



HOBBS OCD

AUG 14 2017

Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
6/9/2017	Shaped Charge	9,228.0	9,229.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 49
6/9/2017	Shaped Charge	9,253.0	9,254.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 49
6/9/2017	Shaped Charge	9,278.0	9,279.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 49
6/9/2017	Shaped Charge	9,303.0	9,304.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 49
6/9/2017	Shaped Charge	9,328.0	9,329.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 49
6/9/2017	Shaped Charge	9,353.0	9,354.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 49
6/9/2017	Shaped Charge	9,378.0	9,379.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 49
6/9/2017	Shaped Charge	9,403.0	9,404.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 49
6/9/2017	Shaped Charge	9,428.0	9,429.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 48
6/9/2017	Shaped Charge	9,453.0	9,454.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 48
6/9/2017	Shaped Charge	9,478.0	9,479.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 48
6/9/2017	Shaped Charge	9,503.0	9,504.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 48
6/9/2017	Shaped Charge	9,528.0	9,529.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 48
6/9/2017	Shaped Charge	9,553.0	9,554.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 48
6/9/2017	Shaped Charge	9,578.0	9,579.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 48
6/9/2017	Shaped Charge	9,603.0	9,604.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 48
6/8/2017	Shaped Charge	9,630.0	9,631.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 47
6/8/2017	Shaped Charge	9,653.0	9,654.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 47
6/8/2017	Shaped Charge	9,678.0	9,679.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 47
6/8/2017	Shaped Charge	9,703.0	9,704.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 47
6/8/2017	Shaped Charge	9,728.0	9,729.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 47



Perforation Summary

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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (°)	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
6/8/2017	Shaped Charge	9,754.0	9,755.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 47
6/8/2017	Shaped Charge	9,778.0	9,779.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 47
6/8/2017	Shaped Charge	9,803.0	9,804.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 47
6/8/2017	Shaped Charge	9,828.0	9,829.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 46
6/8/2017	Shaped Charge	9,853.0	9,854.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 46
6/8/2017	Shaped Charge	9,878.0	9,879.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 46
6/8/2017	Shaped Charge	9,903.0	9,904.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 46
6/8/2017	Shaped Charge	9,928.0	9,929.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 46
6/8/2017	Shaped Charge	9,953.0	9,954.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 46
6/8/2017	Shaped Charge	9,978.0	9,979.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 46
6/8/2017	Shaped Charge	10,003.0	10,004.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 46
6/7/2017	Shaped Charge	10,028.0	10,029.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 45
6/7/2017	Shaped Charge	10,053.0	10,054.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 45
6/7/2017	Shaped Charge	10,075.0	10,076.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 45
6/7/2017	Shaped Charge	10,103.0	10,104.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 45
6/7/2017	Shaped Charge	10,128.0	10,129.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 45
6/7/2017	Shaped Charge	10,153.0	10,154.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 45
6/7/2017	Shaped Charge	10,178.0	10,179.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 45
6/7/2017	Shaped Charge	10,203.0	10,204.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 45
6/7/2017	Shaped Charge	10,228.0	10,229.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 44
6/7/2017	Shaped Charge	10,253.0	10,254.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 44
6/7/2017	Shaped Charge	10,277.0	10,278.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 44



Perforation Summary

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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
6/7/2017	Shaped Charge	10,303.0	10,304.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 44
6/7/2017	Shaped Charge	10,328.0	10,329.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 44
6/7/2017	Shaped Charge	10,350.0	10,351.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 44
6/7/2017	Shaped Charge	10,378.0	10,379.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 44
6/7/2017	Shaped Charge	10,396.0	10,397.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 44
6/6/2017	Shaped Charge	10,428.0	10,429.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 43
6/6/2017	Shaped Charge	10,453.0	10,454.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 43
6/6/2017	Shaped Charge	10,478.0	10,479.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 43
6/6/2017	Shaped Charge	10,503.0	10,504.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 43
6/6/2017	Shaped Charge	10,528.0	10,529.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 43
6/6/2017	Shaped Charge	10,553.0	10,554.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 43
6/6/2017	Shaped Charge	10,578.0	10,579.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 43
6/6/2017	Shaped Charge	10,603.0	10,604.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 43
6/6/2017	Shaped Charge	10,628.0	10,629.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 42
6/6/2017	Shaped Charge	10,653.0	10,654.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 42
6/6/2017	Shaped Charge	10,678.0	10,679.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 42
6/6/2017	Shaped Charge	10,703.0	10,704.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 42
6/6/2017	Shaped Charge	10,733.0	10,734.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 42
6/6/2017	Shaped Charge	10,753.0	10,754.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 42
6/6/2017	Shaped Charge	10,778.0	10,779.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 42
6/6/2017	Shaped Charge	10,803.0	10,804.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 42
6/6/2017	Shaped Charge	10,828.0	10,829.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 41



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (°)	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
6/6/2017	Shaped Charge	10,855.0	10,856.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 41
6/6/2017	Shaped Charge	10,878.0	10,879.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 41
6/6/2017	Shaped Charge	10,903.0	10,904.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 41
6/6/2017	Shaped Charge	10,928.0	10,929.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 41
6/6/2017	Shaped Charge	10,953.0	10,954.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 41
6/6/2017	Shaped Charge	10,978.0	10,979.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 41
6/6/2017	Shaped Charge	11,003.0	11,004.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 41
6/5/2017	Shaped Charge	11,028.0	11,029.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,053.0	11,054.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,078.0	11,079.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,104.0	11,105.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,128.0	11,129.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,153.0	11,154.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,174.0	11,175.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,203.0	11,204.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,228.0	11,229.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,253.0	11,254.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,278.0	11,279.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,303.0	11,304.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,328.0	11,329.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,353.0	11,354.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 39
6/5/2017	Shaped Charge	11,378.0	11,379.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 39



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
6/5/2017	Shaped Charge	11,403.0	11,404.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 39
6/4/2017	Shaped Charge	11,431.0	11,432.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 38
6/4/2017	Shaped Charge	11,453.0	11,454.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 38
6/4/2017	Shaped Charge	11,478.0	11,479.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 38
6/4/2017	Shaped Charge	11,503.0	11,504.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 38
6/4/2017	Shaped Charge	11,528.0	11,529.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 38
6/4/2017	Shaped Charge	11,553.0	11,554.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 38
6/4/2017	Shaped Charge	11,578.0	11,579.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 38
6/4/2017	Shaped Charge	11,603.0	11,604.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 38
6/4/2017	Shaped Charge	11,628.0	11,629.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 37
6/4/2017	Shaped Charge	11,653.0	11,654.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 37
6/4/2017	Shaped Charge	11,678.0	11,679.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 37
6/4/2017	Shaped Charge	11,703.0	11,704.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 37
6/4/2017	Shaped Charge	11,728.0	11,729.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 37
6/4/2017	Shaped Charge	11,753.0	11,754.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 37
6/4/2017	Shaped Charge	11,778.0	11,779.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 37
6/4/2017	Shaped Charge	11,803.0	11,804.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 37
6/4/2017	Shaped Charge	11,828.0	11,829.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 36
6/4/2017	Shaped Charge	11,853.0	11,854.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 36
6/4/2017	Shaped Charge	11,878.0	11,879.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 36
6/4/2017	Shaped Charge	11,903.0	11,904.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 36
6/4/2017	Shaped Charge	11,928.0	11,929.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 36



Perforation Summary

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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (°)	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
6/4/2017	Shaped Charge	11,953.0	11,954.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 36
6/4/2017	Shaped Charge	11,978.0	11,979.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 36
6/4/2017	Shaped Charge	12,000.0	12,001.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 36
6/3/2017	Shaped Charge	12,028.0	12,029.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 35
6/3/2017	Shaped Charge	12,053.0	12,054.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 35
6/3/2017	Shaped Charge	12,078.0	12,079.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 35
6/3/2017	Shaped Charge	12,105.0	12,106.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 35
6/3/2017	Shaped Charge	12,128.0	12,129.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 35
6/3/2017	Shaped Charge	12,153.0	12,154.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 35
6/3/2017	Shaped Charge	12,178.0	12,179.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 35
6/3/2017	Shaped Charge	12,203.0	12,204.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 35
6/2/2017	Shaped Charge	12,229.0	12,230.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 34
6/2/2017	Shaped Charge	12,253.0	12,254.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 34
6/2/2017	Shaped Charge	12,278.0	12,279.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 34
6/2/2017	Shaped Charge	12,303.0	12,304.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 34
6/2/2017	Shaped Charge	12,328.0	12,329.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 34
6/2/2017	Shaped Charge	12,353.0	12,354.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 34
6/2/2017	Shaped Charge	12,378.0	12,379.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 34
6/2/2017	Shaped Charge	12,403.0	12,404.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 34
6/2/2017	Shaped Charge	12,426.0	12,427.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 33
6/2/2017	Shaped Charge	12,453.0	12,454.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 33
6/2/2017	Shaped Charge	12,478.0	12,479.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 33



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
6/2/2017	Shaped Charge	12,503.0	12,504.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 33
6/2/2017	Shaped Charge	12,528.0	12,529.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 33
6/2/2017	Shaped Charge	12,550.0	12,551.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 33
6/2/2017	Shaped Charge	12,578.0	12,579.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 33
6/2/2017	Shaped Charge	12,603.0	12,604.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 33
6/1/2017	Shaped Charge	12,628.0	12,629.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 32
6/1/2017	Shaped Charge	12,653.0	12,654.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 32
6/1/2017	Shaped Charge	12,674.0	12,675.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 32
6/1/2017	Shaped Charge	12,703.0	12,704.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 32
6/1/2017	Shaped Charge	12,728.0	12,729.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 32
6/1/2017	Shaped Charge	12,753.0	12,754.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 32
6/1/2017	Shaped Charge	12,778.0	12,779.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 32
6/1/2017	Shaped Charge	12,803.0	12,804.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 32
5/31/2017	Shaped Charge	12,828.0	12,829.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 31
5/31/2017	Shaped Charge	12,853.0	12,854.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 31
5/31/2017	Shaped Charge	12,878.0	12,879.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 31
5/31/2017	Shaped Charge	12,903.0	12,904.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 31
5/31/2017	Shaped Charge	12,928.0	12,929.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 31
5/31/2017	Shaped Charge	12,953.0	12,954.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 31
5/31/2017	Shaped Charge	12,981.0	12,982.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 31
5/31/2017	Shaped Charge	13,003.0	13,004.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 31
5/31/2017	Shaped Charge	13,028.0	13,029.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 30



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations													
Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/31/2017	Shaped Charge	13,053.0	13,054.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 30
5/31/2017	Shaped Charge	13,078.0	13,079.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 30
5/31/2017	Shaped Charge	13,100.0	13,101.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 30
5/31/2017	Shaped Charge	13,128.0	13,129.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 30
5/31/2017	Shaped Charge	13,153.0	13,154.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 30
5/31/2017	Shaped Charge	13,178.0	13,179.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 30
5/31/2017	Shaped Charge	13,203.0	13,204.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 30
5/30/2017	Shaped Charge	13,228.0	13,229.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 29
5/30/2017	Shaped Charge	13,253.0	13,254.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 29
5/30/2017	Shaped Charge	13,278.0	13,279.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 29
5/30/2017	Shaped Charge	13,303.0	13,304.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 29
5/30/2017	Shaped Charge	13,328.0	13,329.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 29
5/30/2017	Shaped Charge	13,354.0	13,355.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 29
5/30/2017	Shaped Charge	13,378.0	13,379.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 29
5/30/2017	Shaped Charge	13,403.0	13,404.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 29
5/29/2017	Shaped Charge	13,428.0	13,429.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 28
5/29/2017	Shaped Charge	13,453.0	13,454.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 28
5/29/2017	Shaped Charge	13,476.0	13,477.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 28
5/29/2017	Shaped Charge	13,503.0	13,504.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 28
5/29/2017	Shaped Charge	13,528.0	13,529.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 28
5/29/2017	Shaped Charge	13,553.0	13,554.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 28
5/29/2017	Shaped Charge	13,578.0	13,579.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 28



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations													
Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (°)	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/29/2017	Shaped Charge	13,603.0	13,604.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 28
5/29/2017	Shaped Charge	13,628.0	13,629.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 27
5/29/2017	Shaped Charge	13,653.0	13,654.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 27
5/29/2017	Shaped Charge	13,678.0	13,679.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 27
5/29/2017	Shaped Charge	13,703.0	13,704.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 27
5/29/2017	Shaped Charge	13,728.0	13,729.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 27
5/29/2017	Shaped Charge	13,753.0	13,754.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 27
5/29/2017	Shaped Charge	13,778.0	13,779.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 27
5/29/2017	Shaped Charge	13,800.0	13,801.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 27
5/27/2017	Shaped Charge	13,828.0	13,829.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 26
5/27/2017	Shaped Charge	13,853.0	13,854.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 26
5/27/2017	Shaped Charge	13,878.0	13,879.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 26
5/27/2017	Shaped Charge	13,903.0	13,904.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 26
5/27/2017	Shaped Charge	13,928.0	13,929.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 26
5/27/2017	Shaped Charge	13,953.0	13,954.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 26
5/27/2017	Shaped Charge	13,978.0	13,979.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 26
5/27/2017	Shaped Charge	14,003.0	14,004.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 26
5/27/2017	Shaped Charge	14,030.0	14,031.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 25
5/27/2017	Shaped Charge	14,053.0	14,054.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 25
5/27/2017	Shaped Charge	14,078.0	14,079.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 25
5/27/2017	Shaped Charge	14,103.0	14,104.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 25
5/27/2017	Shaped Charge	14,128.0	14,129.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 25



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/27/2017	Shaped Charge	14,153.0	14,154.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 25
5/27/2017	Shaped Charge	14,178.0	14,179.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 25
5/27/2017	Shaped Charge	14,203.0	14,204.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 25
5/26/2017	Shaped Charge	14,228.0	14,229.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 24
5/26/2017	Shaped Charge	14,253.0	14,254.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 24
5/26/2017	Shaped Charge	14,278.0	14,279.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 24
5/26/2017	Shaped Charge	14,303.0	14,304.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 24
5/26/2017	Shaped Charge	14,328.0	14,329.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 24
5/26/2017	Shaped Charge	14,353.0	14,354.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 24
5/26/2017	Shaped Charge	14,378.0	14,379.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 24
5/26/2017	Shaped Charge	14,400.0	14,401.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 24
5/25/2017	Shaped Charge	14,428.0	14,429.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 23
5/25/2017	Shaped Charge	14,453.0	14,454.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 23
5/25/2017	Shaped Charge	14,478.0	14,479.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 23
5/25/2017	Shaped Charge	14,503.0	14,504.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 23
5/25/2017	Shaped Charge	14,528.0	14,529.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 23
5/25/2017	Shaped Charge	14,553.0	14,554.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 23
5/25/2017	Shaped Charge	14,578.0	14,579.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 23
5/25/2017	Shaped Charge	14,603.0	14,604.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 23
5/25/2017	Shaped Charge	14,628.0	14,629.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 22
5/25/2017	Shaped Charge	14,650.0	14,651.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 22
5/25/2017	Shaped Charge	14,678.0	14,679.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 22



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/25/2017	Shaped Charge	14,703.0	14,704.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 22
5/25/2017	Shaped Charge	14,728.0	14,729.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 22
5/25/2017	Shaped Charge	14,753.0	14,754.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 22
5/25/2017	Shaped Charge	14,774.0	14,775.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 22
5/25/2017	Shaped Charge	14,803.0	14,804.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 22
5/24/2017	Shaped Charge	14,828.0	14,829.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 21
5/24/2017	Shaped Charge	14,853.0	14,854.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 21
5/24/2017	Shaped Charge	14,878.0	14,879.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 21
5/24/2017	Shaped Charge	14,904.0	14,905.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 21
5/24/2017	Shaped Charge	14,928.0	14,929.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 21
5/24/2017	Shaped Charge	14,953.0	14,954.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 21
5/24/2017	Shaped Charge	14,978.0	14,979.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 21
5/24/2017	Shaped Charge	15,003.0	15,004.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 21
5/20/2017	Shaped Charge	15,028.0	15,029.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 20
5/20/2017	Shaped Charge	15,053.0	15,054.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 20
5/20/2017	Shaped Charge	15,078.0	15,079.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 20
5/20/2017	Shaped Charge	15,101.0	15,102.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 20
5/20/2017	Shaped Charge	15,128.0	15,129.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 20
5/20/2017	Shaped Charge	15,153.0	15,154.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 20
5/20/2017	Shaped Charge	15,178.0	15,179.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 20
5/20/2017	Shaped Charge	15,203.0	15,204.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 20
5/20/2017	Shaped Charge	15,228.0	15,229.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 19



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations													
Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (°)	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/20/2017	Shaped Charge	15,253.0	15,254.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 19
5/20/2017	Shaped Charge	15,279.0	15,280.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 19
5/20/2017	Shaped Charge	15,303.0	15,304.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 19
5/20/2017	Shaped Charge	15,328.0	15,329.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 19
5/20/2017	Shaped Charge	15,353.0	15,354.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 19
5/20/2017	Shaped Charge	15,378.0	15,379.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 19
5/20/2017	Shaped Charge	15,400.0	15,401.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 19
5/19/2017	Shaped Charge	15,428.0	15,429.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 18
5/19/2017	Shaped Charge	15,453.0	15,454.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 18
5/19/2017	Shaped Charge	15,478.0	15,479.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 18
5/19/2017	Shaped Charge	15,503.0	15,504.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 18
5/19/2017	Shaped Charge	15,524.0	15,525.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 18
5/19/2017	Shaped Charge	15,553.0	15,554.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 18
5/19/2017	Shaped Charge	15,578.0	15,579.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 18
5/19/2017	Shaped Charge	15,603.0	15,604.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 18
5/19/2017	Shaped Charge	15,628.0	15,629.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 17
5/19/2017	Shaped Charge	15,654.0	15,655.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 17
5/19/2017	Shaped Charge	15,678.0	15,679.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 17
5/19/2017	Shaped Charge	15,703.0	15,704.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 17
5/19/2017	Shaped Charge	15,728.0	15,729.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 17
5/19/2017	Shaped Charge	15,753.0	15,754.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 17
5/19/2017	Shaped Charge	15,780.0	15,781.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 17



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations													
Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/19/2017	Shaped Charge	15,803.0	15,804.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 17
5/19/2017	Shaped Charge	15,828.0	15,829.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 16
5/19/2017	Shaped Charge	15,853.0	15,854.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 16
5/19/2017	Shaped Charge	15,878.0	15,879.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 16
5/19/2017	Shaped Charge	15,901.0	15,902.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 16
5/19/2017	Shaped Charge	15,928.0	15,929.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 16
5/19/2017	Shaped Charge	15,953.0	15,954.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 16
5/19/2017	Shaped Charge	15,978.0	15,979.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 16
5/19/2017	Shaped Charge	16,001.0	16,002.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 16
5/18/2017	Shaped Charge	16,032.0	16,033.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 15
5/18/2017	Shaped Charge	16,053.0	16,054.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 15
5/18/2017	Shaped Charge	16,078.0	16,079.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 15
5/18/2017	Shaped Charge	16,103.0	16,104.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 15
5/18/2017	Shaped Charge	16,128.0	16,129.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 15
5/18/2017	Shaped Charge	16,150.0	16,151.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 15
5/18/2017	Shaped Charge	16,178.0	16,179.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 15
5/18/2017	Shaped Charge	16,203.0	16,204.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 15
5/18/2017	Shaped Charge	16,228.0	16,229.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 14
5/18/2017	Shaped Charge	16,253.0	16,254.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 14
5/18/2017	Shaped Charge	16,278.0	16,279.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 14
5/18/2017	Shaped Charge	16,303.0	16,304.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 14
5/18/2017	Shaped Charge	16,328.0	16,329.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 14



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/18/2017	Shaped Charge	16,353.0	16,354.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 14
5/18/2017	Shaped Charge	16,378.0	16,379.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 14
5/18/2017	Shaped Charge	16,400.0	16,401.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 14
5/18/2017	Shaped Charge	16,428.0	16,429.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 13
5/18/2017	Shaped Charge	16,453.0	16,454.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 13
5/18/2017	Shaped Charge	16,478.0	16,479.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 13
5/18/2017	Shaped Charge	16,503.0	16,504.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 13
5/18/2017	Shaped Charge	16,530.0	16,531.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 13
5/18/2017	Shaped Charge	16,553.0	16,554.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 13
5/18/2017	Shaped Charge	16,578.0	16,579.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 13
5/18/2017	Shaped Charge	16,603.0	16,604.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 13
5/17/2017	Shaped Charge	16,628.0	16,629.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 12
5/17/2017	Shaped Charge	16,653.0	16,654.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 12
5/17/2017	Shaped Charge	16,678.0	16,679.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 12
5/17/2017	Shaped Charge	16,703.0	16,704.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 12
5/17/2017	Shaped Charge	16,728.0	16,729.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 12
5/17/2017	Shaped Charge	16,753.0	16,754.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 12
5/17/2017	Shaped Charge	16,776.0	16,777.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 12
5/17/2017	Shaped Charge	16,803.0	16,804.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 12
5/17/2017	Shaped Charge	16,830.0	16,831.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 11
5/17/2017	Shaped Charge	16,853.0	16,854.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 11
5/17/2017	Shaped Charge	16,878.0	16,879.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 11



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (°)	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/17/2017	Shaped Charge	16,903.0	16,904.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 11
5/17/2017	Shaped Charge	16,928.0	16,929.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 11
5/17/2017	Shaped Charge	16,950.0	16,951.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 11
5/17/2017	Shaped Charge	16,978.0	16,979.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 11
5/17/2017	Shaped Charge	17,003.0	17,004.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 11
5/17/2017	Shaped Charge	17,028.0	17,029.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 10
5/17/2017	Shaped Charge	17,053.0	17,054.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 10
5/17/2017	Shaped Charge	17,078.0	17,079.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 10
5/17/2017	Shaped Charge	17,103.0	17,104.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 10
5/17/2017	Shaped Charge	17,128.0	17,129.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 10
5/17/2017	Shaped Charge	17,153.0	17,154.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 10
5/17/2017	Shaped Charge	17,178.0	17,179.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 10
5/17/2017	Shaped Charge	17,204.0	17,205.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 10
5/17/2017	Shaped Charge	17,228.0	17,229.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 9
5/17/2017	Shaped Charge	17,253.0	17,254.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 9
5/17/2017	Shaped Charge	17,278.0	17,279.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 9
5/17/2017	Shaped Charge	17,303.0	17,304.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 9
5/17/2017	Shaped Charge	17,328.0	17,329.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 9
5/17/2017	Shaped Charge	17,353.0	17,354.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 9
5/17/2017	Shaped Charge	17,378.0	17,379.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 9
5/17/2017	Shaped Charge	17,403.0	17,404.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 9
5/16/2017	Shaped Charge	17,428.0	17,429.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 8



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations													
Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/16/2017	Shaped Charge	17,452.0	17,453.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 8
5/16/2017	Shaped Charge	17,478.0	17,479.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 8
5/16/2017	Shaped Charge	17,503.0	17,504.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 8
5/16/2017	Shaped Charge	17,528.0	17,529.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 8
5/16/2017	Shaped Charge	17,553.0	17,554.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 8
5/16/2017	Shaped Charge	17,579.0	17,580.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 8
5/16/2017	Shaped Charge	17,599.0	17,600.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 8
5/14/2017	Shaped Charge	17,628.0	17,629.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 7
5/14/2017	Shaped Charge	17,653.0	17,654.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 7
5/14/2017	Shaped Charge	17,678.0	17,679.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 7
5/14/2017	Shaped Charge	17,703.0	17,704.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 7
5/14/2017	Shaped Charge	17,728.0	17,729.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 7
5/14/2017	Shaped Charge	17,753.0	17,754.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 7
5/14/2017	Shaped Charge	17,778.0	17,779.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 7
5/14/2017	Shaped Charge	17,803.0	17,804.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 7
5/14/2017	Shaped Charge	17,828.0	17,829.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 6
5/14/2017	Shaped Charge	17,853.0	17,854.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 6
5/14/2017	Shaped Charge	17,878.0	17,879.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 6
5/14/2017	Shaped Charge	17,903.0	17,904.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 6
5/14/2017	Shaped Charge	17,928.0	17,929.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 6
5/14/2017	Shaped Charge	17,950.0	17,951.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 6
5/14/2017	Shaped Charge	17,978.0	17,979.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 6



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (°)	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/14/2017	Shaped Charge	18,003.0	18,004.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 6
5/13/2017	Shaped Charge	18,028.0	18,029.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 5
5/13/2017	Shaped Charge	18,053.0	18,054.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 5
5/13/2017	Shaped Charge	18,078.0	18,079.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 5
5/13/2017	Shaped Charge	18,103.0	18,104.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 5
5/13/2017	Shaped Charge	18,128.0	18,129.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 5
5/13/2017	Shaped Charge	18,153.0	18,154.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 5
5/13/2017	Shaped Charge	18,178.0	18,179.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 5
5/13/2017	Shaped Charge	18,203.0	18,204.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 5
5/13/2017	Shaped Charge	18,228.0	18,229.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 4
5/13/2017	Shaped Charge	18,253.0	18,254.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 4
5/13/2017	Shaped Charge	18,275.0	18,276.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 4
5/13/2017	Shaped Charge	18,303.0	18,304.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 4
5/13/2017	Shaped Charge	18,328.0	18,329.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 4
5/13/2017	Shaped Charge	18,353.0	18,354.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 4
5/13/2017	Shaped Charge	18,378.0	18,379.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 4
5/13/2017	Shaped Charge	18,400.0	18,401.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 4
5/12/2017	Shaped Charge	18,428.0	18,429.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 3
5/12/2017	Shaped Charge	18,453.0	18,454.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 3
5/12/2017	Shaped Charge	18,478.0	18,479.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 3
5/12/2017	Shaped Charge	18,503.0	18,504.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 3
5/12/2017	Shaped Charge	18,528.0	18,529.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 3



Perforation Summary

Well Name SALADO DRAW WE 23 FED P25 001H	Lease NMNM118723	Field Name JENNINGS	Business Unit Mid-Continent	Surface UWI 3002543460	Surface ChevNo PJ8995
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Perforations

Date	Perforation Type	Top (ftKB)	Btm (ftKB)	Phasing (")	Gun Size (in)	Chg Sz (g)	Charge Make	Carrier Make	Shot Dens (shots/ft)	Entered Shot Total	# Shots Misfired	Perf Comp	Com
5/12/2017	Shaped Charge	18,553.0	18,554.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 3
5/12/2017	Shaped Charge	18,578.0	18,579.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 3
5/12/2017	Shaped Charge	18,603.0	18,604.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 3
5/12/2017	Shaped Charge	18,628.0	18,629.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	6.0	6	0	Halliburton	Stage 2
5/12/2017	Shaped Charge	18,653.0	18,654.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 2
5/12/2017	Shaped Charge	18,678.0	18,679.0	60	3 1/8	22.7	Halliburton Energy Services	Halliburton	5.0	5	0	Halliburton	Stage 2
5/12/2017	Shaped Charge	18,703.0	18,704.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 2
5/12/2017	Shaped Charge	18,728.0	18,729.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 2
5/12/2017	Shaped Charge	18,753.0	18,754.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 2
5/12/2017	Shaped Charge	18,778.0	18,779.0	90	3 1/8	22.7	Halliburton Energy Services	Halliburton	4.0	4	0	Halliburton	Stage 2
5/12/2017	Shaped Charge	18,803.0	18,804.0	120	3 1/8	22.7	Halliburton Energy Services	Halliburton	3.0	3	0	Halliburton	Stage 2
5/5/2017	Shaped Charge	18,828.0	18,829.0	120	3 1/8	22.7	Titan Specialties Inc.	Geodynamics	3.0	3	0	Weatherford	Stage 1
5/5/2017	Shaped Charge	18,853.0	18,854.0	90	3 1/8	22.7	Titan Specialties Inc.	Geodynamics	4.0	4	0	Weatherford	Stage 1
5/5/2017	Shaped Charge	18,878.0	18,879.0	90	3 1/8	22.7	Titan Specialties Inc.	Geodynamics	4.0	4	0	Weatherford	Stage 1
5/5/2017	Shaped Charge	18,903.0	18,904.0	90	3 1/8	22.7	Titan Specialties Inc.	Geodynamics	4.0	4	0	Weatherford	Stage 1
5/5/2017	Shaped Charge	18,928.0	18,929.0	90	3 1/8	22.7	Titan Specialties Inc.	Geodynamics	4.0	4	0	Weatherford	Stage 1
5/5/2017	Shaped Charge	18,953.0	18,954.0	60	3 1/8	22.7	Titan Specialties Inc.	Geodynamics	5.0	5	0	Weatherford	Stage 1
5/5/2017	Shaped Charge	18,978.0	18,979.0	60	3 1/8	22.7	Titan Specialties Inc.	Geodynamics	5.0	5	0	Weatherford	Stage 1
5/5/2017	Shaped Charge	19,003.0	19,004.0	60	3 1/8	22.7	Titan Specialties Inc.	Geodynamics	6.0	6	0	Weatherford	Stage 1