

**ITALIAN DELEGATION UPDATE ON JIEH POWER PLANT**  
**ANTIPOLLUTION OPERATIONS**  
**BEIRUT NOVEMBER 15 2006**

**OPERATIONS PHASES**

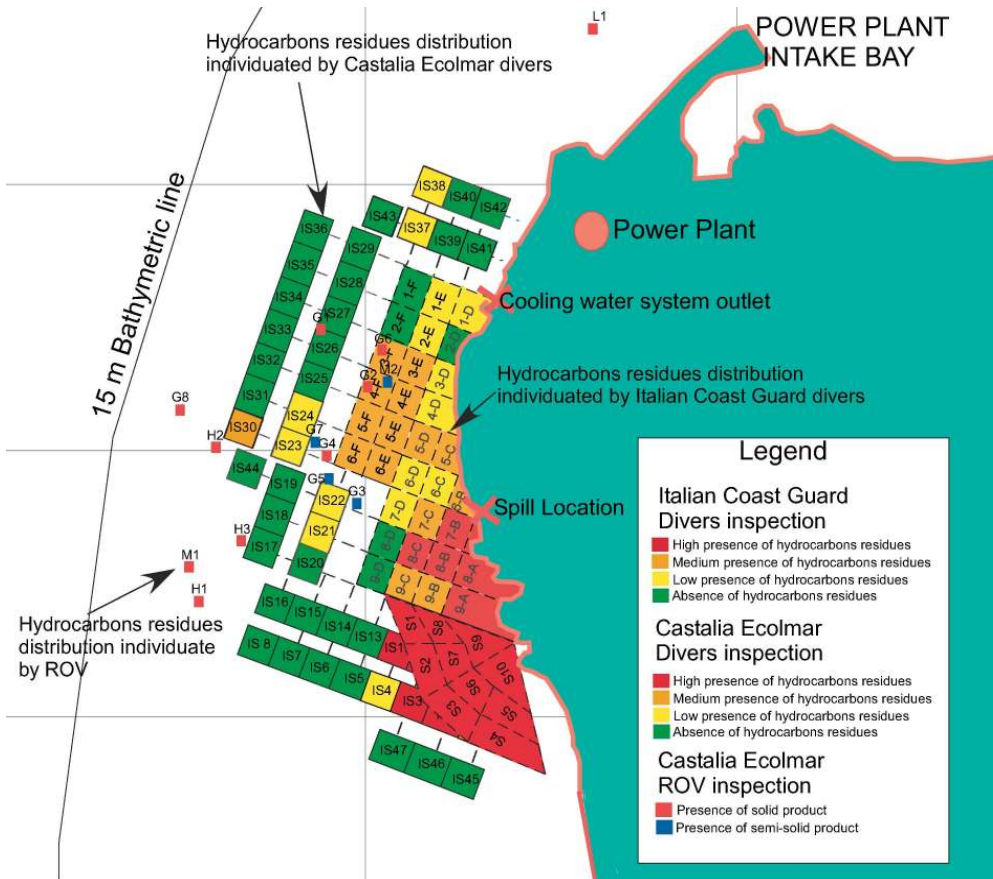
**PHASE ONE**

Survey and assessment of the situation on the sea bottom in front of the power plant.

During this phase the area has been divided with a grid whose purpose has been to plan the clean up operations and to make the characterization of the site.

The results of this operation are shown in the following figure, where the product concentration level is addressed as follows:

- **High** – pollutant in every single crevice;
- **Medium** - presence of pollutant in more then the half of the controlled crevices;
- **Low** - presence of pollutant in less then the half of the controlled crevices.



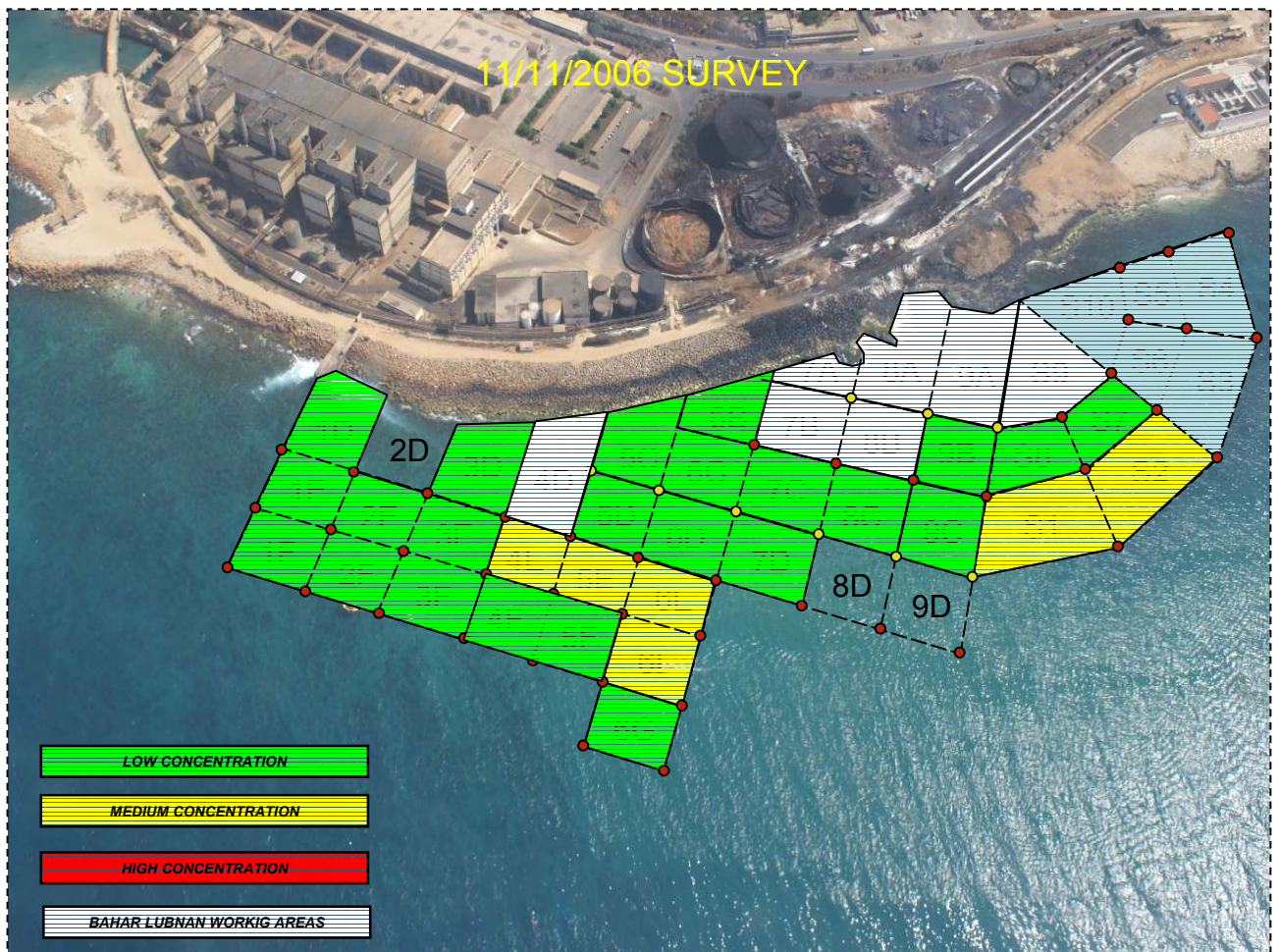
This first phase ended on the 3<sup>rd</sup> of November with the collection of about 40 tons of pollutant.

## PHASE TWO

This phase has been intended to verify the actual situation of the site and to fine tune the clean up intervention.

The operational part of this phase involved survey dives performed on the 9,10 and 11 of November in cooperation with “Bahar Lubnan” divers, that after the surveys have collected 10 cubic meters of pollutant.

The situation is shown by the following picture.



## PHASE THREE

This phase will involve the final survey and assessment of the area and will be performed, meteorological situation permitting, on the 16 and 17 of November.

The final results will be presented on Saturday the 18<sup>th</sup>.

## SCIENTIFIC SUPPORT

During all the three phases the scientific support has been granted by ICRAM (Italian Central Institute for Marine Environment), Italian Environmental Agency Network (i.e., APAT, National Environmental Agency and Technical Services and ARPAs, Regional Environmental Protection Agencies - specialized on coastal pollution and control: Emilia-Romagna, Liguria, Toscana and Sicilia)

So far, the following main activities have been carried out:

- scientific supervision of the clean-up of the stretch of sea facing the power station located in Jieh;
- sampling and monitoring activities in the Lebanese coastal and marine region, aimed to the attainment of an experimental verification of the dynamic spreading of the oil spill and a preliminary determination of its environmental impacts;
- control of the seafloor in the archipelago of Palm Islands and in other costal areas suitable to be affected by submerged oil;
- forecasting of weather and sea-conditions in the region of interest (Levantine basin, 48 hours);
- preparation of guidelines specifically related to the clean-up of the Lebanese coasts

The Italian delegation attended all the OSOCC (Oil Spill Operation Coordination Centre) meetings. Daily reports – summarizing the activities carried out – were prepared and distributed as well as plans for the following day and proposals concerning activities carried out by other delegations and about the generated waste management were provided and considered.

Monitoring and technical-scientific supervision and co-ordination of the activities implemented in Jieh:

- clean-up and protection of the cooling water intake of the power station (activities undertaken by Castalia-Ecolmar, Coast Guard and the NGO Bahar Lebanon);

- collection of oil residuals from the seafloor, preparation and transfer of the generated waste.

Working notes and detailed photographic reports were periodically delivered and presented at the OSOCC meetings.

A particular attention was focused on reducing the potential risks and environmental damage related to clean-up activities, as:

- avoiding to affect, simultaneously, elements of both fauna and flora - which can be fundamental for the future environmental recovery of the impacted area;

- avoiding the alteration of the habitats;

- avoiding to modify the physical and chemical characteristics of marine habitats (e.g., sand removal, alteration of the ratio between the different granulometry fractions of marine sediments, etc.).

Drafting of technical documents and guidelines, finalized to the support of operational activities:

1. characterization and recovery of the Jieh's power plant site.

2. clean-up of coastal areas ('Guidelines for Remediation of the Coast of Lebanon Contaminated by Oil - scientific and technical aspects to consider when carrying out clean up and remediation activities of the Lebanese coast contaminated by oil in July 2006')

3. procedures for management and storage of the clean-up generated waste ('Waste Management Options' prepared on the basis of existing guidelines prepared by CEDRE) and 'Suggestions for a field cataloguing and characterization of the recovered oil from sea'

4. Indications on 'good practices' for oil spill waste minimization and management 'Lebanon Marine and Coastal Oil Pollution – Guidelines for Waste Management';

5. a document about the environmental situation and the present potential sources of environmental pollution at the site of the power station ('An assessment of the Power Station Site in Jieh') ;

6. a brief document containing 'General recommendations for the characterization and recovery of Jieh power plant' .