Glossary of Oilfield Production Terminology (GOT)

(DEFINITIONS AND ABBREVIATIONS)

FIRST EDITION, JANUARY 1, 1988

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(Definitions and Abbreviations)

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FOREWORD

A. This publication is under the jurisdiction of the API Executive Committee on Standardization of Oilfield Equipment and Materials.

B. The purpose of this publication is to provide standards writing groups access to previously used abbreviations and definitions. Standards writing groups are encouraged to adopt, when possible, the definitions found herein.

Attention Users of this Publication: Portions of this publication have been changed from the previous edition. The location of changes has been marked with a bar in the margin. In some cases the changes are significant, while in other cases the changes reflect minor editorial adjustments. The bar notations in the margins are provided as an aid to users to identify those parts of this publication that have been changed from the previous edition, but API makes no warranty as to the accuracy of such bar notations.

Note: This is the first edition of this Glossary.

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This Glossary was adapted from several sources. It includes several terms for which there is no single, commonly accepted definition in the petroleum industry. Therefore, some firms within the industry may use definitions which vary somewhat from those contained herein.

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SECTION 1
LIST OF PUBLICATIONS

1.1 The following API Publications were reviewed to compile the abbreviations and definitions found in Section 2 of this Bulletin.

1.2 List of Publications

Bul S1, Fourteenth Edition
Spec Q1, Second Edition
Spec 1B, Fifth Edition
RP 2A, Seventeenth Edition
Spec 2B, Third Edition
Spec 2C, Third Edition, with Supp 1
RP 2D, Second Edition
Spec 2E, First Edition, with Supp 1
Spec 2F, Fourth Edition
RP 2G, First Edition, with Supp 1
Spec 2H, Fourth Edition
RP 2I, First Edition
Bul 2J, First Edition
RP 2K, Second Edition
RP 2L, Third Edition
RP 2M, First Edition
Bul 2N, First Edition
RP 2P, Second Edition
RP 2Q, Second Edition
RP 2R, First Edition
RP 2T, First Edition
Bul 2U, First Edition
Bul 2V, First Edition
Spec 2W, First Edition
RP 2X, First Edition, with Supp 1
Spec 2Y, First Edition
RP 2Z, First Edition
Spec 3, Twelfth Edition
RP 3, First Edition
STD 4A, Sixteenth Edition, with Supp 1
STD 4D, Sixth Edition, with Supp 1
Spec 4E, Second Edition, with Supp 3
Spec 4F, First Edition
Spec 5A, Thirty-Ninth Edition
Spec 5AC, Sixteenth Edition
Spec 5AQ, Second Edition
Spec 5AX, Fifteenth Edition
Bul 5A2, Fifth Edition, with Supp 3
RP 5A5, Third Edition
STD 5B, Twelfth Edition
RP 5B1, Second Edition
RP 5C1, Fifteenth Edition
Bul 5C2, Twentieth Edition
Bul 5C3, Fourth Edition, with Supp 1
Bul 5C4, Second Edition
Spec 5L, Thirty-Sixth Edition
RP 5L1, Third Edition
RP 5L2, Third Edition
RP 5L3, Second Edition
RP 5L5, First Edition, with Supp 1
RP 5L6, First Edition
RP 5L7, First Edition
Bul 5T1, Eighth Edition
Spec 6A, Fifteenth Edition, with Supp 2
Spec 6AB, First Edition
Spec 6D, Eighteenth Edition, with Supp 3

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Spec 6FA, First Edition
RP 6G, Third Edition
Spec 7, Thirty-Fifth Edition, with Supp 2
STD 7B-11C, Eighth Edition
RP 7C-11F, Fourth Edition
Spec 7F, Fourth Edition, with Supp 1
RP 7G, Twelfth Edition
RP 7H, Second Edition, with Supp l
Spec 7J, First Edition, with Supp 1
Spec 8A, Eleventh Edition
RP 8B, Fourth Edition, with Supp 2
Spec 9A, Twenty-Third Edition
RP 9B, Ninth Edition
Spec 10, Third Edition, with Supp 1
Bul 10C, Third Edition
Spec 10D, Third Edition
RP 10E, Second Edition
RP11AR, Second Edition
Spec 11AX, Eighth Edition
Spec 11B, Twenty-Second Edition, with Supp 1
RP 11BR, Seventh Edition, with Supp 1
Spec 11C, First Edition
Spec 11E, Fourteenth Edition
RP 11ER, First Edition
RP 11G, Second Edition, with Supp 3
Bul 11K, First Edition
RP 11L, Third Edition, with Supp 1
Spec 11N, Second Edition
Spec 11P, First Edition, with Supp 2
RP 11R, Second Edition
RP 11S, Second Edition
RP 11S1, First Edition
RP 11T, First Edition
RP 11U, Second Edition
RP 500B, Third Edition
Spec 12B, Twelfth Edition, with Supp 2
Spec 12D, Ninth Edition, with Supp 2
Spec 12F, Ninth Edition
Spec 12J, Fifth Edition
Spec 12K, Fifth Edition
Spec 12L, Third Edition, with Supp 1
RP 12N, First Edition
Spec 12P, First Edition
RP 12R1, Third Edition
Spec 13A, Eleventh Edition, with Supp 1
RP 13B, Eleventh Edition, with Supp 1
Bul 13C, First Edition
Bul 13D, Second Edition
RP 13E, Second Edition
Bul 13F, First Edition
RP 13G, Second Edition
RP 13H, First Edition
RP 13I, Second Edition, with Supp 1
RP 13J, First Edition
Spec 14A, Sixth Edition, with Supp 2
RP 14B, Second Edition, with Supp 3
RP 14C, Fourth Edition
Spec 14D, Sixth Edition, with Supp 2
RP 14E, Fourth Edition
RP 14F, Second Edition
RP 14G, Second Edition
RP 14H, Second Edition
Spec 15AR, Third Edition
RP 15A4, First Edition
Spec 15LE, Second Edition
Sec 15LP, Sixth Edition

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Spec 15LR, Fifth Edition, with Supp 1
RP 15L4, Second Edition
Spec 16A, First Edition
RP 17A, First Edition
RP 27, Third Edition
RP 31, Third Edition
RP 33, Third Edition
RP 34, First Edition
RP 35, First Edition
RP 36, First Edition
RP 37, Second Edition
RP 38, Third Edition
RP 39, Second Edition
RP 40, First Edition
RP 41, First Edition
RP 42, Second Edition
RP 43, Fourth Edition
RP 44, First Edition
RP 45, Second Edition
RP 46, First Edition
RP 48, First Edition
RP 49, Second Edition
RP 52, First Edition
RP 53, Second Edition
RP 54, First Edition
RP 56, First Edition
RP 57, First Edition
RP 58, First Edition
Bul D4, March, 1963
Bul D8, September 1964
Bul D9, Third Edition
Bul D10, Second Edition
Bul D11, Second Edition
Bul 12A, January 1979
Bul D14, Second Edition
Bul D15, First Edition
Bul D16, First Edition
Bul D17, Second Edition
Bul D19. First Edition
Bul D20, First Edition
Introduction to Oil & Gas Production (ITOGP), 1983
Corrosion of Oil and Gas-Well Equipment (COGWE), 1958
Subsurface Salt Water Injection and Disposal (SSWID), Second Edition
Well Testing (WT), Second Edition
Wireline Operations and Procedures (WLOP), 1983
Gas Lift (GL), Second Edition, 1984
RP T-1, Second Edition
RP T-2, October 1975
RP T-3, First Edition
RP T4, First Edition
RP T-5, Second Edition
RP T-6, First Edition

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SECTION 2
ABBREVIATIONS AND DEFINITIONS

2.1 The following abbreviations and definitions were compiled from the API Publications listed in Section 1. Following each definition is, in parentheses, the publications(s) in which it is used. The definitions found herein have not been changed from their use in the indicated publication and in some cases there may be multiple definitions for the same word.

2.2 Abbreviations and Definitions

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-A-

AAR – Association of American Railroads

ABANDON – To cease efforts to produce fluids from a well, in depleted formation and to plug the well without adversely affecting the environment. (Bul 10C)

ABANDON – To cease efforts to produce oil or gas from a well, and to plug a depleted formation and salvage all material and equipment. (ITOGP)

ABS – American Bureau of Shipping

ABATEMENT – The act or process of reducing the intensity of pollution; also, the use of some method of abating pollution. (Bul D11)

ABNORMAL OPERATING CONDITION – A condition which occurs in a process component when an operating variable ranges outside of its normal operating limits. (RP 14C)

ABRASIONS OR PEENING – Damage on the pipe resulting from a rubbing or pounding action against other pipe or some protrusion in the vessel. This latter condition may result in the initiation of fatigue cracks at the damaged areas during transit. (RP 5L5)

ABSOLUTE PRESSURE – Pressure measured from absolute zero pressure. It is ordinarily expressed as gage pressure (the pressure reading on a pressure gage) plus atmospheric pressure, and denoted in pounds per square inch absolute (psia). (WLOP)

ABSOLUTE VOLUME – The volume per unit mass, reciprocal of absolute density. (Bul 10C)

ABSORPTION – The penetration or apparent disappearance of molecules or ions of one or more substances into the interior of a solid or liquid. For example, in hydrated bentonite, the planar water that is held between the mica-like layers is the result of absorption. (Bul D11)

ABSORPTION - To soak up as a sponge takes water. (COGWE, ITOGP, SSWID)

AC FIELD – The active magnetic field produced by the use of alternating current. (RP 5A5)

ACCELERATION METHOD. Utilizes the angles at the top and bottom of the course length and from these generates a curve on the assumption that the measured angles change smoothly from top to bottom of the measured course as though under the influence of a constant force of acceleration. The results obtained are the same as the "Balanced Tangential", "Trapezoidal," and "Vector Averaging" Methods. (Bul D20).

ACCELERATOR – A material which accelerates or speeds up the normal rate of reaction between cement and water, resulting in an increase in the development of early strength, and, in some cases, a decrease in the setting time or thickening time. (Bul 10C)

ACCEPTANCE CRITERIA – Limit of shape, size, and position of discontinuities acceptable within the context of the specific design requirements. (RP 2X)

ACCEPTANCE CRITERIA – Defined limits placed on characteristics of materials, products, or services. (Spec 6A, Spec 16A, Spec Q1)

ACCESS OPENING – An opening which allows communication to the interior of the flame arrestor housing making the mixer, pilot, burner, etc., accessible. This opening is normally closed by a flat plug or plate 3" to 4" in diameter, securely attached to the housing and tightly sealed against the opening. (RP 12N)

ACCESSORY – A secondary part of assembly of parts which contributes to the overall function and usefulness of a machine. (Spec 2C)

ACCLIMATION – The process of adjusting or adapting to changes in climate or environment. (Bul D11)

ACCUMULATOR – A pressure vessel charged with nitrogen gas and used to store hydraulic fluid under pressure for operation of blowout preventers. (RP 53)

ACI – American Concrete Institute

ACID – Any chemical compound containing hydrogen capable of being replaced by positive elements or radicals to form salts. In terms of the dissociation theory, it is a compound which, on dissociation in solution, yields excess hydrogen ions. Acids lower the pH. Examples of acids or acidic substances are: hydrochloric acid, tannic acid, sodium acid pyrophosphate. (Bul D11)

ACID BOTTLE – Early method of measuring the angle of inclination. A glass bottle with hydrofluoric acid was lowered to the bottom and allowed to set until the acid etched the glass. The angle of inclination was determined by the etched line. (Bul D20)

ACID RESISTANCE – The ability of a hardened cement slurry to withstand the softening and corrosive effects of organic or mineral acids, or water solutions of these acids and their salts having a pH lower than 7.0. (Bul 10C)

ACIDITY – The relative acid strength of liquids as measured by pH. A pH value below 7. See pH. (Bul 10C, Bul D11)

ACIDIZING – The practice of injecting acids into rock formations to remove any blocking material or to enlarge the pores to enhance the movement of fluid through the rock. (Bul 10C)

ACIDIZING – The treatment of formations with hydrochloric or other type acids in order to increase production or injection. (ITOGP)

ACIDIZING – The act of pumping an acidic solution into a wellbore to remove materials from the perforations, pipe, and walls of the producing formation or pumping the solution into formations to improve permeability. (RP 54)

ACOUSTIC IMPEDANCE – The factor which controls the propagation of an ultrasonic wave at a boundary interface. It is the product of the material density and the acoustic wave velocity within the material. (RP 2X)

ACT – Automatic Custody Transfer

ACT – Automatic Custody Transfer: A unit designed to automatically move oil from lease storage to pipe line. Normally made up of a pump, back-pressure valve, BS&W monitor, and oil meter. (WT)

ACTIVE ZONE – A region in which the ice moves and deforms. (Bul 2N)

ACTUATION TEST, BLOWOUT PREVENTER – The closing and opening of a blowout preventer unit to assure mechanical functionability. (RP 57)

ACTUATOR – A mechanism for the remote or automatic operation of a valve or choke. (Spec 6A)

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ACUTE TOXICITY – Any poisonous effect produced within a short period of time, usually up to 24-96 hrs., resulting in severe biological harm and often death. (Bul D11)
ADAPTER – A pressure containing piece of equipment having API end connections of different nominal sizes and/or pressure ratings, used to connect other pieces of equipment of different API nominal sizes and/or pressure ratings. (Spec 16A)
ADDED MASS – Effective addition to the system mass which is proportional to the displaced mass of water. (RP 2T)
ADDENDUM – The distance between the pitch line and crest of thread. (RP 5B1)
ADDITION – A material added to a cement clinker during manufacture, commonly gypsum/anhydrite and water. (Bul 10C)
ADDITIVE – A material other than cement or water which is added to a cement subsequent to its manufacture to modify properties. Equivalent of admixture in ASTM usage. (Bul 10C)
ADEQUATE VENTILATION – Adequate ventilation is defined as ventilation (natural or artificial) which is sufficient to prevent the accumulation of significant quantities of vapor-air mixtures in concentration above 25% of their lower flammable (explosive) limit (LEL). (RP 500B)
ADEQUATELY VENTILATED AREA – An adequately ventilated area is an area that has a ventilation system (natural or artificial) which prevents the accumulation of gases to an explosive level. Adequate ventilation is provided by a change of air volume each five minutes, or 1.5 cubic feet of air volume flow per minute per square foot of floor area, whichever is greater. (RP 14F)
ADFREEZE- Adhesion between ice and a structural surface. (Bul 2N)
ADHESION – A physical attraction, operating on the molecular level, exerted between the surfaces of bodies in contact. (Bul 10C)
ADHESION – The molecular attraction or force exerted across the surfaces of contact between unlike liquids and solids which resist their separation. (Bul D11)
ADJUSTMENT – Activities associated with the sizing or setting of a SSCSV value as defined in the Manufacturer's Operating Manual. Adjustment may be performed at the well site or other location. Each part installed for the purpose of adjustment should be a qualified part. (RP 14B)
ADJUSTABLE CHOKE – A choke in which the position of a conical needle in a seat can be used to vary the rate of flow through the choke. (WLOP)
ADMINISTRATIVE OR REGULATORY AUTHORITY – Governmental agency or the employer in the absence of governmental jurisdiction. (Spec 2C)
ADMIX – To add one material to another by mixing. Note: Admix should not be used replaceably with addition, additive or admixture. (Bul 10C)
ADSORBED LIQUID – That liquid on the surfaces of solid particles that cannot be removed by draining, even with centrifugal force. (Bul 13C)
ADSORPTION – A surface phenomenon exhibited by a solid (adsorbent) to hold or concentrate gases, liquids, or dissolved substances (adsorptive) upon its surface, a property due to adhesion. For example, that water held to the outside surface of hydrated bentonite is absorbed water. (Bul D11)
ADSORPTION – The accumulation of a thin layer of molecules of gas or liquid on a solid surface. (COGWE, SSWID)
ADSORPTION – The attraction exhibited by the surface of a solid for a liquid or a gas when they are in contact. (ITOGP)
AERATE – Adding air into water by agitation. (SSWID)
AERATION – The technique of injecting air or gas in varying amounts into a fluid. (See Air Cutting.) (Bul 10C)
AERATION – The process of being supplied or permeated with air. (Bul D11)
AERATION – The technique of injecting air or gas in varying amounts into a drilling fluid for the purpose of reducing hydrostatic head. See Air Cutting. (Bul D11)
AEROBIC – With atmospheric oxygen present. (COGWE, SSWID)
AEROBIC – the condition associated with the presence of free oxygen in an environment; living, active, or occurring only in the presence of oxygen. (Bul D11)

AEROBIC BACTERIA – Bacteria that are active primarily in the presence of oxygen. (SSWID)
AEROSOL – Suspension of liquid or solid particles in air or gas. (Bul D11)
"A" FRAME – See Gantry also called Mast. (Spec 2C)
AGENCY – An organization or part of an organization selected by the owner to perform
examinations as required by the specification or purchase order. (RP 2X)
AGENCY PERSONNEL – Technicians employed and trained by an independent organization, offered to the operator on a contract basis, for assisting in the construction inspections. (RP 2X)
AGER – A water filled pressure chamber used to apply external pressure to gas lift valves to flex the bellow during the pressure setting operation. (GL)
AGGLOMERATE – A mass of particles or substances closely associated and clustered together. (Bul D11)
AGGLOMERATION – The grouping of individual particles. (Bul D11)
AGGREGATE – An essentially inert material of mineral origin having a particle size predominately greater than 10 mesh. Also a group of two or more individual particles held together by strong forces which are not subject to dispersion by normal mixing or handling. (Bul 10C)
AGGREGATE – A group of two or more individual particles held together by strong forces. Aggregates are stable to normal stirring, shaking, or handling as powder or a suspension. They may be broken by drastic treatment such as ball milling a powder or by shearing a suspension. (Bul D11)

AGGREGATION – Formation of aggregates. In drilling fluids, aggregation results in the stacking of the clay platelets face to face. The viscosity and gel strength decrease in consequence. (Bul D11)
AGING – Natural or artificial curing of cement, cement slurries, and hardened cement paste during which various physico-chemical changes take place. (Bul 10C)

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AGMA – American Gear Manufacturers Association
AIEE – American Institute of Electrical Engineers
AIR CURTAIN – A method for mechanical containment of oil spills. Air is bubbled through a perforated pipe causing an upward water flow that retards the spreading of oil. Air curtains may also be used as barriers to prevent fish from entering a polluted body of water. (Bul D11)
AIR CUTTING – The inadvertent mechanical incorporation and dispersion of air into a wellfluid system. See Aeration. (Bul 10C)
AIR CUTTING – The inadvertent mechanical incorporation and dispersion of air into a drillingfluid system. (Bul D11)
AIR POLLUTION – The presence of contaminates in the air in concentrations that interfere directly or indirectly with human health, safety, comfort, or with the full use and enjoyment of property. (Bul D11)
AIR-QUALITY CRITERIA – The levels of pollution and lengths of exposure at which adverse effects on health and welfare occur. (Bul D11)
AIR-QUALITY STANDARDS – The prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographic area. (Bul D11)
AISC – American Institute of Steel Construction
AISI – American Iron and Steel Institute
ALKALI – Any compound having marked basic properties. See Base. (Bul 10C, Bul D11)
ALKALINITY – The combining power of a base measured by the maximum number of equivalents of an acid with which it can react to form a salt. In water analysis, it represents the carbonates, bi-carbonates, hydroxides, and occasionally the borates, silicates, and phosphates in the water. It is determined by titration with standard acid to certain datum points. (Bul 10C)
ALKALINITY – The combining power of a base measured by the maximum number of equivalents of an acid with which it can react to form a salt. In water analysis, it represents the carbonates, bi-carbonates, hydroxides, and occasionally the borates, silicates, and phosphates in the water. It is determined by titration with standard acid to certain datum points. See API RP 13B for specific directions for determination of phenolphthalein (P) and methyl orange (M) alkalinities of the filtrate in drilling fluids and the alkalinity of the mud itself (P). Also, see (P), (M), and (P). (Bul D11)
ALL-ELECTRIC RIG – A rotary drilling rig using power from electric power line. (Bul D10)
ALLOWABLE – The amount of oil or gas that a well is authorized by the state regulatory agency to produce during a given period. (ITOGP)
ALLOWABLE – The producing rate of a well, lease or unitized property, as established by
existing rules and regulations of governing bodies. Usually based on depth, and/or well capacity, for a specific period of time such as one day or one month. (WT).
ALLOWABLE ROPE HOLD – The "nominal" breaking strength of the rope divided by a design factor. (Spec 2C)
ALLOY – A metal composed of two or more elements, at least one of which has good metallic properties. (COGWE, SSWID)
ALLOY – A metal composed of two or more elements, combined to produce certain metallic properties. (WLOP)
ALTERNATING CURRENT (AC) – Alternating current is current that reverses its direction of flow at regular intervals. (RP 5A5)
ALUMINUM STEARATE – An aluminum salt of stearic acid used as a defoamer. See Stearate. (Bul D11)
AMINE – A compound generally used to "sweeten" sour fluids or gases. (SSWID)
AMPERE (A or amp) – A unit of electrical current. (RP 5A5)
AMPERE-TURNS (A-t) – The product of the number of turns in a coil and the number of amperes of current flowing through it. This is a measure of the magnetizing strength of the coil. For example: 800 amperes in a 6 turn coil = 800 x 4800 A-t. (RP 5A5)
AMPLIFICATION REDUCTION FACTOR (C) – Coefficient applied to bending term in interaction equation for members subjected to combined bending and axial compression to account for overprediction of secondary moment given by the amplication factor 1/(1 – f/F'). (Bul 2U)
AMPLIFIER – A device to increase or amplify electric impulses. (RP 2X)
AMPLITUDE (See related term: Stroke) – The distance from the mean position to the point of maximum displacement. In the case of a vibrating screen with circular motion, amplitude would be the radius of the circle. In the case of straight line motion or elliptical motion it would be one-half of the total movement or one-half of the major axis of the ellipse, thus one-half stroke. (Bul 13C)
AMPLITUDE ECHO – The vertical height of an A-scan received signal, measured from base-topeak or peak-to-peak. (RP 2X)
ANAEROBIC – With atmospheric oxygen absent. (COGWE, SSWID)
ANAEROBIC – Refers to life or processes that occur in the absence of oxygen. (Bul D11)
ANALYSIS, DRILLING-FLUID OR MUD – Examination and testing of the drilling fluid to determine its physical and chemical properties and condition. (Bul D11)
ANGLE BEAM – A wave train traveling at an angle, measured from the normal to the test surface to the centerline of the beam. (RP 2X)
ANGLE DROP-OFF – Rate of change (degrees/100 ft) of the inclination angle in the section of the wellbore that is decreasing toward vertical (refer to "Drop Off"). (Bul D20)
ANGLE INDICATOR – BOOM – An accessory which measures the angle of the boom above horizontal. (Spec 2C)
ANGLE OF ATTACK – Angle between the wellbore inclination/direction and the dip inclination/direction. (Bul D20)
ANGLE OF BUILDUP – Rate of change (degrees/100 ft) of the inclination angle in the section of the hole where the inclination from the vertical is increasing (refer to "Buildup"). (Bul D20)
ANGLE OF DRIFT – Refer to "Angle of Inclination". (Bul D20)
ANGLE OF INCLINATION – That angle in degrees; taken at one or at several points of variation, from the vertical as revealed by a deviation survey; sometimes called the inclination or angle of deviation. (Bul D20)
ANGLE OF INCIDENCE – The included angle between the direction of the transmitted wave and the normal to the interface at the point of incidence. (RP 2X)

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ANGLE OF REFLECTION – The angle defined by the direction of the reflected wave and the normal to the interface at the point of incidence. The angle of reflection is equal to the angle of incidence. (RP 2X)
ANGLE OF REFRACTION – The angle between the refracted rays of an ultrasonic beam and the normal to the refracting surface. (RP 2X)
ANGLE OF TWIST – The azimuth change through which the drill stem must be turned to offset the twist caused by the reactive torque of the downhole motor. (Bul D20)
ANGLE TESTING – A testing method in which transmission is at an angle to one test surface. (RP 2X)
ANGLE TRANSDUCER - A transducer that transmits or receives the acoustic energy at an acute angle to the surface to achieve a special effect such as the setting-up of shear waves in the part being inspected. (RP 2X)
ANGLE UNIT – Refer to "Inclinometer". (Bul D20)
ANHYDRITE – See Calcium Sulfate. (Bul 10C)
ANHYDRITE – See Calcium Sulfate. Anhydrite is often encountered while drilling. It may occur as thin stingers or massive formations. (Bul D11)
ANHYDROUS – Without water. (Bul 10C, Bul D11)
ANILINE POINT – The lowest temperate at which equal volumes of freshly distilled aniline and an oil which is being tested are completely miscible. This test gives an indication of the character (paraffinic, naphthenic, asphaltic, aromatic, mid-continent, etc.) of the oil. The aniline point of diesels or crudes used in drilling fluid is also an indication of the deteriorating effect these materials may have on natural or synthetic rubber. The lower the aniline point of an oil the more severe it usually is in damaging rubber parts. (Bul D11)
ANION – A negatively charged atom or radical, such as Cl-, OH-, etc. in solution of an electrolyte. (Bul 10C)
ANION - A negatively charged atom or radical, such as Cl-, OH-, etc. in solution of an electrolyte. Anions move toward the anode (positive electrode) under the influence of an electrical potential. (Bul D11)
ANISOTROPIC FORMATION THEORY – Stratified or anisotropic formations are assumed to possess different drillabilities parallel and normal to the bedding planes, with the result that the bit does not drill in the direction of the resultant force. (Bul D20)
ANNULAR FLOW – Formation fluids are produced up through the tubing-casing annulus and recovered at the surface. (GL)
ANNULAR PACKOFF – A mechanism that seals off annular pressure between the OD of a suspended tubular member or hanger and the ID of the head or thru spool which the tubular member passes or hanger is suspended. (Spec 6A)
ANNULAR PREVENTER – A device which can seal around any object in the wellbore or upon itself. Compression of a reinforced elastomer packing element by hydraulic pressure effects the seal. (RP 53)
ANNULAR SPACE – The space around a pipe (casing or tubing) suspended in a wellbore is often termed the ANNULUS, and its outer wall may be either the wall of the borehole or the casing. (ITOGP)
ANNULAR SPACE – Space surrounding pipe in the wellbore. The outer wall of the annular space may be open hole or it may be pipe. (RP 54)
ANNULAR VELOCITY – The velocity of a fluid moving in the annulus. (Bul 10C, Bul D11)
ANNULUS – The space between tubing and casing. (GL)
ANNULUS (ANNULAR SPACE) – The space surrounding pipe suspended in the well bore. The outer wall of the annulus may be the wall of the bore hole or it may be larger pipe. (Bul 10C, SSWID, WLOP)
ANNULUS OR ANNULAR SPACE – The space between the drill string and the wall of the hole or casing. (Bul D11)
ANODE – The portion of a corrosion cell which corrodes. Oxidation always occurs at anode. (COGWE)
ANODE – The portion of a corrosion cell which corrodes. Oxidation always occurs at anode. Usually a piece of sacrificial metal connected to equipment for corrosion protection. (SSWID)
ANSI – American National Standards Institute.
ANTHRACITE MEDIUM – A type of coal which is commonly used in water filters. (SSWID)
ANTIDEGRADATION CLAUSE – A provision in air-quality and water-quality laws that prohibits deterioration of air or water quality in areas where the pollution levels are presently below those allowed. (Bul D11)
ANTIFOAM – (See Defoamer.) A substance to prevent foam formation by greatly decreasing the surface tension. (Bul 10C)
ANTIFOAM – A substance used to prevent foam by greatly increasing the surface tension. See Defoamer. (Bul D11)
AOGA – Alaska Oil and Gas Association
AOSC – Association of Oilwell Serving Contractors
APERTURE – (See Related Term: Mesh.) An opening; in a screening surface the clear opening between wires. (Bul 13C)
APEX – See Preferred Term: Underflow Opening. (Bul 13C)
APEX VALVE – See Preferred Term: Underflow Opening. (Bul 13C)
APEX – American Petroleum Institute
API – American Petroleum Institute
API – Abbreviation for American Petroleum Institute, with headquarters in Washington, D.C. This is the trade association for the petroleum industry. The Institute's Production Department is located at 211 N. Ervay, Suite 1700, Dallas, TX 75201. (ITOGP)
API – American Petroleum Institute. Founded in 1920, this national oil industry trade association maintains a headquarters office in Washington, D.C., and a Production Department office in Dallas, Texas. It is also used as a slang expression for a job well done (that work is strictly API), or for utter confusion (it's API today, two engines are down). Standards for many items of drilling and producing equipment are produced by industry committees of the Production Department, including specifications for wire rope and solid wire line. (WLOP)
API CEMENT CLASSES – A classification system for well cements defined in API Spec 10. (Bul 10C)
API GRAVITY – The gravity (weight per unit volume) of crude oil or other related fluids as measured by a system recommended by the American Petroleum Institute. It is related to specific gravity by the following formula:

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$$\text{Deg API} = \frac{141.5}{\text{Sp gr 60F/60F}} - 131.5 \qquad \text{(Bul D11)}$$

API GRAVITY – Specific gravity of crude oil as measured by a system recommended by API. (GL)

API GRAVITY – The standard adopted by API for measuring the density of a liquid, expressed in degrees. It can be converted from specific gravity by the following equation:

$$\text{Degrees API gravity} = \frac{141.5}{\text{Specific gravity}} - 131.5 \qquad \text{(ITOGP)}$$

API GRAVITY – An arbitrary scale to conveniently express the gravity or density of liquid petroleum products. The scale is derived from "specific gravity" according to the following equation:

$$\text{API gravity} = \frac{141.5}{\text{Specific gravity}} - 131.5$$

API gravity is expressed in degrees, a specific gravity of 1.0 being equivalent to 10 API. (WLOP)

API MONOGRAM – A registered mark of the American Petroleum Institute. (Spec 6A)

API SAND – Solid particles in a drilling fluid that are too large to pass through a U.S.S. No. 200 screen (74 micron equivalent). See API RP 13B. (Bul 13C)

API WELL NUMBER – A unique numeric identifier for a hole-in-the-ground. The identifier is assigned on the basis of surface location and extends from the surface to total depth. (Bul D12A)

APOA – Arctic Petroleum Operators Association.

APPARENT VISCOSITY – The viscosity a fluid appears to have on a given instrument at a stated rate of shear. It is a function of the fluid's plastic viscosity and the yield point. The apparent viscosity in centipoises, as determined by the direct-indicating viscometer (see Viscometer Direct-Indicating), is equal to . the 600-rpm reading. In a Newtonian fluid, the apparent viscosity is numerically equal to the plastic viscosity. See also Viscosity, Plastic Viscosity, and Yield-Point. (Bul 10C, Bul D11)

APPLICATOR – The organization responsible to the purchaser for the application of the coating. (RP 5L2)

APPOINTED – Assigned specific responsibilities by the employer or the employer's representative. (Spec 2C)

APPROACH AND DEPARTURE OBSTRUCTION – Any object which protrudes above the 8 to 1 clearance plane from the edge of the ground cushion area. (RP2L)

APPROACH AND DEPARTURE ZONE – A clear zone available for flight of a helicopter as it approaches or departs from the heliport's designated takeoff and landing area. (RP 2L)

APPROVED – Acceptable to the authority enforcing the rules. (Electrical devices which carry UL, FM or CSA approval are normally acceptable.) (RP 14F)

APPROVED – Means sanctioned, endorsed, accredited, certified, or accepted by a duly constituted and recognized authority or agency. Proper, adequate, sufficient, safe, due, appropriate, reasonable, accepted, periodically, readily, suitable, qualified competent, reliable, experienced, so as to ensure, accessible, frequently, indicative of a general standard of care are defined as n a prudent manner. (RP 54)

AQUATIC PLANTS – Plants that grow in water either growing up from the body of water, growing under the surface, or floating on the surface of the water. (Bul D11)

AQUIFER – An underground bed or stratum of earth, gravel, or porous stone that contains water. (Bul D11)

AQUIFER – A water-bearing rock strata. In a water-drive field the aquifer is the water zone of the reservoir underlying the oil zone. (ITOGP)

AQUIFER – A reservoir which bears water in recoverable quantity. (SSWID)

ARC BURNS - Localized points of surface melting caused by arcing between electrode or ground and pipe surface. (Bul 5T1)

ARCING – Current flow through a gap, often accompanied by intense heat and light. (RP 5A5)

ARCING DEVICE – A device which during its normal operation produces an arc with sufficient energy to cause ignition of an ignitable mixture. (RP14F)

AREA – See Location. (RP 500B)

AREAL EXTENT – Space or degree to which a thing is extended. Generally used to describe the distance to the outer boundaries of a reservoir. (SSWID)

ARTIFICIAL DISCONTINUITY OR NOTCH – Reference discontinuities such as holes, grooves or slots which are introduced into a reference standard to provide reproducible sensitivity levels for inspection equipment. (See reference standard.) (RP 5A5)

ARTIFICIAL ICE ISLAND – A grounded mass of mostly manmade ice. (Bul 2N)

ARTIFICIAL LIFT – The application of energy from an outside source to life reservoir fluids from a producing well. (GL)

ARTIFICIAL LIFT – Any method used to raise oil and gas to the surface after reservoir energy has declined to the point at which the well no longer produces by natural flow. The most common methods of artificial lift are sucker-rod pumps, hydraulic pumps, submersible pumps, and gas lift. (WLOP)

ARTIFICIAL LIFT EQUIPMENT – Equipment installed on, or in a well, to remove fluids from a well when it is no longer able to produce these fluids with its own energy, i.e. conventional rod pumping unit, hydraulic pump, submersible pump, gas lift, etc. (WT)

ASA – American Standards Association.

ASBESTOS – Mineral fiber (as amphibole) with numerous industrial uses; a hazardous air pollutant when inhaled. (Bul D11)

ASBESTOS – Term applied to many fibrous silicate minerals, some forms of which are used in certain drilling fluids. (Bul D11)

A-SCAN – A method of data presentation on a CRT (cathode ray tube) utilizing a horizontal bases line that indicates distance, or time, and a vertical deflection from the base line which indicates amplitude. (RP 2X)

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A-SCAN DISPLAY – A cathode ray tube display in which the received signal is displayed as a vertical excursion from the horizontal sweep time trace, the horizontal distance between any two signals represents the material distance between the two conditions causing the signals. (RP 2X)

ASCE – American Society of Civil Engineers.

ASME – American Society of Mechanical Engineers.

ASME SPPE ACCREDITATION PROGRAM – Refers to the accreditation program described in ANSI/ASME SPPE-1 and SPPE-2 (formerly OCS-1 and OCS-2) and the ASME procedure for accreditation. (RP 14B, Spec 14)

ASNT – American Society for Nondestructive Testing

ASPHALT – A natural or mechanical mixture of solid or viscous bitumens found in natural beds or obtained as a residue from petroleum. Asphalt, blends containing asphalt, and altered asphaltic materials (e.g., air-blown, chemically modified, etc.) have been added to certain drilling fluids for such widely different purposes as a component in oil-base drilling fluids, lostcirculation material, emulsifier, fluid-loss-control agent, wall-plastering agent, etc. (Bul D11)

ASSE – American Society of Safety Engineers

ASSEMBLER – An agent who connects the SSV/USV actuator and SSV/USV valve and performs the functional test in accordance with API Spec 14D. (RP 14H, Spec 14D)

ASSIMILATION – The transformation and incorporation of nutrient by an organism or ecosystem. (Bul D11)

ASSOCIATED GAS – Natural gas which is in contact with crude oil in the reservoir. (ITOGP)

ASTM – American Society for Testing and Materials

ASTEM CEMENT TYPES – See Cement, ASTM Types (Bul 10C)

ATMOSPHERE – The layer of air surrounding the earth. (Bul D11)

ATMOSPHERIC PRESSURE – The pressure exerted over the surface of the earth b the weight of the atmosphere. At sea level, this pressure is approximately 14.7 pounds per square inch (psi). (WLOP)

ATMOSPHERIC SERVICE – Refers to operation at gauge pressures between . ounce per square inch vacuum and 5 pounds per square inch pressure. (RP 14C)

ATMOSPHERIC ZONE – The part of a structure above the splash zone. (Bul 2N)

ATOM – The smallest particle of matter which can enter into chemical combination, i.e., iron (Fe), oxygen (O), hydrogen (H), carbon (C), chlorine (Cl). (COGWE, SSWID)

ATOM – According to atomic theory, the smallest quantity of an element which is capable of entering into chemical combination or that can exist alone. (Bul D11)

ATOMIC NUMBER – A number, characteristic of an element, which designates the place of the element in the periodic table. This number represents the net positive charge on the nucleus of an atom and is also equal to the number of protons within the nucleus. In a neutral atom, the atomic number necessarily equals the number of electrons outside the nucleus. (Bul D11)

ATTAPULGITE CLAY – A fuller's earth type of clay, a hydrous magnesium aluminum silicate, used as a thickener principally in salt-water drilling fluids. (Bul 10C)

ATTAPULGATITE CLAY – A colloidal, viscosity-building clay used principally in salt-water drilling fluids. Attapulgite, a special fullers earth, is a hydrous magnesium aluminum silicate. (Bul D11)

ATTENUATION – The loss in acoustic energy which occurs between any two points of travel (this loss may be due to absorption, reflection, etc.), or the controlled reduction in sensitivity within the instrument. (RP 2X)

ATTENUATOR – A device for introducing attenuation, usually calibrated in decibels (db). (RP 2X)

AUDIOMETER – An instrument for measuring hearing sensitivity and calibrated in decibels. (Bul D11)

AUDIT – A documented investigation conducted by the manufacturer to verify that applicable requirements are being implemented. (Spec Q1)

AUSTENITE – A solid solution of one or more elements in face-centered cubic iron. (Bul D20)

AUSTENITIC – A non-magnetic (face-centered cubic) state of iron or an iron alloy. (COGWE)

AUSTENITIC – A non-magnetic state of iron or an iron alloy. (SSWID)

AUSTENITIC STAINLESS – A stainless steel whose structure is austenitic at room temperature and which is used for non-magnetic drill collars, etc. (Bul D20)

AUTHORIZED – Appointed by a duly constituted administrative or regulatory authority. (Spec 2C)

AUTHORIZED FACILITY – A facility authorized under the applicable quality assurance
program (Appendix A of API Spec 14A. ASME – SPPE or other) specified by the operator on his purchase order. (RP 14H, Spec 14A, Spec 14B, Spec 14D)

AUTHORIZED PERSON – A person assigned by the employer to perform or supervise the performance of a specific type of duty or duties or to be at a specific location(s) at the work site. (RP54)

AUTOCLAVE EXPANSION – A measurement or test made as provided in ASTM C 151: Test for Autoclave Expansion of Portland Cement, Book of ASTM Standards, Part 13. (Bul 10C)

AUTOMATICALLY FIRED VESSEL – A fired vessel with the burner fuel controlled by an automatic temperature or pressure controller. (RP 14C)

AUTOMATION – The automatic, self-regulating control of equipment, systems, or processes. (ITOGP)

AUTOMATION – Equipment installed to provide unattended continuous operation according to a pre-set program. (WT)

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BABBITT – Metal from which engine bearings are made. Usually consists of tin, copper, and antimony. (WLOP)
BACK-OFF – To unscrew. (Bul 10C)
BACK OFF – To unscrew one threaded piece (such as a section of pipe) from another. (ITOGP)
BACK OFF – To unscrew one threaded piece from another. (WLOP)
BACK PRESSURE – The pressure resulting from restriction of full natural flow. (Bul 10C)
BACK PRESSURE – The pressure existing within the producing string at the surface in a gas lift well. Also used to designate the fluid pressure at the level of gas injection, the pressure against which the operating valve injects gas. (GL)
BACK PRESSURE – The pressure resulting from restriction of full natural flow of oil or gas. (ITOGP)
BACK PRESSURE VALVE – A valve that permits flow in only one direction. (RP 57)
BACK PRESSURE VALVE – A one-way check valve that is installed through the X-mas tree, into the tubing hanger, and prevents well fluids from flowing out of the well. (Spec 6A)
BACK PRESSURE VALVE – A valve designed to control flow rates in such a manner that upstream pressure remains constant. May be operated by diaphragm, spring, or weighted lever. (WT)
BACK REFLECTION – The signal received from defects or other reflecting surfaces. (RP 2X)
BACK REFLECTION – In ultrasonic testing, the signal received from the back surface of the pipe wall. (RP5A5)
BACK UP – To hold one section of an object, such as a pipe or a nut, while another is being screwed into or out of it. A BACK-UP WRENCH refers to any wrench being used to hold the pipe or bolt. (ITOGP)
BACKFLOW – Fluid flow in a process component opposite to the normal flow direction. (RP 14C)
BACKGROUND LEVEL – With respect to pollution, amounts of pollutants present due to natural sources. (Bul D11)
BACKGROUND NOISE – Extraneous signals caused by signal sources within the ultrasonic testing system, including the material in test. (RP 2X)
BACKPRESSURE – (See Related Term: Differential Pressure.) The pressure opposing flow from a solids separation device. (Bul 13C)
BACKSCATTER – Secondary radiations resulting from the interaction between the primary gamma radiations form the source and the pipe wall. (RP 5A5)

BACKUP – Refers to the act of "backing up" or preventing rotation of one section of pipe while another is screwed out of or into it. Also applied to screwing nuts on or off bolts. A backup wrench refers to any wrench being used to hold the pipe or bolt. Backup tong is applied to the pipe tongs suspended in the derrick and used to hold a section of pipe while another section is screwed out of our into it by use of other tongs. The backup man is the crew member who operates the backup tongs. The backup position refers to the work station of the backup man. (RP54)
BACKWARD STATION METHOD – Refer to "Tangential Method." (Bul D20)
BACTERIA – Single-celled microorganisms that lack chlorophyll. Some bacteria are capable of causing human, animal, or plan diseases; others are essential in pollution control processes because they break down organic matter in water and air. (Bul D11)
BAD OIL – Oil not acceptable for delivery to the pipeline purchaser because of too high BS&W; oil requiring additional treating. (ITOGP)
BAFFLES – Plates or obstructions built into a tank or other vessel to change the direction of fluid flow. (ITOGP)
BAIL – To recover bottom-hole fluids, samples, or drill cuttings by lowering a cylindrical vessel, called a "bailer," to the bottom of a well, filling it, and retrieving it. Also, a link of steel attached to pipe elevators for living. (WLOP)
BAILER – A long cylindrical container, fitted with a valve at its lower end, used to remove water, sand, mud, or oil from a well. (WLOP)
BALANCE, MUD – A beam-type balance used in determining fluid density. (Bul 10C)
BALANCE, MUD – A beam-type balance used in determining drilling fluid density. It consists primarily of a base, graduated beam with constant-volume cup, lid, rider, knife edge, and counterweight. (Bul D11)
BALANCED TANGENTIAL METHOD – Uses the inclination and direction angles at the top and bottom of the course length in a manner so as to tangentially balance the two sets of measured angles over the course length. Results obtained are the same as the "Acceleration", "Trapezoidal," and "Vector Averaging" Methods. (Bul D20)
BALL AND SEAT – Parts of the valves in a plunger-type oil well pump. (ITOGP)
BALLAST – See Counterweight. (Spec 2C)
BAND BRAKE – Circular type of brake either of external contracting type or internal expanding type, having a band lined with heat and wear resistant friction material. (Spec 2C)
BAND CLUTCH – Circular type of clutch either of external contracting type or internal expanding type, having a band lined with heat and wear resistant friction material. (Spec 2C)
BAND-STRAPPING – A method of attaching plastic or metal sheeting to a cylindrical structure by use of metal bands which encircle the sheeting and secure it in place. (COGWE, SSEID)
BARITE – A native crystalline barium sulfate, which occurs in snow-white crystalline masses, or grayish, reddish, and greenish ores with a specific gravity of 4 to 4.6. It is used for increasing the density of well cement slurries and drilling fluids (synonym BARYTES, HEAVY SPAR). (Bul 10C)
BARITE, BARYTES, OR HEAVY SPAR – Natural barium sulfate used for increasing the density of drilling fluids. If required, it is usually upgraded to a specific gravity of 4.20. The barite mineral occurs in white, grayish, greenish, and reddish ores or crystalline masses. (Bul D11)
BARIUM SULFATE – $BaSO_4$. See Barite. (Bul 10C, D11)
BARREL – A volumetric unit of measure used in the petroleum industry consisting of 42 gallons. (Bul D11)
BARREL – The lagging or body portion of a wire rope drum. (Spec 2C)

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BARREL – (BBL OR bbl) – A common unit of liquid volume measurement in the petroleum industry. One barrel (1bbl) is equivalent to 42 gallons (158.97 liters). (WLOP)
BARREL OF CEMENT – A dry weight measure of cement equal to 4 cu. Ft. (0.11 m^3) or 376 lb. (171 kg). (Bul 10C)
BARREL OF CEMENT SLURRY – 42 gallons (0.16 m^3) of cement slurry. (Bul 10C)
BARREL EQUIVALENT – A laboratory unit used for evaluating or testing drilling fluids. One gram of material, when added to 350 mL of fluid, is equivalent to 1 lb. (0.45 kg) of material when added to one 42-gallon (0.16 m^3) barrel of fluid. (Bul 10C, Bul D11)
BASE – A compound of a metal, or a metal-like group, with hydrogen and oxygen in the proportion to form an OH- radical, which ionizes in aqueous solution to yield excess hydroxyl ions. Bases are formed when metallic oxides react with water. Bases increase the pH. Examples are caustic soda and lime. (Bul 10C, Bul D11)
BASIC EXCHANGE – The replacement of cations associated with the clay surface by those of another species, e.g., the conversion of sodium clay to calcium clay. (Bul 10C, Bul D11)
BASE LINE – The "distance" trace (horizontal) across the A-scan CRT display. (RP 2X)
BASE (MOUNTING) – See Pedestal. (Spec 2C)
BASIC SEDIMENT AND WATER (BS&W) – The water and other extraneous material present in crude oil. (ITOGP)
BASIC SIZE – The theoretical or nominal standard size from which all variations are measured. (RP 5B1)
BASICITY – The relative base strength of liquids as measured by pH. A pH value above 7. See pH. (Bul 10C)
BASICITY – pH value above 7. Ability to neutralize or accept protons from acids. (Bul D11)
BATCH – A definite amount of oil, mud, chemicals, cement, or other material in a treatment or operation. (ITOGP)
BATCH – The quantity of coating material manufactured at one time in a single vessel and identified by a unique batch number. (RP 5L2)
BATCH – The quantity of material produced during a continuous production run of not more than 8 hours. (RP 5L7)
BATTERY – Sometimes termed Tank Battery, is an area where storage tanks are installed to receive produced fluids. May include several tanks, and/or separation and treating equipment. (WT)
BATTERY (TANK BATTERY) – The production handling equipment on the lease. (ITOGP)
BAY – The section of cylinder between rings. (Bul 2U)
BAY INSTABILITY – Simultaneous lateral buckling of the shell and stringers with the rings remaining essentially round. (Bul 2U)

BBL – Barrel, a unit of liquid volume measurement. Sometimes shown as bbl. One bbl contains 42 gallons. (SSWID, WT)
BBL/D – Barrels per day. (WLOP)
BCPMM – Barrels condensate per million. Barrels of condensed liquid per million cu. ft. gas. (WT)
B/D – The abbreviation for barrels per day. Other related abbreviations are: BPD for barrels per day; BOPD for barrels of oil per day; BWPD for barrels of water per day; BLPD for barrels of liquid per day. (ITOGP)
B/D – Barrels per day. (Alternate for BBL/D usually used in drilling reports.) (WLOP)
BEACH – Area between the liquid pool and the solids discharge ports in a decanting centrifuge. (Bul 13C)
BEAM – The walking beam of a pumping unit. (ITOGP)
BEAM ANGLE – The beam angle or angle of incidence is the angle between the normal to a plan surface of the specimen and the axis of the beam in the specimen. It is a function of the specimen material. (RP 2X)
BEAM SPREAD – The divergence of the sound beam as it travels through a medium. (RP 2X)
BEAM WELL – A well whose fluid is being lifted by rods and pump actuated by a beam pumping unit. (ITOGP)
BEAN – A type of choke used to regulate the flow of fluid from a well. Different sizes of beans are used for different producing rates. (ITOGP)
BEAN – The orifice or designed restriction causing the pressure drop in velocity type SSCSVs. (RP 14B, Spec 14A)
BEARING – Refer to "Azimuth". (Bul D20)
BEARING RACEWAY – The surface of the bearing rings which contact the rolling element (balls or rollers) of the swing bearing assembly. (Spec 2C)
BEARING RING – The rotating and stationary rings that house the rolling elements (balls or rollers) of the swing bearing assembly. (Spec 2C)
BED DEPTH – Thickness of the layer of material traversing a screen surface. (Bul 13C)
BELL HOLE – A bell-shaped hole dug beneath a pipeline to provide room for use of tools by workers. (ITOGP)
BELL NIPPLE (MUD RISER FLOW NIPPLE) – A piece of pipe, with inside diameter equal to or greater than the blowout preventer bore, connected to the top of the blowout preventer or marine riser with a side outlet to direct the drilling fluid returns to the shale shaker or pit. Usually has a second side outlet for the fill-up line connection. (RP 53)
BELLOWS – The responsive element of a gas life valve. It performs the same functions the diaphragm operated valve. It provides an area for pressure to act on and to move the valve stem. (GL)
BENCH MARKS – Permanent reference points of known elevation usually placed on concrete foundations, or on top of an iron stake driven securely into the ground. (SSWID)
BENDING MOMENT – The moment tending to bend the drill string or bottom-hole assembly (refer to "Moment"). (Bul D20)
BENDING STRESS – When the drill stem buckles, each cross-section is subjected to a bending moment generating a tensile stress on one side and a compressive stress on the other. As the drill stem rotates these stresses reverse and, consequently, can cause fatigue of the metal. (Bul D20)
BENT SUB – Sub used on top of a downhole motor to give a non-straight bottom assembly. One of the connecting threads is machined at an angle to the axis of the body of the sub. (Bul D20)
BENTONITE – A highly plastic, highly colloidal clay, largely consisting of the mineral montmorillonite, a hydrated aluminum silicate. (Bul 10C)

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BENTONITE – A plastic, colloidal clay largely made up of the mineral sodium montmorillonite; a hydrated aluminum silicate. For use in drilling fluids, bentonite has a yield in excess of 85 bbl/ton. The generic term "bentonite" is neither an exact mineralogical name or is the clay of definite mineralogical composition. (Bul D11)

BEST RECORD – The largest perfect record known to the National Safety Council for a specific industrial classification, according to Standard Industrial Classification Manual, 1972 edition. (Bul T-5)

BEVEL ANGLE – the angle between the weld preparation (and subsequently the fusion line) and the member surface. (RP 2X)

BHP – Bottom hole pressure.

BHT – Bottom Hole Temperature (F)

BICARB – See Sodium Bicarbonate. (Bul D11)

BIG-EYED BIT – Drill bit with one large sized jet nozzle, used for jet deflection. (Bul D20)

BIMETALLIC CELL – A corrosion cell in which dissimilar metals are connected together electrically both with a metallic path and with a liquid which is corrosive to at least one of the
metals. (COGWE, SSWID)

BIOASSAY – An assessment or test made using living organisms as the sensors; e.g., a fish toxicity test. (Bul D11)

BIOCHEMICAL OXYGEN DEMAND (BOD) – A standardized measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. It is measured as the quantity of dissolved oxygen (mg/1) required during stabilization of the decomposable organic mater by aerobic biochemical action. (Bul D11)

BIOCIDE – A chemical agent used to destroy bacteria in water systems. (SSWID)

BIODEGRADABLE – Decomposable as a result of the action of microorganisms. (Bul D11)

BIOLOGICAL OXIDATION – The process by which bacterial and other microorganisms feed on complex organic materials and decompose them. The process is also called biochemical oxidation. (Bul D11)

BIOMONITORING – The use of living organisms to test the suitability of effluent for discharge into receiving waters and to test the quality of such waters downstream from a discharge. (Bul D11)

BIRD CAGE – To flatten and spread the strands of a cable or wire rope. Also the slatted or mesh-enclosed cage used to hoist workmen from crew boats to offshore platforms. (ITOGP)

BIT GEOMETRY – Refers to the geometric construction of a bit; i.e., 3-cone, 4-cone, 2-cone, flat-face, configuration of the teeth, etc. (Bul D20)

BIT HYDRAULIC HORSEPOWER (BHHP) – The hydraulic horsepower equivalent of the gallons per minute and the pressure drop across the bit nozzles.

$$\frac{GPM \times psi}{1{,}714} = BHHP \qquad \text{(Bul D10)}$$

BIT STABILIZATION – Refers to stabilization of the downhole assembly near the bit; a stabilized bit is forced to rotate around its own axis. (Bul D20)

BLACK CRESTED THREAD – A thread that does not have a full crest because the original (black) mill surface has not been completely removed. (Bul 5T1, RP5A5)

BLACK CRESTED THREADS – Threads crests exhibiting the original pipe surface after machine. (RP 5B1)

BLACK LIGHT – A colloquial expression used to describe Ultraviolet Light (UV). See ultraviolet light. (RP 5A5)

BLACK WATER – A term generally used to describe water that contains products of corrosion caused by bacterial action. (SSWID)

BLADE – See Preferred Term: Flute (Bul 13C)

BLANK FLANGE – A solid disk used to dead-end, or close off, a companion flange. (WLOP)

BLANK LINER – A liner without perforations or slots (ITOGP)

BLANK OFF – To close off by sealing or plugging. (ITOGP)

BLEED – To drain off liquid or gas, generally slowly, through a valve called a bleeder. To BLEED DOWN, or BLEED OFF, means to slowly release the pressure of a well or of pressurized equipment. (ITOGP)

BLEEDER VALVE – A small valve on a pipeline, pump, or tank from which samples are drawn or to vent air or oil; sample valve. (ITOGP)

BLEEDING – Separation of the liquid phase in a cement slurry due to settling of solids. See Free Water. (Bul 10C)

BLIND – To close a line to prevent flow. (ITOGP)

BLIND FLANGE – (Also a BLANK FLANGE.) A solid disc used to dead end a companion flange. (ITOGP)

BLIND RAM – An integral part of a "blowout preventer," serving as the closing element. The ends of a blind ram are not intended to fit around the drill pipe but to seal against each other and shut off completely the space below. (See Ram.) (WLOP)

BLIND RAMS (BLANK, MASTER) – Rams whose ends are not intended to seal against any drill pipe or casing. They seal against each other to effectively close the hole. (RP 53)

BLIND/SHEAR RAMS – Blind rams with a built-in cutting edge that will shear tubulars that may be in the hole, thus allowing the blind rams to seal the hole. Used primarily in subsea systems. (RP 53)

BLINDING – (See Related Term: Coating and Plugging.) A reduction of open area in a screening surface caused by coating or plugging. (Bul 13C)

BLISTER – A raised spot on the surface of pipe caused by expansion of gas in a cavity within the pipe wall. (Bul 5T1)

BLOCKS, CROWN AND TRAVELING – The fixed upper and movable lower blocks respectively of the block and tackle assembly on a rig that raises and lowers the drill string or tubing. (RP 54)

BLOOIE LINE – Flow line for air or gas drilling. (Bul D11)

BLOWDOWN VALVE – An automatically operated normally open valve used to vent the pressure from a process station on shutdown. (RP 14C)

BLOWOUT – An uncontrolled flow of well fluids from the wellbore. (Bul 10C)

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BLOWOUT – An uncontrolled flow of well fluids and/or formation fluids from the wellbore caused by the formation pressure being greater than the hydrostatic head of the fluid in the hole. See Underground Blowout. (Bul D11)
BLOWOUT – An uncontrolled flow of gas, oil, or other fluids from a well. (ITOGP)
BLOWOUT – An uncontrolled flow of well fluids and/or formation fluids from the wellbore or into lower pressured subsurface zones (underground blowout). (RP 53, RP 54)
BLOWOUT – A temporary uncontrolled flow of gas, oil, or other well fluids from a well to the atmosphere. A well blows out when formation pressure exceeds the pressure being applied to it by the column of drilling fluids and measures are unsuccessful in rectifying this situation. Early day gushers were blowouts. (WLOP)
BLOWOUT PREVENTER – A device attached immediately above the casing, which can be closed to shut off the hole should a blowout threaten. (Bul 10C)
BLOWOUT PREVENTER (BOP) – The equipment installed at the wellhead for the purpose of controlling pressures in the annular space between the casing and drill pipe (or tubing) during drilling, completion and certain workover operations. (ITOGP)
BLOWOUT PREVENTER – A device attached to the casinghead that allows the well to be sealed to confine the well fluids in the wellbore. (RP 53)
BLOWOUT PREVENTER – A device attached to the wellhead that allows the well to be sealed with or without a string of pipe or wireline in the wellbore. (RP 54)
BLOWOUT PREVENTER AND PLATFORM (BOP) – Equipment installed at the surface, below the drilling floor on land and platform rigs and on the seafloor of floating offshore rigs to prevent the escape of pressure either in the annular space between the casing and drill pipe or in an open hole during drilling and completion operations. Also used during some workover operations. (WLOP)
BLOWOUT PREVENTER, ANNULAR TYPE – A device which can form a seal in the annular space around any object in the wellbore or upon itself. Compression of a reinforced elastomer packing element by hydraulic pressure effects the seal. (RP 57)
BLOWOUT PREVENTER DRILL – A training procedure to determine that rig crews are familiar with correct operating practices to be followed in the use of blowout prevention equipment. A "dry run" of blowout preventive action. (RP 53)
BLOWOUT PREVENTER OPERATING AND CONTROL SYSTEM (CLOSING UNIT) – The assembly of pumps, valves, lines, accumulators, and other items necessary to open and close the blowout preventer equipment. (RP 53)
BLOWOUT PREVENTER, RAM TYPE – A device designed to form a seal on the hole with no pipe or in the annular space with pipe in the hole. The equipment can use pipe rams, blind rams, or blind/shear/cutter rams to affect the required seal, according to equipment availability, arrangement of the equipment, and/or existing well conditions. Pipe rams have ends contoured to seal around pipe to close and seal the annular space. Blind rams have ends not intended to seal against any tubulars, rather they seal against each other to effectively close and seal the wellbore. Blind/shear/cutter rams are blind rams equipped with a built-in cutting edge that will shear tubulars that may be in the hole, thus allowing the blind rams to close against each other and seal the wellbore. (RP57)
BLOWOUT PREVENTER REMOTE CONTROL – A control that actuates the blowout preventer from a position apart from the blowout preventer. (RP 54)
BLOWOUT PREVENTER STACK – The assembly of well control equipment including preventers, spools, valves, and nipples connected to the top of the casinghead. (RP 53)
BLOWOUT PREVENTER TEST TOOL – A tool to allow pressure testing of the blowout preventer stack and accessory equipment by sealing the wellbore immediately below the stack. (RP 53)
BLPD – Barrels of total liquid per day.
BLUFF BODY – An opaque object located in a fluid flow stream and developing a high drag force because it lacks streamlining. (RP 2T)
BLUNT START – The removal of the partial thread at the entering end of thread. (RP 5B1)
BOD – The amount of dissolved oxygen consumed in five days by biological processes breaking down organic matter in an effluent. See Biochemical Oxygen Demand. (Bul D11)
BODY – Any portion of API equipment between end connections, with or without internal parts, which contains wellbore pressure. (Spec 6A, Spec 16A)
BOILERHOUSE – To make up a report on a condition as fact without knowledge of its accuracy. Sometimes referred to as "doghouse". (Bul D11)
BOILERHOUSE – To make up or fake a report without actually doing the work. (ITOGP)
BOLL WEEVIL – Any inexperienced worker or "hand". (ITOGP)
BOLL WEEVIL – An inexperienced rig or oil-field employee (slang). Sometimes the word is shortened simply to "weevil". (WLOP)
BOLTING – Threaded fasteners (studs, nuts, bolts and capscrews) used to assemble pressure containing parts or join end or outlet connections. (Spec 6A,Spec 16A)
BOMB – A tick-walled container, usually made of steel, that is used to receive samples of oil or gas under pressure or to measure and record the pressure at a point in the well. (See Bottom Hole Pressure.) (WLOP)
BOND – Adhering, binding, or joining of two materials; e.g., cement to casing. (Bul 10C)
BONDING – The state of bond between cement and casing and/or formation. (Bul 10C)
BONNET – The part of a valve that packs off and encloses the valve stem. (ITOGP)
BONNET – A pressure-containing closure for a body, other than an API end or outlet connection. (Sec 6A)
BOOM – A floating fence-like device that is used to contain oil on a body of water. (Bul D11)
BOOM – A member hinged to the revolving upperstructure and used for supporting the hoist tackle. (Spec 2C)
BOOM ANGLE – The angle above or below horizontal of the longitudinal axis of the base boom section. (Spec 2C)
BOOM CHORD – A main corner member of a lattice type boom. (Spec 2C)

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BOOM EXTENSION – Intermediate section of a telescoping boom. (Spec 2C)
BOOM FOOT PIN – The boom pivot point on the upperstructure. (Spec 2C)
BOOM HOIST MECHANISM – Means for supporting the boom and controlling the boom angle. (Spec 2C)
BOOM HOIST WIRE ROPE – Wire rope that operates on a drum controlling the angle positioning of the boom. (Spec 2C)
BOOM LACING – Structural truss members at angles to and supporting the boom chords of a lattice type boom. (Spec 2)
BOOM LENGTH – The straight line distance form the centerline of boom foot pin to centerline of boom point load hoist sheave pin, measured along the longitudinal axis of the boom. (Spec 2C)
BOOM LIFE CYLINDER – Means for supporting the boom and controlling the boom angle. (Spec 2C)
BOOM POINT SHEAVE ASSEMBLY – An assembly of sheaves and pin built as an integral part of the boom point. (Spec 2C)
BOOM SPLICES – Splicing connections for sections of basic crane boom and additional sections usually of the splice plate type, pin type or butt type. (Spec 2C)

BOOM STOP – A device used to limit the angle of the boom at the highest recommended position. (Spec 2C)
BOOM TIP EXTENSION – See Jib. (Spec 2C)
BOOT – A tall section of large-size pipe used as a surge column on a vessel. (ITOGP)
BOP – Blow Out Preventer
BOPD – Barrels of oil per day
BOREHOLE- The wellbore; the hole made by drilling or boring a well. (Bul D20)
BOREHOLE AXIS – Refer to "Hole Axis". (Bul D20)
BOREHOLE DIRECTION – Refers to the azimuth in which the borehole is heading. (Bul D20)
BOREHOLE DIRECTIONAL SURVEY – Refers to the measurements of the inclinations, azimuths, and specified depths of the stations through a section of borehole. (Bul D20)
BOREHOLE SURVEY CALCULATION METHODS – Refer to "Wellbore Survey Calculation Methods". (Bul D20)
BORESCOPE – A long optical instrument with an illuminating lamp for inspecting the inside surface of a pipe. (RP 5A5)
BOTTOM – See Preferred Term: Underflow Opening. (Bul 13C)
BOTTOM CASING PACKOFF – A mechanism that seals off annular pressure between the OD of a suspended tubular member or hanger and the ID of the spool or trubing head adapter being placed over the suspended tubular or hanger. (Spec 6A)
BOTTOM FLOODING – The behavior of a hydrocyclone when the underflow discharges in a liquid stream. (Bul 13C)
BOTTOM-HOLE – The lowest or deepest part of a borehole. (Bul D20, ITOGP, WLOP)

BOTTOM-HOLE ASSEMBLY – Assembly composed of the bit, stabilizers, reamers, drill collars, subs, etc., used at the bottom of the drill string. Sometimes abbreviated as BHA. (Bul D20)
BOTTOM-HOLE BACK TORQUE – Torque on the drill stem causing a twisting of the string (refer to "Pipe Wind-up Angle"). (Bul D20)
BOTTOM HOLE CHOKE – A device with a restricted opening placed in the lower end of the tubing to control the rate of liquid or gas flow to the surface. (See Choke.) (WLOP)
BOTTOM-HOLE LOCATION – Position of the bottom of the hole given with respect to some known surface location. (Bul D20)
BOTTOM-HOLE ORIENTATIONS SUB – A sub in which a free-floating ball rolls to the low side and opens a port indicating an orientation position (refer to "Hydraulic Orientating Sub"). Sometimes abbreviated as BHO sub. (Bul D20)
BOTTOM HOLE PRESSURE – The pressure in a well at a point opposite the production formation, usually recorded by a bottom hole pressure instrument popularly called a "bomb". The "bomb" houses a precision gage and is usually lowered on a wireline. (See Bomb.) (WLOP)
BOTTOM HOLE PRESSURE – Pressure in a wellbore at the depth of the producing interval. Usually recorded by gage run on wire line. (WT)
BOTTOM HOLE PRESSURE – The pressure at the bottom of a well generally associated with the pore pressure of the formation open to the well. (Bul 10C)
BOTTOM-HOLE ROLL-OFF – Refer to "Roll Off". (Bul D20)

BOTTOM HOLE TEST ADAPTER – See Top Connection. (Spec 6A)
BOTTOM WATER – Water occurring below the oil and gas in a production formation. (ITOGP)
BOTTOMHOLE PRESSURE – Pressure at some given depth in the well, usually opposite the producing formation. (GL)
BOUND LIQUID – See Preferred Term: Adsorbed Liquid. (Bul 13C)
BOUNDARY ECHO – A reflection of an ultrasonic wave from an interface. (RP 2X)
BOWL – The outer rotating chamber of a decanting centrifuge. (Bul 13C)
BOWL – A device that fits in the rotary table or wellhead to hold the wedges or slips that support a string of drill pipe, casing or tubing while tripping in or out of the hole. (ITOGP)
BRACES – Structural members that serve to stiffen the hull structure and provide deck support. (RP 2T)
BRACKISH WATER – Water containing low concentrations of any soluble salts. (Bul 10C, Bul D11)
BRADENHEAD GAS – See Casinghead Gas. (ITOGP)
BRADENHEAD SQUEEZE – The process by which hydraulic pressure is applied to a well to force fluid such as cement outside the wellbore. Annular returns may be prevented by closing the casinghead valves instead of having a packer in the hole. (RP 57)
BRAIDED LINE – See Stranded Line. (WLOP)
BRAKE – A device used for retarding or stopping motion or holding. (Spec 2C)
BRAKE HORSEPOWER (BHP) – The horsepower output of an engine or motor measurable by a special brake or a dynamometer. (Bul D10)

BRAKE SHOE – That part of a shoe-type brake or clutch which makes contact with brake drum. (Spec 2C)
BRAKING CAPACITY – the load which the drawworks brake and auxiliary brake can retard to a constant reasonable speed, or hold. (Bul D10)
BRASS – An alloy of copper (60 percent or over) and zinc. (COGWE, SSWID)

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BREAK CIRCULATION – To start movement of the drilling fluid after it has been quiescent in the hole. (Bul D11)
BREAK OUT – To unscrew one section of pipe from another section. (ITOGP)
BREAKING OUT PIPE – Operation of unscrewing of a pipe section. (RP 54)
BREAKOUT, OIL – Oil that has risen to the surface of the drilling fluid which previously had been combined in the fluid as emulsion. (Bul D11)
BREECHING – An extension of the firetube outside of the vessel which is being heated. The arrestor breeching serves as the attachment for the flame arrestor and surrounds the mechanical devices such as mixer, igniter, etc. (RP 12N)
BRIDGE – An obstruction in a well formed by intrusion of subsurface formations. (Bul D11)
BRIDGING – See Preferred term: Plugging. (Bul 13C)
BRIDGING MATERIAL –Fibrous, flaky, or granular material added to a cement slurry or drilling fluid to aid in sealing formations in which lost circulation has occurred. See Lost Circulation Material. (Bul 10C)

BRIDLE – See Floating Harness. (Spec 2C)
BRINE – Water that has a large quantity of salt, especially sodium chloride, dissolved in it. Salt Water. (ITOGP, WLOP)
BRINE – Water containing relatively high to saturation concentrations of common salt (NaCl)
and relatively low concentration of other salts of calcium, magnesium, zinc, etc. (Bul 10C)
BRINE – Water saturated with or containing a high concentration of common salt (sodium chloride); hence, any strong saline solution containing such other salts as calcium chloride, zinc chloride, calcium nitrate, etc. (Bul D11)
BRING BOTTOMS UP – To wash rock cuttings form the bottom of the hole to the surface by maintaining circulation after halting the drilling operation. This allows time for the closer inspection of the cuttings and for a decision as to how to proceed when encountering a certain formation. (Bul 10C)
BRING IN A WELL – To complete a well and put it on production. (ITOGP)
BRINGING IN A WELL – The act of completing a well and bringing it into actual production status. (Bul 10C)
BROKEN THREAD – A thread tooth that exhibits a fracture through it, or that has a portion missing with its remaining surfaces having a broken appearance. (Bul 5T1)
BROMINE VALUE – The number of centigrams of bromine which are absorbed by 1 g of oil under certain conditions. This is a test for the degree of unsaturatedness of a given oil. (Bul D11)
BRONZE – An alloy of tin (usually under 12 percent) and copper. Frequently used as a name for brass. (COGWE, SSWID)
BROWNIAN MOVEMENT – Continuous, irregular motion exhibited by particles suspended in a liquid or gaseous medium, usually as a colloidal dispersion. (Bul D11)

BS OR BS&W – Common abbreviation used for base sediment, or base sediment and water. (Bul D11)
BS&W – This term refers to basic sediment and water and is commonly used as a measure of treating performance. Treating performance is highly variable, but most crude oils are treated to a range of 0.2 to 3.0 percent BS&W. ASTM Standard Test No. D96-82 entitled Water and Sediment in Crude Oils is an accepted standard for this test. (Spec 12L)
BS&W – Basic sediment and water. Water and other foreign matter in crude oil produced. This must be reduced to a very small percentage before delivering to crude purchaser. (WT)
BTU (BRITISH THERMAL UNIT) – A measure of the heating value of a fuel. (ITOGP)
BUBBLE CAP – A metal cap designed with openings to cause the upward-flowing gas "bubbles" in a gas-processing tower to intimately contact downward-flowing liquids, causing some of the gas to condense to liquid. Bubble caps are mounted on a perforated-steel BUBBLECAP TRAY. (ITOGP)
BUBBLE POINT – The state of a liquid-phase system when it is in equilibrium with an infinitesimal amount of vapor phase. (RP 44)
BUBBLE-POINT PRESSURE – The fluid pressure in a system at its bubble point. (Often used interchangeably with "saturation pressure".) (RP 44)
BUCK UP – To tighten a threaded connection. (ITOGP)
BUCKLE – A distortion, bend, or kink. (Bul D20)

BUFFER – Any substance or combination of substances which, when dissolved in water, produces a solution which resists a change in its hydrogen ion concentration upon the addition of acid or base. (Bul 10C, Bul D11)
BUFFER CAPACITY – The ability of a solution to maintain a definite pH when subjected to the action of certain chemicals. (Bul D11)
BUILD ANGLE – The act of increasing the inclination of the drilled hole; the rate of change (degrees/100 ft.) of the increasing angle in the hole. (Bul D20)
BUILD-AND-HOLD WELLBORE – A wellbore configuration where the inclination is increased to some terminal angle of inclination and maintained at that angle to the specified target. (Bul D20)
BUILDUP – That portion of the hole in which the inclination angle is increased; rate of buildup is usually expressed as the angular increase per 100 feet of measured depth. (Bul D20)
BULKHEAD – Stiffened vertical or horizontal load bearing diaphragm. (RP 2T)
BULL GEAR – See Swing Gear. (Spec 2C)
BULL PLUG – A threaded nipple with a rounded, closed end used to close a wellhead or flowline opening or close off the end of a line. (WLOP)
BULLHEAD SQUEEZE – The process by which hydraulic pressure is applied to a well to force fluid such as cement outside the wellbore. Annular flow (returns) is prevented by a packer set in the casing above the perforation and/or in open hole. (RP 57)
BUMP A WELL (BUMP DOWN – To lower a sucker-rod string on a pumping unit so that the pump hits bottom on the downstroke. (ITOGP)

BUMPER JAR – See Jar. (WLOP)
BUOYANCY – Buoyancy devices or flotation added to the riser joints to reduce their submerged weight. (RP 2R)

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BUOYANCY EQUIPMENT – Devices added to tendon or riser joints to reduce their weight in water, thereby reducing top tension requirements. The devices normally used for risers take the form of syntactic foam modules or open-bottom air chambers. (RP 2T)

BURNER SYSTEM – Firing the heater requires a burner system designed for the specific fuel to be used and may be either natural or forced draft design. When multiple U-tubes are used, they should be designed to use separate burners, pilots and stacks. The burner system includes the firing accessories, intake flame arrestors and other optional burner accessories. (Spec 12K)

BURR – A localized point of roughness, or a thin ridge or protrusion, produced by mechanical damage or in machining the thread or chamfer. (Bul 5T1)

BUTT-WELDED PIPE (INCLUDING CONTINUOUS-WELD PROCESS) – Pipe having one longitudinal seam formed by mechanical pressure to make the welded junction, the edges being furnace heated to the welding temperature prior to welding. (Spec 5L)

BWPD – Barrels of water per day

BYPASS – Usally refers to a pipe connection around a valve or other control mechanism. A bypass is installed in such cases to permit passage of fluid through the bypass line while adjustments or repairs are made on the control which is bypassed. (RP 54)

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C-AXIS – The principal crystallographic axis perpendicular to the direction of growth. (Bul 2N)
CAB – An enclosure for the operator and the controls for machine operation. (Spec 2C)
CABLE –
Impervious Sheathed Cable – Cable constructed with an impervious metallic or nonmetallic overall covering that prevents the entrance of gases, moisture or vapors into the insulated conductor or cable.
Jacketed Cable – Cable with a nonmetallic protective covering.
Marine Cable – Same as shipboard cable.
MC Cable – Metal-clad cable as defined by Article 334 of the NEC.
MI Cable – Mineral-insulated metal-sheathed cable as defined by Article 330 of the NEC.
MV Cable – Medium voltage solid dielectric insulated conductor or cable rated 2001 to 35000 volts as defined by Article 326 of the NEC.
Shipboard Cable – Cable constructed in accordance with IEEE Std. 45.
SNM Cable – Shielded nonmetallic-sheathed cable as defined by Article 337 of the NEC.
TC Cable – Power and control tray cable as defined by Article 340 of the NEC. (RP 14F)
CABLE – A flexible electrical conductor. (Spec 2C)
CABLE SEAL – A cable terminator filled with compound and designed to contain an explosion in the enclosure to which it is attached. A conduit seal may also be used as a cable seal. (RP 14F)
CABLE-TOOL DRILLING – A method of drilling a well by allowing a weighted bit at the bottom of a cable to fall against the formation being penetrated. See Rotary Drilling. (Bul 10C)
CABLE-TOOL DRILLING – A method of drilling a well by allowing a weighted bit at the bottom of a cable to fall against the formation being penetrated. See Rotary Drilling. (Bul D11)
CAGE – The part of a pump valve which holds the ball to limit its movement. (ITOGP)
CAKE CONSISTENCY – According to API RP 13B, such notations as "hard", "soft", "tough", "rubbery", "firm", etc., may be used to convey some idea of cake consistency. (Bul 10C, Bul D11)
CAKE, FILTER – See Filter Cake. (Bul 10C)
CAKE THICKNESS – The measurement of the thickness of the filter cake deposited by a drilling fluid against a porous medium, most often following the standard API filtration test. Cake thickness is usually reported in 32nd of an inch (0.794 mm). See Filter Cake and Wall Cake. (Bul 10C, Bul D11)
CALCAREOUS COATING – A chalky coating of calcium carbonate and/or magnesium hydroxide. (COGWE, SSWID)
CALCIUM – An alkaline earth element with valence of 2 and an atomic weight of about 40. (Bul 10C)
CALCIUM – One of the alkaline earth elements with a valence of 2 and an atomic weight of about 40. Calcium compounds are a common cause of the hardness of water. It is also a component of lime, gypsum, limestone, etc. (Bul D11)
CALCIUM ALUMINATE CEMENT – The product obtained by pulverizing clinker which consists of hydraulic calcium aluminates formed by fusing or sintering a suitably proportioned mixture of aluminous and calcareous materials. (Bul 10C)
CALCIUM CARBONATE ($CaCO_3$) – A slightly soluble calcium salt (limestone, oyster shells, etc.) sometimes used as a weighting material, and also as a standard unit for expressing hardness of water. (Bul 10C)
CALCIUM CARBONATE ($CaCO_3$) – An insoluble calcium salt sometimes used as a weighting material (limestone, oyster shell, etc.), in specialized drilling fluids. It is also used as a unit and/or standard to report hardness. (Bul D11)
CALCIUM CHLORIDE ($CaCL_2$) – A highly soluble salt which imparts special properties to drilling fluids, but primarily to increase the density of the fluids and to accelerate the hydration reaction of cement and water. See Accelerator. (Bul 10C)
CALCIUM CHLORIDE ($CaCL_2$) – A very soluble calcium salt sometimes added to drilling fluids to impart special properties, but primarily to increase the density of the fluid phase. (Bul D11)
CALCIUM CONTAMINATION – Dissolved calcium ions in sufficient concentration to impart undesirable properties to a drilling fluid. (Bul 10C)
CALCIUM CONTAMINATION – Dissolved calcium ions in sufficient concentration to impart undesirable properties in a drilling fluid, such as flocculation, reduction in yield of bentonite, increase in fluid loss, etc. See also Calcium Sulfate, Gyp, Anhydrite, Lime, Calcium Carbonate. (Bul D11)
CALCIUM HYDROXIDE [CA(OH)2] – The active ingredient of slaked lime and also a hydrolytic constituent of Portland cement. In field technology it is called "lime". (Bul 10C)
CALCIUM HYDROXIDE – Ca(OH)2 – The active ingredient of slake lime. It is also the main constituent in cement (when wet). This material is referred to as "lime" in field terminology. (Bul D11)
CALCIUM SULFATE – Anhydrite ($CaSO_4$), gypsum ($CaSO_4 . 2H_2O$), hemihydrate ($CaSO_4 . 1/2H_2O$), or combination of these. (Bul 10C)
CALCIUM SULFATE – Anhydrite: $CaSO_4$; plaster of paris; ($CaSO_4 . 1/2H_2O$); gypsum: $CaSO_4 . 2H_2O$). Calcium sulfate occurs in drilling fluids as a contaminant or may be added to certain drilling fluids to impart special properties. (Bul D11)
CALCIUM-TREATED MUDS – Drilling fluids to which quantities of soluble calcium compounds have been added or allowed to remain from the formation drilled in order to impart special properties. (Bul 10C, Bul D11)
CALCULATION METHODS – Refer to "Wellborne Survey Calculation Methods". (Bul D20)
CALCULATION SHEET – Refer to "Wellbore Survey Calculation Methods". (Bul D20)
CALENDAR YEAR – The period of time from Jan. 1 to Dec. 31, inclusive (Bul T-5)
CALIBRATION – The adjustment of instruments, prior to use, to a known basic reference often traceable to the National Bureau of Standards. (RP 5A5)
CALIBRATION – Comparison and adjustment to a standard of know accuracy. (Spec 6A, Spec 16A, Spec Q1)

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CALIBRATION – Measurement correction by comparison to a standard of known dimension. (WT)
CALIPER LOG – A record of the diameter of the wellbore or the internal diameter of tubular goods. The log indicates undue enlargement of the wellbore due to caving, washout, or other causes. (WLOP)
CALIPER SURVEY (LOG) – A well log which measures hole diameter. Also called "section gauge" logs which are made from tools with many "fingers" used to measure the corrosion of casing and tubing. (Bul 10C)
CANT ANGLE – Orientation of sound beam relative to axis of member. (RP 2X)
CAPACITY – See Related Terms: Feed Capacity, Liquid Capacity, Solids Discharge Capacity. (Bul 13C)
CAPACITY – Ability of a reservoir to receive water. (SSWID)
CAPACITY – Maximum throughput, maximum producing rate, or maximum content possible for a given set of conditions. (WT)
CAPACITY INDEX – An indication of the capacity of an injection well to take water. It is usually measured in barrels per hour per pound increase in bottom-hole pressure. (SSWID)

CAPACITY REDUCTION FACTOR (aii) – Coefficient which accounts for the effects of shape imperfections, non-linear behavior and boundary conditions (other than classical simply supported) on the buckling capacity of the shell. (Bul 2U)
CAPILLARY WATER RISE – The rise of water in a loosely compacted material such as a sand fill, due to capillary forces. (COGWE, SSWID)
CAPITAL INVESTMENT – Funds spent to acquire additions to assets for the betterment of the operation. Depreciation is taken on such expenditures rather than charging them off as expense or operating cost. (SSWID)
CARBON DIOXIDE (CO_2) – A colorless, odorless, nonpoisonous gas that is a normal part of the ambient air. Dissolved in the aqueous phase of drilling fluids, $C0_2$ may contribute to corrosivity of these fluids or to unstable rheological properties. (Bul D11)
CARCINOGEN – A substance or agent producing or inciting cancerous growths in living tissues. (Bul D11)
CASED HOLE – A wellbore in which casing has been run. (ITOGP)
CASING – Pipe used in wells to seal off the borehole. (Spec 6A)
CASING – Steel pipe used in oil wells to seal off fluids from the bore hole and to prevent the walls of the hole form sloughing off or caving. API casing sizes range from 4 . in. OD to 20 in. OD inclusive. (RP 5A5)
CASING – Pipe installed in the wellbore and usually cemented in place to retain the borehole dimension and seal off hydrocarbon and water-bearing formations. (RP54)
CASING – Steel pipe placed in an oil or gas well as drilling progresses. The function of casing is to prevent the wall of the hole from caving during drilling, provide control of the well if it tries to blow out, and limit oil or gas production to the zone perforated or open. (WLOP)
CASING CEMENTING – The practice of filling an annulus with cement slurry. (Bul 10C)
CASING FLOW – (Same as annular flow.) (GL)
CASING HANGERS (SLIPS) – A mechanism used to support a casing string in a casing head by gripping the pipe with wedge type members. (See Spec 6A)
CASING HANGERS, THREADED (MANDREL) – A mechanism used to support a casing string in a casing head by means of a male or female thread attached to the casing. (Spec 6A)
CASING HEAD HOUSING – Equipment attached to the uppermost end of the surface casing which serves to suspend and seal a casing string. (Spec 6A)
CASING HEAD SPOOL – Equipment attached to another casing head which serves to suspend and seal a secondary casing string. (Spec 6A)
CASING PRESSURE – Pressure built up in an annulus. (Bul 10C)
CASING PRESSURE – Pressure measured at a wellhead casing outlet. (ITOGP)
CASING PRESSURE – The pressured, measured at the surface, within the well casing. (GL)
CASING PRESSURE – The pressure built up in the annular space between casing strings, casing and tubing, or casing and drill pipe. (WLOP)

CASING STRING – The pipe run in a well, for example: surface string, intermediate string, production string, etc. (ITOGP)
CASINGHEAD – A heavy, steel, flanged fitting that connects to the surface string of casing and provides a housing for the slips and packing assemblies by which intermediate strings of casing are suspended and the annulus sealed off. (WLOP)
CASINGHEAD GAS – Associated and dissolved gas produced with crude oil; oil well gas. (ITOGP)
CASINGHEAD/SPOOL – The part of the wellhead to which the blowout preventer stack is connect. (RP 53)
CAST IRON – An alloy of iron and about 2 to 4 percent carbon. A. Grey cast iron: The graphite (carbon) is present as flakes. This makes a fracture appear grey. B. White cast iron: The carbon is present as carbides. With no graphite to color it, a fracture appears metallic white. (COGWE, SSWID)
CASTING – (1) An object at or near finished shape obtained by solidification of a substance in a mold; (2) Pouring molten metal into a mold to produce an object of desired shape. (Spec 6A, Spec 16A)
CATHEAD – A spool-shaped attachment on a winch around which rope is wound for hoisting and pulling. (ITOGP)
CATHODE – The portion of a corrosion cell which does not corrode. Reduction always occurs at cathode. (COGWE, SSWID)
CATHODE RAY TUBE (CRT) – A vacuum tube with a luminescent screen often used for viewing ultrasonic echo signals or for video readout of computer stored data. (RP 5A5)
CATION – The positively charged particle in the solution of an electrolyte which, under the influence of an electrical potential, moves toward the cathode (negative electrode). Examples are: Na^+, H^+, NH_4^+, Ca^{++}, Mg^{++}, Al^{+++}. (Bul D11)
CATLINE – A hoisting or pulling line operated form a cathead. (ITOGP)

CATLINE, CATHEAD – Catline is a line powered by the cathead, which is a concave, rotating, pulley-type device mounted on the end of a shaft of the drawworks. Catlines are used to lift or pull equipment around a rig. (RP 54)
CAT WALK – A narrow walkway. (ITOGP)

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CATWALK – Elongated platform adjacent to the rig floor where pipe is laid out and lifted into the derrick. The catwalk is connected to the rig floor by a pipe ramp. (RP 54)

CAUSTIC OR CAUSTIC SODA – See Sodium Hydroxide. (Bul 10C, Bul D11)

CAVE-IN – See Sloughing. Cave-in is a severe form of sloughing. (Bul D11)

CAVERNOUS FORMATION – A formation having voluminous voids. (Bul 10C)

CAVERNOUS FORMATION – A formation having voluminous voids, usually the result of dissolving by formation waters which may or may not be still present. (Bul D20)

CAVING – Collapse of the walls of the wellbore: falling in of the material surrounding the borehole; sloughing. (Bul D20)

CC OR CUBIC CENTIMETER – A metric system unit for the measure of volume. It is essentially equal to the milliliter and commonly used interchangeably. One cubic centimeter of water at room temperature weights approximately 1g. (Bul D11)

CELLAR – A hole dug, usually before drilling a deep well, to allow working space for the casinghead equipment. (ITOGP)

CELLAR – Excavation around the wellhead to provide space for items of equipment at the top of the wellbore. It also serves as a pit to collect drainage of water and other liquids. (RP 54)

CEMENT –

API Classes – Cement (Classes A through J) meeting the applicable requirements of API Spec 10.

ASTM Types – Cement (Types I through V) meeting the applicable requirements of Standard Specifications for Portland Cement ASTM C150.

Common, Regular or Ordinary – A cement intended for use under conditions not requiring moderate to high sulfate resistance. Corresponds to API Class A or Class C which are similar to ASTM Type I or Type III cements, respectively.

Construction – See Common, Regular or Ordinary.

Gel Cement – A cement or cement slurry that has been modified by the addition of bentonite.

Gypsum Cement – Composed primarily of the hemihydrate form of calcium sulfate, $CaSO_4 – 1/2H_20$ (Plaster of Paris) High *Alumina* – See Calcium Aluminate Cement.

High Early – (a) – API Class C cement; (b) ASTM Type III cement.

High Temperature – A cement designed to overcome strength retrogression within the temperature limits designated by the supplier.

Hydraulic Cement – A cement that sets and hardens by chemical interaction with water and that is capable of doing so under water.

Modified Cement – A cement whose properties, chemical or physical, have been altered by additives. This term has been used to refer to specific formulations of gel cement containing certain concentrations of dispersing agent.

Neat – A cement paste or slurry containing no additives.

Well – Cement or mixture of cement with other materials that is intended for us in oil, gas, geothermal or water wells.

Ordinary – See Common, Ordinary or Regular Cement.

Portland – Hydraulic cement produced by pulverizing clinkers consisting essentially of hydraulic calcium silicates and usually containing one or more of the forms of calcium sulfate as an interground addition.

Portland-Blast Furnace Slag – An intimate and uniform blend of Portland cement (or clinker) and fine granulated blast furnace slag in which the amount of slag is within specified limits.

Portland-Pozzolan – A hydraulic cement consisting of an intimate and uniform blend of Portland cement or portland blast furnace slag cement and fine pozzolan produced by intergrinding portland cement clinker and pozzolan, by blending portland cement or portland blast furnace slag cement and finely divided pozzolan, or a combination of intergrinding and blending, in which the amount of the pozzolan constituent is within specified limits.

Regular – See Common Ordinary or Regular Cement.

Retarded Cement – A cement in which the thickening time is extended by adding a chemical retarder.

Slag Cement – See Granulated Blast Furnace Slag.

Slow-Set Cement – A cement in which the thickening time is extended by (1) eliminating the rapid hydrating components in its composition or (2) by adding a chemical retarder. API Classes D, E, and F are slow-set cements.

Sulfate-Resistant Cement – Cements which meet applicable requirements of API Spec 10.

Weighted Cement – A cement slurry containing additives to increase its normal density. (Bul 10C)

CEMENT – A mixture of calcium aluminates and silicates made by combining lime and clay while heating. Slaked cement contains about 62.5 percent calcium hydroxide, which is the major source of trouble when cement contaminates drilling fluids. (Bul D11)

CEMENT ADDITIVES – See Additive. (Bul 10C)

CEMENT BOND LOG – A well log of the vibrations of an ultrasonic acoustical signal as it passes through a four phase system of fluid, pipe, cement and formation. If the pipe is not acoustically coupled tightly with a dampening material such as cement, very little energy of the acoustical signal is lost. If the cement is bonded or acoustically coupled tight to the pipe, the energy is extremely dampened and the signal nearly disappears, thereby indicating that the casing is well cemented. The log may consist of (1) a collar log, (2) a transit time curve recording the time of the first arrival of the acoustical signal, (3) an amplitude curve which represents the amplitude of a selected portion of the acoustical wave, and (4) a display of the acoustical wave as x-y signatures or a variable density version of the signatures. (Bul 10C)

CEMENT DENSITY – The specific gravity of a well cement as determined by a method similar to ASTM C 188: Test for Density of Hydraulic Cement. Most portland cements have a specific gravity of about 3.15 when tested by this method. Cement density should not be confused with slurry density. (Bul 10C)

CEMENT DUMP BAILER – A cylindrical container with a valve that is used to release small batches of cement downhole in a remedial cementing operating or for other special purposes. (WLOP)

CEMENT PLUG – A portion of cement placed at some point in the wellbore to effect a sealing action. (WLOP)

CEMENT SYSTEM – The combination of materials which make up well cement formulations. (Bul 10C)

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CEMENTATION – The binding or cementing together of unconsolidated particles. (SSWID)
CEMENTING – The process of pumping a cementitious slurry into a well through steel pipe to critical points in the annulus or open hole. Cementing is performed to isolate different zones in the well, protect the pipe from corrosive fluids, support the pipe in the hole, or repair previous cement jobs. (Bul 10C)
CEMENTING – The act of making cement into a slurry and pumping it into a wellbore to perform functions such as supporting casing, isolating formations behind casing, protecting fresh water sands, and sealing perforations in casing. (RP 54)
CEMENTING TIME – The total elapsed time for a cementing operation from the beginning of mixing until the completion of displacement to final depth and complete circulation of any excess slurry to the surface. (Bul 10C)
CENTER PIN (KING PIN) – Vertical pin or shaft which acts as rotation centering device and connects revolving upperstructure and base mount. (Spec 2C)
CENTER POST (KING POST) – A tubular member which acts as the centerline of rotation and as the connective member to the platform. (Spec 2C)
CENTIPOISE (CP) – A unit of viscosity equal to 0.01 poise. A poise equals 1 g per metersecond, and a centipoise is 1 g per centimeter-second. The viscosity of water at 20°C is 1.005 cp (1 cp = 0.000672 lb/ft-sec). (Bul D11)
CENTIPOISE – Unit for measuring viscosity; 0.01 poise. (SSWID)
CENTRAL CONDUCTOR (SHOOTING ROD) – A conductor that is passed through the pipe, for the purpose of creating a circular or circumferential magnetic field in the pipe. This term does not imply that the current rod must be centered in the pipe. (RP 5A5)
CENTRALIZERS – Guides which are attached to casing and which serve to keep it centered in the hole. See API Spec 10D. (Bul 10C)
CENTRATE – Clarified liquid discharged from a centrifuge. (Bul D11)
CENTRIFUGAL FORCE – That force which tends to impel matter outward from the center of rotation. (Bul 13C)
CENTRIFUGAL FORCE- Force tending to pull outwardly on a body when it is rotating around a center. (Bul D20)
CENTRIFUGAL SEPARATOR – A general term applicable to any device using centrifugal force to shorten and/or to control the settling time required to separate a heavier mass from a lighter mass. (Bul 13C)
CENTRIFUGE – A centrifugal separator, specifically: a device rotated by an external force for the purpose of separating materials of various specific gravities and/or particle sizes or shapes from a slurry to which the rotation is imparted primarily by the rotating containing walls. (Bul 13C)
CENTRIFUGE – A device for the mechanical separation of high specific gravity solids from a drilling fluid. Usually used on weighted fluids to recover weight material and discard drill solids. The centrifuge uses high-speed mechanical rotation to achieve this separation, as distinguished from the cyclone-type separator in which the fluid energy along provides the separating force. See Cyclone and Desander. (Bul D11)
CENTRIFUGE – A shake-out or grind-out machine. Samples of oil are placed in the machine and whirled at high speed to settle out sediment. BS&W content can be determined in this matter. (ITOGP)
CENTRIPETAL FORCE – See Related Term: Centrifugal Force. That force which tends to propel matter inward. (Bul 13C)
CHAMBER LIFT – A special type of intermittent gas lift which uses the tubing-casing annulus or a "bottle" on the end of the tubing string for the accumulation of formation liquids between cycles. (GL)
CHAMFER – The tapered area on the end of threaded pipe or coupling (eight round or buttress threads). (RP 5A5)
CHAMFER – A conical surface at the end of the pipe. (RP 5B1)
CHASE THREADS – To straighten and clean threads of any kind. (ITOGP)
CHATTER – A wavy surface of the thread flank, root, crest, or chamfer, produced by a vibrating cutter insert. (Bul 5T1)
CHEATER – A length of pipe used to increase the leverage of a wrench. (ITOGP)
CHECK VALVE – A valve that permits flow in one directly only. (ITOGP, WLOP)
CHEMICAL ANALYSIS – Determination of the chemical composition of material. (Spec 6A, Spec 16A)
CHEMICAL BARREL – A container in which various chemicals are mixed prior to addition to the drilling fluid. (Bul 10C, Bul D11)
CHEMICAL OXYGEN DEMAND (COD) – A measure of the amount of oxygen required to oxidize organic and oxidizable inorganic compounds in water. The COD test, like the BOD test, is used to determine the degree of pollution in an effluent. (Bul D11)
CHEMICALS – In drilling-fluid terminology, a chemical is any material that produces changes in the viscosity, yield point, gel strength, and fluid loss, as well as surface tension. (Bul D11)
CHEMOTAXIS – The orientation or movement of a living organism in response to chemical agents. (Bul D11)
CHLORIDE STRESS CRACKING – The stress corrosion cracking of ferrous based alloy steels, which may result when exposed to wellstreams containing water and chlorides under certain conditions of concentration and temperature. Other constituents present, such as oxygen, may contribute to chloride stress cracking. (RP 14H, Spec 14D)
CHLORIDE STRESS CRACKING – The stress corrosion cracking of certain high alloy steels which results when the corrosive media contains chloride ions. (Spec 14A)
CHLORIDE STRESS CRACKING SERVICE – Process streams which contain water and chloride under conditions of concentration and temperature high enough to induce stress cracking of ferrous base alloy materials. Other constituents present, such as oxygen (O_2), may
contribute to such chloride stress cracking. (RP 14E)
CHOCK – Block or wedge used beneath a length of pipe so that it cannot roll. (RP 5A5)
CHOKE – A type of orifice installed for the purpose of restricting and controlling flow. (ITOGP)
CHOKE – A type of orifice installed in a line in which fluid is flowing. The purpose is to restrict the flow and control the rate of production. (GL)
CHOKE – A device specifically intended to restrict the flow rate of fluids. (RP 14E)

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CHOKE – A device with either a fixed or variable aperture used to control the rate of flow of liquids and/or gas. (RP 53)
CHOKE – Equipment used to restrict and control the flow of fluids. (Spec 6A)
CHOKE – A device to restrict and control the flow rate of well fluids. It may have a positive fixed orifice with removable bean or an adjustable variable orifice. The choke may be located upstream of the coil, between passes in the coil bundle, or on the coil outlet. A submerged or long nose choke may be used with pressure reduction taking place within the water bath to minimize hydrate formation. (Spec 12K)
CHOKE – A type of orifice installed in a line to restrict flow and control the rate of production. Surface chokes are a part of the "Christmas tree" and contain a choke nipple, or bean, with a small-diameter bore (an orifice) that serves to restrict the flow. Also, chokes are used to control the rate of flow of the drilling mud out of the hole when the well is closed in with the blowout preventer and a "kick" is being circulated out of the hole. (See Adjustable Choke, Bottom-Hole Choke, and Positive Choke.) (WLOP)

CHOKE – A restriction of small internal diameter placed in a production string of pipe to reduce flow rates. A positive choke is commonly a piece of steel bar stock externally threaded, and internally bored to a specific diameter then installed in a special (choke) tee at wellhead. A second type is the adjustable choke which is a special valve having calibrated choke opening dimensions marked on a band around the stem. (WT)
CHOKE AND KILL (C&K) LINES – External conduits arranged parallel to the riser pipe used for circulation of fluids into and out of the formation to control well pressure. (RP 2%)
CHOKE BEAN (FLOW BEAN) – The replaceable orifice part used in positive chokes to control flow rates. (Spec 6A)
CHOKE LINE VALVE – The valve(s) connected to and a part of the blowout preventer stack that controls the flow to the choke manifold. (RP 53)
CHOKE MANIFOLD – As assembly of valves, chokes, gauges, and lines used to control the rate of flow from the well when the blowout presenters are closed. (RP 53)
CHORD – Deep plate girder flange. (Bul 2V)
CHRISTMAS TREE – A term applied to the control valves, pressure gages, and chokes assembled at the top of a well to control the flow of oil and gas. (GL)
CHRISTMAS TREE – The assembly of valves, pipes, and fitting used to control flow of oil and gas from the well. (ITOGP)
CHRISTMAS TREE – Term applied to the valves and fittings assembled at the top of a completed well to control the flow of hydrocarbons and other fluids. (RP 54)

CHRISTMAS TREE – A term applied to the valves and fittings assembled above and starting at the top of the tubing spool on a completed well to control the flow of hydrocarbons and other fluids. (RP 57)
CHRISTMAS TREE – An assembly of valves and fittings attached to the uppermost flange of the tubing head, used to control well production. (Spec 6A)
CHRISTMAS TREE – The valves, pressure gages, and chokes assembled at the top of a well to control the flow of oil and gas after the well has been completed. (WLOP)
CHROMATE – A compound in which chromium has a valence of 6, e.g., sodium bichromate. Chromate may be added to drilling fluids either directly or as a constituent of chrome lignites or chrome lignosulfonates. In certain areas, chromate is widely used as an anodic corrosion inhibitor, often in conjunction with lime. (Bul D11)
CHROME LIGNITE – Mined lignite, usually leonardite, to which chromate has been added. The lignite can also be causticized with either sodium or potassium hydroxide. (Bul 10C)
CHROME LIGNITE – Mined lignite, usually leonardite, to which chromate has been added and/or reacted. The lignite can also be causticized with either sodium or potassium hydroxide. (Bul D11)
CHRONIC BIOASSAY – A test involving a substantial portion of the life span of a fish or other organisms. (Bul D11)
CIRCULAR-ARC METHOD – Refer to "Wellbore Survey Calculation Methods". (Bul D20)
CIRCULAR-ARC METHOD – Uses both sets of measured angles associated with each course length to recreate the wellbore path as a sequence of circular arcs constrained by the measured angles to pass through the end points with inclination and direction angles as measured. (Bul D20)
CIRCULAR (CIRCUMFERENTIAL) MAGNETIC FIELD – The magnetic field in or surrounding a current carrying conductor pipe, or pipe with an interior current carrying road. (RP 5A5)
CIRCULAR (CIRCUMFERENTIAL) MAGNETIZATION – Circular magnetization is the production of a magnetic field in a pipe wall or coupling such that the magnetic field is oriented circumferentially. (RP 5A5)
CIRCULATE – To cycle fluid through pipe and wellbore while drilling operations are temporarily suspended. This is done to condition the drilling fluid and the well bore before hoisting the drill pipe and to obtain cuttings from the bottom of the well before drilling proceeds. Circulation of the drilling fluid while drilling is suspended is usually necessary to prevent drill pipe from becoming stuck. (Bul 10C)
CIRCULATE – To cycle fluid through pipe and well-bore. (RP 54)
CIRCULATING DEVICE – A flow control device such as a sliding sleeve or side pocket mandrel which is run on production/injection tubing for the purpose of establishing communication between tubing and the tubing annulus. (RP 57)
CIRCULATION – The movement of drilling fluid from the suction pit through pump, drill pipe, bit, annular space in the hole, and back again to the suction pit. The time involved is usually referred to as circulation time. (Bul 10C, Bul D11)
CIRCULATION, LOSS OF (OR LOSS CIRCULATION) – The result of drilling fluid escaping into the formation by way of crevices or porous media. (Bul 10C, Bul D11)
CIRCULATION RATE – The volume flow rate of the circulating drilling fluid usually expressed in gallons or barrels per minute. (Bul 10C, Bul D11)
CIRCUMFERENTIAL MAGNETIZATION – See Circular Magnetization. (RP 5A5)
CLABBERED – A slang term commonly used to describe moderate to severe flocculation of drilling fluid due to various contaminants; also called "gelled-up". (Bul 10C, Bul D11)

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CLADDING – A process for covering one metal with a thinner sheet of another to obtain increased corrosion resistance or other desirable properties of the thinner. (COGWE, SSWID)

CLAMP CONNECTION – A pressure sealing device used to join two items without using conventional bolted flange joints. The two items to be sealed are prepared with clamp hubs. These hubs are held together by a clamp containing two to four bolts. (RP 53)

CLARIFICATION – In waste-water treatment, the removal of turbidity and suspended solids by settling, often aided by centrifugal action and chemically induced coagulation. (Bul D11)

CLARIFICATION (CLARIFIER) – Make or become clear. In oilfield terms, generally used to describe removing oil from water. (SSWID)

CLARIFIER – In waste-water treatment, a settling tank and/or centrifugal acceleration device which mechanically removes settleable solids from wastes. (Bul D11)

CLASSIFICATION – The process of approximate grouping of material by density shape or size through the mechanical use of a fluid (air or liquid) medium. (Bul 13C)

CLASSIFICATION –

Class I Location – A Class I location is one in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures. (See NEC.)

Class I, Division 1 Location – A Class I, Division 1 location is a location: (1) in which ignitable concentrations of flammable gases or vapors exist continuously, intermittently, or periodically under normal operating conditions; or (2) in which ignitable concentration of such gases or vapors may exist frequently because of repair or maintenance operations or because of leakage; or (3) in which breakdown or faulty operation of equipment or processes might release ignitable concentrations of flammable gases or vapors, and might also cause simultaneous failure of electrical equipment. (See NEC & API RP 500B.)

Class I, Division 2 Location – A Class I, Division 2 location is a location: (1) in which volatile flammable liquids or flammable gases are handled, processed, or used, but in which the hazardous liquids, vapors, or gases will normally be confined within closed containers or closed systems from which they can escape only in case of accidental rupture or breakdown of such containers or systems, or in case of abnormal operation of equipment: or (2) in which hazardous concentrations of gases or vapors are normally prevented by positive mechanical ventilation, but which might become hazardous through failure or abnormal operation of the ventilating equipment: or (3) that is adjacent to a Class I, Division 1 location, and to which hazardous concentration of gases or vapors might occasionally be communicated unless such communication is prevented by adequate positive-pressure ventilation from a source of clean air, and effective safeguards against ventilation failure are provided. (See NEC & API RP 500B.)

Group C – Atmospheres that do or may contain hydrogen sulfide (H_2S), or other substances specified by NFPA 497M.

Group D – Atmospheres that do or may contain natural gas, hydrocarbons or other substances specified by NFPA 497M.

Unclassified Locations – An unclassified location is a location not classified as Division 1 or Division 2. (RT 14F)

CLASSIFICATION –

Class I Location – A location in which flammable gases or vapors are, or may be, present in the air in quantities sufficient to produce explosive or ignitable mixtures.

Class I, Division 1 Location – A location in which ignitable concentrations of flammable gases are expected to exist under normal operating conditions or in which faulty equipment might simultaneously release flammable gases or vapors and also cause failure of electrical equipment. Reference Section 4.2a for a more complete definition.

Class I, Division 2 Location – A location in which flammable gases may be present, but normally are confined within closed systems: are prevented from accumulating by adequate mechanical ventilation; or the location is adjacent to a Division1 location from which ignitable concentrations might occasionally be communicated.

Group A – Atmospheres containing acetylene.

Group B – Atmospheres containing hydrogen and other gases.

Group C – Atmospheres containing hydrogen sulfide and other gases or vapors.

Group D – Atmospheres containing butane, gasoline, hexane, methane, natural gas, propane and most other hydrocarbon gases and vapors encountered in oil and gas production. (RP 500 B)

CLASSIFIED AREA – Any area electrically classified Class I, Group D. Division 1 or 2, following guidelines of API RP 500B. (RP 14C)

CLASSIFY – To group into classes or sizes with systematic relations. (Bul 13C)

CLAY – A plastic, soft, variously-colored earth, commonly a hydrous, silicate of alumina, formed by the decomposition of feldspar and other aluminum silicates. In a true clay, 30% by weight of the solid particles are of diameter less than 0.002 micrometer. (Bul 10C)

CLAY – A plastic, soft, variously-colored earth commonly a hydrous silicate of alumina formed by the decomposition of feldspar and other aluminum silicates. See also Attapulgite, Bentonite, High Yield, Low Yield, and Natural Clays. Clay minerals are essentially insoluble in water but disperse under hydration, shearing forces such as grinding, velocity effects, etc., into the extremely small particles varying from submicron to 100-micron sizes. (Bul D11)

CLAY EXTENDER – An agent which has been added to clay to increase its initial yield. Peptization usually refers to the addition of an electrolyte (i.e., soda ash) to increase the initial yield. A newer term, beneficiation, generally applies to the addition of organic compounds (i.e., polyacrylamide). (Bul 10C)

CLAY EXTENDER – Any of several substances, usually high molecular weight organic compounds that, when added in low concentrations to a bentonite or to certain other clay slurries, will increase the viscosity of the system, e.g., polyvinyl acetatemaleic anhydride copolymer. See Low-solids Muds. (Bul D11)

CLAY SOLIDS – See Preferred Term: Colloidal Solids. (Bul 13)

CLEAN OUT – To remove sand, scale, and other deposits from the well to restore or increase production. (WLOP)

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CLEARANCE – Space between the outer diameter of the tool in question and the side of the drilled hole; the difference in the diameter of the hole and the tool. (Bul D20)

CLEARANCE – Clearance in the maximum distance along the axis of jet or bullet between the external gun surface and the surface of the core target. (RP 43)

CLINOGRAPH – An instrument to measure and record inclination. (Bul D20)

CLIP – A U-bolt or similar device used to fasten parts of a wire cable together. (ITOGP)

CLOGGING – See Preferred Term: Plugging (Bul 13C)

CLOSE IN – To temporarily shut in a well that is capable of producing oil or gas; to close the blowout preventers on a well that is being drilled in order to control a "kick". The blowout preventers close off the annulus so that pressure from below cannot flow to the surface. (WLOP)

CLOSED IN – A well capable of producing oil or gas, but temporarily shut in. (ITGOP)

CLOSED-IN BOTTOM-HOLE PRESSURE – Sometimes termed shut-in bottom-hole pressure. Pressure obtained by measurement with instrument at or near producing zone with well shut in at surface to prevent fluid movement. (WT)

CLOSED-IN PRESSURE – See Formation Pressure. (WLOP)

CLOSED TRAVERSE – Term used to indicated the closeness pf two surveys, one survey going in the hole and the second survey coming out of the hole. (Bul D20)

CLOSED WATER-TREATING SYSTEM – A system of treating water in which the water does not come in contact with air. (SSWID)

CLOSING RATIO – The ratio of the wellhead pressure to the pressure required to close the blowout preventer. (RP 53)

CLOSURE – Refer to "Line of Closure". (Bul D20)

CLOSURE BOLTING – Fasteners used to assemble API Spec 16A equipment other than end and outlet connections. (Spec 16A)

CLOTH – See Preferred Term: Screen Cloth. (Bul 13C)

CLUTCH – A means for engagement or disengagement of power. (Spec 2C)

CMC – See Sodium Carboxymethylcellulose. (Bul 10C, Bul D11)

COAGULANT – That agent which produces clotting; to change from a fluid into a thickened mass; to curdle, congeal, or clot. (SSWID)

COAGULATION – In drilling-fluid terminology, a synonym for flocculation. (Bul D11)

COAGULATION – The clumping of particles in order to settle out impurities; often induced by chemicals such as lime or alum. (Bul D11)

COAGULATION – The joining together of finely divided particles of matter suspended in water, forming a mass large enough to settle out of suspension. (SSWID)

COALESCE – To combine into one body. (SSWID)

COALESCENCE – The change from a liquid to a thickened curdlike state by chemical reaction. Also, the combination of globules in an emulsion caused by molecular attraction of the surfaces. (Bul D11)

COALESCER – An agent which helps materials unite into one body or mass. (Coalescene – Combination of globules in an emulsion caused by molecular attraction of the surfaces; union of one or more crystals or aggregates into a simple larger unit.) (SSWID)

COALESCING – Process of causing small dispersed water-in-oil or oil-in-water droplets to combine into larger droplets which are easier to separate by gravity. Coalescing sections provide large surface areas per unit of volume and usually consist of fibrous beds such as excelsior (referred to as hay sections), or compartments of specially designed components. Electrostatic fields are another means of inducing coalescence, commonly referred to as electrostatic treating. (Spec 12L)

COASTAL ZONE – Coastal Waters and the adjacent lands that exert a measurable influence on the uses of the sea and its ecology. (Bul D11)

COASTLINE – The line of ordinary low water along that portion of the coast which is in direct contact with the open sea or the line marking the seaward limit of inland waters. (Bul 12A)

COATING – (See Related Term: Blinding) A condition wherein undersize particles cover the apertures of the screening surface by virtue of stickiness. (Bul 13C)

COATING – The coating film as applied to the substrate. (RP 5L2)

COATING MATERIAL – The liquid material prior to application on the substrate. (RP 5L2)

COHESION – The attractive force between the same kind of molecules, i.e., the force which holds the molecules of a substance together. (Bul D11)

COIL AREA – The coil area is the heat transfer area and is normally calculated using the outside surface area of the pipe. (Spec 12K)

COIL METHOD – A method of magnetization in which pipe is encircled by a current-carrying coil. (RP 5A5)

COIL SHOT – A short pulse of magnetizing current passed through a coil surrounding a pipe for the purpose of longitudinal magnetization. (RP 5A5)

COILS – The fluid to be heated is passed through one or more coils which may be typically arranged as a single pass coil, spit pass coil, or spiral coil. The coil may also be referred to as a tube bundle. The single pass coil is normally a serpentine pattern with only one flow path. This coil may also be arranged to provide two or more parallel flow paths for reduced pressure drop, but it is still referred to as a single pass coil. The split pass coil may be designed for two pressure ratings, allowing for a choke to be located between the two coil sections. Split pass coils are used when it is necessary to use two heating stages to minimize hydrate formation within the coil. The spiral coil is generally used on smaller heaters and is normally a single pass coil. Multiple coils may be used if more than one well stream is processed in the same heater shell. (Spec12K)

COLD WELD – A metallurgically inexact term generally indicating a lack of adequate weld bonding strength of the abutting edges due to insufficient heat and/or pressure. A cold weld may or may not have separation in the weld line. Other more definitive terms should be used whenever possible. (Bul 5T1)

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COLLAR – Usually refers to a coupling used to loin two lengths of pipe. (ITOGP)
COLLAR – A coupling device used to join two lengths of pipe. A combination collar is a coupling with left-hand threads in one end and right-hand threads in the other. Sometimes drill collars are called simply collars. (WLOP)
COLLAR LOCATOR – A logging device that detects casing or tubing collars for depthcorrelation purposes. It may be operated mechanically or electrically to produce a log showing the location of each casing collar or coupling in a well. When properly interpreted, this log provides an accurate way to measure depths in a well. (WLOP)
COLLECTOR PIPE – A perforated or slotted pipe near the top of the coalescing section in a treater to remove the treated oil as uniformly as possible through this portion of the treater. (Spec 12L)
COLLOID – A state of subdivision of matter which consists either of single large molecules or of aggregations of smaller molecules dispersed to such a degree that the surface forces become an important factor in determining its properties. The size and electrical charge of the particles determine the different phenomena observed with colloids, e.g., Brownian movement. The sizes of colloids range from 1 x 10-7 cm to 5 x 10-5 cm (0.001 to 0.5 microns) in diameter, although the particle size of certain emulsoids can be in the micron range. (Bul D11)
COLLOIDAL – Pertaining to suspended solids so finely divided that they will not settle. (SSWID)
COLLOIDAL COMPOSITION – A colloidal suspension containing one more colloidal constituents. (Bul D11)
COLLOIDAL SOLIDS – Solids particles of less than two micron equivalent spherical diameter. (Bul 13C)
COLLOIDAL SUSPENSION – A stable, homogenous system of very fine particles of matter dispersed uniformly throughout a liquid medium, having properties which differ both from a true solution and from a suspension of larger particles. True colloidal suspensions have particle size range of 5 to 200 micrometers. (Bul D11)
COLLOIDAL SUSPENSION – Finely divided particles of ultramicroscopic size swimming in a liquid. (Bul D11)
COLOR BODIES – Those complex molecules which impart color (usually undesirable) to a solution. (Bul D11)
COLOR CODE – Paint band identification of pipe classification in accordance with appropriate specifications. (RP 5A5)
COLOR UNIT – Measures of the intensity of coloration of water using a platinum-cobalt standard. (Bul D11)
COLUMNAR/ORIENTED ICE – Columnar-grained ice with c-axis orientation in a preferred horizontal direction. (Bul 2N)
COLUMNAR/RANDOM ICE – Columnar-grained ice with c-axis orientation in a random horizontal direction. (Bul 2N)
COMBINATION GAS METAL-ARC WELD AND SUBMERGED-ARC WELD PIPE – Pipe having one longitudinal seam formed by the combination of continuous gas metal-arc welding and automatic submerged arc welding. The gas metal-arc welding process shall be first and followed by the submerged-arc welding process. (Spec 5L)
COMBINED METHOD – Refer to "Mercury Method". (Bul D20)
COMBUSTIBLE – Capable of burning. (RP14G)
COMBUSTIBLE LIQUID – Any liquid having a flashpoint at or above 100°F (37.8°C). (RP54)
COMBUSTIBLE LIQUID – A liquid having a flashpoint at or above 100°F (37.8°C). Combustible Liquids are subdivided as follows:
Class II Liquids – A liquid having a flash point at or above 100°F (37.8°C) and below 140°F (60°C).
Class IIIA Liquids – Those having flash points at or above 140°F (60°C) and below 140°F (93°C).
Class IIIB Liquids – Those having flash points at or above 200°F (93°C). (RP 500B)
COMBUSTION – The chemical reaction of rapid oxidation which is accompanied by the emission of light and heat – the flame. Combustion begins when the temperature of the ignitable substance reaches its apparent ignition temperature. This process will be self-sustaining as long as the heat released in combustion maintains the temperature with the flammable range of the ignitable substance. (RP 12N)
COMBUSTION – The oxidation of materials accompanied by the development of heat and usually the production of flame. (RP 14G)
COME-ALONG – A stretching or tightening device. (ITOGP)
COME OUT OF THE HOLE – To pull drill pipe, tubing wireline tools, etc., out of the well. (ITOGP)
COME OUT OF THE HOLE – Withdrawing of the drill pipe from the wellbore. (Bul 10C)
COMMINGLED – Fluids from more than one source mixed to make a single fluid stream. (WT)
COMPENSATED ACCELERATION METHOD – Refer to "Mercury Method". (Bul D20)
COMPOSITE SAMPLE – A fluid containing all elements (components) originally present in fluid at point of origin, i.e., bottom-hole sample containing water, oil and gas. (WT)
COMPRESSION – Act of compressing, or state of being compressed. In the sense of being the opposite of tension. (Bul D20)
COMPRESSION RIDGE – First-year ridge formed primarily by buckling, bending, or local crushing of colliding ice sheets caused by relative motion in the direction perpendicular to their common boundary. Generally composed of loosely stacked angular ice blocks, the ridge tends to be a curvilinear feature with a weaving pattern established by the extent of finger rafting. (Bul 2N)
COMPRESSIONAL WAVE – Waves in which the particle motion or vibration is in the same direction as the propagated wave (longitudinal wave). (RP 2X)
COMPRESSIVE STRENGTH – The degree of resistance of a material to force acting along one of the axis in a manner tending to crush it, usually expressed in pounds of force per square inch of surface affected. (Bul 10C)
COMPRESSOR – A rotating or reciprocating machine, together with its driver and associated scrubbers, coolers, pipe, valves, controls, etc., used to compress gas or air from a lower to a higher pressure. (RP 2G)
COMPUTER PRODUCTION CONTROL (CPC) – An operation wherein field conditions and activities (well testing, lease production, equipment operational and safety status, etc.) are monitored and/or controlled automatically by a computer system. (ITOGP)
CONCENTRIC CONTROL SYSTEM – A system utilizing a concentric tubular arrangement to transmit control signals to the SCSSV. (RP 14B)

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CONCENTRIC OPERATIONS – Well operations conducted using small diameter tubing inside conventional tubing or tubingless completions, normally with the Christmas tree in place and using a small rig or hoisting unit. (RP 57)

CONCENTRATION CELL – Metal ion: A corrosion cell in which a potential difference is produced by a difference in concentration of metal ions. Oxygen: A corrosion cell in which a potential difference is produced by differences in oxygen concentration. Region of low oxygen concentration is the anode or corroding area. (COGWE, SSWID)

CONDENSATE – Hydcarbons which are in the gaseous state under reservoir conditions but which become liquid either in passage up the hole or in the surface equipment. (ITOGP)

CONDENSATE – A liquid formed by condensation from a vapor phase. Within the reservoir, "condensate" is a liquid-hydrocarbon phase formed by retrograde condensation from the vapor phase upon pressure reduction. At the surface, "condensate" is a liquid-hydrocarbon phase formed by condensation form the vapor phase upon pressure and/or temperature reduction. (RP 44)

CONDUCTOR PIPE – See Pipe. (Bul 10C)

CONDUCTOR PIPE – A relatively short string of large diameter pipe which is set to keep the top of the hole open and provide a means of returning the upflowing drilling fluid from the wellbore to the surface drilling fluid system until the first casing string is set in the well. Conductor pipe may also be used in well control. Conductor pipe is usually cemented. (RP 53, RP 54)

CONDUCTIVITY – A measure of the quantity of electricity transferred across unit area per unit potential gradient per unit time. It is the reciprocal of resistivity. Electrolytes may be added to the drilling fluid to alter its conductivity for logging purposes. (Bul D11)

CONDUIT SEAL – A sealing fitting poured with cement-like potting compound designed to contain an explosion in the enclosure to which it is attached. (See Section 4.8.) (RP 14F)

CONE – See Preferred Term: Hydrocyclone. (Bul 13)

CONFORMANCE – Compliance with specified requirements. (Spec 6A, Spec 16A, Spec Q1)

CONNATE WATER – Formation water locked in the pores of a formation by capillary action. This water does not flow without introducing strong driving forces or by means of a chemical reaction. (Bul 10C)

CONNATE WATER – Water that probably was laid down and entrapped with sedimentary deposits, as distinguished from migratory waters that have flowed into deposits after they were laid down. (Bul D11)

CONNATE WATER – Fossil sea water trapped within sediments during deposition. (SSWID)

CONNECTION – The joining of two lengths of pipe. (ITOGP)

CONNECTORS – 1. Riser devices used to latch and unlatch risers and lower marine riser packages to subsea equipment. 2. Tendon devices used to latch and unlatch tendons to the foundation system and to connect the tendon to the platform. (RP 2T)

CONSERVATIVE POLLUTANT – A pollutant that is relatively persistent and quite resistant to degradation, such as parachlorobiphenyls. (Bul D11)

CONSISTENCY – A rheological property of matter which is related to the cohesion of the individual particles of a given material, its ability to deform, and its resistance to flow. The consistency of cement slurries is determined in accordance with API Spec 10. It is expressed as Bearden units of consistency (Bc) when determined either on the pressurized consistometer or on the atmospheric pressure consistometer. (Bul 10C)

CONSISTENCY – The viscosity of a non-reversible fluid, in poises, for a certain time interval at a given pressure and temperature. (Bul D11)

CONSISTOMETER – A tester having a stirring apparatus to measure the thickening time of cement slurries under predetermined temperatures and pressures. (Bul 10C)

CONSISTOMETER – A thickening-time tester having a stirring apparatus to measure the relative thickening time of drilling fluid or cement slurries under predetermined temperatures and pressures. (Bul D11)

CONSOLIDATION – A process of solidification of an ice mass by freezing water in voids between ice blocks. (Bul 2N)

CONSTRUCTED ICE – Ice formed by surface flooding, spraying, subsurface convection cells, or other techniques. (Bul 2N)

CONTACT INSPECTION – The method in which the search unit makes direct contact with the material, with a minimum couplant film. (RP 2X)

CONTACT MARKS – Intermittent marks adjacent to the weld line resulting from the electrical contact between the electrodes supplying the welding current and the pipe surface. (Bul 5T1)

CONTACT METHOD – (Current flow method.) A method of magnetizing pipe by passing a current through its wall via prods or hand-held contacts. (RP 5A5)

CONTACT TRANSDUCER – A transducer which is coupled to a test surface either directly or through a thin film of couplant. (RP 2X)

CONTAINMENT – Any method used on an offshore platform to collect and direct escaped liquid hydrocarbons to a safe location. (RP 14C)

CONTAMINANT – Material, usually a mud component, which becomes mixed with the cement slurry during the displacement process, and which has a deleterious effect on cement properties. (Bul 10C)

CONTAMINANT – A harmful or undesirable constituent; any substance that might constitute a health hazard or adversely affect desirable properties of drilling fluids. (Bul D11)

CONTAMINATION – The presence in a drilling fluid of any foreign material that may tend to produce detrimental properties of the drilling fluid. (Bul D11)

CONTEST – Organized competition sponsored by the individual sections of the Industrial Conference of the National Safety Council. Contests are based on incidence rates of occupational injuries and illnesses involving days away from work or death. Contests have only one relationship with the Award Plan – contestant units with perfect records tanking below third place in their contest group or division will receive the appropriate level of award under the Award Plan. (Bul T5)

CONTINUOUS FLOW GAS LIFT – Gas lift operation in which gas is injected continuously into the liquid column. Reservoir fluids and the inject gas are produced from the wellhead at the surface without interruption. (GL)

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CONTINUOUS METHOD – A method of searching for flaws while the magnetizing current is being applied. (RP 5A5)
CONTINUOUS PHASE – The fluid phase which completely surrounds the dispersed phases that may be colloids, oil, etc. (Bul D11)
CONTINUOUS REELED TUBING – Tubing stored on a reel that can be run in and out of a well without making a connection. (RP 57)
CONTINUOUS WAVE – A constant flow of ultrasonic waves, as opposed to pulsed. (RP 2X)
CONTOUR (verb) – The gradual tapering by filing or grinding to prevent abrupt changes in the wall thickness. (RP 5A5)
CONTRACTED SWEEP – A contraction of the horizontal sweep on the viewing screen of the ultrasonic instrument. Contraction of this sweep permits viewing reflections occurring over a greater depth of material or duration of time. (RP 2X)
CONTRACTOR – Any person or company who contracts all or any part of oil and gas well drilling or servicing. (RP 54)
CONTROL – To exercise authority over and regulate. (Spec Q1)
CONTROL CYLINDERS – Hypothetical limits in the form of a cylinder around the planned trajectory of the wellbore and in which the borehole is to be maintained. (Bul D20)
CONTROL ECHO – Reference signal from a constant reflecting surface, such as a back reflection (RP 2X)
CONTROL FEATURE – A documented activity to ensure conformance with specific requirements of applicable specifications. (Spec Q1)
CONTROL LINE – An individual conduit utilized to transmit control signals to the SCSSV. (RP 14B)
CONTROL MANIFOLD – The system of valves and piping to control the flow of hydraulic fluid to operate the various components of the blowout preventer stack. (RP 53)
CONTROL PANEL – Switches and devices to start, stop, measure, monitor or signal what is taking place. (ITOGP)
CONTROL PANEL, REMOTE – A panel containing a series of controls that will operate the valves on the control manifold from a remote point. (RP 53)
CONTROL POD – An assembly of subsea valves and regulators which when activated from the surface will direct hydraulic fluid through special apertures to operate blowout preventer equipment. (RP 53)
CONTROLLED AGGREGATION – A condition in which the clay platelets are maintained stacked by a polyvalent cation, such as calcium, and are deflocculated by use of a thinner. (Bul D11)
CONTROLLED AREA – A defined area in which the occupational exposure of personnel to radiation or to radioactive material is under the supervision of an individual in charge of radiation protection. (This applies that a controlled area is one that requires control of access, occupancy, and working conditions for radiation protection purposes.) (RP 5A5)
CONTROLLED DIRECTIONAL DRILLING – The art and science involving the intentional deflection of a wellbore in a specific direction in order to reach a predetermined objective below the surface of the earth. (Bul D20)
CONTROLLED DIRECTIONAL WELL (OR DEVIATED WELL) – A hole purposely deviated from the vertical in specific directions using controlled angles to reach an objective location (target) other than directly under the surface location. (Bul D12A)
CONVENTIONAL MUD – A drilling fluid containing essentially clay and water. (Bul D11)
CONVENTIONAL OPERATIONS – Well operations conducted using a rig equipped with fluid pumps, rotary table, and other equipment designed to perform well workovers, recompletions, and other work which requires removal of the Christmas tree and pulling or manipulation of the tubing. (RP 57)
CONVEYING SPEED – (See Related Term: Gear Ratio.) On a decanting centrifuge, the difference in speeds between the outer bowl and the screw conveyor in rpm. (Bul 13)
CONVEYOR – A mechanical device for moving material from one place to another. In a decanting centrifuge a hollow hub with flute(s) rotating in the same direction but at a slower speed than the centrifuge bowl. (Bul 13C)
COOLER – A refrigerated water bath used to cool pressure charged gas life valves to 60oF when setting them. (GL)
COPOLYMER – A substance formed when two or more substances polymerize at the same time to yield a product which is not a mixture of separate polymers but a complex having properties different from either polymer alone. See Polymer. Examples are polyvinyl acetate-maleic anhydride copolymer (clay extender and selective flocculant), acrylamide-carboxylic acid copolymer (total flocculant), etc. (Bul D11)
COPOLYMER – A molecule formed when two or more unlike polymers are linked together. (COGWE, SSWID)
COPPER-FREE OR LOW COPPER CONTENT ALUMINUM – Aluminum alloys containing 0.4% or less copper. (RP 14F)
CORE-FLOW EFFICIENCY (CFE) – Core-flow efficiency is the ratio of the experimental permeability ratio to the theoretical permeability ratio, (kp/ko)/(ki/ko), for the same total core penetration. (RP 43)
CORING – The act of procuring a sample of the formation being drilled for geological information purposes. Coring is done by means of a core barrel. (Bul 10C)
CORNER EFFECT – The reflection of a sound beam directed normal to the intersection of two perpendicular planes. (RP 2X)
CORRECTIVE ACTION – Measures taken to rectify conditions adverse to quality and to minimize recurrence. (Spec Q1)
CORRECTIVE JETTING RUNS – Action taken with a directional jet bit to change the direction or inclination of the borehole. (Bul D20)
CORROSION – The adverse chemical alteration or destruction of a metal by air, moisture, or chemicals. (Bul 10C)
CORROSION – The adverse chemical alteration on a metal or the eating away of the metal by air, moisture, or chemicals; usually an oxide is formed. (Bul D11)
CORROSION – Corrosion is defined as the destruction of a metal by chemical or electrochemical reaction with its environment. (Spec 12J)
CORROSION AGENT – Any agent causing corrosion. (COGWE, SSWID)
CORROSION-EROSION – The phenomenon of a protective film of corrosion product being eroded away by the erosive action of the process stream, exposing fresh metal which then corrodes. Extremely high metal weight loss may occur under these conditions. (RP 14E)

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CORROSION-FATIGUE FAILURE – Failure of a metal exposed to repeated loading in corrosive service. (COGWE)
CORROSION-FATIGUE FAILURE – Metal in corrosion service exposed to repeated stresses until it fails to function (COGWE, SSWID)
CORROSION PRODUCT – The material which results from a metal combining with its corrosive environment. (COGWE, SSWID)
CORROSION RESISTANT RING GROOVES – Ring grooves lined with metal resistant to metal-loss corrosion. (Spec 6A, Spec 16 A)
CORROSIVE GAS – A gas which when dissolved in water or other liquid causes metal attack. Usually included are hydrogen sulfide (H_2S), carbon dioxide (CO_2) and oxygen (O_2). (RP 14E)
CORROSIVE HYDROCARBON SERVICE – Process streams which contain water or brine and carbon dioxide (CO_2), hydrogen sulfide (H_2S), oxygen (O_2) or other corrosive agents under conditions which cause metal weight loss. (RP 14F)

COUNTERWEIGHT – (Also called "Ballast") Weight used to supplement the weight of the machine in providing stability for lifting working loads and usually attached to rear of revolving upperstructure. (Spec 2C)
COUPLANT – The couplant, a liquid such as water, oil glycerin, etc., capable of conducting ultrasonic vibrations from the transducer to the material being tested shall be used. (RP 2X)
COUPLANT – A material (usually a liquid) used between ultrasonic transducer and the test specimen to conduct ultrasonic energy between them. (RP 5A5)
COUPLING – A mechanical means for joining two sections of riser pipe in end-to-end engagement. (RP 2R)
COUPLING MILL END – The end of the pipe to which the coupling is applied at the mill. Referred to as the box end of integral joint pipe. (RP 5B1)
COUPLING PRELOAD – Compressive bearing load developed between pin and box members at their interface; this is accomplished by elastic deformation during makeup of the coupling. (RP 2R)
COUPON – Small metal strips which are exposed to corrosive systems for the purpose of determining nature and severity of corrosion. (COGWE)
COUPON – Small metal strip which is exposed to corrosive systems for the purpose of determining the nature and severity of corrosion. (ITOGP)
COUPON – A small metal strip which is exposed to corrosive systems for the purpose of determining nature and severity of corrosion or scale deposition. (SSWID)

COURSE – The axis of the borehold over an interval length. (Bul D20)
COURSE BEARING- The azimuth of the course. (Bul D20)
COURSE DEVIATION – The length of a line made by projecting a course length onto a horizontal plane. In practice, the horizontal displacement between two stations regardless of directions. (Bul D20)
COURSE LENGTH – The difference in measured depth or actual hole length from one station to another. (Bul D20)
COVER MATERIAL – Soil that is used to cover compacted solid waste in a sanitary landfill. (Bul D11)
C.P. – Point in case hold of cementing through perforations. Abbreviation for "casing point". (Bul 10C)
CPR – Cardiopulmonary resuscitation.
CRACK – A stress-induced separation of the metal which, without any other influence, is insufficient in extent to cause complete rupture of the material. (Bul 5T1)
CRACK – A planar discontinuity formed by separation of previously continuous material. (RP 2X)
CRACKERS – Bottom-hole assembly in which single joints of drill string can be run between drill collars to produce a limber assembly. (Bul D20)
CRATER – The formation of a large funnel-shaped cavity at the top of a hole resulting from a blow-out or occasionally from caving. (Bul D11)
CRATER – To fail. To cave in. (ITOGP)
CREAMING OF EMULSIONS – The settling or rising of the particles of the dispersed phase of an emulsion as observed by a difference in color shading of the layers formed. This can be either upward or downward creaming, depending upon the elative densities of the continuous and dispersed phases. (Bul D11)
CREATED FRACTURES – Induced fractures by means of hydraulic or mechanical pressure exerted on the formation. (Bul D11)
CREEP – Time-dependent increase in strain during a state of constant stress. (Bul 2N)
CREEP – The gradual deformation of metals or plastics under loads applied for a long time. (COGWE, SSWID)
CREST- The top of a thread. (RP 5A5, RP 5B1)
CREST CLEARANCE – The distance between the crest and root of mating threads. (RP 5B1)
CREST TRUNCATION – The distance between the sharp crest (crest apex) and the finished crest. (RP 5B1)
CRIPPLED BIT – By removing one cone, a bit is "crippled" and made to act erratically. Such bits have been used in deflecting holes. (Bul D20)
CRITICAL ANGLE – The incident angle of the sound beam beyond which a specific refracted mode of vibration no longer exists. (RP 2X)
CRITICAL COMPONENT – Any component of the crane whose failure would result in loss of load control or result in structural instability of the machine. (Spec 2C)
CRITICAL COMPONENTS – Those parts which have specified requirements in this document. (Spec 6A)
CRITICAL FLAW – One which is capable of causing failure. (RP 2X)
CRITICAL FLOW – By "critical flow" is meant that the velocity through an orifice or small opening has reached a maximum, and remains a constant. The rate of flow is directly proportional to upstream pressure, and changes only with upstream pressure. Downstream pressure has no effect on flow rate when critical flow velocity is obtained. (WT)

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CRITICAL FLOW PROVER – Essentially a steel tube 12" long with provisions for installing an orifice plate at one end. Two sizes are available, either 2" or 4" internal diameter. Two connections are provided on tube – one for a thermometer bulb and the other for connecting a pressure recording meter. (WT)

CRITICAL GAS SATURATIONS – the lowest gas saturation in the reservoir rock at which gas will flow. When the gas saturation is less than the critical value, the permeability to gas is zero. (RP 44)

CROOKED HOLE – Wellbore which has been inadvertently deviated from a straight hole. (Bul D20)

CROOKED HOLE – A wellbore which has inadvertently deviated from the vertical. (ITOGP)

CROOKED HOLE AREA – An area where the subsurface formations are so composed or arranged that it is difficult to drill a straight hole. (Bul D20)

CROOKED-HOLE TENDENCY – A characteristic of the formation, bottom-hole assembly, or drilling practices to cause a crooked hole to be drilled. (Bul D20)

CROSS – A pressure containing fitting with a minimum of four openings. Usually all four openings are at 90o to one another. Crosses may be threaded or flanged (also studded flange). (Spec 6A)

CROSS-OVER POINTS – In multiple layer spooling of rope on a drum, those points of rope contact where the rope crosses the preceding rope layer. (Spec 2C)

CROSS-OVER SEAT – A Special seat for a gas lift valve which directs the pressure applied at the nose of the gas lift valve to the bellows and the pressure applied to the holes in the side of the valve to the under side of the seat. It is used most often in fluid operated valves. (GL)

CROSS TALK – An unwanted condition in which acoustic energy is coupled from the transmitting crystal to the receiving crystal without propagating along the intended path through the material. (RP 2X)

CROSS THREADED – Male and female threads don't mate. (RP 5A5)

CROSSOVER FLANGE – A double or single studded adapter flange with a restricted area sealing means and with a top connection pressure rating above that of the lower connection. (Spec 6A)

CROSSOVER SPOOL – Flanged equipment with a restricted area sealing means, at or near the face of its lower flange. Crossover spools are also provided with suitable means to suspend and seal around an inner string of casing or tubing. A crossover spool has a top connection with a pressure rating above that of the lower connection. (Spec 6A)

CROWD THE BIT – Term used to indicate that more weight is applied to the bit than needed for efficient drilling. A crowded bit will usually increase the inclination or cause an azimuth change. (Bul D20)

CROWN – The curvature of the screen deck or the difference in elevation between the high and low points. (Bul 13C)

CROWN BLOCK ASSEMBLY – The stationary sheave or block assembly installed at the top of a derrick or mast. (Spec 4F)

CRUDE OIL – A mixture of hydrocarbons that exists in the liquid phase in the underground reservoir and remains liquid at atmospheric pressure after passing through surface separating facilities. (ITOGP)

CRYSTAL – A piezoelectric element in a probe or search unit. (RP 2X)

CSA – Canadian Standards Association.

CUBIC CENTIMETER (cc or mL) – A metric system unit for measurement of volume. (Bul 10C)

CU FT – Cubic foot, cubic feet. (WT)

CU FT/BBL – Cubic feet per barrel. Cubic feet of gas per barrel of liquid. (WT)

CUMULATIVE FATIGUE DAMAGE – The total of fatigue damage caused by repeated cyclic stresses. (Bul D20)

CUPRONICKEL – An alloy of copper (70 percent or over) and nickel. (COGWE, SSWID)

CURING – Aging of cement specimens under specified conditions. (Bul 10C)

CURING ATMOSPHERIC PRESSURE – The aging of cement specimens for test purposes at normal atmospheric pressure of 14.7 psi (1kg/cm^2) at sea level and temperature below about 200°F (93.3°C) for a designated period of time under certain given conditions of temperature and humidly. (Bul 10C)

CURING PRESSURE – The curing of cement specimens for test purposes, in water at pressures above atmospheric pressure. (Bul 10C)

CURRENT EXPERIENCE – The occupational injury and illness experience of the most recent calendar year. (Bul T5)

CURVATURE IN THE HORIZONTAL PLANE – Projection of the curvature of the hole onto a vertical plane. (Bul D20)

CURVATURE IN THE VERTICAL PLANE – Projection of the curvature of the hole onto a vertical plane. (Bul D20)

CUT – A gouge or distortion in two or more thread crests in a lien wither parallel to the pipe axis or at an angle across the threads. (Bul 5T1, RP 5A5)

CUT – See Related Term: Median Cut. A general term for the effectiveness of a liquid-solids separation device expressed as the particle size that is removed from the feed stream at a given percentage under specified operating conditions. (Bul 13C)

CUT OIL – Oil that contains water, usually in the form of an emulsion. Also called WET OIL. (ITOGP)

CUTTINGS – Small pieces of formation that are the result of the chipping an/or crushing action of the bit. See Samples. (Bul 10C, Bul D11)

CYCLE TIME, DRILLING-FLUID – The time of a cycle, or down the hole and back, is the time required for the pump to move the drilling fluid in the hole. The cycle in minutes equals the barrels of drilling fluid in the hole divided by barrels per minute. (Bul 10C, Bul D11)

CYCLONE – See Preferred Term: Hydrocyclone. (Bul 13C)

CYCLONE – A device for the separation of various particles from a drilling fluid, most commonly used as a desander. The fluid is pumped tangentially into a cone, and the fluid rotation provides enough centrifugal force to separate particles by mass weight. See Centrifuge. (Bul D11)

CYLINDER (IN DIRECTIONAL DRILLING) – Refer to "Control Cylinders". (Bul D20)

CYLINDER – A device which converts fluid power in linear mechanical force and motion. (Spec 2C)

CYLINDER DRILLING – Refers to drilling in which the course of the borehole is held within previously determined limits set by the circumference of imaginary cylinders extending from the surface location to the desired objective of the hole. (Bul D20)

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d – The symbol "d" refers to the nominal internal diameter of a conduit. (RP 6G)
DAC (DISTANCE AMPLITUDE CORRECTION) – (Swept gain, time corrected gain, time variable gain, etc.) Electronic change of amplification to provide equal amplitude from equal reflectors at different depths. (RP 2X)
D&P PLATFORM – A drilling and production platform. Such an offshore platform is a large structure with room to drill and complete a number of wells. (ITOGP)
DAMPING (TRANSDUCER) – Limiting the duration of vibration in the search unit by either electrical or mechanical means. (RP 2X)
DAMPING (ULTRASONICS) – Decrease or decay of ultrasonic wave amplitude with respect to time. (RP 2X)

DARCY – A unit of permeability. A porous medium has a permeability of 1 Darcy when a pressure of 1 atmosphere on a sample 1 cm long and 1sq. cm in cross section will force a liquid of 1-cp viscosity through the sample at the rate of 1 cc per sec. (Bul 10C, Bul D11)
DARCY'S LAW – The rate of flow of a homogeneous fluid through a porous medium is proportional to the pressure or hydraulic gradient and to the cross-sectional area normal to the direction of flow and inversely proportional to the viscosity of the fluid. (Bul 10C, SSWID)
DATE OF MANUFACTURE – The date of manufacturer's final acceptance of finished equipment. (Spec 6A, Spec 16A)
DC FIELD – Either a residual magnetic field or an active magnetic field produced through the use of direct current. (RP 5A5)
DEADLINE – The end of the drilling line which is not reeled onto the hoisting drum of the rotary rig. This end of the drilling line is anchored (usually to the derrick substructure) and does not move as the traveling block is hoisted, hence the term deadline. (RP 54)
DEADMAN – A substantial timer or plug of concrete buried in the earth to which a guy wire or line is attached for bracing a mast or tower. Also a land-side mooring device used with lines and cables when docking a vessel. (ITOGP)
DEAD OIL – Crude oil containing essentially no dissolved gas when it is produced (ITOGP)
DEAD WEIGHT TESTER – A device using calibrated weights to measure pressure accurately. (WLOP)
DEAD WEIGHT TESTER – Pressure instrument where pressure is applied to a hydraulic fluid to lift a small piston connected to a plate on which weights are added as necessary to balance pressure applied. (WT)

DEAD WELL – A well that will not flow by itself. (GL)
DEAD WELL – A well which has ceased to produce oil or gas, either temporarily or permanently. (ITOGP)
DEAD WELL – A well that has ceased to produce oil or gas, either temporarily or permanently; a well that has suffered a kick or blowout and been killed. (WLOP)
DEAD ZONE – The distance in a material from the surface to the nearest inspectable depth. (RP 2X)
DEAD ZONE (ULTRASONIC) – The distance from the front surface of the pipe to the nearest inspectable depth. (RP 5A5)
DEBUG – To detect, locate and correct malfunctions in a computer, instrumentation or other type system. (ITOGP)
DECANTING CENTRIFUGE – A continuously conveying centrifuge which removes solids drained of their free liquid. (Bul 13C)
DECIBEL (db) – A unit of sound intensity, loudness, or pressure level in which 0.0002 microbar of pressure equals zero db sound-pressure level; the threshold of hearing. (Bul D11)
DECIBEL (db) – The unit for measuring the loudness of sounds (ultra sound). 1 db = 10% change, on al logarithmic scale. (RP 2X)
DECK – A vibrating screen component consisting of a support frame, screening surface, and accessories. (Bul 13C)
DECK AREA, CANTILEVER – That portion of the main deck, cellar deck or sub-cellar deck area outside the boundary line of perimeter deck columns. (RP 2G)
DECK AREA, CENTRAL – That portion of the main deck, cellar deck or sub-cellar deck within the boundary line of perimeter deck columns. (RP 2G)
DECK AREA, RIG – That area of the deck necessary for support of drilling or workover operations. (RP 2G)
DECK BEAMS – Secondary structural elements spanning between intermediate girders and/or main girders. (RP 2T)
DECK, CELLAR – A deck located immediately below the main deck. (RP 2G)
DECK, MAIN – The uppermost deck on the structure. (RP 2G)
DECK, PLATE – Flat plate or grating spanning between deck beams. (RP 2T)
DECK RUBBER – See Preferred Term: Support Rubber, (Bul 13C)
DECK SUB-CELLAR – A deck located below the cellar deck. Decks below the cellar deck will be designated as Sub-Cellar Deck, Sub-Cellar Deck B, etc. (RP 2G)
DECLINATION – Refer to "Magnetic Declination". (Bul D20)
DECONTAMINATE – Material added to cements or cement slurries for the specific purpose of counteracting the effects of contamination. (Bul 10C)
DEDENDUM – The distance between the pitch line and root of thread. (RP 5B1)
DEEP PLATE GIRDER – Deep plate grinder with the web stiffened in both the longitudinal and transverse directions. (Bul 2V)
DEFECT – An imperfection whose size, shape, orientation, location or properties make it detrimental to the useful service of the pipe or exceed the accept/reject level of the applicable specification. (RP 5A5)
DEFECT REFLECTION – The oscilloscope presentation of the energy returned by a rejectable flaw in the material. (RP 2X)

DEFLECTED HOLE – Wellbore which is intentionally deviated. (Bul D20)
DEFLECTION TOOLS – Drilling tools and equipment used to change the inclination and direction of the drilled wellbore. (Bul D20)
DEFLOCCULATION – Breakup of flocs of gel structures by use of a thinner. (Bul 10C, Bul D11)

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DEFOAMER OR DEFOAMING AGENT – Any substance used to reduce or eliminate foam by reducing the surface tension. See Antifoam. (Bul 10C, Bul D11)
DEFORMED ICE - The antithesis of smooth ice. (Bul 2N)
DEHYDRATION – Removal of free or combined water from a material. (Bul 10C)
DEHYDRATION – Loss of water by filtration of cement slurries during or after displacement. (Bul 10C)
DEHYDRATION – Removal of free or combined water from a compound. (Bul D11)
DEHYDRATION – Removal of water and water vapor by any means form a gas, liquid, or solid. Dehydration is an essential step in proper purification of compressed air or gas for respiratory use. (Bul D11)
DELAYED SWEEP – A means of delaying the start of horizontal sweep, thereby eliminating the presentation of early response data. (RP 2X)
DELETED BIT – Refer to "Crippled Bit". (Bul D20)
DELIQUESCENCE – The liquefaction of a solid substance due to the solution of the solid by absorption of moisture from the air, e.g., calcium chloride. (Bul D11)
DELTA EFFECT – Acoustic energy re-radiated by a discontinuity. (RP 2X)
DEMAGNETIZATION – The process of removing part or all of the existing residual magnetism from the pipe. (RP 5A5)
DEMULSIFIER – A chemical used to "break down" crude oil/water emulsions so the water may be removed from the oil. (ITOGP)
DENSITY – Mass per unit volume. Absolute density considers only the actual volume occupied by the material. Bulk density is mass per unit bulk volume which includes the actual volume of the material plus the volume of trapped air. (Bul 10C)
DENSITY – Matter measured as mass per unit volume expressed in pounds per gallon (ppg), pounds per square inch per 1,000 ft. of depth (psi/1,000 ft), and pounds per cubic ft. (lb./cu. ft). Density is commonly referred to as "weight". (Bul D11)
DENSITY – The weight of a substance per unit of volume. For instance, the density of a drilling mud may be described as "10 lb. per gallon" or 75 lb. per cubic foot". (ITOGP)
DENT – A depression that is without metal loss and is caused by striking, or being struck by, other objects. (Bul 5T1, RP 5A5)
DENT – A local change in surface contour caused by mechanical impact, but not accompanied by loss of metal. (Bul 5T1)
DEPARTURE – Horizontal displacement of one station form another in an east or west direction. (Bul D20)
DEPLETION DRIVE – See Solution Gas Drive. (ITOGP)
DEPOLARIZE – To increase rare of corrosion reaction by removing a polarizing corrosion product. (COGWE, SSWID)
DEPOSITION – Act of depositing upon the surface of an object. (SSWID)
DERMAL TOXICITY – The ability of a chemical to poison an animal or human by skin absorption. (Bul D11)
DERRICK – A semipermanent structure of square or rectangular cross-section having members that are latticed or trussed on all four sides. This unit must be assembled in the vertical or operation position, as it includes no erection mechanism. It may or may not be guyed. (Spec 4F)
DERRICK (MAST) – The steel tower component of a drilling or well servicing rig which supports the crown block, traveling block, and hoisting lines. Derricks and masts may be stationary structures normally requiring dismantling and disassembly when moved from location to location, or may be portable with the capability of being laid down and raised to and from ground level fully assembled. (RP 54)
DERRICKING – The operation of changing boom angle in a vertical plane. (Spec 2C)
DERRICKMAN – Employee whose work station is in the derrick while pipe or rods are being hoisted or lowered into the hole. (R 54)
DESALINIZATION – salt removal from sea or brackish water. (Bul D11)
DESALTING – This is a form of emulsion treating which may be identical to conventional treaters with the addition of supplemental injection and mixing of low salinity water into the feed emulsion to dilute the brine phase and thereby lower the salt content of the treated crude. Desalting is used both in oil producing areas and refineries. It may consist of one or more states to achieve maximum desalting efficiency. (Spec 12L)
DESAND – To remove the API sand. (Bul 13C)
DESANDER – A hydrocyclone capable of removing a very high proportion of the API sand (particles greater than 74 microns) from a drilling fluid. (Bul 13C)
DESANDER- See Cyclone. (Bul D11)
DESIGN – A detailed plan for a product. (Spec Q1)
DESIGN LIFE – Maximum anticipated operational years of service for the platform, i.e., the period of time from commencement of construction until removal of the structure. (RP 2T)
DESIGN LOAD – That force or combination of forces which a structure is designed to withstand without exceeding the allowable stress in any member. (Spec 4F)
DESIGN PRESSURE – Maximum allowable working pressure at the design temperature. (RP 14E)
DESIGN PRESSURE – The pressure used in the design of a vessel for the purpose of determining the minimum permissible thickness or physical characteristics of the different parts of the vessel. When applicable, static head shall be added to the design pressure to determine the thickness of any specific part of the vessel. (Spec 12L)
DESIGN REQUIREMENTS – The requirements set forth by the manufacturer's engineering authority for materials manufacturing, fabrication, and inspection procedures to be employed in the production of the crane. (Spec 2C)
DESIGN REQUIREMENTS – API Specifications, Manufacturer's Specifications and regulatory requirements used to control the design. (Spec Q1)
DESIGN REVIEW – A re-examination to determine the appropriateness of assumptions and methodology, and accuracy of formulations and calculations used to design a product. (Spec Q1)
DESIGN VARIABLES – Quantities that define for the purpose of structural design or analysis a structural component and material, its state of stress, and the applied loads. (Bul 2V)

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DESIGN VERIFICATION – The process of proving design by testing. (Spec Q1)
DESIGNATED – Selected or assigned by the employer or the employer's representative as being qualified to perform specific duties. (Spec 2C)
DESIGNER – The person, firm, corporation or other organization employed by the operator to develop the design, details and specifications for the facility. (RP 2X)
DESILT – To remove the ultra-fine and larger particles. (Bul 13C)
DESILTER – A hydrocyclone capable of removing a very high proportion of the ultra-fine and larger particles from a drilling fluid. (Bul 13C)
DETECT – The act of locating a flaw or imperfection. (RP 5A5)
DETECTABLE ABNORMAL CONDITION – An abnormal operating condition which can be automatically detected. (RP 14C)
DETECTOR OR DETECTOR SHOE – A scanning shoe carrying one or more transducers. Is used to protect transducers from mechanical damage from the pipe surface, etc. (RP 5A5)
DETERGENT – A substance that has cleaning action due to a combination of propreties including lowering of surface tension, wetting action, emulsifying and dispersing action, and foam formation in some cases. The present connotation indicates a synthetic derivative in distinction to soap, which is derived from natural fats and oils. (Bul D11)
DETERGENT – Agent used for cleaning. (SSWID)
DEVELOPMENT WELL – A well drilled in proven territory in a field for the purpose of completing the desired spacing pattern of production. (ITOGP)
DEVIATION – Refer to "Inclination". (Bul D20)
DEVIATION ANGLE – Refer to Angle of Inclination". (Bul D20)
DEVIATION BIT – A bit specifically designed to reduce the tendency to drill a crooked hole. (Bul D20)
DEVIATION CONTROL TECHNIQUES –
Fulcrum Technique – Utilizes a bending moment principle to create a force on the bit to counteract reaction forces which are tending to push the bit in a given direction.
Mechanical Technique – Utilizes bottom-hole equipment which is not normally a part of the conventional drill string to add deviation control. This equipment acts to force the bit to turn the hole in inclination.
Packed-hole Technique – Utilizes the hole wall to minimize the bending of the bottom-hole assembly.
Pendulum Technique – The basic principle involved is gravity or the "plum-bob effect". (Bul D20)
DEVIATION SURVEY – Refer to "Inclination Survey". (Bul D20)
DEVIATION TYPE –
Abnormal Deviation – Usually associated with highly faulted formations having fracture planes on either side of a fault.
Abrupt Deviation – Usually associated with interbedded, aniostropic, or laminar formations.
Drift Deviation – Usually associated with a gradual hole angle change.
Induced Deviation – Man-made, either intentional or unintentional.
Rotational Deviation – Usually results from the bit moving in a slow spiral due to drill stem rotation. (Bul D20)
DEW POINT – The state of a vapor-phase system when it is in equilibrium with an infinitesimal amount of liquid phase. (RP 44)
DEW-POINT PRESSURE – The fluid pressure in a system at its dew point. (Often used interchangeably with "saturation pressure"). (RP 44)
DIATOMACEOUS EARTH – An infusorial earth composed of siliceous skeletons of diatoms and being very porous. Sometimes used for combating lost circulation and as an additive to cement; also has been added to special drilling fluids for a particular purpose. (Bul 10C, Bul D11)
DIATOMACEOUS EARTH FILTRATION – A process in which a filter cake or precoat of diatomaceous earth is used as a filter medium. (SSWID)
DIESEL-ELECTRIC OR GAS-ELECTRIC RIG – A rotary drilling rig using self-generated electric power. (Bul D10)
DIESEL-OIL PLUG – See Gunk Plug. (Bul 10C, Bul D11)
DIFFERENTIAL – A difference in quantity or degree between two measurements or units (as the pressure differential across a choke – i.e., the pressure on one side of the choke compared with the pressure on the other side). (See Differential Pressure). (WLOP)
DIFFERENTIAL ANGLE DECK – A screen deck in which successive screening surfaces of the same deck are at different angles. (Bul 12C)
DIFFERENTIAL GAS LIBERATION – A process whereby gas that is liberated from solution in the oil is removed from contact with the oil as soon as it is liberated. There is a continuous change in the mass and composition of the system. (RP 44)
DIFFERENTIAL PEN – Marking device on an orifice meter recording the difference between upstream pressure and downstream pressure across an orifice plate. Usually calibrated in inches of water difference. (WT)
DIFFERENTIAL PRESSURE – The difference between the inlet and outlet pressures measured near the inlet and outlet openings. (Bul 13C)
DIFFERENTIAL PRESSURE – The difference in pressure between hydrostatic head of the drilling fluid column and the formation pressure at any given depth in the hole. It can be positive, zero, or negative with respect to the hydrostatic head. (Bul 10C, Bul D11)
DIFFERENTIAL PRESSURE – The difference between two fluid pressures (e.g., the difference between the pressure in a reservoir and the pressure in a wellbore drilled into the reservoir; the difference in pressure on either side of a restriction in a pipeline; the difference between the atmospheric pressure at sea level and at 10,000 ft.,etc.) See Differential.) (WLOP)
DIFFERENTIAL-PRESSURE (WALL) STICKING – Sticking which occurs because part of the drill string (usually the drill collars) becomes embedded in the filter cake resulting in a nonuniform distribution of pressure around the circumference of the pipe. The conditions essentially for sticking require a permeable formation and a pressure differential across a nearly impermeable filter cake and drill string. (Bul 10C, Bul D11)

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DIFFERENTIAL STICKING – The action of a differential pressure holding the drill stem against the wall of the borehole. (Bul D20)

DIFFERENTIAL WIRING – Electrically connected in opposed series such that the output of one coil effectively opposes the other coil. In search coils, the differential wiring results in equal and opposite voltages being developed when the magnetic field changes equally in each coil. Thus, no net voltage output is produced. (RP 5A5)

DIFFRACTION – The deflection of a wave front when passing the edges of an obstacle. (RP 2X)

DIFFUSE INDICATIONS – (Magnetic particle) Indications that are not clearly defined as, for example, indications of subsurface defects. (RP 5A5)

DIFFUSE REFLECTION – Scattered incoherent reflections caused by rough surfaces or associate interface reflections of ultrasonic waves from irregularities of the same order of magnitude or greater than the wave length. (RP 2X)

DIFFUSION – The spreading, scattering, or mixing of a material (gas, liquid, or solid). Bul 10C, Bul D11)

DILATANT FLUID – A dilatant or inverted plastic fluid is usually made up of a high concentration of well-dispersed solids which exhibits a non-linear consistency curve passing through the origin. The apparent viscosity increases instantaneously with increasing rate of shear. The yield point, as determined by conventional calculations from the direct-indicating viscometer readings, is negative; however, the true yield point is zero. (Bul 10C, Bul D11)

DILUENT – Liquid added to dilute or thin a solution. (Bul 10C, Bul D11)

DILUTION – Increasing the liquid content of a slurry, by addition of water, oil or other fluid constituting the liquid phase. (Bul 13C)

DILUTION RATIO – Ratio of volume of dilution liquid to the volume of raw mud in the feed to a liquid-solid separator. (Bul 13C)

DILUTION RATIO – The ratio of the volume of water of a stream to the volume of incoming waste. The capacity of a stream to assimilate waste is partially dependent upon the dilution ration. (Bul D11)

DILUTION WATER – Water used for dilution of raw mud. (Bul 13C)

DING (E) – A flattened area or indentation on a chamfer or thread crest caused by mechanical impact. (Bul 5T1)

DINGE – See Dent. (RP 5A5)

DIRECT CURRENT (dc) – Refers To an electric current flowing continually in one direction only through a conductor. (RP 5A5)

DIRECT FIRED VESSEL – A vessel in which the temperature of fluids is increased by the addition of heat supplied by a flame. The flame is applied direct to the fluid container. (RP 2G)

DIRECT IGNITION SOURCE – A point of sufficient temperature and heat capacity to ignite a combustible mixture. (RP 14C)

DIRECT-INDICATING VISCOMETER – See Viscometer, Direct-Indicating. (Bul 10C, Bul D11)

DIRECTION – Refers to the azimuth; direction of vertical projection of the hole onto a horizontal plane. (Bul D20)

DIRECTION CONTROL – Refer to "Controlled Directional Drilling". (Bul D20)

DIRECTION OF CLOSURE – The direction of the line of closure. (Bul D20)

DIRECTION OF INCLINATION – The direction of the course. (Bul D20)

DIRECTIONAL DRILLING – Drilling a well at a controlled angle form vertical. (Bul 10C)

DIRECTIONAL DRILLING – Refer to "Controlled Directional Drilling". (Bul D20)

DIRECTIONAL DRILLING CONTRACTOR – A service company that can supply the special deflecting tools, bottom-hole assemblies, survey instruments, and a technical representative to perform the directional drilling aspects of the operation. (Bul D20)

DIRECTIONAL DRILLING DATA SHEET – Data sheet on which a detailed description of the bottom-hole assembly and operating parameters are indicated as a function of depth. (Bul D20)

DIRECTIONAL HOLES – Boreholes purposely drilled in a planned trajectory other than vertical; boreholes drilled using controlled directional drilling methods. (Bul D20)

DIRECTIONAL SERVICE COMPANY – Refer to "Directional Drilling Contractor". (Bul D20)

DIRECTIONAL SIDETRACK OR DIRECTIONAL REDRILL – (Abbreviated as S/T) A drilling effort in which an additional hole is drilled by leaving a previously drilled hole at some depth below the surface and above the total depth. A whipstock is set in the previously drilled hole which is the starting point for the sidetracking operation. This section of new hole is directionally drilled to a new objective bottom hole location (target). (Bul 12A)

DIRECTIONAL SURVEILLANCE – Refer to "Controlled Directional Drilling". (Bul D20)

DIRECTIONAL SURVEY – Refer to "Borehole Directional Survey". (BulD20)

DIRECTIONAL TURBODRILL – A turbodrill which can follow the hole curvature developed with a bent sub, usually shorter in length than a straight-hole turbodrill. (Bul D20)

DISCHARGE SPOUT OR LIP – Extension at the discharge end of the screen deck. It may be vibrating or stationary. (Bul 13C)

DISCONTINUITY – A detectable interruption in the material which may or may not have undesirable connotations. (RP 2X)

DISCONTINUITY – An interruption in the normal physical structure or configuration of a pipe such as cracks, laps, seams, pits and laminations. A discontinuity may or may not affect the usefulness of a pipe or exceed critical flaw size. Also called a flaw or imperfection. (RP 5A5)

DISCOVERY WELL – An exploratory well that encounters a new and previously untapped petroleum deposit. A successful WILDCAT WELL. (ITOGP)

DISPERSANT – A cement additive which reduces the initial consistency of cement slurries. (Bul 10C)

DISPERSANT – Any chemical which promotes dispersion of the dispersed phase. (Bul D11)

DISPERSANT – A chemical agent used to break up or disperse concentrations of various liquid or solid materials. In cleaning oil spills, dispersants are used to disperse oil on the water surface. (Bul D11)

DISPERSANT – Agent, compatible with the solvent, which holds very finely divided matter in a dispersed state. (SSWID)

DISPERSED PHASE – The scattered phase (solid, liquid, or gas) of a dispersion. The particles are finely divided and completely surrounded by the continuous phase. (Bul D11)

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DISPERSION (OF AGGREGATES) – Subdivision of aggregates. Dispersion increases the specific surface of the particle: hence results in an increase in viscosity and gel strength. (Bul D11)
DISPERSION, SOUND – scattering of an ultrasonic beam as a result of diffuse reflection from a highly irregular incident surface. (RP 2X)
DISPERSOID – A colloid or finely divided substance. (Bul D11)
DISPLACEMENT – The lateral deistance from the surface location to the primary target. (Bul D20)
DISPLACEMENT RATE - The volumetric flow rate at which cement slurry is pumped down the hole. (Bul 10C)
DISPOSAL – The orderly placement or discarding of unwanted material. (Bul D11)
DISPOSAL WELL – A well through which fluid (usually brine) is returned to subsurface formations. (Bul 10C, ITOGP, SSWID)
DISSOCIATION – The splitting up of a compound or element into two or more simple molecules, atoms, or ions. Applied usually to the effect of the action of heat or solvents upon dissolved substances. The reaction is reversible and not as permanent as decomposition; i.e., when the solvent is removed, the ions recombine. (Bul D11).
DISSOLVED GAS – Natural gas which is in solution with crude oil in the reservoir. (ITOGP)
DISSOLVED-GAS DRIVE – See Solution-Gas Drive. (ITOGP)
DISSOLVED OXYGEN (DO) – The oxygen dissolved in water or sewage. Adequately dissolved oxygen is necessary for the life of fish and other aquatic organisms and for the prevention of offensive odors. Low dissolved oxygen concentrations generally are due to discharge of excessive organic solids having high BOD, the result of inadequate waste treatment. (Bul D11)
DISSOLVED SOLIDS – The total amount of dissolved material, organic and inorganic contained in water or wastes. Excessive dissolved solids make water unpalatable for drinking and unsuitable for industrial use. Measurements are expressed as ppm or mg/liter (mg/l). (Bul D11)
DISTILLATION – Process of first vaporizing a liquid and then condensing the vapor into a liquid (the distillate), leaving behind non-volatile substances, the total solids of a drilling fluid. The distillate is the water and/or oil content of a fluid. (Bul D11)
DISTORTION ENERGY THEORY – Failure theory defined by the following equation where the applied stresses are positive for tension and negative for compression. (Bul 2U, 2V)

$$F\frac{2}{A} - f_a f_0 + f\frac{2}{0} + F\frac{2}{y}$$

DIVERGENCE – Spreading of ultrasonic waves after leaving search unit, a function of diameter and frequency. (RP 2X)
DIVERTER - A diverter is a device used to direct tools at a branch connection. (RP 6G)
DIVERTER – A device attached to the wellhead or marine riser to close the vertical access and direct any flow into a line away from the rig. Diverters differ from blowout preventers in that flow is not stopped but rather the flow path is redirected away from the rig. (RP 53)
DIVIDED DECK – A deck having a screening surface longitudinally divided by partition(s). (Bul 13C)
DnV – Det norske Veritas.
DOCUMENTATION – Recorded information. (Spec Q1)
DOG-LEG – The "elbow" caused by a sharp change of direction in the wellbore. (Bul D11)
DOGHOUSE – A small house used for keeping lease records, changing clothes, or any other use around a lese. (ITOGP)
DOGLEG- A term applied to a sharp change of direction in a wellbore or ditch. Applied also to the permanent bending of wire rope or pipe. (ITOGP)
DOGLEG ANGLE – Refer to "Dogleg Severity". (Bul D20)
DOGLEG CONTROL PROGRAM – Program, designed specifically to decrease the severity of or eliminate doglegs in a drilled hole. (BulD20)
DOGLEG SEVERITY – A measure of the amount of change in the inclination and/or direction of a borehole, usually expressed in degrees per 100 feet of course length. (Bul D20)
DOGLEG TYPES - (QUALITATIVE) –

Abrupt Dogleg – A dogleg caused by a sudden change in inclination and/or direction over a short interval.
Decreasing Dogleg – A dogleg in the borehole with the change in inclination returning the borehole toward vertical.
Excessive Dogleg (*Severe Dogleg*) – Doglegs larger than Permissible Doglegs.
Increasing Dogleg – A dogleg with in the borehole with the change in inclination increasing the angle away from vertical.
Long Dogleg – A dogleg with a gradual change in inclination and/or direction over a long interval.
Permissible Dogleg – A dogleg through which equipment and/or tubulars can be operated without sticking tools or providing excessive stresses or wear. (Bul D20)

DOLOMITE – A type of sedimentary rock similar to limestone but rich in magnesium carbonate. Sometimes dolomite is found as the reservoir rock or petroleum. (ITOGP)
DOME – The volume chamber inside the bellows of a gas lift valve. (GL)
DOPE – A viscous material used on casing or tubing threads as a lubricant, and to prevent corrosion; a tar-base coating for pipelines to prevent corrosion. (ITOGP)
DOSE RATE – The amount of ionizing radiation energy absorbed per unit of mass and time of irradiated material. Measured in reps, rem and rad. (RP 5A5)
DOSIMETER – A device that measures radiation dose, such as film badge or ionization chamber. (RP 5A5)
DOT – Department of Transportation.
DOUBLE CRYSTAL METHOD – The method of ultrasonic testing, using two transducers with one acting as the transmitter and one as the receiver. (RP 2X)
DOUBLE DOGLEGGING – Refer to "S-type Well". (Bul D20)
DOUBLE FLUTE – Two flutes advancing simultaneously at the same angle and 108o apart. (Bul 13C)
DOUBLE LEAD – See Preferred Term: Double Flute. (Bul 13C)

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DOUBLE SEAM PIPE – Pipe having two longitudinal seams formed by the submerged-arc welding process or the gas metal-arc welding process or the combination welding process. (Spec 5L)

DOUBLE-WALL DRILL PIPE – A two-tube concentric drill pipe assembled with the inner pipe in compression and the outer pipe in tension. Used to replace drill collars in directional holes. (Bul D20)

DOUBLES – Drill pipe and tubing pulled from the well two joints at a time. The two joints make a stand pipe that is set back and racked in the derrick. Three-joint stands are called THRIBBLES, fours are FOURBLES. (ITOGP)

DOUGHNUT – A ring of wedges that supports a string of pipe or a threaded, tapered ring used for the same purpose. (ITOGP)

DOWNCOMER – A tube that conducts liquids downward in a vessel (as an absorber, a stripper, or heater-treater.) (ITOGP)

DOWNHOLE – A term to describe tools, equipment, and instruments used in the wellbore. For example, a downhole tool is used in the wellbore. Also, conditions or techniques applying to the wellbore. (ITOGP)

DOWNHOLE MOTOR – A power source located just above the bit to rotate the bit; usually refers to the turbodrill or the Dyna-Drill. (Bul D20)

DP – An acronym for drill pipe. (RP 5A5)

DRAG – The extra force needed to move the drill stem resulting from the drill stem being in contact with the wall of the wellbore. (Bul D20)

DRAIN DECK – See Preferred Term: Beach. (Bul 13C)

DRAIN HOLES – Several high-angle holes drilled laterally from a single wellbore into the producing zone. (Bul D20)

DRAWDOWN – The difference in pressure (psi) between the static (shut-in) bottomhole pressure and the flowing bottomhole pressure at a constant rate of fluid production. (GL)

DRAWDOWN – The difference between the static and the flowing bottom-hole pressures. The distance between the static level and the pumping level of the fluid in the annulus of a pumping well. (ITOGP)

DRAW-OFF – Draining one fluid from a measurement vessel to determine relative volumes of heavy vs. light fluid. (WT)

DRESS – To sharpen or repair items of equipment (as drilling bits, tools, or sucker rod pumps) in order to make them ready for reuse. (ITOGP)

DRIFT – A drift is a gage used to check minimum ID of loops, flowline, and nipples. (RP6G)

DRIFT – (1) Horizontal component of the distance from the surface to any certain point in the wellbore (usually the bottom of the wellbore). (2) Normally random precession in a displacement gyro caused by stray torques from bearings, pickoffs, imperfect balance, mass shift, etc. (Bul D20)

DRIFT ANGLE – (1) The angle between the axis of the wellbore and the gravity vertical (refer to "Inclination"). (2) More or less constant angle at which the wellbore is carried after sufficient angle has been obtained in the buildup (refer to "Maximum Angle"). (Bul D20)

DRIFT INDICATOR – Refer to "Inclinometer". (Bul D20)

DRIFT MANDREL – A precision dimensioned cylinder sized to pass through each diameter and weight of pipe. It is passed through the pipe ID to locate obstructions and/or to assure compliance with appropriate specifications. (RP 5A5)

DRIFT SURVEY – Refer to "Inclination Survey". (Bul D20)

DRILL COLLAR – Thick-walled pipe to provide stiffness and concentration of weight at the bit. (Bul D10)

DRILL COLLARS – Round, square, and triangular drill stem elements utilized to provide a load on the bit for the purpose of drilling. (Bul D20)

DRILL CORE OR SCHRADER CORE VALVE – Valve in the top of the gas lift valve used in charging the bellows with nitrogen. (GL)

DRILL PIPE – A portion of the drill string which transmits power to the bit. (Bul D10)

DRILL PIPE – The tubular member of the drill string to which tool joints are attached. (Bul D20)

DRILL PIPE – A length of tube, usually steel, to which special threaded connections called tool joints are attached. (RP 54)

DRILL PIPE SAFETY VALVE – An essentially full-opening valve located on the rig floor with threads to match the drill pipe in use. This valve is used to close off the drill pipe to prevent flow. (RP 53)

DRILL STEM – The entire drilling assembly from the swivel to the bit composed of the Kelly, drill string, subs, drill collars, and other downhole tools such as stabilizers and reamers. This assembly is used to rotate the bit and carry the drilling fluid to the bit. (Bul D20, RP 54) DRILL STEM BUCKLING – To bend; to become distorted due to effects of forces on the drill stem in a wellbore. (Bul D20)

DRILL-STEM TEST (DST) – A test to determine whether oil and/or gas in commercial quantities has been encountered in the wellbore. (Bul D11)

DRILL STRING – A combination of drill pipe, drill collars, and accessory components. (Bul D10)

DRILL STRING – The drill pipe with tool joints attached. (Bul D20)

DRILL STRING – Several sections or joints of drill pipe joined together. May also refer to sections or joints of threaded tubing or casing joined together to be used for drilling. (RP 54)

DRILL STRING BEHAVIOR – A term describing the mechanics and action of the drill string/stem. (Bul D20)

DRILL STRING FATIGUE – The cumulative effect of the stresses imposed on the drill string due to cyclic stressing during drilling operations. (Bul D20)

DRILL STRING FLOAT – A check valve in the drill string that will allow fluid to be pumped into the well but will prevent flow from the well through the drill pipe. (RP 53)

DRILL STRING TEST – A test taken by means of special testing equipment run into the wellbore on the drill string to determine the producing characteristics of a formation. (RP 54)

DRILLED SOLIDS – (See Related Term: Low Specific Gravity Solids.) Formation particles. (Bul 13C)

DRILLER – Employee directly in charge of a drilling rig and crew. Operation of the drilling and hoisting equipment constitute his main duties. (RP 54)

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DRILLER'S REPORT – A record kept on the rig for each tour to show the footage drilled, drilling-fluid tests, bit record, and all important occurrences during that tour. (WLOP)

DRILLING AREAS – Those areas in which wells are being drilled, recompleted, or reworked for the purpose of exploring for or producing oil or gas. Wells meeting any of the conditions of the above are referred to as "drilling wells". The term "drilling wells" does not include wells on which wireline work is being performed through a lubricator or wells into which or from which pumping equipment is being installed or removed. (RP 500B)

DRILLING COLLISIONS – Refer to "intersection". (Bul D20)

DRILLING FLUID – A fluid circulated through the bit; an integral part of rotary drilling. It serves to carry cuttings from the bit. Hole conditions may dictate other necessary functions for the fluid. The fluid phase may be air (or other gas), water, oil or any combination thereof. (Bul 10C)

DRILLING FLUID OR MUD – A circulating fluid used in rotary drilling to perform any or all of various functions required in the drilling operation. (Bul D11)

DRILLING FLUID WEIGHT RECORDER – An instrument in the drilling fluid system which continuously measures drilling fluid density. (RP 53)

DRILLING (HOISTING) LINE – The wireline used in the rig's main hoisting system. (RP 54)

DRILLING HYDRAULICS – The employment of the science of the effects of fluid velocities and pressures and forces involved. (Bul D10)

DRILLING IN – The operation during the drilling procedure at the point of drilling into the pay formation. (Bul D1)

DRILLING MUD – A drilling fluid where the fluid phase is oil, water or a combination thereof (synonym MUD). (Bul 10C)

DRILLING OUT – The operation during the drilling procedure when the cement is drilled out of the casing before further hole is made or completion attempted. (Bul D11)

DRILLING OUT – Refers to drilling and removal of material which normally remains in the casing or wellbore after cementing. (RP 54)

DRILLING RIG – Equipment and machinery assembled primarily for the purpose of drilling or boring a hole in the ground. (RP 54)

DRILLING SPOOL – A connection component with ends either flanged or hubbed. It must have an internal diameter at least equal to the bore of the blowout preventer and can have smaller side outlets for connecting auxiliary liens. (RP 53)

DRIP – The small quantities of liquid hydrocarbons which sometimes condense in a natural gas line. Also the equipment installed on a gas line to remove liquids. (ITOGP)

DRIVE – All the immediate elements used to provide motive power to the mud processing equipment, such as V-belts, sheaves, motor, and motor base. (Bul 13C)

DRIVE PIPE – A relatively short string of large diameter pipe driven or forced into the ground to function as "conductor pipe". (RP 53, RP 54)

DROOP ERROR – The error introduced by the hanging downward of the protruding instrument extending through and ahead of the rigger bit. (Bul D20)

DROP OFF – That portion of the wellbore in which the inclination is reduced (refer to "Angle Drop Off"). (Bul D20)

DROP-OFF INTERVAL – The interval in the wellbore where the inclination angle is purposely deceased and returned toward the vertical. (Bul D20)

DROP-OFF RATE – The rate of change of the inclination in the part of the wellbore where the inclination angle is purposely returned toward the vertical, usually expressed in degrees per 100 feet of course length. (Bul D20)

DROP TIME – The amount of time needed for a "go-devil" type instrument to fall from the surface through the drilling fluid within the drill stem to the desired position. (Bul D20)

DROP-TYPE SURVEY – A directional or inclination survey taken with an instrument that is free released to fall within the drill stem to the desired position within the wellbore. (Bul D20)

DRUM-ROPE – A rotating cylinder with side flanges on which wire rope used in machine operation is wrapped. (Spec 2C)

DRUNKEN THREAD – Distortions in the spiral path of a thread around the pin. Sometimes applied to wavy threads or threads which crests that undulate around the periphery of the threads. (Bul 5T1, RP 5A5)

DRY BOTTOM – A dry condition at the underflow of a hydrocyclone. (Bul 13C)

DRY GAS – Natural gas that is produced without liquid hydrocarbons. Also gas that has been dehydrated o remove water (pipeline gas). (ITOGP)

DRY HOLE – Any exploratory or development well that does not produce oil or gas in commercial quantities. (ITOGP)

DRY METHOD – A magnetic particle inspection method in which the particles employed are in dry powder form. (RP 5A5)

DRY PLUG – The plugging of the underflow opening of a dry bottom hydrocyclone. (Bul 13C)

DUAL SEARCH UNIT (TWIN PROBE) – A probe or search unit containing two elements, one a transmitter, the other a receiver (T-R, S-E). (RP 2X)

DUAL TRANSDUCER – An ultrasonic probe containing two piezoelectric crystals, one for transmitting and one for receiving. (RP 5A5)

DUALLY COMPLETED WELLS – Wells producible from two separate and distinct zones having separate production strings. Zones are separated by packers and production may be through two strings of tubing, or through one string of tubing and casing tubing annulus. (WT)

DUMMY – A blank tool installed in a side pocket gas lift mandrel landing nipple and/or sliding sleeve. (WLOP)

DUMP VALVE – The discharge valve through which oil and water are discharged from separators, treaters, etc. (ITOGP)

DUMP VALVE – A valve on a production vessel which opens automatically at high liquid level and closes to stop flow at low liquid level. Usually actuated by float control but may be diaphragm, or electrically operated. (WT)

DYNAMIC – The state of being active or in motion; opposed to static. (Bul D11)

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DYNAMIC-LOADING – Loads introduced into the machine or its components due to accelerating or decelerating forces. (Spec 2C)

DYNAMIC-LOADING – Loading imposed upon a structure as a result of motion as opposed to static loading. (Spec 4F)

DYNAMIC RANGE – The ratio of maximum to minimum reflective areas that can be distinguished on the cathode ray tube at a constant gain setting. (RP 2X)

DYNAMIC STRESS – Varying or fluctuating stress occurring in a structural member as a result of dynamic loading. (Spec 4F)

DYNAMOMETER – As applied to sucker-rod pumping, the dynamometer records the variation in load on the polished rod as the rod string reciprocates. (ITOGP)

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EARTHFILL STRUCTURE – A gravity structure made from gravel or other earthfill material. (Bul 2N)
ECCENTRICITY – A condition of pipe in which the OD and ID axes are not coincident, resulting in wall thickness variation around the circumference at a given section plane. (Bul 5T1)
ECHO – Indication of reflected energy. (RP 2X)
ECOLOGY – The interrelationships of living things to one another and to their environment, or the study of such interrelationships. (Bul D11)
ECOLOGICAL IMPACT – The total effect of an environmental change, either natural or madmade, on the ecology of the area. (Bul D11)
ECONOMICS – Analysis of capital, labor, wages, prices, tariffs, taxes, etc. (SSWID)
ECOSYSTEM – The interacting system of a biological community and its non-living environment. (Bul D11)
EDDY CURRENT – Circulating current caused to flow in the pipe by varying magnetic fields. (RP 5A5)
EFFECTIVE BEAM ANGLE – That beam angle which, when plotted for a flat workpiece of the same thickness, accounts for the lengthening of skip distance which occurs in a curved test piece. (RP 2X)
EFFECTIVE FLANGE BREADTH – The reduced breadth of a plate subjected to bending an/or tensile load, which, with an assumed uniform stress distribution, produces the same effect on the behavior of a structural member as the actual breadth of the plate with its nonuniform stress distribution. While the effective flange breadth applies to a member under bending and/or tensile loading, and is associated with shear lag effects. (Bul 2V)
EFFECTIVE FLANGE WIDTH – The reduced width of a plate subjected to compressive load, which, with an assumed uniform stress distribution produces the same effect on the behavior of a structural member as the actual width of the plate with its nonuniform stress distribution. (Bul 2V)
EFFECTIVE LENGTH (KLt) – The equivalent length used in compression formulas and determined by a bifurcation analysis. (Bul 2U)
EFFECTIVE LENGTH FACTOR (K) – The ratio between the effective length and the unbraced length of the member. (Bul 2U)
EFFECTIVE PENETRATION – The maximum depth in a material at which the ultrasonic transmission is sufficient for proper detection of discontinuities. (RP 2X)
EFFECTIVE PERMEABILITY – The permeability of a rock to a fluid when the rock is not 100 percent saturated with the fluid. See Permeability. (ITOGP)
EFFECTIVE POROSITY – The percentage of the bulk volume of a rock sample that is composed of interconnected pore spaces, allowing the passage of fluids through the sample. See Porosity. (ITOGP)
EFFECTIVE SCREENING AREA – Portion of screen surface available for material separation. (Bul 13C)
EFFECTIVE SECTION – Stiffener together with the effective width of shell acting with the stiffener. (Bul 2U)
EFFECTIVE SIZE – A term used in specifying sand. It is the sieve size in millimeters that permits 10 percent of the filter sand by weight to pass. (SSWID)
EFFECTIVE THREAD LENGTH – Threads having fully formed roots, but not necessarily finished crests. (RP 5B1)
EFFECTIVE WIDTH – The reduced width of shell or plate which, with an assumed uniform stress distribution, produces the same effect on the behavior of a structural member as the actual width of shell or plate with its nonuniform stress distribution. (Bul 2U)
EFFICIENCY – The percentage relation of output to input. (Bul D10)
EFFLUENT – See Preferred Term: Overflow. (Bul 13C)
EFFLUENT – A discharge of liquids and/or solids into the environment, partially or completely treated or in their natural state. Generally used in regard to discharges into waters. (Bul D11)
EFFLUENT – A discharge of liquid – generally used to describe a stream of liquid after some attempt at separation or purification has been made. (SSWID)
EFFLUENT SEEPAGE – Diffuse discharge into the ground of liquids that have percolated through solid waste or another medium; they contain dissolved or suspended materials. (Bul D11)
ELASTIC BUCKLING STRESS – The buckling stress of a cylinder based upon elastic behavior. (Bul 2U)
ELASTOMER – Any of the class of materials, including natural and synthetic rubbers, which return to their original shape after being subjected to large deformations. (RP 2T)
ELBOW – A fitting that allows two pipes or nipples to be joined together at an angle of less than 180°, usually 90° or 45°. (Slang term for elbow is "ell"). (WLOP)
ELECTRIC HORSEPOWER (EHP) – Kilowatts x 0.746. (Bul D10)
ELECTRIC LINE – Single or multiple electrical conductor housed within a braided wireline. (RP 57)
ELECTRIC LOGGING – See Well Log. (Bul 10C)
ELECTRIC LOGGING – Electric logs are run on a wireline to obtain information concerning the porosity, permeability, fluid content of the formations drilled, and other information. The drilling-fluid characteristics may need to be altered to obtain good logs. (Bul D11)
ELECTRIC-WELDED PIPE – Defined as pipe having one longitudinal seam formed by electricflash welding or electric-resistance welding, without the addition of extraneous metal. The weld seam of electric-welded pipe shall be heat treated after welding to a minimum temperature of 1000°F (538°C), or processed in such a manner that no untempered martensite remains. (Spec 5A)
ELECTRIC-WELDED PIPE – Pipe having one longitudinal seam formed by electric-resistance welding, or electric-induction welding without the additional extraneous metal. The weld seam of electric-resistance welded pipe and induction welded pipe in grades higher than X42 shall be heat treated after welding to a minimum temperature of 1000°F (538°C). For grades X42 and

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lower, the weld seam shall be similarly heat treated, or the pipe shall be processed in such a manner that no untempered martensite remains. (Spec 5L)

ELECTRICAL CLASSIFICATION OF AREAS – For purpose of this document, locations are classified according to APR RP 500B: Recommended Practice for Classification of Areas for Electrical Installations at Drilling Rigs and Production Facilities on Land and on Marine Fixed and Mobile Platforms. (RP 54)

ELECTRICAL ENCLOSURE – The case or housing of electrical apparatus provided to prevent personnel from accidentally contacting energized parts, and/or to protect the equipment from physical damage and the environment. Also certain enclosures serve to prevent electrical equipment from being a source of ignition of flammable mixtures outside the enclosure. (RP 14F)

ELECTRICAL NOISE – Extraneous signals caused by externally radiated electrical signals or form electrical interferences within the ultrasonic instrumentation. (RP 2X)

ELECTROSTATIC TREATER – An emulsion treating vessel that utilizes an electrical grid and usually a fire tube to coalesce the fluid. This type of treater usually operates at lower temperature than ones without grids. (Spec 12L)

ELECTROCHEMICAL – Chemical changes associated with flow of electric current. (COGWE, SSWID)

ELECTROLYTE – A substance which dissociates into charged positive and negative ions when in solution or a fused state and which will then conduct an electric current. Acids, bases, and salts are common electrolytes. (Bul 10C, Bul D11)

ELECTROLYTE – A liquid or soil capable of conducting electric current. (COGWE, SSWID)

ELECTROMAGNET (EM) – When ferromagnetic material is surrounded by a current carrying coil it becomes magnetized and is called an electromagnet. (RP 5A5)

ELECTRONIC PULSER – See Pulser. (RP 5A5)

ELECTRONIC YAW EQUIPMENT® (registered trademark of Scientific Drilling Controls) – Term used to describe the "EYE Tool" (refer to "EYE Tool"). (Bul D20)

ELEVATION – Height above sea level. (SSWID)

ELEVATION – Measurement of a well location or a plane on a drilling well above a specified datum, usually sea level. (WLOP)

ELEVATORS – Latches which secure the drill pipe; attached to the traveling block which raises and lowers the pipe from the hole. (Bul 10C)

ELEVATORS – Mechanical device attached to the traveling block which latches around and supports the pipe during hoisting or lowering operations. (RP 54)

EMERGENCY SHUTDOWN (ESD) SYSTEM – A system of manual stations which, when activated, initiate platform shutdown. (RP 14C)

EMI – Acronym for Electromagnetic Inspection including flux leakage and eddy current inspection. (RP 5A5)

EMI INSPECTION – A colloquial expression for new pipe inspection performed with an inspection unit having these four scanners:

a. Rotating scanner for detection of longitudinal defects.
b. Fixed scanner for detecting transverse defects.
c. Rotating scanner for wall thickness measurement.
d. Grade verifier or comparator (optional). (RP 5A5)

EMISSION FACTOR – The average amount of a pollutant emitted from each type of polluting source in relation to a specific amount of material processed. (Bul D11)

EMISSION STANDARD – The maximum amount of a pollutant legally permitted to be discharged from a signal source either mobile or stationary. (Bul D11)

EMULSIFIER OR EMULSIFYING AGENT – A substance used to produce an emulsion of two liquids which do not mix. Emulsifiers may be divided, according to their behavior, into ionic and non-ionic agents. The ionic types may be further divided into anionic, cationic, and amphoteric, depending upon the nature of the ion-active groups. (Bul 10C, Bul D11)

EMULSION – A substantially permanent heterogeneous liquid mixture of two or more liquids which do not dissolve in each other but which are held is suspension or dispersion, one in the other, by mechanical agitation or, more frequently, by adding small amounts of substances known as emulsifiers. Emulsions may be mechanical, chemical, or a combination of the two. They may be oil-in-water types or water-in-oil types. (Bul 10C, Bul D11)

EMULSION – A mixture of oil and water that requires treatment before the oil and water will separate. (GL)

EMULSION – A mixture of crude oil and formation water. Generally requires time and heat, chemicals (called DEMULSIFIERS or EMULSION BREAKERS) or electricity to separate the water form the oil. (ITOGP)

EMULSION – A relatively stable dispersion of water and oil which normally exists in the production stream from flowing or pumped oil wells. (Spec 12L)

EMULSION – A mixture of two or more liquids which do not mix together under normal conditions. One liquid is mixed throughout the other in small droplets. (WT)

EMULSOID – Colloidal particles which take up water. (Bul D11)

ENCIRCLING COIL – A coil surrounding the pipe under test. (RP 5A5)

ENCLOSED AND GASKETED BUSWAY – An enclosed and gasketed, grounded metal enclosure containing factory mounted, bare or insulated conductors which are usually copper or aluminum bars, rods, or tubes (see Article 364 of the NEC). (RP 14F)

ENCLOSED AND GASKETED LIGHTING FIXTURES – Lightning fixtures (formerly referred to as "vapor-tight") designed to prevent the entrance of gas and vapors. Such enclosures will not absolutely prevent the entrance of gases and vapors, as such tend to "breathe" as they are heated and cooled. (RP 14F)

ENCLOSED AREA (ROOM BUILDING, OR SPACE) – A three-dimensional space enclosed by more than two thirds (2/3) of the possible projected plane surface area and of sufficient size to allow the entry of personnel. For a typical building, this would require that more than two-thirds (2/3) of the walls, ceiling, and/or floor be present. (RP 500 B)

ENCLOSURE – A structure which may provide environmental protection for the machine. (Spec 2C)

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ENCLOSURE, ELECTRICAL – The case or housing of electrical apparatus provided to prevent personnel from accidentally contacting energized parts and to protect the equipment from physical damage. Certain enclosures also serve to prevent electrical equipment from being a source of ignition of flammable mixtures outside the enclosure. (RP 500B)

ENCLOSURE, EXPLOSION-PROOF – An enclosure which is capable of withstanding an explosion of a gas or vapor within it and of preventing the subsequent ignition of a flammable gas or vapor which may surround it, and which operates at such an external temperature that a surrounding flammable gas or vapor will not be ignited. (RP 500B)

ENCLOSURE, PURGED – An enclosure supplied with clean air or an inert gas at sufficient flow and positive pressure to reduce the concentration of any flammable gases or vapors initially present to an acceptably safe level and to maintain this safe level by positive pressure with or without continuous flow. Reference NFPA No. 496. (RP 500B)

END AND OUTLET CONNECTIONS – Integral threads, male or female; and flanges, studded or through-bolted used to join together equipment that contains or controls pressure. (Spec 6A, Spec 16A)

END DAMAGE – Damage to the pipe, such as during loading, unloading or that resulting from longitudinal shifting of the load and striking a bulkhead or an adjacent pipe pile. (RP 5L5)

END EFFECT – The reduction in magnetization near the ends of a length of magnetized pipe due to the demagnetizing effect of the poles at the pipe ends. (RP 5A5)

END POINT – Indicates the end of some operation or when a definite change is observed. In titration, this change is frequently a change in color of an indicator which has been added to the solution or the disappearance of a colored reactant. (Bul D11)

ENGINE HORSEPOWER (ENGINE RATING) – Refer to API STD 7B-11C. This standard covers rating of internal combustion engines. The MAXIMUM rating is not usable. The INTERMITTENT rating is applicable to joisting. The CONTINUOUS rating is applicable to pumping. (Bul D10)

ENGINEER – The person who acts on behalf of the Owner during construction. (RP 2X)

ENGINEER, MUD OR DRILLING-FLUID – One versed in drilling fluids whose duties are to manage, carry through, and maintain the various types of oil-well drilling fluid programs. (Bul 10C, Bul D11)

ENTRAINED GAS – Gas suspended in bubbles in a stream of liquid such as water or oil. (ITOGP)

ENTRAINED LIQUIDS – Mist-size liquid droplets occurring gas stream. Special designed separators, with a MIST EXTRACTOR, are used to remove the liquid from the gas stream. (ITOGP)

ENTRANCE – See Preferred Term: Inlet. (Bul 13C)

ENTRANCE HOLE DIAMETER – Entrance hole diameter is the average diameter of the hole through the 3/8-in. thick steel faceplate on the core target. It shall be measured twice at right angles and the average of the two measurements reported. (RP 43)

ENVIRONMENT – The sum of all external conditions and influences affecting the life, development, and ultimately the survival of an organism. (Bul D11)

ENVIRONMENTAL IMPACT STATEMENT – A document prepared by a Federal agency on the environmental impact of its proposals for legislation and other major actions significantly affecting the quality of the human environment. Environmental impact statements are used as stools for decision-making and are required by the National Environmental Policy Act. (Bul D11)

ENVIRONMENTAL SEAL – A seal which uses O-rings, epoxy, molded elastomer, silicone compound, or potting compound to prevent corrosion due to moisture or vapors. (RP 14F)

EP – Explosion Proof

EPA – The Environmental Protection Agency, a Federal agency.

EP ADDITIVE – See Extreme-pressure Lubricant. (Bul D11)

EPM OR EQUIVALENTS PER MILLION – Unit chemical weight of solute per million unit weights of solution. The epm of a solute in solution is equal to the ppm (parts per million) divided by the equivalent weight. Refer also to PPM. (Bul 10C, Bul D11)

EQUALIZING FEATURE (EF) – An SSSV mechanism which permits the well pressure to bypass the SSSV closing element to aid in opening the valve. (RP 14B, Spec 14A)

EQUIPMENT – Any single completed unit that can be used for its intended purpose without further processing or assembly (e.g., a valve, choke, cross, tee, spool, etc.). (Spec 6A, Spec 16A)

EQUIPMENT OPERATOR – Employee who operates equipment or devices. (RP 54)

EQUIVALENT CIRCULATING DENSITY – For a circulating fluid, the equivalent circulating density in lb/gal equals the hydrostatic head (psi) plus the total annular pressure drop (psi) divided by the depth (ft) and by 0.052. (Bul 10C, Bul D11)

EQUIVALENT SPHERICAL DIAMETER OR ESD – (See Related Term: Particle Size.) The theoretical dimension usually referred to when the sixes of irregularly shaped small particles are discussed. These dimensions can be determined by several methods, such as: settling velocity, electrical resistance, and light reflection. (Bul 13C)

EQUIVALENT WIGHT OR COMBINING WEIGHT – The atomic or formula weight of an element, compound, or ion divided by its valence. Elements entering into combination always do so in quantities proportional to their equivalent weights. (Bul 10C, Bul D11)

ERDA – Energy Research and Development Administration, a Federal agency.

ERECTION LOAD – The load produced in the mast and its supporting structure during the raising and lowering operation. (Spec 4F)

ERODED ORIENTATION POCKETS – Enlargements made on one side of the wellbore by getting methods. (Bul D20)

ERW PIPE – Pipe having one longitudinal seam formed by electric-flash welding or electricresistance welding, without the addition of extraneous metal. (RP 5A5)

ESD – Emergency Shut-Down. A system of stations which, when activated, initiate platform shut-down. (RP 14B)

ESTUARIES – Areas where the fresh water meets salt water. For example, bays, mouths of rivers, salt marshes, and lagoons. Estuaries are delicate ecosystems; they serve as nurseries or spawning and feeding grounds for a large group of marine life and provide shelter and food for birds and wildlife. (Bul D11)

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EVALUATION – Process of determining the severity of the flaw which leads to determining whether the pipe is acceptable or rejectable under the appropriate specification. (RP 5A5)

EVAPORATION PONDS – Shallow, artificial ponds into which liquids or aqueous suspensions are pumped, permitted to dry, and either removed or buried by more added materials. (Bul D11)

EXCESS TEMPERATURE – Temperature in a process component in excess of the rated working temperature. (RP 14C)

EXCESSIVE REINFORCEMENT (EXCESSIVE OVER-FILL) – Outside weld beads which extend above the prolongation of the original surface of the pipe (more than 1/8 in. for pipe having a thickness of . in. and under, and more than 3/16 in. for a pipe having a thickness of over . in.). (Bul 5T1)

EXCESS TRIM – Ref. API Spec 5L. (Bul 5T1)

EXIT DUCT – See Preferred Term: Overflow Opening. (Bul 13C)

EXPANDED PERLITE – A siliceous volcanic rock that is ground to small size and subjected to extreme temperature in an oven, resulting in an expansion and release of combined water, leaving the rock particle considerable expanded and porous. (Bul 10C)

EXPANSION BELLOWS – A corrugated piping device designed for absorbing expansion and contraction. (RP 14E)

EXPANSION BEND – A piping configuration designed to absorb expansion and contraction. (RP 14E)

EXPANSION LOOP – A bend placed in a line to absorb line movement or "line crawl" due to expansion and contraction of the pipe. (ITOGP)

EXPERIMENTAL PERMEABILITY RATIO – The experimental permeability ratio (kp/ko) is the ratio of the perforated effective permeability to the original effective permeability. These permeabilities are determined from flow tests on the core target. (RP 43)

EXPLORATORY WELL – See Wildcat Well. (ITOGP)

EXPLOSION-PROOF ENCLOSURE – An enclosure which is capable of withstanding an explosion of a gas or vapor within it and of preventing the ignition of an explosive gas or vapor which may surround it, and which operates at such an external temperature that a surround explosive gas or vapor will not be ignited thereby. (See Section 2.3) (RP 14F)

EXPLOSIVE LIMITS – The explosive limits of a gas or vapor are the lower and upper percentages by volume of concentration of gas in a gas-air mixture that will form an ignitible mixture. (See U.S. Bureau of Mines Bulletin 627, Flammability Characteristics of Combustive Gases and Vapors.) (RP 14F)

EXTERNAL GUYLINES – Lines which provide stability and run from some point in the derrick, mast, or pole to ground anchors or to a special substructure or derrick base which provides a substitute for ground anchors. (RP 54)

EXTERNAL THREAD – A thread on the outside surface of a pipe. (RP5A5, RP 5B1).

EXTERNAL UPSET – An extra-thick wall at the threaded end of drill pipe or tubing. Externally upset pipe does not have a uniform outside diameter throughout its length but is enlarged at each end. (WLOP)

EXTRA-WEIGHT DRILL PIPE® (Registered trademark of Reed Drilling Tools, Inc.) – Commercial name for a particular manufacturer's heavy weight drill pipe. (Bul D20)

EXTRAPOLATED THICKENING TIME – The time required for a cement slurry to reach a consistency of 100 Bearden units of consistency (Bc) obtained by extending the curve recorded during a thickening-time test which may be stopped at 70 under given conditions. See API Spec 10. (Bul 10C)

EXTREME OFFSET – An estimated maximum offset of the platform corresponding to given environmental conditions. (RP 2T)

EXTREME-PRESSURE LUBRICANT – Additives which, when added to the drilling fluid, impart lubrication to the bearing surfaces when subjected to extreme pressure conditions. (Bul 10C, Bul D11)

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ºF – Degrees Fahrenheit temperature measurement. (WT)

FABRICATOR – The person, firm, company, or corporation executing the contract or agreement with the purchaser to fabricate the structural steel pipe. (Spec 2B)

FACTORY SEAL – A factory seal is a seal provided in an explosion-proof device during manufacture for the purpose of eliminating external, field-installed "conduit seals" for that device. (RP 14F)

FAIL SAFE – Said of equipment or a system so constructed that, in the event of failure or malfunction of any part of the system, devices are automatically activated to stabilize or secure the safety of the operation. (ITOGP)

FAIL-SAFE DEVICE – A device, which upon loss of the control medium, automatically shifts to the safe position. (RP 14B, Spec 14A)

FAILURE – Any condition of the SSSV system that prevents it from performing the design function of preventing uncontrolled well flow; e.g., inability to close due to breakage, erosion, corrosion or fouling. (RP 14B, Spec 14A)

FAILURE – Improper performance of a device or equipment item that prevents completion of its design function. (RP 14C, RP 14H, Spec 14D)

FAIRLEAD – A device to guide wire rope for proper spooling. (Spec 2C)

FALSE INDICATION – An indication that may be interpreted erroneously as an imperfection or defect. An irrelevant indication. Sometimes called artifact. (RP 5A5)

FALSE SET – An abnormal early thickening of cement slurry wherein the slurry remains pumpable for the usual thickening time. The thickening may be reversible during the pumping history of the slurry. (Bul 10C)

FALSE STARTING THREAD – A circumferential tool mark on a round thread chamfer that precedes the actual starting thread. Sometimes referred to as a double starting thread. (Bul 5T1)

FAR FIELD – The region beyond the near field in which intervals of high and low acoustic transmission intensity cease to occur. (RT 2X)

FAST ICE – Any type of sea ice that remains attached to a shoreline, island, or grounded ice features. (Bul 2N)

FAST ICE ZONE – Any type of se ice that remains attached to a shoreline (sometimes called landfast) or grounded. (Bul 2N)

FAST LINE – The end of the hoisting (drilling) line which is affixed to the drum or reel. (RP 54)

FASTLINE – See Whip Line. (Spec 2C)

FATIGUE – Failure of a metal under repeated loading. (COGWE, ITOGP)

FATIGUE – Failure of a metal under repeated loading and stress. (SSWID)

FATIGUE FAILURE – Failure of equipment due to cumulative effect of repeated change of stress. (Bul D20)

FATIGUE LIFE – Number of cycles a metal can endure at a given stress level before failure will occur. (Bul D20)

FAULT – Geological term denoting a formation break, upward or downward, in the subsurface strata. Faults can significantly affect the area drilling fluid and casing programs. (Bul D11)

FEATHEREDGE – A thin sharp crested portion of a thread normally formed when the starting thread on round or buttress (pipe threads) runs out to the face of the pipe and not on the chamfer. (Bul 5R1)

FEED OR FEED SLURRY – A mixture of solids and liquid entering a liquid-solids separation machine, including dilution liquid if used. (Bul 13C)

FEED CAPACITY – (See Related Terms: Liquid Capacity, Solids Discharge Capacity.) The maximum feed rate that a solids separation device can effectively handle, dependent upon particle size, particle concentration, viscosity, and other variables. (Bul 13C)

FEED CHAMBER – That part of a device which receives the mixture of diluents, mud, and solids to be separated. (Bul 13C)

FEED HEADER – (See Related Term: Feed Manifold.) A pipe, tube, or conduit to which two or more hydrocyclones are connected and from which they receive their feed slurry. (Bul 13C)

FEED MANIFOLD – An arrangement by which liquids, solids, or slurries from one or more sources can be fed to one or more solids separation devices. (Bul 13C)

FEED OPENING – See Preferred Term: Inlet. (Bul 13C)

FEED PRESSURE – The actual gage pressure measured as near as possible to, and upstream of, the inlet of a device. (Bul 13C)

FEMALE CONNECTION – A pipe or rod coupling with the threads on the inside. (ITOGP)

FERMENTATION – Decomposition process of certain organic substance, e.g., starch in which a chemical change is brought about by enzymes, bacteria, or other micro-organisms. Often referred to as "souring". (Bul 10C, Bul D11)

FERROMAGNETIC – A term applied to magnetic materials that can be magnetized or strongly attracted by a magnetic field. (RP 5A5)

FIBER OR FIBROUS MATERIALS – Any tough stringy material used to prevent loss of circulation or to restore circulation. If field use, fiber generally refers to the larger fibers of plant origin. (Bul 10C, Bul D11)

FIELD – An area consisting of a single reservoir or multiple reservoirs all grouped on, or related to, the same individual geological structural feature and/or stratigraphic condition. The field name refers to the surface area, although at times it may refer to both the surface and the underground productive formation. (ITOGP)

FIELD – Any area other than the authorized facility of the original equipment manufacturer. (RP 14B, RP 14H)

FIELD END – The pipe end opposite the coupling or box. (RP 5A5)

FIELD FACILITY – An installation designed for one or more specific field processing units – scrubbers, absorbers, drip points, compressors, single or multiple stage separation units, low temperature separators, and other types of separation and recovery equipment. Also see Battery. (ITOGP)

FIELD REPAIR – An activity involving disassembly, reassembly and functional testing of SSSV equipment with or without the replacement of qualified parts. Field repair does not include machining, welding, heat treat or other manufacturing operations.

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Redress or adjustment does not constitute field repair. Field repair can also be accomplished at an Authorized Facility. (RP 14B, RP 14H, Spec 14D)

FILL-UP LINE – A lien usually connected into the bell nipple above the blowout preventers to allow adding drilling fluid to the hole while pulling out of the hole to compensate for the metal volume displacement of the drill string being pulled. (RP 53)

FILLER MATERIAL – A material added to a cement or cement slurry for the primary purpose of increasing the yield of the slurry. (Bul 10C)

FILLING THE HOLE – Pumping drilling fluid continuously or intermittently into the well bore to maintain the fluid level in the hole near the surface. The purpose is to avoid danger of blowout, water intrusion, and/or caving of the well bore, e.g., as the pipe is withdrawn. (Bul D11)

FILLUP LINE – The lien through which fluid is added to the hole. (Bul D11)

FILM BADGE – A package of photographic film worn like a badge by some workers in the inspection industry to measure exposure to ionizing radiation. The absorbed dose can be calculated by the degree of film darkening caused by the irradiation. (RP 5A5)

FILTER CAKE – The suspended solids that are deposited on a porous medium during the process of filtration. See also Cake Thickness. (Bul 10C, Bul D11)

FILTER-CAKE TEXTURE – The physical properties of a cake as measured by toughness, slickness, and brittleness. See also Cake Consistency. (Bul D11)

FILTER-CAKE THICKNESS – A measurement of the solids deposited on filter paper in 32nd of an inch during the standard 30-min API filter test. See Cake Thickness. In certain areas the filtercake thickness is a measurement of the solids deposited on filter paper for a 7. min duration. (Bul D11)

FILTER LOSS – A misnomer sometimes applied to fluid loss. (Bul 10C)

FILTER LOSS – See Filtrate Volume. (Bul D11)

FILTER PAPER – Porous unsized paper for refiltering liquids. API filtration test specifies one thickness of 9-cm filter paper Whatman No. 50, S&S No. 576, or equivalent. (Bul 10C, Bul D11)

FILTER PRESS – (1) Device for determining the fluid loss of a drilling fluid or cement system having specifications in accordance with API Spec 10 or RP 13B. (2) A porous medium through which fluid is forced under pressures described in API Spec 10 or RP 13B to separate the fluid from material held in suspension. (Bul 10C)

FILTER PRESS – A device for determining fluid loss of a drilling fluid having specifications in accordance with API RP 13B. (Bul D11)

FILTRATE – The liquid that is forced through a porous medium during the filtration process. See Filtrate Volume for recommended test procedure. (Bul 10C, Bul D11)

FILTRATE VOLUME – Measure of the volume of fluid lost through filter media (usually filter paper) when drilling fluid is subjected to a differential pressure in accordance with the filtration procedure contained in API RP 13B. (Bul D11)

FILTRATION – The process of separating suspended solids from their liquid by forcing the later through a porous medium. Two types of fluid filtration occur in a well: dynamic filtration while circulating and static filtration while at rest. (Bul 10C, Bul D11)

FILTRATION QUALITIES – The filtration characteristics of a drilling fluid. Generally these qualities are inverse to the thickness of the filter cake deposited on the face of a porous medium and the amount of filtrate allowed to escape from the drilling fluid into or through the medium. (Bul D11)

FILTRATION RATE – See Filtrate Volume. (Bul D11)

FIN – A thin, long ridge of metal protruding above a chamfer surface or thread profile. Bul 5T1)

FINAL SET – Cement shall be considered to have acquired its final set when it will bear, without appreciable identation, the final Gillmore needle. This is not an API test. See ASTM C 266; Time of Setting of Hydraulic Cement by Gillmore Needles. (Bul 10C)

FINAL STRENGTH – The strength of a cement at such a time when under the given conditions of temperature and pressure it ceases to change significantly (synonym Ultimate Strength). Bul 10C)

FINDING – Survey originated objective evidence that a control feature of the approved quality program was not implemented within an acceptable level of reliability. (Spec Q1)

FINENESS – The particle size to which a cement clinker is ground. This value is generally reported as surface area as determined with the Blaine air permeability apparatus or Wagner turbidimeter. See ASTM C 204 and C 115. (Bul 10C)

FINE SCREEN SHAKER – A vibrating screen designed for screening drilling fluids through screen cloth finer than 30 mesh. (Bul 13C)

FINGER RAFTING – Rafted ice in which two sheets alternately override each other along their common boundary. Predominant feature for thin ice sheets, but can be identified with most firstyear compression ridges. (Bul 2N)

FIP – Federation Internationale de la Precontrainte

FIRE – The phenomenon of combustion manifested in light flame and heart. (RP 14G)

FIRE LOOP – A pneumatic control line containing temperature sensing elements (fusible plugs, synthetic tubing, etc.) which, when activated, will initiate platform shutdown. (RP 14C)

FIRE WALL – A dike built around oil tanks, oil pumps and other oil handling equipment to contain any oil which may be accidentally discharged from the equipment. It also serves to block the spread of a fire or give protection for a period of time while emergency action is taken. (ITOGP)

FIRE WALL – A partition fabricated from non-combustible materials to prevent the spreading of flames and to provide a heat shield. (RP 2G)

FIRE WATCH – One or more trained persons with operable fire fighting equipment standing on alert during welding or burning operations. (RP 14E)

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FIREBOX – The firebox is also called the firetube. It is the enclosure where the fuel is burned, and is submerged in the fluid to be heated. The most common configuration is one or more Utubes. The fire is propagated in one end and exhausts into a stack on the other end. (RP 12N)

FIREBOX – A complete assembly consisting of the firetube, mounting flange, intake and stack adaptors. (Spec 12K, Spec 12L)

FIRED PROCESS AREA – That area is which a fired vessel is located. (RP 2G)

FIRETUBE – Natural gas is normally used to fire the heater through a submerged furnace chamber called the firetube. The firetube normally consists of one or more U-tubes fired at one

end and exhausting through a vertical stack for each U-tube. In larger heaters the firetube may consist of a large diameter first pass firetube and multiple return tubes manifolded into a common stack The firetube is that portion of the firebox in contact with the heater bath. (Spec 12K)

FIRED VESSEL – A vessel in which the temperature of a fluid is increased by the addition of heat supplied by a flame within the vessel. (RP 14C)

FIRST-YEAR ICE – Sea ice that is less than one year old. Typically, first-year ice has a salinity of 4 to 6 ppt; however, fresh-water ice may be found near some river deltas. (Bul 2N)

FIRST-YEAR RIDGE – A linear ice feature created by motion interference between two ice sheets; usually, a result of higher ice movement rates than for the formation of rafted ice. (Bul 2N)

FIRST-YEAR RIDGE – A linear ice feature of broken ice blocks created by pressure. Can be further subdivided into a shear ridge or a compression ridge. (Bul 2N)

FISH – Any object left in the wellbore during drilling or workover operations that must be recovered before work can proceed. v: To recover an object (fish) left in a wellbore during drilling or workover. (WLOP)

FISHING – Operations on the rig for the purpose of retrieving from the wellbore sections of pipe, collars, junk, or other obstructive items which are in the hole. (Bul D11)

FISHING – The effort to recover tools, cable, pipe, or other objects from the wellbore which have become lost in the well accidentally. Many special and ingeniously designed FISHING TOOLS are used to recover objects lost downhole. The object being sought downhole by the fishing tools is referred to as "the fish". (ITOGP)

FISHING NECK - A groove in the top of many wireline tools to allow other tools to clamp the tool and remove it from the well. (WLOP)

FISHING TOOL – A tool designed to recover equipment (lost or left) from the well. (WLOP)

FITNESS-FOR-PURPOSE – The manufacture or fabrication of as assembly or component to the quality level required (but not necessarily the highest level attainable) to assure material properties, environmental interactions, and any imperfections present in the assembly or connection are compatible with the intended purpose. Fitness-for-purpose connotes an assembly or component may contain material or fabrication imperfections of sizeable dimensions but their presence has an influence on its performance or reliability. (Spec 2C)

FITTINGS - The small pipes and valves that are used to make up a system of piping. (ITOGP)

FIVE-SPOT – Four input or injection wells located in a square pattern with the production well in the center. See Injection Pattern. (ITOGP)

FIXED OFFSHORE PLATFORM – A platform extending above and supported by the seal bed by means of piling spread footings or other means with the intended purpose of remaining stationary over an extended period. (RP 2L)

FIXED PLATFORM – A platform extending above and supported by the sea bed by means of piling, spread footings or other means with the intended purpose of remaining stationary over an extended period. (RP 2A)

FLAG – A piece of cloth, rope, or nylon strand used to mark a stranded wire line when swabbing, bailing, etc. (WLOP)

FLAME ARRESTOR – A device which prevents the propagation of flame from an enclosed area which contains the burner. If the area outside the enclosure were to contain an ignitable mixture, flashback would thus be prevented. The flame arrestor must be able to accomplish this without stopping the communication of air between the two areas. (RP 12N)

FLAME ARRESTOR ELEMENT (FLAME CELL) – A device which is mounted in a housing that serves as the combustion air intake. Its function is to prevent propagation of the flame from the firebox to the outside atmosphere. Sustained exposure to direct flame impingement may render the element inoperative. (RP 12N)

FLAME ARRESTOR HOUSING - An enclosure which contains the flame arrestor element and may contain mechanical devices such as mixer, air controller, etc. It bolts to the breeching. (RP 12N)

FLAME FAILURE – A flame which is inadequate to instantaneously ignite combustible vapors entering the firing chamber. (RP 14C)

FLAMMABLE – Capable of igniting easily, burning intensely or having a rapid rate of flame spread. (RP 14F, RP 14G, RP 500B)

FLAMMABLE (EXPLOSIVE) LIMITS – The lower and upper percentages by volume of concentration of gas in a gas-air mixture that will form an ignitable mixture. (See NFPA No. 325M.) (RP500B)

FLAMMABLE HIGHLY VOLATILE LIQUID – See Highly Volatile Liquid. (RP 500B)

FLAMMABLE LIQUID – A liquid having a flash point below 100°F (37.8°C) and having a vapor pressure not exceeding 40 lbs per square inch absolute (276 kilopascals) at 100°F (38.8°C). Flammable (Class I) liquids are subdivided into Classes IA, IB, and IC. Refer to NFPA No. 30 for further details. (RP 500B).

FLAMMABLE LIQUID – Any liquid having a flashpoint below 100°F (37.8°C). (RP 54)

FLAMMABLE LIQUID – Any liquid having a flash point of 100°F) (37.8°C) or less. These liquids are easily ignited. (RP 57)

FLANGE – A protruding rim with holes to accept bolts and having a sealing mechanism used to join pressure containing equipment. (Spec 6A, Spec 16A)

FLANGE, BLIND – A flange with no center bore, used to close off completely a flanged end or outlet connection. (Spec 6A, Spec 16A)

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