

State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)694-2100 Fax: (303)694-2109



## SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

1. OGCC Operator Number: 77330	4. Contact Name: Catherine Dickert	Complete the Attachment Checklist OP OGCC
2. Name of Operator: SG Interests I Ltd	Phone: 970-385-0696	
3. Address: 1485 Florida Road, Suite C202	Fax: 970-385-0636	
City: Durango State: CO Zip: 81301		
5. API Number 05-	OGCC Facility ID Number 418790 / 421066	Survey Plat
6. Well/Facility Name: McIntyre Flowback Pit	7. Well/Facility Number #4	Directional Survey
8. Location (Qtr/Sec, Twp, Rng, Meridian): NWNE Section 26 T11S R90W 6th PM		Surface Eqmpt Diagram
9. County: Gunnison	10. Field Name:	Technical Info Page
11. Federal, Indian or State Lease Number:		Other

## General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> FNU/FSL <input type="checkbox"/> FEL/FWL
Change of Surface Footage to Exterior Section Lines:	
Change of Bottomhole Footage from Exterior Section Lines:	
Change of Bottomhole Footage to Exterior Section Lines:	attach directional survey
Bottomhole location Qtr/Sec, Twp, Rng, Mer	
Latitude	Distance to nearest property line
Longitude	Distance to nearest lease line
Ground Elevation	Distance to nearest well same formation
	Surface owner consultation date:
GPS DATA:	
Date of Measurement	PDOP Reading
	Instrument Operator's Name
<input type="checkbox"/> CHANGE SPACING UNIT	<input type="checkbox"/> Remove from surface bond
Formation Formation Code Spacing order number Unit Acreage Unit configuration	Signed surface use agreement attached
<input type="checkbox"/> CHANGE OF OPERATOR (prior to drilling):	<input type="checkbox"/> CHANGE WELL NAME
Effective Date:	From: NUMBER
Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	To:
	Effective Date:
<input type="checkbox"/> ABANDONED LOCATION:	<input type="checkbox"/> NOTICE OF CONTINUED SHUT IN STATUS
Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date well shut in or temporarily abandoned:
Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No	Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No
Date Ready for Inspection:	MIT required if shut in longer than two years. Date of last MIT
<input type="checkbox"/> SPUD DATE:	<input type="checkbox"/> REQUEST FOR CONFIDENTIAL STATUS (5 mos from date casing set)
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK	*submit cbl and cement job summaries
Method used Cementing tool setting/perf depth Cement volume Cement top Cement bottom Date	
<input type="checkbox"/> RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.	
Final reclamation will commence on approximately	<input type="checkbox"/> Final reclamation is completed and site is ready for inspection.

## Technical Engineering/Environmental Notice

<input type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Report of Work Done	
Approximate Start Date:	Date Work Completed: 05/18/2012	
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)		
<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input type="checkbox"/> Status Update/Change of Remediation Plans
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: hydrostatic test	for Spills and Releases

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Catherine Dickert Date: 05/30/2012 Email: cdickert@sginterests.com  
Print Name: Catherine Dickert Title: Environmental and Permitting Manager

OGCC Approved: [Signature] Title: Env. Sup. Date: 5/30/12  
CONDITIONS OF APPROVAL, IF ANY:

N/A

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: 77330 API Number: \_\_\_\_\_
2. Name of Operator: SG Interests I Ltd OGCC Facility ID # 418790
3. Well/Facility Name: McIntyre Flowback Pit Well/Facility Number: #4
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): NWNE Section 26 T11S R90W 6th PM

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

Please see attached hydrostatic test report. This report also addresses the ALR as required in our Form 15 COAs.

**Fox Engineering Solutions, Inc.**

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May 25, 2012

Catherine Dickert  
Environmental & Permitting Manager  
SG Interests, I Ltd.  
1065 Main Ave., Suite 209  
Durango, CO 81301

Re: McIntyre Pit No. 4. COGCC Facility #418490 – Hydrottest  
NW ¼ NE ¼ Section 26, Township 11 South, Range 90 West, 6th P.M.  
Gunnison County, Colorado

Dear Catherine,

Attached are the results of the 72-hour hydrottest conducted May 15 through May 18, 2012 at SG Interests' McIntyre Pit No. 4. The hydrottest indicated no observed loss in liner system integrity. 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.

As per COGCC requirements, the pit was filled with fresh water to a depth of approximately 8.4 feet and the pit monitored for 72 hours. A weather station, consisting of a National Weather Service Class A evaporation pan and two precipitation gauges, 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 lining system consists of a primary 60 mil polypropylene liner and a secondary 40 mil polypropylene liner underlain with a tertiary geo-synthetic clay liner. An interstitial monitoring sump is located on the northwest side of the pit. Visible portions of liner, approximately the top 7 - 8 ft., had no visible tears, delamination or seam failures. The liner installation had recently been completed and appeared to be in excellent condition

The fluid level of the pit dropped 0.36 inches over the 72-hour test duration. Correspondingly, evaporation and precipitation measurements provide a calculated or expected fluid level drop in the range from 0.42 to 0.58 inches. This range represents the difference between pan evaporation and the application of a pan coefficient.

The hydrottest results indicated no observed loss in liner system integrity; therefore, it is our opinion that corrections or adjustments to the Action Leakage Rate (ALR) are not warranted at this time. The ALR may be evaluated in the near future with data and information obtained from the implementation of SG Interests' leak detection monitoring program.

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

Best regards,

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](mailto:coloradofox@bresnan.net)



# Hydrostatic Pit Testing

## Data Collection & Computation Form

Fox Engineering Solutions, Inc.



**Pit Owner:** SG Interests I, Ltd.  
**Pit Name:** McIntyre Pit No. 4  
**COGCC Facility No.** 418790  
**Pit Location:** NW 1/4 NE 1/4 Section 26, T11, R90W, 6th P.M.  
 Latitude: N 39.077051° Longitude: W107.413260° (NAD83)  
**Reported Liner:** 60/40 mil Polyethylene with GCL  
**Approximate Elevation:** 7397 ft. msl  
**Test Conducted By:** David Fox P.E., Fox Engineering Solutions, Inc.

<b>Test Initiation:</b>		<b>Test Termination:</b>	
Date:	5/15/2012	Date:	5/18/2012
Time:	10:00 AM	Time:	10:00 AM
Total Duration:	72 hours		

	<u>Length</u>	<u>Width</u>	<u>Area</u>	<u>Comments</u>
Tributary Pit Liner Surface Area (ft <sup>2</sup> ):	-	-	91,478 ft. <sup>2</sup>	Surveyed by Bookcliff Survey
Initial Pit Water Surface Area:	-	-	73,069 ft. <sup>2</sup>	Surveyed by Bookcliff Survey
Final Pit Water Surface Area:	-	-	<u>73,069</u> ft. <sup>2</sup>	Surveyed by Bookcliff Survey
Average Pit Surface Area:			73,069 ft. <sup>2</sup>	

Initial Pit Fluid Level:	7392.749 ft.
Final Pit Fluid Level:	<u>7392.719</u> ft.
Difference	0.03 ft or
Est. Fluid Depth:	8.4 ft.
	0.36 inches
(from staff in pit)	

Evaporation Pan Installed: Yes	Location: West side of pit	Measured Pan Evaporation:	0.58 inches
		(During Test Duration)	
		Evaporation w/ Pan Coeff. 0.72	0.42 inches
		(During Test Duration)	
Rain Gauge Installed: Yes - 2 Gauges	Location: West side of pit	Recorded Precipitation:	0.01 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 - Pan Evaporation + Inflows - Outflows)	-0.58 inches
	(Precipitation - 72% Pan Evaporation + Inflows - Outflows)	-0.42 inches

Measure Change in Inches:	(+ indicates fluid level increased)	-0.36 inches
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Difference between Calculated and Measured Pit Fluid Level:	(With Pan Evaporation)	0.22 inches
	(With 72% Pan Evaporation)	0.06 inches

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

**Weather:** Mostly sunny with intermittent clouds. Temperatures 40° - 65°.

**Liner and Pit Condition:** Fresh water fluid level at approximate 8.4 ft depth. Liner is new and had just been installed.

Visible portion of liner, approximately the top 7 - 8 ft., had no visible tears, delamination or seam failures.

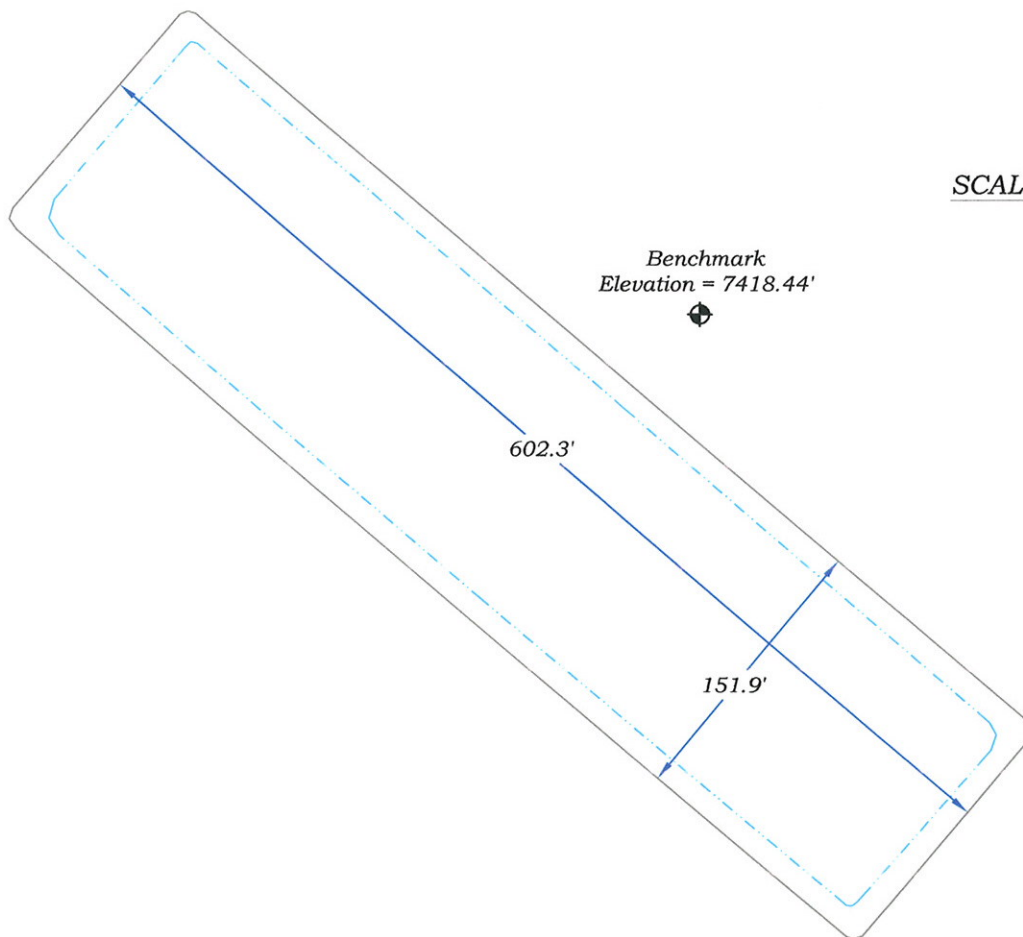
**Comments:** Bookcliff Survey utilized a Trimble Total Station for required area and elevation measurements.

SG Interests staff indicated that no fluids were transferred from or to the pit during the duration of the test.

Evaporation pan placed within the fenced and netted area of the pit site.

# HYDROTEST EXHIBIT

## MCINTYRE PIT NO. 4



SCALE: 1"= 100'

### MCINTYRE PIT NO. 4 DETAILS

TEST @ 10:00A.M.

TOP WATER ELEV. (MAY 15, 2012)= 7392.749'

TOP WATER ELEV. (MAY 18, 2012)= 7392.719'

TOP OF LINER SURFACE AREA= 91,478 sq. ft.

TOP WATER SURFACE AREA= 73,069 sq. ft.

TRIBUTARY AREA= 18,409 sq. ft.

### MCINTYRE PIT NO. 4 LOCATION

NW 1/4 NE 1/4 SECTION 26,  
TOWNSHIP 11 SOUTH,  
RANGE 90 WEST OF THE SIXTH P.M.

NAD83

LATITUDE: 39.076344° N  
LONGITUDE: 107.413630° W

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

SG INTEREST I, LTD.  
MCINTYRE PIT NO. 4

DATE: 5/18/12  
SHEET: 1 OF 1  
PROJECT: HYDROTEST  
DFT: SRB



# Hydrostatic Testing Procedures for COGCC Earthen Pits

Vers. 6.0 12-15-11 ©



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:  $\Delta L$  = 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.