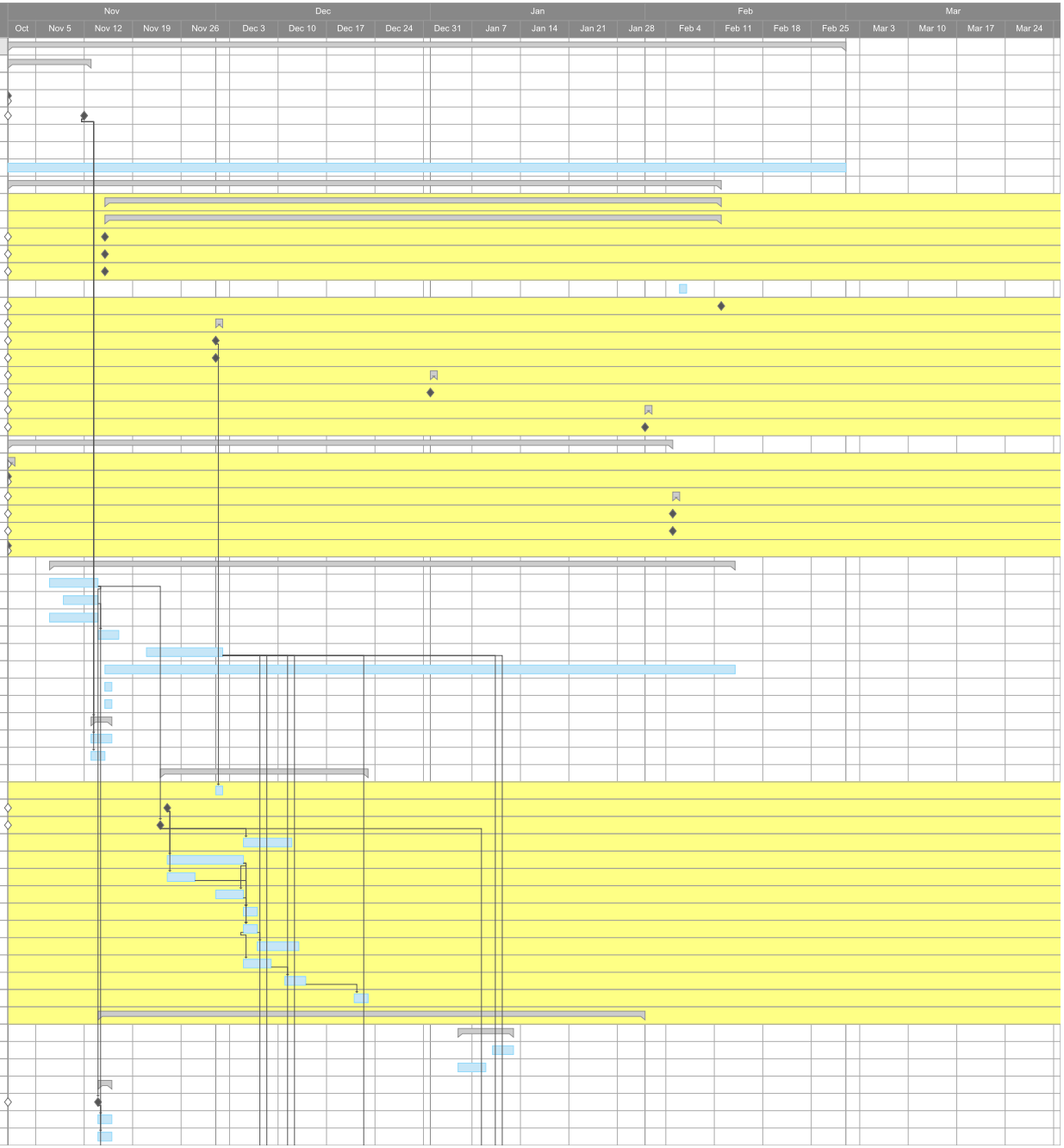
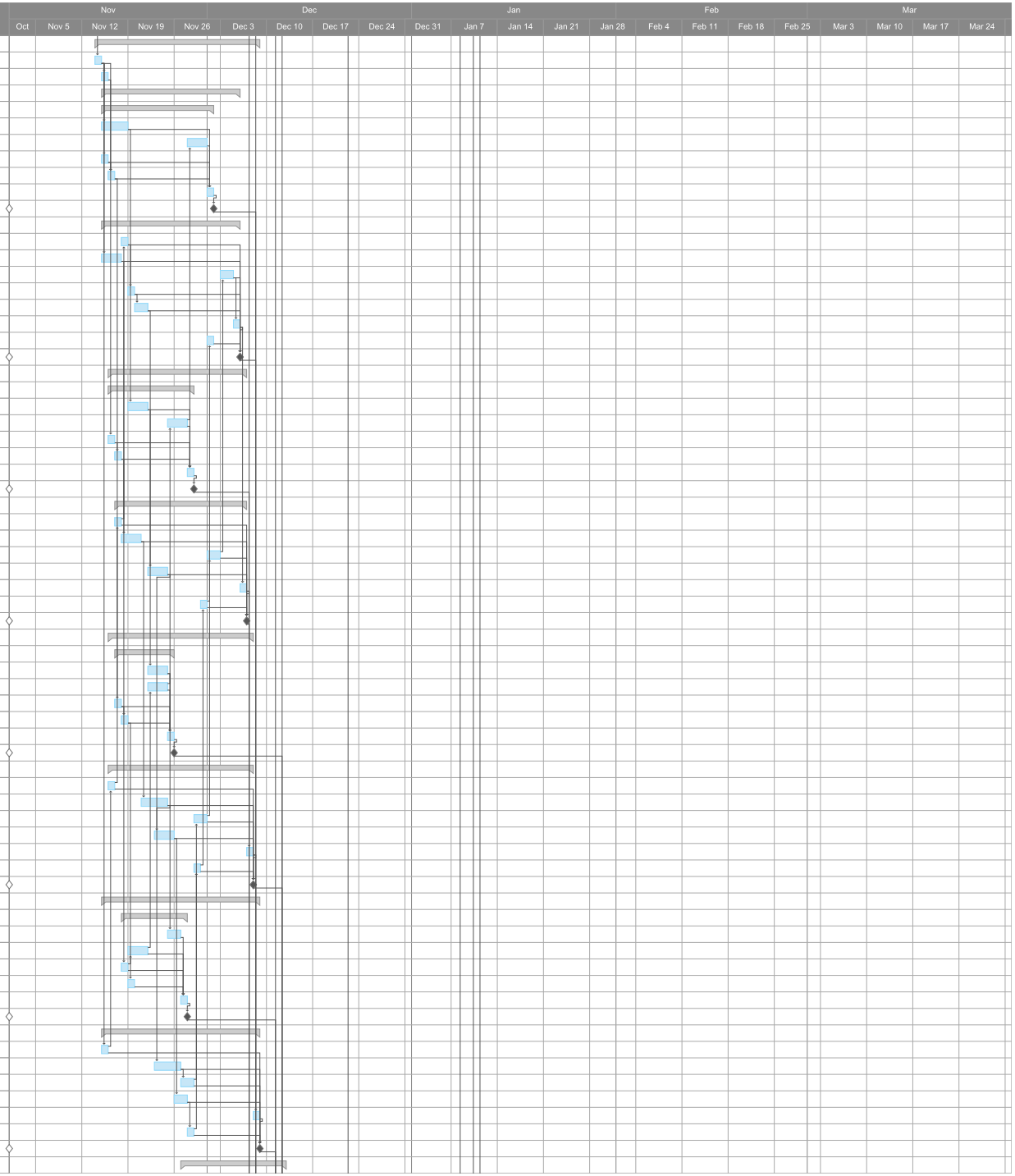
Rebaseline Schedule PY5-PY8

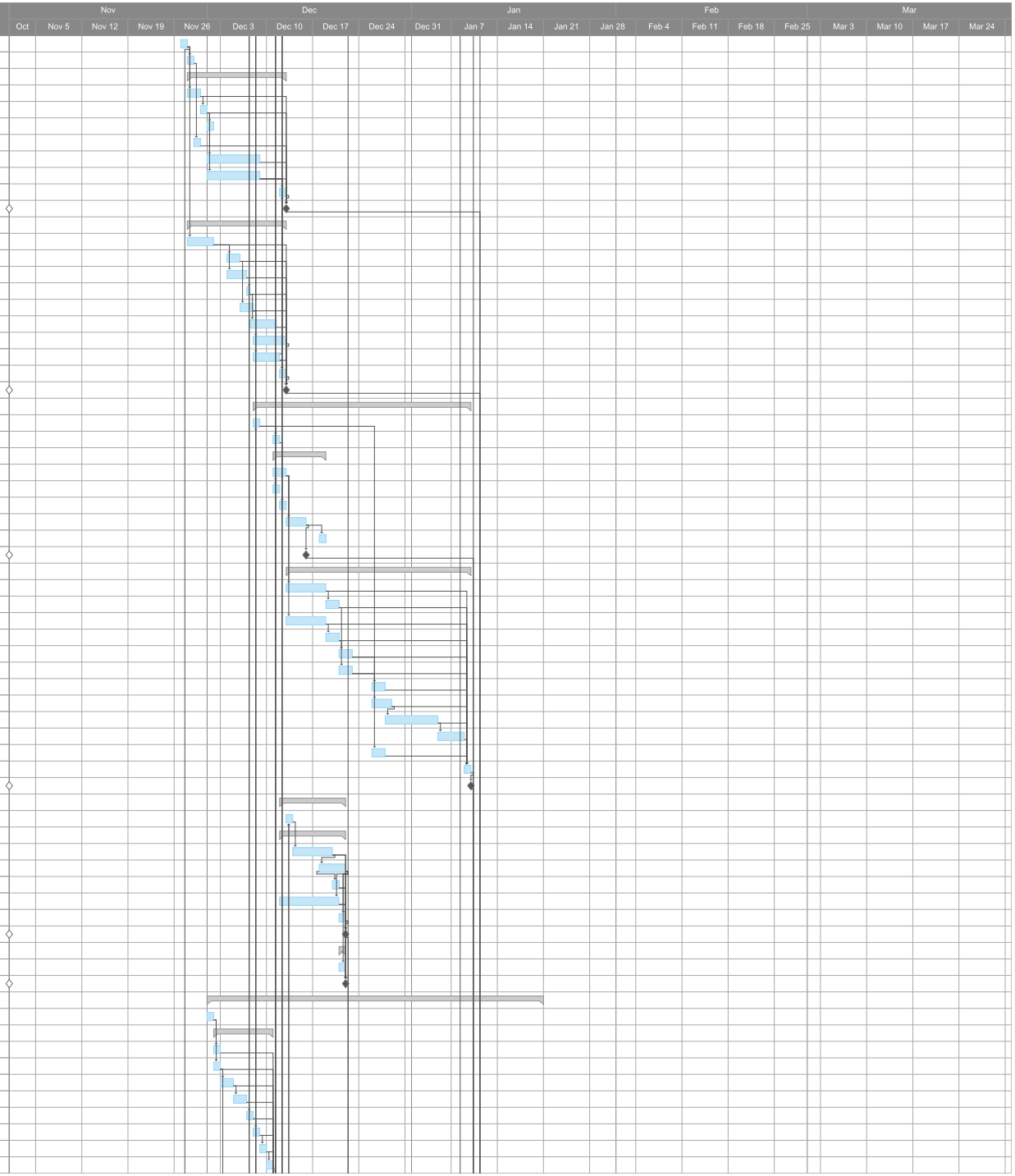
	Task Name
1096	USAP Field Season 1 (FY24)
1097	FS1 Milestones
1098	McM Mainbody Season Begins (USAP)
1099	South Pole Season Begins (USAP)
1100	ICU Team Arrives [Headcount 11]
1101	Pole Season Ends (USAP)
1102	MCM Season Ends (USAP)
1103	PQ, ECW & Deployment Travel Costs (FS1)
1104	USAP Cargo Movements (FY24)
1105	Pole (USAP)
1106	LC130 - Pole (USAP)
1107	Controls Component Crates Shipment 1 DNF (USAP)
1108	Controls Component Crates Shipment 2 DNF (USAP)
1109	ARA Drill System Components - Crate 1 (DNF) (USAP)
1110	Drill Heads X, Y, & R - DNF (USAP)
1111	Fuel - 19 Missions, 55,200 gallons (USAP)
1112	SPOT1 - Pole (USAP)
1113	Gen 2 (USAP)
1114	Refit Container C (20' ISO) Arrives (USAP)
1115	SPOT2 - Pole (USAP)
1116	Placeholder
1117	SPOT3 - Pole (USAP)
1118	Placeholder
1119	MCM (USAP)
1120	SAAM (ComSur) (USAP)
1121	Controls Component Crates Shipment 2 DNF (USAP)
1122	Vessel - MCM (USAP)
1123	Load Member Cable Reel (?) (USAP)
1124	Retrograde (USAP)
1125	Cargo Storage Support Pole and McMurdo (USAP)
1126	Early Season Kick-off Tasking
1127	Excavate EHWD & Equipment Berms for Access (USAP)
1128	Deliver MECC & Fuel Tank, Shop, SEW to Cryo (USAP)
1129	Set-up Cryo Worksite Power Feed & Fuel (USAP)
1130	Set-up MECC & Shop for Season Activities (Driller)
1131	Re-establish SES Pad, Groom & Compact Roads (USAP)
1132	Provide Heaters (PolarTherm) (USAP)
1133	Provide 287B Skidsteer & Snomo's (USAP)
1134	Provide Fire Extinguishers (USAP)
1135	SEW Season Prep Activities
1136	Stock Shelves/Cabinets w/ Needed Hardware and Tools
1137	Install new DGH Gateway/Ethernet box, Connect to Gen-1 Network Box, M-DGHs & Test
1138	Generators & PDM
1139	Receive & Set Gen 2 on Skis with Crane & Deliver to Cryo (USAP)
1140	Generators 1, 3 & PDM Delivered to Cryo (USAP)
1141	CRELL Gen Delivered to Cryo (USAP)
1142	Prepare CRREL Gen for Firn Drill Testing (USAP)
1143	Generators & PDM - Repairs & Pre-operational Checks
1144	Install 3rd Disconnect on PDM (USAP)
1145	Gen3 Preventative Maintenance (PM) (USAP)
1146	Deliver Fuel Tank & Fuel (USAP)
1147	Ready, Start-up & Exercise Gen1, Gen 2, & Gen3 (Driller & USAP)
1148	Install Intake & Exhaust Hoods
1149	Intake & Exhaust Hoods Installation Support (953 w/ stinger) (USAP)
1150	Relocate Gen 1, Gen 2, & Gen 3, & PDM from Cryo to SES (USAP)
1151	Winterize Gen Modules and PDM (Driller & USAP)
1152	EHWD: Upgrade & Replacement Work
1153	Global Computing & Controls
1154	Assess SES/TOS Interconnect Inventory
1155	Install and Test Modbus DGH Modules
1156	Drill Control Center (DCC)
1157	DCC Relocated to Cryo (USAP)
1158	Replace Electric Heater in Electrical Closet
1159	Clean-up Workspace & Configure



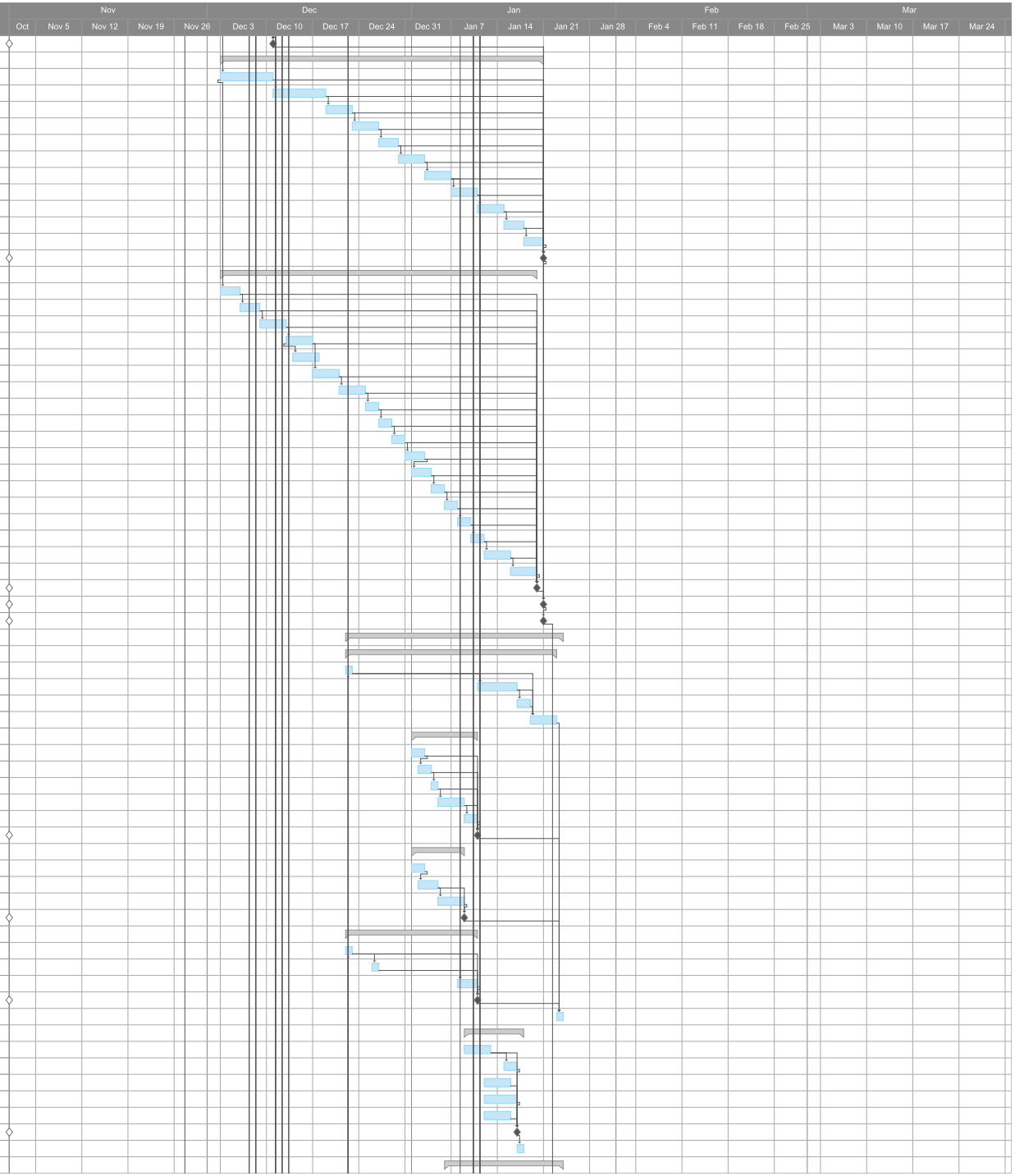
	Task Name
1160	**Main Heating Plants (MHP)**
1161	MHP Relocation Support (USAP)
1162	Install MHP Fall Restraint Towers (USAP)
1163	**MHP1**
1164	**Mechanical Refit & Repairs (MHP1)**
1165	Heater Flush and Pressure Test
1166	Plumbing Upgrades & Repairs
1167	Fuel System Upgrades and Repairs
1168	Exhaust System Upgrades and Repairs
1169	MHP Subsystem Evaluation
1170	MHP1 Mechanical Complete
1171	**Electrical/Controls Refit & Repairs (MHP1)**
1172	Install PLC-to-DGH Gateway in Network Box, Install M-DGHs, & Test
1173	Install Refurbished Heater Control Assemblies on All Heaters (M-DGHs pre-installed)
1174	Replace Thermostats in Heaters & Test
1175	Reconfigure MHP E-stop Panel to Function with N.C. Slap Switch Contacts
1176	Test E-stop and Heater Controls with No Water
1177	Test Flow Sensor Operation with No Water
1178	Install Ethernet Switch, Connect to Network Box, Route Cable to DCC & Test
1179	MHP1 Controls Complete
1180	**MHP2**
1181	**Mechanical Refit & Repairs (MHP2)**
1182	Heater Flush and Pressure Test
1183	Plumbing Upgrades & Repairs
1184	Fuel System Upgrades and Repairs
1185	Exhaust System Upgrades and Repairs
1186	MHP2 Subsystem Evaluation
1187	MHP2 Mechanical Complete
1188	**Electrical/Controls Refit & Repairs (MHP2)**
1189	Install PLC-to-DGH Gateway in Network Box, Install M-DGHs, & Test
1190	Install Refurbished Heater Control Assemblies on All Heaters (M-DGHs pre-installed)
1191	Replace Thermostats in Heaters & Test
1192	Test E-stop and Heater Controls with No Water
1193	Test Flow Sensor Operation with No Water
1194	Install Ethernet Switch, Connect to Network Box, Route Cable to DCC & Test
1195	MHP2 Controls Complete
1196	**MHP3**
1197	**Mechanical Refit & Repairs (MHP3)**
1198	Heater Flush and Pressure Test
1199	Plumbing Upgrades & Repairs
1200	Fuel System Upgrades and Repairs
1201	Exhaust System Upgrades and Repairs
1202	MHP3 Subsystem Evaluation
1203	MHP3 Mechanical Complete
1204	**Electrical/Controls Refit & Repairs (MHP3)**
1205	Install PLC-to-DGH Gateway in Network Box, Install M-DGHs, & Test
1206	Install Refurbished Heater Control Assemblies on All Heaters (M-DGHs pre-installed)
1207	Replace Thermostats in Heaters & Test
1208	Test E-stop and Heater Controls with No Water
1209	Test Flow Sensor Operation with No Water
1210	Install Ethernet Switch, Connect to Network Box, Route Cable to DCC & Test
1211	MHP3 Controls Complete
1212	**MHP4**
1213	**Mechanical Refit & Repairs (MHP4)**
1214	Heater Flush and Pressure Test
1215	Plumbing Upgrades & Repairs
1216	Fuel System Upgrades and Repairs
1217	Exhaust System Upgrades and Repairs
1218	MHP4 Subsystem Evaluation
1219	MHP4 Mechanical Complete
1220	**Electrical/Controls Refit & Repairs (MHP4)**
1221	Install PLC-to-DGH Gateway in Network Box, Install M-DGHs, & Test
1222	Install Refurbished Heater Control Assemblies on All Heaters (M-DGHs pre-installed)
1223	Replace Thermostats in Heaters & Test
1224	Test E-stop and Heater Controls with No Water
1225	Test Flow Sensor Operation with No Water
1226	Install Ethernet Switch, Connect to Network Box, Route Cable to DCC & Test
1227	MHP4 Controls Complete
1228	**Pre-Heat System (PHS)**



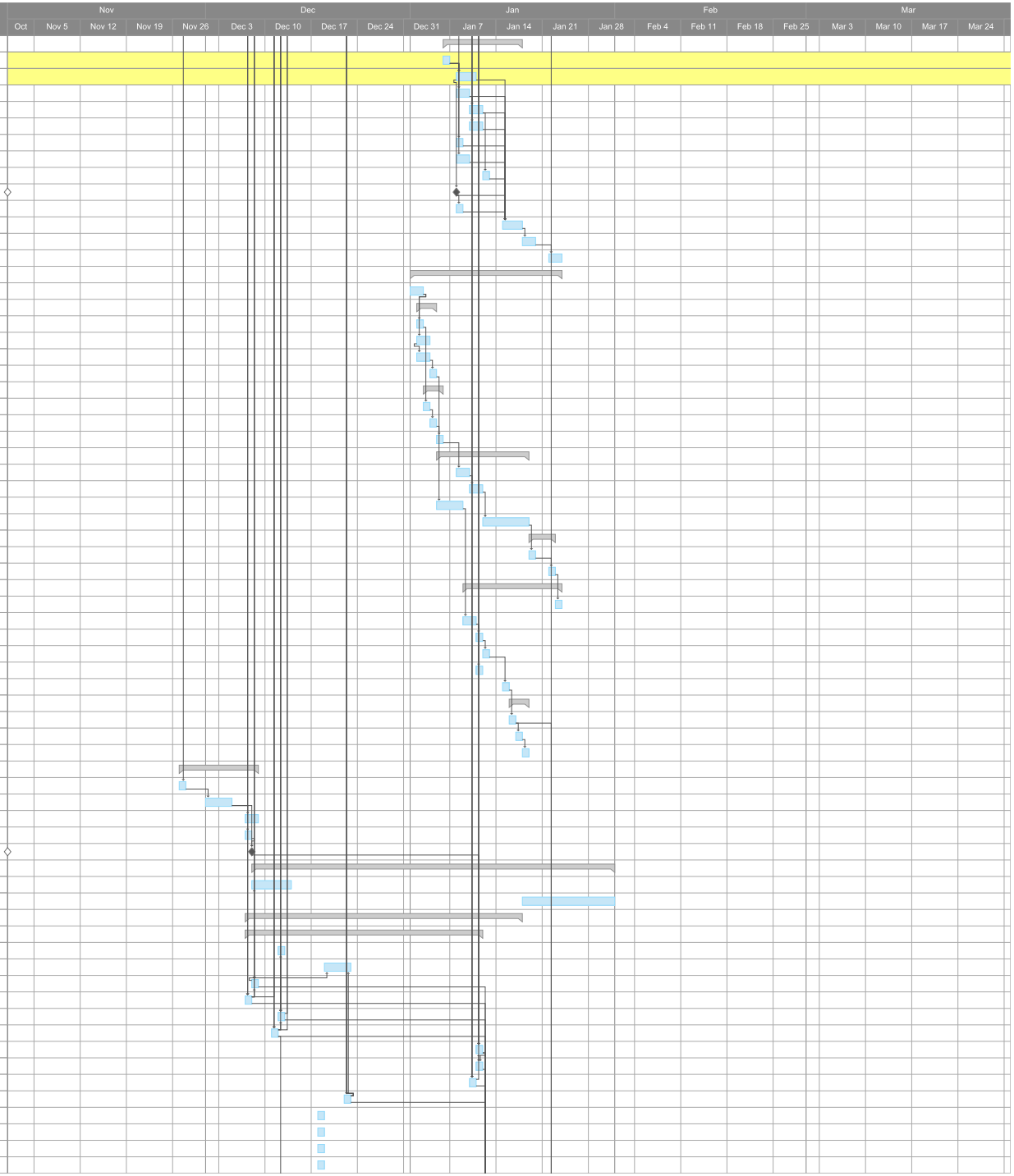
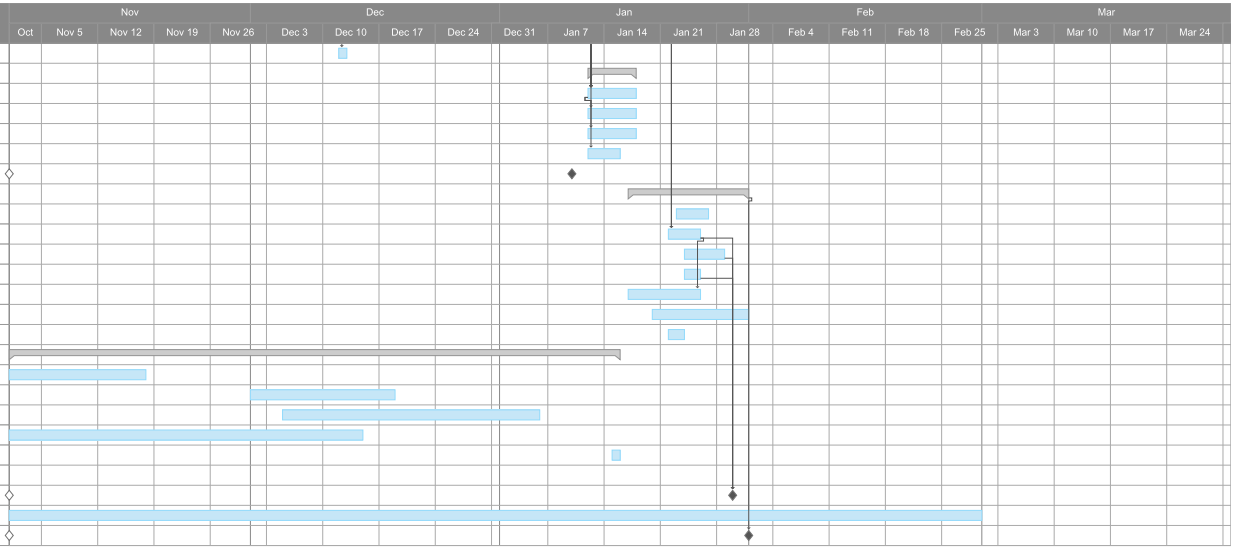
	Task Name
1229	PHS Relocation Support (USAP)
1230	Install PHS Fall Restraint Towers (USAP)
1231	**Mechanical Refit & Repairs (PHS)**
1232	Heater Flush and Pressure Test
1233	Plumbing Upgrades & Repairs
1234	Fuel System Upgrades & Repairs
1235	Exhaust System Upgrades & Repairs
1236	Install Condensate System
1237	Install Filtration System
1238	PHS Subsystem Evaluation
1239	PHS Mechanical Complete
1240	**Electrical/Controls Refit & Repairs (PHS)**
1241	Mount 4 Motor Drives, Connect AC Input and Output Leads
1242	Install New Motor-enable Relays in E-stop Box, Test with Motor Drives
1243	Install Refurbished Network Box and Heater M-DGHs, Connect Sensor Cables, & Test
1244	Replace Outdoor E-stop Slap Switch
1245	Test Heater Controls
1246	Connect and Test Tank Temperature and Level Sensors
1247	Test Integrated Subsystem with Mobile HMI: Controls, Feedback, Operational Logic
1248	Connect and Test Environmental Sensors (temperature, fire/smoke, flooding)
1249	PHS Subsystem Evaluation
1250	PHS Controls Complete
1251	**HPP**
1252	HPP Relocation Support (USAP)
1253	Install HPP Fall Restraint Towers (USAP)
1254	**Mechanical Refit & Repairs (HPP)**
1255	Plumbing Upgrades & Repairs
1256	Fuel System Upgrades and Repairs
1257	Exhaust System Upgrades and Repairs
1258	High Pressure Pump Upgrade & Repairs
1259	HPP Subsystem Evaluation
1260	HPP Mechanical Complete
1261	**Electrical/Controls Refit & Repairs (HPP)**
1262	Mount 4 Motor Drives, Connect AC Input & Output Leads
1263	Test Motor Drive Connections to E-stop, Sensors, Air Dampers, Inlet Pressure Switches
1264	Install New PLC box in HPP, Connect to Network Box, Test with Mobile HMI
1265	Install 4 Refurbished Soft-Start Boxes in HPP, Connect to AC & New PLC Box
1266	Install Re-built Pressure and Flow Sensor Box in HPP & Test
1267	Install Rebuilt DGH box for Reading Pressure and Flow Sensors & Test
1268	Install New Motor-enable Relays in E-stop box, Test with Motor Drives
1269	Install Refurbished Network box with M-DGHs, Connect Sensor Cables, & Test
1270	Test Integrated Subsystem with Mobile HMI: Controls, Feedback, & Operational Logic
1271	Connect and Test Environmental Sensors (temperature, fire/smoke, flooding)
1272	Test Air-handling System in HPP
1273	HPP Subsystem Evaluation
1274	HPP Controls Complete
1275	**Water Tanks & Handling Systems (VT & Submersible)**
1276	Water Tank Relocation Support (USAP)
1277	**Water Tanks Mechanical Refit & Repairs (VT & Submersible)**
1278	Water Tank Modifications (Railings & Ladders)
1279	Water Tanks Plumbing (Vert pumps, Sub. Pumps, Manifolds)
1280	Crane Support for Vertical Turbine Pump Installation (USAP)
1281	Construct and Install Water Tank Doghouses (USAP)
1282	Water Tank Subsystem Evaluation
1283	Water Tank Mechanicals Complete
1284	**Water Tanks Electrical/Controls Refit & Repairs (VT & Submersible)**
1285	Sensor Updates and Wiring Evaluation
1286	Water Tank Electrical/Controls Complete
1287	**TOS & Towers**
1288	TOS/Tower Relocation Support (USAP)
1289	**TOS Team 1**
1290	Mate TOS1/Tower1
1291	Mate TOS2/Tower2
1292	Evaluate Structures & Inventory TOS2/Tower2
1293	Evaluate Structures & Inventory TOS1/Tower1
1294	Fuel and Exhaust System Upgrades and Repairs TOS1/Tower1
1295	Fuel and Exhaust System Upgrades and Repairs TOS2/Tower2
1296	Evaluate TOS/Tower Interconnects TOS2/Tower2
1297	Evaluate TOS/Tower Interconnects TOS1/Tower1



	Task Name
1298	TOS/Tower Team 1 Tasking Complete
1299	**TOS Team 2**
1300	TOS1 - Install 8 Motor Drives, Connect AC Input & Output Leads, Connect to Network & I/O Boxes
1301	TOS2 - Install 8 Motor Drives, Connect AC Input & Output Leads, Connect to Network & I/O Boxes
1302	TOS2 - Install and Test New Payout Encoders, Load Cells, and Connections to new PLC Box
1303	TOS1 - Install and Test New Payout Encoders, Load Cells, and Connections to new PLC Box
1304	TOS2 - Install Missing TOS2 Line Filters for all Motor Drives (removed in 2010 by G.T.)
1305	TOS2 - Test MCR Drives w/ SHR motors, Limit Switches, E/R-stops, Pendant and Sensors
1306	TOS1 - Test MCR Drives w/ SHR motors, Limit Switches, E/R-stops, Pendant and Sensors
1307	TOS1 - Test MSHR Drives with SHR Motors, Limit Switches, E/R-stops, Pendant and Sensors
1308	TOS2 - Test MSHR Drives with SHR Motors, Limit Switches, E/R-stops, Pendant and Sensors
1309	TOS2 - Test Return Water Pump Motor Drive
1310	TOS1 - Test Return Water Pump Motor Drive
1311	TOS/Tower Team 2 Tasking Complete
1312	**TOS/Tower Team 3**
1313	TOS2 - Install and Test Refurbished E-stop Box
1314	TOS1 - Install and Test Refurbished E-stop Box
1315	TOS1 - Install 4 Rebuilt I/O Boxes for Cable Reel, Hose Reel, & RW Hose Reel
1316	TOS2 - Install 4 Rebuilt I/O Boxes for Cable Reel, Hose Reel, RW Hose Reel, & Tower Hoist Wiring
1317	Aerial Lift Support for Tower 2 Hoist Rewire (USAP)
1318	TOS1 - Install all Local Ethernet, E-stop, Fault Connections & Test
1319	TOS2 - Install all Local Ethernet, E-stop, Fault Connections & Test
1320	TOS1 - Install New DGH Gateway/Ethernet Switch/PLC box, Connect to Gen-1 Network Box
1321	TOS2 - Install New DGH Gateway/Ethernet Switch/PLC box, Connect to Gen-1 Network Box
1322	TOS2 - Test RWCR Motor, E & Reel Stops, Pendant and Sensors
1323	TOS1 - Test RWCR Motor, E & Reel Stops, Pendant and Sensors
1324	TOS1 - Test RWHR Motor, E & Reel Stops, Pendant and Sensors
1325	TOS2 - Test RWHR Motor, E & Reel Stops, Pendant and Sensors
1326	TOS2 - Install and Test Tower Hoist AC and Encoder Wiring (cut when hoist was removed for WISSARD)
1327	TOS2 - Test Tower Winch, E-stop, Reel Stop, Pendant, & Limit Switches
1328	TOS1 - Test Tower Winch, E-stop, Reel Stop, Pendant, & Limit Switches
1329	TOS2 - Test Integrated Subsystem with Mobile HMI: Controls, Feedback, Operational Logic
1330	TOS1 - Test Integrated Subsystem with Mobile HMI: Controls, Feedback, Operational Logic
1331	TOS/Tower Team 3 Tasking Complete
1332	Subsystem Evaluation
1333	TOS/Tower Refit Complete
1334	**Reels**
1335	**Main Supply Hose Reel (MSHR)**
1336	MSHR Relocation Support (USAP)
1337	Install Manifold, Heat Trace & Insulation
1338	Inspect Drive and Control Components, Energize & Test
1339	MSHR Repairs & Refit Complete
1340	**Return Water Hose Reel (RWHR)**
1341	RWHR Relocation Support (USAP)
1342	Install Microbrake & Service Drum Brake and Gear Box
1343	Install Heat Trace & Insulation on Water Plumbing
1344	Install Motor
1345	Inspect Drive and Control Components, Energize & Test
1346	RWHR Refit & Repairs Complete
1347	**Return Water Cable Reel (RWCR)**
1348	RWCR Relocation Support (USAP)
1349	Install Slip Rings
1350	Inspect Drive and Control Components, Energize & Test
1351	RWCR Repairs & Refit Complete
1352	**Main Cable Reel (MCR)**
1353	MCR Relocation Support (USAP)
1354	Install Slip Ring
1355	Inspect Drive and Control Components, Energize & Test
1356	MCR Repair & Refit Complete
1357	Berm all Reels for Winter (USAP)
1358	**Winches (TU-15, TU-20s)**
1359	TU20 x 2 - Replace Hydraulic Pump & Upgrade Hydraulic Plumbing
1360	TU15 - Replace Hydraulic Pump & Upgrade Hydraulic Plumbing
1361	TU20 Test Brake/Control Interface Boxes w/ Brakes (FW rectifier and fuse)
1362	TU20 - Install Slip Rings & Test
1363	Inspect Drive and Control Components, Energize & Test
1364	Winches Complete
1365	Berm Winches for Winter (USAP)
1366	**Independent Firn Drill (IFD)**



	Task Name
1367	**Refit, Repairs, & Testing (IFD)**
1368	Deliver Firn Drill to Cryo Worksite (USAP)
1369	Integrate & Support CRREL Gen for Firn Drill Testing (USAP)
1370	Replace Appleton Disconnect (USAP)
1371	Install Sheave - Crane or Station Hoist
1372	Crane or Station Hoist Support for Sheave Installation (USAP)
1373	Install Brake Pump & Solenoid
1374	Install DNF - Black box, Thermostats, Power Meter, & Inst. Readout
1375	Load Cell Calibration/Verification
1376	Supply Glycol PG (USAP)
1377	Fill System w/ Glycol
1378	Test Firn Drill
1379	Winterize (IFD) 2ME 2 TE
1380	Stored IFD for Winter (USAP)
1381	**Integrate ARA Drill (RodWell system)**
1382	Deliver ARA Drill To Cryo Worksite - Precommission
1383	**White Generator - Commission**
1384	Warm-up, Inspect Gen, Fill fluids, Install Fire Extinguisher, & Test-run John Deere with External Load
1385	White Gen Electrical Rework
1386	Electrician Support for White Gen Rework (USAP)
1387	Install Control Interface Panel, Downhole Pump Controller, Ext. E-stop Slap, & Power up from Cryo
1388	**Sled 2 Water Tank Sled - Precommission**
1389	Warm-up & Inspect, Check HMW Sheets, & Tie-offs, Glycol Tank, Glycol Heater, Hoses & Connections
1390	Install ePump, Accessories, & ePump Controller (DNF-requires power)
1391	Checkout & Testing Sled 2
1392	**Sled 3 Drilling Sled - Precommission**
1393	Warm-up & Inspect Components, Install Stacks, Install Hoist, Top-off Fuel Tank, Reel Brake, Heat Trace
1394	Plumbing Upgrades & Repairs
1395	ARA DCC Upgrades & Install
1396	Hose Cable Bundle Replace
1397	**Rodwell Drill Head Commissioning**
1398	Locate Components, Set-up Drillheads on Bench, Inspect, Sensor tests
1399	Drillhead Chain Testing & Verification
1400	**System Commissioning**
1401	System Commissioning Set-up Tasks & Global Tests
1402	Hose Reel Commissioning
1403	Circulation Testing, w/ Glycol - Staged Approach
1404	Heater Commissioning
1405	Global Controls & E-stop Testing
1406	System Testing in Test Well
1407	**System Winterize and Store**
1408	Drain & Blow-out System
1409	Remove and Store DNF Hardware
1410	Tarp, Cover, & Plug
1411	**Fuel Tower**
1412	Fuel Tower Relocation Support (USAP)
1413	Mechanical Repairs & Upgrades
1414	Test Existing Local Hardware, Control Functionality, Document
1415	Fill Fuel Tower with Fuel
1416	Fuel Tower Ready to Supply Fuel
1417	**Heat Pump Unit 2 (HPU2)**
1418	HPU Relocation Support (USAP)
1419	Initial Evaluation & Refit (HPU2)
1420	**Seasonal Equipment Site (SES) Setup**
1421	**MHP Relocation to SES**
1422	Deliver Warm-up Shack Kuma Heated (USAP)
1423	Driller Support for MHP Relocation (Driller)
1424	MHP1 Relocation to SES (USAP)
1425	MHP2 Relocation to SES (USAP)
1426	MHP3 Relocation to SES (USAP)
1427	MHP4 Relocation to SES (USAP)
1428	PHS Relocation to SES (USAP)
1429	Fuel Tower Relocation to SES (USAP)
1430	HPP Relocation to SES (USAP)
1431	Water Tanks Relocation to SES (USAP)
1432	Gen1 Relocation to SES (USAP)
1433	Gen2 Relocation to SES (USAP)
1434	Gen3 Relocation to SES (USAP)
1435	PDM Relocation to SES (USAP)



	Task Name
1436	Provide Temp Small Temp Generator for SES and Establish (USAP)
1437	**Interconnect Evaluation - Hoses, Cables & Cable Trays for SES**
1438	Cable Trays - Mount/Install
1439	Hoses - Layout, Inventory, Repair & Test
1440	Cables - Layout, Inventory, Repair & Test
1441	Establish Fuel Tower at SES
1442	SES Initial Setup Complete
1443	**End of NPX Season Close-Out Work**
1444	Document, Photograph Equip & Upgrade Work, Further Req's
1445	Remove DNF (Computer Equip, Drives, & Capacitors) & Store
1446	Winterize/Close/Store all EHWD Equipment
1447	Setup & Connect Hose Heating Controller, test over FS1-FS2 winter
1448	Crate, Pack and Deliver Retro to Cargo
1449	Winter Storage Support: TOS 1 & 2 (USAP)
1450	Setup and Connect Hose Heating Controller, Test over FS1-FS2 Winter
1451	**Other Field Activities (FS1)**
1452	MCM Logistics Rep (Driller)
1453	GPR Re-survey: Cable Routes & Hole Locations (USAP)
1454	Electrician Support - ICL Overwinter Storage & Rack Feeders (USAP)
1455	Logistics Support - MCM & Pole (USAP)
1456	Surface Cable, Hose, & Reels Over-Winter Storage - MCM (USAP)
1457	Drill Hose & Main/RWCR Over-Winter Storage - McM (USAP)
1458	ICU Field Team Redeployed
1459	On-Ice Labor (FS1)
1460	END NPX FS1 Season