

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 2-26-2015
API #: 47-069-00137

Farm name: OCC A OHI 10H Operator Well No.: 835237

LOCATION: Elevation: 1120' Quadrangle: Valley Grove 7.5

District: Triadelphia County: Ohio
Latitude: 4114' Feet South of 40 Deg. 05 Min. 00 Sec.
Longitude 1395' Feet West of 80 Deg. 35 Min. 00 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496 Oklahoma City, OK 73154-0496	20"	100'	100'	216 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	498'	498'	437 Cu. Ft.
Inspector: Bill Hendershot	9 5/8"	1928'	1928'	797 Cu. Ft.
Date Permit Issued: 7-26-2012	5 1/2"	11524'	11524'	3216 Cu. Ft.
Date Well Work Commenced: 8-10-2012				
Date Well Work Completed: 5-12-2013				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 6269'				
Total Measured Depth (ft): 11524'				
Fresh Water Depth (ft.): 257'				
Salt Water Depth (ft.): 550'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 444'				
Void(s) encountered (N/Y) Depth(s) N				

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OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) frac 5/13/13
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow n/a MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Mallene Welland
Signature

2/26/15
Date

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Were core samples taken? Yes _____ No N

Were cuttings caught during drilling? Yes Y No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR, neutron, density, and resistivity
open hole logs run from 32-517' MD; LWD GR from 5258-11524' MD.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

See attached

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth _____

Surface: _____

See attached

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LATERAL SIDETRACK WELLBORE (no vertical pilot hole associated with this well)

Maximum TVD of wellbore: 6269 ft TVD @ 11464 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SS/LS	0	0	444	444
PITTSBURG COAL	444	444	449	449
SS/SH	449	449	1485	1485
SS	1485	1485	1610	1610
BIG INJUN (SS)	1610	1610	1798	1798
SHALE	1798	1798	6322	6024
GENESEO (SH)	6322	6024	6380	6045
TULLY (LS)	6380	6045	6483	6083
HAMILTON (SH)	6483	6083	6885	6198
MARCELLUS (SH)	6885	6198		
TD OF LATERAL			11524	6256

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Company: CHESAPEAKE
 Lease/Well: OCC-A/OHI-10H
 Location:
 Rig Name: NOMAC #241
 State/County: WEST VIRGINIA/OHIO
 Latitude: 40.08, Longitude: -80.60
 GRID North is 0.70 Degrees West of True North
 VS-Azi: 0.00 Degrees

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FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB=20'

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: occ-a-ohi10h_ed.ut
 Minimum Curvature Method
 Report Date/Time: 8/19/2012 / 05:10

Vaughn Energy Services
 Morgantown, West Virginia
 304-777-2189
 Michael Komarek

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.15	216.17	100.00	-0.11	-0.08	-0.11	0.13	216.17	0.15
200.00	0.14	246.78	200.00	-0.26	-0.27	-0.26	0.37	225.82	0.08
300.00	0.08	144.14	300.00	-0.36	-0.34	-0.36	0.50	223.20	0.18
400.00	0.27	165.02	400.00	-0.65	-0.24	-0.65	0.69	200.31	0.20
500.00	0.36	162.06	500.00	-1.18	-0.08	-1.18	1.19	183.93	0.09
600.00	0.42	174.12	600.00	-1.85	0.05	-1.85	1.85	178.33	0.10
700.00	0.26	190.50	699.99	-2.43	0.05	-2.43	2.43	178.83	0.18
800.00	0.27	264.19	799.99	-2.68	-0.23	-2.68	2.69	184.89	0.32
900.00	0.27	271.01	899.99	-2.70	-0.70	-2.70	2.79	194.60	0.03
1000.00	0.26	258.65	999.99	-2.74	-1.16	-2.74	2.97	202.93	0.06
1100.00	0.45	247.04	1099.99	-2.94	-1.74	-2.94	3.41	210.69	0.21
1200.00	0.58	238.33	1199.98	-3.36	-2.54	-3.36	4.21	217.08	0.14
1300.00	0.54	246.29	1299.98	-3.81	-3.39	-3.81	5.10	221.70	0.09
1400.00	0.47	243.91	1399.98	-4.18	-4.19	-4.18	5.91	225.09	0.07
1500.00	0.37	253.03	1499.97	-4.45	-4.86	-4.45	6.59	227.54	0.12
1600.00	0.31	246.24	1599.97	-4.65	-5.41	-4.65	7.00	229.34	0.07
1700.00	0.12	291.10	1699.97	-4.72	-5.76	-4.72	7.45	230.67	0.24
1800.00	0.17	263.31	1799.97	-4.70	-6.01	-4.70	7.63	232.00	0.09
1900.00	0.40	269.25	1899.97	-4.72	-6.52	-4.72	8.05	234.08	0.23
2000.00	0.46	266.39	1999.97	-4.75	-7.27	-4.75	8.68	236.83	0.06
2100.00	0.44	265.37	2099.96	-4.81	-8.05	-4.81	9.38	239.17	0.02
2200.00	0.42	258.43	2199.96	-4.91	-8.80	-4.91	10.08	240.83	0.06
2300.00	0.44	270.51	2299.96	-4.98	-9.54	-4.98	10.77	242.44	0.09
2400.00	0.50	278.22	2399.95	-4.92	-10.36	-4.92	11.47	244.62	0.09
2500.00	0.57	275.76	2499.95	-4.80	-11.29	-4.80	12.27	246.95	0.07
2600.00	0.61	282.88	2599.94	-4.63	-12.30	-4.63	13.15	249.36	0.09
2700.00	0.62	281.46	2699.94	-4.41	-13.36	-4.41	14.06	251.74	0.02
2800.00	0.56	280.50	2799.93	-4.21	-14.37	-4.21	14.98	253.67	0.06
2900.00	0.54	277.64	2899.93	-4.06	-15.32	-4.06	15.85	255.16	0.04
3000.00	0.55	281.32	2999.92	-3.90	-16.25	-3.90	16.72	256.50	0.04
3100.00	0.45	271.20	3099.92	-3.80	-17.12	-3.80	17.54	257.49	0.13
3200.00	0.56	268.98	3199.92	-3.80	-18.00	-3.80	18.40	258.08	0.11
3300.00	0.58	277.93	3299.91	-3.74	-18.99	-3.74	19.36	258.81	0.09
3400.00	0.44	272.39	3399.91	-3.65	-19.88	-3.65	20.22	259.59	0.15

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Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
3500.00	0.54	262.66	3499.90	-3.69	-20.73	-3.69	21.06	259.89	0.13
3600.00	0.49	263.72	3599.90	-3.80	-21.62	-3.80	21.95	260.03	0.05
3700.00	0.50	257.26	3699.90	-3.94	-22.46	-3.94	22.80	260.04	0.06
3800.00	0.49	253.65	3799.89	-4.16	-23.30	-4.16	23.66	259.88	0.03
3900.00	0.48	264.90	3899.89	-4.32	-24.13	-4.32	24.51	259.85	0.10
4000.00	0.43	277.22	3999.89	-4.31	-24.92	-4.31	25.29	260.19	0.11
4100.00	0.53	274.68	4099.88	-4.22	-25.75	-4.22	26.09	260.69	0.10
4200.00	0.48	286.92	4199.88	-4.06	-26.61	-4.06	26.92	261.32	0.12
4300.00	0.54	288.40	4299.87	-3.79	-27.46	-3.79	27.72	262.14	0.06
4400.00	0.60	277.11	4399.87	-3.58	-28.43	-3.58	28.65	262.83	0.13
4500.00	0.71	279.82	4499.86	-3.41	-29.56	-3.41	29.75	263.42	0.11
4600.00	0.72	305.24	4599.86	-2.94	-30.68	-2.94	30.82	264.53	0.31
4700.00	0.67	307.75	4699.85	-2.22	-31.66	-2.22	31.73	265.99	0.06
4800.00	0.51	308.44	4799.84	-1.58	-32.47	-1.58	32.51	267.21	0.16
4900.00	0.61	309.60	4899.84	-0.97	-33.23	-0.97	33.24	268.34	0.10
5000.00	0.51	317.17	4999.83	-0.30	-33.94	-0.30	33.94	269.49	0.13
5100.00	0.51	285.37	5099.83	0.14	-34.67	0.14	34.67	270.23	0.28
5200.00	0.60	159.15	5199.83	-0.23	-34.91	-0.23	34.91	269.62	1.00

HORIZONTAL DISPLACEMENT IS
34.91 FEET AT 269.62 DEGREES

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Weatherford[®]

SURVEY REPORT

Report Date: 8/28/2012
 Customer: Chesapeake
 Job Name: 4027051
 Well Name: OCC-A OHI 10H

Field: Ohio County
 Rig: Nomac 241
 Rig Loc: Ohio County

Survey Calculation Method: Minimum Curvature						
Magnetic Reference	Target Direction	Total Magnetic Field	Magnetic Dip Angle	Magnetic Declination	Grid Convergence	Total Correction
Grid North	137.28 deg	53443 nT	68.12 deg	-8.72 deg	-0.70 deg	-8.02 deg
Survey Tie-On	Depth	INC	AZ	TVD	NS	EW
	5200.00 ft	0.60 deg	159.15 deg	5199.83 ft	-0.24 ft	-34.89 ft

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
5242.00	0.63	315.88	5241.83	-0.28	-34.97	-23.52	2.87
5267.00	0.69	315.34	5266.83	-0.07	-35.17	-23.81	0.24
5310.00	0.64	314.12	5309.82	0.28	-35.53	-24.31	0.12
5352.00	0.38	312.36	5351.82	0.53	-35.80	-24.68	0.62
5395.00	3.15	133.06	5394.80	-0.18	-35.04	-23.64	8.21
5437.00	7.94	126.86	5436.60	-2.71	-31.88	-19.64	11.48
5480.00	12.62	118.90	5478.90	-6.76	-25.38	-12.25	11.35
5523.00	14.15	104.93	5520.74	-10.39	-16.19	-3.35	8.29
5565.00	17.35	90.44	5561.17	-11.76	-4.96	5.27	12.02
5608.00	21.44	77.25	5601.74	-10.07	9.13	13.59	13.88
5650.00	26.83	70.54	5640.06	-5.21	25.57	21.18	14.38
5693.00	30.07	63.16	5677.88	2.89	44.34	27.96	11.11
5735.00	34.52	57.52	5713.38	14.04	63.78	32.96	12.79
5778.00	38.06	53.89	5748.04	28.40	84.78	36.65	16.63
5821.00	41.24	51.74	5781.14	44.99	106.62	39.28	20.06
5863.00	45.08	49.99	5811.77	63.13	128.89	41.06	23.59
5906.00	49.54	48.04	5840.92	83.87	152.73	42.00	27.12
5948.00	54.00	46.59	5866.91	106.24	176.97	42.01	30.65
5991.00	59.11	45.82	5890.60	131.07	202.85	41.33	34.18
6034.00	63.89	45.79	5911.11	157.40	229.94	40.35	37.71
6077.00	66.13	45.68	5929.28	184.60	257.84	39.30	41.24
6119.00	65.90	49.75	5946.36	210.42	286.22	38.25	44.77
6162.00	66.11	55.10	5963.85	234.36	317.35	43.11	48.30
6205.00	66.50	60.46	5981.14	255.34	350.64	50.29	51.83
6247.00	68.30	66.05	5997.29	272.77	385.25	60.97	55.36
6290.00	68.76	70.54	6013.04	287.56	422.42	75.31	58.89
6333.00	68.93	73.77	6028.56	299.85	460.59	92.18	62.42
6375.00	68.38	77.91	6043.85	309.42	498.51	110.88	65.95
6418.00	68.60	82.10	6059.63	316.36	537.90	132.50	69.48
6460.00	69.20	87.27	6074.76	319.98	576.89	156.29	73.01
6503.00	70.99	92.31	6089.40	320.12	617.81	182.08	76.54
6546.00	71.51	98.53	6103.24	316.27	657.82	213.92	80.07
6589.00	69.97	104.03	6117.43	308.34	697.61	249.71	83.60
6631.00	68.37	109.59	6132.37	297.01	735.17	280.55	87.13
6674.00	69.88	114.26	6147.70	282.00	772.43	316.84	90.66

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Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
6717.00	72.62	117.11	6161.53	264.35	809.11	354.70	8.94
6760.00	74.51	120.07	6173.69	244.61	845.31	393.76	7.93
6802.00	76.94	124.90	6184.06	222.75	879.63	433.10	12.56
6845.00	80.38	128.03	6192.51	197.70	913.52	474.50	10.72
6888.00	82.01	130.05	6199.09	170.93	946.52	516.55	5.99
6930.00	81.94	131.21	6204.96	143.85	978.09	557.86	2.74
6973.00	83.35	134.35	6210.46	114.89	1009.38	600.37	7.95
7015.00	86.01	139.12	6214.36	84.45	1038.03	642.17	12.96
7058.00	90.91	145.19	6215.52	50.53	1064.38	684.97	18.13
7101.00	92.52	147.18	6214.23	14.82	1088.30	727.43	5.95
7143.00	91.89	148.60	6212.61	-20.72	1110.60	768.68	3.70
7186.00	89.02	152.05	6212.27	-58.07	1131.89	810.56	10.44
7228.00	89.16	154.18	6212.94	-95.53	1150.87	850.95	5.08
7271.00	89.02	155.70	6213.62	-134.47	1169.08	891.92	3.55
7313.00	88.46	155.13	6214.55	-172.66	1186.55	931.83	1.90
7399.00	85.31	150.87	6219.22	-249.15	1225.52	1014.46	6.15
7484.00	86.08	147.83	6225.60	-322.05	1268.73	1097.33	3.68
7569.00	87.34	145.70	6230.48	-393.03	1315.23	1181.02	2.91
7655.00	88.88	145.75	6233.32	-464.05	1363.64	1266.04	1.79
7740.00	90.42	145.69	6233.84	-534.28	1411.51	1350.12	1.81
7825.00	90.56	145.07	6233.11	-604.23	1459.80	1434.27	0.75
7910.00	88.74	145.50	6233.63	-674.10	1508.20	1518.43	2.20
7995.00	90.00	145.58	6234.56	-744.18	1556.30	1602.55	1.49
8081.00	88.25	147.32	6235.88	-815.83	1603.82	1687.43	2.87
8166.00	90.14	147.53	6237.07	-887.45	1649.57	1771.09	2.24
8251.00	87.34	149.60	6238.94	-959.95	1693.89	1854.41	4.10
8336.00	88.60	148.64	6241.95	-1032.85	1737.48	1937.55	1.86
8421.00	86.50	147.81	6245.58	-1105.04	1782.20	2020.92	2.66
8507.00	88.25	147.69	6249.52	-1177.69	1828.04	2105.40	2.04
8592.00	90.07	148.19	6250.77	-1249.72	1873.15	2188.92	2.22
8677.00	92.17	148.02	6249.11	-1321.87	1918.05	2272.38	2.48
8763.00	89.72	147.24	6247.69	-1394.49	1964.09	2356.97	2.99
8848.00	90.84	146.68	6247.27	-1465.74	2010.43	2440.75	1.47
8933.00	92.31	146.90	6244.94	-1536.83	2056.96	2524.55	1.75
9018.00	87.76	146.99	6244.89	-1608.05	2103.31	2608.32	5.35
9104.00	90.35	149.00	6246.30	-1680.96	2148.88	2692.80	8.81
9189.00	87.48	148.71	6247.91	-1753.69	2192.83	2776.95	3.89
9274.00	86.50	147.92	6252.38	-1825.92	2237.41	2859.36	1.48
9360.00	88.95	148.39	6255.79	-1898.91	2282.75	2943.00	2.90
9445.00	89.93	148.45	6256.62	-1971.32	2327.26	3027.14	1.16
9530.00	91.61	149.17	6255.48	-2044.02	2371.28	3110.41	2.15
9615.00	92.80	149.29	6252.21	-2117.00	2414.73	3193.50	1.41
9701.00	93.57	148.61	6247.43	-2190.56	2459.02	3277.59	1.19
9787.00	92.45	146.46	6242.91	-2263.02	2505.11	3362.10	2.82
9872.00	89.37	144.83	6241.56	-2333.17	2553.07	3446.17	4.10
9957.00	88.25	141.38	6243.33	-2401.12	2604.08	3530.70	4.27
10042.00	88.81	141.38	6245.51	-2467.51	2657.11	3615.45	0.66
10128.00	88.95	143.63	6247.19	-2535.73	2709.45	3701.07	2.62
10213.00	88.60	143.03	6249.01	-2603.89	2760.20	3785.58	0.82
10299.00	87.69	145.36	6251.79	-2673.59	2810.48	3870.90	2.91

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Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
10384.00	88.18	144.57	6254.86	-2743.14	2859.24	3955.08	1.09
10469.00	89.02	145.47	6256.93	-2812.77	2907.96	4039.28	1.45
10555.00	88.74	144.20	6258.61	-2883.06	2957.48	4124.52	1.51
10640.00	89.09	143.55	6260.22	-2951.70	3007.58	4208.94	0.87
10725.00	89.09	145.69	6261.57	-3020.99	3056.79	4293.23	2.52
10811.00	89.79	146.55	6262.41	-3092.39	3104.72	4378.20	1.29
10896.00	90.84	146.15	6261.95	-3163.14	3151.82	4462.14	1.32
10981.00	89.37	148.69	6261.79	-3234.76	3197.59	4545.80	3.45
11067.00	90.14	149.54	6262.16	-3308.56	3241.73	4629.97	1.33
11152.00	88.32	151.71	6263.30	-3382.62	3283.42	4712.66	3.33
11237.00	88.25	150.86	6265.85	-3457.13	3324.24	4795.09	1.00
11323.00	88.74	151.33	6268.10	-3532.39	3365.79	4878.58	0.79
11408.00	89.93	151.94	6269.09	-3607.18	3406.17	4960.92	1.57
11464.00	90.91	152.20	6268.68	-3656.65	3432.40	5015.06	1.81

Vertical Section is 5073.10 ft along the target direction of 137.28 deg at a measured depth of 11524.08 ft.
Horizontal Displacement is 5073.17 ft along the well bore azimuth of 136.99 deg.
The total correction is -8.02 deg relative to Grid North.

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date:	4/8/2013
State:	WEST VIRGINIA
County:	OHIO
API Number:	4706900137
Operator Name:	CHESAPEAKE APPALACHIA LLC
Well Name and Number:	OCC A OHI 10H
Longitude:	-80 598243
Latitude:	40 07943
Long/Lat Projection:	NAD27
Production Type:	GAS
True Vertical Depth (TVD):	6,269
Total Water Volume (gal):	6,078,492

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Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by Mass)**	Maximum Ingredient Concentration in HF Fluid (% by Mass)**	Comments
Fresh Water	CHESAPEAKE ENERGY	Carrier/Base Fluid	Water	007732-18-5	100.00%	76.11100%	
Recycled Produced Water	CHESAPEAKE ENERGY	Carrier/Base Fluid	Water	007732-18-5	100.00%	9.48961%	
EC6734A	NALCO	Anti-Bacterial Agent	Acetic acid	000064-19-7	60.00%	0.01569%	
			Hydrogen Peroxide	007722-84-1	30.00%	0.00785%	
			Peracetic Acid	000079-21-0	30.00%	0.00785%	
EC6486A	NALCO	Scale Inhibitor	Ethylene Glycol	000107-21-1	30.00%	0.00160%	
Acid, Hydrochloric 15pct, A264, J218, J580, J609, L058, 100 Mesh Sand, Northern White Sand	SCHLUMBERGER	Breaker, Corrosion Inhibitor, Friction Reducer, Gelling Agent, Iron Control Agent, Proppant - Natural	Crystalline silica	14808-60-7	98.49108%	13.77207%	
			Hydrogen chloride	7647-01-0	1.07661%	0.15054%	
			Water	007732-18-5	2.88471%	0.41633%	
			Guar gum	9000-30-0	0.11795%	0.01649%	
			Acrylamide, 2-acrylamido-2-methylpropanesulfonic acid, sodium salt polymer	38193-60-1	0.11449%	0.01601%	
			Ammonium sulfate	7783-20-2	0.10821%	0.01513%	
			Sodium sulfite	7757-82-6	0.04677%	0.00654%	

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Polymer of 2-acrylamido-2-methylpropanesulfonic acid sodium salt and methyl acrylate	136793-29-8	0.01227%	0.00172%
Diammonium peroxidisulphate	7727-54-0	0.00756%	0.00106%
Urea	57-13-6	0.00754%	0.00105%
Sodium erythorbate	6381-77-7	0.00493%	0.00069%
Methanol	67-56-1	0.00339%	0.00047%
Fatty acids, tall-oil	61790-12-3	0.00249%	0.00035%
Thiourea, polymer with formaldehyde and 1-phenylethanone	68527-49-1	0.00205%	0.00029%
Non-crystalline silica	7631-86-9	0.00141%	0.00020%
Alcohols, C14-15, ethoxylated (7EO)	68951-67-7	0.00095%	0.00013%
Prop-2-yn-1-ol	107-19-7	0.00064%	0.00009%
Alkenes, C>10 a-	64743-02-8	0.00042%	0.00006%
Tetrasodium ethylenediaminetetraacetate	64-02-8	0.00024%	0.00003%
Dimethyl siloxanes and silicones	63148-62-9	0.00011%	0.00001%
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	0.00002%	0.00001%
Octamethylcyclotetrasiloxane	556-67-2	0.00001%	0.00001%
Sodium hydroxide	1310-73-2	0.00001%	0.00001%
Decamethyl cyclopentasiloxane	541-02-6	0.00001%	0.00001%
Dodecamethylcyclohexasiloxane	540-97-6	0.00001%	0.00001%

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Additional Ingredients Not Listed on MSDS

EC6486A, EC6734A	NALCO	Anti-Bacterial Agent, Scale Inhibitor	Diethylene Glycol	000111-46-6	0.00006%
			Proprietary Inorganic Phosphate	TRADE SECRET	0.00062%
			Proprietary Organic Acid Derivatives	TRADE SECRET	0.00185%
			Proprietary Phosphonic Acid Ester	TRADE SECRET	0.00030%
			Water	007732-18-5	0.02179%

- * Total Water Volume sources may include fresh water, produced water, and/or recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%

"Additional Ingredients Not Listed on MSDS" component information were obtained directly from the supplier. As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of this information should be directed to the supplier who provided it.