

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONTROL MINOR PERMIT

Permit: AQ1102MSS04
Rescinds Permit AQ1102MSS03

Preliminary: May 1, 2013

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Air Quality Control Minor Permit No. AQ1102MSS04 to the Permittee listed below.

Permittee: **Buccaneer Alaska Operations, LLC**
952 Echo Lane, Suite 420
Houston, TX 77024
(713) 468-1678

Owner: Same as Permittee

Operator: Same as Permittee

Stationary Source: **Cook Inlet Exploratory Drilling Program**

Location: ADL 17595-2
ADL 391108
ADL 391270
ADL 391611
ADL 384403

Physical Address: Offshore Upper and Lower Cook Inlet, AK

Project: Revising operational limits for well servicing and testing engines, heaters and boilers, and support/resupply engines.

Permit Contact: Andy Rike, (713) 468-1678

This project is classified under 18 AAC 50.508(6) for revising or rescinding the terms and conditions of a Title I permit. This permit satisfies the obligation of the Permittee to obtain a minor permit under these provisions. As required by AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this minor permit.

John F. Kuterbach
Manager, Air Permits Program

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Section 1 Emission Unit Inventory

1. **Authorization.** The Permittee is authorized to operate the following emission units listed in Table 1 in accordance with the terms and conditions of this permit and the minor permit application.

1.1 The actual jackup rig under this permit may be similar or smaller than the equipment represented in Table 1. In all situations, the cumulative boiler/heater (J-7 and J-8) rating shall not exceed 2.8 million British thermal units per hour (MMBtu/hr) and the cumulative engine (J-1 through J-6, including J-3b and J-6b) rating shall not exceed 14,615 horsepower (hp).

Table 1 – Drilling Rig Emission Units^{[a][b]}

Emission Unit ID	Unit Description	Make/Model	Fuel	Rating/size
Jackup Drilling Rig (Adriatic XI)				
J-1	Rig Engine #1	Caterpillar 3516	Diesel	2,160 hp
J-2	Rig Engine #2	Caterpillar 3516	Diesel	2,160 hp
J-3	Rig Engine #3	Caterpillar 3516	Diesel	2,160 hp
J-3b	Rig Engine #4	Caterpillar 3516	Diesel	2,160 hp
J-4	Emergency Engine	Cummins KTA 3067 G2	Diesel	1,300 hp
J-5	Cement Engine	Detroit Diesel 8V71	Diesel	355 hp
J-6	Backup Engine #1	Caterpillar 3516	Diesel	2,160 hp
J-6b	Backup Engine #2	Caterpillar 3516	Diesel	2,160 hp
J-7	Boiler/Heater	Starfire ST-200C	Diesel	1.4 MMBtu/hr
J-8	Boiler/Heater	Starfire ST-200C	Diesel	1.4 MMBtu/hr
J-9	Flarestack Flare, starboard side	TBD	Natural Gas	25 MMscf/day
J-10	Flarestack Flare, port side	TBD	Natural Gas	25 MMscf/day
J-11	Diesel Fuel Storage, Tank #15P	TBD	N/A	36,259 gal
J-12	Diesel Fuel Storage, Tank #15P	TBD	N/A	37,930 gal

Table 1 footnotes:

[a] Except as noted in the permit, the information in this table is for identification purposes only.

[b] Emission Units J-1 through J-6 (including J-3b and J-6b) are classified as nonroad engines. In all cases, these emission units must be portable, and must only be operated on a periodic and temporary basis, in a manner analogous with the non-road engine rule, per 40 CFR 89.

2. The Permittee is also authorized to periodically operate intermittent well servicing and testing equipment in accordance with the terms and conditions of this permit.¹ The intermittent well servicing and testing equipment includes the emission units listed in Table 2.

2.1 The actual well service and testing equipment for the jackup rig operated under this permit may be similar or smaller than the well service and testing equipment represented in Table 2. In all situations, the cumulative boiler/heater rating shall not exceed 4.0 MMBtu/hr and the cumulative engine rating shall not exceed 3,080 hp.

Table 2 –Intermittent Well Servicing and Testing Equipment^[a]

Emission Unit ID	Unit Description	Rating/size
W-1	Well Testing Engine, Caterpillar 3406	440 hp
W-2	Well Testing Engine, Caterpillar 3406	440 hp
W-3	Well Testing Engine, Caterpillar 3406	440 hp
W-4	Well Testing Engine, Caterpillar 3406	440 hp
W-5	Well Testing Engine, Caterpillar 3406	440 hp
W-6	Well Testing Engine, Caterpillar 3406	440 hp
W-7	Well Testing Engine, Caterpillar 3406	440 hp
W-8	Portable Boiler/Heater	1.0 MMBtu/hr
W-9	Portable Boiler/Heater	1.0 MMBtu/hr
W-10	Portable Boiler/Heater	1.0 MMBtu/hr
W-11	Portable Boiler/Heater	1.0 MMBtu/hr

Table 2 footnote:

[a] Except as noted in the permit, the information in this table is for identification purposes only. All of the fuel burning units listed in Table 2 are diesel-fired.

3. The Permittee is also authorized to periodically operate support/re-supply equipment in accordance with the terms and conditions of this permit.² The intermittent support/re-supply equipment for the jackup rig includes the emission units listed in Table 3.

3.1 The actual support/re-supply equipment for the jackup rig operated under this permit may be similar or smaller than the well service and testing equipment represented in Table 3. In all situations, the cumulative engine rating shall not exceed 8,384 hp.

¹ In all cases, intermittent well servicing equipment must be portable, and must only be operated on a periodic and temporary basis, in a manner analogous with the nonroad engine rule, adopted by reference in 18 AAC 50.100.

² In all cases, intermittent re-supply and support equipment must be portable, and must only be operated on a periodic and temporary basis, in a manner analogous with the non-road engine rule, adopted by reference in 18 AAC 50.100.

Table 3 – Jim Kilabuk (Re-Supply) Equipment^[a]

Emission Unit ID	Unit Description	Rating/size
JK-1	Main Propulsion Engine #1	3,600 hp
JK-2	Main Propulsion Engine #2	3,600 hp
JK-3	Engine/Generator #1	292 hp
JK-4	Engine/Generator #2	292 hp
JK-5	HPP Engine	300 hp
JK-6	Bow Thruster	300 hp

Table 3 footnote:

[a] Except as noted in the permit, the information in this table is for identification purposes only.
All of the fuel burning units listed in Table 3 are diesel-fired.

4. **Maintenance.** The Permittee shall maintain equipment according to the manufacturer's or operator's maintenance procedures.

Section 2 State Emission Standards

5. **Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding water vapor, emitted from all fuel burning units (excluding all non-road engines), to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.
 - 5.1 Verify the initial compliance of Emission Units J-9 and J-10 by either
 - a. obtaining a certified manufacturer guarantee that the emission unit will comply with the visible emission standard; or
 - b. conducting a Method 9 visible emission source test within 30 days after unit start-up. Start-up is defined as the first time after the effective date of this permit that gas is burned from the unit.
 - 5.2 For each installed emission unit listed in Condition 5.1, attach a copy of the guarantee obtained under Condition 5.1a, or a copy of the surveillance records developed under Condition 5.1b (use Attachment 1), as applicable, to the operating report submitted under Condition 22 for the period that covers the 30th day after starting operations at any well location.
 - 5.3 Notify the Department as described in Condition 21 if any visible emission exceed the limit in Condition 5.
6. **Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from any heater/boiler or flare (excluding all non-road engines) listed in Section 1, to exceed 0.05 grains per dry standard cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.
7. **Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from any heater/boiler or flare (excluding all non-road engines) listed in Section 1, to exceed 500 ppm averaged over a period of three hours.

Section 3 Owner Requested Limits to Avoid Title-V Permitting

8. **Flared Gas Annual Limit.** The Permittee shall not allow the total cumulative natural gas consumption of Emission Units J-9 and J-10 to exceed 250 million standard cubic feet (MMscf) per rolling twelve-month period.
 - 8.1 Each month, monitor and record the cumulative natural gas consumption for Emission Units J-9 and J-10 in units of MMscf per month, and calculate and record the twelve month cumulative natural gas consumption by summing the cumulative natural gas consumption for the previous twelve months.
 - 8.2 Provide the data recorded in Condition 8.1 in the operating report as described in Condition 22.
 - 8.3 Notify the Department as described in Condition 21 if the cumulative natural gas consumption calculated in Condition 8.1 exceeds the limit in Condition 8.

9. **Flared Gas Hydrogen Sulfide (H₂S) Content.** The Permittee shall not allow the H₂S content of the natural gas consumed by Emission Units J-9 or J-10 to exceed 250 ppmv.
 - 9.1 At least once after starting operations at any well location, measure the natural gas H₂S concentration consumed by Emission Units J-9 and J-10.
 - 9.2 Provide the data recorded in Condition 9.1 in the operating report as described in Condition 22.
 - 9.3 Notify the Department as described in Condition 21 if the natural gas H₂S concentration determined in Condition 9.1 exceeds the limit in Condition 9.

10. **Affirmation of Title-V Avoidance.** The Permittee shall affirm annually, in accordance with 18 AAC 50.205, whether the the stationary source is still accurately described by the minor permit application and this minor permit, and whether the owner or operator has made changes that would trigger the requirements for a new permit under 18 AAC 50. The Permittee may submit this affirmation on an annual basis within the semiannual operating report.

Section 4 *Ambient Air Quality Protection Requirements*

11. **SO₂ Ambient Air Quality Protection.** The Permittee shall protect the SO₂ ambient air quality standard as follows:
 - 11.1 Comply with Conditions 8 and 9.
 - 11.2 **Flared Gas Daily Limits.** Do not allow the total cumulative natural gas consumption of Emission Units J-9 and J-10 to exceed 25 MMscf per day.
 - a. Each day, monitor and record the cumulative natural gas consumption for Emission Units J-9 and J-10 in units of MMscf per day.
 - b. Provide the maximum daily cumulative flared gas consumption for the month recorded in Condition 11.2a in the operating report as described in Condition 22.
 - c. Notify the Department as described in Condition 21 if the cumulative natural gas consumption recorded in Condition 11.2a exceeds the limit in Condition 11.2.
12. **NO₂ Ambient Air Quality Protection.** The Permittee shall protect the NO₂ ambient air quality standard by complying with Conditions 8 and 11.2.
13. **PM-10 Ambient Air Quality Protection.** The Permittee shall protect the PM-10 ambient air quality standard by complying with Conditions 8 and 11.2.
14. **NO₂, SO₂, and PM-10 Air Quality Protection.** The Permittee shall protect the NO₂, SO₂ and PM-10 air quality standards as follows:
 - 14.1 Limit the operation of the well servicing and testing emission units W-1 through W-7 to a total of 4,435,200 horsepower-hours (hp-hr) per well per rolling twelve-month period; and limit the operation of all well servicing and testing emission units W-8 through W-11 to a total of 5,760 MMBtu per well, per rolling twelve-month period. These limits are cumulative for all emission units operating at wells less than 3.9 kilometers (km) from each other.
 - a. For each well servicing and testing engine operated on the drill rig record and report the starting and ending time of each period of operation.
 - (i) For each period of operation on the drill rig record and report either the maximum actual hp or the maximum hp of the unit during each one hour period of operation.
 - (ii) For each period of operation on the drill rig record and report either the maximum actual hp or the maximum hp of the unit during each period of operation less than one hour that is not recorded in Condition 14.1a(i).
 - b. For each well servicing and testing heater/boiler operated on the drill rig, monitor and record the fuel consumed and calculate MMBtu assuming 19,300 MMBtu/gal.

- c. For each calendar month, calculate and record the total hp-hr of all operating well servicing and testing engines by summing the hp values from Conditions 14.1a(i) and 14.1a(ii), and calculate and record the total MMBtu of all operating well servicing and testing heaters/boilers during the month at a given well. If the drill rig moves to a different well
 - (i) less than 3.9 km from the first well, include the hp-hr for all well servicing and testing engines and MMBtu for all well servicing and testing heaters/boilers from the first well in the total for the new well; or
 - (ii) greater than or equal to 3.9 km from the first well, record hp-hr for all well servicing and testing engines and MMBtu for all well servicing and testing heaters/boilers during the month at the first well, the date the drill rig moved to the new well, and the hp-hr for all well servicing and testing engines and MMBtu for all well servicing and testing heaters/boilers at the new well, starting over at zero hp-hr for all well servicing and testing engines and zero MMBtu for all servicing and testing heaters/boilers at the new well.
 - d. By the end of each calendar month, calculate and record the twelve-month rolling hp-hr for all well servicing and testing engines and cumulative twelve-month rolling MMBtu for all well servicing and testing heaters/boilers at each well.
 - e. Report the twelve-month rolling hp-hr and MMBtu recorded under Condition 14.1d in the operating report required under Condition 22, for each month covered by the reporting period.
 - f. Notify the Department as described in Condition 21 if operations at any well exceed the limits specified in Condition 14.1.
- 14.2 While operating the jack-up rig, limit the operation of support/resupply emission units JK-1 through JK-6 to a total of 6,036,480 hp-hrs per well, per rolling twelve-month period. This limit is cumulative for all emission units operating at wells less than 3.9 km from each other.
- a. For each support/resupply engine operated on the drill rig record and report the starting and ending time of each period of operation.
 - (i) For each period of operation on the drill rig record and report either the maximum actual hp or the maximum hp of the unit during each one hour period of operation.
 - (ii) For each period of operation record and report either the maximum actual hp or the maximum hp of the unit during each period of operation less than one hour that is not recorded in Condition 14.2a(i).
 - b. For each calendar month, calculate and record the total hp-hr during the month for each support/resupply engine at a given well by summing the hp values from Conditions 14.2a(i) and 14.2a(ii). If the drill rig moves to a different well

- (i) less than 3.9 km from the first well, include the hp-hrs for support/resupply engines from the first well in the total for the new well;
or
 - (ii) greater than or equal to 3.9 km from the first well, record the hp-hrs for the support/resupply engines during the month at the first well, the date the drill rig moved to the new well, and the hp-hrs for the support/resupply engines at the new well, starting over at zero hp-hrs at the new well.
- c. By the end of each calendar month, calculate and record the cumulative twelve-month rolling hp-hrs for all support/resupply engines at each well.
- d. Report the twelve-month rolling hap-hrs recorded under Condition 14.2c in the operating report required under Condition 22
- e. Notify the Department as described in Condition 21 if operations at any well exceed the limit specified in Condition 14.2.

Section 5 *Emission Fees*

15. **Assessable Emissions.** For a stationary source required to obtain a minor permit in accordance with 18 AAC 50.502(c) or 18 AAC 50.508(6) but not required to obtain an operating permit under AS 46.14.130(b), the Permittee shall pay a one-time emission fee assessed for the state fiscal year in which the permit was issued in accordance with 18 AAC 50.410(f).

16. **Annual Compliance Fee.** For a stationary source not classified as needing a Title V permit, the Permittee shall pay an annual compliance fee as set out in 18 AAC 50.400(e)(1), to be paid for each period from July 1 through the following June 30.

Section 6 *General Recordkeeping, Reporting, and Certification Requirements*

17. **Certification.** The Permittee shall certify all reports, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.” Excess emissions reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal.
18. **Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall send two copies of reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with Condition 17.
19. **Information Requests.** The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke, reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the federal administrator.
20. **Recordkeeping Requirements.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:
 - 20.1 copies of all reports and certifications submitted pursuant to this section of the permit; and
 - 20.2 records of all monitoring required by this permit, and information about the monitoring including (if applicable):
 - a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;
 - b. sampling dates and times of sampling or measurements;
 - c. the operating conditions that existed at the time of sampling or measurement;
 - d. the date analyses were performed;
 - e. the location where samples were taken;
 - f. the company or entity that performed the sampling and analyses;
 - g. the analytical techniques or methods used in the analyses; and
 - h. the results of the analyses.

21. Excess Emissions and Permit Deviation Reports.

21.1 Except as provided in Condition 23, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

- a. In accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report
 - (i) emissions that present a potential threat to human health or safety; and
 - (ii) excess emissions that the Permittee believes to be unavoidable;
- b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that caused emissions in excess of a technology based emissions standard;
- c. report all other excess emissions and permit deviations
 - (i) within 30 days of the end of the month in which emissions or deviation occurs or is discovered, except as provided in Conditions 21.1c(ii) and 21.1c(iii);
 - (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under Condition 21.1c(i); and
 - (iii) for failure to monitor, as required in other applicable conditions of this permit.

21.2 The Permittee must report using either the Department's on-line form, or if the Permittee prefers, the form contained in Attachment 2. The Permittee must provide all information called for by the form that is used.

21.3 If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

22. Operating Reports. During the life of this permit, the Permittee shall submit to the Department an original and one copy of an operating report by August 1 for the period January 1 through June 30 of the current year and by February 1 for the period July 1 through December 31 of the previous year.

22.1 The operating report must include all information required to be in operating reports by other conditions of this permit.

22.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 22.1, either

- a. The Permittee shall identify
 - (i) the date of the deviation;
 - (ii) the equipment involved;
 - (iii) the permit condition affected;
 - (iv) a description of the excess emissions or permit deviation; and

- (v) any corrective action or preventative measures taken and the date of such actions; or
 - b. when excess emissions or permit deviations have already been reported under Condition 21 the Permittee may cite the date or dates of those reports.
- 23. **Air Pollution Prohibited.** No person may permit any emissions which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.
 - 23.1 If emissions present a potential threat to health or safety, the Permittee shall report any such emissions according to Condition 21.
 - 23.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 23.
 - 23.3 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if
 - a. after investigation because of complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 23; or
 - b. the Department notifies the Permittee, it has found a violation of Condition 23.
 - 23.4 The Permittee shall keep records of
 - a. the date and time, and nature of all emissions complaints received;
 - b. the name of the person or persons that complained, if known;
 - c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 23; and
 - d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.
 - 23.5 With each operating report under Condition 22, the Permittee shall include a brief summary report which must include
 - a. the number of complaints received;
 - b. the number of times the Permittee or the Department found corrective action necessary;
 - c. the number of times action was taken on a complaint within 24 hours; and
 - d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.
 - e. The Permittee shall notify the Department of a complaint that is attributable to emissions from the stationary source within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

Section 7 *Standard Permit Conditions*

24. The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for
 - 24.1 an enforcement action; or
 - 24.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.
25. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.
26. The Permittee shall allow the Department or an inspector authorized by the Department upon presentation of credentials and at reasonable times with the consent of the owner or operator to
 - 26.1 enter upon the premises where an emissions unit subject to this permit is located or where records required by the permit are kept;
 - 26.2 have access to and copy any records required by this permit;
 - 26.3 inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and
 - 26.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.
27. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.
28. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
29. The permit does not convey any property rights of any sort, nor any exclusive privilege.

Section 8 *General Source Test Requirements*

30. **Requested Source Tests.** In addition to any source testing explicitly required by this permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.
31. **Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing
 - 31.1 at a point or points that characterize the actual discharge into the ambient air; and
 - 31.2 at the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.
32. **Reference Test Methods.** The Permittee shall use the following references for test methods when conducting source testing for compliance with this permit:
 - 32.1 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in 40 C.F.R. 60, Appendix A, Reference Method 9. The Permittee may use the form in Attachment 1 of this permit to record data.
 - 32.2 Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.
 - 32.3 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.
 - 32.4 Source testing for emissions of any contaminant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.
33. **Test Deadline Extension.** The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.
34. **Test Plans.** Before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the emissions unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete test plan at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.

35. **Test Notification.** At least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and time the source test will begin.
36. **Test Reports.** Within 60 days after completing a source test, the Permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results as set out in Condition 17. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

Section 9 *Permit Documentation*

<u>Date</u>	<u>Document Details</u>
January 10, 2013	Buccaneer submits minor permit application for Permit AQ1102MSS04
March 14, 2013	Department discusses the need for a sensitivity analysis for the resupply/support vessels
April 19, 2013	Buccaneer submits sensitivity analysis for the resupply/support vessels

Attachment 1 – Visible Emissions Form

VISIBLE EMISSION OBSERVATION FORM

This form is designed to be used in conjunction with EPA Method 9, “Visual Determination of the Opacity of Emissions from Stationary Sources.” Temporal changes in emission color, plume water droplet content, background color, sky conditions, observer position, etc. should be noted in the comments section adjacent to each minute of readings. Any information not dealt with elsewhere on the form should be noted under additional information. Following are brief descriptions of the type of information that needs to be entered on the form: for a more detailed discussion of each part of the form, refer to “Instructions for Use of Visible Emission Observation Form.”

- Source Name: full company name, parent company or division or subsidiary information, if necessary.
 - Address: street (not mailing or home office) address of facility where VE observation is being made.
 - Phone (Key Contact): number for appropriate contact.
 - Source ID Number: number from NEDS, agency file, etc.
 - Process Equipment, Operating Mode: brief description of process equipment (include type of facility) and operating rate, % capacity, and/or mode (e.g. charging, tapping, shutdown).
 - Control Equipment, Operating Mode: specify type of control device(s) and % utilization, control efficiency.
 - Describe Emission Point: for identification purposes, stack or emission point appearance, location, and geometry; and whether emissions are confined (have a specifically designed outlet) or unconfined (fugitive).
 - Height Above Ground Level: stack or emission point height relative to ground level; can use engineering drawings, Abney level, or clinometer.
 - Height Relative to Observer: indicate height of emission point relative to the observation point.
 - Distance from Observer: distance to emission point; can use rangefinder or map.
 - Direction from Observer: direction plume is traveling from observer.
 - Describe Emissions and Color: include physical characteristics, plume behavior (e.g., looping, lacy, condensing, fumigating, secondary particle formation, distance plume visible, etc.), and color of emissions (gray, brown, white, red, black, etc.). Note color changes in comments section.
 - Visible Water Vapor Present?: check “yes” if visible water vapor is present.
 - If Present, is Plume...: check “attached” if water droplet plume forms prior to exiting stack, and “detached” if water droplet plume forms after exiting stack.
 - Point in Plume at Which Opacity was Determined: describe physical location in plume where readings were made (e.g., 1 ft above stack exit or 10 ft. after dissipation of water plume).
 - Describe Plume Background: object plume is read against, include texture and atmospheric conditions (e.g., hazy).
 - Background Color: sky blue, gray-white, new leaf green, etc.
 - Sky Conditions: indicate cloud cover by percentage or by description (clear, scattered, broken, overcast).
 - Wind Speed: record wind speed; can use Beaufort wind scale or hand-held anemometer to estimate.
 - Wind Direction From: direction from which wind is blowing; can use compass to estimate to eight points.
 - Ambient Temperature: in degrees Fahrenheit or Celsius.
Wet Bulb Temperature: can be measured using a sling psychrometer
RH Percent: relative humidity measured using a sling psychrometer; use local US Weather Bureau measurements only if nearby.
 - Source Layout Sketch: include wind direction, sun position, associated stacks, roads, and other landmarks to fully identify location of emission point and observer position.
Draw North Arrow: to determine, point line of sight in direction of emission point, place compass beside circle, and draw in arrow parallel to compass needle.
Sun’s Location: point line of sight in direction of emission point, move pen upright along sun location line, mark location of sun when pen’s shadow crosses the observer’s position.
 - Observation Date: date observations conducted.
 - Start Time, End Time: beginning and end times of observation period (e.g., 1635 or 4:35 p.m.).
 - Data Set: percent opacity to nearest 5%; enter from left to right starting in left column. Use a second (third, etc.) form, if readings continue beyond 30 minutes. Use dash (-) for readings not made; explain in adjacent comments section.
Comments: note changing observation conditions, plume characteristics, and/or reasons for missed readings.
Range of Opacity: note highest and lowest opacity number.
 - Observer’s Name: print in full.
Observer’s Signature, Date: sign and date after performing VE observation.
 - Organization: observer’s employer.
- Certified By, Date: name of “smoke school” certifying observer and date of most recent certification.

Attachment 2 - ADEC Notification Form³

Excess Emissions and Permit Deviation Reporting
State of Alaska Department of Environmental Conservation
Division of Air Quality

Stationary Source Name

Air Quality Permit Number

Company Name

When did you discover the Excess Emissions/Permit Deviation?

Date: / / Time: :

When did the event/deviation?

Begin: Date: / / Time: : (please use 24hr clock)
End: Date: / / Time: : (please use 24hr clock)

What was the duration of the event/deviation: : (hrs:min) or days
(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

Reason for notification: (please check only 1 box and go to the corresponding section)

- Excess Emissions Complete Section 1 and Certify
 Deviation from permit conditions complete Section 2 and certify
 Deviation from COBC, CO, or Settlement Agreement Complete Section 2 and certify

Section 1. Excess Emissions

(a) Was the exceedance Intermittent or Continuous

(b) Cause of Event (Check one that applies):

- Start Up/Shut Down Natural Cause (weather/earthquake/flood)
 Control Equipment Failure Scheduled Maintenance/Equipment Adjustments
 Bad fuel/coal/gas Upset Condition Other

(c) Description

Describe briefly what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) Emission unit(s) Involved:

³ Revised as of December 6, 2004

Identify the emission units involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

<u>EU ID</u>	<u>Emission Unit Name</u>	<u>Permit Condition Exceeded/Limit/Potential Exceedance</u>

(e) Type of Incident (please check only one):

- Opacity % Venting (gas/scf) Control Equipment Down
 Fugitive Emissions Emission Limit Exceeded Record Keeping Failure
 Marine Vessel Opacity Failure to monitor/report Flaring
 Other:

(f) Unavoidable Emissions:

- Do you intend to assert that these excess emissions were unavoidable? YES NO
 Do you intend to assert the affirmative defense of 18 AAC 50.235? YES NO

Certify Report (go to end of form)

Section 2. Permit Deviations

(a) Permit Deviation Type (check one only) (check boxes correspond with sections in permit)

- Emission Unit Specific
 General Source Test/Monitoring Requirements
 Recordkeeping/Reporting/Compliance Certification
 Standard Conditions Not Included in Permit
 Generally Applicable Requirements
 Reporting/Monitoring for Diesel Engines
 Insignificant Emission Unit
 Stationary Source-Wide
 Other Section: (title of section and section # of your permit)

(b) Emission unit(s) Involved:

Identify the emission unit involved in the event, using the same identification number and name as in the permit. List the corresponding Permit condition and the deviation.

<u>EU ID</u>	<u>Emission Unit Name</u>	<u>Permit Condition /Potential Deviation</u>

(c) Description of Potential Deviation: Describe briefly, what happened and the cause. Include the parameters/operating conditions and the potential deviation.

(d) Corrective Actions: Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence.

Certification:

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: _____ Title _____ Date _____

Signature: _____ Phone number _____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j)*

To Submit this report:

1. Fax this form to: 907-451-2187

Or

2. Email to: airreports@dec.state.ak.us

if faxed or emailed,

Or

3. Mail to: ADEC
Air Permits Program
610 University Avenue
Fairbanks, AK 99709-3643

Or

4. Phone notifications: 907-451-5173.

Phone notifications require written follow up report.

Or

5. Submission of information contained in this report can be made electronically at the following website: *(web site is not yet available)*

if submitted online, report must be submitted by an authorized E-Signer for the Stationary Source.

Signature: _____

Date _____