Resume

Patric Horne

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Education

2012/13 - Melbourne Business School (MBS)

Two, five-day residential courses focussing on developing leadership, interpersonal, communicative and group analysis skills.

2009/11 - University of Sydney

MSc by research in Exploration Geology and Geochemistry (on faculty-industry scholarship)

2008 - University of Sydney (Honours class 2, division 1)

BSc Geology & Geochemistry (Hons)

2007 - University of Johannesburg (Cum Laude)

BSc Geology with Environmental Management and Geography

2003 - German International School of Johannesburg (B average)

Qualifications: German A-Levels (Abitur)

Publications

Wyman, D.A., Horne, P., 2013. Magma mixing in Miocene New Britain: Evidence for lithosphere and slab melting in a disrupted arc. (*In Press*)

Horne, P., 2011. The Plesyumi and Simuku Intrusive Complex, New Britain (PNG): Contrasting Magma Sources and Evolution in a subduction zone.

Professional Associations

- Member of Australian Institute of Mining and Metallurgy
- Member of Sydney Minerals and Exploration Discussion Group
- Member of Australian Institute for Geoscientists
- Member of Australian Geological Society
- Member of the Association of Professional Engineers, Scientists & Managers Australia (APESMA)
- Co-founder of the University of Sydney Geological Society

Technical Skills

- CID and Brockman interpretation and modelling using Gocad and Leapfrog software
- Geochemical analysis and interpretation (picking stratigraphic boundaries & units) used for resource evaluation and model generation.

- Petrological analysis and interpretation (thin section analysis, mineral identification and ore genesis modelling).
- Vulcan version 7.5 and 8.2 usage (Blast blocking, weekly plans, querying resource model, creating advanced reserve estimations).
- In-pit face mapping of final and production walls and digitization thereof using Vulcan; adjusting and manipulating stratigraphic boundaries.
- Using ArcGIS v10.4 to generate a myriad of maps suited for different stake holders.
- RC rock chip sampling, logging and interpretation of geology to establish stratigraphic boundaries for resource model- conjunctive cross sectional interpretation of geology.
- Diamond core logging; identifying stratigraphic boundaries and measuring bedding planes, faults and jointing within the core.
- Geophysical interpretation of downhole magnetic susceptibility, gamma radiation, resistivity, etc to establish depth of water table and shaley units.
- Geophysical downhole OTV and ATV televiewer data analysis and interpretation to enhance structural (bedding, jointing, faulting, slippage planes) analysis for resource model.
- Large to small scale field mapping in the Pilbara (Iron ore), Broken Hill region (Silver, Lead, Zinc) and in Papua New Guinea (Copper and Gold)
- -<u>Computer skills</u>: Vulcan v7.5 and v8.2, Micro Mine GBIS, Arc GIS, GoCad, WellCad, Leapfrog, MS
 Word; Ms Excel; MS Power Point; Adobe Illustrator; Adobe InDesign; Web browsing, various geochemistry programs
- -<u>Languages:</u> Fluent in English, German and Afrikaans. Proficiency for all three languages is reading, writing and conversing; English and German at a professional level and Afrikaans at a conversational level.

Awards and Misc

- -Iron Ore 'Oresome Award' for finding and producing an additional 80000t (\$14 Million) of ore outside of the final pit design through a probe drilling campaign.
- **Safety Representative** Nominated and elected for the second year running at the Yandi Exploration hub.

Work Experience

Position: Exploration Geologist at Yandi

Name of Company: BHP Billiton Iron ore Date: 2013-present

Duties:

I am currently working on the OB24 interpretations using GoCad and Leapfrog modelling software. Very familiar with CID and Brockman geology and deposits. I recently completed a model for a channel iron deposit using Leapfrog and GoCad. Daily duties include RC chip logging and updating our databases, using Micro Mine™ software. Secondary to that, managing various rigs and drilling contractors to deliver appointed meterage in a safe but timely manor. Field mapping is conducted around rigs during the drilling season and large field sections during the drilling break. Geophysical interpretations are conducted in any free time using WellCad. ArcGIS is used on a daily basis to update maps, manuals, procedures and for generating reports.

Position: Mine Geologist at OB18/Wheelarra

Name of Company: BHP Billiton Iron ore

Date: 2012-2013

Duties:

Amongst the daily duties of scanning sample bags and logging blast hole samples, blast blocking using Vulcan, creating weekly mining plans for the mining engineers and schedulers; additional duties included engaging with survey, production and drill and blast on a daily basis and maintain and manage the contract between BHP and Macmahons. Additionally, weekly and monthly QAQC and reconciliations reports and presentations were to be completed and presented to all other Eastern Pilbara sites. Face mapping (both final wall and production) were a weekly task used for updating the STGM (Short Term Geological Model)- constant communication was executed with the STGM group in focusing on specific areas of the mine to enhance quality tonnes and grade for the next bench to be mined.

Position: Sampling manager

Name of Company: Sagittarius Exploration /CSA Global

Date: June to August 2010

Duties: On the island of New Britain, Papua New Guinea i lead a team of local geos in collecting rock chip and soil sample data in areas of economic interest for copper and gold (porphyry & epithermal systems) and at the same time investigating trends of alteration whilst mapping the geology. Data entry and database management on MapInfo to create up to date geological maps was essential.

Position: Drill core logging
Name of Company: YTC Resources
Date: Nov-Dec 2009

Duties: Under the supervision of the chief geologist, i was put in charge of preparing drill core of three different holes for inspection (cleaning, marking, labelling, magnetic susceptibility, etc.) and data entry at the DPI in Londenderry. In addition, it was my responsibility to prepare and cut selections of the drill core, bag them and send them off for assay analysis.

Position:Head Lab DemonstratorName of Company:University of SydneyDate:July 2008 –Nov 2010

Duties: Working closely with senior lecturers, i was given the task to plan, organise and run the 1st and 2nd year geology practical sessions. This included presenting their tasks in front of class, helping individual students with complex geological concepts, maintaining the database and marking of pracs and exams. Field excursions were also part of the course which i was always asked to attend (New Zealand, Uluru, Broken Hill, Kiama).

Position:Geological MappingName of Company:Perilya/ DPI Broken HillDate:May-August 2008

Duties: Under the supervision of Geoff Clarke, Bill Reeds and geologists from Perilya it was my duty to map two 2 km² for the company and the DPI, taking note of changes in metamorphic variability.

<u>Referees</u>

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