

## 3D SEISMIC BIDDING INVITATION

**AMROMCO ENERGY S.R.L.** having its registered office in Ploiesti, 152K Republicii Blvd. floors 3, 4 and the attic, postal code 100072, Prahova County, Romania, will invite you to participate to bidding for **“3D SEISMIC SURVEY on Bibesti- Sardanesti production concession, Gorj County, Romania”**.

### The Scope of Acquisition

Amromco Energy, SRL is interested in filling in and expanding the existing 3D seismic coverage acquired by the company in 2014 to cover a significant portion of the Bibesti-Sardanesti production concession. The survey will have a surface acquisition footprint of approximately 60 square kilometers. The geological objectives of this survey include as the primary imaging targets Meotian reservoirs ranging in depth from 1000 to 1300 meters. A secondary objective will be deeper Sarmatian reservoirs, with depths ranging up to 2200 meters.

Geographic location of Bibesti-Sardanesti 3D extension survey in Romania is indicated on the map below:



### The eligibility conditions which the bidders should meet

For this is necessary to know which are the specific certifications, authorization, agreements of the companies which will be invited to the bid; special qualifications of personnel if needed, specific equipment necessary for execution this work.

### **General requirements**

- Supplier has not been convicted by final court decision for organized crime, money laundering, corruption and fraud. Supplier has not entered into bankruptcy pursuant to the decision delivered by a syndic judge, it is not in an insolvency procedure under special administration and fulfill all contract obligations. It will be submitted an affidavit signed by the legal representative.
- The Registration Certificate by the Trade Registry Office.
- Suppliers shall make the proof of their professional and technical capability, to execute the contract as result of the present acquisition, by:
  - submission of minimum 3 recommendations issued by contract beneficiaries for similar contracts;
  - list of similar contracts carried out during the last 5 years including those in progress;
  - list of the specific installations and equipment at its disposal and necessary for the execution of the work;
  - the specific authorization of the personnel for demonstrated that they are capable to perform this job;
- Supplier shall present copies of company's certificates ISO 9001, ISO 14001, OHSAS 18001.

### **Specific requirements**

The eligible seismic contractor must have the following capabilities to carry out this survey in Bibesti-Sardanesti Field, Romania:

- Contractor should have all necessary permits/approvals of explosives importing, storing, transporting, handling and special qualifications and authorized personnel;
- Contractor shall obtain for the account of Company all necessary Permits and Authorizations to performed the work within the Area of Operations, including equipment & personnel access on land and to performed damages contracts with the landowners and mayoralities
- State of the art seismic recording system: equipment capability to have 2720 channels live for active recording, with a sufficient number of channels of equipment available for layout swing to next swath.
- Match the orientation of the existing survey source and receiver lines, so the survey is a matched extension of the existing survey, performed during 2014.
- Metallic and non-metallic well flowline and pipeline detection capability.
- Capability for the acquisition of a mixed source survey. Mixed seismic sources will include VibroSeis, and explosives, including meeting Romanian regulations for safe storage of explosives.
- Use of a GPS based surveying system, along with familiarity with Romania land surveying projections is required. This requirement includes a working understanding of the Stereo '70 XY local mapping projection using the Romanian S-42 reference datum with a Krassovsky 1940 reference ellipsoid, and also the current ETRS89 GNSS datum and GRS80 ellipsoid.
- The Contractor will perform the Work in accordance with the health and safety requirements required by applicable law of the Government and those contained in the Contractor's Safety Manual, a copy of which has been delivered to Company, and the IAGC Land Geophysical Safety Manual (10th edition - 2012), as may be amended from time to time.
- The Contractor is solely responsible for the safety of the operations performed during the Works. The Contractor will have the responsibilities for the investigation and registration of any work incident/accident resulted while performing the Work.
- The Work shall be in compliance with the requirements of AMROMCO ENERGY S.R.L. policies.
- The Contractor will make the diligences to obtain on Company's behalf the necessary Environmental permits, and will perform the Work in Accordance with the conditions stipulated in the permits. The Contractor is responsible for any environmental liabilities resulted from the Work performed.

**Technical data, technical project, maps on which all bidders can prepare the offer are needed**

**Acquisition Parameters Summary**

The following are the acquisition parameters from the original 2014 3D survey, and should be matched and used for this extension survey:

Recording Parameters

Recording Instrument: Sercel 428 XL  
Sample Rate: 2 milliseconds  
Recording length 6 seconds  
Active channels: 2720 (full survey)  
Receiver Line interval: 250 meters  
Receiver Station interval: 25 meters  
Source Line interval: 250 meters  
Source Point interval: 50 meters  
Geophones: 12 10 Hz geophones/group  
Geophone array: in line  
Geophone spacing: 2.08 m  
Coverage nominal fold: 24  
Offsets: minimum: 28 meters maximum: 5630 meters  
Shooting method: Full Survey

Source Parameters

Source points should be acquired from the first source point on the source line to the last source point on the source line, thus providing source coverage to the edges of the survey. The preferred source is Vibroseis, and, as in the past, explosives being used in areas where the vibrators are unable to traverse.

Explosives

Single hole: 10 meter depth, 2.0 kilograms per pattern  
Two hole pattern hole: 5 meter depth, 1.0 kg./hole; total 2.0 kilograms per pattern  
Five hole pattern: 3 meter depth, 0.5 kg./hole; total 1.5 kilograms per pattern

Vibroseis

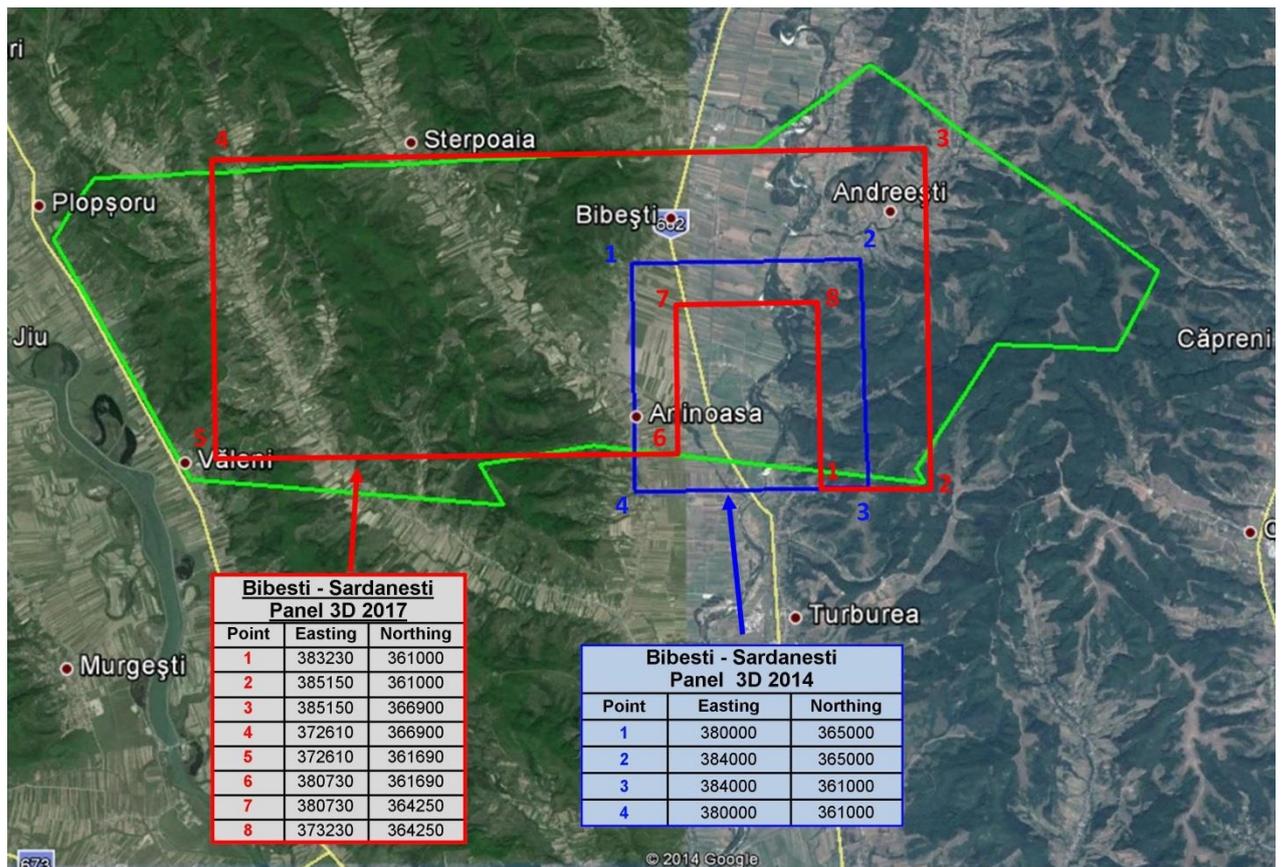
One to two Vibrators  
Number of sweeps per Vibrator: 2, 4, or 8 sweeps  
Sweep length: 12 seconds  
Sweep frequencies: 8-90 Hz  
Listening time: 6 seconds  
Total time: 18 seconds

Survey Coordinates

The Stereo '70 XY coordinates for the surface footprint of the survey are:

<u>Bibesti 3D Expansion (Stereo '70)</u>	<u>Easting</u>	<u>Northing</u>
Corner Point 1	383230	361000
Corner Point 2	385150	361000
Corner Point 3	385150	366900
Corner Point 4	372610	366900
Corner Point 5	372610	361690
Corner Point 6	380730	361690
Corner Point 7	380730	364250
Corner Point 8	383230	364250

The following map indicates the shape of the extension survey, and its' location relative to the original 3D survey:



**All the costs which the bidders should include in their offer**

Offers for acquisition will need to include as separate cost estimates:

- Mobilization charges
- Estimated cost of permitting fees, including payments to landowners
- Costs of consumables, such as explosives
- Recording costs, including all crew equipment, vehicles, and personnel costs
- Clean up of survey area after crew is finished with an area
- Demobilization charges

**The period during which the works will be carried out**

- Preferably during August, but no later than the end of September, 2017

**Which are criteria for offers evaluation ( price, deadline, etc.)**

- Ability to meet bid deadline
- Timing of acquisition
- Value for the capital investment in the project

**Deadline for submission of the offers**

- July 7, 2017

### **Drafting the offer**

The technical offer includes:

- the presentation of the proposed method for carrying out the work
- the term of execution of the work
- time schedule for works execution and the planning of the obtaining of all the permits
- The financial offer shall be issued on the technical data above and includes:
- The total cost and the detail costs for to fulfill the contract
- The total cost includes the costs of panel execution and all the costs for obtaining the authorizations and permits
- The detail costs includes the mobilisation- demobilisation, daily rate and stand-by rate for seismic crew, turkney rate seismic crew, consumable, etc.
- The financial offer must be valid for 90 days from the date of submission.

### **Bids documents submission**

The offer (consist in eligibility documents, technical and commercial offer) signed on each page by the legal representative of the bidder will be introduced in the sealed envelope and will be sent to the address: AMROMCO ENERGY SRL , office in Ploiesti, 152K Republicii Blvd. floors 3, 4 and the attic, postal code 100072, Prahova County, Romania - attention Ms Cristina Johnson.

**The deadline for receiving the offers in the Amromco Energy office is date: July 7<sup>th</sup>, 2017.**

Any bids received after the above deadline will be considered irregular bids and thrown out.