ALKANE EXPLORATION LTD

ABN 35 000 689 216

QUARTERLY REPORT TO 30 SEPTEMBER 2003

KEY SUMMARY

➢ TOMINGLEY GOLD PROJECT

- **Further resource definition drilling has been completed at Wyoming Three but delays due to rain have impacted on the resource compilation schedule.**
- **Resource assessment now anticipated later in November**
- **Selected Wyoming Three RC/Core results:**

7m @ 5.17g/t Au in WY 558D
59m @ 1.86g/t Au in WY 563 including 7m @ 4.65g/t Au
18m @ 3.80g/t Au in WY 564
3m @ 16.55g/t Au in WY 570
10m @ 8.35g/t Au in WY 572D
66m @ 1.42g/t Au in WY 573 including 9m @ 3.44g/t Au
13m @ 11.73g/t Au in WY 574

- **Selected Wyoming Two Aircore results:**

24m @ 1.74g/t Au in WY 603 including 3m @ 5.66g/t Au

➢ DUBBO ZIRCONIA PROJECT

- **Development joint venture signed with Astron Ltd, a major China based zirconia producer.**
- **Astron to fund all expenditures to complete a final development plan, including construction and operation of the demonstration pilot plant, to earn 50% interest.**

➢ PEAK HILL GOLD MINE

- **Quarter gold production was in excess of budget at 1328 ounces**
- **Quarter cash costs of A$260 per ounce with revenue of A$553 per ounce**

➢ EXPLORATION

- **Jubilee schedule drilling on nickel sulphide JV properties**

Enquiries: *Technical:* *Ian Chalmers*
96 Parry Street
PERTH WA 6000
Telephone: *(61 8) 9328 9411*
Facsimile: *(61 8) 9227 6011*
Email: *ichalmers@alkane.com.au*
Website: *www.alkane.com.au*

Corporate: *Lindsay Colless*
129 Edward Street
PERTH WA 6000
Telephone: *(61 8) 9227 5677*
Facsimile: *(61 8) 9227 8178*
Email: *lcolless@alkane.com.au*
Website: *www.alkane.com.au*

31 October 2003

PROJECT DEVELOPMENTS

NEW SOUTH WALES

PEAK HILL GOLD MINE
Alkane Exploration Ltd 100%

Mining, crushing and stacking operations for the oxide ore were completed in the December Quarter of 2002, but leaching of the existing heaps and gold production will continue through 2004.

During the September Quarter, 1,328 ounces of gold were recovered which was again in excess of budget. Cash costs were A$260 per ounce while revenue averaged A$553 per ounce.

Decommissioning of the site continues and final rehabilitation of areas away from the heap leach stacks such as the open cuts, haul roads ROM pad and waste rock emplacement is now completed.

DUBBO ZIRCONIA PROJECT
Australian Zirconia Ltd (AZL) 100%

As advised to the ASX on 8 October, a joint venture agreement was signed with the China based and ASX listed company, Astron Ltd. Astron is one of the world's leading zirconia producers and it can earn a 50% interest in the DZP by funding all expenditures to complete the Final Development Plan (FDP) within three years. The FDP includes the construction and operation of the Demonstration Pilot Plant.

The full ASX Announcement is appended.

TOMINGLEY GOLD PROJECT (TGP)
Alkane 100% subject to separate royalty agreements with Compass Resources NL and Golden Cross Operations Pty Ltd

Drilling at the Wyoming Prospect within the Tomingley Gold Project near the Company's Peak Hill gold operation in the central west of New South Wales continued throughout the Quarter. A total of 37 RC holes (6,556 metres), 4 diamond core holes (1,531 metres precollar and NQ/HQ core) and 67 aircore holes (5,437 metres) were completed. A total of 138 RC and core holes totalling 26,012 metres have been drilled at Wyoming so far this year.

While the resource definition program was largely completed at **Wyoming One** at the end of the June Quarter, 32 RC holes (5,585 metres) were drilled at **Wyoming Three** to infill the hole spacing to 25 metres by 20 metres to enable the resource to be compiled to Measured and Indicated status. Late in the program a number of holes were targeted below 100 metre vertical depth to test the extensions to the Wyoming Three mineralisation. Persistent rainfall delayed the drilling with many holes only recently being completed and most sample results yet to be received.

This delay to receiving final results has impacted on the schedule to compile the Wyoming One and Three resource statements, and these will most likely now be available later in November.

Results of the drilling at **Wyoming Three** has raised the confidence level in the structurally controlled west-north-west trending sheeted quartz vein model for the mineralisation. Overall the mineralised system is near vertical and has plus 1g/t gold intercepts over a strike length of 300 metres with variable widths. Grades and widths can increase substantially in linking structures. The system has now been demonstrated down to about 150 to 200 metre vertical depth.

Two relatively shallow core holes (**WY 558D** and **WY 572D** for 384 metres**)** were also drilled at Wyoming Three to confirm the geological controls to the main east-west mineralised zones and their relationship to the porphyry bodies in this area. Both holes intersected alteration and veining where anticipated within volcaniclastic and porphyry host rocks, and returned gold intercepts similar to nearby RC holes.

The geology and controls on gold mineralisation appear to be different to those at Wyoming One but Wyoming Three has only about 10 metres of transported clay overburden compared to the 30 metres at Wyoming One. Although the mineralisation lies largely within volcaniclastic rocks, the recent core drilling has shown that more porphyry is present than interpreted from the RC drilling and mineralised structures do cut some porphyry bodies.

At **Wyoming One** 5 RC holes (971 metres) were drilled into the hangingwall zone, located approximately 20 to 30 metres east of the porphyry contact, to further test the potential of this horizon and understand the controls to higher grade mineralisation within this zone.

Results of recent RC samples received to date and grading greater than 1g/t gold are:

Hole No	East	North	Azimuth	Intercept (m)	Grade (g/t Au)	Interval (m)	EOH (m)	Target Zone
WY 579	**614290**	**6393225**	**270°**	**9**	**1.15**	**195 - 204**	**226**	**Wyoming 1**
WY 580	**614250**	**6393325**	**270°**	**9**	**2.73**	**183 - 192**	**208**	**Wyoming 1**
WY 582	**614260**	**6393360**	**270°**	**3**	**1.12**	**195 - 198**	**208**	**Wyoming 1**
WY 583	**614250**	**6394260**	**182°**	**12**	**3.12**	**222 - 234**	**250**	**Wyoming 3**
WY 584	**614225**	**6394255**	**172°**	**36**	**1.18**	**234 - 270**	**274**	**Wyoming 3**
incl				**3**	**4.21**	**267 - 270**		
WY 585	**614200**	**6394260**	**180°**	**9**	**1.37**	**231 - 240**	**280**	**Wyoming 3**

All holes drilled at a nominal inclination of -60°.
Gold analysis by 30g fire assay of 3 metre composites.

Two diamond core holes (total 1,147 metres) were also drilled to test the porphyry host below and adjacent to existing deeper RC holes to determine the alteration style and structural controls to mineralisation. **WY 560D** was drilled from the south to penetrate the long axis of the porphyry and intersect the cross cutting '376' structure at depth. The hole deviated significantly to the east and missed the primary target zone at depth but extensive veining and alteration were observed on the southwest flank of the porphyry body. Results from this zone indicated widespread low grade gold mineralisation, with narrower high grade intercepts.

The hole also intersected a previously unknown porphyry body to the south of the main zone. This porphyry is weakly altered and mineralised, and constitutes a new target. Follow up relogging of early aircore holes and a review of the geology of the historic Myall's United mine (McPhails) indicated that this porphyry may link the mineralised veins at Myall's to the Wyoming One system.

A second shallower hole, **WY 578D,** was also drilled sub-parallel to the long axis of the main mineralised porphyry with the same target premise as WY 560D. The hole intersected alteration and veining on the western flank of the porphyry, but with more extensive veining at depth and encouraging gold intercepts. A distinct '376' structure was not evident in the core and this will be subject to further review

Results of one metre resplit analyses from previously reported composite results (ASX 1 August and 2 September) are appended in Table 1.

A detailed structural study of the controls to mineralisation at both Wyoming One and Three is underway to assist with the resource compilation and to provide targeting for future exploration. The study involves detailed logging of features visible in drill core as well as a computer based spatial relationship analysis of all gold grades. Results available to date are providing some very useful vectors which may help explain how the mineralising systems at Wyoming relate to alteration and veining.

A detailed petrological study is also in progress, again with the aim of understanding all the controls to alteration, veining and gold mineralisation. This will also assist further target generation.

The aircore drilling program targeted several areas including potential extensions to the mineralised zones at Wyoming Three, possible mineralised cross structures within Wyoming Two and the geological continuity between Wyoming One and the Myalls United mine to the south.

Results available to date have indicated a new narrow zone on the south side of Wyoming Three (WY 594 and WY 596) and several encouraging intercepts were also generated from Wyoming Two (WY 602, WY 603 and WY 605). While many results are still be received for Wyoming Two, the intersections recorded demonstrate that this target area has resource potential and further drilling will be scheduled once the trends of the mineralised zones are better understood.

Results of recent aircore samples received to date are:

Hole No	East	North	Azimuth	Intercept (m)	Grade (g/t Au)	Interval (m)	EOH (m)	Target Zone
WY 594	**614150**	**6394120**	**177°**	**3**	**1.59**	**42 - 45**	**66**	**Wyoming 3**
WY 596	**614125**	**6394125**	**177°**	**6**	**1.45**	**45 - 51**	**66**	**Wyoming 3**
WY 600	**613985**	**6393620**	**180°**	**30**	**0.28**	**69 - 99**	**107**	**Wyoming 2**
WY 601	**613985**	**6393640**	**180°**	**6**	**1.18**	**75 - 81**	**113**	**Wyoming 2**
WY 602	**614015**	**6393720**	**180°**	**30**	**1.01**	**33 - 63**	**105**	**Wyoming 2**
incl				**3**	**5.50**	**57 - 60**		
WY 603	**614015**	**6393740**	**180°**	**24**	**1.74**	**45 - 69**	**88**	**Wyoming 2**
incl				**3**	**5.66**	**54 - 57**		
WY 605	**614015**	**6393780**	**180°**	**36**	**0.60**	**54 - 90**	**90**	**Wyoming 2**

All holes drilled at a nominal inclination of -60°.
Gold analysis by 30g fire assay of 3 metre composites.

WYALONG (copper-gold)
LFB Resources NL 100%

Newcrest have advised of their intention to withdraw from this joint venture. Subject to final review, Alkane does not propose to retain this prospect.

WELLINGTON, MOORILDA, KADUNGLE and ORANGE-MOLONG were inactive.

WESTERN AUSTRALIA

LEINSTER REGION JOINT VENTURE (nickel-gold)
Alkane Exploration Ltd 49%

*The four prospects - **Leinster Downs**, **Miranda**, **McDonough Lookout** and **Mt Keith** - are subject to a farm-in agreement with Jubilee Mines NL where Jubilee can earn a 75% interest in the properties by spending $4.5M before March 2005. In March 2002 Jubilee reported expenditures to earn a 51% interest and have elected to continue to earn a further 24%.*

Jubilee have reported that they are scheduling drilling for the joint venture tenements to follow up encouraging nickel sulphide intercepts generated in 2001. These intercepts included from the Taurus target at **Miranda:-**

TAD 005 0.2m @ 8.1% Ni from a downhole depth of 245.3m;

TAD 004 9.0m @ 0.57% Ni, including 1.0m @ 1.3% Ni from a downhole depth of 351.0m

and 0.15m @ 2.9% Ni from a downhole depth of 324.85m.

Also at **Leinster Downs**, drilling of four diamond core holes designed to test EM conductors associated with channel-facies ultramafic flow sequences intersected disseminated sulphides containing elevated levels of nickel in the range 0.5 – 1.0% Ni over several metres.

NULLAGINE DIAMOND PROJECT (Western Australia) and **WAITANGI (New Zealand)** were inactive

DI Chalmers
Technical Director
ALKANE EXPLORATION LTD

INTERNET HOME PAGE : www.alkane.com.au
E-MAIL : mail@alkane.com.au

Unless otherwise stated this report is based on information compiled by Mr D I Chalmers, FAusIMM, FAIG, a director of the Company, who is a competent person as defined in the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves, September 1999, and accurately reflects the information compiled by the competent person.

TABLE 1: Wyoming One and Three drill results (previously reported as three metre composites)

Hole No	East	North	Azimuth	Intercept (m)	Grade (g/t Au)	Interval (m)	EOH (m)	Target Zone
WY 558D	**614200**	**6394210**	**180°**	**7**	**5.17**	**47 - 54**	**186**	**Wyoming 3**
and				**11**	**1.96**	**60 - 71**		
and				**9**	**2.34**	**123 - 132**		
WY 560D	**614075**	**6393030**	**005°**	**19**	**0.88**	**405 - 424**	**675**	**Wyoming 1**
and				**36**	**0.64**	**443 - 479**		
WY 563	**614225**	**6394170**	**180°**	**59**	**1.86**	**19 - 78**	**150**	**Wyoming 3**
incl				**7**	**4.65**	**45 - 52**		
WY 564	**614175**	**6394205**	**180°**	**14**	**1.09**	**22 - 36**	**150**	**Wyoming 3**
and				**18**	**3.80**	**103 - 121**		
WY 565	**614150**	**6394200**	**180°**	**15**	**1.35**	**9 - 24**	**186**	**Wyoming 3**
and				**3**	**2.42**	**96 - 99**		
and				**4**	**2.29**	**173 - 177**		
WY 566	**614150**	**6394225**	**180°**	**13**	**2.67**	**41 - 54**	**210**	**Wyoming 3**
and				**12**	**2.34**	**117 - 129**		
WY 567	**614125**	**6394200**	**180°**	**7**	**2.34**	**20 - 27**	**120**	**Wyoming 3**
and				**3**	**2.92**	**81 - 84**		
WY 568	**614125**	**6394221**	**180°**	**19**	**2.96**	**41– 60**	**150**	**Wyoming 3**
and				**16**	**1.50**	**104 - 120**		
WY 569	**614100**	**6394220**	**180°**	**7**	**2.15**	**64 – 71**	**168**	**Wyoming 3**
WY 570	**614075**	**6394160**	**180°**	**3**	**16.55**	**12 – 15**	**96**	**Wyoming 3**
WY 572D	**614078**	**6394200**	**180°**	**10**	**8.35**	**48 - 58**	**198**	**Wyoming 3**
and				**7**	**1.94**	**96 - 103**		
and				**12**	**1.05**	**125 - 137**		
WY 573	**614075**	**6394220**	**180°**	**66**	**1.42**	**74 – 140**	**204**	**Wyoming 3**
incl				**9**	**3.44**	**130 - 139**		
and				**11**	**3.21**	**158 - 169**		
and				**7**	**2.16**	**181 - 188**		
WY 574	**614050**	**6394210**	**180°**	**13**	**11.73**	**121 – 134**	**156**	**Wyoming 3**
WY 576	**614050**	**6394190**	**180°**	**4**	**1.03**	**101 - 105**	**132**	**Wyoming 3**
WY 578D	**614071**	**6393190**	**180°**	**4**	**4.06**	**354 - 358**	**472**	**Wyoming 1**
and				**5**	**3.29**	**406 - 411**		

All holes drilled at a nominal inclination of -60°.
Gold analysis by 50g fire assay of 1metre half core or RC samples.

ALKANE EXPLORATION LTD

ABN 35 000 689 216

ASX ANNOUNCEMENT – 8 OCTOBER 2003

DEVELOPMENT JOINT VENTURE ON DUBBO ZIRCONIA PROJECT

- ***Development JV signed on Dubbo Zirconia Project with China based Astron Ltd. Astron is one on the world's leading zirconia producers with around 25% of the world market***

- ***DZP is one of the world's largest in-ground resources of zirconia, niobium, tantalum, yttrium and rare earth elements. Together with Astron's technology, manufacturing and marketing expertise, the DZP is positioned to become an important resource to meet the growing global demand for these products.***

Australian Zirconia Ltd (AZL), a wholly owned subsidiary of Alkane Exploration Ltd, has reached agreement with Astron Limited (Astron) to facilitate the development of the Dubbo Zirconia Project (DZP) which is located about 20km south of the regional city of Dubbo in the central west of New South Wales. The DZP is based upon one of the world's largest in-ground resources of the metals zirconium, niobium, tantalum, yttrium and rare earth elements. The DZP has been subject to a major feasibility study over the last three years. The project is capable of generating a suite of zirconium chemicals, zirconia (ZrO_2), niobium-tantalum concentrate and a yttrium-rare earth concentrate which are used in the expanding ceramic, electronics, engineering ceramic and specialty glasses and alloys industries.

The agreement requires Astron to:-

- Fund all expenditures to complete the Final Development Plan (FDP) within three years of the commencement date.

- The FDP will include the construction and operation of the Demonstration Pilot Plant (DPP) which will have an estimated throughput of 60 kilograms of ore per hour and produce a minimum of 300 kilograms of zirconium chemicals (with an equivalent content of 100 kilograms of zirconia). Construction of the DPP must commence within six months and production within twelve months of the date of the agreement.

- The FDP will include a detailed technical and financial update of the Definitive Feasibility Study completed in September 2002 and enable AZL and Astron to commit to commercial development.

- The FDP will also cover all environmental, social and infrastructure aspects, and applications for statutory approvals and consents required to proceed to commercial development.

- AZL will be the manager of the FDP.

- Astron will assist with access to financing options for the project.

At the completion of the FDP, Astron will be entitled to a 50% interest in the DZP.

Astron is an industrial company listed on Australian Stock Exchange Ltd which has substantial production facilities in China for zirconium specialty chemicals and related advanced materials. From its base in 1989, Astron has grown strongly to become one of the world's leading low cost zirconia and zirconium chemical producers with a very large range of products and technologies. It currently supplies 25% of the world demand for zirconia.

In the financial year 2002/03 Astron recorded turnover of A$81.4 million with an after tax profit of A$6.24 million (before extraordinary items), or 48.5 cents per share and reflects the substantial and growing basis of the company's zirconium business'.

Internationally Astron is recognized as a leading advanced materials manufacturer while in China the company has been recognized as one of the country's top foreign enterprises. Astron is the market leader for zirconia in China with a very large and secure customer base. The principal administration office is in Shenyang Lianoning province in the north east of the country and the company also has a large customer service network at eleven locations, as well as offices in the USA and Europe.

Astron imports zircon (from mineral sands producers) for further refining and processing, and manufactures four groups of products and also maintains a modern research and development facility. Its product suite includes:

1. **Fused Zirconia and Silica**

   Astron's plant at Ba Yu Quan was upgraded in 2002 and now produces 7,000 tonnes per year of fused zirconia, making Astron one of the world's largest producers of advanced zirconia materials for the refractories and ceramic industries.

2. **Zirconium Chemicals and Chemical Oxides**

   The company produces a wide range of chemical zirconias and other specialty zirconium chemicals used in the production of a variety of products including catalysts, deodorants, paper, paint, advanced ceramics and electronics.

3. **Specialty Zircon Products**

   Astron produces approximately 15,000 tonnes a year of special zircon flour for use in ceramics, specialty castings and TV glass industries.

4. **Optical Materials and Coatings**

   Ultra high purity zirconium and rare earth fluorides and oxides are also manufactured for use in the production of single crystals for lasers and advanced optics, and for use as coating materials in vacuum coating applications.

As a first stage to the Development Joint Venture, Astron and AZL's technical teams will review the results of the DZP 2002 feasibility study with the aim of determining probable improvements to the flow sheet and subsequent reductions in operating and capital costs. This programme will enable planning for the DPP to proceed and maximize the commercial viability of a development.

The Board of Alkane believes that this joint venture provides a unique opportunity to combine the strategically significant Dubbo resource with the process and product development technology expertise of Astron, and ultimately to expand the existing markets of Astron to provide a very strong Joint Venture operation. The Dubbo resource has the capacity to supply the operation for hundreds of years.

Enquiries: Ian Chalmers, Technical Director
Tel: +61 8 9328 9411 Fax: +61 8 9227 6011
Email: ichalmers@alkane.com.au

Additional information on Astron is available on their web site at www.astronchem.com

Unless otherwise stated this report is based on information compiled by Mr D I Chalmers, FAusIMM, FAIG, a director of the Company, who is a competent person as defined in The Australian Code for Reporting of Identified Mineral Resources and Ore Reserves, September 1999, and accurately reflects information compiled by the competent person.