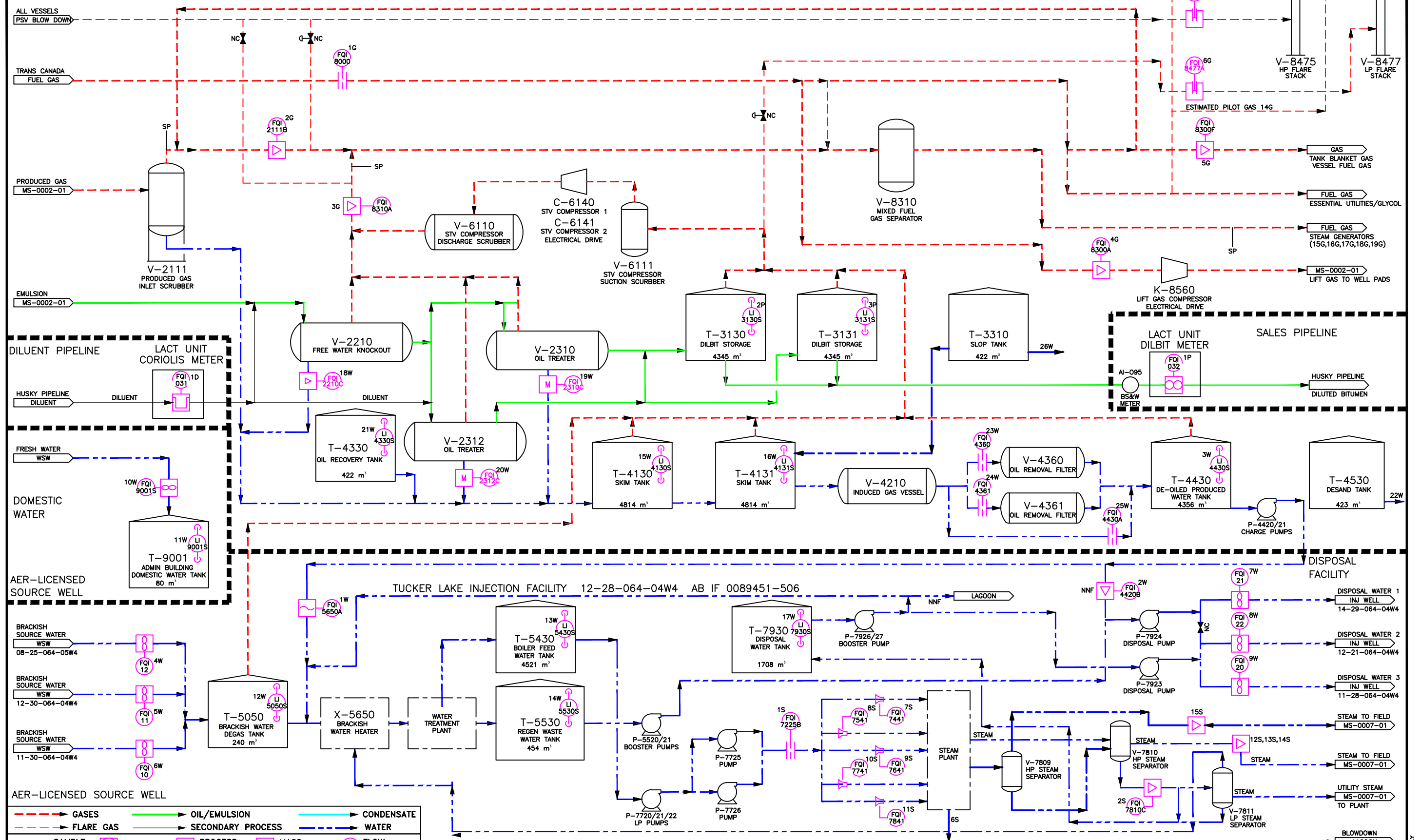




TUCKER LAKE CRUDE BITUMEN BATTERY 12-28-064-04W4  
AB BT 0089133 -344 HUSKY OIL OPERATIONS LTD



Husky Oil Operations Limited

TUCKER CENTRAL PLANT 12-28-064-04W4

FACILITY DRAWING  
MEASUREMENT SCHEMATIC

CAD DRAWING: DO NOT CHANGE MANUALLY

OIL & DILUENT METERING

LABEL	TAG	P&ID#	DESCRIPTION
1P	FQI032		LACT DILBIT SALES FLOW TOTALIZER
2P	LJ3130S	30MF02	DILBIT STORAGE TANK VOLUME
3P	LJ3131S	30MF03	DILBIT STORAGE TANK VOLUME
1D	FQI031	30MF01	DILUENT TO PLANT FLOW TOTALIZER
2D			DILUENT FLASH VOLUME LOSS (CALCULATED)
3D			DILUENT SHRINKAGE VOLUME (CALCULATED)

OIL PRODUCTION TOTAL = (PIPELINE METER ± INVENTORY CHANGE)–NET DILUENT VOLUME ADDED+(SHRINKAGE AND FLASH VOLUME LOSS)  
(1P\*(1–(AI–095/100)))+(2P+3P)–1D+(2D+3D)

NOTE: OIL VOLUMES REPORTED TO THE AER ARE CORRECTED FOR SHRINKAGE AND FLASH IN ACCORDANCE WITH DIRECTIVE 17 SECTION 14.3 BY PRODUCTION ACCOUNTING

NOTE: AI–095 MEASURES SALES BS&W

GAS METERING

LABEL	TAG	P&ID#	DESCRIPTION
1G	FQI8000	80MF16	TCPL PURCHASED GAS FLOW TOTALIZER
2G	FQI2111B	20MF01	GAS FROM FIELD FLOW TOTALIZER
3G	FQI8310A	80MF18	FWKO/TREATER/STVR GAS FLOW TOTALIZER
4G	FQI8300A	80MF16	GAS TO FIELD FACILITIES, LIFT GAS, TEST SEPARATORS, (CFF SEPARATOR) FLOW TOTALIZER
5G	FQI8300F	80MF21	TANKAGE BLANKET GAS, VESSEL FUEL GAS FLOW TOTALIZER
6G	FQI8477A	80MF26	LP FLARE METER FLOW TOTALIZER
7G	FQI8440	80MF26	HP FLARE METER FLOW TOTALIZER
10G			PURGE GAS TO FLARE SYSTEM MEASURED BY 6G AND 7G

PRODUCED GAS = GAS FROM FIELD–GAS TO FIELD+ FWKO/TREATER/STVR GAS– TANKAGE BLANKET GAS, VESSEL FUEL GAS+ LP FLARE GAS  
= 2G–4G+3G–5G+6G

FLARED GAS = FLARE STACK METER TOTAL–FLARE SYSTEM PURGE GAS  
= (6G+7G)–10G

FUEL GAS = PURCHASED GAS+PRODUCED GAS–FLARED GAS  
= 1G+PRODUCED GAS–FLARED GAS

VENT GAS – THE TUCKER FACILITY WAS DESIGNED TO CAPTURE ALL GAS SOURCES FOR USE AS FUEL  
IN THE EVENT GAS IS VENTED TO ATMOSPHERE THE VOLUME WILL BE ESTIMATED USING GENERALLY ACCEPTED  
ENGINEERING PRACTICE

NOTE: IF THE STVR COMPRESSOR IS NOT OPERATIONAL, TANKAGE PRODUCED GAS IS METERED BY 6G

STEAM METERING

LABEL	TAG	P&ID#	DESCRIPTION
1S	FQI7225B	70MF03	HIGH PRESSURE BFW PUMPS TO OTSG FLOW TOTALIZER
2S	FQI7810C	70MF09	HIGH PRESSURE STEAM CONDENSATE FLOW TOTALIZER
6S			BLOWDOWN WATER TO LAGOONS DURING GENERATOR START UP AND SHUT DOWN
7S	FQI7441	70MF04A	GENERATOR B–7400 FEED WATER FLOW TOTALIZER
8S	FQI7541	70MF05A	GENERATOR B–7500 FEED WATER FLOW TOTALIZER
9S	FQI7641	70MF06A	GENERATOR B–7600 FEED WATER FLOW TOTALIZER
10S	FQI7741	70MF07A	GENERATOR B–7700 FEED WATER FLOW TOTALIZER
11S	FQI7841	70MF08A	GENERATOR B–7800 FEED WATER FLOW TOTALIZER
12S	PADA_STM_INJ		STEAM TO PAD A FLOW TOTALIZER
13S	PADB_STM_INJ		STEAM TO PAD B FLOW TOTALIZER
14S	PADC_STM_INJ		STEAM TO PAD C FLOW TOTALIZER
15S	PADGA_STM_INJ		STEAM TO PAD GRAND RAPIDS FLOW TOTALIZER

STEAM TO FIELD

METHOD 1 – PRIMARY STEAM TO FIELD  
= BOILER FEED WATER–STEAM SEPARATOR CONDENSATE–BLOW DOWN TO LAGOON  
= 1S–2S–6S

METHOD 2 – SECONDARY STEAM TO FIELD  
= ≥(BOILER FEED TO GENERATORS – STEAM SEPARATOR CONDENSATE – BLOWDOWN TO LAGOON)  
= (7S + 8S + 9S + 10S + 11S) – 2S – 6S  
OR:  
= ≥(STEAM TO PAD A + STEAM TO PAD B + STEAM TO PAD C + STEAM TO GRAND RAPIDS PAD)  
= 12S + 13S + 14S + 15S

NOTE 1: BLOWDOWN TO THE LAGOON DURING START UP AND SHUT DOWN IS ESTIMATED USING METERS 7S, 8S, 9S, 10S, AND 11S  
NOTE 2: THE WELL TOE AND HEEL STEAM METERS ON EACH PAD ARE IDENTIFIED ON MEASUREMENT SCHEMATICS MS–0007–01

WATER METERING

LABEL	TAG	P&ID#	DESCRIPTION
1W	FQI5650A	50MF01	PRODUCED WATER TO WLS
2W	FQI4420B	40MF11	PRODUCED WATER TO DISPOSAL
3W	LI4430S	40MF10	DE–OILED PRODUCED WATER TANK INVENTORY
4W	FQI12	A1–3319–B–101	08–25–064–05W4 BASCAL MCMURRAY WATER SOURCE FLOW TOTALIZER
5W	FQI11	A1–3319–B–102	12–30–064–04W4 BASCAL MCMURRAY WATER SOURCE FLOW TOTALIZER
6W	FQI10	A1–3319–B–103	11–30–064–05W4 BASCAL MCMURRAY WATER SOURCE FLOW TOTALIZER
7W	FQI21	A1–3319–B–001	14–29–064–04W4 DISPOSAL WELL FLOW TOTALIZER
8W	FQI22	A1–3319–B–001	12–21–064–04W4 DISPOSAL WELL FLOW TOTALIZER
9W	FQI20	A1–3319–B–001	11–28–064–04W4 DISPOSAL WELL FLOW TOTALIZER
10W	FQI9001S	N/A	DOMESTIC WATER FLOW TOTALIZER
11W	LI9001S	N/A	DOMESTIC WATER TANK INVENTORY
12W	LI5050S	80MF33	BRACKISH WATER TANK INVENTORY
13W	LI5430S	50MF06	BOILER FEED WATER TANK INVENTORY
14W	LI5530S	50MF17	REGEN DISPOSAL WATER INVENTORY
15W	LI4130S	40MF01	SKIM TANK INVENTORY
16W	LI4131S	40MF02	SKIM TANK INVENTORY
17W	LI7930S	70MF09	DISPOSAL WATER TANK INVENTORY
18W	FQI2210C	20MF04	FREE WATER KNOCKOUT TO SKIM TANK FLOW TOTALIZER
19W	FQI2310C	20MF06	OIL TREATER V–2310 TO SKIM TANK FLOW TOTALIZER
20W	FQI2312C	20MF07	OIL TREATER V–2312 TO SKIM TANK FLOW TOTALIZER
21W	LI4330S	40MF12	OIL RECOVERY TANK INVENTORY
22W		40MF04	TRUCKED VOLUMES REMOVED OR ADDED TO THE PROCESS (DESAND TANK)
23W	FQI4360	40MF08	PRODUCED WATER TO ORF V–4360
24W	FQI4361	40MF09	PRODUCED WATER TO ORF V–4361
25W	FQI4430A	40MF09	PRODUCED WATER TO ORF BYPASS
26W		30MF05	TRUCKED VOLUMES REMOVED OR ADDED TO THE PROCESS (SLOP TANK)

PRODUCED WATER

METHOD 1 – PRIMARY PRODUCED WATER MEASUREMENT  
=PRODUCED WATER TO ORF ± CHANGE IN PRODUCED WATER INVENTORY + WATER TRUCKED OUT + WATER PIPELINED OUT  
=(23W+24W+25W) ± CHANGE IN PRODUCED WATER INVENTORY (15W+16W+21W) + 22W + 26W + (1P\*(AI–095/100))

NOTE 1: SLUDGE RECYCLE FLUSH COMES OFF UPSTREAM 1W THAT WILL NOT BE ACCOUNTED WHEN FLUSHING  
NOTE 2: PUMP SEAL FLUSH ESTIMATED AS 24m<sup>3</sup>/DAY/PUMP. TOTAL ESTIMATED VOLUME OF SERVICE WATER ADDED TO PRODUCED  
WATER 100m<sup>3</sup>/DAY

METHOD 2 – SECONDARY PRODUCED WATER MEASUREMENT  
=PRODUCED WATER TO WLS + PRODUCED WATER TO DISPOSAL ± CHANGE IN PRODUCED WATER INVENTORY + WATER TRUCKED OUT +  
WATER PIPELINED OUT  
=1W + 2W + CHANGE IN PRODUCED WATER INVENTORY (15W+16W+21W) + 22W + 26W + (IP\*(AI–095/100))

PROPOSED PRODUCED WATER MEASUREMENT

=FREE WATER KNOCKOUT WATER + OIL TREATER PRODUCED WATER + WATER PIPELINED OUT = 18W + 19W+ 20W + (1P \* (AI–095/100))

WATER USE

BRACKISH WATER DRAW = 4W+5W+6W

WATER DISPOSAL

TOTAL INJECTION WELL WATER DISPOSAL = 7W+8W+9W

PRODUCED WATER INVENTORY (BT)

BATTERY FACILITY WATER INVENTORY= 3W+15W+16W+21W


PRODUCED WATER INVENTORY (IF)

INJECTION FACILITY WATER INVENTORY= 12W+13W+14W+17W

ALBERTA ENVIRONMENT

DOMESTIC WATER DRAW = 10W  
DOMESTIC WATER INVENTORY = 11W

NOTE 1: LABELLED METERS ARE USED FOR AER AND ALBERTA ENVIRONMENT REPORTING

REF DWG NO	REFERENCE DRAWING DESCRIPTION	NO	REVISION HISTORY	REV AUTHOR	REV DATE	ISSUED FOR	NO	CURRENT REVISION	ISSUED FOR AS BUILT
MS–0000–01	AREA OVERVIEW	8	UPDATED PER MARK–UPS FROM ALLYSON HADLAND	DMM	2013/06/07	AS BUILT	10	UPDATED FROM MARK UPS SUPPLIED BY ALLYSON HADLAND	DOC DATE 2015/02/24
MS–0001–01	FACILITY DRAWING	2	NO UPDATES FOR THIS REVISION FROM ALLYSON HADLAND	SK	2014/08/20	AS BUILT			
MS–0002–01 TO 05	GATHERING SYSTEM	3	UPDATED FROM FIELD SUPPLIED MARK UPS	BRM	2009/09/01	AS BUILT			
MS–0007–01	STEAM INJECTION SYSTEM	4	UPDATED PER FIELD SUPPLIED MARK UPS	DRM	2009/09/01	AS BUILT			
MS–0010–01	LACT UNIT	5	UPDATED PER FIELD SUPPLIED MARK UPS	DMM	2010/09/21	AS BUILT			
		6	UPDATED PER FIELD MARK UPS BY JAMIE BETTS – FQI–7810C	WDA	2012/01/06	AS BUILT			
		7	UPDATED PER FIELD MARK UPS SUPPLIED BY JAMIE BETTS	BRM	2012/06/04	AS BUILT	TUCKER CENTRAL PLANT 12–28–064–04W4		
FACILITY DRAWING MEASUREMENT SCHEMATIC									SURFACE L&D 12–28–064–04W4
									DOCUMENT IDENTIFIER MS–0001–02

AB BT 0089133

WELL PAD A ORIGINAL

WELL NAME	UWI	LSD	LIC/OPER	DETAIL	STATUS	FUEL	TOE	HEEL
A1S	105/05-32-064-04W4/00	09-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-101A	FIC-101N
A2S	110/12-32-064-04W4/00	09-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-102A	FIC-102N
A3S	108/12-32-064-04W4/00	09-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-103A	FIC-103N
A4S	109/12-32-064-04W4/00	09-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-104A	FIC-104N
A5S	107/12-32-064-04W4/00	09-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-105A	FIC-105N
A6S	103/13-32-064-04W4/00	16-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-106A	FIC-106N
A7S	107/13-32-064-04W4/00	16-32-064-04W4	HUSKY	-	PRODUCING	-	FC-107A	FC-107N
A8S	108/13-32-064-04W4/00	16-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-108A	FIC-108N

AB BT 0089133

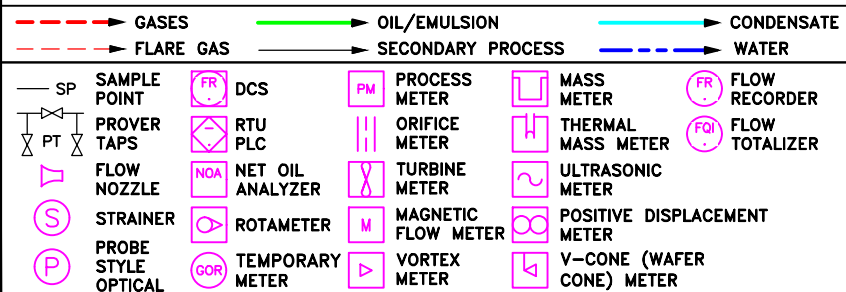
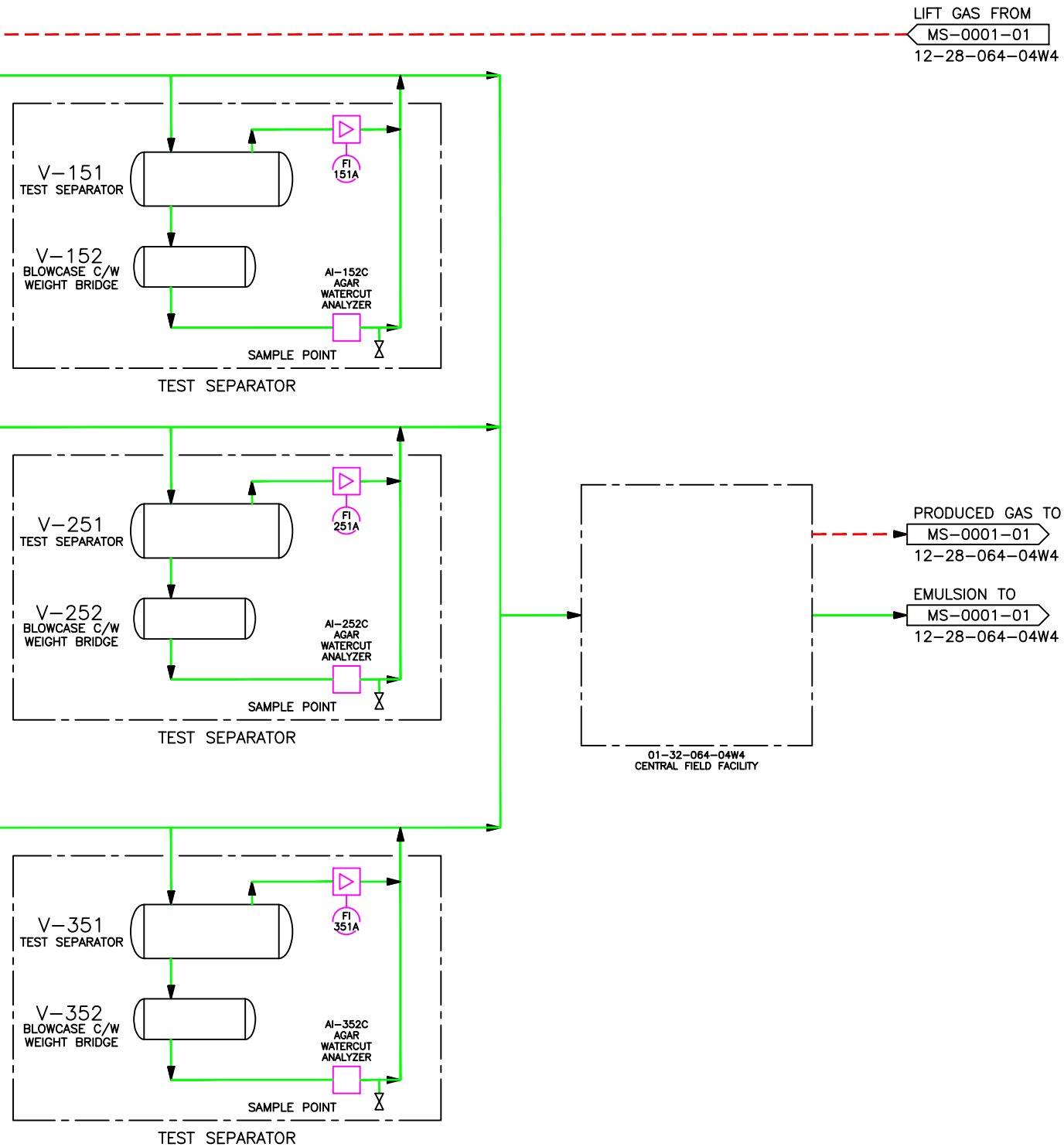
WELL PAD B

WELL NAME	UWI	LSD	LIC/OPER	DETAIL	STATUS	FUEL	TOE	HEEL
B3P	103/04-32-064-04W4/00	01-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-203A	FIC-203N
B4P	104/04-32-064-04W4/00	01-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-204A	FIC-204N
B2P	106/04-32-064-04W4/00	01-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-202A	FIC-202N
B1P	110/04-32-064-04W4/00	01-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-201A	FIC-201N
B8P	103/05-32-064-04W4/00	08-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-208A	FIC-208N
B7P	104/05-32-064-04W4/00	08-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-207A	FIC-207N
B5P	106/05-32-064-04W4/00	01-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-205A	FIC-205N
B6P	107/05-32-064-04W4/00	01-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-206A	FIC-206N
B9P	104/15-32-064-04W4/00	08-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-209A	FIC-209N
B10S	106/16-32-064-04W4/00	08-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-210A	FIC-210N
B11S	107/16-32-064-04W4/00	08-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-211A	FIC-211N
B12S	109/16-32-064-04W4/00	08-32-064-04W4	HUSKY	-	PRODUCING	-	FIC-212A	FIC-212N

AB BT 0089133

WELL PAD C

WELL NAME	UWI	LSD	LIC/OPER	DETAIL	STATUS	FUEL	TOE	HEEL
C4P	107/11-29-064-04W4/00	09-29-064-04W4	HUSKY	-	PRODUCING	-	FIC-304A	FIC-304N
C1P	102/12-29-064-04W4/00	09-29-064-04W4	HUSKY	-	PRODUCING	-	FIC-301A	FIC-301N
C2P	103/12-29-064-04W4/00	09-29-064-04W4	HUSKY	-	PRODUCING	-	FIC-302A	FIC-302N
C3P	105/12-29-064-04W4/00	09-29-064-04W4	HUSKY	-	PRODUCING	-	FIC-303A	FIC-303N
C5P	102/13-29-064-04W4/00	09-29-064-04W4	HUSKY	-	PRODUCING	-	FIC-305A	FIC-305N
C6P	103/13-29-064-04W4/00	09-29-064-04W4	HUSKY	-	PRODUCING	-	FIC-306A	FIC-306N
C7P	104/13-29-064-04W4/00	16-29-064-04W4	HUSKY	-	PRODUCING	-	FIC-307A	FIC-307N
C8P	105/13-29-064-04W4/00	16-29-064-04W4	HUSKY	-	PRODUCING	-	FIC-308A	FIC-308N
C9P	105/07-32-064-04W4/00	16-29-064-04W4	HUSKY	-	PRODUCING	-	FIC-309A	FIC-309N



REF DWG NO	REFERENCE DRAWING DESCRIPTION	NO	REVISION HISTORY	REV AUTHOR	REV DATE	ISSUED FOR	NO	CURRENT REVISION	ISSUED FOR	AS BUILT
MS-0000-01	AREA OVERVIEW	1	UPDATED PER FIELD SUPPLIED MARK UPS	EPC-CALTECH	2007/02/07	AS BUILT	6	UPDATED FROM MARK UPS SUPPLIED BY ALLYSON HADLAND	DOC DATE	2015/02/24
MS-0001-01 & 02	FACILITY DRAWING	2	UPDATED PER FIELD SUPPLIED MARK UPS	BRM	2009/03/19	AS BUILT			DOC AUTHOR	BRM
MS-0002-02 TO 05	GATHERING SYSTEM	3	UPDATED PER MARK UPS SUPPLIED BY TIAN QIU	BRM	2012/06/04	AS BUILT			SCALE	NTS
MS-0007-01	STEAM INJECTION SYSTEM	4	UPDATED PER MARK-UPS FROM ALLYSON HADLAND	DMW	2013/06/07	AS BUILT			ALTERNATE IDENTIFIER	
MS-0010-01	LACT UNIT	5	UPDATED PER MARK UPS FROM ALLYSON HADLAND	SK	2014/06/20	AS BUILT			SURFACE LSD	12-28-064-04W4
		6							DOCUMENT IDENTIFIER	MS-0002-01
		7								

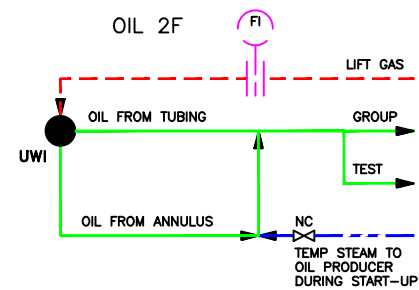
**Husky Oil Operations Limited**

TUCKER CENTRAL PLANT 12-28-064-04W4

GATHERING SYSTEM  
MEASUREMENT SCHEMATIC

22206

CAD DRAWING: DO NOT CHANGE MANUALLY

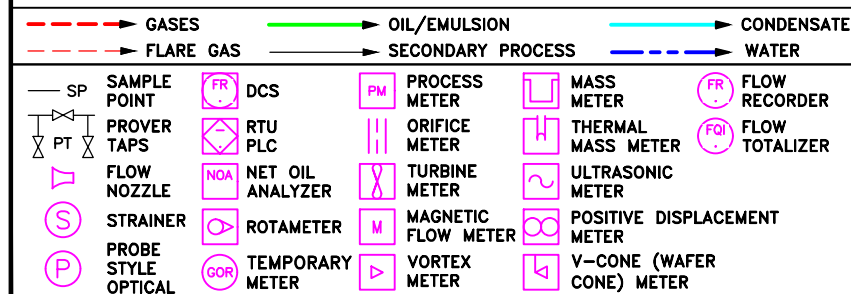
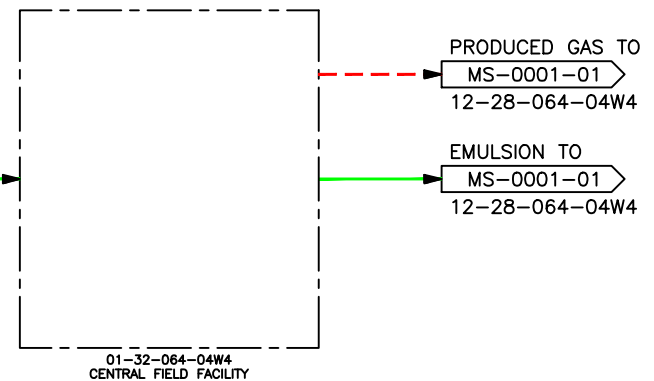
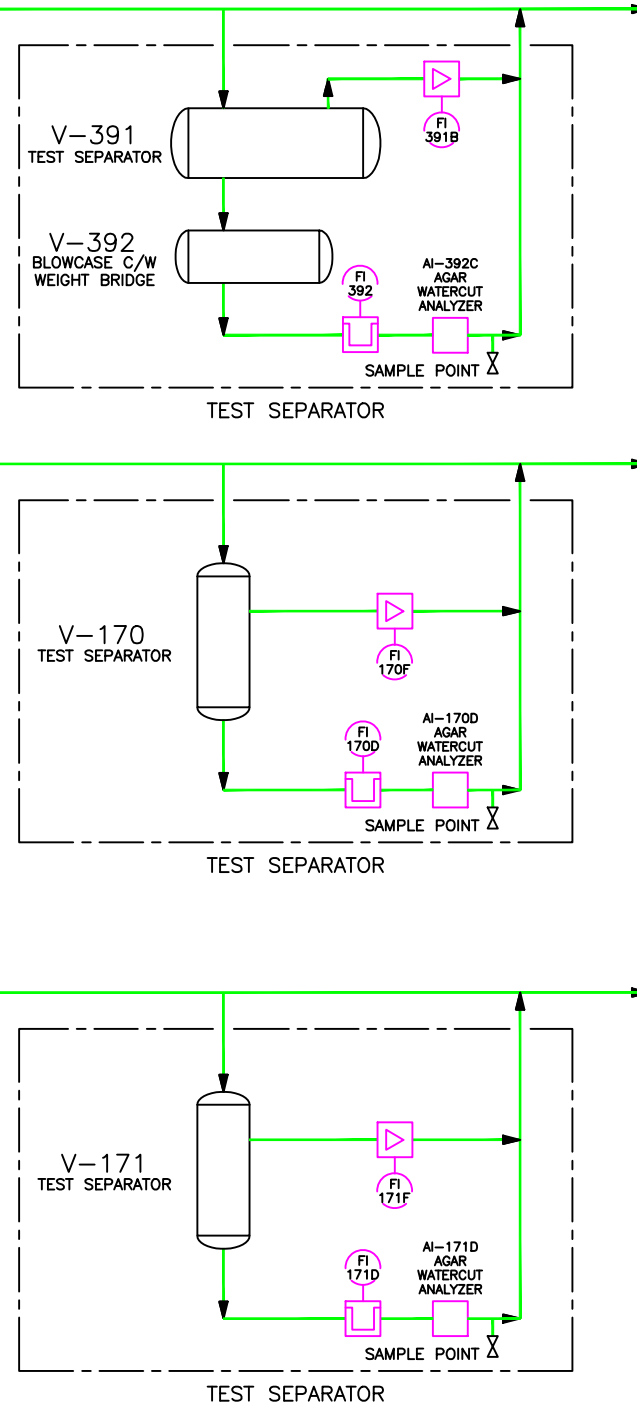


AB BT 0089133			WELL PAD C EAST					
WELL NAME	UWI	LSD	LIC/OPER	DETAIL	STATUS	FUEL	TOE	HEEL
C20P	104/07-28-064-04W4/00	09-29-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-320A	N/A
C16P	100/10-28-064-04W4/00	09-29-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-316A	N/A
C18P	102/10-28-064-04W4/00	09-29-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-318A	N/A
C17P	104/10-28-064-04W4/00	09-29-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-317A	N/A
C19P	106/10-28-064-04W4/00	09-29-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-319A	N/A
C14P	103/15-28-064-04W4/00	16-29-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-314A	N/A
C13P	105/15-28-064-04W4/00	16-29-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-313A	N/A
C15P	107/15-28-064-04W4/00	16-29-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-315A	N/A

AB BT 0089133

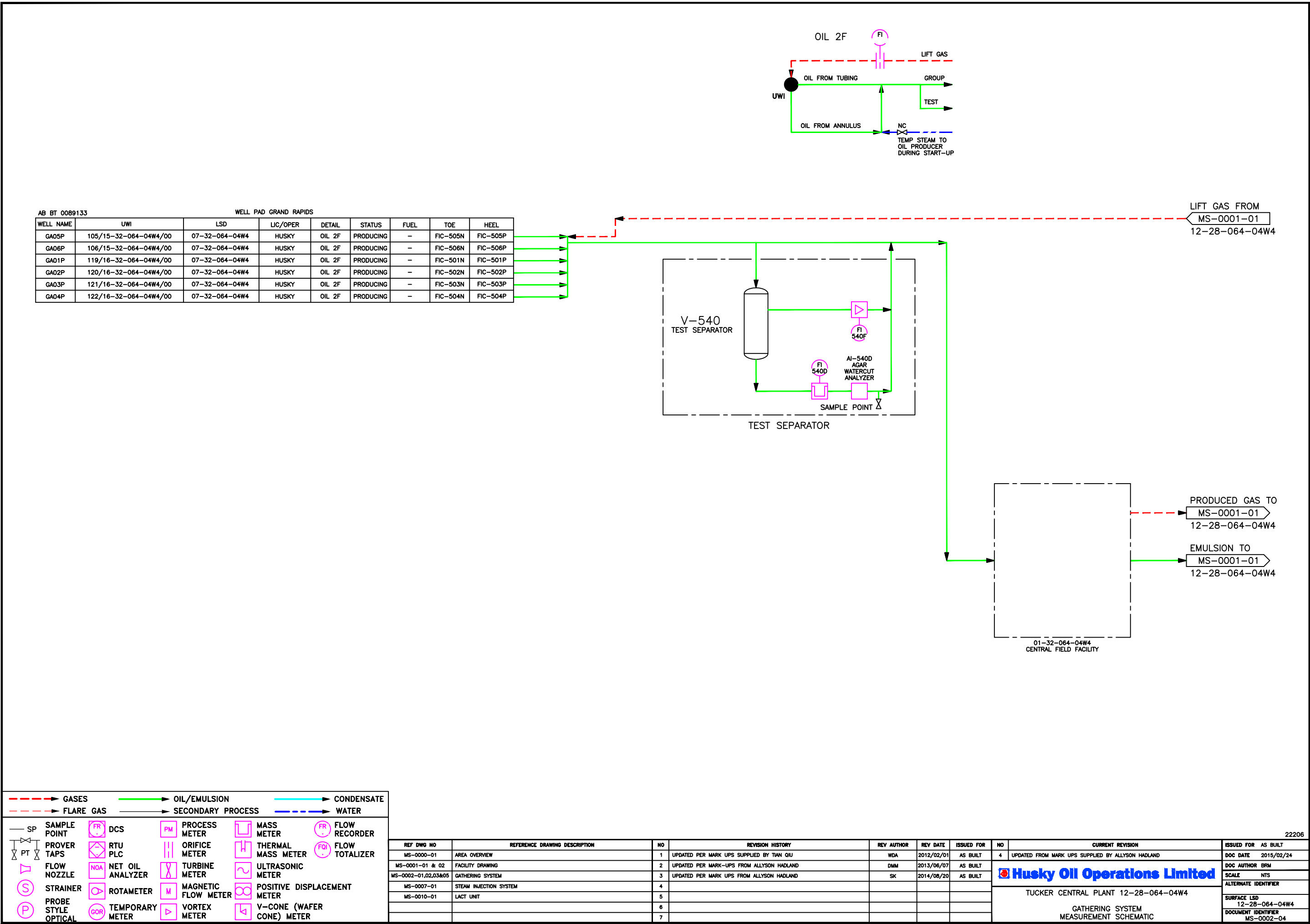
WELL PAD A SOUTH								
WELL NAME	UWI	LSID	LIC/OPER	DETAIL	STATUS	FUEL	TOE	HEEL
A20P	113/12-32-064-04W4/00	09-32-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-120N	FIC-120P
A18P	114/12-32-064-04W4/02	09-32-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-118N	FIC-118P
A17P	116/12-32-064-04W4/00	09-32-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-117N	FIC-117P
A19P	119/12-32-064-04W4/00	09-32-064-04W4	HUSKY	OIL 2F	PRODUCING	—	FIC-119N	FIC-119P

AB BT 0089133		WELL PAD A NORTH						
WELL NAME	UWI	LSD	LIC/OPER	DETAIL	STATUS	FUEL	TOE	HEEL
A16P	124/12-32-064-04W4/00	09-32-064-04W4	HUSKY	OIL 2F	PRODUCING	-	FIC-116P	FIC-116P
A15P	125/12-32-064-04W4/00	09-32-064-04W4	HUSKY	OIL 2F	PRODUCING	-	FIC-115M	FIC-115P
A9P	109/13-32-064-04W4/00	16-32-064-04W4	HUSKY	OIL 2F	PRODUCING	-	FIC-109M	FIC-109P
A12P	112/13-32-064-04W4/00	16-32-064-04W4	HUSKY	OIL 2F	PRODUCING	-	FIC-112M	FIC-112P
A11P	113/13-32-064-04W4/00	16-32-064-04W4	HUSKY	OIL 2F	PRODUCING	-	FIC-111M	FIC-111P
A10P	115/13-32-064-04W4/00	16-32-064-04W4	HUSKY	OIL 2F	PRODUCING	-	FIC-110M	FIC-110P
A13P	117/13-32-064-04W4/00	09-32-064-04W4	HUSKY	OIL 2F	PRODUCING	-	FIC-113M	FIC-113P
A14P	107/15-28-064-04W4/00	09-32-064-04W4	HUSKY	OIL 2F	PRODUCING	-	FIC-114M	FIC-114P



REF DWG NO	REFERENCE DRAWING DESCRIPTION	NO	REVISION HISTORY	REV AUTHOR	REV DATE	ISSUED FOR	NO	CURRENT REVISION	ISSUED FOR	AS BUILT
MS-0000-01	AREA OVERVIEW	1	UPDATED PER MARK UPS SUPPLIED BY TIAN QIU	WDA	2012/02/01	AS BUILT	5	UPDATED FROM MARK UPS SUPPLIED BY ALLYSSON HADLAND	DOC DATE	2015/02/24
MS-0001-01 & 02	FACILITY DRAWING	2	UPDATED PER MARK UPS FROM TIAN QIU	PJC	2012/08/03	AS BUILT			DOC AUTHOR	BFM
MS-0002-01,03,04,05	GATHERING SYSTEM	3	UPDATED PER MARK-UPS FROM ALLYSSON HADLAND	DMM	2013/06/07	AS BUILT			SCALE	NTS
MS-0007-01	STEAM INJECTION SYSTEM	4	UPDATED PER MARK UPS FROM ALLYSSON HADLAND	SK	2014/08/20	AS BUILT			ALTERNATE IDENTIFIER	
MS-0010-01	LACT UNIT	5						TUCKER CENTRAL PLANT 12-28-064-04W4	SURFACE L&D	12-28-064-04W4
		6						GATHERING SYSTEM	DOCUMENT IDENTIFIER	MS-0002-02
		7						MEASUREMENT SCHEMATIC		

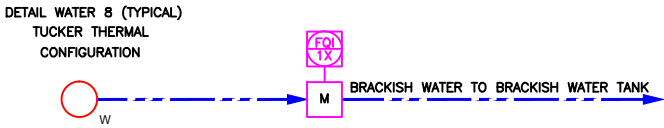
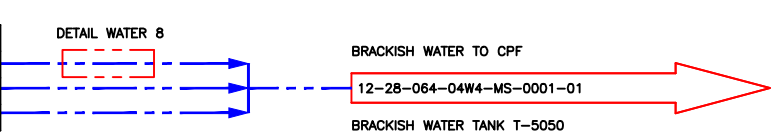




AB IF 0089451

BRACKISH WATER WELLS

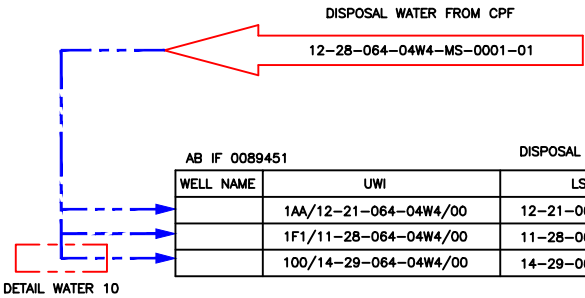
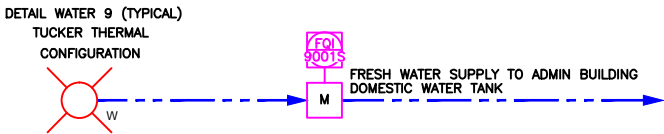
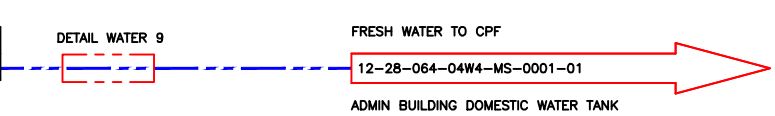
WELL NAME	UWI	LSD	LIC/OPER	DETAIL	STATUS	FUEL	TOE	HEEL	TAG #
	1F1/08-25-064-05W4/00 WSW	08-25-064-05W4	HUSKY	WATER 8	PRODUCING	-	-	-	FQI-12
	1F1/11-30-064-04W4/00 WSW	11-30-064-04W4	HUSKY	WATER 8	PRODUCING	-	-	-	FQI-10
	1F1/12-30-064-04W4/00 WSW	12-30-064-04W4	HUSKY	WATER 8	PRODUCING	-	-	-	FQI-11



AB IF 0089451

FRESH WATER WELL

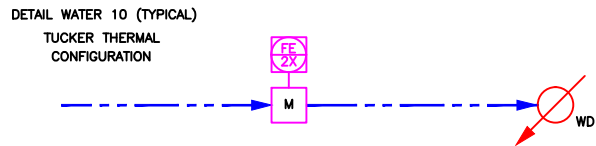
WELL NAME	UWI	LSD	LIC/OPER	DETAIL	STATUS	FUEL	TOE	HEEL	TAG #
WTH 2-83	100/12-28-064-04W4/00 WSW	12-28-064-04W4	HUSKY	WATER 9	PRODUCING	-	-	-	FQI-9001S



AB IF 0089451

DISPOSAL WATER WELLS

WELL NAME	UWI	LSD	LIC/OPER	DETAIL	STATUS	FUEL	TOE	HEEL	TAG #
	1AA/12-21-064-04W4/00	12-21-064-04W4	HUSKY	WATER 10	PRODUCING	-	-	-	FE-22
	1F1/11-28-064-04W4/00	11-28-064-04W4	HUSKY	WATER 10	PRODUCING	-	-	-	FE-20
	100/14-29-064-04W4/00	14-29-064-04W4	HUSKY	WATER 10	PRODUCING	-	-	-	FE-21



— SP	SAMPLE POINT	FR	DCS	PM	PROCESS METER	FR	FLOW RECORDER
PT	PROVER TAPS	PLC	RTU	ORIFICE METER	FR	FLOW TOTALIZER	
NOZ	FLOW NOZZLE	NOA	NET OIL ANALYZER	TURBINE METER	FR	ULTRASONIC METER	
S	STRAINER	ROT	ROTAMETER	MAGNETIC FLOW METER	FR	POSITIVE DISPLACEMENT METER	
P	PROBE STYLE OPTICAL	GOR	TEMPORARY METER	VORTEX METER	FR	Y-CONE (WAFER CONE) METER	

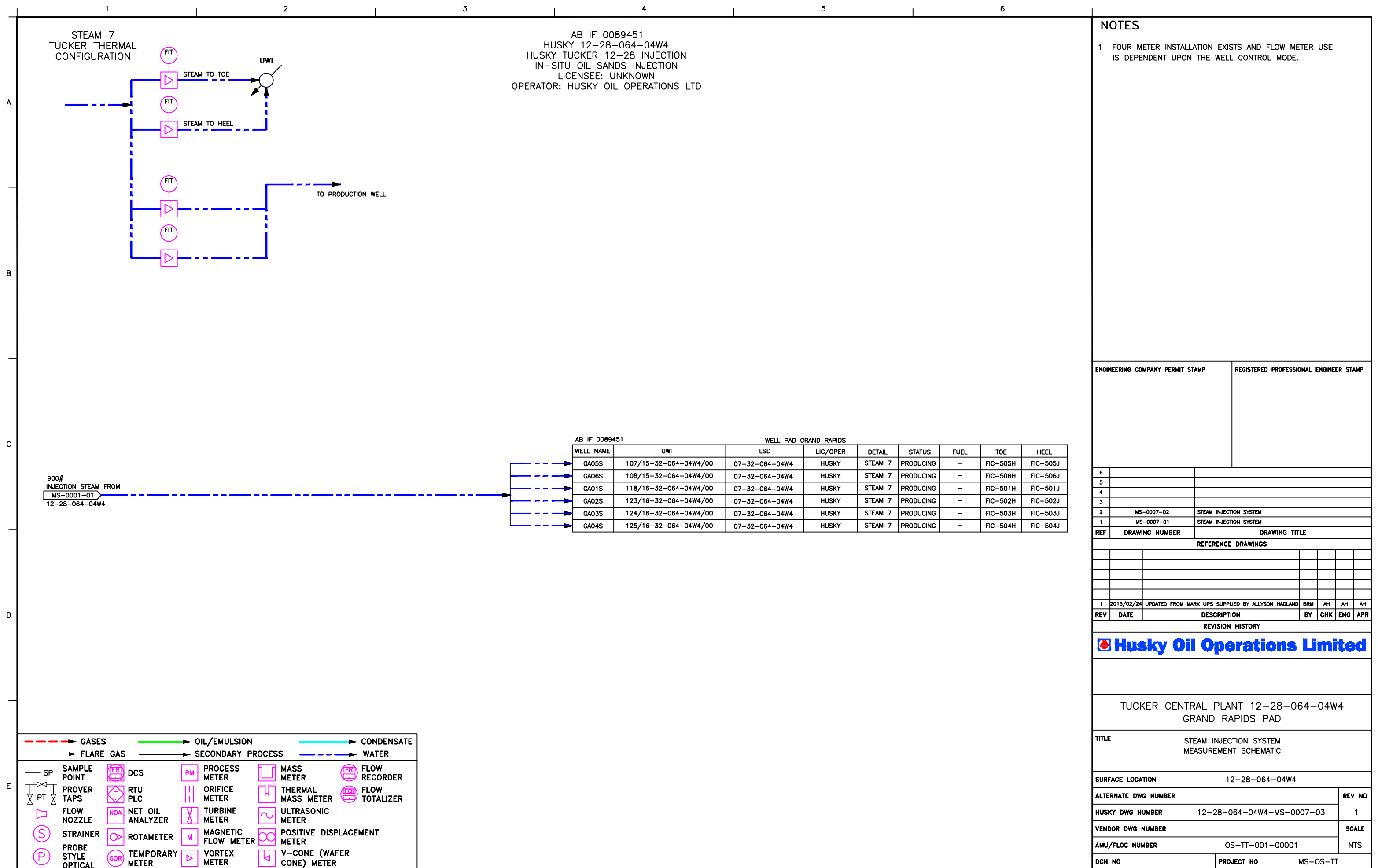
REF DWG NO	REFERENCE DRAWING DESCRIPTION	NO	REVISION HISTORY	REV AUTHOR	REV DATE	ISSUED FOR	NO	CURRENT REVISION	ISSUED FOR AS BUILT
MS-0000-01	AREA OVERVIEW	1	UPDATED PER MARK-UPS FROM ALLYSON HADLAND	DMM	2013/06/07	AS BUILT	3	UPDATED FROM MARK UPS SUPPLIED BY ALLYSON HADLAND	DOC DATE 2015/02/24
MS-0001-01 & 02	FACILITY DRAWING	2	UPDATED PER MARK UPS FROM ALLYSON HADLAND	SK	2014/08/20	AS BUILT			DOC AUTHOR BRM
MS-0002-01 TO 05	GATHERING SYSTEM	3							SCALE NTS
MS-0007-01	STEAM INJECTION SYSTEM	4							ALTERNATE IDENTIFIER
MS-0010-01	LACT UNIT	5							
		6							
		7							

22206		Husky Oil Operations Limited		TUCKER CENTRAL PLANT 12-28-064-04W4		GATHERING SYSTEM MEASUREMENT SCHEMATIC		SURFACE LSD 12-28-064-04W4	
								DOCUMENT IDENTIFIER MS-0002-05	

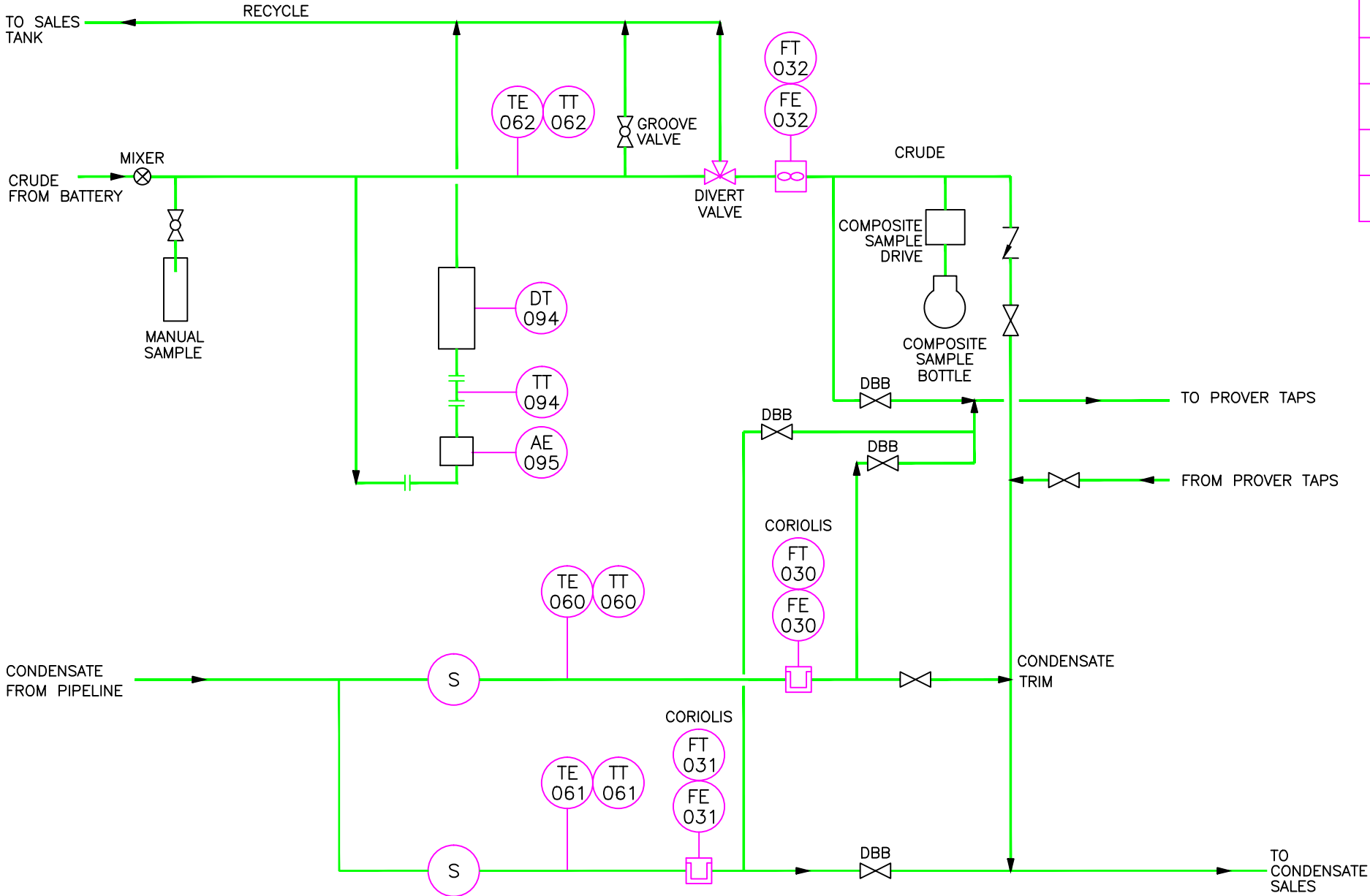
CAD DRAWING: DO NOT CHANGE MANUALLY



































LACT TAG	SCADA TAG	DESCRIPTION
TT_062	TUCK01-TT-0062	CRUDE TEMPERATURE
DT_094	TUCK01-DT-0094	CRUDE DENSITY
FT_032	TUCK01-FT-032	CRUDE METER
TT_094	TUCK01-TT-0094-M	DENSITOMETER TEMP
AE_095	TUCK01-SW-0095	S & W MONITOR
COMPOSITE SAMPLE		CRUDE-% S&W
COMPOSITE SAMPLE		CRUDE-DENSITY
TT_060	TUCK01-TT-0060	CONDENSATE TEMPERATURE
FT_030	TUCK01-FT-0030	CONDENSATE TRIM METER
FT_031	TUCK01-FT-0031	CONDENSATE SALES



 GASES		 OIL/EMULSION		 CONDENSATE	
 FLARE GAS		 SECONDARY PROCESS		 WATER	
 SAMPLE POINT	 DCS	 PROCESS METER	 MASS METER	 FLOW RECORDER	
 PROVER TAPS	 PLC	 ORIFICE METER	 THERMAL MASS METER	 FLOW TOTALIZER	
 FLOW NOZZLE	 NET OIL ANALYZER	 TURBINE METER	 ULTRASONIC METER		
 STRAINER	 ROTAMETER	 MAGNETIC FLOW METER	 POSITIVE DISPLACEMENT METER		
 PROBE STYLE OPTICAL	 TEMPORARY METER	 VORTEX METER	 V-CONE (WAFFER CONE) METER		

REF DWG NO	REFERENCE DRAWING DESCRIPTION	NO	REVISION HISTORY	REV AUTHOR	REV DATE	ISSUED FOR	NO	CURRENT REVISION	ISSUED FOR	AS BUILT
MS-0000-01	AREA OVERVIEW	1	AS BUILT	EPC_TCG	2007/06/11	AS BUILT	5	UPDATED FROM MARK UPS SUPPLIED BY ALLYSON HADLAND	DOC DATE	2015/02/24
MS-0001-01 & 02	FACILITY DRAWING	2	UPDATED PER FIELD SUPPLIED MARKUPS	BRM	2009/03/19	AS BUILT			DOC AUTHOR	BRM
MS-0002-01 TO 05	GATHERING SYSTEM	3	AS BUILT FOR CC 22275	DMH	2013/07/02	AS BUILT			SCALE	NTS
MS-0007-01	STEAM INJECTION SYSTEM	4	UPDATED PER MARK UPS FROM JIM BOUTKAN	SK	2014/08/20	AS BUILT			ALTERNATE IDENTIFIER	
MS-0010-01	LACT UNIT	5							SURFACE L&D	12-28-064-04W4
		6							DOCUMENT IDENTIFIER	MS-0010-01
		7								

**Husky Oil Operations Limited**

HUSKY TUCKER THERMAL LACT 12-28-064-04W4

LACT UNIT  
MEASUREMENT SCHEMATIC