Hydraulic Fracturing: How It Works

FracFocus 09
Chemical Disclosure Registry

GROUNDWATER PROTECTION COUNCIL

Oil & Gas

BEFORE THE OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 14753 Exhibit No. 2
Submitted by:
THE NEW MEXICO OIL & GAS ASSOCIATION
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How to Read a Fracturing Record

The following is a list of elements contained in the hydraulic fracturing records viewable on this site and an explanation of what each element means.

The header of each fracturing record contains the following information:

1. Fracture date: This is the date on which the fracturing associated with the record occurred

2. State: The name of the state in which the surface location of the well is located

3. County: The name of the county within the state

4. API Number: This number is assigned under a system developed by the American Petroleum Institute. API numbers are formatted as nn-nnn-nnnnn-nn-nn with the first 2 numbers designating the state, the second 3 numbers designating the county within the state and the next 5 numbers designating the particular well within the county. When present, the next 2 numbers are a directional sidetrack code to designate the number of horizontal or directional offshoots from a single vertical borehole and the final 2 numbers are an event sequence code used to designate multiple activities conducted at a single well such as recompletion, treatment etc... (A list of the state and county codes can be found at http://www.spwla.org/technical/api-codes) ‡

5. Operator Name: This is the name of the company

6. Well Name: This is typically the name of the property owner on whose land the well is located. In the case of multiple property owners pooled under a single unit, the name of the majority property owner is often used. The number on the well may designate the chronological sequence of wells drilled. (Example: The Smith #2 might designate the second well drilled on the Smith lease). However, this is not a universal naming convention.

7. Longitude: This the east-west coordinate location of the well on the earth in degrees, minutes and seconds

8. Latitude: This is the north-south coordinate location of the well on the earth in degrees, minutes and

seconds

9. Latitude/ Longitude Projection: This is the particular projection method for the Latitude/ Longitude (e.g. North American Datum (NAD) 27 or 83)

10. True Vertical Depth: This is the absolute depth of the well measured from the surface to the deepest point of penetration

11. Total Water Volume: This is the total amount of water in gallons used as the carrier fluid for the hydraulic fracturing job. It may include recycled water and newly acquired water.

12. Production Type: This designates the well type (e.g. Oil, Gas)

In addition to the general information shown above, each record contains information about the specific chemicals used during the fracturing process. The following is a list of the chemical information shown on the fracturing record:

1. Trade Name: This is the name of the product designated by the supplier

2. Supplier: This is the name of the service company that supplied the product (e.g. Schlumberger, Halliburton)

3. Purpose: This is the function served by the additive (Trade Name) in the fracturing process (e.g. surfactant, biocide etc...)

4. Ingredients: This is the scientific name of the chemical (e.g. Ethanol, Naphthalene etc...)

5. Chemical Abstract Service ‡ or CAS Number: This is a number assigned by a division of the American Chemical Society for the purpose of identifying a specific substance. You can learn more about the toxicity characteristics of chemicals by searching for the chemical using the name or CAS number on the USEPA National Center for Computational Toxicology ‡ website. USEPA also maintains a Drinking Water Hotline that is available Monday-Friday from 8:30 AM-4:30 PM Eastern time at 1-800-426-4791.

6. Ingredient Percentage in Additive by % Mass: This describes the amount of ingredient within the additive (Trade Name) as a percent of the total mass of the additive. **Note: Because the % Mass of the additive may be expressed in its maximum concentration, the total % Mass of ingredient percentage may exceed 100%.**

7. Ingredient Concentration in HF (Hydraulic fracturing) fluid % by mass: This describes the amount of ingredient as a percent of the total mass of the HF fluid including carrier fluid and additives. **Note: The total may not equal 100% due to the redaction of proprietary components in accordance with the Trade Secrets provisions of the Occupational Safety and Health Administration act.**

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