



CURRICULUM VITAE

(RESUME)

Dr. Alberto Martin Rios Carranza

Senior Exploration Geologist Engineer - (Exploration Manager)

Qualified Person (QP) Lima´s Stock Market (BVL)

Summary

A Geological Engineer with 18 years experience in metallic mineral exploration in Peru, Argentina, Colombia and Ecuador, with extensive experience in prospecting systems of Gold (Au) and Silver (Ag) epithermals of high (HS) to low sulphidation (LS), of copper (Cu) and molybdenum (Mo) porphyry and polymetallic skarn type deposits and VMS.

Specialization with a Doctorate (Phd) in volcanogenic massive sulphide deposits (VMS) at the Politecnica University of Madrid, Spain.

Accustomed in designing and executing exploration campaigns, personnel management, logistics, budgets etc. Able to develop integral exploration projects from the generation of “targets” until its corresponding evaluation.

Exploration Team Department Director who discovered the Jessica deposit (Gold epithermal of high sulphidation (HS) – 800,000 ounces of gold at the site of Arasi (Aruntani S.A.C – June 2006). Discoverer of several HS, LS, Porphyries, Skarns y VMS type prospects. Member of the Exploration Team who discovered the Azuca deposit (low sulphidation epithermal of Silver and Gold veins) – Hochschild Mining PLC (2007). Participated in the

campaign defining resource-reserves of the Project Taca Taca Bajo (Porphyry Cu-Au-Mo). 250MT@ 0.73% Copper (Cu), 0.16 g/t Gold (Au), 220 ppm Molibdenum (Mo). Salta Province - Argentina, Rio Tinto Mining (2008).

Discoverer of the Toropunto Polymetallic Skarn (Cordillera Negra), of the Copper and Molibdenum Porphyry “Lagarto” (Coastal Cretaceous Belt) and the VMS Lezard (Casma Group). Besides several prospects.

Director of the exploration team that discovered the Vetas Deposit (Gold epithermal (Au) of Low Sulphidation (LS) and Gold Porphyry (Au) – from 500.000 - 1.000.000 ounces of Gold, in the Department of Santander - Colombia (CB Inc. Gold - October 2011).

Discoverer of more than 3 million ounces of gold equivalent (AuEq).

Objetives

Collaborate with the mining-metallurgical field in Peru or abroad, by developing programs of exploration of metallic minerals.

Professional development based on personal initiatives on generating exploration targets.

Personal Data

NAME:	ALBERTO MARTIN
LASTNAME:	RIOS CARRANZA
BIRTH DATE:	December 22, 1970
NATIONALITY:	Peruvian
HOME ADDRESS:	Avenida La Encalada 1615. Oficina 207
ZIP CODE :	Lima 33
PHONE:	(511) 7972855
EMAIL:	arc@armr.com.pe ; arc@albertoriosc.com

Education

2004 DOCTORATE (Phd) - Doctor in Geological Sciences
Universidad Politécnica de Madrid
DOCTORATE THESIS:
Lancones Metalotect Study and its potential by Volcanogenic Massive Sulfide Deposits (VMS). Description, Interpretation and Potential. Piura – Peru.

- 2000-1998** POST GRADUATE EDUCATION- Universidad Politécnica de Madrid
Sustainable Mining – Precious Metal Exploration
DIPLOMA “Technical Mining Engineer, speciality in Test Drilling and Mining Prospections”
- 1998** PROFESSIONAL TITLE Geologist Engineer
Universidad Nacional Mayor de San Marcos - San Marcos State University
- 1995-1989** BACHELOR DEGREE – Geological Engineering
Universidad Nacional Mayor de San Marcos - San Marcos State University
Graduated among the upper third best graduates
- 1987-1983** HIGH SCHOOL
C.E.P. Sagrados Corazones “RECOLETA”
- 1982-1977** PRIMARY
C.E.P. Sagrados Corazones “RECOLETA”

WORK EXPERIENCE

- Current** **ALBERTO RÍOS GEOLOGICAL CONSULTANCY (ARMR E.I.R.L.)**
2012 GENERAL MANAGER
- 2010** **OBAN EXPLORATION AND BRAEVAL MINING CORPORATION**
2012 CONSULTANT SENIOR GEOLOGIST (PERU)
- 2009-** **LEYHAT COLOMBIA SUCURSAL (CB GOLD INC – CANADA)**
2012 GEOLOGY AND EXPLORATION DIRECTOR (COLOMBIA AND PERU)
- 2008-** **CUMBRES EXPLORACIONES S.A.C.**
2009 **CIC RESOURCES PERU S.A.C.**
 ARASI S.A.C.
 LEYHAT COLOMBIA SUCURSAL
 CB GOLD INC.
 ESSENTIUM GROUP
 BLACK SWAN MINERALS S.A.C.
 SOLWAY ANDES S.A.C
 UPSTREAM MINING S.A.C.
 ANALYTICA MINERAL SERVICES S.A.C
 ARUNTANI S.A.C
 INVERSIONES TROY
 MINERA DEL NORTE S.A.
 EREP S.A.C
 MINAS DE PACHANCOTO
 SMALL MINERS
 (CONSULTANT GEOLOGIST)
- 2007-** **RIO TINTO MINING AND EXPLORATION LIMITED (BRANCH IN PERU)**
2009 SENIOR GEOLOGIST (PERU AND ARGENTINA)
- 2006-** **COMPAÑÍA MINERA ARES S.A.C. (HOCHSCHILD MINING PLC)**
2007 CHIEF OF ADVANCED EXPLORATION PROJECTS
- 2005-** **MINERA ARUNTANI S.A.C.**
2006 *EXPLORATION AND GEOLOGY DIRECTOR*
- 2005-** **COMPAÑIA. DE MINAS BUENAVENTURA S.A.A. – Exploration Department**
2001 *Senior Geologist (Chief of Exploration Projects)*
- Cofradía Project (HS)
 - Huancavelica Project (HS-LS)
 - Puquio Project (HS-LS)
Joint Venture Gold Fields & Buenaventura
 - Yerba Buena Project (Sediment Host Gold Deposit)
 - Gima Project – Ecuador (HS)
 - La Plata Project – Ecuador (VMS)

- Lancones Project (Project VMS, HS, LS, Skarn, Cu-Mo porphyries)
Joint Venture BHPBilliton & Buenaventura
- Pashpap Project (Cu-Mo porphyry y Skarn Cu-Zn)

2000 **COMPAÑIA DE MINAS BUENAVENTURA S.A.A.** -- Exploration Department

Thesist

- Totoral Project (VMS)

1999-1997 **COMPAÑIA DE MINAS BUENAVENTURA S.A.A.** -- Exploration Department

Junior Geologist

- Totoral Project (VMS)
- Palma Project (VMS)
- Cordillera Negra Project (HS, LS, Skarn, Cu-Mo porphyries)
Joint Venture Buenaventura & Cyprus Amax

1997-1996 **BUENAVENTURA INGENIEROS (BISA)**

Junior Geologist

- Cubing of Yanacocha and Pierina Mine
- Cordillera Negra – Buenaventura & Cyprus Amax Joint Venture (HS, LS, Skarn, Cu-Mo porphyries)

1996 **SOUTHERN PERU LTDA.**
Mining Geology Department ,Toquepala (Cu-Mo porphyry)

Training

1994 **Compañía Petrolera PETROTECH PERUANA S.A.**
Exploration, Production, Planning and Development Department

Internship Program

1993 **SERETESA**
Topography and Mine Evaluation Units

Internship Program

Languages

English Level: Reading (advanced), Writing (advanced), Listening (intermediate) y Speaking (intermediate)

Course "Speak English"

Berlitz Institute (English) – Peru

Técnical Module (2007 – 2008)

Asociación nacional de centros de enseñanza a distancia

(CEAC), Barcelona – Spain (1998-2000)

Waystage two level – Wall Street Institute School of English,
Madrid – España (1998-1999)

Program “Basic English for work and Business”

ELA - Centro de Educación Ocupacional de Gestión no Estatal
(1994)

French

Nivel: Reading (intermediate), Writing (intermediate), Listening
(intermediate) and Speaking (intermediate)

Elementary and Practical Course, Alianza Francesa (1982-1987)

IT Skills

Programs

Microsoft Office, Word, Excel, Power Point, Access,
Surfer, Dbase and Autocad.

Publications

Cornelio, F. & Ríos, A. (2009): “La Saucha” Depósito VMS Deposit in the Lancones Basin,
Piura – Perú. Geology Magazine. Department Council of Lima – School of
Engineering of Peru.

Ríos, A., León, J., Castroviejo R. & Casaverde, J. (2006): Volcanogenic Massive Sulfide
Deposits of Lancones Basin (VMS), Piura – Perú (XIII Peruvian Congress of
Geology)

Ríos, A., Torres, J., Vásquez, E. & Franco, Y. (2006): Geology of Arasi Auriferous Project
(XIII Peruvian Geology Congress)

Ríos, A., Castroviejo, R. & García, J. (2008): Volcanogenic Massive Sulfide of Lancones
Basin. Geology Magazine. Department Council of Lima – School of
Engineering of Peru.

Ríos, A., Castroviejo, R. & García, J. (2008): Volcanogenic Massive Sulfide of Lancones
Basin (Peru). Geogaceta – Magazine of the Geological Society of Spain.

Ríos, A; Warscheid, W.; Escobar, D. & Vargas, Ch. (2010): Hydrothermal Alteration Minerals
Mapping Using The Multispectral Image Aster in Pallcamachay Prospect –
Ancash (Peru). CYTED. Oviedo – Spain.

Noble, D., Ríos, A., Vidal, C., Spell, T., Zanetti, K., Angeles, C., Ochoa, J. & Cruz, S. (2005):
Late Cretaceous Basalt in the Rio Mala Valley, Central Peru, Evidence for
Extensión and Mafic Magmatism Prior to Late Cretaceous – Paleocene

Plutonism and Silic Volcanism (Special Volume N° 6 – Geological Society of Peru).

Injoque, J., Ríos, A., Martínez, J., Serrano, M., Torres, J. & Vargas, Ch. (2000): Geology of Volcanic Middle Cretaceous , Lancones Basin, Tambogrande – Las Lomas, Piura – Perú (X Peruvian Geology Congress).

Injoque, J.; Ríos, A. & Torres, J. (2000): Palma, VMS I Type Deposit Distal Formed in a Intravolcanic Sedimentary Environment of Casma Group, Middle Cretaceous, Cuenca Huarmey, Lima – Perú (X Peruvian Geology Congress).

Vargas, Ch.; Ríos, A & Huamán, D. (2010): Hydrothermal Alteration Minerals Mapping Using The Multispectral Image Aster in Pallcamachay Prospect – Ancash (Peru) (XV Peruvian Geology Congress).

Warscheid, W.; Escobar, D.; Cornelio, F. & Ríos A. (2008): La Saucha. New VMS in Lancones Basin. Piura – Peru. (XIV Peruvian Geology Congress and XIII Latinamerican Geology Congress).

Workshops and Conferences

- Pirític Ibéric Belt of Peru (Lecturer)
- X Peruvian Congress of Geology (Lecturer)
- XII Peruvian Congress of Geology (Lecturer)
- I Update Seminar in Geology – Universidad Nacional de Piura (Lecturer)
- Seminar: Exploration and Metallogeny (Graduation group of Geologists “Ing. Felipe Thorndike Beltrán”) – Colegio de Ingenieros del Perú (Lecturer)
- Lecturer at the Upper Technical School of Mining Engineers of “Universidad Politécnica de Madrid” (Lecturer)
- II National Seminar of Mining. University of Piura. (Lecturer).
- Course on “ Mineral Zoning and its Importance for Exploration - Ulrich Petersen (Participant)
- Course on Breccias and Hydrothermal Alterations - Roger Taylor (Participant)
- Seminar on Gemmology – Universidad Politécnica de Madrid (Participant)
- Conference “ Digital Image Analysis Application to the Modal Research of Auriferous Ore” – Edgar Berrezueta – Universidad Politécnica de Madrid (Participant)
- Distribution of Metamorphism in Colombia” – Mario Maya Sánchez – Universidad Politécnica de Madrid (Participant)
- Course on “Conservation of the Monumental and Cosructiont Stone” – José María García de Miguel – Universidad Politécnica de Madrid (Participant)
- Course on “Introduction to Geochemistry, Mineralogy and deposits of Platinum Group Elements ” – Dr. Fernando Gervilla – Universidad Politécnica de Madrid (Participant)
- Course on “Volcanogenic Massive Sulfide Deposits Masivos” – Dr. James M. Franklin (Participant)
- Course for Explorers – Pontificia Universidad Católica del Perú (Participant)
- Course on “ Good Exploration Practice” – Institute of Peruvian Mining Engineers (Participant)
- III Course on Training for Explorers – “ Tools for Community Relations” (Participant)
- Quality Workshops – Luis Artola – Buenaventura Ingenieros (Participant)
- VIII Peruvian Geology Congress (Participant)
- XI Peruvian Geology Congress “ Geological Sciences at the service of Sustainable Development” (Participant)
- II Prospectors and Developers International Congress – ProEXPLO 2001 (Participant)
- III Prospectors and Explorers International Congress– ProEXPLO 2003 (Participant)
- IV Prospectors and Explorers International Congress – ProEXPLO 2005 (Participant)
- V Prospectors and Explorers International Congress – ProEXPLO 2007 (Participant)
- VI Prospectors and Explorers International Congress – ProEXPLO 2009 (Participant)
- Course about Fields “ Volcanogenic Massive Sulfide Deposits of The Iberic Piritic Belt (FPI) – South of Spain (Participant)
- Course about Fields “High Sulfidation Type deposits of Yanacocha Deposit” – Cajamarca, Perú (Participant)
- Prospectors & Developers Association of Canada, International Convention, Trade Show & Investors Exchange – Mining Investment Show. Toronto, March 2006 (Participant).
- Seventh International Gold Simposium. May 2006. Lima – Perú (Participant).

- Wealth Creation in The Minerals Industry. SEG 2006 Conference. Keystone, Colorado, USA (Participant).
- I Symposium: Exploration of Deposits in Peru. New Exploration Techniques September 2006 - Cajamarca, Peru (Participant).
- Technical visit to Moris (Au) and San Felipe (Ag, Pb, Zn) located in the states of Chihuahua and Sonora – Mexico.
- Introduction to ArcGIS – Part I (For ArcView 9, ArcEditor 9 and ArcInfo 9) – Telematic (Participant).
- Project 2002 – Level 1 – New Horizons (Participant).
- Target For ArcGIS – GEOSOFT (Participant).
- Fundamental for Exploration and Mining Development D – Dr. Ulrich Petersen (Participant).
- Mined Fields in Perú– Sociedad Nacional de Minería, Petróleo y Energía & SARCC (Participant).
- Proper Communication of LRN Legal Compliance and Ethics – Rio Tinto (Participant).
- Harassment Avoidance at Workplace (Employee edition) of LRN Legal Compliance and Ethics – Rio Tinto (Participant).
- Our way of working of LRN Legal Compliance and Ethics – Rio Tinto (Participant).
- What it should be known about Emails of LRN Legal Compliance and Ethics – Rio Tinto (Participant).
- Hydrothermal Breccias – Dr. William Atkinson, Dra. Alexandra Skewes y Dr. Charles Stern – CIP (Participant).
- Workshop on Vision and Personal Transformation – Hochschild Group Mining Division (Participant).
- “Atacama’s Mining Tour (Chile)” – Field Trip – William Chávez Leader (New Mexico University). Rio Tinto Mining and Exploration (Participant).
- Technical Visit to Yauricocha Mining District (Skarn and CRD System). Corona Mining Society S.A.
- Review and Interpretation of the Taca Taca Bajo new model (Cu-Au-Mo Porphyry) with Richard Sillitoe. Province of Salta – Argentina.
- Short Course on Ore Deposits Mapping. Nevada State – USA. Lowell Program in Economic Geology – University of Arizona – 2008.
- XIV Peruvian Geological Congress and XIII Latinoamerican Geological Congress (Lecturer).
- RTX Drilling Safety Training Camp. Safety in Diamond Drill Programs, Calama / Chile, Short Course. Rio Tinto (Participant).
- Technical Visit to Antamina Deposit, Huge Skarn System (Cu-Zn). Ancash – Peru.
- Course: Ore Body Knowledge and Resource Concepts for Exploration Geologists. Santiago de Chile (Participant).
- La Saucha, Depósito VMS Deposit in Lancones Basin, Piura – Peru. II Annual Symposium of Mining 2008. Piura University (Co-lecturer).
- Rio Tinto. Best Performance HSEC (Health, Safety, Environmental And Community) 2008.
- Ninth International Gold Symposium. May 2010. Lima – Peru (Participant).
- Mining 2010. Corferias. Bogotá – Colombia (Participant).

Further Activities

- Director of Toropunto S.A.C.
- Director of Alpha Mining S.A.C.
- Director of Nickel & Copper S.A.C.
- Director of Black Swan Minerals S.A.C.
- General Manager of Recoletano S.A.C.
- General Manager of S.M.R.L. Pachakusi.
- Member of "Society for Mining, Metallurgy & Exploration".
- Member of the Geological Society of Peru.
- Member of the Institute of Mining Engineers of Peru.

- Member of the School of Engineers of Peru (CIP: 64467)
- Honorable Member of the Espeleologic Group "Carlos Darwin" – La Habana – Cuba.
- Eponym of the Graduation Class of 2007-II "Dr. Alberto Martín Ríos Carranza" Professional Academic School of Geological Engineering of Universidad Nacional Mayor de San Marcos.
- Advisor of Pre graduate and Post graduate thesis.
- Colaborator of the Professional Academic School of Geological Engineering of Universidad Nacional Mayor de San Marcos.

- Member of the Jockey Club of Peru.

References

ENG. JOSE VIZQUERRA BELLIDO

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Exploration Manager - Peru

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DR. JOSE ANTONIO ESPI

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Exploration Manager Peru
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ENG. JOSE VIZQUERRA BENAVIDES

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CEO
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