



Stewart Title 1

Drilling Permit Application Review



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Contents

1.0	Executive Summary	5
2.0	Introduction.....	8
3.0	Methodology	9
4.0	Work Scope	10
5.0	Drilling Permit Review.....	11
	Drilling Ordinances	11
	Division 2. Permits.....	11
	Division 3. Applications	12
	Division 6. Regulations.....	23
	Division 7. Liability, Surety, and Insurance.....	40
	Safety and Environmental Management System	49
6.0	Conclusions	63
7.0	Appendices	64
	Appendix 1 - Non Conformance List	64
	Appendix 2 - Corrective Action Request Sheets	65

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Glossary

ADC	ADC Energy Ltd.
CAR	Corrective Action Request
COLC	City of League City
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
HSEMS	Health, Safety, and Environmental Management System
MSDS	Material Safety Data Sheet
NFPA	National Fire Protection Association
PDC	Precision Drilling Corporation
SEMS	Safety and Environmental Management System
SPCCP	Spill Prevention, Control, and Countermeasure Plan
SWPPP	Stormwater Pollution Prevention Plan

1.0 Executive Summary

ADC Energy Ltd (ADC) was requested by the City of League City (COLC) to perform a desktop audit on the Oil and Gas Drilling, Workover, or Amending Permit Application submitted by Frio Resources for the Stewart Title #1 well. The Frio Resources and Precision Drilling Corporation (PDC) safety and environmental management system (SEMS) manuals were reviewed against API Bulletin 75L. The documentation review was carried out between 31 January 2024 and 12 April 2024 by ADC Senior Project Engineer Lance Norris.

The COLC Drilling Ordinance - Drilling, Chapter 42, Article III and the Frio Resources documentation were provided to ADC by the COLC. The Frio Resources documentation provided covered Divisions 2, 3, 6, and 7 of the COLC Drilling Ordinance - Drilling. Therefore, only divisions 2, 3, 6, and 7 were discussed in the main body (section 5) of the final report. There was no documentation provided to ADC for Divisions 4, 5, and 8. Frio Resources should provide the COLC with additional documentation to satisfy all the requirements of the COLC Drilling Ordinance - Drilling.

Frio Resources provided the drilling permit application, Phase I Environmental Assessment, Emergency Response Plan (ERP), Spill Prevention Control and Countermeasure Plan (SPCCP), Stormwater Pollution Prevention Plan, Frio Resources SEMS, and PDCs Health, Safety, and Environmental Management System (HSEMS). Most of the non-conformances found in Divisions 3, 6, and 7 were for missing documentation. The casing exemptions, noise study, rig layout drawing, updated site drawings, waterboard letter, the list of chemicals, the letter or credit/bond, and the full insurance package were not provided. Overall, there were 35 COLC drilling ordinance sections that required additional documentation; 1 in Division 2, 11 in Division 3, 17 in Division 6, and 9 in Division 7.

After follow-up documentation was provided, the non-conformances that remained open were 6 in Division 6 and 1 in Division 7. There was 1 observation each in Divisions 2, 3, 6, and 7. The well control equipment major non-conformance and two training minor non-conformances can be addressed and closed out during an inspection once the rig is selected. There were two non-conformances that remained open for nighttime activities that will need to be agreed between COLC and Frio Resources due to proximity of the nearby neighborhood. Deliveries, vehicle activities, back-up alarms should be kept to daytime as much as possible.

Of the 12 SEMS elements, 8 elements were lacking in depth and required additional information from Frio Resources and PDC to fully satisfy the SEMS elements (safety and environmental information, hazard analysis, operating procedures, training, assurance of quality and mechanical integrity of critical equipment, pre-startup review, audit of safety and environmental management system elements, and records and documentation). The non-conformances raised were for missing information for rig capabilities and certifications, commissioning documentation, missing emergency response documentation, audit examples, and the hazard register.

Frio Resources sent follow-up documentation that closed the 3 major non-conformances for the safety and environmental information, hazard analysis, and operating procedures. PDC provided documentation that closed out all the remaining open SEMS non-conformances for training, pre-startup review, assurance of quality and mechanical integrity of critical equipment, audit of safety and environmental management system, and records non-conformances. During the follow-up review, all the SEMS non-conformances were closed.

The missing documentation for the drilling ordinance should be requested by the COLC to ensure that Frio Resources fully complies with the COLC Drilling Ordinance - Drilling, Chapter 42, Article III and API Bulletin 75L reflecting the Stewart Title #1 project.

The detailed findings and observations from the inspection can be seen in the corresponding sections in the main body (section 5) of this report. In summary, the non-conformances raised were distributed as 0 **Critical**, 10 **Major**, 33 **Minor**, and 4 Observations. Frio Resources managed to close out 0 **Critical**, 6 **Major** and 30 **Minor** non-conformances whilst ADC remained on board. On that basis the remaining open non-conformances were:- 0 **Critical**, 4 **Major** and 3 **Minor**.

The remaining open non-conformances were as follows:

NCID #26, Section 42-139 Illicit discharges

(b) Frio Resources did not provide documentation on a flare. PDC SEMS contained flare requirements.

(e) The letter of credit was not provided by Frio Resources.

NCID #28, Section 42-143 Well control equipment and procedures

The well control equipment and the components of the pressure control system were not fully covered in the documentation provided.

NCID #30, Section 42-148 Access Management

(d) The hours of operation of vehicles was not provided in the documentation package.

NCID #39, Section 42-162. Bond or irrevocable letter of credit.

The Frio Resources documentation package did not include the bond or irrevocable letter of credit.

NCID #32, Section 42-151 Hours of operation

The Frio Resources documentation provided did not contain the hours of operation, plans for a guard on location, or daylight/nighttime operations information.

NCID #33, Section 42 152 Drilling foreman

There was no documentation provided for the personnel onsite. Qualifications and training records were not in the documentation provided.

NCID #34, Section 42-153 Watchman

There was no documentation provided for the personnel onsite. Qualifications and training records were not in the documentation provided.

2.0 Introduction

ADC was requested by the COLC to perform a desktop audit on the Oil and Gas Drilling, Workover, or Amending Permit Application submitted by Frio Resources, LLC for Stewart Title #1. The Frio Resources and PDC SEMS manuals were to be reviewed against API Bulletin 75L and the COLC Drilling Ordinance. Follow-up documentation was provided and reviewed to close out non-conformances throughout the review process. The documentation review was carried out between 31 January 2024 and 12 April 2024 by ADC Senior Project Engineer Lance Norris.

3.0 Methodology

ADC Energy Ltd carried out the Drilling Permit Application Review audit generally in accordance with the ISO19011 auditing standard, along with the prepared and approved checklists. Where a non-conformance is recorded, it was categorised as either: Critical, Major or of Minor criticality.

CRITICAL	The Non Conformance refers to essential equipment, processes and systems that were being inappropriately used, exceed operational limits, were out of service or obsolete to a point that may lead to loss of life, a serious injury or environmental damage
MAJOR	The Non Conformance refers to essential equipment, processes, and systems that were being ineffectively used, approaching operational limits or experiences some downtime to a point that may lead to damage to essential equipment or have a detrimental effect on the drilling operation.
MINOR	The Non Conformance refers to equipment, processes and systems that may have minor deficiencies observed that may lead to a situation that contributes to an incident or to circumstances in which the required standards of operation were not met.
Observation	Observations highlight equipment condition, processes or systems that, although not considered non-conformances during the audit, are noteworthy to the client. Observations may or may not be referenced to a specific standard, rule or guidance and should not require further action. However, they are considered useful findings and may become non-conformances in future.

Throughout the report non-conformances are recorded with the associated assignment of Minor, Major, or Critical. The color code as the table above is employed for the text color for easy identification of the status of each. Furthermore, all Major and Critical non-conformances have an assigned corrective action request (CAR) number raised. Additionally, within the report attention is brought to the reader with regard to the use of observations. Observations are used to highlight information regarding the equipment that was not deemed as a non-conformance.

Suitably qualified and experienced personnel reviewed the documentation available at the time of the desktop review. The ADC inspection team members adhered to the ADC Safety Management System, which encourages safe working practices. It should be noted that ADC personnel have never, in their 37 years of operations, been involved in a lost time incident.

4.0 Work Scope

ADC was to perform a new well documentation review of the Oil and Gas Drilling, Workover, or Amending Permit Application for Stewart Title #1. The aim was to verify the documentation Frio Resources provided for Divisions 2, 3, 6, and 7 met the COLC Drilling Ordinance - Drilling requirements and industry standards. The Frio Resources and PDC SEMS manuals were audited against API Bulletin 75L - guidance document for the development of a safety and environmental management system for onshore oil and natural gas production operations and associated activities.

ADC reviewed the follow-up documentation by Frio Resources to close out non-conformance raised during the initial documentation review.

5.0 Drilling Permit Review

Drilling Ordinances

General Description

The following sections discuss Frio Resources compliance with the League City Drilling Ordinance Chapter 42, Article III, Oil and Gas Well Drilling reflecting the Stewart Title Well #1.

Division 2. Permits

Section 42-71. Permits required.

Frio Resources submitted an Oil & Gas Drilling, Workover, or Amending Permit Application to the City of League City for the Stewart Title Well #1. The application was for a drilling permit in the zoning district RSF-7 with total acreage of 5. The application had RRC permit number 894780 and was signed on 9 November 2023.

Section 42-72. Review of permit applications.

The Oil & Gas Drilling, Workover, or Amending Permit Application for Stewart Title Well #1 was notarized on 9 November 2023. The special use permit case number and approved by date can be obtained from COLC once the permit application is approved.

Observation, RC.D2P.1 Review of Permit Applications

The Oil & Gas Drilling, Workover, or Amending Permit Application's special use permit case number and approved by date should be obtained from COLC and filled in once the permit application is approved.

Division 3. Applications

Section 42-82. Application form.

Frio Resources submitted an Oil & Gas Drilling, Workover, or Amending Permit Application to the City of League City for the Stewart Title Well #1. Please see the Observation in Section 42-72.

Section 42-83. Operator or production representative information.

Frio Resources provided the contact information including the name, address, and phone number for the operator, production representative, site and drilling representative, corporate officers, and registered agents. Frio Resources provided the Articles of Incorporation that included the entity name, amended registered agent, and other amendment to certificate of formation that included the governing authority. The articles of incorporation were signed and dated 31 July 2019. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-84. Contacts sheet.

Frio Resources provided the contact information including the name, address, and phone number for the operator, production representative, site and drilling representative, corporate officers, registered agents, and a site representative. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-85. Aerial.

Frio Resources provided an aerial map dated July 2023 that included the drilling location and property boundary. It was not clear in the original aerial map what was within 1,000 ft of the drill site.

Follow-up: The aerial map was updated to include a 1,000 ft radius circle around the wellbore. The non-conformance was closed. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D3A.1 Section 42 85 Aerial, Minor

It was not clear in the aerial map what was within 1,000 ft of the drill site.
Specification

Specification

Section 42-85. Aerial.

Submit an aerial map photographed with one year prior to application date delineating the subject property boundaries including the area within on thousand feet of the drill site.

The non-conformance was subsequently closed by ADC on 2-Apr-2024.

The aerial map was updated to include a 1,000 ft radius circle around the wellbore.

Section 42-86. Legal description.

Frio Resources provided the surface deeds of the 20.64 acre tract of land situated in the Stephen F. Austin League, Abstract No.3 Galveston County Texas. The tract of land being out of Lot 1 of the Braskora Gardens subdivision as recorded in Volume 113, Page 47 of the Deed Records of Galveston County, Texas and also being out of Lot 7 of the Map of "N" Subdivision 9 as recorded in Volume 238, Page 18 of the Deed Records of Galveston County filed on 8 December 2014. The aerial map was provided that included the ID 608881 for 20.64 acres off of Ervin Ave dated 4 April 2023. The nearby subdivision plat references were included in the aerial map.

Follow-up: The aerial map was updated to include everything within 1,000 ft of the drill site. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-87. Proof of property interests.

The operator, Frio Resources, provided the property owners name, ConocoPhillips Company and the tract access road is owned by Ott Albertina West. The mineral interests were proprietary. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-88. Applicable state permits.

Frio Resources provided the Railroad Commission permit # 894780 dated 9 November 2023 for a new drill for lease name Stewart Title well number 1. There were no issues found with the RRC permit. The RRC form W-1 was approved.

Frio Resources provided the Groundwater Protection Determination form GW-2 with GAU number 373681 issued on 11 October 2023. The casing exceptions applied for and/or granted were not provided for review.

Follow-up: Frio Resources stated there were no casing exceptions requested from the RRC.

Non-Conformance, RC.D3A.2 Section 42 88 Applicable state permits, Minor

The casing exceptions applied for and/or granted were not provided for review.

Specification

Section 42-88. Applicable state permits.

Submit a copy of the application filed with the Railroad Commission along with the approved permit by the Commission for operations within the City, copies of the "Water Board" letter from the Texas Commission on Environmental Quality, and any casing exceptions applied for and/or granted.

The non-conformance was subsequently closed by ADC on 2-Apr-2024.

Frio Resources stated there were no casing exceptions requested from the RRC.

Section 42-89. Preliminary drilling program.

(a) The Frio Resources documentation was not provided for the rig layout drawing of the site to show where the well location, substructure, drawworks, catwalk, pipe racks, top drive house, mud pumps, generator buildings, crown, and spare parts house are located. Fire hydrants, water supply, power supply, and topographic features were not provided as well. Additional information was required to fully satisfy this ordinance regulation.

(b) There was no documentation provided in the nature and volume of waste materials generated during rigging-up operations and drilling. Additional information was required to fully satisfy this ordinance regulation.

(c) Frio Resources provided the vertical section plot and the horizontal section plot drilling plans. The total vertical depth is 10,500 ft and the measured depth is 10,716.11 ft. The evidence for this section was reviewed by ADC and deemed acceptable.

(d,e) There was not an evaluation of potential shallow gas or H₂S provided. Additional information was required to fully satisfy this ordinance regulation.

Follow-up documentation was provided by Frio Resources:

(a) The rig layout drawings were provided for rig 750ST and rig 522ST. The fire extinguisher layout drawing and the hazardous area layout drawing was provided. The rig layout drawing included the mud pumps, drawworks, pipe racks, electrical house, generators, tanks, substructure, doghouse, catwalk, and choke manifold. The evidence for this section was reviewed by ADC and deemed acceptable.

(b) The PDC waste management plan created by Terracon that contained storage and handling procedures for used oil wastes, non-hazardous wastes, and universal wastes. The evidence for this section was reviewed by ADC and deemed acceptable.

(d,e) Per the USGS survey, the only field in Galveston County known to produce H₂S is the High Island Field over 35 miles away on the Bolivar Peninsula, H₂S is not anticipated based on historical production in the League City area. Previously drilled wells in close proximity to the Stewart Title #1 location have not encountered shallow gas or H₂S. The evidence for this section was reviewed by ADC and deemed acceptable.

After the follow-up documentation was provided, the evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D3A.3 Section 42 89 Preliminary drilling program, Major

(a) The Frio Resources documentation was not provided for the rig layout drawing of the site to show where the well location, substructure, drawworks, catwalk, pipe racks, top drive house, mud pumps, generator buildings, crown, and spare parts house are located. Fire hydrants, water supply, power supply, and topographic features were not provided as well. Additional information was required to fully satisfy this ordinance regulation.

(b) There was no documentation provided in the nature and volume of waste materials generated during rigging-up operations and drilling. Additional information was required to fully satisfy this ordinance regulation.

(d,e) There was not an evaluation of potential shallow gas or H₂S provided.

Specification

Section 42-89. Preliminary Drilling Program.

Drilling and workover permits submit a preliminary drilling program including, but not limited to, the following:

(a) Preliminary general arrangement drawings of the site showing, but not limited to, specific wellhead locations; major components, improvements and equipment; rigs; compressors; separators; storage sheds; fire hydrants; water and power supply; impacted vegetation, creeks and other topographic features; easements; and adjoining roadways, property, parks, buildings, and structures.

(b) Nature and volume of waste materials generated during rigging-up operations and drilling.

(d) Evaluation of shallow gas hazard.

(e) Evaluation of potential H₂S hazard.

Corrective Action Request 4

The non-conformance was subsequently closed by ADC on 3-Apr-2024.

(a) The rig layout drawings were provided for rig 750ST and rig 522ST. The fire extinguisher layout drawing and the hazardous area layout drawing was provided. The rig layout drawing included the mud pumps, drawworks, pipe racks, electrical house, generators, tanks, substructure, doghouse, catwalk, and choke manifold.

(b) The PDC waste management plan created by Terracon that contained storage and handling procedures for used oil wastes, non-hazardous wastes, and universal wastes.

(d,e) Per the USGS survey, the only field in Galveston County known to produce H₂S is the High Island Field over 35 miles away on the Bolivar Peninsula, H₂S is not anticipated based on historical production in the League City area. Previously drilled wells in close proximity to the Stewart Title #1 location have not encountered shallow gas or H₂S.

Section 42-90. Site plans and construction documents.

MSDS sheets were provided for Citgo No 2 diesel fuel, Condensate, Crude Oil (sweet), DESCO, Aluminum Stearate, Aquagel, Baracarb 50, Baracarb 150, Baroid, Baroid Oil Absorbent, Baro-trol Plus, Calcium Chloride-Powder, Carbonox, Caustic Soda, Driltreat, Duratone, EZ-Mud, EZ MUL, Geltone V, Invermul, Lime, PAC-L, QUIK-THIN, Sodium Bicarbonate, WALL-NUT medium, Duratone E, natural gas, soap sticks, Pennzoil SAE 10W-30 Motor Oil, Ethylene glycol, Methanol, Desco Deflocculant.

There was not a hazardous material list provided for all the chemicals that will be used on location. The operational phases at which the chemicals will be utilized were not provided.

Follow-up: The hazardous material list was provided for all the chemicals. The list also included the chemicals used during the drilling and production phases. After the follow-up documentation was provided, the evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D3A.4 Section 42 90 Site plans and construction drawings, Minor

There was not a hazardous material list provided for all the chemicals that will be used on location. The operational phases at which the chemicals will be utilized were not provided.

Specification

Section 42-90. Site plans and construction documents.

Submit a hazardous materials inventory statement including MSDS sheets on all products being used and at which operation phases they are being utilized, including all chemicals used during any fracking process.

The non-conformance was subsequently closed by ADC on 3-Apr-2024.

The hazardous material list was provided for all the chemicals. The list also included the chemicals used during the drilling and production phases.

Section 42-91. Alternative water supply.

Frio Resources will use Ermis Vacuum Service as a secondary water source for the drilling operations. Water can be trucked in to keep the tanks full of fresh water during the drilling operations. Frio will use COLC water for the drilling operation. There will not be any standby tanks on site and if there was an interruption in water supply from the city, Frio would utilize the rig water tank (500 bbl) and replenish as necessary. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-92. Landscaping and screening plan.

Frio Resources provided drawings for the Stewart Title site by Shelmark Engineering LLC. including the tree disposition plan. There was a 20 ft. entrance driveway made out of Caliche off of Ervin Street. There was an 8 ft fence around the property. There was 50 ft. vegetative buffer around the lot that included Chinese elm, little gem magnolia, and southern wax myrtles. The vegetative buffer should be approved by the COLC arborist.

There was an environmental restrictive covenant in place for the property for historic oil/gas activity for a known groundwater contamination. InControl Technologies recommended strict adherence to restrictions identified with the covenant.

Observation, RC.D3A.6 Section 42 92 Environmental assessment

There was an environmental restrictive covenant in place for the property for historic oil/gas activity for a known groundwater contamination. InControl Technologies recommended strict adherence to restrictions identified with the covenant.

Section 42-93. Lighting plan.

Frio Resources stated that no permanent lighting will be installed. All lighting will be directed inwards and away from surrounding residences during the drilling process. The nearest residence was over 675 ft. away from the location. There was not a lighting plan provided detailing the lighting for the grounds, equipment, and any apparatus or structure including the type of light to be used, location, height, and degree of illumination up to 1,000 feet as demonstrated by a photometric study.

Follow-up: There will be lighting going up the approximately 110' tall mast, there will be lighting on the mud tanks, and other portions of the rig all facing down and inward towards the equipment. Portable lighting plants may be provided at 10' height and will all be pointed downward as much as possible and pointed East or South away from the neighbourhoods to the West and North. There is natural vegetation around the site as it is a vacant site and overgrowth has accumulated. The best way to mitigate impact to local housing will be to direct lighting down and away towards the vacant tracts of land to the East and South. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D3A.5 Section 42 93 Lighting Plan, Minor

There was not a lighting plan provided detailing the lighting for the grounds, equipment, and any apparatus or structure including the type of light to be used, location, height, and degree of illumination up to 1,000 feet as demonstrated by a photometric study.

Specification

Section 42-93. Lighting plan.

Drilling, and workover permits submit lighting plan demonstrating how lighting will be provided in conformance with the Special Use Permit and City ordinance. The plan shall reflect the lighting for the entire site, including the grounds, equipment and any drilling apparatus or structure including the type of light to be used, location, height and degree of illumination up to 1,000 feet as demonstrated by a photometric study.

The non-conformance was subsequently closed by ADC on 10-Apr-2024.

There will be lighting going up the approximately 110' tall mast, there will be lighting on the mud tanks, and other portions of the rig all facing down and inward towards the equipment. Portable lighting plants may be provided at 10' height and will all be pointed downward as much as possible and pointed East or South away from the neighbourhoods to the West and North. There is natural vegetation around the site as it is a vacant site and overgrowth has accumulated. The best way to mitigate impact to local housing will be to direct lighting down and away towards the vacant tracts of land to the East and South.

Section 42-94. Environmental assessment.

The Frio Resources documentation package contained a Phase I Environmental Site Assessment for the 20.64-acre undeveloped tract of land approximately 1,500 ft west of the intersection of Calder Drive and Ervin Road prepared by InControl Technologies in September 2023. There was an environmental restrictive covenant in place for the property for historic oil/gas activity for a known groundwater contamination. InControl Technologies recommended strict adherence to restrictions identified with the covenant. InControl Technologies recommends no further action required for the subject property. The Phase I Environmental Assessment contained site maps and photographs, historical topographical maps, city directories, and historical findings. There was not a Phase II Environmental Assessment in the documentation provided. A Phase II Environmental Assessment is only required if the Phase I identifies potential contamination and is recommended. InControl Technologies did not recommend a Phase II assessment. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-95. Environmental management noise.

Frio Resources provided a 7 day noise study of the Stewart Title #1 site performed by Acoustical Control, LLC in October 2023. The average decibels for the 9 readings around the property between 615' and 1,050' was 47.6 dBA. The highest average reading for one of the receivers was 50.2 dBA. The highest reading over the 7-day period was 53 dBA. The Acoustical Control, LLC did not recommend temporary sound barriers for the drilling operations based on their drilling noise impact models associated with drilling operations. There was no documentation provided for continuous noise monitoring throughout the drilling campaign.

Follow-up: Frio Resources stated there will be a manual noise monitor on site. If thresholds with the manual monitor are exceeded, a continuous noise monitoring system can be installed. Shipping containers may be utilized as a wall to reduce noise pollution. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D3A.7 Section 42 95 Environmental management noise, Minor

There was no documentation provided for continuous noise monitoring throughout the drilling campaign.

Specification

Section 42-95. Environmental management noise.

Drilling and workover permits to establish noise levels different than what is required by this Chapter, submit a pre-drilling ambient noise level report. The plan shall document how mitigation measures will be utilized so that the noise level does not exceed permitted decibel levels in accordance with the Special Use Permit and the regulations of this article.

The non-conformance was subsequently closed by ADC on 10-Apr-2024.

Frio Resources stated there will be a manual noise monitor on site. If thresholds with the manual monitor are exceeded, a continuous noise monitoring system can be installed. Shipping containers may be utilized as a wall to reduce noise pollution.

Section 42-96. Environmental management air emissions.

Frio Resources provided a TCEQ emissions summary that included the volatile organic compounds, benzene, formaldehyde, H₂S, SO₂, NO_x, CO, PM₁₀, and PM_{2.5}. The drilling site did not have a major source determination. The emissions summary was stamped by a professional engineer in October 2023.

The Frio Resources Spill Prevention Control and Countermeasure Plan (SPCCP) contained response guidelines for fire, oil spill, natural gas release, and H₂S release that included electronic and mechanical detectors to test for poisonous gas on the location. The Frio Resources SPCCP included daily inspections for leaks, equipment operation and condition, debris, secondary containment, corrosion, and alarm systems. There was not a hazard register for the site that contained the air emissions/pollutants and how they are monitored and managed.

Follow-up: Frio Resources stated the emissions sources will be from the diesel rig motor, generator, small handheld power tools, and possible natural gas during the

drilling operation. Company personnel will have portable gas detectors to continuously monitor the environment surrounding the drill location. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D3A.8 Section 42 96 Environmental management air emissions, Minor

There was not a hazard register for the site that contained the air emissions/pollutants and how they are monitored and managed.

Specification

Section 42-96. Environmental management air emissions.

Drilling, and workover permits submit documentation demonstrating how the surrounding environment will be protected, monitored, and managed against adverse noxious odour impacts and emissions of regulated air pollutants per the Clean Air Act as administered by Texas Commission on Environmental Quality.

The non-conformance was subsequently closed by ADC on 10-Apr-2024.

Frio Resources stated the emissions sources will be from the diesel rig motor, generator, small handheld power tools, and possible natural gas during the drilling operation. Company personnel will have portable gas detectors to continuously monitor the environment surrounding the drill location.

Section 42-97. Environmental management spill prevention, control and countermeasure plan.

Frio Resources provided the SPCCP dated September 2023 that contained the plan review, facility information, response guidelines, notifications, response team, protection/response, prevention systems, piping/flowlines, production equipment, storage tanks, training, inspections, and forms. In the introduction section for management approval, professional engineer certification, and substantial harm criteria checklist, these sections were signed and dated in December 2023. The Frio Resources production facility secondary containment calculations were provided. The Phoenix Pollution Control & Environmental Services, Inc. oil spill removal organization standby emergency response agreement was provided. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-98. Environmental management hazard mitigation plan.

The Frio Resources SPCCP contained response guidelines for injury, fire, oil spill, natural gas release, H₂S release, and severe weather. The severe weather section included hurricanes, tropical storms, thunderstorms, and tornados. The response guidelines contained notifications, procedures for shut-in, safety considerations for the environment and workers, and post weather/incident response procedures. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-99. Environmental management risk management assessment.

The Frio Resources permit application included a risk assessment table that included explosion, fire, gas release, oil spill, vandalism, vehicle accident, and personnel injury with economical applications and descriptions for each. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-100. Environmental management storm water pollution prevention plan.

Frio Resources provided the SWPPP prepared by Construction EcoServices that identified hazards, controls, maintenance, inspections, spill prevention, and response actions. The SWPPP was signed and dated in October 2023. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-101. Environmental management geologic impacts report.

Frio Resources provided a land subsidence near oil and gas fields, Houston, Texas study. The conclusion of the study of the 29 oil fields investigated was that six of the 29 fields may have contributed to land subsidence. The contribution of petroleum withdrawal relative to that from aquifer compaction appeared to be small. The Phase I Environmental Assessment contained site maps and photographs, historical topographical maps, city directories, and historical findings. Frio Resources did not provide information on how they plan to protect, monitor, and manage the surrounding environment against geologic impacts during the drilling process.

Follow-up: Frio stated there will be a small berm/ring levee at the 50' inset line with the fence approx. 5-10' into the 50' buffer that surrounds the location on 4 sides and will prevent any discharges from leaving the pad. The site will be monitored during the entire drilling process to determine if any geologic impacts have occurred. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D3A.9 Section 42 101 Environmental management geologic impacts report, Minor

Frio Resources did not provide information on how they plan to protect, monitor, and manage the surrounding environment against geologic impacts during the drilling process.

Specification

Section 42-101. Environmental management geologic impacts report.

Submit report demonstrating how the surrounding environment will be protected, monitored, and managed against adverse geologic impacts during the drilling process.

The non-conformance was subsequently closed by ADC on 3-Apr-2024.

Frio stated there will be a small berm/ring levee at the 50' inset line with the fence approx. 5-10' into the 50' buffer that surrounds the location on 4 sides and will prevent any discharges from leaving the pad. The site will be monitored during the entire drilling process to determine if any geologic impacts have occurred.

Section 42-102. Emergency management emergency action response plan:

(a) The Frio Resources SPCCP contained emergency response plans for injury, fire, oil spills, natural gas release, H₂S release, and severe weather. The Frio Resources SPCCP fire section included ignition sources, fire extinguishers, responses for tank fires, and compressor rupture/fires. The Frio Resources ERP contained spill response, well control response, fire response actions, medical emergency response, and site safety plan.

(b/c) Frio Resources provided an access map with one access road to the well location off of Ervin St. The access driveways were 24 ft. wide. There was not a roadway name for the turnoff of Ervin St or an address for the driveway.

Follow-up: The access management plan was updated to include the facility entrance coordinates and approximate address at 1238-1268 Ervin St. at 29°28'08.2", -95°06'36.25". The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D3A.10 Section 42-102. Emergency management emergency action response plan, Minor

(b/c) Frio Resources provided a map of the access road/evacuation road. There was not a roadway name for the turnoff of Ervin St or an address for the driveway.

Specification

Section 42-102 Emergency management - emergency action response plan

(b) Drive to maps from public rights of way to operation site.

(c) Evacuation routes for surrounding area that utilize the same roadways.

The non-conformance was subsequently closed by ADC on 3-Apr-2024.

The access management plan was updated to include the facility entrance coordinates and approximate address at 1238-1268 Ervin St. at 29°28'08.2", -95°06'36.25".

Section 42-103. Safety management.

(a) Frio Resources provided their SEMS plan and their contractor PDCs SEMS plan. See the API Bulletin 75L section for more details.

(b) Frio Resources provided the bridging document between the operator and the contractor. The bridging document included the management system matrix detailing whether the operators and/or contractors SEMS will be used for each element. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

(c) See the API Bulletin 75L section for more details.

(d) The SPCCP contains storage tanks, labelling, inspection, and waste management. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-104. Access management plan.

(a) The Frio Resources documentation included an access map with one access road to the well location off of Ervin St. The access driveways were 20 ft. wide. Frio Resources provided the site plan with the location of the production equipment, but the rig equipment was not included.

(b) There was not a roadway name for the turnoff of Ervin St or an address for the driveway.

(c) Frio Resources stated public roadways, trails, and sidewalks will not be impacted during access to Stewart Title #1 due to it being a private lease road. There was nothing provided for maintaining and monitoring for Ervin St. or the access road to the facility for emergency vehicles.

Follow-up:

(a) The rig layout drawings were provided for rig 750ST and rig 522ST. The fire extinguisher layout drawing and the hazardous area layout drawing was provided. The rig layout drawing included the mud pumps, drawworks, pipe racks, electrical house, generators, tanks, substructure, doghouse, catwalk, and choke manifold.

(b) The access management plan was updated to include the facility entrance coordinates and approximate address at 1238-1268 Ervin St. at 29°28'08.2", -95°06'36.25".

(c) Ervin St. and the lease road will be inspected daily to verify that they are in good condition and accessible for emergency vehicles.

The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D3A.11 Section 42-104. Access management plan., Minor

(a) Frio Resources provided the site plan with the location of the production equipment, but the rig equipment was not included.

(b) There was not a roadway name for the turnoff of Ervin St or an address for the driveway.

(c) Frio Resources stated public roadways, trails, and sidewalks will not be impacted during access to Stewart Title #1 due to it being a private lease road. There was nothing provided for maintaining and monitoring for Ervin St. or the access road to the facility for emergency vehicles.

Specification

Section 42-104. Access management plan

(a) Delineation of the access route from the city limits to the drill site and all above ground equipment.

(b) A table indicating roadway name, trail, sidewalk, length, and construction type.

(c) Documentation as to how the roadways, trails, and sidewalks will be protected, monitored, and managed against adverse impacts during access.

The non-conformance was subsequently closed by ADC on 3-Apr-2024.

(a) The rig layout drawings were provided for rig 750ST and rig 522ST. The fire extinguisher layout drawing and the hazardous area layout drawing was provided. The rig layout drawing included the mud pumps, drawworks, pipe racks, electrical house, generators, tanks, substructure, doghouse, catwalk, and choke manifold.

(b) The access management plan was updated to include the facility entrance coordinates and approximate address at 1238-1268 Ervin St. at 29°28'08.2", -95°06'36.25".

(c) Ervin St. and the lease road will be inspected daily to verify that they are in good condition and accessible for emergency vehicles.

Division 6. Regulations

Section 42-132. Water supply source.

Frio Resources will use the COLC water during the drilling process. Frio Resources will use Ermis Vacuum Service as a secondary water source for the drilling operations. Water can be trucked in to keep the tanks full of fresh water during the drilling operations.

Follow-up: Frio will use COLC water as the primary water supply source for the drilling operation. There will not be any standby tanks on site and if there was an interruption in water supply from the city, Frio would utilize the rig water tank (500 bbl) and replenish as necessary. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D6R.1 Section 42-132 Water Supply Source, Minor

The primary water supply source was not provided. There was not a size of the freshwater tanks and how many there will be on location.

Specification

Section 42-132. Water supply source.

The source of water supply for all drilling and workover operations shall be through the municipal water system. The connection size shall be based upon the availability of the water supply. The alternative water supply as approved with the permit shall be utilized in the following conditions:

- (a) Water demand for the city is 90 percent of the available contracted surface water sources per day for a seven-day average; or
- (b) City wells are producing at 40 percent of their capacity to augment an inadequate supply of contracted surface water over a seven-day average.

The non-conformance was subsequently closed by ADC on 4-Apr-2024.

Frio will use COLC water as the primary water supply source for the drilling operation. There will not be any standby tanks on site and if there was an interruption in water supply from the city, Frio would utilize the rig water tank (500 bbl) and replenish as necessary.

Section 42-133. Location of electric lines.

The Frio Resources documentation did not provide information on electrical lines or production power lines. Additional information was required to fully satisfy this ordinance regulation.

Follow-up: The site plan drawing included overhead electric lines. There are lines running north to south parallel to the site. There are electrical lines that run west to east along Ervin Road at the front of the property. There are not any planned electrical lines or electrical needs inside of the fenced off drill site. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D6R.2 Section 42-133. Location of electric lines, Minor

The Frio Resources documentation did not provide information on electrical lines or production power lines.

Specification

Section 42-133. Location of electric lines.

All electric lines to site development and/or drilling facilities shall be located in a manner compatible to those already installed in the surrounding area or subdivision. Production power lines shall be placed underground.

The non-conformance was subsequently closed by ADC on 5-Apr-2024.

The site plan drawing included overhead electric lines. There are lines running north to south parallel to the site. There are electrical lines that run west to east along Ervin Road at the front of the property. There are not any planned electrical lines or electrical needs inside of the fenced off drill site.

Section 42-134. Distancing and setbacks.

Frio Resources provided an aerial map with distancing setbacks on it. The proposed drill site is not within 50 feet of an alley, street, road, or highway. The wellbore is over 600 feet from the nearest residential dwelling. The wellbore is not within 600 feet of any fresh water well. The wellbore is not within 300 feet of any off-site building. The wellbore is within 600 feet of 2 residential neighborhood fences. This was discussed with COLC and they deemed this to be acceptable with no further action required.

Non-Conformance, RC.D6R.3 Section 42-134 Distancing and setbacks, Major

The wellbore is within 600 feet of 2 residential neighborhood fences.

Specification

Section 42-134. Distancing and setbacks.

The distancing and setback requirements noted in this subsection shall apply to all new permits for drilling and workovers shall be consistent with the approved Special Use Permit. These requirements shall not apply to any renewal permits for existing operations that have state and federal permits in good standing.

(d) The proposed well bore shall not be within six hundred (600) feet of any off-site pool, building or structure for the support, shelter, enclosure or partial enclosure of persons or animals unless the Operator or designated representative secured notarized affidavits consenting to the encroachment from the surface property owners within the affected radius when the Special Use Permit was granted. The measurement shall be in a direct line from the closest well bore to the nearest portion of the building or structure. The reduction of the distance requirement is subject to the regulations of the Railroad Commission and any other state or federal requirements.

Corrective Action Request 5

The non-conformance was subsequently closed by ADC on 4-Apr-2024.

The wellbore is within 600 feet of 2 residential neighborhood fences. This was discussed with COLC and they deemed this to be acceptable with no further action required.

Section 42-135. Landscaping.

Frio Resources provided drawings for the Stewart Title site by Shelmark Engineering LLC. including the tree disposition plan. There was 50 ft. vegetative buffer around the lot that included Chinese elm, little gem magnolia, and southern wax myrtles. The vegetative buffer should be approved by the COLC arborist.

Observation, RC.D6R.4 Section 42-135 Landscaping

There was 50 ft. vegetative buffer around the lot that included Chinese elm, little gem magnolia, and southern wax myrtles. The vegetative buffer should be approved by the COLC arborist.

Section 42-136. Screening and fences.

Frio Resources will be installing an 8 ft fence around the well site with a 20 ft rolling gate. There was no information on the Knox lock boxes.

Follow-up: Frio Resources stated the gate will have both an automatic control switch and a Knox Lock. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D6R.17 Section 42-136 Screening and fences, Minor

The Frio Resources documentation did not provide any information on gates or Knox box locks.

Specification

Section 42-136. Screening and fences

Screening and fences shall be installed on the site in accordance with approved plans and the Special Use Permit prior to issuance of the permit.

(a) The perimeter of the location shall be secured with a commercial quality fence with a minimum height of six (6) feet, regardless of on-site supervision.

(b) Any secured entrance gate shall contain a Knox-Box keybox or pad lock or equivalent.

(c) All fences shall be equipped with at least one (1) gate. The gate shall meet the following specifications:

(1) All gates shall be equipped with a 911 override control switch. Gate specifications must be submitted to the Fire Marshal's office and approved prior to installation.

(2) Each gate shall be not less than twelve (12) feet wide and be composed of two (2) gates, each of which is not less than six (6) feet wide, or one (1) sliding gate not less than twelve (12) feet wide. If two (2) gates are used, gates shall latch and lock in the centre of the span.

(3) The gates shall be provided with a combination catch and locking attachment device for a padlock and shall be kept locked except when being used for access to the site.

(4) Operator or Production Representative must provide the Fire Department with a Knox Padlock or Knox Box entry system or equivalent on the gate to access the drill site in case of an emergency.

The non-conformance was subsequently closed by ADC on 4-Apr-2024.

Frio Resources stated the gate will have both an automatic control switch and a Knox Lock.

Section 42-137. Lighting.

Frio Resources stated that no permanent lighting will be installed. All lighting will be directed inwards and away from surrounding residences during the drilling process. The nearest residence was 675 ft. away from the location. See the non-conformance in Section 42-93.

Follow-up: There will be lighting going up the approximately 110' tall mast, there will be lighting on the mud tanks, and other portions of the rig all facing down and inward towards the equipment. Portable lighting plants may be provided at 10' height and will all be pointed downward as much as possible and pointed East or South away from the neighbourhoods to the West and North. There is natural vegetation around the site as it is a vacant site and overgrowth has accumulated. The best way to mitigate impact to local housing will be to direct lighting down and away towards the vacant tracts of land to the East and South. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-138. Noise.

Frio Resources provided a 7 day noise study of the Stewart Title #1 site performed by Acoustical Control, LLC in October 2023. The average decibels for the 9 readings around the property between 615' and 1,050' was 47.6 dBA. The highest average reading for one of the receivers was 50.2 dBA. The highest reading over the 7-day period was 53 dBA. The Acoustical Control, LLC did not recommend temporary sound barriers for the drilling operations based on their drilling noise impact models associated with drilling operations. There was no documentation provided for continuous noise monitoring throughout the drilling campaign.

Follow-up: Frio Resources stated there will be a manual noise monitor on site. If thresholds with the manual monitor are exceeded, a continuous noise monitor can be installed. Shipping containers may be utilized as a wall to reduce noise pollution. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D6R.5 Section 42-138 Noise, Minor

There was no documentation provided for continuous noise monitoring throughout the drilling campaign.

Specification

Section 42-138. Noise.

(2) The exterior noise level generated by the drilling, re-drilling or other related operations located within six hundred (600) feet of a protected use or within 600 feet of any off-site pool, building or structure for the support, shelter, enclosure, or partial enclosure of movable property of any kind shall be continuously monitored to ensure compliance. The cost of such monitoring shall be borne by the Operator or Production Representative.

The non-conformance was subsequently closed by ADC on 10-Apr-2024.

Frio Resources stated there will be a manual noise monitor on site. If thresholds with the manual monitor are exceeded, a continuous noise monitor can be installed. Shipping containers may be utilized as a wall to reduce noise pollution.

Section 42-139. Illicit discharges.

(a) The PDC SEMS included drilling muds, chemicals, and toxic substances handling, storage, and disposal procedures. The PDC SEMS included spill prevention procedures to store chemicals and liquid materials in proper containers which were to remain closed when not in use, to avoid exposure to storm water. The PDC SEMS states that all contaminated materials/wastes generated during spill response and/or clean-up activities will be managed in accordance with the waste management plan. The evidence for this section was reviewed by ADC and deemed acceptable.

(b) Frio Resources did not provide documentation on a flare. PDC SEMS contained flare requirements. Additional information was required to fully satisfy this section of the ordinance regulation.

(c/d) The Frio Resources Emergency Response Plan and SPCCP protection/response procedures cover clean-up operations of hazardous substances and waste disposal. The Frio Resources ERP and SPCCP contained a notification list and process. The SPCCP included forms for spill report and waste management. The evidence for this section was reviewed by ADC and deemed acceptable.

(e) The letter of credit was not provided by Frio Resources.

Follow-up:

(b) Frio Resources stated there will be a flare required during drilling operations to circulate out gas that may become entrained in the drilling fluids or in the event of a well control situation. The following equipment will be utilized to handle any gas encountered during drilling operations. There will be a gas buster, 3" 10M choke manifold with dual hydraulic chokes, and 8" flare line with 90s/45s/check valve, drive over, open flarestack, igniter. On past COLC sites, a closed flare has been used. The open flare will need to be discussed with COLC.

(e) A Letter of Credit or a bond will be provided once the Permit is approved. Additional information was required to fully satisfy this section of the ordinance regulation.

Non-Conformance, RC.D6R.6 Section 42-139 Illicit discharges, Major

(b) Frio Resources did not provide documentation on a flare. PDC SEMS contained flare requirements.

(e) The letter of credit was not provided by Frio Resources.

Specification

Section 42-139. Illicit discharges.

(b) No person shall allow cause or permit gases to be vented into the atmosphere or to be burned by open flame.

(e) Operator expressly consents by applying for a permit to allow a drawdown of any bond or letter of credit to cover any clean up expenses. In the event that the bond or letter of credit is exhausted, Operator agrees to immediately replenish the amount. City shall have the right to contact the Railroad Commission in order to facilitate the removal of all waste materials from the property affected by such spill, leak or malfunction.

Corrective Action Request 6

Comments:

(b) Frio Resources stated there will be a flare required during drilling operations to circulate out gas that may become entrained in the drilling fluids or in the event of a well control situation. The following equipment will be utilized to handle any gas encountered during drilling operations. There will be a gas buster, 3" 10M choke manifold with dual hydraulic chokes, and 8" flare line with 90s/45s/check valve, drive over, flarestack, igniter. On past COLC sites, a closed flare has been used. The open flare will need to be discussed with COLC.

(e) A Letter of Credit or a bond will be provided once the Permit is approved.

Section 42-142. Fire prevention.

(a) The PDC SEMS fire prevention and control procedures states no explosives, other than for downhole use, are allowed on any company site. The evidence for this section was reviewed by ADC and deemed acceptable.

(b) The Frio Resources SPCCP covered fire response and notifications. The evidence for this section was reviewed by ADC and deemed acceptable.

(c) The Frio Resources documentation did not provide the information for the fire-fighting apparatus. Additional information was required to fully satisfy this section of the ordinance regulation.

(d) Frio Resources should verify there are no vehicles or items of machinery parked/stored that can be an obstruction with fire-fighting emergencies. Additional information was required to fully satisfy this section of the ordinance regulation.

(e) Electric motors were not covered in the documentation provided. Additional information was required to fully satisfy this section of the ordinance regulation.

Follow-up:

(c) Frio will maintain a fire equipment box with 265 gallons of suppressant on location. In addition, PDC maintains many ABC and CO2 portable fire extinguishers on and around the drilling rig. The PDC rig drawings included the fire extinguisher locations. The emergency shutdowns will be tested during the rig inspection. The evidence for this section was reviewed by ADC and deemed acceptable.

(d) There is ample parking on site. Vehicles and equipment will be placed so as to not interfere with ingress and egress for fire-fighting equipment. The evidence for this section was reviewed by ADC and deemed acceptable.

(e) The only electric motors onsite will be on the drilling rig. The evidence for this section was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D6R.7 Section 42-142 Fire prevention, Major

(c) The Frio Resources documentation did not provide the information for the fire-fighting apparatus.

(d) Frio Resources should verify there are no vehicles or items of machinery parked/stored that can be an obstruction with fire-fighting emergencies.

(e) Electric motors were not covered in the documentation provided.

Specification

Section 42-142. Fire prevention.

(c) Fire prevention; sources of ignition. Firefighting apparatus and supplies as approved by the Fire Department and required by any applicable federal, state, or local law shall be provided by the Operator, at the Operators cost, and shall be

maintained on the site at all times during operations. The Operator shall be responsible for the maintenance and upkeep of such equipment. All equipment, other than wellheads, shall be equipped with an automated valve that closes or shuts down the equipment in the event of an abnormal change in operating pressure. All well heads shall contain an automated emergency shut off valve to the well production sale line.

(d) Equipment and vehicles. No vehicle or item of machinery shall be parked or stored on any street, right-of-way or in any driveway, alley or upon any site which constitutes a fire hazard or an obstruction to or interference with fighting or controlling fires except that equipment which is necessary on the site. The Fire Marshal shall be the entity that determines whether equipment on the site shall constitute a fire hazard.

(e) Electric motors. Only electric prime movers or motors shall be permitted for the purpose of pumping wells. No electric power shall be generated on location outside of the duration of drilling operations. All electrical installations and equipment shall conform to the City ordinances and the appropriate national codes.

Corrective Action Request 7

The non-conformance was subsequently closed by ADC on 4-Apr-2024.

(c) Frio will maintain a fire equipment box with 265 gallons of suppressant on location. In addition, PDC maintains many ABC and CO2 portable fire extinguishers on and around the drilling rig.

(d) There is ample parking on site. Vehicles and equipment will be placed so as to not interfere with ingress and egress for fire-fighting equipment.

(e) The only electric motors onsite will be on the drilling rig.

Section 42-143. Well control equipment and procedures.

The Frio Resources ERP included general well control response actions. The SPCCP included blowout prevention systems. The PDC SEMS contained operational safe work instructions for BOP systems. The well control equipment and the components of the pressure control system were not covered in the documentation provided.

Follow-up: Frio Resources stated the well control equipment will be rented from Dynamic Well Services. This is the same well control equipment utilized on other wells within League City. All pressure control equipment and all components of the pressure control system will be certified once a year. Log books will be available on location documenting the certifications. The following well control equipment will be utilized.

- 11" 10M Single BOP with Pipe Rams
- 11" 10M Double BOP with Pipe Rams and Shears Rams
- 11" 5M Annual Hydril
- 11" 10M Mud Cross with manual Valves, Check Valve
- Gas Buster
- 3" 10M Choke Manifold with Dual Hydraulic Chokes
- 8" Flare Line with 90s/45s/check valve, drive over, flarestack, igniter
- BOP Accumulator Unit

The well control equipment certification will be reviewed, and the well control stack will be tested. This will need to be closed once the rig is on location before operations commence.

Non-Conformance, RC.D6R.8 Section 42-143 Well control equipment and procedures, Major

The well control equipment and the components of the pressure control system were not covered in the documentation provided.

Specification

Section 42-143. Well control equipment and procedures.

(a) The pressure control equipment and all components in the pressure control system shall all be sourced from a recognized American Petroleum Institute licensed OEM and of origin from the United States or Western Europe.

(b) All pressure control equipment and all components of the pressure control system shall be certified at a minimum of once per year. No equipment shall be used on site with a certificate expiration date that will expire during its expected time of use on the well.

(c) A copy of the data books for each pressure control component shall be maintained and available on the drilling location for review.

(d) Prior to setting equipment and in areas where liquids or dry materials are likely to be spilled, install rollout impermeable barriers. The tarps shall be rolled up and cleaned at a suitable facility when equipment is rigged down.

(e) The Operator shall conduct function testing and pressure testing of all components of the pressure control system. Alternately, function and pressure testing shall be conducted every five (5) days.

(f) All components of the pressure control system must be function tested and pressure tested to full rated working pressure before the rig is accepted to commence operations.

(g) All drilling wells must be equipped with blowout preventers, flowlines, and valves commensurate with the working pressure involved as required by the Railroad Commission.

(h) In all cases, blowout prevention equipment including shear rams and pipe rams shall be used on all wells being drilled, worked-over or in which tubing is being changed. Protection shall be provided to prevent blowout during operations as required by and in conformance with the requirements of the Railroad Commission and be in compliance with all American Petroleum Institute Specifications and Recommended Practices, whichever is more restrictive for the particular issue under consideration.

(i) A blowout preventer stack must be configured with a minimum of four (4) ram type and one (1) annular type preventers.

(j) A set of blind shear rams with suitable operators shall be installed in the blowout preventer stack capable of shearing all grades of tubulars on location.

(k) A set of casing shear rams with suitable operators capable of shearing all grades of casing in the well design must be installed in the stack.

(l) Blowout prevention equipment shall be actuated periodically to ensure operational readiness utilizing these frequencies:

(1) Every 12-hour shift, perform the following:

(i) Check the accumulator pressure;

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- (ii) Check the pressure of the emergency back-up system;
(iii) Check the hydraulic fluid level in the blowout preventer closing unit;
(iv) Check air pressure to support system; and
(v) Record all of the above in the IADC log book and well ledger.
- (2) Every 12-hour shift, perform an IADC pit drill, to include, but not limited to, the following:
- (i) Operate all Kelly cocks;
(ii) Check drill pipe safety valve;
(iii) Function test any HCR (hydraulically control remote) valve(s); and
(iv) Record all of the above in the IADC log book and well ledger.
- (m) A drill pipe float valve must always be in place when running in the hole.
- (n) In the event of the loss of control of any well, the Operator shall immediately take all reasonable steps to regain control regardless of any other provision of this Ordinance and shall notify the Oil and Gas Compliance Officer as soon as practicable. A written report with a summary of the incident shall also be submitted in accordance with the regulations for incident reports noted in this Chapter.
- (o) If danger to persons and property exist because of loss of well control and the Operator is not taking or is unable to take all reasonable and necessary steps to regain control of such well, then the City may employ any well control expert or experts or other contractors or suppliers of special services or may incur any other expenses for labor and material which the City deems necessary to regain control of such well. The City shall then have a valid lien against the interest in the well of all working interest owners to secure payment of any expenditure made by the City pursuant to such action of the City in gaining control of said well.

Corrective Action Request 8

Comment:

Frio Resources stated the well control equipment will be rented from Dynamic Well Services. This is the same well control equipment utilized on other wells within League City. All pressure control equipment and all components of the pressure control system will be certified once a year. Log books will be available on location documenting the certifications. The following well control equipment will be utilized.

- 11" 10M Single BOP with Pipe Rams
- 11" 10M Double BOP with Pipe Rams and Shears Rams
- 11" 5M Annual Hydril
- 11" 10M Mud Cross with manual Valves, Check Valve
- Gas Buster
- 3" 10M Choke Manifold with Dual Hydraulic Chokes
- 8" Flare Line with 90s/45s/check valve, drive over, flarestack, igniter
- BOP Accumulator Unit

The well control equipment certification will be reviewed, and the well control stack will be tested. This will need to be closed once the rig is on location before operations commence.

Section 42-144. Hoisting and rigging equipment.

The Frio Resources SEMS included lifting and hoisting procedures before each lift. The procedures included assessment of the lift, operators certification, verifying the equipment is certified every 12 months, load does not exceed capabilities, all safety devices are operational, and all equipment has been visually inspected by competent personnel. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-145. Mud pits and flow lines.

The Frio Resources documentation provided did not include whether the mud pits and flow lines were covered.

Follow-up:

Frio Resources stated the mud pits and flow lines will be covered. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D6R.9 Section 42-145 Mud pits and flow lines, Minor

The Frio Resources documentation provided did not include whether the mud pits and flow lines were covered.

Specification

Section 42-145. Mud pits and flow lines.

All mud pits and flow lines shall be fully enclosed (covered top).

The non-conformance was subsequently closed by ADC on 4-Apr-2024.

Frio Resources stated the mud pits and flow lines will be covered.

Section 42-146. Storage vessel labels.

Frio Resources provided the SPCCP that included section 17.3 Storage Vessel Labels. This section stated all storage vessels containing chemicals will be labelled on two sides with NFPA chemical hazard labels. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-148. Access management.

(a) The Erwin Street access was a private road/driveway. The Erwin Street should not be blocked/obstructed. The evidence for this section was reviewed by ADC and deemed acceptable.

(b) There was a 20 ft. entrance road off of Erwin Street. The entrance road material was caliche. Additional information was required to fully satisfy this section of the ordinance regulation.

(c) Dust suppression was not included in the Frio Resources documentation provided. Additional information was required to fully satisfy this section of the ordinance regulation.

(d) The hours of operation of vehicles was not provided in the documentation package. Additional information was required to fully satisfy this section of the ordinance regulation.

(e) There was a 20 ft private roadway off of Erwin Street. There was no information for any turnabouts for easy access for emergency equipment. Additional information was required to fully satisfy this section of the ordinance regulation.

Follow-up:

(b) The entrance and driveway will be extended to 24 ft. per the ordinance. The site plan was revised to reflect the 24 ft entrance. The evidence for this section was reviewed by ADC and deemed acceptable.

(c) Frio Resources will periodically spray down the driveway with water to suppress dust coming from the entering and leaving of vehicles. The evidence for this section was reviewed by ADC and deemed acceptable.

(d) For the drilling permit and drilling operations trucks/vehicles/equipment will be operating 24 hours a day. When the drilling site is being built and when the rig is moving in and rigging up that will be during daytime only.

The nighttime activities will need to be agreed between COLC and Frio Resources. Deliveries, vehicle activities, back-up alarms should be kept to daytime as much as possible. Additional information was required to fully satisfy this section of the ordinance regulation.

(e) There is a dedicated turn lane off of Ervin St. along with a break in the median at the entrance for easy flow of emergency equipment. The entire site can be used for turnarounds. The evidence for this section was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D6R.10 Section 42-148 Access Management, Major

(b) There was a 20 ft. entrance road off of Erwin Street. The entrance road material was caliche.

(c) Dust suppression was not included in the Frio Resources documentation provided.

(d) The hours of operation of vehicles was not provided in the documentation package.

(e) There was a 20 ft private roadway off of Erwin Street. There was no information for any turnabouts for easy access for emergency equipment.

Specification

Section 42-148. Access management.

(b) Drilling and workover permits prior to the commencement of operations, all roads used for access to the site shall be at least twenty-four (24) feet wide, have an overhead clearance of fourteen (14) feet and shall be surfaced with concrete, asphalt, gravel or caliche. In particular cases, these requirements governing surfacing of private roads may be altered at the discretion of the City after consideration of all circumstances including, but not limited to: distances from streets and highways; distances from adjoining and nearby property owners whose surface rights are not leased by the operation; the purpose for which the property of such owners is or may be used; topographical features; nature of the soil; and exposure to wind.

(c) The operator shall use watering, wetting or other methods or materials to control dust on the site.

(d) The Department of Public Works may restrict the hours of operation of vehicles based upon the location of the property and adjoining land uses.

(e) Emergency access and turnabouts shall be included as deemed appropriate by the Fire Marshal. The access route should be of appropriate width to accommodate emergency response equipment. Street turnabouts should be of adequate turning radius to facilitate forward or reverse hose lays and/or exit of any emergency response equipment.

Corrective Action Request 9

Comment:

(b) The entrance and driveway will be extended to 24 ft. per the ordinance. The site plan was revised to reflect the 24 ft entrance. The evidence for this section was reviewed by ADC and deemed acceptable.

(c) Frio Resources will periodically spray down the driveway with water to suppress dust coming from the entering and leaving of vehicles. The evidence for this section was reviewed by ADC and deemed acceptable.

(d) For the drilling permit and drilling operations trucks/vehicles/equipment will be operating 24 hours a day. When the drilling site is being built and when the rig is moving in and rigging up that will be during daytime only.

The nighttime activities will need to be agreed between COLC and Frio Resources. Deliveries, vehicle activities, back-up alarms should be kept to daytime as much as possible. Additional information was required to fully satisfy this section of the ordinance regulation.

(e) There is a dedicated turn lane off of Ervin St. along with a break in the median at the entrance for easy flow of emergency equipment. The entire site can be used for turnarounds. The evidence for this section was reviewed by ADC and deemed acceptable.

Section 42-149. Maintenance of sites.

The Frio Resources SPCCP contains daily inspections of the wellhead, vessels, tanks, flowlines, valves, secondary containment, area around the facility, chemical storage, etc. The Frio Resources SEMS includes maintenance and testing of critical equipment. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-150. Waste disposal.

(a) The PDC SEMS included drilling muds, chemicals, and toxic substances handling, storage, and disposal procedures. The Frio Resources documentation did not include if above ground tanks or a closed loop mud system would be used. Additional information was required to fully satisfy this section of the ordinance regulation.

(b) The PDC SEMS waste section covers handling storage, and disposal of hazardous chemicals. The evidence for this section was reviewed by ADC and deemed acceptable.

(c) The Frio Resources SPCCP stated that waste materials will be removed from the site and transported to an off-site disposal facility not less often than every 30 days. The evidence for this section was reviewed by ADC and deemed acceptable.

(d) The Frio Resources SPCCP stated that water stored in on-site tanks will be removed as necessary. The evidence for this section was reviewed by ADC and deemed acceptable.

(e) The Frio Resources SPCCP stated that all waste will be disposed of in such a manner to comply with the air and water pollution control regulations. The evidence for this section was reviewed by ADC and deemed acceptable.

Follow-up: (a) Frio stated that per the City requirements a closed loop system will be used. There are no open pits. The evidence for this section was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D6R.11 Section 42-150 Waste disposal, Minor

(a) The Frio Resources documentation did not include if above ground tanks or a closed loop mud system would be used.

Specification

Section 42-150. Waste disposal.

(a) Drilling mud, cuttings, liquid hydrocarbons, salt water and all other field waste derived or resulting from or connected with the drilling, workover or deepening of any well shall be discharged into above-ground tanks or a closed loop mud system. All disposals must be in accordance with the rules of the Railroad Commission and any other appropriate local, state or federal agency.

(a) Frio stated that per the City requirements a closed loop system will be used. There are no open pits.

The non-conformance was subsequently closed by ADC on 4-Apr-2024.

(a) Frio stated that per the City requirements a closed loop system will be used. There are no open pits.

Section 42-151. Hours of operation.

The Frio Resources documentation provided did not contain the hours of operation, plans for a guard on location, or daylight/nighttime operations information. Additional information was required to fully satisfy this ordinance regulation.

Follow-up: Drilling operations will be conducted twenty-four hours a day. For the drilling permit and drilling operations trucks/vehicles/equipment will be operating 24 hours a day. When the drilling site is being built and when the rig is moving in and rigging up that will be during daytime only. There will be a guard on duty twenty-four hours a day for the entire drilling operation.

The nighttime activities will need to be agreed between COLC and Frio Resources. Deliveries, vehicle activities, back-up alarms should be kept to daytime as much as possible. Additional information was required to fully satisfy this section of the ordinance regulation.

Non-Conformance, RC.D6R.12 Section 42-151 Hours of operation, Minor

The Frio Resources documentation provided did not contain the hours of operation, plans for a guard on location, or daylight/nighttime operations information.

Specification

Section 42-151. Hours of operation.

(a) Site preparation, well servicing, truck deliveries and pick-up of equipment and materials, and other related work conducted on the drill site shall be limited to daytime hours. The restriction on work hours shall not apply in cases of fires, blowouts, explosions and any other emergencies or where the delivery of equipment is necessary to prevent the cessation of drilling.

Section 42-152. Drilling foreman.

There was no documentation provided for the personnel onsite. Qualifications and training records were not in the documentation provided. Additional information was required to fully satisfy this ordinance regulation.

Follow-up: Frio Resources stated this information will be provided once the rig is selected and prior to operations starting.

Non-Conformance, RC.D6R.13 Section 42 152 Drilling foreman, Minor

There was no documentation provided for the personnel onsite. Qualifications and training records were not in the documentation provided.

Specification

Section 42-152. Drilling foreman.

(a) Drilling and workover permits the operator must keep a minimum of two personnel on site to provide 24-hour continuous coverage during the drilling or workover of a well until such time the well is completed, tested and considered ready for production.

(b) Qualifications for these personnel, including certifications and training, are subject to review and approval in advance by the Oil and Gas Compliance Officer.

Section 42-153. Watchman.

There was no documentation provided for the personnel onsite. Qualifications and training records were not in the documentation provided. Additional information was required to fully satisfy this ordinance regulation.

Follow-up: Frio Resources stated this information will be provided once the rig is selected and prior to operations starting.

Non-Conformance, RC.D6R.14 Section 42-153 Watchman, Minor

There was no documentation provided for the personnel onsite. Qualifications and training records were not in the documentation provided.

Specification

Section 42-153. Watchman.

(a) Drilling and workover permits The Operator must keep a watchman or security personnel on site for 24 hours during the drilling and/or workover of a well until such time the well is completed, tested and considered ready for production.

(b) Drilling and workover permits The perimeter of the site shall be patrolled every two (2) hours.

Section 42-154. Crew training-drilling contractor.

The PDC SEMS mentioned new employee orientation training, but it didn't state if it was accredited by IADC. There was no sample training matrix provided. The training records for the individual working on the Stewart Title #1 project should be provided before operations commence.

Follow-up: PDC included example certificates for the IADC accredited training for Rig Pass program and the well control accreditation program. There was a personnel specific training matrix that included different course requirements for the rig manager, driller, deckhand, motorhand, and floorhand. The 5 example employees provided had all their course requirements completed. The training requirements for the personnel onsite will be reviewed once the rig is selected. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D6R.15 Section 42-154 Crew training drilling contractor, Minor

The PDC SEMS mentioned new employee orientation training, but it didn't state if it was accredited by IADC. There was no sample training matrix provided. The training records for the individual working on the Stewart Title #1 project should be provided before operations commence.

Specification

Section 42-154. Crew training-drilling contractor.

The drilling contractor must have an IADC accredited competency program for all the rig crew positions, as well as office based supervisory positions.

The non-conformance was subsequently closed by ADC on 18-Apr-2024.

PDC included example certificates for the IADC accredited training for Rig Pass program and the well control accreditation program. There was a personnel specific training matrix that included different course requirements for the rig manager, driller, deckhand, motorhand, and floorhand. The 5 example employees provided had all their course requirements completed.

Section 42-156. Signage.

The Frio Resources SPCCP section 14.7 for signage stated the information required is the well name and number, name of operator and production representative, the emergency 911 number, and the telephone numbers of 2 people responsible for the well who may be contacted in case of emergency. The sign will be posted at the entrance of the well site and include all fracture stimulation operations at least 72 hours prior to the start of the operation. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Section 42-157. Storage of equipment and chemicals.

MSDS sheets were provided for Citgo No 2 diesel fuel, Condensate, Crude Oil (sweet), DESCO, Aluminum Stearate, Aquagel, Baracarb 50, Baracarb 150, Baroid, Baroid Oil Absorbent, Baro-trol Plus, Calcium Chloride-Powder, Carbonox, Caustic Soda, Driltreat, Duratone, EZ-Mud, EZ MUL, Geltone V, Invermul, Lime, PAC-L, QUIK-THIN, Sodium Bicarbonate, WALL-NUT medium, Duratone E, natural gas, soap sticks, Pennzoil SAE 10W-30 Motor Oil, Ethylene glycol, Methanol, and Desco Deflocculant.

There was not a hazardous material list provided for all the chemicals that will be used on location. The operational phases at which the chemicals will be utilized were not provided. See the non-conformance in Section 42-90.

PDC HSE Standards document contained handling, labelling, and storage plans for drilling muds, chemicals, toxic substances, and hazardous materials.

Follow-up: The hazardous material list was provided for all the chemicals. The list also included the chemicals used during the drilling and production phases. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D6R.16 Section 42-157 Storage of equipment and chemicals, Minor

There was not a hazardous material list provided for all the chemicals that will be used on location. The operational phases at which the chemicals will be utilized were not provided.

Specification

Section 42-157 Storage of equipment and chemicals

(b) All chemicals and/or hazardous materials shall be stored in such a manner as to prevent, contain, and facilitate rapid remediation and cleanup of any accidental spill, leak, or discharge of hazardous materials. The Operator shall have all material safety data sheets for all hazardous materials on-site.

The non-conformance was subsequently closed by ADC on 3-Apr-2024.

The hazardous material list was provided for all the chemicals. The list also included the chemicals used during the drilling and production phases.

Division 7. Liability, Surety, and Insurance

Section 42-161. Liability.

The Frio Resources documentation contained a Certificate of Liability Insurance from Acord dated 29 November 2023. This certificate covered commercial general liability, automobile liability, umbrella liability, workers compensations and employers liability, and control of well. All of the liabilities expired 2 November 2024.

Follow-up: Frio Resources provided the commercial general liability insurance information for additional insured - owners, lessees, or contractors - scheduled person or organization; additional insured - owners, lessees, or contractors completed operations; waiver of transfer of rights of recovery against others to us - blanket; and additional insured - primary and non-contributory endorsement. The Texas Mutual workers' compensation and employers liability policy included the Texas amendatory endorsement and Texas waiver of our right to recover from others endorsement.

The general liability policy includes a blanket waiver of subrogation endorsement to the certificate holder only when there is a written insured contract between the insured and certificate holder that requires such status. The hired and non-owned automobile liability additional remarks stated the commercial hired and non-owned automobile policy includes a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the insured and the certificate holder that requires it. The workers compensation additional remarks stated the workers compensation policy includes a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the insured and the certificate holder that requires it. The general liability waiver of transfer of rights of recovery against other to us – blanket states we waive any right of recovery we may have against persons or organizations because of payments we make for injury or damage arising out of your work done under a written contract with that person or organization wherein you have agreed to provide this waiver. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D7L.1 Section 42-161. Liability., Minor

None of the detailed declarations pages were provided. The documentation did not include statements that indemnify and hold the city harmless, also including a waiver of subrogation.

Specification

Section 42-161. Liability.

(a) The Company shall be liable and responsible for any and all damages, losses, liabilities (joint and several), payments, obligations, penalties, claims, litigation, demands, defences, judgments, lawsuits, proceedings, costs, disbursements, or expenses (including without limitation, fees, disbursements, and reasonable expenses of attorneys, accountants, professional advisors and expert witnesses and costs of investigation and preparation) of any kind or nature whatsoever, which may arise out of or be in any way connected with:

(b) The Company's at its sole cost and expense, shall indemnify and hold harmless the City, its officers, boards, commissions, agents, employees, and volunteers (also referred to as indemnities) from and against any and all damages which may arise out of or be in any way connected with:

The non-conformance was subsequently closed by ADC on 8-Apr-2024.

Frio Resources provided the commercial general liability insurance information for additional insured - owners, lessees, or contractors - scheduled person or organization; additional insured - owners, lessees, or contractors completed operations; waiver of transfer of rights of recovery against others to us - blanket; and additional insured - primary and non-contributory endorsement. The Texas Mutual workers' compensation and employers liability policy included the Texas amendatory endorsement and Texas waiver of our right to recover from others endorsement. The general liability policy includes a blanket waiver of subrogation endorsement to the certificate holder only when there is a written insured contract between the insured and certificate holder that requires such status.

Section 42-162. Bond or irrevocable letter of credit.

The Frio Resources documentation package did not include the bond or irrevocable letter of credit.

Follow-up: Frio Resources stated the bond or letter of credit will be provided once the permit is approved and ready for insurance. Additional information was required to fully satisfy this section of the ordinance regulation.

Non-Conformance, RC.D7L.2 Section 42-162. Bond or irrevocable letter of credit., Major

The Frio Resources documentation package did not include the bond or irrevocable letter of credit.

Specification

Section 42-162. Bond or irrevocable letter of credit

The operator or production representative shall provide one of the following security instruments outlined in subsections (a) and (b): (a) bond (b) letter of credit

Corrective Action Request 10

Section 42-163. General insurance requirements.

The Frio Resources documentation contained a Certificate of Liability Insurance from Acord dated 29 November 2023. This certificate covered commercial general liability, automobile liability, umbrella liability, workers compensations and employers' liability, excess liability, and control of well. All of the liabilities expired 2 November 2024. The liabilities were based on each occurrence.

Follow-up: The hired and non-owned automobile liability additional remarks stated the commercial hired and non-owned automobile policy includes a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the insured and the certificate holder that requires it. The workers compensation additional remarks stated the workers compensation policy includes a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the insured and the certificate holder that requires it. The general liability policy includes a blanket waiver of subrogation endorsement to the certificate holder only when there is a written insured contract between the insured and certificate holder that requires such status. The deductible endorsement only included bodily injury liability and/or property damage liability and/or personal and advertising injury liability with an amount of \$5,000. Employee benefits liability coverage included a deductible of \$2,500 each employee. Frio Resources stated the insurance will continue to be renewed for at least 4 years. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D7L.3 Section 42-163. General insurance requirements., Minor

The certificate of liability insurance did not state if the city was named as an additional insured on the policy with a waiver of subrogation. It did not state if the insurance was for continuous coverage.

Specification

Section 42-163. General insurance requirements.

(d) If coverage is written on a claims-made basis, the Operator or Production Representative must maintain continuous coverage or purchase Extended Period Coverage Insurance for four years following expiration or suspension of the permit. The Extended Coverage Period insurance must provide that any retroactive date applicable to coverage under the policy precedes the effective date of the issuance of the permit by the City.

The non-conformance was subsequently closed by ADC on 8-Apr-2024.

The hired and non-owned automobile liability additional remarks stated the commercial hired and non-owned automobile policy includes a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the insured and the certificate holder that requires it. The workers compensation additional remarks stated the workers compensation policy includes a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the insured and the certificate holder that requires it. The general liability policy includes a blanket waiver of subrogation endorsement to the certificate holder only when there is a written insured contract between the insured and certificate holder that requires such status. The deductible endorsement only included bodily injury liability and/or property damage liability

and/or personal and advertising injury liability with an amount of \$5,000. Employee benefits liability coverage included a deductible of \$2,500 each employee. Frio Resources stated the insurance will continue to be renewed for at least 4 years.

Section 42-164. Commercial General Liability Policy.

The Frio Resources certificate of liability insurance included the commercial general liability for each occurrence of \$1,000,000, damaged to rented premises of \$100,000, medical for each person of \$5,000, personal injury \$1,000,000, general aggregate of \$2,000,000, and products of \$2,000,000. The periods of reporting were not included in the documentation provided. For accidental pollution the discovery time period was 7 days and the reporting time period was 45 days. The ordinance requirement for the discovery period of not less than 15 days was not met.

Follow-up: The general liability additional remarks includes sudden and accidental pollution, amended limits of insurance underground resources and equipment hazard, and underground facility endorsement. For accidental pollution the discovery time period was changed to 15 days and the reporting time period was 45 days. The ordinance requirement for the discovery period of not less than 15 days was met. The reporting time period met the ordinance requirement of not less than 30 days. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D7L.4 Section 42-164. Commercial General Liability Policy., Minor

The premises, operations, blowout or explosion, products, completed operations, sudden and accidental pollution with reporting periods of not less than 15 and 30 days, blanket contractual liability, underground resources damage were not mentioned in the documentation provided.

Specification

Section 42-164. Commercial general liability policy

This coverage must include premises, operations, blowout or explosion, products, completed operations, sudden and accidental pollution (with discovery and reporting periods of not less than 15 days and 30 days respectively), blanket contractual liability, underground resources damage, broad form property damage, independent contractors protective liability and personal injury. This coverage shall be a minimum as established the city fee resolution.

The non-conformance was subsequently closed by ADC on 22-Apr-2024.

The general liability additional remarks includes sudden and accidental pollution, amended limits of insurance underground resources and equipment hazard, and underground facility endorsement. For accidental pollution the discovery time period was changed to 15 days and the reporting time period was 45 days. The ordinance requirement for the discovery period of not less than 15 days was met. The reporting time period met the ordinance requirement of not less than 30 days.

Section 42-165. Excess or Umbrella Liability.

Frio Resources certificate of liability insurance included the excess liability for both the each occurrence and aggregate for 5,000,000 dollars each through Kinsale Insurance Company. The coverage for sudden or accidental pollution was not mentioned in the documentation provided.

Follow-up: The certificate of liability insurance additional remarks states the general liability policy includes sudden and accidental pollution coverage through Kinsale Insurance Company. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D7L.5 Section 42-165. Excess or Umbrella Liability., Minor

The coverage for sudden or accidental pollution was not mentioned in the documentation provided.

Specification

Section 42-165. Excess or umbrella liability

Insurance limits in a minimum as established by the City fee resolution. Coverage is to be at least as broad as, applies of and follows form of the primary liability coverage required for commercial generally liability, auto liability and employer's liability. Coverage must include and endorsement for sudden or accidental pollution.

The non-conformance was subsequently closed by ADC on 8-Apr-2024.

The certificate of liability insurance additional remarks states the general liability policy includes sudden and accidental pollution coverage through Kinsale Insurance Company.

Section 42-166. Environmental pollution liability coverage.

There was no documentation provided for pollution liability.

Follow-up: The certificate of liability insurance additional remarks states the general liability policy includes sudden and accidental pollution coverage through Kinsale Insurance Company. Each occurrence limit includes bodily injury, property damage, and clean-up costs and is the most we will pay for any one time element pollution incident. This limit of insurance is subject to and not in addition to the general aggregate limit of insurance shown on the declarations page of this policy. The insurance covered bodily injury or property damage arising out of the actual, alleged, or threatened discharge, dispersal, seepage, migration, release, or escape of pollutants. The non-conformance for pollution liability coverage was closed.

Frio Resources insurance is for continuous coverage. If for some reason Frio Resources no longer carried insurance, then Frio Resources would have to extend pollution for the 4 years required. The 4 year extended period coverage insurance will be required following the expiration or suspension of the permit. In the event such insurance policy or policies are cancelled, the permit shall be suspended on such date of cancellation and the Operator's or Production Representative's right to operate under such permit shall immediately cease until the Operator files additional insurance as provided herein. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable. There was an Observation created for the

requirements of the insurance coverage following a cancelled or expiration of the continuous coverage.

Non-Conformance, RC.D7L.6 Section 42-166. Environmental pollution liability coverage., Minor

There was no documentation provided for pollution liability.

Specification

Section 42-166. Environmental pollution liability coverage.

(a) Operator shall purchase and maintain in force for the duration of the permit, insurance for environmental pollution liability applicable to bodily injury, property damage, including loss of use of damaged property or of property that has not been physically injured or destroyed; cleanup costs; and defence, including costs and expenses incurred in the investigation, defence or settlement of claims; all in connection with any loss arising from the insured site. Coverage shall be maintained in an amount as established by the City fee resolution.

(b) Coverage shall apply to sudden and accidental pollution conditions resulting from the escape or release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste material or other irritants, contaminants or pollutants.

(c) The Operator or Production Representative shall maintain continuous coverage or purchase Extended Period Coverage Insurance for four years following expiration or suspension of the permit.

(d) The extended coverage period insurance must provide that any retroactive date applicable to coverage under the policy precedes the effective date of the issuance of the permit by the City.

The non-conformance was subsequently closed by ADC on 8-Apr-2024.

The certificate of liability insurance additional remarks states the general liability policy includes sudden and accidental pollution coverage. Each occurrence limit includes bodily injury, property damage, and clean-up costs and is the most we will pay for any one time element pollution incident. This limit of insurance is subject to and not in addition to the general aggregate limit of insurance shown on the declarations page of this policy. The insurance covered bodily injury or property damage arising out of the actual, alleged, or threatened discharge, dispersal, seepage, migration, release, or escape of pollutants.

Observation, OR.D7L.10 Section 42 166 Environmental pollution liability coverage C and D

Frio Resources insurance is for continuous coverage. If for some reason Frio Resources no longer carried insurance, then Frio Resources would have to extend pollution for the 4 years required. The 4 year extended period coverage insurance will be required following the expiration or suspension of the permit. In the event such insurance policy or policies are cancelled, the permit shall be suspended on such date of cancellation and the Operator's or Production Representative's right to operate under such permit shall immediately cease until the Operator files additional insurance as provided herein.

Specification

Section 42-166. Environmental pollution liability coverage.

(c) The Operator or Production Representative shall maintain continuous coverage or purchase Extended Period Coverage Insurance for four years following expiration or suspension of the permit.

(d) The extended coverage period insurance must provide that any retroactive date applicable to coverage under the policy precedes the effective date of the issuance of the permit by the City.

Section 42-167. Control of well coverage.

Frio Resources provided the Control of Well coverage through the Underwriters at Lloyds effective through 2 November 2024 included a drilling wells insured for the single limit amount of \$5,000,000. The producing and workover wells insured each had a single limit amount of \$5,000,000. The control of well for care, customer, and control had a single limit amount of \$1,000,000.

During the initial review, there was not a control, re-drilling, restoration of expenses, seepage and pollution damage listed.

Follow-up: Documentation was provided that stated the coverage included control of well, redrill/extra expense, and pollution and cleanup. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D7L.7 Section 42-167. Control of well coverage., Minor

There was not a control, re-drilling, restoration of expenses, seepage and pollution damage listed.

Specification

Section 42-167. Control of well coverage.

The policy should cover the cost of controlling a well that is out of control, re-drilling or restoration expenses, seepage and pollution damage as first party recovery for the Operator and related expenses, including, but not limited to, loss of equipment, experts and evacuation of residents in the amount as established by the City fee resolution. A minimum amount as established by the City fee resolution for sub-limit endorsement may be added for damage to property for which the Operator has care, custody, and control.

The non-conformance was subsequently closed by ADC on 8-Apr-2024.

Frio Resources provided the Control of Well coverage through the Underwriters at Lloyds effective through 2 November 2024 included a drilling wells insured for the single limit amount of \$5,000,000. The producing and workover wells insured each had a single limit amount of \$5,000,000. The control of well for care, customer, and control had a single limit amount of \$1,000,000. The coverage included control of well, redrill/extra expense, and pollution and cleanup.

Section 42-168. Workers compensation and employers liability insurance.

The Frio Resources certificate of liability insurance included the workers compensation and employers liability for any proprietor/partner/executive officer/member for the limit of \$1,000,000 through Texas Mutual Insurance Company. The box for any proprietor/partner/executive officer/ member excluded was not marked yes or no.

Follow-up: Documentation was provided that had the workers compensation box for any proprietor/partner/executive officer/ member excluded marked as yes. The workers compensation additional remarks stated the workers compensation policy includes a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the insured and the certificate holder that requires it. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, RC.D7L.8 Section 42-168. Workers compensation and employers liability insurance., Minor

The box for any proprietor/partner/executive officer/ member excluded was not marked yes or no.

(c) The workers compensation did not include blanket waiver of subrogation in favor of the city.

Specification

Section 42-168. Workers compensation and employers liability insurance.

(a) Workers Compensation benefits shall be Texas Statutory Limits.

(b) Employers Liability shall be a minimum in an amount as set by the City fee resolution.

(c) Such coverage shall include a waiver of subrogation in favor of the City and provide coverage in accordance with applicable State and Federal laws.

The non-conformance was subsequently closed by ADC on 8-Apr-2024.

The follow-up documentation was provided that had the workers compensation box for any proprietor/partner/executive officer/ member excluded marked as yes. The workers compensation additional remarks stated the workers compensation policy includes a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the insured and the certificate holder that requires it.

Section 42-169. Automobile Liability Insurance.

The Frio Resources certificate of liability insurance included the automobile liability for hired autos and non-owned autos for the combined single limit of 1,000,000 dollars.

- (b) The owned autos was not checked on the certificate of liability insurance.
- (c) The certificate of liability insurance didn't state if the city was named as an additional insured on the policy with a waiver of subrogation.

Follow-up: Frio Resources does not own any vehicles and they require their vendors to carry an auto policy. The hired and non-owned automobile liability additional remarks stated the commercial hired and non-owned automobile policy includes a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the insured and the certificate holder that requires it. The general liability waiver of transfer of rights of recovery against other to us – blanket states we waive any right of recovery we may have against persons or organizations because of payments we make for injury or damage arising out of your work done under a written contract with that person or organization wherein you have agreed to provide this waiver. The evidence for this ordinance regulation was discussed with COLC and they deemed it acceptable.

Non-Conformance, RC.D7L.9 Section 42-169. Automobile Liability Insurance., Minor

- (b) The owned autos was not checked on the certificate of liability insurance.
- (c) The certificate of liability insurance didn't state if the city was named as an additional insured on the policy with a waiver of subrogation.

Specification

Section 42-169. Automobile Liability Insurance.

- (a) Combined Single Limit in an amount set by the City fee resolution.
- (b) Coverage must include all owned, hired and not-owned automobiles.
- (c) The City shall be named as an additional insured on the policy and provided with a waiver of subrogation.

The non-conformance was subsequently closed by ADC on 8-Apr-2024.

Frio Resources does not own any vehicles and they require their vendors to carry an auto policy. The hired and non-owned automobile liability additional remarks stated the commercial hired and non-owned automobile policy includes a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the insured and the certificate holder that requires it. The general liability waiver of transfer of rights of recovery against other to us – blanket states we waive any right of recovery we may have against persons or organizations because of payments we make for injury or damage arising out of your work done under a written contract with that person or organization wherein you have agreed to provide this waiver.

Safety and Environmental Management System

General Description

API Bulletin 75L states the following:

"There are many models for creating a SEMS and they contain a wide variety of system elements. This should be part of the consideration when designing your SEMS. No combination is wrong, remembering that it must be tailored to your needs. Many systems can be accessed via the web, but for the purposes of developing an API SEMS, the following are 12 suggested system elements: Safety and Environmental Information, Hazards Analysis, Procedures to Manage Change, Operating Procedures, Safe Work Practices, Training, Assurance of Quality and Mechanical Integrity of Critical Equipment, Pre-start Review, Emergency Response and Control, Investigation of Incidents, Audit of Safety and Environmental Management System Elements, and Records and Documentation."

The following sections describe the (12) SEMS elements of API Bulletin 75L and discuss Frio Resources and PDCs compliance with those elements.

Safety and Environmental Information

API Bulletin 75L Section A.1 discusses safety and environmental information. It suggests that a system be in place and that management consider a compilation of any potential safety and environmental hazards and high risk activities in determining the extent of information be developed and maintained for any facility subject to API Bulletin 75L. The information may include documentation on process and mechanical design. The individual elements of the information may exist in various forms and locations and may be referenced in the compilation. Process, mechanical, and facilities design information may be retained for the life of the facility.

Frio Resources provided an ERP and SPCCP that contained the site information, safety and environmental response actions/guidelines, protection and recovery, preventions systems, production equipment, and storage tanks. There was a Phase I Environmental Site Assessment submitted for the site that included the pre-environmental assessment of the site. There was a production facility drawing and drilling plan with vertical and horizontal plots. During the review process, the rig information, drawings, capabilities, and certifications were not included in the documentation provided (rig size/load rating, well control equipment, critical drilling equipment, mud system, electrical area classifications, fire protections systems, evacuation procedures).

Follow-up: Frio Resources provided the rig layout drawings for rig 750ST and rig 522ST. The fire extinguisher layout drawing and the hazardous area layout drawing was provided. The rig layout drawing included the mud pumps, drawworks, pipe racks, electrical house, generators, tanks, substructure, doghouse, catwalk, and choke manifold. The well control equipment stack information was provided. Certification will be provided once the rig is on location.

PDC provided the hazard identification program, safety observation program, and environmental management system. The hazard identification program included observing, immediate action, communicate/document, control/eliminate the hazard, and review/follow-up to make sure the hazard is adequately eliminated or controlled. The safety observation program included observation cards, continuous process, reinforcement of safe acts, and at-risk behaviours/corrective actions. The environmental management program included spill prevention for move-on/move-off lease review, equipment inspection and maintenance, spill prevention procedures, well site spill risks, spill response plan, spill management, spill reporting, spill response equipment, roles and responsibilities, spill clean-up procedures, yard site spills, spill site remediation and restoration, equipment decontamination, worker decontamination procedures, equipment racking, fuel tank storage, racking procedures for pumps, departure inspection, reduce/reuse/recycle/recover, and waste management. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, SE.SEI.1 Safety and Environmental Information, Major

During the review process, the rig information, capabilities, and certifications were not included in the documentation provided (rig size/load rating, well control equipment, critical drilling equipment, mud system, electrical area classifications, fire protections systems, evacuation procedures).

Specification

API Bulletin 75L Section A.1 Safety and Environmental Information

Process, mechanical, and facilities design information may be retained for the life of the facility.

Corrective Action Request 1

The non-conformance was subsequently closed by ADC on 9-Apr-2024.

Frio Resources provided the rig layout drawings for rig 750ST and rig 522ST. The fire extinguisher layout drawing and the hazardous area layout drawing was provided. The rig layout drawing included the mud pumps, drawworks, pipe racks, electrical house, generators, tanks, substructure, doghouse, catwalk, and choke manifold. The well control equipment stack information was provided. Certification will be provided once the rig is on location.

Hazards Analysis

API Bulletin 75L Section A.2 states that hazards analysis should be performed for any facility where potential hazards may exist. The purpose of the hazards analysis is to identify, evaluate, consider human factors, and where unacceptable, reduce the likelihood and/or minimize safety or environmental incidents.

The Frio Resources ERP and SPCCP identified hazards and response actions, protection, and recovery. The ERP included a site safety plan form; that included the work plan, organization, emergency plan, pre-entry briefing, attachments, site characterization, and control measures. The Frio Resources SEMS included a hazards analysis section that discussed hazard recognition, reducing/eliminating the hazard, safety devices, alerts/warnings, and safety procedures. The Frio Resources SEMS included a general hazard register that contained access, chemical/materials, environmental, physical, potential uncontrolled energy, tool/equipment, scaffolds,

and other. The Frio Resources documentation provided included material safety data sheets (MSDS), but there was not a full list of all the MSDS being used on the rig to verify all the MSDS were provided. See Division 3. Applications Section 42-90. Frio Resources provided the SWPPP that identified hazards, controls, maintenance, site inspections, spill prevention, and response actions. The hazard register was included that contained economical applications ratings to minimize, monitor, and control. The hazard register also included descriptions for controls to reduce the likelihood.

The PDC SEMS hazard identification program identifies the existing workplace hazards, assess risks with work exposure, and controls or eliminates the hazard before an injury, illness, or loss occurs. The hazard identification program included observing, immediate action, communicate/document, control/eliminate the hazard, and review/follow-up to make sure the hazard is adequately eliminated or controlled. PDC provided the documentation for the safety observation program, critical task assessments, job safety analysis, risk assessment matrix, and environmental management system. There was a critical task assessment and job safety analysis decision tree flowchart provided to determine whether a critical task assessment and/or job safety analysis will be performed. The critical task assessments contained responsibilities of personnel, procedures, a sample critical task, review requirements, risks, and control methods. The sample critical task included the steps performed, personnel involved, potential loss during each step (injury/equipment), initial risk, controls used to reduce the risk, and residual risk. The job safety analysis contained identifying steps, assessing risks and hazards, recommendations to eliminate/reduce hazard, and PPE requirements. The risk assessment matrix considered probability and severity potential of risks. The risk levels from the risk assessment matrix are used for incident investigation and management of change approvals. The safety observation program included observation cards, continuous process, reinforcement of safe acts, and at-risk behaviours/corrective actions. The permit to work section included hot and cold work.

Follow-up: The hazardous material list was provided for all the chemicals. The list also included the chemicals used during the drilling and production phases. The evidence for this ordinance regulation was reviewed by ADC and deemed acceptable.

Non-Conformance, SE.HAZ.1 Hazards Analysis, Major

The Frio Resources documentation provided included material safety data sheets (MSDS), but there was not a full list of all the MSDS being used on the rig to verify all the MSDS were provided.

Specification

API Bulletin 75L section A.2 Hazards Analysis

The purpose of this analysis is to identify, evaluate, and, where unacceptable, reduce the likelihood and/or minimize the consequences of safety or environmental incidents including uncontrolled releases. Human factors may be considered in this analysis.

Corrective Action Request 2

The non-conformance was subsequently closed by ADC on 3-Apr-2024.

The hazardous material list was provided for all the chemicals. The list also included the chemicals used during the drilling and production phases.

Procedures to Manage Change

API Bulletin 75L Section A.3 discusses procedures to manage change. The overall agenda of this suggested element is to establish procedures to identify and control hazards associated with change and maintain the accuracy of safety information.

The Frio Resources SEMS requires a management of change for temporary and permanent changes to the organization, personnel, safety systems, processes, policies and procedures, equipment, products, chemicals and materials, laws, and regulations. The MOC includes a risk assessment on the impact of change and the development of a work plan that specifies timescale and control measures to be implemented.

The PDC SEMS Management of Change V 2.0 May 2023 divides the MOC process into seven categories: physical changes, procedural changes, critical personnel changes, emergency changes, customer requests, software changes, and chemical material changes. There were procedures, responsibilities, risk assessment (including hazard description, probability potential, severity level, risk level, and controls), process based off type of MOC, and approval based on risk rating. PDC provided the managing a permanent change flowchart and comprehensive hazard and risk assessment appendices. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Operating Procedures

API Bulletin 75L Section A.4 references the need for operating procedures. This segment includes written facility operating procedures designed to enhance efficient, safe, and environmentally sound operations. These operating procedures should directly address human factors issues association with the interaction between facilities and personnel.

The Frio Resources SEMS operating procedures section requires operating procedures for initial startup, normal operations, all emergency operations, normal shutdown, startup after a turnaround or emergency shutdown, bypassing out of service equipment, deviations, chemical handling and hazards, raw material quality control, control of hazardous chemical inventory, and impacts to the environment based on the hazards analysis.

The PDC SEMS contains safe operations verification V1.02 June 2023 that included the procedures for plan, check, start work, learn-post task review. The general safety rules and worksite orientation included the short service employee program, target zero rules, stop work authority, hazard assessment and control, safe operations verification process, hazard identification program, safety observation program, step back program, and general safety rules. The rig equipment operating procedures for the drilling equipment were not provided for review.

Follow-up: PDC provided operational safe work instructions for the boiler and steam operations, BOP systems, building stands in mousehole while rotating, cementing, chains, compressed air and equipment, crown block, derrick and mast, drawworks, drilling rig best practices, drilling fluid hoses, drilling line, drilling swivel and Kelly,

engines and generators, handling tubulars, high pressure pumping operations, mud tanks, shale shakers, flow lines, mud pumps, pipe elevators, rigging up/out, rotary table and heads, running casing, slips, slipping and cutting drill line, tongs, top drives, travelling block, tripping pipe, and well testing. The operational safe work instructions covered equipment operations, maintenance, and modifications. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Non-Conformance, SE.OPP.1 Operating Procedures, Major

Equipment operating procedures were not available for review.

Specification

API Bulletin 75L Section A.4 references the need for operating procedures. This segment includes written facility operating procedures designed to enhance efficient, safe, and environmentally sound operations.

Corrective Action Request 3

The non-conformance was subsequently closed by ADC on 10-Apr-2024.

PDC provided operational safe work instructions for the boiler and steam operations, BOP systems, building stands in mousehole while rotating, cementing, chains, compressed air and equipment, crown block, derrick and mast, drawworks, drilling rig best practices, drilling fluid hoses, drilling line, drilling swivel and Kelly, engines and generators, handling tubulars, high pressure pumping operations, mud tanks, shale shakers, flow lines, mud pumps, pipe elevators, rigging up/out, rotary table and heads, running casing, slips, slipping and cutting drill line, tongs, top drives, travelling block, tripping pipe, and well testing. The operational safe work instructions covered equipment operations, maintenance, and modifications.

Safe Work Practices

API Bulletin 75L Section A.5 establishes safe work practices. This part of the bulletin calls for the management system to establish and implement safe work practices which should be designed to minimize the risks associated with operating, maintenance, and modification activities that could affect health, safety, and environment.

The Frio Resources SEMS safe work practices section requires JSA to be completed when the work involves potential hazards. Frio Resources requires the energy sources to be isolated when working on energized systems. Permits are required for confined space entry and hot work. The Frio Resources SEMS included procedures for confined space entry, hot work, gas monitor testing, welding, energy isolation, electrical safety, classified areas, motor maintenance, electrical arc hazards, flash/blast hazards, working at heights, hearing protection, and lifting.

PDC uses critical task assessments and JSAs for any work that has a potential hazard. They use a permit to work system for hot work, cold work, and confined space. The PDC SEMS safe work practices include standards for general safety, blood-borne pathogens exposure control plan, cold stress, confined space entry, danger zones, driving safety, dropped object prevention, walkways and stairways, fatigue management, ground disturbance, hand and power tools, handling hoses, harmful substances and chemical exposure, heat stress, high pressure lines, housekeeping, machinery safeguards, management of hazardous energy, manual

lifting, mobile elevating work platforms, permit to work, personal protective equipment, power mobile equipment, respiratory protection, rigging and critical lifts, safety meetings, third party and subcontractor management, wildlife awareness, welding and cutting, working alone, and working at height. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Training

API Bulletin 75L Section A.6 states that training should address operating procedures, safe work practices, and emergency response and control measures. Training should be provided by qualified instructors or by employees with relevant years of experience and documented as appropriate.

Frio Resources states everyone will be trained and familiar with behaviour-based safety.

PDC provided the short service evaluation program process. The short service evaluation program goes through a pre-screen, interview, new employee orientation, on-site orientation, new employee workbook, mentorship and feedback. The short service evaluation monitors the workers performance and progression. The PDC training program and matrix was not available for review.

Follow-up: The PDC SEMS included the field training and development standard, short service employee program, example personnel training matrix, and example training matrices for various roles and responsibilities. The field training and development standard gives an overview of the training requirements based on job title/position. PDC included example certificates for the IADC accredited training for Rig Pass program and the well control accreditation program. All new employees go through the new employee orientation course accredited by IADC under the Rig Pass program. The Rig Pass program centers on understanding and controlling hazards and mitigating risks to keep the work place safe. The training matrix tracks the global minimum training requirements and the regulatory training requirements. The global minimum training requirements are the new employee orientation, planned safety observation, first aid/CPR, fall protection, confined space, rigging and slinging, forklift/loader, and well control training with certification. The regulatory training included defensive driving, permit to work, safety leadership, HAZCOM/respiratory protection, emergency response, H₂S, gas tester, fire-fighting, ABS welder, air hoist operator, lifeboat, rig rescue, and spill prevention training. The short service evaluation program goes through a pre-screen, interview, new employee orientation, on-site orientation, new employee workbook, mentorship and feedback. The short service evaluation monitors the workers performance and progression. There was a personnel specific training matrix that included different course requirements for the rig manager, driller, deckhand, motorhand, and floorhand. The 5 example employees provided had all their course requirements completed. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Non-Conformance, SE.TRN.1 Training, Minor

The PDC training program and matrix documentation was not available for review.

Specification

API Bulletin 75L Section A.6 states that training should address operating procedures, safe work practices, and emergency response and control measures. Training should be provided by qualified instructors or by employees with relevant years of experience and documented as appropriate.

The non-conformance was subsequently closed by ADC on 18-Apr-2024.

The PDC SEMS included the field training and development standard, short service employee program, example personnel training matrix, and example training matrices for various roles and responsibilities. The field training and development standard gives an overview of the training requirements based on job title/position. PDC included example certificates for the IADC accredited training for Rig Pass program and the well control accreditation program. All new employees go through the new employee orientation course accredited by IADC under the Rig Pass program. The Rig Pass program centers on understanding and controlling hazards and mitigating risks to keep the work place safe. The training matrix tracks the global minimum training requirements and the regulatory training requirements. The global minimum training requirements are the new employee orientation, planned safety observation, first aid/CPR, fall protection, confined space, rigging and slinging, forklift/loader, and well control training with certification. The regulatory training included defensive driving, permit to work, safety leadership, HAZCOM/respiratory protection, emergency response, H2S, gas tester, fire-fighting, ABS welder, air hoist operator, lifeboat, rig rescue, and spill prevention training. The short service evaluation program goes through a pre-screen, interview, new employee orientation, on-site orientation, new employee workbook, mentorship and feedback. The short service evaluation monitors the workers performance and progression. There was a personnel specific training matrix that included different course requirements for the rig manager, driller, deckhand, motorhand, and floorhand. The 5 example employees provided had all their course requirements completed.

Assurance of Quality and Mechanical Integrity of Critical Equipment

API Bulletin 75L Section A.7 references the need for the assurance of quality and mechanical integrity of critical equipment. This SEMS element states that the management system should include proper procedures for all critical equipment to ensure design, fabrication, installation, testing, inspection, and maintenance are carried out with the appropriate service requirements, manufacturers recommendations, and industry standards. These procedures should not only be in place, but they should also be carried out at appropriate time intervals. This element also includes all contractors quality assurance systems that are already in place for their own critical equipment.

The Frio Resources SEMS states critical equipment for any Frio facility is designed, fabricated, installed, tested, inspected, monitored, and maintained with appropriate service requirements, manufacturers recommendations, or industry standards. Frio Resources requires contractors to have programs in place to address their own critical equipment. Critical equipment includes surface safety systems, subsurface safety valve systems, relief and vent systems, containment systems, BOPs, wellhead,

and tree. The assurance of quality of mechanical integrity section discusses procurement, fabrication, installation, maintenance, and testing and inspection.

The PDC SEMS included an HSE and equipment inspections section that contained inspections supporting incident prevention, reduction of risks, detection of wear and potential failure of equipment, ensuring no misuse of equipment, identification of training requirements, improvement of housekeeping standards, and identification of opportunities to improve the company's management standards. PDC had inspection checklists for HSE equipment and areas based on frequency (each shift, weekly, monthly, quarterly, and recertification requirements). Before startup operations, PDC performs safety commissioning, mechanical commissioning, and electrical commissioning. For specific equipment inspections, PDC uses Greenbook for their equipment maintenance standards. The commissioning procedures were not provided for review. There were no examples for Green Book to show how the system prompts the user when maintenance is due and what time intervals/category level equipment maintenance is performed.

Follow-up: The PDC equipment maintenance practice with revision date October 2023 was provided that contains the frequency of Category I, II, III, and IV inspections for the hoisting and lifting equipment. PDC provided an example pre-spud monthly inspection on rig 522. The pre-spud inspection included the lease area, general safety, environmental safety, doghouse area, safety equipment, drive house, toolhouse, generator building, mud pump area, mud tanks, BOP/accumulator, substructure, catwalk/pipe racks, manifold shark/flare line, rig floor area, top drive, mast, crown, drillers checks, drawworks, and the man camp. PDC stated they use a SAP maintenance system to track and perform maintenance on the rig equipment. A screenshot of the SAP maintenance system was provided that included the equipment information, maintenance description, and the due date. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Non-Conformance, SE.QMI.1 Assurance of Quality and Mechanical Integrity of Critical Equipment, Minor

The commissioning procedures were not provided for review. There were no examples for Green Book to show how the system prompts the user when maintenance is due and what time intervals/category level equipment maintenance is performed.

Specification

API Bulletin 75L Section A.7 references the need for the assurance of quality and mechanical integrity of critical equipment. This SEMS element states that the management system should include proper procedures for all critical equipment to ensure design, fabrication, installation, testing, inspection, and maintenance are carried out with the appropriate service requirements, manufacturers recommendations, and industry standards.

The non-conformance was subsequently closed by ADC on 30-Apr-2024.

The PDC equipment maintenance practice with revision date October 2023 was provided that contains the frequency of Category I, II, III, and IV inspections for the hoisting and lifting equipment. PDC provided an example pre-spud monthly inspection on rig 522. The pre-spud inspection included the lease area, general

safety, environmental safety, doghouse area, safety equipment, drive house, toolhouse, generator building, mud pump area, mud tanks, BOP/accumulator, substructure, catwalk/pipe racks, manifold shark/flare line, rig floor area, top drive, mast, crown, drillers checks, drawworks, and the man camp. PDC stated they use a SAP maintenance system to track and perform maintenance on the rig equipment. A screenshot of the SAP maintenance system was provided that included the equipment information, maintenance description, and the due date. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Pre-Startup Review

API Bulletin 75L Section A.8 states that the management system may require the commissioning process to include a pre-startup safety and environmental review. This SEMS element has (7) requirements for any new or significantly modified facilities, wells, or operations: construction and equipment are in accordance with specifications; safety, environmental, operating, maintenance, and emergency procedures are in place and are adequate; safety and environmental information is current; hazards analysis recommendations have been considered addressed and implemented as appropriate; training of operating personnel has been completed; system to address procedures to manage changes and other elements of this publication are in place; and safe work practices are in place.

Frio Resources SEMS states the pre-startup review checklist program will verify the construction and equipment are in accordance with specifications, procedures are in place, safety and environmental information is current, hazards analysis recommendations have been considered/implemented, training of personnel is completed, MOC processes are in place, and safe work practices have been established. Frio Resources provided the Phase I Environmental Site Assessment, Railroad Commission documentation, ERP, SPCCP, geologic impacts report. Frio Resources will use Ermis Vacuum Service as a secondary water source for the drilling operations. Water can be trucked in to keep the tanks full of fresh water during the drilling operations. The hazard register was included that contained economical applications ratings to minimize, monitor, and control. The hazard register also included descriptions for controls to reduce the likelihood. Frio Resources provided the SWPPP that identified hazards, controls, maintenance, site inspections, spill prevention, and response actions.

PDC provided operational safe work practices for the equipment, their HSE standards that contain all the safe work practices, the MOC process. Before startup operations, PDC performs safety commissioning, mechanical commissioning, and electrical commissioning. The operating personnel training records, safety commissioning, mechanical commissioning, and electrical commissioning documents were not provided for review.

Additionally, see the non-conformance in the Safety and Environmental Information section. The rig information, capabilities, and certifications were not included in the documentation provided (rig size/load rating, well control equipment, critical drilling equipment, mud system, electrical area classifications, fire protections systems, evacuation procedures).

Follow-up: Frio Resources provided the rig layout drawings for rig 750ST and rig 522ST. The fire extinguisher layout drawing and the hazardous area layout drawing was provided. The rig layout drawing included the mud pumps, drawworks, pipe racks, electrical house, generators, tanks, substructure, doghouse, catwalk, and choke manifold. The well control equipment stack information was provided. PDC provided an example pre-spud monthly inspection on rig 522. The pre-spud inspection included the lease area, general safety, environmental safety, doghouse area, safety equipment, drive house, toolhouse, generator building, mud pump area, mud tanks, BOP/accumulator, substructure, catwalk/pipe racks, manifold shark/flare line, rig floor area, top drive, mast, crown, drillers checks, drawworks, and the man camp. Commissioning documents are only performed on new rigs and pre-spud inspections are performed on the existing fleet. There was a personnel specific training matrix that included different course requirements for the rig manager, driller, deckhand, motorhand, and floorhand. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Non-Conformance, SE.PSR.1 Pre-Startup Review, Minor

Before startup operations, PDC performs safety commissioning, mechanical commissioning, and electrical commissioning. The operating personnel training records, safety commissioning, mechanical commissioning, and electrical commissioning documents were not provided for review.

Additionally, see the non-conformance in the Safety and Environmental Information section. The rig information, capabilities, and certifications were not included in the documentation provided (rig size/load rating, well control equipment, critical drilling equipment, mud system, electrical area classifications, fire protections systems, evacuation procedures).

Specification

API Bulletin 75L Section A.8 states that the management system may require the commissioning process to include a pre-startup safety and environmental review.

The non-conformance was subsequently closed by ADC on 18-Apr-2024.

Frio Resources provided the rig layout drawings for rig 750ST and rig 522ST. The fire extinguisher layout drawing and the hazardous area layout drawing was provided. The rig layout drawing included the mud pumps, drawworks, pipe racks, electrical house, generators, tanks, substructure, doghouse, catwalk, and choke manifold. The well control equipment stack information was provided. PDC provided an example pre-spud monthly inspection on rig 522. The pre-spud inspection included the lease area, general safety, environmental safety, doghouse area, safety equipment, drive house, toolhouse, generator building, mud pump area, mud tanks, BOP/accumulator, substructure, catwalk/pipe racks, manifold shark/flare line, rig floor area, top drive, mast, crown, drillers checks, drawworks, and the man camp. Commissioning documents are only performed on new rigs and pre-spud inspections are performed on the existing fleet. There was a personnel specific training matrix that included different course requirements for the rig manager, driller, deckhand, motorhand, and floorhand.

Emergency Response and Control

API Bulletin 75L Section A.9 references the need for emergency response and control. This SEMS element requires that emergency information is readily available and control plans are in place and are ready for immediate implementation. These plans should be carried out in regularly scheduled drills.

The Frio Resources documentation included an ERP and a SPCCP. The ERP with revision date September 2023 contained the site information, notifications, general response, spill response, well control response, fire response actions, medical emergency response, site safety plan, and protection and recovery. The SPCCP with revision date September 2023 contained the plan review, facility information, response guidelines, notifications, response team, protection/response, prevention systems, piping/flowlines, production equipment, storage tanks, training, inspections, and forms. Frio Resources provided the oil spill removal organization standby emergency response agreement by Phoenix Pollution Control & Environmental Services, Inc. dated October 2023. Frio Resources provided the SWPPP dated October 2023 that identified hazards, controls, maintenance, inspections, spill prevention, and response actions.

PDC SEMS included an Emergency Preparedness and Response V 2.01 November 2021 that contained the ERP creation, template (location information, emergency contact, emergency response plan, muster locations, alarms, site-specific rescue equipment and services, additional site-specific notes, risk assessment), ERP communication and review, ERP drills, and ERP procedures that included the ERP process, emergency scenario response, and emergency drills. The PDC SEMS Emergency preparedness and response addressed the requirement for emergency drills for BOP, confined space rescue, man down, fire, rescue from heights, rig evacuation, security threat, severe weather response, and spill response. The drill frequency table was provided that showed the prior to drill out and weekly, monthly, biannual, and annual schedule requirements. PDC SEMS included an Emergency Response Procedures V1.01 November 2021 that contained well control emergency, injured/downed worker response, fire response, spill response, severe weather response, rig evacuation, and security treat response. There were occupational health standards for blood-borne pathogens exposure, cold stress, fatigue management, harmful substances and chemical exposure, heat stress and respiratory protection. The environmental management program included spill prevention for move-on/move-off lease review, equipment inspection and maintenance, spill prevention procedures, well site spill risks, spill response plan, spill management, spill reporting, spill response equipment, roles and responsibilities, spill clean-up procedures, yard site spills, spill site remediation and restoration, equipment decontamination, worker decontamination procedures, equipment racking, fuel tank storage, racking procedures for pumps, departure inspection, reduce/reuse/recycle/recover, and waste management. The PDC spill prevention, control, and countermeasure plan Rev 2.3 May 2023 contained the spill prevention plan administration, facility information, general requirements, and discharge response. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Investigation of Incidents

API Bulletin 75L Section A.10 states the need for incident investigations. This SEMS element outlines the process for investigating all incidents with serious safety or environmental consequences. The purpose of the incident investigation is not to place blame, but to learn from the incident and help prevent similar incidents. A corrective action system may be established based on the findings of the investigation in order to analyze incidents for common root causes. Only trained personnel knowledgeable to the processes involved should conduct the incident investigations. Investigations as well as the findings and recommendations should be conducted in a timely manner.

Frio Resources initiates incident investigations as promptly as possible, considering the necessity of securing the incident scene and protecting people and the environment. The incident investigation is conducted by a third-party contractor. Frio Resources requires the investigation to address nature of the incident, the factors that contributed to the initiation and its escalation/control, and recommended changes identified as result of the investigation. The corrective action program will retain the findings for a minimum of 2 years, determine and document the response to each finding to ensure to corrective actions are completed, and implement a system whereby conclusions of investigations are distributed to similar facilities. The Frio Resources incident report form contained reporting personnel, responsible personnel, incident description, material, response action, impact, additional information, weather conditions, and notifications.

PDC SEMS Incident Management V 5.0 January 2023 was provided for review. PDC performs a risk assessment to determine the Level 1, 2, or 3 rating based on probability potential and severity. The risk assessment level determines who is responsible for appointing the investigation team. The incident management standard included the responsibilities, requirements for risk assessment, investigation procedures, shared lessons learned, external communication, training, and approvals. The investigation completion and review process workflow included the initial response and notifications, assigning team, conducting investigation and analysis based on level, review process, corrective action response, verify corrective actions are completed, and timeline for the investigation. The incident investigation form PDC-HSE-001-FORM-V1.5 and the investigation file table of contents were provided. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Audit of Safety and Environmental Management System

API Bulletin 75L Section A.11 references the need for audits of safety and environmental management system elements. This SEMS element states that safety and environmental management systems should conduct periodic audits of the system to ensure the system elements have been properly implemented and maintained. The audit program and procedures should cover the following (5) items outlined by API Bulletin 75L: the activities and areas to be considered in audits, the frequency of audits, the audit team, how audits will be conducted, and audit reporting.

The Frio Resources SEMS included an audit program that covers activities and areas, frequency, audit team, and audit reporting. The activities and areas were facility design, equipment, site characterization, company and contract personnel, safety systems, and environmental protection. The audit timeframe is every 3 years. The audit team will consist of a senior member of Frio and representatives from third party contractors familiar with SEMS. The audit report will address all components of SEMS including discussions and recommendations by the audit team. The audit documentation will be maintained at the Frio Resources corporate office for 5 years from the audit date. Frio Resources provided an example format for a SEMS Audit.

The PDC SEMS included a regulatory inspections and audits plan that contained responsibilities, procedures for government inspections, and special requirements for what to do when being audited. PDC SEMS HSE assessment (worksites) included inspections by the site manager – level 1, HSE standards assessments completed by the HSE department – level 2, HSE management system assessments completed by the HSE department and operations management – level 3, and external HSE audits completed by third party audit firms - level 4. The HSE assessment also included the intervals for closure of non-conformity findings. The HSE assessments target is to perform annual inspections.

There were no example audits of the Frio Resources SEMS/facilities or PDC SEMS/facilities provided for review.

Follow-up: Frio Resources provided an example format for a SEMS Audit. PDC provided an example HSE assessment form. PDC provided a completed HSE assessment form that included the hazard assessment/life saving actions checked, the comments, corrective actions, and signatures. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Non-Conformance, SE.SMS.1 Audit of Safety and Environmental Management System, Minor

There were no example audits of the Frio Resources SEMS/facilities or PDC SEMS/facilities provided for review. Additional information is required to fully close out this SEMS element.

Specification

API Bulletin 75L Section A.11 references the need for audits of safety and environmental management system elements. This SEMS element states that safety and environmental management systems should conduct periodic audits of the system to ensure the system elements have been properly implemented and maintained.

The non-conformance was subsequently closed by ADC on 30-Apr-2024.

Frio Resources provided an example format for a SEMS Audit. PDC provided an example HSE assessment form. PDC provided a completed HSE assessment form that included the hazard assessment/life saving actions checked, the comments, corrective actions, and signatures. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Records and Documentation

API Bulletin 75L Section A.12 references the need for a records and documentation systems to be in place. This SEMS element allows the operator or contractor to establish and keep their own form of record keeping and only requires that all SEMS records be kept.

Frio Resources states they will maintain all SEMS records at the corporate office for a minimum of 5 years. The contractors operating procedures and SEMS documents will be maintained by the contractor.

The HSE assessment records will be kept indefinitely. The requirement for keeping records was mentioned in individual sections of the PDC SEMS documentation provided. The records retention documentation and storage location was not provided. The PDC documentation and records storage location was not provided.

This SEMS element requires all of the documentation and records gathered from each of the SEMS elements.

Follow-up: PDC provided the SharePoint records retention schedule that included the type of record and the record retention period. The CP12-OP1-Records Retention revision April 2018 included the responsibilities, consequences of non-compliance, records management practices, retention schedule, hold orders, and destruction of records. The QHSE-01-document, data, and records management was provided that included the control of documents and control of records. The evidence for this SEMS element was reviewed by ADC and deemed acceptable.

Non-Conformance, SE.RCD.1 Records and documentation, Minor

The PDC HSEMS documentation and records storage location was not provided. This SEMS element requires all of the documentation and records gathered from each of the SEMS elements. The additional missing information should be provided for the remaining SEMS elements.

Specification

API Bulletin 75L section A.12 Records and Documentation

A documentation system for the safety and environmental management system may be established to ensure that records and documents are maintained in a manner sufficient to implement the management system.

The non-conformance was subsequently closed by ADC on 18-Apr-2024.

PDC provided the SharePoint records retention schedule that included the type of record and the record retention period. The CP12-OP1-Records Retention revision April 2018 included the responsibilities, consequences of non-compliance, records management practices, retention schedule, hold orders, and destruction of records. The QHSE-01-document, data, and records management was provided that included the control of documents and control of records.

6.0 Conclusions

ADC conducted a desktop audit on the Oil and Gas Drilling, Workover, or Amending Permit Application submittal by Frio Resources for the Stewart Title #1.

When comparing the Frio Resources documentation provided and the COLC Drilling Ordinance - Drilling, ADC found that Divisions 2, 3, 6, and 7 were missing or lacking information on 35 sections during the initial documentation review. There was no documentation provided to ADC for Divisions 4, 5, and 8. The division sections may exist in Frio Resources full scope of documentation. Additional information was required from Frio Resources to satisfy all the requirements of the COLC Drilling Ordinance - Drilling.

When comparing the Frio Resources SEMS and PDC HSEMS manuals with API Bulletin 75L, 8 of the 12 SEMS elements were lacking in depth and required additional documentation to fully satisfy the elements.

Frio Resources provided follow-up documentation through the review process. After the review of the follow-up documentation, there were 7 non-conformances open in Division 6 and 1 non-conformance open in Division 7. All the SEMS non-conformances were closed.

The missing documentation for the drilling ordinance should be requested by the COLC to ensure that Frio Resources fully complies with the COLC Drilling Ordinance - Drilling, Chapter 42, Article III and API Bulletin 75L reflecting the Stewart Title #1 project.

ADC would like to take this opportunity to thank the COLC for using us to assist in the COLC Stewart Title #1 permit application review.

7.0 Appendices

Appendix 1 - Non Conformance List

[NonConformanceList.xlsx](#)

Appendix 2 - Corrective Action Request Sheets



Corrective Action Request (CAR)			
Audit	Stewart Title 1, January 2024	CAR No	1
Area	Safety and Environmental Management System		
Audit Criteria	Safety and Environmental Information		
Description	Safety and Environmental Information		
Date Opened	Thursday, 21st March 2024		
Auditor		Department Representative	
Lance Norris		Company Rep	
Non-Conformance			
During the review process, the rig information, capabilities, and certifications were not included in the documentation provided (rig size/load rating, well control equipment, critical drilling equipment, mud system, electrical area classifications, fire protections systems, evacuation procedures).			
Specification			
API Bulletin 75L Section A.1 Safety and Environmental Information Process, mechanical, and facilities design information may be retained for the life of the facility.			
Signature (Auditor)		Signature (Department Representative)	
Corrective Action			
Signature (Rig Manager)		Date	
Action taken to prevent recurrence of non-conformance			
Date for completion of action to prevent recurrence			
Signature		Date	
Follow-up and Close Out			
Proposed Follow-up Date			
Close Out Details			
Frio Resources provided the rig layout drawings for rig 750ST and rig 522ST. The fire extinguisher layout drawing and the hazardous area layout drawing was provided. The rig layout drawing included the mud pumps, drawworks, pipe racks, electrical house, generators, tanks, substructure, doghouse, catwalk, and choke manifold. The well control equipment stack information provided. Certification will be provided once the rig is on location.			
Signature (ADC Auditor or Client Rep)		CAR Close Out Date	
		Tuesday, 9th April 2024	

Corrective Action Request (CAR)			
Audit	Stewart Title 1, January 2024	CAR No	2
Area	Safety and Environmental Management System		
Audit Criteria	Hazards Analysis		
Description	Hazards Analysis		
Date Opened	Thursday, 21st March 2024		
Auditor		Department Representative	
Lance Norris		Company Rep	
Non-Conformance			
The Frio Resources documentation provided included material safety data sheets (MSDS), but there was not a full list of all the MSDS being used on the rig to verify all the MSDS were provided.			
Specification			
API Bulletin 75L section A.2 Hazards Analysis The purpose of this analysis is to identify, evaluate, and, where unacceptable, reduce the likelihood and/or minimize the consequences of safety or environmental incidents including uncontrolled releases. Human factors may be considered in this analysis.			
Signature (Auditor)		Signature (Department Representative)	
Corrective Action			
Signature (Rig Manager)		Date	
Action taken to prevent recurrence of non-conformance			
Date for completion of action to prevent recurrence			
Signature		Date	
Follow-up and Close Out			
Proposed Follow-up Date			
Close Out Details			
The hazardous material list was provided for all the chemicals. The list also included the chemicals used during the drilling and production phases.			
Signature (ADC Auditor or Client Rep)		CAR Close Out Date	
		Wednesday, 3rd April 2024	



Corrective Action Request (CAR)			
Audit	Stewart Title 1, January 2024	CAR No	3
Area	Safety and Environmental Management System		
Audit Criteria	Operating Procedures		
Description	Operating Procedures		
Date Opened	Monday, 25th March 2024		
Auditor		Department Representative	
Lance Norris		Company Rep	
Non-Conformance			
Equipment operating procedures were not available for review.			
Specification			
API Bulletin 75L Section A.4 references the need for operating procedures. This segment includes written facility operating procedures designed to enhance efficient, safe, and environmentally sound operations.			
Signature (Auditor)		Signature (Department Representative)	
Corrective Action			
Signature (Rig Manager)		Date	
Action taken to prevent recurrence of non-conformance			
Date for completion of action to prevent recurrence			
Signature		Date	
Follow-up and Close Out			
Proposed Follow-up Date			
Close Out Details			
PDC provided operational safe work instructions for the boiler and steam operations, BOP systems, building stands in mousehole while rotating, cementing, chains, compressed air and equipment, crown block, derrick and mast, drawworks, drilling rig best practices, drilling fluid hoses, drilling line, drilling swivel and Kelly, engines and generators, handling tubulars, high pressure pumping operations, mud tanks, shale shakers, flow lines, mud pumps, pipe elevators, rigging up/out, rotary table and heads, running casing, slips, slipping and cutting drill line, tongs, top drives, travelling block, tripping pipe, and well testing. The operational safe work instructions covered equipment operations, maintenance, and modifications.			
Signature (ADC Auditor or Client Rep)		CAR Close Out Date	
		Wednesday, 10th April 2024	



Corrective Action Request (CAR)			
Audit	Stewart Title 1, January 2024	CAR No	4
Area	Rig Certification		
Audit Criteria	Division 3. Applications		
Description	Section 42 89 Preliminary drilling program		
Date Opened	Monday, 25th March 2024		
Auditor		Department Representative	
Lance Norris		Company Rep	
Non-Conformance			
<p>(a) The Frio Resources documentation was not provided for the rig layout drawing of the site to show where the well location, substructure, drawworks, catwalk, pipe racks, top drive house, mud pumps, generator buildings, crown, and spare parts house are located. Fire hydrants, water supply, power supply, and topographic features were not provided as well. Additional information was required to fully satisfy this ordinance regulation. (b) There was no documentation provided in the nature and volume of waste materials generated during rigging-up operations and drilling. Additional information was required to fully satisfy this ordinance regulation. (d,e) There was not an evaluation of potential shallow gas or H2S provided.</p>			
Specification			
<p>Section 42-89. Preliminary Drilling Program. Drilling and workover permits submit a preliminary drilling program including, but not limited to, the following: (a) Preliminary general arrangement drawings of the site showing, but not limited to, specific wellhead locations; major components, improvements and equipment; rigs; compressors; separators; storage sheds; fire hydrants; water and power supply; impacted vegetation, creeks and other topographic features; easements; and adjoining roadways, property, parks, buildings, and structures. (b) Nature and volume of waste materials generated during rigging-up operations and drilling. (d) Evaluation of shallow gas hazard. (e) Evaluation of potential H2S hazard.</p>			
Signature (Auditor)		Signature (Department Representative)	
Corrective Action			
Signature (Rig Manager)		Date	
Action taken to prevent recurrence of non-conformance			
Date for completion of action to prevent recurrence			
Signature		Date	
Follow-up and Close Out			
Proposed Follow-up Date			



Close Out Details	
<p>(a) The rig layout drawings were provided for rig 750ST and rig 522ST. The fire extinguisher layout drawing and the hazardous area layout drawing was provided. The rig layout drawing included the mud pumps, drawworks, pipe racks, electrical house, generators, tanks, substructure, doghouse, catwalk, and choke manifold. (b) The PDC waste management plan created by Terracon that contained storage and handling procedures for used oil wastes, non-hazardous wastes, and universal wastes. (d,e) Per the USGS survey, the only field in Galveston County known to produce H₂S is the High Island Field over 35 miles away on the Bolivar Peninsula, H₂S is not anticipated based on historical production in the League City area. Previously drilled wells in close proximity to the Stewart Title #1 location have not encountered shallow gas or H₂S.</p>	
Signature (ADC Auditor or Client Rep)	CAR Close Out Date
	Wednesday, 3rd April 2024



Corrective Action Request (CAR)			
Audit	Stewart Title 1, January 2024	CAR No	5
Area	Rig Certification		
Audit Criteria	Division 6. Regulations		
Description	Section 42-134 Distancing and setbacks		
Date Opened	Tuesday, 26th March 2024		
Auditor		Department Representative	
Lance Norris		Company Rep	
Non-Conformance			
The wellbore is within 600 feet of 2 residential neighborhood fences.			
Specification			
Section 42-134. Distancing and setbacks. The distancing and setback requirements noted in this subsection shall apply to all new permits for drilling and workovers shall be consistent with the approved Special Use Permit. These requirements shall not apply to any renewal permits for existing operations that have state and federal permits in good standing. (d) The proposed well bore shall not be within six hundred (600) feet of any off-site pool, building or structure for the support, shelter, enclosure or partial enclosure of persons or animals unless the Operator or designated representative secured notarized affidavits consenting to the encroachment from the surface property owners within the affected radius when the Special Use Permit was granted. The measurement shall be in a direct line from the closest well bore to the nearest portion of the building or structure. The reduction of the distance requirement is subject to the regulations of the Railroad Commission and any other state or federal requirements.			
Signature (Auditor)		Signature (Department Representative)	
Corrective Action			
Signature (Rig Manager)		Date	
Action taken to prevent recurrence of non-conformance			
Date for completion of action to prevent recurrence			
Signature		Date	
Follow-up and Close Out			
Proposed Follow-up Date			
Close Out Details			
The wellbore is within 600 feet of 2 residential neighborhood fences. This was discussed with COLC and they deemed this to be acceptable with no further action required.			
Signature (ADC Auditor or Client Rep)		CAR Close Out Date	
		Thursday, 4th April 2024	



Corrective Action Request (CAR)			
Audit	Stewart Title 1, January 2024	CAR No	6
Area	Rig Certification		
Audit Criteria	Division 6. Regulations		
Description	Section 42-139 Illicit discharges		
Date Opened	Tuesday, 26th March 2024		
Auditor		Department Representative	
Lance Norris		Company Rep	
Non-Conformance			
(b) Frio Resources did not provide documentation on a flare. PDC SEMS contained flare requirements. (e) The letter of credit was not provided by Frio Resources.			
Specification			
Section 42-139. Illicit discharges. (b) No person shall allow cause or permit gases to be vented into the atmosphere or to be burned by open flame. (e) Operator expressly consents by applying for a permit to allow a drawdown of any bond or letter of credit to cover any clean up expenses. In the event that the bond or letter of credit is exhausted, Operator agrees to immediately replenish the amount. City shall have the right to contact the Railroad Commission in order to facilitate the removal of all waste materials from the property affected by such spill, leak or malfunction.			
Signature (Auditor)		Signature (Department Representative)	
Corrective Action			
Signature (Rig Manager)		Date	
Action taken to prevent recurrence of non-conformance			
Date for completion of action to prevent recurrence			
Signature		Date	
Follow-up and Close Out			
Proposed Follow-up Date			
Close Out Details			
(b) Frio Resources stated there will be a flare required during drilling operations to circulate out gas that may become entrained in the drilling fluids or in the event of a well control situation. The following equipment will be utilized to handle any gas encountered during drilling operations. There will be a gas buster, 3" 10M choke manifold with dual hydraulic chokes, and 8" flare line with 90s/45s/check valve, drive over, flarestack, igniter. € A Letter of Credit or a bond will be provided once the Permit is approved. This will be closed out upon the letter of credit or bond being created.			
Signature (ADC Auditor or Client Rep)		CAR Close Out Date	



Corrective Action Request (CAR)			
Audit	Stewart Title 1, January 2024	CAR No	7
Area	Rig Certification		
Audit Criteria	Division 6. Regulations		
Description	Section 42-142 Fire prevention		
Date Opened	Tuesday, 26th March 2024		
Auditor		Department Representative	
Lance Norris		Company Rep	
Non-Conformance			
(c) The Frio Resources documentation did not provide the information for the fire-fighting apparatus. (d) Frio Resources should verify there are no vehicles or items of machinery parked/stored that can be an obstruction with fire-fighting emergencies. (e) Electric motors were not covered in the documentation provided.			
Specification			
Section 42-142. Fire prevention. (c) Fire prevention; sources of ignition. Firefighting apparatus and supplies as approved by the Fire Department and required by any applicable federal, state, or local law shall be provided by the Operator, at the Operators cost, and shall be maintained on the site at all times during operations. The Operator shall be responsible for the maintenance and upkeep of such equipment. All equipment, other than wellheads, shall be equipped with an automated valve that closes or shuts down the equipment in the event of an abnormal change in operating pressure. All well heads shall contain an automated emergency shut off valve to the well production sale line. (d) Equipment and vehicles. No vehicle or item of machinery shall be parked or stored on any street, right-of-way or in any driveway, alley or upon any site which constitutes a fire hazard or an obstruction to or interference with fighting or controlling fires except that equipment which is necessary on the site. The Fire Marshal shall be the entity that determines whether equipment on the site shall constitute a fire hazard. (e) Electric motors. Only electric prime movers or motors shall be permitted for the purpose of pumping wells. No electric power shall be generated on location outside of the duration of drilling operations. All electrical installations and equipment shall conform to the City ordinances and the appropriate national codes.			
Signature (Auditor)		Signature (Department Representative)	
Corrective Action			
Signature (Rig Manager)		Date	
Action taken to prevent recurrence of non-conformance			
Date for completion of action to prevent recurrence			
Signature		Date	



Follow-up and Close Out	
Proposed Follow-up Date	
Close Out Details	
<p>(c) Frio will maintain a fire equipment box with 265 gallons of suppressant on location. In addition, PDC maintains many ABC and CO2 portable fire extinguishers on and around the drilling rig. (d) There is ample parking on site. Vehicles and equipment will be placed so as to not interfere with ingress & egress for fire-fighting equipment. (e) The only electric motors onsite will be on the drilling rig.</p>	
Signature (ADC Auditor or Client Rep)	CAR Close Out Date
	Thursday, 4th April 2024



Corrective Action Request (CAR)			
Audit	Stewart Title 1, January 2024	CAR No	8
Area	Rig Certification		
Audit Criteria	Division 6. Regulations		
Description	Section 42-143 Well control equipment and procedures		
Date Opened	Tuesday, 26th March 2024		
Auditor		Department Representative	
Lance Norris		Company Rep	
Non-Conformance			
The well control equipment and the components of the pressure control system were not covered in the documentation provided.			
Specification			
<p>Section 42-143. Well control equipment and procedures. (a) The pressure control equipment and all components in the pressure control system shall all be sourced from a recognized American Petroleum Institute licensed OEM and of origin from the United States or Western Europe. (b) All pressure control equipment and all components of the pressure control system shall be certified at a minimum of once per year. No equipment shall be used on site with a certificate expiration date that will expire during its expected time of use on the well. (c) A copy of the data books for each pressure control component shall be maintained and available on the drilling location for review. (d) Prior to setting equipment and in areas where liquids or dry materials are likely to be spilled, install rollout impermeable barriers. The tarps shall be rolled up and cleaned at a suitable facility when equipment is rigged down. (e) The Operator shall conduct function testing and pressure testing of all components of the pressure control system. Alternately, function and pressure testing shall be conducted every five (5) days. (f) All components of the pressure control system must be function tested and pressure tested to full rated working pressure before the rig is accepted to commence operations. (g) All drilling wells must be equipped with blowout preventers, flowlines, and valves commensurate with the working pressure involved as required by the Railroad Commission. (h) In all cases, blowout prevention equipment including shear rams and pipe rams shall be used on all wells being drilled, worked-over or in which tubing is being changed. Protection shall be provided to prevent blowout during operations as required by and in conformance with the requirements of the Railroad Commission and be in compliance with all American Petroleum Institute Specifications and Recommended Practices, whichever is more restrictive for the particular issue under consideration. (i) A blowout preventer stack must be configured with a minimum of four (4) ram type and one (1) annular type preventers. (j) A set of blind shear rams with suitable operators shall be installed in the blowout preventer stack capable of shearing all grades of tubulars on location. (k) A set of casing shear rams with suitable operators capable of shearing all grades of casing in the well design must be installed in the stack. (l) Blowout prevention equipment shall be actuated periodically to ensure operational readiness utilizing these frequencies: (1) Every 12-hour shift, perform the following: (i) Check the accumulator pressure; (ii) Check the pressure of the emergency back-up system; (iii) Check the hydraulic fluid level in the blowout preventer closing unit; (iv) Check air pressure to support system; and (v) Record all of the above in the IADC log book and well ledger. (2) Every 12-hour shift, perform an IADC pit drill, to include, but not limited to, the following: (i) Operate all Kelly cocks; (ii) Check drill pipe safety valve; (iii) Function test any HCR (hydraulically control remote) valve(s); and (iv) Record all of the above in the IADC log book and well ledger. (m) A drill pipe float valve must always be in place when running in the hole. (n) In the event of the loss of control of any well, the Operator shall immediately take all reasonable steps to regain control regardless of any other provision of this Ordinance and shall notify the Oil and Gas Compliance Officer as soon as practicable. A written report with a summary of the incident shall also be submitted in accordance with the regulations for incident reports noted in this Chapter. (o) If danger to persons and property exist because of loss of well control and the</p>			



Operator is not taking or is unable to take all reasonable and necessary steps to regain control of such well, then the City may employ any well control expert or experts or other contractors or suppliers of special services or may incur any other expenses for labor and material which the City deems necessary to regain control of such well. The City shall then have a valid lien against the interest in the well of all working interest owners to secure payment of any expenditure made by the City pursuant to such action of the City in gaining control of said well.	
Signature (Auditor)	Signature (Department Representative)
Corrective Action	
Signature (Rig Manager)	Date
Action taken to prevent recurrence of non-conformance	
Date for completion of action to prevent recurrence	
Signature	Date
Follow-up and Close Out	
Proposed Follow-up Date	
Close Out Details	
Frio Resources stated the well control equipment will be rented from Dynamic Well Services. This is the same well control equipment utilized on other wells within League City. All pressure control equipment and all components of the pressure control system will be certified once a year. Log books will be available on location documenting the certifications. The following well control equipment will be utilized. • 11" 10M Single BOP with Pipe Rams • 11" 10M Double BOP with Pipe Rams and Shears Rams • 11" 5M Annual Hydril • 11" 10M Mud Cross with manual Valves, Check Valve • Gas Buster • 3" 10M Choke Manifold with Dual Hydraulic Chokes • 8" Flare Line with 90s/45s/check valve, drive over, flarestack, igniter • BOP Accumulator Unit The well control equipment certification will be reviewed, and the well control stack will be tested. This will need to be closed once the rig is on location before operations commence.	
Signature (ADC Auditor or Client Rep)	CAR Close Out Date



Corrective Action Request (CAR)			
Audit	Stewart Title 1, January 2024	CAR No	9
Area	Rig Certification		
Audit Criteria	Division 6. Regulations		
Description	Section 42-148 Access Management		
Date Opened	Tuesday, 26th March 2024		
Auditor		Department Representative	
Lance Norris		Company Rep	
Non-Conformance			
(b) There was a 20 ft. entrance road off of Erwin Street. The entrance road material was caliche. (c) Dust suppression was not included in the Frio Resources documentation provided. (d) The hours of operation of vehicles was not provided in the documentation package. (e) There was a 20 ft private roadway off of Erwin Street. There was no information for any turnabouts for easy access for emergency equipment.			
Specification			
Section 42-148. Access management. (b) Drilling and workover permits prior to the commencement of operations, all roads used for access to the site shall be at least twenty-four (24) feet wide, have an overhead clearance of fourteen (14) feet and shall be surfaced with concrete, asphalt, gravel or caliche. In particular cases, these requirements governing surfacing of private roads may be altered at the discretion of the City after consideration of all circumstances including, but not limited to: distances from streets and highways; distances from adjoining and nearby property owners whose surface rights are not leased by the operation; the purpose for which the property of such owners is or may be used; topographical features; nature of the soil; and exposure to wind. (c) The operator shall use watering, wetting or other methods or materials to control dust on the site. (d) The Department of Public Works may restrict the hours of operation of vehicles based upon the location of the property and adjoining land uses. (e) Emergency access and turnabouts shall be included as deemed appropriate by the Fire Marshal. The access route should be of appropriate width to accommodate emergency response equipment. Street turnabouts should be of adequate turning radius to facilitate forward or reverse hose lays and/or exit of any emergency response equipment.			
Signature (Auditor)		Signature (Department Representative)	
Corrective Action			
Signature (Rig Manager)		Date	
Action taken to prevent recurrence of non-conformance			
Date for completion of action to prevent recurrence			
Signature		Date	
Follow-up and Close Out			
Proposed Follow-up Date			
Close Out Details			



Signature (ADC Auditor or Client Rep)	CAR Close Out Date



Corrective Action Request (CAR)			
Audit	Stewart Title 1, January 2024	CAR No	10
Area	Rig Certification		
Audit Criteria	Division 7. Liability, Surety, and Insurance		
Description	Section 42-162. Bond or irrevocable letter of credit.		
Date Opened	Wednesday, 27th March 2024		
Auditor		Department Representative	
Lance Norris		Company Rep	
Non-Conformance			
The Frio Resources documentation package did not include the bond or irrevocable letter of credit.			
Specification			
Section 42-162. Bond or irrevocable letter of credit The operator or production representative shall provide one of the following security instruments outlined in subsections (a) and (b): (a) bond (b) letter of credit			
Signature (Auditor)		Signature (Department Representative)	
Corrective Action			
Signature (Rig Manager)		Date	
Action taken to prevent recurrence of non-conformance			
Date for completion of action to prevent recurrence			
Signature		Date	
Follow-up and Close Out			
Proposed Follow-up Date			
Close Out Details			
Signature (ADC Auditor or Client Rep)		CAR Close Out Date	