

15A NCAC 05H .0102 TERMS OF REFERENCE AND DEFINITIONS

The terms as used in this Subchapter shall have the definitions as specified in G.S. 113-389. In addition, the following terms shall have the following meaning:

- (1) "7Q10," when used in reference to surface water, refers to the minimum average flow for a period of seven consecutive days that has an average occurrence of once in 10 years.
- (2) "Abandon" means to temporarily or permanently cease production from an oil or gas well or to cease further drilling operations.
- (3) "Additive(s)" means any chemical substance or mixture of substances.
- (4) "Affected reach" means the portion of a stream channel where the hydrology may be significantly affected by the cumulative effects of the proposed water withdrawal in combination with existing water withdrawals and point source discharges.
- (5) "Annular flow" means the flow of formation fluids from the formation into a space or pathway in an "annulus" within an oil or gas well.
- (6) "Annulus" means the space around a pipe in a wellbore, sometimes termed the annular space.
- (7) "API number" means the unique and permanent, American Petroleum Institute numeric identifier assigned by the North Carolina Geological Survey to each well drilled for oil or gas production.
- (8) "Applicant" means the person who submits an Oil or Gas Well Permit Application.
- (9) "Barrel" means 42 U.S. gallons at 60° F at atmospheric pressure.
- (10) "Blowout" means an uncontrolled flow of gas, oil, or other wellbore fluids from the oil or gas well.
- (11) "Blowout preventer (BOP)" means one or more valves installed at the wellhead to prevent the escape of pressure from the annular space or the escape of pressure from the wellbore:
 - (a) "Annular blowout preventer" means a large valve that forms a seal in the annular space between the pipe and wellbore.
 - (b) "Shear ram blowout preventer" means a closing element fitted with hardened tool steel blades designed to cut the drill pipe when closed.
- (12) "Brine" means a liquid solution with a concentration of dissolved salts greater than 35 grams of dissolved constituents per kilogram of water.
- (13) "Bull plug" means a threaded or flanged pipe designed to seal an open-ended pipe.
- (14) "Casing" means pipe placed in a wellbore to provide hole stability, isolate and protect groundwater, enhance wellbore integrity, isolate oil and gas formations, and provide pressure integrity.
- (15) "Casing string" means the entire length of all the connected joints of casing inserted into the wellbore.
- (16) "Cellar" means an excavated area below the drill rig floor that allows placement of wellhead components at or below ground level.
- (17) "Cement basket" means a slip-on style device made of high strength, flexible steel staves, mounted on a steel slip-on ring with heavy-duty canvas liners riveted to staves.
- (18) "Cement bond log (CBL)" means an acoustic or sonic-logging method run inside casing that measures the transmissibility of sound between cemented casing and the formation.
- (19) "Centralizer" means a mechanical device used to position the casing concentrically in the wellbore.
- (20) "Chemical(s)" means any element, chemical compound, or mixture of elements or compounds that has its own specific name or identity, such as a Chemical Abstracts Service Registry Number.
- (21) "Chemical Abstracts Service" is a division of the American Chemical Society.
- (22) "Chemical Abstracts Service Registry Number" or "CAS Registry Number" means the unique identification number assigned to a chemical by the Chemical Abstracts Service.
- (23) "Chemical classification" means a grouping that relates a chemical to others with similar features, functions, or reactive properties.
- (24) "Chemical disclosure registry" means the chemical registry website known as <http://fracfocus.org> developed by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission.
- (25) "Christmas tree" means a set of valves, spools, gauges, and fittings connected to the top of the well to direct and control the flow of formation fluids from the well.
- (26) "Conductor casing" means a casing string used to support unconsolidated surface deposits.

- (27) "Completion" means the activities that render an oil or gas well capable of producing oil or gas through the wellhead equipment from a producing zone after the production casing string has been set.
- (28) "Containment system" means a synthetic liner, coating, storage structure, other material, or structure used in conjunction with a primary container that prevents any spills onto the ground or spills from leaving the drilling site.
- (29) "Contaminant" means any substance occurring in groundwater, surface water, or soil in concentrations that exceed the standards specified in 15A NCAC 02B, 15A NCAC 02L .0202, or 15A NCAC 02L .0411, which are incorporated by reference, including subsequent amendments and editions.
- (30) "Conventional reservoir" means an accumulation of hydrocarbons that are localized in structural or stratigraphic traps.
- (31) "Deepen" means an operation where an oil or gas well is drilled beyond the originally permitted depth of the oil or gas well.
- (32) "Deviated well" means an oil or gas well that is purposely deviated from the vertical using directional drilling methods to reach the objective location other than directly below the surface location.
- (33) "Director" means the Director of the Division of Energy, Mineral, and Land Resources of the Department of Environmental Quality.
- (34) "DLIS" means Digital Log Information Standard.
- (35) "Drill pipe" means the pipe used to rotate the drill bit and circulate the drilling fluid.
- (36) "Drill stem test" means a method of formation testing consisting of a packer or packers, valves, or ports that may be opened or closed from the surface, and two or more pressure recording devices.
- (37) "Drilling unit" means an area established by the Commission that can be efficiently and economically drained by one or more oil or gas wells.
- (38) "Dry hole" means any oil or gas well that does not produce oil or gas in commercial quantities.
- (39) "Emergency responder" means an emergency medical technician, fire fighter, law enforcement officer, public works employee, emergency manager, fire marshal, HAZMAT coordinator, technical specialist, incident commander, fire chief, or a member of State Emergency Management who provides, plans, or directs emergency health or safety services.
- (40) "Exploration and Production (E & P) waste" means wastes associated with the exploration, development, and production of oil or gas, which are not regulated by the Subtitle C of the Federal Resource Conservation and Recovery Act as set forth in 40 CFR Parts 260-299, which is incorporated by reference, including subsequent amendments and editions, which can be accessed at http://www.ecfr.gov/cgi-bin/text-idx?SID=13be85c0df8971509a2531a778d1c87f&tpl=/ecfrbrowse/Title40/40tab_02.tpl for no charge, and may include the following:
- (A) produced brine, sand, and water;
 - (B) drill cuttings;
 - (C) water-based drilling fluids;
 - (D) flowback fluids;
 - (E) stormwater in secondary containment and pits at the well site; and
 - (F) any other deposits or residuals from exploration and production activities.
- (41) "Float collar" means a component that is installed near the bottom of the casing string on which wiper plugs land during the primary cementing operation.
- (42) "Float shoe" means a rounded profile component attached to the down hole end of the production casing string to prevent reverse flow of cement slurry into the casing string.
- (43) "Flowback fluid" means liquids, and mixtures thereof, consisting of drilling fluid, silt, sand and other proppants, debris, water, brine, oil, paraffin, produced water, or other materials that are removed from the wellbore during the completion or recompletion of an oil or gas well, other additives that flow from an oil or gas well following well stimulation, or during production of an oil or gas well.
- (44) "Floodplain" is defined in 44 CFR 59.1, which is incorporated by reference, including subsequent amendments and editions, which can be accessed at http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title44/44cfr59_main_02.tpl for free.

- (45) "Floodway" is defined in 44 CFR 59.1, which is incorporated by reference, including subsequent amendments and editions, which can be accessed at http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title44/44cfr59_main_02.tpl for free.
- (46) "Flow rate" means the volume per unit of time of a fluid moving past a fixed point.
- (47) "Formation Integrity Test (FIT)" means a pressure test applied to the formation directly below the base of the casing string to determine the maximum pressure that may be applied without risk of formation breakdown.
- (48) "Fresh groundwaters" means those groundwaters having a chloride concentration less than or equal to 250 milligrams per liter.
- (49) "FRO" means Financial Responsibility Ownership, as set forth in Rule .1302 of this Subchapter.
- (50) "Green completion" means an oil or gas well completion following stimulation or restimulation where gas flowback that is otherwise vented is captured, cleaned, and routed to the flow line or collection system, re-injected into the oil or gas well or another oil or gas well, used as an on-site fuel source, or used for other purpose that a purchased fuel or raw material would serve, with no direct release to the atmosphere.
- (51) "Groundwaters" means those waters occurring in the subsurface under saturated conditions.
- (52) "Hazardous chemicals" is defined in 29 CFR 1910.1200(c), which is incorporated by reference, including subsequent amendments and editions and can be accessed at <http://www.ecfr.gov/cgi-bin/text-idx?rgn=div8&node=29:6.1.1.1.1.1.1.36> for no charge.
- (53) "Health professional" means a licensed physician, physician's assistant, industrial hygienist, toxicologist, epidemiologist, nurse, nurse anesthetist, nurse practitioner, or a local health director.
- (54) "High occupancy building" means any operating public school, nursing facility, hospital, life care institution, or correctional facility, provided that the facility or institution that has the capacity to serve 50 or more persons, or an operating child care center as defined in G.S. 110-86.
- (55) "Hydraulic fracturing" means oil or gas well stimulation by the application of hydraulic pressure using fluids, proppants, and additives under pressure to create artificial fractures or to open existing fracture networks in the formation for the purpose of improving the capacity to produce hydrocarbons.
- (56) "Hydraulic fracturing stage" means the portion of a wellbore that is isolated by setting packers or plugs during well stimulation operations.
- (57) "Intermediate casing" means a casing string that is set in place after the surface casing and before the production casing.
- (58) "Intermittent stream" is determined by North Carolina Division of Water Quality Methodology for Identification of Intermittent and Perennial Streams and Their Origins, Version 4.11, Effective Date: September 1, 2010, including subsequent amendments and editions, which can be accessed for free at <http://portal.ncdenr.org/web/wq/swp/ws/401/waterresources/streamdeterminations>.
- (59) "Joint" means a length of drill pipe or casing.
- (60) "Kelly bushing" means a device that is fitted to the rotary table through which the kelly passes and the means by which the torque of the rotary table is transmitted to the kelly and the drill string.
- (61) "Kickoff point" means the depth in a vertical wellbore in which a deviation is initiated.
- (62) "LAS" means Log ASCII Standard.
- (63) "Licensed geologist" means a person who has been duly licensed as a geologist in accordance with the requirements of G.S. 89E.
- (64) "LiDAR" means Light Detection And Ranging.
- (65) "LIS" means Log Information Standard.
- (66) "Lost hole" means an oil or gas well that could not be drilled to the originally permitted total depth.
- (67) "Master valve" means a large valve located on the wellhead and used to control the flow of oil or gas from a well.
- (68) "Mechanical bridge plug" means a down hole tool, composed primarily of slips, a plug mandrel, and a sealing element, that is run and set in casing to isolate that portion of the well below the plug.
- (69) "Mousehole" means a shallow boring under the drilling rig floor, lined with casing, in which joints of drill pipe are temporarily suspended for future connection to the drill string.
- (70) "NC UCC" means the North Carolina Uniform Commercial Code found in G.S. 25, Article 5.

- (71) "Occupied dwelling" means a private residence, existing inhabited structure, or a public building that may be used as a place of assembly, education, entertainment, lodging, trade, manufacture, repair, storage, or occupancy by the public, including any outdoor recreational facility, State Park as defined in G.S. 113-44.9, or historic property acquired by the State pursuant to G.S. 121-9 or listed in the North Carolina Register of Historic Places pursuant to G.S. 121-4.1. This definition does not apply to a building or other structure that is incidental to agricultural use of the land on which the building or other structure is located, unless the building or other structure is used as an occupied private dwelling or for retail trade.
- (72) "Packer" means a piece of down hole equipment that consists of a sealing device, a holding or setting device, and may contain an inner passage for fluids.
- (73) "Perennial stream" means a channel that contains water year-round during a year of normal rainfall with the aquatic bed located below the water table for most of the year as indicated on the most recent versions of U.S.G.S 1:24,000 (7.5 minute) scale topographic maps.
- (74) "Permittee" means a person to whom the Department has issued an Oil or Gas Well Permit.
- (75) "Pit" means any natural or man-made depression in the ground used for storage of liquids.
- (76) "Plug and abandon" means to place a series of cement plugs into a wellbore, cut casing strings and remove the wellhead and Christmas tree to permanently decommission the well.
- (77) "Plug back" means to place cement in or near the bottom of an oil or gas well to sidetrack or to produce from a formation higher in the oil or gas well.
- (78) "Produced water" means the water that exists in subsurface formations and is brought to the surface during oil or gas production.
- (79) "Production casing" means a casing string that is set to allow completion and installation of down hole production equipment for production of an oil or gas well.
- (80) "Production facility" means all storage, separation, treating, dehydration, artificial lift, power supply, compression, pumping, metering, monitoring, flowline, and other equipment directly associated with production at oil or gas wells.
- (81) "Production zone" means the rock stratum that will yield hydrocarbons.
- (82) "Professional engineer" means a person who is presently registered and licensed pursuant to G.S. 89C.
- (83) "PSI" means pounds per square inch.
- (84) "Rathole" means a hole in the drilling rig floor that is lined with casing into which the kelly is temporarily placed.
- (85) "Reclamation" means the process of returning or restoring disturbed land to its condition prior to the commencement of oil or gas operations.
- (86) "Reenter" means accessing a previously completed or plugged wellbore.
- (87) "Residuals" means any solid, semisolid, or liquid waste, other than effluent or residues from agricultural products and processing, generated from a wastewater treatment facility, water supply treatment facility, or air pollution control facility permitted under the authority of the Environmental Management Commission.
- (88) "Rotating diverter system" means equipment normally associated with air drilling operations that provides an annular seal around the drill pipe during drilling operations that routes recovered fluids and solids away from the drilling rig.
- (89) "Safety data sheet" means written or printed materials containing all the information specified in 29 CFR 1910.1200(g), which is incorporated by reference including subsequent amendments, which can be accessed at <http://www.ecfr.gov/cgi-bin/text-idx?rgn=div8&node=29:6.1.1.1.1.1.36> for no charge, for regulated hazardous substances.
- (90) "Service company" means a person contracted by the permittee who conducts work onsite related to the drilling, completion, or production of an oil or gas well.
- (91) "Setback" means the horizontal separation distance, in feet, between the surface location of well site structures and adjacent structures and land features.
- (92) "Shut-in" means to stop flow from a well.
- (93) "Sidetrack" means to use a down hole motor to drill around the original planned path of the oil or gas well.
- (94) "SPCA" means the Sediment Pollution Control Act of 1973 found in G.S. 113A, Article 4.
- (95) "Spud" means to start the oil or gas well drilling process by removing rock, dirt, and other sedimentary material with the drill bit.

- (96) "Sub-base" means the layer of material laid on the subgrade.
- (97) "Subgrade" means the native material at the bottom of a sub-base.
- (98) "Surface casing" means a large diameter casing string set in shallow, yet competent, formations used to protect groundwaters, provide sufficient structural integrity to bear the weight of subsequent casing strings, and pressure integrity to contain the pressures anticipated to the next casing point.
- (99) "Surface use agreement" means any agreement in the nature of a contract or other form of document binding on the permittee, including any lease, damage agreement, waiver, or local government approval or permit, which governs the permittee's activities on the surface in relation to locating a well, production facility, pipeline, or any other oil or gas facility that supports oil and gas development located on the surface owner's property.
- (100) "Tank" means a stationary vessel constructed of non-earthen materials used to contain fluids.
- (101) "Tank battery" means a group of tanks that are connected to receive production fluids from an oil or gas well or a producing lease.
- (102) "Tracer technology" means technology used to trace well stimulation fluid back to the oil or gas well where fluid was injected.
- (103) "Trade name" means the common name given by industry or a manufacturer to a chemical or product.
- (104) "Trade secret" is defined in G.S. 66-152(3).
- (105) "Treating healthcare provider" means a licensed physician, physician's assistant, industrial hygienist, toxicologist, epidemiologist, emergency medical technician, nurse, nurse anesthetist, nurse practitioner, or local health director.
- (106) "Unconventional reservoir" means a resource whose porosity, permeability, fluid trapping mechanism, or other characteristics differ from conventional reservoirs.
- (107) "Vendor" means a company that sells or provides a substance or product for use in oil or gas exploration or production.
- (108) "Water source" means any of the following:
- (a) waters of the State;
 - (b) a source of water supply used by a water purveyor;
 - (c) mine pools and discharges; and
 - (d) any other waters that are used for drilling, completing, and stimulating an oil or gas well.
- (109) "Water supply well" is defined in G.S. 87-85(13).
- (110) "Waters" or "Waters of the State" is defined in G.S. 143-212.
- (111) "Well" is defined in G.S. 87-85(14).
- (112) "Wellbore" means a borehole drilled by a bit.
- (113) "Wellhead" means the upper terminal of the oil or gas well, including adapters, ports, valves, seals, and other attachments.
- (114) "Well pad" means the area that is cleared or prepared for the drilling of one or more oil or gas wells.
- (115) "Well site" means the areas that are directly disturbed during the drilling and subsequent operation of any oil or gas well and its associated well pad.
- (116) "Well spacing" means the minimum distance from any wellbore in the drilling unit to the boundary of the drilling unit.
- (117) "Well stimulation" means any of several operations or processes to initiate or increase the production of oil or gas from a well, including acidizing, hydraulic fracturing, or other methods.
- (118) "Wetland" is defined in 40 CFR 230.3, which is incorporated by reference, including subsequent amendments and editions, which can be accessed at <http://www.ecfr.gov/cgi-bin/text-idx?SID=7977290449ab243f2865159951305a77&node=40:25.0.1.3.24&rgn=div5> for free.
- (119) "Wiper plug" means a rubber plug used to separate the cement slurry from other fluids.
- (120) "Wireline log" means the recording of information about subsurface geologic formations using tools lowered into the wellbore on a wire line.
- (121) "Withdrawal" means the removal of water from a water body, well, or other fluid storage structure.
- (122) "Workover" means the performance of one or more of a variety of operations on a producing oil or gas well to attempt to increase production.

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