Fox Engineering Solutions, Inc.

June 29, 2012

Todd Hutson
Environmental Manager
Quicksilver Resources Inc.
Burnett Plaza
801 Cherry Street
Suite 3700, Unit 19
Fort Worth, Texas 76102

Re: Xenon Main Pit - COGCC Facility #427372 – Hydrostatic Pit Integrity Test
N ½ Section 12, Township 7 North, Range 93 West, 6th P.M.
Moffat County, Colorado

Dear Todd,

Attached are the results of the 72-hour hydrostatic test conducted June 18 through June 21, 2012 at Quicksilver Resources' Xenon Main Pit associated with COGCC Facility #427372. The hydrotest indicated no observed loss in liner system integrity below the water line at the time of the test. The summary results, attached, include a data and calculation sheet, survey plat with water surface area and elevation data, and an outline of the procedures employed.

At the time of the test, the pit contained approximately 3 vertical feet of water. A weather station, consisting of a National Weather Service Class A evaporation pan and a precipitation gauge, was installed at the site. Survey data including vertical and horizontal control points along with pit water elevations and surface areas, were established and collected by Bookcliff Surveying Services, Inc. The pit was monitored for 72 hours.

The fluid level of the pit dropped 0.972 inches over the 72-hour test duration. Correspondingly, evaporation and precipitation measurements provide a calculated or expected fluid level decrease of 1.028 inches. No precipitation fell during the test period. Measure pan evaporation, adjusted with a pan coefficient, exceeded the pit fluid level drop by 0.056 inches.

The lining system consists of a single layer 24 mil reinforced polypropylene liner. Visible portions of liner, approximately the top 33 - 35 ft., had a number of tears and holes that appeared to have been caused by wildlife. There were no visible signs of liner delamination or seam failures. Liner repairs are recommended.

Should you have any questions or require additional information, please let me know.

Best regards,

David Fox

David Fox, P.E.
Fox Engineering Solutions, Inc.
670 Canyon Creek Drive
Grand Junction, CO 81503
Ph: (970) 250-5505 Fax (626) 784-0667
Email: coloradofox@bresnan.net

Hydrostatic Pit Testing
Data Collection & Computation Form

Fox Engineering Solutions, Inc.

Pit Owner:	Quicksilver Resources, Inc.
Pit Name:	Xenon Main Pit
COGCC Facility No.	427372
Pit Location:	N 1/2 Section 12, T7N, R93W, 6th P.M.
	Latitude: N 40.344136° Longitude: W 107.778147° (NAD83)
Reported Liner:	24 mil Reinforced Polyethylene
Approximate Elevation:	6485 ft. msl
Test Conducted By:	David Fox P.E., Fox Engineering Solutions, Inc.

Test Initiation:		**Test Termination:**	
Date:	6/18/2012	Date:	6/21/2012
Time:	2:30 PM	Time:	2:30 PM
Total Duration:	72 hours		

	Length	Width	Area		Comments
Tributary Pit Liner Surface Area (ft^2):	-	-	236,178	$ft.^2$	**Surveyed by Bookcliff Survey**
Initial Pit Water Surface Area:	-	-	166,509	$ft.^2$	**Surveyed by Bookcliff Survey**
Final Pit Water Surface Area:	-	-	166,509	$ft.^2$	**Surveyed by Bookcliff Survey**
Average Pit Surface Area:			166,509	$ft.^2$	

Initial Pit Fluid Level:			**985.235 ft.**
Final Pit Fluid Level:			**985.154 ft**
Difference			**0.081 ft or**
Est. Fluid Depth:	**3** ft.		**0.972 inches**
Evaporation Pan Installed: Yes	**Location:** West side of pit	**Measured Pan Evaporation:** (During Test Duration)	**1.428 inches**
		Evaporation w/ Pan Coeff. 0.72 (During Test Duration)	**1.028 inches**
Rain Gauge Installed: Yes	**Location:** West side of pit	**Recorded Precipitation:**	**0.00 inches**
		Equiv. 72-Hour Precip. Inflow:	**0.00 inches**
Other Inflow/Outflow:	**Inflow (gal)** **0**	**Equivalent Inflow:**	**0.00 inches**
	Outflow (gal) **0**	**Equivalent Outflow:**	**0.00 inches**

Calculated Fluid Level Change in Inches: (+ indicates fluid level increased)
(Precipitation - 72% Pan Evaporation + Inflows - Outflows) **-1.028 inches**

Measure Change in Inches: (+ indicates fluid level increased) **-0.972 inches**

Difference between Calculated and Measured Pit Fluid Level: **(With 72% Pan Evaporation)** **0.056 inches**

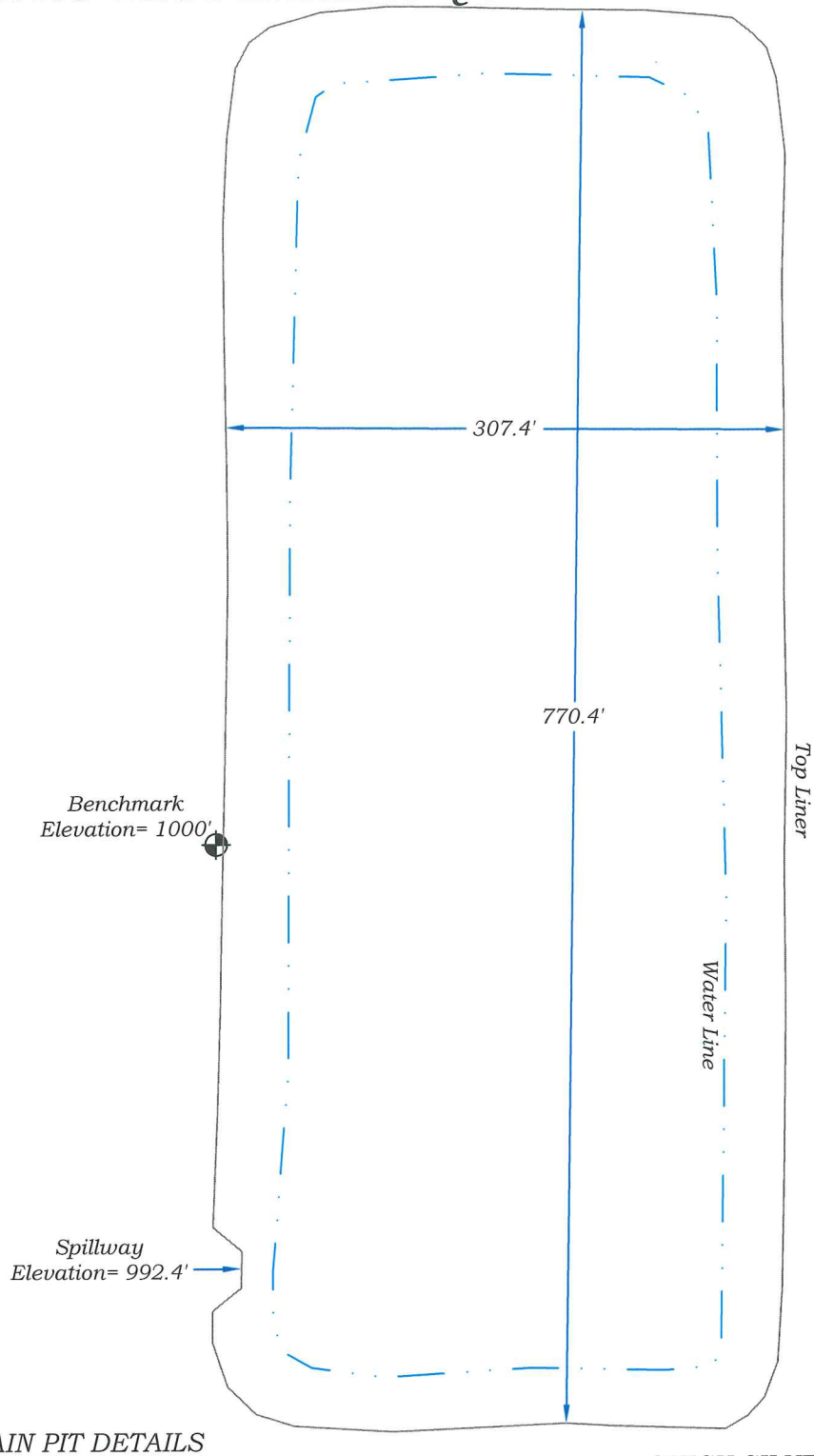
Summary: No observed loss in liner integrity below water level. Fluid level drop correlated with evaporation & precipitation measurements.

Weather: Mostly sunny. Temperatures 70° - 90°.

Liner and Pit Condition: Water fluid level at approximate 3.0 ft depth.
Visible portion of liner, approximately the top 33-35 ft., had wildlife damage.

Comments: Bookcliff Survey utilized a Trimble Total Station for required area and elevation measurements.
Quicksilver Resources, Inc. staff indicated that no fluids were transferred from or to the pit during the duration of the test.
Evaporation pan placed within the fenced area of the pit site.

HYDRO-TEST EXHIBIT QUICK SILVER MAIN PIT



SCALE: 1"= 100'

QUICK SILVER MAIN PIT DETAILS

TEST @ 2:30 P.M.

TOP WATER ELEV. (JUNE 18, 2012)= 985.235'
TOP WATER ELEV. (JUNE 21, 2012)= 985.154'

TOP OF TRIBUTARY AREA SURFACE AREA = 236,178 sq. ft.
TOP WATER SURFACE AREA = 166,509 sq. ft.
TRIBUTARY AREA = 69,669 sq. ft.

QUICK SILVER MAIN PIT LOCATION

N1/2 SECTION 12,
TOWNSHIP 7 NORTH,
RANGE 93 WEST OF THE SIXTH P.M.

COSP NAD83 NORTH ZONE
LATITUDE: 40.344136°
LONGITUDE: -107.778147°

136 East Third Street
Rifle, Colorado 81650
Ph. (970) 625-1330
Fax (970) 625-2773
BOOKCLIFF Survey Services, Inc.

Fox Engineering Solutions
670 Canyon Creek Dr.
Grand Junction, CO 81503

QUICK SILVER
MAIN PIT

DATE: 6/21/12
SHEET: 1 OF 1
PROJECT: HYDROTEST
DFT: SRB

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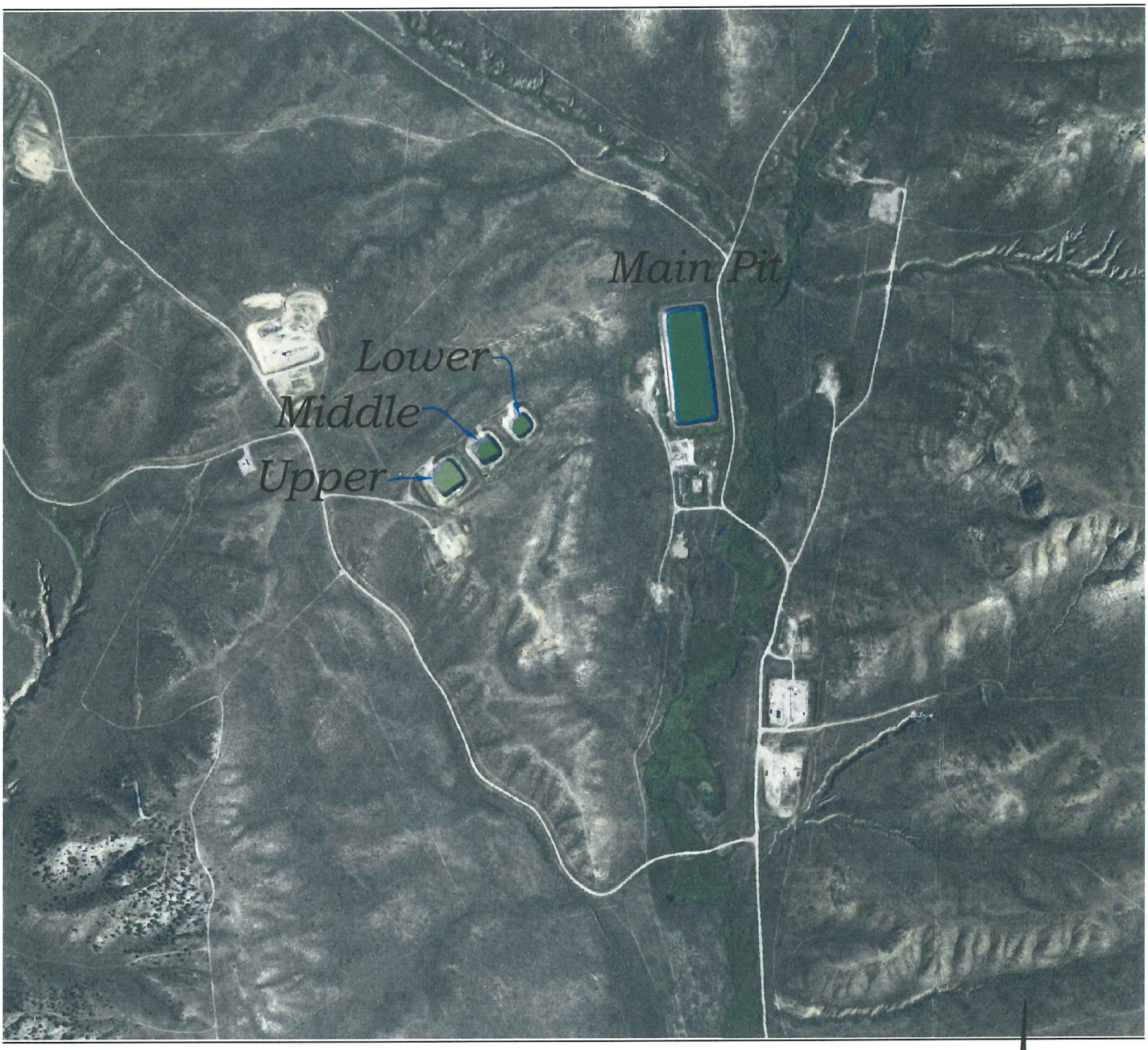
VICINITY MAP
QUICK SILVER PITS



LOCATION

N1/2 SECTION 12,
TOWNSHIP 7 NORTH,
RANGE 93 WEST OF THE SIXTH P.M.

COUNTY OF MOFFAT
STATE OF COLORADO

NORTH

SCALE: 1"= 1000'

136 East Third Street
Rifle, Colorado 81650
Ph. (970) 625-1330
Fax (970) 625-2773
BOOKCLIFF Survey Services, Inc.

Fox Engineering Solutions
670 Canyon Creek Dr.
Grand Junction, CO 81503

QUICK SILVER PITS

DATE: 6/21/12
SHEET: 1 OF 1
PROJECT: HYDROTEST
DFT: SRB

Hydrostatic Testing Procedures for COGCC Earthen Pits

Vers. 6.0 12-15-11 ©

Fox Engineering Solutions, Inc

The purpose for hydrostatic testing earthen pits is to comply with COGCC approval conditions for verifying the fluid holding integrity of the pit lining system. These procedures are specific to existing or active earthen pits holding oil and gas related fluids including, but not limited to, produced water. During testing, the pit shall have fluid level as high as practical, without encroaching into the 2 ft. freeboard, and the test shall be conducted for a minimum of 72 hours, if practical. Visible portions of the liner, including the anchor trench and seams, shall be inspected for defects. The test shall be scheduled and coordinated with personnel to ensure that oil and gas activities do not interfere with the test. Testing procedures may be subject to changes as dictated by field and climatic factors. All personnel involved with testing, while onsite, shall comply with their respective EH&S requirements.

- If practical, a sign shall be placed in a conspicuous location during the test stating “Hydrostatic testing in Progress, Pit Closed to All Water Hauling Activities”. Contact information shall also be placed on the sign.

- A semi-permanent datum elevation point shall be established at the pit location. The surface area of the water surface and the surface area of the liner area, tributary to the pit shall be measured. The date and time of each measurement shall be documented.

- The pit fluid level; fluid surface area; and the lined surface area, tributary to the pit, shall be measured and recorded at the beginning of the test. The pit fluid level shall be measured again at the end of the test. A survey grade total station shall be utilized for accuracy to capture this information. The date and time of measurements shall be documented.

- A 4” diameter official rain gauge with funnel inlet shall be installed at the pit site. Precipitation shall be recorded for the duration of the hydrostatic test.

- During ice-free periods, pan evaporation shall be measured during the duration of the test following the procedures established by the National Weather Service – NOAA in the document entitled “National Weather Service - Observing Handbook No. 2, dated July 1989. A Class A evaporation pan shall be placed at the site, or as near as practical, with evaporation measured per established procedures. During ice-over periods at the pit, evaporation is assumed negligible and evaporation measurements will not be taken.

- For the duration of the test, all inflows and outflows, such as truck and piped transfers, shall cease. If the cessation of inflows and outflows is not practical, all pit inflows and outflows shall be accurately metered and documented during the test. 24-hour surveillance monitoring may be warranted.

- If no precipitation has occurred during the test, compare the change in the pit fluid level with the recorded pan evaporation. During ice-over periods, compare the pit levels taken at the start and end of the tests.

- If precipitation has occurred during the test, precipitation falling onto tributary portions of the liner, outside of the fluid surface area, may be added as an inflow to the pit and converted into inches of depth over the fluid surface area. During ice-over and snow conditions, precipitation inflow from tributary portions of the liner may be estimated from snow depth and corresponding water equivalent comparisons at the start and termination of the test. Other factors may also be utilized.

- The calculated change in pit level during the test is: $\Delta L = P + I - O - E$ (all measurements converted to inches)

  Where: ΔL = Change in pit fluid level; P = Precipitation Inflow; E = Evaporation; I = Measured Inflows; O = Measured Outflows

- The measured change in the pit fluid level shall be compared to the calculated change, utilizing precipitation and evaporation data, in the pit fluid level during the test duration. The test procedures and results will be reviewed and analyzed for discrepancies. If the test results indicate integrity issues with the lining system, the test will be repeated.

Fox Engineering Solutions, Inc.
670 Canyon Creek Drive
Grand Junction, CO 81507-9594

Cell (970) 250-5505
Email: coloradofox@bresnan.net