

Sappi Licence Advisory Forum (LAF)

Meeting held at 14:00 on Thursday, 18 February 2010
at the Italian Club, Umkomaas

Present

(as per attendance register)

| | |
|-------------------------------|--|
| Mr Derek Airey (DA) | Sappi Saiccor Ltd |
| Mr Santosh Bachoo (SB) | KZN Ezemvelo Wildlife |
| Mr Mike Bentley (MB) | Umkomaas Tourism |
| Mr Bruce Blake (BB) | eThekweni Municipality South |
| Mr Paul Buchel (PB) | Ezemvelo KwaZulu Natal Wildlife |
| Mr Andy Cobb (AC) | SATSA/PUGASA |
| Mr Craig Daniel (CD) | Sappi Saiccor |
| Ms Nicolette Demetriades (ND) | Marine & Estuarine Research |
| Ms Di Dold (DD) | WESSA |
| Mr Jace Govender (JG) | Beaches |
| Ms Lisa Guastella (LG) | UCT / BCRC |
| Ms Zanele Mabuza (ZM) | Department of Water Affairs & Forestry |
| Mr Alfred Matsheke (AM) | DAERD |
| Mr Sifiso Miya (SM) | DAERD |
| Mr Sandile Ngcobo (SN) | DAERD |
| Ms Renelle Pillay (RP) | Department of Water Affairs |
| Ms Zelda Schwalbach (ZS) | Sappi Saiccor Ltd |
| Ms Debbie Smith (DS) | Africa Dive Expeditions |

Secretariat

| | |
|--------------------------|---------------------|
| Mr Rod Bulman (RB) | Phelamanga Projects |
| Ms Claudia McKenzie (CM) | Phelamanga Projects |

Apologies

| | |
|---------------------------|--------------------|
| Ms Judy Bell (JB) | WESSA |
| Ms Carolyn Schwegman (CS) | WESSA / Coastwatch |

ACTION

1. WELCOME, INTRODUCTION & APOLOGIES

DA welcomed everyone to the meeting and explained that Mr Rod Bulman was on his way but had been delayed by congestion relating to a road accident.

2. APOLOGIES

Noted above.

3. ACCEPTANCE OF AGENDA

The agenda was accepted.

4. MINUTES OF THE PREVIOUS MEETING HELD ON 26 NOVEMBER 2009 AND CONFIRMATION THEREOF

1. The minutes were confirmed with the following comment from ASBOA :
ASBOA were unhappy with the statement in 5.4.1 (bullet 2) and noted that it had been observed in previous minutes. They requested to know the source of the information leading to that statement and specifically what research was being conducted; where was it being conducted and by whom?
2. The minutes were duly signed as a true reflection of the meeting.

5. MATTERS ARISING FROM THE MINUTES

5.1. Draft Estuarine Report - Discussion

In the discussion it was noted that, as had been established in an earlier discussion, this was a PIPELINE forum, NOT a diving forum.

ACTION

5.2. DWA analysis results

Considered under Item 6.2.

5.3. Lack of DWA results at last meeting

In the ensuing discussion the following points were noted.

1. Ms Zanele Mabuza had been on maternity leave for three months and was now back at work.
2. DWA were requested to send a written report if the results could not be presented in person.

5.4. Rainbow Lab interlab calibration request letter

1. RB reported that a letter had been sent as requested.
2. It was noted that similar concerns had been raised at the UIC LAF, which Mr Pat Reddy had addressed. Mr Jimmy Chetty of Rainbow Labs had been present and had undertaken to investigate fully what had happened and why there were result discrepancies.
3. It was established that DWA do not have a second sampler as all posts have been frozen.
4. It was agreed that RB write to DWA and ask that a similar process for ensuring regular and accurate sampling be instituted for this LAF as for the UIC LAF.
5. It was noted that the samples submitted for interlab calibration had been passing quite well. RB to request DWA to provide the LAF with the results of these calibration tests.

RB to request DWA 1) to establish written procedures 2) interlab results

5.5. License Amendment Letter

To be considered under item 6.2

1. AC requested that a history of the LAF be provided, especially for newcomers.

6. REPORT FROM SAPPI SAICCOR

6.1. CSIR Monitoring – Pelagic

1. Only 5 settlement tubes (out of 36) were recovered – from the northern site.
2. Appears that heavy growth sank the lines. One line visible on the pipeline DVD, lying next to the pipe

6.2. License Compliance

1. Water containing waste to river 100 % (no flow other than rainfall)
2. Water containing waste to sea 100 %
3. Complaints – One phoned report – 3/12 11:15 Juan Perriera (See dive graphs for verbal reports).
4. No overflow, but no samples were taken.

6.2.1. License Compliance – DWA Samples

| 18-Dec-09 | Saiccor | DWA&F | Limits |
|----------------------|----------------|------------------|---------------|
| TDS (mg/l) | 9764 | 10900 | 20000 |
| Lignin | 3818 | - | 6000 |
| COD (mg/l) | 16064 | 9680 | 24000 |
| Turb (NTU) | 180 | - | - |
| pH | 3.7 | 3.8 | 2-8 |
| SS (mg/l) | 787 | 780 | 800 |
| Colour (Hazen units) | 2000 | - | 3500 |
| Cond (mS/m) | 446.1 | 4.9 (?) | - |

| 20-Jan-10 | Saiccor | DWA&F | Limits |
|------------------|----------------|------------------|---------------|
|------------------|----------------|------------------|---------------|

ACTION

| | | | |
|----------------------|-------|---------|-------|
| TDS (mg/l) | 12598 | 15960 | 20000 |
| Lignin | 4990 | - | 6000 |
| COD (mg/l) | 20543 | 17060 | 24000 |
| Turb (NTU) | 210 | - | - |
| pH | 3.4 | 3.4 | 2-8 |
| SS (mg/l) | 166 | 256 | 800 |
| Colour (Hazen units) | 2500 | - | 3500 |
| Cond (mS/m) | 445.0 | 4.9 (?) | - |

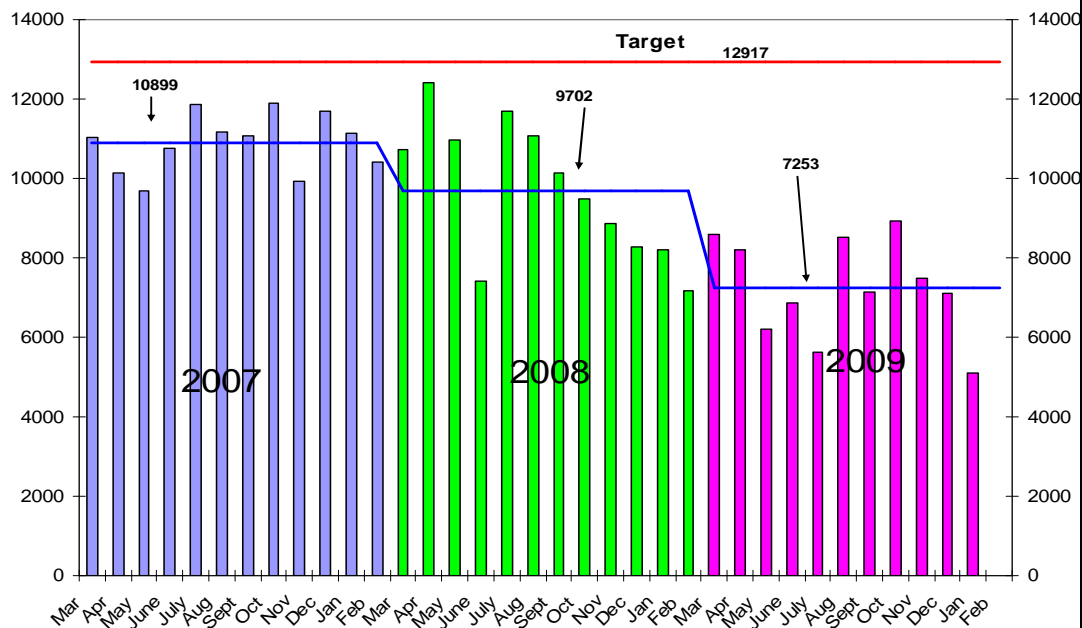
In the ensuing discussion the following was noted.

1. There is confusion over the dates of the tests in December, being either 15 or 18 Dec SAPPI. ZM to check. *Post meeting note: Resolved - 15th December correct date.*
2. Rainbow Labs Conductivity results appear to be out.
3. No sample was taken in November.
4. There is a significant difference in the COD results.
5. The wide spread of the pH limit (2 – 8) was queried, especially the lower limit of 2. It was noted that the average had been 2.5 and was now 3.7, implying better performance. There had been no change to the limit.

ZM to check dates of samples and tests.

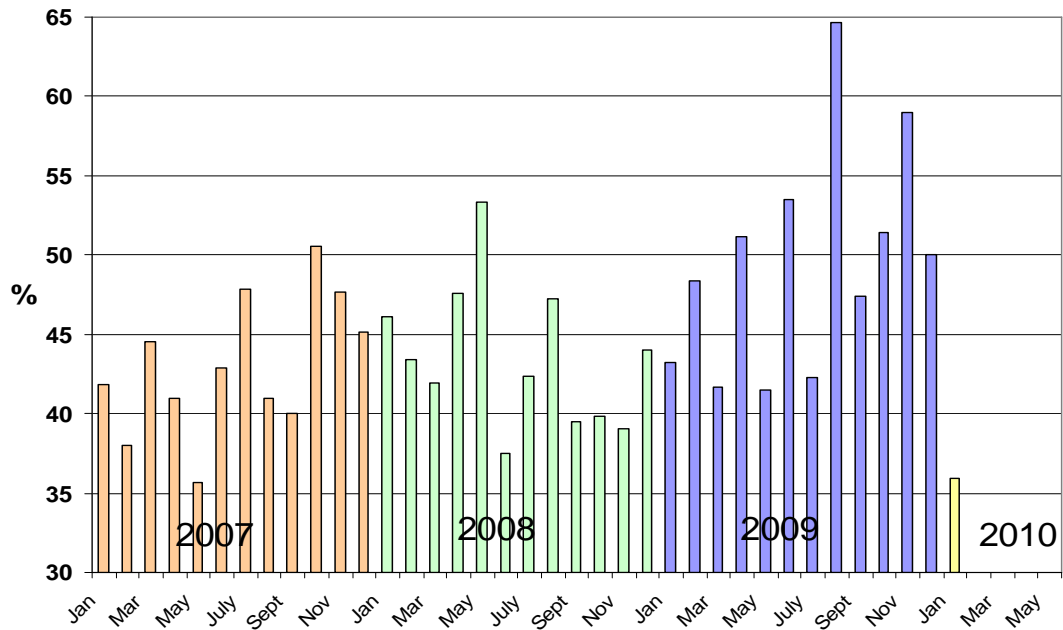
6.3. LignoTech Production

6.3.1. LignoTech Production (t/month)

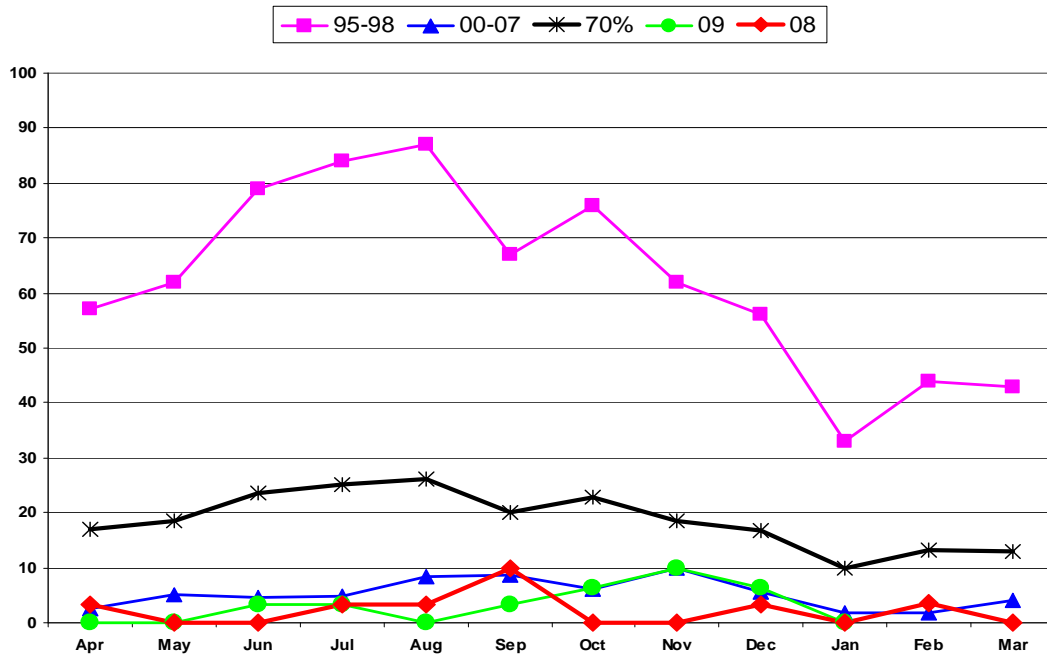


ACTION

6.3.2. LignoTech production (% of Ca Prod)



6.4. Plume Visibility



6.4.1.1. Discussion on LignoTech Production

1. Drop in LignoTech production noted.
2. It was explained that LignoTech produced a product from calcium ligno-sulphonate which is a by-product of the pulp manufacture process, and is used for fertilisers, chip board and other applications.
3. It was noted that it is beneficial to utilise as much calcium ligno-sulphonate as possible, as it is profitable and also removes large quantities of waste

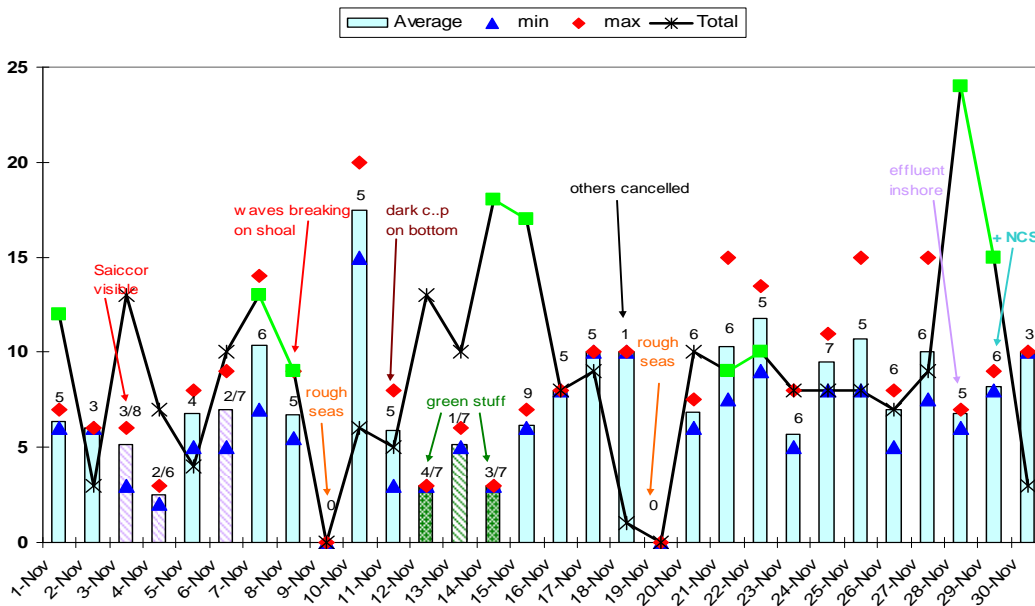
ACTION

6.4.1.2. Discussion on plume visibility and foam

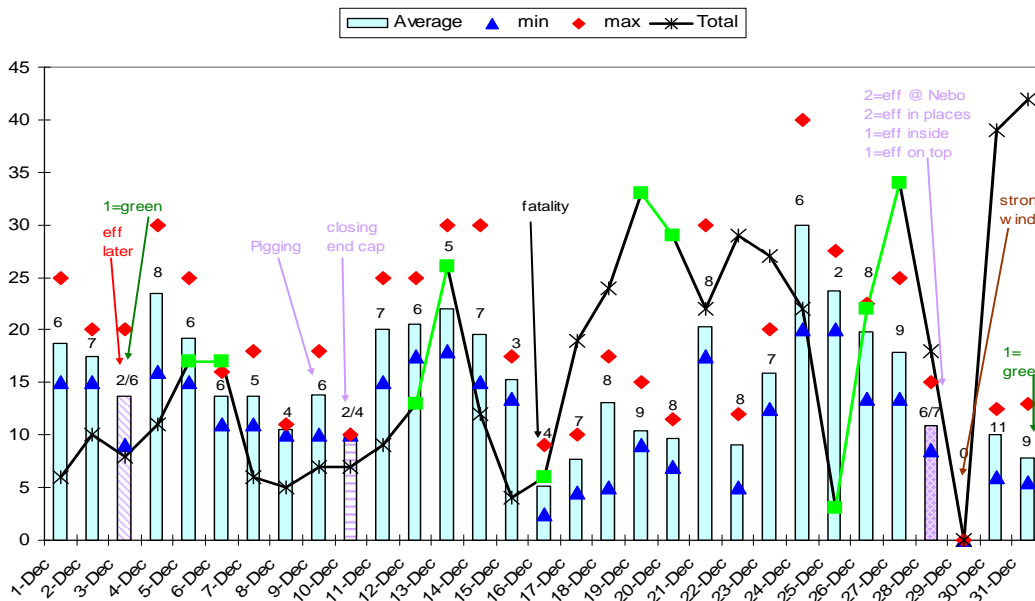
1. In response to a question about the cause of foam on the beach it was explained that constituents in the effluent act as stabilisers in the foam, making it last longer. For the original pipeline extension the DWA license required an improvement in plume visibility and foam on the beaches
2. The pink line on the Plume Visibility graph refers to the old pipeline. It was noted that this was for the years 1995-1998. During this period because of public outcry on pollution by marine pipelines the South Coast Marine Pipeline Forum was formed, a forerunner to the LAF which was required by the licenses.

6.5. Dive Visibility Graphs

6.5.1. Dive graph for Nov (vis. in m) 2009

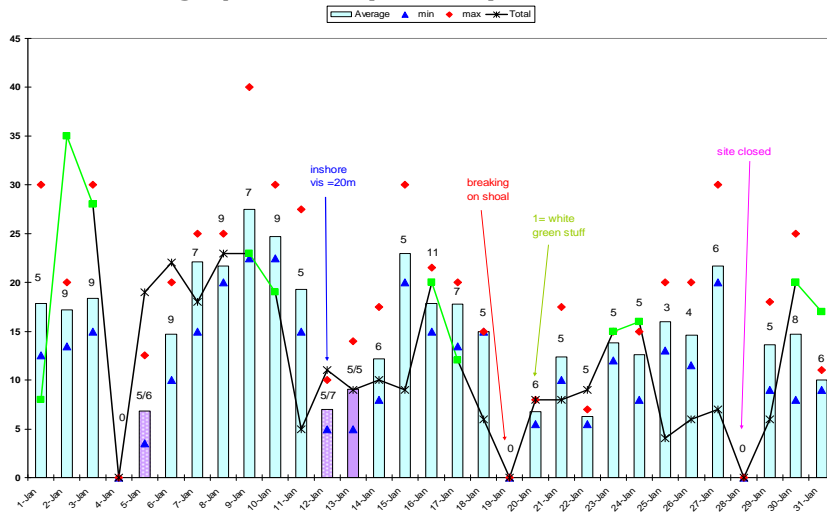


6.5.2. Dive graph for Dec (vis. in m) 2009



ACTION

6.5.3. Dive graph for Jan (vis. in m) 2010



6.5.3.1. Discussion on Dive Visibility Graphs

1. It was noted that the presence of "green stuff" reported by dive operators could be a temperature related issue. As there is no baseline to compare it against the definition is poor.
2. The influence of variations in the current was noted.
3. The difficulty of defining and reporting variations in colour was discussed.
4. It was finally agreed that dive operators should be asked to be more specific and if they not green water they should also note the temperature i.e.: warm or very cold.

Debbie Smith
to ask di-
vers to pro-
vide colour
and temp
details

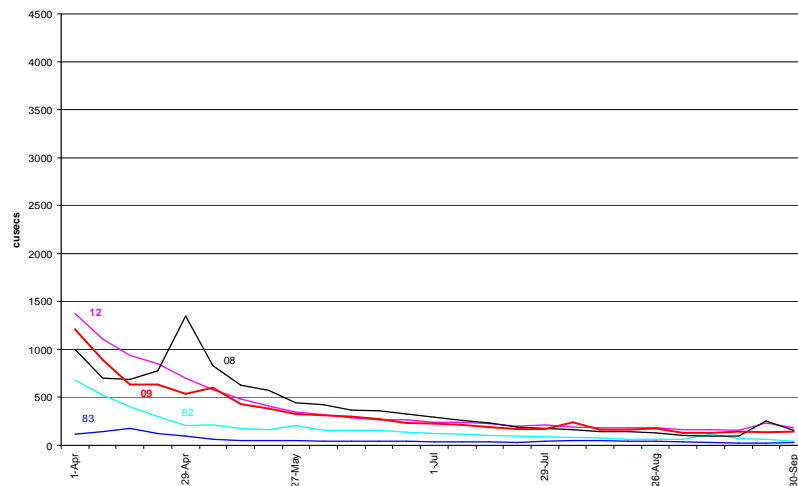
7. LICENSING

1. It was noted that in the document which was sent out, items should have been de-
leted.
2. It was agreed to postpone discussion to the next LAF meeting.
3. A letter would be sent with the LAF's comments after the response from MCM had been received.

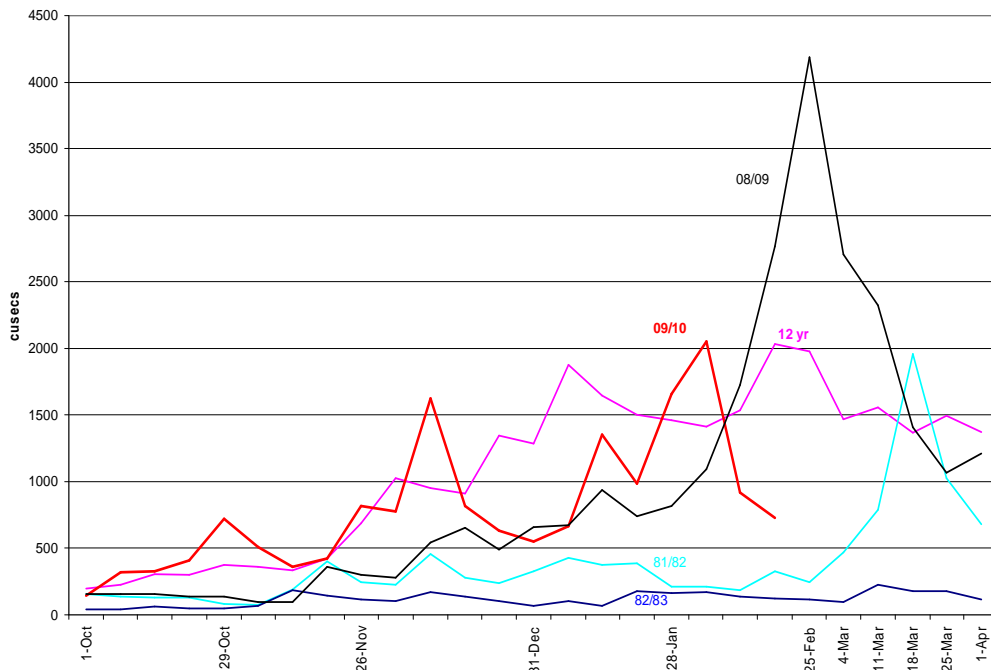
8. RESERVOIR

1. It was noted that an application will be lodged next week for an extension of the date for commencement of construction specified in the RoD.
2. Effectively costs have escalated to such an extent that the reservoir is now totally unaf-
fordable.

9. MKOMAZI RIVER FLOW



ACTION



9.1. Discussion of River flow

It was noted that

1. The red line shows measurement for 2009/10 and that a new year is now starting.
2. The lowest weekly flow. The worst drought years, are shown at the bottom.

10. GENERAL

10.1. Pipeline DVD

1. DA Showed a film taken of the length of the pipeline during a recent dive.
2. A leak is seen with effluent coming out at 4.75 km. The volume is same as coming out of diffuser but at a slightly shallower depth, 32m, whereas the first diffuser is at 36m.
3. It was noted that 6 to 8 diffusers are closed which may be contributing to the larger amount of effluent escaping from the break, which appears to be worse than at the last viewing
4. The temperature of the effluent is 55°C. There is a two degrees drop between the diffuser and end of the pipe.
5. It was noted that there is evidence of sand movement over the top of pipeline to the north while the sand level is lower on south side. The lack of sand on south side is possibly due to sand mining reducing the amount of sand coming down the river.
6. A black cloud of effluent is visible.
7. The usefulness of a current speed and direction monitor was discussed. The need for a turbidity meter was noted together with a temperature monitor on buoy. Currently the thermo cline cannot be determined.
8. The LAF expressed it displeasure that the leak has not been fixed and would like time-frames as to when it will get fixed.
9. It was suggested that the lack of growth on the pipe between diffusers, was because a rope moves back and forwards clearing any growth.
10. There is evidence of pigging not being probably carried out as 8 diffusers out of 58 still remain closed. The last pigging took place on 9 December 2009.
11. ND explained that the pipeline creates a micro-environment in which certain fish find shelter and there is also nutrition in the plumes as it is organic/plant material. Fish can smell this and are attracted to it.

RB to write to Sappi-Saiccor re leak.

