

**Terra Search Pty Ltd**  
Specialists in Mineral Exploration,  
Geology and Computing

Curriculum Vitae 2011

# **Alan LEEDS**

**Surveyor/Field Expediter  
Senior Field Technician**

Updated SD Beams, January, 2011

Terra Search Pty Ltd

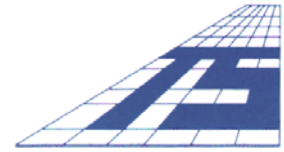
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**Name: ALAN LEEDS**

**Address:**

TERRA SEARCH PTY LTD  
PO Box 981, Hyde Park QLD 4812  
21 Keane Street, Currajong QLD 4812  
Phone: (07) 4728 6851  
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**Date Of Birth:**

13/10/1946

**Education**

**MSc (GIS) James Cook University, Townsville, Qld, Graduated 2000**

**BAppSci (Surveying) Queensland University of Technology, Brisbane, Qld, Graduated 1979**

**Certificate for Surveying Technician, Darling Downs Institute of Advanced Education, Toowoomba, Qld  
Graduated 1974**

**Industry Accreditation & Skills**

**Certificates/Courses/Licenses**

First Aid Certificate  
Drivers License  
4WD Defensive Driving Course  
Quad Bike Course  
Portable XRF Analyser Radiation Safety & Instrument Operation Course

**Basic Field Skills**

Vehicle and equipment maintenance and operation  
Exploration camp set up  
GPS navigation  
Familiarity with exploration communication devices (eg satellite phones)  
Environmentally friendly field operations  
Landholder liaison experience  
Sample preparation

**Specialised Skills and Experience**

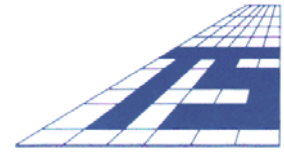
Extensive experience with DGPS  
Extensive experience with Portable Field XRF analysers  
Experience with drilling  
Experience with soil sampling  
Experience with reconnaissance programs

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### Terra Search Summary

Having spent most of his life working in the bush, Alan is an accomplished bushman and has been a valuable member of the Terra Search team on and off since 1986. Alan has a lot of accredited training such as Senior First Aid, 4 Wheel Drive Defensive driving and vehicle recovery course, All Terrain Vehicle operation course, Portable XRF Analyser Radiation Safety & Instrument Operation Course. Originally trained as a surveyor, since 2006, Alan has spent his time at Terra Search both conducting DGPS surveys and becoming more involved in general exploration activities, fulfilling a role as field expeditor/senior field technician.

In terms of surveying, his main tasks recently have been locating drillholes and control points with the DGPS to sub 50cm accuracy in northing, easting and rl height. Major projects include location of 1000 holes at Cudeco's Rocklands project near Cloncurry, location of large drillhole data sets for Mantle Mining and Liontown Resources, as well as a major gridding exercise at Redbank Copper, NT for Gulf Mines.

His more general tasks have included camp set up and management, drill program and rehabilitation supervision, geological recon and prospecting in small teams working in remote areas alongside a geologist. Other tasks include: carrying out cultural clearance with Native Title applicants; drill sampling and lab dispatch as well as Portable XRF analysis; ground magnetic surveys. Clients have included Superior Resources throughout NW Qld. Diatreme Resources/Lost Sands in the remote Eucla Basin, SA.

Recently (December, 2009), Alan was involved in the drilling program at NuPower's phosphate project, Lucy Ck, NT; duties included camp set up, drill rig support, drill sampling, QA/QC implementation, sample dispatch and rehabilitation.

Alan's previous surveying work experience for Terra Search (1987-1996) largely involved completion of surveyed grids, surveying cleared lines for sampling and geophysics, surveying, leveling drill holes and control points, and leveling for gravity surveys using a total station Electronic Distance Measurer (EDM, Theodolite and Dumpy Level). There were many multi-variate projects across Qld and NT.

### Field Program Experience:

2010 – **Terra Search Pty Ltd**

Ongoing Alan has worked for a number of companies throughout his employment at Terra Search, primarily as a surveyor, surveying initially with an EDM/Theodolite (1987-1996) and with a DGPS 2006-Present.

1995 – 1996  
1987 – 1989  
In terms of surveying, his main tasks recently have been locating drillholes and control points with the DGPS to sub 50cm accuracy in northing, easting and rl height. His more general tasks have included camp set up and management, drill program and rehabilitation supervision, geological recon and prospecting in small teams working in remote areas alongside a geologist. Drill sampling and lab dispatch as well as Portable XRF analysis. His previous surveying work experience largely involved completion of surveyed grids, surveying cleared lines for sampling and geophysics, surveying, leveling drill holes and control points, and leveling for gravity surveys using a total station Electronic Distance Measurer (EDM, Theodolite and Dumpy Level) :

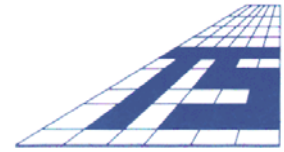
#### DGPS & EDM Surveying

Alan has completed DGPS surveys in all aspects of mineral exploration programs. He has extensive experience with drill hole location, gridding programs, reconnaissance, soil sampling and RC drilling. Major recent projects include:

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- **Iron Glen** - completion of surveyed grids, surveying cleared lines for sampling and geophysics, surveying, leveling drill holes and control points, and leveling for gravity surveys Mingela area 2010.
- **Island Minerals** – leveling for gravity surveys using a total station Electronic Distance Measurer (EDM, Theodolite and Dumpy Level) Julia Ck area 2010.
- **Metallica** - DGPS location of regional lines and gridding. Greenvale area. 2010
- **Ramelius** - DGPS location of regional lines and gridding. Charters Towers area.2010
- **Superior Resources** –Native Title & Cultural Heritage clearances, rehabilitation guidelines. Cloncurry area. 2010
- **Southern Uranium**- Core cutting, Forsyth area .2010
- **NQM Gold (2) Pajingo** – Environmental Water Sampling & Drill holes.
- **Alchemy**- DGPS location and updating of drillhole data set, gridding and locating the old pit edge.
- **Cudeco Ltd** – DGPS location and updating of drillhole data set (1000 holes and grid lines). Cloncurry 2007-2010
- **Mantle Mining Corporation** DGPS location and updating of drillhole data set (200 holes and grid lines). Hughenden district 2007-2009
- **Liontown Resources** – DGPS location and updating of drillhole data set (200 holes and grid lines). Charters Towers district 2007-2010.
- **Gulf Mines** – DGPS location of regional lines and gridding, Redbank Copper Mine, NT, 2007

Prior to 1996, Alan has also worked on many mineral exploration survey projects throughout Queensland and NT eg Clermont district for Diatreme Resources, Charters Towers District for City Resources, Pan Continental Mining, Dalrymple Resource, Georgetown District for Austmin Resources, Lynch Mining, around Biggenden, Mt Perry (SE QLD) for Metana resources, Macarthur River area, NT gridding for MIM..

Alan has worked on general exploration and geological reconnaissance projects including

- **Nupower Resources** – Lucy Creek Phosphate Project, Via Jervis Station, Plenty Highway, NT, Site Induction. Preparation of full camp to support drilling program. Mobilization Townsville to NT. Percussion drill program for phosphate. Down hole sampling, implementation of QA/QC procedure, recording of scintillometer measurements, Portable XRF use. Sample dispatch. Rehabilitation of previous drill holes.
- **Superior Resources** geological mapping, rock chip sampling and reconnaissance, Dajarra District, Southern Mt Isa Block, accompanying geologists Dr Simon Beams (Terra Search) and Ken Harvey (Superior Resources)
- **Superior Resources** reconnaissance in the Hedley's Creek, Gregory River and Myally regions of NW QLD accompanying geologists Carrying out cultural clearance with Native Title applicants
- **Lost Sands** reconnaissance ground magnetic traverses, Camp set up, All Terrain Vehicle use, isolated Eucla Basin, SA. .

Alan has also assisted with Soil and RC Drilling programs for **Superior Resources** at Dajarra. He has also done fieldwork in the Camooweal Yelvertoft area:

- Preparing drill sites
- Supervising clearing, grading and bulldozing operations
- Carrying out cultural clearance with Native Title applicants

### Portable Field XRF Analyser

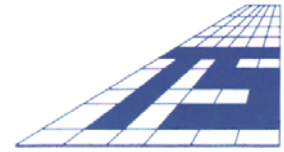
Alan is licensed to operate portable Field XRF Mineral Analysers

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### Previous Employment:

- Jan 2006 – **Stan Lowe Consulting Surveyors** Cooktown  
**Surveying Work**
- 2003 - 2005 **Penna & Company** Townsville  
Civil Engineering Contractors  
**Engineering Surveyor**  
Duties included:  
Setting out of earthworks and structures associated with road construction – bridges culverts and paving
- 2001 - 2002 **Siemens Thiess Communications Joint Venture** Townsville  
**Designer**  
Duties included:  
Interpretation of job briefs  
Preparation of schematic drawings – plans used by constructors (both in house and contractors) in the extension and upgrading of the telephone distribution network  
Updating of numerical records  
Updating project-tracking databases
- 1999 - 2000 **Telstra** Townsville  
**CPR Operator/ Designer**  
Duties included:  
Interpretation of job briefs  
Preparation of schematic drawings using Telstra's CPR (Cable Plant Records) software - plans used by constructors (both in house and contractors) in the extension and upgrading of the telephone distribution network  
Updating of numerical records  
Updating project-tracking databases
- 1997 – 1999 **Landinfo/SKM** Townsville  
Consulting Engineers & Surveyors  
**Licensed Surveyor**  
Duties included:  
Construction & Engineering – Yabulu power station & Sun Metals Zinc refinery  
Cadastral – various leases at Townsville airport, small subdivisions & BOMA lease surveys.
- 1996 **QLD Department of Natural Resources** Townsville  
**Data Input Operator**  
Data Validation Project – verification of the Valuation, Titles & Reserves databases. These databases were checked for errors and omissions and corrected as discrepancies were detected
- Jun 1995 – Jun 1996** **Terra Search Pty Ltd** Townsville  
Surveyor/Field Technician  
Duties included:  
Gridding – both theodolite & compass  
Magnetometer surveys  
Levelling for gravity surveys.  
Projects were throughout Qld and NT

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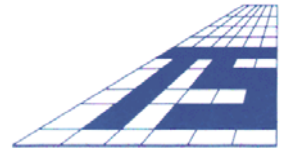
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Nov 1994 – **K & A Surveyors Consulting Surveyors** Townsville  
Jun 1995 Licensed Surveyor

Apr 1994 – **Mapping & Monitoring Technology, Pty. Ltd.**  
Nov 1994 Production Manager  
This position involved working with satellite imagery & GIS (ArcInfo) to produce specialised image based products.

**June 1987 – Nov 1989** **June 1987 – November 1989**, Terra Search, Consulting Geologists.(Townsville)  
Surveyor  
This position involved establishing grids for geological exploration programs, using a Sokkisha Theodolite EDM unit. Projects were throughout Qld and NT

### Education:

1993 - 2000 **James Cook University, Townsville, Queensland**  
**Master of Science**

1974 - 1979 **Queensland University of Technology, Brisbane, Queensland.**  
**Bachelor of Applied Science – Surveying**

1970 - 1974 **Darling Downs Institute of Advanced Education, Toowoomba, Queensland.**  
**Certificate for Surveying Technician**

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