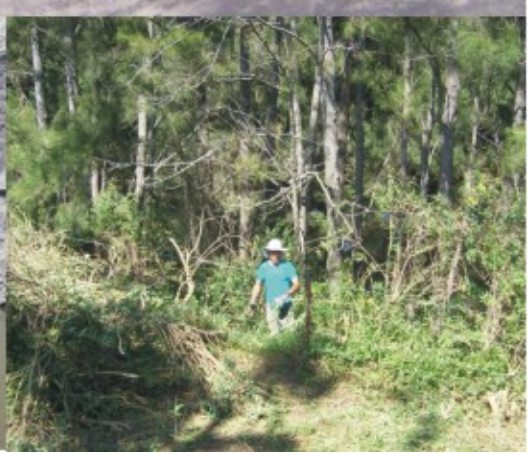
AshtonCoal

ASHTON COAL OPERATIONS PTY LIMITED



ANNUAL ENVIRONMENTAL MANAGEMENT REPORT 2005 / 2006





Name of mine Ashton Coal Mine

Titles/Mining Leases ML1526 and ML1533

MOP Commencement Date	25/08/2004	**MOP Completion Date**	25/08/2009
AEMR Commencement Date	2/09/2005	**AEMR Completion Date**	1/09/2006

Name of Leaseholder White Mining NSW Limited & ICRA (Ashton) Pty Ltd & International Marine Corporation

Name of Operator (if different) Ashton Coal Operations Pty Ltd

Reporting Officer Mike Chapman

Title General Manager

Signature _____ **Date** _____

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1.0 INTRODUCTION

The Ashton Coal Project (ACP) is located approximately 14km north-west of Singleton near the village of Camberwell. During the period of this Annual Environmental Monitoring Report (AEMR), the Open Cut has continued at full production and the Underground Mine has progressed through construction activities into development mining.

The project currently consists of an open cut and developing underground mine, associated coal preparation plant, stockpiling, administration buildings, workshops, stores, bathhouse facilities and car parking. The underground mine is expected to complete development in late 2006 and install a longwall in early 2007.

This report has been developed in accordance with the conditions of Environmental Protection Licence No. 11879 and all relevant development consent conditions. The structure of this report is based on the document "*Guidelines and Format for Preparation of Annual Environmental Management Report*", Department of Mineral Resources, Document No. EDG03 MREMP Guide V3 dated January 2006.

Ashton Coal is owned by Felix Resources Limited (60%), Itochu Corporation (10%) and International Marine Corporation Group (30%) and operated by ACOL.

This report covers the period 2 September 2005 to 1 September 2006. In accordance with Condition 9.3 of the Development Consent, Ashton has consulted with the Director-General of the Department of Infrastructure Planning and Natural Resources in relation the preparation of this report.

1.1 CONSENTS, LEASE AND LICENCES

An interim Mining Operations Plan (MOP) was submitted to the Department of Mineral Resources (DMR) in August 2003, prior to the commencement of construction activities on site. A draft MOP that addressed the life of the open cut mine was submitted to the Department of Mineral Resources (DMR) in July 2004. The Open Cut MOP is now approved and was modified in January 2005 for the inclusion of the increased height of the Eastern Emplacement Area and the removal of the Western Emplacement Area from the MOP. The Underground MOP was approved in March 2006 and includes the period from February 2006 through to December 2010.

The following table provides a summary of the status of all leases, licences and approvals obtained by Ashton.

Table 1. LEASES, LICENCES AND APPROVALS

Statutory Authority	Type of Approval	Grant Date	Expiry Date
Department of Mineral Resources	Underground Mine Operations Plan	15/3/2006	31/12/2010
	Open Cut Mine Operations Plan	09/12/2004	9/12/2009
	Coal Lease ML1533	26/2/2003	26/02/2024
	Coal Lease ML1529	17/9/2003	11/11/2012
	Exploration Lease EL4918	17/9/1999	17/12/2010
	Exploration Lease EL5860	14/03/2004	21/05/2007
Department of Infrastructure, Planning and Natural Resources	Development Consent (DA No. 309-11-2001-i)	11/10/2002	11/10/2023
	Modification to Condition 6.34 to allow EPA to specify noise criteria in Table 5	15/10/2003	
	Modification under S96(2) to allow increase in the RL of the Eastern Emplacement Area to 135mRL along with the removal of the Western Emplacement Area and associated infrastructure.	27/01/2005	
Environment Protection Authority	Licence No. 11879	02/09/2003	Licence held under the Protection of the Environment Operations Act (PEOA)
	Variation to Condition 6.7 (Noise limits) to allow establishment of Eastern Environmental Bund	10/11/2003	02/09/2006
Department of Infrastructure, Planning and Natural Resources	Water Licences Including 20AL201564 - Glennies Creek 122ML 20AL203056 - Glennies Creek 4ML 20AL200568 - Glennies Creek 3ML 20AL201311 - Glennies Creek 3ML 20AL201083 - Glennies Creek 3ML 20AL200508 - Glennies Creek 3ML 20AL201624 - Hunter River 3ML 20AL201625 - Hunter River 585ML		

Table 1. LEASES, LICENCES AND APPROVALS

Statutory Authority	Type of Approval	Grant Date	Expiry Date
	20AL203106 - Hunter River 15.5ML 20SL044434 - Bowmans Creek 366ML 20SL042214 - Bowmans Creek 14ML		
	Part 3A permit No P1819 to install two power poles near Bowmans Creek	05/12/2003	05/12/2004
	Permit No CW802609 to construct levee bank on Bowmans Creek	08/09/2003	07/09/2008
National Parks and Wildlife Service	AHIMS Permit No 1591 to collect Aboriginal artefacts in area north of New England Highway	21/07/2003	

Copies of all licences and approvals have been provided to government agencies and Singleton Council and are available for inspection at the ACOL site office.

An application pursuant to section 96(1A) of the *Environmental Planning and Assessment Act (1979)* was submitted to DoP in August 2006 to modify the Development Consent to remove tailings offsite. Approval for this application has not yet been received.

A total of 250 ML of water licence on the Hunter River was transferred to Macquarie Generation late in the AEMR reporting period.

1.2 MINE CONTACTS

Positions of responsibility for operations and environment are detailed hereunder:

Table 2. KEY MINE CONTACTS

Area of Responsibility	Name	Title	Contact Number(s)
General Manager	M. Chapman	General Manager	(02) 6576 1111
Open Cut Mine	B. Chilcott	Mining Manager	(02) 6570 9128
Underground Mine	B. Wesley	Mine Manager	(02) 6570 9104
CHPP	P. Davis	Declared Plant Manager	(02) 6570 9148
Environment	Lisa Richards	Environmental Officer	(02) 6570 9125
Environmental Contact Line			1800 657 639

ACOL's General Manager, Mike Chapman, has overall responsibility for the operational and development phases of the project and statutory manager for the open cut coal mine. Brian Chilcott is Mining Manager for the open cut operation. Brian Wesley is Mine Manager for the Underground Mine. Paul Davis is CHPP Manager and Declared Plant Manager. Lisa Richards is responsible for day-to-day environmental management and is the nominated Environmental Officer for the project. ACOL's Board of Directors has ultimate responsibility for Ashton's environmental performance.

1.3 ACTIONS REQUIRED AT AEMR REVIEW

The AEMR review included a site inspection on 12 January 2006. During the site inspection, several issues were identified that required attention; these are detailed in the following table.

Table 3. AEMR 2004-2005 ANNUAL INSPECTION ACTION LIST

No	Issue	Action Required	Action Details	Status
1/04*	ROM Dump Hopper	The 2004 AEMR inspection observed excessive fugitive dust during loading of the ROM Dump Hopper. Provide documentation to support comments in 2005 AEMR and provide current schedule of works to complete project.	ROM hopper sprays were manually operative on 9th March 2006 and automatically operational on the 13th of March 2006. This system is tested on a weekly basis in the CPP weekly testing schedule.	Complete
2/04*	Environmental Bunds and Rehabilitation areas	Ongoing maintenance will be required to maintain vegetation coverage for stabilisation and aesthetic issues.	Harrowing and reseeding of Eastern Emplacement Area and Glennies Creek Bundwall have occurred.	Ongoing at time of audit, is included in Rehabilitation Procedure
3/04*	Spillway	The 2004 AEMR Action Plan stated that spillways were to be installed at the Process Water Dam and Lake Topless by June 2005. This was not achieved by the mine and results in a non-conformance. The Process Water Dam spillway is to be designed as per *"Managing Urban Stormwater, Soils and Conservation, NSW Department of Housing, August 1998"* or it's most recent version.	Preliminary design was completed on 16/2/06. Final design completed by Parsons Brinckerhoff on the 4th of September 2006.	Design Completed Will be complete 31-10-06

Table 3. AEMR 2004-2005 ANNUAL INSPECTION ACTION LIST				
No	**Issue**	**Action Required**	**Action Details**	**Status**
4/04*	Drainage on Access Road to Dam 5/6	Review drainage and implement controls to achieve stabilisation	Turf was laid in drains; Culvert 1 was blocked off so that sediment dam closest to office is filled in and not in use. Excavation occurred to divert water from east side of hill back into Barrett Pit. Rock gypsum has been placed in cages and placed in stormwater drains upstream of culverts to assist in sediment flocculation. Powdered gypsum has been put into culverts.	Complete
5/04*	Dam 5/6	Provide documentation to support comments in 2005 AEMR that Dam 5/6 does not trigger the Dams Safety Committee criteria for a prescribed dam.	Parsons Brinckerhoff were contracted to do risk assessment.	Complete
6/04*	Drainage at Noise Bund on Glennies Creek Road	Ashton to manage dirty water till works proposed by Singleton Shire Council have been completed	Bund wall completed, shaped and seeded with gypsum, lime, humus and fertiliser. Irrigation has commenced and small shoots have formed.	Revised drainage to be complete by March 2007
7	Company's commitment to the AEMR Action Plan	Company to provide to the Department quarterly reviews of the AEMR Action Plan	First Review completed Second review completed Third review in AEMR	First and Second review were Completed
8	Incorrect information in AEMR	Information in the 2005 AEMR was not correctly edited from the 2004 AEMR therefore giving a false impression. Company to provide an addendum to the AEMR to all parties on the Distribution list to correct all mistakes in the AEMR. A copy of the AEMR incorporating the changes is to be provided on the website	New report sent on 23/3/6 to everyone who was previously given a copy. Put on Website 24-3-06 under Licenses, Approvals and Plans – Other Plans	Complete

Table 3. AEMR 2004-2005 ANNUAL INSPECTION ACTION LIST				
No	**Issue**	**Action Required**	**Action Details**	**Status**
9	AEMR Plans	AEMR plans to comply with the Departments 'Mining Rehabilitation Environmental Management Process' guidelines as the 2005 AEMR plans excluded a number of details including water flows, structures and proposed mining and rehabilitation for 2006	Two new plans were generated (Plan 4 and 4A) and included in the AEMR.	Complete
10	Discharge offsite	Observations showed a potential for dirty waters to be discharged offsite on the northern side of the Eastern Emplacement Area and north of Environmental Bunds 6 & 7. Ensure that all dirty water is captured onsite and that the mine complies with the Protection of Environment Operations Act (POEO Act) and Development Consent.	The 2 Sediment dams north of the bund 6&7 and the Sediment dam outside the OC office were emptied of water. The culvert outside the office was also blocked. Turf was laid in drains; Culvert 1 was blocked off so that sediment dam closest to office is filled in and not in use. Excavation occurred to divert water from east side of hill back into Barrett Pit. Rock gypsum has been placed in cages and is placed in stormwater drains upstream of culverts to assist in sediment flocculation. Powdered gypsum has been put into culverts.	Total finished 30-04-06
11	Tailings Dam	Water is being stored in the 4th cell of the tailings cells. The change of management strategy and justification is to be incorporated into the proposed MOP amendment.	The letter and plans for the MOP amendment have been generated, but we are still in the process of getting DoP approval in regards to the top of the dump. DoP have approved plans but advice is to not put in a MOP amendment.	90% complete MOP amendment to be submitted

Table 3. AEMR 2004-2005 ANNUAL INSPECTION ACTION LIST				
No	**Issue**	**Action Required**	**Action Details**	**Status**
12	Water Management Procedure	A Water Management Procedure to be provided to the Department incorporating: • Catchment domains • Water classification (dirty, clean or contaminated) & drainage • Design and construction of all water structures (dams, culverts, drains and drop structures) • Drain stabilisation • Sedimentation and Erosion Controls • Training & Awareness	An initial study was done in Jan-Feb 06 with a preliminary report completed on the 16/2/06. Work done since this report are: Catchment domains have been calculated for Sep 06 and Mar 07. It has been identified that 10 new flow meters need to be put in and currently 8 are in place. Storm event calculation sheets have been generated. Calculated dam water level capacity charts have been generated. On-site metering requirements identified and these have been fitted. Spreadsheet to capture all flow has been developed and maintained. Documentation has been completed.	Documentation completed 15-9-06 Implement by 30-12-06
13	Rehabilitation Procedure	A Rehabilitation Procedure to be provided to the Department incorporating: • Vegetation management (survey, clearing, storing, utilization and authorization by EO to clear) • Soil management (handling, preparation, stockpiling, testing, authorization by EO to utilise soil) • Rehabilitation works (preparation, placement, land objective, species, completion criteria) • Monitoring • Maintenance • Weed management • Training & Awareness	Rehab procedure has been developed and implemented	Complete

Table 3. AEMR 2004-2005 ANNUAL INSPECTION ACTION LIST				
No	**Issue**	**Action Required**	**Action Details**	**Status**
14	Topsoil Stockpile	The topsoil stockpile south of the tailings cells was not constructed in accordance with Best Practice and will result in a loss of resource. Provide to the Department the remediation program.	This topsoil pile has been flattened and the height reduced. The pile has also been reseeded.	Complete
15	Treatment of overflow water	Provide explanation on how overflow waters are treated as per (ref AEMR pg 18) *"Provision exists for the treatment of overflow waters from sedimentation control dams in exceptional circumstances in accordance with the principals outlined in the Erosion and Sediment Control Management Plan"*	This explanation was provided in March 2006.	Complete
16	Management of Waters	The current management of dewatering the sedimentation dams is not acceptable to the Department and should be addressed in the Water Management Procedure. There is a risk that a discharge event offsite could occur during a high rainfall event.	The opportunity for sediment laden water to move offsite from a sediment dam in a high rainfall event has been reduced by the removal of sed dam 3 and redirection of other site waters. A desilting dam has been put in place at Dam 5/6 and a desilting dam is planned to be put in before the Runoff water dam when it is desilted in Dec 06	30/12/06
17	Rehabilitation Maintenance	Tubestocks planted within rehabilitation to be surveyed for survival rate and unsuccessful plots to be replanted.	Survey completed. In April 1500 trees were replanted in rehabilitation areas with a further 500 in July.	Ongoing

Table 3. AEMR 2004-2005 ANNUAL INSPECTION ACTION LIST				
No	**Issue**	**Action Required**	**Action Details**	**Status**
18	Register of Consent	Develop a Register of Consent that identifies and controls all legislative requirements for consents, licences and leases (including MOP and AEMR). The Register of Consent should be controlled by the Environment Officer who is responsible for advising the Area Managers of changes in legislation, policy and guidelines.	Developed and implemented.	Completed
19	Underground Water Treatment Area	Ensure stabilisation works are completed to the satisfaction of the Department at the Underground Water Treatment Area.	This entire area has been cleaned up and seeded.	Complete
20	Soil Resource	The Department issued a direction on the day of the site inspection to cease all activities associated with placing topsoil within the underground portal area as the topsoil balance is in deficit and the activities were inadequate to achieve stabilisation due to the steepness of the slopes.		Complete
21	Water Structures	The inspection noted a number of water structures with design and stabilisation issues that require remediation works. The remediation works will be captured within the Water Management Procedure	See above 12 Water Management Procedure	Complete

Table 3. AEMR 2004-2005 ANNUAL INSPECTION ACTION LIST				
No	**Issue**	**Action Required**	**Action Details**	**Status**
22	Procedures and Environmental Management Plans	The Environmental Management Plans do not provide sufficient guidance for daily operations therefore the company is to conduct a review of what procedures are required and provide feedback to the Department.	Review of procedures against environmental management plans to be completed by February 2007 and feedback to be provided to the department.	To be completed by February 2007
** - outstanding issues from 2004-2005 AEMR Action Plan*				

1.4 INDEPENDENT ENVIRONMENTAL AUDITING

In compliance with Consent Condition 8.8 and 8.9 an Independent Environmental Audit was conducted in November 2005. The audit included a review of the 2003-2004 period independent environmental audit. The results of this review are presented in the second of the two tables below.

Table 4. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 1 – AUDIT ACTIONS			
Category	**Comments/Location**	**Actions Required**	**Action Status**
Complaints	Good follow-up to complainants & detailed investigation.	1. Establish whether Mine is in compliance or not. 2. Investigate preventive actions.	Have enquiries and complaints recorded and filed
Environmental Incidents	None reported for YTD		Non Conformance, Corrective and Preventative Action Register is regularly updated with weekly and monthly audits as well as workforce observations
Visibility & Noise	Visual bund is not continuous along Glennies Ck Rd frontage. Views into the Mine from the road. On-going noise complaints.	Complete the visual bund between its present position and the overburden dump.	Completed
Noise	On-going complaints from residents concerning night time noise.	Obtain assessment from an acoustical consultant on the cost/benefit of increasing the height of the visual bund in critical locations.	Report completed no benefit in increasing bund wall
Noise & dust	Contractor equipment	Contractor equipment needs to be	Complete

Table 4. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 1 – AUDIT ACTIONS			
Category	**Comments/Location**	**Actions Required**	**Action Status**
	on-site.	checked that noise levels satisfy criteria levels and dust controls (eg, on drill rigs) is effective.	All equipment onsite checked October 2005
Erosion & Rehabilitation	Extensive sheet erosion on the outside face of overburden dump at Glennies Ck Rd.	1 Reshape the top surface of the dump to direct drainage to drop structures. 2. Construction of the drop structure as soon as possible. 3. Repair of worst areas of rill erosion if necessary. Additional seeding and fertiliser may be sufficient.	Small changes made to direct water towards pit. Awaiting renewed MOP to allow slight changes in RL on top of dump to make undulating. Drop down structure is complete Harrowing and reseeding has occurred on Glennies Creek Bund and EEA.
Erosion & Rehabilitation	Bare eroding areas along the lower slope of the Haul Rd adjacent to the rail siding.	1. Slope needs to be hydromulched as soon as possible. 2. Assess the need for a sediment basin(s) at the point of discharge of run-off from this area.	Turf placed at base of drains. Harrowing and Reseeding has occurred. Hydromulch died because water truck water was too saline for grass to grow. Road will be moved over by June 07. Rock gypsum cages have been placed at culvert locations to assist with sediment retainment.
Land Management	Weed eradication is being undertaken, but not necessarily to a systematic plan.	Commission and preferably commence work on a Weed management Plan that would show on an aerial photographic base the extent of weeds, and provide strategies/program to manage weeds.	Weed management plan completed and being implemented.
Dust management	ROM stockpile sprays.	These sprays are manually operated and therefore a summary of conditions (including photographs) when the sprays should be activated, should be placed in a prominent	They are automatic and come on when wind speed is over 7 m/s.

Table 4. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 1 – AUDIT ACTIONS			
Category	**Comments/Location**	**Actions Required**	**Action Status**
		position near the control monitor.	
Blast management	Weather conditions affecting blasting.	A diagrammatic representation(s) (on an aerial photographic base) of the wind sectors and speed as well as the critical receptors for when blasting should be postponed. This may vary depending upon the position of blasts within the pits.	Anything in the NW sector is used as the critical wind direction for the village. Wind speed is now 6m/s.
Water management	Process water dam has a spillway, but not a baffle to retain hydrocarbons (re: DC cond 3.49c)	1. Assess the amount and security of storage of hydrocarbons at the CHPP to determine if a baffle is required at the dam or whether improved management upslope would be adequate. 2. The facilities at the Workshop are sufficient to contain the contents of a fuel delivery tanker.	All servicing of CHPP plant is now undertaken at the ACOL workshop. Oils at the CHPP are now stored in temporary bunded containers, oil storage quantities have been reduced at the CHPP such that additional bunding is no longer required. Baffle is not required due to the CHPP not undertaking the servicing of any machinery.
Water management	Pit water pipeline from Glennies Creek Colliery is located alongside the access road adjacent to the rail siding. If there was a leak or breakage in the pipeline, water could flow into Bettys Creek, in contravention of the site Licence conditions.	Investigate the most suitable means to prevent saline water entering Bettys Creek.	All but 200m of this area will run into the pit or Dam 5/6. Inspection regime is carried out on this pipe daily.
Waste management	Cooks Depot. Waste skip was overflowing. Wet cell batteries stored on the ground (these are classified as a	Correct storage facilities (bunded impervious area &/or bunded pallets) for waste hydrocarbons and hazardous materials need to be provided as soon as possible.	Completed.

Table 4. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 1 – AUDIT ACTIONS			
Category	**Comments/Location**	**Actions Required**	**Action Status**
	hazardous material/waste). Full & empty oil drums stored incorrectly		
Waste management	Workshop. 1. Waste large tyres are well in excess of the 50t permitted to be stored on-site prior to burial (POEO Waste Regulation, 1996). 2. Waste documentation.	1. Arrange for the progressive disposal of waste large tyres in-pit. 2. Documentation for hazardous wastes, e.g., wet cell batteries, grease *etc*, needs to be on the EPA-defined waste disposal form and that a confirmation (signature and date on the bottom of the form) needs to be faxed to the Mine upon receipt of the waste at the licensed waste receival centre.	Completed with an ongoing regular schedule for disposal. This is now occurring, with a register being updated regularly by the Graduate Environmental Officer.
Waste management	CHPP. Cardboard boxes in waste skips. Hazardous waste generated by contractors.	1. Cardboard boxes need to be flattened (as skips are charged by volume and not weight) and preferably placed in a skip for recyclables. 2. Check documentation (as for workshop comments) for hazardous waste e.g., 2 pack epoxy, waste solvent etc, taken off-site for disposal.	Recycling is occurring. All documentation is going to the Graduate Environmental Officer
Hydrocarbons & hazardous materials.	Cooks Depot. Maintenance area is inadequate. Oil spill was evident.	1. A properly established area should be used for maintenance. This should be compacted gravel and use made of collection trays and sheets of absorbent material under machinery being serviced. 2. An impervious bunded area or compartmentalised pallets should be used for the storage of hydrocarbons. 3. A spill kit needs to be provided.	This was established. Completed Completed
Hydrocarbons & hazardous materials	Workshop. 1. 1000L pod storage area is inadequate. 2. Small oil drums in tool shed stored	1. Extend the concrete bunded area for storage of pods. 2. Use compartmentalised pallet(s).	Completed Completed and ongoing.

Table 4. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 1 – AUDIT ACTIONS			
Category	**Comments/Location**	**Actions Required**	**Action Status**
	incorrectly. 3. Oil container & 1000L pod stored too close to the edge of the concrete bunded area. 4. Fuel & service truck was being fuelled unattended. 5. Waste oil recovery trailer is unsealed. 6. Leak of hydrocarbons from crack in base of wall to bunded storage area.	3. Communicate the correct procedure. 4. Communicate the correct procedure. 5. Use a properly sealed unit. 6. Repair.	Completed Completed Completed Completed
Hydrocarbons & hazardous materials	CHPP workshop. 1. 2 pack epoxy chemicals need to be stored in the chemical storage cabinet. 2. 20L oil drums were stored more than one high on compartmentalised pallet.	1. Communicate the correct procedure. 2. Communicate the correct procedure.	Completed Completed
Hydrocarbons & hazardous materials	CHPP hardstand. 1. Spill kit wheelie bin was empty apart from a few items of rubbish. 2. Empty oil drums and a battery were stored adjacent to and outside the bunded storage area. 3. The drainage valve to the bunded area is not lockable.	1. Confirm who is responsible for maintaining the spill kit. 2. Communicate the correct procedure. 3. Fit a lockable facility or alternatively seal the drain valve and pump out any excess water. The latter is the EPA's preferred procedure.	CHPP Manager responsible Completed Complete
Lighting	Glare from lights is an	1. Communication of the correct	Complete

Table 4. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 1 – AUDIT ACTIONS			
Category	**Comments/Location**	**Actions Required**	**Action Status**
	on-going source of complaints from residents.	procedure to personnel responsible for setting up lights. 2. Supervisors to check from external positions that lights are set up correctly, for critical locations. 3. Assess the cost/benefit of fitting side shields to lights.	Ongoing in Maintenance and OCE nightly checklist which is completed together at 9pm. Shields are fitted on all dump lighting plants.

This is our result in November 2005 review of our external audit that was held in the 2003-2004 reporting period.

Table 5. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 2 REVIEW OF 2004 INDEPENDENT AUDIT			
No.	**Condition**	**Comment**	**Current Status**
3.45 b	Flora and Fauna. - repairing erosion problems.	**STATUS 2005 AUDIT: Bare areas still present along haul road batters that have potential for erosion and sediment entering Betty's Creek particularly as no dams are in place.** *STATUS 2004: Rilling is evident along the outer bank of the mine haul road. This sloping area needs to be ripped along the contour and re-seeded as run-off from these areas would discharge into Betty's Creek if the small sedimentation dams overtop.* *Condition 3.50(d) is also affected by this erosion.* *ACTION: It is proposed to repair and revegetate these areas as soon as there is adequate soil moisture.*	Turf placed at base of drains. Harrowing and Reseeding has occurred. Hydromulch died because water truck water was too saline for grass to grow. Road will be moved over by June 07. Rock gypsum cages have been placed at culvert locations to assist with sediment retainment.
3.49 (c)	if inflow is likely to contain oil or other deleterious floating matter a baffle must be installed at the outlet to prevent discharge of that matter; and,	**STATUS 2005 AUDIT: As oil is still held at the CHPP workshop area, there is still a likelihood of oil and other deleterious floating matter entering the process water dam. If this dam was to overflow, the spillway does not contain a baffle as required by this condition.** *STATUS 2004: No baffle exists on process water dam or run-off water dam. Other controls such as hay bales, etc are employed within the drains on site.* *There is no control in place to isolate contaminated waters from workshop hardstand areas.*	All servicing of CHPP plant is now undertaken at the ACOL workshop. Oils at the CHPP are now stored in temporary bunded containers, oil storage quantities have been reduced at the CHPP such that additional bunding is no longer required.

Table 5. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 2 REVIEW OF 2004 INDEPENDENT AUDIT			
No.	**Condition**	**Comment**	**Current Status**
		A baffle is not installed on the sedimentation dam at the eastern end of operations as this dam is used to capture run-off from main overburden emplacement only. Site water is contained within the site and re-used.	Baffle is not required due to the CHPP not undertaking the servicing of any machinery.
3.50 (d)		**STATUS 2005 AUDIT: Bare areas still present along haul road batters that have potential for erosion and sediment entering Betty's Creek particularly as no dams are in place.**	Turf placed at base of drains. Harrowing and Reseeding has occurred. Hydromulch died because water truck water was too saline for grass to grow. Road will be moved over by June 07. Rock gypsum cages have been placed at culvert locations to assist with sediment retainment.
4.6		**STATUS 2005 AUDIT: Scouring in drains along base of overburden emplacement**	Turf placed at base of drains. Harrowing and Reseeding has occurred. Hydromulch died because water truck water was too saline for grass to grow. Road will be moved over by June 07. Rock gypsum cages have been placed at culvert locations to assist with sediment retainment.
4.7c	the quality of water in the stream or watercourse below its ANZECC beneficial water use classification prior to the commencement of mining operations;	**STATUS 2005 AUDIT: Bare areas still present along haul road batters that have potential for erosion and sediment entering Betty's Creek particularly as no dams are in place.** *STATUS 2004: Small sedimentation ponds along toe of outer bank of mine haul road appear to be high in Total Suspended Solids (TSS) and would overflow into Betty's Creek. This will cause a likely impact on the water quality in Betty's Creek.* *ACTION: It is proposed to repair and revegetate these areas as soon as there is adequate soil moisture.*	Turf placed at base of drains. Harrowing and Reseeding has occurred. Hydromulch died because water truck water was too saline for grass to grow. Road will be moved over by June 07. Rock gypsum cages have been placed at culvert locations to assist with sediment retainment.
4.12	The Applicant shall recalculate the mine water balance on a six-monthly	**STATUS 2005 AUDIT: Water balance updated in latest AEMR but still not being updated at 6 monthly intervals as**	Water Balance completed on a 6 monthly basis

Table 5. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 2 REVIEW OF 2004 INDEPENDENT AUDIT			
No.	**Condition**	**Comment**	**Current Status**
	basis to assess:	**required by consent.** *STATUS 2004: The site water balance has been calculated but has not been recalculated at 6 monthly intervals.* *ACTION: It is proposed to recalculate this and report it in the AEMR.* *This item will be entered in a schedule to ensure that it is updated at the required frequency.*	
4.19	Bund(s) must be installed around areas in which fuels, oils and chemicals are stored. Bunds must: a) ave walls and floors constructed of impervious materials; b) be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed); c)have walls not less than 250mm high; d) have floors graded to a collection sump; and e) not have a drain valve incorporated in the bund structure.	**STATUS 2005 AUDIT: Oils, fuels and chemicals in 1000L pods are stored in a pervious bunded area at the workshop. Impervious concrete bunded area at workshop has a locked drain valve through bund structure and impervious bund at CHPP has an unlocked drain valve through bund structure. Empty drums at CHPP placed outside bunded area. Cooks contractor area has no bunded area for oils, fuels and chemicals. No spill kits present at CHPP or Cooks area.** *STATUS 2004: Systems for storage of chemicals and hydrocarbons have not been constructed prior to use. Storage of chemicals and hydrocarbons at CHPP and workshop areas is not in compliance, with chemicals not being stored within bunded areas or on spill-gard bunds. New and used batteries were also not within a bunded area or on spill-gard bunds.* *ACTION: It is noted that the construction of a bunded area for the storage of hydrocarbons at the workshop area has been started. This is due for completion by mid-September. The proposed area will be sufficient to contain 110% and is constructed of impervious material.* *Storage of oils and fuels on site has been improved with oil drums being stored on spill-gard bunded pallets and fuels stored in a self bunded tank. New and used batteries are also being stored in a bunded pallet.*	There has been a lock placed on the CHPP bund. There is a new bund currently being constructed at the workshop for additional storage.
5.3 (a) & (b)	One month prior to the commencement of construction works, the Applicant shall prepare and implement a Waste Management Plan (WMP) for the DA area in consultation with SSC and EPA and to the satisfaction of the Director-General. The	**STATUS 2005 AUDIT: Cooks waste bins were over flowing and waste had not been segregated as per Waste Management Plan. Recycling facilities have not been extended to CHPP. Waste tracking had not been fully implemented with no documentation verifying that hazardous and general waste have been disposed of at a licensed facility.**	Waste system has been fully reviewed. Currently entering into a total waste management system with a reputable waste contractor. This management system will include full tracking , regular reporting and a site supervisor to conduct

Table 5. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 2 REVIEW OF 2004 INDEPENDENT AUDIT			
No.	**Condition**	**Comment**	**Current Status**
	Plan shall include, but not be limited to:	*STATUS 2004: While a Waste Management Plan has been prepared and approved, it has not been fully implemented. Waste tracking system is not in full compliance. Confirmation had not been received acknowledging that used batteries, waste oil and grease had been received at the waste facility.* *No recycling facilities on site, except for scrap steel. All waste is put into a bulk bin.*	regular site inspections and ensure efficient operation of the sites waste management system.
6.3	Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.	**STATUS 2005 AUDIT: Improvements have been made in these areas.** *STATUS 2004: Large bare areas are apparent at the CHPP. These areas are subject to dust emissions during windy periods.* *No procedure is in place at the CHPP detailing if operations should be suspended or modified if excessive dust is being generated.* *Double handling of raw coal is practiced at the ROM dump hopper where typically trucks dump onto open stockpile areas instead of directly into the hopper. Front end loaders are used to move the coal into the hopper. Both these operations were observed to be causing the generation of dust during the hours when the open cut was operating. It is acknowledged that it is necessary to load from the stockpile during the hours 10pm to 7am when the open cut is not operating. The level of dust emissions would be lessened with the installation of perimeter sprays.*	
6.7	An effective water spray system must be installed at open coal stockpiles and operated at sufficient frequency to maintain the entire surface of the stockpile and related coal handling areas in a condition that will minimise the emission of wind blown or traffic generated dust.	**STATUS 2005 AUDIT: Manually operated sprays have been installed around 3 sides of the ROM stockpile.** *STATUS 2004: While washed coal stockpiles have a water spray system, there is no spray system on the ROM stockpile. Dust suppression is via spray cannons and sprays on water tankers.* *It is noted that a water spray system is being installed on the ROM stockpile at the CHPP.*	
6.12 (a)	establish real-time ambient monitoring stations to provide continuous measurements of PM10 concentrations at the closest residences for which no agreements have been	**STATUS 2005 AUDIT: DEC licensed the site.** *STATUS 2004: Real time monitoring stations 4: were established at the nearest non-owned residences in consultation with EPA. Subsequently one of these*	

Table 5. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 2 REVIEW OF 2004 INDEPENDENT AUDIT			
No.	**Condition**	**Comment**	**Current Status**
	negotiated.	*properties has since been purchased by Ashton Coal and is therefore no longer the closest non-owned residence. The closest non-owned residence is some 200 metres further away from the sampling location. However, the results obtained from this monitoring location represent a more stringent scenario than if the monitoring site was located 200m further away. This situation is also applicable to Condition 6.28(a). ACTION: It is recommended that Ashton Coal consults with the EPA to have the current situation ratified.*	
6.12(b)	provide quarterly reporting during operation and rehabilitation of the open cut mine on the performance of the control measures and results of the ambient air quality monitoring system, unless otherwise agreed by the Director-General. The reports shall be provided to the Director-General, CCC and SSC within seven days of completion of the report; and	**STATUS 2005 AUDIT: Informed that air quality reporting is done quarterly however that the current period is behind schedule.** *STATUS 2004: Reports on the performance of the control measures and results of the air quality monitoring system were not sighted during the audit. (The air quality monitoring system was installed in late December and while the system was collecting the appropriate data there were some difficulties involved with the transfer of data into the analysis software. This issue has been resolved and the 1st and 2nd quarter reports for 2004 have been prepared and were sent to DIPNR. on the 18th of August and the 27th of September)*	
6.22	[34]The Airblast overpressure level from blasting operations carried out in or on the premises must not exceed: (i) Exceed 115dB (Linear Peak) for more than 5% of the total number of blasts over a period of 12 months; and (ii) Exceed 120dB (Linear Peak) at any time, At any residence or other noise sensitive receiver such as the St Clements Anglican Church and Camberwell Community Hall.	**STATUS 2005 AUDIT: PIN received this year for a blast exceeding 120dBL and the 5% overpressure exceedence may still be over the criteria for 2005.** *STATUS 2004: A blast on the 6th May recorded overpressures of 124.4dB(L) in Camberwell Village and 122.1dB(L) at St Clements Church. The EPA was notified in relation to the exceedence and an investigation into the event was performed. Ashton Coal subsequently received a Penalty Infringement Notice from the EPA. The primary cause of the exceedence was a clockwise rotation drill pattern from the original design. This resulted in holes being drilled into loose material that had been dozed up to buffer the shot. The consequential lack of confinement led to a blow out in the exposed face and resulted in a single peak in the level of air overpressure recorded at both the village monitor and the church monitor.*	

Table 5. INDEPENDENT ENVIRONMENTAL AUDIT SECTION 2 REVIEW OF 2004 INDEPENDENT AUDIT			
No.	**Condition**	**Comment**	**Current Status**
		The investigation identified failures in the field control of drill and blast practices, which have since been rectified. *Since commencement of blasting in February 2004 up until 6th August 2004, overpressure exceedence above 115dB is 6.7% but over the full 12 months period, it is expected to be less than 5%.* *ACTION: Improvement in blasting management practices aim to reduce this figure over the next 6 months.*	
6.55	The Applicant shall design and construct all roads and areas where mobile equipment and vehicles move on the site to minimise off-site lighting impacts from equipment lighting and headlights. Lighting from equipment and vehicles shall not shine directly on residences or vehicles moving along public roads at any time.	**STATUS 2005 AUDIT: Lighting complaints still continue. No shields were observed to have been installed to portable lights.** *STATUS 2004: 15 complaints YTD or 6% of total complaints were predominantly from open cut and dump lights shining into houses and Camberwell Village. Also one complaint on 7 July of CHPP lights directed towards NE Hwy.* *Site inspection confirmed glare from lights onto NE Highway and Glennies Creek Road.* *ACTION: It is recommended that the fitting of side shields to the portable arc lights be investigated.*	Training has been conduct in locating lighting plants. There has been a reduction in lighting complaints in the last reporting period.
10.3 (b)	Complaints Handling Procedures. ....for providing a report of complaints received with respect to the construction and operation of the mine, every six months throughout the life of the project to the Director-General, SSC, EPA, DMR, and the CCC, or as otherwise agreed by the Director-General. A summary of this report shall be included in the AEMR (conditions 9.2-9.4);	**STATUS 2005 AUDIT: Complaints are not being reported 6 monthly to government agencies** *STATUS 2004: A six monthly report concerning complaints is not being prepared and forwarded to the agencies.* *ACTION: This report will be prepared and forwarded to the relevant agencies.* *This item will be entered in a schedule to ensure that it is updated at the required frequency.*	Schedule has been completed reporting being done.

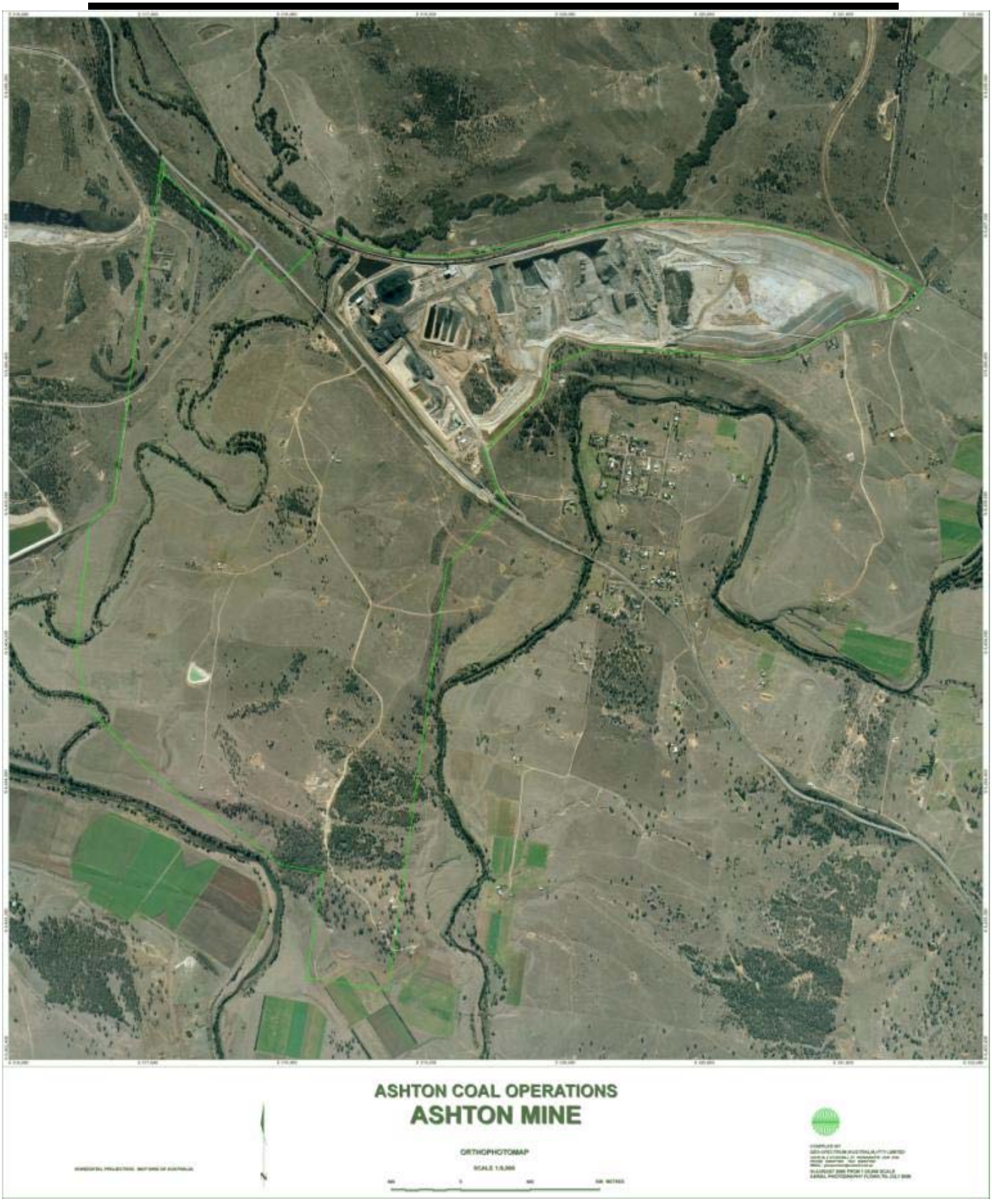


Figure 1: Ashton Coal

1.5 ENVIRONMENTAL MANAGEMENT PLAN UPDATE

The following management plans have been updated and approved during the AEMR reporting period:

Table 6. ENVIRONMENTAL MANAGEMENT PLANS UPDATED

Environmental Management Plans	Date Submitted	Date Approved
Land Management Plan - Part 2	30/11/2005	26/04/2006
Archaeology and Cultural Heritage Management Plan – Part 2	30/11/2005	26/04/2006
Landscape and Revegetation Management Plan - Part 2	08/06/2006	28/07/2006
Site Water Management Plan - Part 2	08/06/2006	28/07/2006
Environmental Management Strategy	18/08/2006	28/08/2006
Air Quality Management Plan - Part 2	18/08/2006	28/08/2006
Noise Management Plan - Part 2	18/08/2006	28/08/2006
Erosion and Sediment Control Management Plan - Part 2	18/08/2006	28/08/2006
Flora and Fauna Management Plan - Part 2	18/08/2006	28/08/2006
Blasting/Vibration Management Plan	18/08/2006	28/08/2006
Weed Management Plan	18/08/2006	28/08/2006

There were two primary reasons for these plans being updated during the reporting period. These were the development of the underground operations and the findings of a Department of Planning audit which was undertaken during the period.

2.0 OPERATIONS DURING THE REPORTING PERIOD

2.1 EXPLORATION

Mining Lease 1533

- Open Cut - 59 holes (9 cored + 50 open holes)
- Underground - 37 holes (5 cored + 32 open holes)
  - 3 in-seam long holes

Exploration Licences 5860 & 4918

- Area being assessed - 16 open holes

2.2 LAND PREPARATION

The area of land preparation is reduced from the preceding AEMR reporting period as clearing was only conducted for the extension of the open-cut to the west in Strip 2 and 3 and a small section of the Arties Pit.

All Aboriginal artefacts in the area north of the New England Highway were collected in accordance with AHIMS Permit No 1591 prior to the disturbance of the surface of the land and were reported in the 2004-2005 AEMR reporting period.

Topsoil was sampled and tested before disturbing and was collected and stockpiled in accordance with the Soil Stripping Management Plan. All topsoil is dumped in separate groups so that the different topsoil types can be treated differently according to the laboratory testing.

2.3 CONSTRUCTION

Underground

Numerous surface facilities have been established to service the underground mine. These include:

- Three portal entries (ventilation, coal clearance and men & materials portals)
- Ventilation fans
- Air compressor station
- Office / first aid / control room / mustering facility
- Workshop / office / bath house
- Car Parking area
- Fuelling station
- Vehicle wash down station
- The Arties sump and pumping system
- Fire service system, and
- Portal conveyor for coal clearance

The surface facilities are mostly complete, with only a solcenic station, the workshop lubrication system and a small extension of the stores facility to be completed.

Relocation of Glennies Creek Road

The development consent requires that Ashton construct an upgraded section of Glennies Creek Road from the New England Highway to the mine entrance. Plans for the redevelopment of this section of road have been prepared and have been submitted to Singleton Council and the RTA for approval.

The development consent also enabled Ashton to deviate the road in the North West corner of the Temporary Common. Ashton had revised its mine plan and was not intending to undertake this deviation, however, blasting operations have resulted in some cracking on the road pavement in this area, so we are discussing potential relocation of the road with Council.

Dependant on the timing of relevant approvals, Ashton is intending to commence construction of roadworks in late 2006, with completion planned in 1Q 2007.

Coal Handling and Preparation Plant

It is planned to expand the CHPP to 1000tph capacity in 2007, by the introduction of an additional 600tph module, together with additional ROM handing facilities for the underground mine. Design for these installations were substantially completed during the reporting period with construction planned to occur late 2006 and early 2007.

2.4 MINING

2.4.1 Estimated Mine Life

The life-of-mine MOP for the Open Cut Mine anticipates that open cut mining will be completed by early 2010.

The underground mine began development in December 2005 with the longwall planned to commence in early 2007, with an expected mine life of 18 years (2024).

2.4.2 Mine Production and Mining Constraints

Open Cut

The Open Cut MOP anticipates the removal of approximately 60 Mbcm of overburden and the extraction of 14 Mt of Run of Mine (ROM) coal at a rate of 2.4 Mtpa.

Open cut mining operations commenced on 17 January 2004 and are limited to the hours of 7am to 10pm Monday to Saturday and 8am to 10pm on Sundays and public holidays by conditions defined in the Development Consent and EPL. Water cart operations, CHPP and maintenance activities are permitted 24 hours per day.

Open Cut mining equipment includes:

- 2 (No) Liebherr 994B excavators
- 1 (No) Liebherr 994 excavator
- 1 (No) Cat 5130 excavator
- 7 (No) Komatsu 630E trucks
- 3 (No) Komatsu 730E trucks
- 2 Cat 789 trucks

- 1 (No) Drilltech DK45 drill rig
- 1 (No) Driltech DK25S drill rig
- 4 (No) Addril Atlas Copco grasshopper drill rigs
- 1 (No) Komatsu PC1100 excavator
- 5 (No) D10 bulldozer
- 3 (No) Cat 777 water trucks
- 1 (No) Cat 16H grader
- 1 (No) Cat 14H grader
- 1 (No) Komatsu WA 600 wheel Dozer
- 2 (No) Cat 994 wheel loaders
- 1 (No) Komatsu 475 dozer
- 1 (No) Komatsu PC1000 excavator
- 4 (No) Cat 777D trucks
- 1 (No) Cat D8R dozer

Permanent workshop, office and refuelling facilities are located at the northern limit of the developing open cut and is in the vicinity of the Clean Coal Stockpile and Train Loading Infrastructure.

Open Cut mining activities have concentrated on extending the Barrett Pit (the box cut) to the western side of the anticline. The box cut has been extracted to full depth and the in-pit emplacement of excavated overburden commenced in early September 2005. Most of the overburden extracted from the box cut has been placed in the Eastern Emplacement Area, with the bulk placement of this dump completed in January 2006, the remaining overburden from the boxcut was selectively placed inpit.

Activities began west of the anticline in November 2005, a small proportion of the overburden went to the Eastern Emplacement Area and the Arties pit backfill, with the remaining going inpit in the original Barrett Pit boxcut.

The Arties Pit is adjacent to the New England Highway on the south-western boundary of the open-cut site. This pit was completed in December 2005 and was backfilled to give access to the Pikes Gully seam in the south-western highwall. This backfilled material allowed the development of portals and headings for the underground mine, as well as the area for the underground workshop, offices, Stone dusting shed, ROM pad and laydown area.

Significant mining constraints that were experienced during the reporting period are as follows:

- The limited amount of external dumping capacity required that the initial box cut be excavated to full depth in the smallest practical mining envelope. This required a concentration of mining equipment in a small mining area and impacted equipment productivity; this situation was alleviated in June 2006 when the entire boxcut was complete.

- The box cut was located on the eastern limb of the Camberwell Anticline, with seams dipping at up to 18 degrees;

- The anticline was mined and contained a series of normal and reverse faults, these faults caused the coal to double up or disappear;

- An extra overburden digger operated from September 2005 – January 2006 which meant that an extra excavator and 3-4 trucks were operating on site within this period. As this was a period of low dumping availability, this caused congestion at all dumps.

- The Eastern Emplacement Area bulk dumping was completed in early January 2006. This required all of the overburden trucks (15 in total) to be dumping into the Barrett Pit boxcut.

- Blasting is constrained by the proximity of the New England Highway, Main Northern Railway, Glennies Creek Road and the village of Camberwell. The New England Highway had to be shut periodically for blasting up to December 2006 and the Railway line, Glennies Creek Road and the Camberwell common have all been shut periodically for blasting throughout the year.

Underground

The Underground MOP shows mining reserves at 55.1Mt which includes the Pikes Gully, Upper Liddell, Upper Lower Liddell and the Lower Barrett coal seams. Underground development commenced on the 21st of December 2005. Operations in this reporting period have been restricted to the development of first workings in anticipation of the introduction of a longwall in early 2007. Mining activities currently occur on a five day week basis, with crews available on the weekend for maintenance and security.

Underground Mining equipment consists of the following:

- 2 x Joy 12CM12 Continuous miners;
- 3 x Joy 15SC Shuttle Cars;
- 3 x Vale 21 m3/sec Aux. Ventilation fans;
- 1 x Joy 12CM11 Continuous Miner;
- 2 x 1400mm conveyors with 2 VVVF drives each;
- 1 x 1050mm temporary conveyor with 1 Jiffy drive;
- 1 x 1050mm conveyor with 1 VVVF drive;
- 1 x 1200mm temporary stacker conveyor;
- 5 x PJB Mk4.5 with Perkins Tier II engine package;
- 4 x Juganaut V2 with Hino Supercharged Tier II engine package;
- 2 x Eimco EJC 130;
- 2 x Flakt Woods 315kW centrifugal fans; and
- 2 x Ingersol Rand MM160 – 1000 cfm.

Mining development has progressed with three continuous miners, each working on a five day week basis as mentioned above. The work period in the next reporting period may need to be extended for a period to ensure completion of the main and gate roads prior to delivery of the longwall.

The layout of main roads in the vicinity of the New England Highway was modified following consultation with DPI (Minerals) to minimise the number of intersections beneath the New England Highway.

The mining height during development was lifted due to the close proximity of a rider seam above the immediate roof. This has resulted in an increase in the amount of stone being mined during initial development, but should not impact the mining horizon for the longwall.

Additional exploration drilling in the southern end of longwall panel 1 identified a sandstone parting within the seam. This has resulted in the length of panel 1 being reduced by some 500 metres. The impacts of this parting on panels 2 and 3 are still being assessed.

Development conditions were initially as expected, however late in the reporting period we began to experience significant inflows of groundwater emanating from the cleats within the coal. The extent of these inflows is being monitored and consultants have been engaged to report on the likely duration of these inflows.

The longwall has been ordered from DBT Australia and includes an Eickhoff shearer. The longwall contract is progressing on schedule and is planned fore commissioning in early 2007.

Approval has been received from the Department of Planning to merge the requirements of the development consent and the subsidence guidelines of DPI (Minerals). A Subsidence Management Plan for the first four longwall panels in the Pikes Gulley Seam is currently being prepared and should be submitted for approval in October 2006. These four panels are remote from the area of the Bowmans Creek alluvium, so the specific requirements of the development consent that pertain to mining beneath Bowmans Creek are not applicable to this submission.

Extensive background work has also been undertaken in preparation for future mining in the area of Bowmans Creek. These include:

- A flora / fauna survey has been conducted along Bowmans Creek to characterise the existing environment;
- A detailed survey has been undertaken to characterise the existing pool and riffle environment along Bowmans Creek. Survey monitoring transects were also established to measure the impact of any future mining;
- Exploration drilling has been undertaken to determine the extent of the saturated and unsaturated alluvium associated with Bowmans Creek and the Hunter River; and
- Additional piezometer holes have been established to further refine our understanding of the groundwater characteristics prior to mining

2.4.3 Production and Waste Summary

Operations in the reporting period and predictions for the next reporting period are detailed in the following table.

Table 7. PRODUCTION WASTE SUMMARY

	CUMULATIVE PRODUCTION (cubic meters)		
	Start of this Reporting Period	**At end of this Reporting Period**	**Estimate, end of next Reporting Period**
Topsoil Stripped	81,200	93,600	105,400
Topsoil used/spread	17,000	17,000	30,000
Waste Rock	15,250,000	26,958,256	39,585,000
Open Cut Coal	2,195,723	4,367,692	6,767,000
Underground Coal	0	137,662	1,637,000
Total Coal	2,195,723	4,505,354	8,404,000
Processing Waste	785,000	1,835,969	3186,000
Open Cut Product Coal	1,410,000	2,604,356	4,236,000
Underground Product Coal	0	65,029	982,000
Total Product Coal	1,410,000	2,669,385	5,218,000

2.4.4 Changes in Mining Equipment or Method

ACOL have upgraded the number of water carts on site from 2 to 4. A third CAT 777 water cart was purchased and a smaller contractor operated water cart has been hired to cover the smaller access roads around the site. This change has occurred directly from the dust levels reported at the monitoring sites in Camberwell village.

2.5 MINERAL PROCESSING

The CPP is designed for a throughput of 400tph and incorporates a dense medium circuit and a fines spiral circuit. The associated materials handling is designed for 800tph and includes a rotary breaker on the ROM coal side and a skyline conveyor on the product coal side. Product coal is recovered through a series of coal valves and conveyed to a Train Loading Station mounted over a dedicated rail siding. This commenced operation on 11 April 2004.

The CHPP was operated by Australian Coal Processing until April 2006 when it was changed to be operated by ACOL. The CHPP was manned for 24 hour per day operation on a five day per week basis until June 2006 when it commenced with a 24 hour per day, six day a week operation..

The CHPP processed 2.31 Mt ROM of coal during the reporting period to produce 1.26 Mt of semi-soft and thermal product coals.

2.5.1 Changes or Additions to Process or Facilities

Modifications are being made to the fine coal circuit to reduce the quantity of ash currently retained within the fine coal. This work had been done through the previous year and should be completed in 2007 as part of the major expansion described below.

2.5.2 Recovery/Dilution

ROM Coal ash for each coal seam has been mapped and audited daily to ensure that the mining ROM ash is consistent with the predicted model and the yield is therefore in the predicted range. When the CHPP can cope with a dirtier coal, coal has been diluted with the partings within the coal to ensure better recovery.

2.5.3 Coal Treatment Plant Capacity

It is planned to expand the CHPP to 1000tph capacity in 2007, by the introduction of an additional 600tph module, together with additional ROM handing facilities for the underground mine. Major components include:

- RC4 conveyor, which will transport ROM coal from the underground mine portal conveyor to an additional ROM stockpile within the Arties Pit.
- A hopper / feeder system to load Conveyor CV2001.
- Conveyor CV2001, which will transport the ROM coal from the Arties Pit to a screening crushing station.
- A screening / crushing station comprising a rotary breaker on natural surface at the west end of the Arties Pit.
- Conveyor CV2002, which will transport ROM coal from the screening / crushing station to the ROM surge bin.
- A 300 tonne ROM coal surge bin located to the south of the existing CPP module
- Conveyor CV2003, which will transport ROM coal from the ROM surge bin to the new CPP module.
- A second CPP module with capacity of 600tph and utilising dense medium cyclone and spirals technology
- A rejects transfer conveyor to transport coarse rejects material from Module 2 to the existing rejects bin.
- An additional 30 metre diameter thickener; and
- A 50 metre extension to the product coal reclaim tunnel.

Design for these installations were substantially completed during the reporting period with construction planned to occur late 2006 and early 2007.

2.5.4 Saleable Production

Saleable production for the reporting period amounted to 1.26 Mt, made up of semi-soft coking coal and thermal coal. All ROM coal is campaigned through the CHPP on a seam-by-seam basis and blended on the product stockpile to meet individual shipments.

All coal was transported by rail to the Port of Newcastle for sale on the export market.

2.6 WASTE MANAGEMENT

Coarse rejects are transferred to a rejects bin, loaded on to ACOL trucks and transported to the overburden dump for disposal. A total of 508 Kt of coarse reject material were disposed of in this manner during the reporting period.

Fine rejects are pumped to a small series of tailings ponds, treated with coagulant and, following release of entrapped moisture, are excavated and transported to the overburden dump for disposal. A total of 542 Kt of fine reject material were disposed of in this manner during the reporting period.

2.6.1 Chemical/Physical Characteristics of Residues

Coarse rejects are generally mudstones and claystones, with some sandstones, and generally contained minimal amounts of carbonaceous material.

The fine rejects contain finely disseminated clays and mudstone, which have been flocculated using a relatively inert chemical. It contains a higher concentration of carbonaceous material than the coarse reject, but it is expected that the proposed modifications to the fine coal circuit at the CHPP will reduce this concentration in the near future.

2.6.2 Handling and Disposal Procedures

Procedures for the mining of the tailings dams are included in the MOP and the Manager's Rules for the Declared Plant.

Procedures for the disposal of both coarse and fine reject material are contained in the MOP and the Tipping Rules developed by the Open Cut Mine Manager.

2.6.3 Monitoring and Maintenance of Containment Facilities

All coarse and fine reject materials were disposed of within the Eastern Emplacement Area and covered with inert overburden material.

2.6.4 Sewage Treatment/Disposal

Ashton Coal Operations Limited now operates three (3) on-site sewerage management systems, being:-

1. Underground mine bathhouse and administration building combined, which treats the waste from 32 showers, 12 WC's, 9 hand basins and two sinks. The sewage treatment

system is a two stage Biolytix type with tertiary bromide dosing. Treated effluent is disposed of by spray irrigation.

2. CHPP facilities and open cut bathhouse combined, which treats waste from 25 showers, 11 WC's, 8 hand basins and one sink. The sewage treatment system is an Envirocycle type with disposal of the treated effluent by spray irrigation.

3. Open cut mine workshop which treats 4 showers, 4 WC's, three hand basins and a sink. The sewage treatment system is an Envirocycle type with disposal of the treated effluent by spray irrigation.

2.6.5 Oil Containment and Disposal

Under the Protection of the Environment Operations (POEO) Act 1997, waste tracking requirements apply to certain types of waste. ACOL has established a waste tracking database that collects all the data involved with the consignment, transportation and acceptance for storage, treatment or disposal of wastes identified by the POEO Act. The wastes that ACOL cover in the waste tracking database include; waste oil, transmission fluid, engine oil and batteries. Used oil and fuel filters are recycled by crushing and draining free of oil. All Waste Data Forms are kept and stored in a Waste Tracking file. Only licensed waste transporters and consignees are used by ACOL. Waste volumes removed from site during the reporting period are shown in the following tables.

Table 8. OIL FILTERS RECYCLED 2005 - 2006

Date	Amount of waste received (kg)	No. filters crushed	Oil Recovered (L)
2/09/2005	450	221	100
23/09/2005	400	203	90
14/10/2005	330	164	70
8/11/2005	450	247	110
18/11/2005	220	116	45
6/12/2005	500	248	100
23/12/2005	400	196	85
9/01/2006	220	112	45
31/01/2006	500	252	125
6/02/2006	360	185	80
13/03/2006	480	242	110
7/04/2006	380	196	85
25/04/2006	500	246	110
19/05/2006	490	269	110
6/06/2006	400	211	95
25/07/2006	510	289	130
14/08/2006	580	342	135
Total	**7170**	**3739**	**1625**

Table 9. REGULATED WASTE DISPOSAL 2005 – 2006			
Month	**Waste**	**Quantity**	**Contents**
Sep-05	Waste Oil	14300 Litres	NA
Oct-05	Waste Oil	22100 Litres	NA
	Small Batteries	6	NA
	Large Batteries	15	NA
	205L Drum	19	empty
	20L Drum	8	part full
	Pallet Drum	11	empty
	180kg Drum	2	waste grease
Nov-05	Waste Oil	21400 Litres	NA
	Small Batteries	4	NA
	Large Batteries	4	NA
	205L Drum	2	empty
	20L Drum	23	empty
	Pallet Drum	8	empty
Dec-05	Waste Oil	11800 Litres	NA
Jan-06	Waste Oil	18600 Litres	
	Large Batteries	16	NA
	205L Drum	2	empty
	Pallet Drum	10	empty
	180kg Drum	2	waste grease
	120kg Bin	1	oily rags
Feb-06	Waste Oil	15700 Litres	
Mar-06	Waste Oil	14800 Litres	
Apr-06	Waste Oil	9000 Litres	
May-06	Waste Oil	12000 Litres	
Jun-06	Waste Oil	8700 Litres	
	205L Drum	3	oily rags
Jul-06	Waste Oil	15700 Litres	
	205L Drum	14	empty
Aug-06	Waste Oil	17600 Litres	
	205L Drum	2	oily rags

2.6.6 Rubbish Disposal

Both general waste and waste for recycling are disposed of in skip bins located at strategic locations around the site. These bins are collected by a waste management contractor, transported off site and disposed of in an approved manner.

All recyclable and general waste is removed by Cleanaway. Waste steel is collected by Thiess Services. Effluent and domestic septic are collected and transported off site by Transpacific.

Currently we are in the process of employing contract company Transpacific Industries for a total waste management partnership at Ashton Coal.

This will include all waste management from oil and filter disposal to general waste disposal.

In addition the management will be controlled through a site Supervisor who will be present weekly to adjust and amend levels and systems as necessary.

All reporting for waste will be completed and presented monthly.

Table 10. GENERAL WASTE DISPOSAL 2005 - 2006

Date	Weight (kg)
September 05	4697
October 05	8033
November 05	5979
December 05	3626
January 06	6472
February 06	5555
March 06	7460
April 06	2318
May 06	6306
June 06	9510
July 06	6249
August 06	6667
Total	72872

2.7 ROM COAL AND COAL PRODUCT STOCKPILES

Both ROM coal and product coal are stockpiled adjacent to the CHPP.

2.7.1 Stockpile Capacity

The capacity of the ROM coal stockpile is approximately 80Kt of ROM coal.

The capacity of the Underground Coal stockpile is currently 50Kt of ROM coal and when the construction of the underground area is completed, this will increase to 100Kt of ROM coal.

The capacity of the product coal stockpile is approximately 300Kt.

2.7.2 Changes in Product Transport

All product coal was transported off site by rail during the reporting period. No changes are envisaged to this mode of transport.

2.8 WATER MANAGEMENT

Ashton is a nil discharge site and split water into two distinct water categories, Mine Water and Clean Water.

2.8.1 Clean Water Management

Clean water is used only where there exists a need for water of that quality. Clean water is currently sourced from:

- Glennies Creek; and
- Hunter River.

This water is treated in an on-site water treatment plant for use in the office and bath house facilities.

2.8.2 Mine Water Management

All water contaminated by contact with carbonaceous material or collected from the general mining area catchment is classed as Mine water and is collected on site in storage dams. This mine water is utilised in the mining process for dust suppression, the coal handling and preparation plant. Where the quality is suitable this water may also be used to irrigate rehabilitated areas.

There is an agreement in place to use excess underground water from Glennies Creek Coal Mine (Glennies Creek Coal Management Pty Ltd). This water supply is used intermittently to top up process water levels and for dust suppression.

2.8.3 Drainage

Drainage from undisturbed areas is managed in one of two ways:

- The drainage from small undisturbed areas that do not form part of the general mine catchment area are permitted to follow their natural drainage path; or

- The drainage from areas that do form part of the general mine catchment area is channelled in to the runoff water dam and used for the watering of environmental bunds and rehabilitated areas or site dust suppression.

Drainage from disturbed areas is captured in sedimentation control dams and transferred to the runoff water dam used for the watering of environmental bunds and rehabilitated areas or site dust suppression.

2.8.4 Water Supply and Demand

Licences are held by ACOL to pump water from Glennies and Bowmans Creeks and the Hunter River (refer to **Table 1**). These licences were modified to permit the industrial use of the water during the reporting period. The project water balance for the reporting period is detailed in the following table:

Table 11. ASHTON COAL WATER BALANCE		
Month	ML End of Feb 06	ML as at 12 Sep 06
Water Sources		
Meter readings Glennies Creek	23	50
Meter readings Hunter River	54	32
Pit water make OC	91	91
Pit water make UG	30	183
Rainfall captured on site	43	192
Glennies Creek Mine water	46	46
Underground Tonnes	1	17
OC Tonnage Mined	84	125
ROM t on ROM beginning of period (what is on stock pile at the beginning of the reporting month)	0	0
Product at beginning of period (what is on the stock pile at the beginning of the reporting month)	8	3
TOTAL WATER SOURCES	**378**	**737**
Water Use		
Product Tonnage leaving Site	48	70
Dust Suppression Roads	241	241
Amount of Coarse Tailing created	20	47
Amount of Fine Tailing created	48	91
Watering Rehab areas	-	0
TOTAL WATER USE	**357**	**449**
Storage		
ROM t on ROM end of period	0	7
Product at end of period	3	4
Settling Dam	0.1	15.3
Process Water Dam	36.9	38.18
Arties Pit Sump	2.5	13.08
Borrow Pit	3.0	7
FMD1	1.1	1
Cell 4	7.7	7.6
Dam 56	31.1	35.8
Lake Topliss	4.5	-
Total water in Dams Onsite	**87**	**118**
TOTAL WATER STORED	**90**	**129**
SUMMARY		
Total Water sources	378	737
Water used/stored on site	447	578
Water held in dams on site at end of period	87	118
Total water storage capacity	130	130
Remaining Dam Capacity	43	12

It should be noted that there are potentially some errors inherent in water balance calculations due to a number of calculations and assumptions made. Improvements are continuously being made to the system to reduce potential for error. These include the upgrading of the water metering system

2.9 HAZARDOUS MATERIAL MANAGEMENT

2.9.1 Fuel Containment

The open cut workshop and fuel storage facilities have a dedicated bunded area for both fuel and oil storage.

ACOL Hydrocarbon storage area

It was identified during a site audit that the oil water separator at the Open Cut Workshop did not have enough capacity to cater for the flow rates generated from the wash down bay and catchment area it was servicing. The best solution to this problem is to create a larger storage area before the water enters the dam. In this larger area will be another oil water separator which will treat the water for a second time, resulting in cleaner discharge water. At this stage the second separation pond has been constructed and we are waiting for the oil water separator to be completed.

An upgrade to the hydrocarbons storage area is also planned. Quotes have been received for this work and it is planned to be completed in 2007.

At the CHPP, hydrocarbons are currently stored in drums in self-bunded containers. Only small volumes of specialised lubricants are stored in this area. These are stored in a dedicated bunded area.

2.9.2 Spontaneous Combustion Incidence

A Spontaneous Combustion Management Plan has been prepared and implemented on site.

There has been no spontaneous combustion incidences reported during the year or during the mine site history of operation.

2.10 OTHER INFRASTRUCTURE MANAGEMENT

Other infrastructure established on site includes a railway siding, various roads, electricity reticulation, site communications and water reticulation system.

Tailings Disposal

Ashton has reached agreement with Macquarie Generation (MacGen) to dispose of tailings in to Void 4 (East) at Ravensworth. This agreement has a number of advantages for Ashton, including:

- It will alleviate the need for costly rehandling of decanted tailings;
- It will enable the existing tailings ponds to be mined without the need for the establishment of temporary tailings ponds; and
- It will reduce the amount of material that needs to be disposed of in the open cut area (thereby reducing the height of the final landform).

The proposal includes the following infrastructure:

- Four pipelines from Ashton to Void 4 (two tailings pipelines, one decant return pipe and on pipe for water transfer to Ravensworth or Newpac Mine)
- Construction of a dam at the western end of Void 4 (East)
- A flocculant dosing system at Void 4 (East); and
- A decant water pumping system at Void 4 (East)

The following approvals have been (or will be) applied for in relation to this project:

- An application to DOP to modify Ashton's consent to permit the transport of tailings off site;
- A development application to DOP for the installation of the pipelines;
- An application to Singleton Council to modify MacGens' DA 144/1993 to enable receipt of tailings at Ravensworth;
- An application to the RTA under s138 of the Traffic Act to install pipelines beneath Bowmans Creek Bridge.
- An application to DNR under Part 3A of the Rivers and Foreshores Act for the pipes to cross Bowmans Creek;

- An application to DPI (Minerals) under s126 of the CMRA for approval to establish a tailings emplacement area

Construction is expected to commence late 2006, with commissioning in March / April 2007. The operational life of the emplacement area is expected to be 5 – 6 years, with demobilisation and rehabilitation activities taking a further two years after that.

3.0 ENVIRONMENTAL MANAGEMENT AND PERFORMANCE

3.1 AIR POLLUTION

3.1.1 Air Pollution Management

Ashton Coal has an approved Air Quality Management Plan. Controls have been put in place in accordance with this plan to control potential causes of air pollution. These controls are considered to have been adequate for the reporting period, they include;

Planning Controls

ACOL has implemented the following planning controls:

- A network of real time environmental monitoring stations has been established on site;
- ACOL has developed protocols involving specific operational controls when the wind is emanating from the northwest sector to minimise the effect of emissions on the village of Camberwell. The trigger to stop operations is generated by real-time monitoring.
- Large earth berms and tree plantations between the operations and the village have been constructed and planted;
- External overburden emplacement areas have been completed and rehabilitation will be complete within three years;
- The active mining area continues to be minimised.

Engineering Controls

Best practice engineering controls are implemented on the ACOL site during mining operations. These include but are not necessarily limited to:

- Water carts utilised around the site to keep trafficked areas in a damp condition;
- All stockpiles are kept damp by the use of fixed or mobile water sprays under dry and windy conditions;
- Roads are regularly graded to ensure that loose dust-generating surface material is kept to the lowest level practicable;
- Speed limits on mine roads are restricted to 60 km/hr. Speed limits will be reduced if required to maintain dust emission at minium levels;
- Roads are clearly delineated to minimise trafficked areas and to ensure that traffic is kept to watered areas;
- Drills are fitted with dust control equipment and graded rock will be used to stem blast holes. Drill rigs use water injection for drilling and drill areas are wetted down prior to drilling during dry and windy conditions;
- Haul trucks and other earthmoving equipment with upwardly directed exhausts are used on site to minimise the generation of dust by exhaust emissions;
- All diesel equipment used on site is maintained properly and fitted with appropriate pollution control devices; and
- Underground ventilation fans are monitored to manage particulate emissions.

Operational Controls

Active controls involve the continuous management of dust generating activities to ensure that dust emissions do not affect nearby sensitive receptors. Operations are managed in response to real time air quality data measured within the village and surrounds in accordance with set protocols.

Other controls include day-to-day planning of mining activities and taking account of forecast weather and actual weather conditions. A telemetry link has been established between a control PC in the Environmental Office and the meteorological station so that prevailing environmental conditions may be regularly monitored. Other controls include:

- There will be no dumping on high levels of emplacement areas when ten minute average wind speeds exceed 10 m/s and the wind is emanating from the northwest sector;
- Dumping, dozing, loading and haulage operations will be managed to minimise the amount of visible dust exiting the “lease” area; and
- Blasting is to be undertaken using procedures that will involve an assessment of meteorological conditions and will be designed to prevent dust and other emissions causing exceedences, or air quality goals or nuisance effects. Such controls are detailed in the Blasting and Vibration Management Plan.

Improvements During the Reporting Period

Improvements made during the reporting period to reduce the potential for the generation of dust from site activities include;

- The purchase of an additional water cart and the use of an addition hire water cart. The two additional water trucks increases the number of water carts utilised on site from two to four.
- The height of the anemometer used to trigger the CHPP water sprays was raised to provide a more accurate reading of wind speed.
- The CHPP water sprays were upgraded to include an automatic operation triggered on wind speed. This weekly checking of the operation of this system has also been implemented.

3.1.2 Meteorological Monitoring

Ashton established two meteorological monitoring stations prior to the commencement of construction and operation activities on site. These are located at Monitoring Location 1 in the village of Camberwell and at the Repeater Station on the ridge above the village (see Figure 2 in Appendix 2). The repeater station is the primary meteorological station from which wind direction and speed is assessed for mine operation purposes, whilst location 1 is primarily used to measure temperature inversions.

Rainfall
Rainfall data for the reporting period is displayed in the following table.

Table 12. RAINFALL DATA 2005-2006

Month	Rainfall (mm)	Long Term Median Rainfall *(mm)
Sep 05	41.4	50.4
Oct 05	107.6	34.5
Nov 05	86	64.6
Dec 05	15.2	83.4
Jan 06	57.2	69.6
Feb 06	47.3	94.7
Mar 06	37.6	68.5
Apr 06	25.4	41.3
May 06	1.8	43.6
Jun 06	30.8	34.8
Jul 06	37.4	40.8
Aug 06	13.4	31.5
Total	**501.1**	**657.7**

*Long Term Median Data from Bureau of Meteorology, for Singleton STP.

The annual rainfall was well below the long term median for Singleton NSW. Dry periods were experienced in December 2005 and May and August 2006. Where necessary due to equipment failure, data from Camberwell Mine has been used to supplement the information obtained on site.

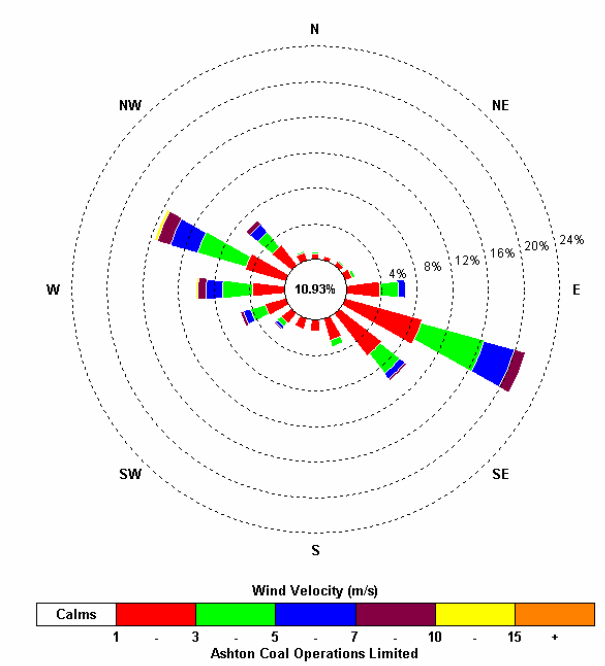
Wind Speed and Direction
Observed wind patterns for the period are outlined in the following table:

Table 13. WIND PATTERNS BY MONTH 2005 - 2006

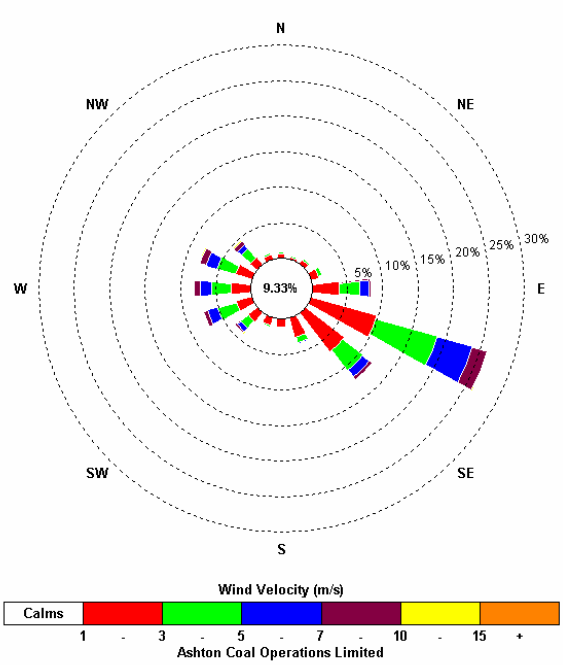
Month	Primary Wind Direction (Quadrant)	Secondary Wind Direction (Quadrant)
September	WNW	WSW
October	ESE	WNW
November	ESE	WNW
December	SSE	WNW - WSW
January	ESE	-
February	ESE	-
March	ESE	-
April	WNW	WSW
May	WNW	-
June	WSW	SEE
July	WNW	SEE
August	WNW	SSE

The dominant wind direction from September to October 2005 was from the East South East (ESE) and to a lesser extent the West North West (WNW). During November 2005 to March 2006 the dominate wind direction was again East South East. Finally from April through to August 2006 wind patterns were dominated by West North Westerlies (WNW). These trends are typical of wind patterns in the Hunter Valley.

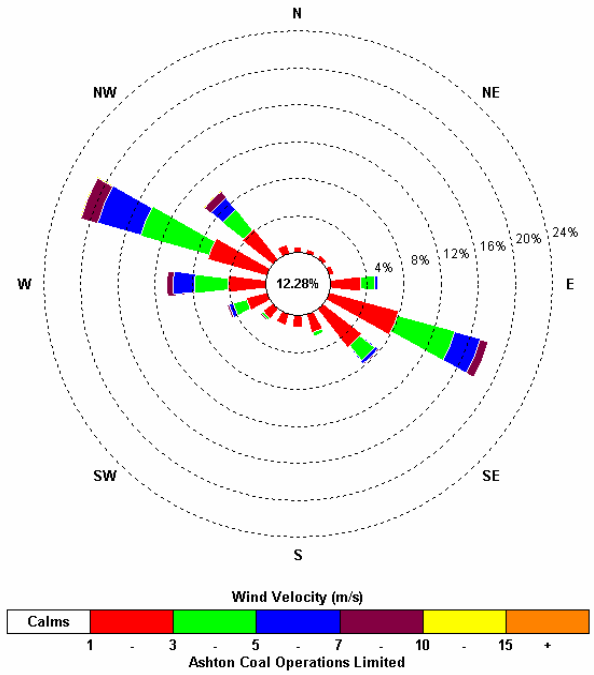
1st Quarter Windrose Sep 05 – Nov 05



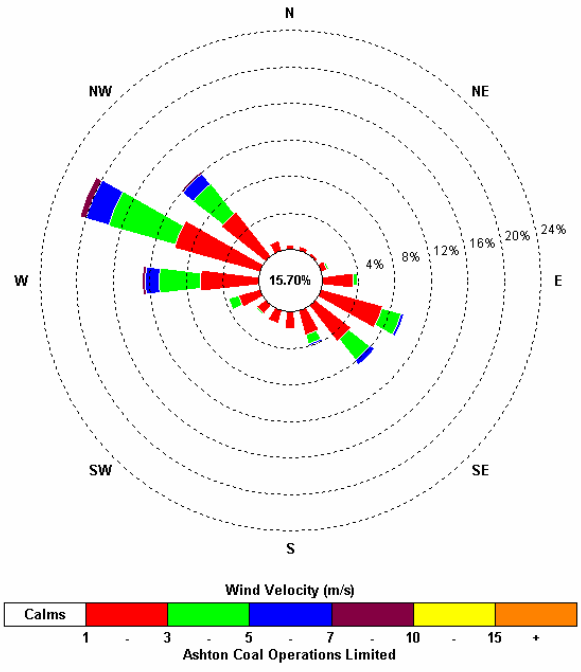
2nd Quarter Windrose Dec 05 – Feb 06



3rd Quarter Windrose Mar 06 – May 06



4th Quarter Windrose Jun 06 – Aug 06



3.1.3 Dust Criteria and Monitoring

A network of real-time environmental monitoring stations was installed prior to the commencement of operations and is utilised to ensure continued compliance with the criteria established in the Development Consent and the EPL. Figure 1 and Figure 2 from the Air Quality Management Plan presented in the appendix detail monitoring locations.

3.1.3.1 Particulate Matter < 10µg (PM_{10})

The criteria for particulate matter less than 10µm (PM_{10}) is as follows:

- Annual mean less than 30µg/m^3 on a cumulative basis, and
- 24 hour average contribution from Ashton Mine not to exceed 50µg/m^3.

Locations of PM_{10} monitoring stations are detailed on **Figure 1** of Appendix 2. They are as follows:

Table 14. LOCATION OF PM_{10} MONITORING STATIONS

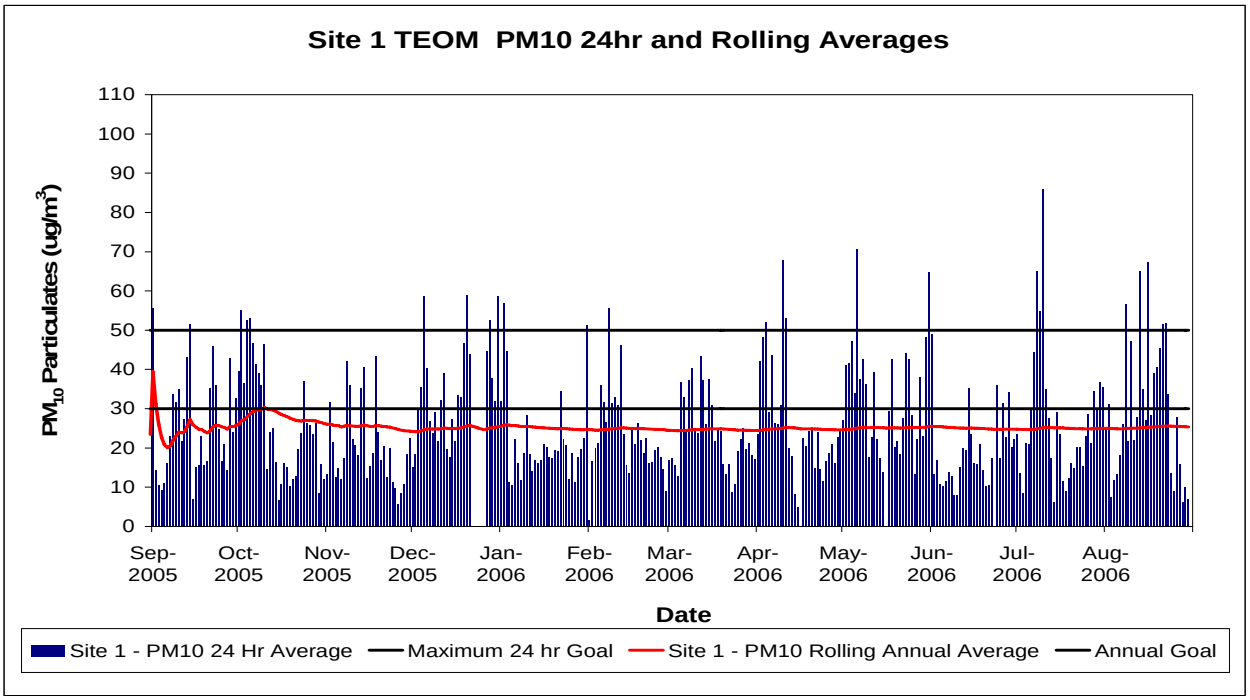
Monitoring Station No	Location
1	Camberwell village (north)
2	Camberwell village (south)
3	Property east of Camberwell village
4	**On site** north of Eastern Emplacement Area
6	**On site** near Train Loading Station (decommissioned May 2006).
7	**On site** at country end of rail siding

Monitoring Locations 4, 6 and 7 are located within the mine operations area, immediately south of the Main Northern Railway and are intended to monitor the incoming concentrations of PM_{10} dust when the prevailing winds are from the northwest sector, the wind direction that presents the greatest risk of impact to the village of Camberwell. Site 6 was decommissioned in May 2006 due to the heavy impact the open cut operations have on the sites monitoring results. ACOL are currently in the process of relocating the site to Camberwell village in order to provide a more representative monitoring program for mines operational impacts.

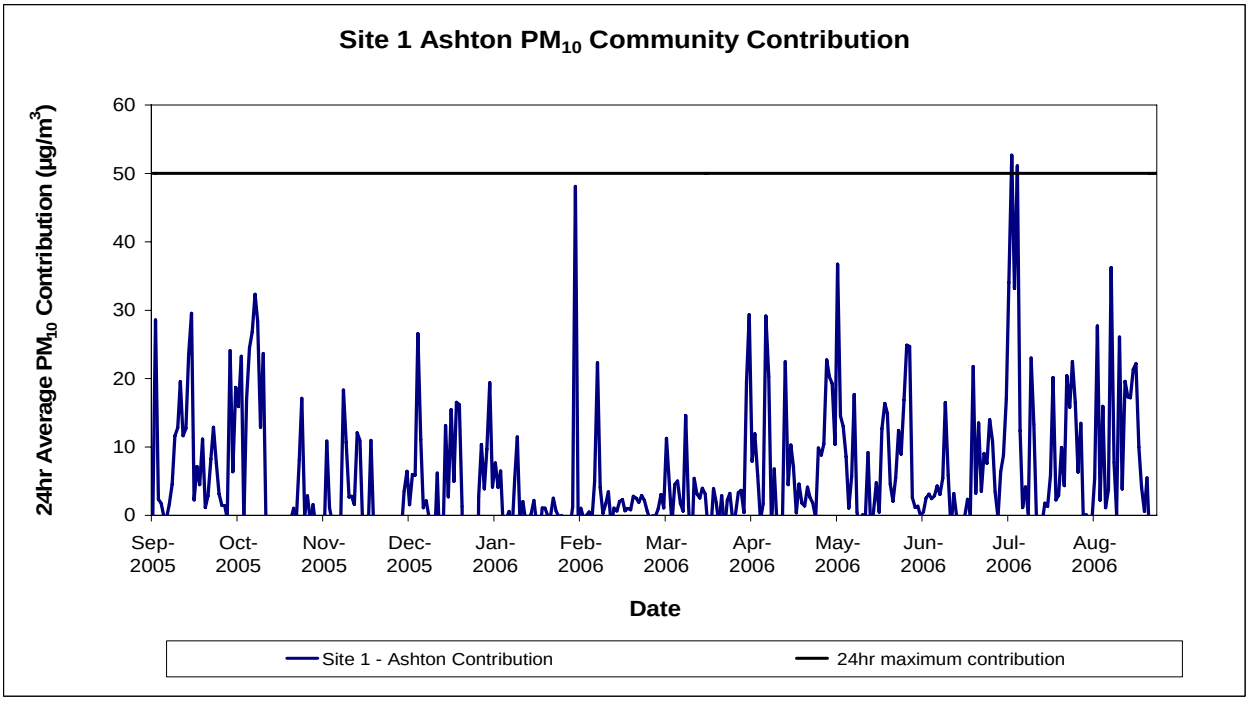
The Ashton contribution to the concentration of PM_{10} matter at Community sites is calculated by subtracting the incoming dust concentration (which is assumed to be the lowest level recorded at sites 4, 6 or 7) from the ambient level of dust concentration at the three community sites. This is a very conservative calculation. The Air Quality Management Plan details the calculations using the average of the three background TEOMs, the management plan calculation can be biased due to high dust levels at Location 6 caused by on-site activities.

Site 1 TEOM

Site 1 is located in the northern portion of the village of Camberwell. 100% of data was captured for Site 1 for the reporting period. Results of PM_{10} monitoring at this location were as follows:



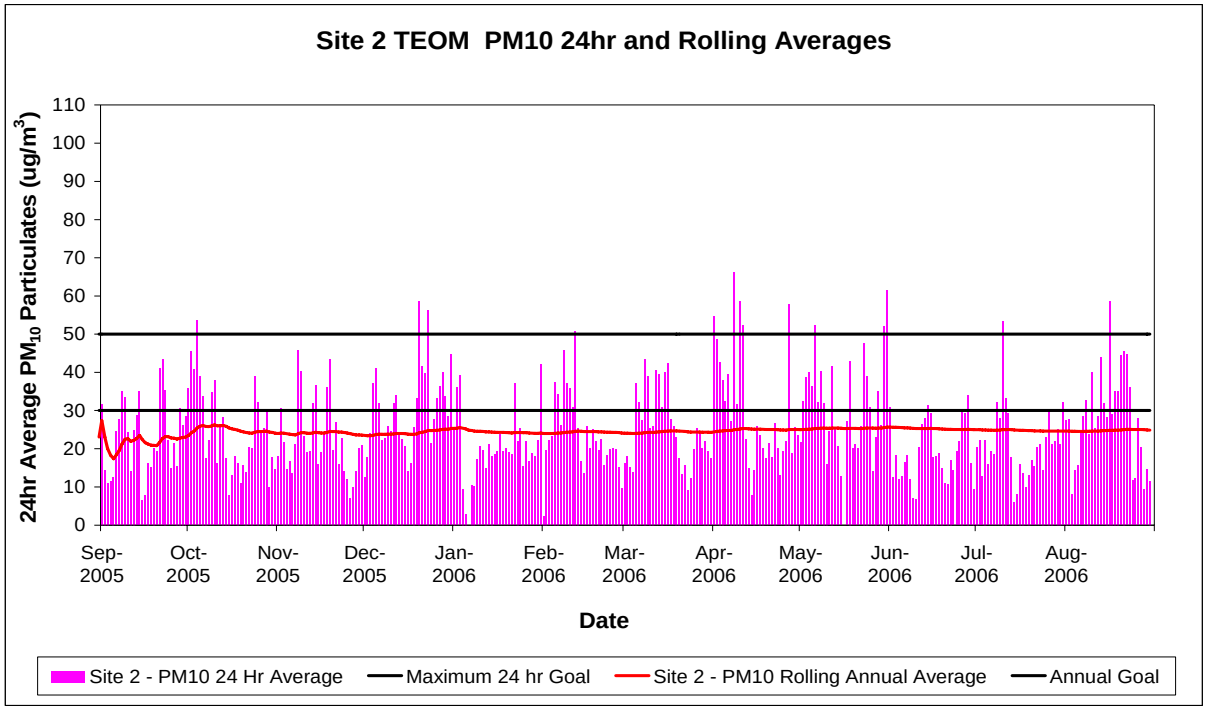
The rolling average PM_{10} results for Site 1 demonstrates compliance with the annual goal of 30µg/m^3.



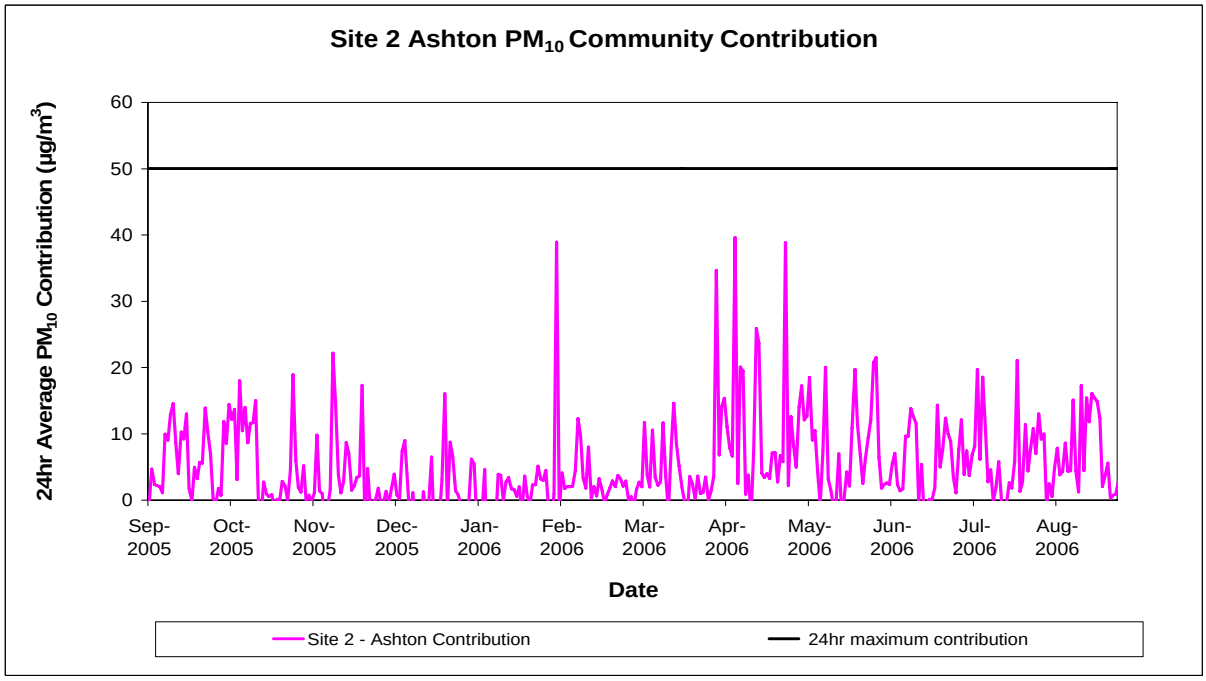
There were 2 instances where Ashton's community contribution was recorded above the criteria of 50µg/m^3. These were both in July 2006 recording values of 53 and 51µg/m^3.

Site 2 TEOM

Monitoring Station Site 2 is located in Camberwell village on the south side of the New England Highway. 100% of data was captured from Site 2 for the reporting period. Results of PM_{10} monitoring at this location were as follows:



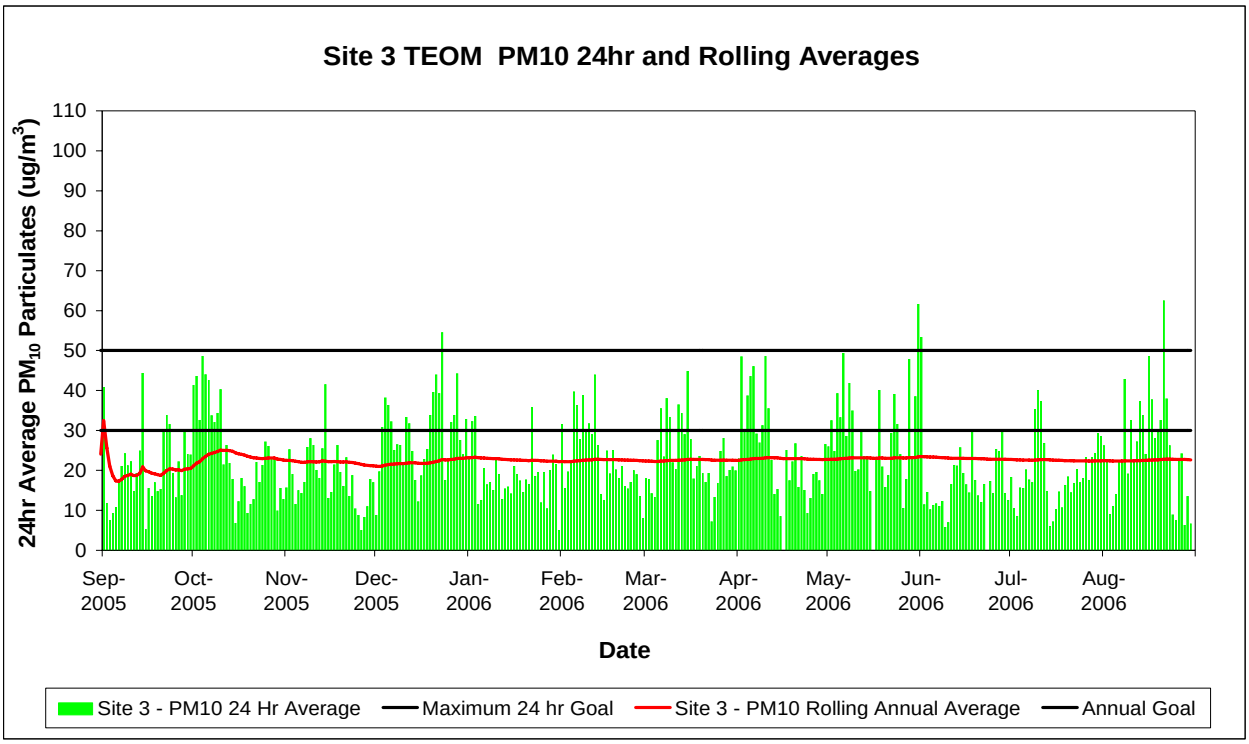
The rolling average PM_{10} results for Site 2 demonstrates compliance with the annual goal of 30µg/m^3.



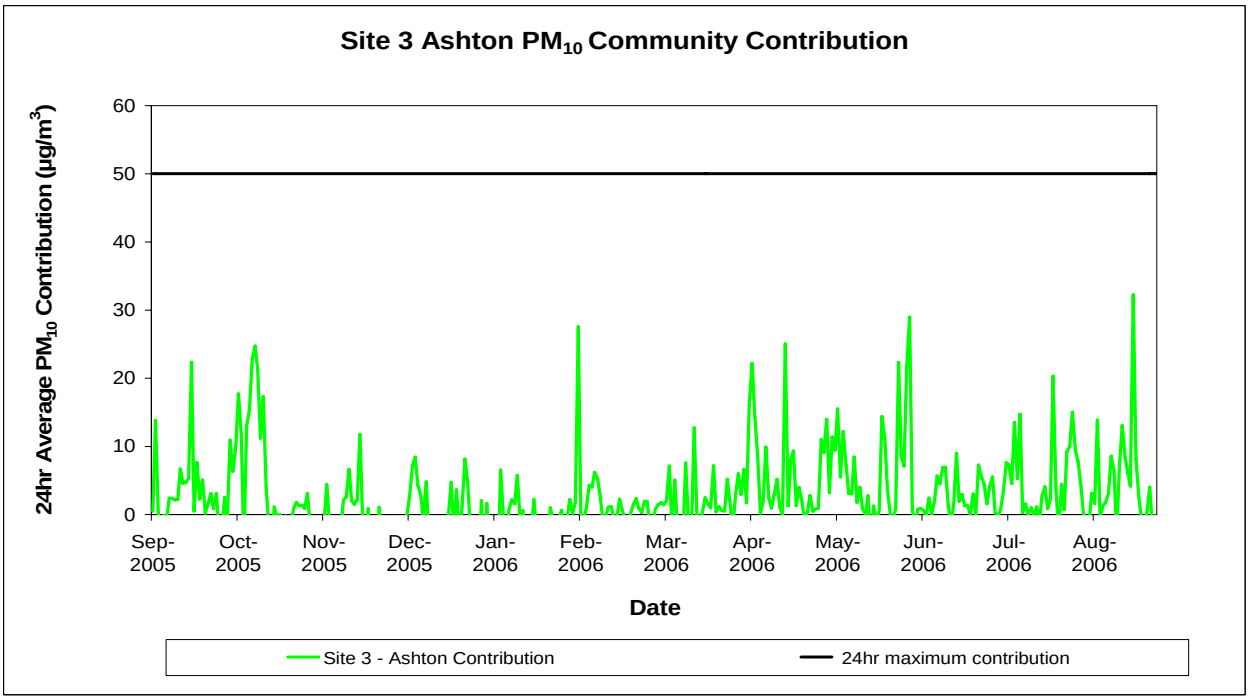
Site No 2 is located close to the New England Highway, and may be influenced by passing traffic when the winds emanate from the north, however Ashton remained in compliance with the criteria of 50 µg/m^3 at all times.

Site 3 TEOM

Site 3 is located on a farming property to the east of the Eastern Emplacement Area. 100% of data was recovered at Site 3 for the reporting period. Results of PM_{10} monitoring at this location were as follows:



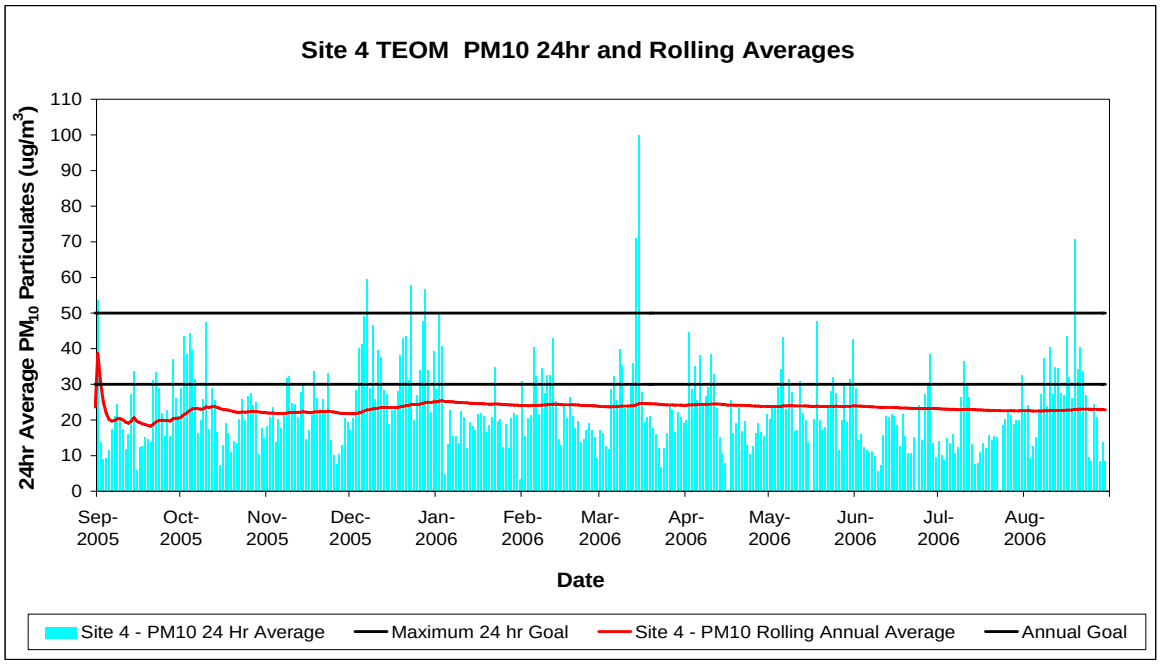
The rolling average PM_{10} results for Site 3 demonstrates compliance with the annual goal of 30µg/m^3.



Site 3 remained in compliance with the community contribution criteria of 50 µg/m^3 at all times.

Site 4 TEOM (On-Site)

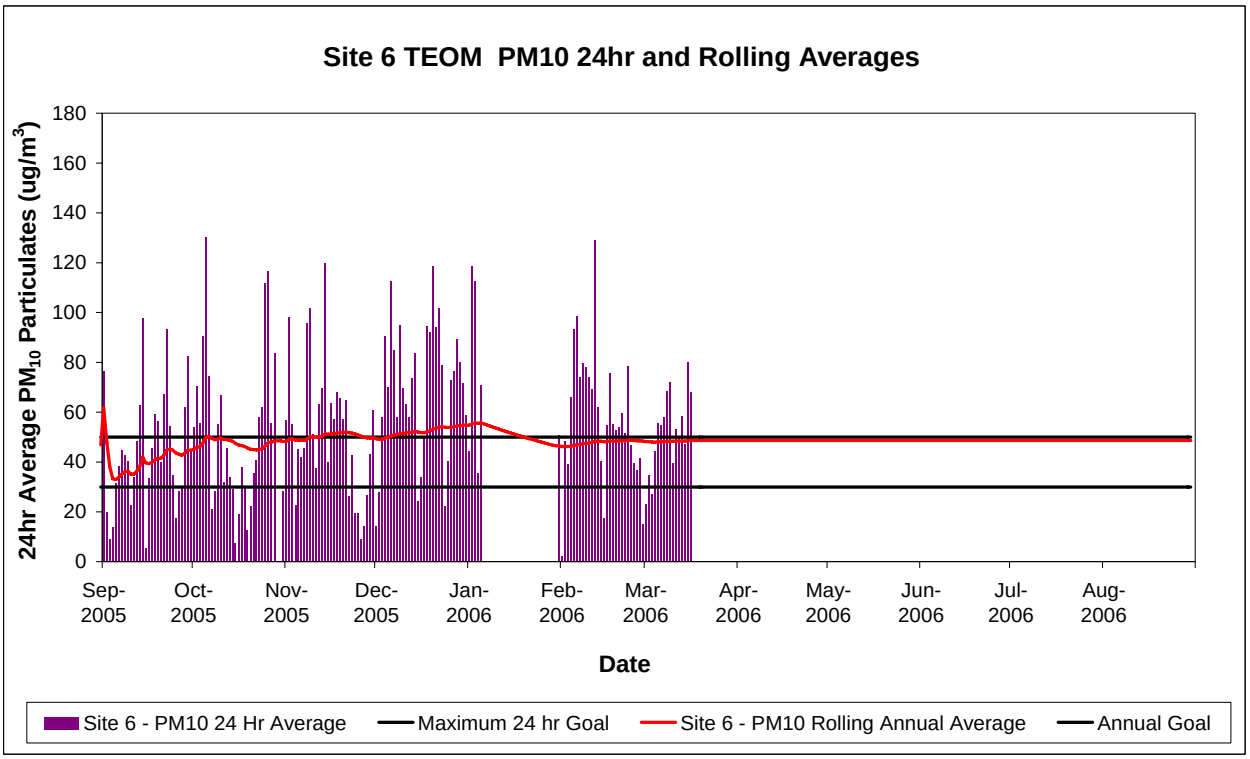
Site 4 is located on the eastern tip of the eastern emplacement area, next to Dam 5/6. 100 % of data was recovered at site 4 for the reporting period. This is a vast improvement on the 84% of data recovered at Site 4 in the previous reporting period (2004-2005).Results of PM_{10} monitoring were as follows:



Although the annual goal of 30µg/m^3 is not expected to apply to onsite TEOMS the annual goal was still achieved at site 4.

Site 6 TEOM (On-Site)

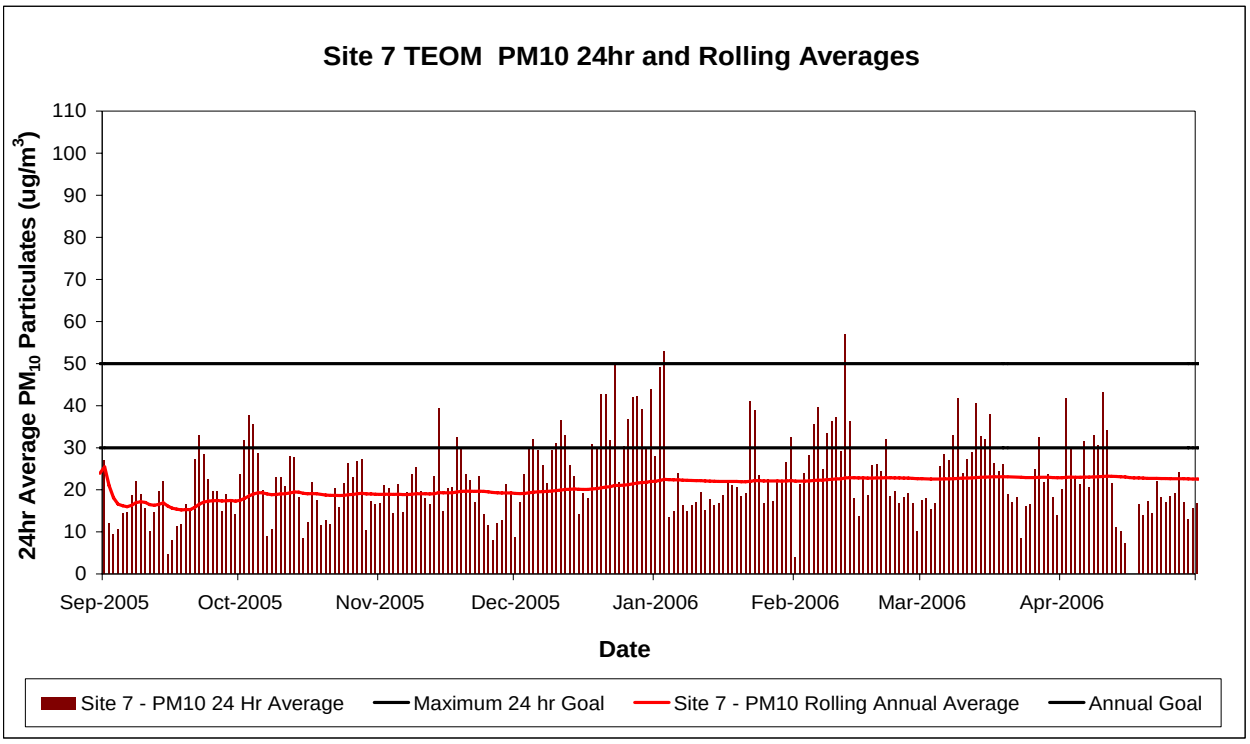
Site 6 was located between the ACOL mine office complex and the Main Northern Railway. As it was in close proximity to the coal haul road and the Train Loading Station monitoring results were being compounded. The Open Cut operations were planned to move through the sites location and as a result the site was removed in May 2006 and is in the process of being relocated to Camberwell village.



The annual goal of 30µg/m^3 is not expected to apply to onsite TEOMS. During operation this TEOM was heavily impacted by an adjacent access road and nearby coal haul road.

Site 7 TEOM (On-Site)

Monitoring station No 7 is located adjacent to the Main northern Railway at the country end turnout. The site is remote from mining operations. 100% of data was recovered from this site during the monitoring period.



The annual goal of 30µg/m^3 is not expected to apply to onsite TEOMS. The results from this monitor show why it is selected for most calculations of Ashton's Contribution. It is generally the lowest of the background TEOMs.

3.1.3.2 Total Suspended Particulate Matter (TSP)

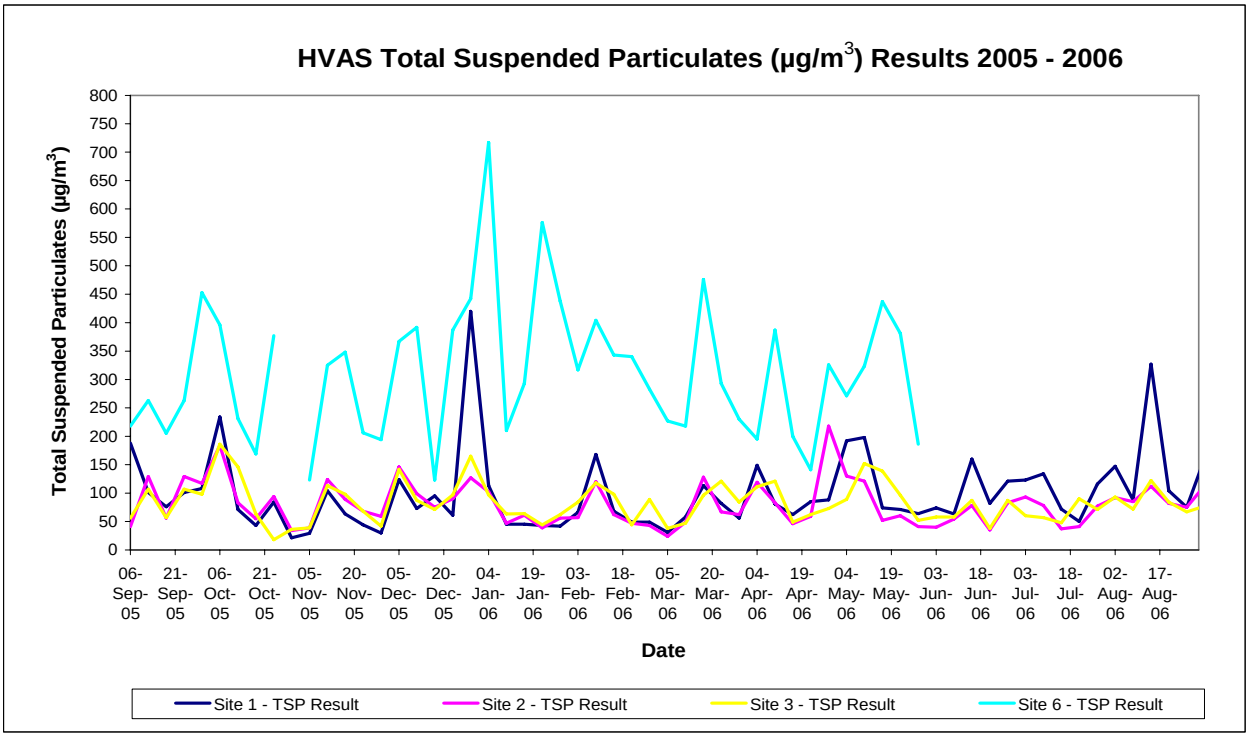
Guideline values for TSP indicate that results are not to exceed 90µg/m^3 (annual mean).

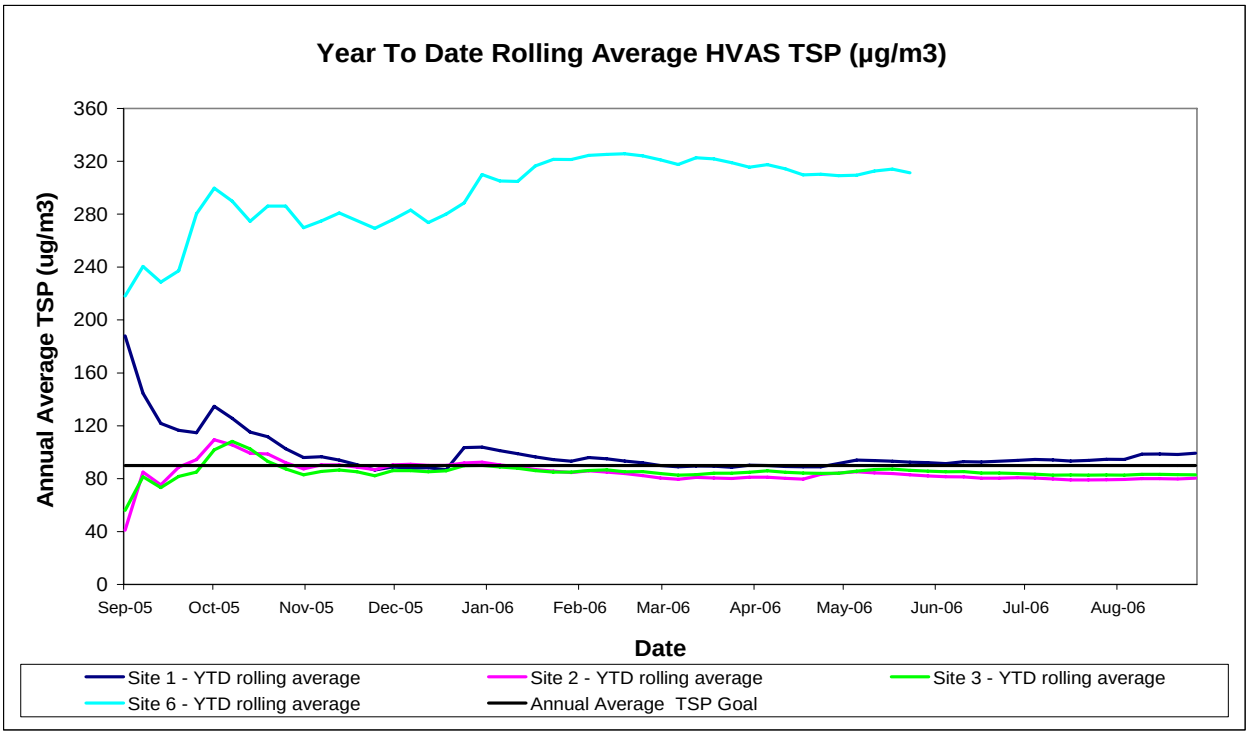
The locations of High Volume Air Samplers to monitor TSP are detailed in Figure 1 of Appendix 2. They are as follows:

Table 15. LOCATION OF TSP MONITORING STATIONS

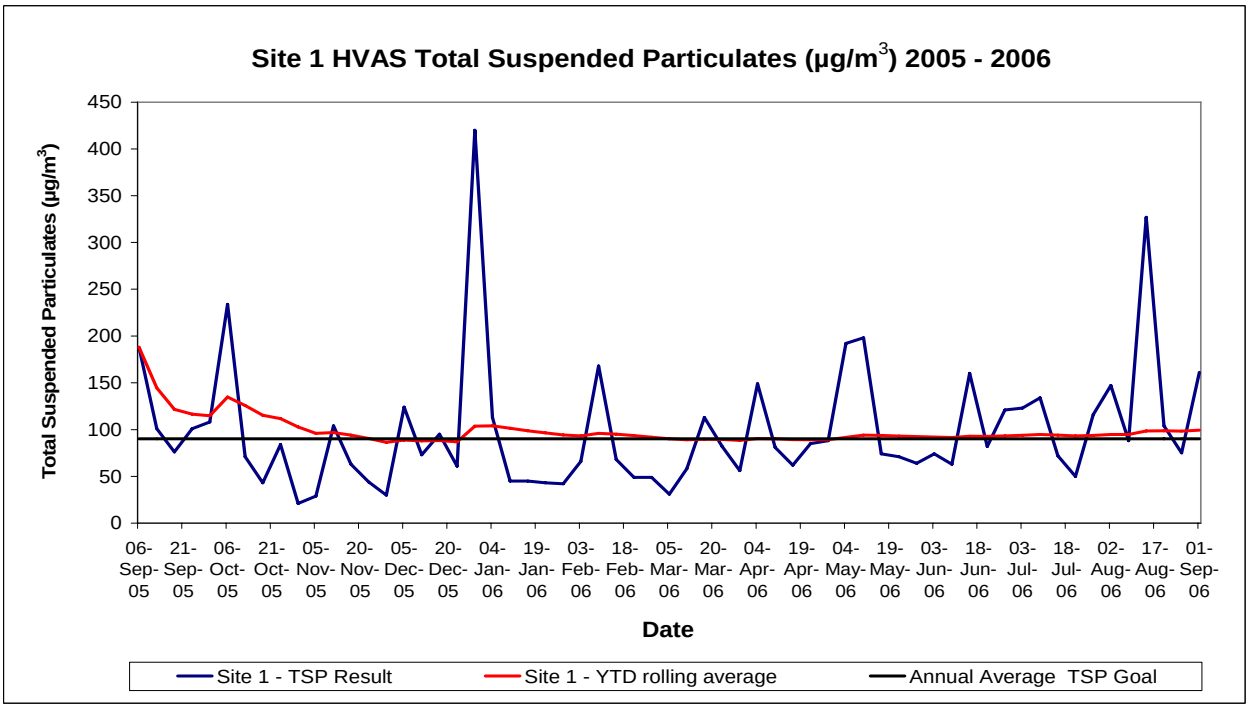
Monitoring Station No	Location
1	Camberwell village (north)
2	Camberwell village (south)
3	Property east of Camberwell village
6	On site near Train Loading Station

100% of data was recovered at sites 1, 2 and 3 for the reporting period. Site 6 recovered 98.1% of data while operating however as it was decommissioned in May 2006 making the total percentage recovery 72.1%. Data from all TSP monitors was as follows:



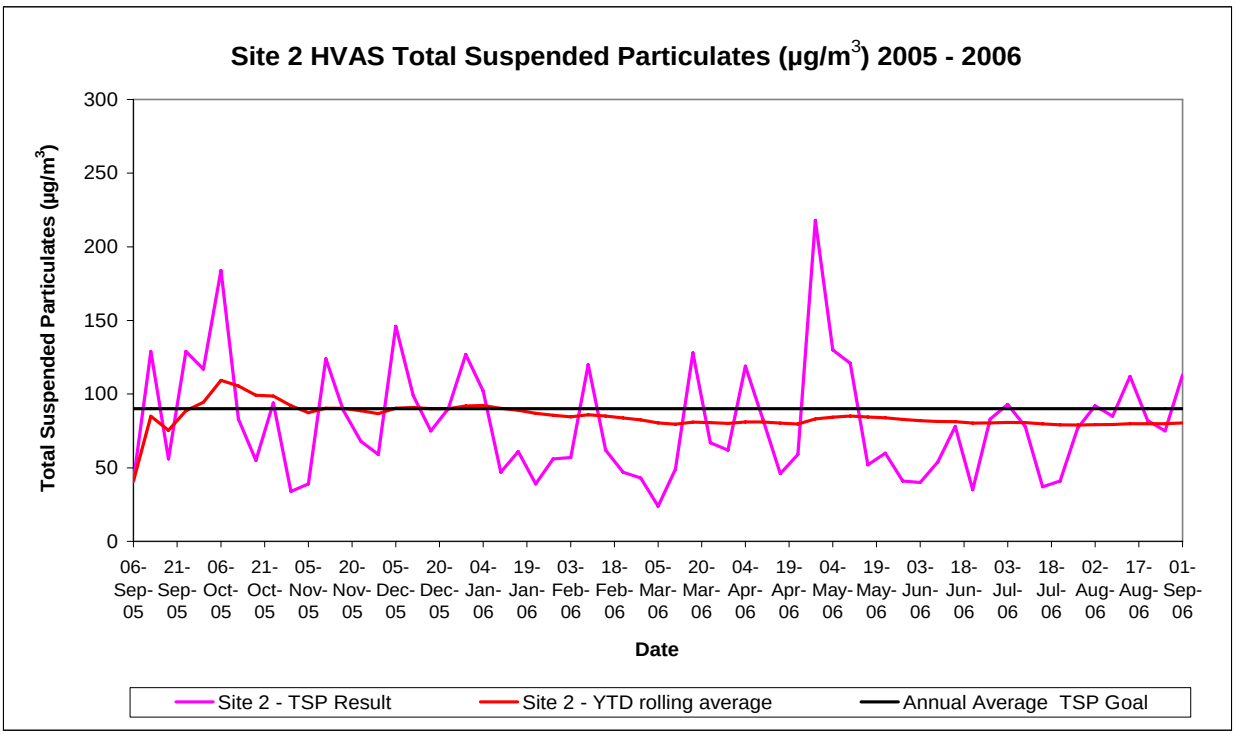


Site 1 HVAS



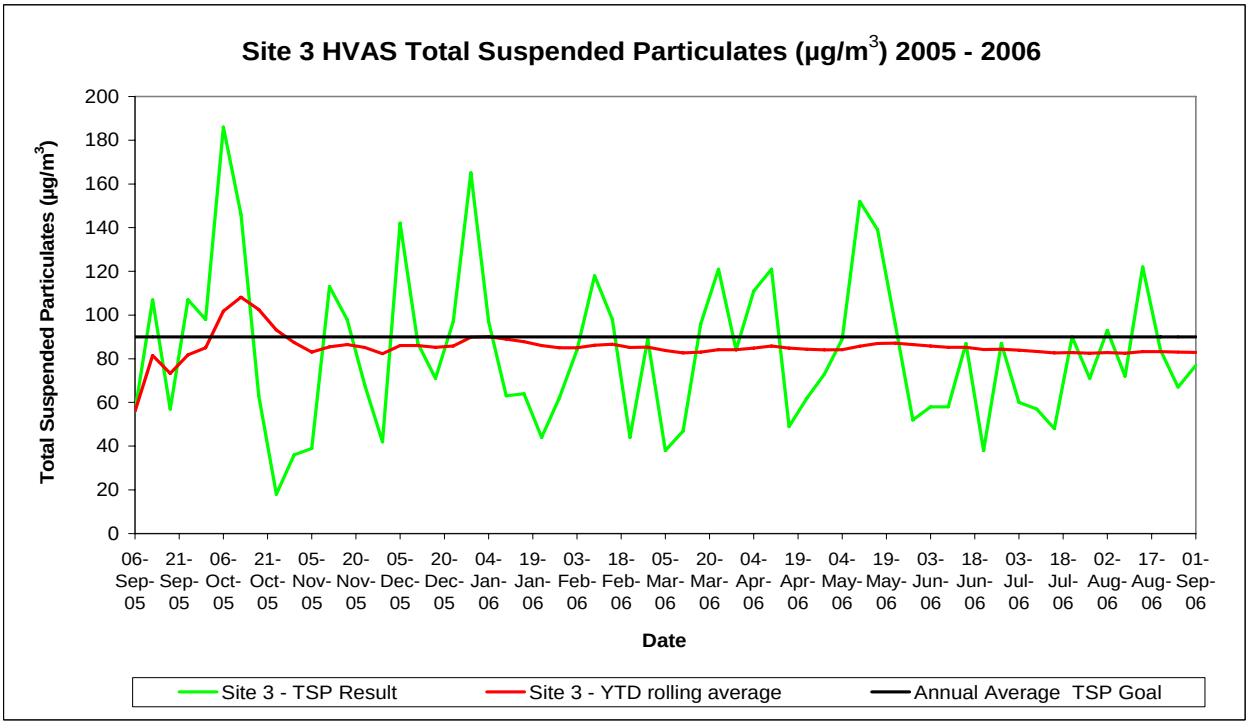
The rolling annual average for TSP at site 1 demonstrated non compliance with the annual average criteria of 90µg/m^3. The final annual average was 98.3µg/m^3.

Site 2 HVAS



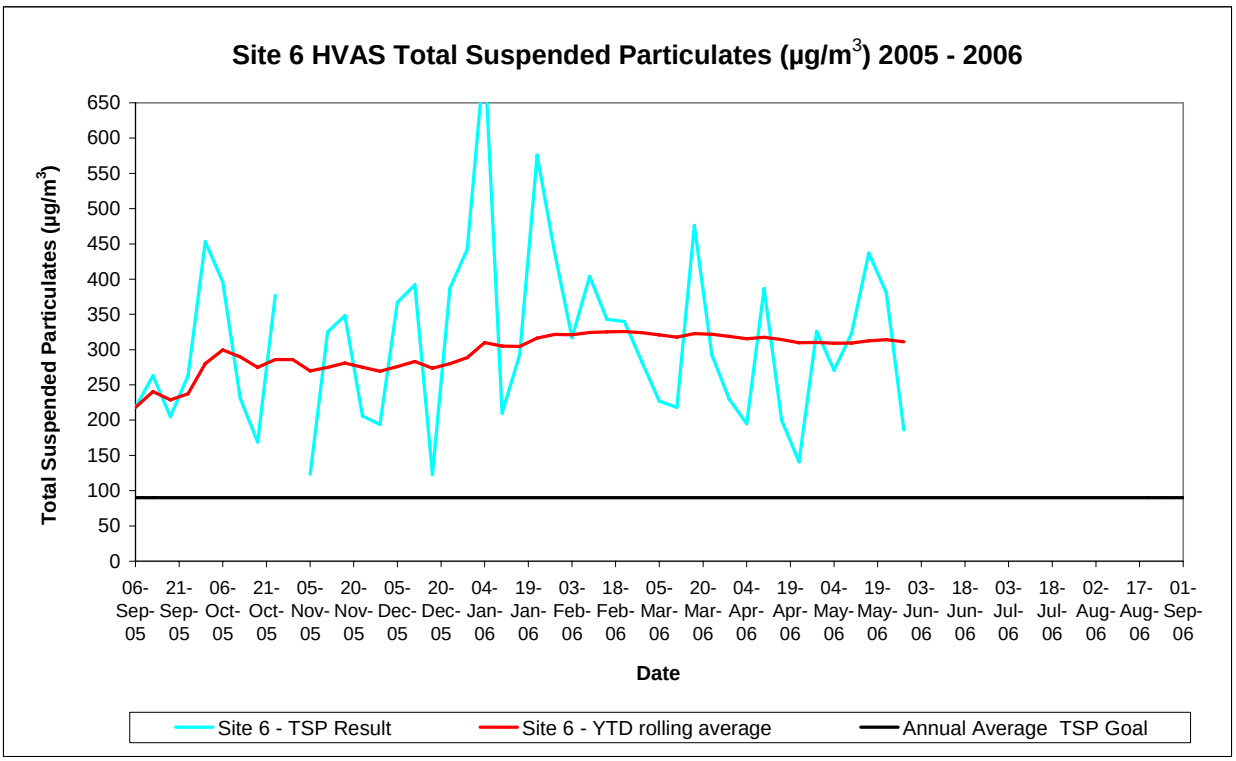
The rolling average TSP results for Site 2 was below the annual average TSP goal of 90µg/m^3 for the majority of the reporting period. There was a period of approximately one month where the average was above the TSP goal of 90µg/m^3 .

Site 3 HVAS



The rolling average TSP results for Site 2 are below the annual average TSP goal of 90µg/m^3. There was a period of approximately one month where the average was above the TSP goal of 90µg/m^3 .

Site 6 HVAS



The rolling average TSP goal of 90µg/m^3 is not expected to apply to onsite HVAS.

3.1.3.3 Dust Deposition Gauges

The location of Dust Deposition gauges is detailed on Figure 1 of Appendix 2. They are as follows:

Table 16. LOCATION OF DUST DEPOSITION GAUGES

Monitoring Station No	Location
2	Ravensworth property west of open cut
3	Ravensworth property near Hunter River
4	Ashton property near Hunter River
5	New England Highway SE of Camberwell village
6	St Clements Church
7	TEOM site 1
8	TEOM site 2
9	TEOM site 3
10	**On site** - TEOM site 4 (near East OB dump)
11	NE of Emplacement Area on Glennies Creek Rd
12	**On site** – TEOM site 6 (alongside coal haul road)
13	**On site** – TEOM site 7 (country end turnout)

Data recovery for all depositional dust gauges is as follows:

Table 17. DUST DEPOSITION GAUGES – EXTENT OF CONTAMINATION

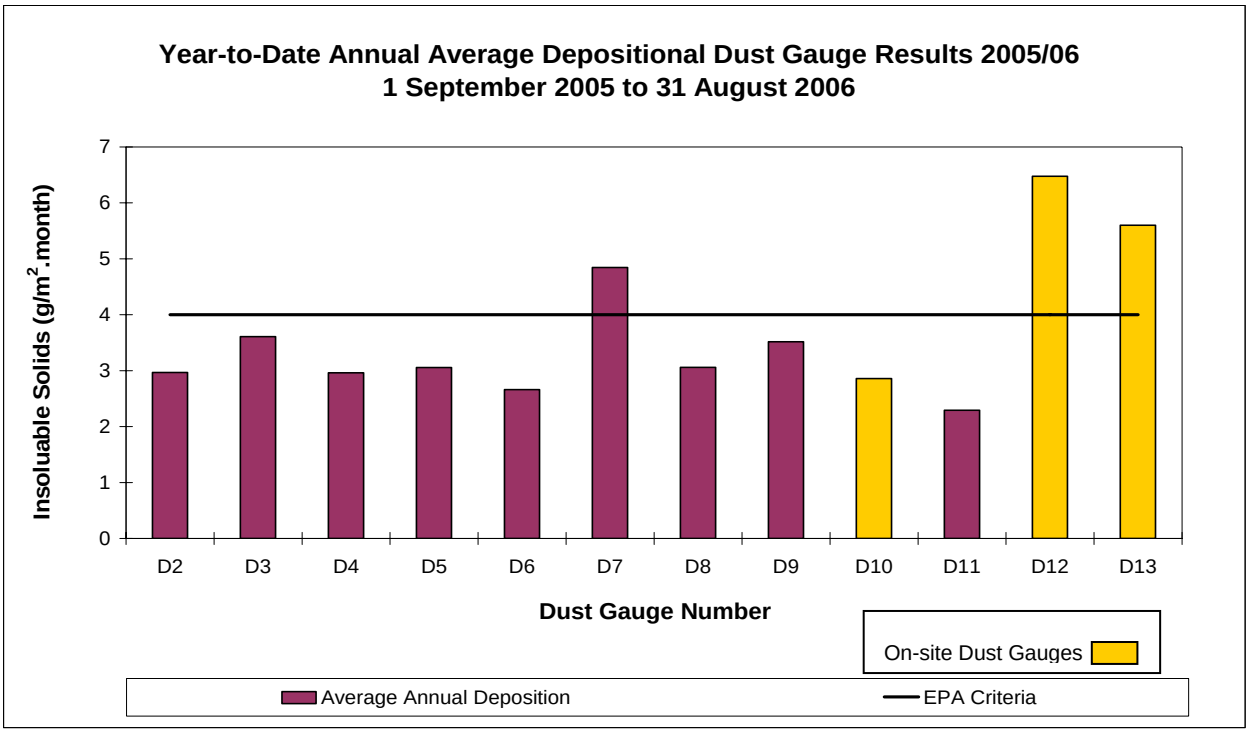
Gauge Number	Data Availability (%)	Data Loss
D2	100	0 contaminated results
D3	100	0 contaminated result
D4	100	1 contaminated result
D5	100	1 contaminated result
D6	100	0 contaminated results
D7	100	1 contaminated results
D8	100	0 contaminated results
D9	100	0 contaminated results
D10	100	0 contaminated results
D11	100	0 contaminated results
D12	67	4 months lost due to relocation
D13	100	1 contaminated results

Note: Dust Gauge D12 was removed from alongside the coal haul road in May 2006 and is in the process of being relocated to the eastern portion of Camberwell village on the request of the CCC.

Table 15 shows the annual average insoluble solids for each gauge over the 2004 – 2005 reporting period.

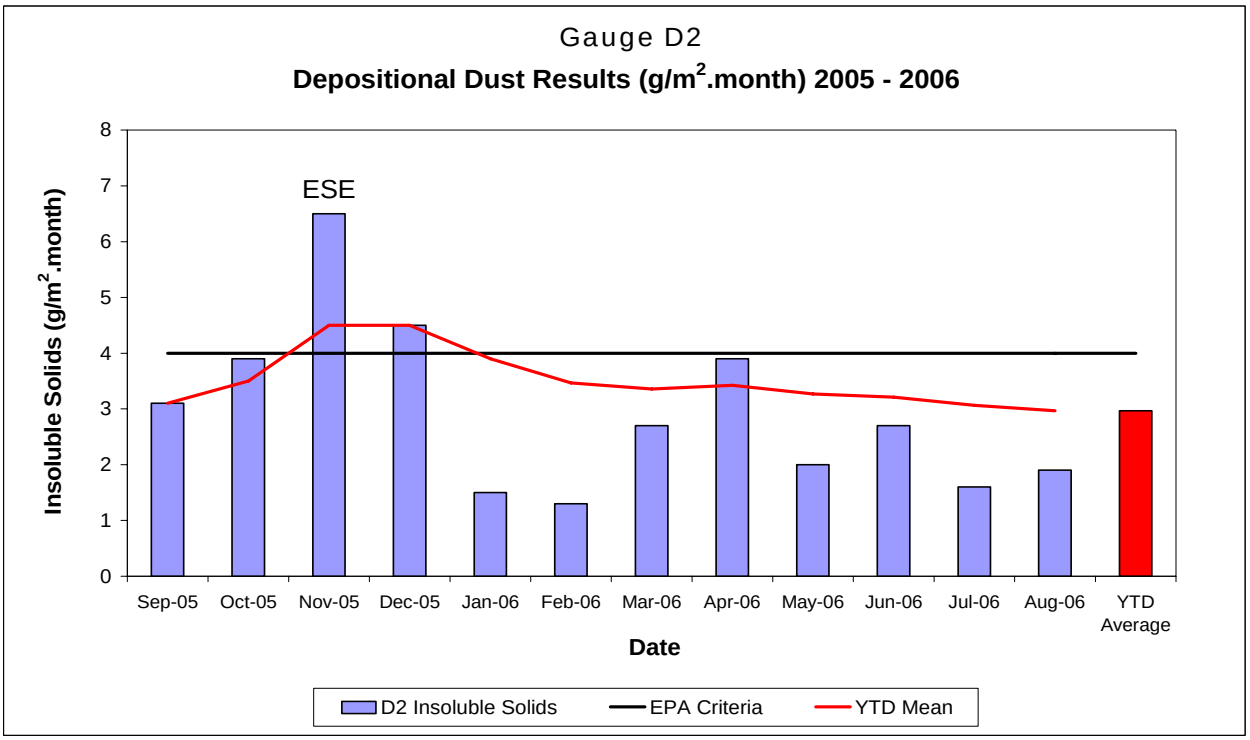
Table 18. INSOLUBLE SOLIDS ANNUAL AVERAGE RESULTS (EXCLUDING CONTAMINATED GAUGES)		
Dust Gauge	**Annual Average EIS Background Values (g/m^2.month)**	**Annual Average 2005 – 2006 (g/m^2/month)**
D2	3.5	2.97
D3	3.9	3.61
D4	1.6	3.93
D5	2.0	3.05
D6	1.5	2.7
D7	NA	4.85
D8	NA	3.06
D9	NA	3.52
D10 (on site)	NA	2.86
D11	NA	2.29
D12 (on site)	NA	6.48
D13 (on site)	NA	5.60

The annual average dust deposition for all depositional dust gauges is as follows:

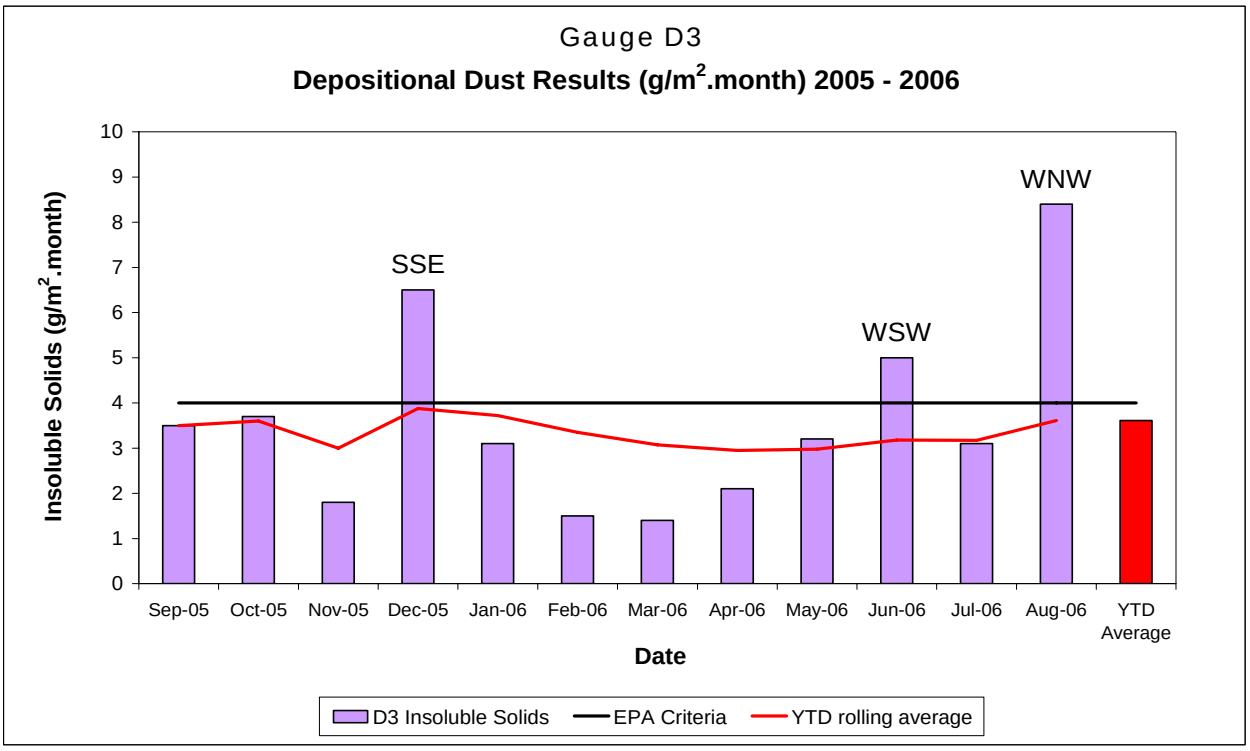


One of the off-site depositional dust gauges, site D7 exceeded the annual EPA criteria of $4g/m^2$. The year-to-date annual averages for the site was $4.85g/m^2$. The remaining off-site dust gauges were all below the EPA criteria. Sites D10, D12 and D13 are on-site gauges located in close proximity to mining operations and the EPA criteria is not expected to apply to these locations.

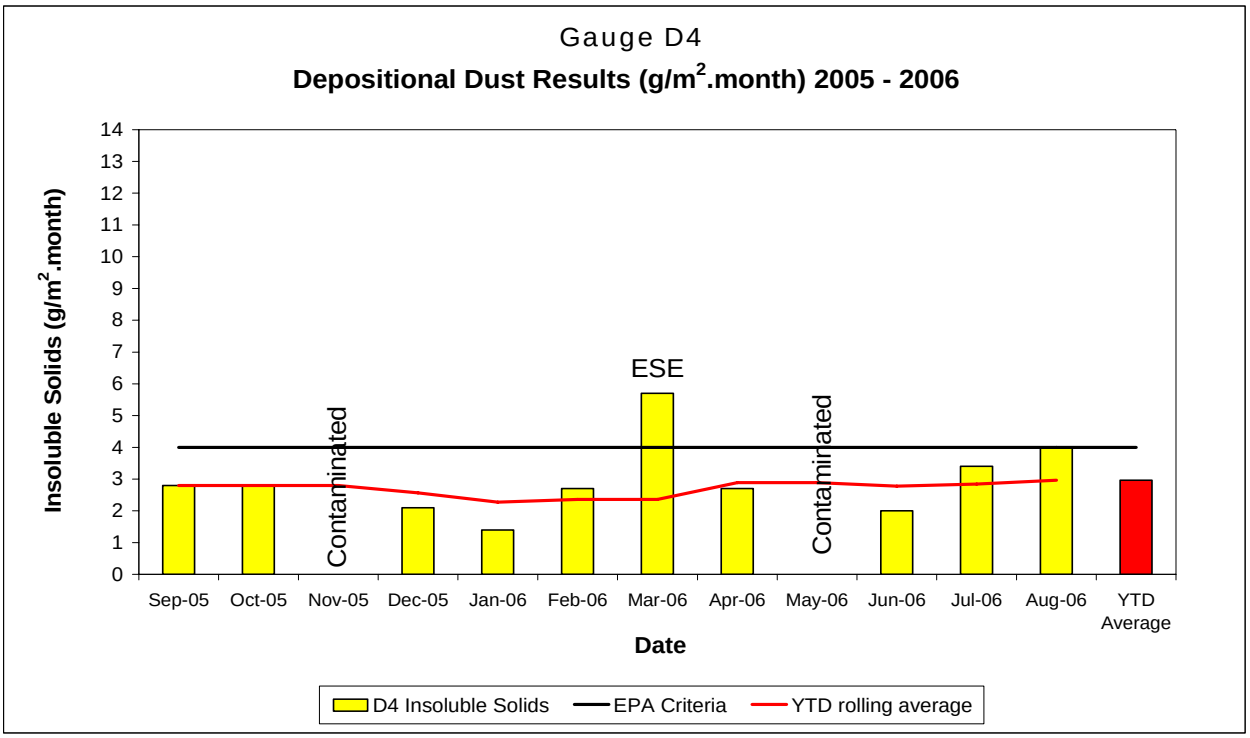
Results for individual dust gauges are as follows (excluding contaminated sites).



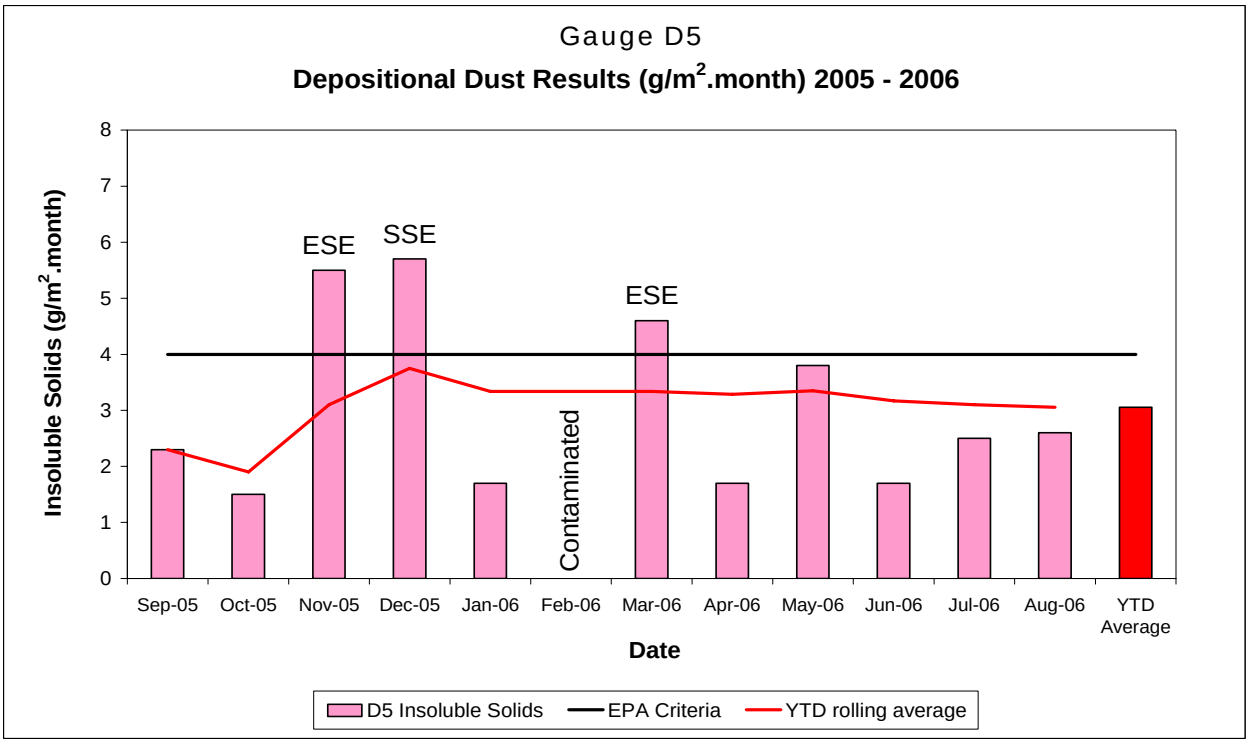
Depositional dust gauge D2 is located to the west of Ashton on Ravensworth property. Year-to-date annual average results are below the EPA criteria of 4g/m^2/month. The elevated November result occurred when winds were predominantly coming from the ESE with secondary strong winds from the WNW. Although Ashton operations may have slightly influenced these results, the location of the site in close proximity to Ravensworth Operations during the WNW winds is likely to have produced this high November result.



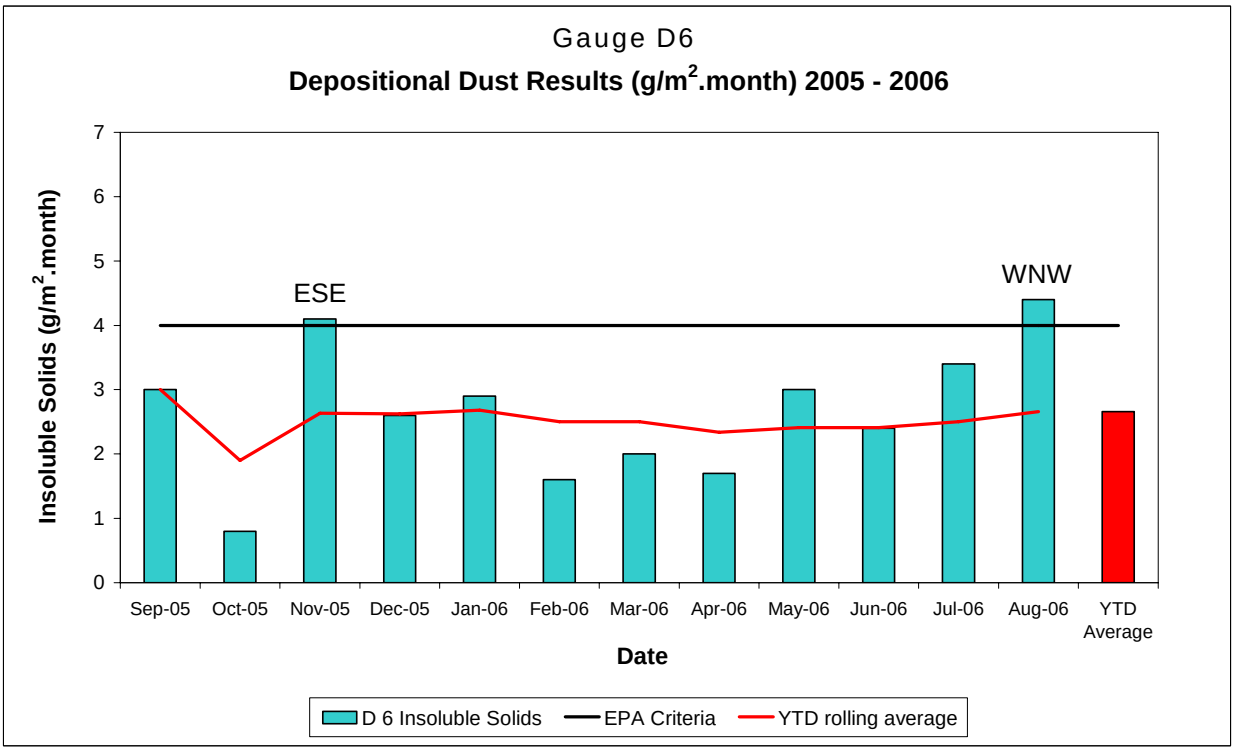
Depositional dust gauge D3 is located to the south of the Ravensworth Mine near the Hunter River. Year-to-date annual average results are below the EPA criteria of 4g/m^2/month. Ashton is only likely to effect dust results at this site when winds are emanating from the north east sector. The elevated results seen December 2005 and June and August 2006 have not been significantly impacted by Ashton Operations.



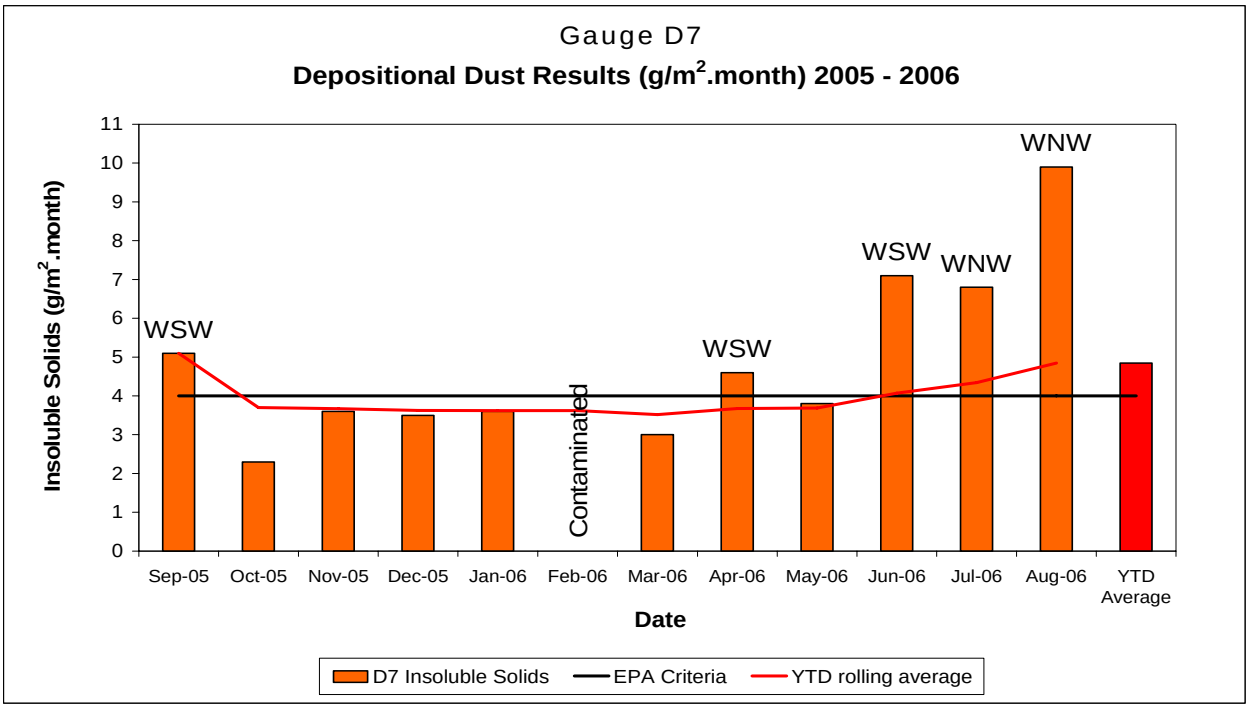
Depositional dust gauge D4 is also located well to the south of the Ashton Mine near the Hunter River. Year-to-date annual average results are below the EPA criteria of 4g/m^2/month. The high reading experienced in May 2006 can be related to the exceptionally dry period experienced throughout the month. Only 1.8mm of rainfall was received throughout May 2006 (longterm average 43.6), ultimately leading to one of the driest May periods experienced. Furthermore due to the location of D4 the west-north-westerly winds that dominated May indicate that the dust collected during this period is greatly contributed to by mines to the West of Ashton. Asthon's contribution during May 2006 would be negligible.



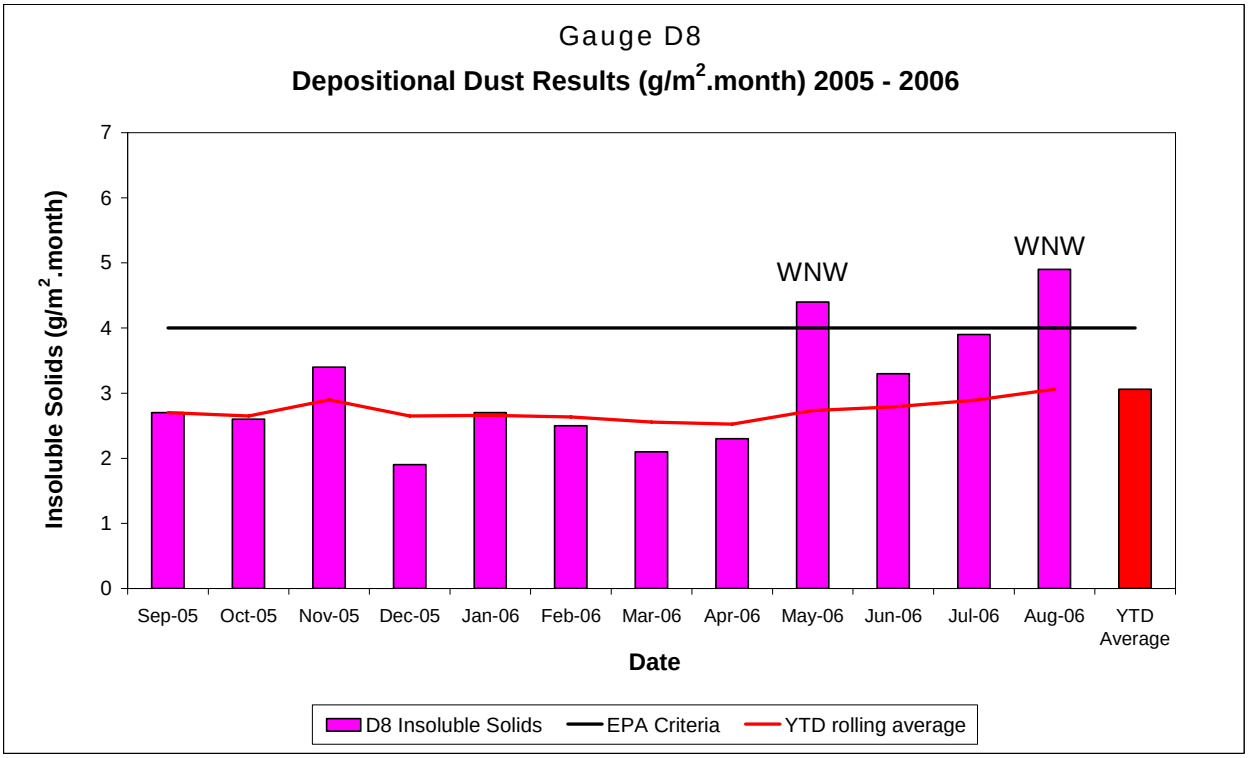
Depositional dust gauge D5 is located adjacent to the New England Highway approximately 4km south east of the Ashton Mine. Year-to-date annual average results are below the EPA criteria of 4g/m^2/month.



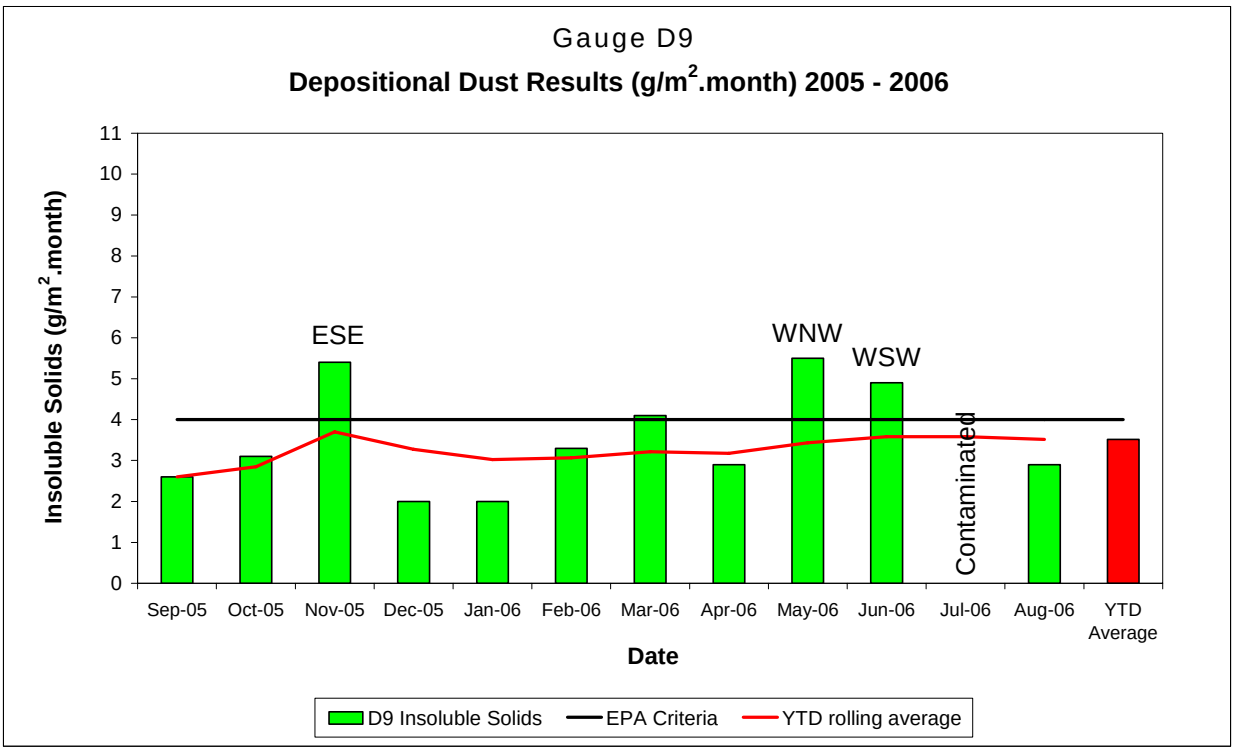
Depositional dust gauge D6 is located near St Clements Church in the village of Camberwell and is in close proximity to the Ashton Mine. Year-to-date annual average results are below the EPA criteria of 4g/m^2/month.



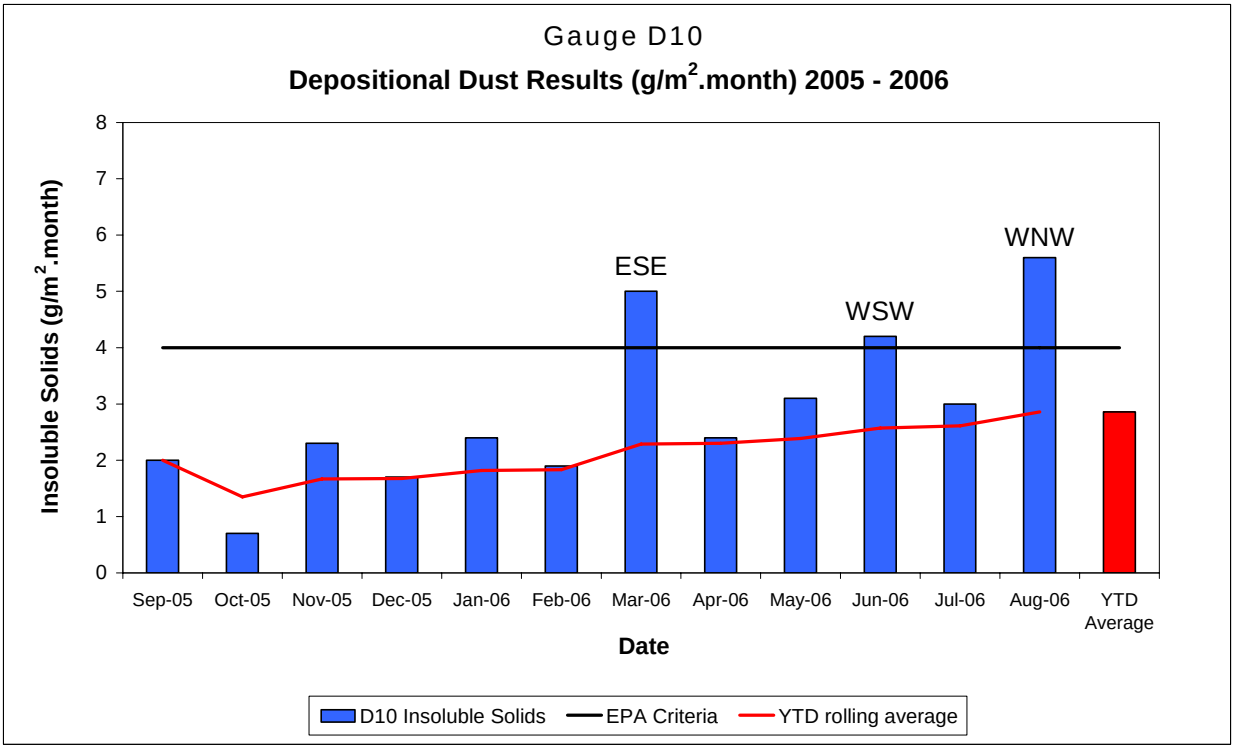
Depositional dust gauge D7 is located in the northern portion of Camberwell village and is in close proximity to the Ashton Mine (approximately 500m from open-cut operations). Year-to-date annual average results are above the EPA criteria of 4g/m^2/month.



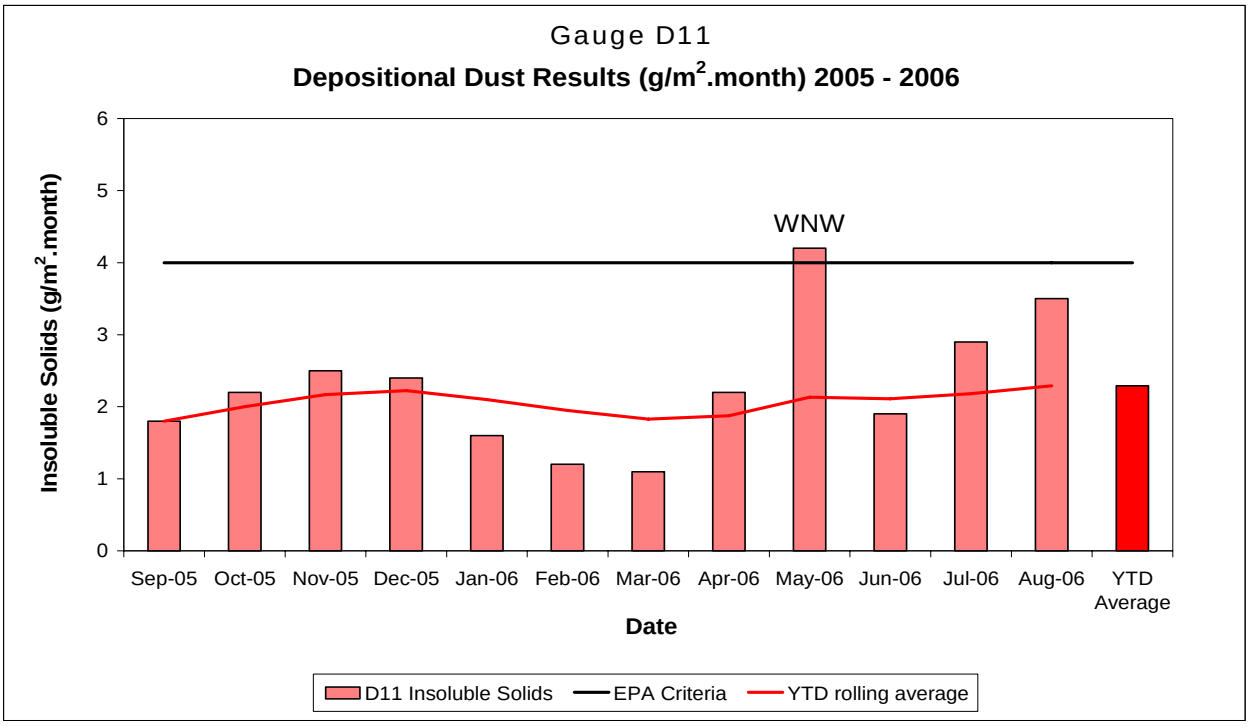
Depositional dust gauge D8 is located in Camberwell village on the south side of the New England Highway. Year-to-date annual average results are below the EPA criteria of 4g/m^2/month.



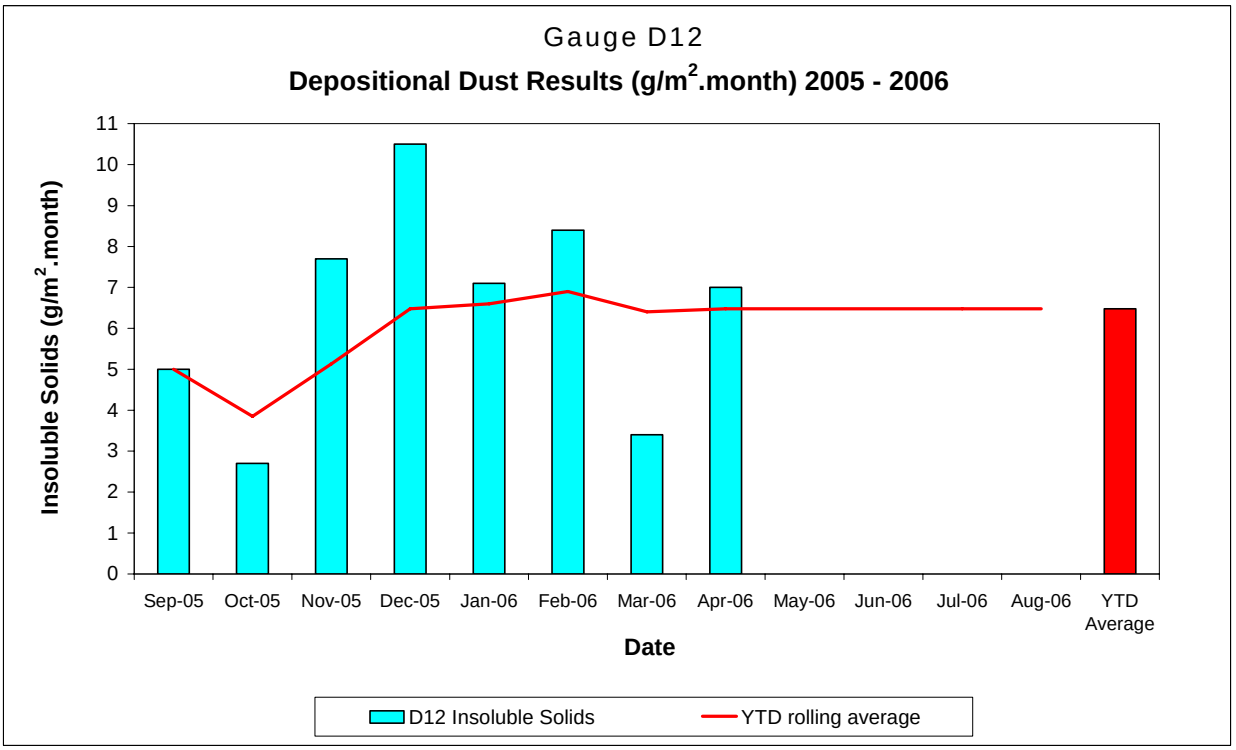
Depositional dust gauge D9 is located on a farming property immediately south east of the Eastern Emplacement Area.



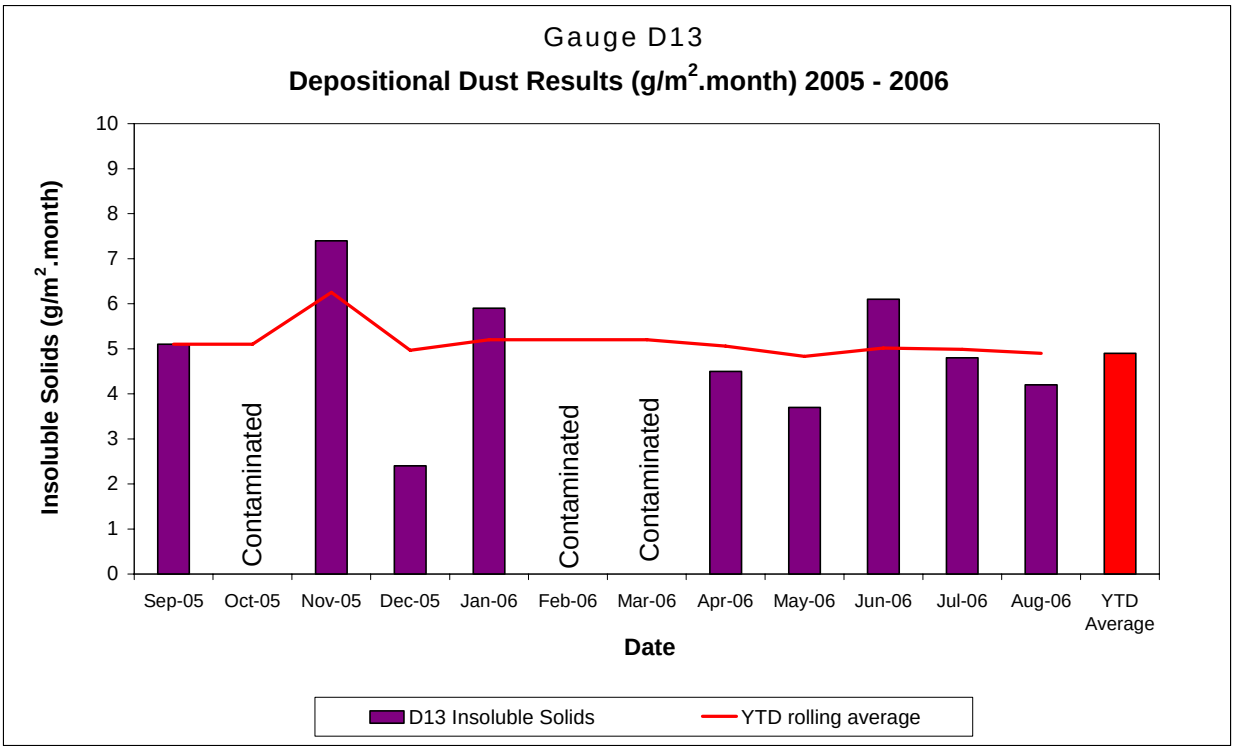
Depositional dust gauge D10 is located on-site between the Eastern Emplacement Area and the Main Northern Railway and is highly impacted by activities adjacent to the haul road including overburden dumping. Furthermore the dust gauge is situated between an Ashton gravel access road and the Main Northern Rail Line. All of these activities occur within 100m. Year-to-date annual average results are below the EPA criteria of 4g/m^2/month.



Depositional dust gauge D11 is located on Glennies Creek Road north east of the Eastern Emplacement Area in a grazing/farming area. Year-to-date annual average results are below the EPA criteria of 4g/m^2/month.



Depositional dust gauge D12 is located on site adjacent to an access road and the main coal haul road and is heavily influenced by activity on those roads. Year-to-date annual average results are above the EPA criteria of 4g/m^2/month, however this criteria is not expected to apply to on-site dust gauges.



Depositional dust gauge D13 is located on site adjacent to the western end turnout of the rail siding. Annual average EPA criteria is not expected to apply to on-site dust gauges.

3.2 EROSION AND SEDIMENT

3.2.1 Erosion and Sediment Management

All runoff from disturbed areas is collected in a series of sedimentation and settling dams established in accordance with the Erosion and Sediment Control Management Plan (ESCP). Monitoring indicates that these dams have been working effectively in controlling sediment flow. Gypsum has been used in drains where there is a high potential for sediment movement during heavy rainfall events. The Gypsum works by effectively dropping the sediment out of entrainment in the overland water flow.

A sedimentation settling pond with a rock lined spillway has been installed at the inflow section of Dam 5/6 to reduce the level of sediment entering the dam. Turf has been laid along the drain running along the toe of the northern face of the Eastern Emplacement Area to reduce sediment movement.

All runoff from disturbed areas is channelled into a series of sediment control dams established in accordance with the Erosion and Sediment Control Management Plan (ESCP). These dams have worked effectively and the water has been utilised on site for dust suppression activities by either direct extraction from the storage or by transfer to other storage dams.

Major runoff storage dams are located in the following areas:

- On the north-west side of the CHPP (Process Water Dam and Settling Dam);
- On the eastern side of the Eastern Emplacement Area (Dam 5/6); and
- On the south-western side of the open cut area.

In addition, there are a number of minor runoff capture dams that intercept runoff water before it departs site. These dams may also contain sedimentation control devices in the form of hay bales, silt fences, etc where required.

3.2.2 Erosion and Sediment Monitoring

Visual inspections are undertaken on a regular basis and stream water quality results are presented in the following section.

3.3 SURFACE WATER POLLUTION

3.3.1 Surface Water Management

Ashton Coal has an approved Site Water Management Pan. Controls have been put in place in accordance with this plan to control potential causes of water pollution. These controls are considered to have been adequate for the reporting period.

A water management study was completed in February since the study a number of improvement actions have been undertaken.

- Catchment domains have been calculated for Sep 06 and Mar 07.
- It was identified that 10 new flow meters need to be put in and currently 8 are in place.
- Storm event calculation sheets have been generated.
- Calculated dam water level capacity charts have been generated.
- Spreadsheet to capture all flow has been developed and maintained. Documentation has been completed.

3.3.2 Surface Water Monitoring

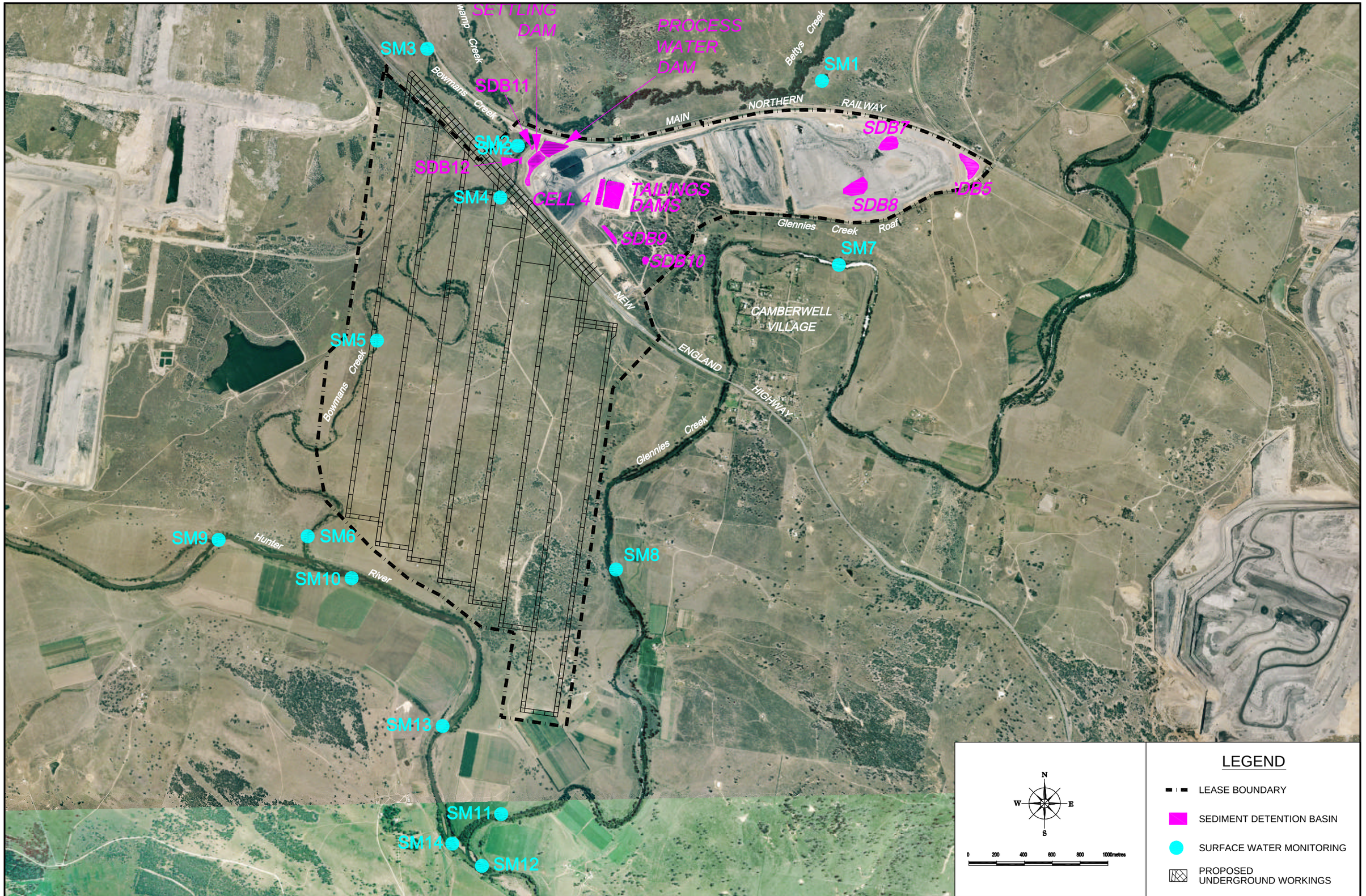
The water monitoring locations are detailed in Figure 2 as well as the following table:

Table 19. SURFACE WATER MONITORING LOCATIONS

Monitoring Station	Stream	Location
SM 1	Bettys Creek	Glendell land upstream of Ashton
SM 2	Bettys Creek	Just upstream of confluence with Bowmans Creek
SM 3	Bowmans Creek	Water pool at north west corner of mine lease
SM 4	Bowmans Creek	Water pool just downstream of New England Highway
SM 5	Bowmans Creek	Halfway down Ashton property
SM 6	Bowmans Creek	Just upstream of confluence with Hunter River
SM 7	Glennies Creek	Upstream of Ashton Mine
SM 8	Glennies Creek	Halfway down Ashton property
SM 9	Hunter River	Upstream of confluence with Bowmans Creek
SM 10	Hunter River	Downstream of confluence with Bowmans Creek
SM 11	Glennies Creek	Upstream of confluence with Hunter River
SM 12	Hunter River	Downstream of confluence with Glennies Creek
SM 13	Hunter River	Upstream of confluence with Glennies Creek midway between Bowmens Creek and Glennies Creek.
SM 14	Hunter River	Directly Upstream of confluence with Glennies Creek

Abbreviations used within Section 3.3 are as follows:

µS/cm	*microsiemens per centimetre*
mg/l	*milligrams per litre*
TDS	*Total Dissolved Solids*
TSS	*Total Suspended Solids*
EC	Electrical Conductivity



REVISIONS										
REV.	DATE	BY	DESCRIPTION	CHK.	REV.	DATE	BY	DESCRIPTION	CHK.	

AshtonCoal
PO Box 699 Singleton NSW 2330
Phone 61+ 02 6576 1111 Fax 61+ 02 6576 1122
Prepared by Co-Resources Pty Ltd Ph: 02 65 718888 Fax: 02 65 718844

SITE WATER MANAGEMENT PLAN
FIGURE 2
SEDIMENT DETENTION BASINS

Drawing No.	Revision No.	Date	Scale:	Drawn	Checked	Approved	Sheet Size
00772	B	10.08.05	1:25,000	CS	JF	PH	A3

3.3.2.1 Monthly Water Quality Monitoring Results

All monthly water samples were collected and analysed during the reporting period for pH, Electrical Conductivity (EC), Total Dissolved Solids (TDS), Total Suspended Solids (TSS) Total Hardness ($CaCO_3$), Dissolved Major Cations (Ca, Mg, Na and K) and Oil and Grease (O & G). An additional comprehensive analysis was also conducted on a monthly basis at SM4 in Bowmans Creek.

pH

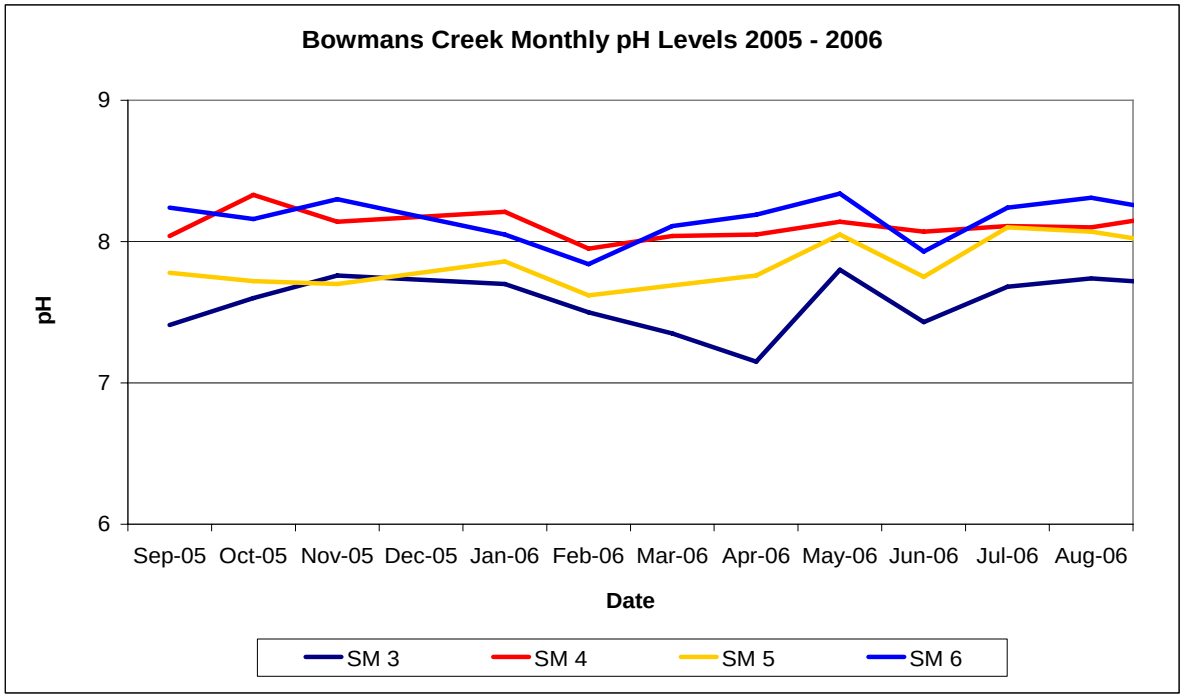
The results of monthly pH monitoring were as follows:

pH	SM1	SM2	SM 3	SM 4	SM 5	SM 6	SM 7	SM 8	SM 9	SM 10	SM 11	SM 12	SM 13	SM14
23-Sep-05			7.4	8.0	7.8	8.2	7.7	7.7	8.3	8.4	8.0	8.1	8.3	
21-Oct-05			7.6	8.3	7.7	8.2	7.8	7.6	8.3	8.3	7.8	7.8	8.2	
17-Nov-05			7.8	8.1	7.7	8.3	8.1	7.9	8.2	8.3	8.1	8.1	8.2	
16-Dec-06			7.6	8.5	7.7	7.9	7.6	7.6	8.1	8.2	7.7	7.7	7.8	
11-Jan-06			7.7	8.2	7.9	8.1	7.9	7.6	8.2	8.3	7.9	8.0	8.2	
16-Feb-06			7.5	8.0	7.6	7.8	7.7	7.5	7.9	8.0	7.6	7.7	7.9	
09-Mar-06			7.4	8.0	7.7	8.1	7.7	7.8	8.2	8.2	7.8	7.8	8.2	
05-Apr-06			7.2	8.1	7.8	8.2	7.3	7.5	8.2	8.3	8.0	7.9	8.3	
10-May-06			7.8	8.1	8.1	8.3	8.0	8.1	8.4	8.5	8.3	8.3	8.7	
09-Jun-06			7.4	8.1	7.8	7.9	7.7	7.7	8.1	8.2	7.9	8.2	8.2	
10-Jul-06			7.7	8.1	8.1	8.2	8.2	8.1	8.3	8.3	8.2	8.1	8.3	
23-Aug-06			7.7	8.1	8.1	8.3	8.1	8.1	8.2	8.3	8.2	8.3	8.5	8.3
Min			7.2	8.0	7.6	7.8	7.3	7.5	7.9	8.0	7.6	7.7	7.8	8.3
Av			7.6	8.1	7.8	8.1	7.8	7.7	8.2	8.3	8.0	8.0	8.2	8.3
Max			7.8	8.5	8.1	8.3	8.2	8.1	8.4	8.5	8.3	8.3	8.7	8.3

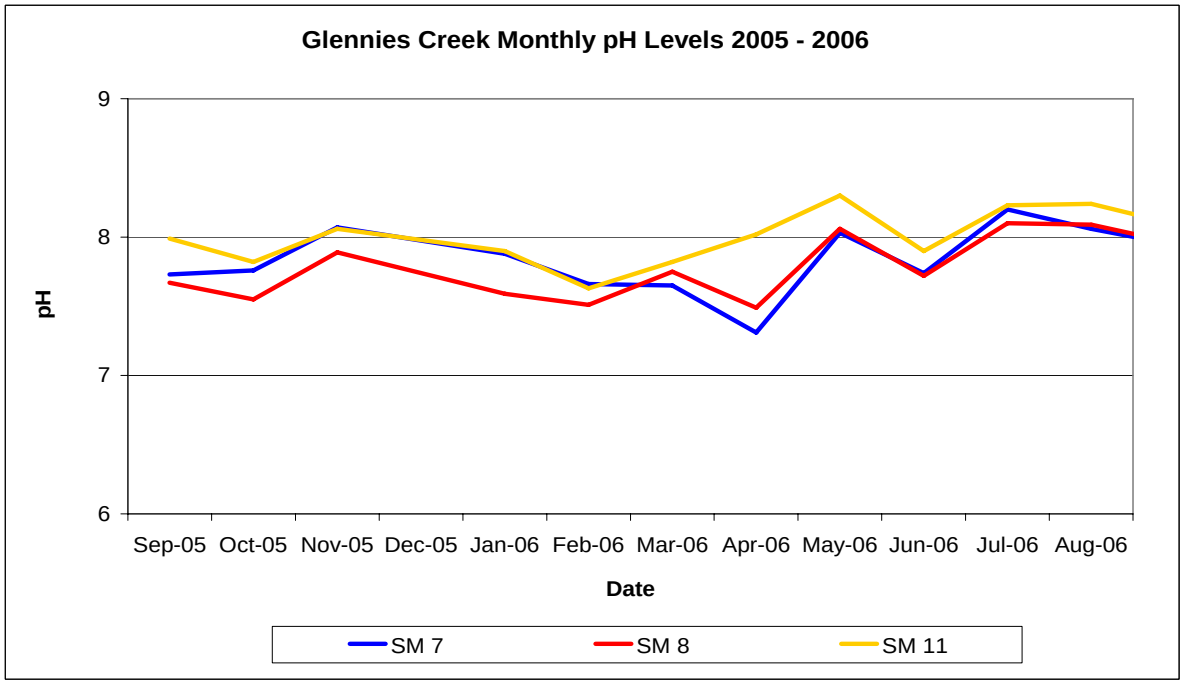
Monthly water quality monitoring in Bowmans Creek, Glennies Creek and the Hunter River indicated that pH levels throughout the reporting period were consistently within the neutral (min pH = 7.2) to slightly alkaline (max pH = 8.7) range. There was little variation in pH at each site with a maximum range of 0.9 pH units experienced at site SM13, located on the Hunter River downstream of the Bowmans Creek junction. The variation apparent at each site can be attributed to natural fluctuations in water pH as a result of rainfall runoff, evaporation, vegetation decay and fluvial sediment movements.

Betty's Creek (SM1 and SM2) remained dry throughout the year.

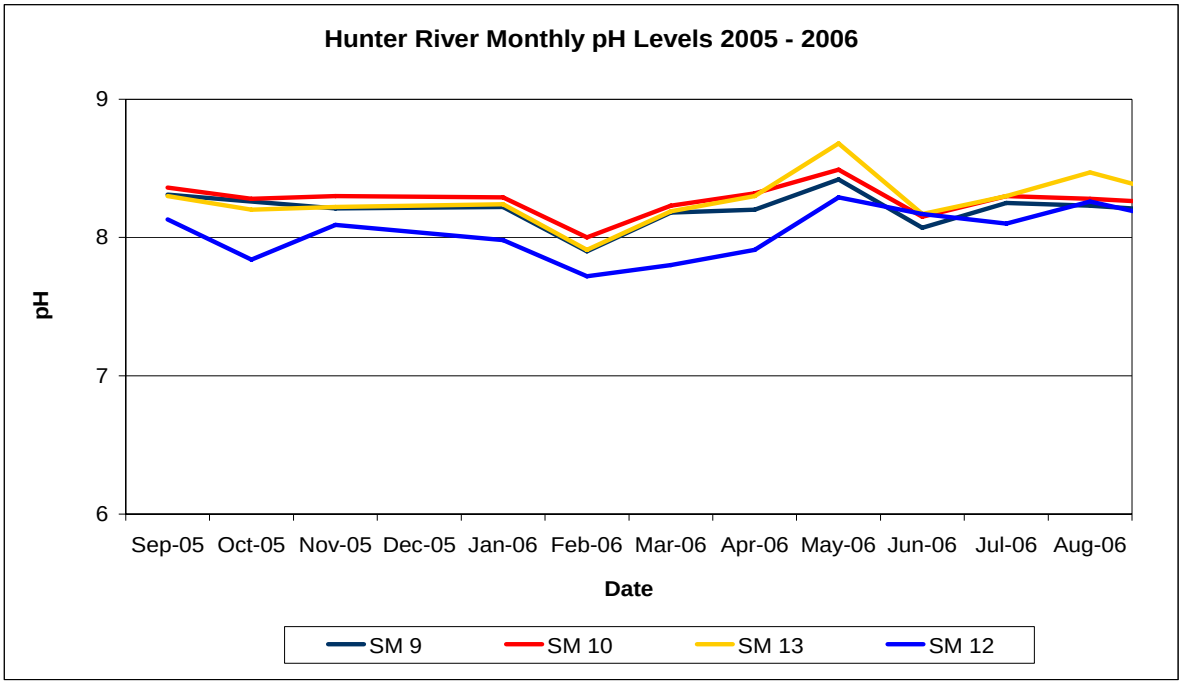
pH levels in Bowmans Creek (SM3, SM4, SM5 and SM6) were neutral to slightly alkaline (ranging from 7.2 to 8.5 and remained within the acceptable recommended pH range. There was a slight variation amongst the different sites sampled, however fluctuations throughout the reporting period followed a similar pattern. pH levels at site SM3 tended to be marginally lower than pH levels at sites SM4, SM5 and SM6 on Bowmans Creek. This is most likely a result of sub surface flows entering Bowmans Creek from Betty's Creek downstream of site SM3.



Glennies Creek (SM7, SM8 and SM11) pH levels were neutral to slightly alkaline (ranging from 7.3 to 8.3) with little variation between sites, and remained within the acceptable recommended pH range. Slight pH fluctuations throughout the reporting period followed a very similar pattern across all sites.



pH levels in the Hunter River (SM9, SM10, SM12 and SM13) were neutral to slightly alkaline (ranging from 7.7 to 8.7) with minimal variation between sites, and remained within the acceptable recommended pH range. Slight pH fluctuations throughout the reporting period followed a very similar pattern across all sites.



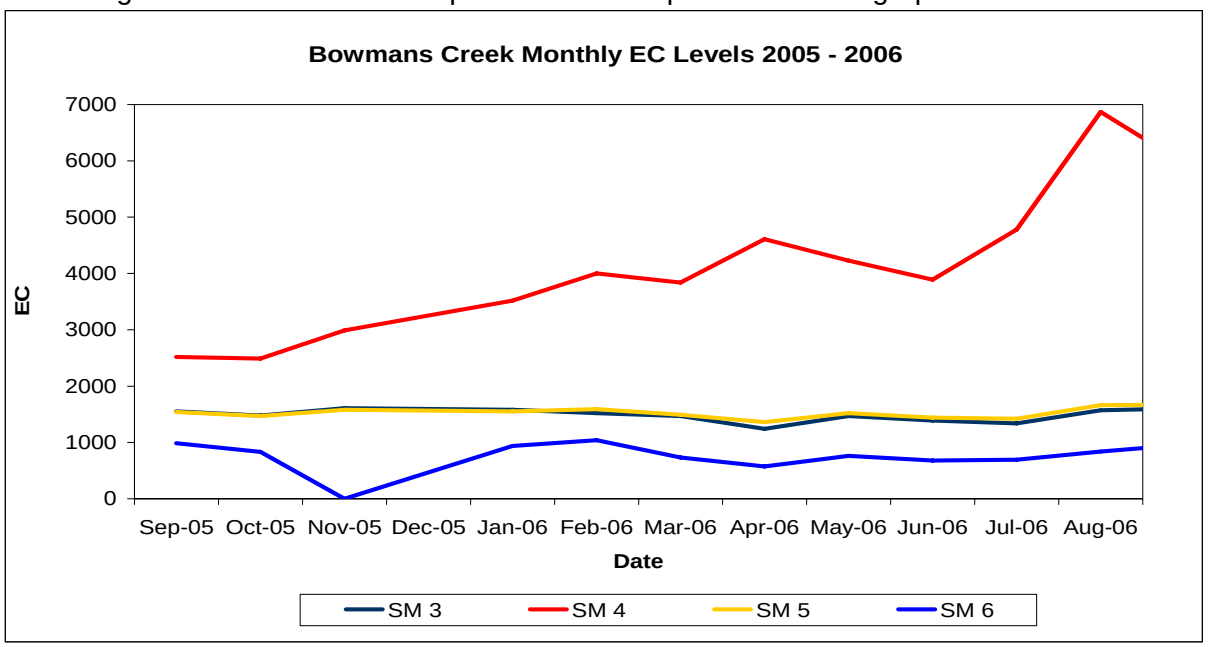
Electrical Conductivity (EC)

The results of EC monitoring are as follows:

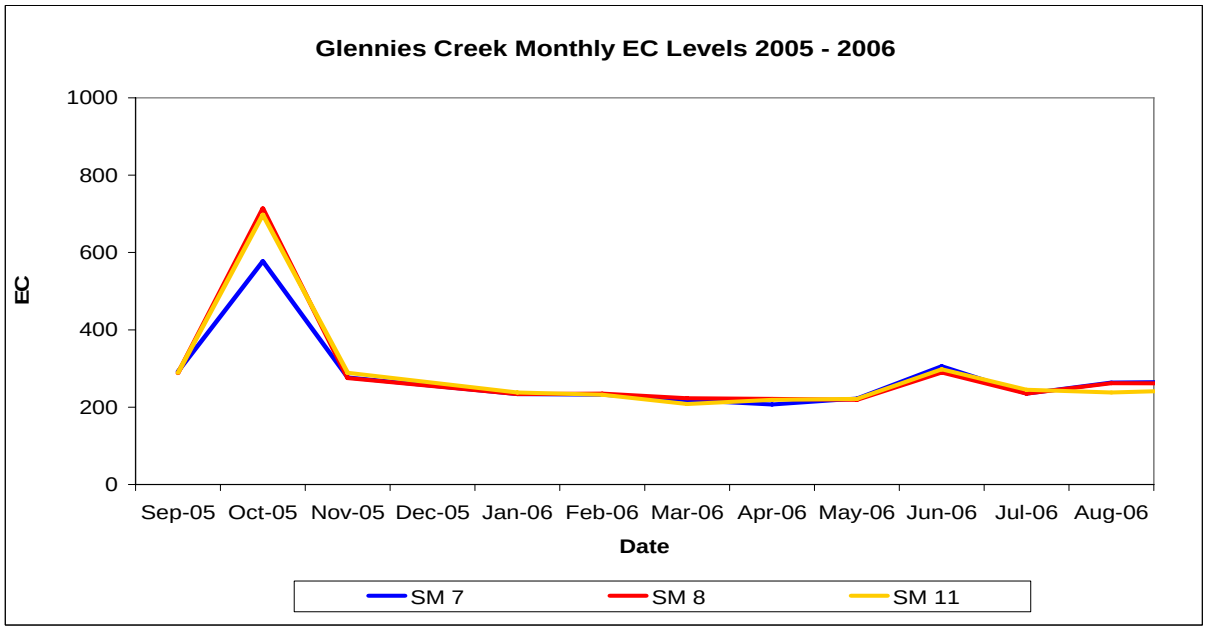
EC	SM1	SM2	SM 3	SM 4	SM 5	SM 6	SM 7	SM 8	SM 9	SM 10	SM 11	SM 12	SM 13	SM 14
23-Sep-05			1550	2520	1540	985	292	288	809	836	289	656	828	
21-Oct-05			1480	2490	1470	829	577	714	707	740	698	617	668	
17-Nov-05			1610	2990	1580	1 040	277	275	900	923	289	696	904	
16-Dec-06			1700	3190	1690	1330	271	260	830	854	263	296	855	
11-Jan-06			1580	3520	1550	936	234	234	538	541	238	246	541	
16-Feb-06			1520	4000	1590	1040	232	235	638	654	232	249	639	
09-Mar-06			1470	3840	1490	732	218	223	624	619	208	239	632	
05-Apr-06			1240	4610	1360	571	207	221	304	319	219	241	293	
10-May-06			1470	4230	1520	762	222	219	630	640	221	245	658	
09-Jun-06			1390	3890	1440	677	306	290	623	627	298	598	603	
10-Jul-06			1340	4780	1420	693	235	235	565	588	245	276	568	
23-Aug-06			1570	6870	1660	838	264	262	634	663	238	285	682	667
Min			1240	2490	1360	571	207	219	304	319	208	239	293	667
Av			1493	3911	1526	854	278	288	650	667	287	387	656	667
Max			1700	6870	1690	1330	577	714	900	923	698	696	904	667

Betty's Creek (SM1 and SM2) remained dry throughout the year.

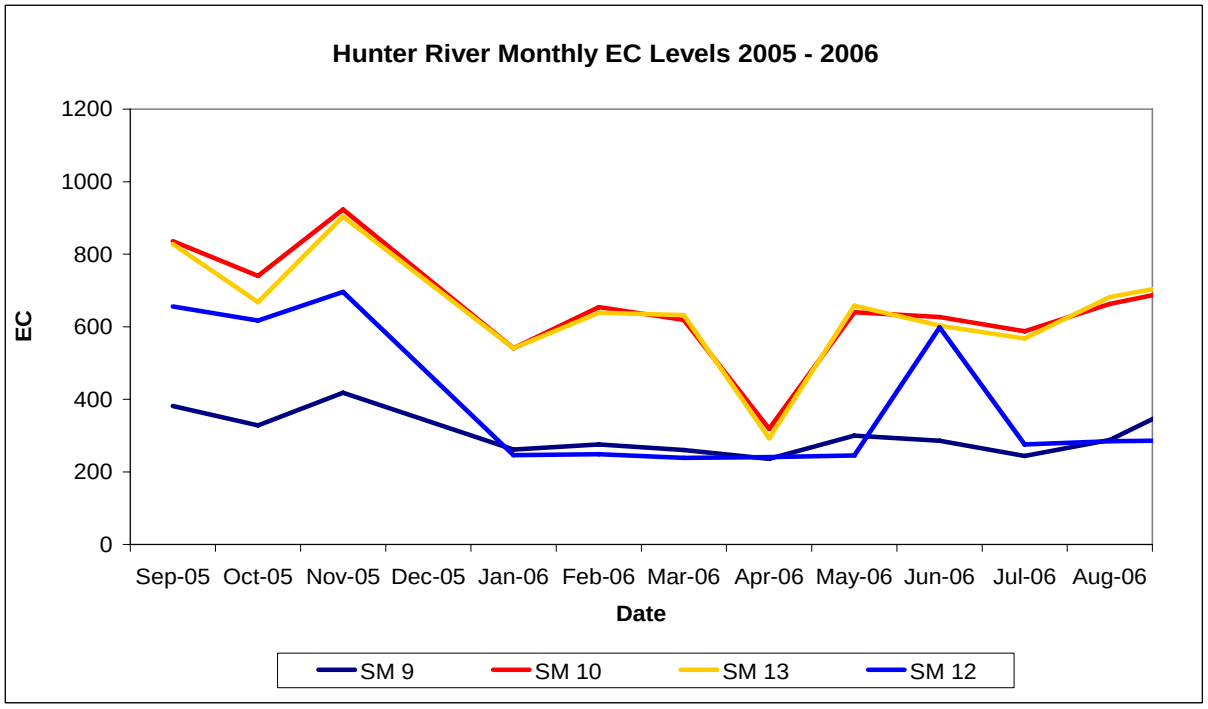
Analysis of water monitoring at Bowmans Creek (SM3, SM4, SM5 and SM6) indicated that EC levels remained relatively static (below 1750) at each monitoring point throughout the reporting period with the exception of SM4. SM4 is a waterhole immediately downstream of the New England Highway. SM4 showed a steady increase in EC over SM3 located upstream of the Bettys Creek junction. This suggests subsurface flows from Bettys Creek are affecting the water quality at SM4. Also, due to drought conditions, water at SM4 is drying up, concentrating the water quality at the site. A pollution incident would not be represented by this gradual increasing trend rather it would be presented as a spike on the line graph.



The EC of water in Glennies Creek (SM7, SM8 and SM11) generally remained consistently low (below 306) with the exception of a spike that occurred on the 21st October 2005. As the spike in EC has occurred at all three locations including SM7 which is located upstream of ACOL, the event has not been caused by Ashton Operations. Glennies Creek is considered a controlled stream as it is dammed by Lake St Clair from which water is regularly released resulting in consistent water quality results.



EC at SM9 (upstream of Bowmans Creek confluence) was marginally lower than SM10 and SM13 (downstream of Bowmans Creek confluence), indicating a slight negative impact from Bowmans Creek to salinity levels in the Hunter River. Conductivity at SM13 (upstream of Glennies Creek confluence) was higher than SM12 (downstream of Glennies Creek confluence). This indicates that Glennies Creek is having a positive impact on Hunter River salinity levels. Due to the down drawing caused by cracking of the aquifier, Bowmans Creek is forced into subsurface flows where it may be picking up salt from the substrate.

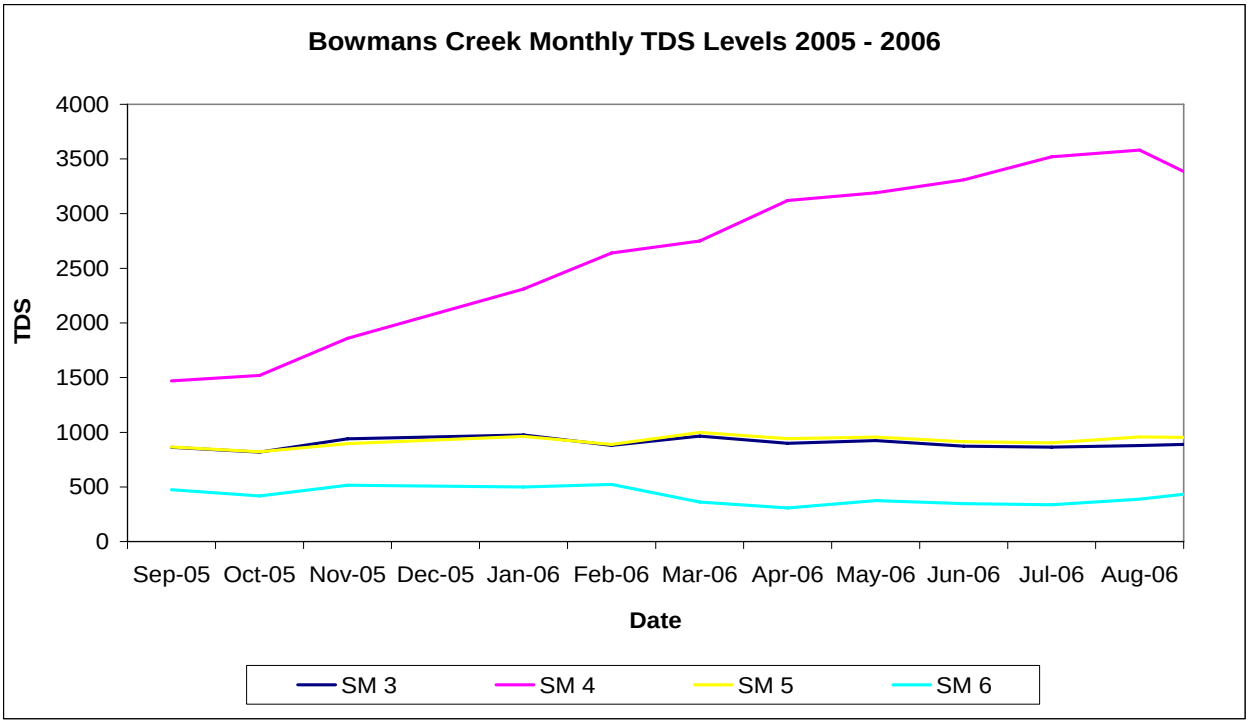


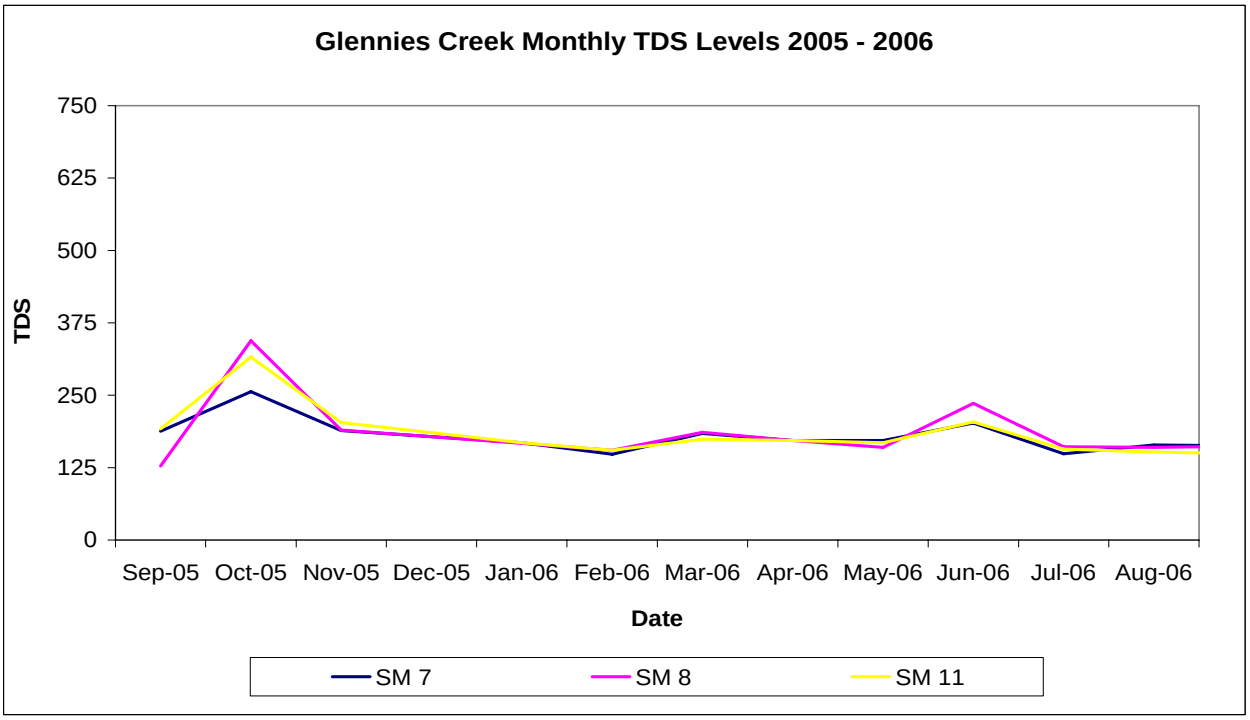
Total Dissolved Solids (TDS)

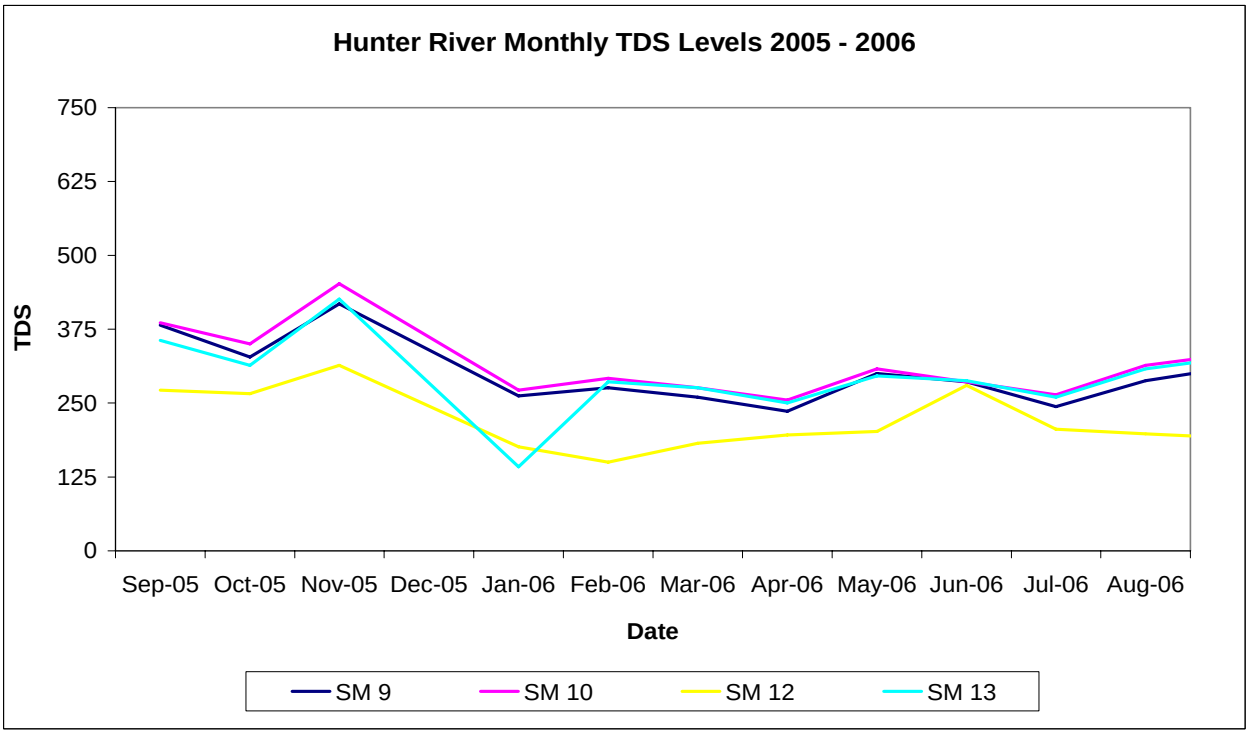
Monthly TDS results are as follows:

TDS	SM1	SM2	SM 3	SM 4	SM 5	SM 6	SM 7	SM 8	SM 9	SM 10	SM 11	SM 12	SM 13	SM 14
23-Sep-05			862	1470	866	474	188	128	382	386	192	272	356	
21-Oct-05			818	1520	822	418	256	344	328	350	316	266	314	
17-Nov-05			940	1860	896	516	189	190	418	452	203	314	426	
16-Dec-06			960	2020	920	748	158	168	382	392	140	170	388	
11-Jan-06			976	2310	962	500	168	167	262	272	168	176	142	
16-Feb-06			880	2640	890	522	148	155	276	292	155	150	286	
09-Mar-06			966	2750	1000	362	184	186	260	276	174	182	276	
05-Apr-06			900	3120	942	308	172	172	236	255	172	196	250	
10-May-06			924	3190	956	376	172	160	300	308	168	202	296	
09-Jun-06			874	3310	914	348	202	236	286	286	204	280	288	
10-Jul-06			864	3520	904	336	149	161	244	264	157	206	260	
23-Aug-06			878	3580	958	388	164	160	288	314	152	198	308	306
Min			818	1470	822	308	148	128	236	255	140	150	142	306
Av			904	2608	919	441	179	186	305	321	183	218	299	306
Max			976	3580	1000	748	256	344	418	452	316	314	426	306

TDS results closely reflect EC results.




Glennies Creek Monthly TDS Levels 2005 - 2006
TDS
750
625
500
375
250
125
0
Sep-05
Oct-05
Nov-05
Dec-05
Jan-06
Feb-06
Mar-06
Apr-06
May-06
Jun-06
Jul-06
Aug-06
Date
SM 7
SM 8
SM 11

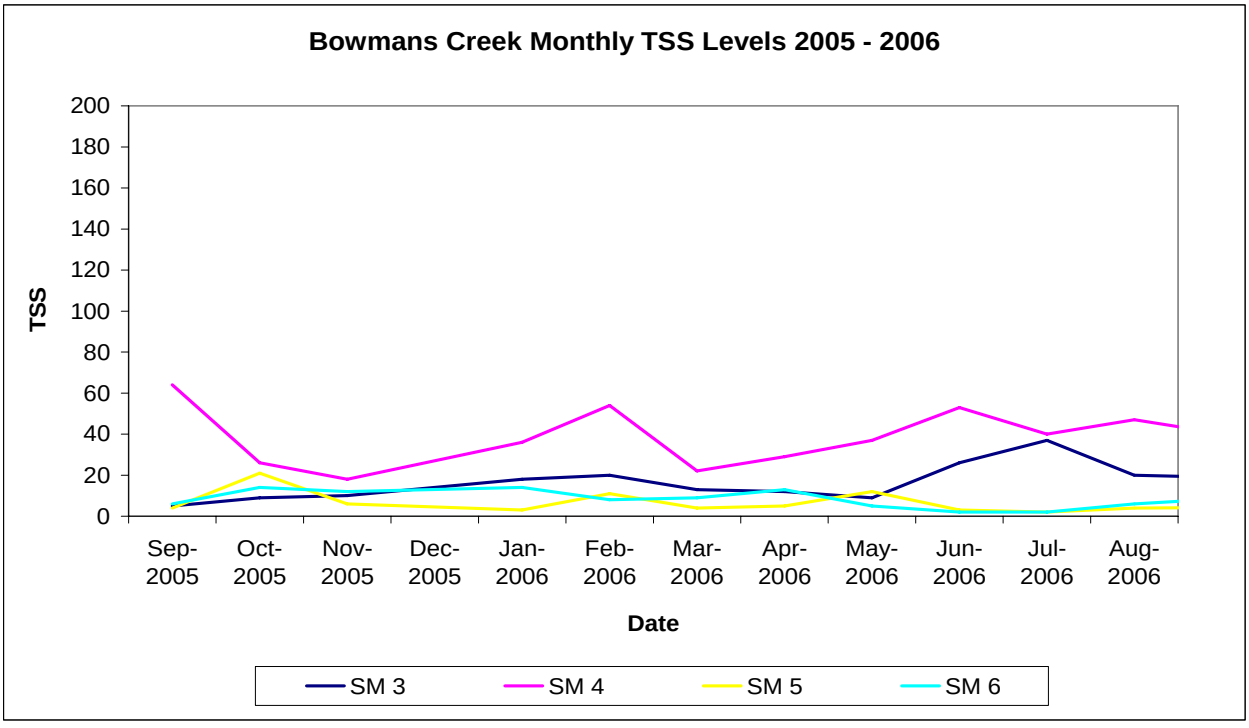

Hunter River Monthly TDS Levels 2005 - 2006
TDS
750
625
500
375
250
125
0
Sep-05
Oct-05
Nov-05
Dec-05
Jan-06
Feb-06
Mar-06
Apr-06
May-06
Jun-06
Jul-06
Aug-06
Date
SM 9
SM 10
SM 12
SM 13

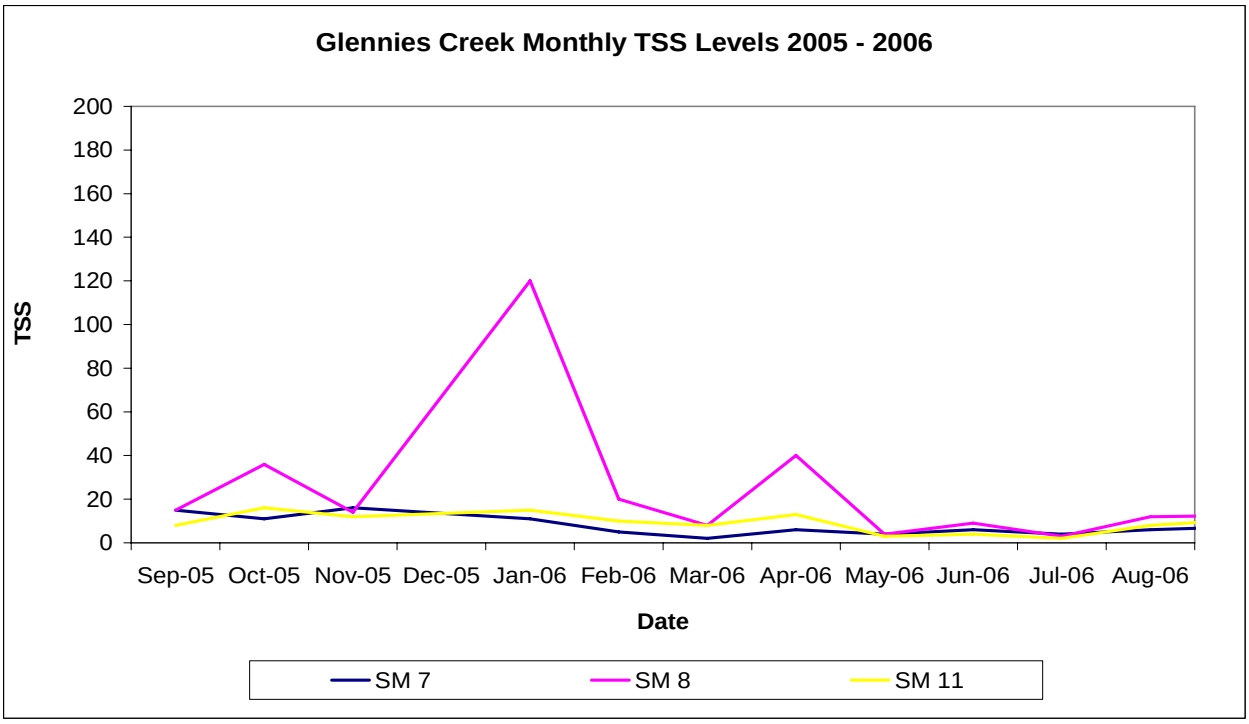
Total Suspended Solids (TSS)

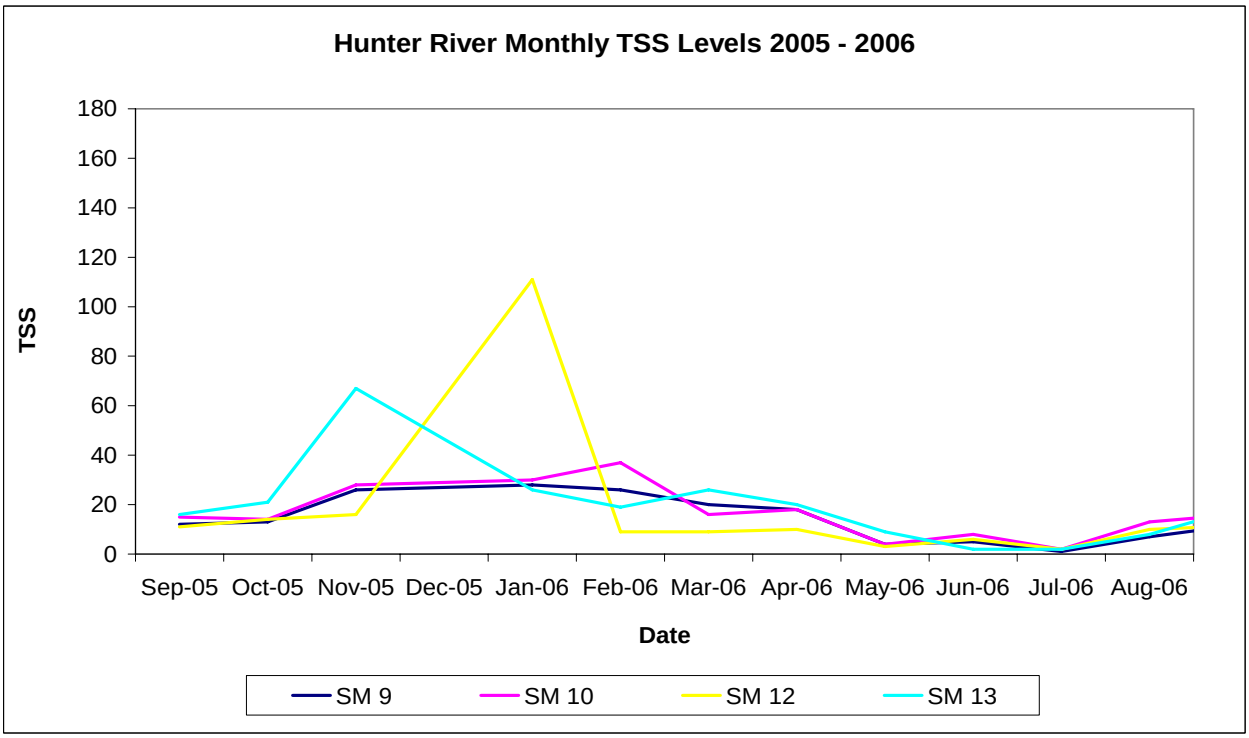
Monthly TSS results are as follows:

TSS	SM1	SM2	SM 3	SM 4	SM 5	SM 6	SM 7	SM 8	SM 9	SM 10	SM 11	SM 12	SM 13	SM 14
23-Sep-05			5	64	4	6	15	15	12	15	8	11	16	
21-Oct-05			9	26	21	14	11	36	13	14	16	14	21	
17-Nov-05			10	18	6	12	16	14	26	28	12	16	67	
16-Dec-06			16	20	5	16	11	14	26	25	18	16	49	
11-Jan-06			18	36	3	14	11	120	28	30	15	111	26	
16-Feb-06			20	54	11	8	5	20	26	37	10	9	19	
09-Mar-06			13	22	4	9	2	8	20	16	8	9	26	
05-Apr-06			12	29	5	13	6	40	18	18	13	10	20	
10-May-06			9	37	12	5	4	4	4	4	3	3	9	
09-Jun-06			26	53	3	2	6	9	5	8	4	6	2	
10-Jul-06			37	40	2	2	4	3	1	2	2	2	2	
23-Aug-06			20	47	4	6	6	12	7	13	8	10	8	10
Min			5	18	2	2	2	3	1	2	2	2	2	10
Av			16	37	7	9	8	25	16	18	10	18	22	10
Max			37	64	21	16	16	120	28	37	18	111	67	10

The TSS results don't provide any evidence of impacts from Ashton site activities to water quality with respect to suspended solids.







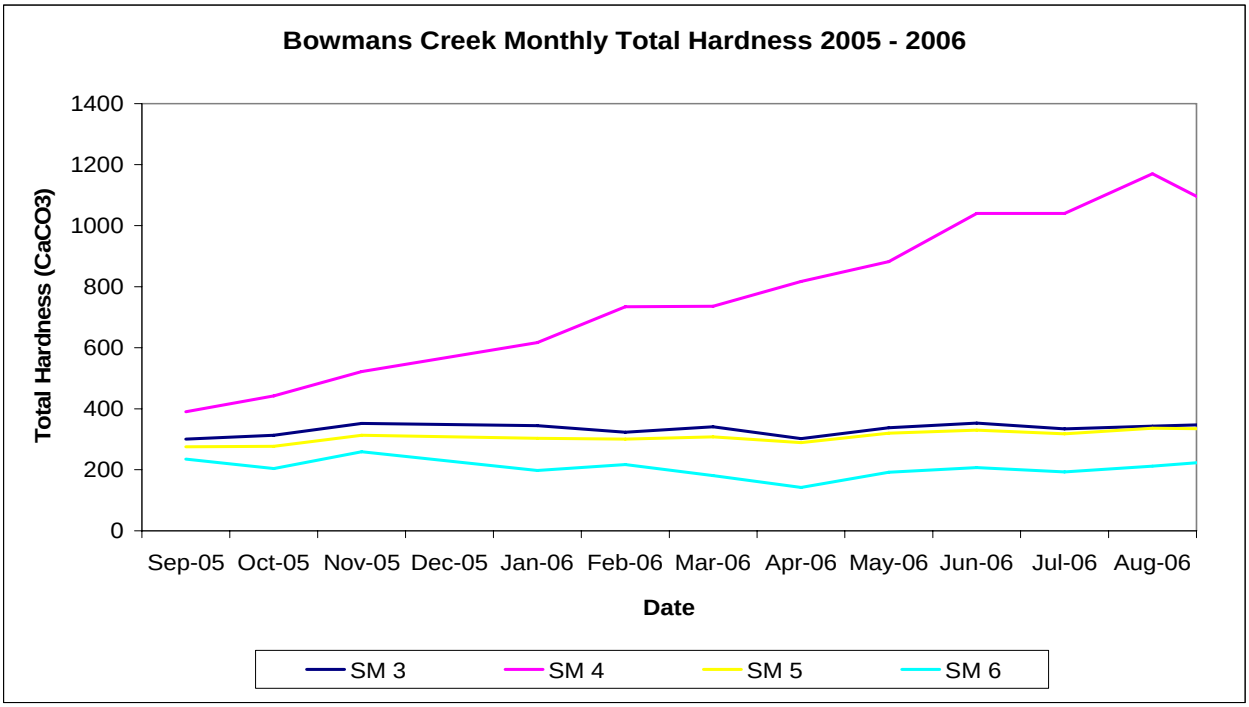
In January there were elevated TSS levels for points SM8 Glennies Creek and SM12 Hunter River. There were no mining activities in the vicinity of these sampling points at the time of monitoring.

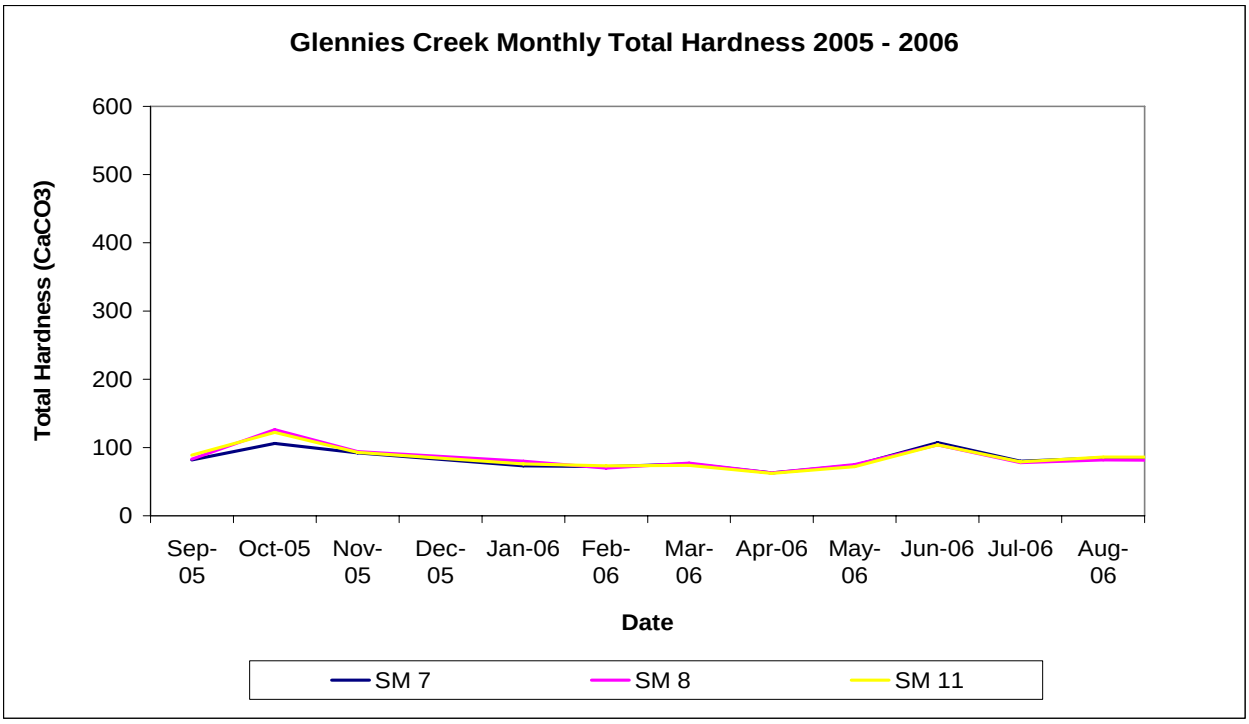
Total Hardness ($CaCO_3$)

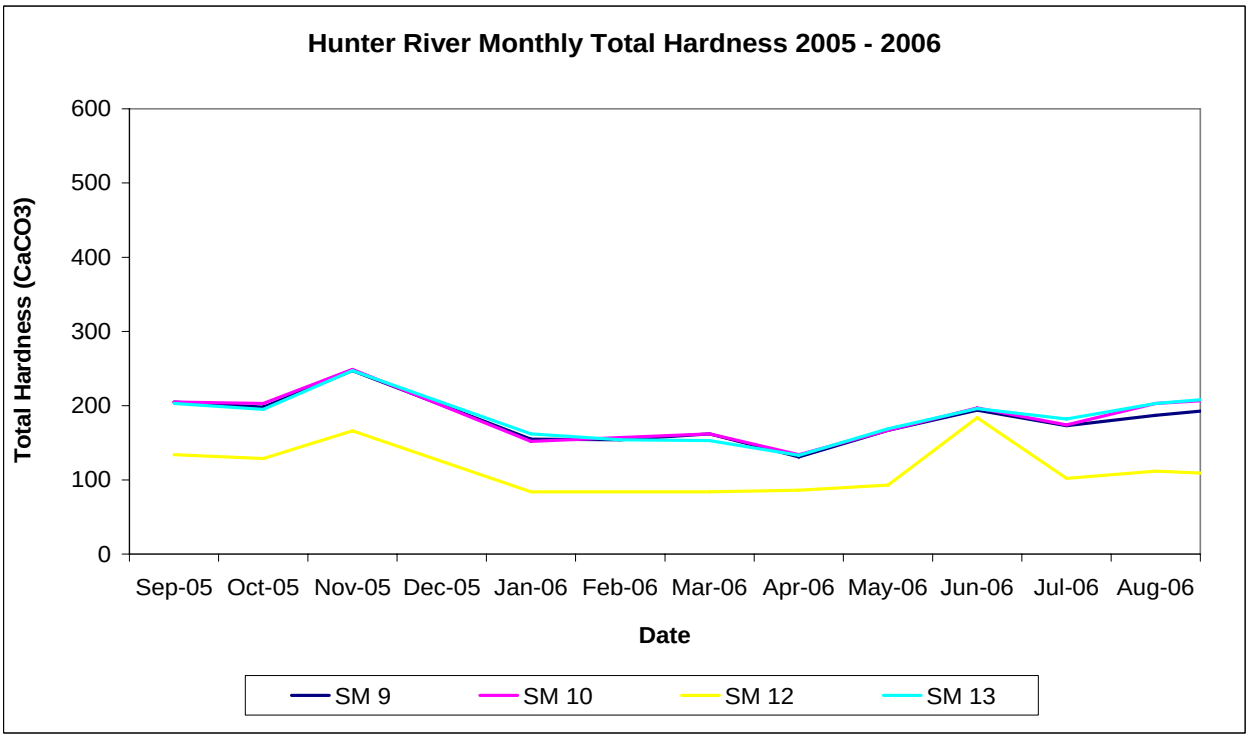
Monthly Total Hardness results are as follows:

Total Hardness	SM1	SM2	SM 3	SM 4	SM 5	SM 6	SM 7	SM 8	SM 9	SM 10	SM 11	SM 12	SM 13	SM 14
23-Sep-05			301	390	275	235	82	83	205	205	89	134	203	
21-Oct-05			313	442	277	204	106	126	198	203	122	129	195	
17-Nov-05			352	522	313	259	92	94	247	249	93	166	247	
16-Dec-06			376	580	324	301	79	79	232	232	85	92	243	
11-Jan-06			345	617	303	198	73	80	155	152	76	84	162	
16-Feb-06			323	734	301	217	72	70	154	157	73	84	154	
09-Mar-06			341	736	308	181	76	77	162	162	74	84	153	
05-Apr-06			302	817	289	142	63	63	131	134	62	86	133	
10-May-06			338	882	320	192	74	75	167	167	72	93	169	
09-Jun-06			353	1040	330	207	107	104	194	197	104	184	196	
10-Jul-06			334	1040	318	193	80	78	173	174	79	102	182	
23-Aug-06			343	1170	336	212	85	82	187	203	86	112	203	193
Min			301	390	275	142	63	63	131	134	62	84	133	193
Av			335	748	308	212	82	84	184	186	85	113	187	193
Max			376	1170	336	301	107	126	247	249	122	184	247	193

With the increase in pH, EC and TDS between SM3 and SM4, an increase in hardness of the magnitude observed would be expected.




Glennies Creek Monthly Total Hardness 2005 - 2006
Total Hardness (CaCO3)
600
500
400
300
200
100
0
Sep-05
Oct-05
Nov-05
Dec-05
Jan-06
Feb-06
Mar-06
Apr-06
May-06
Jun-06
Jul-06
Aug-06
Date
SM 7
SM 8
SM 11


Hunter River Monthly Total Hardness 2005 - 2006
Total Hardness (CaCO3)
600
500
400
300
200
100
0
Sep-05
Oct-05
Nov-05
Dec-05
Jan-06
Feb-06
Mar-06
Apr-06
May-06
Jun-06
Jul-06
Aug-06
Date
SM 9
SM 10
SM 12
SM 13

Oil and Grease

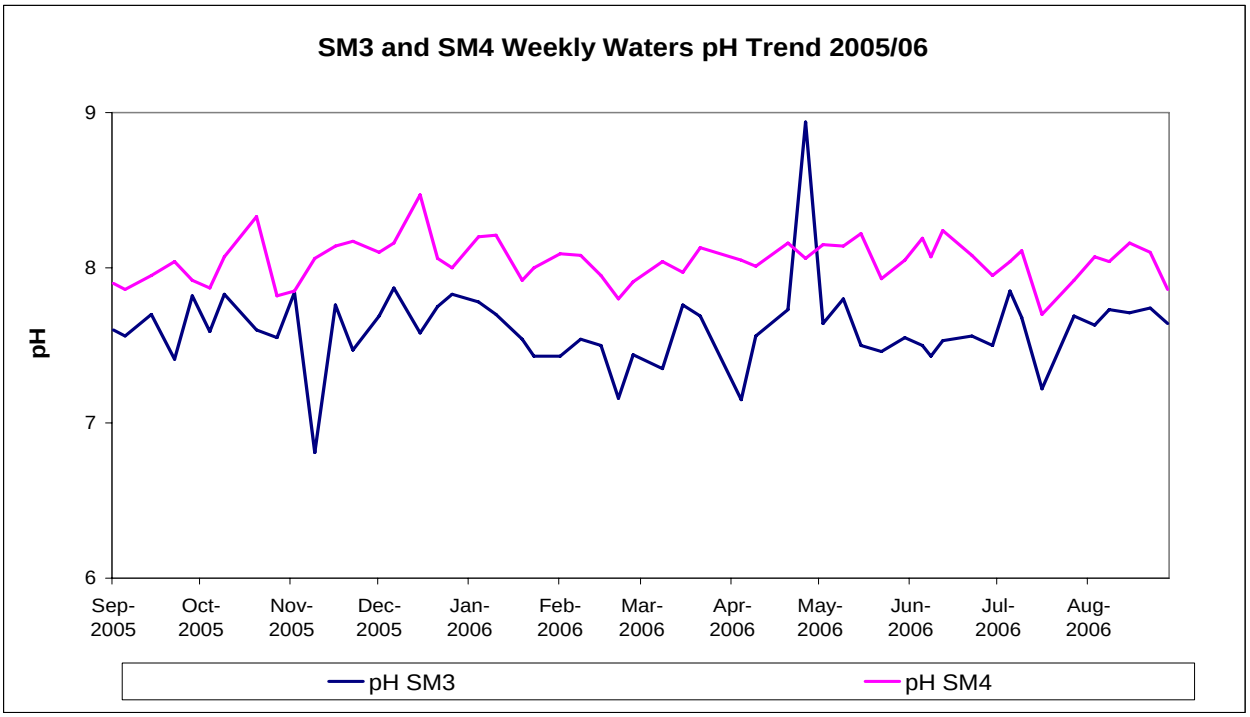
Monthly Oil and Grease results are as follows:

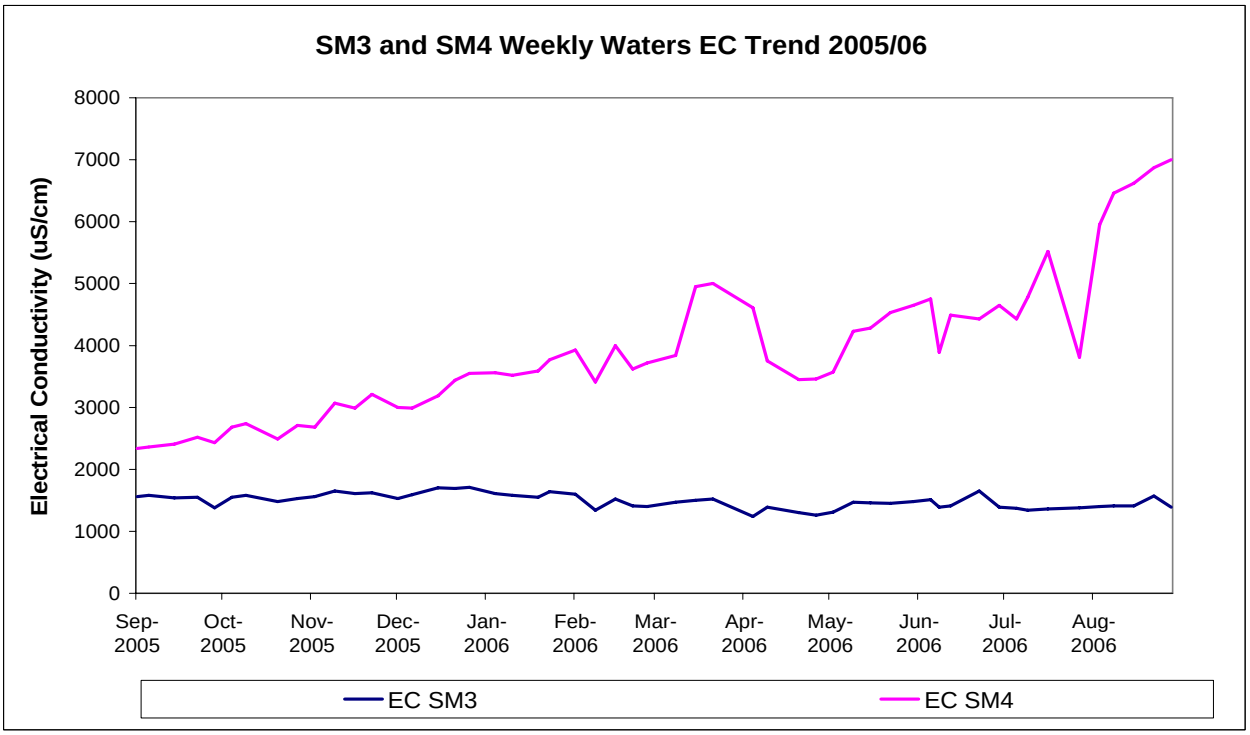
Oil & Grease	SM1	SM2	SM 3	SM 4	SM 5	SM 6	SM 7	SM 8	SM 9	SM 10	SM 11	SM 12	SM 13	SM 14
23-Sep-05			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
21-Oct-05			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
17-Nov-05			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
16-Dec-06			13	<5	<5	<5	<5	<5	<5	<5	6	<5	<5	
11-Jan-06			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7	
16-Feb-06			<5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	
09-Mar-06			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
05-Apr-06			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
10-May-06			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
09-Jun-06			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
10-Jul-06			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
23-Aug-06			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Min			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Av			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Max			13	<6	<6	6	<5	<5	<5	<5	6	<5	7	<5

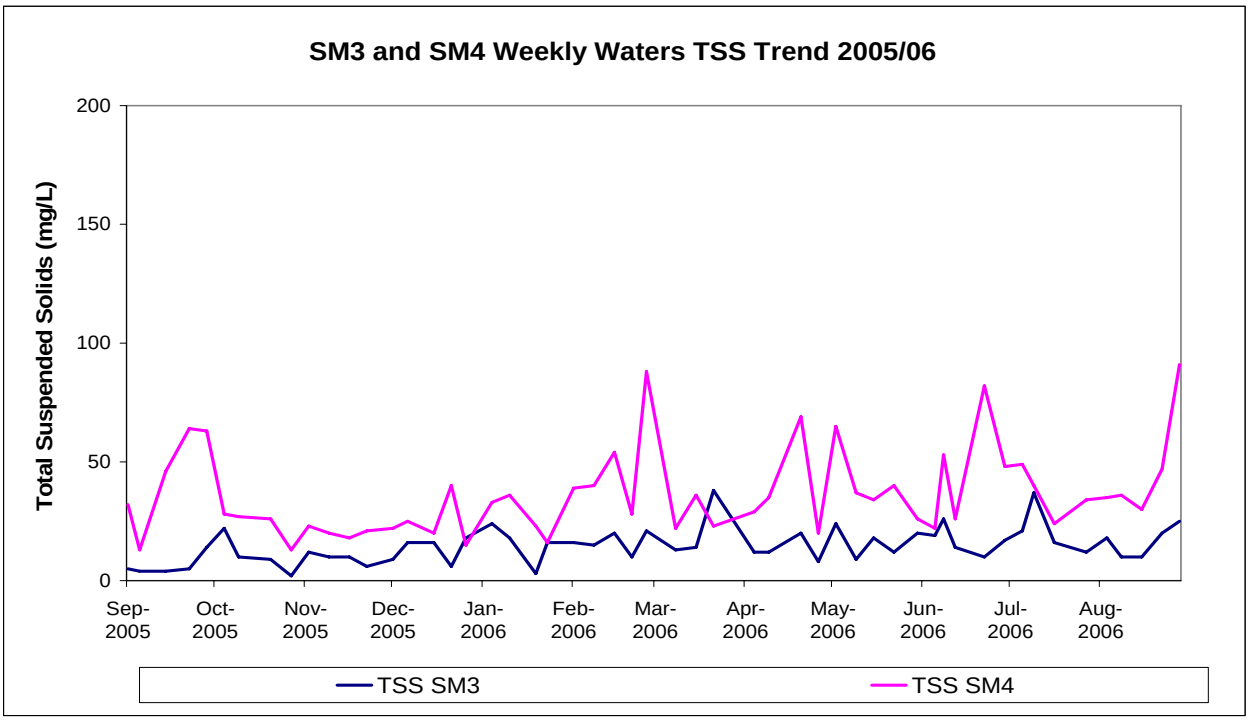
There were only four records of hydrocarbons at all of the sites in the past year. These being SM3 (16 December 2005), SM10 (16 December 2005), SM13 (11 January 2006) and SM6 (16 February 2006). The lack of any results above laboratory quantification limits suggests that there were no hydrocarbon impacts to the surface waters surrounding the Ashton Operation at the times of sampling. The four samples at sites SM3, SM6, SM11 and SM13 are likely to be an anomaly caused by natural organic substances analytically interfering with the oil and grease analysis.

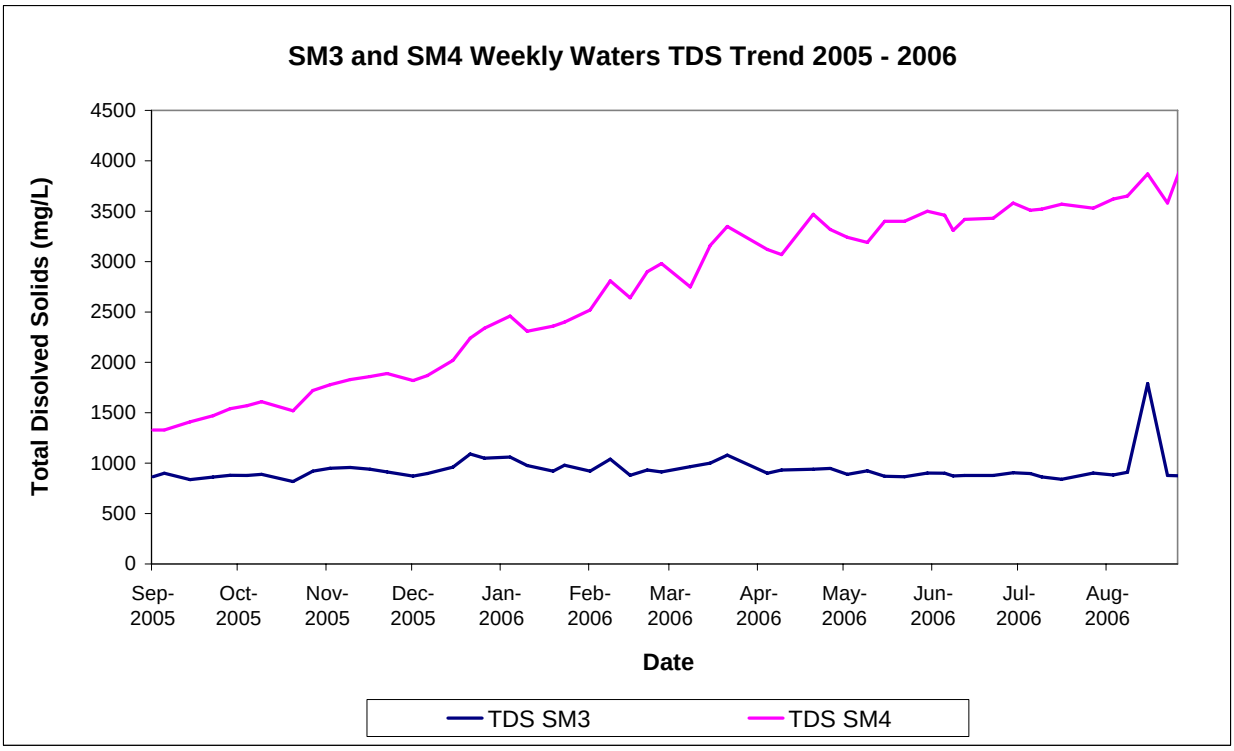
3.3.2.2 Weekly Water Quality Monitoring Results

Weekly water samples were collected and analysed during the reporting period for pH, Electrical Conductivity (EC), Total Dissolved Solids (TDS), Total Suspended Solids (TSS) Total Hardness ($CaCO_3$) and Oil and Grease (O & G). The purpose of sites SM3 and SM4 are to determine if the process water dam located adjacent to Betty's and Bowmans Creek is discharging dirty water into the creek system. The results of this monitoring indicates that there were no discharges during the monitoring period.






SM3 and SM4 Weekly Waters TSS Trend 2005/06
Total Suspended Solids (mg/L)
200
150
100
50
0
Sep-2005
Oct-2005
Nov-2005
Dec-2005
Jan-2006
Feb-2006
Mar-2006
Apr-2006
May-2006
Jun-2006
Jul-2006
Aug-2006
TSS SM3
TSS SM4


SM3 and SM4 Weekly Waters TDS Trend 2005 - 2006
Total Disolved Solids (mg/L)
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Sep-2005
Oct-2005
Nov-2005
Dec-2005
Jan-2006
Feb-2006
Mar-2006
Apr-2006
May-2006
Jun-2006
Jul-2006
Aug-2006
Date
TDS SM3
TDS SM4

3.4 GROUND WATER POLLUTION

3.4.1 Ground Water Management

Ashton Coal has a Ground Water Management Pan. This plan initially formed part of the Site Water Management Plan however with the development of the underground operations a separate Ground Water Management Plan has been developed. This plan has been approved in principle for the first workings of the underground operation. A further review of the Ground Water Management Plan is planned following the completion of the Subsidence Management Plan for which a full review of Ground Water Monitoring and the Ground Water Model was undertaken. Controls have been put in place in accordance with this plan to control potential causes of water pollution. These controls are considered to have been adequate for the reporting period.

3.4.1.1 Ground Water Model Review

As part of the Subsidence Management Plan Process a full review of the modelling carried out for the EIS studies (HLA, 2001) was undertaken determine the likely groundwater inflows to Longwalls 1 to 4. The review also satisfies consent condition 4.14, which requires regular review of the Ground Water Model against EIS predictions. This review has taken into consideration additional monitoring and information which has been obtained through out the development of the underground first workings and the expansion of the ground water monitoring network.

Groundwater inflows during the first 3 years of underground mining, which covers the Pikes Gully Seam extraction from Longwalls 1 to 4, were predicted to reach a maximum of 300 m^3/d (equivalent to 3.5 L/s) using the base case model (HLA, 2001). Inflows currently being experienced in the development headings for Longwall 1 already exceed this rate, and suggest that the model predictions may be under-estimating the potential inflow rates. However, HLA appear to have not considered the potential for inflows from Glennies Creek alluvium to the Pikes Gully seam. Their predicted inflow rates for years 1 to 3 are believed to represent groundwater derived only from the coal measures.

HLA did consider inflows from the alluvium later in the project, and predicted that inflow rates from the Glennies Creek alluvium would peak at just under 600 m^3/d (7 L/s) during underground mining of the Upper Lower Liddell seam, due to its subcrop beneath the alluvium. The Pikes Gully seam also subcrops beneath the alluvium, although over a more restricted area than the Upper Lower Liddell seam. It is considered appropriate to allow for additional inflows from the Glennies Creek alluvium in years 1 to 3, in addition to the inflows from the coal measures predicted by the model during the EIS studies.

HLA presented sensitivity model results only for later stages of the proposed mining operation, and did not include the period when Longwalls 1 to 4 were to be mined. However, the

sensitivity results presented indicated a possible lower bound inflow rate of 75% of the base case, and an upper bound inflow rate of 290% of the base case. Applying these same factors to the base case inflow rates for Longwalls 1 to 4 suggests a possible range from 250 to 900 m^3/d (3 to 10 L/s). This represents the component of groundwater inflow that will be derived from the coal measures themselves.

Accordingly, it is recommended that an allowance be made for an additional inflow from Glennies Creek alluvium of up to 290 m^3/d (3.4 L/s).

Finally, allowance should be made for some of the increased rainfall recharge due to subsidence impacts to make its way into the workings. If 80 percent of the additional recharge were to flow to the workings, that would equate to an additional average inflow of around 260 m^3/d (3.0 L/s).

Accordingly, the maximum groundwater inflow rate that should be allowed for during the mining of Longwalls 1 to 4 is 1450 m^3/d (17 L/s), comprising the following components:

Water derived from the coal measures (95 percentile)	-900 m^3/d (10 L/s)
Additional inflow from Glennies Creek alluvium	-290 m^3/d (3.4 L/s)
Additional rainfall recharge	-260 m^3/d (3.0 L/s).

The current inflow rate to the Longwall 1 development headings has been measured at approximately 8 L/s (700 m^3/d). Although at a very early stage of mining, this inflow rate is consistent with the above predictions.

Modifications have been made to the groundwater flow model, and further predictive modelling will be carried out as mining development proceeds."

3.4.1.2 Aquaclude Study Group

Ashton's development consent permits the mining of coal beneath Bowmans Creek, but requires us to "ensure that no direct hydraulic connection between the Bowmans Creek alluvium and the underground workings can occur through subsidence cracking" (Condition 3.9). The primary purpose of this condition is to minimise the potential for long term migration of saline groundwater from the mine workings into the Hunter River post mine closure.

In order to comply with this condition, Ashton needs to fully understand the prevailing geological and groundwater conditions beneath Bowmans Creek and to establish a mine plan that provides maximum resource recovery whilst maintaining the requirement for no direct hydraulic connection in the long term. To achieve these goals, we have established an Aquaclude Study Group, which combines input from experts in the fields of geology, groundwater, mine planning and subsidence. The key influencing factors identified by this study group are as follows:

- Extent of saturated alluvium associated with Bowmans Creek;
- Nature of geology overlying the mine workings;
- Depth of mine workings;
- Mine layout and mining method (width of panels, etc);
- Nature and extent of groundwater aquifers, and
- The potential for long term sealing of any cracking.

The extent of saturated and unsaturated alluvium has been identified by an intense program of exploratory drilling.

The overlying geology comprises mudstones, shales, the Lemington coal seams and sandstones, as well as a flexible layer of clays associated with the base of the alluvium in some locations. The sandstones are considered to be likely to crack under subsidence loads, whilst the basal clays where present may provide an effective seal that can limit the propagation to the surface of subsidence-related cracks. These factors are being further investigated.

The depth of mine workings is an important factor as a key design goal is to ensure that the upward propagation of cracks associated with the goaf should not be allowed to connect with the downward propagation of cracks associated with surface subsidence. This is important from a mine safety perspective as well as compliance with the development consent.

The mine design and layout is important as it can influence the extent of subsidence cracking. Consideration is being given to the width of longwall panels, as well as the relative merits of stacked, offset or indented longwall panels. The study group is investigating the relative merits of each design, as well as its impact on coal sterilisation, subsidence cracking, etc.

Background monitoring of the groundwater aquifers and surface water monitoring within Bowmans Creek indicates that there may already be a reasonable amount of connection between the groundwater aquifers and Bowmans Creek. Studies are currently underway to better understand the nature and extent of this prevailing connection.

The potential for long term sealing of any cracking is also an important factor within this study. Mine operation is planned to occur over a period of 18 years, whilst initial indications are that groundwater flows will take up to 30 years to fill the abandoned mine (and therefore allow groundwater to migrate upwards). Computer modelling of subsidence-related cracking suggests that much of any potential flow paths may be horizontal cracking along bedding planes. These cracks may effectively seal themselves over an extended period of time. Ashton has been selected as an appropriate mine for an ACARP study into the benefits of using helium gas to measure the changes in the permeability of overlying strata following longwall mining.

The study group continues to meet on a regular basis to determine the optimum method of addressing this issue. The immediate goal is to maximise the collection of relevant data; develop models of groundwater flow paths and crack generation under different mining

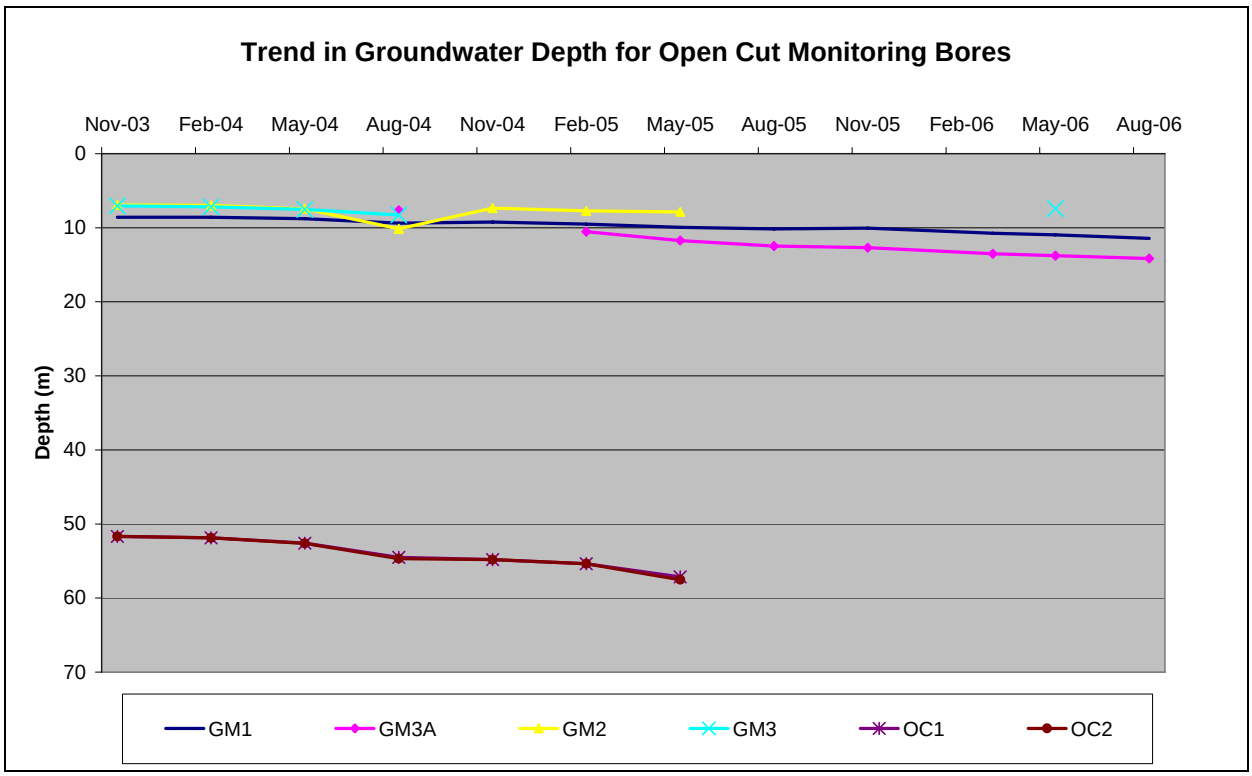
scenarios and to develop monitoring plans to confirm the model predictions. It is planned that the study group will finalise its investigations prior to the completion of longwall panel 3 in the Pikes Gully seam, in order that due consideration of its findings can be incorporated into the Subsidence Management Plan for the next block of longwall panels. The report from the study group should therefore be available in early 2009.

3.4.2 Ground Water Monitoring

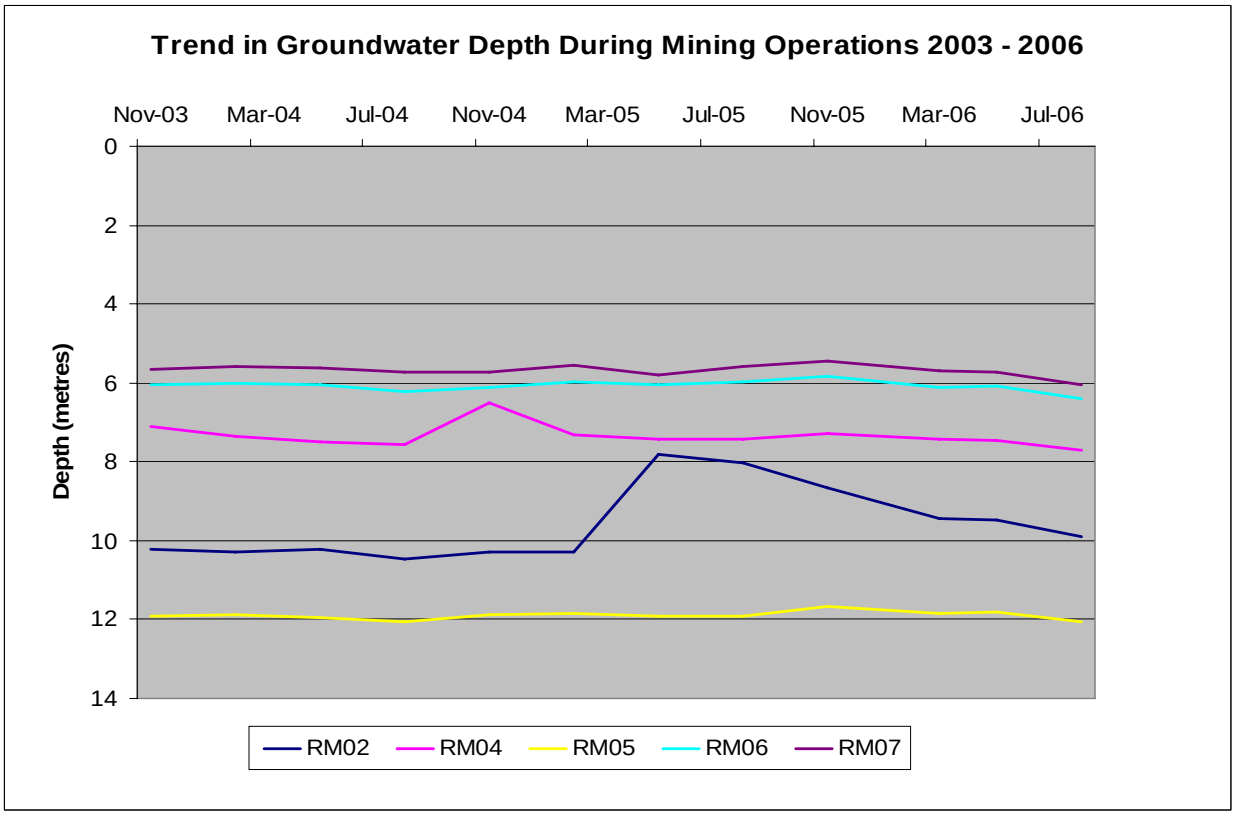
Ashton monitored the status of 19 groundwater bores during the reporting period, primarily to collect background data for the proposed underground mine. The Standing Water Level in each bore was checked on a quarterly basis, whilst pH, Electrical Conductivity (EC), TSS, TDS, Hardness and Oil & Grease was sampled according to the schedule listed in the Site Water Management Plan (and subsequently, the Groundwater Management Plan). GM2, OC1 and OC2 were decommissioned after the 3rd quarter sampling due to mining operations progressing through the sites.

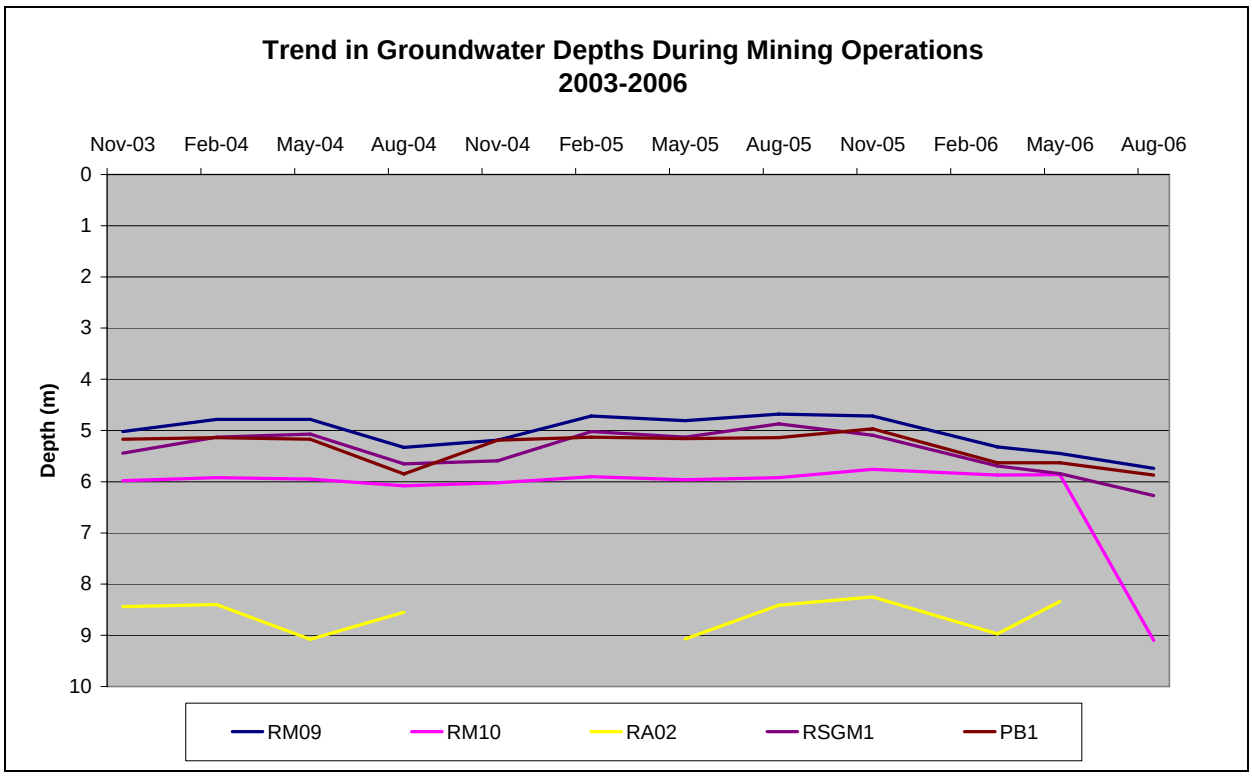
A full summary of groundwater results along with a basic statistical analysis is presented in the following tables:

DEPTH	Nov-05	Mar-06	May-06	Aug-06	Min	Ave	Max	Standard Deviation
RM01	Dry	Dry	Dry	Dry	0	0	0	0
RM02	8.88	9.67	9.71	9.9	8.88	9.54	9.90	0.45
RM03	Dry	Dry	Dry	Dry	0	0	0	0
RM04	7.5	7.64	7.67	7.69	7.50	7.63	7.69	0.09
RM05	11.9	12.05	12.04	12.06	11.90	12.01	12.06	0.08
RM06	6.06	6.32	6.31	6.39	6.06	6.27	6.39	0.14
RM07	5.65	5.9	5.95	6.03	5.65	5.88	6.03	0.16
RM09	4.94	5.54	5.67	5.74	4.94	5.47	5.74	0.36
RM10	5.98	6.09	6.08	9.1	5.98	6.81	9.10	1.53
RA02	Dry	Dry	Dry	Dry	0	0	0	0
RSGM1	5.31	5.91	6.06	6.27	5.31	5.89	6.27	0.41
PB1	5.19	5.85	5.85	5.87	5.19	5.69	5.87	0.33
GM1	10.26	10.97	11.17	11.42	10.26	10.96	11.42	0.50
GM2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0.00	0	0.00	0
GM3	Dry	Dry	Dry	Dry	0.00	0.00	0.00	0.00
GM3A	12.9	13.73	13.97	14.14	12.90	13.69	14.14	0.55
GM4	Dry	Dry	Dry	Dry	0	0	0	0
GM5	Dry	Dry	Dry	Dry	0	0	0	0
OC1	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
OC2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
WML 20		15.84	16.19	8.96	8.96	13.66	16.19	4.08
WML 21		8.19	8.42	17.56	8.19	11.39	17.56	5.34



Long-term trends in depth at each monitoring well show that consistent groundwater depths are maintained.

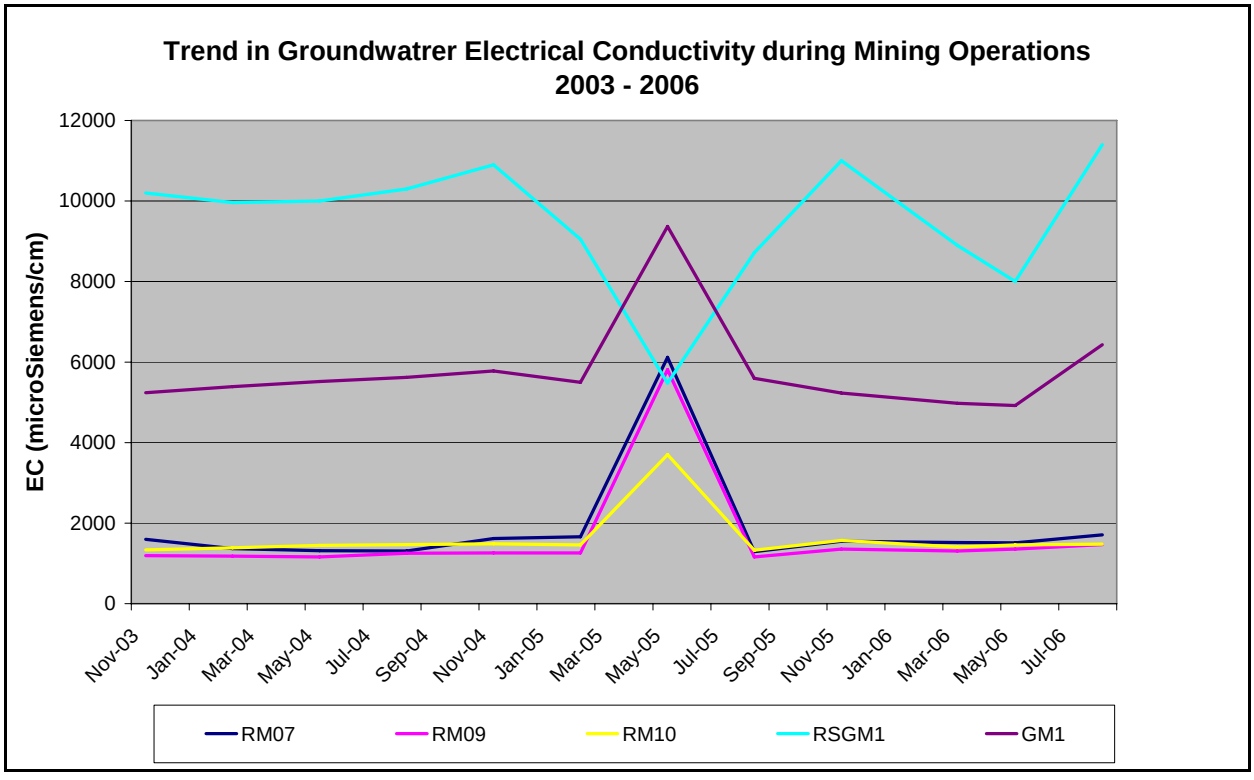




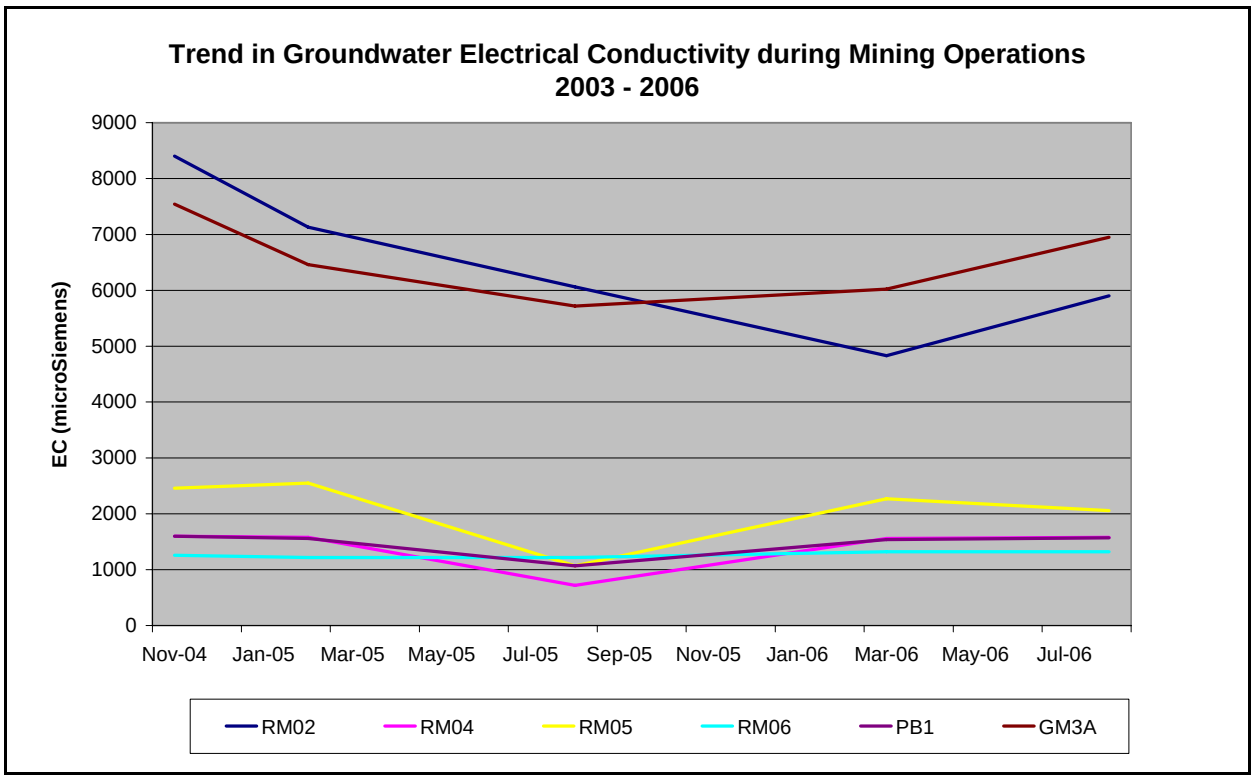
Long-term results from Groundwater depth monitoring indicate that there is a consistent trend at all sites.

pH	Nov-05	Mar-06	May-06	Aug-06	Min	Ave	Max	Standard Deviation
RM01	Dry	Dry	Dry	Dry	0	0.00	0	0
RM02		6.76		6.8	6.76	6.78	6.8	0.03
RM03	Dry	Dry	Dry	Dry	0	0	0	0
RM04		7.14		7.11	7.11	7.13	7.14	0.021
RM05		6.81		6.72	6.72	6.77	6.81	0.064
RM06		7.28		7.18	7.18	7.23	7.28	0.071
RM07	7.23	7.21	7.2	7.43	7.2	7.27	7.43	0.11
RM09	7.2	7.08	7.01	7.32	7.01	7.15	7.32	0.14
RM10	7.1	6.96	6.86	7.1	6.86	7.01	7.1	0.12
RA02	Dry	Dry	Dry	Dry	0	0	0	0
RSGM1	7.01	6.98	6.92	6.94	6.92	6.96	7.01	0.04
PB1		7.12		7.24	7.12	7.18	7.24	0.08
GM1	7.87	7.74	7.78	7.79	7.74	7.80	7.87	0.05
GM2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
GM3	Dry	Dry	Dry	Dry	0	0	0	0
GM3A		7.77		8.07	7.77	7.92	8.07	0.21
GM4	Dry	Dry	Dry	Dry	0	0	0	0
GM5	Dry	Dry	Dry	Dry	0	0	0	0
OC1	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
OC2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
WML 20	8.4	8.01	7.93	8.06	7.93	8.10	8.4	0.21
WML 21	8.39	7.95	7.96	8.02	7.95	8.08	8.39	0.21

EC	Nov-05	Mar-06	May-06	Aug-06	Min	Ave	Max	Standard Deviation
RM01	Dry	Dry	Dry	Dry	0	0	0	0
RM02		4830		5900	4830	5365	5900	756.60
RM03	Dry	Dry	Dry	Dry	0	0	0	0
RM04		1560		1580	1560	1570	1580	14.14
RM05		2270		2060	2060	2165	2270	148.49
RM06		1320		1320	1320	1320	1320	0
RM07	1550	1520	1510	1710	1510	1573	1710	93.23
RM09	1360	1310	1360	1470	1310	1375	1470	67.58
RM10	1570	1410	1460	1480	1410	1480	1570	66.83
RA02	Dry	Dry	Dry	Dry	0	0	0	0
RSGM1	11000	8900	8000	11400	8000	9825	11400	1637.83
PB1		1540		1570	1540	1555	1570	21.21
GM1	5230	4980	4920	6430	4920	5390	6430	706.21
GM2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
GM3	Dry	Dry	Dry	Dry	0	0	0	0
GM3A		6020		6950	6020	6485	6950	657.61
GM4	Dry	Dry	Dry	Dry	0	0	0	0
GM5	Dry	Dry	Dry	Dry	0	0	0	0
OC1	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
OC2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
WML 20	5670	6540	5080	6550	5080	5960	6550	717.17
WML 21	7220	5170	6500	8650	5170	6885	8650	1451.08



The long-term EC results obtained since mining operations began indicates that all monitoring wells have shown reasonably consistent trends. It is believed that the unusual readings reported in May 2005 are associated with a sampling or analysis error rather than contamination of the relevant aquifers. Mining had not occurred in the area of these bores at this time and the next sampling event indicated that water quality had returned to pre-existing levels.



Again long-term EC results obtained since mining operations began indicate that the monitoring wells show consistent trends. Unlike the previous figure, the wells in this figure were only monitored on a biannual basis and thus were not assessed in May 2005 where the anomaly occurred.

TSS	Nov-05	Mar-06	May-06	Aug-06	Min	Ave	Max	Standard Deviation
RM01	Dry	Dry	Dry	Dry	0	0	0	0
RM02		- - -		- - -	0	0	0	0
RM03	Dry	Dry	Dry	Dry	0	0	0	0
RM04		- - -		- - -	0	0	0	0
RM05		- - -		- - -	0	0	0	0
RM06		- - -		- - -	0	0	0	0
RM07	28	70	31	80	28	52	80	26.61
RM09	68	203	172	156	68	150	203	57.89
RM10	26	68	14	51	14	40	68	24.34
RA02	Dry	Dry	Dry	Dry	0	0	0	0.00
RSGM1	60	182	60	31	31	83	182	67.24
PB1		- - -		- - -	0	0	0	0
GM1	12	46	19	22	12	25	46	14.77
GM2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
GM3	Dry	Dry	Dry	Dry	0	0	0	0
GM3A		12000		83000	12000	47500	83000	50204.58
GM4	Dry	Dry	Dry	Dry	0	0	0	0
GM5	Dry	Dry	Dry	Dry	0	0	0	0
OC1	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
OC2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
WML 20	10	14	12	6	6	11	14	3.42
WML 21	18	13	19	12	12	16	19	3.51

TDS	Nov-05	Mar-06	May-06	Aug-06	Min	Ave	Max	Standard Deviation
RM01	Dry	Dry	Dry	Dry	0	0	0	0
RM02		- - -		- - -	0	0	0	0
RM03	Dry	Dry	Dry	Dry	0	0	0	0
RM04		- - -		- - -	0	0	0	0
RM05		- - -		- - -	0	0	0	0
RM06		- - -		- - -	0	0	0	0
RM07	844	980	952	1010	844	947	1010	72.32
RM09	740	872	832	880	740	831	880	64.20
RM10	912	936	882	914	882	911	936	22.18
RA02	Dry	Dry	Dry	Dry	0	0	0	0.00
RSGM1	6620	7040	6880	6560	6560	6775	7040	224.72
PB1		- - -		- - -	0	0	0	0.00
GM1	3290	3450	3440	3370	3290	3388	3450	74.11
GM2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
GM3	Dry	Dry	Dry	Dry	0	0	0	0
GM3A		4160		15700	4160	9930	15700	8160.01
GM4	Dry	Dry	Dry	Dry	0	0	0	0
GM5	Dry	Dry	Dry	Dry	0	0	0	0
OC1	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
OC2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
WML 20	3420	4620	3490	3400	3400	3733	4620	592.92
WML 21	4610	3610	4680	4620	3610	4380	4680	514.26

CaCO3	Nov-05	Mar-06	May-06	Aug-06	Min	Ave	Max	Standard Deviation
RM01	Dry	Dry	Dry	Dry	0	0	0	0
RM02		- - -		- - -	0	0	0	0
RM03	Dry	Dry	Dry	Dry	0	0	0	0
RM04		- - -		- - -	0	0	0	0
RM05		- - -		- - -	0	0	0	0
RM06		- - -		- - -	0	0	0	0
RM07	265	304	315	349	265	308	349	34.62
RM09	244	285	279	299	244	277	299	23.39
RM10	299	319	310	331	299	315	331	13.57
RA02	Dry	Dry	Dry	Dry	0	0	0	0
RSGM1	1540	1530	1630	1650	1530	1588	1650	61.31
PB1		- - -		- - -	0	0	0	0
GM1	112	101	91	90	90	99	112	10.28
GM2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
GM3	Dry	Dry	Dry	Dry	0	0	0	0
GM3A		182		240	182	211	240	41.01
GM4	Dry	Dry	Dry	Dry	0	0	0	0
GM5	Dry	Dry	Dry	Dry	0	0	0	0
OC1	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
OC2	Decommissioned	Decommissioned	Decommissioned	Decommissioned	0	0	0	0
WML 20	28	37	21	27	21	28	37	6.60
WML 21	45	23	38	47	23	38	47	10.87

Oil and Grease	Nov-05	Mar-06	May-06	Aug-06
RM01	Dry	Dry	Dry	Dry
RM02		- - -		- - -
RM03	Dry	Dry	Dry	Dry
RM04		- - -		- - -
RM05		- - -		- - -
RM06		- - -		- - -
RM07		<5	<5	<5
RM09		<5	<5	<5
RM10		<5	<5	<5
RA02	Dry	Dry	Dry	Dry
RSGM1		6	<5	<5
PB1		- - -		- - -
GM1		13	<5	<5
GM2	Decommissioned	Decommissioned	Decommissioned	Decommissioned
GM3	Dry	Dry	Dry	Dry
GM3A		9		<5
GM4	Dry	Dry	Dry	Dry
GM5	Dry	Dry	Dry	Dry
OC1	Decommissioned	Decommissioned	Decommissioned	Decommissioned
OC2	Decommissioned	Decommissioned	Decommissioned	Decommissioned
WML 20	- - -	15	<5	<5
WML 21	- - -	<5	<5	<5

3.5 CONTAMINATED AND POLLUTED LAND

There are no known areas of contaminated or polluted land at the Ashton Coal Project.

3.6 THREATENED FLORA AND FAUNA

3.6.1 Flora and Fauna Management

Condition 3.46 of the Development Consent requires the preparation of a Flora and Fauna Management Plan (FFMP), which was approved by the Director General of DIPNR. The phase 2 FFMP was approved by DEC, DoP, DNR and DPI in August 2006. As part of the management of Flora and Fauna bimonthly surveys have been conducted throughout the reporting period. No additional pre-clearing flora fauna surveys were conducted during the reporting period. The small areas of regrowth cleared for mining purposes had been inspected previously and determined to present little risk from clearing due to poor diversity. All areas that were cleared were inspected by the ACOL Environment Officer for the presence of fauna (threatened or otherwise) prior to clearing. In all instances no nesting bird species or arboreal species were identified.

During preliminary monitoring of Bowmans Creek riparian vegetation, a stand of River Red Gum (*Eucalyptus camaldulensis*) was identified. Under the Threatened Species Conservation Act the River Red Gum population is considered threatened in this area. A River Red Gum management plan (RRGMP) is currently being drafted in order to provide conservation for this population. The presence of the community is restricted to a narrow band along either side of Bowmans creek, to the south of the predicted subsidence zone of the ACOL underground mine. No regeneration of the species has been observed within the known community. Weed infestation and cattle grazing along the banks of Bowmans Creek are impacting on the regeneration of the community and managing these issues forms the backbone of the RRGMP.

3.6.1.1 Conservation Area

A draft Plan of Management for the conservation area has been submitted to DEC NPWS. ACOL is currently awaiting input from the Parks Department in regards to the plan. Monitoring of the flora and fauna of the conservation area has been ongoing, with the instalment of a number of nest and bat boxes. Fencing of the Conservation area has begun to exclude cattle and following the completion revegetation and weed management activities will be commenced.

3.6.2 Fauna Monitoring

Fauna habitat surveys were carried out in both the summer and winter biannual monitoring undertaken by ERM. These surveys aimed at identifying the current habitat available to fauna species within ACOL property. It was found that the southern woodland (voluntary conservation area) consists of open grassy woodland dominated by *Allocasuarina luehmannii*. The presence

of *Eucalyptus crebra* (narrow-leaved ironbark), *Eucalyptus melliodora* (yellow box) and *eucalyptus fibrosa* (grey box) were recorded as sub-dominant species.

The fauna surveys conducted by ERM utilised a number of monitoring techniques to identify the fauna species utilising the southern woodland. These included:

- Pitfall trapping. Ten permanent pitfall traps have been installed at four locations. Between surveys the traps are sealed.
- Elliot A Traps. 50 traps were placed along two transects to monitor small and medium terrestrial mammals.
- Hair tunes. 30 tubes were placed throughout the southern woodland for 10 nights to monitor small and medium terrestrial mammals.
- Elliot B Traps. Twenty traps were mounted on trees along the survey transects at approximately 2 metres above the ground. They were used to target small to medium sized arboreal mammals.
- Hair funnels. Ten funnels were mounted on tree trunks along the transects for ten nights targeting arboreal mammals.
- Targeted amphibian surveys were undertaken.
- Two Anabat echolocation call detectors were used over two consecutive nights to record and identify bat calls.
- 10 minute diurnal bird point surveys were conducted over four days.
- Targeted Grey-Crowned Babbler and Speckled Warbler surveys were conducted (see 3.7.3 below).
- Spotlighting was undertaken.
- Nest boxes. A total of 28 nest boxes and 14 bat boxes have been installed on ACOL property and these boxes were monitored for species use.

Results from the fauna surveys show a number of trends or changes in the species occupying ACOL land. There was a decrease in the reptile species identified in the autumn (May 2006) survey. This is likely to be a result of cooler weather. Surveys indicated the presence of *Petaurus breviceps* (sugar glider) which had not previously been identified. There was a decrease in amphibian species heard calling, however this is likely to be a result of fine weather conditions (frogs generally call during or after rainfall periods). No bat species were identified during the autumn period as apposed to 10 species identified in the summer 2006 period. Additional common bird species were identified during the autumn surveys, however no owl species were located.

3.6.2.1 Significant Species of Animal

Two threatened bird species have been identified on site, the Grey-Crowned Babbler and the Speckled Warbler. The *allocasuarina* dominated open woodland and sparse eucalypts provide suitable nesting habitat for the Grey Crowned Babbler. Six Grey-Crowned Babbler individuals were observed in the southern woodland during the autumn surveys. There are also 11 nests currently identified. There has been no observed increase in the Grey-crowned Babbler population of the southern woodland since autumn 2005. To increase the foraging habitat

available to the Grey-Crowned Babbler cleared timber from the open cut operations was placed within the southern woodland.

Speckled Warblers have not been as prolific in the southern woodland as the Grey-Crowned Babbler. The Speckled Warbler prefers to nest in hollows using bark and grass or in the base of dense shrub species. During the autumn 2006 survey three Speckled Warblers were observed foraging in the grassland habitat of the southern woodland. This is an increase in number from 2 observed during the summer 2006 surveys.

3.6.2.2 Nest Boxes

A total of 28 nest boxes and 14 Bat boxes have been installed within ACOL property. The nest boxes target a number of different species. They are monitored biannually for resident fauna evidence of use and presence of pest species.

Scat and hair analysis indicated the presence of *Trichosurus* species, most likely to be brushtail possum due to its common occurrence during nocturnal surveys. There has been no evidence of use in the bat boxes to date. It has been suggested that the landing strips be improved by the adherence of chicken mesh, fly screen material or poll carpet.

There has been no population analysis conducted yet as insufficient data has been collected at this stage of the monitoring program.

3.7 WEEDS

3.7.1 Weed Management

The Weed Management Plan has been revised under consent condition 3.7 and resubmitted. The WMP includes directions to conduct weed surveys on a weekly basis to identify in particular the presence of new weed infestations in rehabilitation areas. Weed surveys of the southern woodland are conducted biannually during the flora and fauna surveys.

Weed spraying throughout the reporting period was focused along the Glennies Creek Road bundwall. Galenia thrives in this area and has become a significant problem. After spraying of the galenia along the bund occurred in April/May 2006, there was a lack of rainfall which prevented grass species from colonising the area. Due to the lack of competition the galenia grew back throughout July and August 2006. Weed spraying was also undertaken along Glennies Creek for a 6 week period during November/December.

ACOL are currently in the process of gaining weed spraying tickets for two Yunuga contractors in order to improve the weed management program.

3.7.2 Weed Monitoring

A weed survey was conducted during the period as part of the revision of the Weed Management Plan.

The autumn survey undertaken as part of the biannual flora and fauna survey indicated the presence of weed species (dominated by prickly pear and fireweed) along the margins of the southern woodland and cleared areas adjacent to access roads. Willow was particularly noted throughout the riparian zone of Bowmans creek.

To the north of the southern woodland a section of St John's Wort and Bathurst Burr were located and identified in the WMP.

3.8 BLASTING

3.8.1 Blast Management

Due to the proximity of the Main Northern Railway, Glennies Creek Road and the village of Camberwell to the mining operations area, the Blasting and Vibration Management Plan (BVMP) along with a complex series of controls have been established to ensure that blasts conform to the criteria defined in the Development Consent and the EPL. The BVMP was resubmitted during the reporting period under condition 3.7 of the Development Consent which allowed ACOL to submit separate Environmental Management Plans for the Open Cut and Underground operations.

Blasting times are limited to the hours of 9am to 5pm Monday to Saturday inclusive by the Development Consent, but the EPL also states that blasting cannot occur on Sundays or public holidays without the prior approval of the EPA. During the reporting period no blasts were conducted on Sundays or Public Holidays.

To ensure that ground vibration does not exceed criteria at receptor locations, the Maximum Instantaneous Charge (MIC) is calculated for each blast at the design stage. Procedures are also in place to ensure that sufficient depth of crushed stemming material is also placed in the collar of each blast hole to minimise the effects of air blast (air overpressure).

The BVMP also requires the completion of a Blasting Environmental Checklist prior to each blast. This checklist ensures that meteorological conditions are appropriate for the blast to occur. There are also checklists for Community Notification and Notification of the Common Management Committee when the common requires closing. During last years reporting period a risk assessment developed for clearing the Camberwell Common was repeated at the request of the Common Management Committee. During the reporting period the Blasting environmental Checklist was reassessed to incorporate issues arising from interaction with the Underground mine. The checklist now incorporates both the evacuation of Underground

surface facilities when blasting occurs within 500 metres and adverse weather conditions (winds from the North East) that may impact on the safety of Underground personnel.

The Road and Rail Closure Management Plan (RRCMP) also requires the closure of Glennies Creek Road if any part of the road comes within the 500 metre zone of exclusion that is required to be established around each blast. If any blast is within 200 metres of the Main Northern Railway, then ACOL seek possession of the railway for the duration of the blast. This ensures that no rail traffic enters the zone of exclusion within a blast period.

The residents of Camberwell village and all occupiers of buildings within two kilometres of blasting locations are provided advance notice of planned blasting events on the Ashton website (www.ashtoncoal.com.au) and, excepting where they have requested to be removed from the contact list, one hour prior to each blasting event, by telephone.

Structural re-inspections of two residences in Camberwell village were conducted during the reporting period in response to requests from the residents. Parsons Brinckerhoff were contracted to complete the structural surveys. The inspections concluded that the cracking observed within the residences was not unusual and unlikely to be related to blasting at Ashton Coal. Cracking of brickwork and plasterboard at the rear of one house, whilst not a structural concern are the result of poor construction practices.

Structural inspection of the St Clements Church was undertaken in Dec 2005 following concerns from the congregation. The report was submitted to DoP. As at the end of the reporting period a response from the DoP had not yet been received.

3.8.1.1 SODAR Meteorological Monitoring Project

Certain meteorological conditions can lead to enhanced blast overpressure levels and potentially result in blast exceedences. The extent of this enhancement is determined by temperature and wind gradients up to 1000m in altitude that require specialised meteorological and modelling equipment to record and predict the effects. The SODAR project involves installing and operating this equipment to determine the enhancement.

The SODAR project is an approved Australian Coal Association Research Project (ACARP), in which the coal industry is contributing funds to purchase the monitoring equipment. Ashton Coal is a Joint Venture partner in this project.

Instrumentation is currently being installed and commissioned on a property off Lemington Rd in the Hunter Valley. The system is expected to be operational in early 2007 with information from the project expected to assist Ashton Coal to reduce overpressure levels in Camberwell Village.

3.8.2 Blast Criteria and Monitoring

The Development Consent defines the following criteria:

"The Airblast overpressure level from blasting operations carried out in or on the premises must not exceed:

(a) 115dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period; and

(b) 120dB (Lin Peak) at any time

At any residence or other noise sensitive receiver such as the St Clements Anglican Church and Camberwell Community Hall

The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed:

(a) 2mm/s for more than 5% of the total number of blasts carried out in or on the premises during each reporting period; and

(b) Exceed 10mm/s at any time

At any residence or other noise sensitive receiver such as the St Clements Anglican Church and Camberwell Community Hall."

It should be noted that there is a difference between the requirements of the Development Consent and the Sites Environmental Protection Licence (EPL). Condition No L7.3 of EPL 11879 requires the ground vibration peak particle velocity not to exceed **5 mm/s** for more than **5%** of blasts carried out on the premises within the 12 months of the reporting period, with no blast to exceed 10 mm/second.

Ashton has therefore adopted the following goals for ground vibration:

- Not more than 5% of blasts to exceed 2 mm/s; and
- No blast to exceed 10mm/s at the nearest residence.

However only exceedences of the EPL conditions will be immediately reportable to the EPA.

A total of 129 blasts took place during the reporting period. Comprehensive blast monitoring results are presented in Appendix 4.

The locations are detailed hereunder:

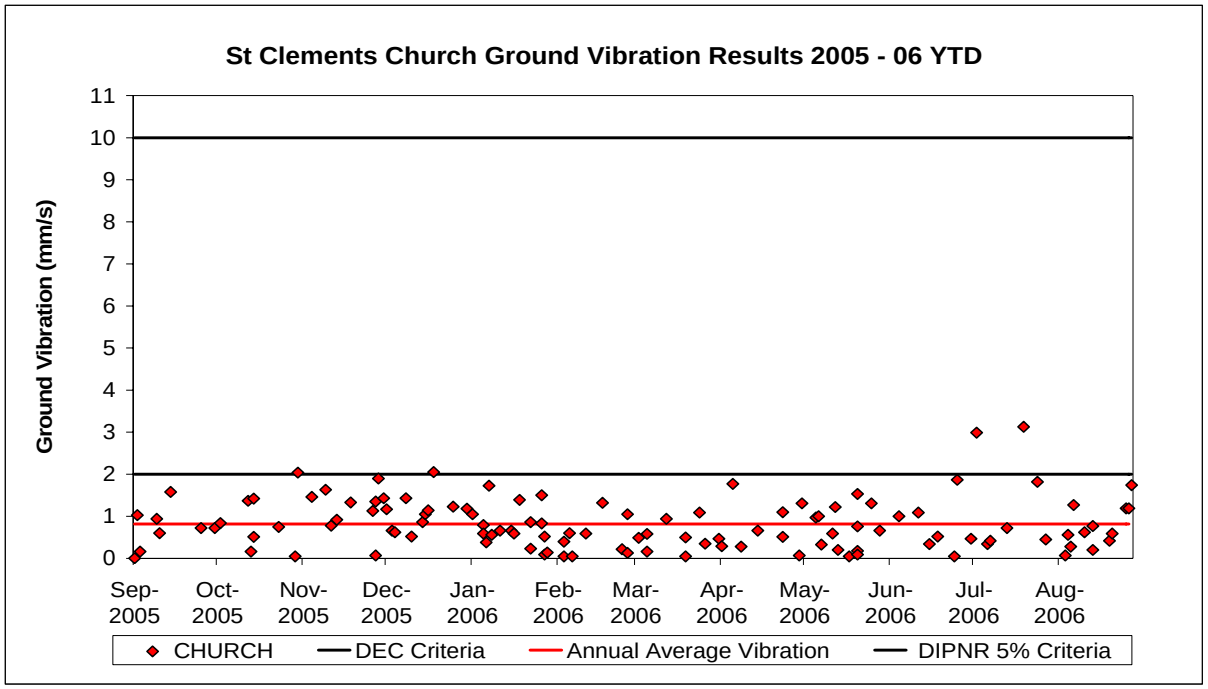
Table 20. LOCATION OF BLAST MONITORING STATIONS

Monitoring Station No	Location
1	Camberwell village (north)
2	St Clements Church

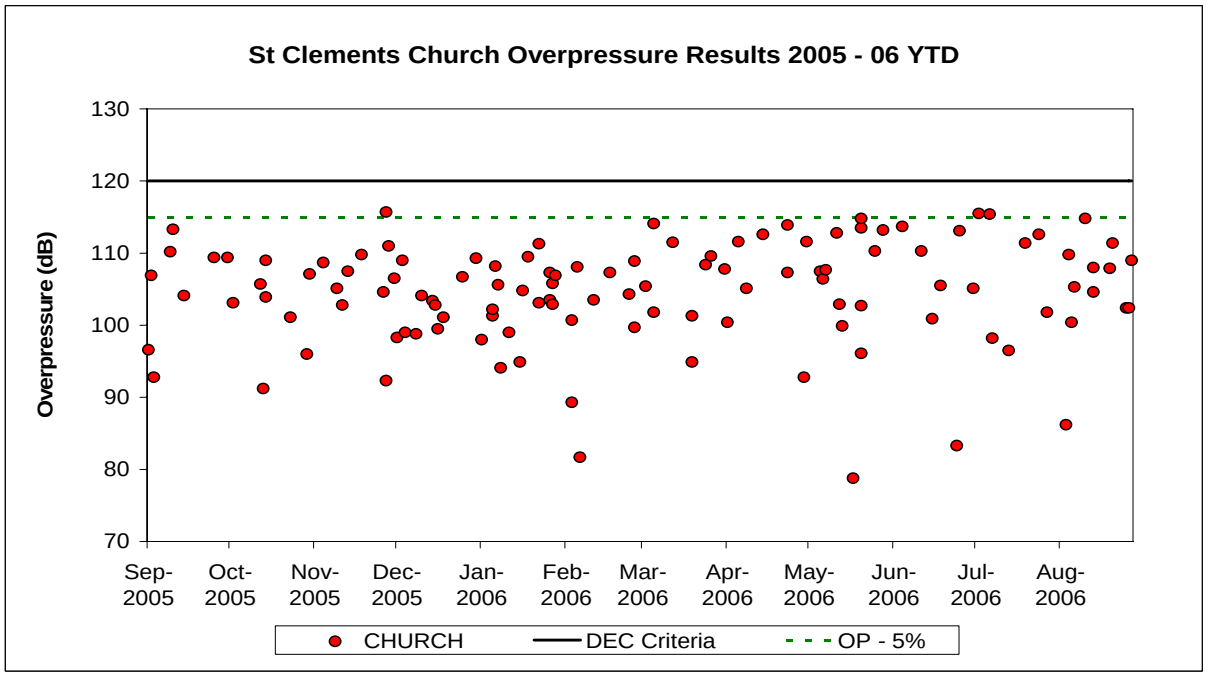
Table 21. SUMMARY BLAST MONITORING RESULTS

	St Clements Church		Camberwell Village	
	Vibration	Overpressure	Vibration	Overpressure
Results Captured	119	119	122	122
Data Recovery (%)	92%	92%	95%	95%
Results >2mm/s <5mm/s	4		12	
Results >5mm/s	0		0	
Results >2mm/s (%)	3.4%		9.8%	
Results > 115dB <120dB		3		7
Results > 120bB		0		0
Results > 115dB (%)		2.5%		5.7%

Ground vibration (mm/s) and overpressure results (dBL) for the St Clements Church blast monitor are as follows:

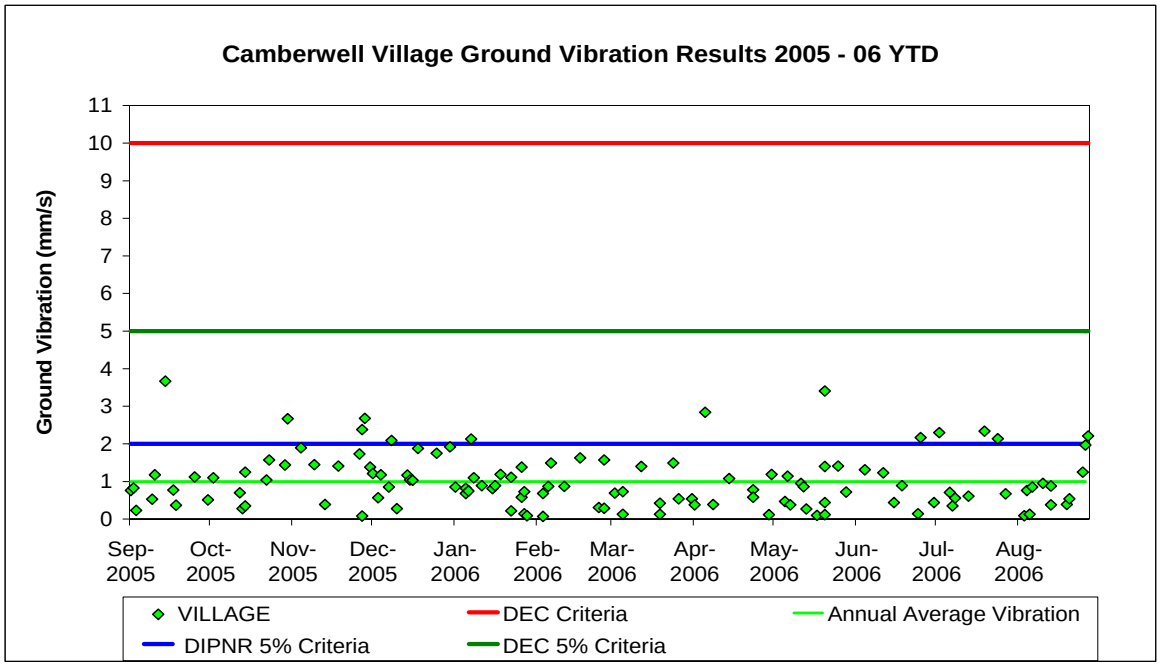


Ground vibration results for 119 blasts out of a possible 129, were captured by the St Clements Church Blast Monitor (92% data recovery). 4 results captured by this monitor exceeded 2mm/s (3.4% of blasts recorded). The annual average vibration was less than 1mm/s.

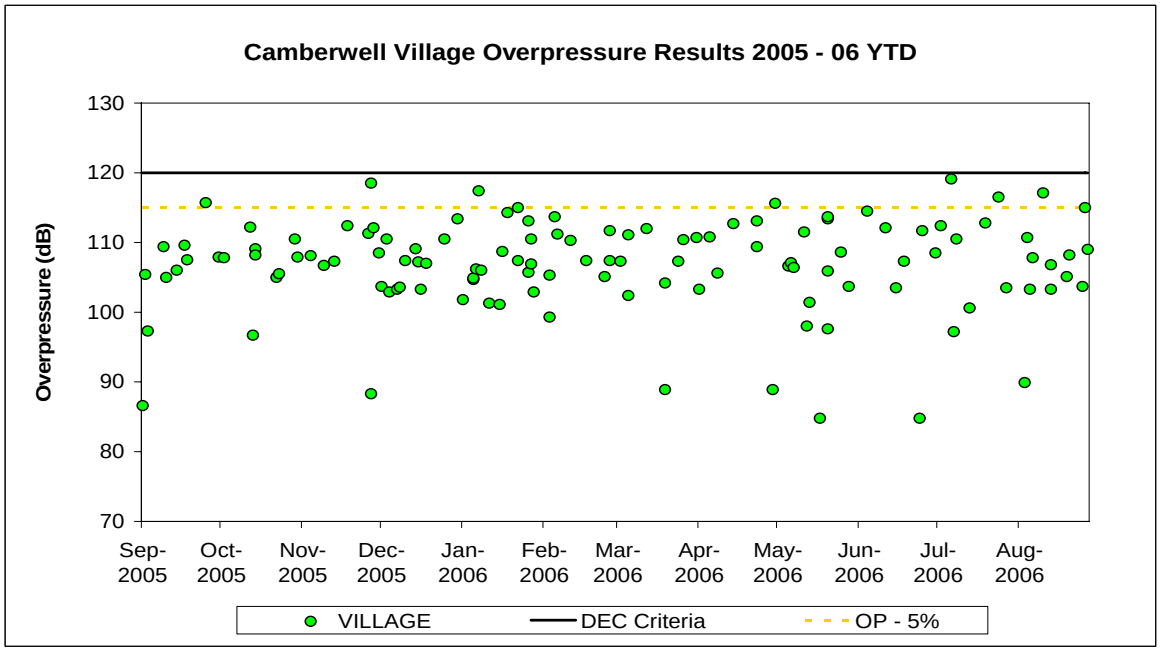


Overpressure results for 119 blasts out of a possible 129 were captured by the St Clements Church Blast Monitor (92% data recovery). 3 results captured by this monitor exceeded 115dBL (2.5% of blasts recorded). No results exceeded 1120dBL.

Ground vibration (mm/s) and overpressure results (dBL) for the Camberwell Village blast monitor are as follows:

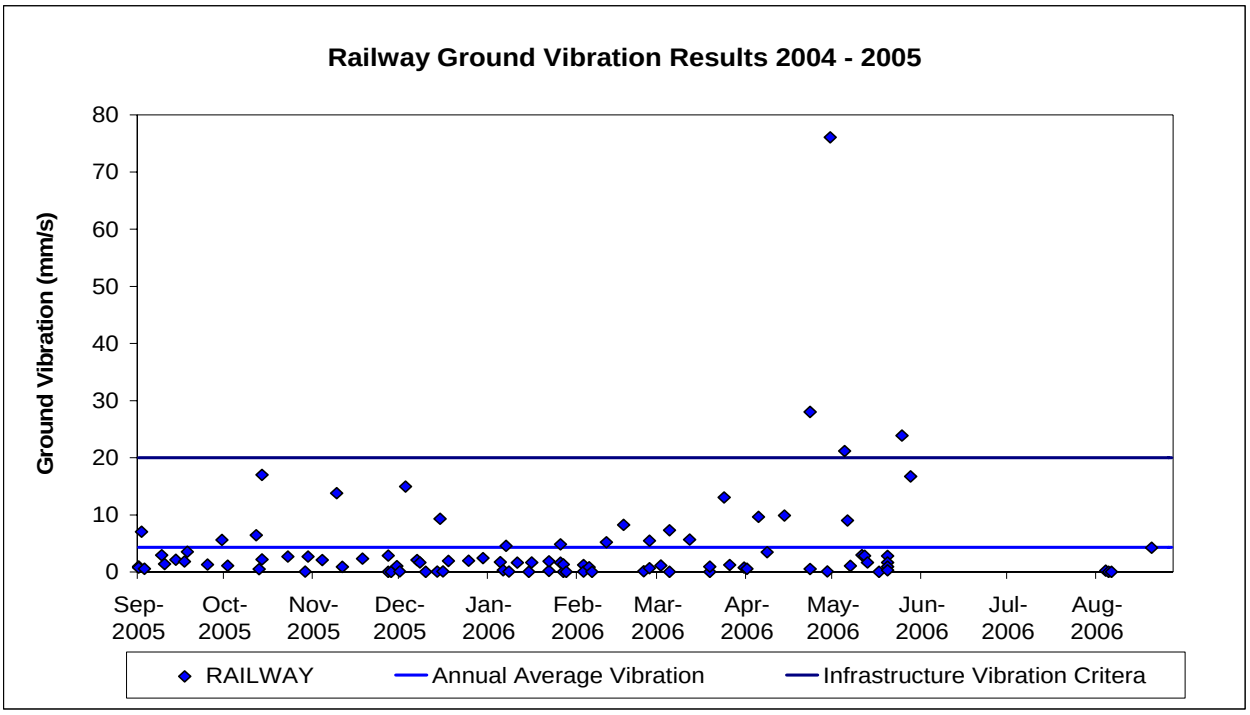


Ground vibration results for 122 blasts out of a possible 129, were captured by the Camberwell Village Blast Monitor (95% data recovery). No results captured by this monitor exceeded 5mm/s. 12 results (9.8% of recorded blasts) were between 2mm/s and 5mm/s. It should be noted that since ACOL staff assumed control of drill and blast there has been a significant improvement in the levels recorded in the village and the number of exceedences.



Overpressure results for 122 blasts out of a possible 129 were captured by the Camberwell Village Blast Monitor (95% data recovery). No results captured by this monitor exceeded 120dBL. Seven results (5.7% of recorded blasts) for overpressure were recorded between 115dBL and 120dBL.

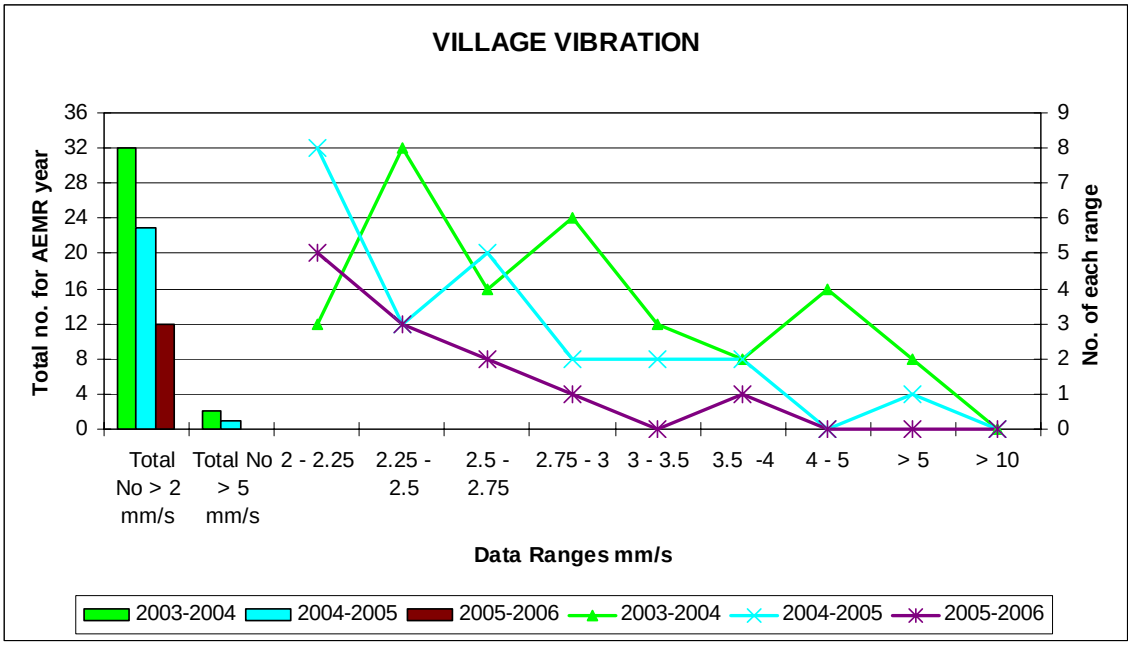
Ground vibration (mm/s) for the Railway blast monitor are as follows:



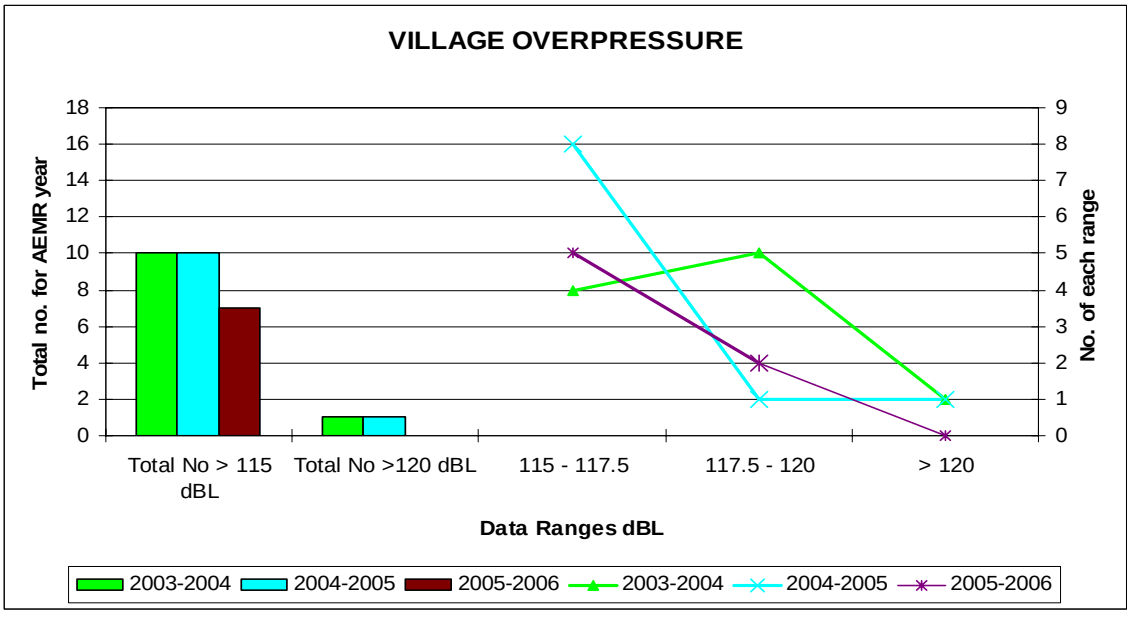
Ground vibration results for 101 blasts out of a possible 129, were captured by the Railway Blast Monitor. This equates to 78% data recovery. Significant data loss occurred when the monitor was moved from its original location to its current location, at the point on the railway closest to blasting. After the monitor was relocated there were difficulties with the monitors aerial which have since been rectified. The criteria for the railway and other off-site infrastructure is 20mm/sec with no limit on overpressure – there were 4 exceedences of this criteria. The Rail Authority were informed of these exceedences immediately following the blasts.

3.8.3 Long-term Blasting Trends

In the 2005-06 reporting period ACOL exceeded both the DoP 5% criteria of 2mm/s (9.8%) and the 5% criteria of 115 dBL (5.7%) at the village monitor. This is a vast improvement on previous years of operation. Since the first reporting period (2003-04) there has been a marked decrease in the number of shots that exceeded the 2mm/s criteria. Furthermore during this reporting period the majority of exceedences occurred in the low range between 2 and 2.5mm/s, only 1 blast exceeded 3mm/s.



The figure below shows that the number of overpressure exceedences have declined during the reporting period. The exceedences that did occur fell in the low range of exceedences (115 dBL – 117.5 dBl). This shows that ACOL is committed to reducing the number of exceedences and the blasting management actions taken are improving the results.



ACOL has been able to significantly reduce the number of blasts that exceeded the DoP criteria to 12, while increasing the bulk cubic metres blasted, significantly improving the results. ACOL will continue to implement measure to control blasting overpressure and vibration.

3.9 OPERATIONAL NOISE

3.9.1 Noise Management

The Noise Management Plan for phase 2 of Ashton Coal's mining operations has been approved by the Department of Planning. As part of this plan a set of proactive and reactive mitigation measures have been identified to assist in reducing the noise impact from ACOL on the neighbouring residence. The inversion study conducted by Spectrum Acoustics indicated that even when a strong inversion (+7.5^{O}C/100m) is in place, trucks that are dumping on the northern side of the 135RL dump, Camberwell village falls in the acoustic shadow zone of the eastern emplacement. As a result ACOL has committed to restricting dumping at night to the northern side of the Open Cut, particularly when winds are emanating from the North West.

Major noise mitigation measures implemented during the reporting period include:

- A Sentinex real time noise monitor was tested during the reporting period with the long-term goal to position one in Camberwell village. The Sentinex unit has the ability to separate the different sound waves collected at the microphone and identify the low frequency mine noise. This will give Ashton's management the ability to identify high noise impact operations during operation rather than receiving indication of noise exceedences after the fact. ACOL believe that this will allow better management of operations during adverse weather conditions.

- Noise modelling was conducted during the reporting period to identify the noise impacts of trucks dumping in certain areas of the mine site. Dozer cleanup was also modelled into this analysis.

- Noise mitigation work was completed on the CAT 994 and 992 loader in order to reduce the impact the loaders have on Camberwell village at night. This consisted of work completed on the engine bay of the loaders.

- Construction of the Glennies Creek Road Environmental Bund was completed during the reporting period, the aim of which is to decrease the propagation of noise down onto Camberwell village and provide a visual screen for the site;

Other noise mitigation measures that are planned for implementation include:

- A remote Sentinex noise monitor should be fully functional in the next reporting period. The system will allow measurement of noise levels at any residence where noise levels are seen to be higher. The Sentinex monitor is capable of recording 15minute sound bites to allow assessment of the mines contribution in a similar manner to attended monitoring.

3.9.1.1 Temperature Inversion Study

Temperature inversions are measured by temperature variation between Monitoring Station 1 and the Repeater Station, where there is a height differential of approximately 60 metres, and are recorded on the Real Time Environmental Monitoring System. Significant temperature inversions have been identified, with 209 out of 327 days monitored recording a temperature inversion of greater than 3^0C/100m (i.e. 64% of days). It should be noted that a percentage of these days had only small inversions where the inversion was between 3 and 4 ^{0}C/100m for a very short period of time (less that 0.5hours). Due to these findings a temperature inversion study was conducted at Ashton Coal during August and September 2006. The purpose of the study was to determine how often inversions occur, their intensity and structure and influence on noise emissions from Ashton Coal.

The study found that inversion strengths of up to 4.7^0C/100m should be considered when assessing noise impacts from Ashton Coal during night time in winter, based on procedures recommended by the DEC in their Industrial Noise Policy. Since the current location of the lower Ashton Coal temperature logger is within the “cold pool” near Glennies Creek the inversion calculated from the site data will be approximately 8degC/100m when the actual inversion in the sound propagation path is 4.7^0C/100m.

Noise modelling using ray tracing has found that inversions and westerly winds will reduce or eliminate the acoustic effectiveness of the visual bund for most residents in Camberwell village. Previous measurements under adverse conditions have confirmed the audibility of the washery and CAT 992 in the village, however these sources have not exceeded the site noise criterion of 38dB(A),$L_{eq(15min)}$.

Sound ray modelling has also shown that dumping should occur on the northern face of the eastern emplacement under adverse conditions. Even under worst case inversion, a northern dumping location maintains the acoustic shielding provided by the emplacement.

The findings of this study will be fully reviewed and where necessary incorporated into the site Noise Management Plan and future monitoring and modelling.

3.9.2 Noise Criteria and Monitoring

Noise generated by the Ashton Coal Project must not exceed the limits specified in Condition 6.34 (Table 5), which is detailed hereunder, except as may be expressly provided by an EPA Licence,

Table 22. (DC TABLE 5) NOISE LIMITS (DB(A))

Location	Day	Evening	Night	
	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$	$L_{Aeq(1\ minute)}$
Any residence not owned by the Applicant or not subject to an agreement between the Applicant and the residence owner as to an alternate noise limit	38	38	36	46

3.9.2.1 Noise Compliance Assessment Report

Condition 6.45 of the Development Consent requires a Noise Compliance Assessment Report to be submitted to EPA and DIPNR within 3 months of commencement of normal operations and on an annual basis thereafter in the AEMR. Noise Compliance Assessment Reports were conducted quarterly throughout the reporting period and were prepared by Spectrum Acoustics. Copies of these reports have been included as appendices to this report. A summary of these reports are given below.

Quarterly Noise Monitoring

Condition 6.44 of the Development Consent requires detailed noise monitoring surveys at potentially affected residences on a 3-monthly basis. All monitoring was performed by Spectrum Acoustics, utilising manned monitoring methods as specified in the EIS.

Quarterly noise monitoring results are as follows:

Table 23. 1ST QUARTER DECEMBER 2005 (28 & 29 DECEMBER 2005):

ACP Noise Monitoring Results – 28 December 2005			
Location	**Time**	**DB(A),Leq**	**Comments**
Stapleton	6.52pm	41	Birds and insects (38), ACP (36), N.E Hwy (30), domestic noise (28)
Clark	6.36pm	40	Birds (37), ACP (34), local traffic (30), N.E Hwy (30)
Horadam	7.10pm	48	N.E. Hwy (47), insects (30), Other mines (40), ACP inaudible
Moss	7.30pm	54	N.E. Hwy (54), ACP inaudible
Stapleton	8.23pm	55	Birds (55), N.E. Hwy (33), ACP (33 est)
Clark	8.05pm	52	Birds (52), N.E. Hwy (33), ACP (33 est)
Horadam	9.20pm	47	N.E. Hwy (46), insects (39, dogs (33), ACP inaudible
Moss	9.38pm	46	N.E. Hwy (46), other mines (36), ACP inaudible
Stapleton	11.12pm	39	N.E. Hwy (46), ACP (33), insects (33)
Clark	10.05pm	45	N.E. Hwy (43), insects (40), ACP (34)
Horadam	10.50pm	46	N.E. Hwy (48), insects (41), other mines (41), ACP inaudible
Moss	11.30pm	48	N.E. Hwy (46), insects (40), other mines (38), ACP inaudible
ACP Noise Monitoring Results – 29 December 2004			
Location	**Time**	**DB(A),Leq**	**Comments**
Clark	6.40pm	50	Wind
Stapleton	8.00pm	45	Birds (42), N.E. Hwy (40), ACP (37)
Clark	7.43pm	42	Birds (40), N.E. Hwy (36), ACP (35)
Horadam	8.55pm	48	N.E Hwy (45), insects (45), ACP inaudible
Moss	9.35pm	47	N.E. Hwy (46), other mines (41), ACP inaudible
Stapleton	11.10pm	48	Insects (47), N.E. Hwy (40), other mines (35), ACP (32 est)
Clark	9.59pm	41	Other mines (40), insects (35), ACP inaudible
Horadam	11.35pm	45	N.E. Hwy (44), insects (38), ACP inaudible

On the night of December 29 2005, the wind was gusting from the south at 5m/s. Under these conditions valid noise measurements could not be taken. As sunset approached wind gusts died down to 2m/s allowing surveying to continue. As a result no measurements were taken during the first period. During the monitoring period ACOL was not above the 38 dB(A) $L_{eq\ (15\ min)}$ noise goal.

Table 24. 2ND QUARTER FEBRUARY 2005 (20 & 21 FEBRUARY 2006):

ACP Noise Monitoring Results – 20 February 2006

Location	Time	DB(A),Leq	Comments
Richards	5.35pm	38	Other mines (37), wind in trees (30), ACP inaudible
Stapleton	6.20pm	45	N.E. Hwy (44), wind in trees (37), ACP inaudible
Clark	6.04pm	40	N.E. Hwy (40), wind in trees (30), ACP inaudible
Horadam	6.40pm	44	N.E. Hwy (44), wind in trees (30), ACP inaudible
Moss	6.58pm	50	N.E. Hwy (50)
Richards	7.35pm	40	Other mines (39), wind in trees (34), ACP inaudible
Stapleton	8.18pm	42	Traffic NEH (40), insects and frogs (35), wind in trees (35), ACP audible but not measurable
Clark	8.00pm	42	N.E. Hwy (40), insects (38), ACP inaudible
Horadam	8.35pm	48	N.E. Hwy (44), insects (44), wind in trees (38), ACP inaudible
Moss	8.55pm	48	N.E. Hwy (47), insects (31), ACP inaudible
Richards	9.25pm	37	Other mines (35, insects (32), ACP inaudible

ACP Noise Monitoring Results – 21 February 2006

Location	Time	DB(A),Leq	Comments
Richards	7.50am	43	Other mines (40), birds and insects (39), ACP faintly audible (<30 est)
Stapleton	7.22am	51	N.E. Hwy (51), birds (40) ACP faintly audible, not measurable
Clark	7.04am	49	Burds (46), N.E Hwy (46), ACP faintly audible, not measurable
Horadam	8.15am	47	N.E. Hwy (45) birds and insects (42), ACP inaudible
Moss	8.31am	51	N.E. Hwy (51), ACP inaudible
Richards	9.31am	37	Insects and birds (33), other mines (33),ACP faintly audible (30)
Stapleton	9.04am	48	N.E. Hwy (46), birds (40), ACP faintly audible
Clark	8.48am	44	N.E. Hwy (43), birds (35), ACP faintly audible

Noise emissions from ACP were below the noise goal of 38 dB(A) $L_{eq(15\ min)}$ throughout the survey period.

Table 25. 3RD QUARTER MAY 2006 (18 & 19 MAY 2006):

ACP Noise Monitoring Results – 18 May 2006			
Location	**Time**	**DB(A),Leq**	**Comments**
Richards	5.05pm	39	Other mines (38), birds (30), ACP inaudible
Stapleton	5.50pm	47	N.E. Hwy (47), birds and insects (30), ACP inaudible
Clark	5.33pm	51	N.E. Hwy and local roads (49), birds and insects (44), other mines (32), ACP inaudible
Horadam	6.10pm	56	N.E. Hwy (55), insects (47), ACP inaudible
Moss	6.28pm	57	N.E. Hwy (57)
Richards	7.55pm	40	Other mines (40), ACP inaudible
Stapleton	7.21pm	41	N.E. Hwy (41), other mines (30), ACP inaudible
Clark	7.05pm	38	N.E. Hwy (36), other mines (32), insects (28), ACP inaudible
Horadam	8.23pm	45	N.E. Hwy (44), insects (37), ACP inaudible
Moss	8.40pm	55	N.E. Hwy (55), insects (32), ACP inaudible
Stapleton	9.25pm	45	N.E. Hwy (45), other mines (31), ACP (31)
Clark	8.59pm	40	N.E. Hwy (38), ACP (32), other mines (31)
ACP Noise Monitoring Results – 19 May 2006			
Location	**Time**	**DB(A),Leq**	**Comments**
Richards	7.53am	39	ACP (33), train (33), cows (32), birds (32)
Stapleton	7.28am	47	N.E. Hwy (45), birds (41), ACP (35)
Clark	7.12am	42	Birds (39), N.E. Hwy (37) ACP (35)
Horadam	8.16am	52	N.E. Hwy (52), insects (39), ACP inaudible
Moss	8.32am	55	N.E. Hwy (55), ACP inaudible
Richards	9.50am	40	Insects and birds (38), ACP (33), cows (30)
Stapleton	8.58am	51	N.E. Hwy (49), birds and insects (45), **ACP (40)**
Clark	9.20am	45	N.E. Hwy (42), **ACP (41)**, insects (29)

Note: Where mine noise from ACP exceeds the noise goal of 38 dB(A) $L_{eq\ (15\ min}$ it is shown in bold.

Noise emissions from ACP were above the noise goal of 38 dB(A) $L_{eq(15\ min)}$ at two locations throughout the survey period. During the period where exceedences were recorded at the Stapleton and Clark residence no inversion was in place.

Table 26. 4TH QUARTER AUGUST 2006 (21 & 22 AUGUST 2006):

ACP Noise Monitoring Results – 21 August 2006			
Location	**Time**	**DB(A),Leq**	**Comments**
Richards	5.15pm	35	ACP (35), Birds (<30)
Stapleton	6.17pm	50	**ACP (48)**, N.E. Hwy (46)
Clark	6.01pm	50	**ACP (47)**, N.E. Hwy (40)
Horadam	6.35pm	57	N.E. Hwy (57), ACP audible but not measurable over Highway noise
Moss	6.55pm	58	N.E. Hwy (58), ACP inaudible
Stapleton	7.48pm	48	**ACP (46)**, N.E. Hwy (44)
Clark	7.32pm	49	**ACP (48)**, N.E. Hwy (40)
Horadam	8.20pm	53	N.E. Hwy (53), **ACP audible (estimated contribution <40)**
Moss	8.04pm	55	N.E. Hwy (55), **ACP audible (estimated contribution 41)**
Richards	9.00pm	45	**ACP (45)**
Stapleton	9.53pm	47	**ACP (45)**, N.E. Hwy (42)
Clark	9.25pm	50	**ACP (49)**, N.E. Hwy (40)
ACP Noise Monitoring Results – 22 August 2006			
Location	**Time**	**DB(A),Leq**	**Comments**
Richards	8.30am	45	**ACP (42)**, N.E. Hwy (42)
Stapleton	7.25am	54	N.E. Hwy (52), **ACP (46)**, birds (44)
Clark	7.05am	51	N.E. Hwy (48), **ACP (46)**, birds (43)
Horadam	8.00am	55	N.E. Hwy (55), birds (45), **ACP audible but not measurable, (estimated contribution 40)**
Moss	7.42am	56	N.E. Hwy (56), **ACP audible but not measurable, (estimated contribution <40)**
Stapleton	9.15am	51	N.E. Hwy (41), birds (36), ACP (38)
Clark	8.58am	51	Birds (50), N.E. Hwy (38), ACP (38)

Note: Where mine noise from ACP exceeds the noise goal of 38 dB(A) $L_{eq\ (15\ min}$ it is shown in bold.

Noise emissions from ACP were above the noise goal of 38 dB(A) $L_{eq(15\ min)}$ at several locations throughout the survey period. A temperature inversion formed just after 7:00pm on the 21st August and dissipated at around 8:00 am on the 22nd August. Winds throughout the night emanated from the north west with an average speed of 2.3m/s. Two exceedences of the noise criteria were recorded prior to the inversion forming. These being Clark at 6.01pm (47 dB(A)) and Stapleton at 6.17pm (48 dB(A)). All other exceedences recorded during the survey period occurred during the inversion of greater than $+3^0$C/100m. ACOL license conditions indicate that noise emission criteria is not applicable atmospheric conditions where wind speeds are higher than 3m/s and/or there is a temperature inversion of greater than $+3^0$C/100m.

3.10 VISUAL, STRAY LIGHT

Lighting issues on site are managed via the Lighting Management Plan (LMP).

Three types of lighting are utilised on site. They are:

- Fixed lighting utilised to illuminate the areas arrange the CHPP and open cut workshop;
- Mobile lighting plants utilised to illuminate the open cut, the overburden dump, the tailings disposal area and some maintenance operations; and
- Lighting equipped on mobile plant.

Fixed lighting is generally high pressure sodium vapour lights, which minimise the glare usually associated with “white” lights. Two lights (one at the CHPP and one at the open cut workshop) have been re-directed to minimise impact on traffic on the New England Highway.

Mobile lighting plants have been the source of most complaints, particularly the ones stationed on the Eastern Emplacement Area. These lighting plants were initially directed to the north (i.e. away from the village of Camberwell), but complaints from residents in the Middle Falbrook area (located some 6 km to the north of the mine), required that these generally be directed in a north-westerly direction, consistent with the safe operation of the overburden dump. Where a lighting complaint is received the OCE or other site staff will drive the surrounding roads to assess the areas impacted by the stray light and where necessary redirect the light. Furthermore management of lighting and its impacts to the surrounding environment has been included in the ACOL site induction.

3.11 ABORIGINAL HERITAGE

ACOL received approval under Section 90 of the National Parks and Wildlife Act, 1974 to collect Aboriginal relics. This approval only applies to relics located within the mine lease area north of the New England Highway. In accordance with Condition 3.33, the local Aboriginal community was involved in the collection of relics prior to any disturbance. Work was completed in August 2003. A total of 167 Aboriginal artefacts were recovered from the area. The Wonnarua Local Aboriginal Land Council was granted care and control of the collected relics.

No new artefacts were identified during the current reporting period.

Ashton has continued to employ persons from the local indigenous community through Yunaga Mining Services. At present 15 people are employed through this scheme. They are employed in the operation of the tailings dam, on road closures, on cleaning duties, on mine rehabilitation projects and general duties around the mine site.

As part of our enhanced training program, approximately half of those personnel have been trained on truck operation, whilst others have been trained in boiler making, rigging and auxiliary plant operation.

Consultation with the indigenous community has occurred via the following:

- Upper Hunter Wonnarua Council
- Wonnarus Nation
- The Wonnarua Elders Council
- The Native Title Claimant

Much of the consultation during the reporting period related to the most appropriate means of distributing benefits to the Wonnarua People. Following extensive negotiations with interested parties, Ashton commissioned the Native Title Claimant to identify the descendents of Sarah Madoo and to consult with them on the most appropriate mechanisms for distribution of benefits. Feedback has not yet been received.

Consultation has also bee conducted with the Wonnarua People regarding the establishment of the Conservation Area south of the Highway.

Management of the remaining Aboriginal sites south of the New England Highway is detailed in the Archaeological and Cultural Heritage Management Plan that has been recently revised to encompass the underground mine in that area.

3.12 NATURAL HERITAGE

No items of natural or European heritage were identified during the EIS process as being likely to be disturbed by mining operations.

3.13 SPONTANEOUS COMBUSTION

A Spontaneous Combustion Management Plan has been developed and implemented onsite. There have been no instances of Spontaneous Combustion during the reporting period.

3.14 BUSHFIRE

A Bushfire Management Plan (BMP) has been developed and implemented on site. This BMP requires that a risk assessment be undertaken in consultation with the Singleton Rural Fire Service to assess the risks of fire breaking out, or entering on to the site, as well as the development of risk reduction measures. This risk assessment was completed prior to the commencement of the 2003 / 2004 fire season and all agreed actions have been implemented.

There were no outbreaks of bushfire on the project lands during this reporting period.

3.15 MINE SUBSIDENCE

Mining operations during the current reporting period were restricted to open cut mining and underground development. Subsidence impacts will be reported in the 2006/2007 AEMR.

A Subsidence Management Plan for the First Workings of the first four panels in the Pikes Gully seam of the proposed underground mine has been submitted.

3.16 HYDROCARBON CONTAMINATION

There have been several minor hydrocarbon spillages during the reporting period. All spillages were contained and promptly collected with appropriate absorbent products prior to any hydrocarbons moving offsite or out of immediate work areas. Any impacted soils were also collected.

3.17 METHANE DRAINAGE/VENTILATION

Mine ventilation has been occurring since May 2006 and the ventilation quantity is currently approximately 100 cubic metres per second with methane concentrations of 0.05% to 0.1% exhausting from the main fan, and nil Carbon Dioxide emissions. Nil methane drainage activities (except one unsealed in-seam long hole which is exhausting methane) are in place or planned in the next 12 months.

3.18 PUBLIC SAFETY

The boundary fence around the open cut operations with signs warning that the area is subject to mining is complete. Only one access road to the site is in general use and all visitors are directed to the ACOL office for further directions on the roads that they are permitted to access. All other vehicular access points are locked. A gate system that remains closed outside normal office hours has been installed to prevent ad hoc public access.

The safety of public travelling on trains or along the access roads alongside the railway has also been an area of focus. Procedures are in place to ensure the Main Northern Railway is clear of trains before blasting within 500 metres of the rail line, and to take possession of the rail line if blasting within 200 metres. This has occurred for every relevant blast in the reporting period.

The Camberwell common has also been closed to the public when blasting within 500m. Livestock and persons are moved to being outside the blasting area. Two shots have been delayed due to personnel being on the common within 500m of a shot.

The safety of public travelling along the New England Highway has been of major consideration when blasting within 500m. The highway was closed regularly up until December 2005 whilst blasting in the Arties Pit. These highway closures will resume again in late 2006 and continue until the end of the open cut mine life.

The safety of public travelling along Glennies Creek Road has been a major consideration during the reporting period, with numerous closures of the road when blasting occurs within 500 metres. The Glennies Creek Road Environmental Bund has further isolated mining activities from the publics view increasing safety levels along the road.

An unexpected localised increase in seam dip on the western flank of the Camberwell Anticline has resulted in some failure of the southern highwall. Coupled with some increase in blasting induced ground vibration minor cracking has been observed in the pavement and surrounds of Glennies Creek road. Singleton Shire Council undertake regular pavement inspections and carry out any repairs if required.

Ashton personnel routinely inspect five monitoring points between the road and the mine and independent geotechnical assessments are done as required. To ensure longer term stability of the highwall overburden has been dumped along the base of the failure and the mine plan altered to leave solid material as an additional safeguard. Engineering plans are being developed in consultation with Council to provide an alternative location for the road if required.

3.19 OTHER ISSUES AND RISKS

No other risks or issues have been identified during the reporting period.

4.0 COMMUNITY RELATIONS

4.1 ENVIRONMENTAL COMPLAINTS

227 complaints were received during the reporting period. The procedure that Ashton receives complaints was changed in April 2006 with the utilisation of a 24 hour call centre. This complaint system works in the following way:

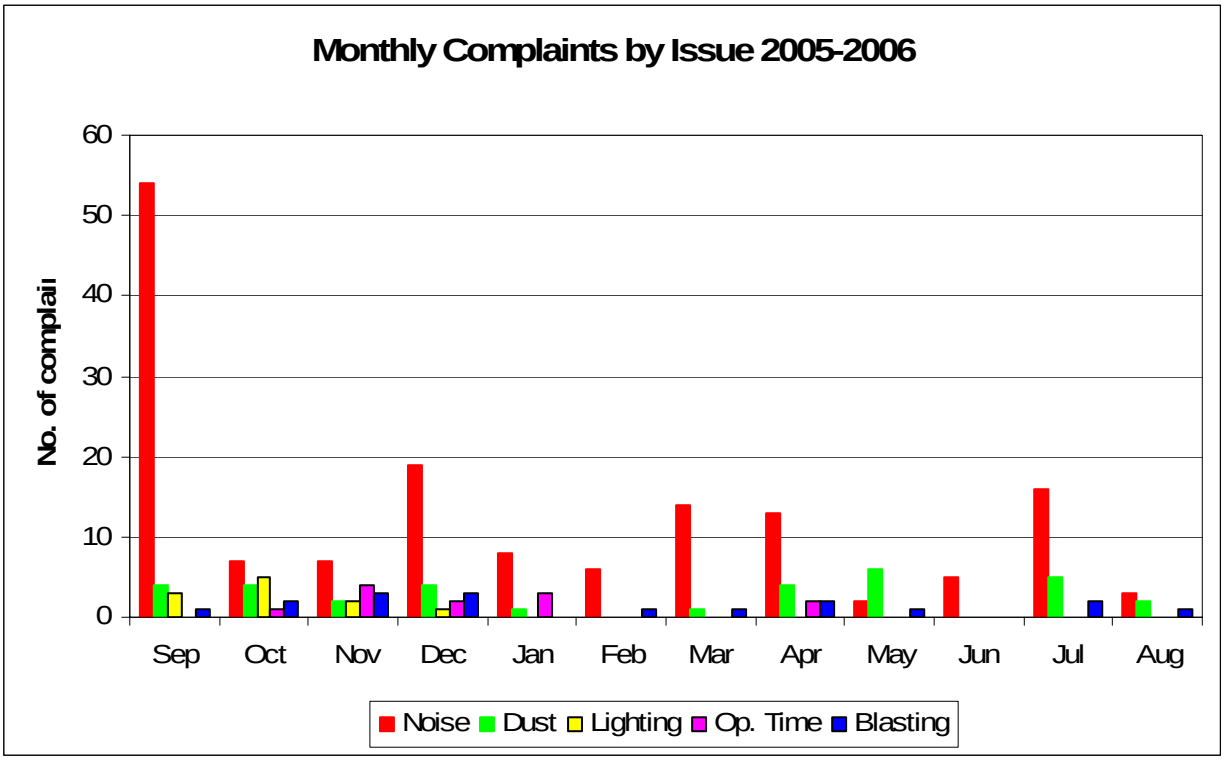
- During office hours, complaints are taken by one of the operations Environmental Management Team, investigated, acted on and complainant is rung back within 24 hours.
- During Out of Office Hours the dedicated telephone line is directed to the call centre.
- An Operator in Melbourne takes the call from the complainant with information on what the problem is and contact details.
- The Operator then telephones the mine and contacts either the Open Cut Examiner (OCE) or the Maintenance Supervisor (MS) and passes on the details of the complaint.
- The OCE or MS fill out an Out of Hours Complaint sheet which addresses the issue, possible solution and final actions taken.
- If this occurs during the week, this sheet is given to the EO for a response within 24 hours.
- If this occurs on the weekend, the sheet is filed for Monday morning and the OCE or MS rings the EO with information about the complaint. The EO then rings the complainant within 24 hours.
- An update of complaints received is emailed to site personnel at 8am every weekday to ensure no complaints are lost in the system.

Community members who have agreements with Ashton Coal are able lodge enquiries in the same way as a complaint. Their Enquiries are responded to in exactly the same way as a complaint and are logged and filed as an Enquiry.

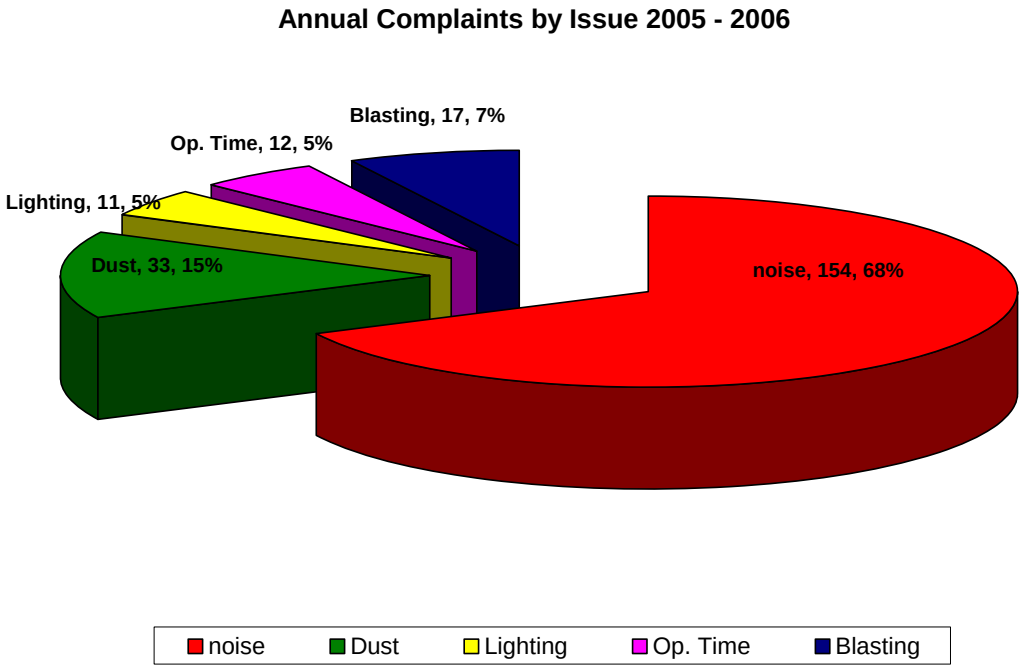
Complaints received during the reporting period were as follows:

Table 27. SUMMARY OF COMPLAINTS RECEIVED 2005 - 2006

	Blasting	Dust	Noise	Water	Lighting	Op Time	**TOTAL**
Sep	1	4	54		3	-	**62**
Oct	2	4	7		5	1	**19**
Nov	3	2	7		2	4	**18**
Dec	3	4	19		1	2	**29**
Jan	-	1	8		-	3	**12**
Feb	1	-	6		-	-	**7**
Mar	1	1	14		-	-	**16**
Apr	2	4	13		-	2	**21**
May	1	6	2		-	-	**9**
Jun	-	-	5		-	-	**5**
Jul	2	5	16		-	-	**23**
Aug	1	2	3		-	-	**6**
TOTAL	**17**	**33**	**154**	**-**	**11**	**12**	**227**



The total number of complaints received in each classification is detailed in the following graph:



The complaints were classified in relation to the source of the complaint in order to assist in the development of mitigation measures. For instance:

- Blasting practices are constantly reviewed following community feed back in order to reduce the impact on the community.

- The level of dust suppression in the open cut was increased by the utilisation of a third and now fourth water cart (contractor owned and operated but managed by ACOL) on site;

- A number of residences in Camberwell village have taken up the offer of installing 'First Flush' diverters. This system works by discharging approximately 20L of the initial runoff that falls on the roof and gutters of the residence during a rain event. The process of installing the diverters is on going as more residents take up the offer. Activated carbon water filters have also been installed in a small number of dwellings in Camberwell village. This system operates with three filters in total, two being activated carbon filters. An exchange program for used filters is being set up with the relevant residents

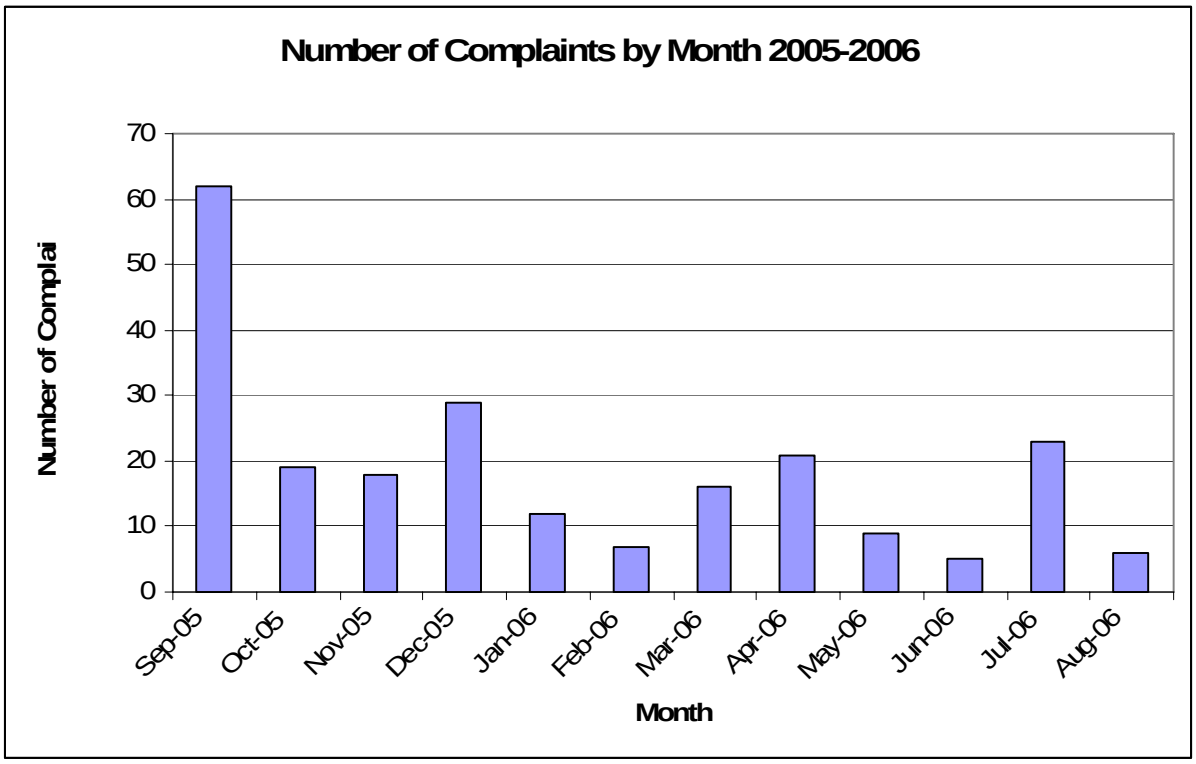
- Following advice from qualified acoustical engineers, dumping has been restricted to the northern side of dumps during night time operations to restrict the noise impact on Camberwell village. It was identified that by dumping on the northern face, the village remains in the acoustical shadow zone of the eastern emplacement area.

- A number of noise complaints received during the reporting period were regarding the noise levels coming from the CAT loaders that load the ROM coal hopper after 10pm. As a result ACOL investigated the potential for reducing the noise impact of the loaders. This was completed during the reporting period and included improving the noise mitigation of the engine bay of the machines.

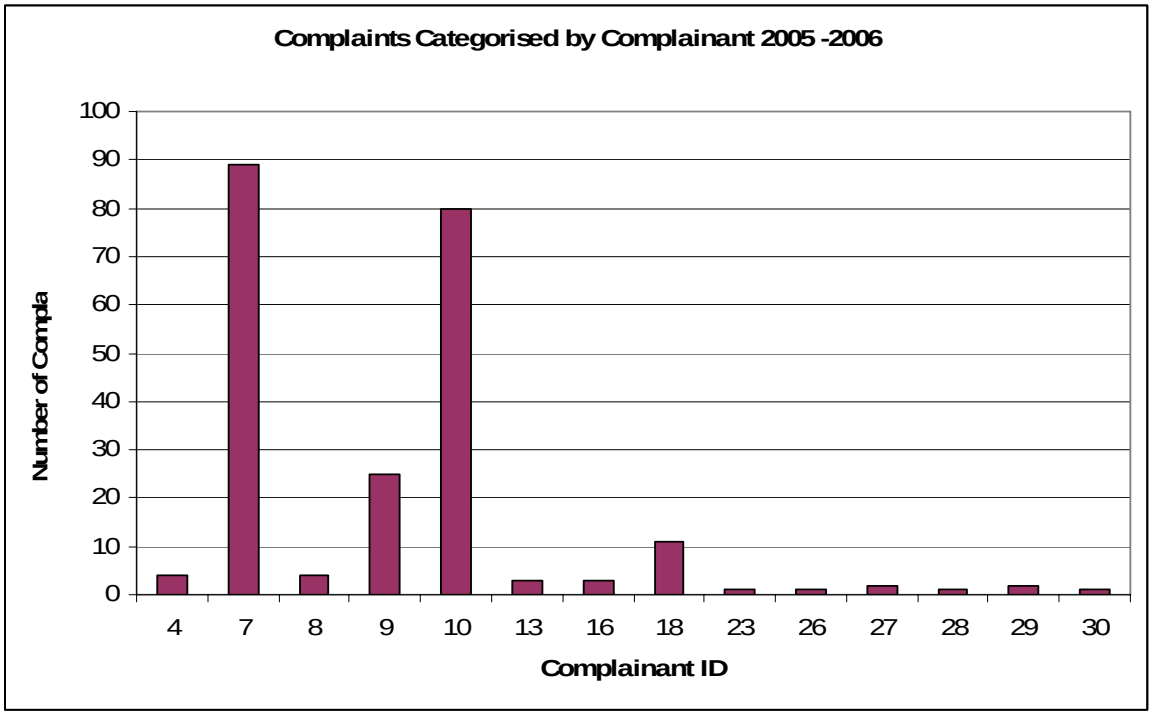
- A number of issues were identified regarding the reduction of dust emissions for the mining operations due to the concerns voiced from the community. PetroTac emulsion has been applied to the roads relating to the underground infrastructure to suppress dust, also the CHPP anonometer was identified to be to low for correctly assessing wind speeds use to automatically operate the coal stockpile dust suppression sprays. The height of the anonometer was increased as result.

The communication strategy adopted to explain to local residents that the CHPP, as well as the dust suppression and maintenance activities in the open cut, are permitted to operate 24 hours per day has continued through the reporting period.

The adoption of these strategies has been reflected in the number of complaints being received at the mine, as indicated by the following graph:



During September 2006, a large percentage of complaints (59%) were received from residents at a single residence who were seeking a compensation agreement with ACOL. It was also noticeable that a large number of complaints were concentrated amongst a few residents, as shown on the following graph:



An offer was made to purchase the property of Residents 7 during the previous reporting period. It is our view that the residents at residence 7 have been actively using the complaints system as a means to further their case for a compensation agreement. This is evidenced by

the number of complaints received from this residence when no other complaints were received from other residents and when ACOL were well within the consent and EPL criteria for the mine site.

4.2 COMMUNITY LIAISON

Community consultation has continued throughout this reporting period via 7 newsletters, 4 Community Consultative Committee (CCC) meetings and directly with residents through one-on-one meetings.

ACOL have significantly improved the information given at the CCC meetings with details on all monitoring and mining as well as feedback on questions raised in previous meetings. Newsletters have also been tailored to answer questions raised at the CCC meetings as well as providing the community with a brief on what was covered in the previous CCC meeting.

The CCC met on the following dates:

Table 28. COMMUNITY CONSULTATIVE COMMITTEE

Meeting Date	Extraordinary items addressed
22nd Nov 2005	DoP introducing compliance audit and Underground mine presentation.
28th Feb 2006	Glennies Creek Rd Environmental Bund progress
30th May 2006	New OC roster, Mac Gen project and top of dump proposal
29th Jun 2006	SMP presentation (no regular Enviro or Mining updates)
5th Sep 2006	Blast Fume and Community Surveys

The CCC has been actively involved in questioning our commitment to the village as well as asking questions on blast fume, stone dusting, water restrictions, rehabilitation, dust generation during blasts and expanding on the option for the S94 funding to be used for a community shed and BBQ's at the church.

A series of newsletters have also been distributed amongst the local community detailing progress on the Ashton site. The dates of these newsletters were as follows:

Table 29. COMMUNITY NEWSLETTERS

Newsletter No	Issued	Contents
18	Nov 2005	Environmental Monitoring, Mining Update, Rehab update, Complaints line, Xmas Party, Exploration activities, Kangaroo Cull, explanation of Galenia
19	Dec 2005	Xmas operating hours, CCC meeting update and CCC vacant position,
20	Dec 2005	Underground equipment, area and start up information
21	April 2006	Underground update, CCC meeting update, Planned coal prep plant upgrade, Blasting notes
22	May 2006	Subsidence Management Plan for panels 1-4 of Pike's Gully coal seam
23	June 2006	Subsidence management plan for panels 1-4 of Pike's Gully coal seam meeting invite, Stone dusting, Underground and Open cut update and Kangaroo cull.
24	Sept 2006	Underground and Open cut update, Mac Gen update, Blasting Fume, CHPP update, Enviro and Rehab update.

As a result of an early offer made by Ashton, a number of residents within the Village have also taken up the opportunity for Ashton to install a "first flush" system on their rainwater tanks to reduce the impact of dust. The offer was originally communicated in the Ashton Community Newsletter. This offer remains open.

11 one on one interviews were conducted with the village community between September and November 2005 with two people conducting these interviews. In spring 2006, 5 teams consisting of 2 Ashton Staff Members have been formed. Team members include Ashton managers as well as the environmental officer, D&B superintendent and the Geologist. These teams have been allocated 10 households each and are organising meetings with residents within the Village of Camberwell, using a standard question sheet. It is our target to interview at least 5 households for each group, helping the people on site understand the community issues as well as putting a face on the mine for the community.

Donations are being made to the church on an annual basis for 3 years to ensure maintenance of the building. The first item to be addressed is the windows which shall be replaced with new ones.

5.0 REHABILITATION

5.1 BUILDINGS / INFRASTRUCTURE

ACOL completed construction on underground civil works which included a new UG store, UG workshop, offices, bath houses, Stone dusting shed and conveyor system. The OC bath house and crib shed was also relocated to a position next to the CHPP. This was because the open cut mine crest will become too close to the previous bath house and crib room location to be workable with blasting.

5.2 REHABILITATION OF DISTURBED LAND

A severe drought existed throughout this reporting period and although good progress was made with reshaping, the reshaped areas were not topsoiled or seeded to achieve final rehabilitation. Progress has been made in the following areas:

- The environmental bund (Bund 6) along the New England Highway was replanted with tube stock and bare areas were spray-seeded. Tube stock survival rates were again low but good results were obtained from the spray grassing with most bare areas now obtaining some cover.

- Irrigation sprays situated along the New England Highway environmental bund have been installed since 2003. Water was previously supplied from the dirty water dam but is now sourced from the tertiary treated effluent from the administration and underground facilities. Due to the higher levels of nutrients in the water there has been a marked improvement in

grass growth along the bund wall. Additional spays will be installed in 2007 to allow other sections of the bund to be irrigated from this supply.

- A survey of tube stock survival was conducted by the Yanaga contractors. It found low survival rates that were most likely due to the prevailing drought conditions. Maintenance planting of tube stock will be conducted in 2007 along with increased use of tree seed.

- The entire southern and large sections of the eastern face of the Eastern Emplacement Area have been shaped to 135RL. 70% of the northern face has been shaped to 135 RL. Drainage lines and embankments were also completed during the term of this report. Final rehabilitation will be conducted in early 2007 and will involve topsoiling of selected areas with, pasture, tree seeding and tube stock in compliance with the Mining Operations and the Landscape and Revegetation Management Plans.

- Turf has been laid in the northern face drains due to lack of grass growth. The primary aim of the turf is to reduce the movement of sediment through the drain. Changes in the main Haul Road location occurred during this reporting period resulted in a smaller catchment area draining to the Northern boundary. Maintenance seeding to the haul road batter resulted in better revegetation and improved runoff water quality in this area.

- In-pit dumping in the Barret pit has continued west as the pit is filled.

- The Glennies Creek Road Environmental Bund east west section was completed during this reporting period and was spray grasses. Good cover was initially achieved but has since reduced due to the drought;

- Inspections of existing rehabilitation areas were conducted by the Environmental Officer to gauge performance and determine ecological outcomes. Findings show poor survival and species diversity with large areas infested with weeds predominantly galenia. Tube stock indicates low survival rates and growth. Good growth of selected grass species on topsoil stockpiles was observed with couch and Kikuyu showing dominance over other species.

- Improvements suggested include – reducing tube stock planted on bunds due to lower moisture availability, increased use of tree seed and investigation into the use of soil ameliorants and Biosolids. Additional ratios of couch and kikuyu should be introduced into the pasture mix.

5.3 OTHER INFRASTRUCTURE

No additions or major repairs were made to infrastructure on-site.

5.4 REHABILITATION TRIALS AND RESEARCH

No rehabilitation research trials have been undertaken during the reporting period.

5.5 FURTHER DEVELOPMENT OF THE FINAL REHABILITATION PLAN

The final rehabilitation plan for the open cut mining area was outlined in the EIS. This will be reviewed and additional detailed provided in subsequent Mine Operations Plans. A Mine Operations Plan variation is planned for late 2006 involving slight changes to the final overburden emplacement topography to provide some visual landscape relief and the construction of several water management structures on the overburden emplacement.

5.6 REHABILITATION SUMMARY

Table 30. REHABILITATION SUMMARY 2005 - 2006

	Area Affected / Rehabilitated (hectares)		
	To Date	**Last Report**	**Next Report (estimated)**
A: MINE LEASE AREA			
Mine Lease 1529	128.7	128.7	128.7
Mine Lease 1533 (part overlies ML 1529)	883.4	883.4	883.4
B: DISTURBED AREAS			
B1 Infrastructure area	45.21	37.31	48
B2 Active Mining Area (Excluding B3 – B5)	22.75	38.05	30
B3 Waste Emplacement (Active / unshaped)s	54.3	80.31	70
B4 Tailings emplacements (active / uncapped)	5.8	5.8	5.8
B5 Shaped waste emplacement (awaits final vegetation)	40.51	1.74	40
ALL DISTURBED AREAS	168.57	163.22	193.8
C. REHABILITATION PROGRESS			
C1 Total Rehabilitated Area (except for maintenance)	21.37	17.09	50
D. REHABILITATION ON SLOPES			
D1 10 to 18 degrees	21.37	17.09	50
D2 Greater than 18 degrees	0	0	0

Table 31. REHABILITATION SUMMARY 2005 - 2006

	Area Affected / Rehabilitated (hectares)		
	To Date	Last Report	Next Report (estimated)
E. SURFACE OF REHABILITATED LAND			
E1 Pasture and grasses	15.2	10.68	30
E2 Native forest / ecosystems	6.2	6.21	15
E3 Plantations and crops	0	0	5
E4 Other (includes nonvegetative outcomes)	0	0.2	0

Table 32. MAINTENANCE ACTIVITIES ON REHABILITATED LAND

NATURE OF TREATMENT	Area Treated (ha)		Comment / control strategies / treatment detail
	Report Period	Next Period	
Additional erosion control works (drains re-contouring, rock protection)	1.0	5.0	Rock lined spillway to design specifications installed on process water dam. Toe drains around eastern Emplacement completed and spray grassed.
Re-covering (detail – further topsoil, subsoil sealing, etc)	0	5.0	Plan to re-cover the batter slopes where required to increase vegetative cover.
Soil treatment (detail – fertiliser, lime, gypsum, etc)	4	40	Glennies Creek Road Environmental Bund and parts of the Eastern Emplacement Area treated with gypsum prior to spray seeding
Treatment / Management (detail – grazing, cropping, slashing, etc)	0	0	
Re-seeding / Replanting (detail – species density, season, etc)	4	20	Replanted tube stock and re spray seeded sections of Environmental Bunds.
Adversely Affected by Weeds (detail – type and treatment)	10	20	*Galenia spp*. On Environmental Bund 6, Eastern Emplacement Area and around the infrastructure area
Feral animal control (detail – additional fencing, trapping, baiting, etc)			Shooting contractor engaged to cull Kangaroos, and is planned for late 2006 after permission from NPWS.

6.0 ACTIVITIES PROPOSED IN THE NEXT AEMR PERIOD

During the current reporting period, the open cut mine and CHPP facilities have been in full operation. During this period, Ashton has had the opportunity to assess the actual consequences of operations and to modify those operations to ensure compliance with the criteria defined in the development consent, EPL and MOP.

New development works focussing on the underground mine and expansion of CHPP facilities will also continue in the next AEMR period.

As a result, a significant number of activities are planned to occur in the period covered by the next AEMR. These include:

1. Gain approval for the MOP modification for the new proposed final land form for the top of the Open Cut Dump.
2. Revise EPL to reflect the underground mine (basically this will require a change to the area licensed);
3. Rehabilitate the exposed southern face of the Eastern Emplacement Area up to RL 135;
4. Rehabilitate the east and northern faces of the Eastern Emplacement Area;
5. Continue the process required for declaration of a Conservation Area in the Southern Woodland; and
6. Gain approval of the underground operations Subsidence Management Plan which was submitted in October 2006.
7. Gain final approval for the Macquarie Generation Tailings Disposal project and implement the project.

DISTRIBUTION

Ashton Coal Operations Pty Limited
Annual Environmental Management Report 2005 - 2006

17 November 2006

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