Dear data user,

This document summarizes and provides the references for the attached worldwide crystalline permeability compilation. The database is password secured. To request the password please send a mail to: peter.achtziger@erdw.ethz.ch or simon.loew@erdw.ethz.ch.

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Achtziger-Zupančič, P., S. Loew and G. Mariéthoz (2017), A new Global Data Base to Improve Predictions of Permeability Distribution in Crystalline Rocks at Site Scale, *JGR Solid Earth*, doi:10.1002/2017JB014106.

Table S 1: Data references for hydraulic, temperature and specific yield/storage data

Country	Dataset Location	Hydraulic data	Temperature data	Specific yield/storage
Australia	Cabramurra, Geehi	[*Snow*, 1979]		
Austria	Brenner	[*Burger*, 2015]	[*Quick et al.*, 2010]	
	Klasgarten	[*Strauhal et al.*, 2016]	[*Aemissegger*, 1993]	
	Längenfeld	[*Kriegl et al.*, 2001]	[*Kriegl et al.*, 2001]	
	Semmering	[*Winkler and Reichl*, 2014]	[*Salcher and Goetzl*, 2007]	
Brazil	Acoplara, Sao Paulo do Potengi	[*Franciss*, 1970]	[*Hamza et al.*, 2010]	
	Aimores, Juiz de Fora, Salto da Divisa, Vale do Itajai, Villa Angelina	[*Franciss*, 1970]	[*Hamza et al.*, 2007]	
	Brasilia, Cachoeira	[*Franciss*, 1970]	[*Vitorello et al.*, 1980]	
	Itabirito	[*Carneiro et al.*, 2015]	[*Hamza et al.*, 2007]	
Canada	Atikokan	[*Brown and Rey*, 1989] [*Gascoyne et al.*, 1987] [*GTC*, 1986] [*P K Lee et al.*, 1982]	[*Ophori*, 1996]	
	Blake Lake	[*Areva*, 2011]	[*Areva*, 2011]	
	Coronation Gulf	[*Holden et al.*, 2009]	[*Holden et al.*, 2009]	
	Kennady Lake	[*Johnson et al.*, 2010]	[*Golder*, 2014b]	
	Lac de Gras	[*Bieber and Chorley*, 2015] [*Golder*, 2014a] [*Gorski et al.*, 2014] [*Kuchling et al.*, 2000] [*Macdonald*, 2012]	[*Golder*, 2014b] [*Kuchling et al.*, 2000]	[*Gorski et al.*, 2014]
	Massey	[*GTC*, 1986]	[*Grasby et al.*, 2012]	
	Pembroke	[*Davison et al.*, 1984] [*GTC*, 1986] [*Guimerà and Carrera*, 2000] [*Novakowski et al.*, 1985]	[*Davison et al.*, 1984] [*GTC*, 1986]	
	Pinawa	[*Davison et al.*, 1984] [*GTC*, 1986] [*Stevenson et al.*, 1996]	[*Davison et al.*, 1984]	[*Stevenson et al.*, 1996]
	Rankine Inlet	[*McGregor and Chorley*, 2014]	[*Holtze et al.*, 2013]	
	Snap Lake	[*Itasca*, 2012]	[*Golder*, 2014b]	
	Southern Interior Plateau	[*Lawson*, 1968]		
China	Aqishan, Tianhu, Yamansu	[*X G Zhao et al.*, 2015]	[*Zhu et al.*, 2015]	
	Jiujing	[*Wang*, 2010b] [*Wang*, 2010a] [*Wang et al.*, 2006]	[*Zhu et al.*, 2015]	
	Three Gorges Dam			[*Shi et al.*, 2013]
	Xiangyangshan	[*Chen and Wang*, 2014]	[*Zhu et al.*, 2015]	

		[*Wang*, 2010b]		
Czech Republic	Bedřichov	[*Balvín et al.*, 2013]		
	Chotilsko	[*Svoboda et al.*, 2012]		
	Potůčky-Podlesí	[*Lukeš et al.*, 2005]	[*Lukeš*, 2005]	
	Ruprechtov	[*Noseck et al.*, 2009]	[*Noseck et al.*, 2009]	
	Světlá nad Sázavou	[*Paillet et al.*, 2012]		[*Paillet et al.*, 2012]
Finland	Äänekoski, Kuhmo, Sotkamo, Syyry	[*McEwen and Äikäs*, 2000]	[*Kukkonen*, 1989]	
	Eurajoki	[*Ahokas et al.*, 2013] [*GTC*, 1986] [*Hämäläinen*, 2013] [*McEwen and Äikäs*, 2000] [*Ripatti et al.*, 2013]	[*Kukkonen et al.*, 2015]	
	Lavia	[*GTC*, 1986]	[*Kukkonen*, 1989]	
	Loviisa	[*Pöllänen and Rouhiainen*, 1998a; b]	[*Pöllänen and Rouhiainen*, 1998a; b]	
	Outokumpu	[*Marsic and Grundfelt*, 2013]	[*Marsic and Grundfelt*, 2013]	
	Palmottu			[*Leveinen and Ahonen*, 1998]
France	Barfleur	[*Lewi et al.*, 1990]	[*Jolivet et al.*, 1989]	
	Belledonne	[*Massonnat*, 1981]	[*Dubois*, 1991] [*Massonnat*, 1981]	
	Chamonix	[*Maréchal*, 1998]	[*Maréchal*, 1998]	[*Maréchal*, 1998] [*Maréchal and Perrochet*, 2001]
	Couy	[*Juhlin and Sandstedt*, 1989]	[*Boulegue et al.*, 1990]	
	Haguenau	[*Shapiro*, 2000] [*Shapiro et al.*, 1999a] [*Shapiro et al.*, 1999b]	[*Tischner et al.*, 2006]	
	La Chambre, Séchilienne	[*Maréchal*, 1998]	[*Dubois*, 1991] [*Massonnat*, 1981]	
	Limoges	[*Baudoin and Gay*, 1996] [*Cacas et al.*, 1990a] [*Cacas et al.*, 1990b]	[*Maréchal and Vasseur*, 1992]	
	Mayet de Montagne			[*Pinettes et al.*, 2002]
	Ploemeur	[*Le Borgne et al.*, 2006]	[*Jolivet et al.*, 1989]	[*Le Borgne et al.*, 2006]
	Pontivy	[*Baudoin and Gay*, 1996]	[*Jolivet et al.*, 1989]	
	Revin	[*Baudoin and Gay*, 1996]	[*Schintgen*, 2015]	
	Saint-Brice en Coglès	[*Roques et al.*, 2014]	[*Roques et al.*, 2014]	[*Roques et al.*, 2014]
	Saint-Martin-Vésubie, Saint-Sauveur-sur-Tinée	[*Maréchal*, 1998]	[*Perello et al.*, 2001]	

Germany	Bavarian Forrest	[*Zeitlhöfer et al.*, 2015]	[*Burkhardt et al.*, 1989]	
	Black Forrest	[*Stober*, 1995] [*Stober and Bucher*, 2007]	[*LGRB*, 2016] [*Stober*, 1995] [*Stober and Bucher*, 2004]	[*Stober*, 1995]
	Falkenberg, Lengenfeld	[*Clauser*, 1991] [*Stober*, 1995]	[*Burkhardt et al.*, 1989]	
	Lindau	[*Guimerà and Carrera*, 2000] [*Himmelsbach et al.*, 1998]	[*LGRB*, 2016]	
	Lusatia	[*Achtziger-Zupančič and Loew*, 2014]	[*Boeck et al.*, 2007]	
	Ore Mountains	[*Achtziger-Zupančič et al.*, in review]	[*Achtziger-Zupančič et al.*, in review] [*Berger et al.*, 2011] [*Hiller et al.*, 2013a] [*Hiller et al.*, 2013b] [*Hiller and Schuppan*, 2008] [*Schuppan and Hiller*, 2012]	
	Windischeschenbach	[*Evans et al.*, 1992] [*Huenges et al.*, 1997]	[*Burkhardt et al.*, 1989] [*Evans et al.*, 1992]	
Ghana	Densu Basin			[*Yidana et al.*, 2014]
	Birimian Province			[*Yidana et al.*, 2013]
Greenland	East Greenland	[*C E Manning et al.*, 1993]	[*C E Manning et al.*, 1993]	
Guyana	Aurora Gold Fields	[*Cole et al.*, 2013]	[*Cole et al.*, 2013]	
Hungary	Bátaapáti	[*Balla and Molnár*, 2004]	[*Tulinius et al.*, 2010]	
India	Choutuppal	[*Guihéneuf et al.*, 2014]	[*Guihéneuf et al.*, 2014]	[*Boisson et al.*, 2015]
	Maheshwaram	[*Maréchal et al.*, 2004]	[*Guihéneuf et al.*, 2014]	[*Maréchal et al.*, 2004]
	Madharam			[*Madhnure et al.*, 2016]
Italy	Entrève	[*Maréchal*, 1998]	[*Maréchal*, 1998]	
	Squillace	[*Baiocchi et al.*, 2014]	[*Baiocchi et al.*, 2014]	[*Baiocchi et al.*, 2014]
Japan	Kamaishi	[*JNC*, 2000] [*Sawada et al.*, 2000]	[*Saegusa and Matsuoka*, 2011]	[*Motojima et al.*, 1993]
	Nojima			[*Kitagawa et al.*, 2007]
	Minamiyama	[*Sasaki*, 1998]	[*Sasaki*, 1998]	
	Mizunami City	[*Daimaru et al.*, 2012] [*JNC*, 2000] [*Kumazaki et al.*, 2003] [*Nakano et al.*, 2001] [*Saegusa and Matsuoka*, 2011]	[*Saegusa and Matsuoka*, 2011]	[*Illman et al.*, 2009] [*Zha et al.*, 2015]
	Different dams and tunnels	[*JNC*, 2000]	[*Saegusa and Matsuoka*, 2011]	

New Zealand	Ida Valley	[*S Wilson and Rekker*, 2012]		
	Manapouri	[*Upton and Sutherland*, 2014]	[*Upton and Sutherland*, 2014]	
	Tongariro	[*Seebeck*, 2012]		
Portugal	Vila Pouca de Aguiar	[*Pacheco and Van der Weijden*, 2014]	[*Pacheco and Van der Weijden*, 2014]	
Russia	Sapoljarny	[*Juhlin and Sandstedt*, 1989] [*NEDRA*, 1992]	[*Juhlin and Sandstedt*, 1989]	
Singapore		[*J Zhao*, 1998]	[*Oliver*, 2010]	
Slovak Republic	Častá	[*Schulze-Makuch and Malik*, 2000]	[*Franko et al.*, 1999]	
South Africa	Hildreth Ridge, Senwabarana	[*Holland*, 2011] [*Holland and Witthüser*, 2011]	[*Holland*, 2011]	[*Holland*, 2011]
South Korea	Buron-Myeon	[*J-Y Lee and Lee*, 1999]		[*J-Y Lee and Lee*, 1999]
	Chungju	[*Snow*, 1979]		
	Daejeon	[*Ji et al.*, 2013] [*Kwon et al.*, 2011]	[*Kwon et al.*, 2011]	
	Geumjeong-Gu	[*Hamm et al.*, 2007]	[*Hamm et al.*, 2007]	
Spain	San Martín de Valdeiglesias	[*Mejías et al.*, 2009]	[*Banda et al.*, 1991]	
	Toledo	[*D'Alessandro et al.*, 1997] [*Guimerà and Carrera*, 2000]	[*Gómez et al.*, 2006]	
Sweden	Emmaboda	[*Gentzschein*, 1986]	[*Ahlbom et al.*, 1995]	
	Guldsmedshyttan	[*Abelin et al.*, 1991a] [*Abelin et al.*, 1991b] [*Birgersson et al.*, 1993] [*Black et al.*, 1987] [*GTC*, 1986] [*Hjerne et al.*, 2010] [*Lundström and Stille*, 1978] [*C R Wilson et al.*, 1983] [*Witherspoon*, 2000]	[*GTC*, 1986] [*C R Wilson et al.*, 1983]	[*L Carlsson and Olsson*, 1985]
	Karlshamn	[*Ekman and Gentzschein*, 1980]	[*Ahlbom et al.*, 1995]	
	Kiruna	[*Ahlbom et al.*, 1992]	[*Ahlbom et al.*, 1995]	
	Kråkemåla	[*Magnusson and Duran*, 1984]	[*Ahlbom et al.*, 1995]	
	Lekeryd, Norrköping, Storuman, Väröbacka	[*A Carlsson and Olsson*, 1977]		
	Luleå	[*Rutqvist*, 1995]	[*Ahlbom et al.*, 1995]	
	Lund	[*Marsic and Grundfelt*, 2013]	[*Marsic and Grundfelt*, 2013]	
	Nyköping	[*Ahlbom et al.*, 1983c] [*Hjerne et al.*, 2010]	[*Ahlbom et al.*, 1995]	
	Örnsköldsvik	[*Ahlbom et al.*, 1983b]	[*Ahlbom et al.*, 1995]	
	Orsa	[*Castaño*, 1993] [*Juhlin and Sandstedt*, 1989]	[*Juhlin and Sandstedt*, 1989]	
	Oskarshamn	[*Enachescu and Rohs*, 2007a; b] [*Enachescu et al.*, 2006a]	[*Ahlbom et al.*, 1995] [*Rahm and Enachescu*, 2004a; b; c; d; e]	[*Wikberg et al.*, 1991] [*Rhén et al.*, 2008]

		[*Enachescu et al.*, 2006b; 2007d; e] [*Enachescu et al.*, 2007a] [*Enachescu et al.*, 2007b] [*Enachescu et al.*, 2007c] [*Enachescu et al.*, 2007f] [*Enachescu et al.*, 2008] [*GTC*, 1986] [*Harrström et al.*, 2006a; b] [*Hjerne et al.*, 2010] [*Ludvigson et al.*, 2002] [*Ludvigson et al.*, 2006] [*Rahm and Enachescu*, 2004a; b; c; d; e; 2005a; b; c; d] [*Rhén et al.*, 1997]		
	Östhammar	[*Andersson et al.*, 1991] [*A Carlsson and Olsson*, 1977] [*Florberger et al.*, 2006] [*Gokall-Norman et al.*, 2005a] [*Gokall-Norman et al.*, 2005b] [*Gokall-Norman et al.*, 2006] [*Guimerà and Carrera*, 2000] [*Gustavsson et al.*, 2006a] [*Gustavsson et al.*, 2006b] [*Harrström et al.*, 2007a] [*Harrström et al.*, 2007b; c] [*Hjerne and Ludvigson*, 2005] [*Hjerne et al.*, 2004] [*Hjerne et al.*, 2005] [*Hjerne et al.*, 2010] [*Källgården et al.*, 2004a] [*Källgården et al.*, 2004b] [*Lindquist et al.*, 2005] [*Lindquist et al.*, 2006a] [*Lindquist et al.*, 2006b] [*Ludvigson et al.*, 2004] [*Walger et al.*, 2006] [*Walger et al.*, 2007]	[*Ahlbom et al.*, 1995] [*Skagius et al.*, 2008]	[*Andersson et al.*, 1991]
	Ovanåker	[*Ahlbom et al.*, 1983d]	[*Ahlbom et al.*, 1995]	
	Töre	[*Ahlbom et al.*, 1983a]	[*Ahlbom et al.*, 1995]	

Switzerland	Aar- & Gotthard Massivs	[*Masset and Loew*, 2010]	[*Rybach and Pfister*, 1994]	
	Airolo, Arosa, Brig, Davos, Polmengo	[*Maréchal*, 1998]	[*Maréchal*, 1998]	
	Basel	[*Marsic and Grundfelt*, 2013]	[*Marsic and Grundfelt*, 2013]	
	Bedretto, Obergoms, Rehalp	[*Maréchal*, 1998]	[*Rybach and Pfister*, 1994]	
	Bergell, Safiental/Domleschg, Val di Blenio/Val di Campo, Val di Lei/Hinterrhein	[*Gysel*, 1984]	[*Aemissegger*, 1993]	
	Böttstein	[*NAGRA*, 1985]	[*NAGRA*, 1985]	
	Bourg-Saint-Pierre, Martigny, Verbier	[*Maréchal*, 1998]	[*Dubois*, 1991]	
	Finhaut	[*Colenco*, 2007]	[*Dubois*, 1991]	
	Hinterrhein	[*Maréchal*, 1998]	[*Aemissegger*, 1993]	
	Kaisten	[*NAGRA*, 1991]	[*NAGRA*, 1991]	
	Leuggern	[*Belanger et al.*, 1989]	[*Belanger et al.*, 1989]	
	Mattertal/Vispertal, Val d'Anniviers, Val de Bagnes, Val d'Entremont, Vorderrhein	[*Gysel*, 1984]	[*Dubois*, 1991]	
	Oberhaslital	[*Maréchal*, 1998] [*NAGRA*, 1981]	[*NAGRA*, 1981] [*Rybach and Pfister*, 1994]	[*Frick et al.*, 1992] [*Illman and Tartakovsky*, 2006]
	Poschiavo	[*SA*, 2010] [*Solexperts*, 2010-2012] [*Stump-Foratec*, 2012]	[*Solexperts*, 2010-2012]	
	Schafisheim	[*NAGRA*, 1992a]	[*NAGRA*, 1992a]	
	Siblingen	[*NAGRA*, 1992b]	[*NAGRA*, 1992b]	
	Weiach	[*NAGRA*, 1989]	[*NAGRA*, 1989]	
Taiwan	Xincheng	[*Lo et al.*, 2014]		
Tanzania	Kabale Village	[*Davies and Ó Dochartaigh*, 2002]	[*Davies and Ó Dochartaigh*, 2002]	
Uganda	Kazo	[*Howard et al.*, 1992]	[*Bahati*, 2011]	
	Iganga			[*Taylor et al.*, 2010]
UK	Altnabreac Gaithness	[*Banks and Robins*, 2002] [*Mather and Sargent*, 1986]	[*Burley et al.*, 1984]	
	Bishop Auckland	[*Younger and Manning*, 2010]	[*Younger and Manning*, 2010]	
	Rosemanowes	[*Clauser*, 1991] [*Heath and Durrance*, 1985] [*Parker*, 1989]	[*Parker*, 1989]	
Ukraine	Krywyj Rih	[*NEDRA*, 1992]	[*NEDRA*, 1992]	

US	Aiken	[*GTC*, 1986]	[*Marine*, 1974]	
	Auburn, Azwell, Baker City, Cedar Stock, Dunneville, Dutch Village, Folsom, Latrobe, Lewiston, Loma Rica, Motor City, Northridge, Oroville, Raymond, Redding, Whiskeytown	[*Snow*, 1979]	[*USDOE*, 2016]	
	Black Hills	[*Zhan and Duex*, 2010]	[*Zhan and Duex*, 2010]	
	Boston	[*Boutt et al.*, 2010]	[*Boutt et al.*, 2010]	
	Clemson			[*Schweisinger et al.*, 2009]
	Denver	[*Prickett*, 1968] [*van Poollen and Hoover*, 1970]	[*van Poollen and Hoover*, 1970]	
	Floyd County			[*Burbey et al.*, 2012]
	Front Range	[*Snow*, 1968; 1979]	[*Berkman and Watterson*, 2010]	[*Kahn et al.*, 2008]
	Lathrop Wells	[*Ballou*, 1978] [*GTC*, 1986] [*Murray*, 1980]	[*Montan and Bradkin*, 1984] [*Murray*, 1980] [*USDOE*, 1988]	
	Los Alamos	[*Delisle*, 1975] [*Shapiro*, 2000] [*Shapiro et al.*, 1999b] [*West et al.*, 1975]	[*Young et al.*, 2015]	
	Marquette iron-mining district	[*Stuart et al.*, 1954]	[*Stuart et al.*, 1954]	
	Mirror Lake	[*Ellefsen et al.*, 2002] [*Paillet and Kapucu*, 1989]	[*Degnan et al.*, 2012]	[*Hsieh*, 2013]
	Montello	[*Haimson et al.*, 1977]	[*Meyer*, 2013]	
	Monticello	[*Zoback and Hickman*, 1982]	[*Nathenson and Guffati*, 1987]	
	Newark	[*Talley*, 1974]		
	Oracle	[*GTC*, 1986] [*Guimerà and Carrera*, 2000]	[*Stone and Witcher*, 1982]	[*Hsieh*, 1987]
	Piermont	[*Matter et al.*, 2005]	[*Matter et al.*, 2005]	
	Salt Lake City	[*A H Manning and Solomon*, 2005]	[*A H Manning and Solomon*, 2005]	
	San Gabriel Mts.	[*Coyle and Zoback*, 1988]	[*Barton et al.*, 1995]	
	South Park	[*Marler and Ge*, 2003]	[*Berkman and Watterson*, 2010]	
	Sugar Bunker	[*Snow*, 1979]	[*USDOE*, 1988]	
	Sunshine	[*Clauser*, 1992]	[*Nathenson and Guffati*, 1987]	
	Walhalla	[*Talwani et al.*, 1999]		
	Winslow	[*Haimson and Doe*, 1983]	[*Nathenson and Guffati*, 1987]	

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