



# **Gas Capture Plan**

**Grizzly Hebron S12 Pad  
ECMC Location ID 448834**

**July 2024**

**Jackson County, Colorado**

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## **Article I. Introduction**

### ***Facility Information***

Fulcrum Energy Operating, LLC (FEO) operates numerous wells in the North Park Basin near Walden, CO. Many of these wells were drilled by predecessor operators, including EOG Resources Inc., EE3 LLC, Sandridge Exploration & Production, LLC and D90 Energy, LLC. There is currently no pipeline to transport natural gas out of the North Park Basin to market. FEO makes every effort to use produced gas on-site to run gas fired equipment. For excess produced gas which cannot be used on-site, FEO is exploring both long-term and short-term (interim) gas transportation, sales and utilization efforts, which are described in more detail in the sections below. FEO has connected as many wells as possible to two, FEO owned gas gathering systems in the field – a Northern Gathering System and a Southern Gathering System. The wells associated with each system can be found in the Exhibit A - Northern & Southern Gas Gathering Systems – Associated Wells.

## **Article II. Plan Narrative**

### ***Overview***

FEO and previous operators in the North Park area have explored multiple long-term gas take-away options, including (i) building a pipeline to the closest point of sale near Laramie, Wyoming in NWSE of Section 11, T15N, R74W (41.284796 °N, 105.664108°W); and (ii) building a pipeline to Xcel Energy’s William’s Fork Compression Facility approximately 67 miles away in Grand County. It has been determined after multiple years of feasibility studies and working alongside these organizations that they are not viable options at this point in time and will not be pursued for the foreseeable future. However, FEO is still exploring other long-term options for capturing and using natural gas produced from the wells drilled in the North Park Basin. Additionally, FEO has explored and continues to look for additional interim and short-term options for capturing, using and selling produced natural gas. Some of these options are detailed in the following sections.

### ***Long-Term Rawlins Option***

There are several interstate pipelines located adjacent to Interstate 80 in Wyoming, approximately 90 miles north of the North Park Basin and 80 - 81 miles from the Grizzly Hebron S12 Pad. The most practical points of sale for natural gas are either the Colorado Interstate Pipeline (currently operated by KinderMorgan) located at approximately 41.741°N, - 106.806°W and the Rockies Express Pipeline (currently operated by Tallgrass) located at approximately 41.722°N, - 106.806°W near Rawlins, Wyoming as indicated on the attached Exhibit B – Long-Term Rawlins Option. This map shows the Bighorn S17 CTB as the starting point for practical purposes. The Grizzly Hebron S12 Pad is 1.65 miles northwest of the Bighorn S17 CTB. Construction of a new gas pipeline from the North Park Basin to the interstate pipelines located adjacent to I-80 near Rawlins would be very difficult and time-consuming to construct. Permits would be necessary from the Bureau of Land Management and several other State and Federal agencies and many private landowners. FEO completed an engineering and environmental study to determine the feasibility of constructing a natural gas pipeline from the North Park Basin to the existing interstate pipelines located adjacent to I-80 near Rawlins. The feasibility study was completed in January 2023 and determined that a pipeline project to the existing interstate pipelines near Rawlins, Wyoming is feasible. Please see the attached Exhibit B which is a potential route for the pipeline. The earliest permits and rights-of-way could likely be obtained would be 2026 Q4. Based on that timeline, the earliest that construction could begin would be 2027 Q2. If the pipeline could be completed by 2027 Q4, gas could be sold into one or more of the interstate pipelines starting approximately 2028 Q1. Fulcrum does not currently have a contract with either operating entity named above. The owners noted above are accurate at the time of this filing, however, pipelines can be sold and the owners noted above may change at any time without FEO’s knowledge. Every effort will be made to update Gas Capture Plans as new information is obtained.

### ***Interim Gas Capture Plan for Production Operations***

As noted in the introduction, FEO has connected the majority of the producing wells in the North Park Basin to one of two gas gathering systems. Please see Exhibit A. In the Northern Gathering System, produced gas that cannot be used on-site to run gas-fired equipment is put into the FEO owned gas gathering system and routed to a location where it is sold to a 3<sup>rd</sup> party data processing/data mining/cloud computing company with units installed adjacent to the Gregory 0780 S9 Pad (Location ID 439603) or similar units on the Oxbow 0880 S29 Pad (Location ID 458790). In the Southern Gathering System, produced gas that cannot be used on-site to run gas-fired equipment is put into the FEO owned gas gathering system and routed to a location where it is sold to a 3<sup>rd</sup> party data processing/data mining/cloud computing company with units installed either on the Surprise Unit 0680 S4 CTB (Location ID 436676), Surprise Unit 0680 S9 Pad (Location ID 445005), or the Veneta 0780 S32 CTB (Location ID 324752). At these locations, the produced gas purchased by the 3<sup>rd</sup> party is utilized to power engines for data processing/data mining/cloud computing units. Equipment owned and operated by the 3<sup>rd</sup> party is permitted by the 3<sup>rd</sup> party with the appropriate agencies, including but not limited to the Colorado Department of Public Health and Environment (CDPHE). Points of sale at each location where custody is transferred from FEO to the 3<sup>rd</sup> party are noted on the attached facility layout diagrams – please see Exhibits E through I.

FEO is continually assessing produced gas volumes in the field and collaborating with 3<sup>rd</sup> parties to ensure full use of produced gas for equipment operations – both FEO onsite gas use and gas being sold to 3<sup>rd</sup> parties. As new wells are brought on and/or production volumes change, FEO is working with the 3<sup>rd</sup> parties to install and/or move data processing/data mining/cloud computing equipment throughout the field. The locations of the data processing/data mining/cloud computing units are chosen based on multiple factors, including landowner approval, physical space, proximity to existing operations, connection to pipelines, environmental permitting, etc. FEO makes every effort to consolidate operations and to utilize existing well pads, CTBs and surface disturbances when negotiating the location of the 3<sup>rd</sup> party equipment. By utilizing existing disturbance, consolidating and co-locating operations, FEO is also mitigating noise, light, dust and stormwater impacts to nearby residential building owners, surface owners, wildlife and the environment in the proximity of FEO's operations. Because the 3<sup>rd</sup> party equipment is located on or near FEO operated wells and facilities, there is a great deal of communication and coordination between FEO and the 3<sup>rd</sup> parties regarding equipment and site maintenance, good housekeeping and overall safety efforts.

Additionally, FEO is evaluating the feasibility of connecting the Northern and Southern Gas Gathering systems previously described, which would create additional optionality for gas-use and sales throughout the field.

### ***Drilling & Completion Operational Phase Compliance***

During Drilling Operations, gas emissions will be captured or combusted downstream of the mud-gas separator using best drilling practices while maintaining safe operating conditions. If capturing or combusting gas would pose safety risks to onsite personnel, FEO will provide verbal notification to the Director within 12 hours and submit a Form 4, Sundry Notice within 7 days. If venting pursuant to this Rule 903.b.(2) exceeds 24 hours, FEO will seek the Director's approval to continue venting. Combustors will be located a minimum of 100 feet from the nearest surface hole location and will be enclosed.

During Completion Operations, FEO will adhere to reduced emission completion practices as specified by reference in Rule 901.b, on all newly completed and re-completed oil and gas wells regardless of whether the well is hydraulically fractured. All flowback vessels will be enclosed and will adhere to emission reduction from pre-production flowback vessels standards as incorporated by Rule 901.b.

It may be necessary during completion and flowback operations for Fulcrum to flare gas. If that is the case, a Form 4 with the required data will be submitted for prior approval. All gas will be combusted in an enclosed device equipped with an auto-ignitor or continuous pilot and a design destruction efficiency of at least 98% for hydrocarbons.

After the Commencement of Production Operations, venting or flaring of natural gas produced from any completed well will be prohibited except under the circumstances described in 903.d.

### **Article III. Mitigation Measures and Best Management Practices**

#### ***Testing (if applicable)***

The wells drilled in the North Park Basin are not Wildcat (Exploratory) Wells and Production Evaluation or Productivity Tests are not planned to occur.

#### ***Anticipated Safety Risks***

There are no anticipated safety risks that will require FEO to allow gas to escape, rather than being captured or combusted during drilling, completion and production operations.

All Flared gas will be combusted in an enclosed device equipped with an auto-igniter or continuous pilot light and a design destruction efficiency of at least 98% for hydrocarbons.

#### ***Minimize Venting BMPs***

It is FEO's operational goal to avoid venting during any active and planned maintenance when possible. In order to achieve this, equipment is removed from service prior to maintenance to allow pressurized gas to feed back into the system prior to initiating work. The equipment is then isolated from the system by closing all valves feeding into it.

Closed top tanks will be utilized during completion and flowback operations. A VRU will be used to capture vapors and FEO will ensure they are appropriately handled via pipeline and/or sent to combustion as necessary.

When venting is unavoidable to perform maintenance, the equipment is isolated prior to initiating maintenance work. By isolating the equipment, the amount of gas vented is substantially reduced as only the gas in the equipment is vented, not the entire system the equipment is attached to.

#### ***Well Liquids Unloading Minimization BMP***

FEO performs well liquids unloading activities when a rod part cannot be fished and fluid in the tubing requires removal prior to pulling the tubing. Removing fluid in the tubing is required to avoid a produced fluid spill onto the surface area around the wellhead. During a well liquids unloading event, FEO utilizes a tool to capture both produced fluid and gas during the swabbing operation avoiding venting to the atmosphere. The tubing fluid and gas is re-routed to the casing valve below the closed blowout preventor. The re-routing of fluid and gas prevents venting to the atmosphere as all fluids and gas go back into the tubing and casing annulus instead of an open top tank. In situations where this method is not feasible, closed top tanks and combustors are used to capture and control vapors, similar to flowback operations. For any other cases of well liquids unloading FEO will take fluid either directly to the facilities or to a no-emissions set-up as needed.

#### ***Anticipated Production Volumes, Measurement and Reporting***

The anticipated and approximate production volumes for all FEO wells in the North Park Basin can be found on Exhibit D. All separation, processing and storage equipment is sized to handle maximum peak production volumes, to optimize gas processing and capture, and to support safe and efficient production operations in accordance with applicable rules and regulations.

FEO will measure the volume of all gas Sold, Vented, Flared, and/or Used by direct measurement or estimation. The volume of gas Sold, Vented, Flared, and/or Used and the method of measurement will be reported on a per well basis on the Form 7, Operator's Monthly Report of Operations.

All Mineral Owners of the volume of gas that is Sold, Vented, Flared, and/or Used on-lease will be appropriately compensated per applicable lease terms and federal, state and local rules/regulations, and said Mineral Owners will also be appropriately notified by FEO. FEO will maintain records and will provide the records to the Director upon request.

**Article IV. Exhibits/References/Appendices**

**Exhibit A - Northern & Southern Gas Gathering Systems - Associated Wells**

FEO Well Pad	FEO Well Name	FEO Gas Gathering System	Location of Third-Party Gas Sales & Utilization
Grizzly-Hebron S12 Pad	Grizzly 0781 2-1H36	Northern	Adjacent to Gregory 0780 S9 Pad, Oxbow 0880 S29 Pad
Grizzly-Hebron S12 Pad	Grizzly 0781 4-1H36	Northern	
Grizzly-Hebron S12 Pad	Peters 0781 16-12H13	Northern	
Gregory S9 Pad	Castle 0780 5-17H20	Northern	
Gregory S9 Pad	Castle 0780 6-17H20	Northern	
Gregory S9 Pad	Castle 0780 7-17H20	Northern	
Gregory S9 Pad	Castle 0780 8-17H20	Northern	
Gregory S9 Pad	Gregory 1-9H	Northern	
Gregory S9 Pad	Janet 0780 1-16H21	Northern	
Gregory S9 Pad	Janet 0780 2-16H21	Northern	
Gregory S9 Pad	Janet 0780 3-16H21	Northern	
Gregory S9 Pad	Janet 0780 4-16H21	Northern	
Grizzly S32 Pad	Grizzly 3-32H	Northern	
Hebron S18 Pad	Hebron 1-18HR	Northern	
Hebron S18 Pad	Hebron 2-18H	Northern	
Hebron S18 Pad	Hebron 5-18H	Northern	
Mutual S17 Pad	Castle 0780 1-17H20	Northern	
Mutual S17 Pad	Hebron 0780 3-18H	Northern	
Mutual S17 Pad	Hebron 0780 4-18H	Northern	
Mutual S17 Pad	Hebron 0780 4-7H	Northern	
Mutual S17 Pad	Mutual 0780 2-8H	Northern	
Mutual S17 Pad	Mutual 0780 3-8H	Northern	
Mutual S17 Pad	Mutual 0780 4-8H	Northern	
Mutual S17 Pad	Mutual 7-17H	Northern	
Open Range 18 Pad	Peters 0781 9-13H12	Northern	
Open Range 18 Pad	Peters 0781 10-13H12	Northern	
Open Range 18 Pad	Peters 0781 11-13H12	Northern	
Open Range 18 Pad	Peters 0781 13-13H12	Northern	
Open Range 18 Pad	Peters 0781 15-13H12	Northern	
Oxbow S29 Pad	PRU 0880 2-29H17	Northern	
Oxbow S29 Pad	PRU 0880 6-29H17	Northern	
Oxbow S29 Pad	Patriot 0880 12-32H5	Northern	
Oxbow S29 Pad	Patriot 0880 13-32H5	Northern	
Oxbow S29 Pad	Patriot 0880 14-32H5	Northern	
Oxbow S29 Pad	Patriot 0880 15-32H5	Northern	
Spicer S32 Annex	SU-Spicer 0680 1-5H17	Southern	Surprise Unit 0680 S9 Pad, Surprise Unit 0680 S4 CTB and Veneta 0780 S32 CTB
Spicer S32 Annex	SU-Spicer 0680 2-5H17	Southern	
Spicer S32 Annex	SU-Spicer 0680 3-5H17	Southern	
Spicer S32 Annex	SU-Spicer 0680 4-5H17	Southern	
Surprise-Damfino S6 Pad	Damfino 0680 5-6H31	Southern	
Surprise-Damfino S6 Pad	Damfino 0680 7-6H31	Southern	
Surprise-Damfino S6 Pad	Damfino 0680 8-6H31	Southern	
Surprise Unit S8 Pad	Surprise 2-08H	Southern	
Surprise Unit S9 Pad	SU 0680 3-9H16	Southern	
Surprise Unit S9 Pad	SU 0680 6-4H	Southern	
Surprise Unit S9 Pad	SU 0680 12-9H16	Southern	
Surprise Unit S9 Pad	SU 0680 1-4H5	Southern	
Surprise Unit S9 Pad	SU 0680 2-4H	Southern	
Surprise Unit S9 Pad	SU 0680 4-4H	Southern	

**Exhibit B – Long-Term Rawlins Option**

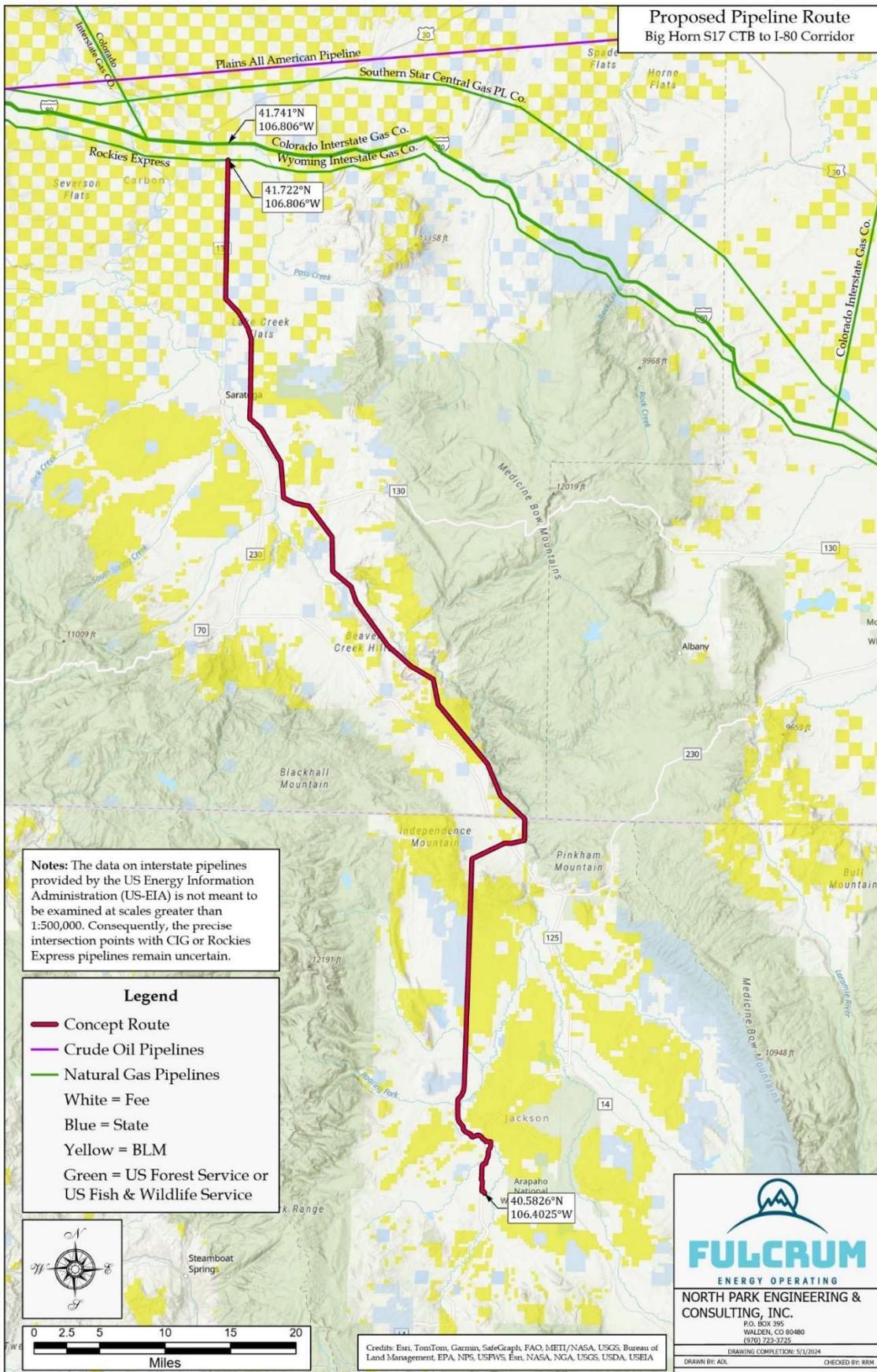


Exhibit C – Long-Term Electricity Generation Option



**Exhibit D - FEO Per Well Anticipated Production Volumes**

FEO Per Well Anticipated Production Volumes

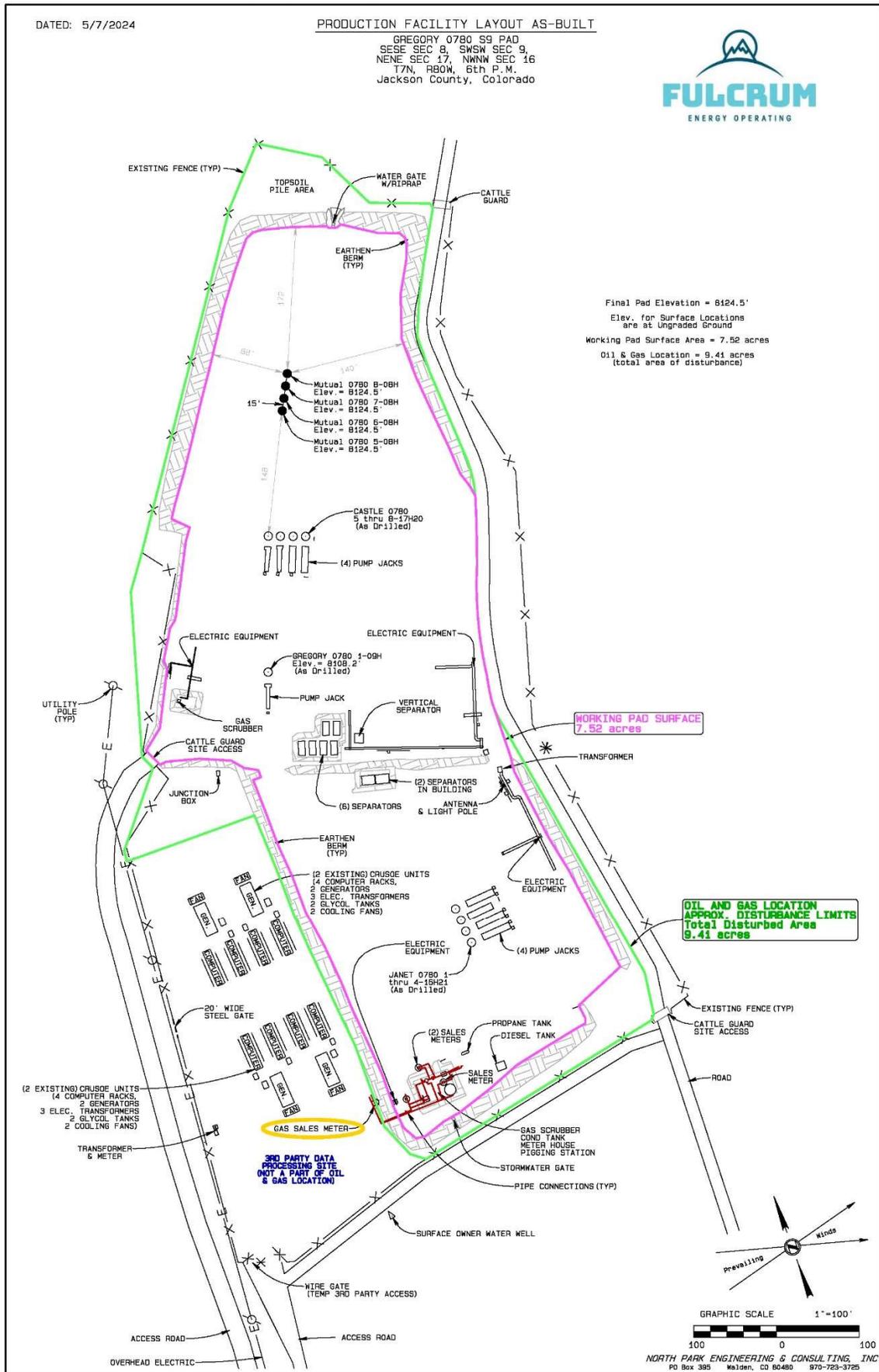
Month #	MCFD	BOPD	BWPD
1	144	357	451
2	142	334	409
3	189	425	424
4	217	464	398
5	236	479	383
6	249	482	336
7	292	539	317
8	320	561	292
9	326	543	262
10	348	553	252
11	320	483	228
12	310	449	222
13	284	409	209
14	239	341	179
15	248	350	188
16	226	316	174
17	221	306	171
18	203	279	158
19	200	273	157
20	191	259	150
21	178	238	140
22	177	235	139
23	166	218	130
24	166	216	129
25	160	207	125
26	141	181	109
27	152	193	117
28	143	180	110
29	144	180	110
30	137	169	103
31	138	169	104
32	135	164	101
33	128	154	95
34	130	155	96
35	124	146	90
36	125	147	91
37	123	143	89
38	110	126	78
39	120	137	85
40	114	129	80
41	116	131	81
42	111	124	77
43	114	125	78
44	112	122	76
45	107	116	72
46	110	118	73
47	105	112	69
48	107	113	70
49	106	111	69
50	99	102	63
51	105	107	67
52	100	102	63
53	103	104	64
54	99	99	61
55	101	100	62
56	100	99	61
57	97	94	58
58	99	96	59
59	95	91	56
60	98	93	57
61	97	91	56

Month #	MCFD	BOPD	BWPD
62	88	81	50
63	96	89	55
64	93	85	52
65	95	86	53
66	92	83	51
67	95	84	52
68	94	83	51
69	91	79	49
70	93	81	50
71	90	77	47
72	93	79	48
73	92	78	48
74	82	70	43
75	90	76	47
76	86	73	45
77	88	75	45
78	84	71	43
79	86	73	44
80	85	72	44
81	82	69	42
82	83	71	43
83	80	68	41
84	82	69	42
85	81	68	41
86	72	61	37
87	79	67	40
88	76	64	39
89	78	66	40
90	75	63	38
91	76	64	39
92	76	64	38
93	72	61	37
94	74	63	38
95	71	60	36
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99	71	60	36
100	68	57	34
101	70	59	35
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103	68	58	34
104	68	57	34
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110	58	49	29
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112	62	52	31
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114	61	51	30
115	62	53	31
116	62	52	31
117	59	50	30
118	61	51	30
119	59	49	29
120	60	51	30
121	60	50	30
122	53	45	26

Month #	MCFD	BOPD	BWPD
123	59	50	29
124	56	48	28
125	58	49	29
126	56	47	27
127	57	48	28
128	57	48	28
129	55	46	27
130	56	47	28
131	54	46	26
132	55	47	27
133	55	46	27
134	49	42	24
135	54	46	27
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137	54	45	26
138	52	44	25
139	53	45	26
140	53	44	26
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142	52	44	25
143	50	42	24
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161	47	39	22
162	45	38	22
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164	46	39	22
165	44	37	21
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167	44	37	21
168	45	38	21
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174	42	36	20
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182	38	32	18
183	42	35	20

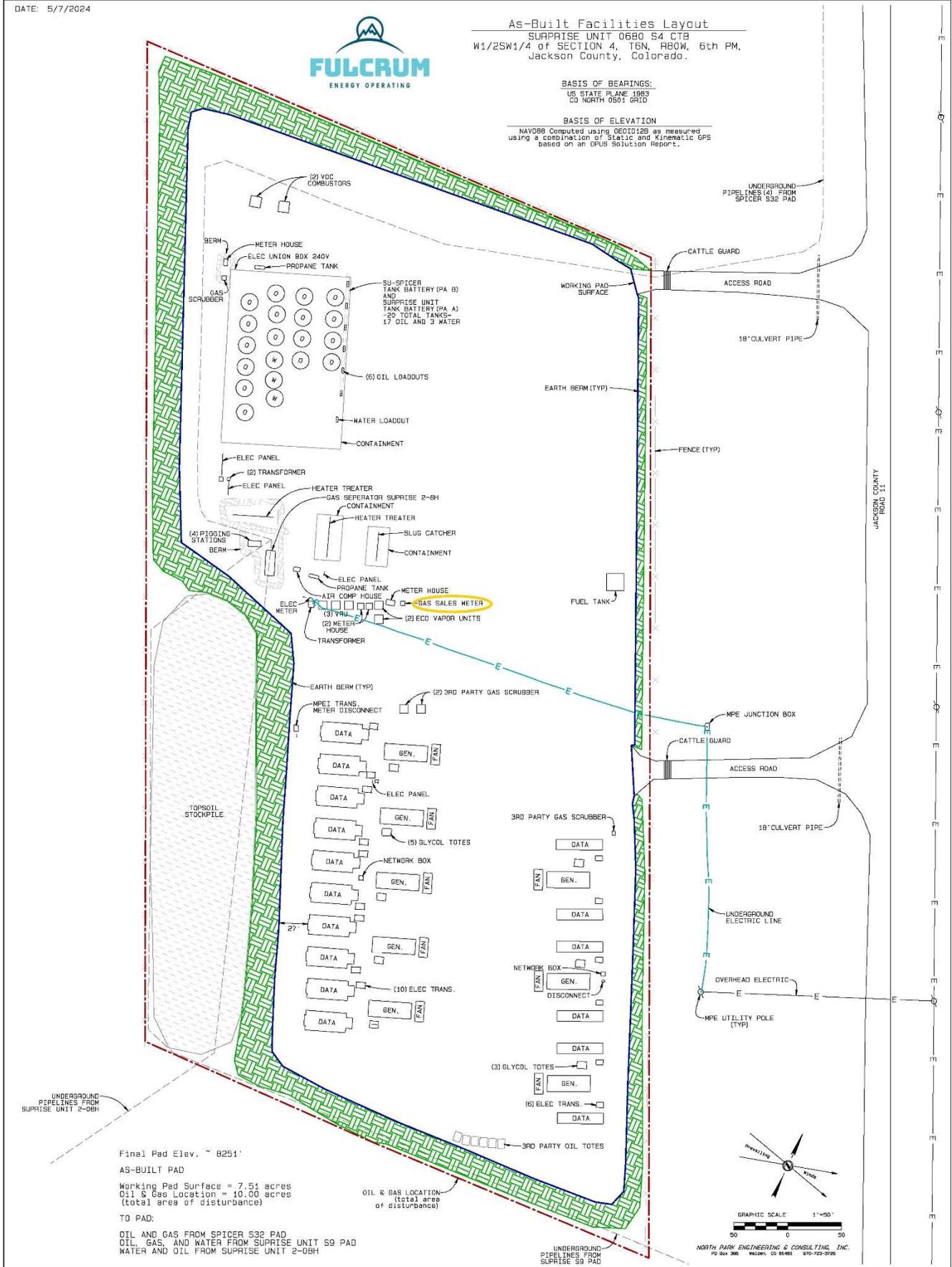
Month #	MCFD	BOPD	BWPD
184	40	34	19
185	41	35	20
186	40	34	19
187	41	35	19
188	41	34	19
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190	40	34	19
191	39	33	18
192	40	34	19
193	40	33	19
194	37	31	17
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196	38	32	18
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199	38	32	18
200	38	32	18
201	37	31	17
202	38	32	18
203	36	31	17
204	37	32	18
205	37	31	18
206	33	28	16
207	37	31	17
208	35	30	17
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210	35	30	17
211	36	30	17
212	36	30	17
213	34	29	16
214	35	30	17
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217	35	30	17
218	31	27	15
219	35	29	16
220	33	28	16
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234	31	26	15
235	32	27	15
236	32	27	15
237	30	26	14
238	31	27	15
239	30	26	14
240	31	26	15
241	31	26	15

**Exhibit E – Gregory 0780 S 9 Pad Facility Layout Diagram**





**Exhibit G – Surprise Unit 0680 S4 CTB Facility Layout Diagram**

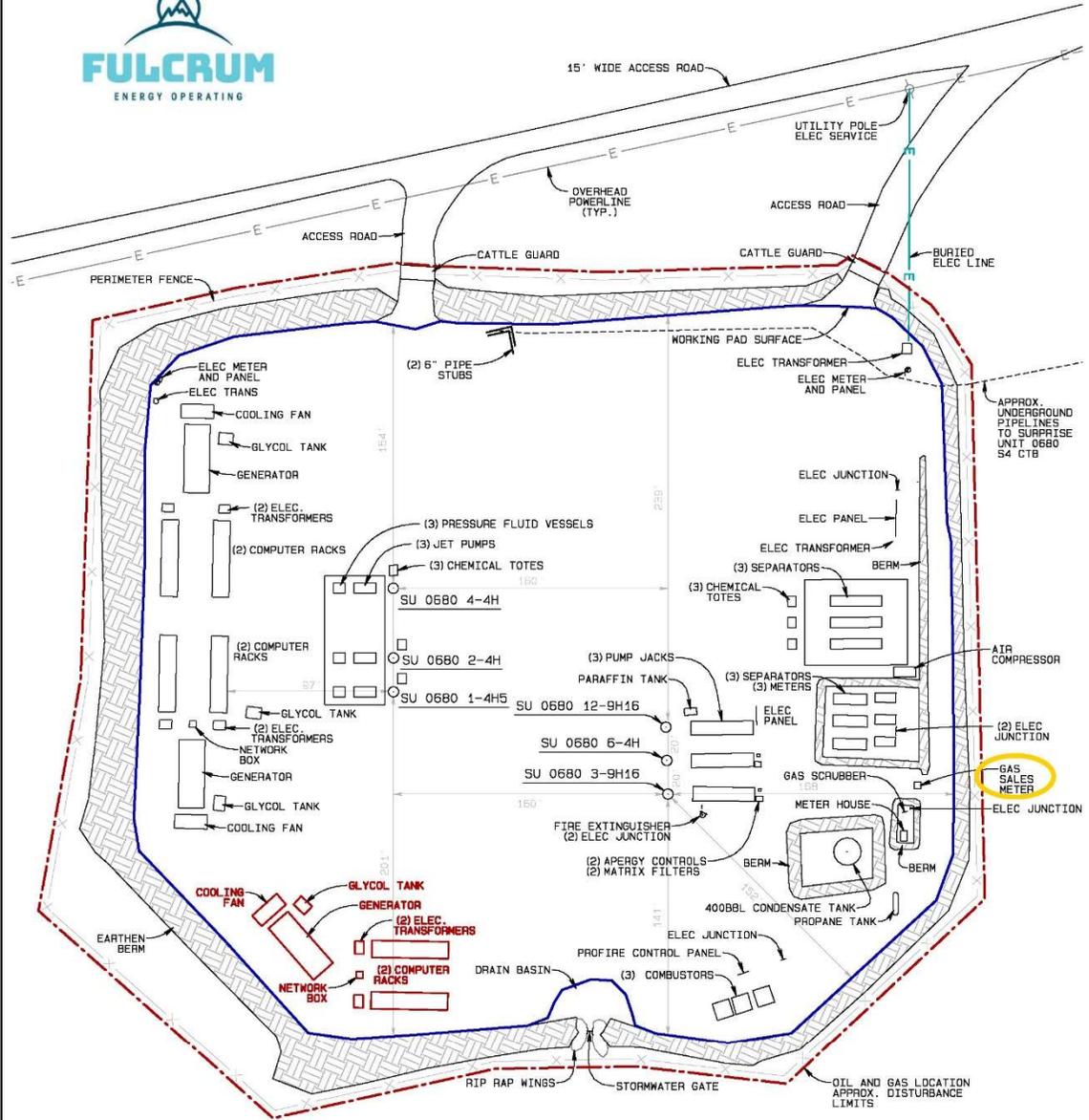


**Exhibit H – Surprise Unit 0680 S9 Pad Facility Layout Diagram**

DATED: 5/7/2024

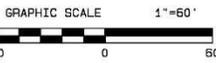
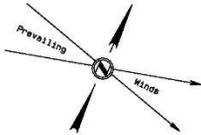
**AS-BUILT OIL AND GAS FACILITIES LAYOUT**

SURPRISE UNIT 0680 S9 PAD  
NE1/4NW1/4 of SECTION 9, T6N, R80W, 6th PM  
JACKSON COUNTY, COLORADO



**PAD AFTER CONSTRUCTION**

Working Pad Surface = 4.23 acres  
 (Production Pad Surface)  
 Oil & Gas Location = 5.44 acres  
 (total area of disturbance)  
 Access Road disturbance = 0.41 acres  
 Pipeline and/or Utility Corridor  
 disturbance = 1.05 acres  
 Final Pad Elev. = 8266.5'



NORTH PARK ENGINEERING & CONSULTING, INC.  
 PO Box 385 • Wellington, CO 80480 • 970-723-3725

**BASIS OF BEARINGS:**

US STATE PLANE 1983  
 CO NORTH 0501 GROUND

**BASIS OF ELEVATION**

NAVD88 Computed using GEOTD12B as measured  
 using a combination of Static and Kinematic GPS  
 based on an OPUS Solution Report.

**Exhibit I – Veneta 0780 S32 CTB Facility Layout Diagram**

