



# DOSSIER

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Proyectos Raymar 2005 S.L.



November 2013



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# COMPANY PROFILE

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PROYECTOS RAYMAR 2.005 S.L. is a consulting firm specialized in different areas of knowledge related to Civil Engineering, Mining, Environmental issues, Industrial Engineering, Safety and Risk Prevention, etc.

In PROYECTOS RAYMAR 2.005 S.L. we draft and manage projects with high quality and effectiveness standards in the most diverse areas.

In PROYECTOS RAYMAR 2.005 S.L. we draft expert opinions and we also advocate for them.

In PROYECTOS RAYMAR 2.005 S.L. we study and analyse projects that allow investment entities to externalize their industrial processes analysis services and the costs of the investments procedure, customizing these for each particular case.

In PROYECTOS RAYMAR 2.005 S.L. we have leading engineering experts in Project consulting, allowing us to analyse the investment projects and the technical solutions from an independent professional consulting setting with a customized service to the client.

The areas of basic and detailed conceptual engineering are studied and analysed by specialized technical engineers with proved experience in the following areas:

- Civil Engineering
- Mining
- Geology and geotechnics
- Energy and industry
- Environment and water.
- Control systems and automatisms
- Urban development.



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# MISSION – VISION - VALUES

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## MISSION

Our mission is to provide the right counsel for your needs, with the goal of increasing the safety of your investment. To do this we analyse the projects and solutions offered by the different undertakings and organizations to the financial entities aided by the high technical and human quality of our staff.

## VISION

We are committed with our clients' projects in a transparent and efficient way to become a trust-worthy, supporting partner. In our vision we want to become a landmark firm, who wants to walk along the path of technological evolution, publicizing the possibilities of Engineering and counselling in every field, carrying out this task in an ethical and satisfactory manner to ourselves and our clients.

## VALUES

Our key values are:

- Customer orientation
- Team-work
- Result oriented
- Social responsibility
- Integrity
- Leading by example
- Analysing the facts and bringing our opinion.
- Open and honest communication

In summary, we work towards our people, our environment and our society, but especially towards our clients.

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# SERVICES

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We have participated in highly complex projects with great efficiency, precision and quality for our clients, among which are counted landmark companies and local, regional and national public administrations.

With a clearly client-oriented focus, our offer of Engineering and Consultancy services includes:

- Civil Engineering projects
- Mining projects
- Geologic and geotechnic studies
- Site management
- Project management
- Technical assistance
- Project execution control
- Project and site monitoring
- Technical advice
- Environmental impact assessments
- Environmental impact studies
- Energy projects
- Industrial projects
- Building projects
- Projects for facilities
- Safety and health projects and studies
- Urban development projects
- Rehabilitation projects
- Expert opinions and reports



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## REFERENCES

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## 1.- PROJECTS, SITE MANAGEMENT, TECHNICAL ASSISTANCES AND REPORTS

### 1.1.- MURCIA

#### 1.1.1.- LORCA

- Drafting of the project and site management of the project for the stabilization of the massif of the Lorca castle. Zones 2 and 3. 2010. This area successfully endured the effects of the 11th May 2010 earthquake.



*Picture 1: Situation before the stabilization*



• *Picture 22: Situation after the stabilization*

- Drafting of the project and site management of the project for the stabilization of the massif of the Lorca castle. Zones 1 and 4. 2011.



*Picture 3: Situation after the installation of dynamic anti-landslide barriers*



*Picture 4: Situation after the installation of dynamic anti-landslide barriers*

- Drafting of the project and site management of the project for the stabilization of the massif of the Lorca castle. Zones 9 and 10. 2012



*Picture 5: Progress of the installation of the stabilization mesh*



*Picture 6: Progress of the installation of the stabilization mesh*

- Drafting of the project and site management of the project for the stabilization of the massif of the Lorca castle. Zone 9 extension. 2012



*Picture 7: Progress of the installation of the stabilization mesh*

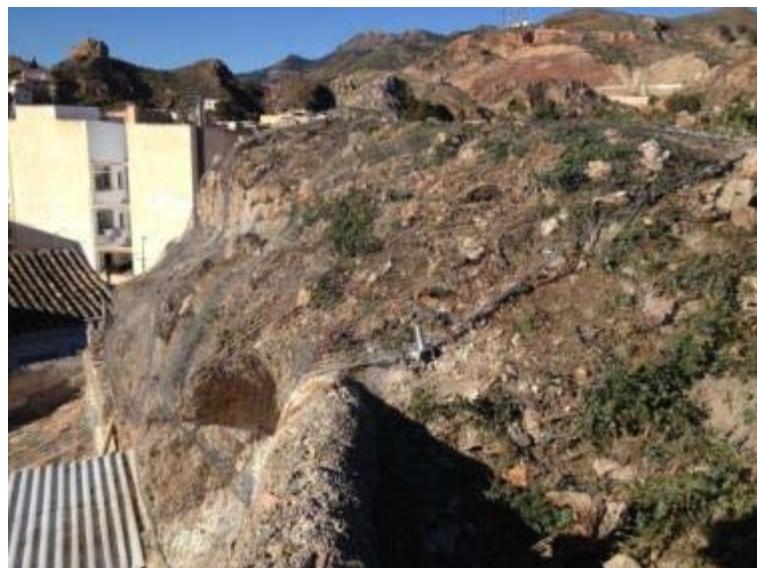


*Picture 8: Progress of the installation of the stabilization mesh*

- Drafting and site management of the project of the emergency works needed to stabilize the rocky massif of the hill situated in the vicinity of the Alcolea square, owned by the city council. 2012



*Picture 9: Situation before stabilization*



*Picture 10: Situation after stabilization*

- Drafting of the project and site management of the project for the anti-landslide operations in the San Lázaro wash. 2013



*Picture 6: Situation after the installation of dynamic anti-landslide barriers*



*Picture 7: Situation after the installation of dynamic anti-landslide barriers*

- Drafting of the project and site management of the project of the emergency works needed to stabilize the Murviedro rocky massif. Eastern area.

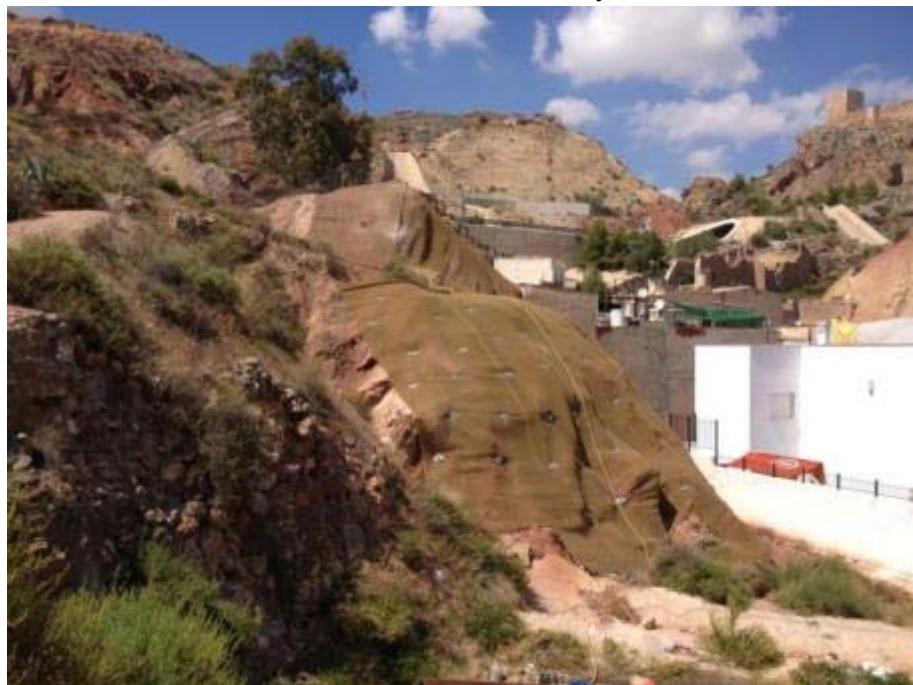


*Picture 8: Situation after stabilization*

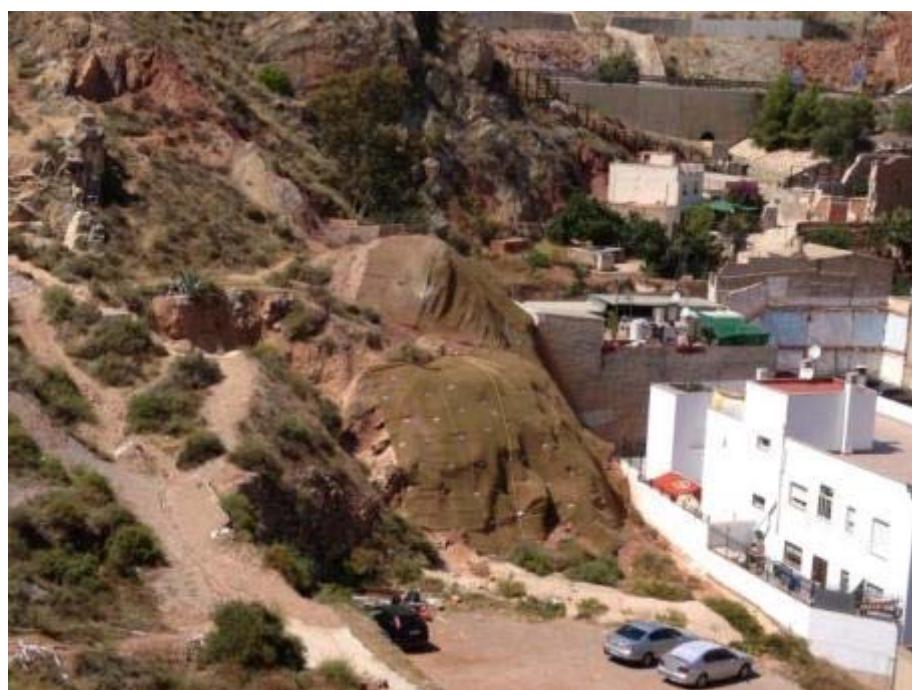


*Picture 9: Situation after stabilization*

- Drafting of the project and site management of the project of the emergency works needed to stabilize the Murviedro rocky massif. Northern area.



*Picture 15: Situation after stabilization*



*Picture 107: Situation after stabilization*



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- Drafting and site management of the project of the emergency works for the expansion of the works into the Murviedro Street. Lorca. 2013. Work in progress.

### 1.1.2.- ULEA

- Technical assistance in the project for the reinforcement of the slopes of mount number 136 of the CUP (urban planning agreement) called La Solana, Las Lomas, La Navela and La Serrata in the municipality of Ulea.



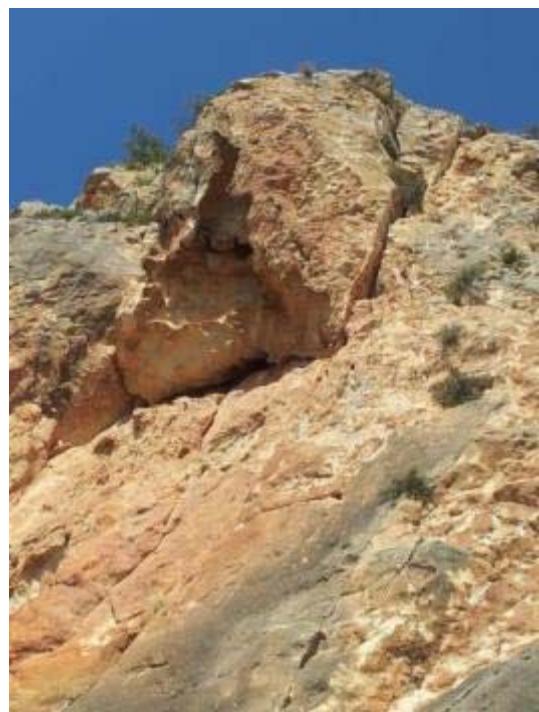
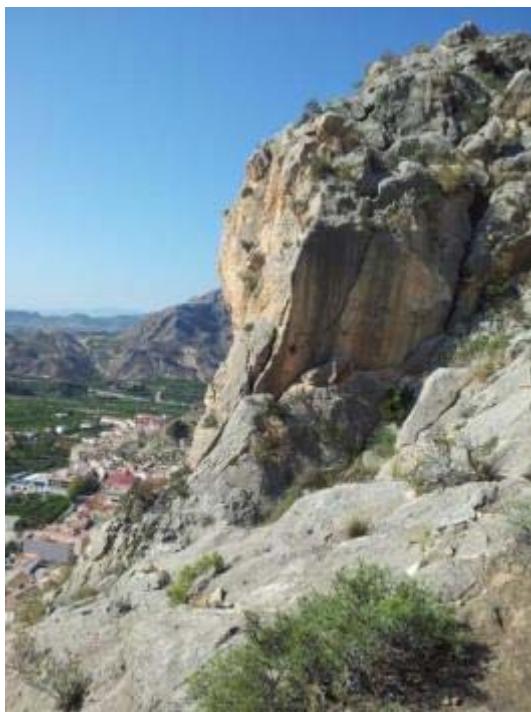
*Picture 11: Initial situation*



*Picture 12:Dynamic barriers*



*Picture 13:Dynamic barriers and detritus barriers*



*Picture 14:Initial situation*



*Picture 15:Execution*

### 1.1.3.- BLANCA

- Report of the situation of the project for the reinforcement of the slopes of mount number 41 of the CUP (urban planning agreement) called La Navela, El Solan, La Muela and Montoro. Municipality of Blanca – Murcia. Currently under study.



Picture 16: Current situation



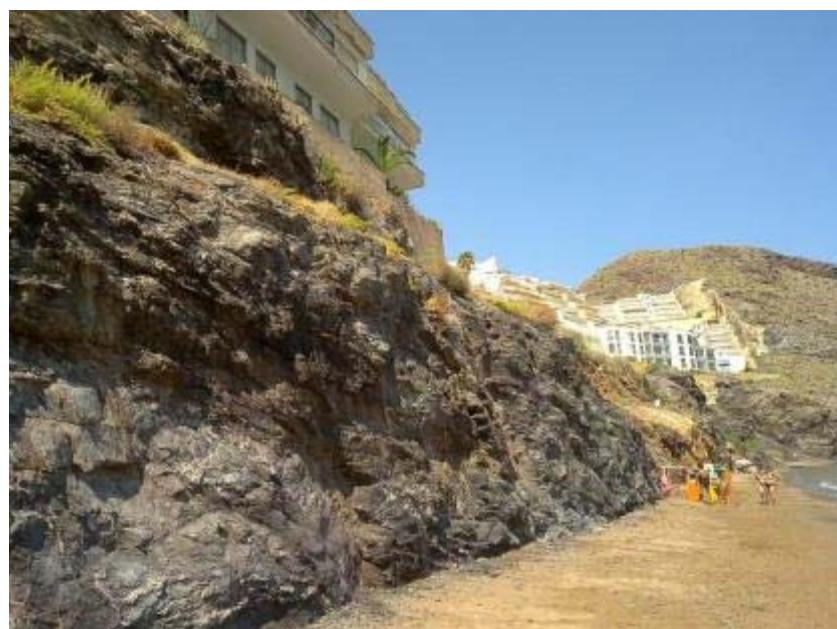
Picture 173: Current situation

#### 1.1.4.- AGUILAS

- Report of the situation regarding landslides and instabilities in Hornillo beach. Impact on nearby buildings. Águilas. Under study.



*Picture 18: Current situation*



*Picture 19: Current situation*

## 1.2.- CANARY ISLANDS

### 1.2.1.- GRAN CANARIA

- Preliminary report and risk assessment of road GC-200 in Gran Canaria PK: 19+400 to PK: 21+350.
- Draft of the project and technical assistance for the project towards the stabilization of the slopes and rock-fall protection in road GC-200 in Gran Canaria PK: 19+400 to PK: 21+350. Works undertaken between March and October 2012.

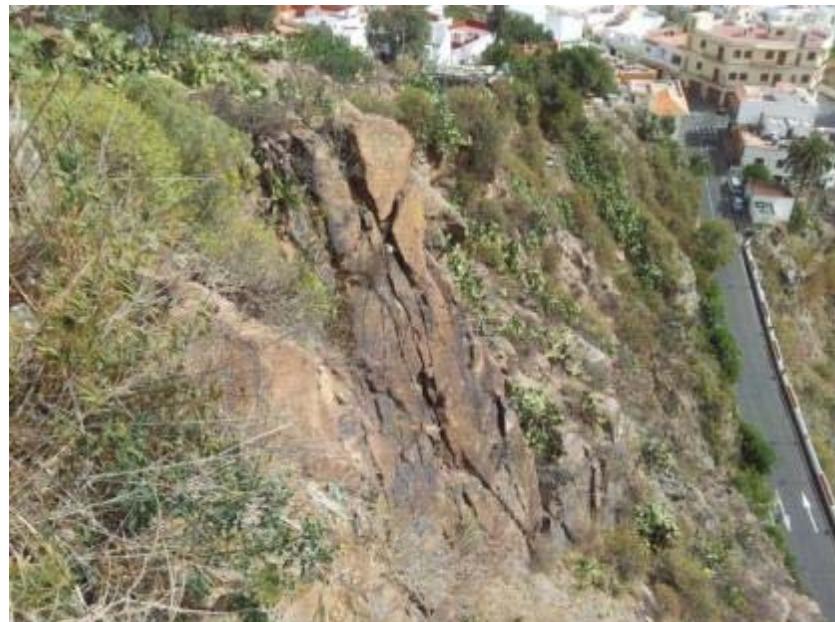


*Picture 20:Dynamic barriers in canopy implementation for a shadow effect*



*Picture 21:Implementation of the stabilization mesh*

- Drafting of the Project for the stabilization of a slope in San Bartolomé de Tirajana GC-60 PK 25+680. Gran Canaria.



*Picture 22: Initial situation*



*Picture 30:Initial situation*

- Drafting of the Project for rock-slide prevention in Agaete GC-172 PK 0+990. Gran Canaria.
- Drafting of the Project for the stabilization of a slope in Gran Canaria GC-2 PK: 2+750. Gran Canaria.

### 1.2.2.- TENERIFE

- Draft, with local engineering, of the project for the stabilization of the slopes next to highway TF-1 in Tenerife between PK: 12+900 and PK: 13+650.



*Picture 23:Initial situation*



*Picture 241: Initial situation*

- Drafting of the Project for the stabilization of a slope in Santa Lucía. 2013. Currently in the award of Works phase.

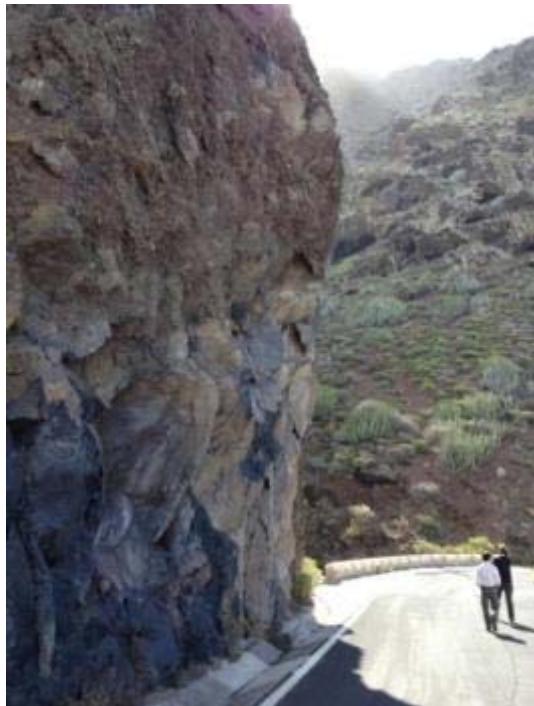


*Picture 25: Initial situation*



*Picture 263: Initial situation*

- Preliminary report for: Risk assessment and implementation of prevention and correction measures against rockslides in road TF-445 T.M. Buenavista del Norte.



### 1.2.3.- LA GOMERA

- Technical assistance for the internal quality control system in the slope stabilizing site in Vallehermoso- Garajonay (La Gomera). 2011



*Picture 27:Implementation of a stabilizing mesh*



*Picture 28:Implementation of a stabilizing mesh*

### 1.3.- ASTURIAS

- Project for the stabilization of a slope using a break-water wall in the Bicycle Museum in Riosa. Executed in the second quarter of 2011.



*Picture 29: Previous situation. Affected cement wall.*



*Picture 30: Previous situation. Affected cement wall.*

- Assessment of the environmental impact of the anti-slide flexible barriers in Puerto de San Isidro (Asturias)



*Picture 31:Situation of the installed anti-slide barriers*



*Picture 32:Installation of the anti-slide barriers*

## 1.4.- CATALONIA

- Assistance on the preliminary report for the assessment of the debris flow trigger factors in the Erill creek basin (Lleida). 2008



*Picture 33: Installed debris flow barrier*

- Use of DEBFLOW software to measure and determine the idoneity of flexible debris flow barriers in the Portainé gully. 2010



*Picture 34: Debris flow barrier in action*

- Determination of the optimal working tensions of the Tecco System for the stabilization of slopes for the emergency works in Camprodón. 2008



*Picture 35: Installed stabilization mesh*



*Picture 36: Installed stabilization mesh*

- Assessment of constructive alternatives for the protection against instability risks that reach the road to Nou de Berguedà (Barcelona). 2009
- Assistance and revision of the preliminary report for the protection against rock-slides off the hydroelectric plant in Sallente (Lleida). 2011
- Draft of the Project for the protection against rock-slides in the village of La Clua-Artesa de Segre (Lleida). 2011

## 1.5.- HUESCA

- Support role in the cartography of the rock-slide risk zones in the Añisclo canyon (Huesca). 2010



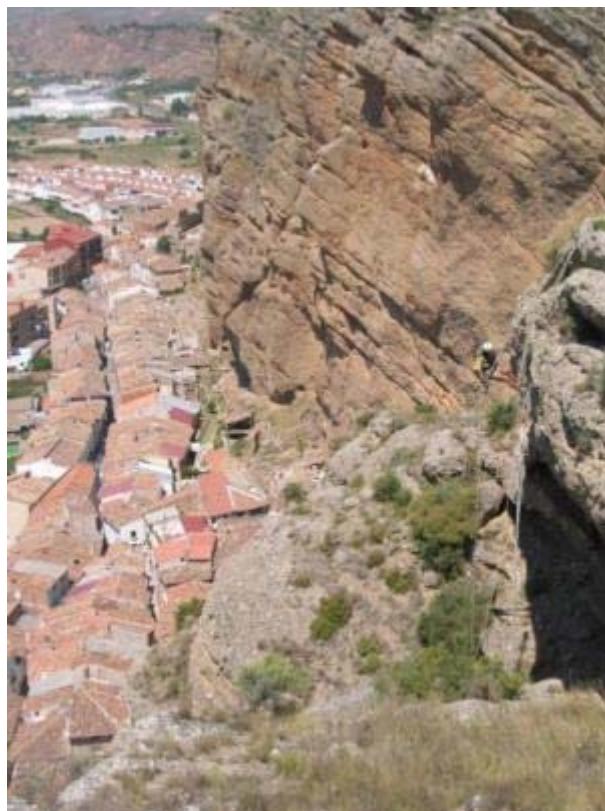
*Picture 37:Initial situation*

## 1.6.- LA RIOJA

- Selection of the rebound coefficients for the ROCKFALL software simulator in the municipality of Quel (La Rioja). 2009



*Picture 38:Initial situation*



*Picture 39:Initial situation*

## 1.7.- BALEARIC ISLANDS

- Expert support for the determination of the land-slide risk areas and their correlation with the heavy rain events in Serra de Tramuntana (Majorca-Balearic Islands). 2010

## 1.8.- ANDALUSIA

- Supporting calculations regarding the idoneity of the UX flexible solution to prevent mudslides from the AVE railway between Madrid and Málaga, in Montoro (Córdoba).



*Picture 40:Stabilizing mesh installed*

## 1.9.- MOROCCO

- Support in the drafting of the draft blueprint and technical assistance for the site managers (Bureau de Control) in the protection against rockslides and rockfalls in the Al-Kansera hydroelectric plant Central (Morocco)



Picture 41:General view



Picture 42:Tensile tests

## 2.- EXPERT OPINIONS

Since 2012 Proyectos Raymar 2005 S.L. works as Expert for "RTS Tasadores de Seguros" within their project "RTS Large and Complex Claims" in geology, mining and slopes.



**RTS LCC**  
LARGE AND COMPLEX CLAIMS

Para los siniestros más complejos,  
los profesionales con más experiencia práctica.

### Minería

La minería, como bien es sabido, es la actividad económica primaria para la extracción de minerales presentes en la corteza terrestre.

Dado el alto conocimiento geológico y de movimiento de tierras necesario para la explotación de una mina, bien sea de vaso a cielo abierto o subterránea, nuestros expertos cuentan con aptitudes y competencias para afrontar los problemas más complejos relacionados con la peritación de siniestros en minería o geología en general.



**Tomás Ramos y Alberto Sanz son nuestros expertos para Geología, Minería y Taludes dentro de RTS LCC, Large and Complex Claims.**

#### España/UE

Tomás Ramos y Alberto Sanz son expertos en diferentes áreas de la Ingeniería Civil, Geotécnica, Geológica, Minera, Energética, Edificación y Urbanismo. Han participado en proyectos de gran complejidad a nivel nacional e internacional tanto en su redacción, ejecución, dirección de obra y asistencia técnica, lo que les permite abarcar el espectro completo, ofreciendo un resultado eficaz y preciso.

Han trabajado para empresas y organismos de gran envergadura como el Ministerio de Fomento, Confederación Hidrográfica del Norte, Consejería de Medio Ambiente, Ordenación del Territorio e Infraestructuras del Principado de Asturias, Consejería de Infraestructuras y Aguas del Cabildo de Gran Canaria, Ayuntamientos de Oviedo, Gijón, Lorca, .... FCC, Ferrovial, Dragados y Construcciones, Endesa, Iberdrola e Hidroeléctrica del Cantábrico entre muchas otras.

## RTS

**Excelencia**  
en la peritación  
y gestión integral  
de siniestros

#### Grupo RTS

Fundado en 1987, es un grupo empresarial español con implantación internacional, cuya actividad ha sido desde su creación, la peritación o ajuste de daños en riesgos industriales y riesgos técnicos de todo índole. El Grupo RTS es independiente y desarrolla su actividad con recursos propios.

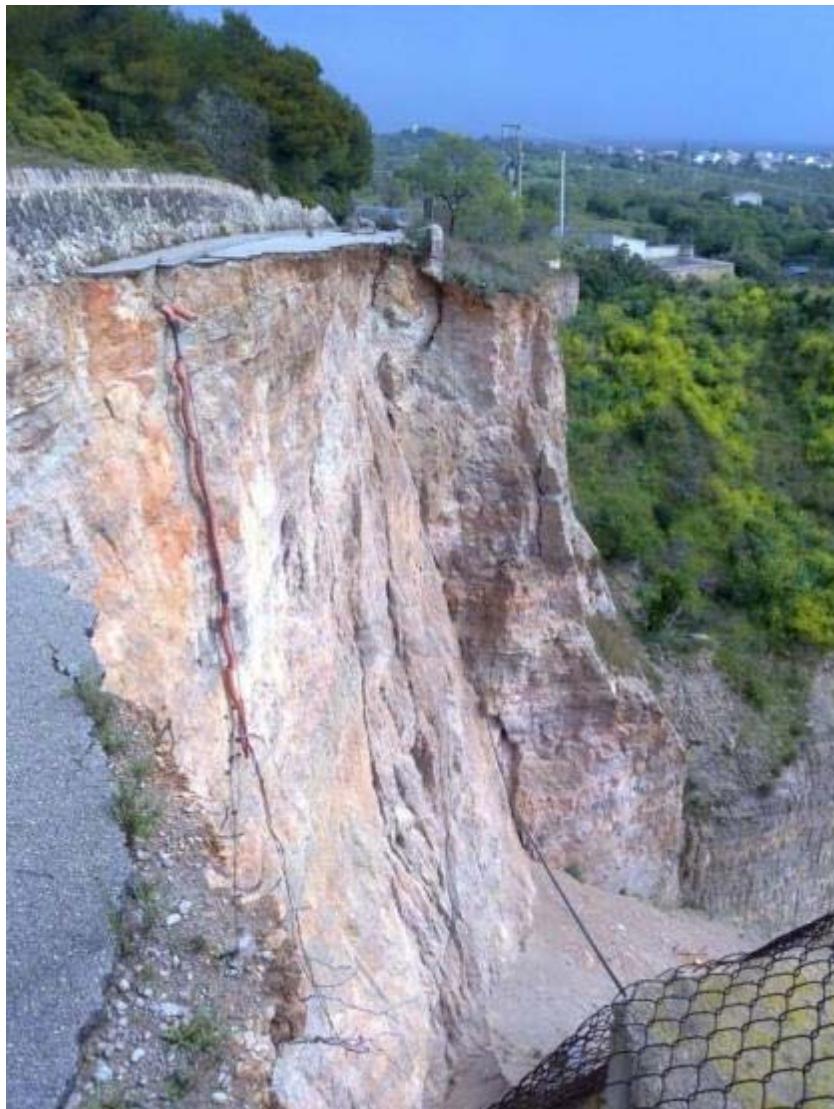
Perita sus siniestros con oficinas propias en España, Portugal, Reino Unido, Estados Unidos, México, Brasil, Colombia, Argentina, Chile, Guatemala, Panamá, Honduras, El Salvador, Costa Rica, Nicaragua, República Dominicana y El Caribe, Venezuela, Perú, Ecuador, Bolivia, Uruguay y Paraguay.

Trabaja en los 5 continentes en los que está presente a través de la red mundial establecida en 141 países con más de 474 oficinas.

Las empresas destacadas que integran el Grupo RTS, entre otras, son:

- RTS, Riesgos, Tasaciones y Servicios: centra su actividad en los riesgos industriales, comerciales y especializados.
- RTS Internacional: participó el año pasado por RTS y encargada del desarrollo internacional de la compañía.
- RTSIS: Servicio Integral de Asistencia a las Compañías Aseguradoras; atienda Sistemas de Faseunda y Plataformas de Transmisión de Siniestros -PTS-

- Expert opinion of the subsidence of slopes and its impact on roads in the Sa Creu quarry. Palma de Mallorca. Santanyí municipality.



*Picture 43:Initial situation at the time of the expert opinion*

- Expert opinion regarding several slope slides in road C-25. Catalonia.



*Picture 44:Initial situation at the time of the expert opinion*



*Picture 45:Initial situation at the time of the expert opinion*

- Expert opinion regarding the stability of slopes in the AP-21 road. Navarra



*Picture 46:Initial situation at the time of the expert opinion*



*Picture 47:Initial situation at the time of the expert opinion*

- Expert opinion regarding the stability of slopes in Monforte de Lemos. Lugo



*Picture 48: Slope slides*

- Expert opinion regarding the stability of the slope in the railway AVE Madrid-Asturias in Campomanes



*Picture 49: Initial situation at the time of the expert opinion*



*Picture 50:Initial situation at the time of the expert opinion*

- Report regarding the complications found in the supporting break-water wall in the compound of the Alimerka logistic centre (Lugo de Llanera, Asturias) for Excavaciones Posada, S.A. February 2010.
- Evaluation report of the collapse of a dike in Astilleros Gondán, Figueras.
- Report regarding the rippling in the agglomerate of road C-25, Catalonia



*Picture 51:Initial situation at the time of the expert opinion*



*Picture 52:Initial situation at the time of the expert opinion*

- Report regarding the bridge situated in PK 7+374 of the Caransebes bypass. Timișoara. Romania.



*Picture 53:Initial situation at the time of the expert opinion*



- Picture 54: Initial situation at the time of the expert opinion

### 3.- OTHER PROJECTS, SITE MANAGEMENT AND TECHNICAL ASSISTANCES

- Project development for a mine in the State of Coahuila (Mexico). Work undertaken for the COAHUILA STATE GOVERNMENT.
- Drafting of the technical project for the entry tunnel to the Lorca Parador. Consejería de Turismo y Ordenación del Territorio de la Comunidad Autónoma de Murcia and Turespaña.
- Drafting of the technical project for the entry tunnel to the Ibiza Parador. Turespaña.
- Project for the reinforcement of the walls of the Castle of Águilas, Murcia.
- Project for the recovery of a water collection tunnel in the Castadón dam –Lonia River, for the city of Orense.
- Project of the Bueño tunnel – Fuso de la Reina (Oviedo) for the Nalón River interceptor sewer. 1200 meters long tunnel, with a section of 25 m<sup>2</sup>. Project commissioned by Confederación Hidrográfica del Norte.
- Projects for the construction of several break-water walls (Fontanielles...)
- Project for the construction of an entry tunnel to the main water conduit for the turbine of the Doiras Plant (Navia).
- Project for the modification of the electrical installation in Depósito Comercial de Explosivos (Commercial explosives stockpile) in Cangas del Narcea. February 1998.
- Project for the modification of the alarms transmission in Depósito Comercial de Explosivos (Commercial Explosives Stockpile) Cangas del Narcea. June 2000. Site management.
- Project for a jet mining operation in the “Parea Los Molinos” quarry, Villaviciosa (Asturias), for the “Asociación para el desarrollo de la tradición azabachera, AZEBACHE” (association towards the development of the jet tradition AZEBACHE) and project managing. July 2003-april 2004.
- Project for the developing of an estate using landfills in Amandi. Villaviciosa” for Luis González Gavela. July 2005.
- Project drafting and Project managing for the blasting used to sanitize the Piloña River. Sector: Ceceda-Infiesto” for the joint venture CECEDA (OHL and EXMA, S.A.). July 2005- May 2007.
- Project for the blasting used to build an entry gallery for the rehabilitation of the Doiras hydroelectric plant, Boal (Asturias) and project management for the construction of the gallery for ENELPOWER and IMPRESA LUIGI NOTARI SPA ESPAÑA. March 2007.
- Project for the draining of the extension of the breakwater in the Gondán shipyard (Astilleros Gondán). Figueras (Asturias) for NEMESIO BEDIA CONSTRUCCIONES, S.L. March 2008. Site management. April-December 2008.

- Project of the operation, restoration planning and environmental impact study. Cante O marco. Montecalvo. Monterroso (Lugo). Commissioned by Cuarcitas de Montecalvo, S.L. September 2009.

## 4.- MINING, GEOLOGY AND GEOTECHNICS

- Studies for the planning of the mining and geological investigation of ornamental stone of Caliza de Moniello. Private mining companies.
- Geological, geotechnic and subsidence report for the layout of the OVIEDO – GIJÓN road (Veranes sector). PRINCIPALITY OF ASTURIAS.
- Geological, geotechnic, hydrogeological and soil pollution studies for the use of landfills in coal mines (San Mames, Olloniego, San Alejandro) as industrial clusters. HUNOSA.
- Geotechnic study of slope materials and technical solutions for the recovery of underpass Pk 78+280 in the Huerna highway. AUCALSA.
- Geological, mining and hydrogeological study of the viability of using closed mines as safe industrial waste storages. GRUPO MASAVEU.
- Geological and geotechnic study for the location of telecommunication antennas in Alcobendas (Madrid). MASBE ENERGIA S.A.
- Geological and geotechnic studies for the construction of detached houses and buildings. Undertaken in several locations of the Principality of Asturias. Commissioned by different developers and architects. To this date more than 60 geotechnic studies have been undertaken.
- Geological and geotechnic studies for several industrial buildings. Commissioned by several developers and public institutions in the following industrial clusters; Musel (Gijón), Logranzana (Tabaza) and Valnalón (La Felguera).
- Geological and geotechnic study prior to the project for the construction of an entry tunnel to the interior of the Lorca Castle walls. Consejería de Turismo y Ordenación del Territorio de la Comunidad Autónoma de Murcia (Tourism department of the Government of Murcia) and Turespaña.
- Geological and geotechnic studies for the laying out of the foundations of the buildings in the Lorca Parador. Consejería de Turismo y Ordenación del Territorio de la Comunidad Autónoma de Murcia (Tourism department of the Government of Murcia) and Turespaña.
- Geological and geotechnic study prior to the project for the construction of an entry tunnel to the interior of the Ibiza Citadel walls. Commissioned by Turespaña.
- Geological and geotechnic study for the recovery of a karstic cavity in conglomerates under a pile in the Grandarrasa viaduct (Mieres-Gijón highway). Commissioned by FCC and the Principality of Asturias.
- Geotechnic study prior to the general repair of the headframe and its unique building in the S. José mine in Túroñ (Asturias)
- Geological and geotechnic study for the extension of the Barredo university campus (Mieres – Asturias) with the integration of the original Barredo mine facilities.



- Geotechnic study for the installation of two cranes in the Gondán shipyard (Astilleros Gondán) in Figueras.
- Geotechnic study for the construction of an entry underpass for the Cabueñes Hospital (Gijón).

## 5.- RENEWABLE ENERGY SOURCES

We have collaborated in the application procedures, design and/or monitoring of civil work in different wind farms with total figures close to 1.100 wind turbines of several types, 225 km of pipes for the canalization of energy, as well as 29 substations.

- WIND FARM Sierra de Pico Gallo (Tineo)
  - 1st Wind farm in Asturias
  - 37 AE-46/I, 600 kW 45 m MADE
  - S.E.T Outdoors facilities.
  - Extension of the S.E.T outdoor facilities.
  - Features:
    - Tracing of the piping towards the northern area.
    - Drainage solution for the peat passing.
    - S.E.T environmental solution integration.





- WIND FARM Sierra de Los Lagos (Pola de Allande)
  - 4th Wind farm in Asturias
  - 50 G-47, 660 kW 45 m GAMESA
  - 1st Reinforced S.E.T. (G.I.S.)
  - Wind farm with the greatest amount of windmills, higher altitude (1.400 m) and one single entrance, with the issues this causes.
  - Features:
    - Solved the access road issues using a landfill.
    - Saved 1.300 m of electric wiring (triple circuit)
    - Environmental solution for batrachians
    - Several solutions for S.E.T.
      - Expansion planned by REE (Spanish Electric Network)
      - Travelling crane





- WIND FARM Sierra de Bodenaya (Salas)
  - 5th Wind farm in Asturias
  - 12 GE 1,5 MW 80 m General Electric
  - Control building
  - Access road
  - At the time of its inauguration it was the wind farm with the highest windmills
  - Features
    - Solution to the Access road to the windmills
    - Several solutions for the Farm road network
    - A very high level of environmental restoration was achieved
    - Enlarged the Access road to be used by the local residents







- WIND FARM Sierra de la Cuesta (Grandas de Salime)
- WIND FARM Sierra del Acebo (Grandas de Salime)
- WIND FARM Sierra de La Bovia y San Isidro (Villanueva de Oscos)
- WIND FARM Sierra de Carondio y Muriellos (Pola de Allande)
- WIND FARM Sierra de Tineo (Tineo)
- WIND FARM Sierra de Begega (Belmonte de Miranda)
- WIND FARM Sierra de Curiscao (Salas y Valdes)
- WIND FARM Sierra de Baos y Pumar (Salas, Valdes y Cudillero)
- WIND FARM Sierra de Peña Ventosa y Chan do Tenon (Viveiro y O Vicedo)
- WIND FARM Sierra de Penouta (Boal)
- WIND FARM Sierra Cortada (Soria)
- WIND FARM El Gramal, el Portachuelo y La Jumilla (Albacete)
- WIND FARM Fresno de Veleta (Burgos)
- WIND FARM Llanos de San Martín (Burgos)
- WIND FARM La Brújula (Burgos)
- WIND FARM Carrecastro (Valladolid)
- WIND FARM Perdigueras (Valladolid)
- WIND FARM Paramicos (Valladolid)
- WIND FARM El Carpio (Salamanca)
- WIND FARM Matabuey (Salamanca)
- WIND FARM Concejiles (Salamanca)
- WIND FARM Monasterio de Rodilla (Burgos)
- WIND FARM El Pedrón (Leon)
- WIND FARM El Becerril (Leon)
- WIND FARM La Mallada (Leon)

In addition, and being a remarkable achievement, we have undertaken the economic assessment and project development of the dismantling of a 44 windmills Wind Farm, with their respective piping, wiring, processing plants and transmission lines.



## 6.- REPORTS, STUDIES AND ADVICES

### 6.1.- MISCELLANEOUS CLIENTS

- Advised O.H.L. in the drafting of the application for the award of the Pajares tunnels. The advice consisted of the technical and economic execution of the Viadangos vertical shafts and final cavern.
- Study of the economic and technical viability for the upcoming coal mine of Mina Lourdes (Puertollano).
- Progress report of galleries B and C. Well system Ter-Llobregat. Fontsanta-Trinitat section. Barcelona, for EOSA 2002, S.A. June 2008. Joint venture with Tunel Trinitat
- Drafting of several safety reports for explosives stockpiles (M. Pouso...)
- Technical assistances in the application process for several municipal business activity licences for industrial buildings (Contratas Zureda...)
- Appraisal of the "Sardonal" limestone quarry (León).
- Appraisal of the "Valdegato" sand quarry (León).
- Study for the Consorcio de Seguros (Mutual Insurance Fund) of the impact of the flood in the Aboño coalfield on the stored coal.
- Evaluation of the reserves of fly ashes for their use in the manufacturing of cement in the landfills of the Guardo (Palencia), Lada (Asturias), Puentenuevo (Córdoba) and Anllares (León) thermal power plants.

### 6.2.- PRINCIPALITY OF ASTURIAS. INFRAESTRUCTURE DEPARTMENT.

- Partial upgrading of roads AS-328, Avilés-Faro Peñas, CE-3, Perán-Prendes, CV-2, Villalegre-Juncedo and GO-8, Alvaré road.
- Partial upgrading of roads AS-243, San Esteban de las Cruces-Tudela Veguín, P.K.-0,950, P.K.4,500, RI-2, La Vega-Grandiella, P.K. 0,980, P.K. 1,100, P.K. 2,050, LE-7, Sotiello-Zureda, P.K. 0,300, etc.
- Works in the road AS-14 PK:46+700 Grandas de Salime-Puente del Infierno. 1st phase: October 2000-November 2000.
- Repair of several collapsed roads; AS-15, Cornellana-Puerto Cerredo, AS-211, Ventanueva-S. Antolín de Ibias, AS-212, Cecos-Degaña, AS-217, Tineo-Pola de Allande, ALL-1, Pola de Allande-Prada, CN-4 Las Mestas-Genestorso and CN-9, Rengos-Monasterio de Hermo.
- Repair of the bridge abutment over the Narcea River in road AS-15 Cornellana-Puerto de Cerredo.
- Repair of several collapsed roads; AS-224, Pravia-Somado and GO-5, Cabezonera-El Pielgo.
- Several curve upgrades in road SI-4, Pruvia-Noreña.
- Repair of the collapsed road AS-15, Cornellana-Puerto Cerredo, PK-29+700.

- Repair of the collapsed road AS-219, Luarca-Pola de Allande.
- West Area Collector, Gijón, joint venture with O.H.L. Project for the general upgrade of road AS-230, Bárzana de Quirós-Pola de Lena.
- Project and site management for the Museo de la Minería (Mining Museum) in Puertollano-Ciudad Real.

### **6.3.- PRINCIPADO DE ASTURIAS. PRESIDENCY DEPARTEMENT:**

- Fitting of the external parts of the Sograndio cemetery (Proaza).
- Sanitation services in San Martín, Proaza.
- Water supply fitting in La Puerta, La Parte, Arriondo and El Pando (Cabranes).
- Road fitting in Agues (Sobrescobio).

### **6.4.- CONFEDERACIÓN HIDROGRÁFICA DEL NORTE**

- Upgrades in the Umandi River banks.
- Hydraulic engineering of the Nonaya River, Cornellana.
- Restoration and sanitary recovery of the drained basin for the Pontón de Vaqueros water collector. (Oviedo).
- Restoration of the Cadavio River riverbed and sanitary recovery of the Candín River, Mosquitera.

### **6.5.- PRINCIPADO DE ASTURIAS. COGERSA.**

- Leachate collector from the Asturias central landfill to the industrial parts collector and water supply to the leachate plant.

### **6.6.- SIERO CITY COUNCIL**

- Partial sanitation of the southwest area of Carbayu (Lugones).
- Drainage of an estate in Granda.

### **6.7.- MIERES CITY COUNCIL**

- La Cabana and Repipe collector sewer system in Turón.
- La Peña and Rozadas collector sewer system in Mieres.
- Construction of a skating and RC models rink with a hiking area in Vega de Arriba, Mieres.
- Collector sewer system from Paxío to the Barrio de Gonzalín industrial cluster.
- Collector sewer system from Rozadas de Bazuelo to the Vega de Arriba industrial cluster.
- Collector sewer system for Copián, El Rollo and La Caleya urban centers.
- Collector sewer system for La Cabana, La Pila and El Cullumingo urban centres.
- Project for a drinking water supply system in La Raiz.

- Upgrade and extension of the drinking water supply system in Ubriendes, Villara and Sierru, Ujo.
- Collector sewer system for Misiego, La Mata, La Papera, La Fuente, El Tropezón and El Trechuru urban centres.

#### **6.8.- SALAS CITY COUNCIL**

- Urban development in Ponteo, Salas.
- Integrated rehabilitation area, building of a road in La Pola and Plaza de los Huevos.
  - Water and sanitation works in several houses in Ponteo, Salas.

#### **6.9.- TEVERGA CITY COUNCIL AND TRUBIA COMMONWEALTH**

- 1st phase of the construction of the livestock market
- Recovery of the recreational area in the Cébrano sanctuary



## 7.- URBAN DEVELOPMENTS

- Development of the Comillera Industrial Cluster (Sobrescobio – Asturias)
- Advised Pasek España in the development the Balocos – Moeche Industrial Cluster. This industrial cluster has a floor surface of 150.000 m<sup>2</sup>.



# CLIENTS

Some of our clients are:

Public entities

- Ministerio de Fomento.
- Paradores Nacionales
- Cabildo Insular de Gran Canaria
- Cabildo Insular de Tenerife
- Consejería de Medio Ambiente, Ordenación del Territorio e Infraestructuras de Asturias
- Consejería de Agricultura y Aguas de la Comunidad Autónoma de la Región de Murcia
- Confederación Hidrográfica del Cantábrico/Norte
- Confederación Hidrográfica del Segura
- Xunta de Galicia
- Ayuntamiento de Salas
- Ayuntamiento de Pola de Allande
- Ayuntamiento de Mieres
- Ayuntamiento de San Martín del Rey Aurelio
- Ayuntamiento de Lorca (Murcia)
- Ayuntamiento de Santanyí (Palma de Mallorca)
- Dirección General de Carreteras del Cabildo de Canarias

Private parties

- FCC
- Ferrovial
- Sacyr
- Acciona
- Dragados y Construcciones
- Constructora Hispanica
- Gas Asturias
- Hunosa
- Sadim
- Endesa
- Iberdrola
- Iberinco
- Hidroeléctrica del Cantábrico



- Sinae Energía y Medio Ambiente
- Procinsa – Pointec
- Ascia
- RTS Tasadores de seguros
- Pasek España
- Dupont
- TSK
- Isastur
- Isolux-Corsan
- Abener - Abengoa
- MADE
- Cantera la Ferrería.
- Caleras de San Cucao, S. A.
- CATISA.
- Cantera El Reguerón, S.L.
- EOSA 2002,
- ENELPOWER.
- IMPRESA LUIGI NOTARI SPA ESPAÑA
- HC Energía
- Perforaciones Noroeste, S. A.
- PROACON (Grupo Aldesa).
- Excavaciones Posada, S. A.
- NISCAYAH Systems, S.A.
- EUROHINCA, S.A.
- NEMESIO BEDIA CONSTRUCCIONES, S.L
- TENSA, S.A.
- INPROOBRAS, S.L
- Contratas Zureda, S.A.
- FELGUERA Montajes y mantenimiento, S.A.
- Alvargonzález Contratas, S.A.
- OCA Proyectos y Construcciones, S.A.