

CORRIB GAS DEVELOPMENT

Report for PMC Meeting dated 15th October 2008.

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Project Manager for Mayo County Council.**

Water Quality – Carrowmore Lake

- Mayo County Council's Project Team has continued to monitor the surface waters in and around the Bellanaboy site. Summaries of the most recent verified results are attached, which are available on Mayo County Council Website www.mayococo.ie.
- The results show that in the last monitoring period the discharge of surface water from the Terminal Site has had no significant impact on the water quality of the Bellanaboy River and Carrowmore Lake.
- The results also show that the discharge of surface water from the Terminal Site has had no adverse impact on the quality of drinking water produced at the Erris Regional Water Supply Scheme at Barnatra.

Environmental Issues at the Bellanaboy Site

- Construction work at the terminal site is ongoing.
- Surface water runoff from the terminal footprint, the carrier drain road and other roads outside the terminal footprint, is treated by the axonics unit prior to discharge to the site drainage system.

Community Fund

- **Attavally** – (Budget €60,000). Project complete.
- **Bellanaboy Community Group Scheme** – (Budget €145,000) Project complete.
- **The Glencullen River Scheme** – (Budget €100,000) 70% Complete. Work is continuing on this project.

- **The Bangor Angling Scheme** – (Budget €185,000). A planning application has been received for a floating pontoon, access channel and 20 car parking spaces at Carrowmore Lake for 24 lake boats. When planning permission is secured, it is intended to commence this project.
- **Bellanaboy Village Scheme** – It is proposed to provide new footpaths and public lighting from Terminal gate to Bellanaboy Bridge on R314, length 1.32 Km. The estimate to carry out these works is €400,000, and this has been sent as an application for funding.

Transportation/Roads

- Deliveries of heavy/long loads are continuing.

CARROWMORE LAKE
Results from 28/08/2008 to 23/09/2008 (5 Samples taken)
Analysis by Bord na Mona Laboratory Newbridge, Co. Kildare

Parameter	Units	Average	Max	Min
Suspended Solids	mg/l	9	28	5
Turbidity	N.T.U	5	11	2
pH	pH units	7.3	7.5	7.2
Conductivity	uS/cm	157	170	138
Phosphate	mg/l P	<0.01	<0.01	<0.01
Total Phosphorous	mg/l P	<0.05	0.07	<0.05
Ammonia	mg/l NH ₃ -N	<0.02	<0.02	<0.02
Nitrate	mg/l NO ₃ -N	<0.2	<0.2	<0.2
Nitrite	mg/l NO ₂ -N	<0.02	<0.02	<0.02
Total Aluminium	ug/l Al	66	136	24

ERRIS REGIONAL WATERWORKS (Final Treated Water)
Results from 11/09/2008 to 3/10/2008 (23 Samples)
Analysis carried out at Erris Regional Waterworks

Parameter	Units	Average	Max	Min	Drinking Water Limits
Colour	mg/l	2.65	8	0	<10 Haz
Turbidity	N.T.U	0.15	0.35	0.06	<2.0 NTU
Ph	pH units	7.01	7.43	6.5	6.5 - 8.5
Free Chlo/Res	mg/l	0.84	1.03	0.57	>0.3
Total Chlo/Res	mg/l	1.00	1.22	0.69	>0.3
Flourine	ppm	0.72	0.81	0.65	0.6-0.8
Total Aluminium	ug/l	22	88	10	200

BELLANABOY RIVER
 (Upstream and Downstream of discharge from Terminal site)
 Results from 28/08/08 to 23/09/08(5 Samples taken)
 Analysis by Bord na Mona Laboratory Newbridge, Co. Kildare

Parameter	Units	BEL 1 (upstream)			BEL 2 (downstream)		
		Average	Max	Min	Average	Max	Min
Temp.	°C	12.3	12.8	11.7	13.2	13.4	11.4
Dissolved Oxygen	% Sat.	86	91	82	87	91	83
Suspended Solids	mg/l	10	23	5	7	14	5
Turbidity	N.T.U	3	5	2	3	4	3
pH	pH units	7	7.1	6.9	6.7	7.1	6.4
Conductivity Total	uS/cm	142	193	110	151	223	118
Dissolved Solids	mg/l	126	136	112	132	156	114
Phosphate Total	mg/l P	0.03	0.05	0.03	0.04	0.09	0.02
Phosphorus	mg/l P	0.06	0.08	0.05	0.07	0.12	0.05
Ammonia	mg/l NH ₃ -N	0.02	0.03	0.02	0.02	0.04	0.02
Nitrate	mg/l NO ₃ -N	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrite	mg/l NO ₂ -N	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Aluminium	ug/l Al	133	168	85	114	150	85

SP1 (Discharge point from terminal site)
 Results from to 28 /08/08 to 23/09/08 (5 Samples)
 Analysis by Bord na Mona Laboratory Newbridge, Co. Kildare

Parameter	Units	SP 1		
		Average	Max	Min
Suspended Solids	mg/l	7	15	5
Turbidity	N.T.U	3	4	3
pH	pH units	7.6	8	7.5
Conductivity Total	uS/cm	297	341	261
Dissolved Solids	mg/l	206	216	200
Phosphate Total	mg/l P	<0.01	<0.01	<0.01
Phosphorus	mg/l P	<0.05	0.06	<0.05
Ammonia	mg/l NH ₃ -N	<0.02	<0.02	<0.02
Nitrate	mg/l NO ₃ -N	<0.2	<0.2	<0.2
Nitrite	mg/l NO ₂ -N	<0.02	<0.02	<0.02
Total Aluminium	ug/l Al	105	158	30

Axonics Water Treatment Units (Post-treatment Results)
 Results from 28/08/08 to 23/09/08 (5 samples)
 Analysis by Bord na Mona Laboratory Newbridge, Co. Kildare

Parameter	Units	Post-Treatment (5 Samples)		
		Average	Max	Min
Suspended Solids	mg/l	14	33	5
Turbidity	N.T.U	7	20	1
pH	pH units	6.8	7	6.6
Conductivity Total	uS/cm	392	416	371
Dissolved Solids	mg/l	227	268	182
Phosphate Total	mg/l P	<0.01	<0.01	<0.01
Phosphorus	mg/l P	<0.05	0.08	<0.05
Ammonia	mg/l NH ₃ -N	0.09	0.16	0.06
Nitrate	mg/l NO ₃ -N	0.39	0.47	0.27
Nitrite	mg/l NO ₂ -N	<0.02	<0.02	<0.02
*Total Aluminium	ug/l Al	765	1531	297

Bellanaboy Bridge Site

Report to the Project Monitoring Committee

15th October 2008

Works Completed

- Installation of tanks completed

Works Undertaken

The following construction operations are ongoing:

- Operation of Axonics plant
- Environmental and geotechnical monitoring
- Civil's and foundations works
- Erection of structural steel
- Scaffolding erection
- Piping installation on pipe racks, on sleeperways and below ground.
- Building works.
- Electrical works including cable rack installation and cable installation.
- Process equipment deliveries & installation.
- Tankage grit blasting and painting.

Outlook from November 2008 Onwards

- Continuation of environmental monitoring and Axonics operation.
- Continuation of civil and foundation works.
- Continuation of structural steel erection.
- Mobilisation of additional mechanical, electrical and building works contractors to site
- Continuation of electrical works
- Continuation of scaffolding erection
- Continuation of piping installation
- Continue building works
- Testing of drainage system and pipework.
- Continuation of installation of process equipment.
- Continuation of tankage grit blasting and painting.

ENVIRONMENTAL REPORT

Dust

Dust results of 135, 92, 102 and 83 mg/m²/day were recorded at D1, D2, D3 and D4 respectively. All values were within the limit of 350 mg/m²/day.

Noise – All construction related noise levels recorded were below the agreed noise limits and any unusual values were attributed to activities immediately adjacent to the monitoring location.

Vibration monitoring – All vibration monitoring results were within guidance values.

Traffic – There were approximately 143 construction HGV movements during September.

Fuel – Approximately 170.96 m³ of fuel was delivered to site in September.

Waste – 4 skips of refuse (Canteen waste, etc.), 2 skips of cardboard/plastics, and 1 skip of metal waste were removed off site during September. The effluent holding tanks were emptied of approximately 659.2 m³ during September. Approximately 0.18m³ were removed from the on site portaloos in the same period.

Water Quality – All monitoring and sampling locations were accessible for download, recalibration and reinstallation during the month of September.

A summary of the main surface water parameters measured for grab sampling during September (available range of lowest to highest) at SP1 is presented below:

pH (pH Units)

6.8 to 7.6

Suspended Solids (mg/l)

2 to 12

Orthophosphate (ug/l P)

10 to 28

Nitrate (mg/l NO₃)

0.030 to 0.039

Conductivity (uS/cm)

270 to 331

Turbidity (NTU)

1.4 to 6.3

Groundwater samples were taken and borehole monitoring equipment was downloaded for the month of September. A summary of the main groundwater parameters measured (range of lowest to highest) follows:

pH (pH Units)

5.7 to 6.5

Conductivity (uS/cm)

184 to 521

Nitrate (mg/l NO₃)

<0.44

Total Dissolved Solids (mg/l)

86- 242

Complaints – There were no construction activity related complaints logged with SEPIL during the month of September.

Incidents – There were no environmental incidents during the month of September.

Exceedances – There were no exceedances during the month of September.

Necessary Environmental Works

- Continue operation of on-site surface water treatment plant.
- Removal of all waste and effluent from site on an as needs basis.
- Inspect, repair (when required) and recalibrate all in situ monitoring equipment.
- Monitor/sample and download water (surface and ground) quality monitoring devices.

Environmental Improvements

- Further training undertaken with site personnel on chemical handling and site environmental controls developed for grit blasting and painting operations.

Water Quality Monitoring Graphs

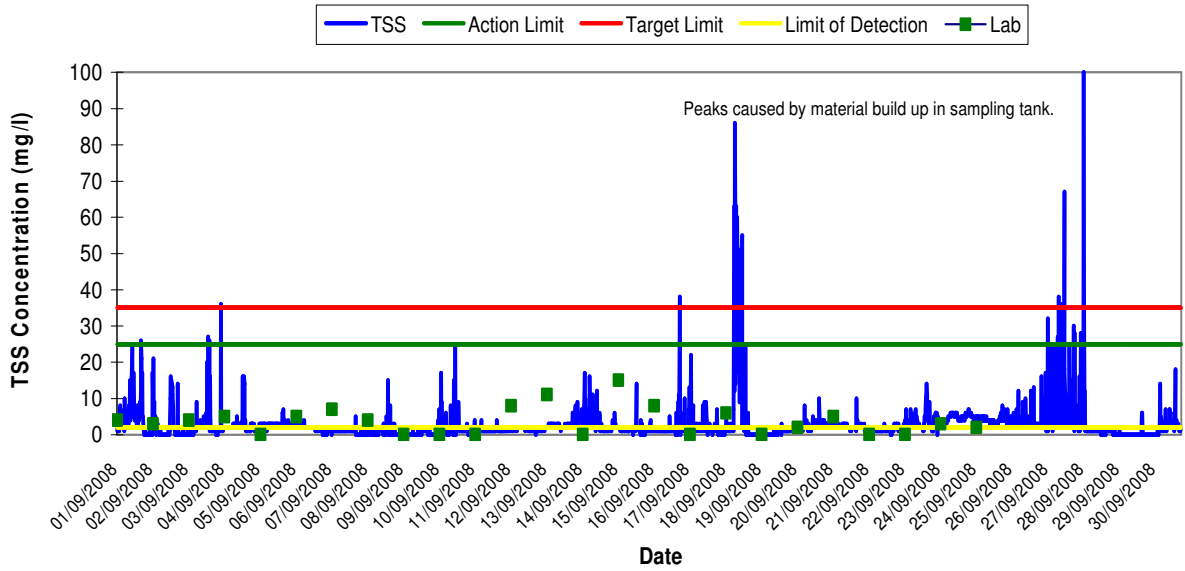
Graphs are attached for monthly continuous monitoring data at SP1 during September for total suspended solids, turbidity, and orthophosphate. Please see commentary below for each graph.

Total Suspended Solids: The graph shows two spikes on the 19th and on the 27th/28th. On investigation the spikes were found to be attributable to fouling of the probe in the sampling tank. This has been verified by back up composite sampling results.

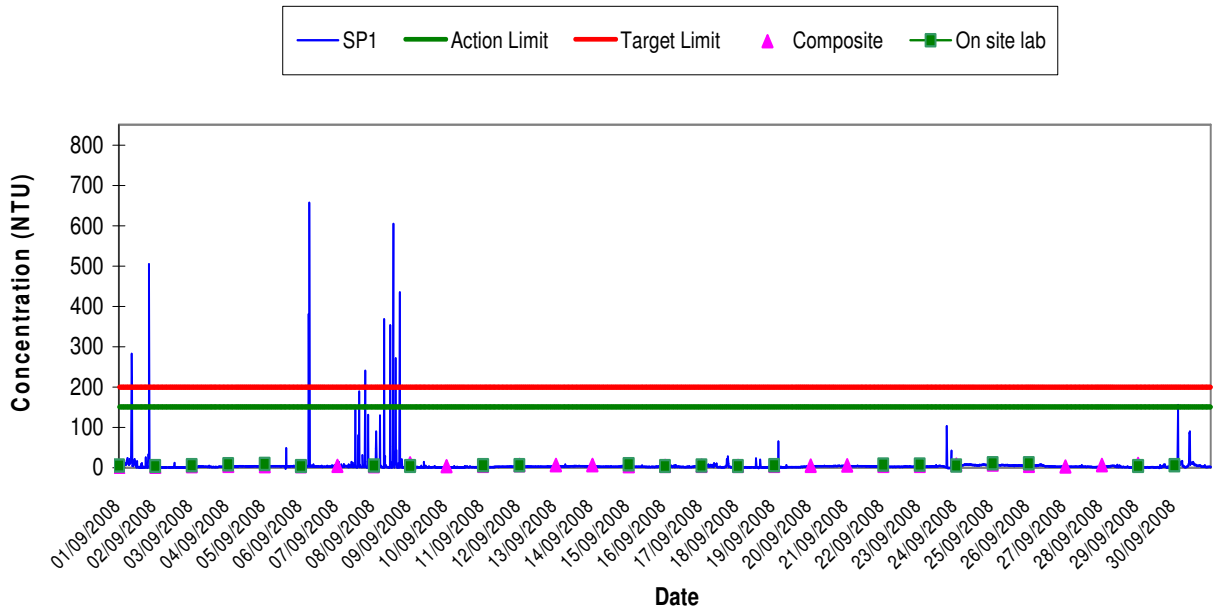
Turbidity: The graph showed a series of temporary short term spikes from the 1st to the 9th of the month. On site testing shows negligible values on these days indicating that the spikes are due to fluctuations in flow rates.

Orthophosphate: The graphs shows a spike on the 3rd and 4th of the month which was, on investigation, found to be a false reading due to a technical problem with the instrument. Our instrument specialist later rectified the problem.

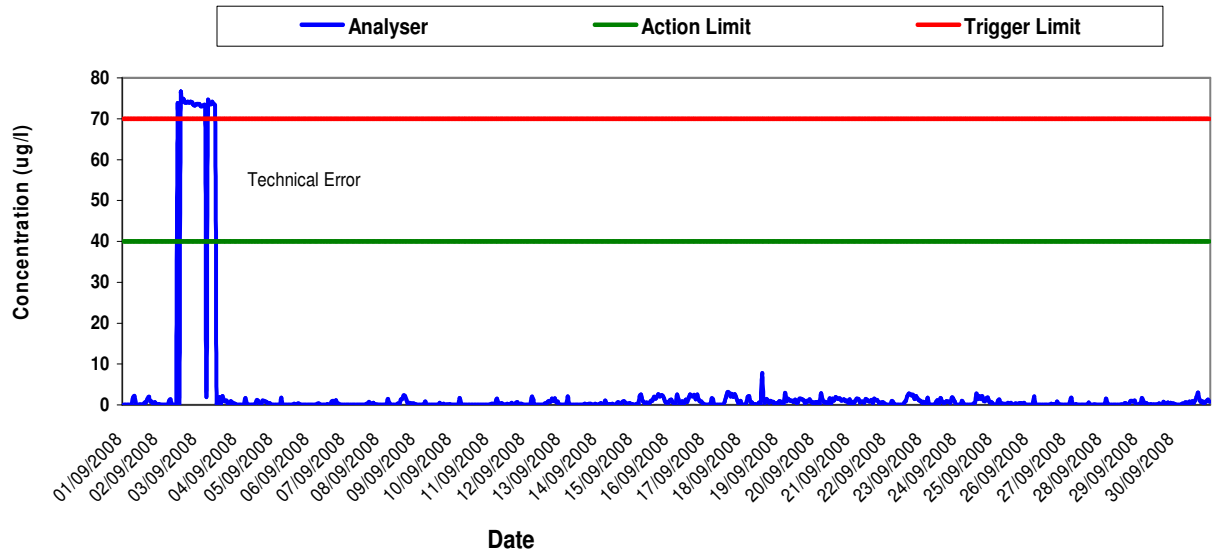
Total Suspended Solids Results at SP1 September 2008



Turbidity Results at SP1 September 2008



Orthophosphate Results at SP1 September 2008



Srahmore Peat Repository
WL 0199-01

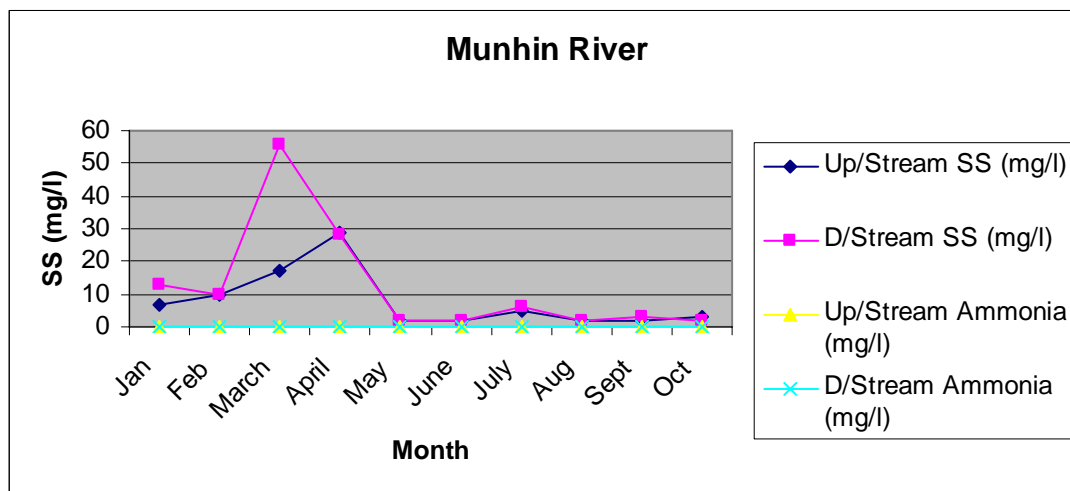
Environmental Management System Up-Date No. 35(13/10/08)

Decommissioning and Rehabilitation

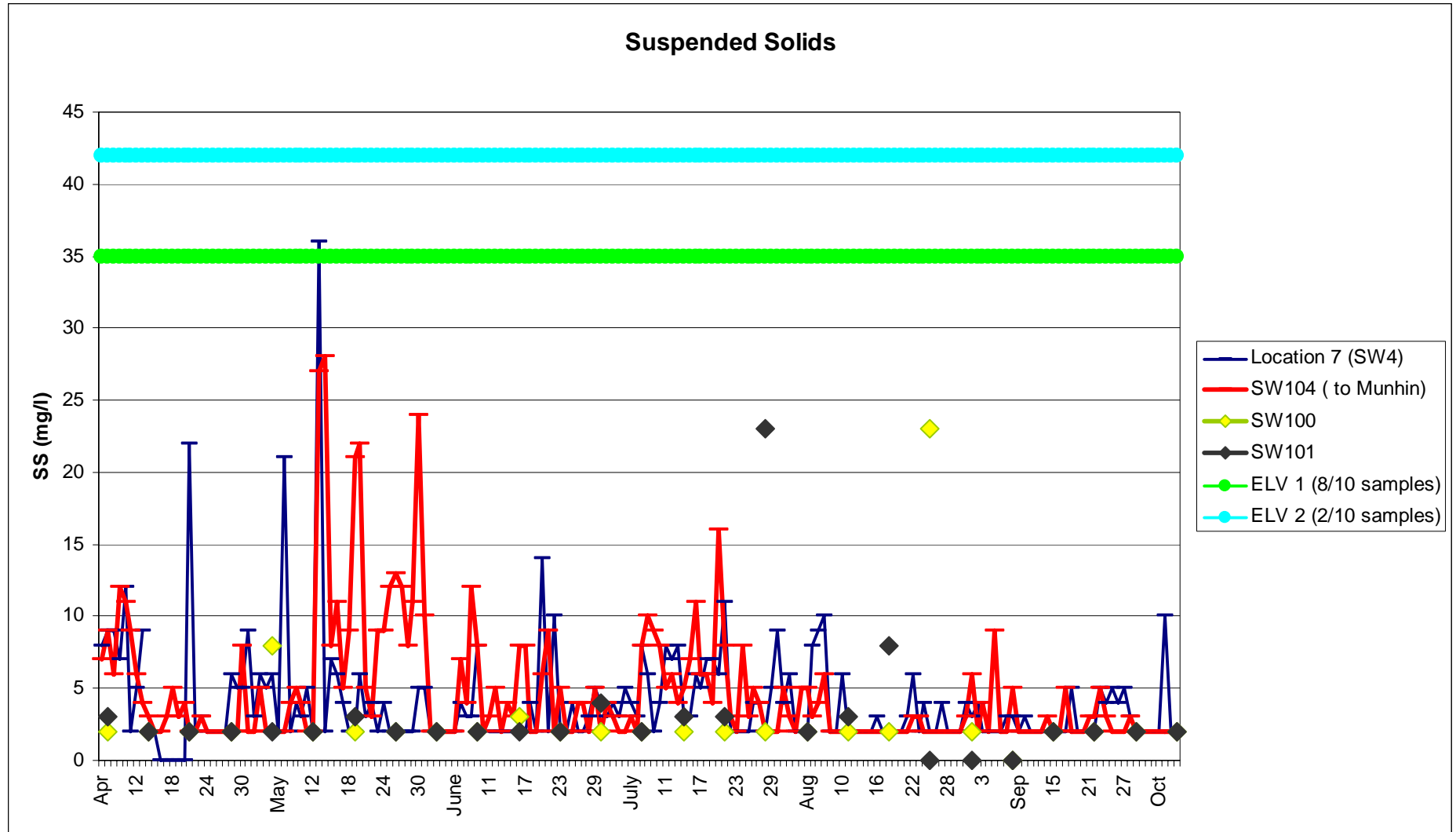
Environmental Monitoring:

- There were No non-compliances at the site since the last meeting
- There were No complaints received at the site since the last meeting.
- There were No incidents recorded at the site since the last meeting.

Results: Munhin River (2008)



Results: SW4/104/100&101 (2008)



The average SS mg/l for SW4 for 2008 to-date has been 6.5mg/l and 5.0mg/l at the discharge from the site to the Munhin at SW104.

Srahmore Site Update:

Personnel:

On Site

		Tractor & General Oper.	1	Environmental	0
BnM (Engineering)	0	Fitters	0	Archaeological	0
Site Admin & Mgt.	1	Electricians	0		
		Site Supervisors	0		
		Excavator & Shovel	0		
TOTAL EMPLOYED					2

Contractors

Security	0	Catering	0		
TOTAL EMPLOYED					0

Off Site

Head Offices Staff	1			BnM (Support)	1
Environmental Officer	1				
TOTAL EMPLOYED					3

OVERALL TOTAL EMPLOYED					5
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On-going work:

All silt ponds (SP1, SP2a&b, SP3a&b, SP S501 & SP S502) have been cleaned in the last two months.

As or the 13th of October, the Srahmore site is Compliant.