Acronyms and Abbreviations

NOTE: All references to 'subsea trees', XT, VXT, HXT, etc. are variations to "Christmas trees" and their derivations.

° ' " degrees, minutes, seconds (geometric angle; latitude/longitude)

' minutes (geometric angle; latitude/longitude); feet
" seconds (geometric angle; latitude/longitude); inches

°C degrees Centigrade; degrees Celsius

°F degrees Fahrenheit

°K degrees Kelvin (degrees Celsius, absolute)
°R degrees Rankine (degrees Fahrenheit, absolute)

1D one-dimensional 2D two-dimensional 3D three-dimensional

4D four dimensional (seismic - shots in the same location over time)

5-F five function (axis) manipulator 7-F seven function (axis) manipulator

α alpha

AB able-bodied seaman

A/C annular connector; air conditioning

A&C Automation and Control (FMC division for SCADA topside control)

A/D; AD assistant driller; authorized depth

A-D; AD analog to digital

A/L airlock

A/R as required; abandonment and recovery

A&R abandonment and recovery

AADE American Association of Drilling Engineers (see also IADC)

AAP all angle probe

AAPG American Association of Petroleum Geologists

AAPI apparent API units

AASST all angle survey steering tool

AAV annulus access valve (see also Annulus Swab Valve - ASV) (usually associated with a

horizontal subsea Christmas tree (HXT) or Tubing Head assembly)

AB Atlas-Bradford (a company)
ABB Asea Brown Boveri (a company)

ABI at bit inclination

ABS acrylonitrile butadiene styrene (class of moldable composite plastics or semi-synthetic

materials); American Bureau of Shipping

abs absolute (temperature, pressure, etc.); abstract

ABT annulus bore test
ABV annulus bleed valve
AC air conditioning
ac alternating current

ACCP acceptance

ac-dc alternating current to direct current

ACFM actual cubic feet; alternate current field measurement

ACIV annulus chemical injection isolation valve

ACK acknowledgement

ACME thread type; annulus communication & monitoring equipment (wellhead - outer annuli pressure measurement between sealed casing strings) (see also RTOL, WAMS)

ACPI advanced configuration and power interface

ACR alternating current resistance; attenuation-crosstalk ratio; acronym; air conditioning and

refrigeration

ACS American Chemical Society

ACT actuator

ACU array configuration utility; air condition unit

ADAPT adapter

ADB autotrophic denitrifying bacteria (see also SRB)

ADC analog/digital converter

ADCP acoustic doppler current profiler (see also DVL)

ADDU automatic directional drilling unit

ADJ adjust

Admin administration

ADP acceptance data package
ADR audit deficiency report
ADS atmospheric diving system
ADT applied drilling technology
ADU asynchronous data unit

AES atmospheric environmental service AF across flats (nut or bolt lug dimension)

AFC approved for construction; annulus flowline connector

AFD approved for design

AFE authorization for expenditure; approved financial expenditure

AFLC annulus flowline connector AFV annulus flowline valve

Ag silver

AGA American Gas Association
AGC automatic gain control
AGP accelerated graphics port
AGU American Geophysical Union

AHC active heave compensation (see also PHC)

AHTS anchor handling tug supply

Al all iron; analog input; air intake; artificial intelligence

AIChE American Institute of Chemical Engineers

AIME American Institute of Mining, Metallurgical, and Petroleum Engineers

AIO analog input/output AIR average injection rate

AIS automatic identification system (marine radio navigation)

AISC American Institute of Steel Construction
AISI American Iron and Steel Institute

AISC American Institute of Steel Construction

AIT analysis and integration team

AITP Association of Information Technology Professionals

AIV annulus isolation valve; alternate isolation valve (United States BOEM/BSEE – SSV/USV)

(see also SSIV)

Al aluminum

Al-In-Zn aluminum-indium-zinc (anode alloy material)

ALARP as low as reasonably practical

ALF alert log file; average load factor; ammonia leak finder

ALIGN alignment

ALP articulated loading platform

ALU arithmetic logic unit

AM electric furnace – air-melt (steel processing) (see also VIM)

AMB active magnetic bearing

AMF automatic mode function (deadman sequence – automatic closure sequence of safety

functions)

amp Ampere amps; A Amperes

AMS aerospace materials standards; American Meteorological Society

AMV annulus master valve

ANSI American National Standards Institute (see also BS, DIN, IEC, ISO)

ANT antenna

AOF absolute open flow (see also CAOF, WCD)

AOL America On Line

AOP asphaultene occurrence pressure

AP annulus pressure (sensor); antenna amplifier

APD application for permit to drill (United States BOEM/BSEE) (see also APM, DWOP); acoustic

pig detector

API American Petroleum Institute

approx approximate

APM application for permit to modify (United States BOEM/BSEE) (see also APD, DWOP)

APR automatic pressure-responsive safety valve

APS abandon platform shut-down

APU alternate power unit (see also HPU); auxiliary power unit (ROV)

AQ aqueous

AR appropriations request ARO after receipt of order

ARSS adjustable riser support system; auxiliary riser support system

AS Aerospace Standard (SAE) (see also NAS)

ASA American Standards Association
ASCE American Society of Civil Engineering

ASCII American Standard Code for Information Interchange

ASD acoustic sand detector; adjustable speed drive (see also SCR, VSD)

ASG average specific gravity
ASHC annulus shear closed
ASHO annulus shear open

ASHRAE American Society of Heating, Refrigeration, and Air Conditioning Engineers

ASIC application specific integrated circuit (see also FPGA)

ASL approved supplier list; annulus service line
ASME American Society of Mechanical Engineers
ASNT American Society for Nondestructive Testing

ASQC American Society for Quality Control

Assn association Assoc: Assocs associates

ASP alkaline surfactant polymer

ASSY assembly

ASTM American Society for Testing & Materials

ASV annulus swab valve (see also AVV); annulus shear valve; anti-surge valve

ATC autoclave

ATEX explosive atmosphere (EU rules for electrical equipment) (see also NEMA, BASEEFA)

ATM atmosphere (1 atm = 14.7 psi, 1 bar = 1.013 atm); automated teller machine

AUV autonomous underwater vehicle (see also ROV, UUV)

AV annular velocity; apparent viscosity

AVB annulus valve block

AVIM actuator valve internals module

AVL approved vendor list AVO amplitude versus offset

AVV annulus vent valve (see also ASV)

Aw water activity

AWG American wire gauge

AWHEM Association of Wellhead Equipment Manufacturers
AWS American Welding Society; approved work system

AWV annulus wing valve

AX Cameron (company) proprietary metal seal and its derivatives (usually associated with a

clamp hub external profile on a wellhead) (see also VX); antenna socket

AXT AX gasket test (see also TST)
AXOV annulus crossover valve

AZa apparent azimuth

B Boron β; β beta

B/d barrels per day

B/U backup

B2B business to business (see also F2F)

B&B block and bleed

BASEEFA British Approvals Service for Electrical Equipment in Flammable Atmospheres

bar $1 \text{ kg/cm}^2 (1 \text{ bar} = 0.1 \text{ MPa or } 14.5 \text{ psi}) \text{ (see also ATM)}$

BASS bullhead acid stimulation (subsea) system best available and safest technology

BATT battery

BAVO BSEE approved verification organization (see also CA, I3P)

BB barrier box barrel

bbl/d; bbld barrels per day bbl/min barrels per minute

BBS bulletin board system; best business solution BCC body center cubic (metallurgy) (see also BCT, FCC)

BCE base, collector, emitter (transistor)

Bcf billion cubic feet

Bcf/d billion cubic feet per day BCM billion cubic meters

BCPD barrels condensate per day

BCT body center tetragonal (metallurgy) (see also BCC, FCC)

BD board

Be magnetic field components; beryllium

BeCu beryllium copper

BESD bridge area emergency shut-down
BFE builder furnished equipment
BGC baseline gas chromatograph
bottom hole assembly

Bhd bullhead

Bhn; BHN Brinell hardness number (steel ball indenter) (see also HB, HBN, HBW)

BHP bottom hole pressure; Broken Hill Properties (BHP Billiton - a company); British horsepower

(power); brake horsepower (dynamometer) (see also SHP, W)

BHST bottom hole static temperature bottom hole temperature

Bk black
Bl blue
BLD blade
Bldg building
Blk block

BLM Bureau of Land Management (United States) (see also UKDOE, NPD, DOI, BOEM/BSEE)

Bn brown

BOD biochemical oxygen demand; bill of documents

BOE barrel of oil equivalent

BOEM Bureau of Ocean Energy Management (United States) (formerly the MMS, see also BSEE)

BOM bill of materials (see also MEL, MOC)

BOP blowout preventer bopd barrels of oil per day

BOPSJ blowout preventer spacer (or spanner) joint

BOTT bottom

Boxy magnetic field components
BP British Petroleum (a company)

bp boiling point bpd barrels per day

BPV bypass valve; back pressure valve

Br bronze; bromine; bromide

BR build rate; Petrobras (a company - logo); blind ram (BOP) (see also BSR, PR, SSR, VBR)

BRG bearing BRKT bracket Bros. brothers

BRS bit run summary

BRU backup and restore utility

BS bachelor of science; British Standards (see also ANSI, DIN, IEC, ISO)

BS&W basic sediment and water

BSDV boarding shut down valve (or boarding valve – pipeline/flowline) (see also SDV, SSIV)

BSEE Bureau of Safety and Environmental Enforcement (United States) (formerly the MMS, see

also BOEM)

BSI British Standards Institute

BSL below sea level, bolt specification level (see also PSL)
BSR blind shear ram (BOP) (see also BR, PR, SSR, VBR)

BTC bottom test cap (tubing hanger running tool); buttress thread casing

Btotal magnetic field components

Btu; BTU British thermal unit (1 kWatt-hr = 3413 Btu)

BTV bore test valve BTW by the way BUR buildup rate

BV Bureau Veritas: branch valve

BW Business Week (magazine); butt welding ends

bwpd barrels of water per day

BX API metal gasket for 6B and 17DSS type flanges

By; Bz magnetic field components

centi (prefix, one hundredth, 10⁻²); specific heat (Btu/lb_m-°F, or Joule/kg-°K); celerity (speed

of light or speed of sound); radians (geometric angle – see also rad)

C carbon; completing; Celsius

C&EN Chemical & Engineering News (trade magazine)

C/WO completion workover

C/WOR; completion workover riser (external - for VXT) (see also LS for TH and HXT)

CWOR

C1 methane C2 ethane C3 propane

C4 butane (see also IC4)
C5 pentane (see also IC5)

C6 hexane C7 heptanes C8 octane

Ca calcium

CA certifying authority (third party witness or inspection service, or vessel classification society)

(see also BAVO, I3P)

cb center of buoyancy (see also cg)

CAB cabinet

CAD computer aided design (see also CAM)

CAGR compounded annual growth rate

CALB calibrate/calibration

CALIBTR calibrator

CALM catenary anchor leg mooring

CAM computer aided manufacturing (sometimes referred to as CAD/CAM, see also CAD)
CANbus controller area network electrical cable (2-wire interface running over either a shielded

twisted pair, un-shielded twisted pair, or ribbon cable; and data transmission interface

standard)

CAOF calculated absolute open flow (see also AOF, WCD)

CAP capacitor; capacity CAPEX capital expenditure

CAR carrier; corrective action request CAS Chemical Abstract Services

CAT corrective action team; connector actuation tool

CB choke bridge

CBE cost benefit estimate

CBL cable; cement bond log (see also VDL)

CBP completion bore protector

CC cubic centimeters; choke closed; (carbon) copied; core components

CC Tool cement cleanout tool

CCD charge-couple device (image sensor)
CCF closed caisson foundation (suction pile)

CCH Commerce Clearing House
CCP change control panel
CCR central control room
CCS camera control station

CCT crevice corrosion temperature; continuous cooling transformation (curves) (metallurgy

hardenability)

CCTV closed circuit television CCW counterclockwise

CD committee draft; compact disc (storage media)

CDC Center for Disease Control
CDI cake deposition index
CDR critical design review

CD-ROM compact disc - read only memory CDTM controlled depth tow method

CE Council of Europe (equipment certification standard/marking) (see also EU); carbon

equivalent

CEC cation exchange capacity
CEO chief executive officer

CER ceramic

CERT certified; (materials) certificate (of properties and chemistry); constant extension rate tensile

testing (see also SSRT)

CFD computational fluid dynamics (see also FEA); cubic feet per day

CFO chief financial officer

CFR code of federal regulations (United States) (see also ITL, LTL, NTL)

cg; • center of gravity (see also cb); centigram

CGA color graphics array; computer graphics and applications

CGB completion guide base (see also UGB, UGF)

Ch chalk (reservoir rock)

CH channel CHASS chassis

CHC production choke closed

CHEM chemical

CHO production choke open

CHOO or formate (a salt from formic acid)

HCOO⁻

CHRT casing hanger running tool; chert (geology)

CI cast iron; chemical injection; continuous improvement

CIBP cast iron bridge plug

CICV chemical injection check valve
CID chemical injection downhole
CIDV chemical injection downhole valve
CIF common interrogation frequency

CIIC chemical injection (isolation) check valve

CIIV chemical injection isolation valve

CIL critical items list CIRC circuit; circulation

CIS chemical injection supply; computer information system; Commonwealth of Independent

States – formerly USSR, Russia)

CIT chemical injection tree
CIU chemical injection unit
CIV chemical injection valve
CIWV chemical injection wing valve

Cl chlorine; chlorides (alternate measure of salinity – NaCl → Na⁺ and Cl⁻)

CL; © center line; cemented liner

cl; cL centiliter cm centimeter

CM completion method (mudline wellhead) (see also OBS-C, JXT)

CMOS complementary metal oxide semiconductor; configuration memory operating system

CN change notice

CNC computer numerically controlled (see also NC)
CNOPB Canada Newfoundland Offshore Petroleum Board

CNS Central North Sea

CNTR counter

CO carbon monoxide (chemical formula); choke open; change order

Co company; cobalt

CO2; CO₂ carbon dioxide (chemical formula)

COB; CB center of buoyancy; close of business (end of business day)

COC certificate of compliance; certificate of conformity; certificate of competency; chain of

command; close-open-close

COD chemical oxygen demand; cash on delivery

COG; CG center of gravity

COMM communication; commission (see also DECOM)

COMP computer; completion

CON continuity

COND conditioner; conductor

CONN connector
CONT contact; control
Cont continued
CONV convert

COO chief operating officer

CORP corporate/corporation

COV crossover valve (see also XOV)

CP candlepower (light intensity); centipoise (absolute viscosity)
CP cathodic protection; cloud point (paraffin) (see also WAT)
CPAS collaborative process automation system (see also SCADA)

CPLG coupling

CPU central processing unit

Cr chromium

CR change request; common requirements

CRA corrosion resistant alloy

CRF common reply frequency; change request form

CRM corrosion resistant material

CRT cathode ray tube

Cs cesium

CS continental shelf; cast steel/carbon steel; center section

CSA Canadian Standards Association CSG casing; API Casing Short Thread

CSOEM Committee on Standardization of Oilfield Equipment and Materials (API)

Cspec coating specification
CST capillary suction time
cSt centistokes (viscosity)
CSU control and service umbilical

CT coiled tubing; computerized topography; conventional tree (obsolete and replace with VXT)

CTC coiled tubing cutter
CTF coiled tubing flowline
CTLF coiled tubing lift frame

CTOD crack tip open displacement (fracture mechanics, fatigue)
CTR cost, time, and resource (project management - task planning)

CTRL control

CTS chemical transmission system; concentric chamber pressure transmission system

CTZR centralizer cu ft cubic feet CU; c.u. capture unit

CUG computer user group

Cy flow coefficient (flow rate passing through a valve or choke (gallons/minute) at 1 psi

pressure drop – Imperial units version of Kv, where Cv = 1.16 Kv)

CV critical velocity; check valve; choke valve; Curriculum Vitae (resume)

CVB composite valve block

CVN Charpy V-Notch (material impact/toughness test)

CVR cover

CW Chemical Week (trade magazine); clockwise

CWE cold water equivalent

CWLS Canadian Well Logging Society

CWO; C/WO completion workover CWOR; completion workover riser

C/WOR

CWT critical well team

CXT conventional (subsea Christmas) tree (obsolete – see VXT)

Cyl cylinder

d deci (prefix, one tenth, 10⁻¹)

D darcy (a unit of permeability or porosity through rock)

D-A; DA digital to analog; data acquisition

D/H; DH data handler; direct hydraulic; down-hole

D/S; DS data sheet

D/t diameter (outside) to wall thickness ratio (pipe)

Da dalton (unit of atomic or molar mass - 1 Da = 1g/mol or 1.660 538 921 73 ×10⁻²⁷ kg) (see also

u)

DAF dynamic amplification factor (see also LAF)

DAS data acquisition system; distributed acoustic sensor (fiber optics) (see also DTS)

dB decibels (logarithmic power level)
dBA decibels (sound power level – A scale)

DBI database information (often pronounced "DEBBIE")

DBL double

dc; DC direct current; drill center; drill collar dc-dc direct current to direct current DCIV downhole chemical injection valve

DCR direct current resistance; documentation change request

DCS data communications system; distributed (IP) control system (see also MDIS, SEAFOM,

SIIS)

DCV directional control valve

DDC driller's display console; direct digital control; DC-to-DC converter; digital-to-digital

converter; device-dependent command

DDCV deep draft caisson vessel (a spar floating structure – note: spar is not an acronym)
DDS drum decanting system; dataphone digital service; digital data stream (see also DSP);

digital data storage; Direct Drive Systems (a company)

DECOM decommission (see also COMM)

deg; ° degrees – geometric angle (see also rad, grad); latitude/longitude; temperature; API

viscosity

degrees C; °C degrees Centigrade; degrees Celsius

degrees F; °F degrees Fahrenheit

degrees K; °K degrees Kelvin (degrees Celsius, absolute)
degrees R; °R degrees Rankine (degrees Fahrenheit, absolute)
de-mobilize (return to shore base) (see also MOB)

DEP directional electronic probe

DEPT department
DESC description
DET digital event timer

DF design factor (see also FOS, FS, SF)
DFCS diverless flowline connection system
DFMA design for manufacture and assembly

DFO documentation for orientation

dg decigram

DGB drilling guidebase (see also PGB)
DGPS digital global positioning system

DH downhole

DH+ data highway plus
DHI downhole Interface
DHP downhole pump

DHPT downhole pressure temperature

DHPTM downhole pressure temperature monitor

DHPTT downhole pressure and temperature transducer

DHSV downhole safety valve (see also SSSV, SCSSV, TRSCSSV)

DI deionized; ductile iron

DIA diameter

DIACS downhole information and control system (smart well completion) (see also SCRAMS, IWIS)
DIN Deutsches Institut für Normung eV (German Institute for Standardization (see also ANSI,

BS, IEC, ISO)

DIO digital Input/Output

Dist. district Disp. displacement

DIV division; drilling induced vibration

deca (prefix, ten, 10¹) Dk

decagram Dka Dkm decameter dl: dL deciliter

DLT double level threshold

dm decimeter

DM digital monitor; dry-mate (electrical connector) (see also WM)

DMA dead man anchor DMC daily mud cost

dimethyl disulfide (sour gas) DMDS DMG document management group

deformation mechanism map (or mapping) (material creep and stress relaxation); digital DMM

multi-meter

DMPR diesel methanol pump room DMS depth monitoring system

DMT depth measuring transponder; dual mode transponder

DMU dynamics mounted unit (dampers)

down: diameter nominal (API 598 and ASME B16.34, see also PN) DN Det Norske Veritas (a verification authority/company - Norway) DNV; DnV

DO digital output

DOC document/documentation

Department of Defense (United States); diver operated dredge DOD

DOE Department of Energy

Department of the Interior (United States; BLM and BOEM/BSEE are agencies within DOI) DOL

district operations manager DOM

disk operating system; district operations supervisor DOS

DOT Department of Transportation: Deep Offshore Technology (conference)

DP dual porosity; design pressure; design principles; drill pipe; downhole pressure; dynamically

positioned (vessel stationkeeping) (see also SK)

development plan application DPA

dynamically positioned dive support vessel **DPDSV**

DPLIM dynamically positioned longitudinal inspection module

DPSV downhole production safety valve

DQT design qualification test

DR design review; discrepancy report; drive

DRCP driller's remote control panel DRL data requirements list

DRM drawings requirements manual **DROPS** dropped objects protection scheme DRR drawings requirements review

DS drill string (see also DC) **DSHD** double sided high density

DSL digital subscriber line (see also modem)

digital signal processing (see also DDS); design specification DSP

DSS duplex (austenitic) stainless steel (see also SDSS)

drill stem test DST

DSTU dynamic steel tubed umbilical

DSV diver support vessel

DT downhole temperature; deepwater tree; digital telemetry

DTI Department of Trade & Industry (U.K.)

DTL detail

DTS digital telemetry system (controls – Schilling Robotics – NIM, SIM, and VIM are associated

electronic modules that plug into a DTS node) (see also RSE); distributed temperature

sensor (fiber optics) (see also DAS)

DTO demonstration test objective

DVL doppler velocity log (sonar acoustic position referencing) (see also LBL, SBL and USBL)

DVM digital voltmeter
DWC daily well cost
DVD digital video disc

DWG drawing

DWHC deepwater high capacity (usually associated with a clamp hub external profile with two

locking shoulders on a wellhead)

DWOP deep water operations plan (United States BOEM/BSEE); drilling well optimization (plan)

process; drill well on paper (see also IWOP)

DWT dead weight ton

€ Euro E evaluating

E/E/PE electrical/ electronic/programmable electronic (safety systems, see also HIPPS, SIL)

E/E/PES electrical/ electronic/programmable electronic systems

e-Line electric wireline

E&MJ Engineering & Mining Journal E&P exploration and production

e.g. for example (exempli gratia), followed by a comma

E/H electrical and hydraulic or electro-hydraulic

E/T electronic technician
E/W ester to water ratio
E1; E2 tree electrical connections

EA each

EAC estimate at completion; environmental assisted cracking (corrosion)

EC electrical connector

ECA engineering change analysis

engineering change control, enterprise core component (SAP)

ECCN export control classification number (see also HTS)

ECD equivalent circulating density

ECM electro-chemical machining (see also EDM)

ECN engineering change notice

ECO engineering change order; Edison Chouest Offshore (a company)

ECP engineering change proposal; equivalent circulating pressure; external casing packer

ECR engineering change request

ED erosion detector

EDC emergency disconnect connector; engineering document control

EDL emergency (quick disconnect) tool lock

EDM electrical distribution module (see also EDU, HDM and SDU); electric(al) (or electro)

discharge machining (see also ECM)

EDMS electronic data management system EDP emergency disconnect package

EDPHOT emergency drill pipe hang-off tool (often pronounced "ED-FOT")

EDPRS emergency deepwater pipeline repair scenario

EDR engineering discrepancy report; engineering document register electrical distribution unit (see also EDM, HDM and SDU)
EEMUA Engineering Equipment and Materials Users Association emergency evacuation plan; engineering execution process

EEPROM electrically erasable programmable read only memory (see also EPROM, PROM)

EEx d Cenelec – Flameproof EEx i Cenelec – Intrinsically Safe

EEx p Cenelec – Pressurized Apparatus

EFAT extended factory acceptance test (often pronounced "EE-FAT") (see also ESS)

EFL electrical flying lead (see also HFL, PFL and SFL)
EFS electrical feedthrough system (tubing hanger)

EGA enhanced graphics adapter

EH; E-H; E/H electro-hydraulic

EHA electro-hydrostatic actuation; electro-hydraulic actuator

EHDM electro-hydraulic distribution manifold

EHPIP electric heated pipe-in-pipe

EHXT enhanced horizontal subsea (Christmas) tree (FMCTM); extended horizontal subsea

(Christmas) tree (API)

EIA electronic industries alliance; energy information administration (United States)

(see also IEA); environmental impact assessment (see also EIS)

EIS environmental impact statement (see also EIA)

ELAB electronic laboratory
ELEC electronics/electrical
EMO equipment moving order
EMS emergency medical services
EMW equivalent mud weight

ENCL enclosure

EOA environmental oil alert

EOC end of curve

EOI expression of interest (request for budgetary proposal) (see also ITT, RFP, RFQ)

EOM end of month

EOR enhanced oil recovery; (see also IOR)

EOS equation of state EOY end of year

EP early production; electrical proof

EPA Environmental Protection Agency (United States) (see also NOAA; OSPAR)

EPC engineering, procurement, and construction

EPCI; EPIC engineering, procurement, construction, and installation

EPCTU electrical power and communication test unit

EPDM ethylene-propylene rubber EPM equivalent per million

EPR ethylene propylene rubber: early production riser

EPROM erasable programmable read only memory (see also EEPROM, PROM)

EPS emergency power system; early production system; electrical power simulator

EPU electrical power unit

EQD emergency quick disconnect

EQUIP equipment

ER employee relations; equivalent round; emergency room; Eastern Region (see also SEA,

WR)

erg unit of work (energy)

ERP enterprise resource planning ERT emergency response team

ESD electrostatic discharge; emergency shut-down

ESDU emergency shut-down unit emergency shut-down valve

ESP electric submersible pump (see also HSP)

Espec elastomer specification

ESS environmental stress screening; electrical stress screening (see also EFAT)

ESV emergency shut-down valve ET external test (tree cap) et al. and others (et all)

et seq. and the following

ETA estimated time of arrival
ETC estimated time to complete
etc. and others (et cetera)
ETD estimated time of departure

EUE external upset end (tubing end connection classification)

ETU electronic test unit

EUTU European Union (see also CE)
EUTU electrical umbilical termination unit

EVDT™ enhanced vertical deepwater (subsea Christmas) tree (FMCTM)

EVST™ enhanced vertical shelf (or shallow water) (subsea Christmas) tree (FMC™)

EVXT[™] enhanced vertical (subsea Christmas) tree (FMC[™])

EWA existing well adapter EWT extended well test EXAL (a company)

EXT extension EXTR extraction

F flowing; fracture; Fahrenheit F2F face to face (see also B2B) F&G fire and gas; fish and game

F/T feed through fabricate

FAD failure assessment diagram (fatigue analysis, fracture mechanics)

FAI; FAIS fail as is

FAR failure analysis report; final acceptance review; fatal accident rate

FAT factory acceptance test FAX facsimile service or device

FC fail close (see also FSC); fit check

face center cubic (metallurgy) (see also BCC, BCT); Federal Communications Commission

(United States)

FCGR fatigue crack growth rate
FCL flowline connector lock
FCM flow control module
FCR flowline connector return
FCS flowline connector supply line
FCU flowline connector unlock
FCUL flowline connector unlock

FD face discharge

FDA Food and Drug Administration (United States)

FDM field development manager

FDR final design review FE flanged ends

FEA finite element analysis (see also CFD)

FEED front end engineering and design (study or report)
FEM female: finite-element method (see also FEA)

FET field effect transistor
FFD flanged, faced, and drilled
FFP final flowing pressure

FFR field failure report (see also FNCR, SN)

FHCS flat head cap screw fillister: financial

FID flame ionization detector; flowing isolation device (check valve); financial investment

decision

FIFO first in, first out

FIHPC flowline protection/pressure caps (installed on inboard hubs of manifold)

FITA field installable termination assembly

FIV flowline isolation valve; formation isolation valve (also known as foot valve - at the bottom of

a well); flow induced vibrations (riser and piping fatigue) (see also VIV)

FIXT fixture

FKM vinylidene fluoride and hexafluoropropylene (fluorocarbon polymer compound)
FKS FMC Kongsberg Subsea (use for Kongsberg instead of KOS) (see also KBG)

FL flat; flowline FLC flowline connector FLCV fluid loss control valve

FLD field

FLL flowline (connector) lock

FLOT flying lead operating tool (see also EFL, HFL, MQC, SFL)

FLP fail last position

FLU flowline (connector) unlock FLUMB flowline umbilical (porch) FM frequency modulation

FMEA failure modes and effects analysis

FMECA failure modes effects and criticality analysis (often pronounced "FEM-EEKA")

FNCR field nonconformance report (see also FFR, NCR, SN)

FO fail open (see also FSO); fiber optics FOB freight on board; free on board

FOP float-off proof

FOS factor of safety (see also DF, FS, SF)

FP flashpoint

FPF floating production facility (see also FPO, FPS, FPU, FPSO, FPV, FSO, FSU, PQ)

FPGA field-programmable gate array (integrated circuit) (see also ASIC)

FPO floating production & offloading (see also FPF, FPS, FPU, FPSO, FPV, FSO, FSU)

FPS floating production system/storage (see also FPF, FPO, FPU, FPSO, FSU, PQ) floating production storage & offloading (see also FPF, FPO, FPS, FPU, FPV, FSO, FSU)

FPU floating production unit (see also FPF, FPO, FPS, FPSO, FPV, FSO, FSU) floating production vessel (see also FPF, FPO, FPS, FPSO, FPU, FSO, FSU)

FR failure report FRC fast rescue craft

FRT front

FS fractured limestone; forged steel; factor of safety (see also DF, FOS, SF)

FSC fail safe closed FSIT final shut-in pressure FSK frequency shift key

FSO fail safe open (see also FO); field service order; floating storage and offload (see also FPF,

FPO, FPS, FPSO, FPU, FPV, FSU)

FST flowline seal test

FSU floating storage unit (see also FPF, FPS, FPSO, FPU, FPV, FSO, FSU)

FSW feet of sea water
ft foot or feet
ft/min feet per minute
ft/sec feet per second
ft² square feet

ft³/bbl cubic feet per barrel

ft³/d cubic feet per day (see also CFD)
ft³/lbm; ft³/lb_m cubic feet per pound mass
ft³/min cubic feet per minute
ft³/sec cubic feet per second

FT; FTA fault tree (analysis) (see also RBD)

FTC field termination cabinet; Federal Trade Commission (United States)

FTG fitting

FTH flowline termination head ft-lb foot-pound (torque)

ft-lbf; ft-lb_f foot-pound force (torque or moment)

FTP flowing tubing pressure (see also FWHP); file transfer protocol (internet) (see also HTTP,

TCP/IP)

FTU flowline termination unit

FUNC function

FVF formation-volume factor

FW fresh water

FWHP flowing wellhead pressure (see also FTP)

FWHT flowing wellhead temperature

FWM freshwater mud FYI for your information

G giga (prefix, one billion, 10⁹)

g gram; acceleration of gravity; force of gravity; gauge (pressure) (psig, barg)

g/cm³ grams per cubic centimeter

g/ml; g/mL grams per milliliter

GA general arrangement; general assembly (drawing)

gal/d gallons per day gal/min gallons per minute

GAPS general alarm pushbutton stations

GB grand banks

GBA Grand Banks Alliance

GC gas chromatograph; Gulf Coast

GDT; GD&T geometric dimensioning and tolerancing (ASME/ANSI drafting tolerancing) (see also GPS)

GFD ground fault detection (see also GFI)
GFE government furnished equipment
GFI ground fault interrupter (see also GFD)

GHSC galvanically (induced) hydrogen stress cracking (embrittlement corrosion) (see also HISC,

SCC, SSC)

GI gas injector; grease injection (wireline stuffing box)

GIIV gas injection isolation valve

GIS geographical information systems (see also INS, GPS)

G&G geological and geophysical; geodetic and geophysical (seismic and reservoir data)

GL gas lift; ground level; guideline

GLA gas lift available

GLCC gas liquid cylindrical cyclone (caisson oil-gas separation)

GLIV gas lift isolation valve

GLL guidelineless GLV galvanized

GMAW gas metal arc welding (see also GTAW, SAW, MIG, TIG)

GMDSS global maritime distress and safety system

GMT Greenwich Meridian (Mean) Time (time at 0o longitude)

GN green GND ground

GOC gas/oil contract; gas/oil contact

GOES geosynchronous (geostationary) orbiting environmental satellite; grain oriented electrical

steel (power transformers)

GOM; GoM Gulf of Mexico

GOR gas/oil ratio (see also GVF)
GOT glossary of oilfield terminology
GP gas producer; guide post

gallons per minute gpm GPR glass reinforced plastics

GPS gravel-packed screens; global positioning system (satellite) (see also INS, GIS); global

planning system (project management); geometrical product specifications (ISO drafting

tolerancing) (see also GD&T)

GR gray

GRA guidelineless reentry assembly (GLL version of a PGB); global riser analysis

grads; gon gradians (geometric angle – see also rad, deg) gamma ray index; Gas Research Institute GRI

GROMT arommet

GRP glass-fiber (or fiberglass) reinforced plastic

Gspec grease specification

GTAW gas tungsten arc welding (see also GMAW, MIG, SAW, TIG) GTL gas-to-liquids (natural gas to longer hydrocarbon chain liquids)

Gtotal gravity field components

GUI graphical user interface (often pronounced "GOO-EY") (see also HMI, MMI)

GVF gas volume fraction (see also GOR)

GW quidewire (see also GL)

GWI global work instructions (see also LWI)

Gx gravity field components Gy gravity field components Gz gravity field components

hecta (prefix, one hundred 10²) h

hydrostatic head (pressure at base of fluid column); Henry (electric inductance) Н

H; H₂ hydrogen

H2S; H₂S hydrogen sulfide (chemical formula) (H₂S presence means "sour" service)

HAOG high-accuracy orientation gyro

HAR harness

HA7 heat affected zone **HAZCOM** hazard communication HAZID hazard identification

hazardous materials (identification and analysis) (see also SDS) HAZMAT

HAZOP hazard and operability (analysis) (see also SAFOP)

HBM horizontal boring mill (machine)

hardness – brinell scale (steel ball indenter) (see also BHN, HBW) HB; HBN

hardness – brinell scale (Wolfram) (tungsten carbide ball indenter) (see also BHN, HB, **HBW**

HC hydrocarbons (organic compound combination of hydrogen and carbon)

HCI hydrochloric acid (chemical formula)

HCLS heave compensated landing system (tree-on-wire deployment)

HCPV hydrocarbon pore volume

HCR high collapse resistant (flexible pipe); hydraulic control – remote (drilling choke valve)

HD high definition (video)

HDD hard disc drive

HDM hydraulic distribution module (see also EDU and SDU)

HEC hydroxyethylcellulose hurricane evacuation plan HEP

HES Halliburton Energy Services (a company); health environment and safety (see also HSE)

HEX

hydrofluoric acid (chemical formula); hard face (metallic fusion spray coating) HF

hydraulic flying lead (see also EFL, PFL and SFL) HFL

HFSSB high frequency single sideband

HFT hardware fault tolerance (see also PFD, SFF)

HHP hydraulic horsepower

HID high-intensity discharge (electrical)

HIP hot isostatic pressing (material cladding) (see also WEX)

HIPO high potential incident (HSE incident that could have led to accident)

HIPPS high integrity pressure protection system; high integrity pipeline protection system

HISC hydrogen induced stress cracking (see also GHSC, SSC, SSC)

HLB hydrophilic-lipophilic balance

HM horizontally stabbed (mounted vertically)

hm hectometer – 100 meters H_{MAX} maximum wave height

HMC horizontal machining center (see also HBM)
HMI human machine interface (see also HUD, MMI)
HNBR hydrogenated nitrile buna rubber (nitroxile)

HO hang off; hands-off HOA hands-off-auto

HOGS hinge over guidance structure HOST hinge over subsea template

HOV human occupied vehicle (manned submersible, submarine) (see also AUV, ROV, UUV);

high-occupancy vehicle

hp; HP horsepower; high pressure HPAM hydrolyzed polyacrylamide

HPAPH high pressure accumulator pressure high
HPAPL high pressure accumulator pressure low
HPAPLL high pressure accumulator pressure low low
HPC high pressure cap; hydraulic production choke

HPCC hydraulic production choke closed HPCO hydraulic production choke open

HPG hydroxypropyl guar hph; hp-hr horsepower-hour

HPHT; HP/HT high pressure/high temperature hydro-pneumatic tensioner

HPU hydraulic power unit (see also SHPU)
HPUCP hydraulic power unit well control panel

HQ headquarters

Hr; hr hour

HR human resources

HRB hardness – Rockwell "B" scale
HRC hardness – Rockwell "C" scale
HRFC high resistant fatigue coupling

Hs significant wave height (visual estimate of highest wave height) (see also H_{MAX})
HSBMS2 H-style (bidirectional) straight bore metal seal ("two" – OD/ID bore) (see also SBMS2)

HSC hydraulic smart connector

HSE health, safety, and environment; Health and Safety Executive (United Kingdom)

HSG housing

HSLV high set lubricator valve (see also LV)
HSP hydraulic submersible pump (see also ESP)

HST hanger seal test
HSW hydraulic service wing

HT high tension; horizontal tree (see also HXT); high temperature

HTML hyper-text markup language

HTP hydraulic test panel

HTS harmonized tariff system (see also ECCN)

HTTP hyper-text transfer protocol (internet) (see also FTP, TCP/IP)

HUD heads-up display (see also HMI, MMI)
HUTU hydraulic umbilical termination unit

HV high voltage; hardness – "Vickers" scale HVAC heating, ventilation, and air conditioning

HVT high voltage transfer

HW hot work

HWL hanger to wellhead lock

HWLV hanger to wellhead lock ventilation

HVOF high velocity oxygen fuel (thermal spray coating technique)

HWUL tubing hanger to wellhead unlock

HXO hydraulic crossover

HXT horizontal subsea (Christmas) tree (see also VXT)

HYD hydraulic

HYDL tool hydraulic block lock
HYDU tool hydraulic block unlock
Hz hertz (cycles per second)

I hydraulic horsepower per square inch; pipe moment of inertia

I-tube a tube on the side of a platform for pulling an umbilical or cable from the sea floor to the

surface (see also J-tube)

I3P independent third party (design documentation review often by a PE or engineering

consulting company) (see also BAVO, CA)

i.e. that is (id est) (followed by a comma)

I/F Interface I/O input/output

I2O intelligent input/output

IADC International Association of Drilling Contractors (see also IWCF)

IAP instrument air pressure
IBC international bulk containers
IBHP initial bottomhole pressure

IC input computer; integrated circuit

IC4 isobutene IC5 isopentane

ICF individual channel frequency

ICS intervention control system (see also IWOCS)

ID identification; inside diameter

IDC inter-discipline check

IDMS internal depth monitoring system IDR interim discrepancy record

IDS interface data sheet

IE instrument earth; industrial engineer; installation engineer (see also TECHN, TSP)

IEA international energy agency (see also EIA)

IEC International Electro-technical Commission (part of ISO) (see also ANSI, BS, DIN)

IEEE Institute of Electrical and Electronics Engineers

IF internal flush (thread type)

IFBS integrated foundation bottom structure (subsea template frame)

IFP initial flow pressure
IFR infield referencing
IFS in-line filtration systems
IFT interfacial tension

IGES initial graphical exchange specification

ihp indicated horsepower IIP International Ice Patrol

ILC intermediate logic cap (MQC with looped plumbing); intelligent local controller

ILTA Independent Liquid Terminals Association (see also OCIMF)

IMCA International Marine Contractors Association

IMMS integrated marine monitoring system

IMO International Maritime Organization

IMP impregnated diamonds

IMPES implicit pressure; explicit saturation

IMR inspection, maintenance and repair (see also R&M)

IMT integrated management team

In indium (additive to aluminum anodes, see also Al-In-Zn)

IN input in inch

in/hr inch per hour in/s; in/sec inch per second

INC inclinometer; incorporated

INCOSE International Council on Systems Engineering

IND inductor INFO information

INS insert; integrated services; inertial navigation system (station keeping) (see also GIS, GPS)

INSP inspection

INST install; institute/institution

INT interrupt Intl. international

IOR increased oil recovery; (see also EOR)

Internet of Things (big data, connectivity-internet access to remote control and reading of

devices)

IP intellectual property; internet protocol

IPC Institute for Interconnecting and Packaging Electronic Circuits

IPMS integrated project management system (a computer based control system used for

engineering documents)

IPR inflow performance relation (reservoir engineering) (see also VLP)

IPT integrated product team IR infrared; insulation resistance

IRAD independent research and development

IRC insert retrievable choke IRG inertial rate gyro

IRIG inertial rate integrating gyro IROP instantaneous rate of penetration

IRS Internal Revenue Service (United States)

IS intrinsically safe

ISA International Society of Automation (formerly Instrument Society of America)

ISB intrinsically safe barrier
ISC integrated services contract
ISIP initial shut-in pressure

ISO International Standards Organization (see also ANSI, BS, DIN, IEC)

ISS Iron and Steel Society ISV injection swab valve

IT insulated tubing; intervention tool; information technology

ITC internal tree cap

ITL information to lessee (operator) (United States) (see also CFR, LTL, NTL)

ITM intervention tool module ITP internal tree plug

ITT invitation to tender (see also EOI, RFP, RFQ)

IVE integrated value engineering

IWCF International Well Control Forum (see also IADC)

IWIS intelligent (smart) well interface standard (control system communication protocol)

IWOCS intervention (or installation) workover control system (see also ICS)

IWOP intervene (in) well (workover) on paper (see also DWOP)

IWRC independent wire rope core (wire rope, slings) (see also WRC)

IWV injection wing valve

J joule (a unit of work or energy equal to 10,000,000 ergs); pipe shear (torsional) modulus,

productivity index (reservoir engineering) (see also IPR, VLP)

J-Bowl Tool a tool with lugs on the side that access the J-slot profile in wearing bushing

JCPT Journal of Canadian Petroleum Technology

JCT junction

JH jumper hydraulic

JHA job hazard analysis (see also PHA, JSA, HAZOP, HAZID)

JIP joint industry project
J-Lay method of laying pipe

J-Mode using a J-tool to recover an item with a J-slot (sometimes referred to J-in or J-out)

J-Slot a machined recess or cut-out in the form of a J

J-Tool a tool with external lugs that access the J-slots machined in an item

JMT jumper measurement tool

JONSWAP Joint North Sea Wave Project – used in conjunction with defining a set of ocean waves and

the spectral energy those waves produce

JPR job performance report

JPT Journal of Petroleum Technology (SPE trade journal)

JPU jack-up production unit

JSA job safety analysis (morning safety meetings, OSHA) (see also PHA, JHA, HAZOP, HAZID)

J-tube a tube on the side of a platform for pulling a pipeline from the sea floor to the surface (see

also I-tube)

J-T Joule-Thompson (thermodynamic effect) (a temperature drop as a gas goes through a

pressure drop (like a choke))

JXT jack-up (subsea) Christmas tree (mudline wellhead) (see also CM, OBS-C)

k kilo (prefix, thousand, 10³); thermal conductivity (Btu/hr-ft-°F, or Watt/m-°K); pipe radius of

gyration

KB kelly bushing(s) (see also RKB)

KBG Kongsberg (Norway); FMC Kongsberg Subsea (see also FKS)

KBR Kellogg Brown and Root (a company)

Kbps kilo (1,000) bits per second

KC KOS-Con (collet connection or hub profile)

kg kilogram

kg/m3 kilograms per cubic meters

kg_f kilogram-force kHz kilohertz

kip; kips 1,000 pounds-force (lb_f)

kJ kilo Joule
kl; kL Kiloliter
Km kilometer
km/hr kilometer/hour

kN kilo Newton (2,200 lb_f – metric ton (tonne))

kNm kilo Newton meter (torque)

KOP kickoff point; kickover point; Kvaerner Oilfield Products (now Aker Solutions - a company)

KOS Kongsberg Offshore a.s. (see also FKS, KBG)

kPa kilopascal

KPI KOS provided items; key performance indicator

Kr; kr Kroner (see also NOK)

ksi 1,000 psi

Kv flow factor (flow rate passing through a valve or choke (cubic meters/hour) at 1 bar pressure

drop – metric version of Cv, where Kv= 0.853 Cv)

I/m liters per minute

l/s; L/s lines per second; liter per second

I; L liter

LACT lease automatic custody transfer unit

LACTI lead-approve-consult-task-inform (stage gate process chart – roles and responsibility used

by FMC Technologies) (see also RACI)

LAF load amplification factor (see also DAF)

LAFC layaway flowline connection

LAL low liquid alarm

LAMV lower annulus master valve

LAN local area network

LARS launch and recovery system

LAS laser alignment system; log ASCII standard (Canadian Well Logging Society)

LASER light amplification by stimulated emission of radiation

LAST lowest anticipated service temperature

lat latitude

lb pound (see also lb_f)

lb/ft³ pounds per barrel (not ppb) lb/ft³ pounds per cubic foot lb/gal pounds per gallon

lb/in² pounds per square inch (see also psi) lbf; lb_f pound-force; pound (see also lb)

lb_f-ft pound-feet (torque, moment; ft-lb_f is preferred)

LBL long base line (acoustic position referencing) (see also DVL, SBL and USBL)

 $\begin{array}{lll} \text{lbm; lbm} & \text{pound-mass; poundal} \\ \text{lbm/ft}^3 & \text{pounds-mass per cubic feet} \\ \text{lbm/gal} & \text{pounds-mass per gallon} \end{array}$

LBO lifeboat operator

lbs; # pounds; pounds-force (lb_f)

LC50 lethal concentration at 50% population death rate

LCAT land connector actuation tool

LCD liquid crystal display
LCM lost circulation material
LCP local control panel
LCSG API casing long thread

LCT life cycle test
LCU logic control unit
LCV level control valve
LD lockdown; rigid lockdown

LDP liquid dye penetrant (see also LP)
LDHI low dosage hydrate inhibitor

LED light emitting diode

LEL lower explosive limit
LER local equipment room

LF low frequency

LFL lower flammable limit
LFM limited fine mesh
LG large; lignosulfate; long
LGS low gravity solids

LH left hand

LIH lost in hole; left in hole lower injection master valve

lin ft linear foot

LiPo lithium polymer (battery)

lig. liquid

LIS log information standard

LIST listing

LIT lead impression tool

Im lumen (light intensity - candlepower)

LMC least (minimum) material condition (max/min dimensional tolerancing) (see also MMC)

LMP load management program
LMRP lower marine riser package
LMU load management unit

LNBR low temperature nitrile buna rubber

LNG liquefied natural gas LOI letter of intent

LOLA linear override lockout assemblies (ROV tooling for subsea actuators)

long. longitude

LOOP Louisiana Offshore Oil Port LOPA layers of protection analysis

LOT linear override tools (ROV tooling for subsea actuators); leak-off test (drilling)

lp; LP low pressure; line pipe; liquid (dye) penetrant (see also LDP, LPT)

LPAPH low pressure accumulator pressure high LPAPL low pressure accumulator pressure low

LPG liquefied petroleum gas
LPMV lower production master valve

LPT liquid penetrant testing; low pressure test

LRFD load (and) resistance factor design (combined load FEA methodology) (see also WSD)

LRP lower riser package (obsolete and replace with WCP)

LRQA Lloyd's Register of Quality Assurance

LRTJ lower riser tensioner joint

LS landing string (internal to drilling riser - for TH and XT) (see also C/WOR)

LSL low liquid level low-low liquid level LSRP long stroke rod pump

LT long ton (2,240 pounds); load test

Ltd. limited

LTL lower tree lock; letter to lessee (operator) (United States) (see also CFR, ITL, NTL)

Ltox low toxicity

LTST lower tree seal test
LTSTV lower tree seal test valve

LTU lower tree unlock

LUB lubricate

LV lubricator valve (see also HSLV)

LVDT linear variable displacement transducer/transmitter

LWI local work instructions (see also GWI); light well intervention (see also RLWI)

LWRP lower workover riser package (LWRP = WCP + EDP)

LY flashing light

m milli (prefix, one thousandth, 10⁻³); meter

mega (prefix, million, 10⁶, also sometimes used as prefix in some oil industry terms

representing one thousand, 10³); Monel metal

M&F male and female
M/T mechanical technician

MA mechanical assembly; master of arts

mA milliampere; milliamps

MACH machine; times the speed of sound (Mach 1 = speed of sound)

MAF mis-alignment (swivel) flange; mass air flow; million acre-feet; master address file

MAG magnetic; magnetometer; magnesium (see also Mg)

MAINT maintenance MAN manual

MAO manual annulus outlet (gate) valve

MAOP maximum allowable operating pressure (see also RWP)

MARPOL International Convention for the Prevention of Pollution from Ships

MAT'L material maximum Mb mega bits MB mega bytes

MBIP management by improving processes (see also MOC)

MBO management by objective

Mbps; Mps mega bits per second (sometimes pronounced "MIPS")

MBT methylene blue test
MCB miniature circuit breaker
MCC motor control center
MCM million cubic meters
MCP master control panel
MCS master control station
MCU master control unit

MD measured depth (well) (see also MRKB, TD)

mD milli Darcy (a unit of permeability or porosity through rock)

MDI multiple document interface

MDIS metadata interchange specification; MCS-DCS interface specification (see also DCS,

SEAFOM, SIIS)

MDM maximum design meter; metal-dielectric-metal; medium

MDS material data sheet

MECH mechanical

MEG mega-ohm; million ohms; mono ethylene glycol; glycol (see also TEG)
MEGI Mobil Equatorial Guinea Inc. (a subsidiary company of ExxonMobil)

MEHD minimum effective hole diameter

MEL master equipment list (see also BOM, MOC)

MEM memory

MEMS micro-electromechanical system (nanotechnology)

MENA Middle East - North Africa

MeOH methanol (slang chemical formula)

MER maximum efficient rate (reservoir production rate and drawdown pressure without damage

to formation, also known as "bubble point")

MeV mega-electron volts
MF medium frequency
MFG manufacturing
MFR manufacture

Mg magnesium (see also MAG)

mg milligram

mg/kg milligrams per kilogram mg/l; mg/L milligrams per liter

MGR manager

MHA mating hub assembly

MHGR mudline hanger (mudline wellhead) (see also MLS, SD, OBS)

MHLS mudline hanger landing sub (mudline wellhead, same as MHRT) (see also MLS, SD, OBS) MHRT mudline hanger running tool (mudline wellhead, same as MHLS) (see also MLS, SD, OBS)

MHTBS mudline hanger tie-back sub (mudline wellhead) (see also MLS, SD, OBS)

MHz mega-Hertz

Mi mile

MI malleable iron

MIC microphone; microbial induced corrosion (see also ADB, SRB); micrometer (often

pronounced "MIKE")

MICU modular intervention and construction unit MIE Ministry of Industry & Energy (Norwegian)

MIG metal inert gas (welding) (see also GTAW, SAW, TIG)

MIL Military

MIL-SPEC military specification (United States)
MIL-STD military standard (United States)

Min minimum; minute

MINI Miniature

MIS management information services MIV methanol (or MEG) injection valve

MKT market; marketing ML mudline (seafloor)

ml; mL milli liter

MLLW mean lower low water (low tide sea level)

MLS mudline suspension system (mudline wellhead) (see also SD, OBS)

MM manifold module; man-machine interface (see also HMI, MMI); Merchant Marine; million,

(also sometimes used as prefix in some oil industry terms representing one thousand

thousand, 10⁶)

mm Millimeter MMbbl million barrels

MMBOE millions of barrels of oil equivalent

MMC maximum material condition (max/min dimensional tolerancing) (see also LMC)

MMCFPD; million cubic feet per day

MMCF/d

MMD Merchant Marine Document

MMI man machine interface (see also HMI, HUD)

MMO magnetic method of operation MMP minimum miscibility pressure

MMRS maintenance, modification, refurbishment, and storage (FMC customer service)
MMS Minerals Management Service (United States) (replaced by BOEM/BSEE) (see also

UKDOE, NPD, BLM); multimedia message service (cell phone messaging) (see also SMS)

MMSCFD; million standard cubic feet per day

MMSCF/d

Mn Manganese mN milli Newton Mo Molybdenum

MoS2; MoS2 molybdenum disulfide MOB man overboard; mobilize

MOC management of change (see also MBIP), materials of construction (see also BOM, MEL)

MOD modification; modify; module

MODEM modulator-demodulator (digital (computer) to analog line interface)
MODU mobile offshore drilling unit (jack-up, semisubmersible, drillship)

MOM marine operations manual; minutes of meeting

MPa mega Pascal (see also bar)

MPFM multi-phase flow meter (see also MPM)

MPI magnetic particle inspection

MPM multiphase meter (see also MPFM)

MPMS manual of petroleum measurement systems (API)

MPP multiphase pump

MPQ manufacturing (material) process qualification (supply chain)

MPQP manufacturing (material) procurement quality process (plan) (supply chain)

MPT minimum pulse time; magnetic particle test

MQC multi-quick connect (see also QC, QCDC, QD); mechanical quick connect

MR material review

MRB manufacturing record book ("material review board" obsolete and replace with NRB)

MRD material review deposition

MRKB mean rotary kelly bushing (distance reference point) (see also MD, TD)

MRP materials requirement planning; moveable ROV panel MRU motion reference unit (heave compensation control)

MS multi-shot; master of science (degree)

MSA Mine Safety Appliances (company); master services agreement (contract); multi-service

access; memory subassembly; mean-square average (see also RMS)

MSBMS miniature (mini) straight bore metal seal (see also XEMS, SBMS)

mscf/d; MSCFD a thousand standard cubic feet per day

MSDS material safety data sheet(s) (obsolete and replace with SDS)

MSL mean sea level

Mspec material specifications

MSRC Marine Spill Response Corporation (United States) (see also OSPRAG)

MSS Manufacturers Standardization Society of the Valve and Fittings Industry; mobile servicing

system

MSSVS multi-schedule smart vent system

MST magnetic steering tool
MSV multi-service vessel
MSW meters of seawater

mT metric ton (tonne) (2,200 lb_f – sometimes referred to as 1,000 kg) (see also Te, T, kN) MT maintenance and troubleshooting; measured thickness; mount; mechanical technician

MTBF mean time between failures

MTTR mean time to repair MTC mud-to-cement

MTR mill test report; meter (device)
MTS Marine Technology Society
MTU manifold termination unit

μ micro (prefix, micro, one millionth, 10⁻⁶)
MUT make-up torque; multi-use tether

MUX multiplex (an electro-hydraulic control system)

MVB master valve block (see also PVB)

MW mud weight; mega Watt
MWP maximum working pressure

MWS mini-work station

MQC multi (multiple) -quick connect n nano (prefix, one billionth, 10⁻⁹) N nitrogen; Newton (2.2 lb_f)

N/A; NA not applicable; not available; national acme (thread) (see also SA)

N/O normally open

Na sodium

NACE National Association of Corrosion Engineers

NaCl sodium chloride

NAS National Aerospace Specification/Standard; National Aeronautics Society

NASA National Aeronautics and Space Administration (United States)

Nat native; natural Natl. national

Nb niobium (formerly columbium - Cb)

NB near bit; nominal bore; Note Bene (Latin) note especially

NBR nitrile buna rubber (buna N or NBR)

NBS National Bureau of Standards (United States)

NC numbered connection, numerically controlled (see also CNC)

NCR nonconformance report (see also FNCR)
NCRI nonconformance rework instruction

NCS Norwegian Continental Shelf NDE non-destructive examination

NDT non-destructive testing; nil-ductility transition temperature (see also CVN)

NDT/E non-destructive testing/examination

NE Northeast

NEC National Electrical Code; Nippon Electric (a company); necessary

NEG negative

NEMA National Electrical Manufacturers' Association

NFPA National Fire Protection Association

NGL natural gas liquid

Ni nickel NI nickel iron

NIM network (Ethernet IP) interface module (see also DTS, SIM, VIM)

NIST National Institute for Standards and Technology (United States - formerly National Bureau

of Standards) (see also OIML)

nm nano meter

NM nonmagnetic; nautical mile

N-m newton-meter

NMR nuclear magnetic resonance

NNS Northern North Sea

NO number

NOA or NOAA National Oceanographic and Atmospheric Agency (United States) (see also EPA; OSPAR)

NOK Norwegian Kroner

nom nominal

NORM normal; normally occurring radioactive material

NORSOK Norsk Sokkels Konkuranseposisjon (Norwegian joint standards group)

NOX; NOx nitrous oxide; nitrogen oxide; non-expanding

NP nominal schedule pipe

NPD Norwegian Petroleum Directorate (see also PSA)

NPN negative-positive-negative (transistor construction – more common) (see also PNP)

NPO nominal schedule pipe NPS nominal pipe size

NPT nominal pipe thread; non-productive time (also known as "flat time")

NPTF nominal pipe thread female NPTM nominal pipe thread male NPV net present value (see also PV)

NRB non-conformance review board (formerly material review board - MRB)

NRC Nuclear Regulatory Commission (United States)

NRS non-rising stem NS North Sea

NSG North-seeking (gyro) gyroscope

NT non-toxic

NTL notice to lessee (operator) (United States) (see also CFR, ITL, LTL)

NTNU Norges Teknisk-Naturvitenskapelige Universitet (Norwegian University of Science and

Technology, see also NTU)

NTS Norwegian Technology Standards Institute

NTSC National Television System Committee (video format) (see also PAL, SECAM)

NTU nephelometric turbidity unit (cloudiness of fluid), number of transfer units (heat transfer –

heat exchanger efficiency calculation): Norwegian University of Science and Technology

(see also NTNU)

NVIC navigation and vessel inspection circular (USCG)

NW Northwest

NWECS North West European Continental Shelf

O/H overhead

O/W oil to water ratio

OBM oil based mud (see also SBM, WBM)

OBS obsolete; ocean bottom suspension (mudline "stack up" wellhead) (see also MLS, SD)

OBS-II ocean bottom suspension 2 (second generation)

OBS-C ocean bottom suspension – completion (mudline wellhead) (see also CM, UWC)

OCIMF Oil Companies International Marine Forum (see also ILTA)

OCS outer continental shelf (often refers to United States GOM outer continental shelf)

OCTG oil country tabular (tubular) goods (API)

OD outside diameter

ODI Ocean Design, Inc. (a company)

OE ocean engineer; offshore engineering; Offshore Engineer (trade magazine)

OEC other end connection

OEM original equipment manufacturer

OFDM orthogonal frequency division multiplexing (wireless communication and networking)

OFE owner furnished equipment

OFP open-flow potential

OGJ Oil & Gas Journal (trade magazine)

OGP Oil & Gas Producers (North Sea) (see also OOC, UKOOA)

OH open hole; hydroxide ion (OH–)

OII Oceaneering International Inc. (a company)

OIM offshore installation manager (rig or platform manager, company man)

OIML Organisation Internationale de Métrologie Légale (International Organization of Legal

Metrology) (see also NIST)

OIP oil in place

OIS operator interface station
OMA overshot metrology adapter

 Ω ohm; omega

OMUS Oceaneering Multiflex USA (a company)

ONGC Oil and Natural Gas Commission (India); Oil and Natural Gas Corporation (a company) out of (used in the voting logic description for autonomous logic solvers in HIPPS control

systems – for example "2003" means 3 sensors are looked at by an electronic circuit "logic solver" and a positive response is mandated if 2 out of the 3 sensors are reading the same

required value)

OOC Offshore Operators Committee, New Orleans and Houston (see also OGP, UKOOA)

OOIP oil originally in place: original oil in place (see also STOOIP)

OP operations procedure

OPD original product definition; official protraction diagram (flat plane mapping coordinates -

lease block coordinates) (see also UTM)

OPEC Organization of Petroleum Exporting Countries

OPER operating

OPITO Offshore Petroleum Industry Training Organization (United Kingdom)

OPS operations

OPV offshore production vessel

OR orange

OREDA offshore reliability data (North Sea)
ORG increase critical rate to gas; organization

ORW increase critical rate to water OS&Y outside screw and yoke

OSC oscillator

OSC-G outer shelf continental-Gulf of Mexico (see also OCS)

OSHA Occupational Safety and Health Administration (United States)

OSPAR Oslo-Paris Commission for the protection of the Marine Environment of the North-East

Atlantic (EU) (see also EPA; NOAA)

OSPRAG Oil Spill Prevention and Response Advisory Group (United Kingdom) (see also MSRC)

OSR oil/steam ratio

OTC Offshore Technology Conference (conference)

OUT output

OWC oil/water contact
OWL offshore wells & leases

P pico (prefix, one trillionth, 10⁻¹²); Poise (viscosity); producing; production

P&I piping and instrumentation (flow schematic)

P&ID piping and instrumentation diagram

P/L pipeline P/N part number

P/T pressure-temperature Pa pascal (pressure)

PA public address; public alarm (system) P/A; P&A plug and abandon (well) (see also T/A)

PADED pressure activated directional extraction device

PAL programmable array logic; phase alternating line (video format, see also NTSC, SECAM)

Pb lead

PBOF pressure balanced oil filled PBT production bore test

PC perforated casing; personal computer (see also RTC, RTPC); printed circuit; pulsating

current

P-C Petro-Canada (a company, now Suncor)

PCB printed circuit board PCC production choke close PCD polycrystalline diamond

PCH pressure control head (wireline stuffing box)
PCIV production chemical injection isolation valve

PCM pulse-code modulation; process coordination method; product change management; power

control module

PCO production choke open PCP progressive cavity pump

PCS production control system; progress control system; platform control system

pct; % percent (or parts per hundred 10⁻²)

PCT patent cooperation treaty

PCU pressurization control unit: process control unit: production control unit

PCV production choke valve (see also POV)
PCVD production choke valve decrease
PCVI production choke valve increase

PD preliminary design; pig detector (also known as a pig signal or pig-sig, see also APD)

PDA pre-delivery acceptance

PDC polycrystalline diamond compact (drill bit)

PDF portable document format (Adobe Acrobat); pseudo-derivative-feedback (automated control

system algorithm) (see also PID)

PDM positive-displacement motor; product data management

PDQ production (or process) drilling and guarters (semi-submersible) (see also PQ)

PDR preliminary design review PDU power distribution unit

PE project engineer; product engineering; professional engineer; pigging loop electrical

connection; protective earth; plain end (tubing connection classification) (see also EUE)

PEC peripheral exchange chassis
PEEK poly-ether-ether-ketone
PEL permissible exposure limit
PEP project execution plan

Perf perforations

PERT progress (or program) evaluation and review technique (project management scheduling)

PESA Petroleum Equipment Suppliers Association
PETE portable electronic testing equipment

PETEX Petroleum Extension Service (University of Texas)

PFD personal flotation device; process flow diagram; probability of failure on demand (see also

HFT, SFF)

PFL production flowline connector; power flying lead (see also HFL, EFL and SFL)

PFU production flow unlock PGB permanent guide base

PGPL pre-packed gravel-packed liner

PGV pigging valve

PH pigging loop module valve pH acidity - alkalinity measurement

PHA process hazard analysis (morning safety meetings, OSHA) (see also JSA, JHA, HAZOP,

HAZID)

PHC passive heave compensation (see also AHC)

PhD doctor of philosophy (degree)

PHT pre-heat treatment (welding) (see also PWHT)

PI productivity index (reservoir); proposal insert; product index; pressure intensified (seals);

pitting index (corrosion, see also PRE, PREN); paraffin inhibitor; 3.14159 (π)

PIA pre-installation acceptance

PIC person-in-charge (see also COC); process improvement committee

PID proportional-integral-derivative (automated control system algorithm) (see also PDF); piping

& instrumentation diagram

PIM product information management

PIP peripheral interchange program; push in place; pump into place

PIV production isolation valve

PKG Package Pkr Packer

PL perforated liner; plugged PL/A plugged and abandoned

PLC places; programmable logic controller

PLCM power line carrier modem PLEM pipeline end manifold

PLET pipeline end termination (associated with either first or second end pipeline connection

work); pipeline elevated tie-in (associated with in-line pipeline connection work)

PLFS power line filter single
PLM pigging loop module
PLMS power line modem single
PLMV production lower master valve

PLP pig loop porch

PLT pipeline end termination

PM project manager; polymer; preventive (or planned) maintenance; pig module PMC product management center (FMC Technologies – product line engineering)

PMP pumping; project management plan PMPE project management/project engineering

PMR project management review PMRB primary material review board

PMT pre-measurement tool; pipe measurement tool; pressure test and monitoring tool

PMV production master valve

PN pressure (pression) nominal (valve pressure designation [approx. in bars] per API 598,

ASME B16.5, ASME 16.34, and ISO 5208 and ISO 7005, see also DN)

PNL Panel

PNP positive-negative-positive (transistor construction – less common) (see also NPN)

PNR problem notification report

PO purchase order

POB personnel (or persons, or people) on board (ship)
POC point of contact (communication – responsible party)

POL Policy

POOH pull out of hole

PORRT packoff running and retrieving tool position; positive; point of service

POT Potentiometer

POV point of view; pipeline (or production) orifice valve (a two-position PCV; a fail open gate

valve with an orifice bean in gate's closed position) (see also PCV)

pp partial pressure (pressure of a mixed gas times the % of a single particular gas)

PP/PT production pressure and temperature sensor

ppb parts per billion (10⁻⁹)

PPE personal protective equipment

ppg pounds per gallon

PPM pulse position modulation ppm parts per million (10⁻⁶) PPN preferred provider network

PPP/IP point-to-point control protocol/internet protocol

PPSD partial process shut-down ppt; % parts per thousand (10⁻³)

PQ production (or process) and quarters (semi-submersible) (see also FPF, FPS, PDQ)

PQP product qualification plan

PQR procedure qualification record (or report)

PR purchase requirements; purchase requisition; performance requirement (API); (drill) pipe

ram (BOP) (see also BR, BSR, SSR, VBR)

PR1 performance requirement - level one (API)
PR2 performance requirement - level two (API)

PRD project requirement documents

PRE; PREN pitting resistance equivalent (number) (corrosion, see also PI)

PRESS Pressure PROC Procedure

PROG program/programmable

PROGR Programmer
PROJ projector; project

PROM production operating manual; programmable read only memory (see also EPROM.

EEPROM, ROM, WORM)

PROT Protector

PRS pipeline repair systems

PS purchase specifications; pressure (safety) sensor
PSA Petroleum Safety Authority (Norway) (see also NPD)
PSD particle size distribution; production (or process) shut-down

PSDV production (or process) shut-down valve

PSH pressure (safety) sensor high production shear closed

PSHL pressure (safety) sensor high-low

PSHO production shear open

psi pounds per square inch (always lowercase)

psia pounds per square inch absolute psig pounds per square inch gauge

PSL pressure (safety) sensor low; pressure specification level; product (process) specification

level (API)

Pspec purchasing specification

PSM protection-storage-maintenance (manual)
PSRST production system review and selection task

PSSS production safety shut-down system

PSU practical salinity unit (equivalent to parts per thousand based on potassium chloride KCI

solution)

PSV pressure safety valve; production and storage vessel; production swab valve / production

shear valve

PT point; pressure transmitter

Pts Points

PTCD positive temperature coefficient thermistor board

PTD project to date

PTFE polytetrafluorethylene (Teflon®)

PU porosity unit; pick up

PUMV production upper master valve
PUP pipe utility piece (short piece of pipe)

PUR; PURCH Purchasing

PV plastic viscosity; pore volume; pigging valve; present value (see also NPV)

PVB production valve block (see also MVB)

PVC polyvinyl chloride

PVP process-voltage-pressure (see also PVT)

PVT pressure-volume-temperature (reservoir analysis); process-voltage-temperature (see also

PVP); performance verification test (validation or qualification testing); pit volume totalizer

PWHT post weld heat treatment (see also PHT)

PWR; opower

PWM power width modulation (electric power - motor speed)

PWRI produced water re-injection PWV production wing valve QA quality assurance

QC quality control; quick connect (see also MQC)
QCDC quick connect-disconnect (see also MQC)
QD quick disconnect (see also MQC, EQD)

QE quality engineering

QM quality manager; quality matrix QMS quality management system

QP quality plan

Qspec quality specification

Qt quart

QTC quality (or qualification) test coupon (API)

QTP qualification test procedure

QTR quarter (or quarterly – 3 months, sometimes referred to as Q)

Qty quantity QUAL qualification

R&D research and development research and engineering

R&M repair and maintenance (see also IMR)

R&R Tool: R/R running and retrieval tool

Tool; RRT

R/D rig down (see also RD)
R/T running tool (see also RT)
R/U rig up (see also RU)

RACI responsible-accountable-consulted-informed (stage gate process chart – roles and

responsibility often used by oil companies) (often pronounced "RACE-EE") (see also LACTI)

Rad radians (geometric angle - see also deg, grads); Roentgen (or radiation) absorbed dose

RADAR radio detection and ranging

RAM random access memory (see also ROM); reliability-availability-maintainability (analysis) random amplitude operator (mathematic algorithm – used to define a ship or surface

vessel's motion given a particular set of ocean waves)

RB roller bearing

RB/d reservoir barrel per day

RBD reliability block diagram (see also FT, FTA)

RCA root cause analysis; remote cable anchor (used with subsea wire rope guidelines) (see also

GL, GW)

RCDR recorder

RCH reach; remote (or rotating) control head (managed pressure drilling)

RCJ riser cross-over joint rough casing metal seal RCP remote control panel

RCPA root cause preventative action (see also RCA)

RCVR receiver

RD road; rig down (disassemble) (see also RU)

RDD rigid disk drive
REC receiving
RECEPT receptacle
REF reference

REG regular/regulator

REL recommended exposure limit

REM remove REP repair

REQ require/requirements

RES resistor

res bbl reservoir barrel

RET return revision

RF relaxed filtrate; radio frequency

RFC revised for construction RFD revised for design RFI request for issue

RFID radio frequency identification (wireless communication protocol)

RFP request for proposal (see also EOI, ITT, RFQ)
RFQ request for quotation (see also EOI, ITT, RFP)
RGB red, green, blue (video standard EIA RS-170)

RH relative humidity; right hand

RI rework immediately

RICAS replaceable inboard cap assemblies (subsea horizontal pipeline connection, see also UTIS)

RID review item disposition

RIFIC ram injected flowline induction coupler

RIH run in hole (see also TIH)
RIT receiving inspection testing

RKB rotary (or rig) kelly bushing(s) (see also KB, MRKB)

RL roll

RLMS riser load monitor system

RLWI riserless (or rigless) light well intervention (see also LWI)

Rm resistivity of mud
Rmc resistivity of mud cake
Rmf resistivity of mud filtrate
RMM retrievable manifold module
RMPP riser mounted park plate

rms; RMS root-mean-square (usually associated with surface finish (smoothness))

RND round

ROM read only memory (see also RAM, PROM, WORM); rough order of magnitude

ROP rate of penetration (drilling)
ROS residual oil saturation
ROT remotely operated tool

ROV remotely operated vehicle (see also AUV, UUV)

ROVSV remotely operated vehicle support vessel; ROV operated safety valve

ROW right of way

RP rod pump; recommended practice (API)
RPGB retrievable permanent guide base
RPLM retrievable pigging loop module

rpm revolutions per minute

RPN risk priority number (HAZOP or FMECA analysis – a severity ranking value)

RPT report

RQ reportable quantity

RS rising stem; recommended standard (example RS-232)

RSE remote sensor engine (controls architecture – Schilling Robotics) (see also DTS)

RSFO regional supervisory field office (BOEM/BSEE regional or district office)

RSS; rich site summary; really simple syndication (internet XML language data format); rotary

steerable system (directional drilling) (see also SMA)

RSTP real time streaming protocol (Ethernet and video transmission), rapid spanning tree protocol

(IEEE 802.1)

Rsw resistivity of sea water (cathodic protection)

Rt resistivity; true formation; right

RT radiography testing: right: rotary table (elevation): running tool (see also R/T)

RTC real-time computer (see also RTPC)
RTD resistance temperature device

RTJ ring type joint

RTOL real-time operating limits (drilling or completion riser monitoring) (see also ACME, WAMS)

RTPC real-time PC (see also RTC)

RU rig up (assemble or stack-up) (see also RD)

RV retainer valve

Rw resistivity of formation water

RWK rework

RWP rated working pressure (see also MAOP)
RX radio receiver (incoming) (see also TX)

Rxo resistivity of flushed zone

S sand; suspended; Siemens (electric conductance or admittance – inverse of electric

resistance (alternate units – mho or ℧))

s second (time)
S&HO stab & hinge over
S/N serial number

S-N stress vs. number of cycles (often referred to as a SN curve – mechanical fatigue) (see also

SN)

S/W software

Sa; SA maximum allowable tensile strength; stub acme (thread) (see also NA)

SACS structural analysis computer system (beam/column FEA software) (see also STAAD)

SAE Society of Automotive Engineers

SAF stress amplification factor (see also SCF, SIF)

SAFOP safety and operability (analysis)

SAG successful alliance groups; secure application gateway

SAGD steam assisted – gravity drainage (steam flood-heavy oil recovery method)

SALM single anchor leg mooring

SAP Sanduhr Anzeige Programm (German software) (a company)

SAPP sodium acid pyrophosphate

SAS safety automation system; Subsea Asset Services (a company)
SAW; SMAW submerged (metal) arc welding (see also GMAW, GTAW, MIG, TIG)

SB saturated brine

Sb bending stress; antimony

SBL short base line (acoustic position referencing) (see also DVL, LBL and USBL)

SBM single buoy mooring; SBM (a company); synthetic based mud (see also OBM, WBM)

SBMS straight bore metal seal (see also XEMS)

SBMS2 straight bore metal seal ("two" – OD/ID bore) (see also HSBMS2)

SBOP surface blowout preventer (surface BOP drilling from a MODU) (see also SID)

SBR Shawmount Brown and Root (a company) (see also KBR)

SBS short bore selector; straight bore selector

SBX subsea BX gasket – an API (17D) BX metal gasket with special drilled holes to allow it to be

made up with a 6B or 17SS flange underwater

SC source code; safety case (see also SEMP)

SCADA supervisory control and data acquisition (see also CPAS)

SCC stress corrosion cracking (embrittlement corrosion) (see also GHSC, HISC, SSC)

SCE sanction cost estimates

SCF; scf standard cubic feet; stress concentration factor (see also SAF, SIF)

scf/bbl standard cubic feet per barrel SCFD: scf/d standard cubic feet per day

SCHEM schematic

SCM subsea control module

SCMMB subsea control module mounting base

SCP sustained casing (annulus) pressure; slow circulating pressure (drilling)

SCR screw; screen; steel catenary riser; silicon-controlled rectifier (motor speed) (see also ASD,

VSD); slow circulating rate (drilling) (see also SCP)

SCRAMS surface controlled reservoir analysis and management system (smart well completion) (see

also DIACS, IWIS)

SCSI small computer systems interface

SCSSV surface controlled subsurface safety valve (a DHSV that is controlled remotely from the

surface)

SCU subsea control unit; secondary connector unlock SCUBA self-contained underwater breathing apparatus

Sd standard day

SD sand detector (see also ASD); stacked down (mudline wellhead) (see also MLS, OBS);

shut-down

SDC single discipline check

SDS subsea drilling systems; system data sheet; safety data sheet(s) (formerly MSDS) (United

States – OSHA) (see also HAZMAT)

SDSS super duplex stainless steel (see also DSS)

SDU subsea distribution unit (see also EDM, EDU and HDM)

SDV shut down valve (see also BSDV, SSIV)

Se maximum allowable equivalent stress (see also Sm); selenium

SE Southeast: screwed ends

SE1; SE2 step out umbilical electric power and signal

SEA Southeast Asia (see also ER, WR)

SEAFOM subsea fiber optic monitoring (protocol) (see also DCS, MDIS, SIIS, SWIS and CANbus)

SEC second; section

SECAM Séquentiel Couleur Avec Mémoire (French video format of PAL) (see also NTSC)

SECT section

SEG Society of Exploration Geophysicists

SEM subsea electronics module; scanning electron microscope

SEMI semi-submersible vessel

SEMP safety and environmental management plan (or program) (see also SC, SEMS, SMS)

SEMS subsea electronics modules; safety and environmental management system

(BOEM/BSEE/OSHA) (see also PHA, JHA, JSA, HAZOP, HAZID, SMS)

SEPLA self-embedding plate anchor

SES side entry sub

SETE subsea electronic test equipment

SF safety factor (see also DF, FOS, FS); safe failure; surfactant

SFF safe failure fraction (see also HFT, PFD)
SFL steel flying lead (see also HFL, EFL and PFL)

SFLOC smart flange with length of compensation (see also MAF)
SFT surface tree (also known as flowhead or terminal head)

SG specific gravity

Sh shale SHIP shipping

SHLD shield; or shielded

SI shut-in; silicone; system international (metric)

SICP shut-in casing pressure

SID subsea (seabed) isolation device (used in conjunction with a SBOP)

SIF safety instrumented function (see also SIS); stress intensity (intensification) factor

(pipelines) (see also SAF, SCF)

SIIS subsea (controls) instrument interface standard (see also SEAFOM, SWIS and CANbus)

SIL safety integrity level

SIM simulator; subsea intensifier module; serial interface module (see also DTS, NIM, VIM)
SIMOP simultaneous operations; simulated operations (analysis) (see also HAZOP, SAFOP)
SINTEF Stiftelsen for Industriell og Teknisk Forskning (Norwegian Research Company) (see also

DNV, NTS, NTNU)

SIO serial input/output

SIOLT serial input/output line termination
SIP shut-in pressure (see also SITP, SIWP)

SIR supplier improvement request SIT systems integration test

SIS safety instrumented system (see also HIPPS)

SICP shut-in casing pressure SIDPP shut-in drill pipe pressure

SITP shut-in tubing pressure (see also SIP, SIWP)
SIWP shut-in tubing pressure (see also SIP, SITP)

SHP shaft horsepower (dynamometer) (see also BHP, W)

SHPU subsea hydraulic power unit (see also HPU)

SJ slick joint

SK stationkeeping (see also DP); sack(s) (see also SX)

SKT sketch

SL slotted liner; surface location; spring loaded; slim line (SBMS-SL)

SL Tool spring loaded tool S-Lay method of laying pipe

SLC single line coupler; slim line connector SLD slide; single line diagram (electric power)

SLS soft landing system

SM small

Sm membrane stress

SMA steerable motor assembly (directional drilling) (see also RSS); shape memory alloy

(titanium-nickel alloy, often referred to as Nitinol)

SMC system master controller

SME subject matter expert; Society for Mining, Metallurgy, and Exploration

SMI system master interface; service management interface; surface measuring instrument; ship

manpower information

SMPP safety management policies and procedures

SMS safety management system (see also SEMS, SEMP); short message service (cell phone

text messaging) (see also MMS)

Sn tin (stannous)

SN service notification (see also FFR, FNCR); seat nipple (wireline); stress vs. number of cycles

(often referred to as a SN curve – mechanical fatigue) (see also S-N); signal to noise (ratio

- sound. electrical communication, or power clarity-quality) (see also dB, dBA)

SNAME Society of Naval Architects & Marine Engineers

SNS Southern North Sea SOA sales order agreement

Soc society

SOFAR sound fixing and ranging (oceanography)
SOI Shell Offshore Inc. (a company); solenoid

SOL solenoid

SOLAS safety of life at sea

SONAR sound navigation and ranging

SOO suspension of production/operations (BOEM/BSEE lease time extension); statement of

objectives (see also SOS, SOW)

SOP standard operating procedures

SOS scope of supply (see also SOO, SOW); save our ship (distress signal)

SOURG sour gas (see also H₂S) SOV solenoid operated valve

SOW statement of work (see also SOO, SOS)

SP spontaneous-potential; self-potential; single porch

SPC stored program control; service processor controller; specification; special; specific; Shell

Pipeline Corporation (a company)

SPCTU subsea power & communication test unit SPCU subsea power and communication unit

SPE Society of Petroleum Engineers
SPEC specification (see also SPC)
SPECA SPE Computer Applications
SPEDC SPE Drilling and Completion
SPEDE SPE Drilling Engineering
SPEFE SPE Formation Evaluation

SPEJ SPE Journal

SPEPF SPE Production and Facilities
SPERE SPE Reservoir Engineering
SPG subsurface pressure gauge
SPI stabilizer position indicator

SPM single point mooring; strokes per minute (pumping)

SPMB single point mooring buoy

SPP standpipe pressure; suspended particulate phase

SPS submerged (or subsea) production system (see also UMC); special purpose ships (IMO)

SPT shallow pulse test

SPWLA Society of Petroleum Well Log Analysts

SQ square

SQDC safety (HSE), quality, delivery, cost (priority of doing things)

sq mi square mile

SQL structured (or search) query language (databases); squelch (radio communications)

SR senior; system specific requirements

SRB (sessile) sulfur reducing bacteria (see also ADB)

SRI subsea retrievable insert

SRIC subsea retrievable insert choke

SRM subsea router module (see also SCM); supplier relationship management (SAP term)

SRR shop repair report

SRRD sleeved rotational retaining device SRT secondary release tool (running tool)

SS sandstone; stainless steel; subsea; subsurface

SSC sulfide stress cracking (embrittlement corrosion) (see also GHSC, HISC, SCC)

SSCS subsea control system

SSDV semi-submersible drilling vessel (see also MODU)

SSF subsea filter

 S_{shr} ; τ allowable stress in shear

SSIV subsea isolation valve (see also BSDV, SDV, AIV)

SSM subsea modem

SSOI safety system operator interface

SSR shear seal ram (BOP or WCP) (see also BR, BSR, PR, SSR, VBR)

SSRT slow strain rate test (see also CERT)

SSSV subsurface safety valve (see also DHSV, SCSSV, TRSCSSV)

SST stainless steel tank; service skills training

SSTT subsurface (or subsea) test tree SSV surface safety valve (see also USV)

ST steering tool; stoke; seal test; surface tree; swivel/turret/mooring; set (group quantity)

St maximum allowable primary membrane stress (see also Sm, Se)

ST Tool single trip tool

STAAD structural analysis and design (beam/column FEA software) (see also SACS)

STAB stabilizer

STAT statim (immediately); strategic target account team (sales/marketing) (see also SWOT,

SWOTT)

STB stock tank barrel

STBD stock tank barrel per day

STD standard; stud tensioning device

STOOIP stock tank original oil in place (see also OOIP)

STK stock

STL steel; submerged turret loading

STR stranded; string

STRT secondary tree release tool

STT surface test tree; subsea test tree (see also SSTT)

 $\begin{array}{ll} \text{STU} & \text{steel tubed umbilical} \\ \text{Su; } \text{S}_{\text{uts}} & \text{ultimate tensile strength} \end{array}$

SURF surface; subsea hardware-umbilicals-risers-flowlines

SUT Society for Underwater Technology

SUTA subsea umbilical termination assembly (see also TUTA, UTA, UTH) SV safety valve (see also DHSV, SCSSV, SSV, SSV, TRSCSSV, USV)

SVCS services

SVCU subsea valve control unit SVS subsea valve station

SW Southwest; socket weld ends; salt water; switch

SWA single wire armored

SWAG simultaneous water and gas (well injection) (see also WAG)

SWF shallow water flow

SWHP shut-in wellhead pressure

SWIFT structured what-if technique (risk analysis) (see also HAZOP)

SWiG subsea wireless group (subsea wireless control system communication protocol)
SWIS subsea well interface standard (control system communication protocol) (see also

SEAFOM, SIIS and CANbus)

SWL safe working load (lifting)

SWOT strengths-weaknesses-opportunities-threats (marketing customer/competitor analysis) (see

also STAT, SWOTT)

SWOTT strengths-weaknesses-opportunities-threats-trends (marketing customer/competitor

analysis) (see also STAT, SWOT)

SwRI Southwest Research Institute (a non-profit, US government supported company)

Sy; S_{vld};SMYS material minimum specified yield strength; yield stress (see also Ys)

SYS system

SX sack(s) (see also SK); saturation exploration (form of slimbore drilling)

T testing; ton $(2,000 \text{ lb}_f)$ (see also mT, Te, kN); trillion (10^{12})

T/A; TA temporarily abandoned; teaching assistant treatment, completion, and workover

T1; T2; T3 well/tree #1, 2, 3

TA Cap temporary abandonment cap

TAP technical assessment plan (see also TRA&MP, TR&MP, FEED, TQP)

TB technical bulletin
TBA to be announced
TBC tieback connector
TBD to be determined

TBG tubing
TBS tieback sub

TC test coupon (see also QTC); tree cap

TCB tieback connector
TCF trillion (10¹²) cubic feet

TCL tree cap lock; tree connector lock

TCP/IP transmission control protocol/internet protocol (see also HTTP, FTP)

TCRT tree cap running (and retrieving) tool

TCRT tree cap running tool tree cap soft landing

TCSU tree connector secondary unlock TCT tree cap test; tree connector test

TCTV tree connector test valve

TCU tool control unit; tree cap unlock

TCV tree cap/tree running tool pressure vent

TD total (or target) depth (well) (see also MD, MRKB)

TDGO Teledyne – D.G. O'brien (a company)

TDR tool design review
TDS total dissolved solids
TDU tool deployment unit

Te metric ton (tonne) (2,200 lb_f – sometimes referred to as 1,000 kg) (see also mT, T, kN)

TE testing equipment; tree electric TEC Texas Employment Commission

TECH technical, technology

TECHN technician (see also IE, TSP)

TEG tri ethylene glycol (see also MEG); thermoelectric generator (Seebeck thermocouple)

TEI tree electric-inner tree
TEMP temperature; temporary
TEO tree electric-outer tree
TEP target entry point

TERM terminal

TF topsides facilities TFA total flow area

TFE Teflon® (tetrafluorethylene) (see also PTFE)

TFL through-the-flowline; through flowline tools; through frame lift

TGB temporary guide base

TH tight hole; tree hydraulic; tubing head (spool); tubing hanger

THA total hydrocarbon analyzer
THAS tubing hanger adapter sleeve
THBP tubing hanger bore plug
THC total hydrocarbon conditioner
THCP tubing hanger crown plug

THD thread

THDSS tubing hanger deck storage stand tubing hanger emergency recovery tool

THHT tubing hanger handling tool

THHTT tubing hanger handling and test tool

THI tree hydraulic-inner tree

THK thick

THL tool to hanger lock; tubing hanger lock

THLV tubing hanger to lock verify

T_{HMAX} wave period associated with H_{MAX} - time it takes for a wave peak-to-peak to travel past a

specific point

THMRT tubing hanger mechanical release tool (see also THRMT – same tool)

THO tree hydraulic outer tree
THOJ tubing hanger orientation joint
THRA tubing hanger running assembly

THRD threaded

THRT tubing hanger running tool

THRMT tubing hanger retrieval mechanical tool (see also THMRT – same tool)

THS tubing head spool (see also TH)

THST tubing head seal test
THT tree handling tool
THTS tubing hanger test stand
THUL tool to hanger unlock

THWIS tubing hanger wireline isolation sleeve tubing hanger wireline nipple protector titanium; Texas Instruments (a company)

TIF tagged image format

TIG tungsten inert gas (welding) (see also GMAW, GTAW, MIG, SAW)

TIH trip in hole (see also RIH)
TIM technical information manual

TIV test isolation valve

TIW Texas Iron Works (a company); Texas Iron Works valve (also known as kelly valve)

TL tight layers; tool; tree lock

TLI travel lock indicator
TLM total loss management
TLP tension leg platform
TLV threshold limit value

TLWP tension leg wellhead platform (see also TLP)
TM tight matrix; torque multiplier; trade mark

TMC total mud cost

TMD total measured depth

TMS The Minerals Metals and Materials Society; tether maintenance system (ROV)

TN Terra Nova (Canada)

TOC theory of constraints; thin oil column; table of contents; top of cement

TOFD time of flight diffraction (ultrasonic NDE inspection)

TOPO topographical; topography (geography)

TP test pressure; triple porch

TQP technical qualification program (see also FEED, TAP)

 T_p wave period associated with H_{MAX}

TPE thermoplastic elastomer

TPS thermal protection system; test preparation sheet

TQM total quality management TR technical report (API)

TRA∓ technical readiness (analysis) and mitigation plan (often pronounced "TRAMP") (see also

TR&MP TAP, FEED, TQP)

TRC technical risk category (used in TAP analysis) (see also TRL)

TRIZ teoriya resheniya izobreatatelskikh zadatch (Russian: Theory of Inventive Problem Solving)

(often pronounced "TRIZ")

TRL technology readiness level (scale from: 1 [concept] – 7 [field proven with history] – used in

TAP analysis) (see also TRC)

TRSCSSV tubing retrievable surface controlled subsurface safety valve (see also DHSV, SCSSV,

SSSV)

TRT tree running (and retrieving) tool

TS thermal shield

TS wave period associated with HS TS&R technical safety & reliability (analysis)

TSA transportation safety administration (United States); thermal sprayed aluminum

TSB tendon support buoy

TSD thermally stable diamond compact (drill bit)

TSJ tapered stress joint

TSP twisted shielded pair; touch screen panel; tripax cutter; teaspoon; tri-sodium phosphate

(cleaner); time synchronization protocol; technical service personnel (see also IE, TECHN)

TSPP tetra-sodium pyrophosphate
TST tree seal test (see also AXT, VXT)
TT thermal test; temperature transmitter

TTC tubing hanger running tool top test and handling cap

TTL transistor-transistor logic; tree tool lock

TTP tree test plug

TTS telemetry transfer system
TTSL tree tool soft landing
TTSU tree tool secondary unlock

TTU tree tool unlock
TUL-P tree unlock – primary
TUL-S tree unlock – secondary

TUTA topsides umbilical termination assembly (see also SUTA, UTA, UTH)

TÜV Technischer Überwachungsverein (German safety and standards institution)

TVD true vertical depth
TWA time-weighted average

TWC total well cost

TWCV two-way check valve

TWIC transportation workers identification credentials (often pronounced "TWIK") (US Homeland

Security)

TWP township typical

TX radio transmitter (outgoing) (see also RX)

T_z zero up crossing period – wave height

u (unified) atomic mass unit (see also Da)

U heat transfer coefficient (Btu/hr-ft²-°F or Watt/m²-°K)

U/V; UV ultra violet

UAE United Arab Emirates

UAI use as is

UAMV upper annulus master valve

UAP utility air pressure UC uncemented casing

UCON universal connection system (flowline connection)

UCOS user configurable open system (FMC's A&C SCADA architecture)

UCP upper crown plug
UCS UTIS control system
UCU utility control unit
UEL upper explosive limit

UGB universal guide base (see also CGB, UGF)

UGF universal guide frame

UH main E/H umbilical UTH hydraulic UHF ultra high frequency (see also VHF)

UIC user identification code UIMV upper injection master valve

UK United Kingdom

UKCS United Kingdom Continental Shelf

UKOLS Ugland Kongsberg Offshore (a company) Loading System

UKOOA United Kingdom Offshore Operators Association, (London) (see also OGP, OOC)

UKDOE United Kingdom Department (Ministry) of Energy

UKP; £ United Kingdom Pound (sterling)

ULS ultimate limit state

UMC underwater manifold center (see also SPS)

UN unified thread (ASME B1.1 screw thread standard) (see also UNC, UNEF, UNF, UNM,

UNR, UNS)

UNC unified national course (thread)
UNEF unified national extra fine (thread)
UNF unified national fine (thread)
UNM unified national miniature (thread)

UNR unified thread (UN) rounded root (external threads only)

UNS unified numbering system (materials (metals) alloy designation); unified national special

(thread)

UOM unit of measure

UPMV upper production master valve UPS uninterruptible power supply

UPTBG external upset end (thread) tubing (API)

URL uniform resource locator (internet addresses) (see also HTTP, FTP)

URT universal running tool

US unconsolidated sand; United States

USB universal serial bus

USBL ultra short base line (acoustic position referencing) (see also DVL, LBL, SBL)

USCG United States Coast Guard

USD unit shut-down; United States dollar USDOE United States Department of Energy

USGS United States Geological Survey (see also BOEM, BSEE)

USST underground stainless steel tank

USV underwater safety valve (equivalent to a SSV, but for subsea applications)

UT ultrasonic testing; umbilical termination

UTA umbilical termination assembly (see also SUTA, TUTA, UTH)

UTAJ umbilical termination assembly jumper

UTB umbilical termination box

UTH umbilical termination head (see also SUTA, TUTA, UTA)

UTIS universal tie in system (subsea horizontal pipeline connection method)

UTL upper tree lock

UTM universal transverse mercator (flat plane mapping coordinates - lease block coordinates)

(see also OPD)

UTP utility test panel; umbilical termination panel

UTSL upper tree soft landing
UTST upper tree seal test
UTSTV upper tree seal test valve

UTU upper tree unlock UU utility umbilical

UUV unmanned underwater vehicle (see also AUV, ROV)

UV ultraviolet

UV design a staged pressure energized packing set comprised of a spring load U-seal backed up by

multiple V-seal rings, interspersed non-extrusion rings (valve stem packing)

UWC underwater completion

UWD underwater wellhead design; underwater drilling

V version: volts: vanadium

Vac vacuum

VAC volts (or voltage) alternating current; vacuum (or vacant); vacuum assisted closure VAM ACE VAM (a company); ACE is their trade name for a casing and tubing thread type

VASPS vertical annular separation and pumping system

VBM valve body module

VBR variable bore ram (BOP) (see also BR, BSR, PR, SSR)

VC visually clean; vena contracta (choke area)

VCG vertical center of gravity
VDC volts (or voltage) direct current
VDL variable density log (see also CBL)

VER version

VFD variable frequency drive VGA video graphics array

VHF very high frequency (see also UHF)

VI violet VIB; VIBE vibration

VIS

VIC versatile interface controller

VIM vessel induced motion; video interface module (see also DTS, NIM, SIM); vacuum-induction

melt (steel processing) (see also AM) vendor information server: visibility

VIT vitrage isolant technique (French glass insulation technology – mostly for well tubing)

VIV vortex induced vibration (fluid mechanics)

VLP vertical lift performance (reservoir engineering) (see also IPR)

VM vertical stabbed (mounted horizontally); Von Mises (stress) (see also VME)

VME Von Mises equivalent (stress) (see also VM)

VP vice president; variable position
VP1 variable position indicator for LVDT
VRML virtual reality markup language

vs. versus (see also VSS)

V-SAT small aperture terminal-type of satellite communication system

VSD variable speed drive (see also ASD, SCR)

VSE valve signature envelope; virtual storage extended; virtual server environment

VSS valve signature server; virtual service switch; verification status signal; vendor supplied

software; voltage source; versus; versions

VX Vetco Gray (GE Oil & Gas – company) proprietary metal seal and its derivatives (such as

VX2) (usually associated with an H-4 (mandrel) external profile on a wellhead) (see also

AX)

VXT vertical subsea (Christmas) tree (see also HXT); VX gasket test (see also TST)

W Watt (power) see also (BHP, SHP)

W/ with

W/H wire harness; wellhead

W/L wireline

W/O without; workover (see also CWO, WO)

WAG water-alternating-gas (well injection) (see also SWAG)
WAMS well access management system (see also ACME, RTOL)

WASH washer

WAT wax (paraffin) appearance temperature (see also CP)

WBM water based mud (see also OBM, SBM)

WBS work breakdown structure

WC water coring; work center; well construction

WCD worst case discharge (estimated well blowout rate) (see also AOF, CAOF)

WCP workover control package; well control package

WCT wireline coiled tubing

WCT-BOP wireline coil tubing blowout preventer (obsolete and replace with WCP)

WD water depth; working draft WETU workover electronic test unit

WEX welded extrusion (material cladding) (see also HIP) WH; WHD wellhead; wellhead assembly; wellhead system

WHSE warehouse

WIIV water injection isolation valve WIM wireline interface module

WIP work in progress WKM well kill margin

WLA wireline adapter assembly

WM wet-mate (electrical connector) (see also DM)

WNF weld neck flange

WO without; workover (see also W/O)

WO Riser workover riser (see also C/WOR, CWOR)

WOB weight on bit

WOC waiting on cement; water/oil contact

WOCS workover control system (see also IWOCS)

WOR water/oil ratio

WORM write once read memory (see also EPROM, ROM, PROM)

WOW waiting on weather

WP working pressure (see also RWP)
WPS welding procedure specification
WR Western Region (see also ER, SEA)
WRC wire rope core (see also IWRC)

WRS wire-wrapped screen

WSCM workover subsea control module

WSD working stress design (API) (see also LRFD)

WT weight; wash tool WTU well termination unit

XDCR transducer XDUCER transducer

XEMS externally energized metal seal (see also SBMS, MSBMS)

XFMR transformer

XLTSR extra long tubing seal receptacle
XML extensible mark-up language (internet)

XMTR transmitter
XO/XOVER crossover
XOV crossover valve

XRD x-ray diffraction X-Sect cross section XSTR transistor

XT subsea tree; Christmas tree (see also DT, HXT, JXT, VXT)

XTC-L subsea tree connector-lock
XTC-U subsea tree connector-unlock
XTRT subsea tree running tool

Y1; Y2 daisy chain HOST electric power and signal Ya actual average yield strength from test specimens

Yd yard

YH daisy chain HOST hydraulic YP yield point (see also Ys)

Yr year

Regulation Subset

Ys specified minimum yield strength; yield strength (see also S_{vld}, Sy)

YTD year to date

Z pipe section modulus

Zn zinc (additive to aluminum anodes) (see also Al-In-Zn)

More acronyms may be found at www.acronymfinder.com

Freight forwarding terms may be found at www.networkfob.com/glossary_of_freight_terms.htm

Acronyms used by BOEM/BSEE for Well Permit Regulations

rtegulation	Ouboct	
APD	RPD AST RST ABP RBP	application for permit to drill (well drill or well drill and completion) revised application for permit to drill application for permit to side track revised application to side track application for permit to by-pass revised application for permit to by-pass
APM	RPM APW	application for permit to modify (well completion or well workover) revised application for permit to modify application for permit to workover
PINC INC		potential incident of non-compliance (often pronounced "PINK") incident of non-compliance (often pronounced "INK")
ANPR IFR NFR NPR RUE		advance notice of proposed (new or modified) rule (regulation) interim final rule notice of final rule notice of proposed rule right of use and easement

Shipping Water Line Marking (Plimsoll Marking)

TF T S W WNA

