



**SGS MUSCOWPETUNG**

**ABORIGINAL CONSTRUCTION MONITORING**

**WEEKLY REPORT**

**SPREAD # 3**

**NOVEMBER 20TH TO NOVEMBER 26TH, 2017**

### Social and Cultural Features

Field Observation	# of occurrences	Description and Mitigation Measures	Mitigation Status	Further Action Required (Yes/No)
Traditional Use Area (hunting, fishing, gathering, trapping)	0			
Rock Formations (rocks of significance, tipi rings, etc.)	0			
Artifacts	0			
Bones	0			
Potential Gravesites	0			

### Environmental Features

Field Observation	# of occurrences	Description and Mitigation Measures	Mitigation Status	Further Action Required (Yes/No)
Medicinal or Cultural Plants	0			
Aquatic Life	0			
Animal Observations or Burrows	0			
Bird Nests	0			
Trees (Red Willow)	0			
Wetlands	0			
Watercourse Crossing	1	South Saskatchewan River Crossing. Horizontal directional drilling and testing the water turbidity.	South Saskatchewan Crossing ongoing.	Ongoing

## Additional Observations and Summary of Activities or Concerns

The horizontal directional drilling at the South Saskatchewan River is still ongoing. They have reached 891 metres with the 36-inch reamer early in the week. They had to trip back all week to clean out the bore hole. Now they have tripped back in and drilling two days ago and were at 1000 metres with the 36-inch reamer. They have reached the east bank of the river and have started doing frack walks. There are no concerns currently. They should be reaching the exit point within the next few days and they will be closely monitoring for any fracks.

Currently the testing of the water turbidity by Golder Associates is ongoing and has remained consistent throughout the week. It is closely being monitored as they are underneath the river now. Testing of the turbidity is performed every two hours throughout the day and there is constant communication between the Golder Associates and the drilling team.

At present, there are quite a few tie ins that need to be done. This week my co-workers and I have observed tie ins and the process of the backfill of the tie ins. There has been bores that have been done this week underneath road crossings. There are no concerns currently.

Hydro testing of the mainline is still ongoing. They have filled the mainline with water and tested the first phase of the line. The second phase of the testing of the mainline has been completed and the third phase is near completion. When that is done they will be pushing the water back to where they first tested and drain the water onto a field.

## Photos of Sites Visited & Topics Discussed This Week

### East Elevation

☼ 276°W (T)    ● 51°20'43"N, 106°56'50"W ±16.4ft    ▲ 1805ft



23 Nov 2017, 13:33

CREW WORKING ON HOARDING THE PIPE





BACKFILLING AND PACKING SOIL ON HOTLINES



## East Elevation

☉ 284°W (T)    ● 51°20'56"N, 106°58'8"W ±16.4ft    ▲ 1718ft



25 Nov 2017, 12:09

VISUAL OBSERVATION DURING FRACK WALK



## East Elevation

☼ 288°W (T)   ● 51°21'4"N, 106°59'3"W ±16.4ft   ▲ 1644ft



GOLDER ASSOCIATES GOING OUT ON WATER TO OBTAIN WATER SAMPLES

## North West Elevation

☉ 146°SE (T)   ● 51°2'17"N, 106°11'43"W ±16.4ft   ▲ 1916ft



CORRISION TESTING ON PIPE THAT WAS PULLED FROM UNDERNEATH A ROAD



## South Elevation

☉ 348°N (T)   ● 51°4'53"N, 106°17'45"W ±16.4ft   ▲ 1886ft



24 Nov 2017, 11:28

SAND BLASTING A TIE IN



## West Elevation

☉ 90°E (T)   ● 51°20'55"N, 106°58'2"W ±16.4ft   ▲ 1742ft



EXIT POINT OF HORIZONTAL DIRECTIONAL DRILLING





HOE PACKING OF BACKIFF SOIL



## South East Elevation

☉ 318°NW (T)    ● 51°5'15"N, 106°18'36"W ±16.4ft    ▲ 1890ft



CREW WORKING ON A TIE IN



## South East Elevation

☉ 328°NW (T)    ● 51°5'45"N, 106°19'49"W ±164.1ft    ▲ 1704ft



24 Nov 2017, 10:53

HEATIN GUP BEFORE A TIE IN

## Approvals

### Prepared by



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November 25, 2017

### Reviewed by



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Project Manager

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November 27, 2017

### Approved by



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November 27, 2017