



SHale gas Exploration and Exploitation induced Risks



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Lubocino and Wysin Sites,
data and information
gathered within SHEER project

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First Annual Meeting

Napoli - June 7-9, 2016

Hotel Palazzo Esedra, Piazzale Tecchio, 50 – 80125

Presentation plan

1. Data available within episodes:
 - A. Lubocino: Shale Gas
 - B. Wysin: Shale Gas

2. Integration state and data availability.

Lubocino: Shale Gas

Episode: Lubocino	Seismic	Water quality	Air quality	Satellite	Industrial	Geodata
Planned	X	X		X	X	X
Realized		X		X	X	

- Data provider refused to share seismic and more detailed industrial data.
- The only data provided is water quality data.
Industrial data has been compiled on the basis of water quality reports.
- Two documents available in Document Repository:
 - Water quality report (5 stages), in Polish
 - Pptx presentation with general project description.

Lubocino: Shale Gas

Water quality data

- 10 water stations from 5 measurement stages:
 - water table depth
 - physical and chemical water properties (T, pH, σ , Eh, O₂)
 - ions content, elements and metals contents -> lab analyses
 - BTEX (benzenes) and PAH (polycyclic aromatic hydrocarbons) -> lab analyses

Industrial data

- Well localization, type and drilling time
- **Water sampling time in relation to drilling and hydraulic fracturing activity**

Satellite data

- Deformation time series
- Deformation velocity

Wysin: Shale Gas

Episode: Wysin	Seismic	Water quality	Air quality	Satellite	Industrial	Geodata
Planned	X	X	X	X	X	X
Realized	X	X	X	X		

X – complete data is being collected

- Delays in obtaining **industrial data** and **geodata** from PGNiG.
- **Seismic, water quality** and **air quality** data are being recorded and transferred regularly:
 - **Water quality:** till **27/04/2016**, laboratory analyses till **18/03/2016**
 - **Air quality:** radon content till **20/04/2016**, air contamination till **31/03/2016**
 - **Seismic:** data from CHR and PLA stations is transferred to SHEERWER in real-time (data up to date), data from GLO and broadband stations is updated every several months (currently data till **26/04/2016**).
- **Documents:** planned borehole trajectories, lithological profiles from shallow 50-70m wells, hydrological and geological maps, seismic and environmental monitoring reports, pollution information.

Wysin: Shale Gas

Water quality data

- 4 borehole stations:
 - physical and chemical water properties (T, p, pH, σ , Eh, O₂)
 - ions content, elements and metals contents -> lab analyses

Air quality data

- 1 station:
 - Radon ²²²Rn content
 - Air contamination with gases and suspended particle matter PM10

Seismic data

- Continuous waveforms from 34 currently working stations:
 - 6 broadband stations (CHRW, GLOD, PLAC, SKRZ, STEF, SZCZ)
 - 25 short period stations (PLA1-8, CHR1-8, GLO1-9)
 - 3 borehole stations (GW3S, GW4S, GWS1)

Satellite data

- Deformation time series
- Deformation velocity

State of integration and data availability

Episode	Seismic	Water quality	Air quality	Satellite	Industrial	Geodata
Lubocino		X		X	X	
Wysin	X	X	X	X	X	X

X – data integrated (closed), X – data uploaded but reformatting needed,
X – data integrated (open), X – data planned to be integrated

Data availability (now):

- Lubocino: all data available on CIBIS
- Wysin:
 - Water quality, air quality and satellite data available on CIBIS
 - Geological maps and other documents available in CIBIS Repository
 - Seismic data available on SHEERWER (possibility to use Arclink)

Data availability (since 01.07.2016): SHEERWER

