Site-Specific Fluid Leak Detection Plan

Janet 0780 S5 Pad

NE ¼, NE ¼, Section 5, T7N, R 80W 6th P.M.

Jackson County, Colorado

Prepared for:

Fulcrum Energy Operating
240 Saint Paul Street, Suite 502
Denver, CO 80206

Prepared by:

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Buffalo, WY 82834

FEO.CO.0700

January 25, 2024

Joel Mason
Senior Project Manager

Table of Contents

1 Site Location and Description

Oil and Gas Location Name:	**Janet 0780 S5 Pad**
Type of Surface:	**Fee**
Total Area of Disturbance During Operations:	**6.61 acres**
Total Area of Disturbance After Interim Reclamation:	**4.39 acres**
Site Elevation:	**8097.25 feet**

Sensitive receptors in proximity to the site, access to the location from Highway 14 and layout diagrams according to operational phases are provided in the attached site figures ***(Attachment A)***.

2 Drilling Fluids Procedures and Schedules

2.1 Monitoring & Detection

Drilling contractors will be required to develop a fluid leak detection plan specific to operations used on location and will be submitted to Fulcrum for approval before operations occur. In addition to the drilling contractor plan, Fulcrum will require the following for fluid transfers. Two drilling crew members will be required and dedicated for all fluid transfers (no exceptions) from start to finish of the operation. Their sole focus is on the transfer. No fluid transfer will occur during crew change. Crew members conducting the fluid transfer will not leave the area until transfer operations completed.

2.2 Inspection

Temporary storage tanks (along with auxiliary equipment installed in tanks) will be inspected prior to use and replaced/repaired if damaged. During rig up, hoses and lines will be properly assembled, all bolts properly made up and gaskets installed (when applicable). Verify tank capacity is capable of handling estimated volumes prior to operations start. Pre-job inspection will be conducted prior to start up which include the visual inspection of containment(s), hoses, lines, and valves to ensure proper connection and alignment. During operations, all fluid containing equipment is inspected daily. Below is a list of steps to be completed:

- Temporary storage tanks with hatches, valves and bull plugs will be secured prior to transfers.
- Shut down transfer pump(s) and close supply valve when transfer or circulation is completed. Ensure fluids cannot enter holding tank through gravity feedback.
- Walk all lines and confirm valve alignment before starting the transfer.
- Walk the lines as soon as the transfer starts to confirm no leaks.

2.3 Testing

Drilling personnel will perform pressure / integrity testing of all piping prior to being placed into active service in accordance with ASME B 31.8 and ASME B 31.4 standards.

2.4 Maintenance

Maintenance identified as a result of inspections will be documented and required to be completed prior to initiation of operations. Appropriate secondary containment will be utilized when equipment maintenance is conducted on location. Temporary storage tanks will be labelled (signs, magnets, etc.) indicating the contents of the tank.

All personnel on location will be trained in leak detection techniques, via auditory, visual, olfactory monitoring. All personnel are empowered with 'Stop Work Authority' and to report any leaks immediately. Site access will be monitored so that ingress and egress are maintained, and only applicable personnel are on site.

3 Completion Fluids Procedures and Schedules

3.1 Monitoring & Detection

Completion contractors will be required to develop a fluid leak detection plan specific to operations used on location and will be submitted to Fulcrum for approval before operations occur. In addition to the drilling contractor plan, Fulcrum will require the following for fluid transfers. Two completion crew members will be required and dedicated for all fluid transfers (no exceptions) from start to finish of the operation. Their sole focus is on the transfer. No fluid transfer will occur during crew change. Crew members conducting the fluid transfer will not leave the area until transfer operations completed.

3.2 Inspection

Temporary equipment during completion and flowback operations located on the Janet Working Pad Surface may include sand separators/filters, combustors, drillout choke manifolds, sand traps, slug catchers, transfer pumps, low and high pressure separators and flowback tanks. Temporary storage tanks (along with auxiliary equipment installed in tanks) will be inspected prior to use and replaced/repaired if damaged. During rig up, hoses and lines will be properly assembled, all bolts properly made up and gaskets installed (when applicable). Verify tank capacity is capable of handling estimated volumes prior to operations start. Pre-job inspection will be conducted prior to start up which include the visual inspection of containment(s), hoses, lines, and valves to ensure proper connection and alignment. During operations, all fluid containing equipment is inspected daily. Below is a list of steps to be completed:

- Temporary storage tanks will have hatches, valves and bull plugs secured prior to transfers.
- Shut down transfer pump(s) and close supply valve when transfer or circulation is completed. Ensure fluids cannot enter holding tank through gravity feedback.
- Walk all lines and confirm valve alignment before starting the transfer.

- Walk the lines as soon as the transfer starts to confirm no leaks.
- Tanks are inspected and maintained while in use.
- Monitor pressure responses and containment to identify potential leaks. Lines will be walked continuously throughout operations (between stages) to identify potential leaks.
- There is a slam valve and control valve with Emergency Shut Down system in line to the external temporary tanks to prevent overflowing tanks during flowback duration.
- Hourly walk-throughs and pressure measurements recorded during flowback operations for leak detection.

3.3 Testing

Completions personnel will perform pressure / integrity testing of all piping prior to being placed into active service in accordance with ASME B 31.8 and ASME B 31.4 standards. Frac tanks will be designed, constructed, and maintained in accordance with the following portions of the National Fire Protection Association (NFPA) Code 30 (2008 version):

- Tanks are built to engineering standards using non-combustible materials, with relief device sizing based on API 2000 standards.

3.4 Maintenance

Maintenance as a result of inspections will be documented and required to be completed prior to initiation of operations. Appropriate secondary containment will be utilized when equipment maintenance is conducted on location. Storage tanks will be labelled (signs, magnets, etc.) indicating the contents of the tank. The only pipes within the containment are related to the temporary tanks (i.e. no external piping is co-located within the containment), and firefighting equipment is, likewise, not stored within the containment area.

Frac tanks will be staged on a geosynthetic liner and surrounded by an earthen berm. The berms will enclose an area sufficient to provide secondary containment for 150% of the volume of the largest single tank and will be sufficiently impervious to contain spilled or released material.

All personnel on location will be trained in leak detection techniques, via auditory, visual, olfactory monitoring. All personnel are empowered with ‘Stop Work Authority’ and to report any leaks immediately. Site access will be monitored so that ingress and egress are maintained, and only applicable personnel are on site.

4 PRODUCTION FLUID PROCEDURES AND SCHEDULES

4.1 Monitoring & Detection

Production equipment is physically monitored and inspected by production personnel during routine visits to each location. At a minimum, all sites are physically inspected on a weekly basis, and some locations are visited more often. During these routine site visits, the personnel are visually inspecting all components of the fluid production process for any signs / evidence of active leaks, drips, or pending leaks. The routine, physical inspection of the location and production equipment includes a close examination of the following components:

- Secondary Containment Structures and poly liners (if equipped)
- Separators (interior and exterior)
- Flowlines and Production Piping between the wellhead and the processing equipment

Production personnel are specifically looking for any evidence of active leaks from temporary tanks, piping and associated fittings. Obvious signs of leakage may include drips, bubbles, puddling and pooling of liquids, wet spots, corrosion (rust, flaking / blistered / bubbled paint, etc.). Less obvious signs of leakage may include an unexplained loss of tank volumes, loss of normal operating pressures, unusual sounds, odors, etc. When a leak or loss of fluid is confirmed, the production personnel take immediate action to stop the flow of liquids (if possible) and initiate the appropriate repairs. Production personnel will communicate details of the fluid loss with their direct supervisor and ultimately the production operations manager, who will investigate and evaluate the incident and initiate spill reporting and clean-up actions as needed as per Rule 912.

Fulcrum will require the following for fluid transfers. Two production crew members will be required and dedicated for all fluid transfers (no exceptions) from start to finish of the operation. Their sole focus is on the transfer. No fluid transfer will occur during crew change. Crew members conducting the fluid transfer will not leave the area until transfer operations completed.

4.2 Inspection

The proposed production facility equipment to be located on the Janet Working Pad Surface may consist of separators, oil and water allocation vessels, LACT, pumps, generators, scrubbers, compressors, and pig launchers. The proposed locations for production equipment are shown on the attached facility layout ***(Attachment A – Figure 8)***.

Temporary storage tanks (along with auxiliary equipment installed in tanks) for workover operations will be inspected prior to use and replaced/repaired if damaged. During rig up, hoses and lines will be properly assembled, all bolts properly made up and gaskets installed (when applicable). Verify tank capacity is capable of handling estimated volumes prior to operations start. Pre-job inspection will be conducted prior

to start up which include the visual inspection of containment(s), hoses, lines, and valves to ensure proper connection and alignment. During operations, all fluid containing equipment is inspected daily. Below is a list of steps to be completed:

- Temporary storage tanks will have hatches, valves and bull plugs secured prior to transfers.
- Shut down transfer pump(s) and close supply valve when transfer or circulation is completed. Ensure fluids cannot enter holding tank through gravity feedback.
- Walk all lines and confirm valve alignment before starting the transfer.
- Walk the lines as soon as the transfer starts to confirm no leaks.
- Tanks are inspected and maintained while in use.
- Monitor pressure responses and containment to identify potential leaks. Lines will be walked continuously throughout operations (between stages) to identify potential leaks.
- There is a slam valve and control valve with Emergency Shut Down system in line to the external temporary tanks to prevent overflowing tanks during flowback duration.
- Hourly walk-throughs and pressure measurements recorded during flowback operations for leak detection.

Routine field inspections of production facilities include the following equipment: Field-Constructed Above Ground Containers; Secondary Containment Structures; Shop-Built Containers; Generators / Fuel Tanks and associated secondary containment; Pressure Vessels (separators, heater treaters, pigging stations); Portable Containers and all Manifolded Piping; Onsite and Offsite Pipelines (flowlines, production piping, gathering lines) Field Drainage Systems (oil traps, sumps, or skimmers); and Additional equipment used during separation, storage, containment, or transferring of produced fluids.

Berms and the liner and all secondary containment devices will be inspected during stormwater inspections, with personnel on location, daily inspections will occur. During active construction, site inspections will occur every 14 days. When construction is completed and the location is fully operational, site inspections will occur every month, at a minimum.

4.3 Testing

Drilling personnel will perform pressure / integrity testing of all piping prior to being placed into active service in accordance with ASME B 31.8 and ASME B 31.4 standards. Flowlines will be integrity-tested per the 1100 Series rules.

4.4 Maintenance

Appropriate secondary containment will be utilized when equipment maintenance is conducted on location. Temporary storage tanks will be labelled (signs, magnets, etc.) indicating the contents of the tank. The only pipes within the containment are related to the temporary tanks (i.e., no external piping is co-located within the containment), and firefighting equipment is, likewise, not stored within the containment area.

All personnel on location will be trained in leak detection techniques, via auditory, visual, olfactory monitoring. All personnel are empowered with 'Stop Work Authority' and to report any leaks immediately. Site access will be monitored so that ingress and egress are maintained, and only applicable personnel are on site.

5 Record Keeping

Inspections resulting in findings are entered into an internal management system. Corrective actions are automatically assigned when necessary. SPCC required inspection records are kept in accordance with US EPA requirements. Maintenance or repair records are also managed through an internal management system. These are tracked from assignment through completion of the tasks.

All leaks are reported immediately to management and logged in internal management systems. Leak reports are reviewed daily. Any additional investigation is conducted by trained personnel and records in the system. All leaks are tracked until final resolution. Records are retained per federal, state, and local guidelines.

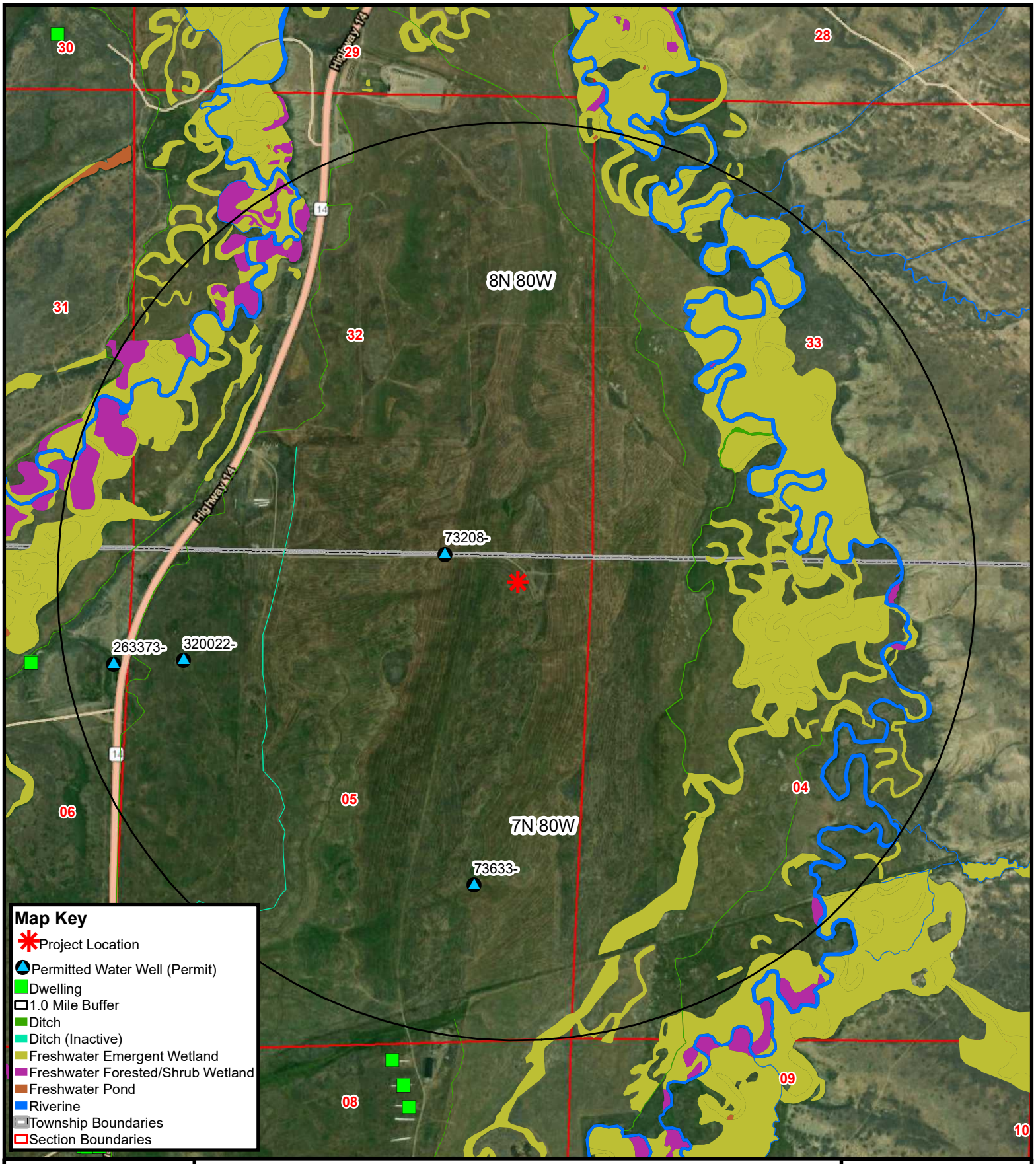
Fulcrum retains leak detection training records for all personnel with access to the location in an internal management system. Records are retained per federal, state, and local guidelines.

6 Site-Specific Best Management Practices

This location is not in close proximity to sensitive receptors, ***(Attachment 1 – Figure 1).*** The following best management practices (BMPs) will be utilized.

- Pre-job equipment inspection.
- Verify tank capacity prior to fluid transfer.
- Utilize secondary containment during maintenance activity.
- Perform routine site inspections during the production phase. Inspections include all components of the fluid production process for any signs / evidence of active leaks, drips, or pending leaks.
- Utilization of automation technology including fluid level monitoring for produced water sumps, high-level shut offs, and electronic sensors to monitor the interstitial space of double-walled produced water sumps.

Attachment A – Janet 0780 S5 Site Figures



AE2
112 High Street
Buffalo, Wyoming 82834
855.684.5891
www.absarokasolutions.com

FEO.CO.0700

Janet 0780 S5 Pad
Sensitive Receptors Map

Jackson County, State of Colorado

0 0.25 0.5 1 Miles

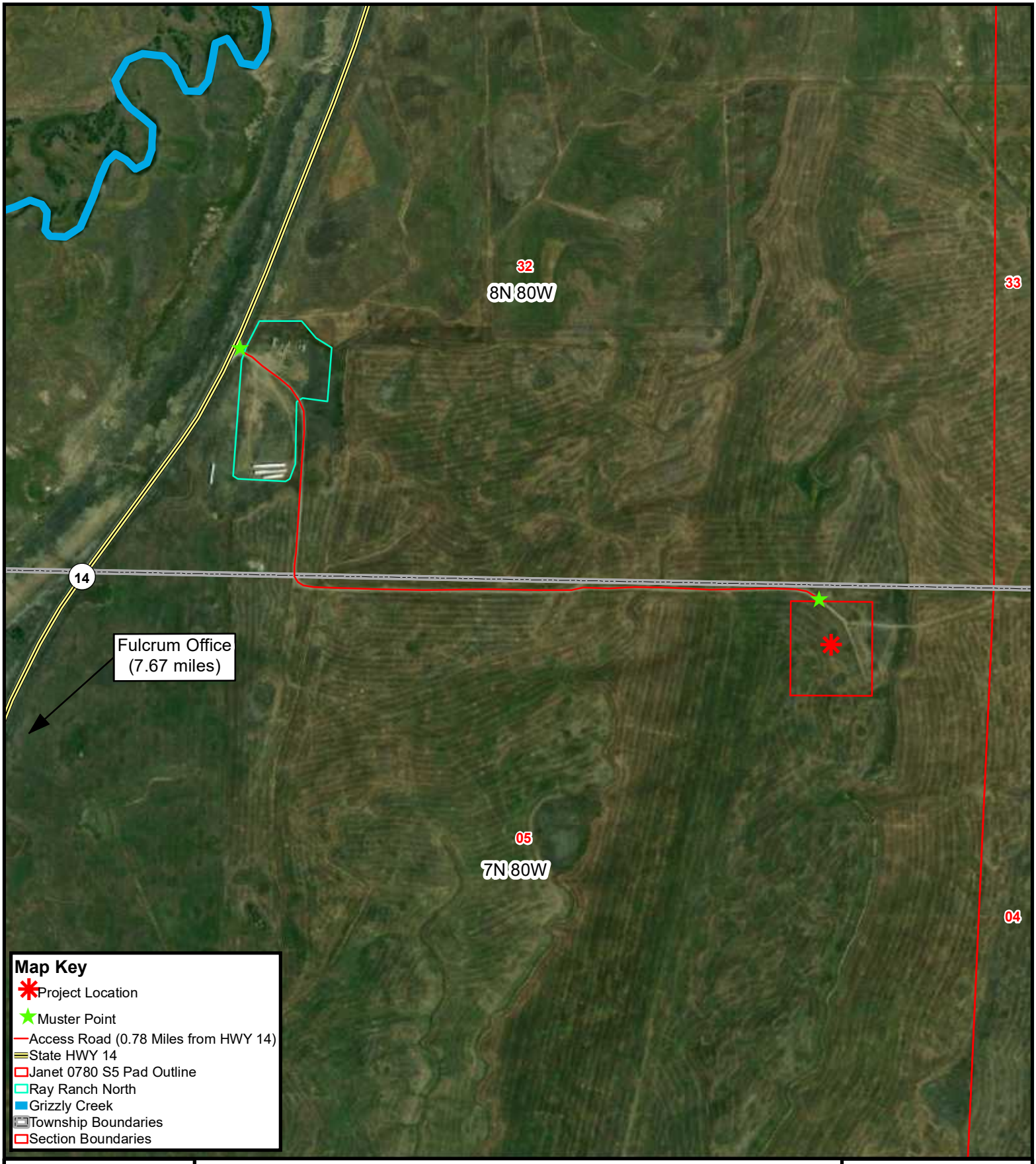
Coordinate System: WGS 1984 UTM Zone 13N

N

FULCRUM ENERGY CAPITAL

Date: 9/29/2023

Scale: 1:17,500



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Janet 0780 S5 Pad
Access Road Map

Jackson County, State of Colorado

0 0.125 0.25 0.5 Miles

N

Coordinate System: WGS 1984 UTM Zone 13N

FULCRUM ENERGY CAPITAL

Date: 9/29/2023

Scale: 1:8,000

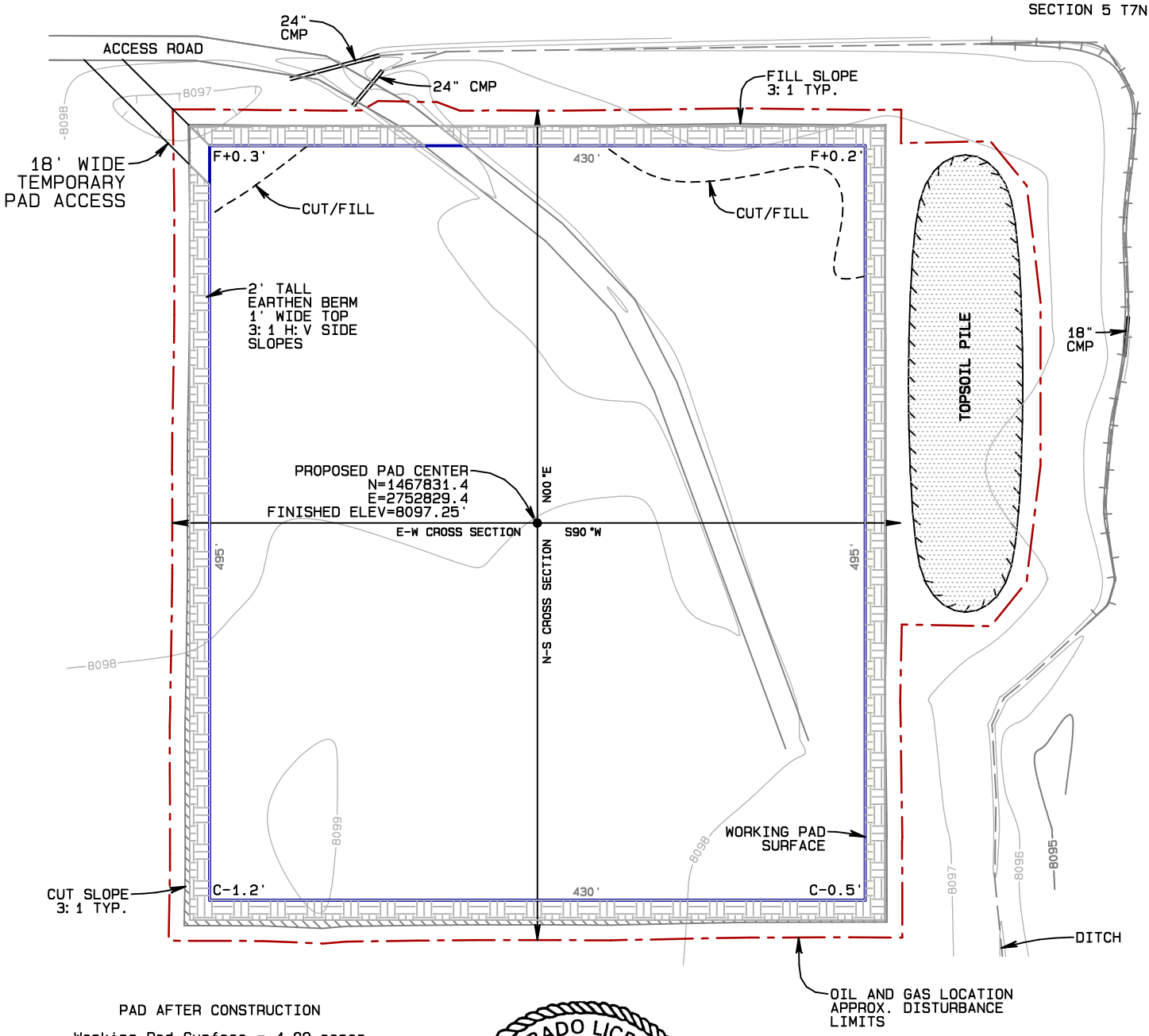
CONSTRUCTION LAYOUT

DATED: 9/30/2023

Janet 0780 S5 Pad
NE1/4NE1/4 of Section 5, T7N, R80W, 6th P.M.,
Jackson County, Colorado.

SECTION 32 T8N

SECTION 5 T7N



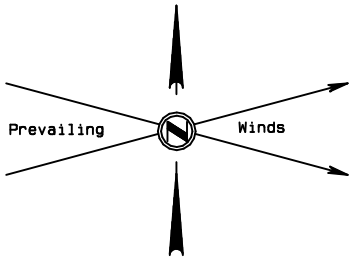
PAD AFTER CONSTRUCTION

Working Pad Surface = 4.89 acres
Oil & Gas Location = 6.61 acres
(total area of disturbance)
Access Road disturbance = 1.32 acres
Pipeline and/or Utility Corridor
disturbance = 3.02 acres

PAD AFTER INTERIM RECLAMATION

Working Pad Surface = 3.11 acres
Oil & Gas Location = 4.39 acres
(total area of disturbance)
Access Road disturbance = 1.28 acres
Pipeline and/or Utility Corridor
disturbance = 3.02 acres

Estimated Earthwork:
Total Excavation - 6,504.2 Cu. Yd.
Pad Fill/Borrow - 54.4 Cu. Yd.
Topsoil Stockpile - 4,630 Cu. Yd.
Berm Stockpile - 1,819.8 Cu. Yd.
Final Pad Elevation = 8097.25'



GRAPHIC SCALE 1"=100'

100 0 100

BASIS OF ELEVATION

NAVD88 Computed using GEOID12B as measured using a combination of Static and Kinematic GPS based on an OPUS Solution Report.

FULCRUM ENERGY OPERATING

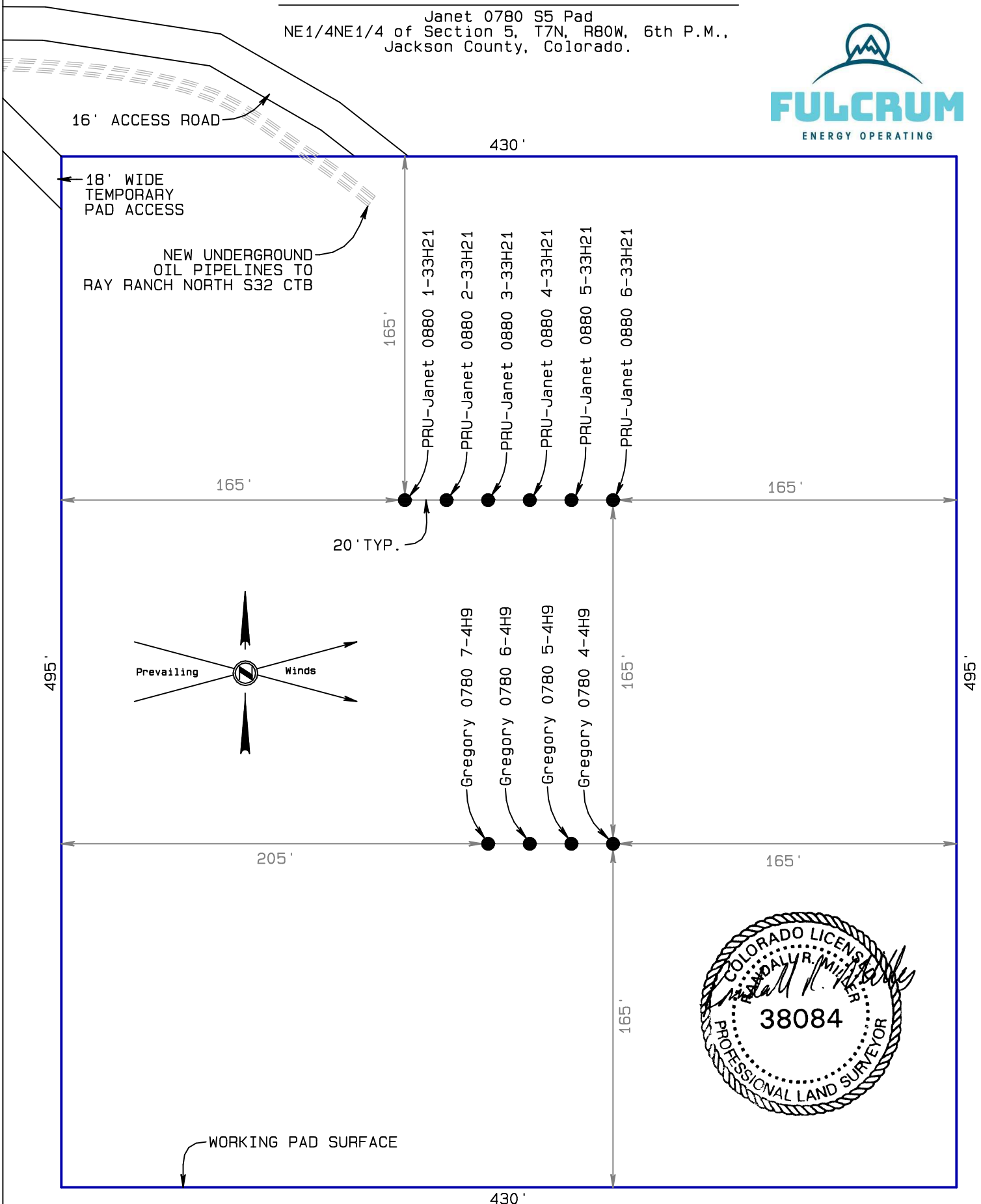
NORTH PARK ENGINEERING & CONSULTING, INC.
PO Box 395 Walden, CO 80480 970-723-3725

CONSTRUCTION WELL HEAD LOCATION LAYOUT

DATED: 9/30/2023

Janet 0780 S5 Pad
NE1/4NE1/4 of Section 5, T7N, R80W, 6th P.M.,
Jackson County, Colorado.

FULCRUM ENERGY OPERATING



GRAPHIC SCALE 1"=60'

60 0 60

Final Pad Elevation = 8097.25'
All Elev. for Surface Locations
at Ungraded Ground are 8098'

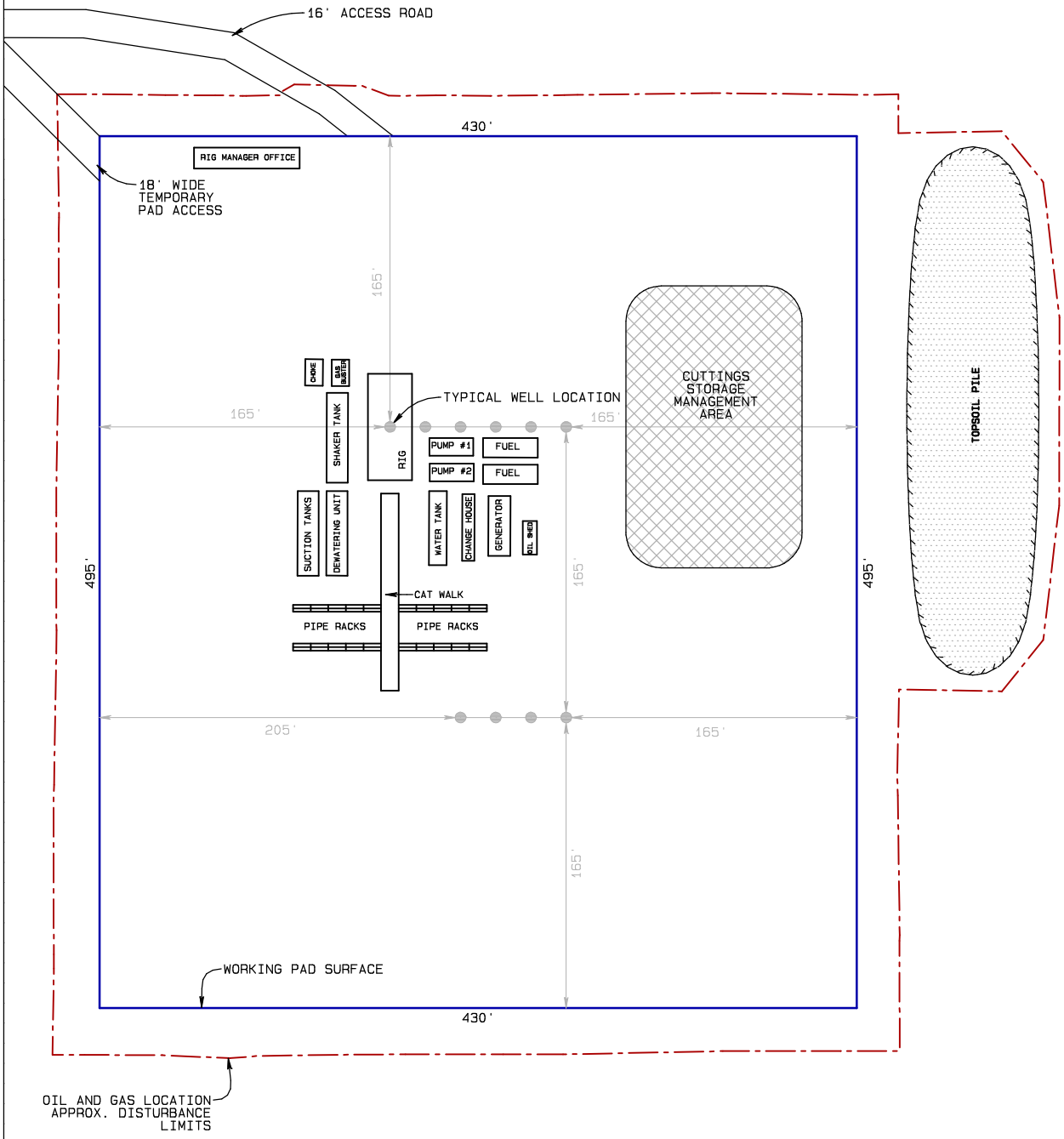
NORTH PARK ENGINEERING & CONSULTING, INC.
PO Box 395 Walden, CO 80480 970-723-3725

DATED: 10/2/2023

PRELIMINARY DRILL RIG LAYOUT

Janet 0780 S5 Pad
NE1/4NE1/4 of Section 5, T7N, R80W, 6th P.M.,
Jackson County, Colorado.

FULCRUM ENERGY OPERATING



PAD AFTER CONSTRUCTION

Working Pad Surface = 4.89 acres
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(total area of disturbance)
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disturbance = 3.02 acres

PAD AFTER INTERIM RECLAMATION

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Pipeline and/or Utility Corridor
disturbance = 3.02 acres

COLORADO LICENSED
RANDALL M. MILLER
38084
PROFESSIONAL LAND SURVEYOR

Prevailing Winds

GRAPHIC SCALE 1"=60'

60 0 60

Final Pad Elevation = 8097.25'

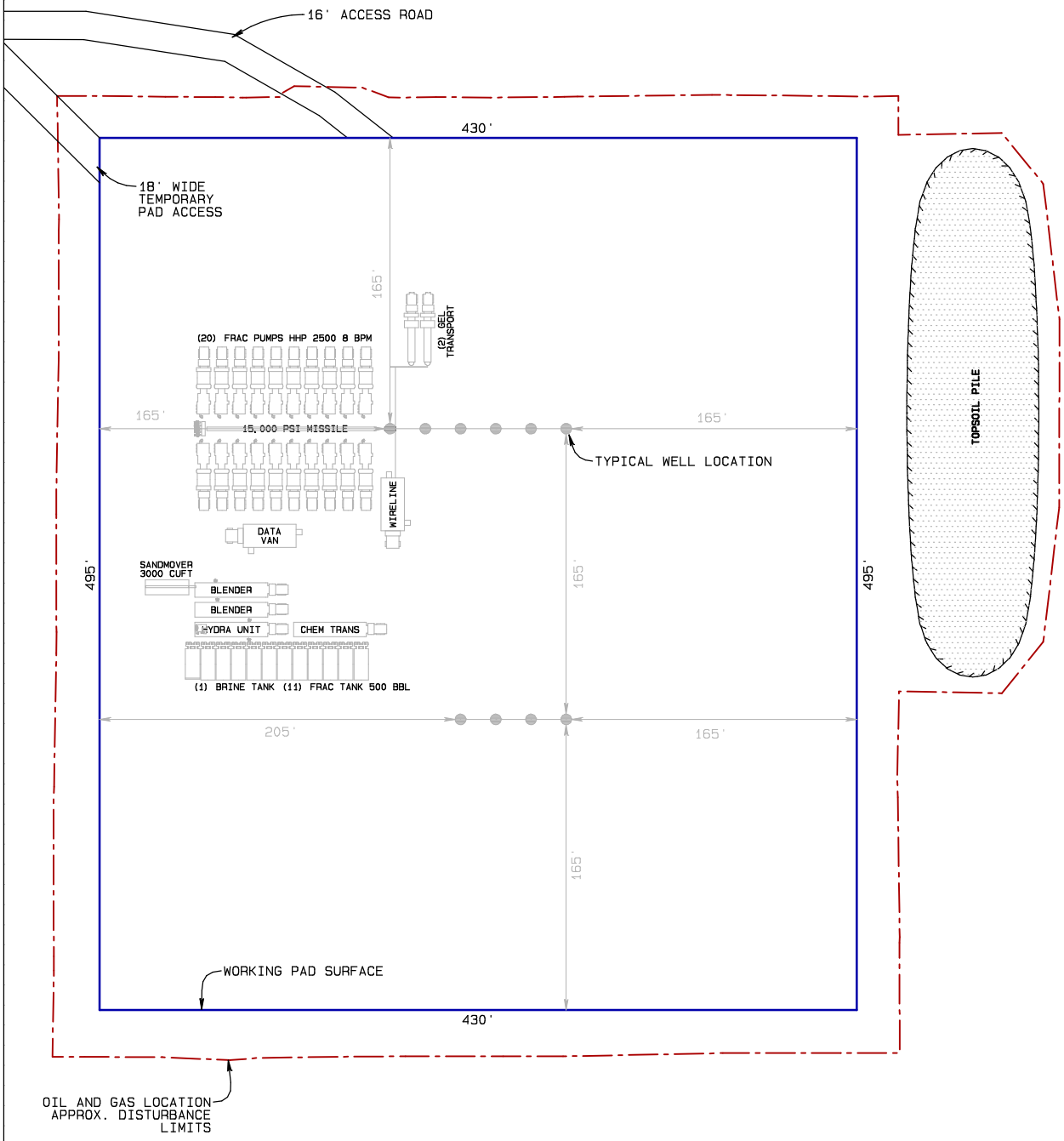
NORTH PARK ENGINEERING & CONSULTING, INC.
PO Box 395 Walden, CO 80480 970-723-3725

DATED: 10/2/2023

PRELIMINARY WELL COMPLETION AND STIMULATION LAYOUT

Janet 0780 S5 Pad
NE1/4NE1/4 of Section 5, T7N, R80W, 6th P.M.,
Jackson County, Colorado.

FULCRUM ENERGY OPERATING



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disturbance = 3.02 acres

Final Pad Elevation = 8097.25'

COLORADO LICENSED
Kendall R. Miller
38084
PROFESSIONAL LAND SURVEYOR

Prevailing Winds

GRAPHIC SCALE 1"=60'

60 0 60

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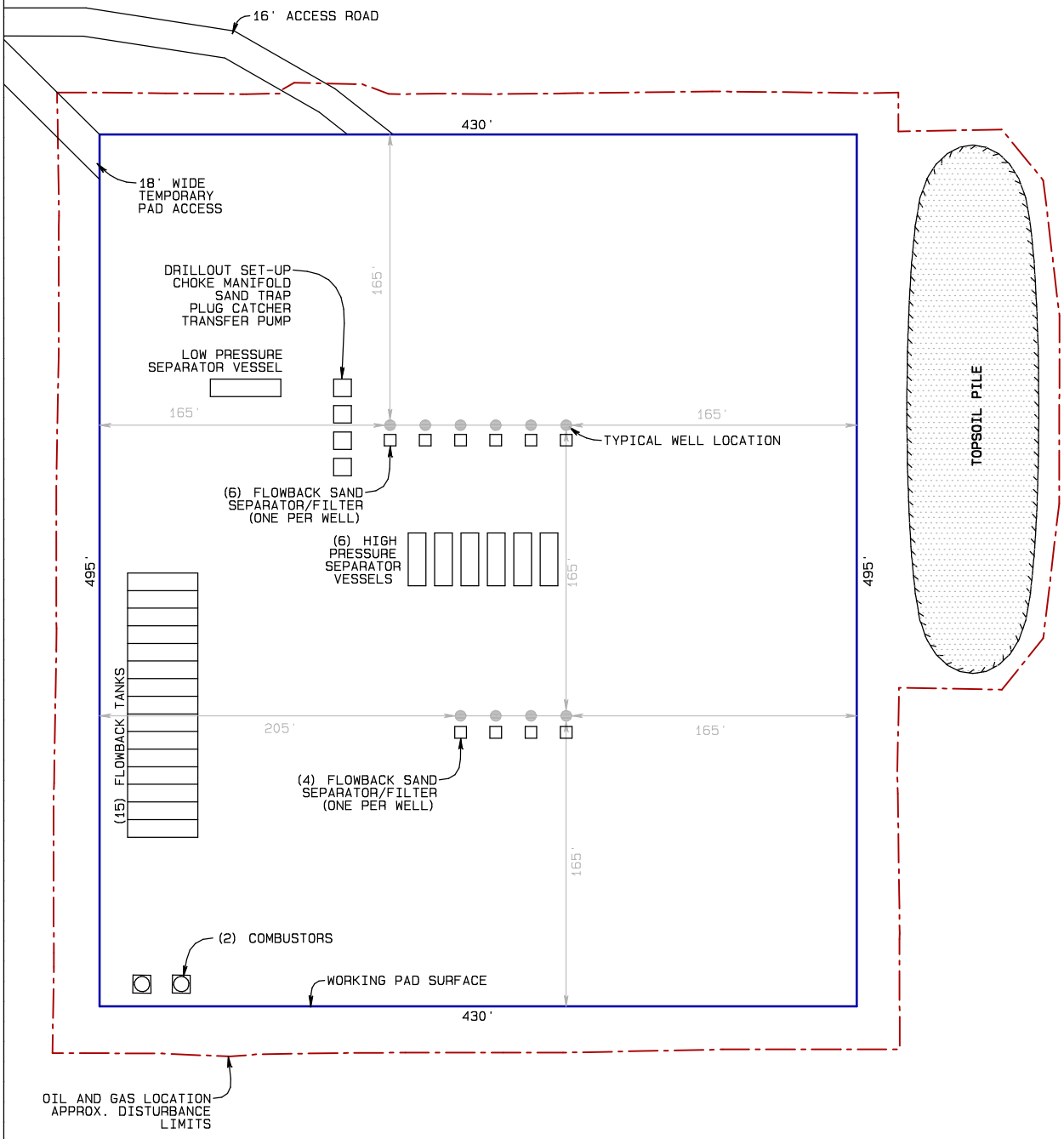
DATED: 12/7/2023

PRELIMINARY FLOWBACK EQUIPMENT LAYOUT

Janet 0780 S5 Pad
NE1/4NE1/4 of Section 5, T7N, R80W, 6th P.M.,
Jackson County, Colorado.

FULCRUM ENERGY OPERATING



COLORADO LICENSED
DALLAS R. MILLER
38084
PROFESSIONAL LAND SURVEYOR

PAD AFTER CONSTRUCTION

Working Pad Surface = 4.89 acres
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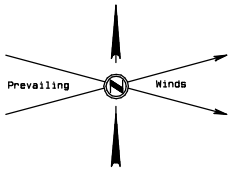


GRAPHIC SCALE 1"=60'

60 0 60

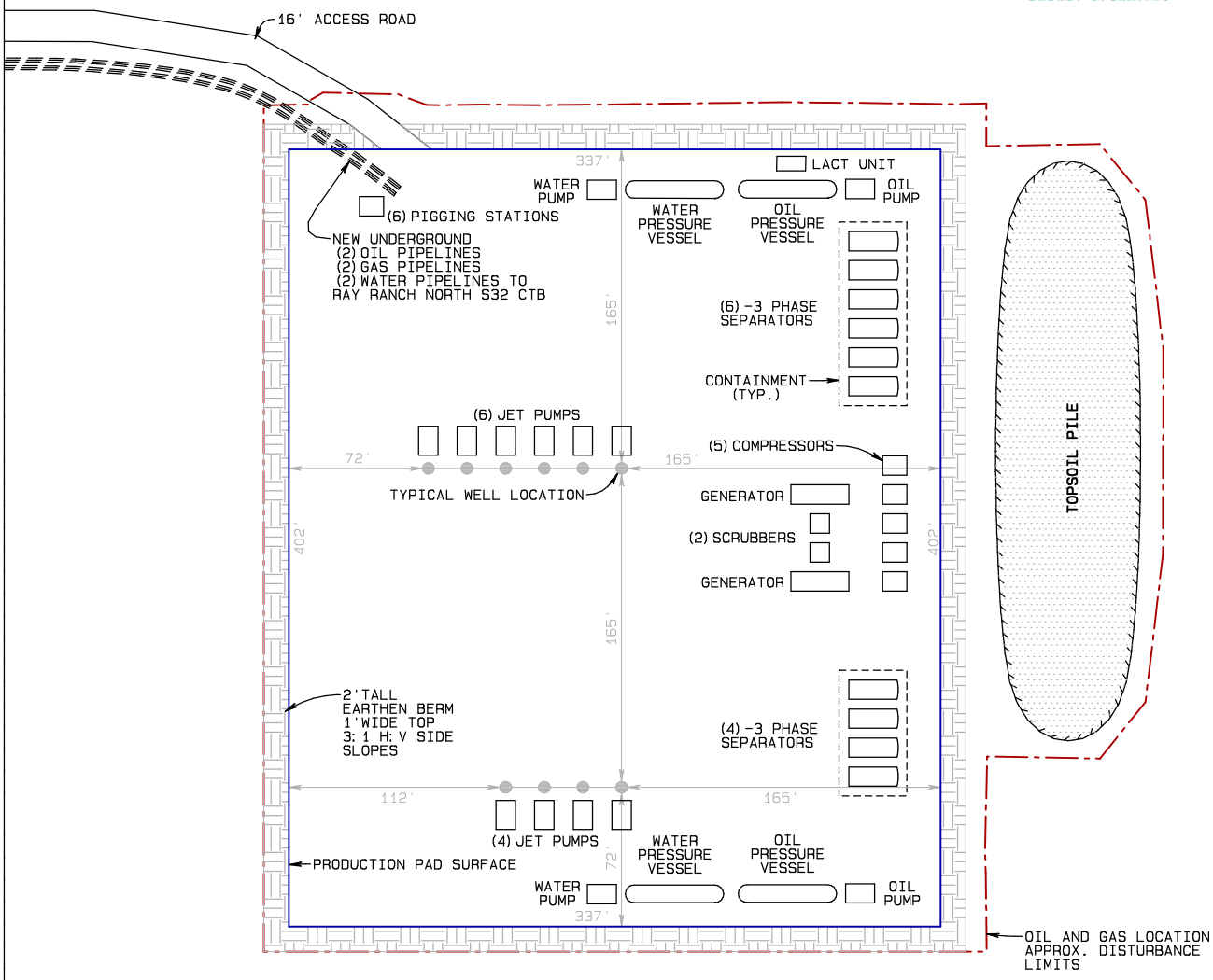
NORTH PARK ENGINEERING & CONSULTING, INC.
PO Box 395 Walden, CO 80480 970-723-3725

DATED: 12/7/2023

FACILITIES LAYOUT

Janet 0780 S5 Pad
NE1/4NE1/4 of Section 5, T7N, R80W, 6th P.M.,
Jackson County, Colorado.

FULCRUM ENERGY OPERATING

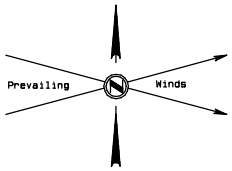


COLORADO LICENSED
KENDALL R. MILLER
38084
PROFESSIONAL LAND SURVEYOR

PAD AFTER INTERIM RECLAMATION

Working Pad Surface = 3.11 acres
(Production Pad Surface)
Oil & Gas Location = 4.39 acres
(total area of disturbance)
Access Road disturbance = 1.28 acres
Pipeline and/or Utility Corridor
disturbance = 3.02 acres

Final Pad Elevation = 8097.25'



GRAPHIC SCALE 1"=60'

60 0 60

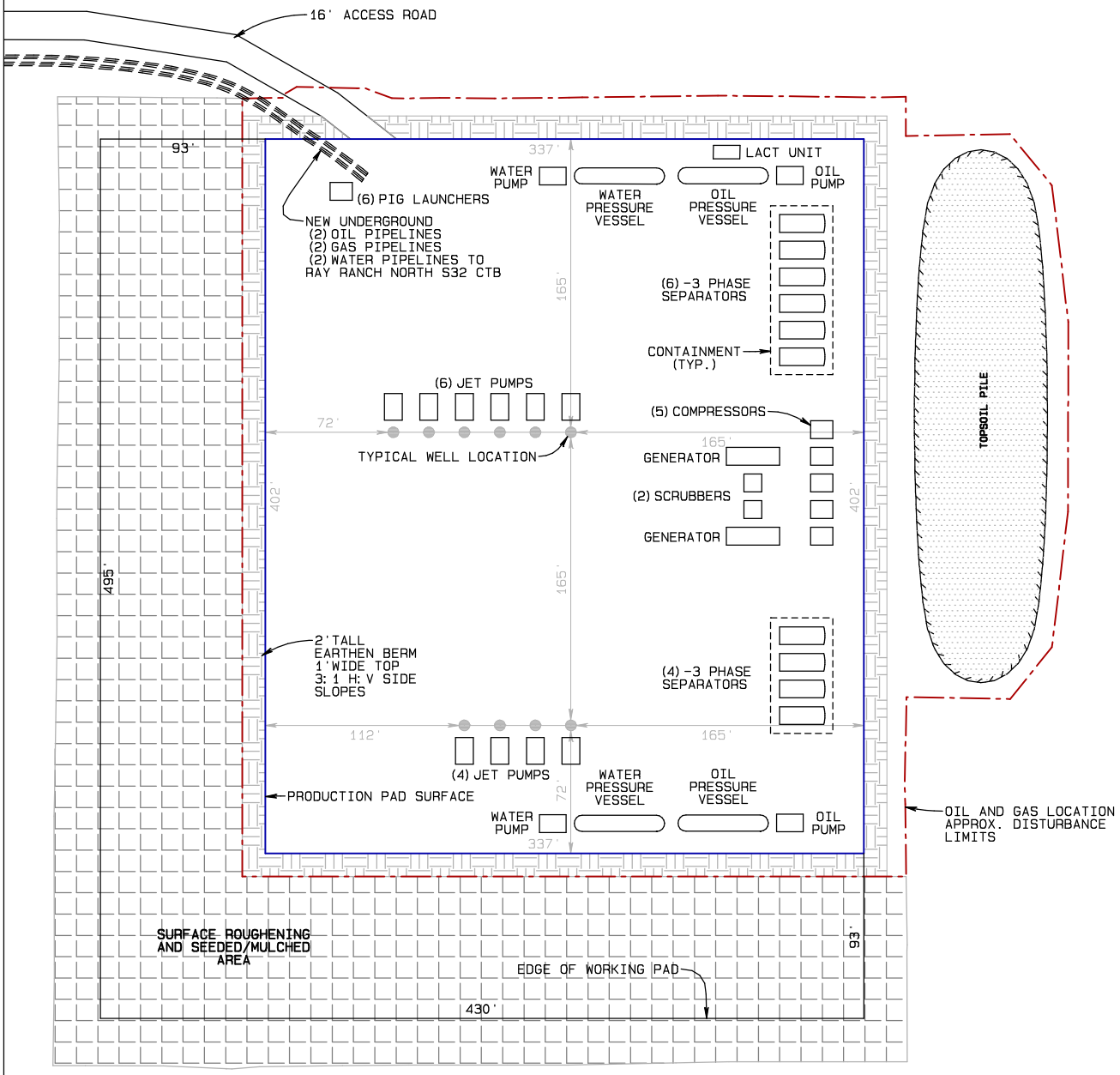
NORTH PARK ENGINEERING & CONSULTING, INC.
PO Box 395 Walden, CO 80480 970-723-3725

DATED: 10/2/2023

INTERIM RECLAMATION LAYOUT

Janet 0780 S5 Pad
NE1/4NE1/4 of Section 5, T7N, R80W, 6th P.M.,
Jackson County, Colorado.

FULCRUM ENERGY OPERATING



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COLORADO LICENSED
CALVIN MILLER
38084
PROFESSIONAL LAND SURVEYOR

Prevailing Winds

GRAPHIC SCALE 1"=60'

60 0 60

Final Pad Elevation = 8097.25'

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