Hydraulic Fracturing Fluid Product Component Information Disclosure

| Fracture Date | 6/17/2012 |
|----------------------------|---------------------|
| State: | California |
| County: | Kern |
| API Number: | 04-030-47350 |
| Operator Name: | Vintage Prod of Cal |
| Well Name and Number: | Goodshow 5HB |
| Longitude: | -119.34406 |
| Latitude: | 35.63013 |
| Long/Lat Projection: | NAD27 |
| Production Type: | Oil |
| True Vertical Depth (TVD): | 8288 ft |
| Total Water Volume (gal)*: | 371,322 |

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 | Operator | Carrier | Water | 7732-18-5 | 100.00% | 72.27615% | |
| Super LC | BHI | Proppant | Silicon Dioxide (Silica Sand) | 14808-60-7 | 97.00% | 5.38993% | |
| Super LC | DIII | гторрані | · · · · · · · · · · · · · · · · · · · | 9003-35-4 | 5.00% | 0.27783% | |
| | | | Phenol Formaldehyde Resin | | | | |
| | | | Hexamethylenetetramine | 1009-7-0 | 0.01% | 0.00056% | |
| Frac Sand (All Meshes) [CWT] | BHI | Proppant | Crystalline Silica (Quartz) | 14808-60-7 | 100.00% | 20.67553% | |
| 01.50.45 | D. II | | 0.00 | NA Idia | 45.000/ | 0.047000/ | |
| GLFC-1B | ВНІ | Gellant | Alkanes / Alkenes | Multiple | 45.00% | 0.31768% | |
| | | | Guar gum | 9000-30-0 | 50.00% | 0.35298% | |
| XLW-56 | BHI | Crosslinker | Glyoxal | 107-22-2 | 30.00% | 0.05852% | |
| | | | Sodium Tetraborate | 1330-43-4 | 10.00% | 0.01951% | |
| | | | Sodium Hydroxide | 1310-73-2 | 5.00% | 0.00975% | |
| | | | D-Glucitol | 50-70-4 | 10.00% | 0.01951% | |
| Enzyme G-I | BHI | Breaker | Hemicellulase Enzyme Concentrate | 9025-56-3 | 3.00% | 0.00350% | SmartCare Product |
| ZiiZyiiio O i | | 2.53.101 | Water | 7732-18-5 | 97.00% | 0.11323% | Sartoaro i roddol |
| | | | | | | | |
| BC-3 | BHI | Breaker Catalyst | Non-hazardous | - | 100.00% | 0.01928% | |
| GasFlo G | BHI | Surfactant | Methanol | 67-56-1 | 30.00% | 0.04505% | SmartCare Product |
| | | | Surfactants | CBI | 60.00% | 0.09010% | |
| | | | Water | 7732-18-5 | 70.00% | 0.10511% | |
| Alpha 125 | BHI | Biocide | Glutaraldehyde | 111-30-8 | 30.00% | 0.00703% | SmartCare Product |

| BF-7L | BHI | Buffer | Potassium Carbonate | 584-08-7 | 50.00% | 0.21875% | SmartCare Product |
|-------|-----|--------|---------------------|----------|--------|----------|-------------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

^{*} Total Water Volume sources may include fresh water, produced water, and/or recycled water

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

^{**} Information is based on the maximum potential for concentration and thus the total may be over 100%