

Open File Envelope

No. 12,109

EL 4376

CARPIE PUNTHA HILL

**ANNUAL REPORTS, PARTIAL SURRENDER
REPORT, AND FINAL REPORT TO LICENCE
SURRENDER, FOR THE PERIOD 12/11/2010 TO 7/5/2014**

Submitted by
Investigator Resources Limited
2014

© 17/6/2014

This report was supplied as part of the requirement to hold a mineral or petroleum exploration tenement in the State of South Australia.

The Department of State Development accepts no responsibility for statements made, or conclusions drawn, in the report or for the quality of text or drawings.

This report is subject to copyright. Apart from fair dealing for the purposes of study, research, criticism or review as permitted under the Copyright Act, no part may be reproduced without written permission of the Executive Director of the Department of State Development Resources and Energy Group, GPO Box 320, Adelaide, SA 5001.

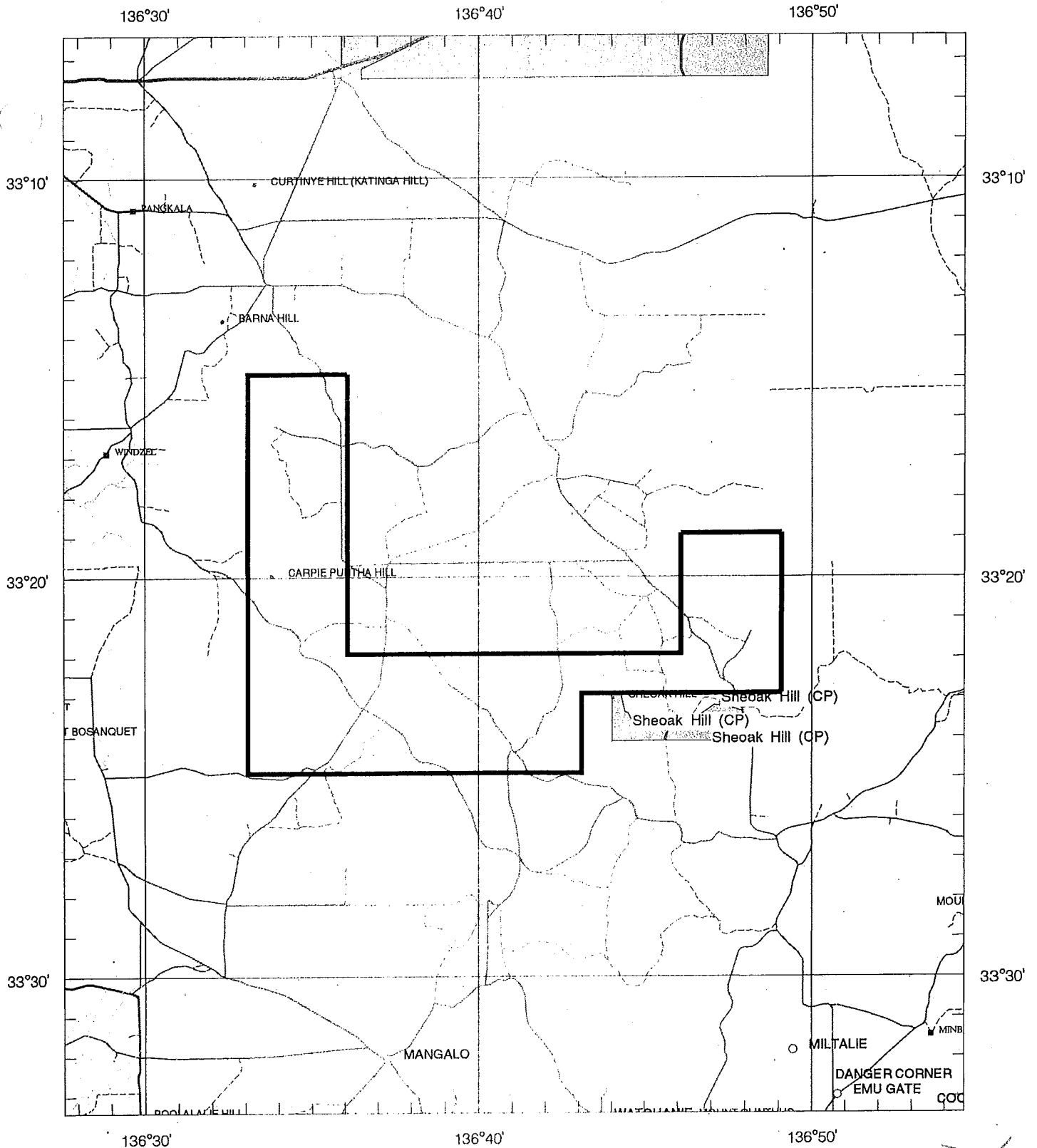
Enquiries: Customer Services
Resources and Energy Group
7th Floor
101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000
Facsimile: (08) 8204 1880



Government of South Australia
Department of State Development

SCHEDULE A



SCALE 1:250 000
 KILOMETRES 5 0 5 10 15 20 25 KILOMETRES
 * LICENCE GRANTED IN : DATUM AGD66



APPLICANT : SOUTHERN URANIUM LIMITED

FILE REF : 116/09

TYPE : MINERAL ONLY

AREA : 189 km² (approx.)

1:250000 MAPSHEETS : WHYALLA

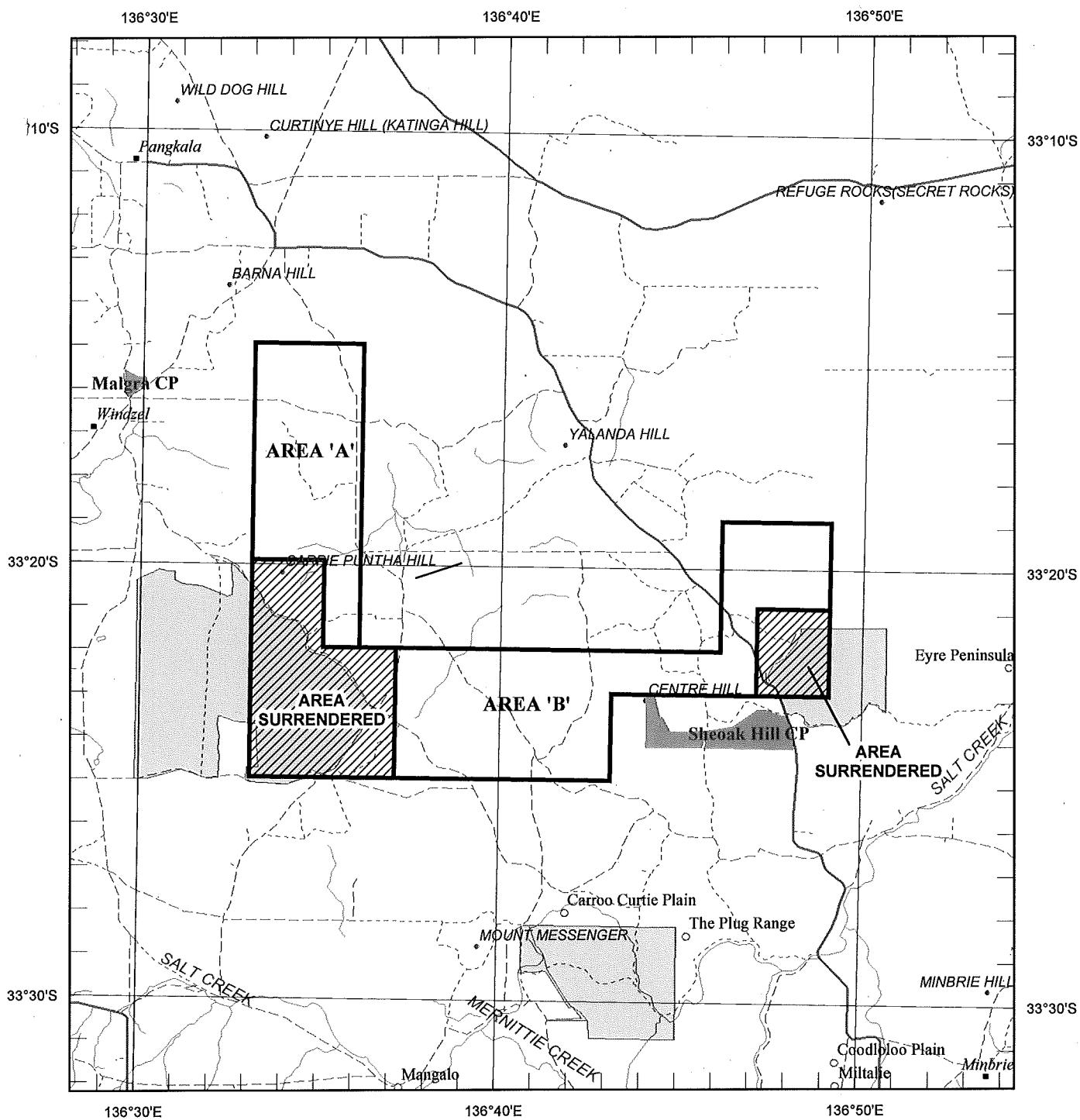
LOCALITY : CARPIE PUNTHA HILL AREA - Approximately 30 km southeast of Kimba

DATE GRANTED : 12-Nov-2010

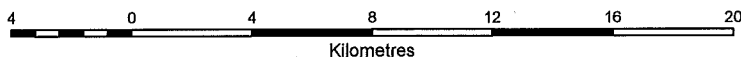
DATE EXPIRED : 11-Nov-2010

EL NO : 4376

SCHEDULE A



SCALE 1 : 250 000



LICENCE BOUNDARIES IN : DATUM AGD66

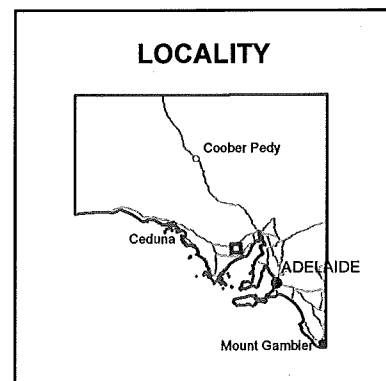
APPLICANT : INVESTIGATOR RESOURCES LIMITED

FILE REF : 2009/00116 TYPE : MINERAL ONLY

AREA : 132 sq km (approx)

1 : 250 000 MAPSHEETS : KIMBA

LOCALITY : CARPIE PUNTHA HILL AREA -
Approximately 30 km southeast of Kimba



DATE GRANTED: 12-Nov-2009 DATE EXPIRED: 11-Nov-2012 EL NO: **4376**

Investigator Resources Limited
Suite 48, Level 3, Benson House
2 Benson Street Toowong Qld 4066
Tel: +61 (0)7 3870 0357
Fax: +61 (0)7 3876 0357

Email: info@investres.com.au
web: www.investres.com.au



**EL 4376 Carpie Puntha Hill,
Annual Technical Report,
12 months ending 11-11-2010.**

250,000 mapsheet- SI53-8, Whyalla
100,000 mapsheet- 6231, Barna

Coordinates (GDA94 Zone 53)

Max Easting 669,240m, Min Easting 644,240m,
Max Northing 6,320,090m, Min Northing 6,301,360m

Keywords

Uranium, IOCG, Soil Sampling

Compiled by:

Roger Kemp, Project Geologist, South Australia

**EL 4376 Carpie Puntha Hill,
Annual Technical Report,
12 months ending 11-11-2010.**

Summary

This is the first Annual Technical Report for EL4376.

Work carried out during the past twelve months of this EL has included the review of company & historical data, the planning & execution of a first pass soil sampling program, the processing & interpretation of the soil geochemical data, the preparation of a DEF and negotiations with landholders regarding access.

**Investigator Resources Ltd.
EL 4376 Carpie Puntha Hill,
Annual Technical Report,
12 months ending 11-11-2010.**

Contents

1. Introduction	3
2. Tenure	3
3. Access	5
4. Geological setting	5
5. Previous Exploration	6
6. Activities during this reporting period.....	8
7. Future work program.....	10
8. Expenditure.....	10
9. File Verification Listing	11

Figure 1. EL 4376 Carpie Puntha Hill tenement location. Other East Eyre Project tenements shown in red outline..... 4

Figure 2. EL 4376 Carpie Puntha Hill Soil Sampling. Blue dots represent samples taken from EL 4376; Black dots represent the remainder of the soil sampling conducted within the JV area. 9

1. Introduction

The East Eyre Peninsula Project includes a number of tenements on the eastern Eyre Peninsula, about 60 kilometres west of Whyalla. The project comprises Lake Gilles (EL 3479), Moonabie (EL 3552), Botenella Gate (EL 4257); Kimba (EL 3645; in JV with Ellemby Resources), Caralue (EL 3644; in JV with Ellemby Resources), Moseley Nobs (EL 3594), Mt Middleback (EL 4316), Yalanda Hill (EL 3473; in JV with Adelaide Resources), Yalanda East (EL 4351; in JV with Adelaide Resources), and Carpie Puntha Hill (EL 4376; in JV with Adelaide Resources) tenements, which cover a total area of 3,338 square kilometres.

Southern Uranium Ltd. entered into a joint venture with Eyre Energy Ltd. (a wholly owned subsidiary of Adelaide Resources Ltd.) in September 2009. The Joint Venture comprises 3 Exploration Licenses, EL 3473 Yalanda Hill (contributed by Adelaide Resources), EL 4351 Yalanda East and EL 4376 Carpie Puntha (both contributed by Southern Uranium). Southern Uranium is managing the project with a right to earn a 60% interest through the expenditure of \$250,000 in the first two years. The initial Joint Venture equity interests are Adelaide Resources 60%, Southern Uranium 40%. Once Southern Uranium has earned a 60% equity, each party may contribute to on-going expenditure in accordance with its equity, or else elect to dilute. The total area covered by the joint venture is 758 km², with the Carpie Puntha Hill tenement covering an area of 189 km² (Figure 1).

2. Tenure

EL 4376 was granted to Southern Uranium Ltd (now known as Investigator Resources Ltd.) for a one year term on the 12/11/2009, expiring on 11/11/2010. The licence has subsequently been applied for a second year, which will extend the licence to 11/11/2011 (renewal is pending). The annual expenditure commitment for the Carpie Puntha Hill tenement is \$50,000.

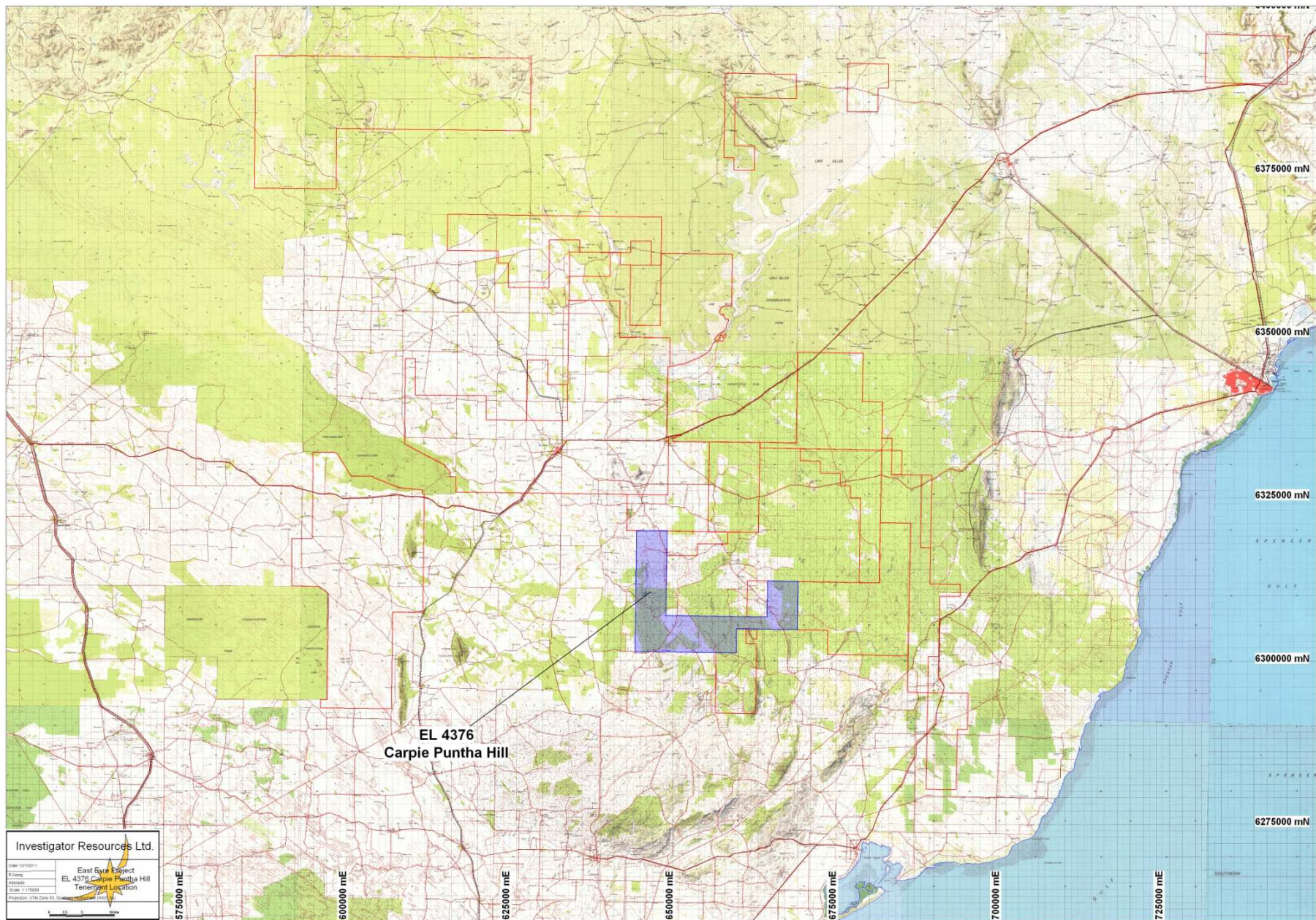


Figure 1. EL 4376 Carpie Puntha Hill tenement location. Other East Eyre Project tenements shown in red outline.

3. Access

The tenement lies within a number freehold properties. Good relationships have been established with the majority of freehold owners. The tenement also partially lies within several conservation reserves. A Declaration of Environmental Factors has already been submitted and approved.

The tenement lies wholly within the Barngala Native Title claim. As such, a heritage survey will need to be undertaken and clearance to be given prior to any drilling activities.

4. Geological setting

The north/central Eyre Peninsula region is located within the Gawler Craton, and is underlain by complex basement geology consisting of deformed and metamorphosed sediments and volcanics, various ortho- and para-gneisses, plus diverse mafic to granitic intrusives, ranging in age from Archaean to Mid Proterozoic. Complex faulting and fracturing is also typical, and the complex older basement geology is overlain to the north by relatively undeformed Gawler Range Volcanics dated as Mid Proterozoic. The basement terrain has been divided into several domains containing similar lithological and structural associations, with boundaries commonly marked by major crustal shear zones, or major lithostratigraphic breaks.

Over much of the northern and central Eyre Peninsula basement lithologies are typically deeply weathered, with very limited bedrock exposure. The Proterozoic basement is also generally obscured by a blanket of Holocene alluvial and aeolian cover, locally overlying Tertiary sediments contained in a palaeodrainage system mainly active during the Miocene and Pliocene, and continuing through to the Holocene.

EL 4376 is located wholly within the Cleve Domain, bounded to the west by the Coultas Domain and to the east by the Spencer Domain. The north eastern portion of the JV area is underlain by gneissic terrain assigned to the Lincoln Complex and Minbrie Gneiss, containing folded inliers of Hutchison Group metasediments. In this area the Minbrie Gneiss is interpreted as equivalent to the Donnington Suite, occurring mainly to the east of the Kalinjala Shear Zone in the Spencer Domain.

The Hutchison Group of the Cleve Domain is essentially defined by a strongly deformed, highly metamorphosed Palaeoproterozoic fold belt overlying Archaean gneisses of the Sleaford Complex, and earlier Palaeoproterozoic Miltalie Gneiss. Radiometric dates from the Archaean basement para- and ortho-gneisses reflect a major metamorphic event at around 2440 Ma, (the Sleafordian Orogeny). This was followed by granitoid intrusives of the Miltalie Event dated at around 2000 Ma, and both suites (Sleaford Complex and Miltalie Gneiss) are the basement for unconformably overlying Hutchison Group basinal sediments. Hutchison Group basin evolution is inferred to occupy the interval 2000 – 1850 Ma, terminated by the Neill Event at around 1850 Ma, followed by the Kimban Orogeny dated at 1730 – 1700 Ma. The syntectonic intermediate to felsic Moody Suite granitoids were then emplaced into Hutchison Group metasediments at around 1700 Ma.

5. Previous Exploration

Since 1967 the project area has attracted very active exploration activity, including seven uranium exploration campaigns and eight IOCG-Uranium campaigns, as well as exploration for other commodities.

Uranium

Kerr-McGee Australia Ltd (Kerr-McGee) explored for epigenetic uranium deposits or stratabound uranium deposits of the Rum Jungle (NT) style, from 1967 to 1969. The company flew an airborne radiometric survey, following up on the ground with geophysical surveys, geochemical sampling, 13 diamond drill holes and 9 rotary holes. Kerr-McGee found that most of the radiometric anomalies were due to the abundant feldspars in gneissic outcrops. Although Kerr-McGee did find disseminated and vein type primary uranium mineralisation and iron-oxide-hosted secondary uranium at many places, there were no significant occurrences. The best sample came from the Calcookra mine and assayed 7,000 ppm uranium, 1,200 ppm thorium and 2,000 ppm vanadium. Kerr-McGee concluded that uranium mineralisation in the basement rocks is not stratigraphically controlled, instead being localised in fault breccias and shear zones, associated with weak sulphide mineralisation. Drill core samples showed that uranium and thorium content decreases with depth.

Kerr-McGee also searched for uranium in Tertiary sediments, drilling 72 rotary holes across the watershed of the Driver River. Although Tertiary and Recent sediments emitted strong radiometric anomalies, drilling yielded only trace quantities of uranium, the highest value being 0.029% U₃O₈. At the base of the oxidised zone, Kerr-McGee identified a thin interval of increased radiation, which was mostly due to thorium.

BHP Company Ltd (BHP) explored for uranium and copper from 1968 to 1970, although most of the area covered lay to the north and east of the project.

Pacminex Pty Ltd conducted regional radiometric and magnetic airborne surveys between 1970 and 1973. Ground follow-up with scintillometer traverses did not detect significant radioactivity on the ground.

In 1971-72, RF West explored for epithermal or hydrothermal uranium northeast of Kimba. Work comprised geological reconnaissance and sampling and analysis of groundwater for dissolved uranium. No analysis detected more than 5 ppb uranium.

CRA Exploration Pty Ltd (CRAE) explored for sedimentary uranium in Tertiary sands of the Cowell Basin southeast of the project, from 1978 to 1980. Drilling by CRAE to follow up resistivity surveys southwest of Midgee identified a redox front in Tertiary sediments, but no associated uranium mineralisation.

Pancontinental Mining Ltd (Pancontinental) explored for unconformity related uranium deposits in 1978-79, covering an area lying mainly north of the project. Pancontinental found no Mesoproterozoic sandstones covering Palaeoproterozoic basement, which downgraded the prospect. Some uranium anomalies detected by radiometric surveys Pancontinental attributed to scavenging by iron and manganese.

Afmeco Pty Ltd (Afmeco) explored for uranium to the south of the project area from 1980 to 1982. Airborne radiometric surveys revealed several anomalies. However, Afmeco considered the gneissic bedrock not to be prospective for uranium, as the anomalies are characterised by a high level of thorium.

IOCG-Uranium

Aberfoyle Resources Ltd (Aberfoyle) and joint venture partners explored for IOCG-Uranium and base metal deposits from 1991 to 2001, to the north of the project area. Aberfoyle assessed earlier geochemical soil and calcrete data, reprocessed and interpreted aeromagnetic data to define bedrock alteration zones and studied regolith patterns using Landsat imagery. The geochemical data contained a 5 ppb anomaly at Ziggy's Corner, but no strong anomalies. The southern half of the Aberfoyle licence contained no geophysical feature that might represent an IOCG-Uranium target.

Acacia Resources Ltd (Acacia) and joint venture partners explored for base metals and copper-gold (presumably IOCG-Uranium deposits) from 1993 to 2001 (Acacia Resources taken over by AngloGold Australasia Ltd in 1999). Acacia undertook an aeromagnetic survey, geological mapping, ground magnetic and EM surveys, and geochemical soil and rock chip sampling. Aircore drilling intersected BIF at magnetic anomalies and anomalous base metals at an EM anomaly. A diamond drill hole intersected anomalous zinc. Acacia investigated the copper-gold potential with calcrete and rock chip sampling, and regolith mapping. Geochemical results were not anomalous.

AngloGold Australasia Pty Ltd (AngloGold) explored for gold and copper from 1999 to 2004, over an area extending northwest from the northwest corner of the project. AngloGold collected calcrete samples, which outlined broad anomalous areas of low-order gold (>5 ppb Au) in some places.

Minotaur Gold Ltd (Minotaur) explored for Olympic Dam style copper-gold mineralisation associated with Hiltaba Suite intrusives, as well as for gold associated with BIFs, from 1997 to 2002. The area covered lay mostly south and west of the project.

Craton Resources NL (Craton) targeted base and precious metals and uranium in the southern section of the project, from 1997 to 2000. Craton carried out calcrete and stream sediment sampling and an aeromagnetic survey. The company reported anomalous copper in calcrete near the Charleston Granite contact and identified a number of magnetic targets, without undertaking further work.

Helix Resources NL (Helix) explored for shear-hosted gold deposits associated with the Charleston Granite (an inferred Hiltaba Suite intrusion) from 2001 to 2002. The area covered lay southeast of the project. Helix also targeted IOCG-Uranium deposits associated with BIFs of the Middleback Subgroup. Geochemical sampling of calcareous materials defined weakly anomalous gold and copper west of the Middleback Range, and scattered base metal highs along the western edge of their licence (the eastern edge of the project). Helix identified weakly anomalous gold (maximum 5.2 ppb Au) associated with a zone of elevated copper. Lead and zinc highs occur close to the interpreted edge of the Charleston Granite. Helix considered the geochemical anomalies too low-order to warrant follow-up.

Aquila Resources Ltd (Aquila) targeted IOCG-Uranium deposits associated with possible altered Hiltaba Suite intrusions, from 2002 to 2005. After assessing previous work and interpreting available gravity and magnetic data, Aquila attempted to define structural trends and zones of iron oxide alteration possibly related to a concealed Hiltaba Suite. Aquila relinquished the ground because thick Quaternary cover made exploration difficult and they saw little potential for IOCG-Uranium deposits.

6. Activities during this reporting period

A Declaration of Environmental Factors (DEF) was prepared and submitted, detailing the exploration activities planned within the Heritage Agreement Areas and the remediation methods intended. This DEF was approved on 16-12-2009.

Southern Uranium was active in contacting landholders regarding access across the tenement for early exploration activities. The majority of landholders have signed waivers of exemption, with only one landholder in the entire JV area unwilling to grant access.

Southern Uranium concluded a first pass soil sampling program across the entire Yalanda Hill JV on a 1x1km spaced grid.

A number of geochemical anomalies, in Au, Ag & U especially occur within the JV agreement area, and a second phase of soil sampling is planned. Reconnaissance prospecting, geophysical surveying and AC drilling will follow, pending the results of the soil geochemistry.

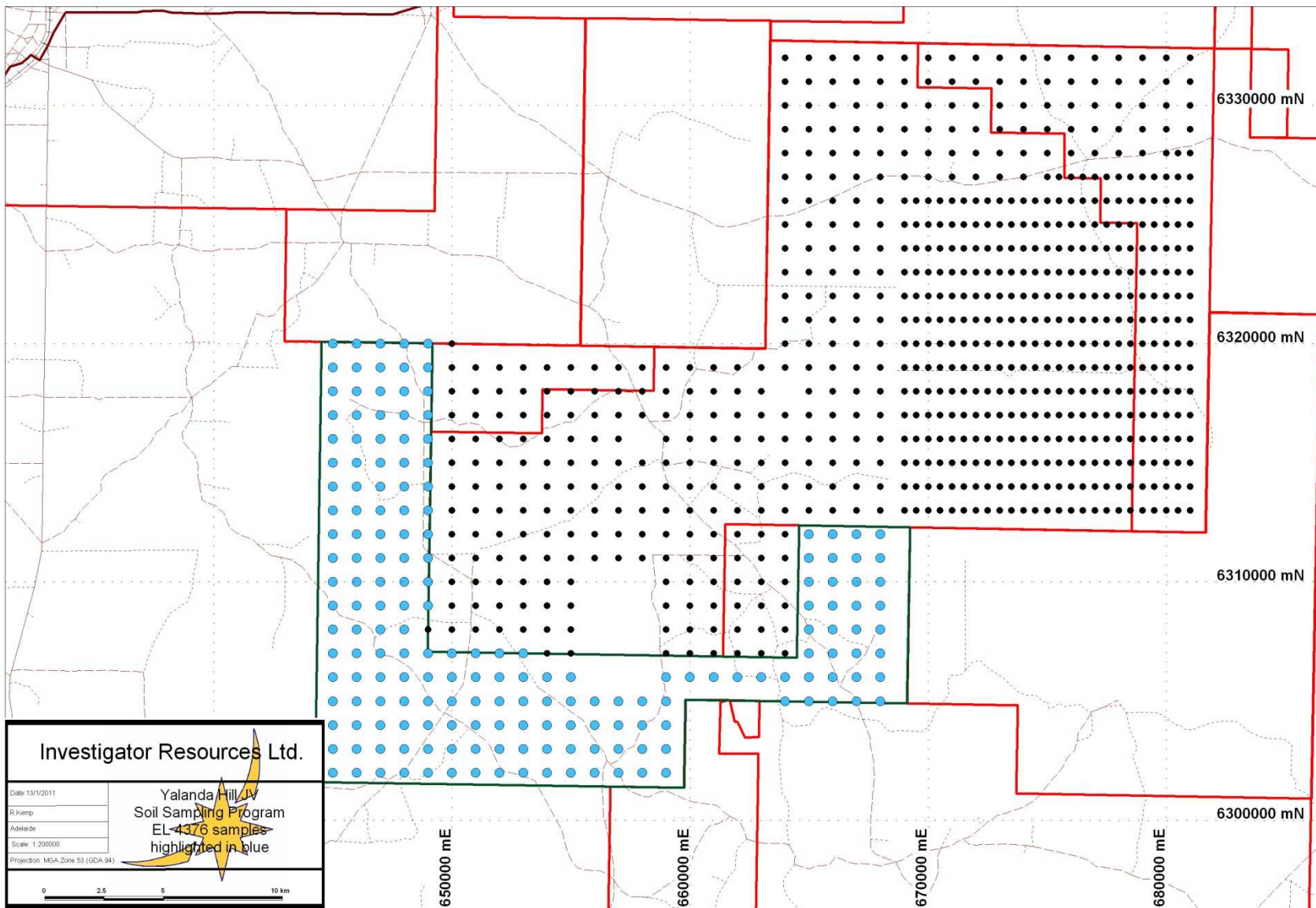


Figure 2. EL 4376 Carpie Puntha Hill Soil Sampling. Blue dots represent samples taken from EL 4376; Black dots represent the remainder of the soil sampling conducted within the JV area.

7. Future work program

Future work is planned for the Carpie Puntha Hill tenement. Numerous geochemical targets have been identified within the Yalanda Hill JV area and a second phase of soil sampling is currently being planned. Pending the results of more detailed soil geochemical sampling, reconnaissance prospecting, geophysical surveying (magnetics & gravity), and AC drilling will all be considered.

8. Expenditure

Expenditure for the licence up to 12/11/2009 to 11/11/2010 is tabulated below:

Exploration Activity	Expense
Personnel (management, geologists, consultants, field hands)	26,867
Tenement Maintenance	2,366
Landowner access, environmental	214
Assays, freight	14,750
Vehicle costs	4,864
Travel, Food and Accommodation	891
Camp costs	58
Administration	6,001
Total	56,011

9. File Verification Listing

Exploration Work Type	File Name	Format
AIRBORNE EXPLORATION SURVEYS		
Aeromagnetics		
Radiometrics		
Electromagnetics		
Gravity		
Digital terrain modelling		
Other (specify)		
GROUND EXPLORATION SURVEYS		
GEOLOGICAL MAPPING		
Regional		
Reconnaissance		
Prospect		
Underground		
Costean		
GROUND GEOPHYSICS		
Radiometrics		
Magnetics		
Gravity		
Digital terrain modelling		
Electromagnetics		
SP / AP / EP		
IP		
AMT		
Resistivity		
Complex Resistivity		
Seismic Reflection		
Seismic Refraction		
Well logging		
Geophysical interpretation		
Other (specify)		
GEOCHEMICAL SURVEYING		
Drill sample		
Stream sediment		
Soil	EL4376 2010 A 02 Soil Data	txt
Rock chip		
Laterite		

Water		
Biogeochemistry		
Isotope		
Whole Rock		
Mineral analysis		
Other (specify)		
DRILLING		
Diamond		
Reverse Circulation		
Rotary air blast		
Air-core		
Auger		
Groundwater Drilling		
All Drilling		
OFFICE STUDIES		
Literature search		
Database compilation		
Computer modelling		
Reprocessing of data		
General research		
Report Preparation	EL4376 2010 A 01 Report	pdf
	EL4376 2010 A 03 File Verification List	txt
Other (specify)		
REMOTE SENSING		
Aerial Photography		
LANDSAT		
SPOT		
MSS		
Radar		
Other (specify)		

PO Box 343 Toowong
Queensland 4066

ABN 90 115 338 979

T: +617 3870 0357

F: +617 3876 0351

E: info@investres.com.au

W: investres.com.au

**INVESTIGATOR
RESOURCES
LIMITED**



30 March 2012

EL Reporting Officer
Exploration Assessment
Mineral Tenements
DMITRE
GPO Box 1264
ADELAIDE SA 5001

Dear Sir/Madam

**EL 4376 Carpie Puntha Hill Annual Technical Report for the year ending
11/11/2011**

No field work was undertaken during the period 12 November 2010 to 11 November 2011.
As no new technical data were acquired, a formal report will not be submitted.

Total expenditure for the year was \$6,330. Details have been provided in the relevant
summary reports.

Please contact me on 8342 4914 or 0415 397 870 if you require additional information.

Yours sincerely

Teena Coppin
Tenement Manager



PO Box 343 Toowong
Queensland 4066

ABN 90 115 338 979

T: +617 3870 0357
F: +617 3876 0351
E: info@investres.com.au
W: investres.com.au

**INVESTIGATOR
RESOURCES
LIMITED**



20 January 2013

EL Reporting Officer
Exploration Assessment
Mineral Tenements
DMITRE
GPO Box 1264
ADELAIDE SA 5001

Dear Sir/Madam

**EL 4376 Carpie Puntha Hill
Annual Technical Report for the year ending 11 November 2012**

EL 4376 was granted on 12 November 2009. An application for renewal was lodged on 11 October 2012.

No field work was undertaken during the third year of tenure. As no new technical data were acquired, a formal report will not be submitted.

Total expenditure for the year was \$2,809. Details have been provided in the relevant summary reports.

Please contact me on 8342 4914 or 0415 397 870 if you require additional information.

Yours sincerely

Teena Coppin
Tenement Manager



14 April 2014

EL Reporting Officer
Mineral Tenements
DMITRE
GPO Box 1264
ADELAIDE SA 5001

Dear Nella

EL 4376 – Carpie Puntha Partial Surrender Report for the period ending 11/11/2012

EL 4376 was granted on 12 November 2009, over an area of 189 sq km. At the time of renewal in 2012 the area was reduced to 132 sq km. A partial surrender report was not submitted at the time.

On 3 March 2014 a letter and Form14 were sent to DMITRE, surrendering the tenement in full. Now that the tenement has been relinquished all of the exploration data, including any data relevant to the previously relinquished area, should be available on Open File. The Company requests that the requirement for a partial surrender report be waived.

Please contact me on 8342 4914 or 0415 397 870 if you require additional information.

Yours sincerely

Teena Coppin
Tenement Manager

PO Box 343 Toowong
Queensland 4066

ABN 90 115 338 979

T: +617 3870 0357

F: +617 3876 0351

E: info@investres.com.au

W: investres.com.au

**INVESTIGATOR
RESOURCES
LIMITED**



25 February 2014

EL Reporting Officer
Exploration Assessment
Mineral Tenements
DMITRE
GPO Box 1264
ADELAIDE SA 5001

Dear Sir/Madam

**EL 4376 Carpie Puntha Hill
Annual Technical Report for the year ending 11 November 2013**

EL 4376 was granted on 12 November 2009 and will expire on 11 November 2014.

No field work was undertaken during the fourth year of tenure. As no new technical data were acquired, a formal report will not be submitted.

Total expenditure for the year was \$8,529. Details have been provided in the relevant summary reports.

Please contact me on 8342 4914 or 0415 397 870 if you require additional information.

Yours sincerely

Teena Coppin
Tenement Manager



11 June 2014

EL Reporting Officer
Exploration Assessment
Mineral Tenements
DMITRE
GPO Box 1264
ADELAIDE SA 5001

Dear Nella

**EL 4376 Carpie Puntha Hill
Final Technical Report for the period ending 7 April 2014**

EL 4376 was granted on 12 November 2009 and consent to surrender of the tenement was given on 7 April 2014.

No field work was undertaken during the final year of tenure. As no new technical data were acquired, a formal report will not be submitted.

Details of expenditure have been provided in the relevant summary reports.

Please contact me on 8342 4914 or 0415 397 870 if you require additional information.

Yours sincerely

Teena Coppin
Tenement Manager

