

Curriculum Vitae (CV)

1. Position Title and No.	Hydrogeologist Expert
2. Name of Expert:	Christian Rivet
3. Date of Birth:	Sept_3_1952
4. Country of Citizenship/Residence:	France

5. Education:

Institution:	ESSEC Paris
Date: from (month/year) to (month/year)	1982
Degree or Diploma obtained:	Project Management

Institution:	St Paul, USA
Date: from (month/year) to (month/year)	1977 (9 months)
Degree or Diploma obtained:	Johnson Screens Training Program regarding underground water resources

Institution:	ENSG Nancy (National High School of geology of Nancy)
Date: from (month/year) to (month/year)	1973 – 1976
Degree or Diploma obtained:	Hydro-geologist Engineer

Certificates:

6. Employment record relevant to the assignment:

Period	Employing organization and your position.	Country	Summary of activities performed relevant to the Assignment
2014 - present	Independent Consultant	Ethiopia, Malawi, Sudan, Argentina, Algeria	Well design and water research Rig supervision Geophysics (looking for faults in granites) Drafting of technical specifications for water well drilling Audit of well sanitation operations for bottled water
2012 – 2014	APEX Mine (Gold) President/Owner	Mindanao (Philippines)	<ul style="list-style-type: none"> - Creation of a coring company for gold exploration (50 people, 3 rigs) and water bearing formation studies - Operational direction of on site (underground coring) operation for gold and soil permeability - Mine dewatering (permeability estimation, calculation of water quantity coming in mine galleries, pumps location , pump choice)
2008 – 2012	AREVA Independent Consultant	Kazakhstan Mongolia	Well design of injection and production wells for KATKO then MARUBENI
1999 – 2008	Johnson screens/Weatherford Availlles France	Various countries	In charge of: <ul style="list-style-type: none"> - Water Well department, - Municipality water plant (sand filters), - Sea and river intake system for desalination plant or water treatment plant
1984 – 1999	Tubafor International France	West Africa	Technical Manager of water well equipment

	Technical Manager		
1982 – 1984	Elf Aquitaine France	West Africa	In charge of development of oil well devices (liner hanger , packer , premium threads (VAM)
1978 – 1982	Filtres et Crepines Johnson France Water Well Technical Manager	Various countries	Design casing and screens for water well Lectures , writing technical articles in company news paper
1976 – 1978	Moroccan Hydraulic Minister Hydrogeologist Engineer	Moroccan	Hydro-geological studies, Well design, Drilling tender redaction on site drilling supervision, pumping test for National Water Authority

7. Language skills: (Mark 1 to 5 for competence, 5 being the highest)

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
French (Native proficiency)	5	5	5
English (Business proficiency since 1978)	4	4	3
Spanish , Moroccan Arabic	0	1	0

8. Membership of professional bodies: -

9. Other relevant skills (e.g. computer literacy, etc.): -

10. Publications: Scientific publication (each quarter) of ‘‘Courrier Johnson’’ which presents last improvement regarding drilling equipment and methodology

11. Specific experience in the region:

Country	Date from – Date to
Algeria	2014 – present
Angola	1984 - 1999
Argentina	2014 – present
Botswana	1984 – 1999
Burkina	1984 – 1999, 1978 – 1982
Egypt	1978 – 1982
Ethiopia	2014 – present
France	1978 – 2008
Germany	1999 – 2008
Hungary	1999 – 2008
Irak	1999 – 2008
Ivory Coast	2014 – present
Lebanon	1984 – 1999
Malawi	2014 – present
Mali	1984 – 1999
Mauritania	1978 – 1982
Morocco	1984 – 1999, 1976 – 1982
Niger	1978 – 1982
Romania	1999 – 2008
Russia/Kazakhstan/Mongolia	2008-208
Senegal	1978 – 1982
Sudan	2017 – 2019
Tunisia	1978 – 1982

12. Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks

Name of assignment:	Water researches in volcanic rocks, choice of drilling company, water well supervision pumping test for German Embassy Addis Ababa
Date: from - to (month/year)	07/2018 to 12/2019
Location:	Ethiopia
Client / Funding:	Independent Consultant, German Embassy

Position:	Hydrogeologist Senior
Main project features:	<u>Objectives:</u> Well design and water research <u>Tasks assigned to the expert:</u> 300 M deep in volcanic lavas, hydro geological study, well design, driller selection, supervision of drilling operations, pumping test, well pump choice, pump installation
Name of assignment:	Water researches in consolidated granite, choice of drilling company, water well supervision pumping test for a school in MADISI
Date: from - to (month/year)	03/2018 to 07 /2018
Location:	Malawi
Client / Funding:	Independent Consultant, Malawi Madisi school
Position:	Hydrogeologist Senior
Main project features:	<u>Objectives:</u> Well design and water research <u>Tasks assigned to the expert:</u> Geophysics, choice of well location, drilling supervision pumping tests, study of possible energy sources (solar panel, generator municipality supply)
Name of assignment:	Farming project
Date: from - to (month/year)	02/2107 to 03/2019
Location:	Sudan
Client / Funding:	Independent Consultant
Position:	Hydrogeologist Senior
Main project features:	<u>Objectives:</u> Well design and water research <u>Tasks assigned to the expert:</u> Design of 44 wells 400 M deep 360 M ³ /H, drilling optimization, improvement of energy consumption, water analysis studies to reduce corrosion of steel riser pipes ,follow up of yield evolution
Name of assignment:	Lithium production from salty formations with wells
Date: from - to (month/year)	12/2016 to 07/2018
Location:	Argentina
Client / Funding:	Independent Consultant
Position:	Hydrogeologist Senior
Main project features:	<u>Objectives:</u> Well design and water research <u>Tasks assigned to the expert:</u> Lithium production from salty water pumped in salt formations with 21 wells 70 M ³ /H, hydro geological conditions (permeability, transmissivity, well design (Drilling tender), drilling supervision of pilot well, pumping tests
Name of assignment:	Audit of local available drilling material
Date: from - to (month/year)	2014 – present
Location:	Ivory Coast
Client / Funding:	Independent Consultant
Position:	Hydrogeologist Senior
Main project features:	<u>Objectives:</u> - <u>Tasks assigned to the expert:</u> - Training of water authority in Ivory Coast, - Audit of water well equipment and drilling method
Name of assignment:	Gold researches (coring) and mine dewatering (water circulations in lavas)
Date: from - to (month/year)	2012 – 2014
Location:	Mindanao island Philippines
Client / Funding:	APEX Mine (Gold)
Position:	President/Owner
Main project features:	<u>Objectives:</u> - <u>Tasks assigned to the expert:</u> - Creation of a coring company for gold exploration (50 people, 3 rigs) and water bearing formation studies - Operational direction of on site (underground coring) operation for gold and soil

	<p>permeability</p> <ul style="list-style-type: none"> - Mine dewatering (permeability estimation, calculation of water quantity coming in mine galleries, pumps location, pump choice)
Name of assignment:	Kazakhstan and Mongolia uranium production by pumping underground water
Date: from - to (month/year)	2008 – 2012
Location:	Muyumkum, Dulla nul
Client / Funding:	AREVA/KATKO/MARUBEN/COGEGOBI
Position:	Drilling supervisor and well designer
Main project features:	<p><u>Objectives:</u> Well design of injection and production wells for KATKO then MARUBEN: 800 wells per year (ISR Uranium)</p> <p><u>Tasks assigned to the expert:</u></p> <ul style="list-style-type: none"> - Study of water bearing formation (Sand analysis, permeability, pumping tests) - Choice of equipment: Redaction of technical tenders - Drilling methods (rig, drilling mud, development, gravel pack) - Pumping tests - Follow yield production - Identification of plugging process - Design of cleaning process
Name of assignment:	Water Treatment Plant (revamp of sand filters)
Date: from - to (month/year)	1999 – 2008
Location:	Germany, Hungary, Irak, Morocco, Romania, Russia
Client / Funding:	Johnson Screens/Weatherford Availles France
Position:	Technical engineer
Main project features:	<p><u>Objectives:</u> Water Well department, Municipality water plant (sand filters), Sea and river intake system for desalination plant or water treatment plant</p> <p><u>Tasks assigned to the expert:</u></p> <ul style="list-style-type: none"> - Technological development (high collapse screens for deep wells, choice of relevant stainless steel for corrosion purposes, last generation riser pipes, sand control) - Audit of municipality water treatment plant (Budapest, Bucarest, Moscow, Hanover, London) design and revamping of sand filters. - Technical supervision of sand filters installation, test. - Creation in Morocco of a large pipe slotting unit to deliver 5000 tons of screen to IRAK for municipality water wells. - Water wells cleaning process (Video inspection, Chemical and physical treatment) to increases water well life time and reduce energy costs
Name of assignment:	Development of new production lines in France of American oil well devices
Date: from - to (month/year)	1982 – 1984
Location:	Domine France
Client / Funding:	Elf Aquitaine France
Position:	Development Expert
Main project features:	<p><u>Objectives:</u> -</p> <p><u>Tasks assigned to the expert:</u></p> <ul style="list-style-type: none"> - Research and development (Brown Oil tool, Davis lynch, Vetc, Vallourec etc) to produce in France oil well products (VAM Thread, cross over, liner hanger, cement float shoes) - Water well rig optimization (Dewatering for Indian mine) - Drilling pipe inspection and revamp
Name of assignment:	
Date: from - to (month/year)	1978 – 1982
Location:	Burkina, Egypt, France, Morocco, Mauritius, Niger, Tunisia
Client / Funding:	Filtres et Crepines Johnson France
Position:	Water Well Technical Manager
Main project features:	<u>Objectives:</u>

	<u>Tasks assigned to the expert:</u> - Design casing and screens for water well in France (Deep wells), Morocco, Senegal, Mauritania, Burkina, Niger, Egypt Tunisia. - Lecture about hydrogeology in Bordeaux University and Tunis University
Name of assignment:	Hydrogeologist for local water authority
Date: from - to (month/year)	1976 – 1978
Location:	Morocco
Client / Funding:	Moroccan Hydraulic Minister
Position:	Hydrogeologist Engineer
Main project features:	<u>Objectives:</u> - <u>Tasks assigned to the expert:</u> Hydro-geological studies, well design, drilling tender redaction on site drilling supervision, pumping test for National Water Authority