

NCS meeting

13/01/2016

- Excused : Stephen L., Martin Laloux (SPW)
- Present :
 - Q
 - PN
 - C
 - PTJ
 - CAR
 - DEV
 - LP

1. Approval of the next meeting report

- <http://ncs.naturalsciences.be/meeting-reports/meeting-2015-06>



- 1. Observation on the presence/absence of the members of the different subcommissions.
-
- No representatives present of the subcommission Carboniferous (E. Poty & B. Delcambre) and of the Service Géologique de Wallonie (M. Laloux). They were also absent in the previous meeting and did not respond to earlier e-mail messages. E. Poty will be contacted by the chairman to request a more active involvement and E. Goemaere will contact B. Delcambre with a similar request.
-
- 1B. Approval of Report of last NCS written meeting (11-2014 <http://ncs.drupalgardens.com/meeting-reports/report-2014-11#>) : no reactions received from the Carboniferous and Perm-Trias-Jura subcommissions.

- 2. Subcommittee activities.
- 3. *Corrected Proposal text procedure for approval of new lithostratigraphic units or amendments (9 June 2015):*

- 4. Varia
- 4.1. How to make a reference to the website ?
- The correct reference is :
- Author name , year, name of the unit , adress of the website

- 4.2. Miscellanea Geologica
- 4.3. Confirmation of the subcommission board
- 4.4. How to deal with changing stratigraphic nomenclature after the publication of the map ?

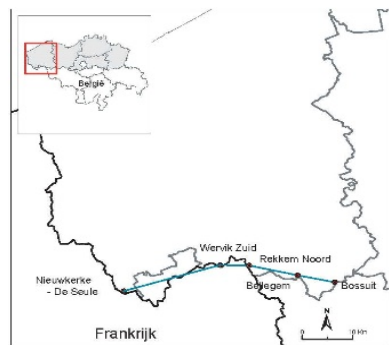
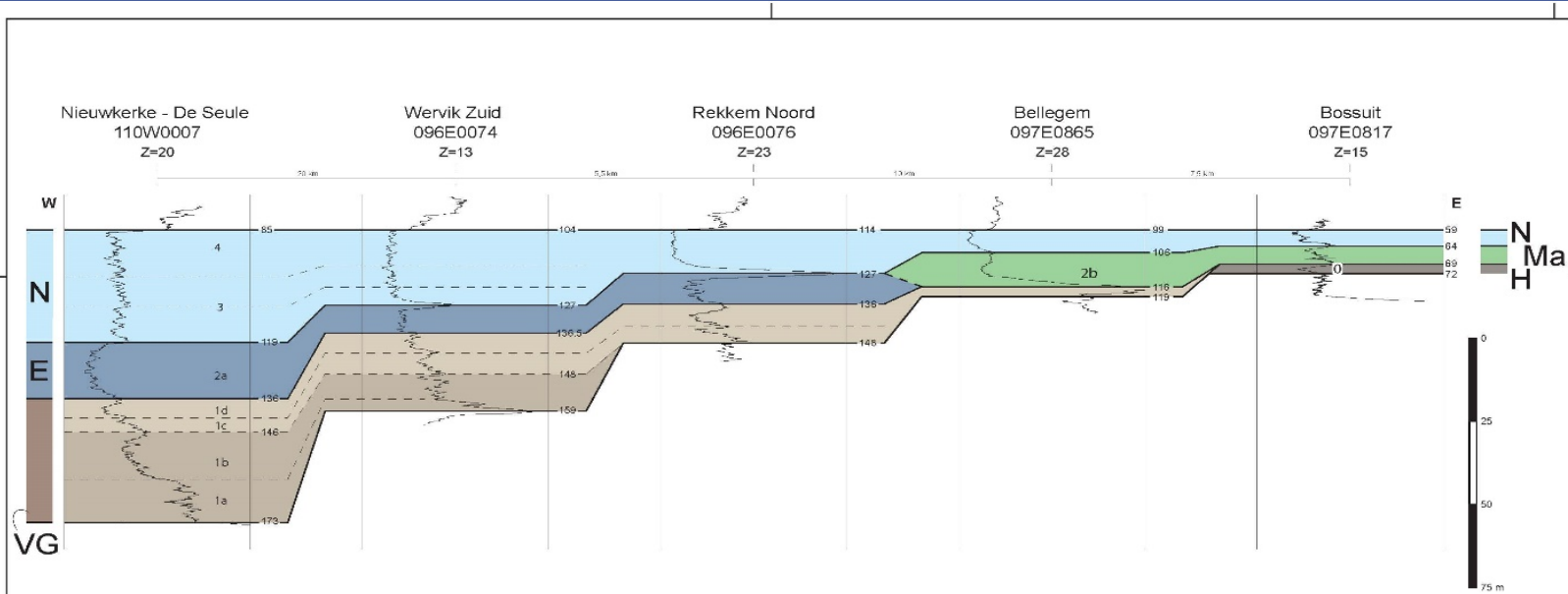
2. Survey of the different subcommissions:

- a) activities (subcommission meetings, open-meeting, international meeting

- b) discussion/proposals situation : proposals to be ratified by ncs ?
- ***Lower-Paleozoic*** : Brutia Formation (Goutteux member and Nivelles Member)
<http://ncs.naturalsciences.be/lower-paleozoic/proposals-and-discussion>

- ***Cretaceous*** : Nieuwkerke-Noordhoek and Nieuwkerke-De Seule (members of Vert Galant)

<http://ncs.naturalsciences.be/cretaceous/proposals-and-discussions>



LEGENDE

- N Nevele Fm (3-4)
- Ma Maisières Fm (2b)
- E Esplechin Fm (2a)
- VG Vert Galand Fm
- "Nieuwkerke Noordhoek Ld" (1c-1d)
- "Nieuwkerke De Seule Ld" (1a-1b)
- H Hainaut Fm (0)

-
- *Correlation table for the Turonian deposits between the traditional generic names (Cornet, 1923), the NCS schema (Robaszynski et al., 2001) defined in the Mons basin, the Carte géologique de Wallonie scheme (Hennebert & Doremus, 1997) defined in the Tournaisis, and the DOV subdivision (Lagrou et al., 2011), defined for West Flanders and now redundant.*

age	old	NCS 2001	carte géowal		DOV
late Turonian	Rabots	Hautrage Flint	Esplechin		Esplechin
late Turonian	Fortes Toises	Ville-Pommeroeul Chert	Vert Galand	Merlin	Nk Noordhoek
mid Turonian	Dièves sup (bleues)	Thulin		Bruyelle	Nk De Seule
lower Turonian	Dièves moy (vertes)	Thivencelles			
latest Cenoman	Dièves inf (multicolores)				

Clay-with-flints = argile à silex = vuursteeneluvium
(conglomérat à silex, silex résiduels ...)

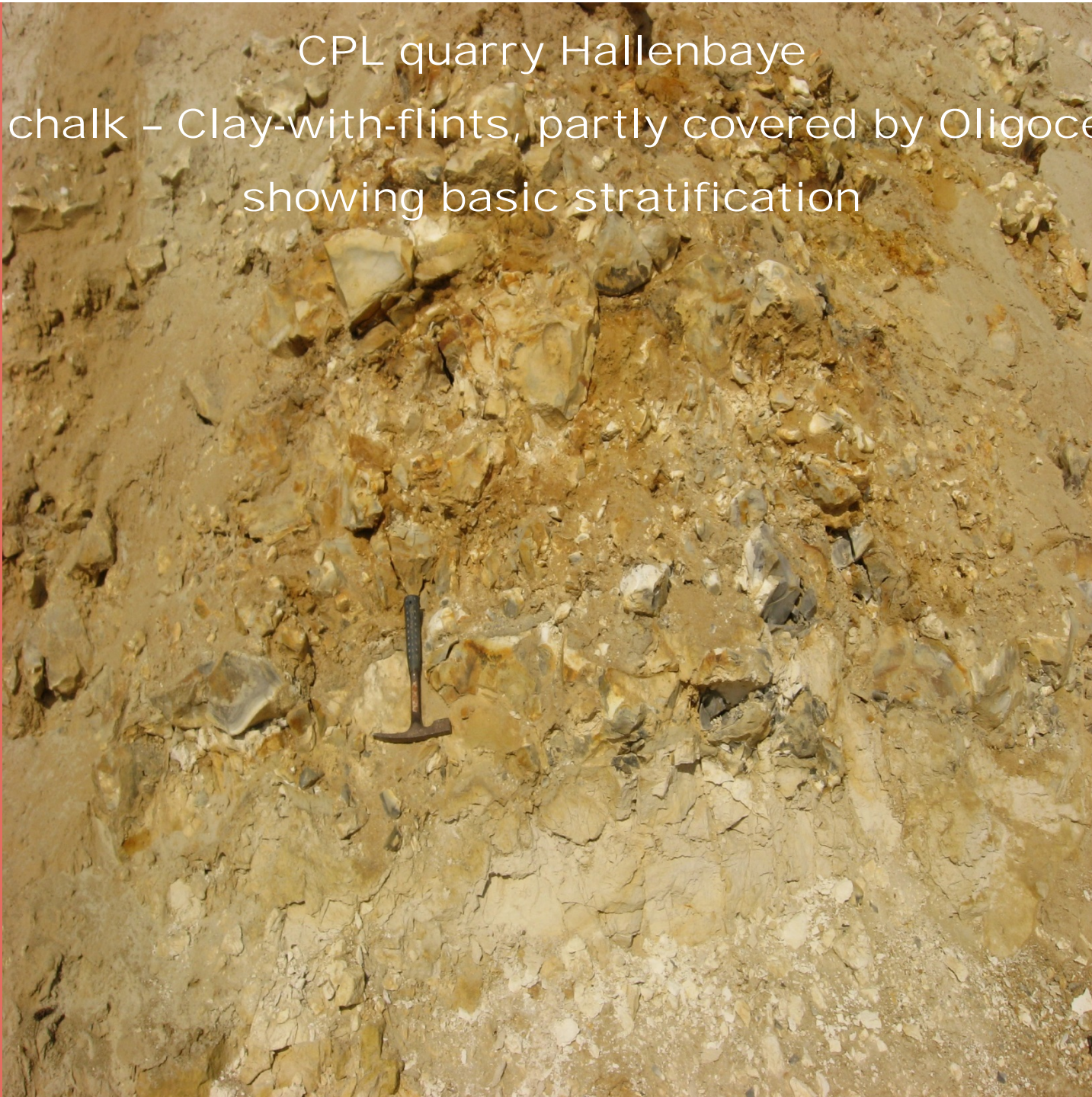
- ➔ Composition: dissolution residues = flint, silicified chalk, s
occasionally quartz pebbles and gravel, phosphate nodules
- ➔ Area: Hesbaye + Hautes Fagnes
- ➔ Underlying strata: chalks and calcarenites, rich in flint
(Gulpen + base Maastricht Formations)
- ➔ Overlying strata: loess – loam, Oligocene sands
- ➔ Thickness: from <1 m to >10 m
- ➔ Age: post-Cretaceous erosion, prior to next marine transg

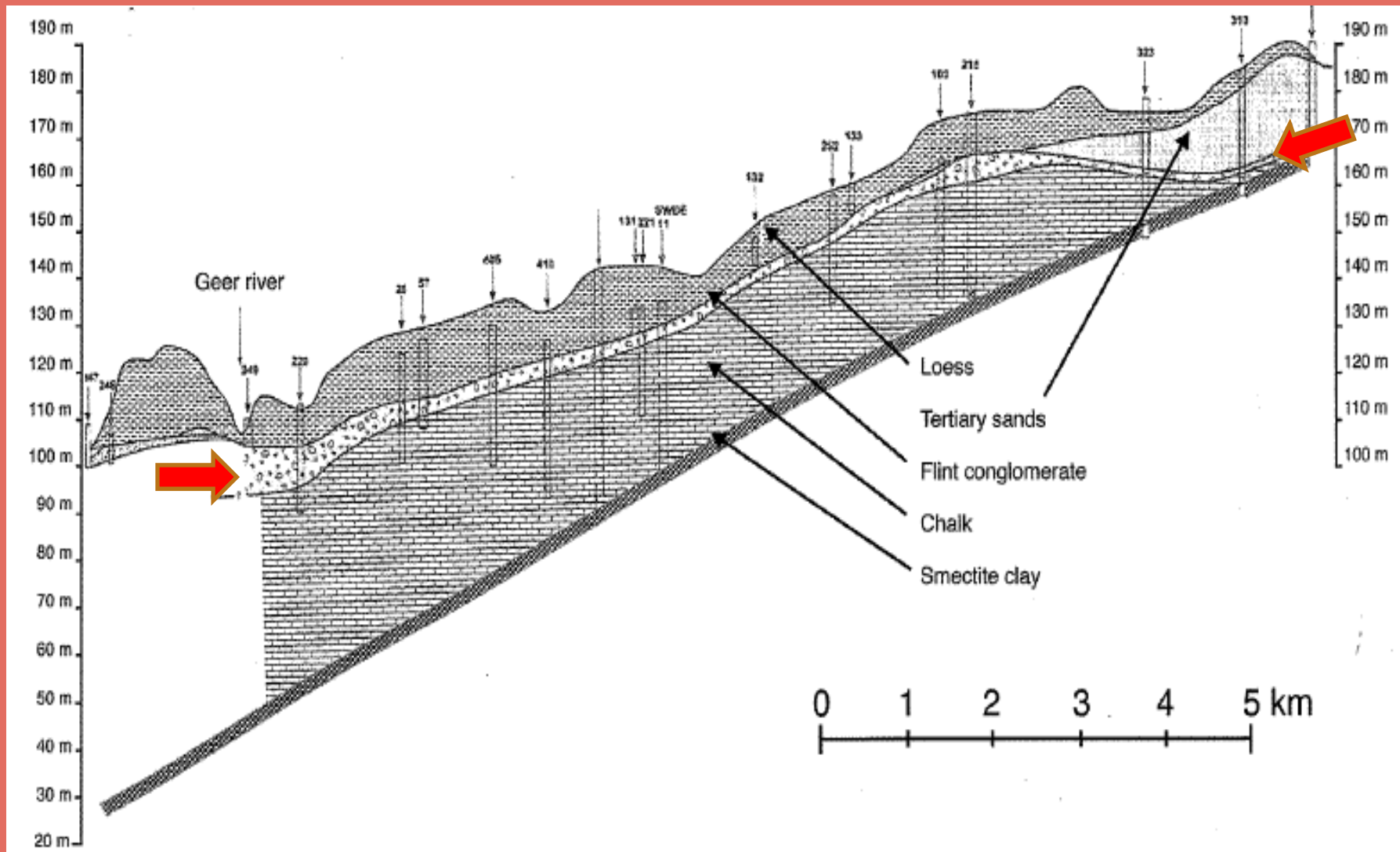


Clay-with-flints covering Lanaye chalk
CBR quarry Hallembaye

CPL quarry Hallenbaye

contact chalk – Clay-with-flints, partly covered by Oligocene sand
showing basic stratification





Representative cross-section in Geer (Jeker) basin showing position of Clay-with-flints (= flint conglomerate) from Brouyère et al., Hydrogeology Journal, 2004



Clay-with-flints outcrop
Hallembaye old quarry
possible stratotype

Hallembaye old quarry
detailed view of Clay-with-flints



Clay-with-flints in soil, site of fossil hunting
Froidmont



- Paleogene-Neogene
- NEW !!! Ieper Group - on website 08/11/2015 open for discussion until 31/03/2016
- Chattian (Upper Oligocene) lithostratigraphic units Voort sand /Veldhoven clay /Someren sand - on website 07/09/2015
- Brussels Formation - Rik Houthuys (on website 12/09/2014) – description variation facies
- Brussels Formation - Rik Houthuys (on website 04/12/2014) – description formation
- Inden Formation - Michiel Duser (on website 12/09/2014)
- Kieselooliet Formation - Michiel Duser (on website 13/09/2014)

- *Quaternary* : division Quaternary aeolian deposits (10/07/2014)

- c) evaluation of the website of the subcommission: structure, completeness, ease of consultation, how well is the website known in the stratigraphic community , is the website considered useful by the community.... suggestions ?



- subcomissie Carboniferous :
 - geen lijst van subcommissie leden is , geen inleidende tekst , foto ?

3. Lessons from the Open Science Meeting

- 3. Lessons from the Open Science Meeting of the Paleogene -Neogene subcommission in December 2015 (S. Louwye , K. DeNil).

4. Preview

- of the Geologica Belgica Mons 2016 meeting presentation :
- 'Stratigraphy and Commissions. Do we need stratigraphic commissions ?' *by Noël Vandenberghe, Marleen De Ceukelaire, Eric Goemaere , Board of the Belgian National Stratigraphic Commission*



Stratigraphy and Commissions.

Do we need stratigraphic commissions ?

Board of the Belgian National Stratigraphic Commission

Noël Vandenberghe, Marleen De Ceukelaire, Eric Goemaere

Stratigraphy today in a nutshell

- Pre-Hedberg : a 'single' chronostratigraphic scale ...assise, sous-assise ... often disguised lithostrat 'avant la lettre' ...
- Hedberg 1976...an analytical stratigraphy distinguishing litho- , bio-, chronostratigraphy
- AAPG memoir 26 (1977) seismostratigraphy: enlarging the observation scale to a basin
- Haq et al. 1987 Sequence stratigraphic chart : reintegrating all stratigraphic components , start of renewed interest a.o. cyclostratigraphy, high resolution stratigraphy , understanding 'events', modelling and prediction, ...
- Litho-bio-chemo-magneto-astro-cyclo-geochrono-sequence chronostratigraphy

Communication requires unambiguous definition of concepts

“To place all the scattered pages of earth history in their proper chronological order is by no means an easy task” (Arthur Holmes)

“ Stratigraphy is at the heart of geologyStratigraphy makes possible the synthesis of a unified geological science from its component parts “ (Weller, 1947)

But avoiding at the same time :

“ Stratigraphy is the complete triumph of terminology over facts and common sense “ (Krynine, 1960)

Stratigraphy starts with understanding lithological units

- Definitions of lithostratigraphic units and their boundaries.
- Image field recording new sections or interpreting borehole samples with loosely used unit definitions ...and subsequent correlations in regional sections, exploitation of databases , mapping ,
- Consistency and stability necessary , example the stratigraphic legend 1929-1932

How to come to stable definitions of stratigraphic units?

The case of chronostratigraphic units

An international question....I.C.S. www.stratigraphy.org
, installed by IUGS.....

ICS Subcommissions for the different Systems/Periods
+ Classification ISSC...,

Subcommissions have an elected board and 20 selected voting members (maximum 3 terms at the rythm of IGC (4 yr term))

Working Groups installed by subcommission on specific issues
(unit , boundary , fossil group , regional ,.....)

e.g. Anthropocene(ISQS)

Examples of actual themes in the International subcommission Devonian

GSSP definitions (criteria, section site) between stages(www.stratigraphy.org),
defining substages , global recognition of chronostrat units, use of non-bio strat methods, improving geochronological time scale, global environmental changes , communication on Devonian (evolution of stratigraphic nomenclature)

Lithostratigraphic definitions: a national and cross-border task

- Lithological units are limited to part of a sedimentary basin part at most, therefore local , national (role Geological Surveys) or regional (e.g. Cenozoic around North Sea Basin)....
- Data collected during mapping projects , during cross-border projects , during IGCP projects, during detailed applied projects a.o. hydrogeology ...(client aspect of lithostratigraphy...)...

Organizing a **National Stratigraphic** **commission**

NCS is organised by the National Committee Geological Sciences (installed by the Royal Academies as an international contact to IUGS)

website **ncs.naturalsciences.be**

also news reported in *Miscellanea*

mission: *delivering standards for lithostratigraphy, information on national bio- and chronostrat, communication with the geological community*

Subcommissions:

Lower Paleozoic, Devonian, Carboniferous , Permian-Triassic-Jurassic, Cretaceous, Paleogene-Neogene, Quaternary

+ representatives Flemish Community and Région Wallonne

Working Groups installed by subcommissions

to review data from mapping , applied projects, cross-border projects,

On the **website** subcommissions post discussion texts on lithostratigraphy , collect the remarks and formulate formal proposals

The plenary NCS **ratifies** proposals .

Progress and hurdles in the Devonian lithostratigraphy

Some screen-illustrations from the website

National Commission for Stratigraphy Belgium

Home Lower Paleozoic **Devonian** Carboniferous Permian/Triassic/Jurassic Cretaceous Paleogene-Neogene Quaternary
Contact News **RegWal**



Devonian

Devonian

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The Devonian is a geologic period and system lying in the middle of the Paleozoic, between the Silurian and the Carboniferous. Its base is about 417.5 Mya (million years ago) and its top is about 358 Mya. The Devonian was named during the 19th century after the Devon in Southern England. However, its seven stages were defined during the same century in Belgium, Germany and France. Initially indeed, the Lower Devonian comprises the Gedinnian, Siegenian and Emsian stages, the Middle Devonian the Couvinian and Givetian stages and the Upper Devonian the Frasnian and Famennian stages. At the present time, the Emsian, Givetian, Frasnian and Famennian are still retained as valid international stages by the International Union of Geological Sciences. The name Frasnian comes from the locality of Frasnes near Couvin, on the south side of the Dinant Synclinorium whereas the Famennian is named after the Famenne region. The Givetian was originally defined in the Givet area (northeastern France) very close to the Belgian border and also on the south side of the Dinant Synclinorium. Following the decisions of the International Commission on Stratigraphy belonging to the International Union of Geological Sciences, the Gedinnian from the village of Gedinne in Belgium and the Siegenian from Siegen in Germany were replaced by the Lochkovian and the Pragian introduced in the Czech Republic, to which they correspond more or less. And according to the same authorities, the first stage of the Middle Devonian is now the Eifelian from the Eifel Hills in Germany instead of the Couvinian.

Devonian

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Submissions

Links

DEVONIAN Lithostratigraphic UNITS (BELGIUM)

History

version of 2001

revised for

December 2009	Pont de la Folle - Membre de Brayelles
December 2009	Mont Liénaux Formation - Membre de La Boverie
June 2009	Esneux formations - Membre de Watissart
June 2009	Jemelle Formation - Membre de Vieux Moulin
June 2009	Jupille Formation
April 2012	Couvin Formation

Authors

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2. Royal Belgian Institute of Natural Sciences, Geological Survey of Belgium, Jenner street 13, B-1000 Brussels, Belgium.

ABSTRACT.

REFERENCE TO THIS VOLUME.

BULTYNCK, P. & DEJONGHE, L., 2001. Devonian lithostratigraphic units (Belgium). In Bultynck & Dejonghe, eds, Guide to a revised stratigraphic scale of Belgium, Geologica Belgica, *, ***-***.

1. LOWER DEVONIAN Lithostratigraphic Units

1.1. INTRODUCTION

1.2. DESCRIPTIONS

1.2.1. Fépin Formation - FEP

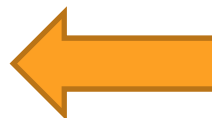
1.2.2. Mondrepuis Formation - MON

1.2.3. Oignies Formation - OIG

1.2.4. Saint-Hubert Formation - STH

1.2.5. Mirwart Formation - MIR

1.2.6. Villé Formation - VII



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Formation de Jupille (JUP) par L. Dejonghe, V. Dumoulin & S. Blockmans

16-12-2008,

modified 14-4-2009 V. Dumoulin and M. Coen-Aubert

accepted 4-6-2009.

Authors: Dejonghe et al., 2008; Dejonghe & Hance, 2008.

Description: The Jupille Formation is proposed to better characterize in the High-Ardenne area the rocks occurring between the La Roche (or Villé Formation if the La Roche Formation is not represented) and Pèrnelle Formations. This formation is made up of series of grey, blue grey or greenish grey sandstone layers interbedded in blue grey siltstones and slates similar to those of the La Roche Formation. Locally, the sandstones grade to quartzites. Toolmarks, current ripples, lenticular and oblique or hummocky cross stratifications and load casts are present in the sandstone layers.

In the Ourthe valley, where the new lithostratigraphic unit is introduced, the Jupille Formation overlies the La Roche Formation and it is not possible to distinguish its top from the succeeding Pèrnelle Formation. In the parastratotype of Mirwart (Lomme valley), the Jupille Formation is present between the Villé and Pèrnelle Formations. Indeed, the La Roche Formation passes laterally into the Jupille Formation between Grune and Nassogne (Barchy et al. submitted). According to Marion & Barchy (1999), it is difficult to map separately the Pèrnelle Formation even in the type area of Couvin. Maybe, the Pèrnelle Formation should be reconsidered as a member of the Jupille Formation.

Stratotypes: different outcrops close to the Jupille village in the Ourthe valley, between Hotton and La Roche-en-Ardenne; parastratotype at Mirwart, sections along the Namur-Arlon railway track and the Lomme river.

Area: S and SE sides of the Dinant Synclinorium, up to the vicinity of the Xhoris fault.

Thickness: 500 m at Mirwart (Jupille Formation), at least 600 m at Jupille, at least 600 m in the Nisramont area, 150 m at the northern flank of the Halleux Anticline (Jupille and Pèrnelle Formations).

Age: Probably Pragian, due to the age of the neighbouring formations.

Auteurs: Dejonghe et al. (2008)- première utilisation et définition. Voir aussi : Blockmans et al. (soumis); Dejonghe & Hance (2008)

Origine du nom: De la localité de Jupille dans la vallée de l'Ourthe, sur la carte IGN de Hotton (55/5).



Search

Proposals and discussions

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Proposal new on 30/04/2015 :

Booischoot Formation - accepted by subcommission on 30/04/2015

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Old discussion (replaced by new proposal 30/04/2015): *Devonian in the Campine Basin*

date : 25/01/2013 by : VITO - David Lagrou [link](#) to full text

Progress and hurdles in the Devonian lithostratigraphy

- Mapping new tab RegWal (in syncl. Neufchateau ...Asselberghs(1946) units)
- Cross border with France, GD Luxemburg, Germany ...
- Evolution of stratigraphic terminology in time and by area, author
- Biostrat, chronostratinformation



Conclusions

Stratigraphic commissions are necessary to provide standards in the definition of stratigraphic units

Chronostratigraphy is the International domain ,
Lithostratigraphy the regional domain, with cross-border consultation , organised by National or Regional Geological Surveys

Invitation to consult the website , contribute to discussions , actively participate in subcommissions and working groups

ncs.naturalsciences.be

5. Varia

- overview collections geology RBINS 2015



Collections Geology RBINS
2015

General : What is available ?

- Lithological samples :
 - In Geological Survey of Belgium
 - In De Vestel
 - In Seraing – Laken
- 3 main collections :
 - samples linked to XY, to GSB number
 - ~ 245000
 - deep drillings – cores and core samples
 - others









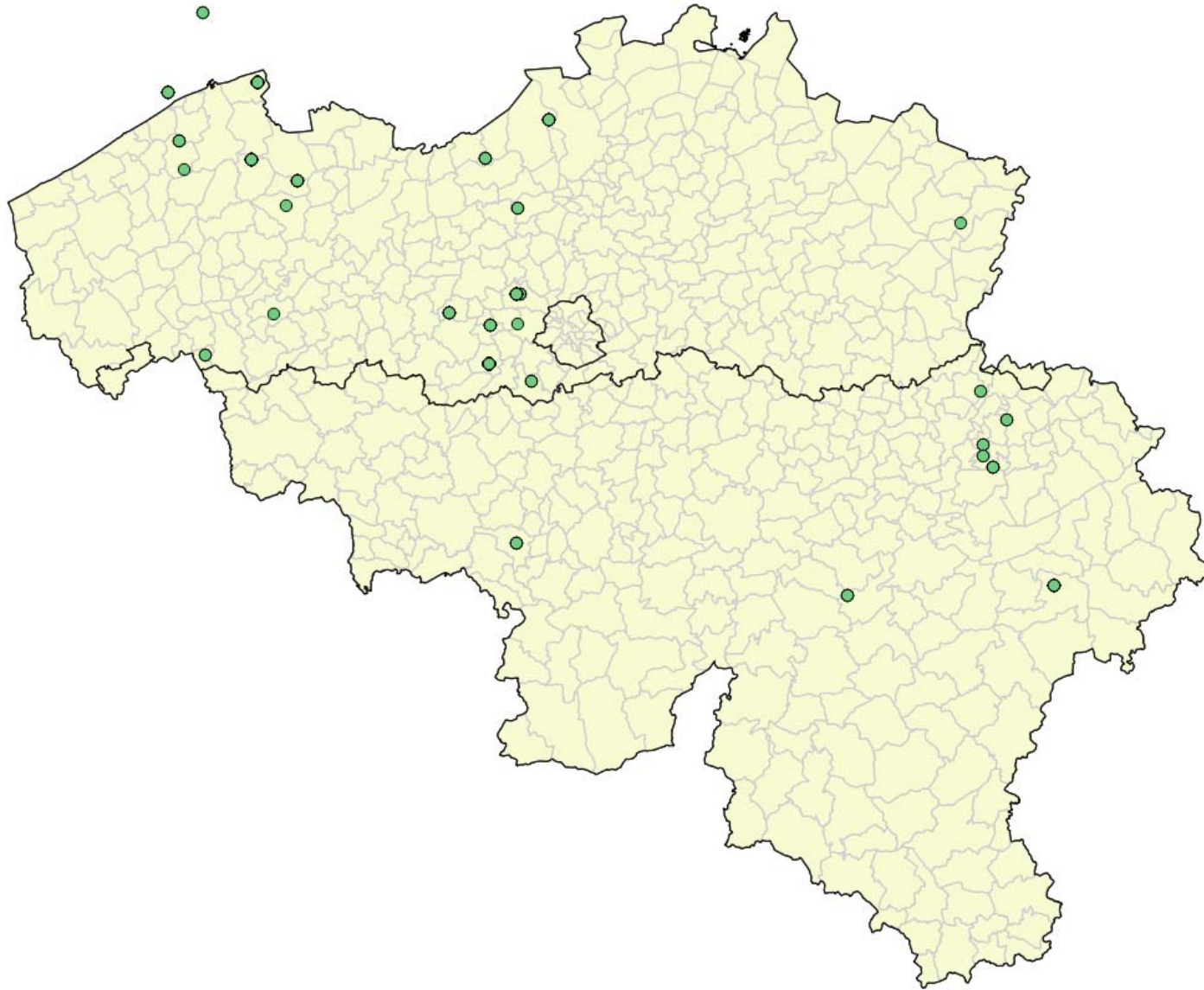
2015 Expo petrography

- opgestart in 2015:
- *Drongengoed Running 01/11/2015 01/11/2025 Cuesta Zomergem-Oedelem Gemeente Knesselare - Drongengoedhoeve; tentoonstelling : “De oude velden vertellen: avontuurlijke arrangementen”*; Permanente geologische tentoonstelling i.k.v. IN HET KADER VAN HET PROGRAMMA VOOR PLATTELANDSONTWIKKELING; start 11/10/2015.
(<http://leadermls.be/project-2013-r-de-oude-velden-vertellen-avontuurlijke-arrangementen/>)
- *Unseen beauty of sand in relationship to uniqueness and beauty of places, nations and people. Kristina Kallur. Sweden. start 2016 permanente tentoonstelling.*
- *Monsters coll bouwstenen belg monumenten - 03/04/2015 01/02/2016 - tijdelijke tentoonstelling kast BGD-3*

- Running
- *Museum o.a. meteorite Mont Dieu, mineralen*
- *Eurospace maanstenen 01/09/2018 stukjes maan*
- *The British Council 01/02/2016 Ice Lab New architecture and Sciences in Antarctica*
- *Permanente tentoonstelling Horta Museum 15/05/2017*

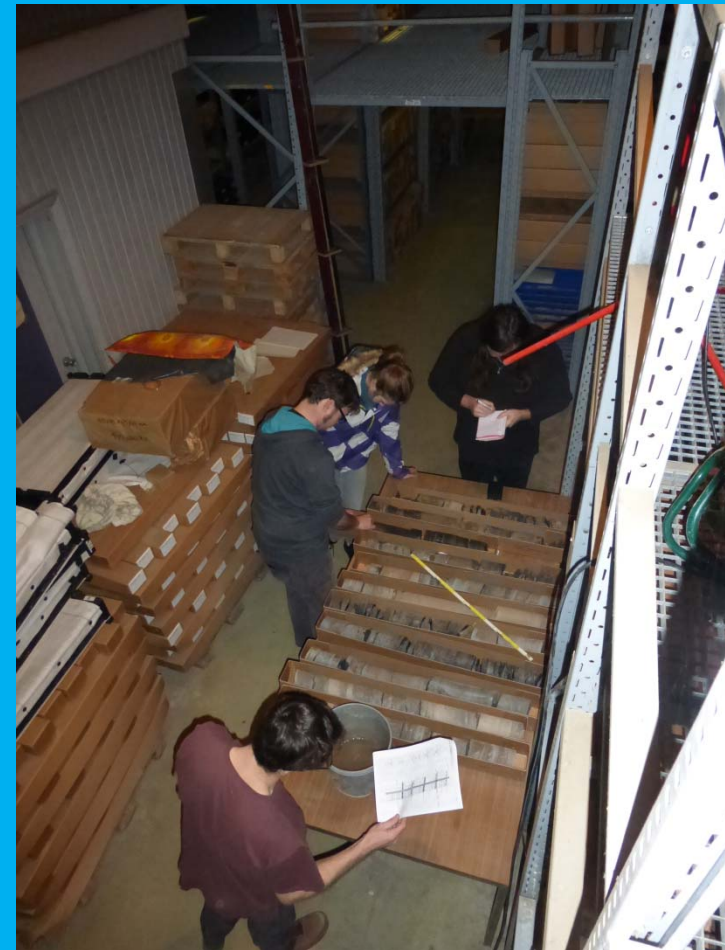
2015 scientific loans

<i>Type</i>	<i>Collectie</i>	<i>Aantal specimen</i>	<i>Aantal</i>
• <i>Extern</i>	<i>Archief</i>	<i>868</i>	<i>47</i>
• <i>Extern</i>	<i>Carotheek</i>	<i>415</i>	<i>05</i>
• <i>Extern</i>	<i>Mineralogie</i>	<i>94</i>	<i>09</i>
• <i>Extern</i>	<i>Petrografie</i>	<i>100</i>	<i>12</i>
• <i>Extern</i>	<i>Meteorieten</i>	<i>36</i>	<i>11</i>
• <i>KBIN</i>	<i>alle</i>	<i>732</i>	<i>45</i>
•			
	<i>totaal</i>	<i>2245</i>	<i>129</i>



85 bezoeken

- Iedereen is welkom na afspraak

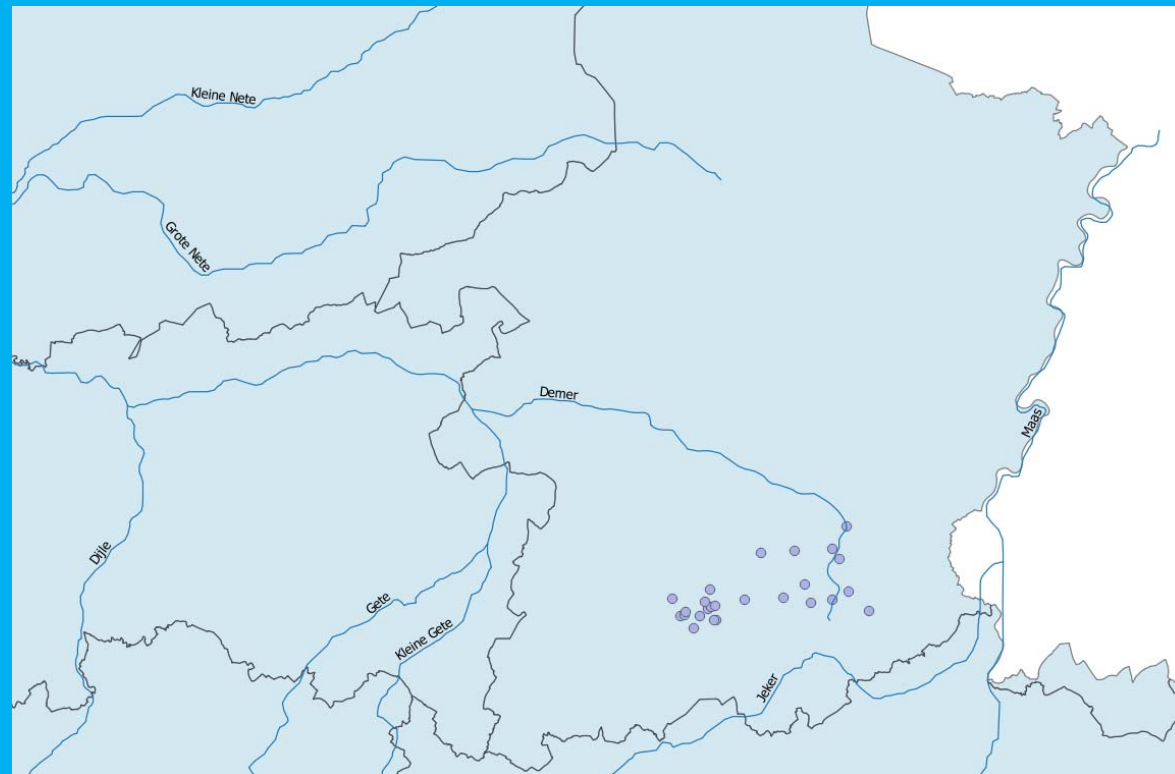




New acquisition

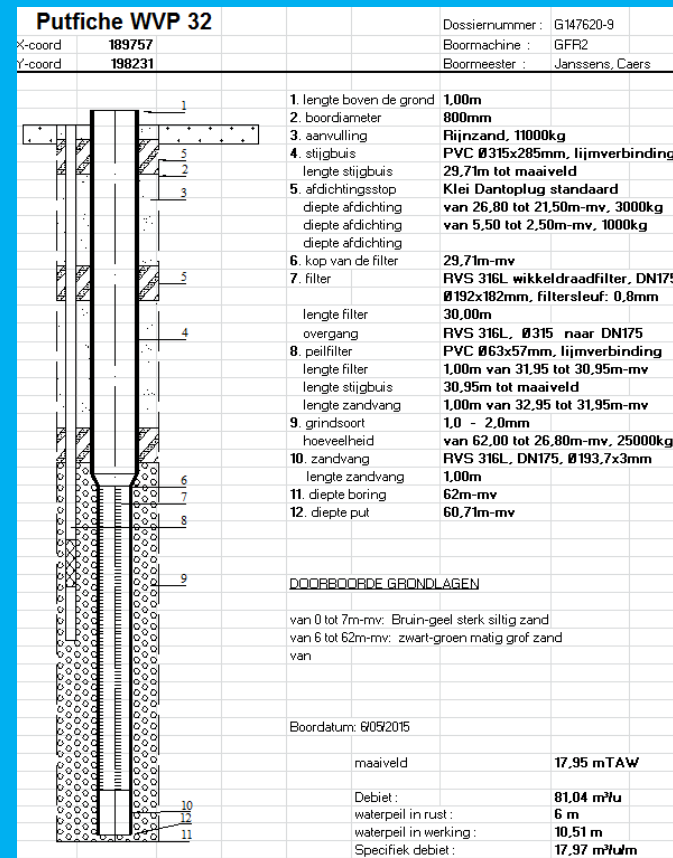
- *External gifts :*
- *Gift – Van Hoorne Roger – Quaternary archive*
- *Gift - Willy Huybrechts – Quaternary archive*
- *Gift - Saerens Steven – veldsteen*
- *Gift - Duzgum Demir – metamorphic rock*
- *Gift – Daras - meteorite*

- Tufsteencollectie Limburg – project VLM-
INBO-Likona – 26 monsters



- Samples boreholes Pidpa – Watergroep

- Essen
- Eeklo
- Scherpenheuvel
- Westerlo



- Expertises

- Natuursteen (Bierpoort Antwerpen, Sint-Martinuskerk Aalst, ...)
- Petrografie (zwerfstenen Damme, *keien maasterassen...*)
- Archeology (Tongeren)



- Collaborators :

- Private excursions

- Petrography (vb. Azoren)
 -

- Organised fieldtrip

- *Minerais de fer Dévoniens (monolithiques) du district de Lahn-Dill (Hesse, Allemagne)*
 - *Boulonnais*



*Archives and collections of retired persons Michiel Duser,
Eric Groessens, Walter De Vos,*



- *Type material :*

- *Bajocien (gift E. Goemaere)*
- *115W0137 Stehou Oisquerlq (Membre Ripain) (gift A.Herbosh)*
- *Marbre de Floreffe Gift: Doperé Frans*
- *Grès des Vosges (R. Dreesen)*
- *Coticule (PY Declercq)*

- Cores :

- *sondage court St Etienne 173E0999 (A. Herbosh)*

- *Halle HST – oa Tubize Formation*

- *Expected : cores from Umons – studied by Robazinsky*

- Number of new specimen :
 - *1770 specimen in DB but several already in museum*
 - *699 natural building stones*
 - *Thin sections not yet in inventarisation*



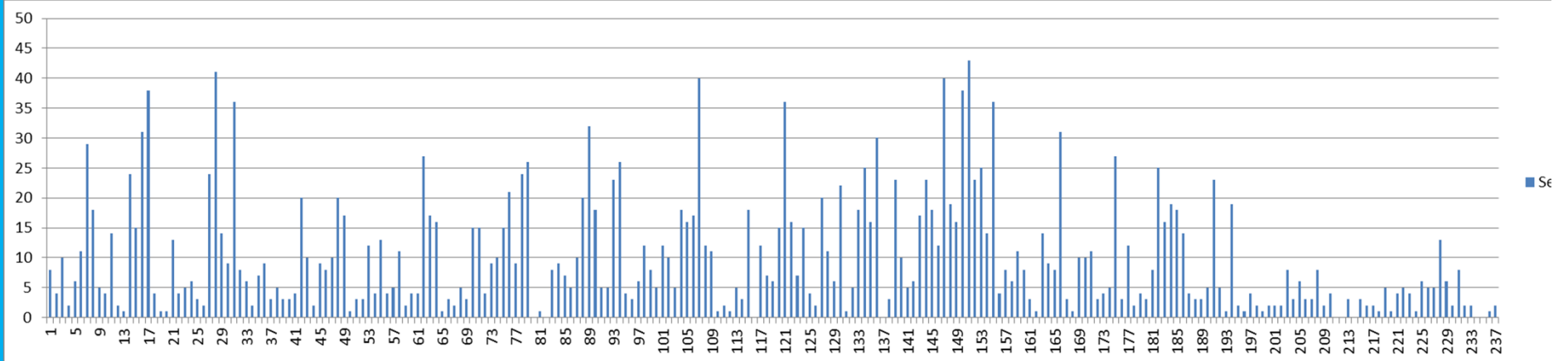
Bibliography

- pdf artikels : 1065 artikels, gelinkt aan de biblio databank met referenties en trefwoorden

The screenshot shows a Microsoft Access database window titled 'BIBLIOTotaal'. The table contains the following data:

idtot	TITRE	filpdf	ti	ANI	VOLUME	FIRSTF	AUTEURS	NUMCARTE	PRC	CC	DO
17376	Implantation et programme du sondage de reconnaissance de Poederlee	N	F	1984	GK/POD/84	PK/TT		.30	A		VAF
17377	Modellering van de invloed van de lithologie op de chemische inhoud van grondwater. Mineralogie en	N	F	2002	2002/ETE/R 13 p. + bijl.		Lagrou, D.; Dreesen, R. & Patyn, J.	111 97 53 78 75 4	VLA		CAI
17378	Studiedag 12.05.2000 Vito, Mol. Valorisatie van de diepe ondergrond: energiewinning en -opslag in	N	F	2000	2000/ETE/R		Dreesen, R.; van Tongeren, P. & Lagrou, D.		Li A		VAF
17379	Studie naar de mogelijkheden van ondergrondse gasopslag in het noordelijk Phanerozoicum. Eindr.	N	F	2000	2000/ETE/R 64 p.		Lagrou, D.	.7 48 49 64 31 46	Li A	NL	VAF
17380	Mijnsteen. Juridische aspecten en beschikbaarheid. Tussentijds rapport	N	F	2004	2004/MAT/R 34 p. + bijl.		Dreesen, R.; Nielsen, P. & Laenen, B.	62 78 79	Li		VAF
17381	Aardwarmte. Toepassing van lage enthalpie geothermie in Vlaanderen.	N	F	1994	ENE RB943 24 p.		Dirven, P.	.7 17 31 45	A	EUR	VAF
17382	Promotie van boorgat-energieopslag in Vlaanderen	N	F	2004	2004/ETE/R 17 p. + bijl.		Hoes, H.		VLA	EUR	
17383	Energie-opslag in de aardbodem. Geohydrologische bijdrage	N	F	1995	ENE RB950 76 p.		Dirven, P.; Patyn, J.		VLA	EUR	BR/
17384	Gas storage and hydrocarbon potential of the Dinantian carbonates in the Campine basin of norther	N	F	2001	2001/ETE/R 53 p.		van Tongeren, P.C.H.	.7 30	A	UK No	VAF
17385	Un "chauffe chauve-souris" à Revogne	N	F	2015	99 - 1er trim 1-3		Forget, Frédéric	184	N		SYT
17386	Het Vlaams kenniscentrum voor ondergrondse energiebronnen. In: Studiedag 12.05.2000 Vito, Mol.	N	F	2000	2000/ETE/R 6 p.		Dreesen, R.	62 78 79	Li A		VAF
17387	Hoge temperatuuropslag in de bodem: ervaringen in het buitenland en relevantie voor Vlaanderen. In	N	F	2000	2000/ETE/R 8 p.		Dirven, P.	.31	A	GLOB	CAI
17388	Geothermische energie uit diepe aquifers in Vlaanderen. In: Studiedag 12.05.2000 Vito, Mol. Valoris	N	F	2000	2000/ETE/R 5 p.		Vandenbergh, N.	.45 5 17 7 63	Li A		VAF
17389	Stigend mijnwater in het voormalig Nederlands mijngebied: de huidige stand van zaken. In: Studied	N	F	2000	2000/ETE/R 9 p.		Van Rooijen, P.	.79		NL	VAF
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- 1205 new biblio references



ISO9001

- ISO9001 norm obtained 2015



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Conclusion :

- Samples always welcome
- Samples always available for research or exposition
- Publications geology Belgium welcome (pdf or only reference)

GSB-NCS

- The president and Yves Vanbrabant , head of the Geological Survey of Belgium (GSB) , have exchanged ideas on the place of stratigraphy in the GSB. Both agree that stratigraphic analysis and providing information on the national stratigraphy is a natural geological survey activity. Also participation in the board of NCS should be continued and honoured.
- The GSB has coordination meetings on a regular basis with the regional geological surveys or administrations, fitting the structure of the NCS which also has representatives of the regional authorities and relays in part on regionally obtained data.
- The GSB plans specific activities in the field of stratigraphy of Belgium such as advanced automated literature searches, information on the evolution of stratigraphic nomenclature...
- Yves Vanbrabant has offered to talk about the GSB activities in the field of stratigraphy at the next NCS meeting.