

Capability Statement – Plant Scanning

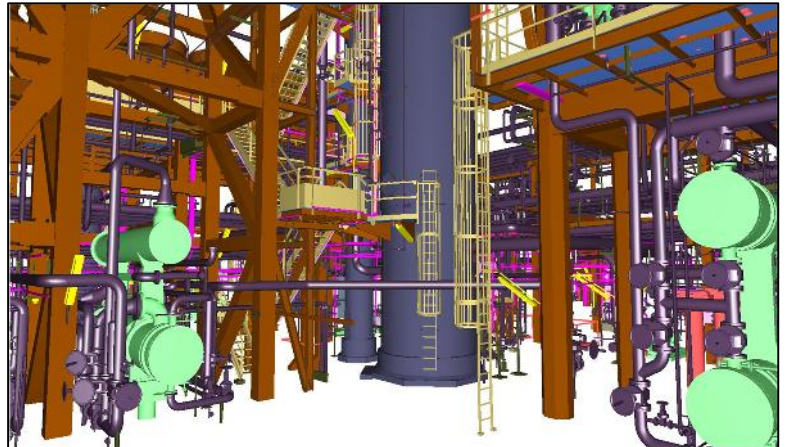


www.northgroup.com.au | feedback@northgroup.com.au

Who are NorthGroup Consulting

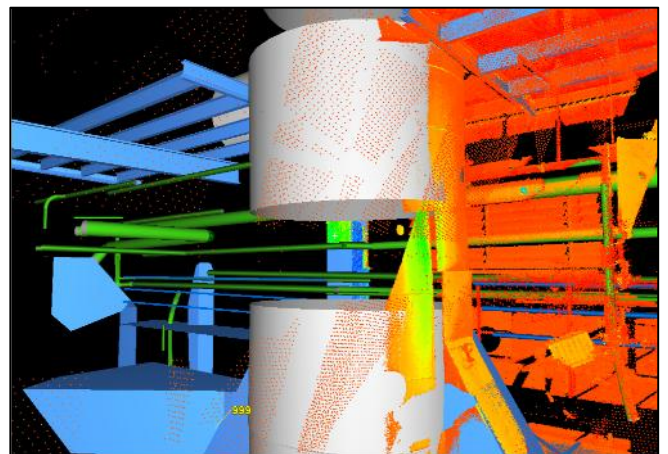
NorthGroup Consulting is a specialist infrastructure surveying company. Our surveyors and town planners are experts in Land and Construction Surveying, 3D Laser Scanning and Town Planning.

NorthGroup Consulting have received high acclaim within the surveying industry for innovation and all-round excellence over the past 25 years of operation and pride ourselves on creating exceptional value in delivering surveying & scanning solutions.



What we do

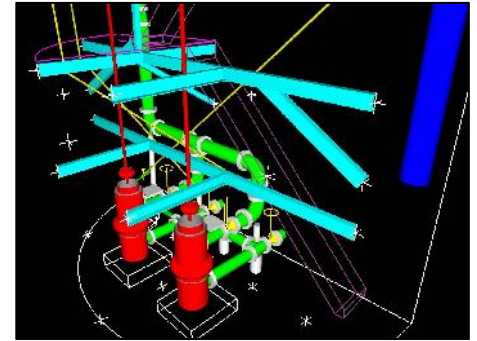
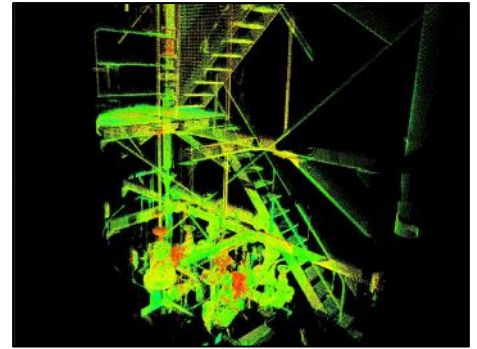
NorthGroup Consulting are Laser Scanning Surveying Specialists. Our teams have undertaken laser scanning for Process Plants, Machinery Alignments, Power Plants, Paper Mill machinery, Oil refineries, Coal Wash Down Plants, Petrochemical plants and Conveyors, including all elements of plant shut downs and turnarounds (TAR). Our expertise allows for the appropriate solutions for our clients to be sourced and implemented to enable the best design and timing outcomes on plant and machinery projects. Our forte is in the planning, implementation and modeling of major plant projects.



What we have done

NorthGroup Consulting are market leaders in utilizing innovative solutions for various types of surveys for data collection using laser scanning. For example we have undertaken extensive plant scanning during operation in extreme conditions, as built surveys of newly installed plant before commissioning and emergency call out and shutdown surveys and turnarounds to gather information. We have used laser scanning technology since 2000 and have three scanning systems as well as Mobile Laser Scanning and conventional survey techniques.

We have worked nationally and internationally with our client lists being multi national, tier one and listed companies.



How we do it

NorthGroup Consulting has a strong team culture with a flexible, reliable and responsive workforce backed by the latest technology. We can mobilize seamlessly onto projects and integrate within large project teams. Our team will value add to the project with our extensive experience, and, can do hands on innovative approach.



Safety, Environment & Quality

The NorthGroup Consulting Business Management System is internationally accredited with certifications in Quality ISO 9001: 2008, Health & Safety OHSAS 18001; 2007, and Environment ISO 14001: 2004. In addition our Health and Safety Management System is accredited with AS/NZS 4801:2001



Quality ISO 9001
Certified System



Health & Safety OHSAS 18001
Certified System



Environment ISO 14001
Certified System

Sample Industry Awards

Queensland Spatial Industry Award for Innovation and Entrepreneurialism – Winner
– “Isopach Generation for Deformation Modelling from Terrestrial Laser Scanning “

Australian National Award Winner –
Excellence in Surveying – Institution of Surveyors Australia
“Bendigo Corridor Mapping Project”



Our Plant Scanning Management Team

Ian McDonald

Ian McDonald is a dedicated professional surveyor with over 30 years experience in surveying and project management. Ian is Director who oversees the 3D Laser Scanning and Large Scale Infrastructure Projects at NorthGroup Consulting as well as working on Earthworks, Road & Construction Survey Projects as a Project Surveyor. Ian has a strong focus on delivering results expected by his clients. His ability to manage the most complex data sets to provide timely and accurate results is appreciated by all involved with him. Ian prides himself on offering solutions to the most challenging of projects and as such is also involved with Research & Development. Ian's services have been requested by clients who have taken him overseas to Asia and the Americas. Ian is known for his technical prowess for solving complex survey problems with innovative surveying solutions. NorthGroup Consulting clients appreciate his ability to seamlessly become part of their team and to value add to large scale infrastructure projects



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Ben Lane

Ben heads our specialist terrestrial scanning team here at NorthGroup Consulting. He leads his dedicated team of surveyors who work in cutting edge technology to delivery data best suited for his clients ever changing requirements. Ben has the proven track record to value add to your project with a commitment to cost effective solutions for your terrestrial scanning needs. His scanning methods allow for minimal shutdown time for plant and equipment allowing no lost of production time. Be it open coal pits for volume calculations or intense detail in petro-chemical plants, Ben's ability to scan and model features and structures to suit his client's briefs is second to none. Ben's international experience include projects of note include mapping of the West Coast Main Line UK & the development of kinematic scanning for the scanning & modelling of the London Underground System whilst working in the UK. While at NorthGroup Consulting his projects include Industrial Process Plants, Road Infrastructure Projects, Railways, and Structural & Volume Surveys. With numerous Spatial Excellence Awards, Ben brings innovation & wealth of experience to any project.



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Government Surveying Accreditations

Queensland Government Department of Transport and Main Roads –
MR41/05 Prequalified Supplier Arrangement for Professional Services for Major
Infrastructure Projects

Queensland Government Department of Environment and Resource
Management – Provision of Surveying Services Offer No. NRS0033

Queensland Government Department of Housing and Public Works POC
Registration No. 0629A Level 3

A Sample of Our Plant Scanning & Modelling Projects

1/12/2001	Plant Scan of Paper Mill	AMCOR
17/01/2003	Wet End Upgrade of Cardboard Plant	AMCOR
2/02/2002	Brendale Sub-Station	Energex
6/08/2002	Weipa - Calcination Kiln - Deformation - Axis alignment	Comalco
28/07/2002	Weipa - Scan of Conveyor Belt at Lorim Point	Bechtel
6/08/2002	Weipa Shiploader - Deformation of Shiploader Leg	Comalco
1/08/2003	I site data from Lorim Point	Bechtel
4/06/2003	Crude Tank 109 Deformation	BP
19/11/2003	Bund Area for Tank 218	BP
14/09/2004	Catalytic Converter Scanned inside	BP
14/09/2004	Catalytic Converter outside	BP
29/09/2004	Tank 612 Deformation	BP
12/04/2007	Vessel 2204F	BP
27/08/2007	Column 606E	BP
16/07/2007	201D-204L Pump Alley	BP
24/10/2007	Vessel 101	BP
14/04/2007	Brunswick Station Ceiling Scans	Old Rail
3/06/2002	QFRS - USAR Facility	QFRS
13/06/2002	QFRS Confined Spaces	QFRS
1/12/2001	Scan of Material left in Sun metals storage Bins	Old Zinc
9/04/2002	Electrical Sub-Station at the Gap	Energex
10/04/2002	Collapsed BCC Gas Bell at Luggage Point	BCC
30/04/2002	Francis Plant Detail Survey	Cardno MBK
2/05/2002	BCC Water - Mt Crosby	BCC
31/05/2002	Original Scans by John Damina of Gove	Alceng
31/05/2002	Plant Scans around Gove - Mill Slurry, Steam Power	Alceng
14/10/2002	Gladstone Power Station Boiler 6	NRG
17/07/2003	Gladstone Power Station Boiler 6 - redesign purposes	NRG
17/07/2003	Boiler 5 - Top Floor	NRG
18/07/2003	Boiler 1	NRG
17/10/2002	Dragline DRE 39 at Blackwater	Team Engineering
31/10/2002	Dragline DRE 22 at Seraji	Team Engineering
6/11/2002	Dragline DRE 03 at Blackwater	Team Engineering
11/11/2002	Dragline DRE 40 at Peak Downs	Team Engineering
1/12/2002	Dragline DRE 17 at Peak Downs	Team Engineering

2/12/2002	Buckets BUD28 andf BUD75	BHP
25/02/2003	Quantities for Dragline Buckets	Old Uni
18/11/2002	Port Berth 8&9 - Wharf redevelopment	Maunsell
20/01/2003	Story Bridge	Storey Bridge Adventures
4/03/2003	Sandgate Treatment Plant	BWEA
15/04/2003	Stanwell Power Station	CBH
23/09/2003	BP Scan of Tank 109 for check of repair work	BP
19/09/2005	XXXX brewery	XXXX
20/01/2004	Gladstone QAL - Various site scans	QAL
10/01/2005	Gladstone QAL - Various site scans	QAL
3/03/2004	Fisherman Island - Coal Conveyor	SGS
13/05/2004	Caltex refinery shutdown	Caltex
12/05/2004	Caltex refinery shutdown	Caltex
8/09/2005	Caltex - Pipes at end of Wharf - for new Crude pipe.	Caltex
13/03/2008	Yatala Brewery	Taiyo
7/07/2004	Saraji Process plant	Sedgman
12/12/2004	Second trip to Saraji	Sedgman
2/10/2004	Port of Brisbane Patricks	Fielders
14/10/2004	Hail Creek Process Plant	Sedgman
2/06/2005	Riparian Plaza Awning - Scan of Steel work	G James Glass
15/06/2005	Original Scan of Riverside shaft	Mc Connell Dowel
8/07/2005	Second Scan of Riverside Shaft	Mc Connell Dowel
20/07/2005	Final scan of Riverside Shaft	Mc Connell Dowel
1/07/2005	BP Whinstanes - Tank WS8	BP
12/07/2005	Saraji Process plant - Modelling 8635-020	Aspec Engineering
30/09/2005	Boat Hull scans - 15m boat at Gilberts Slipway	SeaLife Designs
19/10/2005	Boat Hull scans - 15m boat at Bulimba	SeaLife Designs
8/10/2007	Oceanic Pearl - Shed 4 - Hemmant	SeaLife Designs
16/04/2007	Bundaberg Mill	Bundaberg Sugar
2/11/2005	Swanbank Landfill	Theiss
15/12/2005	Copper Stockpile Townsville	B&M
4/04/2006	Sewer Pump Stn - Southport	Cardno MBK
12/07/2006	Thiess QR - Caboolture (Roving Scan)	Thiess
4/07/2006	Pipe Measures	Tyco QNI
13/07/2006	Camerons Hill No 1 Reservoir	BCC
14/07/2006	Camerons Hill No 2	BCC
27/07/2006	North Pine No 1	BCC
3/08/2006	North Pine No 2	BCC
21/09/2006	Sewage Pump Station	JWP
31/10/2006	Petrie Water Treatment	PRSC
28/11/2006	Minchinbury Reservoir As Con	Saunders
5/12/2006	As Con of Crude Oil Tank at BP Townsville	Saunders
31/05/2007	Ingham Chicken Processing Plan TOR	Inghams
6/09/2007	Visy Board plant shutdown	Visy
28/02/2008	Acland Coal Rejects Conveyor	Sedgman
10/05/2008	Greenbank Balance Tank	SRWP Alliance
27/05/2008	Molendinar Balance Tank	SRWP Alliance
22/09/2008	Stapylton Balance Tank	SRWP Alliance
4/09/2008	Edens Landing Fuel Depot	Rio Tinto
18/12/2008	Detail Product Wharf Pinkenba	BP
6/05/2009	Crude Dock Bund Survey	BP
13/05/2010	Gasifier Scan inside deformation with C10 on loan	BOQ
13/12/2008	Curragh CHPP	Wesfarmers
12/01/2010	Curragh scans transformed to Plant Grid	Downer
28/11/2008	Ulan CHPP Upgrade	Sedgeman

28/11/2008	Ulan CHPP	Sedgeman
20/05/2010	Shell Tank 6	Shell
17/11/2009	Caltex Tank 414	Saunders International
13/07/2010	Tank 166 Kernell refinery	Saunders International
10/03/2008	Tank 108 Kernell	Saunders International
21/04/2011	Tank Def 2051	Saunders International
30/05/2012	Tanks 145 and 613	Saunders International
24/08/2012	Tank 205	Saunders International
24/07/2008	ATCOM CHPP South Africa/ Database management	Sedgman
24/07/2008	ATCTCOM Transfer Stations	Sedgman
21/06/2010	DRE09 Dragline Peak Downs	Downer
21/06/2010	HCP Surveys for Downer EDI	Downer
5/02/2009	Gregory Mine CPP	Wave Eng
27/05/2010	Peak Downs Drag line boom	Wave Eng
27/05/2010	Tarong Dragline	Wave Eng
12/06/2010	Kincora Gas Plant	Origin Energy
18/10/2009	Origin Gas Plants - Yandina	Origin Energy
15/03/2010	Yellowbank Gas Plant	Origin Energy
16/03/2010	Emu Apple Gas Plant	Origin Energy
17/03/2010	Wallumbilla	Origin Energy
13/09/2010	Peat Facility	Origin Energy
6/11/2009	Brendale treatment Plant	Morteon Regional Council
17/10/2009	Boiler1	QAL
9/11/2009	Yarwun Tailings Dam	RTA
8/02/2010	Ship Loaders 1 & 2 Gladstone Port	Gladstone Ports Corporation
15/02/2010	Bengalla CHPP	Sedgman
8/12/2010	Mt Isa Crushers	Sedgman
29/11/2010	Red Mountain CHPP	Sedgman
24/03/2011	South Walker Creek CHPP	Sedgman
20/04/2010	East End mine plant	Cement Australia
30/06/2011	BP Refinery Intercon	BP
12/05/2010	Incitec with C10 on loan at Gibson Island	Incitec
22/05/2010	Boyne Smelter Day Bin scans	Rio Tinto
3/05/2011	Curragh CHPP	Sedgman
24/06/2010	Gladston Cyanide Plant	Orica
16/09/2010	Shell Tank Farm	PCI
5/11/2010	Pinkenba heat Exchanger	PCI
26/08/2010	Newstead Tanks	Rocla Pipes
30/10/2010	QAL Pipe rack	QAL
17/03/2011	RTA Yarwun tank deformation scans	Rio Tinto
9/11/2011	Saraji CHPP	Sedgman
10/11/2011	Arrow Services - Pipeline entrance	Arrow Energy
11/11/2011	Peak Downs CHPP	Sedgman
6/03/2012	BP Product Wharf	BP
20/07/2012	Patricks Traveller Scan	Patricks
29/08/2012	Orica Cyanide Plant Gladstone	Orica
18/02/2013	Gladstone Entertainment Centre	ADCO Constructions
6/10/2012	QAL Transfer Station	QAL
27/11/2012	Isom Unit Scanning Caltex	Caltex
17/01/2013	Caltex Alkylation Unit Scan (HF Mitigation Project)	Caltex
31/01/2013	Springvale Coal CHPP Scan	Sedgman
18/03/2013	Tank 512 Kurnell	Giovenco
19/03/2013	Unity Sewer Pump Station	Unity Water
26/03/2013	PNG Chiller Units	VAE
13/05/2013	PNG Chiller Units	VAE

16/04/2013 BP Transfield
21/05/2013 RTA Mill Chutes
6/06/2013 Cyanide Dry Scrubber Orica Yarwun
7/06/2013 Callide Power Station TAR

BP
RTA
RTA
Callide Power Station