

Report 10

05/26/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Total Pump Time 1:57 hr:min Pumps Lost During Job Treatment Start Time 10:36 AM Treatment End Time 12:33 PM
12:33	1.92	CS	FSM		0.00	0		FRAC stage 3. Sleeve @ 15,614'.  Stage 3 Summary Perf Depth Open Well Pressure psi Max Treating Pressure 8106 psi Max Slurry Rate 50.6 bpm Average Treating Pressure 7608 psi Average Slurry Rate 49.90 bpm Breakdown Pressure 7270 psi Breakdown Rate 10.00 bpm Breakdown Volume 19866 gal Avg HHP 9304.88 hp Final ISIP psi Frac Gradient 0.43 psi/ft Pad Volume 30997 gal Main Body Volume 163768 gal Flush Volume 19490 gal 100 Mesh Sand Pumped 12000 lbs 30/50 Arizona 199940 20/40 SB Excel RC 36000 lbs Proppant in Formation 247940 lbs Avg Proppant Concentration 1.74 lb/gal Max Proppant Concentration 4.08 lb/gal Load to Recover 5076 bbls 15% HCL Spearhead bbls VelocityFrac Fluid Pumped 2760 bbls 20# Platinum G Pumped 475 bbls 20# Stratum HT Pumped 1841 bbls Total Pump Time 1:55 hr:min Pumps Lost During Job Treatment Start Time 12:33 PM Treatment End Time 2:28 PM
14:28	1.95	CS	FSM		0.00	0		FRAC stage 4. Sleeve @ 15,282'.  Stage 4 Summary Perf Depth Open Well Pressure psi Max Treating Pressure 8463 psi Max Slurry Rate 50.5 bpm Average Treating Pressure 7294 psi Average Slurry Rate 49.80 bpm Breakdown Pressure 8191 psi Breakdown Rate 10.00 bpm Breakdown Volume 19404 gal Avg HHP 8902.97 hp Final ISIP 5296 psi Frac Gradient 0.89 psi/ft Pad Volume 36516 gal Main Body Volume 157409 gal Flush Volume 21892 gal 100 Mesh Sand Pumped 1200 lbs 30/50 Arizona 200760 20/40 SB Excel RC 35720 lbs Proppant in Formation 237680 lbs Avg Proppant Concentration 1.87 lb/gal Max Proppant Concentration 4.14 lb/gal Load to Recover 5137 bbls 15% HCL Spearhead bbls VelocityFrac Fluid Pumped 2828 bbls 20# Platinum G Pumped 476 bbls 20# Stratum HT Pumped 1833 bbls Total Pump Time 1:57 hr:min

# EP WELLS DAILY OPERATIONS REPORT

Report 10

05/26/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Pumps Lost During Job Treatment Start Time 2:28 PM Treatment End Time 4:25 PM
16:25	1.58	CS	PCD			0		@ 50 bpm @ 5,300 psi, drop ball for stage #5 and pump 50 bbls behind ball. Allow ball to fall downhole over night. SD pumps and SI and secure well.  Well secured. SDFN. SICP= 5,290 psi Ann= 310 psi.

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
		Ditch Magnet in Last 24hrs/Cum. (gm)		

## Remarks

DIESEL ON HAND: 11,024 GALS  
DIESEL USED: 745 GALS  
DIESEL DELIVERED: 0

GEN #1: 00 HRS  
GEN #2: 24 HRS  
GEN #3: 24 HRS

# EP WELLS DAILY OPERATIONS REPORT

Report 11

05/27/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	11.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	Matthew Jentsch	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	Morgan Davis	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	730,768/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.27	Lithology	
Daily Cost	333,443	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	11	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	8
Safety Comments:							
Total Personnel 50 Total Manhours 420 Driving hours 102 SSE (1 Express & 3 Trican) Pauses 3 Audits 0 Incidents 1- Pressure relief valve washed out during frac operations. Well was shut in, pressure bled off, and valve replaced. No one was injured and the incident is pending investigation.							
Community/Security/Logistics Issues							
Permits of Interest NO GO, LOTO, Chemical/pumping, Manlift, Critical lift							

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	11
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
Frac stages #1, #2, #3, #4.
Update Since Report Time
Frac stages #5, #6, #7, #8.
24 Hour Forecast
Continue frac operations.

# EP WELLS DAILY OPERATIONS REPORT

Report 11

05/27/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:30	0.50	CS	SAF		0.00	0		Hold safety/jsa meeting. SICP= 4,500 psi Ann= 200 psi.
7:00	0.68	CS	PRE		0.00	0		Prime and test.
7:41	2.03	CS	FSM		0.00	0		start frac stage #5. Sleeve @ 14,948'.  Stage 5 Summary Perf Depth Open Well Pressure 4457 psi Max Treating Pressure 7643 psi Max Slurry Rate 50.8 bpm Average Treating Pressure 7020 psi Average Slurry Rate 49.80 bpm Breakdown Pressure 7147 psi Breakdown Rate 10.00 bpm Breakdown Volume 1890 gal Avg HHP 8568.53 hp Final ISIP psi Frac Gradient 0.43 psi/ft Pad Volume 29992 gal Main Body Volume 165718 gal Flush Volume 18845 gal 100 Mesh Sand Pumped 12120 lbs 30/50 Arizona 200840 20/40 SB Excel RC 36920 lbs Proppant in Formation 249880 lbs Avg Proppant Concentration 1.8 lb/gal Max Proppant Concentration 4.09 lb/gal Load to Recover 5107 bbls 15% HCL Spearhead bbls VelocityFrac Fluid Pumped 2690 bbls 20# Platinum G Pumped 475 bbls 20# Stratum HT Pumped 1942 bbls Total Pump Time 2:02 hr:min Pumps Lost During Job Treatment Start Time 7:41 AM Treatment End Time 9:43 AM
9:43	1.90	CS	FSM		0.00	0		Start frac stage #6. Sleeve @14,615'.  Stage 6 Summary Perf Depth Open Well Pressure psi Max Treating Pressure 7322 psi Max Slurry Rate 50 bpm Average Treating Pressure 6844 psi Average Slurry Rate 49.70 bpm Breakdown Pressure 7530 psi Breakdown Rate 10.00 bpm Breakdown Volume 18774 gal Avg HHP 8336.93 hp Final ISIP psi Frac Gradient 0.43 psi/ft Pad Volume 31017 gal Main Body Volume 149060 gal Flush Volume 16306 gal 100 Mesh Sand Pumped 12000 lbs 30/50 Arizona 201620 20/40 SB Excel RC 36920 lbs Proppant in Formation 250540 lbs Avg Proppant Concentration 1.82 lb/gal Max Proppant Concentration 4.31 lb/gal Load to Recover 5116 bbls 15% HCL Spearhead bbls VelocityFrac Fluid Pumped 2695 bbls 20# Platinum G Pumped 477 bbls 20# Stratum HT Pumped 1944 bbls Total Pump Time 1:54 hr:min



# EP WELLS DAILY OPERATIONS REPORT

Report 11

05/27/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Pumps Lost During Job Treatment Start Time 9:43 AM Treatment End Time 11:37 AM
11:37	1.93	CS	FSM		0.00	0		Start frac stage #7. Sleeve @ 14,281'.  Stage 7 Summary Perf Depth Open Well Pressure psi Max Treating Pressure 7764 psi Max Slurry Rate 50 bpm Average Treating Pressure 7201 psi Average Slurry Rate 49.70 bpm Breakdown Pressure 7348 psi Breakdown Rate 10.00 bpm Breakdown Volume 18522 gal Avg HHP 8771.81 hp Final ISIP psi Frac Gradient 0.43 psi/ft Pad Volume 31013 gal Main Body Volume 131540 gal Flush Volume gal 100 Mesh Sand Pumped 12000 lbs 30/50 Arizona 204620 20/40 SB Excel RC 36000 lbs Proppant in Formation 252620 lbs Avg Proppant Concentration 1.78 lb/gal Max Proppant Concentration 4 lb/gal Load to Recover 5159 bbls 15% HCL Spearhead bbls VelocityFrac Fluid Pumped 2719 bbls 20# Platinum G Pumped 476 bbls 20# Stratum HT Pumped 1964 bbls Total Pump Time 1:56 hr:min Pumps Lost During Job Treatment Start Time 11:37 AM Treatment End Time 1:33 PM
13:33	0.70	CS	FSM		0.00	0		Start frac stage #8. Sleeve @ 14,281'. Continue below (line 7 & 8)
14:15	0.33	CS	FSM		0.00	0		Pop off valve sand cut and washed out 249 bbls into .50# 100 mesh on frac stage #8. SI well, bleed off, and remove pop off valve. Contact Field Superintendent and Houston Engineering. Re-test once valve replaced.
14:35	2.17	CS	FSM		0.00	0		Resume frac stage #8.  Stage 8 Summary Perf Depth Open Well Pressure psi Max Treating Pressure 8679 psi Max Slurry Rate 50.6 bpm Average Treating Pressure 7036 psi Average Slurry Rate 49.80 bpm Breakdown Pressure 8770 psi Breakdown Rate 10.00 bpm Breakdown Volume 18018 gal Avg HHP 8588.06 hp Final ISIP 5443 psi Frac Gradient 0.90 psi/ft Pad Volume 36679 gal Main Body Volume 173257 gal Flush Volume 20625 gal 100 Mesh Sand Pumped 12000 lbs 30/50 Arizona 199740 20/40 SB Excel RC 36000 lbs Proppant in Formation 247740 lbs Avg Proppant Concentration 1.8 lb/gal Max Proppant Concentration 4.1 lb/gal Load to Recover 5886 bbls

# EP WELLS DAILY OPERATIONS REPORT

Report 11

05/27/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
								15% HCL Spearhead                      bbls VelocityFrac Fluid Pumped                      3397                      bbls 20# Platinum G Pumped                      475                      bbls 20# Stratum HT Pumped                      2014                      bbls Total Pump Time                      3:06 hr:min Pumps Lost During Job Treatment Start Time                      1:33 PM Treatment End Time                      4:39 PM
16:45	0.75	CS	PCD		0.00	0		@ 50 bpm @ 6,800 psi, drop ball for stage #9. Pump 50 bbls behind ball and allow ball to fall downhole over night. SD pumps and SI well. ND HES ball launcher and reload launcher w/ balls for remaining frac stages.
17:30	0.50	CS	RUD		0.00	0		NU HES ball launcher. Well secured, SDFN. SICP= 5,400 psi Ann= 200 psi

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
		Ditch Magnet in Last 24hrs/Cum. (gm)		

# EP WELLS DAILY OPERATIONS REPORT

Report 12

05/28/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	12.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	Matthew Jentsch	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	Morgan Davis	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	1,056,419/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.39	Lithology	
Daily Cost	325,651	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	12	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	7
Safety Comments:							
Total Personnel 55 Total Manhours 488 Driving hours 107 SSE (1 Express & 3 Trican) Pauses 3 Audits 0 Incidents 0							
Community/Security/Logistics Issues							
Permits of Interest NO GO, LOTO, Chemical/pumping							

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	11
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
Frac stages #5, #6, #7, #8.
Update Since Report Time
Frac stages #9, #10, #11, #12.
24 Hour Forecast
Continue frac operations.

# EP WELLS DAILY OPERATIONS REPORT

Report 12

05/28/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:30	0.50	CS	SAF		0.00	0		Held safety/jsa meeting. SICP= 5,000 psi Ann= 200 psi
7:00	0.95	CS	PRE		0.00	0		Prime and test.
7:57	2.15	CS	FSM		0.00	0		Start frac stage #9. Sleeve @ 13,616'.  Stage 9 Summary Perf Depth Open Well Pressure 4994 psi Max Treating Pressure 8738 psi Max Slurry Rate 52 bpm Average Treating Pressure 7418 psi Average Slurry Rate 49.00 bpm Breakdown Pressure 6600 psi Breakdown Rate 12.00 bpm Breakdown Volume 1008 gal Avg HHP 8908.87 hp Final ISIP psi Frac Gradient 0.43 psi/ft Pad Volume 30037 gal Main Body Volume 165915 gal Flush Volume 17410 gal 100 Mesh Sand Pumped 12080 lbs 30/50 Arizona 201540 20/40 SB Excel RC 36000 lbs Proppant in Formation 249620 lbs Avg Proppant Concentration 1.8 lb/gal Max Proppant Concentration 4.1 lb/gal Load to Recover 5105 bbls 15% HCL Spearhead 0 bbls VelocityFrac Fluid Pumped 2670 bbls 20# Platinum G Pumped 476 bbls 20# Stratum HT Pumped 1959 bbls Total Pump Time 2:09 hr:min Pumps Lost During Job 0 Treatment Start Time 7:57 AM Treatment End Time 10:06 AM
10:06	1.80	CS	FSM		0.00	0		Start frac stage #10. Sleeve @ 13,284'.  Stage 10 Summary Perf Depth Open Well Pressure psi Max Treating Pressure 7821 psi Max Slurry Rate 51 bpm Average Treating Pressure 6170 psi Average Slurry Rate 50.00 bpm Breakdown Pressure 7627 psi Breakdown Rate 10.00 bpm Breakdown Volume 17346 gal Avg HHP 7561.27 hp Final ISIP psi Frac Gradient 0.43 psi/ft Pad Volume 31037 gal Main Body Volume 155639 gal Flush Volume 17344 gal 100 Mesh Sand Pumped 11800 lbs 30/50 Arizona 201440 20/40 SB Excel RC 36340 lbs Proppant in Formation 249580 lbs Avg Proppant Concentration 1.7 lb/gal Max Proppant Concentration 4.1 lb/gal Load to Recover 4830 bbls 15% HCL Spearhead 0 bbls VelocityFrac Fluid Pumped 2603 bbls 20# Platinum G Pumped 477 bbls 20# Stratum HT Pumped 1750 bbls Total Pump Time 1:48 hr:min

# EP WELLS DAILY OPERATIONS REPORT

Report 12

05/28/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Pumps Lost During Job 1 Treatment Start Time 10:06 AM Treatment End Time 11:54 AM
11:54	1.80	CS			0.00	0		Start frac stage #11. Sleeve @ 12,956'.  Stage 11 Summary Perf Depth Open Well Pressure psi Max Treating Pressure 7329 psi Max Slurry Rate 51 bpm Average Treating Pressure 5511 psi Average Slurry Rate 49.00 bpm Breakdown Pressure 7305 psi Breakdown Rate 10.00 bpm Breakdown Volume 17630 gal Avg HHP 6618.60 hp Final ISIP psi Frac Gradient 0.43 psi/ft Pad Volume 31010 gal Main Body Volume 127862 gal Flush Volume 17614 gal 100 Mesh Sand Pumped 12440 lbs 30/50 Arizona 201760 lbs 20/40 SB Excel RC 36120 lbs Proppant in Formation 250320 lbs Avg Proppant Concentration 2 lb/gal Max Proppant Concentration 4.3 lb/gal Load to Recover 4805 bbls 15% HCL Spearhead 0 bbls VelocityFrac Fluid Pumped 2451 bbls 20# Platinum G Pumped 475 bbls 20# Stratum HT Pumped 1879 bbls Total Pump Time 1:48 hr:min Pumps Lost During Job 0 Treatment Start Time 11:54 AM Treatment End Time 1:42 PM
13:42	1.80	CS	FSM		0.00	0		Start frac stage #12. Sleeve @ 12,631'.  Stage 12 Summary Perf Depth Open Well Pressure psi Max Treating Pressure 5797 psi Max Slurry Rate 52 bpm Average Treating Pressure 5464 psi Average Slurry Rate 49.00 bpm Breakdown Pressure 7101 psi Breakdown Rate 10.00 bpm Breakdown Volume 16632 gal Avg HHP 6562.16 hp Final ISIP 5072 psi Frac Gradient 0.87 psi/ft Pad Volume 31001 gal Main Body Volume 158657 gal Flush Volume 18270 gal 100 Mesh Sand Pumped 11450 lbs 30/50 Arizona 201740 lbs 20/40 SB Excel RC 39040 lbs Proppant in Formation 252230 lbs Avg Proppant Concentration 1.9 lb/gal Max Proppant Concentration 4.2 lb/gal Load to Recover 5026 bbls 15% HCL Spearhead 0 bbls VelocityFrac Fluid Pumped 2673 bbls 20# Platinum G Pumped 477 bbls 20# Stratum HT Pumped 1876 bbls Total Pump Time 1:49 hr:min Pumps Lost During Job 0

# EP WELLS DAILY OPERATIONS REPORT

Report 12

05/28/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Treatment Start Time 1:42 PM Treatment End Time 3:31 PM
15:30	2.00	CS	RUD		0.00	0		@ 50 bpm @ 5,200 psi, drop ball for stage #13 and pump 50 bbls behind ball. Allow ball to fall downhole over night. SD pumps and SI and secure well. Note: Not enough 100 mesh available to pump for next stage. Perform pump maintenance on Trican equipment.  Well secured, SDFN. SICP= 5,000 psi Ann= 200 psi.

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
		Ditch Magnet in Last 24hrs/Cum. (gm)		

# EP WELLS DAILY OPERATIONS REPORT

Report 13

05/29/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	13.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	Matthew Jentsch	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	Morgan Davis	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	1,256,323/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.47	Lithology	
Daily Cost	199,904	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	2.25/18.00

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	13	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	5

Safety Comments:	
Total Personnel 48 Total Manhours 414 Driving hours 118 SSE (1 Express & 1 Trican) Pauses 4 Audits 0 Incidents 1- While working around the wellhead, a service tech for Cameron and a service tech for Express Energy services, were standing on the grating over the cellar when it tilted forward causing both of the workers to slip and fall down into the cellar. No injury was reported from either contractor, a pause was initiated and an investigation is pending.	
Community/Security/Logistics Issues	
Permits of Interest	NO GO, LOTO, Chemical/pumping, hot work, critical lift

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	15
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
Frac stages #9, #10, #11, #12.
Update Since Report Time
Frac stages #13 and #14. RD goat head and Trican frac spread.
24 Hour Forecast
Waiting on 2" CTU for CT drillout.

# EP WELLS DAILY OPERATIONS REPORT

Report 13

05/29/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:30	0.50	CS	SAF		0.00	0		Held safety/jsa meeting. SICP= 4,100 psi Ann= 250 psi
7:00	2.00	CS	REP		0.00	1		*Begin NPT Trican* Waiting on 2 pumps to be changed out.
9:00	0.25	CS	REP		0.00	1		*End NPT Trican* Pumps arrived and changed out.
9:15	0.50	CS	PRE		0.00	0		Prime and test.
9:45	1.83	CS	FSM		0.00	0		Begin frac stage #13. Sleeve @ 12,301'.  Stage 13 Summary Perf Depth Open Well Pressure 4100 psi Max Treating Pressure 6423 psi Max Slurry Rate 50 bpm Average Treating Pressure 5501 psi Average Slurry Rate 50.00 bpm Breakdown Pressure 6138 psi Breakdown Rate 9.50 bpm Breakdown Volume 378 gal Avg HHP 6741.42 hp Final ISIP psi Frac Gradient 0.43 psi/ft Pad Volume 25037 gal Main Body Volume 160465 gal Flush Volume 16808 gal 100 Mesh Sand Pumped 11760 lbs 30/50 Arizona 204380 lbs 20/40 SB Excel RC 38600 lbs Proppant in Formation 254740 lbs Avg Proppant Concentration 1.9 lb/gal Max Proppant Concentration 4.1 lb/gal Load to Recover 4817 bbls 15% HCL Spearhead 0 bbls VelocityFrac Fluid Pumped 2481 bbls 20# Platinum G Pumped 477 bbls 20# Stratum HT Pumped 1859 bbls Total Pump Time 1:49 hr:min Pumps Lost During Job 0 Treatment Start Time 9:46 AM Treatment End Time 11:35 AM
11:35	2.00	CS	FSM		0.00	0		Begin frac stage #14. Sleeve @ 11,967'.  Stage 14 Summary Perf Depth Open Well Pressure psi Max Treating Pressure 7625 psi Max Slurry Rate 52 bpm Average Treating Pressure 5410 psi Average Slurry Rate 50.00 bpm Breakdown Pressure 7625 psi Breakdown Rate 10.00 bpm Breakdown Volume 16548 gal Avg HHP 6629.90 hp Final ISIP 5083 psi Frac Gradient 0.87 psi/ft Pad Volume 31031 gal Main Body Volume 163858 gal Flush Volume 18102 gal 100 Mesh Sand Pumped 11900 lbs 30/50 Arizona 204180 lbs 20/40 SB Excel RC 36080 lbs Proppant in Formation 252160 lbs Avg Proppant Concentration 1.8 lb/gal Max Proppant Concentration 4 lb/gal Load to Recover 5072 bbls 15% HCL Spearhead 0 bbls VelocityFrac Fluid Pumped 2694 bbls



# EP WELLS DAILY OPERATIONS REPORT

Report 13

05/29/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
								20# Platinum G Pumped 476 bbls 20# Stratum HT Pumped 1902 bbls Total Pump Time 1:47 hr:min Pumps Lost During Job 0 Treatment Start Time 11:35 AM Treatment End Time 1:22 PM
13:35	0.42	CS			0.00	0		SD pumps and SI well. Hold safety/jsa meeting to discuss rig down ops.
14:00	0.50	CS			0.00	0		Ensure press bled off. ND goat head and crown valve from frac tree. Grease frac tree.
14:30	4.50				0.00	0		RD Trican frac spread and MOL. *Begin NPT Trican* Waiting on 2 pumps to be changed out.

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
		Ditch Magnet in Last 24hrs/Cum. (gm)		

# EP WELLS DAILY OPERATIONS REPORT

Report 14

06/01/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	14.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	JOHN JARVIS	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	CRAIG J. ROMERO	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	1,334,931/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.50	Lithology	
Daily Cost	78,608	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC			OHI			TRCF	
RWC			NII			LWCF	
MTC			HPI			Safety Cards - Safe	0
FAC			<b>GOAL ZERO DAYS</b>	05/16/2014	16	Safety Card - Unsafe	4
						SSE%	9
Safety Comments:							
Total Personnel 33							
Total Manhours 172							
Driving hours 83							
SSE 2							
Pauses4							
Audits 3							
Incidents 0							
Community/Security/Logistics Issues							
Permits of Interest 4							

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	10
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
N/U CTU RIH MILL SLEEVES POOH
Update Since Report Time
ALL SLLEEVES MILLED
24 Hour Forecast
RIH AND SET PACKER

# EP WELLS DAILY OPERATIONS REPORT

Report 14

06/01/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
6:30	2.50	CS	PRE		0.00	0		MAKE UP BHA AND PULL TEST COIL CONNECTOR WITH 25000 LBS OVERPULL GOOD TEST PRESSURETEST TUBING CONNECTOR GOOD TEST.FUNCTION TEST 3 BPM AT 3000 PSI. COVER MOTOR IN LUBRICATOR N/D FROM WELL... HAND OVER OPERATIONS FROM CRAIG ROMERO TO JOHN JARVIS
9:00	0.75	CS	PRE		0.00	0		PRESSURE TEST ON THE WELL HEAD TO 500 PSI LOW TO 8000 PSI HIGH. HELD FINE FOR 10 MINS. RELEASE PRESSURE DOWN TO 4600 PSI
9:45	2.30	CS	PRE		0.00	0		OPEN WELL AND PRESSURE STABILIZED AT 4000 PSI START IN HOLE WITH COIL TUBING AND BHA.
12:03	0.40	CS	MCP		0.00	0		TAG SLEEVE #1 @ 11980' CTM 2.75 BPM 6340 PSI CIRCULATING PRESSURE 3783 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 19 MINS.PUMP 10 BBL GEL SWEEP
12:27	0.37	CS	MCP		0.00	0		TAG SLEEVE #2 @ 12304' CTM 2.75 BPM 6200 PSI CIRCULATING PRESSURE 3750 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 15 MINS.PUMP 10 BBL GEL SWEEP
12:49	0.40	CS	MCP		0.00	0		TAG SLEEVE #3 @ 12645' CTM 2.75 BPM 6275 PSI CIRCULATING PRESSURE 3770 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 17 MINS.PUMP 10 BBL GEL SWEEP
13:13	0.30	CS	MCP		0.00	0		TAG SLEEVE #4 @ 12972' CTM 2.75 BPM 6340 PSI CIRCULATING PRESSURE 3831 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 12 MINS.PUMP 10 BBL GEL SWEEP
13:31	0.37	CS	MCP		0.00	0		TAG SLEEVE #5 @ 13300' CTM 2.75 BPM 6335 PSI CIRCULATING PRESSURE 3787 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 12 MINS.PUMP 10 BBL GEL SWEEP
13:53	0.42	CS	MCP		0.00	0		TAG SLEEVE #6 @ 13633' CTM 2.75 BPM 6300 PSI CIRCULATING PRESSURE 3800 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 12 MINS.PUMP 10 BBL GEL SWEEP
14:18	3.12	CS	MCP		0.00	0		TAG SLEEVE #7 @ 1' CTM 2.75 BPM 6340 PSI CIRCULATING PRESSURE 3783 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 32 MINS.PUMP 10 BBL GEL SWEEP TAG SLEEVE #8 START 20 BBL SWEEP AND START SHORT TRIP
17:25	0.52	CS	MCP		0.00	0		TAG SLEEVE # 8 @ 14301' CTM 2.75 BPM 6340 PSI CIRCULATING PRESSURE 3783 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 21 MINS.PUMP 10 BBL GEL SWEEP
17:56	0.48	CS	MCP		0.00	0		TAG SLEEVE #9 @ 14632' CTM 3.00 BPM 6340 PSI CIRCULATING PRESSURE 3783 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 27 MINS.PUMP 10 BBL GEL SWEEP
18:25	0.08	CS	MCP		0.00	0		TAG SLEEVE #10 @ 14969' CTM 3.00 BPM6800 PSI CIRCULATING PRESSURE 3800 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 19 MINS.PUMP 10 BBL GEL SWEEP TIH TO PLUG 11
18:30	0.65	CS	RUD		0.00	0		TURN OVER OPERATIONS TO CRAIG ROMERO FROM JOHN JARVIS
19:09	0.75	CS	MCP		0.00	0		TAG SLEEVE #11 @ 15,309' CTM 3.00 BPM6700 PSI CIRCULATING PRESSURE 3900 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 27 MINS 4 STALLS.PUMP 10 BBL GEL SWEEP TIH TO PLUG 11
19:54	0.75	CS	MCP			0		TAG SLEEVE #12 @ 15,638' CTM 3.00 BPM6600 PSI CIRCULATING PRESSURE 3900 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 23 MINS 1 STALLS.PUMP 10 BBL GEL SWEEP TIH TO PLUG 13
20:39	0.60	CS	MCP			0		TAG SLEEVE #13 @ 15,973' CTM 3.00 BPM 6600 PSI CIRCULATING PRESSURE 3900 PSI WELLHEAD PRESSURE DRILL THRU SLEEVE IN 18 MINS 1 STALLS.PUMP 10 BBL GEL SWEEP TIH TO ALPHA SLEEVE
21:39	1.10	CS	MCP			0		SWEEP AT 14,810 ANNULOR VELOCITY AT 271 FPM START POOH CIRCULATION PRESSURE AT 6600 PSI WELL HEAD AT 3900 PSI. PUMPING 3 BPM.  TAG ALPHA SLEEVE @ 16,310' CTM 3.00 BPM 6600 PSI CIRCULATING PRESSURE 3900 PSI WELLHEAD PRESSURE P/U 15' PUMP 10 BBL SWEEP.

# EP WELLS DAILY OPERATIONS REPORT

Report 14

06/01/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft <sup>2</sup> )	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft <sup>2</sup> )	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
		Ditch Magnet in Last 24hrs/Cum. (gm)		

# EP WELLS DAILY OPERATIONS REPORT

Report 15

06/02/2014

Company PERMIAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	15.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	JOHN JARVIS	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	CRAIG J. ROMERO/MATT JENTSCH	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	1,379,733/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.51	Lithology	
Daily Cost	44,802	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	1.00/7.06

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	17	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	0
Safety Comments:							
Total Personnel 25 Total Manhours 250 Driving hours 65 SSE 0 Pauses 3 Audits 0 Incidents 0							
Community/Security/Logistics Issues							
Permits of Interest NO GO, PUMPING/CHEMICAL, MANLIFT							

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	7
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
CT DRILLOUT.
Update Since Report Time
COMPLETE CT DRILLOUT. PUMP BIOCID FLUSH AND RD 2" CTU UNIT. MI SPOT E-LINE UNIT AND RELATED EQUIPMENT.
24 Hour Forecast
SET HES PACKER.

# EP WELLS DAILY OPERATIONS REPORT

Report 15

06/02/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
1:20	1.33	CS	PRE		0.00	0		POOH AT 6600' PUMPING AT 3 BPM CIRCULATION PRESSURE 6800 PSI WELL HEAD AT 3900 PSI.
2:40	1.00	CS	REP		0.00	1		***NPT LEVEL WIND MOTOR CAME OFF BRACKET*** AT 1000 SHUT DOWN FLUID PUMP AND CLOSE CHOKE REPAIR MOTOR. WHEEL PRESSURE 3800 PSI
3:40	0.33	CS	REP		0.00	0		***ON PRODUCTIVE TIME FOR CTS*** BRACKET FIXED ON LEVEL WIND MOTOR POOH TO SURFACE WELL PRESSURE AT 3800 PSI. CLOSED CROWN VALVE THEN OPEN AND CLOSE HYDRAULIC VALVE BLED DOWN PRESSURE AND CLOSE CROWN. HELD PAUSE AND DISCUSS JOB PROCEEDURE FOR N/D WELL.
4:00	1.00	CS	PCD		0.00	0		B/O LUBRICATOR SWING OFF TREE AND L/D MOTOR ASSEMBLY SWING BACK ON TREE AND DISPLACE FLUID WITH NITROGEN.
5:00	1.00	CS	RUD		0.00	0		CONTINUE TO STAB LUBRICATOR ONTO WELL. CHANGING OUT ORING ON BOWEN CONNECTION
6:00	0.50	CS	RUD		0.00	0		CONTINUE TO PURGE REEL DRY.
6:30	1.50	CS	RUD		0.00	0		TURN OVER OPERATIONS TO JOHN JARVIS FROM CRAIG ROMERO
8:00	3.00	CS	PCD		0.00	0		PUMP 415 BBL BIOCIDES FLUSH.
11:00	3.00	CS	RUD		0.00	0		RD 2" CTU AND RELATED EQUIPMENT.
14:00	1.50	CS	RUD			0		MIRU CORNELL E-LINE UNIT AND PRESSURE CONTROL PACKAGE. NU WIRELINE BOP'S AND MAKE UP LUBE. PREP TO SET PACKER FOR TOMORROW MORNING.
WELL SECURED, SDFN. SICP= 3,900 PSI.								

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)	/14.80/0.90	
MD (ft)		TS/HGS/LGS (%)		
Mud Density (ppg)	13.00	Sand (%)	14.58	XS Lime(lbm/bbl)
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		ES (Volts)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		
WPS (ppm)				
		Ditch Magnet in Last 24hrs/Cum. (gm)		

# EP WELLS DAILY OPERATIONS REPORT

Report 16

06/03/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	16.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	CRAIG ROMERO	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor		24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	1,405,461/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.52	Lithology	
Daily Cost	25,728	Formation	
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	18	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	4
Safety Comments:							
Total Personnel 26 Total Manhours 178 Driving hours 102 SSE 1 Pauses 4 Audits 0 Incidents 1 (SPILL)							
Community/Security/Logistics Issues							
Permits of Interest 5							

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill Last pit drill Last diverter drill Last H2S drill Last Derrick Inspection Muster/Evacuation			Last BOP function test Last BOP Test Next BOP Test	
			Drill Type Today JSA's/Toolbox Talks Days Since Last Drill	7

## Operations Summary

24 Hour Summary
N/U EWL W/GREASE UNIT RIH WITH GAUAGE RING AND JUNK BASKET AND SET PACKER
Update Since Report Time
SET PACKER GOOD NEGATIVE TEST.
24 Hour Forecast
N/D FRAC STACK AND WAIT ON WOR

# EP WELLS DAILY OPERATIONS REPORT

Report 16

06/03/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
7:00	1.75	CS	SAF			0		HELD PREJOB SAFETY MEETING,M/O GAUAGE RING ON EWL, P/U LUBRICATOR SWING ON WELL. PRESSURE UP TO 3000 PSI LIEAK AT TESTING HOSE BLED DOWN PRESSURE AND REPAIR LEAK.
8:45	0.50	CS	PRE			0		TIGHTEN HOSE PRESSURE TEST TO 8000 PSI WALK LINES AND LOOK NFOR LEAKS AND MONITOR PRESSURE GAUAGE GOOD TEST EQUILIZE PRESSURE TO WELL
9:15	0.25	CS	PRE			0		OPEN F/V WELL HEAD AT 3800 PSI EWL RIH WITH GUAGE RING
9:30	1.25	CS	PRE			0		COULD NOT GET PAST FRAC TREE WITH GAUAGE RING POOH POOH.CLOSED F/V CONFIRMED SWING LUBRICATOR OFF WELL L/D TOOLS AND ADDED WEIGHT BAR TO BHA. P/U TOOLS SWING BACK ON TREE TESTED TO 8000 PSI
10:45	1.00	CS	PRE			0		OPEN F/V RIH WITH GAUAGE RING WELL HEAD PRESSURE AT 3800 PSI
11:45	0.33	CS	HWO	TUR		0		RIH TO 1,111' 20' CORRECTED EWL MEASUREMENT WITH GAUAGE RING AND JUNK BASKET, AND POOH.
12:05	1.38	CS	HWO	TUR		0		PAUSE AT SURFACE CLOSE F/V BLED DOWN PRESSURE ANR L/D TOOLS. P/U PAKER AND SEAL ASSEMBLY, STABED ANOTHER 4' JOINT OF LUBRICATOR, UNHOOK FROM BRIDEL AND EXTEND BOOM ANOTHER 17' TO BE ABLE TO PICK UP LOAD. P/U LUBRICATOR SWING TO WELL TEST TO 8,000 PSI GOOD TEST.
13:28	1.17	CS	PRE			0		OPEN WELL AND RIH WELL HEAD PRESSURE AT 3800 PSI
14:38	0.27	CS	NGI			0		START CORRDELTATE DEPTH WITH PREVIOUS LOG.
14:54	0.60	CS	HWO	PTI		0		SET PACKER ELEMENT AT 11,030' 80' FROM TOL . COLLOR LOCATOR AT 11,008.5. BEFORE SET 1880 ON TENSION NEGATIVE CHARGE AFTER SET 1350 ON TENSION 4600 PSI BELOW PACKER. POOH AND START BLEDDING PRESSURE ON TOP SIDE OF PACKER.  GOOD NEGATIVE SWING OFF WELL L/D SETTING TOOL P/U GAUAGE RING AND JUNK BASKET AND SWING TO UNIVERSITY 20-3 1H

## Fluid Details

Mud type	KCI Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)				



# EP WELLS DAILY OPERATIONS REPORT

Report 17

06/09/2014

Company PERMIAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	17.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	ANNA SANDE	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	MATT RANDOLPH	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	1,560,881/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.58	Lithology	
Daily Cost	155,421	Formation	BONE SPRING
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC			OHI			TRCF	
RWC			NII			LWCF	
MTC			HPI			Safety Cards - Safe	0
FAC			<b>GOAL ZERO DAYS</b>	05/16/2014	24	Safety Card - Unsafe	0
						SSE%	5
Safety Comments:							
PERSONNEL ON LOC.-19							
TOTAL EXPOSURE HOURS-96							
AUDITS-1 (DROPS INSPECTION)							
HEROS-0							
LOPC-0							
SSE'S-1							
INCIDENTS-0							
GOAL ZERO ACHIEVED							
Community/Security/Logistics Issues							
Permits of Interest							
MANLIFT AERIAL, NO GO PRESSURE, NO GO DROPS							

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	3
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
WAITING ON RIG
Update Since Report Time
MIRU MERCER 150, NU AND TEST BOP STACK, SPOT PULD MACHINE AND RACKS, PLACE AND TALLY PIPE ON RACKS
24 Hour Forecast
RIH W/ 2-7/8" 6.5# L-80 TUBING

# EP WELLS DAILY OPERATIONS REPORT

Report 17

06/09/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
16:00	0.50	CS	SAF		0.00	0		AOL-CHECK WHP OPSI HOLD SAFETY MEETING W/ RIG CREW DISCUSS RIG UP, DROPS, LSR'S AND SWA
16:30	2.00	CS	RUD		0.00	0		TEST LMV TO 10,000PSI TO ENSURE WE HAVE OUR BARRIER, TEST GOOD. SPOT BEAM AND MIRU MERCER WOR SHELL TEAM MEMBERS ARRIVE FOR DROPS INSPECTION, CONTINUE OPERATIONS.
18:30	1.00	CS	RUD		0.00	0		MOVE RIG PUMP AND SPOT PULD MACHINE SET PIPE RACKS AND PLACE AND TALLY PIPE PRESSURE TEST MERCER 10K BOP STACK TO 10,000PSI FOR TEN MINUTES-TEST GOOD. PERFORM HOUSEKEEPING
19:30	0.50	CS	RUD		0.00	0		SHUT DOWN FOR NIGHT WH/SI SECURE O PSI. LOCATION SECURE

## Fluid Details

Mud type	KCI Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
		Ditch Magnet in Last 24hrs/Cum. (gm)		

# EP WELLS DAILY OPERATIONS REPORT

Report 18

06/10/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	18.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	ANNA SANDE	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	MATT RANDOLPH	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	1,580,510/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.59	Lithology	
Daily Cost	19,628	Formation	BONE SPRING
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC			OHI			TRCF	
RWC			NII			LWCF	
MTC			HPI			Safety Cards - Safe	0
FAC			<b>GOAL ZERO DAYS</b>	05/16/2014	25	Safety Card - Unsafe	4
						SSE%	6
Safety Comments:							
PERSONNEL ON LOCATION - 17							
TOTAL EXPOSURE HOURS - 196							
AUDITS - 0							
HEROS - 0							
LOPC - 0							
SSE'S - 1 MERCER							
INCIDENTS - 0							
GOAL ZERO ACHIEVED							
Community/Security/Logistics Issues							
Permits of Interest			MANLIFT AERIAL, NO GO DROPS, HANDLING TUBULARS				

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	3
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
MIRU MERCER 150, NU AND TEST BOP STACK, SPOT PULD MACHINE AND RACKS, PLACE AND TALLY PIPE ON RACKS
Update Since Report Time
RIH W/ 2-7/8" 6.5# L-80 TUBING
24 Hour Forecast
REVERSE CIRCULATE PACKER FLUID, N/D BOP, N/U PRODUCTION TREE, PRES TEST - ANNULUS, TBG HANGER, PRODUCTION TREE AND TBG

# EP WELLS DAILY OPERATIONS REPORT

Report 18

06/10/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
7:00	0.50	CS	SAF		0.00	0		AOL, CHECK WELLHEAD PRES, 0 PSI PROVIDE MANLIFT AND FORKLIFT INSPECTIONS HOLD PJSM FOR ALL VENDORS DISCUSS DAILY OPERATIONS REVIEW JSA AND PTW DISCUSS LSR'S, SWA AND DROPS IDENTIFY MUSTER AREA AND EMERGENCY ROUTES
7:30	0.50	CS	RUD		0.00	0		UNLOCK AND OPEN BLIND/SHEAR RAMS CONNECT BIRD BATH TO TRIP TANK PU HES ON/OFF TOOL
8:00	4.50	CS	HWO	TUR	0.00	0		RIH W/ 2-7/8" 6.5# L-80 TBG AND HES ON/OFF TOOL L/D ADDITIONAL TBG ON PIPE RACKS, REMOVE PROTECTORS TALLY EVERY SET OF TBG ON PIPE RACKS
12:30	0.50	CS	RUD		0.00	0		STOP FOR LUNCH
13:00	3.50	CS	HWO	TUR	0.00	0		CONTINUE RIH W/ 2-7/8" 6.5" L-80 TBG
16:30	1.50	CS	HWO	TUR	0.00	0		LATCH ON PRODUCTION PACKER W/ ON/OFF TOOL SPACE OUT TBG, RELEASE ON/OFF TOOL TBG WEIGHT 63K, ON/OFF TOOL IN 8K COMPRESSION TOTAL 26 FT OF PUPE JOINTS, POOH 1 TBG JOINT RIH W/ 2 FT, 6 FT, 8 FT, 10 FT AND 1 TBG JOINT TOTAL TUBING 11,051 FT, WITH TOOLS 11,081 FT AVERAGE JOINT 29.54 FT, AVERAGE STAND 59.09 FT SEND TBG TALLY TO ENGINEER AND CRA INSTALL TIW VALVE, CLOSE AND SECURE PIPE RAMS CONNECT TEMPORARY PIPE WORK FOR REVERSE CIRCULATION PUT RESTRANTS ON TEMPORARY PIPE WORK SECURE WELL OVER NIGHT DEPART FROM LOCATION

## Fluid Details

Mud type	KCl Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
Ditch Magnet in Last 24hrs/Cum. (gm)				

# EP WELLS DAILY OPERATIONS REPORT

Report 19

06/11/2014

Company PERMAN  
Well Type Development  
Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN  
WBS No/API No / 4249533544.00

## Event Summary

Event Type	Completion only	Event Start Date	05/16/2014	Days on Location	19.00
Objective	Install Completion	Original Spud Date	02/04/2014		
Est. Days	20.00	Contractor	PERMAN WELL SVC		
Work Unit	PERMAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	ANNA SANDE	Measured Depth(ft)	
Engineer	SUZIE TUFTS	TVD(ft)	
Other Supervisor	MATT RANDOLPH	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	RKB: 2,824.50 / 2,796.00	Hole size(in)	
Rig Operating Rate(hr)	0.00	Last Casing MD	
Rig Zero Rate(hr)	0.00	Next Casing MD	
Rig Reduced Rate(hr)	0.00	Current Fluid Density(ppg)	13.00
Actual cost to date/AFE	1,611,661/2,683,053.00	LOT/FIT EMW(ppg)	
Actual divided by AFE	0.60	Lithology	
Daily Cost	31,151	Formation	BONE SPRING
Days Ahd(-) Bhnd(+)(50/50)		Formation top MD	
		Daily NPT(hr/%)	0/0

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC			OHI NII HPI <b>GOAL ZERO DAYS</b>	05/16/2014	26	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE%	1 2 2
Safety Comments:							
PERSONNEL ON LOCATION - 42 TOTAL EXPOSURE HOURS - 286 AUDITS - 0 HEROS - 0 LOPC - 0 SSE'S - 2 INCIDENTS - 0 GOAL ZERO ACHIEVED							
Community/Security/Logistics Issues							
Permits of Interest			NO GO PRES, NO GO DROPS, FLUID TRANSFER, HOT WORK				

## HSE Drills

Drills/Tests	Date	Days Since Last		Days Since Last
Last Kick/BOP Drill			Last BOP function test	
Last pit drill			Last BOP Test	
Last diverter drill			Next BOP Test	
Last H2S drill			Drill Type Today	
Last Derrick Inspection			JSA's/Toolbox Talks	4
Muster/Evacuation			Days Since Last Drill	

## Operations Summary

24 Hour Summary
RIH W/ 2-7/8" 6.5# L-80 TUBING
Update Since Report Time
REVERSE CIRCULATE PACKER FLUID, N/D BOP, N/U PRODUCTION TREE, PRES TEST - ANNULUS, TBG HANGER, PRODUCTION TREE AND TBG, RDMO WOR #150
24 Hour Forecast
MIRU SLU, BREAK DISC

# EP WELLS DAILY OPERATIONS REPORT

Report 19

06/11/2014

Well UNIVERSITY 20-10 WNK 1HN  
Wellbore UNIVERSITY 20-10 WNK 1HN

## Time Summary

Start	Hours	PH	OPN	WS OPN	Drilled Depth (ft)	NPT level	Rig Rate	Description
7:00	0.67	CS	SAF		0.00	0		AOL, CHECK WELLHEAD PRES, SITP O PSI SICP O PSI PERFORM MANLIFT AND FORKLIFT INSPECTIONS HOLD PJSM FOR ALL VENDORS DISCUSS DAILY OPERATIONS REVIEW JSA AND PTW DISCUSS LSR'S, SWA AND DROPS IDENTIFY MUSTER AREA AND EMERGENCY ROUTES DISCUSS RIG DOWN OPERATION AND HEAVY TRAFFIC ON LOC. FILL OUT FLUID TRANSFER PERMITS OPEN ALL PERMITS
7:40	2.33	CS	RUD		0.00	0		SPOT VAC TRUCKS INTO PLACE AND BEGIN TRANSFERRING PACKER FLUID (ROCKWATER C176) INTO RIG TANK REVERSE CIRCULATE 320 BBLs OF PACKER FLUID
10:00	1.00	CS	HWO	TUR	0.00	0		REMOVE RESTRAINTS AND TEMPORARY PIPE WORK REMOVE TIW, PU AND RIH TBG HANGER W/ PUP JOINT INSTALL BPV AND LANDING JOINT SET ON/OFF TOOL IN COMPRESSION 9K TIGHT LOCKING PINS, REMOVE LANDING JOINT
11:00	1.00	CS	PRE		0.00	0		TEST ANNULUS TO 1500 PSI - TEST GOOD RELEASE PRESSURE FROM BOP MANIFOLD L/D TBG SLIPS AND TBG TONGS REMOVE HANDRAILS AND STAIRS PU RIG FLOOR CLEAN AND EMPTY GASBUSTER
12:00	2.00	CS	XTI		0.00	0		N/D BIRD BATH AND BOP STACK N/U PRODUCTION TREE TEST TBG HANGER TO 10 K - TEST GOOD LOAD AND MO MERCER FRAC TANK AND PUMP LOAD AND SENT TO CAMERON TWO LMV TEST PRODUCTION TREE TO 10K - TEST GOOD REMOVE TWCV
14:00	0.50	CS	PRE		0.00	0		TEST TBG TO 5K - TEST GOOD RDMO WOR #150
14:30	4.50	CS	RUD		0.00	0		WELD ON 4" HIGH STEEL BORDERS AROUND CELLARS CHANGE RUBBER IN 5K AND 10K BOPS RAMS

## Fluid Details

Mud type	KCI Brine	Oil/Water (%)		
MD (ft)		TS/HGS/LGS (%)	/14.80/0.90	
Mud Density (ppg)	13.00	Sand (%)		
Vis (s/qt)	43.00	Oil/Water Ratio (%)		
PV/YP (cp/lbf/100ft²)	18.00/20.000	MBT (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	15.000/22.000	LCM (lbm/bbl)		ES (Volts)
API/HTHP WL (cc/30min)	14.0/	ECD (ppg)	14.58	R600/300 (°)
FC/HTHP FC (32nd")	4.0/	H2S (gas unit)		R200/100 (°)
WPS (ppm)				R6/3 (°)
		Ditch Magnet in Last 24hrs/Cum. (gm)		