

**SHEER WP5 Report, 29.04.2016
for the Progress / PTM Meeting in June 2016 ...
(WP Leader, A P Gunning)**

Short summary of the progresses of the period Nov-15 to April-16.

Please provide a concise overview of the progress of the work in line with the structure of Annex I to the Grant Agreement (DoA)

- **List of the staff actively involved in WP5**

Andrew Gunning RSKW
Dr Catherine Isherwood RSKW
Prof Paul Younger GLA
Dr Nelly Montcoudiol GLA
David Hall RSKW
Brian Anderson RSKW

- Objectives expected during six months Andrew Gunning (RSKW), Nelly Montcoudiol (GLA) Catherine Isherwood (RSKW):

WP5.1 GENERIC SETTINGS

Participants: RSK, UGL

DETAILS: Capture the key processes and critical risk pathways related to shale gas/tight oil development and prioritize in terms of risk to the groundwater environment. Review shale gas/tight oil plays and resources in the EU member states based on technical and regulatory parameters. Develop “shale analogs” for shale gas/tight oil representative of EU plays.

STATUS: Submitted

WP5.2 DETAILED HYDROGEOLOGICAL MODELLING

Participants: RSK, UGL

At the Wysin site, where hydraulic fracturing is expected to be carried out in 2016, assess geological, geophysical and hydrogeological data acquired through field tests and long-term monitoring. Develop a detailed hydrogeological model to identify possible sources, pathways and receptors in order to assess the risk of groundwater impairment.

STATUS: Underway

- A summary of progress towards objectives and details for each task in the first six months:

WP5.1 has been completed.

WP5.2 Underway

- Highlight clearly significant results:

WP5.1 GENERIC SETTINGS

Sub-WP	Task	Progress (%)
5.1.1	Identified 26 shale oil and gas basins within the EU	100
5.1.2	Carried out an assessment of each shale oil and gas basins, highlighting those where there is a need for hydrogeological risk assessment	100
5.1.3	Completed hydrogeological risk assessment (HRA) on those basins with development potential in the next 10 years	100
5.1.4	Developed generic settings for those basins where an HRA was carried out to draw out common risks and identify standard approaches to risk assessment of drinking water aquifers.	100

WP5.2 HYDROGEOLOGICAL MODELS

The initial steps to build a detailed hydrogeological models of the Wysin site in northern Poland are underway. Four monitoring boreholes have been successfully installed as part of WP3.3.

Sub-WP	Task	Progress (%)
5.2.1	Develop an interpretation of the geology of the Wysin site from which to provide a basis for a detailed hydrogeological model	50
5.1.2	Develop a GIS of topography, geology, hydrogeology and hydrology	50
5.1.3	Develop quality control and archiving procedures and standard approaches to analysis of hydrochemical and hydrogeological data	100
5.1.4	Developed initial hydrogeological models of baseline data acquired from the Wysin site.	15
5.1.5	Consider the application tracer technology to data collection and benefits that would yield in interpretation	5

During the reporting period the following operational meetings were held on WP5, each meeting is minuted and actions generated towards task completion:

Date	Location	Attendees
26-04-16	GLA Glasgow	Andrew Gunning (RSKW), Nelly Montcoudiol (GLA), Catherine Isherwood (RSKW)
23-02-16	RSKW Stirling	Andrew Gunning (RSKW), Nelly Montcoudiol (GLA), Catherine Isherwood (RSKW), David Hall (RSKW).
27-01-16	GLA Glasgow	Prof Paul Younger (GLA), Andrew Gunning (RSKW), Nelly Montcoudiol (GLA), Catherine Isherwood (RSKW).
11-01-16	RSKW Stirling	Andrew Gunning (RSKW), Nelly Montcoudiol (GLA) Catherine Isherwood (RSKW) Brian Anderson (RSKW), Daid Hall (RSKW).
14-12-15	RSK Stirling	Andrew Gunning (RSKW), Nelly Montcoudiol (GLA) Catherine Isherwood (RSKW), David Hall (RSKW).
07-12-15	RSK Stirling	Andrew Gunning (RSKW), Nelly Montcoudiol (GLA) Catherine Isherwood (RSKW)
18-11-15	GLA Glasgow	Prof Paul Younger (RSKW), Andrew Gunning (RSKW), Nelly Montcoudiol (GLA) Catherine Isherwood (RSKW)

- If applicable, explain the reasons for major deviations from Annex I and their impact on other tasks:

WP 5.1 was delayed by work on WP3.3 as a result of a number of iterations being required in the geological and hydrogeological assessment of the site to re-locate boreholes, caused by difficulties with gaining access to land.

- If applicable, explain the reasons for failing to achieve critical objectives and/or not being on schedule and explain the impact on other tasks as well as on available resources and planning:
- If applicable, propose corrective actions.
- Publications and papers in print

Deliverables due at the date

Please complete this table if deliverables are due for the reporting period

Table 1. Deliverables due at the date											
Del. no.	Deliverable name	Version	WP no.	Lead beneficiary	Nature	Dissemination level¹	Delivery date from Annex I (proj month)	Actual / Forecast delivery date Dd/mm/yyyy	Status No submitted/ Submitted	Contractual Yes/No	Comments
D5.3	High level shale analogues	1	5	RSKW	High level conceptual models for each shale basin	public	Nov-15	31-01-16	Submitted		

¹PU Public
 PP Restricted to other programme participants (including the Commission Services)
 RE Restricted to a group specified by the consortium (including the Commission Services)
 CO Confidential, only for members of the consortium (including the Commission Services)

Milestones in the reporting period

Please complete this table if milestones are specified for the reporting period

TABLE 2. MILESTONES IN THE REPORTING PERIOD							
Milestone no.	Milestone name	Work package no	Lead beneficiary	Delivery date from Annex I dd/mm/yyyy	Achieved Yes/No	Actual / Forecast achievement date dd/mm/yyyy	Comments