


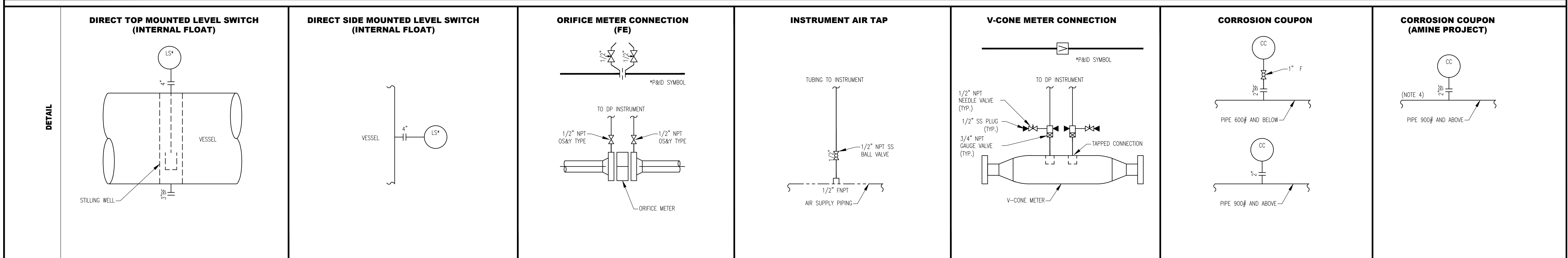
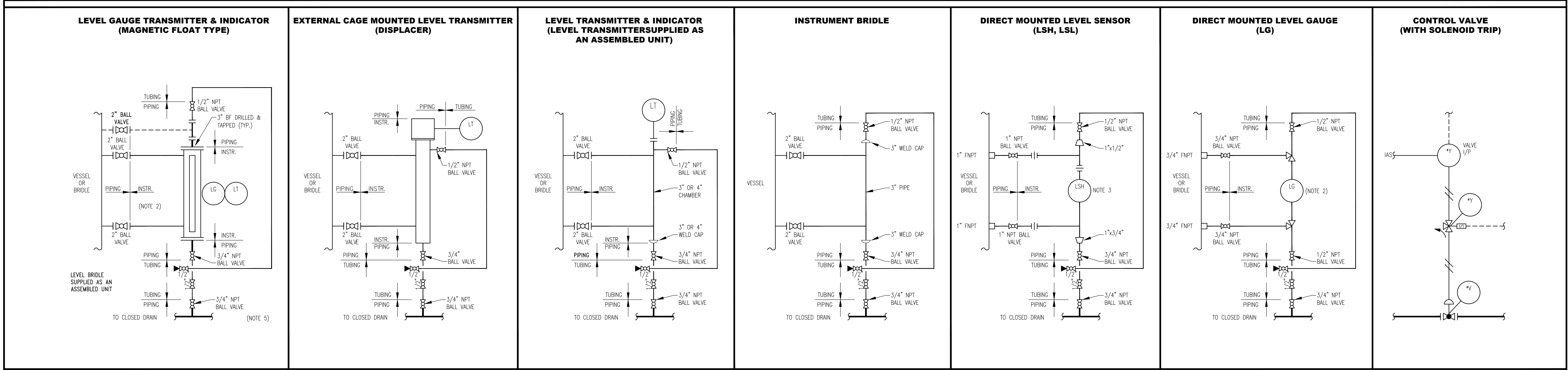
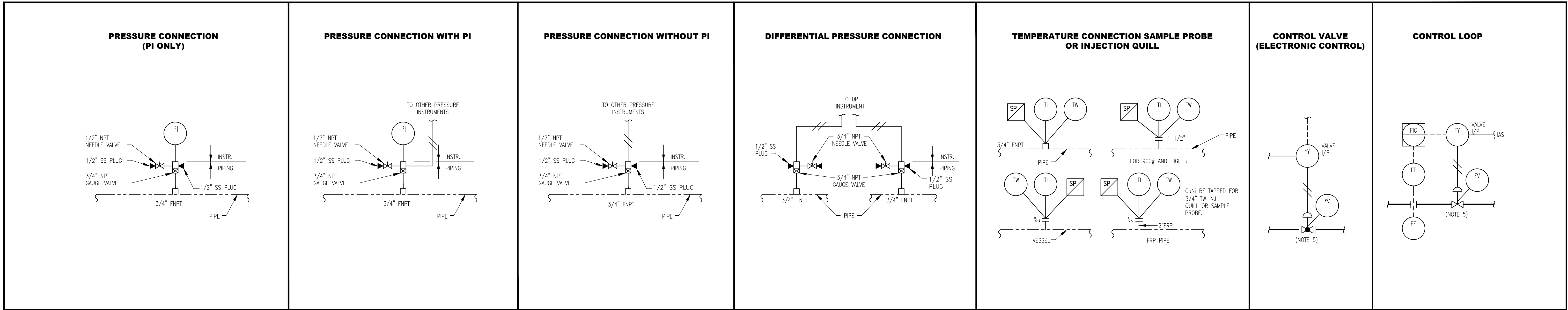
THIS DRAWING AND THE DESIGN IT COVERS ARE CONFIDENTIAL AND REMAIN THE PROPERTY OF ANADARKO PETROLEUM CORPORATION AND SHALL NOT BE DISCLOSED TO OTHERS OR REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WHATSOEVER EXCEPT BY WRITTEN PERMISSION BY THE OWNER.


EQUIPMENT NUMBERING STANDARD		PIPE LINE NUMBERING STANDARD		PIPING SYMBOLS	
<div><div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div></div><div>EQUIPMENT IDENTIFICATION CODE</div><div>AREA NUMBER</div><div>TRAIN NUMBER(*)</div><div>EQUIPMENT ID</div></div> <div>*TRAIN NUMBER (USE 0 FOR COMMON EQUIPMENT)(OR COMPRESSOR UNIT NUMBER – CTF SITES ONLY)</div> <div>INSTRUMENTATION NUMBERS – MATCH EQUIPMENT ID AND INCREMENT NUMERICALLY ONLY.</div> <div>ELECTRICAL NUMBERS – MATCH EQUIPMENT ID AND INCREMENT NUMERICALLY ONLY.</div> <div>ALPHAS ONLY AS APPROVED BY APC ENGINEERING.</div>		<div><div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div></div><div>PIPE SIZE</div><div>SERVICE IDENTIFICATION</div><div>SEQUENTIAL NUMBER</div><div>INSULATION THICKNESS</div><div>TRACING TYPE</div><div>INSULATION TYPE</div><div>PIPE SPECIFICATION</div></div>		<div><div><div><div>MAJOR</div><div>MAJOR SECONDARY</div><div>MINOR</div><div>MINOR SECONDARY</div></div><div>SKID LIMITS</div></div><div><div><div>FLOW SHEET LINE TYPES</div><div>VALVES</div><div>REDUCERS</div><div>CONTROL ACTUATORS</div><div>MISCELLANEOUS ACTUATORS</div></div><div><div>LINKS AND FLOW ARROWS</div></div></div></div>	
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EQUIPMENT</div></div>		<div><div><div><div>AD = ACID DRAIN</div><div>AF = ACID FLARE</div><div>AG = ACID GAS</div><div>AO = ABSORPTION OIL</div><div>AV = ATMOSPHERE VENT</div><div>B = N-BUTANE</div><div>BD = BUILDING DRAIN</div><div>BG = BLANKET GAS</div><div>BV = BLOWDOWN VENT</div><div>BW = BOILER FEED WATER</div><div>C = CAUSTIC</div><div>CA = COMBUSTION AIR</div><div>CD = COLD DRAIN</div><div>CW = COLD WATER</div><div>DA = DRAIN ATMOSPHERIC</div><div>DF = DIESEL FUEL</div><div>DP = DRAIN PRESSURED</div><div>DW = DECHILLED WATER</div><div>E = ETHANE</div><div>FG = FUEL GAS</div><div>FW = FIRE WATER</div><div>G = GLYCOL</div><div>GH = GAS HYDROCARBON</div><div>H = HYDROGEN SULFIDE</div><div>HC = HIGH PRESSURE CONDENSATE</div><div>HD = HIGH PRESSURE DRAIN</div><div>HF = HIGH PRESSURE FLARE</div><div>HO = HOT OIL</div><div>HS = HIGH PRESSURE STEAM</div><div>HW = HOT WATER</div><div>IB = ISOBUTANE</div><div>IG = INSTRUMENT GAS</div><div>IG = JACKET WATER</div><div>LA = LEAN AMINE</div><div>LD = LOW PRESSURE CONDENSATE</div><div>LD = LOW PRESSURE DRAIN</div><div>LF = LOW PRESSURE FLARE</div><div>LG = LEAN GLYCOL</div><div>LH = LIQUID HYDROCARBON</div><div>LO = LUBE OIL</div><div>LS = LOW PRESSURE STEAM</div><div>M = METHANE</div><div>MC = MEDIUM PRESSURE CONDENSATE</div><div>MD = MEDIUM PRESSURE DRAIN</div><div>MF = MEDIUM PRESSURE FLARE</div><div>MS = MEDIUM PRESSURE STEAM</div><div>N = NITROGEN</div><div>NG = NATURAL GAS</div><div>O = OIL</div><div>OD = OPEN DRAIN</div><div>OT = HOT OIL TRACE</div><div>OV = OIL VENT</div><div>P = PROPANE</div><div>PA = PROCESS AIR</div><div>PC = PROCESS CONDENSATE</div><div>PF = PROCESS FLARE</div><div>PG = POWER GAS</div><div>PV = PROCESS VENT</div><div>PW = PRODUCED WATER</div><div>RA = RICH AMINE</div><div>RG = RICH GLYCOL</div><div>RW = RAW WATER</div><div>SA = STARTING AIR</div><div>SD = SOLVENT DRAIN</div><div>SC = STARTING GAS</div><div>ST = STEAM TRACE</div><div>SW = SOUR (PRODUCED) WATER</div><div>TG = TREATED GAS</div><div>TW = TREATED WATER</div><div>UA = UTILITY AIR</div><div>UV = UTILITY VENT</div><div>UW = UTILITY WATER</div><div>V = VENT GAS</div><div>WC = WELL COLID</div><div>WF = WASTE WATER</div><div>WW = WASTE WATER</div></div></div></div>		<div><div><div><div>FLANGES</div><div>INLINES</div><div>NOZZLES</div></div><div><div>BLIND FLANGE OR LINE TERMINATION</div><div>SENIOR/JUNIOR ORIFICE METER</div><div>ORIFICE</div><div>ORIFICE CLOSED</div><div>ORIFICE PADDLE</div><div>FLOW TRANSMITTER WITH GATE VALVE</div><div>FLOW TRANSMITTER WITH BALL VALVE</div><div>FLOW TRANSMITTER WITH NEEDLE VALVE</div><div>BLEED RING WITH GATE VALVE</div><div>BLEED RING WITH BALL VALVE</div><div>SPECTACLE BLIND OPEN POSITION</div><div>SPECTACLE BLIND CLOSED POSITION</div><div>PADDLE BLIND CLOSED POSITION</div><div>PADDLE BLIND OPEN POSITION</div><div>COUPLING</div><div>FRONT VIEW CONNECTION</div><div>NOZZLE BLINDED</div><div>NOZZLE FLANGED</div><div>MANWAY SINGLE LINE (SIDE VIEW)</div><div>MANWAY (SIDE VIEW)</div><div>MANWAY (FRONT VIEW)</div><div>TANK CLEANOUT</div><div>EQUIPMENT NOZZLE CALLOUT</div></div><div><div>Y" TYPE STRAINER</div><div>Y" TYPE STRAINER WITH GATE VALVE</div><div>Y" TYPE STRAINER WITH BALL VALVE</div><div>INSULATION (SEE TABLE)</div><div>INSULATION WITH HEAT TRACE (SEE TABLE)</div><div>INSULATION WITH GLYCOL HEAT TRACE</div><div>EQUIPMENT INSULATION</div><div>TURBINE METER</div><div>POSITIVE DISPLACEMENT METER</div><div>MAGNETIC FLOW METER</div><div>ULTRASONIC METER</div><div>INLINE MIXER</div><div>BASKET STRAINER</div><div>FILTER</div><div>INLINE STRAINER</div><div>CONE STRAINER</div><div>START UP STRAINER (WITCH HAT)</div><div>EXPANSION JOINT</div><div>ROTAMETER FLOW INDICATOR</div><div>V-CONE METER</div><div>VENTURI TUBE OR FLOW NOZZLE</div><div>VENTURI TUBE WITH TAPS</div><div>STRAIGHTENING VANES</div><div>FLOW CONDITIONER</div><div>VORTEX SENSOR</div><div>MASS FLOW CORIOLIS METER</div><div>CORIOLIS METER</div><div>RUPTURE DISK</div><div>RUPTURE DISK (PRESSURE)</div><div>RUPTURE DISK (VACUUM)</div><div>EXCESS FLOW PREVENTER/MIXER</div><div>DIAPHRAGM SEAL</div><div>CHEMICAL SEAL</div><div>PITOT TUBE OR PITOT VENTURI TUBE</div><div>FLOW CONDITIONER</div></div><div><div>DRESSER COUPLING</div><div>MATERIAL, AG/BG, INSULATION, PIPING SPEC OR SOW CHANGE</div><div>FLEXIBLE HOSE FLANGED</div><div>FLEXIBLE HOSE</div><div>TRUCK CONNECTION/ BOW & CAP</div><div>AGITATOR</div><div>TRUCK (BACK VIEW)</div><div>TRUCK (SIDE VIEW)</div><div>RAILCAR</div><div>Y-TRAP OPEN DRAIN</div><div>LIQUID SEAL X"=HEIGHT</div><div>VENT</div><div>TIE IN TO EXISTING PIPING OR PIPING BY OTHERS</div><div>SPECIALITY ITEM</div><div>INSULATING FLANGE KIT</div><div>CORROSION COUPON</div><div>PROCESS STREAM FLOW</div><div>FLAME ARRESTOR</div><div>MIST PAD OR MIST ELIMINATOR</div><div>VORTEX BREAKER</div><div>EJECTOR OR EDUCTOR</div><div>SLOPE POINTED IN DOWNHILL SIDE</div><div>PLUG</div><div>BULL PLUG</div><div>CAP WELDED/PIPE/ LINE OR TERMINATION</div><div>CAP THREADED</div><div>INSTRUMENT BREAK</div><div>VENT TO ATMOS</div><div>VENT WITH BUG SCREEN</div><div>PIC PASSAGE INDICATOR (PIC SIG)</div></div></div></div>	
<div><div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div></div><div>EQUIPMENT NUMBERING SYSTEM</div><div>COMPRESSOR STATIONS & OIL PUMPING FACILITIES</div><div>AREA NUMBERS</div><div>AREA REFERENCED</div><div>TYPICAL EQUIPMENT</div></div>		<div><div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div></div><div>PIPE SPECIFICATIONS NAMING CONVENTION</div><div>FLANGE CLASS</div><div>MATERIAL</div><div>SERVICE</div><div>GOVERNING CODE</div></div>		<div><div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div></div><div>ABBREVIATIONS</div><div>ATM = ATMOSPHERE</div><div>AG = ABOVE GRADE</div><div>BE = BURNER ELEMENT</div><div>BF = BLIND FLANGE</div><div>BG = BELOW GRADE</div><div>CBD = CONTINUOUS BLOWDOWN</div><div>CD = CLOSED DRAIN</div><div>CHO = CHORE</div><div>CHO = CHAIN OPERATED</div><div>CIO = CLEAN OUT</div><div>CP = CORROSION PROBE</div><div>CSC = CAR SEAL CLOSED</div><div>CSO = CAR SEAL OPEN</div><div>DC = DRAIN CONNECTION</div><div>FC = FAIL CLOSED</div><div>FL = FAIL LAST</div><div>FO = FAIL OPEN</div><div>GPH = GALLONS PER HOUR</div><div>GPM = GALLONS PER MINUTE</div><div>HC = HOSE CONNECTION</div><div>HHLL = HIGH HIGH LIQUID LEVEL</div><div>HLL = HIGH LIQUID LEVEL</div><div>HP = HIGH PRESSURE</div><div>HSD = HAND SHUTDOWN</div><div>IA = INSTRUMENT AIR</div><div>IGN = IGNITION</div><div>LC = LOCK CLOSED</div><div>LD = LIQUID DRAIN</div><div>LLL = LOW LIQUID LEVEL</div><div>LLLL = LOW LOW LIQUID LEVEL</div><div>LO = LOCK OPEN</div><div>LP = LOW PRESSURE</div><div>MIN = MINIMUM DISTANCE</div><div>M = THOUSAND</div><div>MW = MANWAY</div><div>NZ = NITROGEN</div><div>NC = NORMALLY CLOSED</div><div>NLL = NORMAL LIQUID LEVEL</div><div>NO = NORMALLY OPEN</div><div>OD = OPEN DRAIN</div><div>OD = OVERALL DIAMETER (SIZE)</div><div>PB = PUSH BUTTON</div><div>PC = PURGE CONNECTION</div><div>QD = QUICK DISCONNECT</div><div>R = RESET</div><div>ROC = RATE OF CHANGE</div><div>ROV = REMOTE OPERATED VALVE</div><div>RTD = RESISTANCE TEMP. DETECTOR</div><div>SC = SAMPLE CONNECTION</div><div>SCFD = STD. CU. FT. PER DAY</div><div>SCFH = STD. CU. FT. PER HOUR</div><div>SCFM = STD. CU. FT. PER MINUTE</div><div>SD = SHUTDOWN</div><div>SIS = SAFETY INSTRUMENT SYSTEM</div><div>SOC = STEAM OUT CONNECTION</div><div>SOW = SCOPE OF WORK</div><div>SR = STRESS RELIEF</div><div>SW = SELECTOR SWITCH</div><div>ST = START UP</div><div>TS = TEMPORARY STRAINER</div><div>TSO = TIGHT SHUT OFF</div><div>TP = TYPICAL</div><div>V = VENDOR SUPPLIED</div><div>VB = VACUUM BREAKER</div><div>WC = WATER COLUMN</div></div>	
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TANKS	VESSELS			EXCHANGERS		PUMPS		
FLAT ROOF	VERTICAL VESSEL	VERTICAL VESSEL WITH SKIRT	EXCHANGER - DOUBLE END		PUMP - VERTICAL (Y AXIS)			
			EXCHANGER - SINGLE END		PUMP - HORIZONTAL (Y AXIS)			
					PUMP - CENTRIFUGAL (Y AXIS)			
					PUMP - DUAL			
PUMP - SUMP (Y AXIS)		PUMP - INLINE (Y AXIS)						
SLOPING ROOF	VERTICAL VESSEL WITH CONE	VERTICAL VESSEL WITH SKIRT & CONE	EXCHANGER - DOUBLE END KETTLE		PUMP - ROTARY			
			EXCHANGER - SINGLE END KETTLE		PUMP - VACUUM			
					PUMP - WITH STEAM TURBINE			
					PUMP - AIR OPERATED PUMP			
FLOATING ROOF	VERTICAL FLAT BOTTOM VESSEL	HORIZONTAL VESSEL	EXCHANGER - SUPER		PUMP - DIAPHRAM			
			EXCHANGER - PROCESS FLOW		PULSATION DAMPENER			
			LEAN/RICH AMINE EXCHANGER		MOTOR			
			FUEL GAS HEATER					
	HORIZONTAL VESSEL WITH ECCENTRIC	CENTRIFUGAL COMPRESSOR	AFTER COOLER WITH MOTOR		EQUIPMENT TAG			
					TAG DESC - - - - TAG			
NOTES:	REFERENCE DRAWINGS	REVISIONS			PIPING & INSTRUMENTATION DIAGRAM EQUIPMENT LEGEND			
							DRAWN BY: MJ	
							APPROVED: -	
							SCALE: NONE	
			OXY STANDARD		DWG. No.: OXY-PID-STD-00011			
					SHEET No. 2 OF 4			

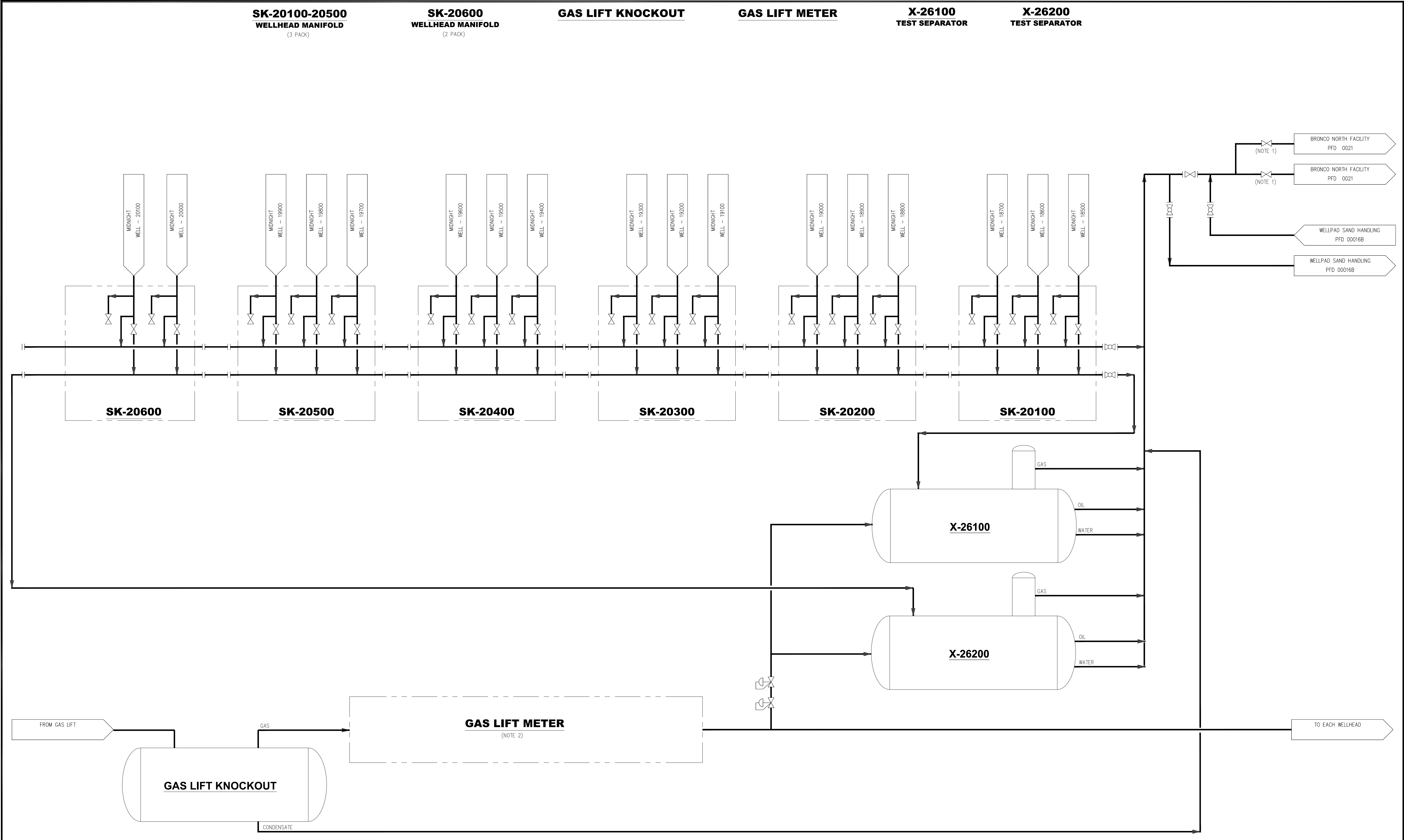
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NOTES: 1. P&ID DETAILS ARE TYPICAL UNLESS INDICATED OTHERWISE ON THE P&ID WITH SPECIFIC APPLICATION. 2. LEVEL GAUGES SHOULD SPAN THE OPERATIONAL RANGE WITH 3" EXTRA VISIBLE GLASS AT HIGH AND LOW LEVELS. LEVEL GAUGE TO BE SUPPLIED AS AN ASSEMBLED UNIT. 3. LSH/LSL BRIDLES SHALL BE PROVIDED WITH EXTRA LENGTH BETWEEN CENTER-TO-CENTERS TO ALLOW FOR FIELD ADJUSTMENT WHERE POSSIBLE. 4. CORROSION COUPON TO BE EXTRACTED WITH A TOOL HAVING A DOUBLE BLOCK AND BLEED VALVE. 5. VALVES USED ON AMINE UNIT TO HAVE COMPATIBLE SOFT GOODS FOR AMINE SERVICE.	REFERENCE DRAWINGS		REVISIONS						 OXY STANDARD		PIPING & INSTRUMENTATION DIAGRAM INSTRUMENTATION LEGEND								
											DRAWN BY: MJ		CREATION DATE: —		AFE No.:				
											APPROVED: —		APPR. DATE: —						
													DWG. No.: OXY-PID-STD-00012		SHEET No. 3 OF 4				
											SCALE: NONE								
DWG. NO.		TITLE		NO.		DESCRIPTION		BY		DATE		CHK.		DATE		APPR.		DATE	

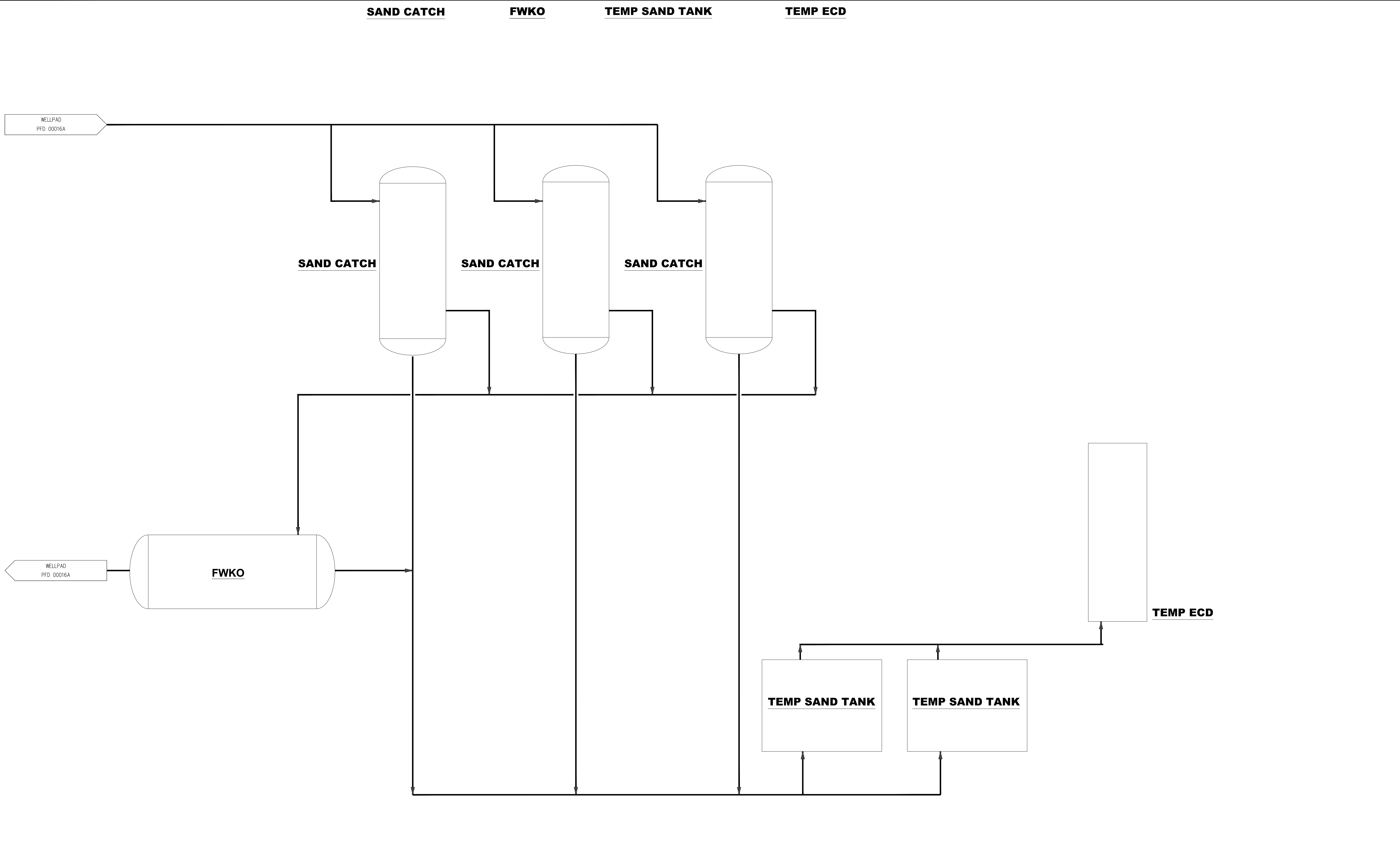
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LAST SAVED: 1/8/2020 BY: Max Pshchensko

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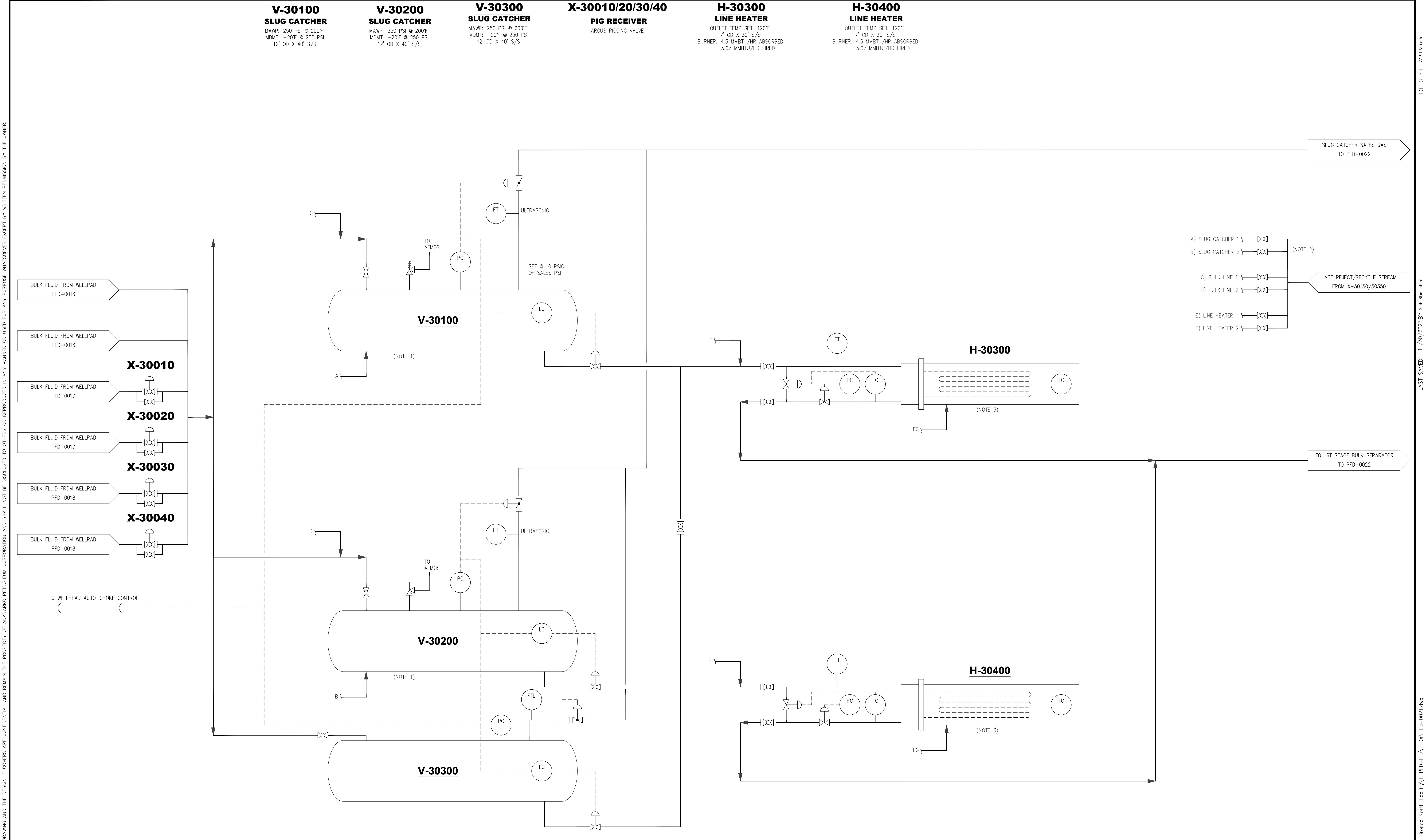
<div>NOTES:</div> <div>1. AFTER PEAK PRODUCTION 2ND FLOWLINE WILL BE ISOLATED AND REMOVED FORM SERVICE; 3-5 YEARS AFTER PEAK.</div> <div>2. GAS LIFT HEADER PRESSURE – 1250 PSIG.</div>		REFERENCE DRAWINGS		REVISIONS						<div>Kerr-McGee Oil & Gas Onshore LP</div> <div>BRONCO NORTH FACILITY</div>		<div>PROCESS FLOW DIAGRAM</div> <div>MIDNIGHT WELLPAD PFD</div>			
DWG. NO.	TITLE	NO.	ISSUED FOR APPROVAL	SAB	11/29/23	NMB	11/29/23	JJB	11/29/23			DRAWN BY:	CREATION DATE:	AFE No.: –	
				BY	DATE	CHK.	DATE	APPR.	DATE			APPROVED:	APPR. DATE:		
												DWG. No.:			
												SCALE: NONE	PFD-00016A		
														SHEET No.	
														– OF –	

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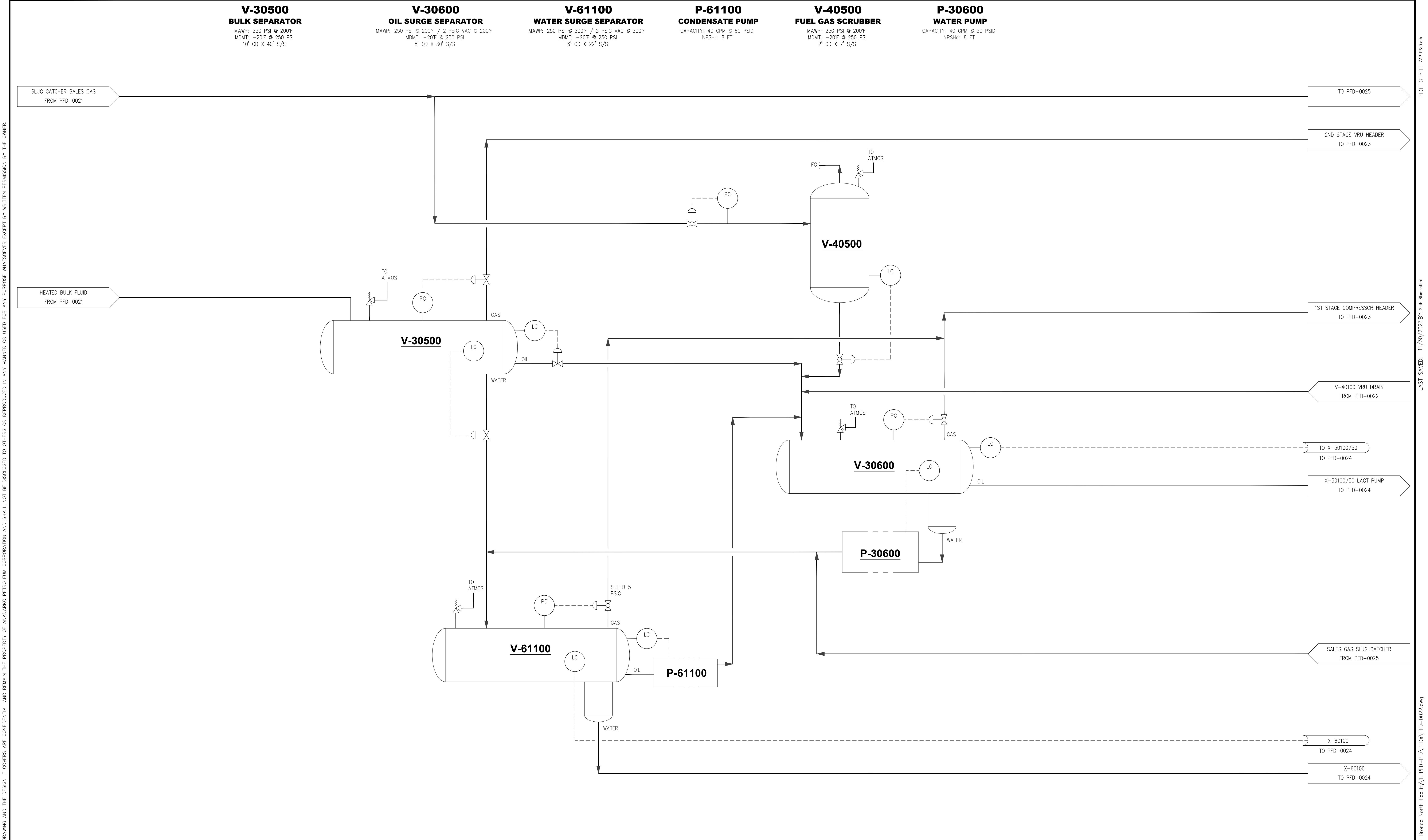
NOTES:	REFERENCE DRAWINGS		REVISIONS						Kerr-McGee Oil & Gas Onshore LP	PROCESS FLOW DIAGRAM MIDNIGHT WELLPAD SAND HANDLING		
										DRAWN BY:	CREATION DATE:	AFE No.: -
										APPROVED:	APPR. DATE:	
									BRONCO NORTH FACILITY	DWG. No.: PFD-00016B		SHEET No. - OF -
	DWG. NO.	TITLE	NO.	DESCRIPTION	BY	DATE	CHK.	DATE		SCALE: NONE		

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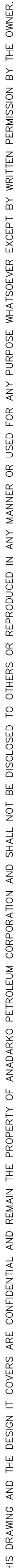


NOTES: 1. FLOW TO BE SPLIT BETWEEN BOTH SLUG CATCHERS DURING PEAK FLOW AND SLUGGING OPERATIONS. 2. NORMAL OPERATION WOULD RETURN THE LACT REJECT LINE PRIOR TO ENTERING THE LINE HEATER (H-30300 & H-30400). 3. HEATER FLOW IS BOTTOM UP (UPFLOW) NOT AS DEPICTED AS DRAWN.	REFERENCE DRAWINGS		REVISIONS						Kerr-McGee Oil & Gas Onshore LP		PROCESS FLOW DIAGRAM BRONCO NORTH FACILITY		

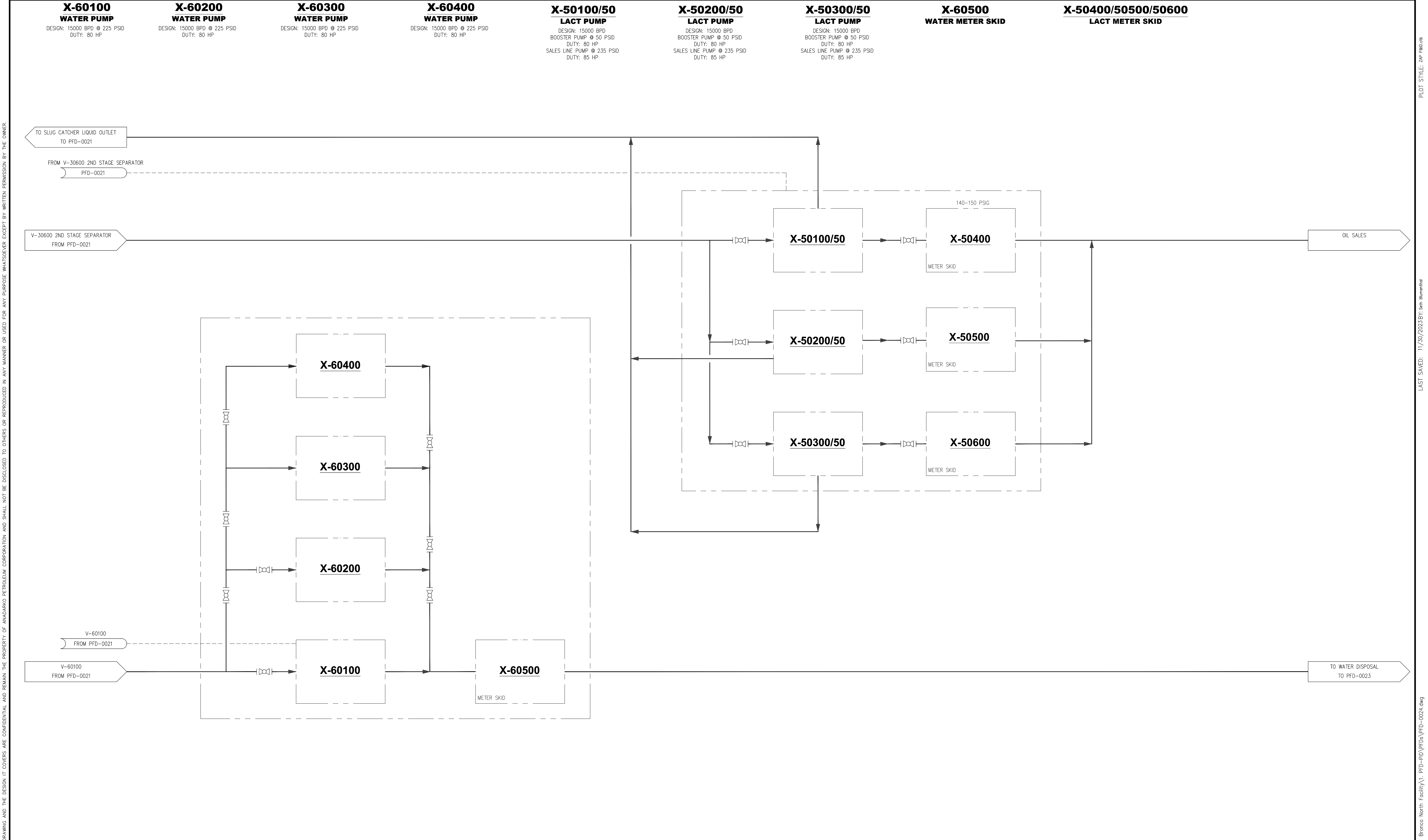
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DWG. NO.	TITLE	NO.	DESCRIPTION	BY	DATE	CHK.	DATE	APPR.	DATE	BRONCO NORTH FACILITY	DRAWN BY:	CREATION DATE:	AFE No.: -
											APPROVED:	APPR. DATE:	
												DWG. No.:	SHEET No.
											SCALE: NONE	PFD-0022	- OF -

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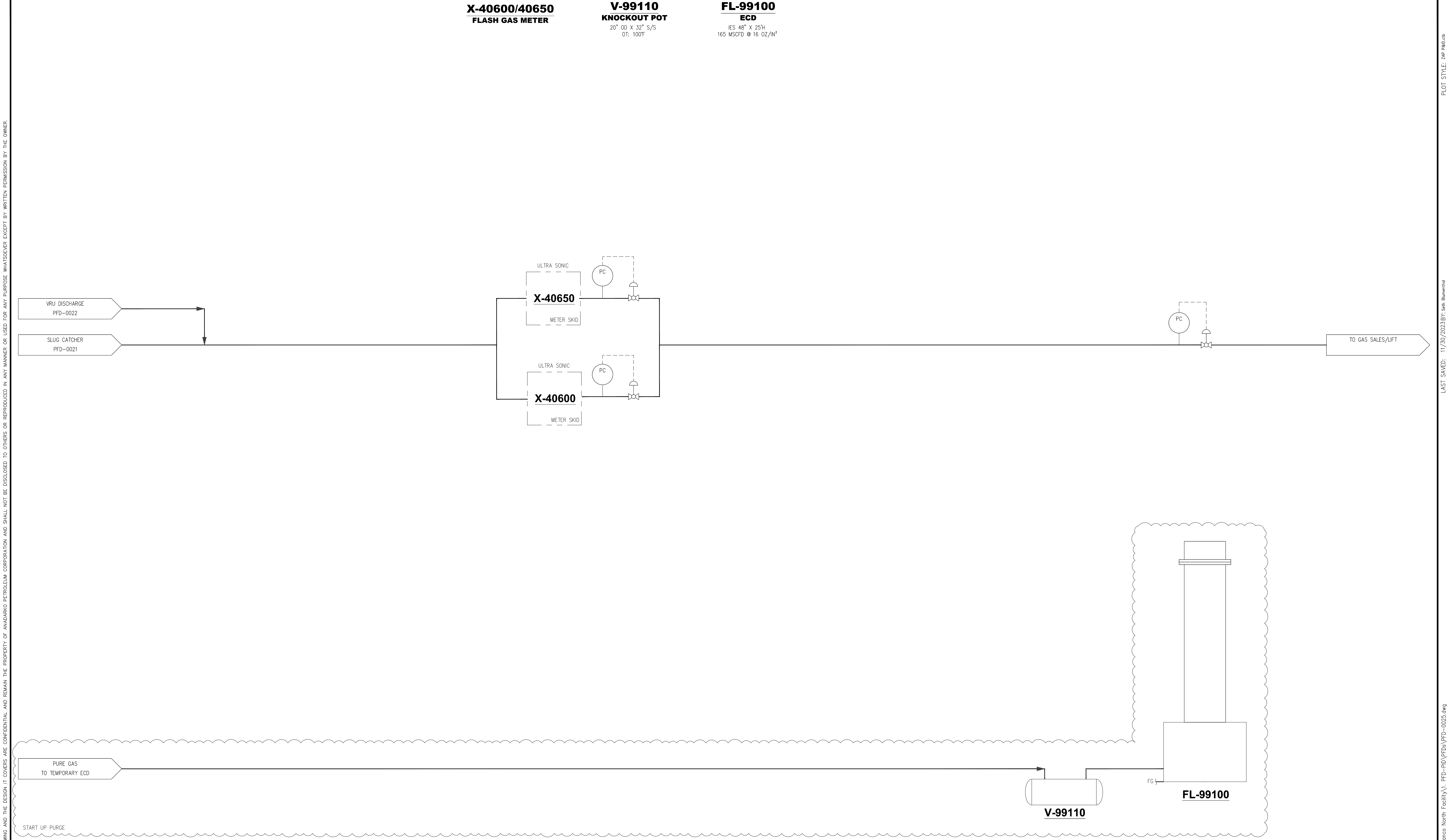
NOTES:	REFERENCE DRAWINGS		REVISIONS						Kerr-McGee Oil & Gas Onshore LP	PROCESS FLOW DIAGRAM BRONCO NORTH FACILITY		

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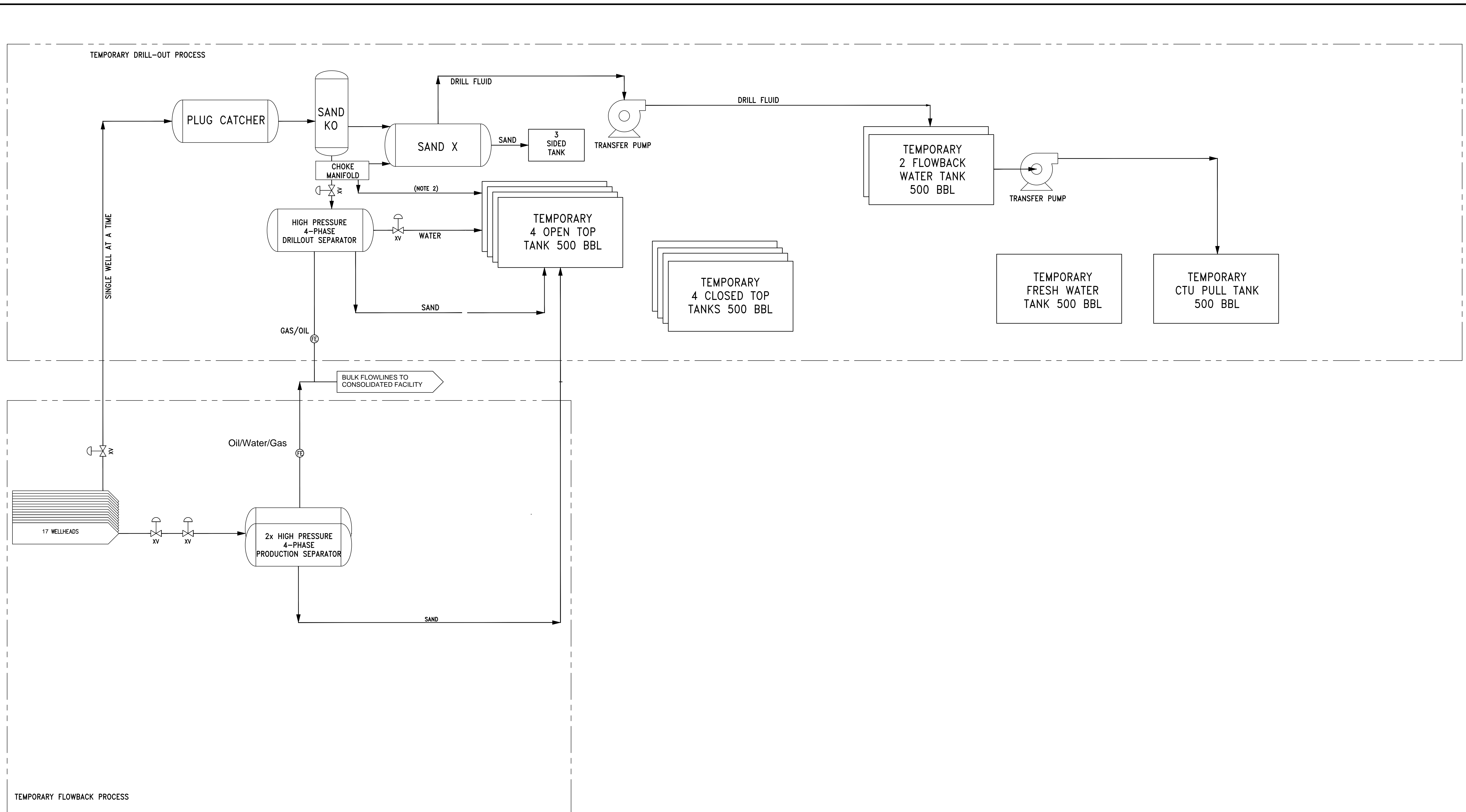
X-40600/40650
FLASH GAS METER

V-99110
KNOCKOUT POT
20" OD X 32" S/S
OT: 100F

FL-99100
ECD
IES 48" X 25'H
165 MSCFD @ 16 OZ/IN²



THIS NOTES:	REFERENCE DRAWINGS		REVISIONS						Kerr-McGee Oil & Gas Onshore LP	PROCESS FLOW DIAGRAM BRONCO NORTH FACILITY			



NOTES:

1. OIL, WATER, & GAS GOES IN BULK FLOWLINES TO CONSOLIDATED FACILITY FOR PROCESSING
2. INITIAL FLOW BYPASSES SEPARATORS DIRECTLY TO THE OPEN TOP TANKS UNTIL THE WELL PRODUCES OIL/GAS, THEN FLOW IS DIRECTED INTO THE SEPARATORS.

REFERENCE DRAWINGS		REVISIONS					
DWG. NO.	TITLE		ISSUED FOR PERMIT	TCT BY		MB CHK	JTK APPR
		NO.	DESCRIPTION		DATE		DATE

Kerr-McGee Oil & Gas Onshore LP

Midnight

PROCESS FLOW DIAGRAM

PRELIMINARY FLOWBACK EQUIPMENT

TEMPORARY

DRAWN BY: TCT	CREATION DATE:	AFE No.: -	
APPROVED: MB	APPR. DATE:		
SCALE: -	DWG. No.: Midnight PFD	SHEET No. - OF -	