



**CONESTOGA-ROVERS
& ASSOCIATES**

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May 9, 2007

Mr. Bruce Wanstall
Alaska Department of Environmental Conservation
Contaminated Sites Program
410 Willoughby, Suite 302
Juneau, Alaska 99803

Re: **Sensitive Receptor and Well Survey Report**
Former Delta Western/Chevron Bulk Terminal #8-2307
Block J Airport Lease Properties
Tract A, Juneau International Airport Subdivision
Juneau, Alaska
CRA Project No. 31J-2237

Dear Mr. Wanstall:

Conestoga-Rovers & Associates (CRA) is submitting this *Sensitive Receptor and Well Survey Report* to the Alaska Department of Environmental Conservation (ADEC) on behalf of Chevron Environmental Management Company (Chevron). CRA prepared this report summarizing the March 19, 2007 sensitive receptor and well survey activities at Former Chevron Bulk Terminal #8-2307. The site background, sensitive receptor and well survey details, and conclusions are summarized below.

SITE BACKGROUND

Site Description: The site is a former bulk fuel terminal located on the northern portion of the Juneau International Airport at 9203 Old Cessna Drive in Juneau, Alaska (Figure 1). Chevron operated the facility from approximately 1958 to 1987. The former bulk terminal consisted of two 25,000-gallon aboveground storage tanks (ASTs) and one 25,000-gallon underground storage tank (UST). The two ASTs contained jet fuel and the UST contained aviation gasoline. Other fuel distribution equipment consisted of a pump house and two overhead loading racks. In 1987, Delta Western purchased the facility equipment and resumed operation until November 4, 1998. The ASTs, UST, pump house, loading racks and associated equipment were removed in November 1998. Prior to demolishing the aforementioned facilities, Delta Western constructed a new bulk fuel facility, approximately 100 feet southeast of the former location, consisting of three 30,000-gallon ASTs. Two of the ASTs contain jet fuel while the remaining AST contains aviation gasoline.

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Hydrogeology: The site is located on filled tidal wetlands at the southern terminus of the Mendenhall Valley. The site maritime climate is characterized by frequent storms and abundant precipitation. Mean annual precipitation throughout Juneau and the Mendenhall Valley ranges from approximately 54 to 220 inches of rainfall per year. Groundwater has historically fluctuated between approximately 15.53 to 24.54 feet (ft) below ground surface (bgs) in site monitoring wells. Historical groundwater flow direction has varied to the west, south and southwest with an approximate gradient of 0.002 ft/ft. A site plan is presented as Figure 2.

SENSITIVE RECEPTOR AND WELL SURVEY

Survey Rational

CRA conducted a sensitive receptor and well survey to locate municipal or private water supplies, and surface water bodies within a ½-mile radius of the site. CRA utilized City & Borough of Juneau (CBJ) connection records, Alaska Department of Environmental Conservation Division of Environmental Health-Drinking Water Program, and United States Geological Survey (USGS) well records to conduct the survey. Well survey results are included in Table 1.

Survey Activities

Alaska Department of Environmental Conservation: The ADEC, Division of Environmental Health-Drinking Water Program had no records of any public wells located within a ½-mile radius of the site. The ADEC Division of Water does not maintain records regarding private well locations.

City & Borough of Juneau: CRA contacted the CBJ to obtain any well records with properties having public or private wells within a ½-mile radius of the site. CBJ had no records of public wells located within a ½-mile radius. A list of properties connected to the CBJ municipal water supply was reviewed to determine properties utilizing private wells. A list of properties connected to the CBJ public water supply located within a ½-mile radius of the site is included as Attachment A.

USGS Water Well Records: CRA obtained Federal USGS records from Environmental Data Resources (EDR) for all USGS water wells within a ½-mile radius of the site. Sixty-five USGS wells were identified in the EDR report (Attachment B). The USGS wells provide site data where the USGS collects or has collected surface water and/or groundwater data. The



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groundwater data includes information on wells, springs, and other sources of groundwater. Well data collected is for monitoring purposes and not used as potable water supplies.

Door-to-Door Well Search: CRA personnel visited 75 parcels on March 19, 2007. One private well was identified during the door-to-door search. The private well is located approximately 3/8-mile west of the site at 2114 Radcliffe Road. The private well is used daily as a potable water supply. In the event that residents were not available, well survey questionnaires were left on the premises. A blank questionnaire is included as Attachment C.

Surface Water Bodies: Duck Creek is located less than 400 ft east of the site. The Mendenhall River is located within 1/2-mile to the west of the site and flows from the terminus of the Mendenhall Glacier at the north end of the Mendenhall Valley. The Gastineau Channel is located approximately 1/2-mile to the south of the site (Figure 1).

CONCLUSIONS

Duck Creek is an intermittent stream approximately 400 ft east of the site. Duck creek flows north to south and terminates in the Mendenhall River near Fritz Cove, south of Auke Bay. No petroleum hydrocarbons were detected in soil samples collected at the site west of the creek during an August 2006 site subsurface investigation and, therefore, there is no indication the creek is at risk.

Historical well data and field reconnaissance identified 66 wells within a 1/2-mile radius of the site (Figure 2 and Table 1). Field reconnaissance identified one private well. The private well is a potable water source according to the property owner. The private well is approximately 3/8-mile west of the site. Based on the low expected groundwater velocities and distance from the site, it is highly unlikely that previous site activities have impacted the identified well. The remaining 65 wells were identified as USGS wells and are likely observation wells not used for supplying potable water. CBJ supplies potable water to properties adjacent to the site. The adjacent properties did not have private wells.

RECOMMENDATIONS

CRA recommends annual water sampling of the private well located at 2114 Radcliffe Road, Juneau, Alaska for petroleum hydrocarbon constituents.



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CLOSING

We appreciate the opportunity to work with Chevron and the ADEC on this project. Please call John Riggi at (303) 433-3923 if you have any questions.

Sincerely,

Conestoga-Rovers & Associates, Inc.

Eric Purcell
Staff Geologist

John Riggi, P.G.
Senior Project Geologist
Alaska Qualified Person

Figures: 1 – Vicinity Map
 2 - Site Plan

Table: 1 – Well Survey Results

Attachments: A – CBJ Connection Records
 B – EDR Report
 C – Well Survey Questionnaire

cc: Stacie Hartung-Frerichs, Chevron Environmental Management Company,
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Ms. Bev Niemann, Delta Western
2700 West Commodore Way, Seattle, Washington 98199

Mr. Ben Mello, Juneau International Airport
1873 Shell Simmons Drive, Juneau, Alaska



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