WR-35
Rev (9-11)

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

DATE: 9/26/2013
API #: 47-033-05659

Farm name: Kovar, Steve C. Operator Well No.: Cleta Unit 1H

LOCATION: Elevation: 1,405' Quadrangle: Big Isaac

District: Union County: Harrison
Latitude: 15,279' Feet South of 39 Deg. 15 Min. 00 Sec.
Longitude 9908' Feet West of 80 Deg. 30 Min. 00 Sec.

Company: Antero Resources Corporation

| Address: 1625 17th Street | Casing & Tubing | Used in drilling | Left in well | Cement fill up Cu. Ft. |
|---|---|---|---|---|
| Denver, CO 80202 | 20" 94# | 40' | 40' | 38 Cu. Ft. Class A |
| Agent: CT Corporation System | 13-3/8" 48# | 673' | 673' | 935 Cu. Ft. Class A |
| Inspector: Sam Ward | 9-5/8" 36# | 2,520' | 2,520' | 1026 Cu. Ft. Class A |
| Date Permit Issued: 9/28/2012 | 5-1/2" 20# | 16,109' | 16,109' | 4013 Cu. Ft. Class H |
| Date Well Work Commenced: 9/29/2012 | | | | |
| Date Well Work Completed: 2/23/2013 | 2-3/8" 4.7# | 7,463' | | |
| Verbal Plugging: N/A | | | | |
| Date Permission granted on: N/A | | | | |
| Rotary ☑ Cable ☐ Rig ☐ | | | | |
| Total Vertical Depth (ft): 7432' TVD (deepest point drilled) | | | | |
| Total Measured Depth (ft): 16,109' MD, 7,371' TVD (BHL) | | | | |
| Fresh Water Depth (ft.): 360' | | | | |
| Salt Water Depth (ft.): None Available | | | | |
| Is coal being mined in area (N/Y)? N | | | | |
| Coal Depths (ft.): 333', 625', 930' | | | | |
| Void(s) encountered (N/Y) Depth(s) N, N/A | | | | |

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)
Producing formation Marcellus Pay zone depth (ft) 7,365' (Top)
Gas: Initial open flow — MCF/d Oil: Initial open flow — Bbl
Final open flow 11,440 MCF/d Final open flow — Bbl/d
Time of open flow between initial and final tests — Hours
Static rock Pressure 3600 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

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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.

Kaitlin Buck
Signature

11/18/13
Date

01/10/2014

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Were core samples taken? Yes_____ No X Were cuttings caught during drilling? Yes_____ No X

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes- CBL

This is a subsequent well. Antero only runs wireline logs on the first well on a multi-well pad (Cleta Unit 2H API#47-033-05651). Please reference the wireline logs submitted with Form WR-35 for Cleta Unit 2H.

**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:

Perforations: 7,628' - 16,043' MD (1,728 holes)

Frac'd w/ 12,500 gals 15% HCL Acid, 178,943 bbls Slick Water carrying 933,000# 100 mesh, 3,432,200# 40/70 sand and 1,935,000# 20/40 sand.

Plug Back Details Including Plug Type and Depth(s): N/A

| Formations Encountered: Surface: | Top Depth | / | Bottom Depth |
|---|---|---|---|
| Big Lime | 2280' | | 2379' |
| Big Injun | 2380' | | 2682' |
| Gantz Sand | 2683' | | 2822' |
| Fifty Foot Sandstone | 2823' | | 2895' |
| Gordon | 2896' | | 3069' |
| Fifth Sandstone | 3070' | | 3111' |
| Bayard | 3112' | | 3887' |
| Speechley | 3888' | | 4142' |
| Balltown | 4143' | | 4677' |
| Bradford | 4678' | | 5192' |
| Benson | 5193' | | 5369' |
| Alexander | 5370' | | 5519' |
| Elk | 5520' | | 6798' |
| Sycamore | 6799' | | 7021' |
| Middlesex Shale | 7022' | | 7026' |
| Sonyea | 7027' | | 7172' |
| Burkett | 7173' | | 7200' |
| Tully Hamilton | 7201' | | 7304' |
| Hamilton Shale | 7305' | | 7364' |
| Marcellus | 7365' | | 7432' TVD |

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ANTERO RESOURCES

**Antero Resources**
**Cleta Unit 1H**
**Harrison County West Virginia**
**Northing: 14243194.63**
**Easting: 1766859.11**
**As Drilled**

**WELL DETAILS:** Cleta Unit 1H

Ground Level: 1405.0

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot |
|---|---|---|---|---|---|---|
| 0.0 | 0.0 | 14243194.63 | 1766859.11 | 39° 13' 20.344 N | 80° 33' 12.738 W | |

**PROJECT DETAILS:** Harrison County West Virginia

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Cleta Unit 1H, Grid North
Vertical (TVD) Reference: Cleta Unit 1H 1405' GL + 27' KB @ 1432.0usft (Original Well Elev)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: Cleta Unit 1H 1405' GL + 27' KB @ 1432.0usft (Original Well Elev)
Calculation Method: Minimum Curvature

LEGEND

- Cleta Unit 1H, Original Wellpath, Plan 4 Post Gyro V0
- Cleta Unit 2H, Original Wellpath, Original Wellpath V0
- Cleta Unit 2H, Sidetrack Wellpath, Sidetrack Wellpath V0
- As Drilled

Scientific Drilling

Genie Lightfoot
11:26, July 18 2013

Scientific Drilling
421 South Eagle Lane
Oklahoma City, OK

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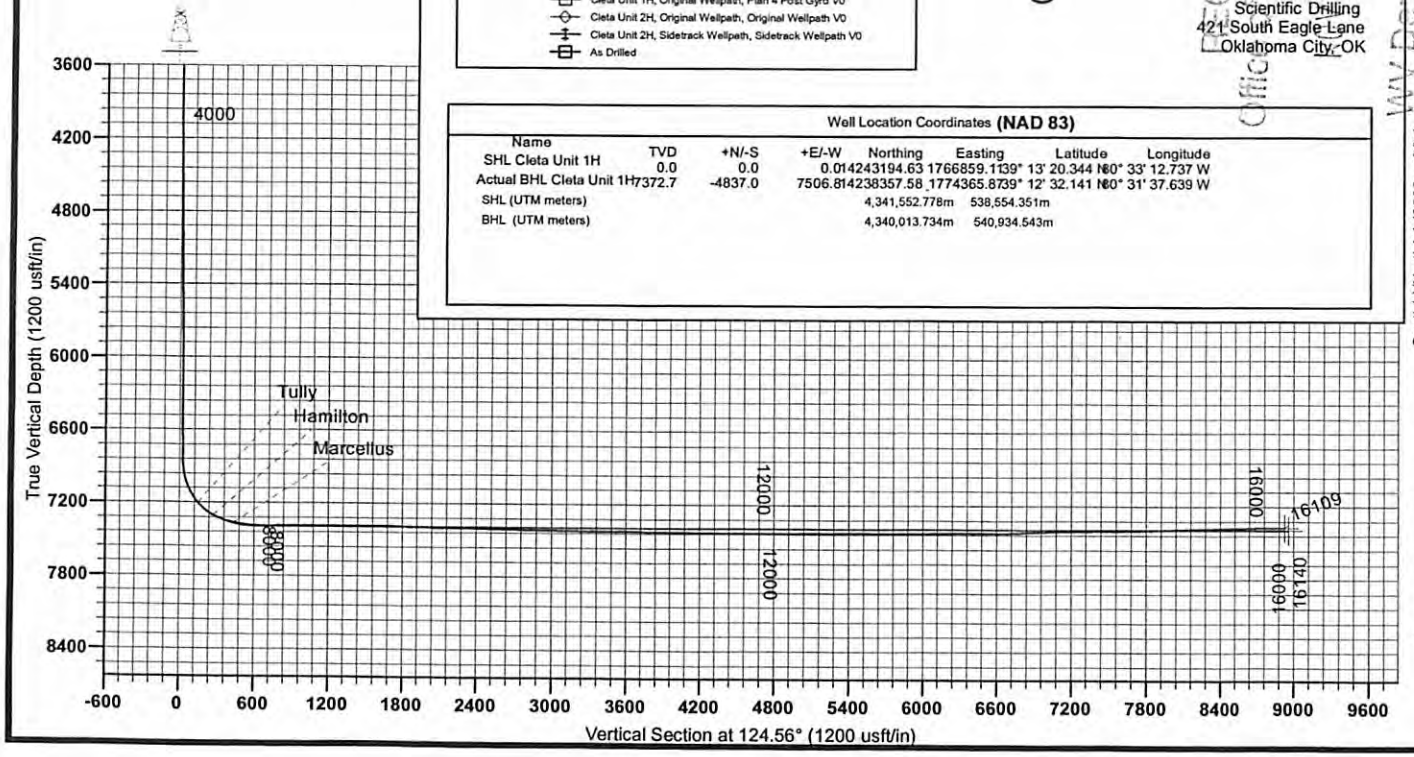
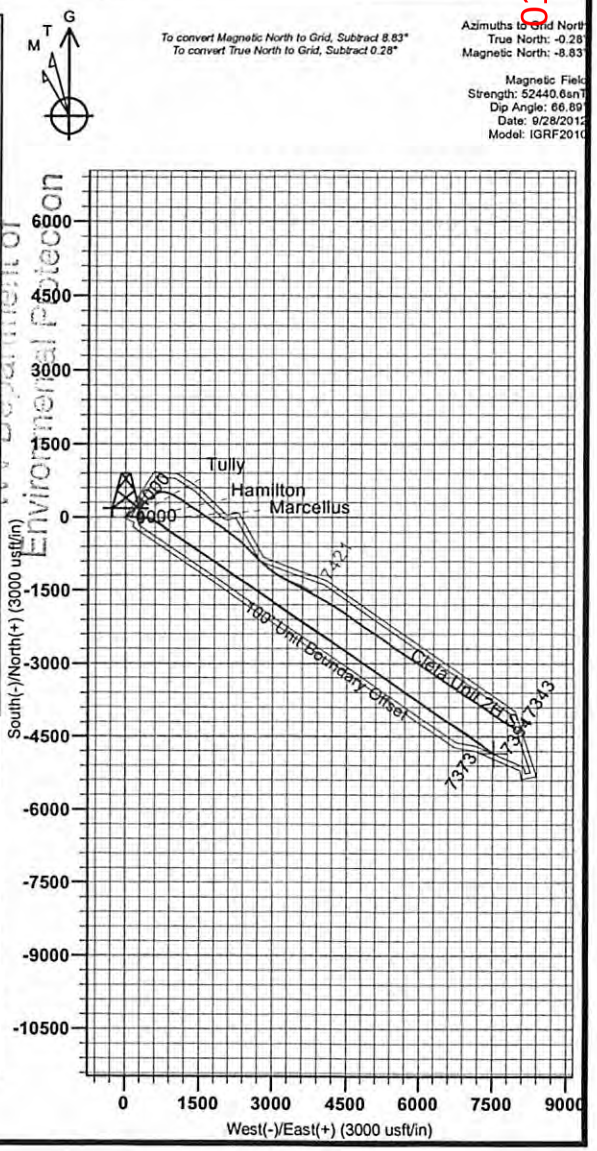
**Well Location Coordinates (NAD 83)**

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| SHL Cleta Unit 1H | 0.0 | 0.0 | 0.0 | 14243194.63 | 1766859.11 | 39° 13' 20.344 N | 80° 33' 12.737 W |
| Actual BHL Cleta Unit 1H | 7372.7 | -4837.0 | 7506.81 | 14238357.58 | 1774365.87 | 39° 12' 32.141 N | 80° 31' 37.639 W |
| SHL (UTM meters) | | | | 4,341,552.778m | | 538,554.351m | |
| BHL (UTM meters) | | | | 4,340,013.734m | | 540,934.543m | |




To convert Magnetic North to Grid, Subtract 8.83°
To convert True North to Grid, Subtract 0.28°

Azimuths to Grid North
True North: -0.28°
Magnetic North: -8.83°

Magnetic Field
Strength: 52440.6snT
Dip Angle: 66.89°
Date: 9/28/2012
Model: IGRF2010

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|---|---|
| Fracture Date | 2/13/2013 |
| State: | West Virginia |
| County: | Harrison |
| API Number: | 47-033-05659 |
| Operator Name: | Antero Resources |
| Well Name and Number: | Cleta Unit 1H |
| Longitude: | -80.5535378 |
| Latitude: | 39.2223178 |
| Long/Lat Projection: | NAD27 |
| Production Type: | Gas |
| True Vertical Depth (TVD): | 7,371 |
| Total Water Volume (gal)*: | 7,523,520 |





**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 |
|---|---|---|---|---|---|---|---|
| Water | ANTERO RESOURCES | Water | Water | 7732-18-5 | 100.00% | 89.56140% | |
| HCL Acid (12.5%-18.0%) | Nabors Completion and Production Services | Bulk Acid | Hydrogen Chloride | 7647-01-0 | 18.00% | 0.02910% | |
| HCL Acid (12.5%-18.0%) | Nabors Completion and Production Services | Bulk Acid | Water | 7732-18-5 | 87.50% | 0.14160% | |
| Acid Inhibitor 2 (AI-2) | Nabors Completion and Production Services | Acid Corrosion Inhibitors | 2-Butoxyethanol | 111-76-2 | 13.00% | 0.00004% | |
| Acid Inhibitor 2 (AI-2) | Nabors Completion and Production Services | Acid Corrosion Inhibitors | Dioxane | 123-91-1 | 1.00% | 0.00000% | |
| Acid Inhibitor 2 (AI-2) | Nabors Completion and Production Services | Acid Corrosion Inhibitors | Ethoxylated Nonylphenol | 68412-54-4 | 13.00% | 0.00004% | |
| Acid Inhibitor 2 (AI-2) | Nabors Completion and Production Services | Acid Corrosion Inhibitors | Glycol Ethers | 111-46-6 | 40.00% | 0.00012% | |

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|---|---|---|---|---|---|---|---|
| Acid Inhibitor 2 (AI-2) | Nabors Completion and Production Services | Acid Corrosion Inhibitors | Isopropyl Alcohol | 67-63-0 | 40.00% | 0.00012% | |
| Acid Inhibitor 2 (AI-2) | Nabors Completion and Production Services | Acid Corrosion Inhibitors | Propargyl Alcohol | 107-19-7 | 40.00% | 0.00012% | |
| Acid Inhibitor 2 (AI-2) | Nabors Completion and Production Services | Acid Corrosion Inhibitors | Tar bases, quinoline derivs, benzyl chloride-quaternized | 72480-70-7 | 10.00% | 0.00003% | |
| Acid Inhibitor 2 (AI-2) | Nabors Completion and Production Services | Acid Corrosion Inhibitors | Water | 7732-18-5 | 48.00% | 0.00014% | |
| KR-153SL | Nabors Completion and Production Services | Biocides | 2,2-dibromo-3-nitrilopropionamide | 10222-01-2 | 20.00% | 0.00308% | |
| KR-153SL | Nabors Completion and Production Services | Biocides | Polyethlyene-Glycol | 25322-68-3 | 50.00% | 0.00771% | |
| KR-153SL | Nabors Completion and Production Services | Biocides | Water | 7732-18-5 | 80.00% | 0.01230% | |
| WFR-3B | Nabors Completion and Production Services | Friction Reducer | Ethoxylated alcohols | 68551-12-2 | 15.00% | 0.00853% | |
| WFR-3B | Nabors Completion and Production Services | Friction Reducer | Ethoxylated oleylamine | 26635-93-8 | 5.00% | 0.00285% | |
| WFR-3B | Nabors Completion and Production Services | Friction Reducer | Hydrotreated light distillates, non-aromatic, BTEX free | 64742-47-8 | 50.00% | 0.02840% | |
| WFR-3B | Nabors Completion and Production Services | Friction Reducer | Microparticle | Proprietary | 1.00% | 0.00057% | |
| WFR-3B | Nabors Completion and Production Services | Friction Reducer | Polyacrylamide | 57-55-6 | 40.00% | 0.02280% | |
| WFR-3B | Nabors Completion and Production | Friction Reducer | Propylene glycol | 57-55-6 | 15.00% | 0.00853% | |

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|---|---|---|---|---|---|---|---|
| | Services | | | | | | |
| WFR-3B | Nabors Completion and Production Services | Friction Reducer | Water | 7732-18-5 | 40.00% | 0.02280% | |
| EB-4L | Nabors Completion and Production Services | Gel Breakers | Breaker Component | Proprietary | Proprietary | 0.00054% | |
| EB-4L | Nabors Completion and Production Services | Gel Breakers | Cellulase enzyme | Proprietary | Proprietary | 0.00054% | |
| EB-4L | Nabors Completion and Production Services | Gel Breakers | Demulsifier Base | Proprietary | Proprietary | 0.00054% | |
| EB-4L | Nabors Completion and Production Services | Gel Breakers | Ethylene Glycol | 107-21-1 | 40.00% | 0.00021% | |
| EB-4L | Nabors Completion and Production Services | Gel Breakers | Sugar | 57-50-1 | Proprietary | 0.00054% | |
| EB-4L | Nabors Completion and Production Services | Gel Breakers | Water | 7732-18-5 | Proprietary | 0.00054% | |
| OB-2 | Nabors Completion and Production Services | Gel Breakers | Ammonium Persulfate | 7727-54-0 | 100.00% | 0.00794% | |
| OB-2 | Nabors Completion and Production Services | Gel Breakers | Silica, crystalline quartz | 7631-86-9 | 10.00% | 0.00079% | |
| OB-2 | Nabors Completion and Production Services | Gel Breakers | vinylidene chloride-methyl acrylate copolymer | 25038-72-6 | 20.00% | 0.00159% | |
| LSG-100L | Nabors Completion and Production Services | Gelling Agents | Crystalline Silica (in the form of quartz) | 14808-60-7 | 2.00% | 0.00099% | |
| LSG-100L | Nabors Completion and Production Services | Gelling Agents | guar gum | 9000-30-0 | 50.00% | 0.02470% | |
| LSG-100L | Nabors Completion and | Gelling Agents | Organophylic Clay | 68953-58-2 | 0.00% | 0.00000% | |

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|---|---|---|---|---|---|---|---|
| | Production Services | | | | | | |
| LSG-100L | Nabors Completion and Production Services | Gelling Agents | Petroleum Distillates | 64742-47-8 | 70.00% | 0.03460% | |
| LSG-100L | Nabors Completion and Production Services | Gelling Agents | Surfactant | 68439-51-0 | 2.00% | 0.00099% | |
| Super TSC-LT | Nabors Completion and Production Services | Paraffin & Scale Additives | Proprietary | Proprietary | 15.00% | 0.00173% | |
| Super TSC-LT | Nabors Completion and Production Services | Paraffin & Scale Additives | Proprietary | Proprietary | 15.00% | 0.00173% | |
| Super TSC-LT | Nabors Completion and Production Services | Paraffin & Scale Additives | Proprietary | Proprietary | 15.00% | 0.00173% | |
| Super TSC-LT | Nabors Completion and Production Services | Paraffin & Scale Additives | Proprietary | Proprietary | 50.00% | 0.00577% | |
| Super TSC-LT | Nabors Completion and Production Services | Paraffin & Scale Additives | Water | 7732-18-5 | 60.00% | 0.00692% | |
| WV Specific 100 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Aluminum Oxide | 1344-28-1 | 1.10% | 0.01990% | |
| WV Specific 100 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Crystalline Silica, quartz | 14808-60-7 | 99.90% | 1.80790% | |
| WV Specific 100 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Iron Oxide | 1309-37-1 | 0.10% | 0.00181% | |
| WV Specific 100 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Titanium Oxide | 13463-67-7 | 0.10% | 0.00181% | |
| WV Specific 20/40 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Aluminum Oxide | 1344-28-1 | 1.10% | 0.03160% | |
| WV Specific 20/40 mesh Sand | Nabors Completion | Sand - Bulk - West Virginia | Crystalline Silica, quartz | 14808-60-7 | 99.90% | 2.87040% | |

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|---|---|---|---|---|---|---|---|
| | and Production Services | | | | | | |
| WV Specific 20/40 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Iron Oxide | 1309-37-1 | 0.10% | 0.00287% | |
| WV Specific 20/40 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Titanium Oxide | 13463-67-7 | 0.10% | 0.00287% | |
| WV Specific 40/70 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Aluminum Oxide | 1344-28-1 | 1.10% | 0.06000% | |
| WV Specific 40/70 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Crystalline Silica, quartz | 14808-60-7 | 99.90% | 5.44620% | |
| WV Specific 40/70 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Iron Oxide | 1309-37-1 | 0.10% | 0.00545% | |
| WV Specific 40/70 mesh Sand | Nabors Completion and Production Services | Sand - Bulk - West Virginia | Titanium Oxide | 13463-67-7 | 0.10% | 0.00545% | |
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* 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%

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)