

# Minutes of Meeting

Meeting:	<b>Altona Properties Soil &amp; Groundwater Meeting</b>	Location:	Mt St. Joseph's Girls College Board Room, Altona
Recorded by:	Emma Ryan-Reid / Graham Smith	Date:	21 August 2006, 5:00pm
Reference:	2125079A 003 MINS (AUG06)		
Present:	Noel Ryan, Tim Faragher (EPA), Chris Parsons (resident), Peter Horne (Orica), Graham Smith (PB), Emma Ryan-Reid (PB)		
Apologies	Nessie Hardy (resident), Valerie Gemmell (resident), Bryan Goodwin (Dow)		

The Altona Groundwater Management Plan Website is located at [www.altonagroundwater.info](http://www.altonagroundwater.info) this includes details of the groundwater management plan and the latest groundwater treatment and monitoring results as presented at the community meetings of the Soil and Groundwater Review Group.

Item No.	Item	Action
1.	<b>Confirmation of Agenda</b> – Agenda confirmed as stated.	
2.	<b>Minutes of last meeting</b> – Minutes of last meeting (March 2006) were circulated previously. Minutes of last meeting accepted as true and correct.	
3.	<p><b>Groundwater Treatment Update</b> - PB presented a summary of groundwater treatment and monitoring over the past six months since the last community meeting. An updated timeline (<a href="#">attached</a>) was presented detailing system operation and shutdowns.</p> <p>Operational reliability has improved as issues with high quench temperatures and the scrubber have been resolved.</p> <p>A new air sparge (AS) blower was installed in June as part of the AS well enhancements. The new blower is air cooled and replaces two water cooled blowers, which required a cooling tower. The cooling tower and associated chemicals have been removed, reducing environmental and health risks from potential legionella and bacteria in the cooling tower.</p> <p>PB presented a number of graphs (<a href="#">attached</a>) showing: system operating performance, cumulative volatile chlorinated hydrocarbons (VCH) (as 1,2 dichloroethane (EDC)) extracted by the treatment system, cumulative resources used and waste produced and cumulative environmental impacts measure.</p> <p>Peter Horne queried whether the EPA would consider declining efficiencies and increased resource use for each kg of treated EDC in determining if CUTEP (cleanup to extent practicable) has occurred on the site. Tim Faragher advised that the EPA consider recovery efficiencies, but they were not the main driver for determining CUTEP, and that other factors such as current technology, would be more highly considered.</p>	
4.	<p><b>Groundwater Monitoring</b></p> <p><b>March 2006 Re-sampling</b> – PB conducted groundwater sampling of 10 wells on the APPL and SCT sites in March 2006 that reported anomalous results between the Dec 04 and Nov 05 Annual monitoring events. Samples were analysed for EDC and VCM.</p> <p>Results reported Dec 04 results as anomalous for nine of the ten wells, confirming that the Nov 05 results were accurate. The exception was one well (BH4-DG) located north of the former EDC bund, which reported the Nov 05 results as anomalous.</p> <p><b>May 2006 Baseline Monitoring of new AS Wells</b> – PB conducted groundwater sampling of the 12 new AS wells on the APPL in May 2006. Samples were analysed for volatile chlorinated hydrocarbons (VCH) and benzene, toluene, ethyl benzene and xylenes (BTEX).</p>	

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	<p>Water levels in the new AS wells were higher than water levels in the existing AS wells, which was attributed to no sparging having occurred in the new AS wells before monitoring was conducted. Groundwater flow was in a southerly direction, consistent with historic results.</p> <p>Laboratory results reported the highest EDC and benzene concentrations in the vicinity of the former EDC bund. The results confirmed previous groundwater monitoring which had indicated a hotspot in this area of the site.</p> <p><b>June 2006 Six Monthly Monitoring</b> – PB conducted groundwater sampling of 16 wells on the APPL, SCT, Dow and Qenos Resins sites in June 2006. Samples were analysed for EDC and VCM.</p> <p>Contour maps of groundwater flow, EDC and VCM concentrations were presented (<a href="#">attached</a>). Groundwater flow was in a southerly direction and water levels were consistent with historic results.</p> <p>June data was generally within historic ranges, with the exception of one well (BH8-G), located in the south east corner of the APPL site, adjacent to the Dow site boundary. This well reported EDC results higher than both Jun 05 and Nov 05 monitoring results.</p>	
5.	<p><b>Air Sparge Enhancements</b> – PB presented details of enhancement of the GWTS with the installation of 12 new AS and 7 new soil vapour extraction (SVE) wells. The new wells were located within the former EDC bund and VCM plant area.</p> <p>Drilling works occurred from March 10 to April 19; baseline monitoring event conducted in May; mechanical works and commissioning of the enhanced system was completed early August.</p> <p>Additional valves were installed on the AS and SVE lines to allow for a phased approach to operating the enhanced well network, and a new AS blower was installed to allow sparging into a greater number of wells.</p> <p>During commissioning the volatile concentrations going into the GWTS were monitored to ensure that no exceedance of the operating limit occurred. With two phases operating, the incoming volatile concentrations averaged 300ppm, compared to the operating limit of 1000ppm.</p> <p>PB advised that at the time of the meeting Phase 1 and 2 wells are operational – a total of 14 AS and 14 SVE wells.</p> <p>PB presented a plan of the final well and piping locations (<a href="#">attached</a>).</p>	
6.	<p><b>EPA</b></p> <p><b>Waste Discharge Licence emission testing</b> – PB advised that the emission testing conducted in March reported all results below emission limits. The annual emission testing report was submitted to the EPA in June 06.</p> <p>The August 06 emission testing has been scheduled for 23 August.</p> <p><b>Trial to Reduce pH Set Point of Scrubber</b> – PB advised that a trial to reduce the operating set point for pH in the scrubber was conducted in April, with approval of the EPA. Emission testing for hydrochloric acid (HCl) was conducted during GWTS operation at the reduced pH. Results reported HCl concentrations below the WDL limits.</p> <p>Based on the emission testing the EPA issued an amended WDL to allow a scrubber pH set point of no less than 7.5. Additionally, a set point less than 7.5 is not possible without re-programming of the GWTS.</p> <p>PB advised that the benefits of reducing the pH set point include reduced total dissolved solids (TDS) to sewer, reduced caustic consumption and reduced safety issues regarding handling wastewater and caustic.</p>	

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7.	<p><b>Soil Treatment Trial</b> – PB summarised the soil ripping trial objectives and the requirements of the EPA RD&amp;D process. A total of three locations were investigated during the approval period. PB presented the key results of the soil ripping program as follows:</p> <ul style="list-style-type: none"> <li>• TP4 &amp; TP5 - Treatment completed, soil suitable for ongoing industrial use. No further issue.</li> <li>• TP8 area - Treatment not complete, soil remains covered and undergoing ongoing vapour extraction.</li> <li>• In-situ ripping was able to release contaminants into a controlled environment.</li> <li>• No work place exposure or odour issues beyond site boundary.</li> <li>• To date, GWTS treated 11kg EDC and 21kg TPH .</li> <li>• Results concluded in-situ soil ripping to be an effective method of soil cleanup.</li> </ul> <p>Final report to EPA summarising the findings of the RD&amp;D is pending and in-situ soil ripping is to be proposed for other areas of the site.</p>	
8.	<p><b>Operational Schedule</b> – Noel advised that with the approval of the EPA, further soil ripping would be planned for the 2007 summer. The GWTS would be operated in phased approach, with Phases 1-3 relating to the treatment well network and Phase 4 to the soil area.</p> <p>PB are currently drafting a GWTS Operation Schedule for Aug 2006 onwards, allowing for alternating soil ripping (Phase 4) and groundwater treatment. Using the phased approach for groundwater treatment will enable higher recovery efficiencies as historic operational data indicates that recovery rates drop-off after 6-8 weeks of treatment.</p>	
9.	<p>Noel Ryan advised that an article on the works at Altona Properties had been submitted to The Consultative Chronicle. He was unaware if it had been published.</p>	
10.	<p><b>Groundwater Management Plan Website</b> - The website has been updated and will be uploaded this week (<i>the website was uploaded 23 August</i>).</p> <p>AS enhancement works and soil RD&amp;D works have been added to the website.</p>	PB – Website to be updated
11.	<p><b>Next Meeting</b> - The next regular meeting will be scheduled in 6 months; late March 2007 on a Monday evening.</p>	
	<p>Meeting closed at 7.15 pm.</p>	