

PAS FILE COLOUR CODED LEGEND
Indicating Changes to Published / DRAFT Formats as per Bulletin 2003-37

- FILE VERIFICATION				
# (Information in this section is Assigned by the EUB, and attached to the PAS file upon Acceptance / Validation via WTC-Submit procedure)				
WTCNUM	[CHAR 13]	EUB WTC Tracking ID	Will not be Blank, system will input	EUB-WTC Unique Certification number:
WTCDAT	[YYYY MM DD HHHH]	Submission/Acceptance Date	Will not be Blank, system will input	Date of WTC Verification & Acceptance
WTCSUB	[CHAR 60]	Submitter	Will not be Blank, system will input	Company whom Submitted Specific Well Test Data
COMP.	[CHAR 60]	Licensee Name	Will not be Blank, system will input	Based on Licensee

General

ALL Mnemonic Values are **Mandatory**, unless otherwise noted.
 This specific change was intended to clean up and make the general Business Rule Areas less cluttered.
 "Conditional" Values will be noted as, (i.e. Mandatory, if TTYP = 08 or 18)

WHERE SECTION RULES EXIST (Noted by the # Sign) THEY ARE SUPERSEDED BY INDIVIDUAL BUSINESS RULES AND EDITS

Zero's are **NOT** acceptable unless otherwise noted.

Elevation References:
 DST's to remain fully in reference to Kelly Bushing (KB)
 Non-DST's: "Tested Intervals" to remain in KB, however all other Gauge Depths and Liquid Levels have been changed to Casing Flange (C)

- VERSION				
MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PASTYPE.	[CHAR 7]	DIGITAL DATA - DST TEST DATA	PAS-DST	Drill Stem Test, format
UNIT.	[CHAR 1]	UNITS FLAG	(M)etric	Metric Units for EUB submission
VERS.	[NUMB 5,2]	EUB DIGITAL WELL TEST DATA	4.00	Current EUB version for ASCII test data submission

- WELL INFORMATION					
MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC	
BACODE.	[CHAR 4]	BUSINESS ASSOCIATE CODE	Licensee Agent/Business Associate (BA) Code. must match EUB records for holder of Well License [WLIC.]	On the date of Submission, the Holder of the License. If EUB records are incomplete or not up-to-date, the Operator must address- http://www.eub.gov.ab.ca/BBS/requirements/Codes/licit.htm	DELETED / REMOVED; further to GB-2003-33, the proposed Mnemonic has been removed from file. This situation will be noted with a RED Font and Strikeouts .
WLIC.	[CHAR 9]	EUB WELL LICENSE NUMBER	Well License Number must match EUB License Number for UWI	EUB Well License Number	NO Change
DRILLEG.	[NUMB 2]	DRILLING LEG	Must be 0, 2, 3...9 (Cannot be 1 or NULL)	Drilling Leg/Occurrence	NEW, subsequent to further review, some additional "New" Mnemonics OR a new Business Rule may have been added to a File. This situation will be noted with a BOLD GREEN Font and Yellow Highlights.
FORMN.	[CHAR 20]	FORMATION NAME		Name of the geological formation/zone	CHANGED, further to subsequent review, some elements of a Mnemonic, Field Size, Description, Business Rule or Clarification has been changed. These situations will be noted wherever possible with a RED Font & Strikeout (for the deleted circumstance), and a BOLD BLUE Font and Blue Highlights for cells effected.

OIL ANALYSIS FILE (OAN)

~ FILE VERIFICATION				
# (Information in this section is Assigned by the EUB, and Appended to the PAS file upon Acceptance / Validation via WTC-Submit procedure)				
WTCNUM	[CHAR 13]	EUB WTC Tracking ID	Will not be Blank, system will input	EUB-WTC Unique Certification number:
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WTCSUB	[CHAR 60]	Submitter	Will not be Blank, system will input	Company whom Submitted Specific Well Test Data
COMP.	[CHAR 60]	Licensee Name	Will not be Blank, system will input	Based on Licensee

~ VERSION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PASTYPE.	[CHAR 7]	DIGITAL DATA - OIL ANALYSIS	PAS-OAN	Oil Analysis test, format
UNIT.	[CHAR 1]	UNITS FLAG	(M)etric	Metric Units for EUB submission
VERS.	[NUMB 5,2]	EUB DIGITAL WELL TEST DATA	4.00	Current EUB version for ASCII test data submission

~ WELL INFORMATION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
UWI.	[CHAR 20]	UNIQUE WELL ID	UWI must be valid and exist on EUB database.	Unique Well Identifier - Bottomhole location.
DRILLEG.	[NUMB 2]	DRILLING LEG	Must be 01, 02, 03...09 (Cannot be 0 or NULL)	Drilling Leg (Event or Occurrence). Together with the UWI, this is to help define the bottom of the specific drill hole.
WLIC.	[CHAR 9]	EUB WELL LICENSE NUMBER	Well License Number must match EUB License Number for UWI	EUB Well License Number
FORM.	[CHAR 20]	FORMATION NAME		Name of the geological formation/zone
WSFL.	[NUMB 2]	WELL FLUID TYPE AT TEST DATE	Mandatory, must have a valid EUB fluid code = (01) Oil, (02) Gas, (06) Water, or (17) Crude Bitumen	Type of Dominant Fluid Production/Pay (i.e. oil, gas, water)

OIL ANALYSIS FILE (OAN)

~ TEST DATA ~~(#)~~

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
LABCO.	[CHAR 60]	LABORATORY NAME		Company name conducting analysis
LFNUM.	[CHAR 25]	LABORATORY FILE NUMBER		Identification number
TTOPL.M	[NUMB 10,5]	TEST/PROD. INTERVAL TOP M KB (LOG)	[TTOPL] (Interval Top - Log) must be > 0.0 and < [TBASL] (Interval Base - Log)	Top of tested or producing interval - in log depth, measured mKB
TBASL.M	[NUMB 10,5]	TEST/PROD. INTERVAL BASE M KB (LOG)	[TBASL] (Interval Base - Log) must be > 0.0 and => [TTOPL] (Interval Top - Log) and cannot be greater than [TTOPL]	Base of tested or producing interval - in log depth, measured mKB
SDAT.DAY	[YYYY MM DD]	DATE SAMPLED	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	Date sample gathered
IDENT.	[CHAR 12]	CONTAINER IDENTITY		Identification code of container
SPNT.	[NUMB 2]	SAMPLE POINT CODE	Mandatory, must be Valid EUB Sample Point Code (See Footnote).	Sample gathering point
SPNTN.	[CHAR 50 100]	SAMPLE POINT NAME		Laboratories Unique Text Description of Sample Gathering Point
ADAT.DAY	[YYYY MM DD]	DATE ANALYZED	Must be >= [SDAT] (Sample Date) and <= Submission Date	Date Sample Analysis
SPRES.KPAA	[NUMB 8,2]	SAMPLE PRESSURE	Optional, can not be zero	Pressure as Sampled (in field) - kPaa
STEMP.DEGC	[NUMB 5,2]	SAMPLE TEMPERATURE	Optional, can be zero	Temperature as Sampled (in field) - DegC
RPRES.KPAA	[NUMB 8,2]	RECEIVED PRESSURE	Optional, can not be zero	Pressure as Received (in Lab) -kPaa
RTEMP.DEGC	[NUMB 5,2]	RECEIVED TEMPERATURE	Optional, can be zero	Temperature as Received (in Lab) - DegC
DSTLOC.	[CHAR 1]	DST SAMPLE LOCATION	If [SPNT] (Sample Point Code) = (50) then [DSTLOC] (DST Sample Location) must be (T)op, (M)iddle, or (B)ottom. Else must be Null.	
OANC.	[CHAR 240]	COMMENT ON SAMPLE	Optional	General Free form Comment (regarding Sample or Analytical Procedures).

OIL ANALYSIS FILE (OAN)

~ OIL SAMPLE PROPERTIES

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
CNAM.	[CHAR 20 40]	COLOUR OF CLEAN OIL	Optional	Colour of clean oil, by name
CNUM.	[CHAR 20]	COLOUR NUMBER	Optional	Colour number, by ASTM D-1500
BSWW.FRAC	[NUMB 4,3]	FRACTION OF WATER	Optional, can be null or zero	Basic sand and water volume fraction, of water
BSWS.FRAC	[NUMB 4,3]	FRACTION OF SEDIMENT	Optional, can be null or zero	Basic sand and water volume fraction, of sediment
BSW.FRAC	[NUMB 4,3]	FRACTION OF TOTAL BS&W	Optional, can be null or zero	Basic sand and water volume fraction, total
RDNRX.	[NUMB 4,3]	RELATIVE DENSITY AS RECEIVED	Optional, can be null or zero	Relative density as received
RDNCL.	[NUMB 4,3]	RELATIVE DENSITY AFTER CLEANING	Optional, can be null or zero	Relative density after cleaning
ADNRX.KG/M3	[NUMB 6,1]	ABSOLUTE DENSITY AS RECEIVED	Optional, can be null or zero	Absolute density as received, kg/m ³
ADNCL.KG/M3	[NUMB 6,1]	ABSOLUTE DENSITY AFTER CLEANING	Mandatory, can not be zero	Absolute density after cleaning, kg/m ³
API.	[NUMB 6,2]	API GRAVITY @ 15 DEGC	Optional, can be null or zero	API gravity @ 15 (Degrees Celsius)
TSUL.FRAC	[NUMB 7,5]	TOTAL SULPHUR MASS FRACTION	If [TSUL.GM/KG] (Total Sulphur) is Null then [TSUL.FRAC] (Total Sulphur Mass Fraction) is mandatory (either must be present). Can be zero.	Mass fraction of total sulphur
TSUL.GM/KG	[NUMB 7,2]	TOTAL SULPHUR	If TSUL.FRAC is null then [TSUL.FRAC] (Total Sulphur Mass Fraction) is mandatory (either must be present). Can be zero	Ratio of total sulphur, gm/kg
TSALT.KG/M3	[NUMB 7,5]	TOTAL SALT	Optional, can be null or zero	Salt kg/m ³
RVP.KPAA	[NUMB 8,2]	REID VAPOUR PRESSURE	Optional, can be null or zero	Reid Vapour Pressure, kPaa
CONRD.FRAC	[NUMB 8,2]	CARBON RISIDUE CONRADSON FRACTION	Optional, can be null or zero	Carbon Residue, mass fraction - Conradson
RAMBT.FRAC	[NUMB 8,2]	CARBON RISIDUE RAMSBOTTOM FRACTION	Optional, can be null or zero	Carbon Residue, mass fraction - Ramsbottom
PPTUSBM.DEGC	[NUMB 5,2]	POUR POINT U.S.B.M. STANDARD DEGC	Optional, can be null, negative or zero	Pour Point U.S.B.M. standard - (Degrees Celsius)
PPTASTM.DEGC	[NUMB 5,2]	POUR POINT A.S.T.M. STANDARD DEGC	Optional, can be null, negative or zero	Pour Point A.S.T.M. standard - (Degrees Celsius)

OIL ANALYSIS FILE (OAN)

~ OIL VISCOSITY

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
UT1.DEGC	[NUMB 2]	VISCOSITY TEMPERATURE POINT 1	Must be > 0	Viscosity temperature point 1, (Degrees Celsius)
UAB1.MPA'S	[NUMB 11,3]	ABSOLUTE/DYNAMIC VISCOSITY AT POINT 1	Must be > 0.00	Absolute/Dynamic viscosity at point 1, mPa's
UKIN1.MM2/S	[NUMB 11,3]	KINEMATIC VISCOSITY AT POINT 1	Must be > 0.00	Kinematic viscosity at point 1, mm ² /s
UT2.DEGC	[NUMB 2]	VISCOSITY TEMPERATURE POINT 2	Optional. If present, must be > 0. Must be reported if established	Viscosity temperature point 2, (Degrees Celsius)
UAB2.MPA'S	[NUMB 11,3]	ABSOLUTE/DYNAMIC VISCOSITY AT POINT 2	Optional. If present, must be > 0.00. Must be reported if established	Absolute/Dynamic viscosity at point 2, mPa's
UKIN2.MM2/S	[NUMB 11,3]	KINEMATIC VISCOSITY AT POINT 2	Optional. If present, must be > 0.00. Must be reported if established	Kinematic viscosity at point 2, mm ² /s
UT3.DEGC	[NUMB 2]	VISCOSITY TEMPERATURE POINT 3	Optional. If present, must be > 0. Must be reported if established	Viscosity temperature point 3, (Degrees Celsius)
UAB3.MPA'S	[NUMB 11,3]	ABSOLUTE/DYNAMIC VISCOSITY AT POINT 3	Optional. If present, must be > 0.00. Must be reported if established	Absolute/Dynamic viscosity at point 3, mPa's
UKIN3.MM2/S	[NUMB 11,3]	KINEMATIC VISCOSITY AT POINT 3	Optional. If present, must be > 0.00. Must be reported if established	Kinematic viscosity at point 3, mm ² /s
UT4.DEGC	[NUMB 2]	VISCOSITY TEMPERATURE POINT 4	Optional. If present, must be > 0. Must be reported if established	Viscosity temperature point 4, (Degrees Celsius)
UAB4.MPA'S	[NUMB 11,3]	ABSOLUTE/DYNAMIC VISCOSITY AT POINT 4	Optional. If present, must be > 0.00. Must be reported if established	Absolute/Dynamic viscosity at point 4, mPa's
UKIN4.MM2/S	[NUMB 11,3]	KINEMATIC VISCOSITY AT POINT 4	Optional. If present, must be > 0.00. Must be reported if established	Kinematic viscosity at point 4, mm ² /s
UT5.DEGC	[NUMB 2]	VISCOSITY TEMPERATURE POINT 5	Optional. If present, must be > 0. Must be reported if established	Viscosity temperature point 5, (Degrees Celsius)
UAB5.MPA'S	[NUMB 11,3]	ABSOLUTE/DYNAMIC VISCOSITY AT POINT 5	Optional. If present, must be > 0.00. Must be reported if established	Absolute/Dynamic viscosity at point 5, mPa's
UKIN5.MM2/S	[NUMB 11,3]	KINEMATIC VISCOSITY AT POINT 5	Optional. If present, must be > 0.00. Must be reported if established	Kinematic viscosity at point 5, mm ² /s
UT6.DEGC	[NUMB 2]	VISCOSITY TEMPERATURE POINT 6	Optional. If present, must be > 0. Must be reported if established	Viscosity temperature at point 6, (Degrees Celsius)
UAB6.MPA'S	[NUMB 11,3]	ABSOLUTE/DYNAMIC VISCOSITY AT POINT 6	Optional. If present, must be > 0.00. Must be reported if established	Absolute/Dynamic viscosity at point 6, mPa's
UKIN6.MM2/S	[NUMB 11,3]	KINEMATIC VISCOSITY AT POINT 6	Optional. If present, must be > 0.00. Must be reported if established	Kinematic viscosity at point 6, mm ² /s

OIL ANALYSIS FILE (OAN)

~ OIL DISTILLATION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
IBP.DEGC	[NUMB 5,2]	INITIAL BOILING POINT TEMPERATURE	Optional, must be reported if established	Initial boiling point temperature, (Degrees Celsius)
DVL1.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 1	Optional, must be reported if established	Distillation volume fraction 1
DTP1.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 1	Optional, must be reported if established	Distillation volume temperature 1, (Degrees Celsius)
DVL2.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 2	Optional, must be reported if established	Distillation volume fraction 2
DTP2.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 2	Optional, must be reported if established	Distillation volume temperature 2, (Degrees Celsius)
DVL3.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 3	Optional, must be reported if established	Distillation volume fraction 3
DTP3.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 3	Optional, must be reported if established	Distillation volume temperature 3, (Degrees Celsius)
DVL4.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 4	Optional, must be reported if established	Distillation volume fraction 4
DTP4.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 4	Optional, must be reported if established	Distillation volume temperature 4, (Degrees Celsius)
DVL5.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 5	Optional, must be reported if established	Distillation volume fraction 5
DTP5.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 5	Optional, must be reported if established	Distillation volume temperature 5, (Degrees Celsius)
DVL6.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 6	Optional, must be reported if established	Distillation volume fraction 6
DTP6.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 6	Optional, must be reported if established	Distillation volume temperature 6, (Degrees Celsius)
DVL7.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 7	Optional, must be reported if established	Distillation volume fraction 7
DTP7.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 7	Optional, must be reported if established	Distillation volume temperature 7, (Degrees Celsius)
DVL8.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 8	Optional, must be reported if established	Distillation volume fraction 8
DTP8.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 8	Optional, must be reported if established	Distillation volume temperature 8, (Degrees Celsius)
DVL9.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 9	Optional, must be reported if established	Distillation volume fraction 9
DTP9.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 9	Optional, must be reported if established	Distillation volume temperature 9, (Degrees Celsius)
DVL10.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 10	Optional, must be reported if established	Distillation volume fraction 10
DTP10.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 10	Optional, must be reported if established	Distillation volume temperature 10, (Degrees Celsius)
DVL11.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 11	Optional, must be reported if established	Distillation volume fraction 11
DTP11.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 11	Optional, must be reported if established	Distillation volume temperature 11, (Degrees Celsius)
DVL12.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 12	Optional, must be reported if established	Distillation volume fraction 12
DTP12.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 12	Optional, must be reported if established	Distillation volume temperature 12, (Degrees Celsius)
DVL13.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 13	Optional, must be reported if established	Distillation volume fraction 13
DTP13.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 13	Optional, must be reported if established	Distillation volume temperature 13, (Degrees Celsius)
DVL14.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 14	Optional, must be reported if established	Distillation volume fraction 14
DTP14.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 14	Optional, must be reported if established	Distillation volume temperature 14, (Degrees Celsius)
DVL15.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 15	Optional, must be reported if established	Distillation volume fraction 15
DTP15.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 15	Optional, must be reported if established	Distillation volume temperature 15, (Degrees Celsius)
DVL16.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 16	Optional, must be reported if established	Distillation volume fraction 16
DTP16.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 16	Optional, must be reported if established	Distillation volume temperature 16, (Degrees Celsius)
DVL17.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 17	Optional, must be reported if established	Distillation volume fraction 17
DTP17.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 17	Optional, must be reported if established	Distillation volume temperature 17, (Degrees Celsius)
DVL18.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 18	Optional, must be reported if established	Distillation volume fraction 18
DTP18.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 18	Optional, must be reported if established	Distillation volume temperature 18, (Degrees Celsius)

OIL ANALYSIS FILE (OAN)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
DVL19.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 19	Optional, must be reported if established	Distillation volume fraction 19
DTP19.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 19	Optional, must be reported if established	Distillation volume temperature 19, (Degrees Celsius)
DVL20.FRAC	[NUMB 4,2]	VOLUME FRACTION POINT 20	Optional, must be reported if established	Distillation volume fraction 20
DTP20.DEGC	[NUMB 5,2]	VOLUME TEMPERATURE POINT 20	Optional, must be reported if established	Distillation volume temperature 20, (Degrees Celsius)
FBP.DEGC	[NUMB 5,2]	FINAL BOILING POINT TEMPERATURE	Optional, must be reported if established	Final boiling point temperature, (Degrees Celsius)
CRKBP.DEGC	[NUMB 5,2]	CRACKED BOILING POINT TEMPERATURE	Optional, must be reported if established	Cracked boiling point temperature, (Degrees Celsius)

~ METHODS AND SUMMARIES

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
METHD.	[CHAR 20]	DISTILLATION METHOD	Optional, can be null	Method used in distillation
PBARA.KPAA	[NUMB 4,1]	ABSOLUTE BAROMETRIC PRESSURE	Optional, can be null	Absolute barometric pressure, kPaa
TROOM.DEGC	[NUMB 5,2]	ROOM TEMPERATURE	Optional, can be null. If present, must be > 0 and	Lab room temperature, (Degrees Celsius)
DVLNP.FRAC	[NUMB 4,2]	NAPHTHA SUMMARY VOLUME FRACTION	Optional, can be zero or null	Naphtha fraction
DVLKR.FRAC	[NUMB 4,2]	KEROSENE SUMMARY VOLUME FRACTION	Optional, can be zero or null	Kerosene fraction
DVLGO.FRAC	[NUMB 4,2]	LIGHT GAS/OIL SUMMARY VOLUME FRACTION	Optional, can be zero or null	Light gas/oil fraction
DVLR.C.FRAC	[NUMB 4,2]	RECOVERED SUMMARY VOLUME FRACTION	Optional, can be zero or null	Recovered fraction
DVLR.S.FRAC	[NUMB 4,2]	RESIDUE SUMMARY VOLUME FRACTION	Optional, can be zero or null	Residue fraction
DVLLS.FRAC	[NUMB 4,2]	LOSS SUMMARY VOLUME FRACTION	Optional, can be zero or null	Distillation loss fraction
CFACT.	[NUMB 5,1]	CHARACTERIZATION FACTOR	Optional, can be zero or null	
GCOM.	[CHAR 240]	GENERAL COMMENT	Optional, can be null	Free form general comment

OIL ANALYSIS FILE (OAN)

Sample Point Codes (SPNT)

- 20 First Stage Separator
- 25 Second Stage Separator
- 30 Wellhead
- 35 Meter Run
- 40 Pressure Tank
- 45 Downhole Samplers - Post Drilling (i.e. RFT's, MDT's etc.)
- 50 DST
- 60 Tubing
- 70 Other (Miscellaneous)

GENERAL EDITS

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"Conditional" Values will be noted as, (i.e. Mandatory, if_TTYP = 08 or 18)

Zero's are NOT acceptable unless otherwise noted.

WHERE SECTION RULES EXIST (Noted by the # Sign) THEY ARE SUPERSEDED BY INDIVIDUAL BUSINESS RULES AND EDITS

ALL DEPTHS (for OAN) are measured or calculated and reported in reference to (KB) Kelly Bushing Elevation

ALL DATES must be >= Spud Date and <= Abandoned Date and <= Submission Date

All Depths must be less than 7,000.00 M

All Pressures must be less than 150,000.00 kPa

All Temperatures (unless otherwise noted) must be between -100 and 1,000°C

All Times must be less than 100,000.0 Hours

All gas production rates must be less than 100,000.00 E3M3/day

All oil and water rates must be less than 100,000.00 M3/day

Image Attachment required if Extended Component Analysis performed

WATER ANALYSIS FILE (WAN)

~ FILE VERIFICATION				
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COMP.	[CHAR 60]	Licensee Name	Will not be Blank, system will input	Based on Licensee

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UNIT.	[CHAR 1]	UNITS FLAG	(M)etric	Metric Units for EUB submission
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~ WELL INFORMATION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
UWI .	[CHAR 20]	UNIQUE WELL ID	UWI must be valid and exist on EUB database.	Unique Well Identifier - Bottomhole location.
DRILLEG.	[NUMB 2]	DRILLING LEG	Must be 01, 02, 03...09 (Cannot be 0 or NULL)	Drilling Leg (Event or Occurrence). Together with the UWI, this is to help define the bottom of the specific drill hole.
WLIC.	[CHAR 9]	EUB WELL LICENSE NUMBER	Well License Number must match EUB License Number for UWI	EUB Well License Number
FORM.	[CHAR 20]	FORMATION NAME		Name of the geological formation/zone
WSFL.	[NUMB 2]	WELL FLUID TYPE AT TEST DATE	Mandatory, must have a valid EUB fluid code = (01) Oil, (02) Gas, (06) Water, or (17) Crude Bitumen	Type of Dominant Fluid Production/Pay (i.e. oil, gas, water)

~ TEST DATA (n)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
LABCO.	[CHAR 60]	LABORATORY NAME		Company name conducting analysis
LFNUM.	[CHAR 25]	LABORATORY FILE NUMBER		Identification number
TTOPL.M	[NUMB 10,5]	TEST/PROD. INTERVAL TOP M KB (LOG)	[TTOPL] (Interval Top - Log) must be > 0.0 and < [TBASL] (Interval Base - Log)	Top of tested or producing interval - in log depth, measured mKB
TBASL.M	[NUMB 10,5]	TEST/PROD. INTERVAL BASE M KB (LOG)	[TBASL] (Interval Base - Log) must be > 0.0 and => [TTOPL] (Interval Top - Log) and cannot be greater than Total Well Depth.	Base of tested or producing interval - in log depth, measured mKB
SDAT.DAY	[YYYY MM DD]	DATE SAMPLED	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	Date sample gathered
IDENT.	[CHAR 12]	CONTAINER IDENTITY		Identification code of container

WATER ANALYSIS FILE (WAN)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
SPNT.	[NUMB 2]	SAMPLE POINT CODE	Mandatory, must be Valid EUB Sample Point Code (See Footnote).	Sample gathering point
SPNTN.	[CHAR 50]	SAMPLE POINT NAME		Laboratories Unique Text Description of Sample Gathering Point
ADAT.DAY	[YYYY MM DD]	DATE ANALYZED	Must be >= [SDAT] (Sample Date) and <= Submission Date	Date Sample Analysis
SPRES.KPAA	[NUMB 8,2]	SAMPLE PRESSURE	Optional, if present can not be zero	Pressure as Sampled (in field) - kPaa
STEMP.DEGC	[NUMB 5,2]	SAMPLE TEMPERATURE	Optional, if present can not be zero	Temperature as Sampled (in field) - DegC
RPRES.KPAA	[NUMB 8,2]	RECEIVED PRESSURE	Optional, if present can not be zero	Pressure as Received (in Lab) -kPaa
RTEMP.DEGC	[NUMB 5,2]	RECEIVED TEMPERATURE	Optional, if present can not be zero	Temperature as Received (in Lab) - DegC
DSTLOC.	[CHAR 1]	DST SAMPLE LOCATION	If [SPNT] (Sample Point Code) = (50) then [DSTLOC] (DST Sample Location) must be (T)op, (M)iddle, or (B)ottom. Else must be Null.	
WANC.	[CHAR 240]	COMMENT ON SAMPLE	Optional	General Free form Comment (regarding Sample or Analytical Procedures).

~ WATER CATIONS

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
NA.MG/L	[NUMB 9,2]	SODIUM CATION	Mandatory, can be zero	Sodium mg/L
NA.MEQ/L	[NUMB 9,2]	SODIUM CATION CONCENTRATION	Mandatory, can be zero	Sodium milli-equivalent
K.MG/L	[NUMB 9,2]	POTASSIUM CATION	Mandatory, can be zero	Potassium mg/L
K.MEQ/L	[NUMB 9,2]	POTASSIUM CATION CONCENTRATION	Mandatory, can be zero	Potassium milli-equivalent
CA.MG/L	[NUMB 9,2]	CALCIUM CATION	Mandatory, can be zero	Calcium mg/L
CA.MEQ/L	[NUMB 9,2]	CALCIUM CATION CONCENTRATION	Mandatory, can be zero	Calcium milli-equivalent
MG.MG/L	[NUMB 9,2]	MAGNESIUM CATION	Mandatory, can be zero	Magnesium mg/L
MG.MEQ/L	[NUMB 9,2]	MAGNESIUM CATION CONCENTRATION	Mandatory, can be zero	Magnesium milli-equivalent
BA.MG/L	[NUMB 9,2]	BARIUM CATION	Optional, can be zero	Barium mg/L
BA.MEQ/L	[NUMB 9,2]	BARIUM CATION CONCENTRATION	Optional, can be zero	Barium milli-equivalent
SR.MG/L	[NUMB 9,2]	STRONTIUM CATION	Optional, can be zero	Strontium mg/L
SR.MEQ/L	[NUMB 9,2]	STRONTIUM CATION CONCENTRATION	Optional, can be zero	Strontium milli-equivalent
FE.MG/L	[NUMB 9,2]	IRON CATION	Optional, can be zero	Iron mg/L
FE.MEQ/L	[NUMB 9,2]	IRON CATION CONCENTRATION	Optional, can be zero	Iron milli-equivalent
MN.MG/L	[NUMB 9,2]	MANGANESE CATION	Optional, can be zero	Manganese mg/L
MN.MEQ/L	[NUMB 9,2]	MANGANESE CATION CONCENTRATION	Optional, can be zero	Manganese milli-equivalent
B.MG/L	[NUMB 9,2]	BORON CATION	Optional, can be zero	Boron mg/L
B.MEQ/L	[NUMB 9,2]	BORON CATION CONCENTRATION	Optional, can be zero	Boron milli-equivalent

WATER ANALYSIS FILE (WAN)

~ WATER ANIONS

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
CL.MG/L	[NUMB 9,2]	CHLORIDE ANION	Mandatory, can be zero	Chloride mg/L
CL.MEQ/L	[NUMB 9,2]	CHLORIDE ANION CONCENTRATION	Mandatory, can be zero	Chloride milli-equivalent
BR.MG/L	[NUMB 9,2]	BROMIDE ANION	Optional, can be zero	Bromide mg/L
BR.MEQ/L	[NUMB 9,2]	BROMIDE ANION CONCENTRATION	Optional, can be zero	Bromide milli-equivalent
I.MG/L	[NUMB 9,2]	IODIDE ANION	Optional, can be zero	Iodide mg/L
I.MEQ/L	[NUMB 9,2]	IODIDE ANION CONCENTRATION	Optional, can be zero	Iodide milli-equivalent
HCO3.MG/L	[NUMB 9,2]	BICARBONATE ANION	Mandatory, can be zero	Bicarbonate mg/L
HCO3.MEQ/L	[NUMB 9,2]	BICARBONATE ANION CONCENTRATION	Mandatory, can be zero	Bicarbonate milli-equivalent
SO4.MG/L	[NUMB 9,2]	SULPHATE ANION	Mandatory, can be zero	Sulphate mg/L
SO4.MEQ/L	[NUMB 9,2]	SULPHATE ANION CONCENTRATION	Mandatory, can be zero	Sulphate milli-equivalent
CO3.MG/L	[NUMB 9,2]	CARBONATE ANION	Mandatory, can be zero	Carbonate mg/L
CO3.MEQ/L	[NUMB 9,2]	CARBONATE ANION CONCENTRATION	Mandatory, can be zero	Carbonate milli-equivalent
OH.MG/L	[NUMB 9,2]	HYDROXIDE ANION	Mandatory, can be zero	Hydroxide mg/L
OH.MEQ/L	[NUMB 9,2]	HYDROXIDE ANION CONCENTRATION	Mandatory, can be zero	Hydroxide milli-equivalent

~ WATER SOLIDS AND OTHER MEASUREMENTS

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
DS110.MG/L	[NUMB 9,2]	TOTAL DISSOLVED SOLIDS EVAPORATED @ 110 DEGC	Optional, can be zero	mg/L
DS180.MG/L	[NUMB 9,2]	TOTAL DISSOLVED SOLIDS EVAPORATED @ 180 DEGC	Optional, can be zero	mg/L
H2S.MG/L	[NUMB 9,2]	HYDROGEN SULPHIDE	Mandatory, can be zero	H2S mg/L
DSING.MG/L	[NUMB 9,2]	TOTAL DISSOLVED SOLIDS AT IGNITION	Optional, can be zero	mg/L
DSCAL.MG/L	[NUMB 9,2]	TOTAL DISSOLVED SOLIDS CALCULATED	Must be > 0.0	mg/L
RDWTR.	[NUMB 4,3]	RELATIVE DENSITY	Optional, can be zero	
RDTMP.DEGC	[NUMB 5,2]	RELATIVE DENSITY TEMPERATURE	Optional, can be zero	Temperature whereby relative density measured, Degrees Celsius
RFIDX.	[NUMB 5,2]	REFRACTIVE INDEX	Optional, can be zero	Refractive index
RFTMP.DEGC	[NUMB 5,2]	REFRACTIVE INDEX TEMPERATURE	Optional, can be zero	Temperature whereby refractive index measured, Degrees Celsius
PHOBS.	[NUMB 4,1]	OBSERVED PH	Must be > 0.0	Observed pH
PHTMP.DEGC	[NUMB 5,2]	OBSERVED PH TEMPERATURE	Must be > 0.0	Temperature whereby pH observed, Degrees Celsius
PEOHM.	[NUMB 7,2]	RESISTIVITY	Optional, can be zero	Resistivity, Ohm-Meters
PETMP.DEGC	[NUMB 5,2]	RESISTIVITY TEMPERATURE	Optional, can be zero	Temperature whereby Resistivity measured, Degrees Celsius
SALT.PCT	[NUMB 5,2]	SALINITY TOTAL PERCENTAGE	Optional, can be zero	
GCOM.	[CHAR 240]	GENERAL COMMENT	Optional, can be zero	Free form general comment

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WAN

WATER ANALYSIS FILE (WAN)

Sample Point Codes (SPNT)

- 20 First Stage Separator
- 25 Second Stage Separator
- 30 Wellhead
- 35 Meter Run
- 40 Pressure Tank
- 45 Downhole Samplers - Post Drilling (i.e. RFT's, MDT's etc.)
- 50 DST
- 60 Tubing
- 70 Other (**Miscellaneous**)

GENERAL EDITS

ALL Mnemonic Values are Mandatory, unless otherwise noted.

"Conditional" Values will be noted as, (i.e. Mandatory, if TTYP = 08 or 18)

Zero's are NOT acceptable unless otherwise noted.

WHERE SECTION RULES EXIST (Noted by the # Sign) THEY ARE SUPERSEDED BY INDIVIDUAL BUSINESS RULES AND EDITS

ALL DEPTHS (for WAN) are measured or calculated and reported in reference to (KB) Kelly Bushing Elevation

ALL DATES must be >= Spud Date and <= Abandoned Date and <= Submission Date

All Depths must be less than 7,000.00 M

All Pressures must be less than 150,000.00 kPa

All Temperatures (**unless otherwise noted**) must be between -100 and 1,000°C

(sum of all MEQ/L Cation Concentrations) / (sum of all MEQ/L Anion Concentration) must = 1.00 (plus or minus 0.1)

DRILL STEM TEST FILE (DST)

~ FILE VERIFICATION

(Information in this section is Assigned by the EUB, and Appended to the PAS file upon Acceptance / Validation via WTC-Submit procedure)

WTCNUM	[CHAR 13]	EUB WTC Tracking ID	Will not be Blank, system will input	EUB-WTC Unique Certification number:
WTCDAT	[YYYY MM DD HHHH]	Submission/Acceptance Date	Will not be Blank, system will input	Date of WTC Verification & Acceptance
WTCSUB	[CHAR 60]	Submitter	Will not be Blank, system will input	Company whom Submitted Specific Well Test Data
COMP.	[CHAR 60]	Licensee Name	Will not be Blank, system will input	Based on Licensee

~ VERSION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PASTYPE.	[CHAR 7]	DIGITAL DATA - DST TEST DATA	PAS-DST	Drill Stem Test, format
UNIT.	[CHAR 1]	UNITS FLAG	(M)etric	Metric Units for EUB submission
VERS.	[NUMB 5,2]	EUB DIGITAL WELL TEST DATA	4.00	Current EUB version for ASCII test data submission

~ WELL INFORMATION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
UWI.	[CHAR 20]	UNIQUE WELL ID	UWI must be valid and exist on EUB database.	Unique Well Identifier - Bottomhole location.
DRILLEG.	[NUMB 2]	DRILLING LEG	Must be 01, 02, 03...09 (Cannot be 0 or NULL)	Drilling Leg (Event or Occurrence). Together with the UWI, this is to help define the bottom of the specific drill hole.
WLIC.	[CHAR 9]	EUB WELL LICENSE NUMBER	Well License Number must match EUB License Number for UWI	EUB Well License Number
POOL.	[CHAR 1]	EUB DESIGNATED POOL	Must be either (Y)es or (N)o.	Within EUB Defined Pool / G-Order at time of Drilling? Gas and Fluid Sampling Regulatory Requirements in accordance with EUB Guide 40.
FORM.	[CHAR 20]	FORMATION NAME		Name of the geological formation/zone
FLEXP.	[NUMB 2]	FLUID TYPE EXPECTED	Must have a valid EUB fluid code = (01) Oil, (02) Gas, (06) Water, or (17) Crude Bitumen	Type of Dominant Fluid Production/Pay (i.e. oil well, gas well, water well) Predominant fluid type needed to define as oil or gas test
WTYP.	[CHAR 1]	WELL TYPE INDICATOR	Mandatory, if [PRPS] (Purpose Indicator) = (I)ntial. Must be (V)ertical, (D)eviated or (H)orizontal	Flag indicating (V)ertical, (D)eviated, or (H)orizontal Wellbore
DPID.MM	[NUMB 4,1]	DRILL PIPE ID	Must be < 200	Inside diameter of drilling pipe (mm)

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DRILL STEM TEST FILE (DST)

~ TEST DATA

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PRPS.	[CHAR 1]	TEST PURPOSE	Mandatory, must be (I)initial pressure or (O)ther.	(I)initial designates test for the fulfillment of EUB Guide 40, Initial Pressure Testing Regulatory Requirements. (O)ther indicates to comply exclusively with Oil & Gas Conservation Regulation 11.100, whereby all DST's must be submitted within 30 days of the Finished Drilling date.
SERCO.	[CHAR 5]	SERVICE COMPANY CODE		Company conducting test (see EUB Website)
CCCO.	[CHAR 20]	CLOSED CHAMBER COMPANY	Mandatory, if [TTYP] (DST Test Type Code) = (08) or (18).	Name of Company Conducting Closed Chamber Test
TTYP.	[CHAR 2]	DST TEST TYPE CODE	Must be Valid EUB PAS-DST Test Code (See Footnote).	
RUNUM.	[NUMB 2]	RUN NUMBER		Run Number / Trip Number into Hole - for Testing
TNUM.	[NUMB 4]	DST NUMBER		DST Number (i.e. DST no.3)
H2SIND.	[CHAR 1]	H2S INDICATOR	Must be (Y)es or (N)one.	Flag indicating presence of H2S
TTOPL.M	[NUMB 10,5]	TEST/PROD INTERVAL TOP M KB (LOG)	[TTOPL] (Interval Top - Log) must be > 0.0 and < [TBASL] (Interval Base - Log)	Top of tested or producing interval - in log depth, measured mKB
TBASL.M	[NUMB 10,5]	TEST/PROD INTERVAL BASE M KB (LOG)	[TBASL] (Interval Base - Log) must be > 0.0 and => [TTOPL] (Interval Top - Log) and cannot be greater than Total Well Depth.	Base of tested or producing interval - in log depth, measured mKB
TTOPT.M	[NUMB 10,5]	TEST/PROD INTERVAL TOP M KB (TVD)	If [PRPS] (Purpose Indicator) = (I)initial. If [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal, then [TTOPT] (Interval Top - TVD) must be < [TTOPL] (Interval Base - Log), else if [WTYP] = (V)ertical, then [TTOPT] must = [TTOPL]	Top of tested or producing interval - in true vertical depth, calculated mKB
TBAST.M	[NUMB 10,5]	TEST/PROD INTERVAL BASE M KB (TVD)	If [PRPS] (Purpose Indicator) = (I)initial. If [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal, then [TBAST] (Interval Base - TVD) must be < [TBASL] (Interval Base - Log), else if [WTYP] = (V)ertical, then [TBAST] must = [TBASL]	Base of tested or producing interval in true vertical depth, calculated mKB
FTDT.DAY/HR	[YYYY MM DD HHHH]	TEST FINAL DATE/TIME	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	Date/Time test ended
MSRN.	[CHAR 1]	TEST MISRUN INDICATOR	Must be (Y)es or (N)o. If [MSRN] = (Y)es then [PRPS] (Test Purpose) must = (O)ther	Flag indicating Misrun of Test

DRILL STEM TEST FILE (DST)

~ TEST SUMMARY DATA

{TEST SUMMARY DATA - Must be completed unless [MSRN] (Test Misrun Indicator) = (Y)es}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
GSERU.	[CHAR 20]	GAUGE SERIAL NUMBER USED IN SUMMARY	Mandatory; can be null if [MSRN] (Test Misrun Indicator) = (Y)es	Serial number of Gauge/Recorder used for representative reservoir pressure
SDGAL.M	[NUMB 10,5]	REPRESENTATIVE GAUGE DEPTH M (LOG)	Must be <= [TBASL] (Interval Base - Log)	(LOG) Depth of Gauge/Recorder, representative of reservoir
SDGAT.M	[NUMB 10,5]	REPRESENTATIVE GAUGE DEPTH M (TVD)	Mandatory, if [PRPS] (Test Purpose Indicator) = (I)nitial, else Optional. If present and [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal; [SDGAT] (Representative Gauge Depth - TVD) must be <= [SDGAL] (Representative Gauge Depth - Log), else [SDGAT] must = [SDGAL]	(TVD) Depth of Gauge/Recorder, representative of reservoir
PRGA.KPAA	[NUMB 8,2]	PRESSURE AT GAUGE DEPTH KPAA	Mandatory, if [MSRN] (Test Misrun Indicator) = (N)o, otherwise can be Null	Most representative shut-in pressure recorded at Gauge/Recorder Depth
PEXTR.KPAA	[NUMB 8,2]	REPRESENTATIVE EXTRAP/ FALSE PRESSURE	Mandatory, if [PRPS] (Test Purpose) = (I)nitial Pressure; Must match one entry of [PEXTR] from [DTFG (n)] Table. Must be => than [PRGA] (Gauge Pressure at End of Stage) but cannot exceed [PRGA] by > 6%.	
PRFFG.KPAA	[NUMB 8,2]	FINAL FLOWING PRESSURE AT GAUGE DEPTH KPAA	Mandatory, if [MSRN] (Test Misrun Indicator) = (N)o	Final Measured Representative Flowing Gauge/Recorder Pressure kPaa
STGR.KPA/M	[NUMB 5,3]	REPRESENTATIVE PRESSURE GRADIENT	Mandatory, if [PRPS] (Test Purpose Indicator) = (I)nitial. Can not be zero. IF [MSRN] (Test Misrun Indicator) = (Y)es, can be null.	

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DRILL STEM TEST FILE (DST)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TRES.DEGC	[NUMB 5,2]	RESERVOIR TEMPERATURE	Optional. If present, must be > zero	
QGMX.E3M3/D	[NUMB 13,4]	MAXIMUM GAS FLOW RATE	Mandatory, if [QGFF] (Final Gas Flow Rate) > 0.00. Can be zero.	Maximum Flowing Gas Rate during test, (103m3/d)
QOMX.M3/D	[NUMB 13,4]	MAXIMUM OIL FLOW RATE	Mandatory, if [QOFF] (Final Oil Flow Rate) > 0.00. Can be zero.	Maximum Flowing Oil Rate during test, (m3/d)
QWMX.M3/D	[NUMB 13,4]	MAXIMUM WATER FLOW RATE	Mandatory, if [QWFF] (Final Water Flow Rate) > 0.00. Can be zero.	Maximum Flowing Water Rate during test, (m3/d)
TFGS.MIN	[NUMB 10,5]	TIME FOR FINAL GAS FLOW TO SURFACE	Mandatory, if [QGMX] (Maximum Gas Flow Rate) > 0.0, else must be Null. Can be zero.	Length of time for gas to reach surface (minutes). Note: "Immediate" Flow to Surface = 0 (zero) minutes.
TFOS.MIN	[NUMB 10,5]	TIME FOR FINAL OIL FLOW TO SURFACE	Mandatory, if [QOMX] (Maximum Oil Flow Rate) > 0.0, else must be Null. Can be zero.	Length of time for oil to reach surface (minutes). Note: "Immediate" Flow to Surface = 0 (zero) minutes.
TFWS.MIN	[NUMB 10,5]	TIME FOR FINAL WATER FLOW TO SURFACE	Mandatory, if [QWMX] (Maximum Water Flow Rate) > 0.0, else must be Null. Can be zero.	Length of time for water to reach surface (minutes). Note: "Immediate" Flow to Surface = 0 (zero) minutes.
GENC.	[CHAR 240]	COMMENT - GENERAL	Optional	Free form comment. Note: IF PRPS = (I), GENC copied to EUB Pressure Summary database.

~ MUD AND CUSHION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
MUTP.	[CHAR 12]	MUD/DRILLING FLUID TYPE		Identify fluid used to drill well
MUWT.KG/M3	[NUMB 9,4]	MUD WEIGHT	Must be > 300 and < 3000	The measurement of the drilling mud mass/volume
CUTP.	[NUMB 1]	CUSHION TYPE CODE	Must = (0) None, (1) Water, (2) Oil, (3) Nitrogen, (4) Diesel, or (5) Inhibitor & Water	Cushion Fluid used during test.
CUGP.KPAA	[NUMB 8,2]	CUSHION GAS PRESSURE	If CUTP (Cushion Type Code) = (3) then CUGP (Cushion Gas Pressure) must be present.	Surface Pressure Pumped In (kPaa)
CUIL.M	[NUMB 10,5]	INITIAL CUSHION LENGTH	If CUTP (Cushion Type Code) <> (0) or (3) then CUIL (Initial Cushion Length) must be present.	The length of cushion present during test (m)
LCGR.KPA/M	[NUMB 5,3]	LIQUID CUSHION GRADIENT	If CUTP (Cushion Type Code) <> (0) or (3), then LCGR (Liquid Cushion Gradient) must be present.	Gradient of liquid portion of cushion (kPa/m)

DRILL STEM TEST FILE (DST)

~ RECOVERIES - DST

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
MTST.	[CHAR 1]	MULTIPLE TEST RECOVERY INDICATOR	Must be either (Y)es or (N)o. If [MTST] (Multiple Test Recovery Indicator) = (Y)es, then >1 [RXXA] (Recovery Amount) must be reported.	Flag indicating recovery from multiple tests
RPXX.	[CHAR 1]	RECOVERY VOLUME TYPE INDICATOR	Must be (V)olume, (H)eight in Metres, or (N)one. If [MTST] (Multiple Test Recovery Indicator) = (Y)es, then [RPXX] (recovery Volume Type Indicator) can not = (N)one.	Flag indicating unit of measure for Recovered amounts

~ DATA TABLE – RECOVERIES

{DTREC - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTREC TABLE}

{TABLE DTREC CAN BE OMITTED IF [RPXX] (Recovery Volume Type Indicator) = (N)one}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
RXXA.M or M3	[NUMB 13,4]	RECOVERY AMOUNT - (M or M3)	[RXXA] must be reported in "m" Meters if [RPXX] (Recovery Volume Indicator) = (H)eight; [RXXA] must be reported in "m3" Cubic Metres if [RPXX] (Recovery Volume Indicator) = (V)olume. If [RPXX] = (H)eight, then the total of the first 6 recoveries (amount in meters) can not be > [TTOPL] (Interval Top -Log) by more than 10 meters.	Amount of recovery in volume <u>or</u> height as indicated above (see RPXX). Specific Unit must be noted depending of type of Recovery Amount (i.e. if "meters" are to be reported, then Mnemonic must equal [RXXA.M]. However if "cubic meters" are to be reported, then Mnemonic must = [RXXA.M3].
RXXC.	[NUMB 3]	RECOVERY TYPE CODE	[RXXC] (Recovery Fluid Type Code) must be valid EUB Code (see footnote)	Recovery Type Code
RXXD.	[CHAR 30]	RECOVERIES DESCRIPTION	Description must be provided if [RPXX] (Recovery Volume Indicator) = (V)olume or (H)eight	Description of Recoveries

~ DTREC

<u>RXXA</u>	<u>RXXC</u>	<u>RXXD</u>
99999999.9999	999	X(30)
99999999.9999	999	X(30)
99999999.9999	999	X(30)

DRILL STEM TEST FILE (DST)

~ HEADER DATA – GAUGE (n)

{[GSERU] (Gauge Serial Number Used in Summary) must match one of the reported [GSER] (Gauge Serial Number) (i.e. Representative Gauges)}

{WHILE THOUGH, even if [MSRN] (Test Misrun Indicator) = (Y)es, this section is mandatory}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
MSRNG.	[CHAR 1]	GAUGE MISRUN INDICATOR	Must be (Y)es or (N)o. Match; [GSERU] (Gauge Serial Number used in Summary) = [GSER] (Gauge Serial Number) and if [MSRN] (Test Misrun Indicator) = (N)o, then [MSRNG] must = (N)o	Flag indicating Gauge/Recorder Misrun (not entire test)
GSER.	[CHAR 20]	GAUGE SERIAL NUMBER	One Gauge must match [GSERU] (Gauge Serial Number used in Summary)	Serial number of Gauge/Recorder
GTYP.	[CHAR 30]	GAUGE TYPE		Type of gauge used (mechanical or electronic, model)
GMAN.	[CHAR 60]	GAUGE MANUFACTURER		Name of manufacturer of Gauge/Recorder
GRNG.KPAA	[NUMB 8,2]	MAXIMUM RECORDER RANGE		Full scale pressure range of Gauge/Recorder (kPaa)
GCAL.DAY	[YYYY MM DD]	DATE OF LAST CALIBRATION		Date source Gauge/Recorder last calibrated
GRES.	[NUMB 6,5]	RESOLUTION % OF FULL-SCALE		Published Resolution of Gauge/Recorder (Percentage)
GACC.	[NUMB 6,5]	ACCURACY % OF FULL-SCALE		Published accuracy of Gauge/Recorder (Percentage)
SDGL.M	[NUMB 10,5]	GAUGE RUN DEPTH M KB (LOG)		Gauge/Recorder depth (Measured Depth/LOG) in mKB
SDGT.M	[NUMB 10,5]	GAUGE RUN DEPTH M KB (TVD)	Mandatory, if [WTYP] (Well Type) = (D)eviated or (H)orizontal	Gauge/Recorder depth (Calculated Depth/TVD) in mKB
GPOS.	[CHAR 1]	GAUGE POSITION INDICATOR	[GPOS] (Gauge Position Indicator) must be (I)nside, (O)utside, (R)ecover, (B)elow Straddle, (N)flate, or (U)nknown/Other. IF [GSERU] = [GSER] [GPOS] can not be = (U)nknown/Other	Flag indicating position of Gauge/Recorder - (I)nside, (O)utside, Fluid/(R)ecover, (B)elow Straddle, (N)flate, of (U)nknown/Other

~ DATA TABLE - FLOWING SUMMARY - GAUGE (n)

(DTFG (n) - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTFG (n) TABLES)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TIME.DAY/HR/SS	[YYYY MM DD HHHH:SS]	REAL TIME	If [MSRN] (Test Misrun Indicator) = (Y)es can be null; If present must be >= Spud Date and <= Abandoned Date and <= Submission Date	24 Hour Clock.
STGE.	[CHAR 2]	STAGE NUMBER	If [MSRN] (Test Misrun Indicator) = (Y)es, can be null	Test stage number
FSTGC.	[CHAR 22]	STAGE DESCRIPTION	If [MSRN] (Test Misrun Indicator) = (Y)es, can be null	(i.e. Initial Hydrostatic, Start of 1st Flow)
PRGA.KPAA	[NUMB 8,2]	GAUGE PRESSURE AT END OF STAGE	Mandatory, if [MSRN] (Test Misrun Indicator) = (N)o	Primary Gauge/Recorder pressure

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DRILL STEM TEST FILE (DST)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TSTD.MIN	[NUMB 10,5]	STAGE DURATION MINUTES	If [MSRN] (Test Misrun Indicator) = (Y)es, can be null. One occurrence per table must be > 0.0	Duration of stage
PEXTR.KPAA	[NUMB 8,2]	REPRESENTATIVE EXTRAP/ FALSE PRESSURE	Mandatory, if [PRPS] (Test Purpose) = (I)ntial Pressure; Must be => [PRGA] (Gauge Pressure at End of Same Stage) but cannot exceed [PRGA] by > 6%.	
QGFF.E3M3/D	[NUMB 13,4]	FINAL GAS FLOW RATE	Mandatory; can be zero. One occurrence per table.	Flow Rate of Gas, at end of stage (10 ³ m ³ /d).
QOFF.M3/D	[NUMB 13,4]	FINAL OIL FLOW RATE	Mandatory; can be zero. One occurrence per table.	Flow Rate of Oil, at end of stage (m ³ /d).
QWFF.M3/D	[NUMB 13,4]	FINAL WATER FLOW RATE	Mandatory; can be zero. One occurrence per table.	Flow Rate of Water, at end of stage (m ³ /d).

~ DTFG (n)

{IF [MSRN] = (N)o and [PRPS] (Purpose Indicator) = (O)ther, then there must be a minimum of 5 lines of data in the [DTFG (n)] table}

{IF [MSRN] = (N)o and [PRPS] (Purpose Indicator) = (I)ntial, then there must be a minimum of 8 lines of data in the [DTFG (n)] table; and a minimum 1 occurrence of [PEXTR] must exist}

<u>TIME</u>	<u>STGE</u>	<u>FSTGC</u>	<u>PRGA</u>	<u>TSTD</u>
YYYY MM DD HHHH:SS	XX	X(22)	999999.99	99999.99999
YYYY MM DD HHHH:SS	XX	X(22)	999999.99	99999.99999
YYYY MM DD HHHH:SS	XX	X(22)	999999.99	99999.99999

...DTFG (n) - TABLE CONTINUED

<u>PEXTR</u>	<u>QGFF</u>	<u>QOFF</u>	<u>QWFF</u>
999999.99	999999999.9999	999999999.9999	999999999.9999
999999.99	999999999.9999	999999999.9999	999999999.9999
999999.99	999999999.9999	999999999.9999	999999999.9999

DRILL STEM TEST FILE (DST)

~ DATA TABLE - GAUGE (n)

(DTG (n), DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTG (n) TABLES)

{TABLE DTG (n) CAN BE OMITTED IF SUBSEQUENT/SECONDARY GAUGES MISRUN}

{If [MSRN] (Test Misrun Indicator) = (N)o, then 1 TABLE (at least 1 line of data) MUST BE PRESENT}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TIME.DAY/HR/SS	[YYYY MM DD HHHH:SS]	REAL TIME	If [MSRN] (Test Misrun Indicator) = (N)o, then must be >= Spud Date and <= Abandoned Date and <= Submission Date	24 Hour Clock
PRGA.KPAA	[NUMB 8,2]	GAUGE PRESSURE KPAA		Pressure measured at that interval in time via source Gauge/Recorder
TGA.DEGC	[NUMB 5,2]	GAUGE TEMPERATURE		Temperature measured at that interval in time via source Gauge/Recorder (DegC)
GCOM.	[CHAR 240]	GENERAL COMMENT	Optional	Free form comment

~ DTG (n)

<u>TIME</u>	<u>PRGA</u>	<u>TGA</u>	<u>GCOM</u>
YYYY MM DD HHHH:SS	99999.99	999.99	X(240)
YYYY MM DD HHHH:SS	99999.99	999.99	X(240)
YYYY MM DD HHHH:SS	99999.99	999.99	X(240)

DRILL STEM TEST FILE (DST)

~ DATA TABLE - CLOSED CHAMBER

(DTCC - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTCC TABLE)

{TABLE DTCC CAN BE OMITTED IF CLOSED CHAMBER ([TYP] (Test Type Indicator) <= (08) or (18))}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TIME.DAY/HR/SS	[YYYY MM DD HHHH:SS]	REAL TIME	If [TYP] (Test Type Indicator) = (08) or (18), then must be >= Spud Date and <= Abandoned Date and <= Submission Date	24 Hour clock
SDPT.KPAA/MIN	[NUMB 8,2]	SURFACE DP/DT KPAA/MIN	Mandatory, if [TYP] (Test Type Indicator) = (08) or (18). Can be zero and can be negative.	Change in Surface pressure/time
PSUR.KPAA	[NUMB 8,2]	SURFACE PRESSURE	Mandatory, if [TYP] (Test Type Indicator) = (08) or (18). Can not be zero	Surface pressure (kPaa)
RDPT.KPAA/MIN	[NUMB 8,2]	RECOVERY DP/DT KPAA/MIN	Optional, if provided can be zero.	Change in recovery pressure/time
PRCV.KPAA	[NUMB 8,2]	RECOVERY PRESSURE	Optional, if provided can not be zero.	Recovery pressure (kPaa)
QCCLIQ.M3/D	[NUMB 13,4]	CALC LIQUID RATE	Mandatory, if [TYP] (Test Type Indicator) = (08) or (18), and Can be zero	m ³ /d
QCCGAS.E3M3/D M3/D	[NUMB 13,4]	CALC GAS RATE	Mandatory, if [TYP] (Test Type Indicator) = (08) or (18), and Can be zero	10 ³ m ³ /d

~ DTCC

TIME	SDPT	PSUR	RDPT	PRCV
YYYYMMDDHHHSS	999999.99	999999.99	999999.99	999999.99
YYYYMMDDHHHSS	999999.99	999999.99	999999.99	999999.99
YYYYMMDDHHHSS	999999.99	999999.99	999999.99	999999.99

#... DTCC - TABLE CONTINUED

QCCLIQ	QCCGAS
999999999.9999	999999999.9999
999999999.9999	999999999.9999
999999999.9999	999999999.9999

DRILL STEM TEST FILE (DST)

Recovery Type Codes (RXXC):...

01 Gas	50 Oil	100 Mud
11 Condensate	51 Gas cut Oil	101 Gas/Condensate cut Mud
12 Mud cut Condensate	52 Mud cut Oil, or	102 Oil cut Mud
13 Water cut Condensate	52 Mud & Gas cut Oil	103 Gas & Oil cut Mud
14 Salt Water cut Condensate	53 Water cut Oil	104 Water cut Mud
15 Brackish Water cut Condensate	54 Salt Water cut Oil	105 Fresh Water cut Mud
16 Sulphurous Brackish Water cut Condensate	55 Brackish Water cut Oil	106 Brackish Water cut Mud
17 Sulphurous Salt Water cut Condensate	56 Sulphurous Brackish Water cut Oil	107 Salt Water cut Mud
18 Mud & Water cut Condensate	57 Sulphurous Salt Water cut Oil	108 Sulphurous Brackish Water cut Mud
19 Mud & Salt Water cut Condensate	58 Mud & H2O cut Oil	109 Sulphurous Salt Water cut Mud
20 Mud & Brackish Water cut Condensate	59 Mud & Salt H2O cut Oil	110 Gas & Oil & Water cut Mud
21 Mud & Sulphurous Salt Water cut Condensate	60 Mud & Brackish H2O cut Oil	111 Gas & Water cut Mud
22 Mud & Sulphurous Brackish H2O cut Condensate	61 Mud & Sulphurous Brackish H2O cut Oil	112 Oil & Water cut Mud
	62 Mud & Sulphurous Salt H2O cut Oil	
150 Water	152 Brackish Water	153 Salt Water
151 Fresh Water	201 Gas cut Brackish Water	202 Gas cut Salt Water
157 Cloudy Water	251 Oil cut Brackish Water	252 Oil cut Salt Water
200 Gas cut Water	301 Oil & Gas cut Brackish Water	302 Oil & Gas cut Salt Water
250 Oil cut Water	352 Mud cut Brackish Water	353 Mud cut Salt Water
300 Oil & Gas cut Water	401 Mud & Gas cut Brackish Water	402 Mud & Gas cut Salt Water
350 Mud cut Water	451 Mud & Oil cut Brackish Water	452 Mud & Oil cut Salt Water
351 Mud cut Fresh Water	501 Mud & Oil & Gas cut Brackish Water	502 Mud & Oil & Gas cut Salt Water
400 Mud & Gas cut Water		
450 Mud & Oil / Water		
500 Mud & Oil & Gas / Water		
154 Sulphurous Water	155 Sulphurous Brackish Water	156 Sulphurous Salt Water
203 Gas cut Sulphurous Water	204 Gas cut Sulphurous Brackish H2O	205 Gas cut Sulphurous Salt Water
253 Oil cut Sulphurous Water	254 Oil cut Sulphurous Brackish H2O	255 Oil cut Sulphurous Salt Water
303 Oil & Gas cut Sulphurous Water	304 Oil & Gas cut Sulphurous Brackish H2O	305 Oil & Gas cut Sulphurous Salt Water
354 Mud cut Sulphurous Water	355 Mud cut Sulphurous Brackish H2O	356 Mud cut Sulphurous Salt Water
403 Mud & Gas cut Sulphurous Water	404 Mud & Gas cut Sulphurous Brackish H2O	405 Mud & Gas cut Sulphurous Salt Water
453 Mud & Oil cut Sulphurous Water	454 Mud & Oil cut Sulphurous Brackish H2O	455 Mud & Oil cut Sulphurous Salt Water
503 Mud & Oil & Gas cut Sulphurous Water	504 Mud & Oil & Gas cut Sulphurous Brackish H2O	505 Mud & Oil & Gas cut Sulphurous Salt Water
	995 Dry Pipe	998 Load/Drilling Fluid (only)
	996 Cushion	999 Not Known
	997 Sand	

DRILL STEM TEST FILE (DST)

DST Test Type Codes (TTYP)

07 DST - Bottomhole
08 DST- Bottomhole & Closed Chamber
17 DST- Straddle
18 DST - Straddle & Closed Chamber

46 RFT (Repeat Formation Tester)	<-----	Currently
47 MDT (Modular Dynamic Tester)	<-----	Omitting
48 MFT (Wireline Formation Tester)	<-----	these
49 FRT (Flow Rate Tester)	<-----	Test Types

48 ~~MFT~~ WFT (Wireline Formation Tester)

GENERAL EDITS

ALL Mnemonic Values are Mandatory, unless otherwise noted.

"Conditional" Values will be noted as, (i.e. Mandatory, if TTYP = 08 or 18)

Zero's are NOT acceptable unless otherwise noted.

WHERE SECTION RULES EXIST (Noted by the # Sign) THEY ARE SUPERSEDED BY INDIVIDUAL BUSINESS RULES AND EDITS

ALL DEPTHS (for DST) are measured or calculated and reported in reference to (KB) Kelly Bushing Elevation

ALL DATES must be >= Spud Date and <= Abandoned Date and <= Submission Date

KB and Ground Elevation must exist in EUB records before acceptance of test

All Depths must be less than 7,000.00 M

All Pressures must be less than 150,000.00 kPa

All Temperatures (**unless otherwise noted**) must be between -100 and 1,000°C

All Times must be less than 100,000.0 Hours

All gas production rates must be less than 100,000.00 E3M3/day

All oil and water rates must be less than 100,000.00 M3/day

IF [FLEXP] = (01) Oil, then [STGR] should be > 1.500 and <= 9.974 kPa/m

IF [FLEXP] = (02) Gas, then [STGR] should be > 0.001 <= 5.999 kPa/m

IF [FLEXP] = (06) Water or (17) Crude Bitumen, then [STGR] should be >= 9.975 and < 16.000 kPa/m

PRODUCTION (FIELD NOTES) TEST FILE (PRD)

~ FILE VERIFICATION				
# (Information in this section is Assigned by the EUB, and Appended to the PAS file upon Acceptance / Validation via WTC-Submit procedure)				
WTCNUM	[CHAR 13]	EUB WTC Tracking ID	Will not be Blank, system will input	EUB-WTC Unique Certification number:
WTCDAT	[YYYY MM DD HHHH]	Submission/Acceptance Date	Will not be Blank, system will input	Date of WTC Verification & Acceptance
WTCSUB	[CHAR 60]	Submitter	Will not be Blank, system will input	Company whom Submitted Specific Well Test Data
COMP.	[CHAR 60]	Licensee Name	Will not be Blank, system will input	Based on Licensee

~ VERSION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PASTYPE.	[CHAR 7]	DIGITAL DATA - PRODUCTION TEST DATA	PAS-PRD	Field Production Notes - test information, format
UNIT.	[CHAR 1]	UNITS FLAG	(M)etric	Metric Units for EUB submission
VERS.	[NUMB 5,2]	EUB DIGITAL WELL TEST DATA	4.00	Current EUB version for ASCII test data submission

~ WELL INFORMATION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
UWI .	[CHAR 20]	UNIQUE WELL ID	UWI must be valid and exist on EUB database.	Unique Well Identifier - Bottomhole location.
DRILLEG.	[NUMB 2]	DRILLING LEG	Must be 01, 02, 03...09 (Cannot be 0 or NULL)	Drilling Leg (Event or Occurrence). Together with the UWI, this is to help define the bottom of the specific drill hole.
WLIC.	[CHAR 9]	EUB WELL LICENSE NUMBER	Well License Number must match EUB License Number for UWI	EUB Well License Number
FORM.	[CHAR 20]	FORMATION NAME		Name of the geological formation/zone
WSFL.	[NUMB 2]	WELL FLUID TYPE AT TEST DATE	Must have a valid EUB fluid code = (01) Oil, (02) Gas, (06) Water, or (17) Crude Bitumen	Type of Dominant Fluid Production/Pay (i.e. oil, gas, water)

~ TEST DATA

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
SERCO.	[CHAR 5]	SERVICE COMPANY CODE		Company conducting test (see EUB Website)
RRUN.	[CHAR 1]	RECORDERS RUN	must be (Y)es or (N)o	Flag indicating Pressure Gauges ran during operations
TTOPL.M	[NUMB 10,5]	TEST/PROD. INTERVAL TOP M KB (LOG)	[TTOPL] (Interval Top - Log) must be > 0.0 and < [TBASL] (Interval Base - Log)	Top of tested or producing interval - in log depth, measured mKB
TBASL.M	[NUMB 10,5]	TEST/PROD. INTERVAL BASE M KB (LOG)	[TBASL] (Interval Base - Log) must be > 0.0 and => [TTOPL] (Interval Top - Log) and cannot be greater than Total Well Depth.	Base of tested or producing interval - in log depth, measured mKB
FTDT.DAY/HR	[YYYY MM DD HHHH]	TEST FINAL DATE/TIME	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	Date/time of last measured flowrate
FLGAS.E3M3	[NUMB 13,4]	GAS FLARED E3M3	Mandatory, must be >= 0.0	(10 ³ m ³) Over duration of reported production in DTSUM Table
INGAS.E3M3	[NUMB 13,4]	GAS INCINERATED E3M3	Mandatory, must be >= 0.0	(10 ³ m ³) Over duration of reported production in DTSUM Table
PLGAS.E3M3	[NUMB 13,4]	GAS PRODUCED TO PIPELINE E3M3	Mandatory, must be >= 0.0	(10 ³ m ³) Over duration of reported production in DTSUM Table
VNGAS.E2M3	[NUMB 13,4]	GAS VENTED E3M3	Mandatory, must be >= 0.0	(10 ³ m ³) Over duration of reported production in DTSUM Table

PRODUCTION (FIELD NOTES) TEST FILE (PRD)

~ METER GAS (n)

{METER GAS SECTION and TABLE DTGAS (n) CAN BE OMITTED IF NO GAS PRODUCED (VTGAS = "0.0")

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
MDTYPE.	[CHAR 1]	METERING DEVICE TYPE INDICATOR	Must = (P)rover, (O)rifice, (T)urbine, P(i)t(iot) Tube, (C)hoke, (V)-Cone, or Ot(H)er	Flag - (P)rover, (O)rifice, (T)urbine, P(i)t(iot) Tube, (C)hoke, (V)-Cone or Ot(H)er
RDGAS.	[NUMB 4,3]	GAS RELATIVE DENSITY		
N2.FRAC	[NUMB 5,4]	NITROGEN		Mole fraction, air free as received
CO2.FRAC	[NUMB 5,4]	CARBON DIOXIDE		Mole fraction, air free as received
H2S.FRAC	[NUMB 7,6]	HYDROGEN SULPHIDE for METERING DEVICE CALC	Can be zero	Mole fraction, air free as received
PATM.KPA	[NUMB 8,2]	ATMOSPHERIC PRESSURE	Must be > 85 and < 105	
TAP.	[CHAR 1]	TAP TYPE INDICATOR	If [MDTYPE] (Metering Device Type Indicator) = (O)rifice, then must indicate (F)langed or (P)ipe.	Flag indicating taps (F)langed or (P)ipe
TAPL.	[CHAR 1]	TAP LOCATION INDICATOR	If [MDTYPE] (Metering Device Type Indicator) = (O)rifice, then must indicate (U)p Stream or (D)own Stream.	Flag indicating location of taps (U)p Stream or (D)own stream
RSIZ.MM	[NUMB 8,3]	METER RUN / PROVER SIZE	Mandatory, must be => 0.0 if [MDTYPE] (Metering Device Type Indicator) = (P)rover, (O)rifice, P(i)t(iot), or (V)-Cone	inside diameter of Meter Run / Prover
TCON.PULSES/M3	[NUMB 10,5]	TURBINE DEVICE CONSTANT	Mandatory, if [MDTYPE] (Metering Device Type Indicator) = (T)urbine.	
ICON.	[NUMB 10,5]	PITOT TUBE DEVICE CONSTANT	Mandatory, if [MDTYPE] (Metering Device Type Indicator) = P(i)t(iot)	
BETA.	[NUMB 10,7]	V-CONE BETA RATIO	Mandatory, if [MDTYPE] (Metering Device Type Indicator) = (V), else can be Null. Can be zero.	V-Cone beta ratio
MCOF.	[NUMB 10,7]	V-CONE METER COEFFICIENT	Mandatory, if [MDTYPE] (Metering Device Type Indicator) = (V), else can be Null. Can be zero.	V-Cone Meter coefficient
MCOMG.	[CHAR 240]	COMMENT - GAS METER		Provides additional information about the meter being used

PRODUCTION (FIELD NOTES) TEST FILE (PRD)

~ DATA TABLE GAS (n)

(DTGAS (n) - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTGAS TABLES)

{TABLE DTGAS (n) CAN BE OMITTED IF NO GAS PRODUCED ([VTGAS] (Cumulative Total Gas Volume All meters) = "0.0")}

{Each attribute is mandatory, and except for [TIME] must to occur at least once in the table.}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TIME.DAY/HR/SS	[YYYY MM DD HHHH:SS]	REAL TIME	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	24 Hour clock. Must correspond to [FTDT] (Test Final Date/Time)
QGAS.E3M3/D	[NUMB 13,4]	GAS RATE		Gas rate reading
H2S.FRAC	[NUMB 7,6]	HYDROGEN SULPHIDE MOLE FRACTION	Must be >= 0.0	
PLATE.MM	[NUMB 8,3]	ORIFICE /CHOKE PLATE SIZE	Mandatory, if [MDTYPE] (Metering Device Type Indicator) = (C)hoke or (O)rifice	
STAG.KPAA	[NUMB 8,2]	METER PRESSURE (GAS)		Pressure used for Super Compressibility Calculation
DIFG.KPA	[NUMB 8,2]	PRESSURE DIFFERENTIAL (GAS)	Mandatory, if [MDTYPE] (Metering Device Type Indicator) = (C)hoke, (O)rifice, P(i)tiot, or (V)-Cone, else can be zero or NULL	(kPa)
TMPG.DEGC	[NUMB 5,2]	METER TEMPERATURE		Temperature used for Super Compressibility Calculation
TRBG.PULSE	[NUMB 11,3]	TURBINE METER READING	Mandatory, if [MDTYPE] (Metering Device Type Indicator) = (T)urbine	
N2.FRAC	[NUMB 5,4]	NITROGEN MOLE FRACTION		
CO2.FRAC	[NUMB 5,4]	CARBON DIOXIDE MOLE FRACTION		
RCOMP.	[CHAR 240]	GAS COMPOSITION COMMENT		Gas composition as measured throughout the test

~ DTGAS (n)

<u>TIME</u>	<u>QGAS</u>	<u>H2S</u>	<u>PLATE</u>	<u>STAG</u>
YYYY MM DD HHHH:SS	99999999.9999	9.9999	99999.999	999999.99
YYYY MM DD HHHH:SS	99999999.9999	9.9999	99999.999	999999.99
YYYY MM DD HHHH:SS	99999999.9999	9.9999	99999.999	999999.99

DTGAS (n) ... - TABLE CONTINUED

<u>DIFG</u>	<u>TMPG</u>	<u>TRBG</u>	<u>N2</u>	<u>CO2</u>
999999.99	999.99	99999999.999	9.9999	9.9999
999999.99	999.99	99999999.999	9.9999	9.9999
999999.99	999.99	99999999.999	9.9999	9.9999

DTGAS (n) ... - TABLE CONTINUED

RCOMP
X(240)
X(240)
X(240)

PRODUCTION (FIELD NOTES) TEST FILE (PRD)

~ METER LIQUID (n)

{Must Repeat Table for second fluid measured}

{METER LIQUID SECTION and TABLE DTLIQ (n) CAN BE OMITTED IF NO FLUID PRODUCED: (If All Values for VTOIL and VTCON and VTWTR = 0.00)}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
LIQT.	[CHAR 1]	LIQUID TYPE INDICATOR	Must be (O)il or (C)ondensate or (W)ater	Flag indicating (O)il, (W)ater, (C)ondensate
LQMTYP.	[CHAR 1]	METERING DEVICE TYPE INDICATOR	Must be (T)urbine, (L)evel, (V)olume, (O)ther	Flag - (T)urbine, (L)evel, (V)olume, (O)ther
TCO.N.PULSE/M3	[NUMB 10,5]	TURBINE DEVICE K-FACTOR	Mandatory, if [LQMTYP] (Metering Device Type Indicator) = (T)urbine, then must provide K-Factor	Manufacturer specific K-Factor
TMEA.	[CHAR 1]	TANK MEASUREMENT INDICATOR	Mandatory, if [LQMTYP] (Metering Device Type Indicator) = (L)evel or (V)olume, then must indicate if measurement is (I)ncremental or (C)umulative else can be Null	Flag indicating (I)ncremental or (C)umulative measurement
TEQU.	[CHAR 240]	TANK EQUATION	Mandatory, if [LQMTYP] (Metering Device Type Indicator) = (L)evel, must provide tank measurement and volume equation.	Equation illustration
MCOML.	[CHAR 240]	COMMENT - LIQUID METER		Provides additional information about the meter being used

PRODUCTION (FIELD NOTES) TEST FILE (PRD)

~ DATA TABLE LIQUID (n)

(DTLIQ (n) - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTLIQ TABLES)

{TABLE DTLIQ (n) **CAN BE OMITTED MUST BE NULL** IF NO FLUID PRODUCED: (If All Values for [VTOIL] and [VTCON] and [VTWTR] = 0.00)}

{Each attribute is mandatory, and except for [TIME] must occur at least once in the table.}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TIME.DAY/HR/SS	[YYYY MM DD HHHH:SS]	REAL TIME	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	24 Hour clock. Must correspond to [FTDT] (Test Final Date/Time)
GNLF.MM	[NUMB 8,3]	TANK GAIN LEVEL	Mandatory, if [LQMTYP] (Metering Device Type Indicator) = (L)evel	
GNVF.M3	[NUMB 8,3]	TANK GAIN VOLUME	Mandatory, if [LQMTYP] (Metering Device Type Indicator) = (L)evel or (V)olume	
TRBF.PULSE	[NUMB 11,3]	TURBINE METER READING	Mandatory, if [LQMTYP] (Metering Device Type Indicator) = (T)urbine	
API.	[NUMB 4,2]	API GRAVITY @ 15 DegC	Mandatory, if [LIQT] (Liquid Type Indicator) = (O)il	Measured Gravity of Produced Oil , Degrees API
BSW.FRAC	[NUMB 4,3]	FRACTION OF TOTAL BS&W	Mandatory, if [LIQT] (Liquid Type Indicator) = (O)il	Basic sand and water volume fraction, total
SALT.PPM	[NUMB 8,0]	SALINITY PPM	Mandatory, if [LIQT] (Liquid Type Indicator) = (O)il or (W)	Salinity of produced fluid (PPM)
PH.	[NUMB 3,1]	PH	Mandatory, if [LIQT] (Liquid Type Indicator) = (O)il	pH concentration of produced fluid
OILRATE.M3/D	[NUMB 13,4]	OIL RATE	Mandatory, if Meter Liquid (n) [LIQT] (Liquid Type Indicator) = (O)il	
CONRATE.M3/D	[NUMB 13,4]	CONDENSATE RATE	Mandatory, if, Meter Liquid (n) [LIQT] (Liquid Type Indicator) = (C)ondensate	
WTRRATE.M3/D	[NUMB 13,4]	WATER RATE	Mandatory, if, Meter Liquid (n) [LIQT] (Liquid Type Indicator) = (W)ater	
QLIQ.M3/D	[NUMB 13,4]	MEASURED TOTAL LIQUID RATE	Must = [OILRATE] (Oil Rate) + [CONRATE] (Condensate Rate) + [WTRRATE] (Water Rate)	Total Combined Liquid Rate

PRODUCTION (FIELD NOTES) TEST FILE (PRD)

~ DTLIQ (n)

<u>TIME</u>	<u>GNLF</u>	<u>GNVF</u>	<u>TRBF</u>	<u>API</u>
YYYY MM DD HHHH:SS	99999.999	100000	99999999.999	99.99
YYYY MM DD HHHH:SS	99999.999	100000	99999999.999	99.99
YYYY MM DD HHHH:SS	99999.999	100000	99999999.999	99.99

#...DTLIQ (n) - TABLE CONTINUED

<u>BSW</u>	<u>SALT</u>	<u>PH</u>	<u>OILRATE</u>	<u>CONRATE</u>
9.999	99999999	99.9	999999999.9999	999999999.9999
9.999	99999999	99.9	999999999.9999	999999999.9999
9.999	99999999	99.9	999999999.9999	999999999.9999

#...DTLIQ (n) - TABLE CONTINUED

<u>WTRRATE</u>	<u>QLIQ</u>
999999999.9999	999999999.9999
999999999.9999	999999999.9999
999999999.9999	999999999.9999

PRODUCTION (FIELD NOTES) TEST FILE (PRD)

~ DATA TABLE SUMMARY

(DTSUM - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTSUM TABLE)

{Unless otherwise noted - each attribute is mandatory and is to occur at least one row within the table.}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TIME.DAY/HR/SS	[YYYY MM DD HHHH:SS]	REAL TIME	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	24 Hour clock. Must correspond to [FTDT] (Test Final Date/Time)
TWH.DEGC	[NUMB 5,2]	WELLHEAD TEMPERATURE	Optional, can be zero	Temperature measured at wellhead (DegC)
TUPS.KPAA	[NUMB 8,2]	TUBING PRESSURE		(kPaa)
TTUB.DEGC	[NUMB 5,2]	TUBING TEMPERATURE	Optional, can be zero	(DegC)
CSPS.KPAA	[NUMB 8,2]	CASING PRESSURE		(kPaa)
TCAS.DEGC	[NUMB 5,2]	CASING TEMPERATURE	Optional, can be zero	(DegC)
QTGAS.E3M3/D	[NUMB 13,4]	TOTAL GAS RATE ALL METERS	Mandatory, if [VTGAS] = (Total Gas Volume Produced) >0.00	
QTOIL.M3/D	[NUMB 13,4]	TOTAL OIL RATE ALL METERS	Mandatory, if [VTOIL] = (Total Oil Volume Produced) >0.00	
QTCON.M3/D	[NUMB 13,4]	TOTAL CONDENSATE RATE ALL METERS	Mandatory, if [VTCON] = (Total Condensate Volume Produced) >0.00	
QTWTR.M3/D	[NUMB 13,4]	TOTAL WATER RATE ALL METERS	Mandatory, if [VTWTR] = (Total Water Volume Produced) >0.00	
VTGAS.E3M3	[NUMB 13,4]	CUMULATIVE TOTAL GAS VOLUME ALL METERS	[VTGAS] (last line DTSUM) must equal Total of [FLGAS] + [INGAS] + [PLGAS] + [VNGAS]. Can be zero.	Cumulative volume produced during test. All Methods, Flared, Incinerated, Vented or Inline/(Pipelined)
VTOIL.M3	[NUMB 13,4]	CUMULATIVE TOTAL OIL VOLUME ALL METERS	Can be zero.	Cumulative volume produced during test
VTCON.M3	[NUMB 13,4]	CUMULATIVE TOTAL CONDENSATE VOLUME ALL METERS	Can be zero.	Cumulative volume produced during test
VTWTR.M3	[NUMB 13,4]	CUMULATIVE TOTAL WATER VOLUME ALL METERS	Can be zero.	Cumulative volume produced during test
COMM.	[CHAR 240]	COMMENT		General Test Comments (i.e. Text Descriptions regarding specific operations)

PRODUCTION (FIELD NOTES) TEST FILE (PRD)

~ DTSUM

<u>TIME</u>	<u>TWH</u>	<u>TTUB</u>	<u>TUPS</u>	<u>CSPS</u>
YYYY MM DD HHHH:SS	999.99	999.99	999999.99	999999.99
YYYY MM DD HHHH:SS	999.99	999.99	999999.99	999999.99
YYYY MM DD HHHH:SS	999.99	999.99	999999.99	999999.99

#... DTSUM - TABLE CONTINUED ...

<u>TCAS</u>	<u>QTGAS</u>	<u>QTOIL</u>	<u>QTCON</u>	<u>QTWTR</u>
999.99	999999999.9999	999999999.9999	999999999.9999	999999999.9999
999.99	999999999.9999	999999999.9999	999999999.9999	999999999.9999
999.99	999999999.9999	999999999.9999	999999999.9999	999999999.9999

#... DTSUM - TABLE CONTINUED

<u>VTGAS</u>	<u>VTOIL</u>	<u>VTCON</u>	<u>VTWTR</u>	<u>COMM</u>
999999999.9999	999999999.9999	999999999.9999	999999999.9999	X (240)
999999999.9999	999999999.9999	999999999.9999	999999999.9999	X (240)
999999999.9999	999999999.9999	999999999.9999	999999999.9999	X (240)

GENERAL EDITS

ALL Mnemonic Values are Mandatory, unless otherwise noted.

"Conditional" Values will be noted as, (i.e. Mandatory, if TTYP = 08 or 18)

Zero's are NOT acceptable unless otherwise noted.

WHERE SECTION RULES EXIST (Noted by the # Sign) THEY ARE SUPERSEDED BY INDIVIDUAL BUSINESS RULES AND EDITS

ALL DEPTHS (for PRD) are measured or calculated and reported in reference to (KB) Kelly Bushing Elevation

ALL DATES must be >= Spud Date and <= Abandoned Date and <= Submission Date

All Depths must be less than 7,000.00 M

All Pressures must be less than 150,000.00 kPa

All Temperatures (**unless otherwise noted**) must be between -100 and 1,000°C

All Times must be less than 100,000.0 Hours

All gas production rates must be less than 100,000.00 E3M3/day

All oil and water rates must be less than 100,000.00 M3/day

PAS (2003-37 Update)

PRD

GAS ANALYSIS FILE (GAN)

~ FILE VERIFICATION				
# (Information in this section is Assigned by the EUB, and Appended to the PAS file upon Acceptance / Validation via WTC-Submit procedure)				
WTCNUM	[CHAR 13]	EUB WTC Tracking ID	Will not be Blank, system will input	EUB-WTC Unique Certification number:
WTCDAT	[YYYY MM DD HHHH]	Submission/Acceptance Date	Will not be Blank, system will input	Date of WTC Verification & Acceptance
WTCSUB	[CHAR 60]	Submitter	Will not be Blank, system will input	Company whom Submitted Specific Well Test Data
COMP.	[CHAR 60]	Licensee Name	Will not be Blank, system will input	Based on Licensee

~ VERSION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PASTYPE.	[CHAR 7]	DIGITAL DATA - GAS/GAS LIQUIDS ANALYSIS	PAS-GAN	Gas Analysis test, format
UNIT.	[CHAR 1]	UNITS FLAG	(M)etric	Metric Units for EUB submission
VERS.	[NUMB 5,2]	EUB DIGITAL WELL TEST DATA	4.00	Current EUB version for ASCII test data submission

~ WELL INFORMATION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
UWI .	[CHAR 20]	UNIQUE WELL ID	UWI must be valid and exist on EUB database.	Unique Well Identifier - Bottomhole location.
DRILLEG.	[NUMB 2]	DRILLING LEG	Must be 01, 02, 03...09 (Cannot be 0 or NULL)	Drilling Leg (Event or Occurrence). Together with the UWI, this is to help define the bottom of the specific drill hole.
WLIC.	[CHAR 9]	EUB WELL LICENSE NUMBER	Well License Number must match EUB License Number for UWI	EUB Well License Number
FORM.	[CHAR 20]	FORMATION NAME		Name of the geological formation/zone
WSFL.	[NUMB 2]	WELL FLUID TYPE AT TEST DATE	Must have a valid EUB fluid code = (01) Oil, (02) Gas, (06) Water, or (17) Crude Bitumen	Type of Dominant Fluid Production/Pay (i.e. oil, gas, water)

~ TEST DATA

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
LABCO.	[CHAR 60]	LABORATORY NAME		Company name conducting analysis
TTOPL.M	[NUMB 10,5]	TEST/PROD. INTERVAL TOP M KB (LOG)	[TTOPL] (Interval Top - Log) must be > 0.0 and < [TBASL] (Interval Base - Log)	Top of tested or producing interval - in log depth, measured mKB
TBASL.M	[NUMB 10,5]	TEST/PROD. INTERVAL BASE M KB (LOG)	[TBASL] (Interval Base - Log) must be > 0.0 and => [TTOPL] (Interval Top - Log) and cannot be greater than Total Well Depth.	Base of tested or producing interval - in log depth, measured mKB
HYDLP.	[CHAR 1]	HYDROCARBON LIQUIDS PRODUCTION	Must be = (Y)es or (N)o. If [HYDLP] (Hydrocarbon Liquid Production) = (Y)es, then [DTCL] (Data Table - Condensate / Liquid Analysis) can not be null.	Flag indicating measurable liquid production (Y)es or (N)o

GAS ANALYSIS FILE (GAN)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
STYP.	[CHAR 1]	SAMPLE TYPE	Must be a (G)as, (C)ondensate, (B)oth, or (R)ecombination	Type of Sample reported.
GLR.M3/M3	[NUMB 7,0]	GAS LIQUID RATIO	Mandatory, if [STYP] (Sample Type) = (R)ecombination	Calculated ratio, of separator gas and separator liquid at the time of sampling.
DSTLOC.	[CHAR 1]	DST SAMPLE LOCATION	If [FS-SPNT] (First Stage - Sample Gathering Point Code) = (50) then [DSTLOC] DST Sample Location must be (T)op, (M)iddle, or (B)ottom	
GANC.	[CHAR 240]	COMMENT ON SAMPLE	Optional	General Free form Comment (regarding Sample or Analytical Procedures).

FIRST STAGE SEPARATOR - GAS ANALYSIS

~ HEADER DATA - FIRST STAGE SEPARATOR GAS ANALYSIS

If [STYP] (SAMPLE TYPE) = (C)ondensate, then First Stage Separator must be blank.

FS-SDAT.DAY	[YYYY MM DD]	DATE SAMPLED	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	Date First Stage Separator sample was gathered
FS-SPNT.	[NUMB 2]	SAMPLE GATHERING POINT CODE	Must be Valid EUB Sample Point Code (See Footnote).	Location as to where First Stage Separator Hydrocarbon Sample was gathered
FS-SPNTN.	[CHAR 50]	DESCRIPTION OF SAMPLE POINT	Can not be null	Laboratories unique name describing location of First Stage Separator Sample Gathering Point
FS-SPRES.KPAA	[NUMB 8,2]	SAMPLE PRESSURE	Can not be zero	First Stage Separator Pressure as sampled (in field) - kPaa
FS-STEMP.DEGC	[NUMB 5,2]	SAMPLE TEMPERATURE		First Stage Separator Temperature as sampled (in field) - DegC
FS-RPRES.KPAA	[NUMB 8,2]	RECEIVED PRESSURE	Can not be zero	First Stage Separator Pressure as received (in Lab) -kPaa
FS-RTEMP.DEGC	[NUMB 5,2]	RECEIVED TEMPERATURE		First Stage Separator Temperature as received (in Lab) - DegC
FS-ADAT.DAY	[YYYY MM DD]	DATE ANALYZED	Must be >= [SDAT] (Date Sampled) and <= Submission Date	Date in which First Stage Separator sample was analyzed

GAS ANALYSIS FILE (GAN)

~ DATA TABLE - FIRST STAGE SEPARATOR GAS ANALYSIS

(DTFSGAS - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTFSGAS TABLES)

If [STYP] (SAMPLE TYPE) = (C)ondensate, then ~DTFSGAS Table must be blank.

{Rows and Columns are fixed}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
COMPCOM	[CHAR 10,11]	Composition Components		
MOLG.FRAC	[NUMB 5,4]	Molal Fraction Air Free	Mandatory Must Total 1.0000, plus or minus 0.001 for rounding. Can = zero	Representative Mole Fractions - Air Free as Received
MOLAGF.FRAC	[NUMB 5,4]	Molal Fraction Acid Gas/Air Free	Mandatory Must Total 1.0000, plus or minus 0.001 for rounding. Can = zero	Representative Mole Fractions - Air Free/Acid Gas Free
LIQVOL.ML/M3	[NUMB 4,1]	Liquid Volume ml/m3		Liquid Volumes ml/m3 - Air Free

~ DTFSGAS

{Total for FIRST STAGE SEPARATOR GAS ANALYSIS [all mole fractions] MUST TOTAL 1.000 plus or minus 0.001 for rounding.}

<u>COMPCOM</u>	<u>MOLG</u>	<u>MOLAGF</u>	<u>LIQVOL</u>
FS-H2S.FRAC	9.9999	-----	-----
FS-CO2.FRAC	9.9999	-----	-----
FS-N2.FRAC	9.9999	9.9999	-----
FS-H2.FRAC	9.9999	9.9999	-----
FS-HE.FRAC	9.9999	9.9999	-----
FS-C1.FRAC	9.9999	9.9999	-----
FS-C2.FRAC	9.9999	9.9999	999.9
FS-C3.FRAC	9.9999	9.9999	999.9
FS-IC4.FRAC	9.9999	9.9999	999.9
FS-NC4.FRAC	9.9999	9.9999	999.9
FS-IC5.FRAC	9.9999	9.9999	999.9
FS-NC5.FRAC	9.9999	9.9999	999.9
FS-C6.FRAC	9.9999	9.9999	999.9
FS-C7+.FRAC	9.9999	9.9999	999.9

GAS ANALYSIS FILE (GAN)

~ GAS ANALYSIS - DATA PROPERTIES

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
LFNUM.	[CHAR 25]	LABORATORY FILE NUMBER	Can not be zero	Identification number
IDENT.	[CHAR 12]	CONTAINER IDENTITY	Can not be zero	Identification code of container
RELDEN.	[NUMB 4,3]	GAS RELATIVE DENSITY	Can not be zero	Relative Density of First Stage Gas
TSMW.	[NUMB 3,1]	CALC MOLE WEIGHT OF TOTAL SAMPLE	Can not be zero	
GHV.MJ/M3	[NUMB 4,2]	CALC GROSS HEAT VALUE MOISTURE FREE	Can not be zero	
GHVAGF.MJ/M3	[NUMB 4,2]	CALC GROSS HEAT VALUE MOISTURE & ACID GAS FREE	Can not be zero	
PPVP.KPAA	[NUMB 8,2]	CALC C ₅₊ VAPOUR PRESSURE (KPAA)	Can not be zero Optional	
FS-PPC.KPAA	[NUMB 8,2]	CALC PSEUDO CRITICAL PRESSURE AS SAMPLED	Can not be zero	First Stage Separator - PPC (kPaa)
FS-PTC.DEGK	[NUMB 5,2]	CALC PSEUDO CRITICAL TEMPERATURE AS SAMPLED (DegK)	Can not be zero	First Stage Separator - PTC (Degrees Kelvin)
FS-PPCAGF.KPAA	[NUMB 8,2]	CALC PSEUDO CRITICAL PRESSURE ACID GAS FREE	Can not be zero	First Stage Separator - PPC - Acid Gas Free (kPaa)
FS-PTCAGF.DEGK	[NUMB 5,2]	CALC PSEUDO CRITICAL TEMPERATURE ACID GAS FREE (DegK)	Can not be zero	First Stage Separator - PTC - Acid Gas Free (Degrees Kelvin)
H2SGP.	[CHAR 1]	HYDROGEN SULPHIDE INDICATOR -- FIRST STAGE	Must be (N)one, (T)race or (M)easured. If [H2SGP] = (N) or (T), then [FS-H2S] (First Stage - Hydrogen Sulphide) must = 0.000, else must be > 0.00	Measured H2S component = >100-PPM (0.0001 MOL-FRAC) or (0.01 MOL-%).
H2SLC.	[CHAR 1]	LOCATION OF H ₂ S MEASUREMENT	Mandatory, if [H2SGP] (Hydrogen Sulphide Indicator) = (T)race or (M)easured, then [H2SLC] must indicate location of measurement (F)ield, (L)ab or (B)oth.	Location of H2S measurement. 1 PPM = (0.000001 MOL FRAC) or (0.0001 MOL %)
H2SMT.	[CHAR 1]	METHOD OF FIELD ANALYSIS	Mandatory, if [H2SLC] (Location of H2S Measurement) = (F)ield or (B)oth. [H2SMT] must = (T)utwieler, (L)itmus, (C)hromatograph, (O)ther, (S)tain Tube or (N)ot Measured. Must be null if [H2SLC] = (L)ab.	Method of H₂S detection.

GAS ANALYSIS FILE (GAN)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
GH2S.PPM	[NUMB 3,1]	GAS H2S PPM	Mandatory, if [H2SGP] (Hydrogen Sulphide Indicator) = (T)race and [H2SMT] (Method of Analysis) <> (N), else must be Null. Can not be zero.	H2S in Parts per Million.
FLDH2S.PPM	[NUMB 7,1]	FIELD GAS H ₂ S (PPM)	Mandatory, if [H2SLC] (Location of H2S Measurement) = (F)ield or (B)oth and [H2SMT] (Method of Field Analysis) is not Null, can be zero. If [H2SMT] = (N), [FLDH2S] must be zero. Must be null if [H2SLC] = (L)ab.	H2S concentration measured in the field in parts per million.
LABH2S.FRAC	[NUMB 5,4]	LABORATORY H ₂ S ANALYSIS	Mandatory, if [H2SLC] (Location of H2S Measurement) = (L)ab or (B)oth. Can be zero.	H2S fraction measured in the lab.
C7+DN.	[NUMB 4,1]	DENSITY OF C ₇ , FRACTION	Mandatory, if [FS-C7+.FRAC] (Heptane Plus) >0.0000, else must be Null	
C7+MW.	[NUMB 3,1]	MOLE WEIGHT C ₇ , FRACTION	Mandatory, if [FS-C7+.FRAC] (Heptane Plus) >0.0000, else must be Null	

SECOND STAGE SEPARATOR - GAS ANALYSIS

~ HEADER DATA - SECOND STAGE SEPARATOR - GAS ANALYSIS

{Can not submit a Second Stage Separator Sample, if First Stage Separator Sample is missing.}

{SECOND STAGE SEPARATOR (SS) is Mandatory if [SEPCOND] (Separator Conditions) = (B)oth}

SS-SDAT.DAY	[YYYY MM DD]	DATE SAMPLED	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	Date Second Stage Separator sample was gathered
SS-SPNT.	[NUMB 2]	SAMPLE GATHERING POINT CODE	Must be Valid EUB Sample Point Code (See Footnote).	Location as to where Second Stage Separator Hydrocarbon Sample was gathered
SS-SPNTN.	[CHAR 50]	DESCRIPTION OF SAMPLE POINT	Can not be null	Laboratories unique name describing location of Second Stage Separator Sample Gathering Point
SS-SPRES.KPAA	[NUMB 8,2]	SAMPLE PRESSURE	Can not be zero	Second Stage Separator Pressure as sampled (in field) - kPaa
SS-STEMP.DEGC	[NUMB 5,2]	SAMPLE TEMPERATURE		Second Stage Separator Temperature as sampled (in field) - DegC
SS-RPRES.KPAA	[NUMB 8,2]	RECEIVED PRESSURE	Can not be zero	Second Stage Separator Pressure as received (in Lab) - kPaa
SS-RTEMP.DEGC	[NUMB 5,2]	RECEIVED TEMPERATURE		Second Stage Separator Temperature as received (in Lab) - DegC
SS-ADAT.DAY	[YYYY MM DD]	DATE ANALYZED	Must be >= [SS-SDAT] (Date Sampled) and <= Submission Date	Date in which Second Stage Separator sample was analyzed

PAS (2003-37 Update)
GAN

GAS ANALYSIS FILE (GAN)

~ SECOND STAGE SEPARATOR - GAS ANALYSIS

{If [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then SECOND STAGE SEPARATOR - GAS ANALYSIS cannot be blank}

{Total for SECOND STAGE SEPARATOR GAS ANALYSIS [all mole fractions] MUST TOTAL 1.000 plus or minus 0.001 for rounding.}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
SS-H2S.FRAC	[NUMB 5,4]	HYDROGEN SULPHIDE	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-CO2.FRAC	[NUMB 5,4]	CARBON DIOXIDE	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-N2.FRAC	[NUMB 5,4]	NITROGEN	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-H2.FRAC	[NUMB 5,4]	HYDROGEN	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-HE.FRAC	[NUMB 5,4]	HELIUM	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-C1.FRAC	[NUMB 5,4]	METHANE	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-C2.FRAC	[NUMB 5,4]	ETHANE	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-C3.FRAC	[NUMB 5,4]	PROPANE	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-IC4.FRAC	[NUMB 5,4]	ISO-BUTANE	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-NC4.FRAC	[NUMB 5,4]	N-BUTANE	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	

GAS ANALYSIS FILE (GAN)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
SS-IC5.FRAC	[NUMB 5,4]	ISO-PENTANE	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-NC5.FRAC	[NUMB 5,4]	N-PENTANE	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-C6.FRAC	[NUMB 5,4]	N-HEXANE	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
SS-C7+.FRAC	[NUMB 5,4]	HEPTANE PLUS	Mandatory, if [SEPCOND] (Separator Conditions) = (B)oth and [STYP] (Sample Type) = (R)ecombination, then cannot be null.	

CONDENSATE / LIQUID ANALYSIS

~ HEADER DATA - CONDENSATE / LIQUID ANALYSIS

{if [HYDLP] (Hydrogen Liquid Production) = (Y)es, then (HEADER DATA - CONDENSATE LIQUID ANALYSIS) can not be null.} If [HYDLP] = (N)o, then Must be Null

CL-SDAT.DAY	[YYYY MM DD]	DATE SAMPLED	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	Date in which Condensate / Liquid sample was gathered
CL-SPNT.	[NUMB 2]	SAMPLE GATHERING POINT CODE	Must be Valid EUB Sample Point Code (See Footnote).	Location as to where Condensate / Liquid Sample was gathered
CL-SPNTN.	[CHAR 50]	DESCRIPTION OF SAMPLE POINT	Can not be null	Laboratories unique name describing location of Condensate / Liquid Sample Gathering Point
CL-SPRES.KPAA	[NUMB 8,2]	SAMPLE PRESSURE	Can not be zero	Condensate / Liquid Pressure as sampled (in field) - kPaa
CL-STEMP.DEGC	[NUMB 5,2]	SAMPLE TEMPERATURE		Condensate / Liquid Temperature as sampled (in field) - DegC
CL-RPRES.KPAA	[NUMB 8,2]	RECEIVED PRESSURE	Can not be zero Optional	Condensate / Liquid Pressure as received (in Lab) - kPaa
CL-RTEMP.DEGC	[NUMB 5,2]	RECEIVED TEMPERATURE	Optional	Condensate / Liquid Temperature as received (in Lab) - DegC
CL-ADAT.DAY	[YYYY MM DD]	DATE ANALYZED	Must be >= SDAT (Sample Date) and <= Submission Date	Date in which Condensate / Liquid sample was analyzed

GAS ANALYSIS FILE (GAN)

~ DATA TABLE - CONDENSATE / LIQUID ANALYSIS

(DTCL - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTCL TABLE)

{Rows and Columns are fixed}

{If [HYDLP] (Hydrogen Liquid Production) = (Y)es, then Total for CONDENSATE / LIQUID ANALYSIS [all mole fractions] MUST TOTAL 1.000 plus or minus 0.001 for rounding}

{If [HYDLP] (Hydrogen Liquid Production) = (N)o, then ~DTCL Table must be Null

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
COMPCOM.	[CHAR 10 11]	Composition Components		
MOLC.FRAC	[NUMB 5,4]	Molal Fraction	Mandatory Must Total 1.0000, plus or minus 0.001 for rounding. Can = zero, can be null	Representative Mole Fractions - Air Free as Received
MASS.FRAC	[NUMB 5,4]	Mass Fraction	Mandatory Must Total 1.0000, plus or minus 0.001 for rounding. Can = zero, can be null	Representative Mass Fractions - Air Free as Received
VOL.FRAC	[NUMB 5,4]	Volume Fraction	Mandatory Must Total 1.0000, plus or minus 0.001 for rounding. Can = zero, can be null	Representative Volume Fractions - Air Free as Received

~ DTCL

<u>COMPCOM</u>	<u>MOLC</u>	<u>MASS</u>	<u>VOL</u>
CL-H2S.FRAC	9.9999	9.9999	9.9999
CL-CO2.FRAC	9.9999	9.9999	9.9999
CL-N2.FRAC	9.9999	9.9999	9.9999
CL-H2.FRAC	9.9999	9.9999	9.9999
CL-HE.FRAC	9.9999	9.9999	9.9999
CL-C1.FRAC	9.9999	9.9999	9.9999
CL-C2.FRAC	9.9999	9.9999	9.9999
CL-C3.FRAC	9.9999	9.9999	9.9999
CL-IC4.FRAC	9.9999	9.9999	9.9999
CL-NC4.FRAC	9.9999	9.9999	9.9999
CL-IC5.FRAC	9.9999	9.9999	9.9999
CL-NC5.FRAC	9.9999	9.9999	9.9999
CL-C6.FRAC	9.9999	9.9999	9.9999
CL-C7+.FRAC	9.9999	9.9999	9.9999

GAS ANALYSIS FILE (GAN)

~ CONDENSATE / LIQUID ANALYSIS - DATA PROPERTIES

{If [HYDLP] (Hydrogen Liquid Production) = (N)o, then ~Condensate / Liquid Analysis - Data Properties section must be Null

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
LFNUM.	[CHAR 25]	LABORATORY FILE NUMBER		Identification number
IDENT.	[CHAR 12]	CONTAINER IDENTITY		Identification code of container
H2SLP.	[CHAR 1]	HYDROGEN SULPHIDE INDICATOR - CONDENSATE/LIQUID	Mandatory, must be (N)one, (T)race or (M)easured. If [H2SGP] (Hydrogen Sulphide Indicator) = (N)one or (T)race, then [CL-H2S] (Condensate / Liquid Analysis - Hydrogen Sulphide) must = 0.000, else must be > 0.00	Measured H2S component = >100 PPM (0.0001 MOL FRAC) or (0.01 MOL %).
LH2S.PPM	[NUMB 3,1]	LIQUID H2S PPM	Mandatory, if [H2SLP] (Hydrogen Sulphide Indicator - Condensate/Liquid) = (T)race. Can not be zero. Can be null.	H2S in Parts per Million.
LIQRDN.	[NUMB 4,1-3]	CALC REL DENSITY OF TOTAL SAMPLE @ 15 DegC	Must be < 1	Calculated Relative Density of Condensate / Liquid Sample
LIQRMW.	[NUMB 4,1]	CALC REL MOLE MASS OF TOTAL SAMPLE @ 15 DegC		Calculated Relative Molar Mass of Condensate / Liquid Sample

~ DATA TABLE - CONDENSATE / LIQUID FRACTION DISTILLATION

(DTCLFD - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTCLFD TABLE)

{If [HYDLP] (Hydrogen Liquid Production) = (N)o, then ~DTCLFD Table must be Null

{must be reported if performed}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
LIQCOMP.	[CHAR 10-11]	Liquid Components		
MOLL.FRAC	[NUMB 5,4]	Molal Fraction	Optional, if reported must be <1, can be zero	
MASS.FRAC	[NUMB 5,4]	Mass Fraction	Optional, if reported must be <1, can be zero	
VOL.FRAC	[NUMB 5,4]	Volume Fraction	Optional, if reported must be <1, can be zero	
RDLIQ.	[NUMB 4,3]	Relative Density of Liquid Components	Optional, if reported must be <1, can not be zero	
RELMM.	[NUMB 3]	Relative Molecular Mass	Optional, if reported valid range = 80 to 250	

GAS ANALYSIS FILE (GAN)

~ DTCLFD

<u>LIQCOMP</u>	<u>MOLL</u>	<u>MASS</u>	<u>VOL</u>
C5+L.FRAC	9.9999	9.9999	9.9999
C6+L.FRAC	9.9999	9.9999	9.9999
C7+L.FRAC	9.9999	9.9999	9.9999
C12+L.FRAC	9.9999	9.9999	9.9999

#... DTCLFD - TABLE CONTINUED

<u>RDLIQ</u>	<u>RELMM</u>
9.999	999
9.999	999
9.999	999
9.999	999

RECOMBINED GAS ANALYSIS

~ RECOMBINED GAS ANALYSIS - DATA PROPERTIES

(PROPERTIES USED IN RECOMBINATION)

{IF [STYP] (Sample Type) <> = (R)ecombination, THIS SECTION MUST BE null}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
SEPCOND.	[CHAR 1]	SEPARATOR CONDITIONS	If [STYP] (Sample Type) = (R)ecombination, then must be (F)irst Stage Separator, (S)econd Stage Separator or (B)oth, else NULL	(B)oth = First & Second Stage Separator Samples reported
FS-GAS.E3M3/D	[NUMB 13,4]	FIRST STAGE GAS RATE	If [STYP] (Sample Type) = (R)ecombination and [SEPCOND] (Separator Conditions) = (F)irst or (B)oth, then cannot be null.	10 ³ m ³ /d
SS-GAS.E3M3/D	[NUMB 13,4]	SECOND STAGE GAS RATE	If [STYP] (Sample Type) = (R)ecombination and [SEPCOND] (Separator Conditions) = (B)oth, then cannot be null.	10 ³ m ³ /d
LIQRAT.M3/D	[NUMB 13,4]	LIQUID RATE	Mandatory, if STYP= 'R'	The separator liquid rate used for the recombination.
LIQGPT.	[CHAR 1]	LIQUID GATHERING POINT	If [STYP] (Sample Type) = (R)ecombination, then [LIQGPT] Must be (F)irst Stage Separator, (S)econd Stage Separator or Stock (T)ank.	
LIQMM.	[NUMB 4,1]	LIQUID MOLECULAR MASS g/mol	Mandatory, if [STYP] (Sample Type) = (R)ecombination	
LIQRDN.	[NUMB 4,+3]	DENSITY OF LIQUID kg/m ³	Mandatory, if [STYP] (Sample Type) = (R)ecombination	DENSITY OF LIQUID kg/m ³ AT MEASURED CONDITIONS

PAS (2003-37 Update)
GAN

GAS ANALYSIS FILE (GAN)

~ RECOMBINED GAS PROPERTIES COMPOSITION

{If [STYP] (SAMPLE TYPE) = (R)ecombination, then RECOMBINED GAS PROPERTIES cannot be blank}

{Total for RECOMBINED GAS PROPERTIES [all mole fractions] MUST TOTAL 1.000 plus or minus 0.001 for rounding}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
R-H2S.FRAC	[NUMB 5,4]	CALC HYDROGEN SULPHIDE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-CO2.FRAC	[NUMB 5,4]	CALC CARBON DIOXIDE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-N2.FRAC	[NUMB 5,4]	CALC NITROGEN	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-H2.FRAC	[NUMB 5,4]	CALC HYDROGEN	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-HE.FRAC	[NUMB 5,4]	CALC HELIUM	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-C1.FRAC	[NUMB 5,4]	CALC METHANE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-C2.FRAC	[NUMB 5,4]	CALC ETHANE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-C3.FRAC	[NUMB 5,4]	CALC PROPANE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-IC4.FRAC	[NUMB 5,4]	CALC ISO-BUTANE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-NC4.FRAC	[NUMB 5,4]	CALC N-BUTANE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-IC5.FRAC	[NUMB 5,4]	CALC ISO-PENTANE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-NC5.FRAC	[NUMB 5,4]	CALC N-PENTANE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-C6.FRAC	[NUMB 5,4]	CALC N-HEXANE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-C7+.FRAC	[NUMB 5,4]	CALC SUM OF GREATER THAN C6	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	

GAS ANALYSIS FILE (GAN)

~ RECOMBINED FLUID GAS PROPERTIES

{IF [STYP] (Sample Type) <> = (R)ecombination, THIS SECTION MUST BE null}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
RGHV.MJ/M3	[NUMB 4,2]	CALC GROSS HEAT VALUE MOISTURE FREE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
RGHVA.MJ/M3	[NUMB 4,2]	CALC GROSS HEAT VALUE MOISTURE & ACID GAS FREE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
RECOFLO.E3M3/D	[NUMB 13,4]	RECOMBINED FLOWRATE 103M3/D	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
RDGAS.	[NUMB 5,4]	RELATIVE DENSITY	If [STYP] (Sample Type) = (R)ecombination, then cannot be null.	
R-PPC.KPAA	[NUMB 8,2]	PSEUDO CRITICAL PRESSURE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null. Optional.	PPC of Recombined Sample - (kPaa)
R-PTC.DGEK	[NUMB 5,2]	PSEUDO CRITICAL TEMPERATURE	If [STYP] (Sample Type) = (R)ecombination, then cannot be null. Optional.	PTC of Recombined Sample - (Degree's Kelvin)

GAS ANALYSIS FILE (GAN)

Sample Point Codes (SPNT)

- 20 First Stage Separator
- 25 Second Stage Separator
- 30 Wellhead
- 35 Meter Run
- 40 Pressure Tank
- 45 Downhole Samplers - Post Drilling (i.e. RFT's, MDT's etc.)
- 50 DST
- 60 Tubing
- 70 Other (Miscellaneous)

GENERAL EDITS

ALL Mnemonic Values are Mandatory, unless otherwise noted.

"Conditional" Values will be noted as, (i.e. Mandatory, if TTYP = 08 or 18)

Zero's are NOT acceptable unless otherwise noted.

WHERE SECTION RULES EXIST (Noted by the # Sign) THEY ARE SUPERSEDED BY INDIVIDUAL BUSINESS RULES AND EDITS

ALL DEPTHS (for GAN) are measured or calculated and reported in reference to (KB) Kelly Bushing Elevation

ALL DATES must be >= Spud Date and <= Abandoned Date and <= Submission Date

All Depths must be less than 7,000.00 M

All Pressures must be less than 150,000.00 kPa

All Temperatures (unless otherwise noted) must be between -100 and 1,000°C

All Times must be less than 100,000.0 Hours

All gas production rates must be less than 100,000.00 E3M3/day

All oil and water rates must be less than 100,000.00 M3/day

All mole fractions must total 1.0000 plus or minus .001 for rounding

If H2SGP (hydrogen sulphide indicator) does not = (N)o, then FS-H2S.FRAC must be > "0.00"

Image Attachment required if Extended Component Analysis performed

	Estimated Non-Critical Ranges
CO2 CARBON DIOXIDE	< = 5%
N2 NITROGEN	< = 10%
H2 HYDROGEN	< = 0.1%
HE HELIUM	< = 0.1%
C1 METHANE	< = 50%
C2 ETHANE	< = 15%
C3 PROPANE	< = 5%
IC4 ISO-BUTANE	< = 1%
NC4 N-BUTANE	< = 2%
IC5 ISO-PENTANE	< = 1%
NC5 N-PENTANE	< = 1%
C6 HEXANE	< = 1%
C7+ HEPTANE PLUS	< = 1%

TRACE COMPONENTS (How To Report):

For Tables ~DTFSGAS, ~DTCL, 2nd Stage Separator and/or Recombined Gas Composition components

report all "Trace" values (with the exception of "H2S - Hydrogen Sulphide")

as 0.0001.FRAC, and use a comment line starting with "#" to qualify the situation(s).

GRADIENT WELL TEST FILE (GRD)

~ FILE VERIFICATION

(Information in this section is Assigned by the EUB, and Appended to the PAS file upon Acceptance / Validation via WTC-Submit procedure)

WTCNUM	[CHAR 13]	EUB WTC Tracking ID	Will not be Blank, system will input	EUB-WTC Unique Certification number:
WTCDAT	[YYYY MM DD HHHH]	Submission/Acceptance Date	Will not be Blank, system will input	Date of WTC Verification & Acceptance
WTCSUB	[CHAR 60]	Submitter	Will not be Blank, system will input	Company whom Submitted Specific Well Test Data
COMP.	[CHAR 60]	Licensee Name	Will not be Blank, system will input	Based on Licensee

~ VERSION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PASTYPE.	[CHAR 7]	DIGITAL DATA - GRADIENT TEST DATA	PAS-GRD	Static Pressure Test, format. This file is for the reporting of both "Static" Pressure measurements (Gradients, Acoustic Well Sounders, or Deadweight Tester) and "Flowing" Gradient well test data.
UNIT.	[CHAR 1]	UNITS FLAG	(M)etric	Metric Units for EUB submission
VERS.	[NUMB 5,2]	EUB DIGITAL WELL TEST DATA	4.00	Current EUB version for ASCII test data submission

~ WELL INFORMATION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
UWI .	[CHAR 20]	UNIQUE WELL ID	UWI must be valid and exist on EUB database.	Unique Well Identifier - Bottomhole location.
DRILLEG.	[NUMB 2]	DRILLING LEG	Must be 01, 02, 03...09 (Cannot be 0 or NULL)	Drilling Leg (Event or Occurrence). Together with the UWI, this is to help define the bottom of the specific drill hole.
WLIC.	[CHAR 9]	EUB WELL LICENSE NUMBER	Well License Number must match EUB License Number for UWI	EUB Well License Number
FORM.	[CHAR 20]	FORMATION NAME		Name of the geological formation/zone
WSFL.	[NUMB 2]	WELL FLUID TYPE AT TEST DATE	Must have a valid EUB fluid code = (01) Oil, (02) Gas, (06) Water, or (17) Crude Bitumen	Type of Dominant Fluid Production/Pay (i.e. oil, gas, water)
WTYP.	[CHAR 1]	WELL TYPE INDICATOR	Must be (V)ertical, (D)eviated or (H)orizontal	Flag indicating (V)ertical, (D)eviated, or (H)orizontal Wellbore
PACKER.	[CHAR 1]	PACKER INDICATOR FLAG	Must = (Y)es or (N)o.	Flag indicating presence of packer (Y)es, (N)o
TULD.	[CHAR 1]	TUBING IN WELL	Must = (Y)es or (N)o.	Flag indicating Tubing in well (Y) or (N)
AFLO.	[CHAR 1]	FLOW PATH	Must = (A)nnular, (C)asing, (T)ubing, or (B)oth casing and tubing.	Flag indicating flow path (A)nnular, (C)asing, (T)ubing, or (B)oth casing and tubing
TUBS.MM	[NUMB 4,1]	INSIDE DIAMETER OF PRODUCTION TUBING	Optional, if present must be > 0.00	Inside diameter of production tubing (IF TULD=Y)
PCID.MM	[NUMB 4,1]	INSIDE DIAMETER OF PRODUCTION CASING	Optional, if present must be > 0.00 and must be > [TUBS] and [PTOD]	Inside diameter of production casing
PTOD.MM	[NUMB 4,1]	OUTSIDE DIAMETER OF PRODUCTION TUBING	Optional, if present must be > 0.00 and must be > [TUBS]	Outside diameter of production tubing

PAS (2003-37 Update)
GRD

GRADIENT WELL TEST FILE (GRD)

~ TEST DATA

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PRPS.	[CHAR 1]	TEST PURPOSE	Must be (I)ntial Test, (A)nnual Pressure, or (O)ther	(I)ntial or (A)nnual for fulfillment of Guide 40, Regulatory Testing Requirements. (O)ther indicates test conducted strictly for Licensee's own purpose, and which may not comply with a number of testing restrictions Please Note: Subsequent tests captured for Licensees own needs, but considered representative of the reservoirs (i.e. Stable and/or Interpreted), should be submitted as (A)nnual.
SERCO.	[CHAR 5]	SERVICE COMPANY CODE		Company conducting test (see EUB Website)
TTYP.	[CHAR 2]	TEST TYPE CODE	Must be Valid EUB PAS-GRD Well Pressure Test Code (See Footnote). If [TTYP] (Test Type Indicator) = 13 or 23 then [PRPS] (Test Purpose Indicator) must = (O)ther; If [TTYP] = 10, [PRPS] can not = (I)ntial.	
H2SIND.	[CHAR 1]	H2S INDICATOR	Must = (Y)es or (N)one.	Flag indicating presence of H2S
AWSVAL.	[CHAR 1]	AWS VALIDATION	Mandatory. If [TTYP] (Test Type Indicator) = 10 and [PRPS] (Test Purpose Indicator) = (A)nnual, then [AWSVAL] must = (Y)es. If [TTYP] = 10 and [PRPS] = (O)ther, then [AWSVAL] can be (Y)es, (N)o, or Null. If [TTYP] <> 10, [AWSVAL] must be Null.	Flag indicating whether Verification of Acoustic Method was undertaken and submitted (in this or previous test/image file - for this well), in accordance with EUB Guide 40.
TTOPL.M	[NUMB 10,5]	TEST/PROD. INTERVAL TOP M KB (LOG)	[TTOPL] (Interval Top - Log) must be > 0.0 and < [TBASL] (Interval Base - Log)	Top of tested or producing interval - in log depth, measured mKB.
TBASL.M	[NUMB 10,5]	TEST/PROD. INTERVAL BASE M KB (LOG)	[TBASL] (Interval Base - Log) must be > 0.0 and => [TTOPL] (Interval Top - Log) and cannot be greater than Total Well Depth.	Base of tested or producing interval - in log depth, measured mKB
TTOPT.M	[NUMB 10,5]	TEST/PROD. INTERVAL TOP M KB (TVD)	If [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal, then [TTOPT] (Interval Top - TVD) must be < [TTOPL] (Interval Top - Log), else if [WTYP] = (V)ertical, then [TTOPT] must = [TTOPL]	Top of tested or producing interval - in true vertical depth, calculated mKB
TBAST.M	[NUMB 10,5]	TEST/PROD. INTERVAL BASE M KB (TVD)	If [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal, then [TBAST] (Interval Base - TVD) must be < [TBASL] (Interval Base - Log), else if [WTYP] = (V)ertical, then [TBAST] must = [TBASL]	Base of tested or producing interval in true vertical depth, calculated mKB
TISI.DAY/HR	[YYYY MM DD HHHH]	TIME/DATE WELL SHUT-IN	Must be >= Spud Date but < [FTDT] (Final Test Date and Time) and the Submission Date	Date/time well shut-in for final BU/FO

GRADIENT WELL TEST FILE (GRD)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
FTDT.DAY/HR	[YYYY MM DD HHHH]	FINAL TEST DATE/TIME	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	Date/time test ended
TUPS.KPAA	[NUMB 8,2]	INITIAL TUBING PRESSURE	Mandatory if [AFLO] (Flow Path) = (T)ubing or (B)oth, and [TTYP] (Test Type Indicator) = (03) or (13), else can be null.	Tubing pressure at start of test (kPaa)
CSPS.KPAA	[NUMB 8,2]	INITIAL CASING PRESSURE	Mandatory if [AFLO] (Flow Path) = (A)nnular, (C)asing or (B)oth, and [TTYP] (Test Type Indicator) = (03) or (13), else can be null	Casing pressure at start of test (kPaa)
FTUPS.KPAA	[NUMB 8,2]	FINAL TUBING PRESSURE	Mandatory if [AFLO] (Flow Path) = (T)ubing or (B)oth, and [TTYP] (Test Type Indicator) = (03) or (13), else can be null.	Tubing pressure at end of test (kPaa)
FCSPS.KPAA	[NUMB 8,2]	FINAL CASING PRESSURE	Mandatory if [AFLO] (Flow Path) = (A)nnular, (C)asing or (B)oth, and [TTYP] (Test Type Indicator) = (03) or (13), else can be null	Casing pressure at end of test (kPaa)
TSUR.DEGC	[NUMB 5,2]	SURFACE TEMPERATURE	Mandatory, if [TTYP] (Test Type Indicator) = (10), (23) or (33)	Temperature measured at wellhead during operations (DegC)
QGAS.E3M3/D	[NUMB 13,4]	GAS PRODUCTION RATE PRIOR TO TEST	Mandatory, if [TTYP] (Test Type Indicator) = (10). Can be zero. Can be negative, if an injection well.	
QOIL.M3/D	[NUMB 13,4]	OIL PRODUCTION RATE PRIOR TO TEST	Mandatory, if [TTYP] (Test Type Indicator) = (10). Can be zero. Can be negative, if an injection well.	
QWTR.M3/D	[NUMB 13,4]	WATER PRODUCTION RATE PRIOR TO TEST	Mandatory, if [TTYP] (Test Type Indicator) = (10). Can be zero. Can be negative, if an injection well.	

GRADIENT WELL TEST FILE (GRD)

~ PRESSURE RESULTS - SUMMARY

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
GSERU.	[CHAR 20]	GAUGE SERIAL NUMBER USED IN SUMMARY	Mandatory, Must be found in 1 raw data table	Serial number of gauge used to represent reservoir
SDGAL.M	[NUMB 10,5]	REPRESENTATIVE STOP DEPTH M CF (LOG)	Mandatory, if [TTY] (Test Type Indicator) = 03	Closest Stop/Run Depth to MPP (Representative of Reservoir), (mCF Log)
SDGAT.M	[NUMB 10,5]	REPRESENTATIVE STOP DEPTH M CF (TVD)	Mandatory, if [TTY] (Test Type Indicator) = 03 and [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal, else must be Null.	Gauge/Recorder depth (Calculated/Adjusted Depth) (in mCF TVD)
PRGA.KPAA	[NUMB 8,2]	PRESSURE AT STOP DEPTH KPAA	Mandatory, if [TTY] (Test Type Indicator) = 03	Representative Pressure at SDGAL
PRCOR.KPA	[NUMB 8,2]	PRESSURE CORRECTION	Mandatory, if [TTY] (Test Type Indicator) = 03. Can be zero. If [SDGAL] is < [TBASL] or > [TTOPL], then [PRCOR] can not be zero.	Pressure Differential from run depth to MPP used; negative values if run below MPP (kPa)
PRGC.	[CHAR 240]	COMMENT ON PRESSURE	Optional	Freeform comment of Pressure - (i.e. comparison to trend, offsets, shut-in time etc.) Data updates EUB Pressure Summary Database.
PLIND.	[CHAR 1]	PRIMARY LIQUID TYPE INDICATOR	Mandatory, if [WSFL] (Well Fluid Type at Test Date) = (01), (06) or (17). Must = (O)il, (W)ater, (C)rude Bitumen, (E)mulsion or o(T)her. If present [PLIND] (Primary Liquid Type Indicator) <> [SLIND] (Secondary Liquid Type Indicator).	Provide type of liquid encountered
SLIND.	[CHAR 1]	SECONDARY LIQUID TYPE INDICATOR	Mandatory, if [SLGR] (Secondary Liquid Gradient) > 0.00, otherwise it is Optional. If present, must = (O)il, (W)ater, (C)rude Bitumen, (E)mulsion, o(T)her, else must be NULL. If present, [PLIND] (Primary Liquid Type Indicator) <> [SLIND] (Secondary Liquid Type Indicator).	Must provide secondary type of liquid if encountered

GRADIENT WELL TEST FILE (GRD)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
GRGAS.KPA/M	[NUMB 5,3]	GAS GRADIENT USED TO CORRECT TO LIQUID LEVEL OR LOG MPP	Mandatory, if [PRPS] (Test Purpose Indicator) not = (O)ther; If [LLVL] (Liquid Level - Log) = 0, then [GRGAS] (Gas Gradient) can be zero otherwise it must be > 0.0001 and < 5.999	Estimated gradient of gas in wellbore (kPa/m)
GRLIQ.KPA/M	[NUMB 5,3]	LIQUID GRADIENT USED TO CORRECT TO LOG MPP	Mandatory, if [PRPS] (Test Purpose Indicator) not = (O)ther; If [PLIND] (Primary Liquid Type Indicator) present [GRLIQ] (Liquid Gradient used to correct to MPP) is mandatory; if [PLIND] = (O)il or (E)mulsion then [GRLIQ] must be > 1.5 and < 9.795; if [PLIND] = (W)ater then [GRLIQ] must be > 9.794 and < 15.999	(kPa/m)
PLGR.KPA/M	[NUMB 5,3]	PRIMARY LIQUID GRADIENT (LOG)	If [PLIND] (Primary Liquid Type Indicator) present, [PLGR] (Primary Liquid Gradient) is mandatory	
SLGR.KPA/M	[NUMB 5,3]	SECONDARY LIQUID GRADIENT (LOG)	If [SLIND] (Secondary Liquid Type Indicator) present, [SLGR] (Secondary Liquid Gradient) is mandatory	
PSUR.KPAA	[NUMB 8,2]	SURFACE PRESSURE	Mandatory, if [TTYT] (Test Type Indicator) = 10, 23 or 33	Corresponding casing/surface pressure at that time (kPaa)
METHC.	[CHAR 240]	METHOD OF ACOUSTIC/DEAD WEIGHT TESTER EXTRAPOLATION COMMENT	Mandatory, if [TTYT] (Test Type Indicator) = 10 or 33	Description for method of Acoustic / DWT calculation, in accordance with EUB Guide 3 and Guide 5.
LLVL.M	[NUMB 10,5]	LIQUID LEVEL M CF (LOG)	Mandatory, if [PLIND] (Primary Liquid Type Indicator) present, can be zero	Calculated Length of Gas Column , as determined by wireline or interpreted by an Acoustic Shot - in LOG/measured depth (mCF). Note: For dry gas wells, Liquid Level (or Length of Gas Column) is to be reported equal to MPP or Null. A depth of zero will be interpreted as "Liquid to Surface".
LLVT.M	[NUMB 10,5]	LIQUID LEVEL M CF (TVD)	Mandatory, if [PLIND] (Primary Liquid Type Indicator) present and if [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal. Can be zero	Calculated Length of Gas Column (or liquid level) for each shot (TVD). As determined by wireline or interpreted by an Acoustic - in TVD depth, calculated mCF. Note: See [LLVL]
PMPP.KPAA	[NUMB 8,2]	CALCULATED PRESSURE CORRECTED TO MPP (LOG)	Mandatory. Can not = 0	Calculated pressure to mid-point of tested or producing interval - in log depth, measured mKB
TRES.DEGC	[NUMB 5,2]	RESERVOIR TEMPERATURE		Reservoir temperature (DegC)
DPTS.	[CHAR 1]	ANNULAR DEPRESSION TEST INDICATOR	Mandatory, if [TTYT] (Test Type Indicator) = 10 and [PRPS] (Test Purpose Indicator) = (A)nnual. Must be either (Y)es or (N)o otherwise Null.	Flag indicating whether or not an Annular Fluid/Foam Depression test was performed, in accordance with EUB Guide 40. If DPTS = (Y). Data/information must be included within Image Attachment.

GRADIENT WELL TEST FILE (GRD)

~ DATA TABLE - GRADIENT

(DTSUM - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTSUM TABLE)

{DTSUM - Can be omitted if [TTYP] (Test Type Indicator) <> (03) or (13)}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
SDGAL.M	[NUMB 10,5]	STOP DEPTH M CF (LOG)	Mandatory, if [TTYP] (Test Type Indicator) = (03) or (13). At least 1 row in Table must report a value not = zero	Gauge/Recorder depth (Measured Depth/LOG) in mCF
SDGAT.M	[NUMB 10,5]	STOP DEPTH M CF (TVD)	Mandatory, if [TTYP] (Test Type Indicator) = (03) or (13) Mandatory and if [WTYP] (well Type Indicator) = (D)eviated or (H)orizontal, else must be Null.	Gauge/Recorder depth (Calculated Depth/TVD) in mCF
PRGA.KPAA	[NUMB 8,2]	STOP PRESSURE KPAA	Mandatory, if [TTYP] (Test Type Indicator) = (03) or (13)	Pressure measured at stop depth
GRSDL.KPAM	[NUMB 5,3]	CALCULATED GRADIENT (LOG)	Mandatory, if [TTYP] (Test Type Indicator) = (03) or (13). At least 1 row in Table must report a value not = zero	Gradient calculated at stop depth
GRSDT.KPAM	[NUMB 5,3]	CALCULATED GRADIENT (TVD)	Mandatory, if [TTYP] (Test Type Indicator) = (03) or (13) Mandatory and if [WTYP] (well Type Indicator) = (D)eviated or (H)orizontal, else must be Null.	
TGA.DEGC	[NUMB 5,2]	STOP TEMPERATURE	Mandatory, if [TTYP] (Test Type Indicator) = (03) or (13). At least 1 row in Table must report a value not = zero	Gauge temperature at each stop depth

~ DTSUM

{DTSUM - Can be omitted if [TTYP] (Test Type Indicator) <> (03) or (13)}

<u>SDGAL</u>	<u>SDGAT</u>	<u>PRGA</u>	<u>GRSDL</u>	<u>GRSDT</u>
99999.99999	99999.99999	999999.99	99.999	99.999
99999.99999	99999.99999	999999.99	99.999	99.999
99999.99999	99999.99999	999999.99	99.999	99.999

#... DTSUM - TABLE CONTINUED

<u>TGA</u>
999.99
999.99
999.99

GRADIENT WELL TEST FILE (GRD)

~ HEADER DATA - GAUGE (n)

(Gauge (n) indicates that for each subsequent Gauge (Surface and/or Bottomhole), the Header Information must be numbered accordingly.)

(GSERU (Pressure Results Summary) must match one of the reported (Representative Gauges) GSER.)

(GSERU will recognize matching Gauge Number from [DTG (n)], therefore gauge "order" is not compulsory)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
GSER.	[CHAR 20]	GAUGE SERIAL NUMBER	One Gauge must match [GSERU] (Gauge Serial Number Used in Summary)	Serial number of gauge
GTYPMM.	[CHAR 90]	GAUGE TYPE / MANUFACTURER / MODEL	Gauge Type, Manufacturer and Model must be separated with slashes.	Type of gauge used (mechanical, electronic, model), name of manufacturer and model
GRNG.KPAA	[NUMB 8,2]	MAXIMUM RECORDER RANGE KPAA		Full scale pressure range
GCAL.DAY	[YYYY MM DD]	DATE OF LAST CALIBRATION	Must be <= [FTDT] (Final Test Date/Time)	Date gauge last calibrated
GRES.	[NUMB 6,5]	RESOLUTION % OF FULL-SCALE		
GACC.	[NUMB 6,5]	ACCURACY % OF FULL-SCALE		
GONB.DAY/HR/SS	[YYYY MM DD HHHH:SS]	DATE/TIME GAUGE ON BOTTOM	Mandatory, if [TTYP] (Test Type Indicator) = (03) or (13). Must be > Spud Date and < then [GOFB] (Gauge Off Bottom)	Date/time gauge on bottom
GOFB.DAY/HR/SS	[YYYY MM DD HHHH:SS]	DATE/TIME GAUGE OFF BOTTOM	Mandatory, if [TTYP] (Test Type Indicator) = (03) or (13). Must be > [GONB] (Gauge On Bottom) and <= [FTDT] (Final Test Date/Time)	Date/time gauge off bottom

GRADIENT WELL TEST FILE (GRD)

~ DATA TABLE - GAUGE (n) ~~at least 1 table must exist if TTYP not = 10~~

(DTG (n), DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTG (n) TABLES)

{at least 1 DTG table must exist if [TTYP] (Test Type Indicator) <> 10}

{HEADER DATA AND TABLE DTG (n) CAN BE OMITTED IF SUBSEQUENT GAUGES MALFUNCTIONED}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TIME.DAY/HR/SS	[YYYY MM DD HHHH:SS]	REAL TIME	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	24 Hour clock
TCUM.HR	[NUMB 10,5]	GAUGE CUMULATIVE TIME	Mandatory, If [TTYP] (Test Type Indicator) <> (10), Can be zero.	Cumulative Time (hours)
DGAL.M	[NUMB 10,5]	DEPTH OF RECORDER M CF	Optional. If present, must be <= Total Depth of Well	Continuous/Running or Stopped Depth of Gauge, (Measured Depth/LOG) in mCF
PRGA.KPAA	[NUMB 8,2]	GAUGE PRESSURE KPAA	Mandatory, if [TTYP] (Test Type Indicator) = 03. If ([FTD] - [TISI]) >= 14 days, no edit no error. If < 14 days, then find {~Pressure Results Summary [PRGA] (Pressure at Stop Depth)}, that matches last occurrence of {DTG (n) [PRGA] (Pressure at Stop Depth)}. Once found, use corresponding [TIME] (Real Time), go back a minimum of 6 hours and use corresponding [PRGA] (Pressure at Stop Depth), subtract earliest pressure from latest and divide by number of hours, if value <= 2.5 kPa/hr, OK, else error.	Pressure measured at that interval in time
TGA.DEGC	[NUMB 5,2]	GAUGE TEMPERATURE DEGC		Temperature measured at that interval in time
GCOM.	[CHAR 240]	GENERAL COMMENT	Optional	Comment on Gauge/Events (i.e. shut-in, open-to-flow, etc.)

~ DTG (n)

TIME	TCUM	DGAL	PRGA	TGA
YYYY MM DD HHHH:SS	99999.99999	99999.99999	999999.99	999.99
YYYY MM DD HHHH:SS	99999.99999	99999.99999	999999.99	999.99
YYYY MM DD HHHH:SS	99999.99999	99999.99999	999999.99	999.99

#... DTG (n) - TABLE CONTINUED

GCOM
X(240)
X(240)
X(240)

PAS (2003-37 Update)
GRD

GRADIENT WELL TEST FILE (GRD)

~ DATA TABLE - ACOUSTIC

(DTAWS - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTAWS TABLE)

{DTAWS and entries must exist if [TTYP] (Test Type Indicator) = 10}, else can be blank

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TIME.DAY/HR/SS	[YYYY MM DD HHHH:SS]	REAL TIME	Mandatory, if [TTYP] (Test Type Indicator) = 10, must be >= Spud Date and <= Abandoned Date and <= Submission Date	24 Hour Clock
LLVL.M	[NUMB 10,5]	LIQUID LEVEL M CF (LOG)		Calculated Length of Gas Column , as determined by wireline or interpreted by an Acoustic Shot - in LOG/measured depth (mCF). Note: For dry gas wells, Liquid Level (or Length of Gas Column) is to be reported equal to MPP or Null. A depth of zero will be interpreted as "Liquid to Surface".
PSUR.KPAA	[NUMB 8,2]	SURFACE PRESSURE KPAA	Mandatory, if ([TTYP] (Test Type Indicator) = 10. If ([FTDT] (Final Test Date/Time) - [TIS] (Date/Time Well Shut-In)) < 14 days) then [PSUR] (Surface Pressure) at the last real time in the table go back 6 hours and subtract the [PSUR] [PRGA] (Pressure at Stop Depth) at that time if value is <= 2.5 kPa/hr, OK, that is <=15 ok else error.	

~ DTAWS

<u>TIME</u>	<u>LLVL.M</u>	<u>PSUR</u>
YYYY MM DD HHHH:SS	99999.99999	999999.99
YYYY MM DD HHHH:SS	99999.99999	999999.99
YYYY MM DD HHHH:SS	99999.99999	999999.99

GRADIENT WELL TEST FILE (GRD)

Test Type Codes: (TTYP)

- 03 Bottom Hole - Static Gradient
- 10 AWS - Single-Shot (Static)
- 13 Flowing Gradient
- 23 DWT (Surface Pressure Reading - Only)
- 33 DWT w/ Extrapolation (Dry Gas only)

GENERAL EDITS

ALL Mnemonic Values are Mandatory, unless otherwise noted.

"Conditional " Values will be noted as, (i.e. Mandatory, if_TTYP = 08 or 18)

Zero's are NOT acceptable unless otherwise noted.

WHERE SECTION RULES EXIST (Noted by the # Sign) THEY ARE SUPERSEDED BY INDIVIDUAL BUSINESS RULES AND EDITS

ALL INTERVAL DEPTHS (for GRD) are measured or calculated and reported in reference to (KB) Kelly Bushing Elevation

ALL GAUGE DEPTHS and/or LIQUID LEVEL Depths (for GRD) are measured or calculated and reported in reference to (CF/GRD) Casing Flange/Ground Elevation

ALL DATES must be >= Spud Date and <= Abandoned Date and <= Submission Date

KB and Ground Elevation must exist in EUB records before acceptance of test

All Depths must be less than 7,000.00 M

All Pressures must be less than 150,000.00 kPa

All Temperatures (**unless otherwise noted**) must be between -100 and 1,000°C

All Times must be less than 100,000.0 Hours

All gas production rates must be less than 100,000.00 E3M3/day

All oil and water rates must be less than 100,000.00 M3/day

If GRGAS.KPA/M (Gas Gradient) must be > 0.0001 and < 5.999

If GROIL.KPA/M (Oil Gradient) must be > 1.5 and < 9.795

If GRWTR.KPA/M (Water Gradient) must be > 9.794 and < 15.999

If Mandatory, attribute CAN NOT = ZERO unless otherwise specified.

If PRPS = (O)ther most edits on Test Data (after Well Information section) may not be edited. Exceptions (i.e Dates)

AOF / TRANSIENT WELL TEST FILE (TRG)

~ FILE VERIFICATION				
# (Information in this section is Assigned by the EUB, and Appended to the PAS file upon Acceptance / Validation via WTC-Submit procedure)				
WTCNUM	[CHAR 13]	EUB WTC Tracking ID	Will not be Blank, system will input	EUB-WTC Unique Certification number:
WTCDAT	[YYYY MM DD HHHH]	Submission/Acceptance Date	Will not be Blank, system will input	Date of WTC Verification & Acceptance
WTCSUB	[CHAR 60]	Submitter	Will not be Blank, system will input	Company whom Submitted Specific Well Test Data
COMP.	[CHAR 60]	Licensee Name	Will not be Blank, system will input	Based on Licensee

~ VERSION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PASTYPE.	[CHAR 7]	DIGITAL DATA - AOF/TRANSIENT TEST DATA	PAS-TRG	Transient Pressure and Deliverability Test, Format
UNIT.	[CHAR 1]	UNITS FLAG	(M)etric	Metric Units for EUB submission
VERS.	[NUMB 5,2]	EUB DIGITAL WELL TEST DATA	4.00	Current EUB version for ASCII test data submission

~ WELL INFORMATION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
UWI .	[CHAR 20]	UNIQUE WELL ID	UWI must be valid and exist on EUB database.	Unique Well Identifier - Bottomhole location.
DRILLEG.	[NUMB 2]	DRILLING LEG	Must be 01, 02, 03...09 (Cannot be 0 or NULL)	Drilling Leg (Event or Occurrence). Together with the UWI, this is to help define the bottom of the specific drill hole.
WLIC.	[CHAR 9]	EUB WELL LICENSE NUMBER	Well License Number must match EUB License Number for UWI	EUB Well License Number
FORM.	[CHAR 20]	FORMATION NAME		Name of the geological formation/zone
WSFL.	[NUMB 2]	WELL FLUID TYPE AT TEST DATE	Must have a valid EUB fluid code = (01) Oil, (02) Gas, (06) Water, or (17) Crude Bitumen	Type of Dominant Fluid Production/Pay (i.e. oil, gas, water)
WTYP.	[CHAR 1]	WELL TYPE INDICATOR	Must be (V)ertical, (D)eviated or (H)orizontal	Flag indicating (V)ertical, (D)eviated, or (H)orizontal Wellbore
PACKER.	[CHAR 1]	PACKER INDICATOR FLAG	Must be either (Y)es or (N)o.	Flag indicating presence of packer (Y)es, (N)o
TULD.	[CHAR 1]	TUBING IN WELL	Must be either (Y)es or (N)o.	Flag indicating Tubing in well (Y) or (N)
AFLO.	[CHAR 1]	FLOW PATH	Must be either (A)nnular, (C)asing, (T)ubing, or (B)oth - casing and tubing.	Flag indicating flow path (A)nnular, (C)asing, (T)ubing, or (B)oth casing and tubing
TUBS.MM	[NUMB 4,1]	INSIDE DIAMETER OF PRODUCTION TUBING	Mandatory, if [TULD] (Tubing in Well) = (Y)es and [AFLO] (Flow Path) = (T)ubing or (B)oth. If present must be < [PTOD] (Outside Diameter of Production Tubing)	Inside diameter of production tubing
PCID.MM	[NUMB 4,1]	INSIDE DIAMETER OF PRODUCTION CASING	Mandatory, if [AFLO] (Flow Path) = (A)nnular, (C)asing or (B)oth. If present must be > 0.00 and < 350	Inside diameter of production casing
PTOD.MM	[NUMB 4,1]	OUTSIDE DIAMETER PRODUCTION TUBING	Mandatory, if [TULD] (Tubing in Well) = (Y)es and [AFLO] (Flow Path) = (A)nnular or (B)oth/casing and tubing. If present must be < [PCID] (Inside Diameter of Production Casing)	Outside diameter of production tubing

PAS (2003-37 Update)

TRG

AOF / TRANSIENT WELL TEST FILE (TRG)

~ TEST DATA

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PRPS.	[CHAR 1]	TEST PURPOSE	Test purpose flag must be (I)Initial Test, (A)nnual Pressure, or (O)ther	(I)Initial or (A)nnual for fulfillment of Guide 40, Regulatory Testing Requirements. (O)ther indicates test conducted strictly for Licensee's own purpose, and which may not comply with a number of testing restrictions Please Note: Subsequent tests captured for Licensees own needs, but considered representative of the reservoirs (i.e. Stable and/or Interpreted), should be submitted as (A)nnual.
SERCO.	[CHAR 5]	SERVICE COMPANY CODE		Service or Wireline Company conducting test
H2SIND.	[CHAR 1]	H2S INDICATOR	Must be (Y)es or (N)o.	Flag indicating presence of Hydrogen Sulphide (H2S) gas
INTRP.	[CHAR 1]	TEST INTERPRETATION PRESENT	Must be (Y)es or (N)o.	Flag indicating whether or not Transient Analysis or Test Interpretation was performed.
TTOPL.M	[NUMB 10,5]	TEST/PROD INTERVAL TOP M KB (LOG)	[TTOPL] (Interval Top - Log) must be > 0.0 and < [TBASL] (Interval Base - Log)	Top of tested or producing interval - in log depth, measured mKB
TBASL.M	[NUMB 10,5]	TEST/PROD INTERVAL BASE M KB (LOG)	[TBASL] (Interval Base - Log) must be > 0.0 and => [TTOPL] (Interval Top - Log) and cannot be greater than Total Well Depth.	Base of tested or producing interval - in log depth, measured mKB
TTOPT.M	[NUMB 10,5]	TEST/PROD INTERVAL TOP M KB (TVD)	If [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal, then [TTOPT] (Interval Top - TVD) must be < [TTOPL] (Interval Top - Log), else if [WTYP] = (V)ertical, then [TTOPT] must = [TTOPL]	Top of tested or producing interval - in true vertical depth, calculated mKB
TBAST.M	[NUMB 10,5]	TEST/PROD INTERVAL BASE M KB (TVD)	If [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal, then [TBAST] (Interval Base - TVD) must be < [TBASL] (Interval Base - Log), else if [WTYP] = (V)ertical, then [TBAST] must = [TBASL]	Base of tested or producing interval in true vertical depth, calculated mKB
FTDT.DAY/HR	[YYYY MM DD HHHH]	FINAL TEST DATE/TIME	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	Date/time test ended
TUPS.KPAA	[NUMB 8,2]	INITIAL TUBING PRESSURE	Mandatory, if [AFLO] (Flow Path) = (T)ubing or (B)oth and [PRSTY] (Pressure Test Type) <> (34), else can be Null.	Initial Tubing Pressure (kPaa): For Build-Ups tests, the pressure at end of flow (prior to shut-in). For Drawdown tests, the static pressure prior to flow
CSPS.KPAA	[NUMB 8,2]	INITIAL CASING PRESSURE	Mandatory, if [AFLO] (Flow Path) = (A)nnular, (C)asing or (B)oth and [PRSTY] (Pressure Test Type) <> (34), else can be Null.	Initial Casing Pressure (kPaa): For Build-Ups tests, the pressure at end of flow (prior to shut-in). For Drawdown tests, the static pressure prior to flow
FTUPS.KPAA	[NUMB 8,2]	FINAL TUBING PRESSURE	Mandatory, if [AFLO] (Flow Path) = (T)ubing or (B)oth and [PRSTY] (Pressure Test Type) <> (34), else can be Null.	Final Tubing Pressure (kPaa): For Build-Ups tests, the pressure at end of the shut-in period. For Drawdown tests, the final pressure at end of drawdown period

AOF / TRANSIENT WELL TEST FILE (TRG)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
FCSPS.KPAA	[NUMB 8,2]	FINAL CASING PRESSURE	Mandatory, if [AFLO] (Flow Path) = (A)nnular, (C)asing or (B)oth and [PRSTY] (Pressure Test Type) <> (34), else can Null.	Final Casing Pressure (kPaa): For Build-Ups tests, the pressure at end of the shut-in period. For Drawdown tests, the final pressure at end of drawdown period
PFWH.KPAA	[NUMB 8,2]	FINAL FLOWING WELLHEAD PRESSURE	Mandatory, if [PRSTY] (Pressure Test Type) <> (34), else can be Null.	Measured Final Flowing pressure at the wellhead kPaa
TSUR.DEGC	[NUMB 5,2]	SURFACE TEMPERATURE DEGC	Mandatory, if ALL [SURBTM] (Gauge Location) gauges = (S)urface.	Temperature measured at wellhead during operations

~ AOF / IPR RESULTS SUMMARY

{MUST BE PRESENT IF AOFTY = (01), (02), (31), (32) or IPR (41) IF AOFTY is null - ~~do not do these edits~~, this section must be Null or can be omitted.}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
AOFTY.	[NUMB 2]	AOF TYPE	Must be Valid EUB PAS-TRG Deliverability Test Code (See Footnote). If [AOFEXT] (Extended Sandface AOF) >= 300 and [SGPTAU] (Single-Point Authorization) is Null, then [AOFTY] (AOF Type) must = 02 or 32 ; either [AOFTY] or [PRSTY] (Pressure Test Type) is mandatory (if [AOFTY] is null, then [PRSTY] is mandatory). If [AOFTY] = 31 then [AOFWH] (Stabilized Wellhead AOF) and [AOFWEX] (Extended Wellhead AOF) must be =< 21)	
SGPTAU.	[CHAR 7]	SINGLE-POINT AUTHORIZATION	Mandatory, if [AOFTY] (AOF Type) < > 02 or 32 and ([AOFEXT] (Extended Sandface AOF) or [AOF SF] (Stabilized Sanface AOF) > = 300.	Authorization Number indicating EUB Approval to conduct a Single-Point AOF with potential expected to exceed 300 10 ³ m ³ /d.
AIN.	[CHAR 1]	INLINE AOF INDICATOR FLAG	Mandatory, if [AOFTY] (AOF Type) is Present. Must be (Y)es or (N)o. If EUB records indicate "well on production" then [FTDT] (Final Test Date/Time) must >= On Production Date (OPD), else error.	Well must be tied into pipeline during operations. PRD.PAS required if Production Tester on site.
LIT.	[CHAR 1]	LIT ANALYSIS INDICATOR FLAG	Mandatory, if [AOFTY] (AOF Type) is Present. Must be (Y)es or (N)o.	Flag indicating LIT (<i>Lamiinar-Inertial-Turbulent</i>) Flow Analysis (Y)es or (N)o
QGLM.E3M3/D	[NUMB 13,4]	LAST MEASURED GAS RATE	Mandatory, if [AOFTY] (AOF Type) is Present.	(10 ³ m ³ /d). Last Measured or Extended Flowrate
QGST.E3M3/D	[NUMB 13,4]	STABILIZED GAS RATE	Mandatory, if [AOFTY] (AOF Type) is Present.	Calc Stabilized flow rate at Final Test conditions as per Regulatory Requirements (10 ³ m ³ /d)

PAS (2003-37 Update)

TRG

AOF / TRANSIENT WELL TEST FILE (TRG)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
NSF.	[NUMB 3,2]	INVERSE SLOPE AT SANDFACE	If [AOF TY] (AOF Type) = 31 then [NSF] (Inverse Slope at Sandface) must be null; If LIT = (Y)es can be null and If [AOF TY] (AOF Type) = 02 or 32 then [NSF] must be => 0.5 and <= 1.0 or if [AOF TY] = 01 or 05 then [NSF] must = 1.0.	Sandface inverse slope - "n" (should be 0.5-1.0)
AOFEXT.E3M3/D	[NUMB 13,4]	EXTENDED SANDFACE AOF	Mandatory, if [AOF TY] (AOF Type) <> 31, else must be null.	Extended Transient Sandface AOF potential (10 ³ m ³ /d)
AOFSF.E3M3/D	[NUMB 13,4]	STABILIZED SANDFACE AOF	Mandatory, if [AOF TY] (AOF Type) <> (31), else Null.	Stabilized Sandface AOF Potential (10 ³ m ³ /d)
NWH.	[NUMB 3,2]	INVERSE SLOPE AT WELLHEAD	Mandatory, if [AOF TY] (AOF Type) = (31); If [LIT] (LIT Analysis Indicator Flag) = (Y)es can be null. If [AOF TY] (AOF Type) = 02 or 32 then [NSF] must be => 0.5 and <= 1.0 or if [AOF TY] = 01 then [NWH] must = 1.0. Must be submitted if Calculated.	Wellhead inverse slope - "n" (should be 0.5-1.0).
AOFWEX.E3M3/D	[NUMB 13,4]	EXTENDED WELLHEAD AOF	Mandatory, if [AOF TY] (AOF Type) = 31. If [AOF TY] <> 31 then can be null.	Extended Transient Wellhead AOF potential (10 ³ m ³ /d)
AOFWH.E3M3/D	[NUMB 13,4]	STABILIZED WELLHEAD AOF	Mandatory, if [AOF TY] (AOF Type) = 31. If [AOF TY] <> 31 then can be null.	Stabilized Wellhead AOF potential (10 ³ m ³ /d)
QOLM.M3/D	[NUMB 13,4]	LAST MEASURED OIL RATE	Mandatory, if [AOF TY] (AOF Type) = 41 then field must be present.	(10 ³ m ³ /d)
QOST.M3/D	[NUMB 13,4]	STABILIZED OIL RATE	Optional Mandatory, if [AOF TY] (AOF Type) = 41	Calc Stabilized flow rate at Final Test conditions as per Guide 40 (m ³ /d)
IPRST.M3/D	[NUMB 13,4]	STABILIZED OIL IPR	Mandatory, if [AOF TY] (AOF Type) = 41	Stabilized inflow performance rate for oil well (m ³ /d)
IPRMAX.M3/D	[NUMB 13,4]	MAXIMUM OIL IPR (M3/D)	Mandatory, if [AOF TY] (AOF Type) = 41	Maximum inflow performance rate for oil well
PFSF.KPAA	[NUMB 8,2]	STABILIZED FLOWING SANDFACE PRESSURE	Mandatory, if [AOF TY] (AOF Type) is present, else if [AOF TY] = 31 then it can be null. else-mandatory, field must be present	(kPaa)

AOF / TRANSIENT WELL TEST FILE (TRG)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
LMPFSF.KPAA	[NUMB 8,2]	LAST MEASURED FLOWING SANDFACE PRESSURE	If [AOFTY] (AOF Type) = 31 then it can be null else mandatory	(kPaa)
PFWH.KPAA	[NUMB 8,2]	STABILIZED FLOWING WELLHEAD PRESSURE	Mandatory, if [AOFTY] (AOF Type) = 31, Must be > 0.00. If [AOFTY] <> 31, can be null.	(kPaa)
WPRE.KPAA	[NUMB 8,2]	STATIC WELLHEAD PRESSURE	Mandatory, if [AOFTY] (AOF Type) = 31, Must be > 0.00. If [AOFTY] <> 31, can be null.	(kPaa)
LMPFWH.KPAA	[NUMB 8,2]	LAST MEASURED FLOWING WELLHEAD PRESSURE	Mandatory, if [AOFTY] (AOF Type) = 31, Must be > 0.00. If [AOFTY] <> 31, can be null.	(kPaa)
PAVG.KPAA	[NUMB 8,2]	AVERAGE RESERVOIR PRESSURE AT MPP	Mandatory, if [AOFTY] (AOF Type) is present, else if [AOFTY] = 31 then it can be null. else-mandatory	(kPaa)
AOFC.	[CHAR 240]	AOF COMMENT	Optional	Freeform comment of AOF/Deliverability quality. Data updates EUB Pressure Summary Database.

AOF / TRANSIENT WELL TEST FILE (TRG)

~ DATA TABLE - PRODUCTION SUMMARY

(DTSUM - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTSUM TABLES)

{Production Summary Table must be present if [AOF TY] (AOF Type) = (01), (02), (31), (32) or IPR (41), or [PRSTY] (Pressure Test Type) = (11) else must be blank.}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
RTNUM.	[CHAR 1]	RATE NO. (1),(2)(E)XTENDED.	= <9 or 'E'	Rate Period
FDUR.HR	[NUMB 10,5]	FLOW DURATION HOURS		Hours flowed during each [RTNUM] Period
QOIL.M3/D	[NUMB 13,4]	OIL PRODUCTION RATE	Mandatory, if [WSFL] (Well Fluid Type) = (01), can be zero. If [WSFL] < (01), can be blank.	Oil rate during each Rate (RTNUM) Period (m ³ /d).—can be negative for falloff
QGAS.E3M3/D	[NUMB 13,4]	GAS PRODUCTION RATE	Mandatory, if [WSFL] (Well Fluid Type) = (02) and [PRSTY] (Pressure Test Type) < (11), THEN can not be zero. If [WSFL] < (02) or [PRSTY] = (11), can be zero or null	Gas rate during each Rate (RTNUM) Period (10 ³ m ³ /d).—can be negative for falloff
QCON.M3/D	[NUMB 13,4]	CONDENSATE PRODUCTION RATE	Can be Blank or Zero	Condensate rate during each Rate (RTNUM) Period (m ³ /d).
CONGR.M3/E-3M3	[NUMB 5,4]	CONDENSATE TO GAS RATIO	Mandatory, if [QCON] (Condensate Production Rate) present > 0.0	(m ³ /10 ⁻³ m ³)
GEQV.E3M3/D	[NUMB 13,4]	GAS EQUIVALENT OF CONDENSATE	Mandatory, if [QCON] (Condensate Production Rate) present > 0.0	(10 ³ m ³ /d)
QRGAS.E3M3/D	[NUMB 13,4]	RECOMBINED GAS PRODUCTION RATE	Mandatory, if [QCON] (Condensate Production Rate) present > 0.0	(10 ³ m ³ /d)
QWTR.M3/D	[NUMB 13,4]	WATER PRODUCTION RATE	Mandatory, can be zero	Water rate during each Rate (RTNUM) Period (m ³ /d).—can be negative for falloff

~ DTSUM

{TABLE occurs only one time. If AOF TY = 02 or 32 THEN THERE MUST BE AT LEAST 2 ROWS OF DATA IN THE TABLE}

RTNUM	FDUR	QOIL	QGAS	QCON
1.000	99999999.9999	99999999.9999	99999999.9999	99999999.9999
2.000	99999999.9999	99999999.9999	99999999.9999	99999999.9999
3.000	99999999.9999	99999999.9999	99999999.9999	99999999.9999
E	99999999.9999	99999999.9999	99999999.9999	99999999.9999

#... DTSUM - TABLE CONTINUED

CONGR	GEQV	QRGAS	QWTR
9.9999	99999999.9999	99999999.9999	99999999.9999
9.9999	99999999.9999	99999999.9999	99999999.9999
9.9999	99999999.9999	99999999.9999	99999999.9999
9.9999	99999999.9999	99999999.9999	99999999.9999

PAS (2003-37 Update)

TRG

AOF / TRANSIENT WELL TEST FILE (TRG)

~ PRESSURE RESULTS - SUMMARY

{if [PRSTY] (Pressure Test Type) = 04, 11 or 12 Summary Results Mandatory. If [PRSTY] = 05, 15, or 24 and If Null, Summary Results Optional}

MNEMONIC NAME

FIELD SIZE

DATA ELEMENT DESCRIPTION

BUSINESS RULES AND EDITS

CLARIFICATION / EXPLANATION OF MNEMONIC

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PRSTY.	[NUMB 2]	PRESSURE TEST TYPE	Must be Valid EUB PAS-TRG Well Pressure Test Code (See Footnote). Can be null if [AOFY] (AOF Type) not null. If [PRSTY] (Pressure Test Type) = 06 or 12 then [PRPS] (Test Purpose Indicator) must = (A)nnual or (O)ther.	
TISI.DAY/HR	[YYYY MM DD HHHH]	TIME/DATE WELL SHUT-IN	Must be > = spud date and < [FTDT] (Final Test Date and Time) and the Submission Date	Date/time well shut-in for final BU/FO
GSERU.	[CHAR 20]	GAUGE SERIAL NUMBER USED IN SUMMARY	Must be found in 1 raw data table	Serial number of gauge used to represent reservoir
REPMPP.KPAA	[NUMB 8,2]	REPRESENTATIVE PRESSURE AT MPP	IF [PRPS] (Test Purpose Indicator) = (A)nnual or (I)nnitial and [PRSTY] (Pressure Test Type) = (04), (11), or (14), and [INTRP] (Test Interpretation Present) = (N)o, the Transient Pressure can not build by more then 2 kPa/hr (over the last 6 hours of shut-in), else error.	Representative pressure. Key result!
PRCOR.KPAA	[NUMB 8,2]	PRESSURE CORRECTION	Mandatory, can be zero, Else If [GSERU] (Gauge Serial Number Used In Summary) matches a Representative Gauge (~DTG n) [GSER] (Gauge Serial Number), where [SURBTM] (Gauge Location) = (S)urface, then [PRCOR] must be > 0.00	Pressure Differential from run depth to MPP used; negative values if run below MPP
LMP.KPAA	[NUMB 8,2]	LAST MEASURED PRESSURE AT RUN DEPTH		Last measured reservoir pressure kPaa at selected Run Depth, representative of Reservoir (i.e. closest to mpp).
TRES.DEGC	[NUMB 5,2]	RESERVOIR TEMPERATURE		Representative reservoir temperature (DegC)
ANCO.	[CHAR 20]	COMPANY CONDUCTING ANALYSIS	Mandatory, if [INTRP] (Test Interpretation Present) = (Y)es	Name of firm that performed analysis
PEXTR.KPAA	[NUMB 8,2]	REPRESENTATIVE EXTRAP/ FALSE PRESSURE	Mandatory, if [INTRP] (Test Interpretation Present) = (Y)es. If [PRSTY] (Pressure Test Type) = (04), (11), or (14), then [PEXTR] must be = > [REPMPP] (Representative pressure at MPP), else if [PRSTY] = (06) or (12) then [PEXTR] must be <= [REPMPP].	Commonly known as P* (kPaa) at MPP
PAVG.KPAA	[NUMB 8,2]	REPRESENTATIVE AVG RESERVOIR PRESSURE AT THE WELL	Mandatory, if [INTRP] (Test Interpretation Present) = (Y)es, and [PEXTR] is Null.	Best estimate of reservoir pressure kPaa at MPP

PAS (2003-37 Update)

TRG

AOF / TRANSIENT WELL TEST FILE (TRG)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PWF.KPAA	[NUMB 8,2]	SANDFACE FLOWING PRESSURE AT SHUT-IN	Mandatory, if [INTRP] (Test Interpretation Present) = (Y)es; [PWF] (Sandface Flowing Pressure at Shut-In) cannot be >= must be < [REPMPP] (Representative pressure at MPP)	Flowing sandface pressure @ shut-in, (kPaa)
QRATE.M3/D or E3M3/D	[NUMB 13,4]	FINAL RATE PRIOR TO SHUT-IN	Mandatory, if [INTRP] (Test Interpretation Present) = (Y)es, or [PRSTY] (Pressure Test Type) = (06), (14), or (24), else can be null. Can be negative if [PRSTY] = (06 or (12), If present and [WSFL] (Well Fluid Type) = (02), then [QRATE] must be reported as (E3M3/D), else (M3/D).	Production or Injection prior to build-up or falloff. If Gas, report rate as 10³m³/d , else if Oil or Water, report as (m ³ /d.)
SKIN.	[NUMB 5,2]	CALCULATED SKIN FACTOR	Mandatory, if [INTRP] (Test Interpretation Present) = (Y)es; can be negative	Apparent WELLBORE Skin Factor
KH.MDM	[NUMB 8,2]	CALCULATED FLOW CAPACITY	Mandatory, if [INTRP] (Test Interpretation Present) = (Y)es; must be > zero	Flow capacity (e.g. use limiting KH.mD.M on composite model). millidarcy-m
PRGC.	[CHAR 240]	COMMENT ON PRESSURE	Optional	Freeform comment of Pressure - comparison to trend, offsets, shut-in time etc. Data updates EUB Pressure Summary Database.

AOF / TRANSIENT WELL TEST FILE (TRG)

~ ANALYSIS INPUT PARAMETERS

{DATA MUST BE PRESENT IF [PRSTY] (Pressure Test Type) = (11 or 12), and [PRPS] (Test Purpose Indicator) <> (O)ther

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF
PAY.M	[NUMB 10,5]	VERTICAL HEIGHT OF FORMATION M		Net pay or height of formation used in analysis
PORO.FRAC	[NUMB 4,3]	ASSUMED POROSITY FRACTION		Porosity of reservoir used in analysis
SATW.FRAC	[NUMB 3,2]	ASSUMED WATER SATURATION FRACTION	can be zero, sum of [SATW] (Assumed Water Saturation) + [SATG] (Assumed Gas Saturation) + [SATO] (Assumed Oil Saturation) must = 1	Water saturation assumed for this analysis
SATG.FRAC	[NUMB 3,2]	ASSUMED GAS SATURATION FRACTION	can be zero	Gas saturation assumed for this analysis
SATO.FRAC	[NUMB 3,2]	ASSUMED OIL SATURATION FRACTION	can be zero	Oil saturation assumed for this analysis SATO+SATG+SATW=1
HZFL.M	[NUMB 10,5]	HORIZONTAL WELL LENGTH IN FORMATION	Mandatory, if [WTYP] (Well Type) = (H)orizontal. If [WTYP] = (V)ertical, must be Null, else Optional.	Must be >0, if WTYP is horizontal
RDOIL.	[NUMB 4,3]	OIL RELATIVE DENSITY	If [WSFL] (Well Fluid Type) = 02 may be null, else must be > 0 and < 1	Oil density relative to water (unit-less)
RDGAS.	[NUMB 4,3]	GAS RELATIVE DENSITY	Mandatory, if [WSFL] (Well Fluid Type) = 02, must be > 0 and < 1	Gas density relative to air (unit-less); Recombined
RDWTR.	[NUMB 4,3]	WATER RELATIVE DENSITY	Must be >= 1	Water density relative to water (unit-less) (>1.0)
PBP.KPAA	[NUMB 8,2]	OIL BUBBLE POINT PRESSURE	If [WSFL] (Well Fluid Type) not = 01, [PBP] (Oil Bubble Point Pressure) can be null else mandatory	Bubble point pressure of oil (kPaa)
BO.RM3/M3	[NUMB 4,2]	OIL FORMATION VOLUME FACTOR	Oil Formation Volume Factor must be given if [WSFL] (Well Fluid Type) = (01) Oil.	Oil shrinkage factor from surface to reservoir conditions
RS.M3/M3	[NUMB 7,2]	OIL SOLUTION GOR	Mandatory, if [WSFL] (Well Fluid Type) = 01 (Oil); else can be null	Solution gas oil ratio
PPLV.M	[NUMB 10,5]	PUMPING LIQUID LEVEL M CF (TVD) AT TIME = ZERO	Mandatory, if [PRSTY] (Pressure Test Type) = 11 or 12 AND [WSFL] (Well Fluid Type) = 01 or 06. Optional. If present, must be < Total Depth of well.	Liquid level prior to shut-in (at time = zero). As determined by wireline or interpreted by an Acoustic - - in TVD depth, measured mCF
METHC.	[CHAR 240]	METHOD OF ACOUSTIC/DEAD WEIGHT TESTER EXTRAPOLATION COMMENT	Method of Calculation must be provided. Mandatory, if [PRSTY] (Pressure Test Type) = 11 or 12	Description pertaining to the method of Acoustic / DWT calculation, in accordance with EUB Guide 3 and Guide 5.

AOF / TRANSIENT WELL TEST FILE (TRG)

~ HEADER DATA - GAUGE (n)

(Gauge (n) indicates that for each subsequent Gauge (Surface and/or Bottomhole), the Header Information must be numbered accordingly)

(GSERU (Pressure Results Summary) must match one of the reported (Representative Gauges) GSER) and will be recognized by matching Gauge Number from [DTG (n)], therefore gauge "order" is not compulsory)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
SURBTM.	[CHAR 1]	GAUGE LOCATION	Must be (S)urface or (B)ottomhole. If [SURBTM] (Gauge Location) = (B)ottomhole, then [PRSTY] (Pressure Test Type) must = 04, 05, 06, 14, 15, 24, or 34	Flag indicating Position/Location of Gauge
GSER.	[CHAR 20]	GAUGE SERIAL NUMBER	One Gauge must match [GSERU] (Gauge Serial Number Used in Summary)	Serial number of gauge
GTYPM.	[CHAR 90]	GAUGE TYPE / MANUFACTURER / MODEL	Gauge Type, Manufacturer and Model must be separated with slashes.	Type (mechanical, electronic, model), manufacturer, and model, of gauge used, for source data
GRNG.KPAA	[NUMB 8,2]	MAXIMUM RECORDER RANGE		Full scale pressure range of source gauge (kPaa)
GCAL.DAY	[YYYY MM DD]	DATE OF LAST CALIBRATION	Must be <= [FTDT] (Final Test Date/Time)	Date source gauge last calibrated
GRES.	[NUMB 6,5]	RESOLUTION % OF FULL-SCALE		Published resolution of source gauge
GACC.	[NUMB 6,5]	ACCURACY % OF FULL-SCALE		Published accuracy of source gauge
RDGAL.M	[NUMB 10,5]	GAUGE RUN DEPTH M CF (LOG)	If [SURBTM] (Gauge Location) = (S)urface, then [RDGAL] must = 0	Source gauge final stop depth, (Measured Depth/LOG) in mCF
GONB.DAY/HR/SS	[YYYY MM DD HHHH:SS]	DATE/TIME GAUGE ON BOTTOM OR SURFACE RECORDINGS BEGIN	Must be > Spud Date and < then [GOFB] (Gauge Off Bottom or Surface Recordings Cease)	Date/time source gauge on bottom
GOFB.DAY/HR/SS	[YYYY MM DD HHHH:SS]	DATE/TIME GAUGE OFF BOTTOM OR SURFACE RECORDINGS CEASE	Must be > [GONB] (Gauge On Bottom or Surface Recordings Begin) and <= [FTDT] (Final Test Date/Time)	Date/time source gauge off bottom

~ DATA TABLE - GAUGE (n)

(DTG (n), DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTG (n) TABLES)

{at least 1 DTG table must exist if [PRSTY] (Pressure Test Type) = (04), (05), (06), (14), (15), (24), or (34)}

{HEADER DATA AND TABLE DTG (n) CAN BE OMITTED IF SUBSEQUENT GAUGES MALFUNCTIONED}

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TIME.DAY/HR/SS	[YYYY MM DD HHHH:SS]	REAL TIME	Must be >= Spud Date and <= Abandoned Date and <= Submission Date	24 Hour clock
TCUM.HR	[NUMB 10,5]	GAUGE CUMULATIVE TIME	Can be zero.	Cumulative Time (hours)
PRGA.KPAA	[NUMB 8,2]	GAUGE PRESSURE		Pressure measured at that interval in time (kPaa)
TGA.DEGC	[NUMB 5,2]	GAUGE TEMPERATURE		Temperature measured at that interval in time (DegC)
GCOM.	[CHAR 240]	COMMENT - GENERAL	Optional	Comment on gauge/events (i.e. SI, open to flow, etc.)

~ DTG (n)

<u>TIME</u>	<u>TCUM</u>	<u>PRGA</u>	<u>TGA</u>	<u>GCOM</u>
YYYY MM DD HHHH:SS	99999.99999	999999.99	999.99	X (240)
YYYY MM DD HHHH:SS	99999.99999	999999.99	999.99	X (240)
YYYY MM DD HHHH:SS	99999.99999	999999.99	999.99	X (240)

PAS (2003-37 Update)

TRG

AOF / TRANSIENT WELL TEST FILE (TRG)

~ DATA TABLE ACOUSTIC

~ (DTAC - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTAC TABLE)

{DATA TABLE AND ENTRIES MUST EXIST IF [PRSTY] (Pressure Test Type) = 11 or 12}

MNEMONIC NAME

FIELD SIZE

DATA ELEMENT DESCRIPTION

BUSINESS RULES AND EDITS

CLARIFICATION / EXPLANATION OF MNEMONIC

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
TIME.DAY/HR/SS	[YYYY MM DD HHHH:SS]	REAL TIME	If [PRSTY] (Pressure Test Type) = 11 or 12, then must be >= Spud Date and <= Abandoned Date and <= Submission Date	24 Hour clock
ETIME.HR	[NUMB 10,5]	ELAPSED TIME	Can be zero	Elapsed time from start of test
LLVL.M	[NUMB 10,5]	LIQUID LEVEL M CF (LOG)		Calculated Length of Gas Column , as determined by wireline or interpreted by an Acoustic Shot - in LOG/measured depth (mCF). Note: For dry gas wells, Liquid Level (or Length of Gas Column) is to be reported equal to MPP or Null. A depth of zero will be interpreted as "Liquid to Surface".
LLVT.M	[NUMB 10,5]	LIQUID LEVEL M CF (TVD)	Mandatory, if [WTYP] (Well Type) = (D)eviated or (H)orizontal. If [WTYP] = (V)ertical, then [LLVT] can be null or = [LLVL]	Calculated Length of Gas Column (or liquid level) for each shot (TVD). As determined by wireline or interpreted by an Acoustic - in TVD depth, calculated mCF. Note: See [LLVL]
PSUR.KPAA	[NUMB 8,2]	SURFACE PRESSURE		Measured casing/surface pressure at corresponding point of time (kPaa)
GRGAS.KPA/M	[NUMB 5,3]	GAS GRADIENT (TVD)	Mandatory, if [LLVL] (Liquid Level - Log) > 0.0 or null. Then must appear at least once per table.	Estimated gradient of gas in wellbore
GROIL.KPA/M	[NUMB 5,3]	OIL GRADIENT (TVD)	Mandatory, if [WSFL] (Well Fluid Type) = (01) or (17). Then must appear at least once per table	Estimated gradient of oil in wellbore
GRWTR.KPA/M	[NUMB 5,3]	WATER GRADIENT (TVD)	Mandatory, if [QWTR] (water Production Rate) > 0.0. Then must appear at least once per table	Estimated gradient of water in wellbore
PMPPT.KPAA	[NUMB 8,2]	CALCULATED PRESSURE AT MPP (TVD)		Calculated using above parameters at corresponding point in time

PAS (2003-37 Update)

TRG

AOF / TRANSIENT WELL TEST FILE (TRG)

~DTAC

<u>TIME</u>	<u>ETIME</u>	<u>LLVL</u>	<u>LLVT</u>	<u>PSUR</u>
YYYY MM DD HHHH:SS	99999.99999	99999.99999	99999.99999	999999.99
YYYY MM DD HHHH:SS	99999.99999	99999.99999	99999.99999	999999.99
YYYY MM DD HHHH:SS	99999.99999	99999.99999	99999.99999	999999.99

#... DTAC - TABLE CONTINUED

<u>GRGAS</u>	<u>GROIL</u>	<u>GRWTR</u>	<u>PMPPT</u>
99.999	99.999	99.999	999999.99
99.999	99.999	99.999	999999.99
99.999	99.999	99.999	999999.99

~ DATA TABLE - INLINE RATE AND PRESSURE SUMMARY

~ (DTINRPR - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTINRPR TABLE)

(DTINRPR) DATA ENTRIES MUST EXIST IF INTRP = (Y) or AOFTY not Null

If AIN (INLINE AOF INDICATOR FLAG) = (Y)yes, then last line of [ITIME] (Incremental Hours) must >= 330 and there must be a minimum of 28 data lines in the table

MNEMONIC NAME FIELD SIZE DATA ELEMENT DESCRIPTION BUSINESS RULES AND EDITS CLARIFICATION / EXPLANATION OF MNEMONIC

PRGA.KPAA	[NUMB 8,2]	GAUGE PRESSURE		Pressure (can be null for time before recorded data)
ITIME.HR	[NUMB 10,5]	INCREMENTAL HOURS	can be negative	Elapsed time (can be negative for rates prior to recorded pressure data)
QGAS.E3M3/D	[NUMB 13,4]	GAS PRODUCTION RATE	If [QOIL] (Oil Production Rate) > 0.00, can be null or zero	Gas rate used for the transient analysis (can be null between rate change)
QOIL.M3/D	[NUMB 13,4]	OIL PRODUCTION RATE	If [QGAS] (Gas Production Rate) > 0.00, can be null or zero	Oil rate used for the transient analysis (can be null between rate changes)
QWTR.M3/D	[NUMB 13,4]	WATER PRODUCTION RATE	can be null or zero	Water rate used for the transient analysis (can be null between rate changes)
GENC.	[CHAR 240]	GENERAL COMMENT	Optional	General free form comment?

~ DTINRPR

<u>PRGA</u>	<u>ITIME</u>	<u>QGAS</u>	<u>QOIL</u>	<u>QWTR</u>
999999.99	99999.99999	999999999.9999	999999999.9999	999999999.9999
999999.99	99999.99999	999999999.9999	999999999.9999	999999999.9999
999999.99	99999.99999	999999999.9999	999999999.9999	999999999.9999

#... DTINRPR - TABLE CONTINUED

<u>GENC</u>
X (240)
X (240)
X (240)

PAS (2003-37 Update)

TRG

AOF / TRANSIENT WELL TEST FILE (TRG)

Test Type Codes:

PRSTY

- 04 Bottom Hole - Build-Up (BU Only)
- 05 Bottom Hole - Segregation
- 06 Bottom Hole - Fall-Off
- 11 AWS - Build-Up (Transient)
- 12 AWS - Fall-Off (Transient)
- 14 Flow and Build-Up
- 15 Bottom Hole - Interference
- 24 Drawdown (only)
- 34 Sentry (Permanent Downhole Recorder/Pziometer)

AOFTY

- 01 Single-Point (AOF)
- 02 Multi-Point (AOF)
- 31 AOF - Wellhead Only (not calculated to Bottomhole conditions)
- 32 AOF - Theoretical Multi-Point
- 41 IPR - (Oil Well Only)

GENERAL EDITS

ALL Mnemonic Values are Mandatory, unless otherwise noted.

"Conditional" Values will be noted as, (i.e. Mandatory, if TTYP = 08 or 18)

Zero's are NOT acceptable unless otherwise noted.

WHERE SECTION RULES EXIST (Noted by the # Sign) THEY ARE SUPERSEDED BY INDIVIDUAL BUSINESS RULES AND EDITS

ALL INTERVAL DEPTHS (for TRG) are measured or calculated and reported in reference to (KB) Kelly Bushing Elevation

ALL GAUGE DEPTHS and/or LIQUID LEVEL Depths (for TRG) are measured or calculated and reported in reference to (CF/GRD) Casing Flange/Ground Elevation

ALL DATES (**unless otherwise noted**) must be >= Spud Date and <= Abandoned Date and <= Submission Date

All Depths must be less than 7,000.00 M

All Pressures must be less than ~~99,999.00~~ 150,000 kPa

All Temperatures (**unless otherwise noted**) must be between -100 and 1,000°C

All Times must be less than 100,000.0 Hours

All gas production rates must be less than 100,000.00 E3M3/day

All oil and water rates must be less than 100,000.00 M3/day

If GRGAS.KPA/M (Gas Gradient) must be > 0.0001 and < 5.999

If GROIL.KPA/M (Oil Gradient) must be > 1.5 and < 9.795

If GRWTR.KPA/M (Water Gradient) must be > 9.794 and < 15.999

If [PRSTY] (Pressure Test Type) < > 34 (Permanent Downhole Gauge), then an **Image File** (i.e. TIF/PDF) ~~is NOT mandatory else it~~ IS MANDATORY

If PRPS = (O)ther, most edits on Test Data (after Well Information section) may not be edited. Exceptions (i.e Dates)

**NORMALIZED INFLOW CAPABILITY TEST FILE
(NIC)**

~ FILE VERIFICATION				
# (Information in this section is Assigned by the EUB, and Appended to the PAS file upon Acceptance / Validation via WTC-Submit procedure)				
WTCNUM	[CHAR 13]	EUB-WTC Tracking ID	Will not be Blank, system will input	EUB-WTC Unique Certification number
WTCDAT	[YYYY-MM-DD HHHH]	Submission/Acceptance Date	Will not be Blank, system will input	Date of WTC Verification & Acceptance
WTCSUB	[CHAR 60]	Submitter	Will not be Blank, system will input	Company whom Submitted Specific Well Test Data
COMP.	[CHAR 60]	Licensee Name	Will not be Blank, system will input	Based on Licensee

~ VERSION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
PASTYPE	[CHAR 7]	DIGITAL DATA - NORMALIZED INFLOW CAPABILITY	PAS-NIC	Normalized Inflow Capability, for any New Completion. As per General Bulletin 2003-21, Commingling Notification Forms (App-Res-01-2003-04, for Gas) and (App-Res-02-2003-04, for Oil)
UNIT.	[CHAR 1]	UNITS FLAG	(M)etric	Metric Units for EUB submission
VERS.	[NUMB 5,2]	EUB DIGITAL WELL TEST DATA	4.00	Current EUB version for ASCII test data submission

~ WELL INFORMATION

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
UWI.	[CHAR 20]	UNIQUE WELL ID	UWI must be valid and exist on EUB database.	Unique Well Identifier - Bottomhole location.
DRILLEG.	[NUMB 2]	DRILLING LEG	Must be 01, 02, 03...09 (Cannot be 0 or NULL)	Drilling Leg (Event or Occurrence). Together with the UWI, this is to help define the bottom of the specific drill hole.
WLIC.	[CHAR 9]	EUB WELL LICENSE NUMBER	Well License Number must match EUB License Number for UWI	EUB Well License Number

**NORMALIZED INFLOW CAPABILITY TEST FILE
(NIC)**

~TEST DATA

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
FTDT.DAY/HR	[YYYY MM DD HHHH]	TEST FINAL DATE/TIME	Must be >= Spud Date and <= submission date	Date/time test ended
H2SIND	[CHAR 1]	H2S INDICATOR	Must be (Y)es or (N)o.	Flag indicating presence of Hydrogen Sulphide (H2S) gas
TTOPL.M	[NUMB 10,5]	TEST/PROD. INTERVAL TOP M.KB (LOG)	[TTOPL] (Interval Top - Log) must be > 0.0 and < [TBASL] (Interval Base - Log)	Top of tested or producing interval - in log depth, measured mKB
TBASL.M	[NUMB 10,5]	TEST/PROD. INTERVAL BASE M.KB (LOG)	[TBASL] (Interval Base - Log) must be > 0.0 and => [TTOPL] (Interval Top - Log) and cannot be greater than Total Well Depth.	Base of tested or producing interval - in log depth, measured mKB
TTOPT.M	[NUMB 10,5]	TEST/PROD. INTERVAL TOP M.KB (TVD)	If [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal, then [TTOPT] (Interval Top - TVD) must be < [TTOPL] (Interval Top - Log), else if [WTYP] = (V)ertical, then [TTOPT] must = [TTOPL]	Top of tested or producing interval - in true vertical depth, calculated mKB
TBAST.M	[NUMB 10,5]	TEST/PROD. INTERVAL BASE M.KB (TVD)	If [WTYP] (Well Type Indicator) = (D)eviated or (H)orizontal, then [TBAST] (Interval Base - TVD) must be < [TBASL] (Interval Base - Log), else if [WTYP] = (V)ertical, then [TBAST] must = [TBASL]	Base of tested or producing interval - in true vertical depth, calculated mKB

~ DATA TABLE - NORMALIZED INFLOW CAPABILITY

(DTNIC - DEFINITIONS AND DESCRIPTIONS IN ASSOCIATION WITH DTNIC TABLE)

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
MIDTVD.M	[NUMB 10,5]	MID-POINT OF INTERVAL TESTED (TVD)	[MIDTVD] must be < [TTOPT] (Interval Top - TVD) and < [TBAST] (Interval Base - TVD)	Mid-point of specific interval tested. MIDTVD must correspond with FORMN.
FLOWTYP	[CHAR 1]	FLOW TYPE INDICATOR	Mandatory, must be (G)as or (O)il or (W)ater	
AVRATE.E3M3/D or M3/D	[NUMB 13,4]	AVERAGE FLOW RATE	If [FLOWTYP] (Flow Type Indicator) = (G)as, then [AVRATE] must be in (e3m3/d), and If [FLOWTYP] = (O)il or (W)ater, then [AVRATE] must be in (m3) Cubic Metres	(103m3/d or m3/d)
FDUR.HR	[NUMB 10,5]	FLOW DURATION HOURS		
QVOL.E3M3 or M3	[NUMB 13,4]	TOTAL FLOW VOLUME	If [FLOWTYP] (Flow Type Indicator) = (G)as, then [QVOL] must be in (e3m3). If [FLOWTYP] = (O)il or (W)ater, then [QVOL] must be in (m3) Cubic Metres	(103m3/d or m3/d)
NIC.E3M3/D or M3/D	[NUMB 13,4]	NORMALIZED INFLOW CAPABILITY	If [FLOWTYP] (Flow Type Indicator) = (G)as, then [NIC] must be in (e3m3/d). If [FLOWTYP] = (O)il or (W)ater, then [NIC] must be in (m3) Cubic Metres	(103m3/d or m3/d)

**NORMALIZED INFLOW CAPABILITY TEST FILE
(NIC)**

# MNEMONIC NAME	FIELD SIZE	DATA ELEMENT DESCRIPTION	BUSINESS RULES AND EDITS	CLARIFICATION / EXPLANATION OF MNEMONIC
QRATE.E3M3/D or M3/D	[NUMB 13,4]	FLOW RATE	If [FLOWTYP] (Flow Type Indicator) = (G)as, then [QRATE] must be in (e3m3/d). If [FLOWTYP] = (O)il or (W)ater, then [QRATE] must be in (m3) Cubic Metres-	(103m3/d or m3/d)
PRGA.KPAA	[NUMB 8,2]	GAUGE PRESSURE		Pressure measured at that interval in time (kPaa)
NICPWF.KPAA	[NUMB 8,2]	SANDFACE FLOWING PRESSURE		Flowing sandface pressure
FORMN.	[CHAR 20]	FORMATION NAME		Name of the geological formation/zone. Name must correspond with MIDTVD.
COMM.	[CHAR 240]	COMMENT - PRODUCTION DATES		Specific months and year of production data

~DTNIC

<u>MIDTVD</u>	<u>FLOWTYP</u>	<u>AVRATE</u>	<u>FDUR</u>	<u>QVOL</u>
99999.99999	x	999999999.9999	99999.99999	999999999.9999
99999.99999	x	999999999.9999	99999.99999	999999999.9999
99999.99999	x	999999999.9999	99999.99999	999999999.9999
99999.99999	x	999999999.9999	99999.99999	999999999.9999

#...DTNIC - TABLE CONTINUED

<u>NIC</u>	<u>QRATE</u>	<u>PRGA</u>	<u>NICPWE</u>	<u>FORMN</u>
999999999.9999	999999999.9999	999999.99	999999.99	x (20)
999999999.9999	999999999.9999	999999.99	999999.99	x (20)
999999999.9999	999999999.9999	999999.99	999999.99	x (20)
999999999.9999	999999999.9999	999999.99	999999.99	x (20)

#...DTNIC - TABLE CONTINUED

<u>GGOM</u>
X (50)
X (50)
X (50)

**NORMALIZED INFLOW CAPABILITY TEST FILE
(NIC)**

The Normalized Inflow Capability (NIC) for any new completion in a pool must be calculated in accordance with the procedures noted in Guide 65, using the following formula's	
Commingling of GAS Production App-Res-01-2003-04	$NIC = q * Psi^2 / (Psi^2 - Pwf^2), \quad [where]:$ <p>NIC = normalized inflow capability ($10^3 \text{ m}^3/d$) q = final top hole flow rate ($10^3 \text{ m}^3/d$) Psi = final bottomhole pressure (kilopascals absolute [kPaa]) Pwf = final bottomhole flowing pressure</p>
Commingling of OIL Production App-Res-02-2003-04	$NIC = q * Psi / (Psi - Pwf), \quad [where]:$ <p>NIC = normalized inflow capability (m^3/d) q = final top hole flow rate (m^3/d) Psi = final bottomhole pressure (kilopascals absolute [kPaa]) Pwf = final bottomhole flowing pressure</p>

GENERAL EDITS

- # WHERE SECTION RULES EXIST (Noted by the # Sign) THEY ARE SUPERSEDED BY INDIVIDUAL BUSINESS RULES AND EDITS
- ALL Depths (for WAN) are measured and reported in reference to (KB) Kelly Bushing Elevation
- ALL DATES must be >= Spud Date and <= Abandoned Date and <= Submission Date
- All Depths must be less than 7,000.00 M
- All Pressures must be less than 99,999.00 kPa
- All gas production rates must be less than 100,000.00 E3M3/day
- All oil and water rates must be less than 100,000.00 M3/day

This PAS file does not replace the current Regulatory Requirement for Testing Oil or Gas wells, in accordance with EUB Guide 40.