

EQUIPMENT LIST						
TAG	DESCRIPTION	QTY	RATING / SIZE	MATERIAL	DWG	STATUS
P-101/102/103	DOWNHOLE ELECTRIC SUBMERSIBLE PUMP	3	70 KG/S EACH, 1,250 HP, 4.16 KV MOTOR	HIGH TEMP ESP	PID-101	NEW
S-101/102/103	WELLHEAD SAND SEPARATOR (DESANDER)	3	70 KG/S, 40 BARG / 230 °C	CS + HARDFACED	PID-101	NEW
H-101	PRODUCTION HEADER	1	24" NPS, 300#	A106 GR B	PID-101	NEW
L-101	PIG LAUNCHER	1	24" X 30" BARREL, 300#	A106 GR B	PID-101	NEW
R-101	PIG RECEIVER (AT PLANT)	1	24" X 30" BARREL, 300#	A106 GR B	PID-102	NEW
CI-101	SCALE / CORROSION INHIBITOR SKID	1	2 X 7.5 HP PUMPS (A/B), 4 M3 TOTE	316 SS	PID-101	NEW
XV-111/121/131	PRODUCTION WELL ESD VALVE	3	10" 300#, FAIL CLOSED	CS / INCONEL TRIM	PID-101	NEW
XV-211	INJECTION WELL ESD VALVE	1	16" 600#, FAIL CLOSED	CS	PID-101	NEW
T-101	PAD MAIN TRANSFORMER	1	34.5/4.16 KV, 5/6.25 MVA ONAN/ONAF, Z 6.5%	MINERAL OIL	E-001	NEW
SWGR-101	4.16 KV METAL-CLAD SWITCHGEAR	1	1200 A, MAIN + 5 FEEDERS		E-001	NEW
VFD-101/102/103	MEDIUM VOLTAGE VARIABLE FREQUENCY DRIVE	3	4.16 KV, 1,500 HP FRAME		E-001	NEW
T-102	AUXILIARY TRANSFORMER	1	4160/480 V, 500 KVA, DRY TYPE		E-001	NEW
MCC-101	480 V MOTOR CONTROL CENTER	1	800 A BUS		E-001	NEW
EH-101	PREFABRICATED ELECTRICAL HOUSE	1	SWGR-101, VFDS, MCC-101, RTU, UPS		C-001	NEW

ELECTRICAL LOAD LIST									
LOAD TAG	DESCRIPTION	SOURCE	VOLTS	RATED	CONN KW	LOAD FACTOR	RUN KW	DUTY	DWG
P-101	ESP MOTOR, PW-101	VFD-101	4160	1,250 HP	1,120	1.00	1,120	CONT	E-001
P-102	ESP MOTOR, PW-102	VFD-102	4160	1,250 HP	1,120	1.00	1,120	CONT	E-001
P-103	ESP MOTOR, PW-103	VFD-103	4160	1,250 HP	1,120	1.00	1,120	CONT	E-001
CI-101A	INHIBITOR PUMP A	MCC-101	480	7.5 HP	5.6	1.00	5.6	CONT	E-001
CI-101B	INHIBITOR PUMP B	MCC-101	480	7.5 HP	5.6	0.00	0.0	STANDBY	E-001
HVAC-101	E-HOUSE HVAC	MCC-101	480	40 KW	40.0	0.80	32.0	CONT	E-001
LP-101	LIGHTING PANEL	MCC-101	208/120	15 KVA	13.5	0.60	8.1	INTERM	E-001
UPS-101	UPS, DCS / RTU / ESD	MCC-101	480	15 KVA	13.5	0.70	9.5	CONT	E-001
CP-101	CATHODIC PROTECTION RECTIFIER	MCC-101	480	5 KW	5.0	1.00	5.0	CONT	E-001
HT-101	HEAT TRACE (WINTER)	MCC-101	480	20 KW	20.0	1.00	20.0	SEASONAL	E-001
	AUX DESIGN ALLOWANCE (FUTURE / SPARE)	MCC-101	480		46.8	1.00	46.8		
TOTAL	CONNECTED 3,510 KW (APPROX 3.5 MW)	T-101			3,510		3,487		

T-101 SIZING CHECK

CONNECTED LOAD 3,510 KW AT 0.95 PF = 3,695 KVA (RUNNING 3,487 KW)
T-101 5/6.25 MVA: LOADING 74% ONAN, 59% ONAF
MOTORS START ON VFD, NO DOL INRUSH
FOURTH WELL (52-5): 4,874 KVA, 97% ONAN / 78% ONAF. ADEQUATE ON ONAF

GENERAL NOTES

1.

EQUIPMENT RATINGS PER DESIGN BASIS, SUBJECT TO VENDOR DATA.

2.

ESP INPUT KW = 932 KW SHAFT (1,250 HP) / 0.90 MOTOR / 0.96 CABLE / 0.965 VFD = 1,120 KW.

3.

LOAD FACTORS PER STANDARD PRACTICE. STANDBY LOADS EXCLUDED FROM RUNNING TOTAL.

4.

AUX DESIGN ALLOWANCE BRINGS AUXILIARY TOTAL TO 150 KW.

5.

ALL VALUES PRELIMINARY.

REFERENCE DRAWINGS

MUF-PID-101 P&ID MAKEUP PAD MP-1 WELLHEADS AND PRODUCTION HEADER

MUF-E-001 ELECTRICAL ONE-LINE DIAGRAM

MUF-SCH-001 LINE LIST AND TIE-IN SCHEDULE

CLIENT



ENERGY

PROJECT

COUNTY,

PRELIMINARY - NOT FOR CONSTRUCTION

REVISIONS

REV	DATE	DESCRIPTION
A	2026-10-02	ISSUED FOR REVIEW

DESIGNED

[ENGINEER NAME]

DRAWN

[ENGINEER NAME]

CHECKED

APPROVED

DATE

2026-10-02

SCALE: NTS

PROCESS / ELECTRICAL

EQUIPMENT LIST AND ELECTRICAL LOAD LIST

MUF-SCH-002