

EP WELLS DAILY OPERATIONS REPORT

Report 1

03/13/2021

Company PERMAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/11/2021	Days on Location	1.00
Objective	Drill - New Well	Original Spud Date		Days Since Spud	1.00
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Heath McAfee	Measured Depth (ft)	120.00
Engineer	Mitch Collins	TVD (ft)	120.00
Other Supervisor	Andrew Maynor	24 Hr Progress (ft)	120.00
Depth Ref/Grd Elev/Water Depth (ft)	DFE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	10,314 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.00	LOT/FIT EMW (ppg)	
Daily Cost	\$5,808.50	Lithology	
		Formation/MDTop	

HSE Summary

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

Safety Comments:

Assist and assure conversation on walking rig.
 Assist and assure conversation on making up cameron adapter to conductor.
 Assist and assure conversation rigging up.
 Assist and assure conversation on picking up BHA.

HSE Drills

Drills/Tests	Date	Days Since Last	
Last Derrick Inspection Last BOP Function Test Last BOP Test Next BOP Test			JSA's/Toolbox Talks Day's Since Last Drill

Operations Summary

24 Hour Summary

Walk rig to 2712H. Nipple up riser. Pick up BHA.

Update Since Report Time

Pick up BHA. Spud in well.

24 Hour Forecast

Drill ahead in surface section towards TD.

EP WELLS DAILY OPERATIONS REPORT

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03/13/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
Total								

06:00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Description
00:00	1.16	SRF	RUP		120.00	0	Rig Up
01:09	0.29	SRF	RUP		120.00	0	Rig Up
01:26	1.39	SRF	BHA		120.00	0	Pick Up Surface BHA

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
0.00	0.00	358.44	0.00	0.00	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 2

03/13/2021

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/11/2021	Days on Location	2.00
Objective	Drill - New Well	Original Spud Date		Days Since Spud	2.00
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Heath McAfee	Measured Depth (ft)	120.00
Engineer	Mitch Collins	TVD (ft)	120.00
Other Supervisor	Andrew Maynor	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DFE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	10,314 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.00	LOT/FIT EMW (ppg)	
Daily Cost	\$4,505.00	Lithology	
		Formation/MDTop	

HSE Summary

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

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection Last BOP Function Test Last BOP Test Next BOP Test			JSA's/Toolbox Talks Day's Since Last Drill	1

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 2

03/13/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
16:01	4.95	SRF	WLK		120.00	0		Walk Rig Well walking from: 2713H Well walking to: 2712H Depth at end of step (MD) 120 ft
20:58	3.02	SRF	RUP		120.00	0		Rig Up
Total	7.98							

06:00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Description
00:00	1.16	SRF	RUP		120.00	0	Rig Up
01:09	0.29	SRF	RUP		120.00	0	Rig Up
01:26	1.39	SRF	BHA		120.00	0	Pick Up Surface BHA

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
0.00	0.00	358.44	0.00	0.00	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 2

03/14/2021

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	1.25
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	0.88
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Heath McAfee	Measured Depth (ft)	4,033.00
Engineer	Mitch Collins	TVD (ft)	3,957.20
Other Supervisor	Andrew Maynor	24 Hr Progress (ft)	3,913.00
Depth Ref/Grd Elev/Water Depth (ft)	DFE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	161,118 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.06	LOT/FIT EMW (ppg)	
Daily Cost	\$48,928.89	Lithology	
		Formation/MDTop	

HSE Summary

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

Safety Comments:

No HSE issues to report.

Assist and assure conversation on dressing BOP.
 Assist and assure conversation on cement job and drilling.
 Assist and assure conversation on preparing casing.

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks	
Last Derrick Inspection			Day's Since Last Drill	2
Last BOP Function Test				
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary

Finish picking up BHA. Spud into well. Drill to 4033'.

Update Since Report Time

Drilling ahead in surface section at 4511'.

24 Hour Forecast

Drill ahead in surface section to TD 5163'. Circulate bottoms up. Pull out of hole. LD 5.5" drill pipe. LD BHA. Rig up casing crew. Run Surface casing. Land casing. Rig down casing crew. Nipple down riser. Release rig.

EP WELLS DAILY OPERATIONS REPORT

Report 2

03/14/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	1.16	SRF	RUP		120.00	0		Rig Up
01:09	0.29	SRF	RUP		120.00	0		Rig Up
01:26	1.39	SRF	BHA		120.00	0		Pick Up Surface BHA
02:50	21.17	SRF	DRL		4,033.00	0		Spud Well and Drill 12 1/4" Hole Depth at end of step (MD) 4033 ft Active mud weight 8.8 lb/gal Depth at which circulation started on open loop 1200 ft Shallow gas encountered? NO
Total	24.00							

06:00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Description
00:00	0.09	SRF	DRL		4,033.00	0	Spud Well and Drill 12 1/4" Hole Depth at end of step (MD) 4033 ft Active mud weight 8.8 lb/gal Depth at which circulation started on open loop 1200 ft Shallow gas encountered? NO
00:05	7.96	SRF	DRL		5,163.00	0	Spud Well and Drill 12 1/4" Hole Depth at end of step (MD) 5163 ft Active mud weight 8.9 lb/gal Shallow gas encountered? NO

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
2,695.00	15.24	277.19	2,641.12	0.92	PTW MWD+IFR+AXIAL
2,877.00	13.79	283.64	2,817.32	1.19	PTW MWD+IFR+AXIAL
3,058.00	10.57	282.15	2,994.22	1.79	PTW MWD+IFR+AXIAL
3,239.00	10.54	283.56	3,172.16	0.14	PTW MWD+IFR+AXIAL
3,421.00	11.08	283.46	3,350.93	0.30	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 3

03/14/2021

Company PERMAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/11/2021	Days on Location	3.00
Objective	Drill - New Well	Original Spud Date		Days Since Spud	3.00
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Heath McAfee	Measured Depth (ft)	120.00
Engineer	Mitch Collins	TVD (ft)	120.00
Other Supervisor	Andrew Maynor	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DFE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	14,564 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.01	LOT/FIT EMW (ppg)	
Daily Cost	\$4,250.00	Lithology	
		Formation/MDTop	

HSE Summary

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

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection Last BOP Function Test Last BOP Test Next BOP Test			JSA's/Toolbox Talks Day's Since Last Drill	2

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 3

03/14/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	1.16	SRF	RUP		120.00	0		Rig Up
01:09	0.29	SRF	RUP		120.00	0		Rig Up
01:26	1.39	SRF	BHA		120.00	0		Pick Up Surface BHA
Total	2.83							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
0.00	0.00	358.44	0.00	0.00	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 3

03/15/2021

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	2.25
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	1.88
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Heath McAfee	Measured Depth (ft)	120.00
Engineer	Mitch Collins	TVD (ft)	120.00
Other Supervisor	Andrew Maynor	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DFE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	210,047 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.07	LOT/FIT EMW (ppg)	
Daily Cost	\$48,928.89	Lithology	
		Formation/MDTop	

HSE Summary

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

HSE Drills

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

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 3

03/15/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	0.09	SRF	DRL		4,033.00	0		Spud Well and Drill 12 1/4" Hole Depth at end of step (MD) 4033 ft Active mud weight 8.8 lb/gal Depth at which circulation started on open loop 1200 ft Shallow gas encountered? NO
00:05	7.96	SRF	DRL		5,163.00	0		Spud Well and Drill 12 1/4" Hole Depth at end of step (MD) 5163 ft Active mud weight 8.9 lb/gal Shallow gas encountered? NO
08:03	1.21	SRF	CBU		5,163.00	0		Perform Cleanup Cycles Experiencing losses and have less than 80% returns? NO Washout volume 806 bbl
09:16	5.75	SRF	TOH		5,163.00	0		Trip Out of Hole Trip out from 5163 ft Trip out to 137 ft Active mud weight 9.7 lb/gal Rotating head removed? YES
Total	15.02							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
0.00	0.00	358.44	0.00	0.00	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 4

03/16/2021

Company PERMAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	3.25
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	2.88
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Heath McAfee	Measured Depth (ft)	5,163.00
Engineer	Mitch Collins	TVD (ft)	5,085.66
Other Supervisor	Andrew Maynor	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	288,210 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.10	LOT/FIT EMW (ppg)	
Daily Cost	\$46,256.26	Lithology	
		Formation/MDTop	

HSE Summary

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

HSE Drills

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

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 4

03/16/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	0.02	SRF	PRW		5,163.00	0		Prep Rig to Walk Rig released from well at 3/16/2021 12:00:00 AM
Total	0.02							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
4,509.00	1.97	314.52	4,432.27	0.83	PTW MWD+IFR+AXIAL
4,690.00	1.57	356.28	4,613.19	0.73	PTW MWD+IFR+AXIAL
4,872.00	2.89	338.70	4,795.05	0.81	PTW MWD+IFR+AXIAL
5,053.00	3.28	351.81	4,975.79	0.44	PTW MWD+IFR+AXIAL
5,093.00	3.28	351.81	5,015.73	0.00	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 5

03/20/2021

Company PERMAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	3.26
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	2.90
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Heath McAfee	Measured Depth (ft)	5,163.00
Engineer	Mitch Collins	TVD (ft)	5,085.66
Other Supervisor	Andrew Maynor	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DFE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	414,112 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.14	LOT/FIT EMW (ppg)	
Daily Cost	\$15,470.08	Lithology	
		Formation/MDTop	

HSE Summary

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

Safety Comments:

No HSE issues to report.

Assist and assure conversation on skidding the rig.
 Assist and assure conversation on nipping up BOP.
 Assist and assure conversation on picking up BHA.

HSE Drills

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

Operations Summary

24 Hour Summary

Skid rig from 2713H. Nipple up BOPs. Test SRLs. Rig up. Pick up intermediate BHA.

Update Since Report Time

Drill DV tool. Pressure test casing. Drill cement. Drill into new formation.

24 Hour Forecast

Drill DV tool. Pressure test casing. Drill cement. Drill 8.75" section.

EP WELLS DAILY OPERATIONS REPORT

Report 5

03/20/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
18:39	1.61	INT1	WLK		5,163.00	0		Walk Rig Well walking from: 2713H Well walking to: 2712H Depth at end of step (MD) 5163 ft
20:16	1.26	INT1	RUP		5,163.00	0		Rig Up and Nipple Up BOPs Successful pressure test on SRL seals? YES
21:31	1.48	INT1	RUP		5,163.00	0		Finish Rigging up Wear bushing installed? YES
23:00	0.99	INT1	BHA		5,163.00	0		Pick up Intermediate BHA BHA number 2 Wear bushing installed? YES
Total	5.34							

06:00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Description
00:00	0.02	INT1	BHA		5,163.00	0	Pick up Intermediate BHA BHA number 2 Wear bushing installed? YES
00:01	4.24	INT1	TIH		5,163.00	0	Trip in Hole Trip from 0 ft Trip to 1475 ft Install rotating head? YES Install trip nipple? NO
04:15	0.03	INT1	DCM		5,163.00	0	Drill Out DV Tool Tag DV tool at 1106 ft Comments: Tagged at 1106. DV tool supposed to be installed at 1367'. Tripped to 1476' and no Indication of DV tool.
04:17	2.69	INT1	DCM		5,163.00	0	Pressure Test Casing Successful pressure test? YES

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
4,509.00	1.97	314.52	4,432.27	0.83	PTW MWD+IFR+AXIAL
4,690.00	1.57	356.28	4,613.19	0.73	PTW MWD+IFR+AXIAL
4,872.00	2.89	338.70	4,795.05	0.81	PTW MWD+IFR+AXIAL
5,053.00	3.28	351.81	4,975.79	0.44	PTW MWD+IFR+AXIAL
5,093.00	3.28	351.81	5,015.73	0.00	PTW MWD+IFR+AXIAL

Fluid Details

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Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

EP WELLS DAILY OPERATIONS REPORT

Report 5

03/20/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 6

03/21/2021

Company PERMAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	4.26
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	3.90
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Heath McAfee	Measured Depth (ft)	5,163.00
Engineer	Mitch Collins	TVD (ft)	5,085.66
Other Supervisor	Andrew Maynor	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	414,112 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.14	LOT/FIT EMW (ppg)	
Daily Cost	\$0.00	Lithology	
		Formation/MDTop	

HSE Summary

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

HSE Drills

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

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 6

03/21/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	0.02	INT1	BHA		5,163.00	0		Pick up Intermediate BHA BHA number 2 Wear bushing installed? YES
00:01	4.24	INT1	TIH		5,163.00	0		Trip in Hole Trip from 0 ft Trip to 1475 ft Install rotating head? YES Install trip nipple? NO
04:15	0.03	INT1	DCM		5,163.00	0		Drill Out DV Tool Tag DV tool at 1106 ft Comments: Tagged at 1106. DV tool supposed to be installed at 1367'. Tripped to 1476' and no Indication of DV tool.
04:17	2.69	INT1	DCM		5,163.00	0		Pressure Test Casing Successful pressure test? YES
06:58	0.48	INT1	TIH		5,163.00	0		Trip in Hole Trip from 1476 ft Trip to 4886 ft Install rotating head? NO
07:27	1.85	INT1	DCM		5,163.00	0		Drill Out 9 5/8" Shoe Track Tag float collar at 5058 ft Tag float shoe at 5145 ft Comments: tagged cement at 4886
Total	9.31							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
4,509.00	1.97	314.52	4,432.27	0.83	PTW MWD+IFR+AXIAL
4,690.00	1.57	356.28	4,613.19	0.73	PTW MWD+IFR+AXIAL
4,872.00	2.89	338.70	4,795.05	0.81	PTW MWD+IFR+AXIAL
5,053.00	3.28	351.81	4,975.79	0.44	PTW MWD+IFR+AXIAL
5,093.00	3.28	351.81	5,015.73	0.00	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 7

03/22/2021

Company PERMAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	5.26
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	4.90
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Heath McAfee	Measured Depth (ft)	7,535.00
Engineer	Mitch Collins	TVD (ft)	7,456.52
Other Supervisor	Andrew Maynor	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	419,201 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.14	LOT/FIT EMW (ppg)	
Daily Cost	\$0.00	Lithology	
		Formation/MDTop	

HSE Summary

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

HSE Drills

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

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 7

03/22/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	0.01	INT1	DRL		7,535.00	0		Drill Ahead 8 3/4" Hole Depth at end of step (MD) 7535 ft Active mud weight 9.7 lb/gal Backpressure while drilling 0 psi Backpressure during connections 0 psi Depth of losses 0 ft
Total	0.01							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
6,662.00	1.83	113.46	6,583.99	0.55	PTW MWD+IFR+AXIAL
6,843.00	2.17	119.92	6,764.88	0.23	PTW MWD+IFR+AXIAL
7,024.00	1.79	116.41	6,945.77	0.22	PTW MWD+IFR+AXIAL
7,206.00	0.81	137.37	7,127.72	0.59	PTW MWD+IFR+AXIAL
7,387.00	0.99	239.06	7,308.71	0.77	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 8

03/23/2021

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	5.51
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	5.15
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Heath McAfee	Measured Depth (ft)	7,535.00
Engineer	Mitch Collins	TVD (ft)	7,456.35
Other Supervisor	Andrew Maynor	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	515,621 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.18	LOT/FIT EMW (ppg)	
Daily Cost	\$0.00	Lithology	
		Formation/MDTop	

HSE Summary

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

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Day's Since Last Drill	
Last Derrick Inspection				8
Last BOP Function Test				
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 8

03/23/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	0.11	INT1	DRL		9,621.00	0		Drill Ahead 8 3/4" Hole Depth at end of step (MD) 9621 ft Active mud weight 9.9 lb/gal Depth at which started circulating closed loop 9621 ft
00:06	13.53	INT1	DRL		10,898.00	0		Drill Ahead 8 3/4" Hole Depth at end of step (MD) 10898 ft Active mud weight 9.5 lb/gal Depth at which started circulating closed loop 9650 ft
11:30		INT1	DRL		10,898.00	1		Start of wash on mud pump
12:30		INT1	DRL		10,898.00	0		End of wash on mud pump
13:38	0.71	INT1	CBU		10,898.00	0		Circulate Bottoms Up Active mud weight: 9.5 lb/gal Number of bottoms up: 1
Total	14.35							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
6,662.00	1.83	113.46	6,583.65	0.55	PTW MWD+IFR+AXIAL
6,843.00	2.17	119.92	6,764.54	0.23	PTW MWD+IFR+AXIAL
7,024.00	1.79	116.41	6,945.43	0.22	PTW MWD+IFR+AXIAL
7,206.00	0.81	137.37	7,127.38	0.59	PTW MWD+IFR+AXIAL
7,387.00	0.99	239.06	7,308.37	0.77	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 10

03/25/2021

Company PERMAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	7.51
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	7.15
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Brett McCoy	Measured Depth (ft)	11,145.00
Engineer	Mitch Collins	TVD (ft)	11,063.42
Other Supervisor	Jason Morris, Johnnie Brassel	24 Hr Progress (ft)	0.00
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	865,799 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.30	LOT/FIT EMW (ppg)	
Daily Cost	\$102,573.74	Lithology	
		Formation/MDTop	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	03/25/2021	0	PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	11/29/2019	482	TRCF LWCF Safety Cards - Safe Safety card - Unsafe SSE% Last casing pressure(psi)	2500

Safety Comments:

No HSE Issues.

Held A&A conversation on landing intermediate casing.
 Held A&A conversation on inducing flow.
 Held A&A conversation on cementing operations.
 Held A&A conversation on picking up curve BHA.
 Held A&A conversation on tripping in the hole.
 Held A&A conversation on drilling out float equipment.

HSE Drills

Drills/Tests	Date	Days Since Last	
Last Derrick Inspection Last BOP Function Test Last BOP Test Next BOP Test	03/16/2021 04/06/2021	9	JSA's/Toolbox Talks Day's Since Last Drill

EP WELLS DAILY OPERATIONS REPORT

Report 10

03/25/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Operations Summary

24 Hour Summary

Run and land intermediate casing as per tally. Rig up cementers. Induce flow. Perform cement job. Test casing. R/d cementers and remaining casing equipment. Install wearbushing. P/u Curve BHA #4 t/ 100'. RIH f/ 100' t/ 10,953'. Wash in hole f/ 10,953' t/ 11,047'. Tagged float collar at 11,047'. Drill out float collar and cement t/ 11,097'.

Update Since Report Time

Drill remainder of shoe track f/ 11,097' t/ shoe at 11,135'. Drill rathole f/ 11,135' t/ 11,145'. Drill 6 3/4" vertical section f/ 11,145' t/ KOP at 11,227'. Drill ahead building curve f/ 11,227'.

24 Hour Forecast

Build and land curve. Circulate hole clean. POOH t/ 7 5/8" shoe. Perform FIT. POOH to change BHA from curve assembly to lateral assembly.

EP WELLS DAILY OPERATIONS REPORT

Report 10

03/25/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	5.16	INT1	CLR		11,145.00	0		Run Intermediate Casing Run intermediate casing from 0 ft Run intermediate casing to 11131 ft Install rotating head? NO
05:09	0.89	INT1	LCH		11,145.00	0		Land Intermediate Casing Land casing at 11131 ft Weight casing landed at 150000 lb Successful pressure test on hanger? YES Pressure test hanger to 10000 psi Duration of pressure test 15 min
06:03	0.22	INT1	RCC		11,145.00	0		Rig Down Casing Running Tools
06:16	1.47	INT1	RCC		11,145.00	0		R/U Cementers and Install Cement Head Is this step offline? NO
07:44	3.04	INT1	RCC		11,145.00	0		Pressure Test TPW, Fill Casing, and Circulate Hole BPV retrieved? YES Is this step offline? NO TPW pressure test successfully completed? YES Circulated a minimum of one casing volume? YES Was inducing flow required? YES Comments: This step was done online so no BPV was installed. went straight from landing hanger to rigging up to cement due to staying on the well.
10:46	3.33	INT1	CEM		11,145.00	0		Pump Cement Job Is this step offline? NO TPW pressure test successfully completed? YES Freshwater spacer volume 50 bbl Lead cement volume 133 bbl Lead cement density 10.5 lb/gal Tail cement volume 37 bbl Tail cement density 14.5 lb/gal Freshwater volume 0 bbl Heavy mud volume 500 bbl Heavy mud density 12.5 lb/gal Bumped plug? YES Bump plug displacement volume 521 bbl Successful 30 min pressure test on casing? YES Floats held? YES Bled back volume 2.75 bbl TRRC notified 3/22/2021 4:21:00 PM TRRC contact person Virginia SOVs closed? YES Comments: Plug bumped at calculated bbls. Casing test to 2500psi for 30 min good floats held.
14:06	2.65	INT1	WHD		11,145.00	0		Rig Down Cementers Is this step offline? NO TA plug installed and tested? NO Comments: Staying on well so no TA plug was installed.
16:45	1.78	MNH	BHA		11,145.00	0		Pick Up Curve BHA BHA number: 4 Wear bushing installed? YES Are all frac tanks tied into EDR? YES
18:32	4.26	MNH	TIH		11,145.00	0		Trip in Hole Trip from: 100 ft Trip to: 10953 ft
22:47	1.20	MNH	DCM		11,145.00	0		Displace to OBM and Drill Shoe Track Equipment Tag float collar at: 11047 ft Tag float shoe at: 11135 ft Rotating head installed? YES Rotating head pressure tested? YES Orbit valve opened after testing RCD? Yes Method for mud displacement Other OBM density: 12 lb/gal Comments: Displaced to OBM when displacing cement. Washed in hole from 10,953' to FC at 11,047'.
Total	24.00							

EP WELLS DAILY OPERATIONS REPORT

Report 10

03/25/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



06:00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Description
00:00	0.82	MNH	DCM		11,145.00	0	Displace to OBM and Drill Shoe Track Equipment Tag float collar at: 11047 ft Tag float shoe at: 11135 ft Rotating head installed? YES Rotating head pressure tested? YES Orbit valve opened after testing RCD? Yes Method for mud displacement Other OBM density: 12 lb/gal Comments: Displaced to OBM when displacing cement. Washed in hole from 10,953' to FC at 11,047'.
00:49	2.09	MNH	DRL		11,227.00	0	Drill Ahead - Vertical Section to KOP Depth at end of step (MD) 11227 ft Active mud weight: 12 lb/gal

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
10,464.00	4.93	240.52	10,383.84	0.61	PTW MWD+IFR+AXIAL
10,645.00	4.46	233.88	10,564.23	0.40	PTW MWD+IFR+AXIAL
10,824.00	4.36	232.51	10,742.70	0.08	PTW MWD+IFR+AXIAL
11,005.00	2.09	313.85	10,923.47	2.51	PTW MWD+IFR+AXIAL
11,081.00	1.33	334.67	10,999.44	1.28	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

EP WELLS DAILY OPERATIONS REPORT

Report 10

03/25/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Remarks

University 19 PW Unit 2713H & TG Unit 2712H
(UL-19-27-P1)(FC-4091)
Latitude: N 31° 38' 50.76"
Longitude: W 103° 21' 23.84"

INSTRUCTIONS FROM NEAREST MAJOR INTERSECTION
Reeves County Hospital 2323 S. Texas St. Pecos, TX 79772 432-447-3551

NOTE: Heavy truck route: Large and Heavy loads need to use bonded route. Contact Shell HSSE department for bonded routes or access from the UA contractors website - <http://www.uacontractor.com/east/routes/index.php>

From the Intersection of HWY 285 and I-20 Business (Pecos)

From intersection of I-20 Business and HWY 285 in Pecos take I-20 Business East towards Barstow and travel 5.9 miles, turn left onto 516 N. Continue for 2.0 miles until you reach FM 2355 and turn right onto FM 2355 and drive 9.9 miles (N 31° 34' 56.62", W 103° 17' 31.95"). Turn left onto University Land Entrance and continue ahead 1.8 miles, turn left and drive 0.9 miles, then turn right and continue ahead 1.3 miles. Veer left and drive 1.5 miles to the 3-way intersection. Take center lane and drive 1.2 miles to location access road on the right.

From the Intersection of HWY 302 and FM 115 (Kermit)

From the intersection of HWY 302 and FM 115 in Kermit, take FM 115 South to Pyote and travel 22 miles. Turn right onto FM 2355 and travel 11.6 miles (N 31° 34' 56.62", W 103° 17' 31.95"). Turn right onto University Land Entrance and continue ahead 1.8 miles, turn left and drive 0.9 miles, then turn right and continue ahead 1.3 miles. Veer left and drive 1.5 miles to the 3-way intersection. Take center lane and drive 1.2 miles to location access road on the right.

EP WELLS DAILY OPERATIONS REPORT

Report 11

03/26/2021

Company PERMAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	8.51
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	8.15
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Brett McCoy	Measured Depth (ft)	11,145.00
Engineer	Mitch Collins	TVD (ft)	11,063.42
Other Supervisor	Jason Morris, Johnnie Brassel	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DFE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	914,864 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.31	LOT/FIT EMW (ppg)	
Daily Cost	\$49,065.03	Lithology	
		Formation/MDTop	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	03/25/2021	1	PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	11/29/2019	483	TRCF LWCF Safety Cards - Safe Safety card - Unsafe SSE% Last casing pressure(psi)	2500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	
Last BOP Function Test			Day's Since Last Drill	1
Last BOP Test	03/16/2021	10		
Next BOP Test	04/06/2021			

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 11

03/26/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	0.82	MNH	DCM		11,145.00	0		Displace to OBM and Drill Shoe Track Equipment Tag float collar at: 11047 ft Tag float shoe at: 11135 ft Rotating head installed? YES Rotating head pressure tested? YES Orbit valve opened after testing RCD? Yes Method for mud displacement Other OBM density: 12 lb/gal Comments: Displaced to OBM when displacing cement. Washed in hole from 10,953' to FC at 11,047'.
00:49	2.09	MNH	DRL		11,227.00	0		Drill Ahead - Vertical Section to KOP Depth at end of step (MD) 11227 ft Active mud weight: 12 lb/gal
Total	2.91							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
10,464.00	4.93	240.52	10,383.84	0.61	PTW MWD+IFR+AXIAL
10,645.00	4.46	233.88	10,564.23	0.40	PTW MWD+IFR+AXIAL
10,824.00	4.36	232.51	10,742.70	0.08	PTW MWD+IFR+AXIAL
11,005.00	2.09	313.85	10,923.47	2.51	PTW MWD+IFR+AXIAL
11,081.00	1.33	334.67	10,999.44	1.28	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 12

03/27/2021

Company PERMAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	9.51
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	9.15
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Brett McCoy	Measured Depth (ft)	12,081.00
Engineer	Mitch Collins	TVD (ft)	11,656.13
Other Supervisor	Jason Morris, Johnnie Brassel	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DFE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	7.625 in@ 11,135.00 ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500 in@ 20,600.00 ft
Actual cost to date/AFE	992,029 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.34	LOT/FIT EMW (ppg)	
Daily Cost	\$60,350.52	Lithology	
		Formation/MDTop	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	03/25/2021	2	PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	11/29/2019	484	TRCF LWCF Safety Cards - Safe Safety card - Unsafe SSE% Last casing pressure(psi)	2500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	
Last BOP Function Test	03/26/2021	1	Day's Since Last Drill	2
Last BOP Test	03/16/2021	11		
Next BOP Test	04/06/2021			

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 12

03/27/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	1.85	MNH	TOH		12,081.00	0		Trip Out of Hole Trip out of hole from: 11130 ft Trip out of hole to: 100 ft Active mud weight: 12 lb/gal Remove rotating head? YES Tight hole encountered? NO Back reaming required? NO Reason for trip: Planned trip at heel Comments: Pumped 40 bbls slug.
01:51	1.95	MNH	BHA		12,081.00	0		Handle BHA Laid Down BHA # 4 Picked up BHA # 5
03:48	5.94	MNH	CUT		12,081.00	0		Slip and Cut Comments: Slip & cut 60'.
09:45	6.53	MNH	TIH		12,081.00	0		Trip in Hole Trip in from: 102 ft Trip in to: 11100 ft Install rotating head? YES Pressure drop across agitator/shock sub: 500 psi
16:16	0.70	MNH	TIH		12,081.00	0		Trip in Hole Trip in from: 11100 ft Trip in to: 12081 ft
Total	16.98							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
11,719.00	56.10	156.58	11,549.46	9.30	PTW MWD+IFR+AXIAL
11,809.00	61.43	162.25	11,596.14	8.00	PTW MWD+IFR+AXIAL
11,900.00	68.58	160.51	11,634.57	8.05	PTW MWD+IFR+AXIAL
11,990.00	76.91	161.85	11,661.24	9.36	PTW MWD+IFR+AXIAL
12,028.00	81.09	163.21	11,668.49	11.55	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks

EP WELLS DAILY OPERATIONS REPORT

Report 13

03/28/2021

Company PERMAN
 Well Type Development
 Well UNIVERSITY 19 TG UNIT 2712H
 Wellbore UNIVERSITY 19 TG UNIT 2712H
 WBS No/API No 30330059 / 42475379310000



Event Summary

Event Type	Drilling only	Event Start Date	03/13/2021	Days on Location	10.51
Objective	Drill - New Well	Original Spud Date	03/14/2021	Days Since Spud	10.15
Est.Days	21.00	Contractor	NABORS DRILLING		
Work Unit	NABORS X05	Days To Release			
		Rig Phone/FAX No.	(406) 798-3070		

Well Status

Supervisor	Brett McCoy	Measured Depth (ft)	12,081.00
Engineer	Mitch Collins	TVD (ft)	11,656.13
Other Supervisor	Jason Morris, Johnnie Brassel	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DFE: 2,866.25 / 2,834.25	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	0.00/ 0.00	Last Casing MD	7.625 in@ 11,135.00 ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500 in@ 20,600.00 ft
Actual cost to date/AFE	1,065,405 / 5,810,713.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.37	LOT/FIT EMW (ppg)	
Daily Cost	\$63,971.55	Lithology	
		Formation/MDTop	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	03/25/2021	3	PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	11/29/2019	485	TRCF LWCF Safety Cards - Safe Safety card - Unsafe SSE% Last casing pressure(psi)	2500
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	
Last BOP Function Test	03/26/2021	2	Day's Since Last Drill	3
Last BOP Test	03/16/2021	12		
Next BOP Test	04/06/2021			

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 13

03/28/2021

Well UNIVERSITY 19 TG UNIT 2712H
Wellbore UNIVERSITY 19 TG UNIT 2712H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	0.09	MNH	DRH		13,490.00	0		Drill Ahead - Lateral Drill from (MD): 12081 ft Depth at end of step (MD) 13490 ft Active mud weight: 12 lb/gal MPD back pressure during connections: 550 psi MPD back pressure while drilling: 0 psi Apparent pore pressure: 12.4 lb/gal
Total	0.09							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	DLeg (°/100ft)	Tool
11,719.00	56.10	156.58	11,549.46	9.30	PTW MWD+IFR+AXIAL
11,809.00	61.43	162.25	11,596.14	8.00	PTW MWD+IFR+AXIAL
11,900.00	68.58	160.51	11,634.57	8.05	PTW MWD+IFR+AXIAL
11,990.00	76.91	161.85	11,661.24	9.36	PTW MWD+IFR+AXIAL
12,028.00	81.09	163.21	11,668.49	11.55	PTW MWD+IFR+AXIAL

Fluid Details

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose

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	TRIPEX	H&H / HHF 1600	12.00						
2	TRIPEX	H&H / HHF 1600	12.00						
3	TRIPEX	H&H / HHF 1600	12.00						

Remarks