Online Resource: Supplementary Materials

Uncertainty in Risk Issues for Carbon Capture and Geological Storage: Findings from a structured expert elicitation

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Section 1
Experts' paired comparison selections

Notes:
In the tabulated results, 'Coeff of Agreement' measures how closely the patterns of individual experts' pairwise preferences are alike, while 'Coeff of Concordance' indicates how similar the corresponding rank orders are among the group.

'Random preferences p-value' is a test statistic for the strength of evidence that the hypothesis that the group's pairwise preferences are made at random can or cannot be rejected.

In the plots below, ellipses depict 95% confidence areas for factor ranking scores from probabilistic inversion of experts' collective pairwise choices. For cases with alternative scenarios or options, horizontally extended ellipses indicate greater variance in ranking scores for the option on the x-axis option, relative to rankings for the y-axis option; vertically extended ellipses indicate greater variance vice versa.

When only a single scenario or option is considered and plotted, the vertical ellipse size indicates the 95% confidence interval for the factor ranking scores; the horizontal size is held constant for all factors for plotting.

Q1 – Q3 Risks related to activities
In order to rank the relative risk of four chain activities of integrated carbon capture and storage projects (capture, transport, injection, and storage), we need you to indicate which you consider to present the greater risk. Technical (Q1), environmental (Q2), and health risks (Q3) are considered separately.

Rank scores and their variances from group probabilistic inversion:

	Technical risk		Environ. risk		Health risk	
Activity	**Score**	**St. dev.**	**Score**	**St. dev.**	**Score**	**St. dev.**
Capture	0.57	0.29	0.50	0.30	0.64	0.28
Transport	0.33	0.24	0.39	0.26	0.42	0.26
Injection	0.55	0.26	0.58	0.26	0.57	0.25
Storage	0.54	0.29	0.53	0.29	0.38	0.28
Stats						
Coeff agreement	0.08	low	0.02	very low	0.20	ok
Coeff concordance	0.20	ok	0.10	low	0.18	ok
Random preferences p-value	0.08*	marginal cannot reject	0.30*	cannot reject	0.0036	reject

Q4 Storage options long-term risks

In order to rank the overall relative risk of the three main types of storage options (saline aquifer; coal bed methane seams; enhanced oil recovery), we need you to indicate which you consider to present the greater risk over the long term (>100 years)?

"Which of each pair of the following is the most relevant way to define loading condition for a scour fragility function?":

	Long-term risks	
Option	**Score**	**St. dev.**
Saline aquifer	0.46	0.28
Coal bed methane seams	0.50	0.30
Enhanced oil recovery	0.55	0.28
Stats		
Coeff agreement	0.0	none
Coeff concordance	0.03	negligible
Random preferences p-value	0.49*	cannot reject

Q5 Relative health/environ risk causes for low-moderate populated area

In order to rank the relative risks of distinct causes of local health and environmental hazards in a low to moderately populated area, we need you to indicate which you consider to present the greater risk

	Health/environ risks	
Cause	**Score**	**St. dev.**
Brine/gas migration	0.59	0.28
Mag 5+ quake	0.51	0.27
Explosive CO_2 release	0.53	0.29
Hydrofrac caprock failure	0.37	0.27
Stats		
Coeff agreement	0.0	none
Coeff concordance	0.12	low
Random preferences p-value	0.61*	cannot reject

Q6 & 7 Minerals reactivities

In the tables for Questions 6 and 7, we need you to indicate the relative reactivity of five naturally occurring minerals with CO_2 in the pure supercritical state (Q6) and CO_2 in the dissolved state (Q7).

	Supercritical CO_2		**CO2 saturated saline**	
Mineral	**Score**	**St. dev.**	**Score**	**St. dev.**
Feldspar	0.40	0.25	0.51	0.26
Calcite	0.78	0.16	0.80	0.17
Anhydrite	0.64	0.20	0.61	0.20
Hydrated clays	0.48	0.21	0.40	0.19
Quartz	0.16	0.14	0.16	0.15
Stats				
Coeff agreement	0.79	very good	0.56	good
Coeff concordance	0.82	very good	0.69	very good
Random preferences p-value	0.0000	reject hypothesis	0.0000	reject hypothesis

Section 2

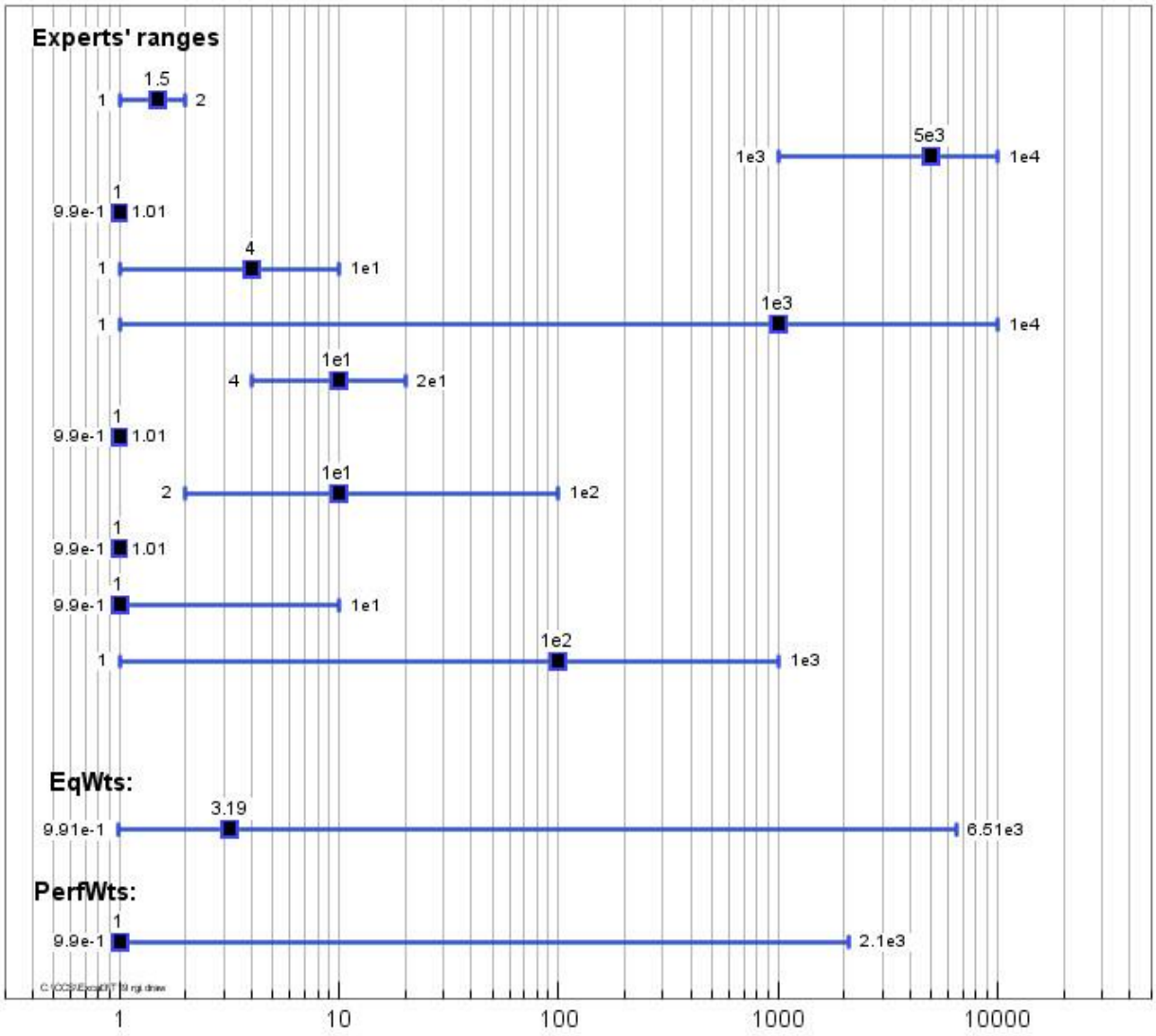
Classical Model solutions for CCS Target Items

For several Target Items, Performance Weights (PW) solution quantiles are expressed as values of X, where X is a probability or likelihood defined in terms of "1-in-X"; corresponding Equal Weights EW solutions are given in brackets: e.g.: "(1 in X)". Graphs depict individual Expert and pooled uncertainty distribution ranges. Some values are shown in scientific exponent notation "x.xx***e***n" for display compactness.

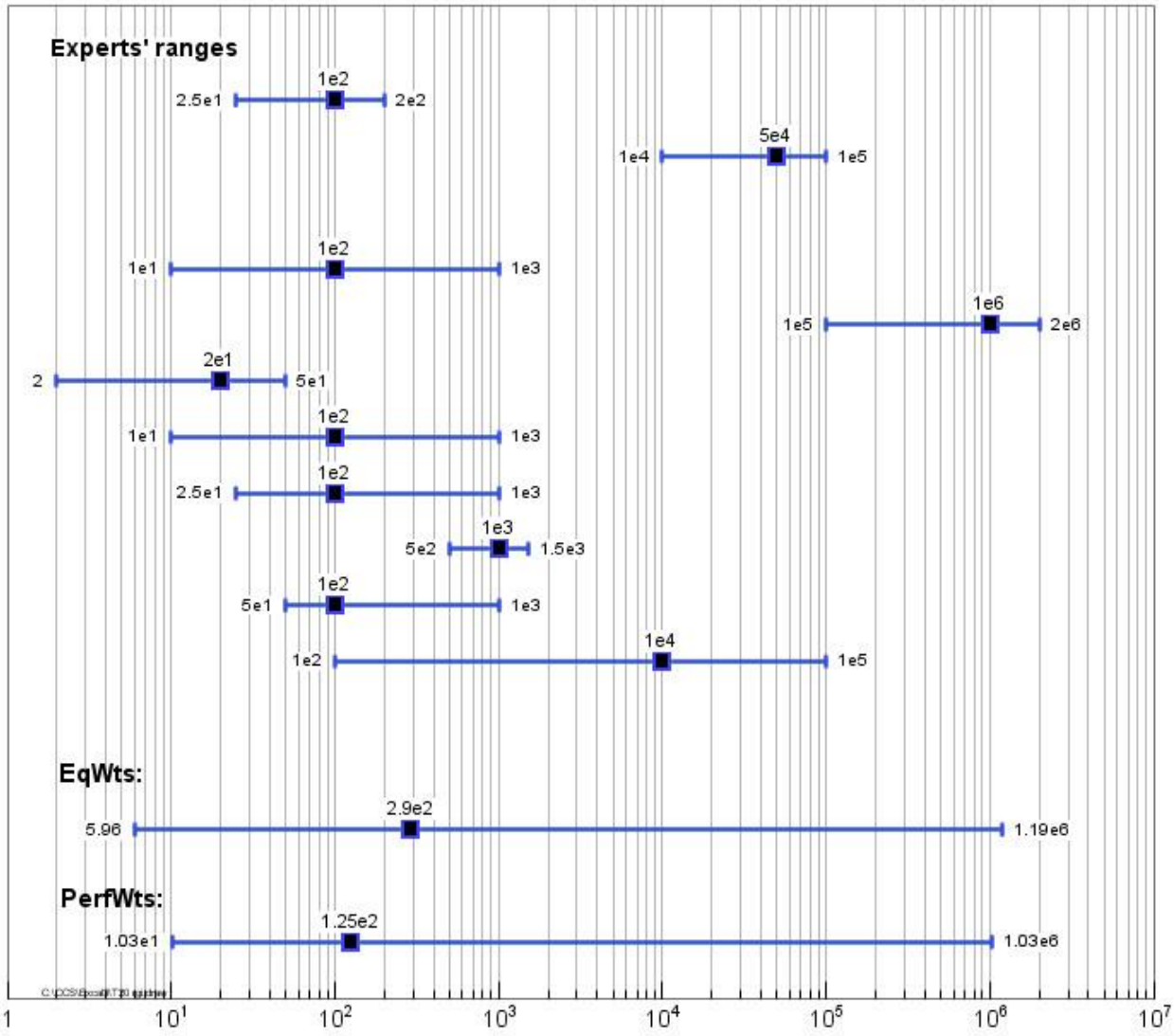
Targets T19 – T21
In the Capture phase of an integrated CCS project, in which there is a 50 year active phase followed by a purely storage phase, what in your opinion is the likelihood of

a) minor leakage; b) major leakage; and c) catastrophic leakage

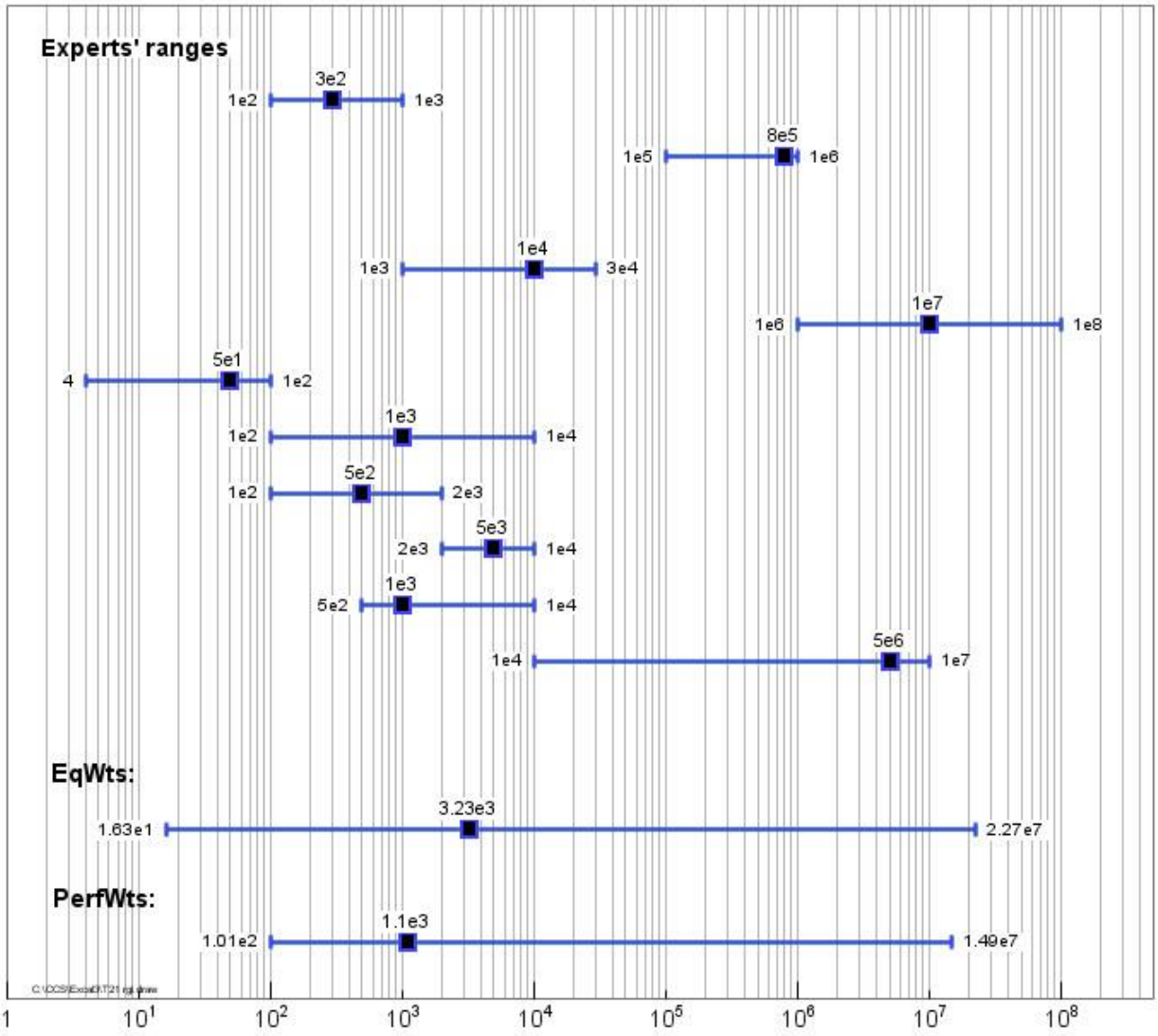
Capture				
Assessment criteria	Lower limit (5^{th} percentile)	Mean	Median	Upper limit (95^{th} percentile)
Minor emissions of dense phase CO_2, NO_2, $PM_{2.5}$, Amines and their degradation products				
[T19] 0-50 years	1 in 2100 (1 in 6500)	1 in 180 (1 in 480)	1 in 1 (1 in 3.2)	1 in 1 (1 in 1)
Major emissions of dense phase CO_2, NO_2, $PM_{2.5}$, Amines and their degradation products				
[T20] 0-50 years	1 in $1.0x10^6$ (1 in $1.2x10^6$)	1 in 65600 (1 in $7.8x10^3$)	1 in 125 (1 in 290)	1 in 10 (1 in 6)
Catastrophic emissions of dense phase CO_2, NO_2, $PM_{2.5}$, Amines and their degradation products				
[T21] 0-50 years	1 in $1.5x10^7$ (1 in $2.3x10^7$)	1 in 95000 (1 in $1.4x10^6$)	1 in 1100 (1 in 3200)	1 in 100 (1 in 16)



Target T19: Capture - likelihood of minor emissions 0-50 yrs [1 in X]



Target T20: Capture - likelihood of major emissions 0-50 yrs [1 in X]

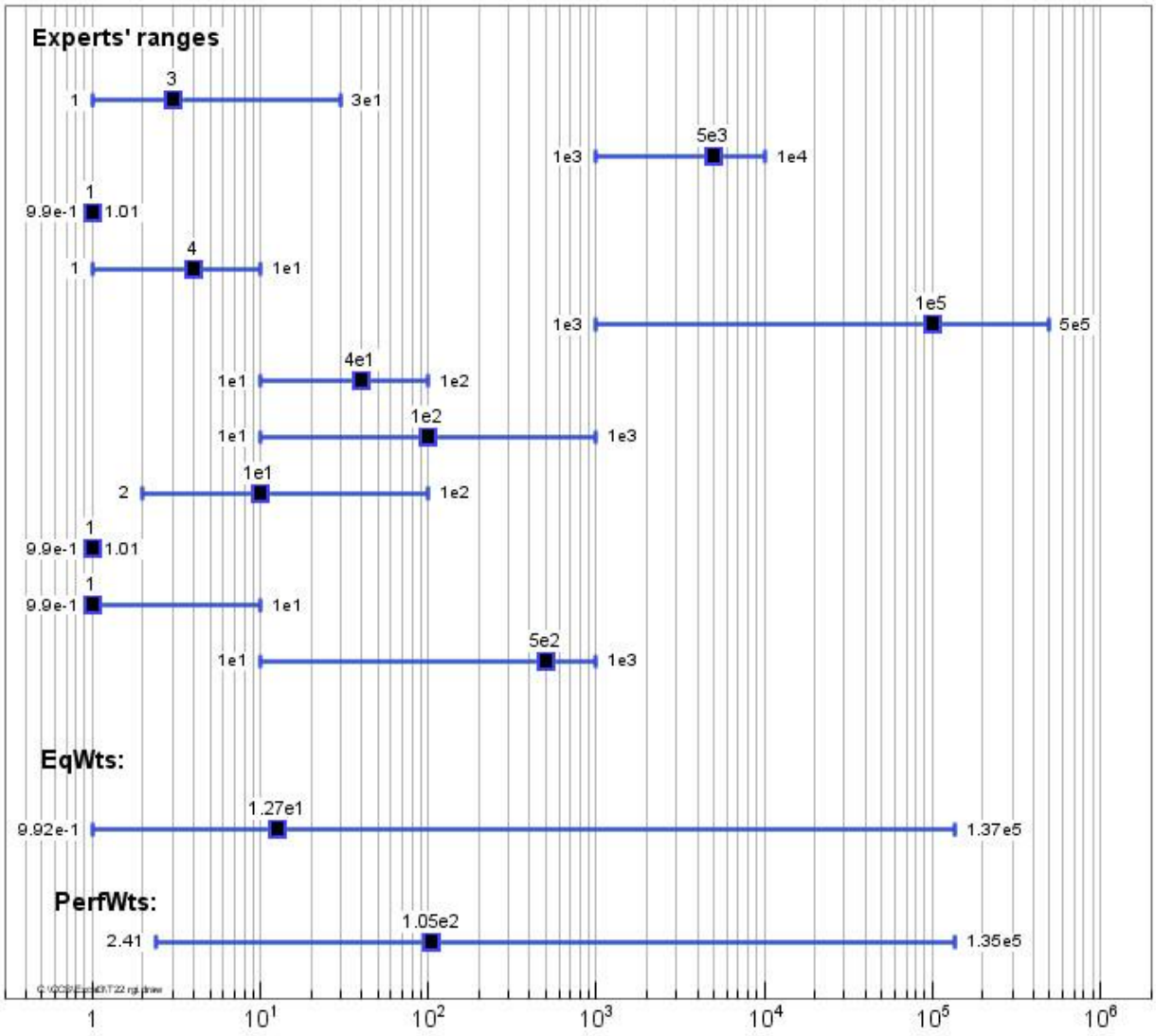


Target T21: Capture - likelihood of catastrophic emissions 0-50 yrs [1 in X]

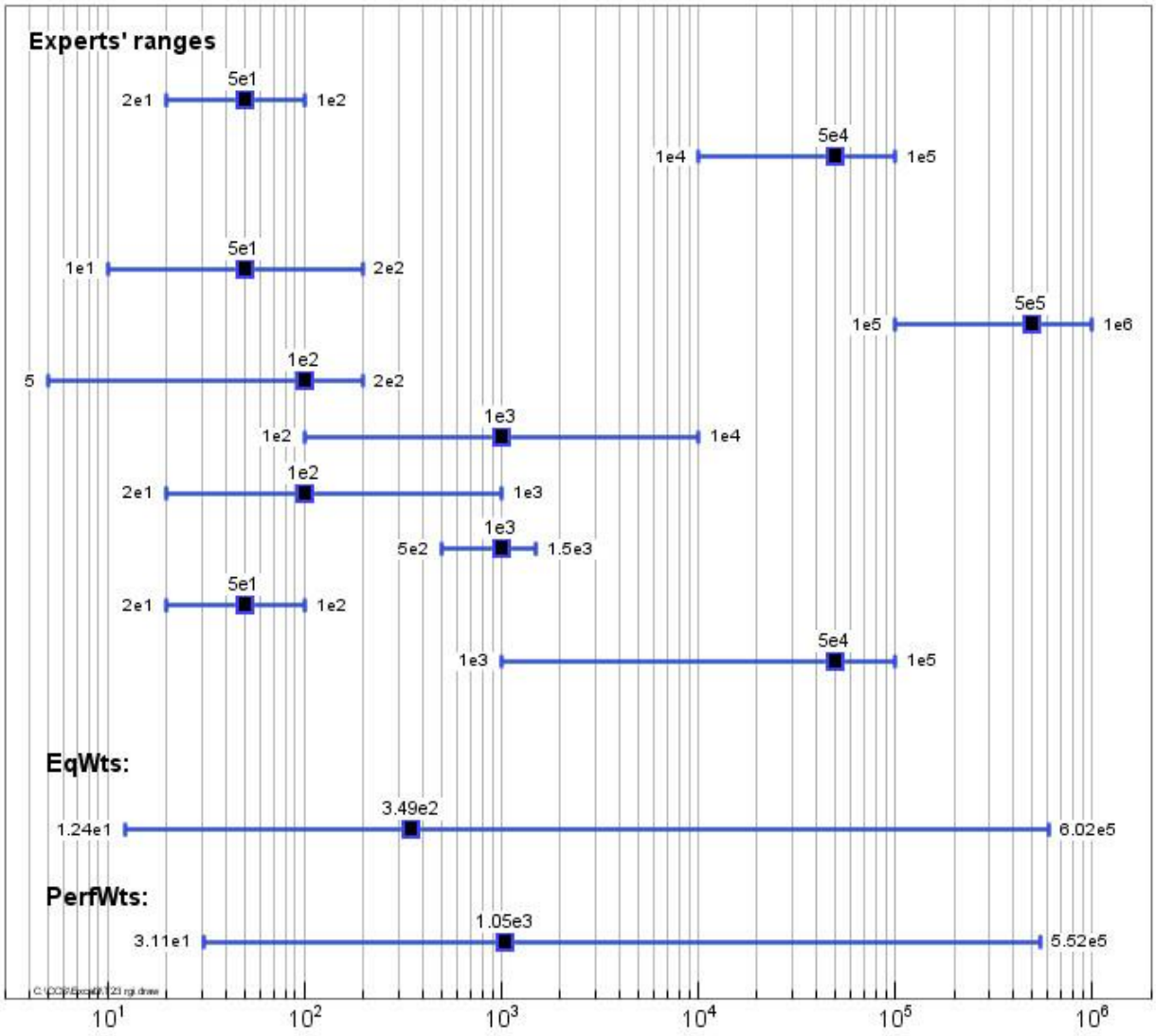
Targets T22 – T24
In the transport phase of an integrated CCS project, in which there is a 50 year active phase followed by a purely storage phase, what in your opinion is the likelihood of

a) minor leakage; b) major leakage; and c) catastrophic leakage

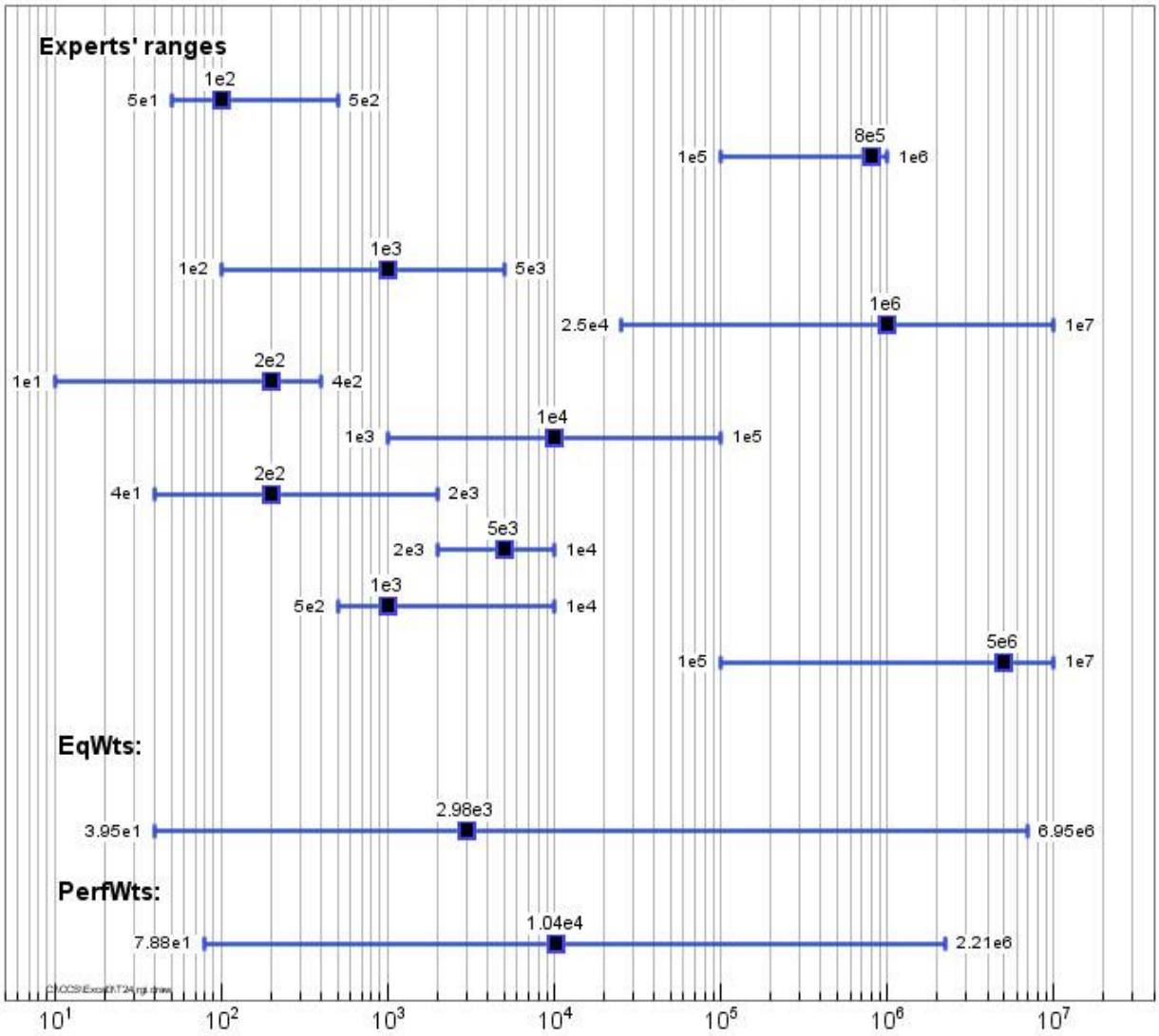
Transport				
Assessment criteria	Lower limit (5^{th} percentile)	Mean	Median	Upper limit (95^{th} percentile)
Minor CO_2 stream leakage				
[T22] 0-50 years	1 in 135000 (1 in 137000)	1 in 12100 (1 in 8850)	1 in 105 (1 in 13)	1 in 2.4 (1 in 1)
Major CO_2 stream leakage				
[T23] 0-50 years	1 in 550000 (1 in 600000)	1 in 50000 (1 in 44000)	1 in 1050 (1 in 350)	1 in 31 (1 in 12)
Catastrophic CO_2 stream leakage				
[T24] 0-50 years	1 in 2.2×10^6 (1 in 7.0×10^6)	1 in 240000 (1 in 490000)	1 in 10400 (1 in 3000)	1 in 79 (1 in 39.5)



Target T22: Transport - likelihood of minor CO_2 leakage 0-50 yrs [1 in X]



Target T23: Transport - likelihood of major CO_2 leakage 0-50 yrs [1 in X]

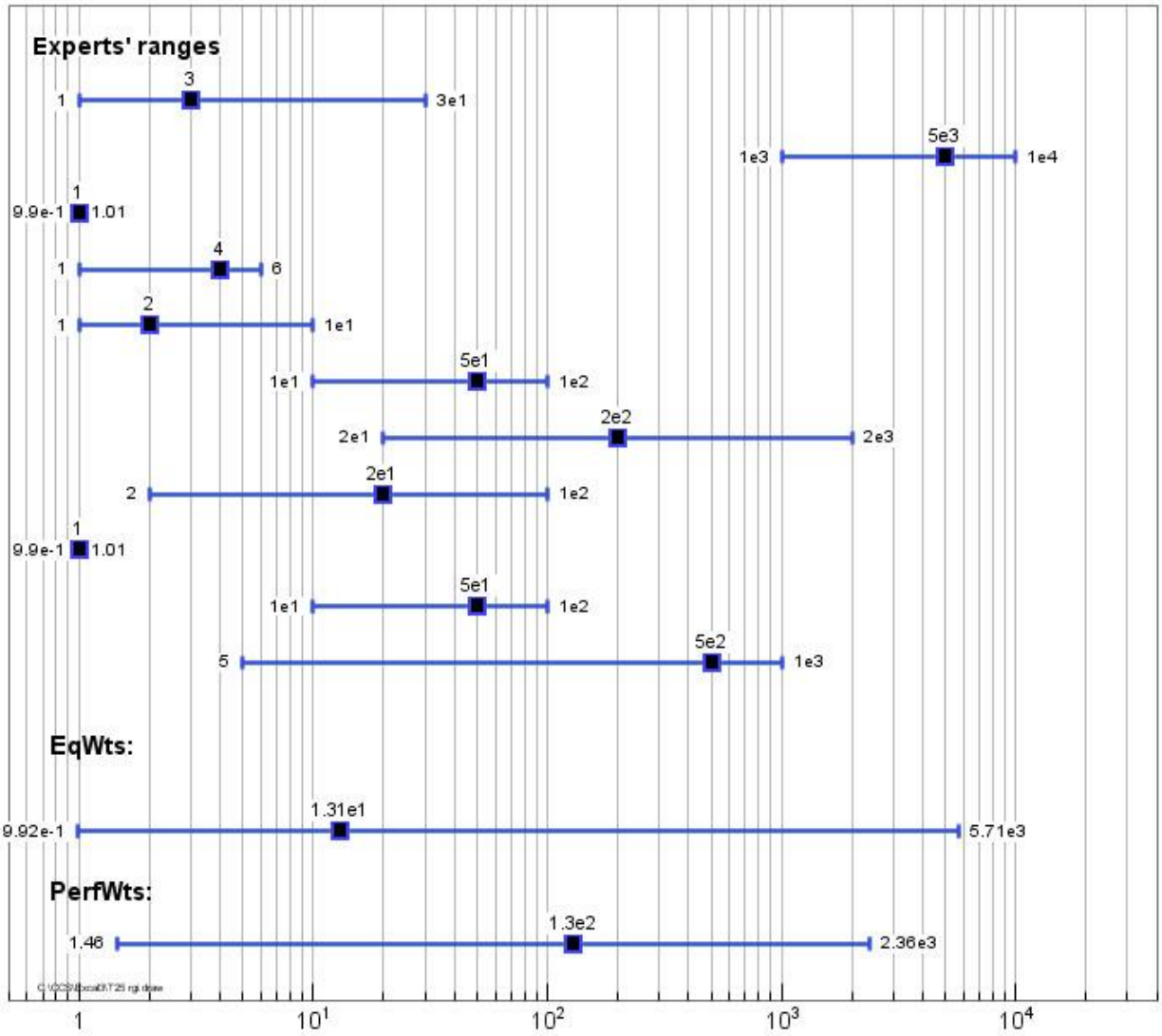


Target T24: Transport - likelihood of catastrophic CO_2 leakage 0-50 yrs [1 in X]

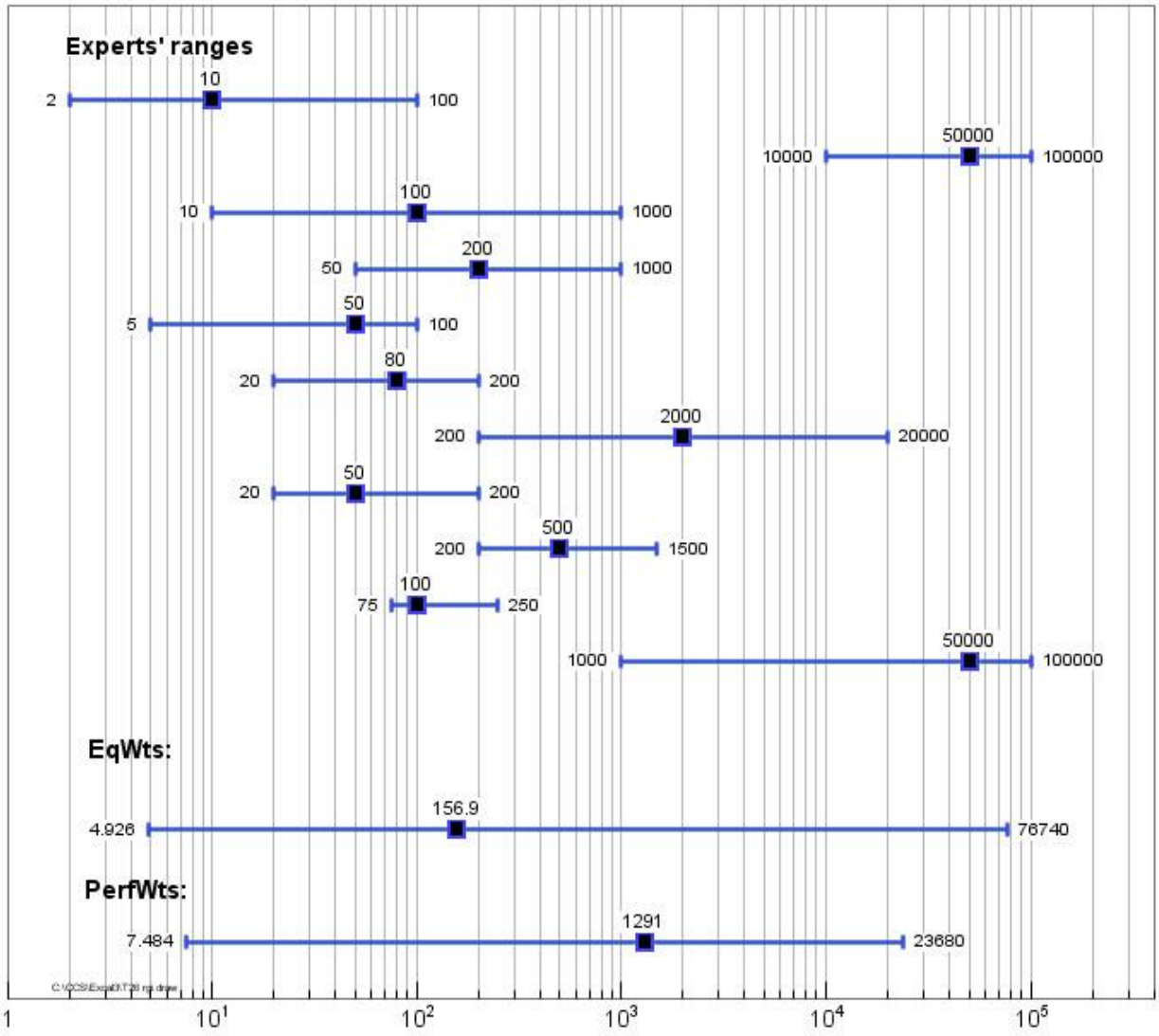
Targets T25 – T27
In the Injection phase of an integrated CCS project, in which there is a 50 year active phase followed by a purely storage phase, what in your opinion is the likelihood of

a) minor leakage; b) major leakage; and c) catastrophic leakage

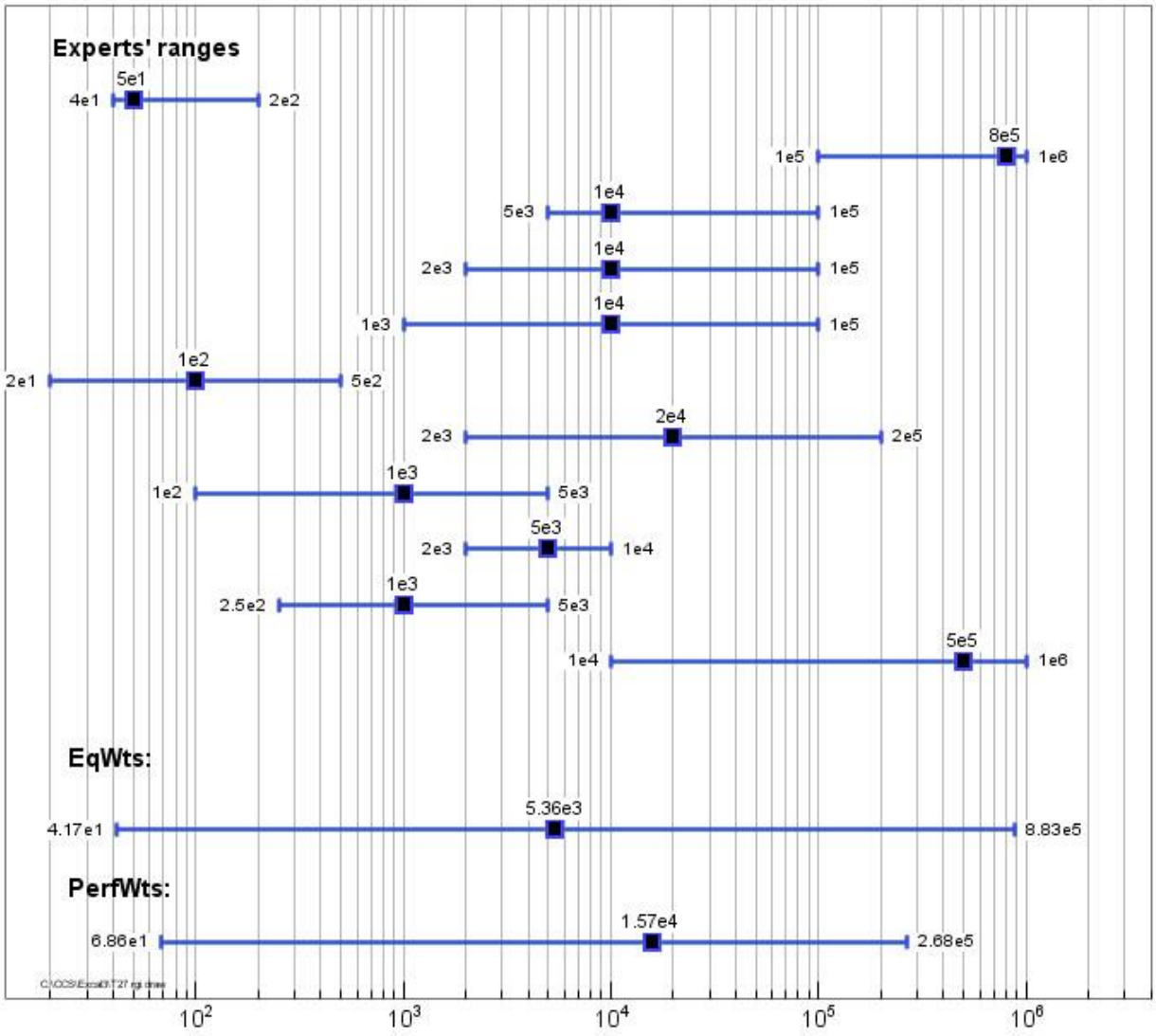
Injection				
Assessment criteria	Lower limit (5^{th} percentile)	Mean	Median	Upper limit (95^{th} percentile)
Minor CO_2 leakage				
[T25] 0-50 years	1 in 2400 (1 in 5700)	1 in 455 (1 in 500)	1 in 130 (1 in 13)	1 in 1.5 (1 in 1)
Major CO_2 leakage				
[T26] 0-50 years	1 in 23700 (1 in 76700)	1 in 4550 (1 in 6600)	1 in 1290 (1 in 157)	1 in 7.5 (1 in 5)
Catastrophic CO_2 leakage				
[T27] 0-50 years	1 in 270000 (1 in 880000)	1 in 53500 (1 in 92000)	1 in 15700 (1 in 5360)	1 in 69 (1 in 42)



Target T25: Injection - likelihood of minor CO_2 leakage 0-50 yrs [1 in X]



Target T26: Injection - likelihood of major CO_2 leakage 0-50 yrs [1 in X]



Target T27: Injection - likelihood of catastrophic CO_2 leakage 0-50 yrs [1 in X]

T28-30Rev: In the first 50 years of an integrated carbon sequestration project, what is the likelihood of the following leakage scenarios (1 in X, where X ≥1; for example, 1 in 100 would represent a 1% likelihood)?

a) Minor leakage b) Major leakage c) Catastrophic leakage

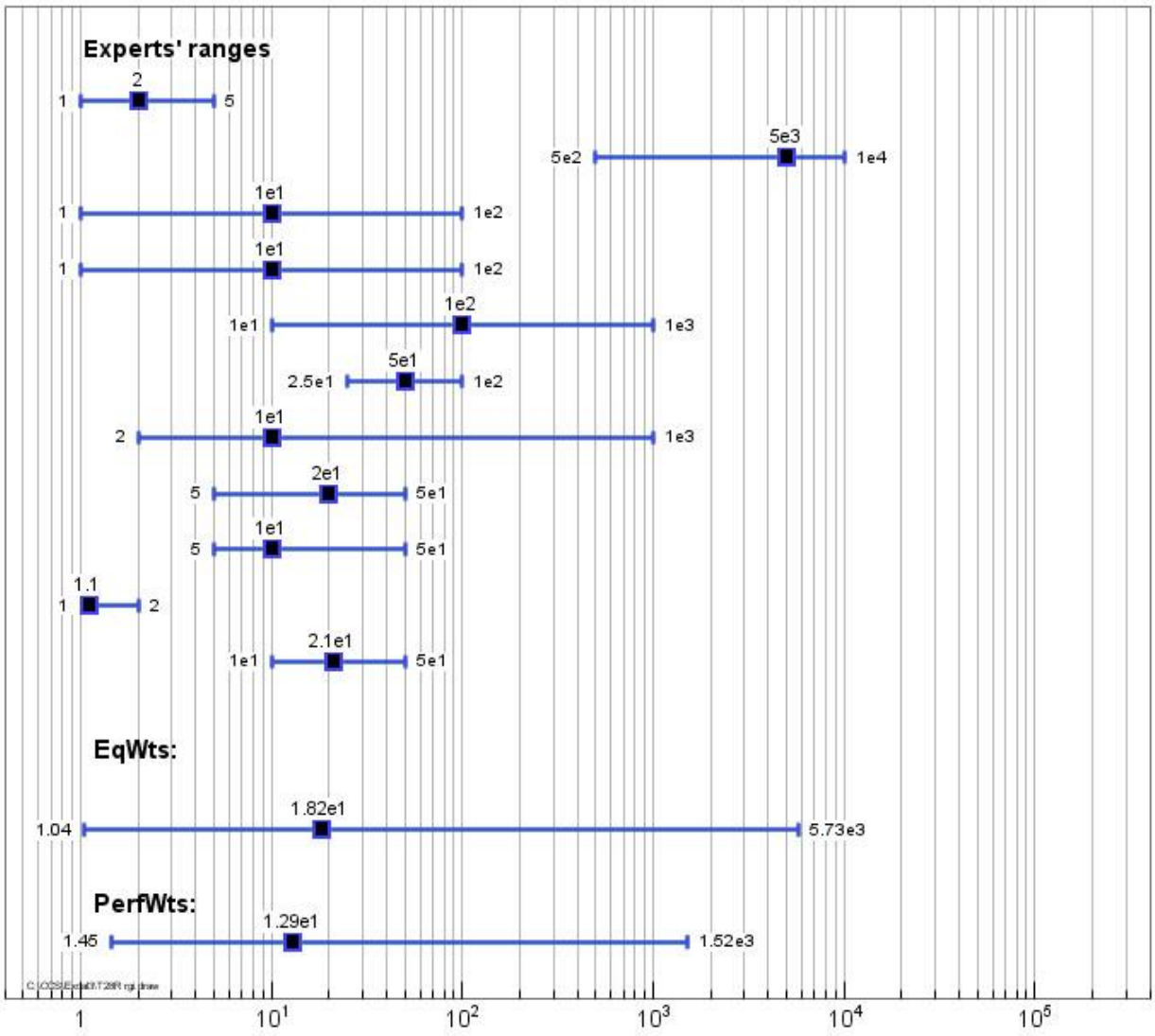
T31-33Rev: From year 51-499 of an integrated carbon sequestration project, what is the likelihood of the following leakage scenarios (1 in X, where X ≥1; for example, 1 in 100 would represent a 1% likelihood)?

a) Minor leakage b) Major leakage c) Catastrophic leakage

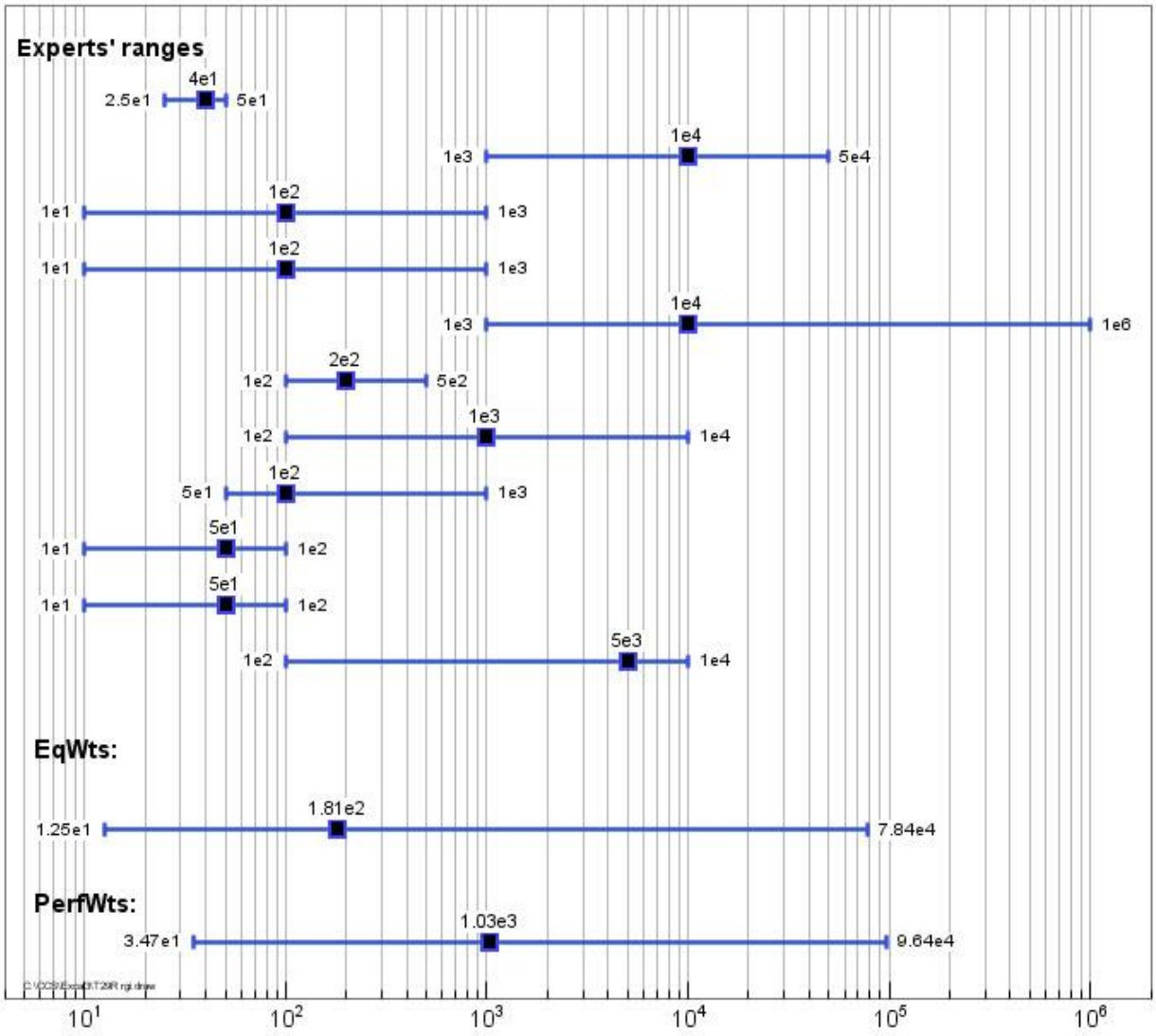
T34-36Rev: From year 500 onwards of an integrated carbon sequestration project, what is the likelihood of the following leakage scenarios (1 in X, where X ≥1; for example, 1 in 100 would represent a 1% likelihood)?

a) Minor leakage b) Major leakage c) Catastrophic leakage

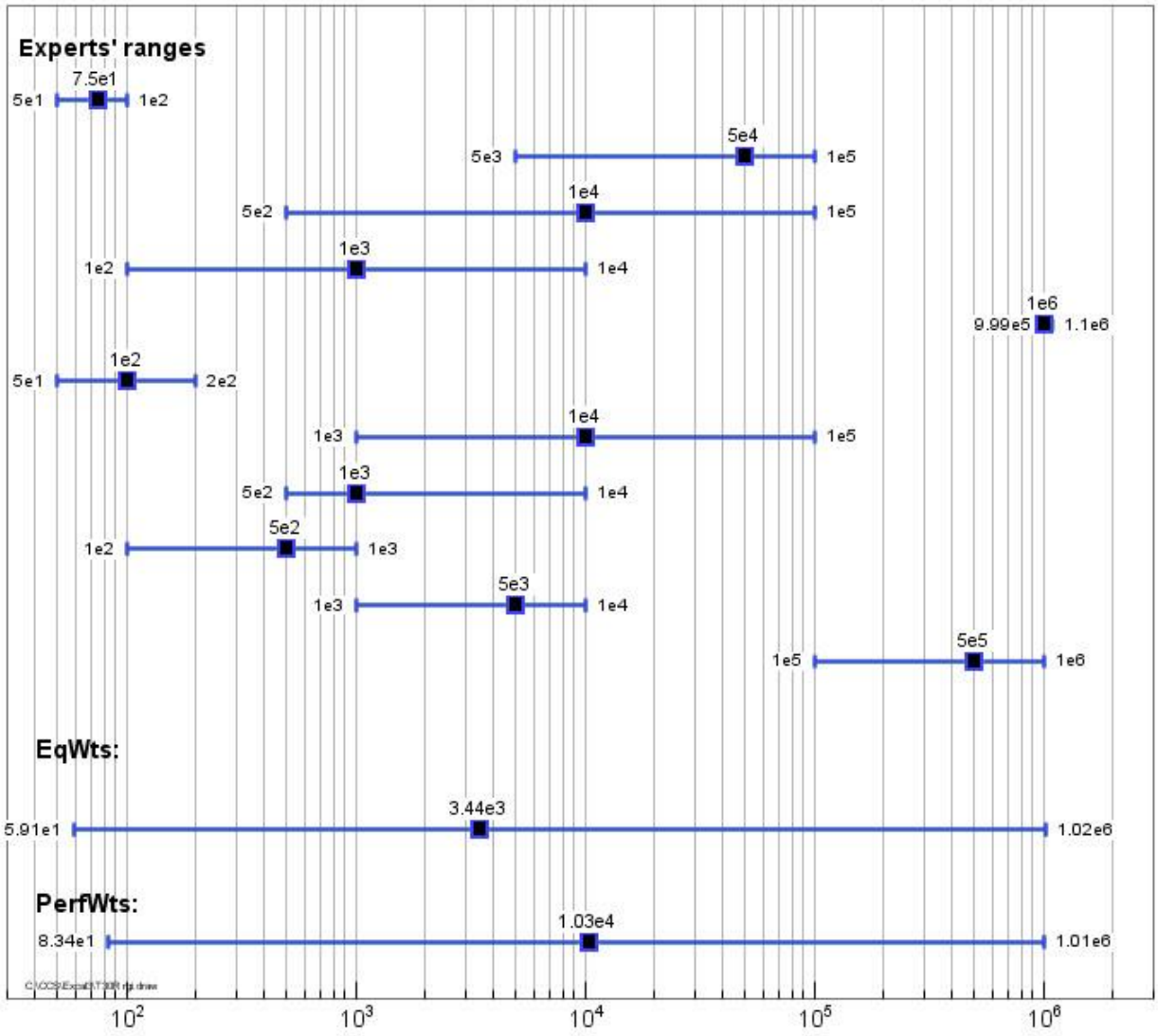
Storage Leakage Likelihood				
Period/Leakage	Lower limit (5^{th} percentile)	Mean	Central value (median)	Upper limit (95^{th} percentile)
0-50 years				
[T28R] Minor	1 in 1.4 (1 in 1.0)	170 (530)	1 in 13 (1 in 18)	1 in 1520 (1 in 5730)
[T29R] Major	1 in 35 (1 in 12)	11,200 (6900)	1 in 1030 (1 in 180)	1 in 96,400 (1 in 78,400)
[T30R] Catastrophic	1 in 83 (1 in 59)	116,000 (95,500)	1 in 10,300 (1 in 3440)	1 in 1 million (1 in 1 million)
51-499 years				
[T31R] Minor	1 in 2 (1 in 1)	210 (1910)	1 in 9.9 (1 in 24)	1 in 2070 (1 in 25,000)
[T32R] Major	1 in 57 (1 in 7)	2900 (7500)	1 in 890 (1 in 360)	1 in 16,100 (1 in 75,000)
[T33R] Catastrophic	1 in 595 (1 in 80)	119,000 (92,000)	1 in 11,300 (1 in 2750)	1 in 1 million (1 in 1 million)
Over 500 years				
[T34R] Minor	1 in 2 (1 in 1)	780 (11,000)	1 in 27 (1 in 86)	1 in 8,340 (1 in 152,000)
[T35R] Major	1 in 100 (1 in 8)	18,300 (52,900)	1 in 1200 (1 in 1000)	1 in 172,000 (1 in 630,000)
[T36R] Catastrophic	1 in 1020 (1 in 86)	122,000 (136,000)	1 in 12,500 (1 in 20,000)	1 in 1 million (1 in 1 million)



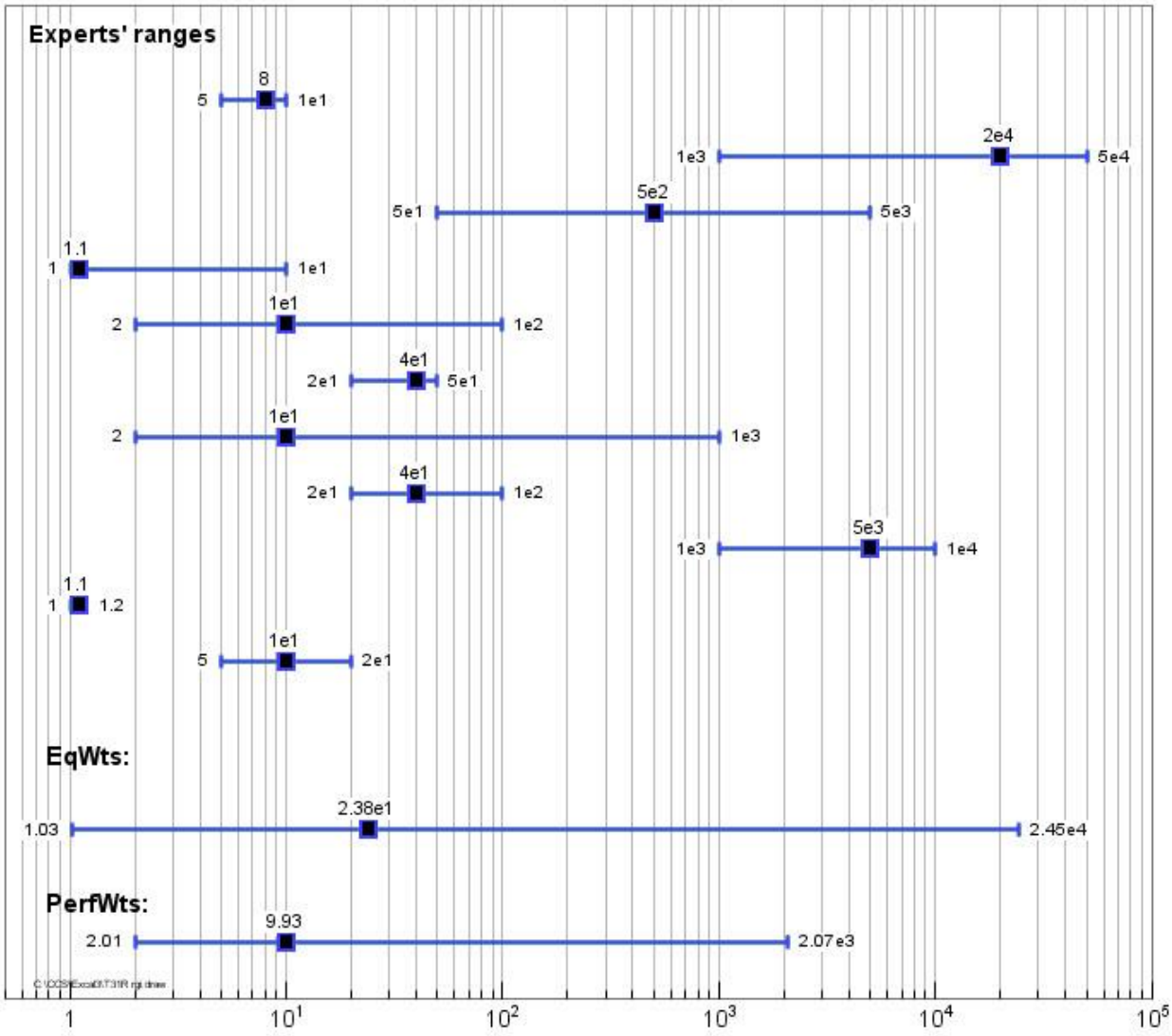
Target T28(R): Storage - likelihood of minor CO_2 leakage: 0-50 yrs [1 in X]



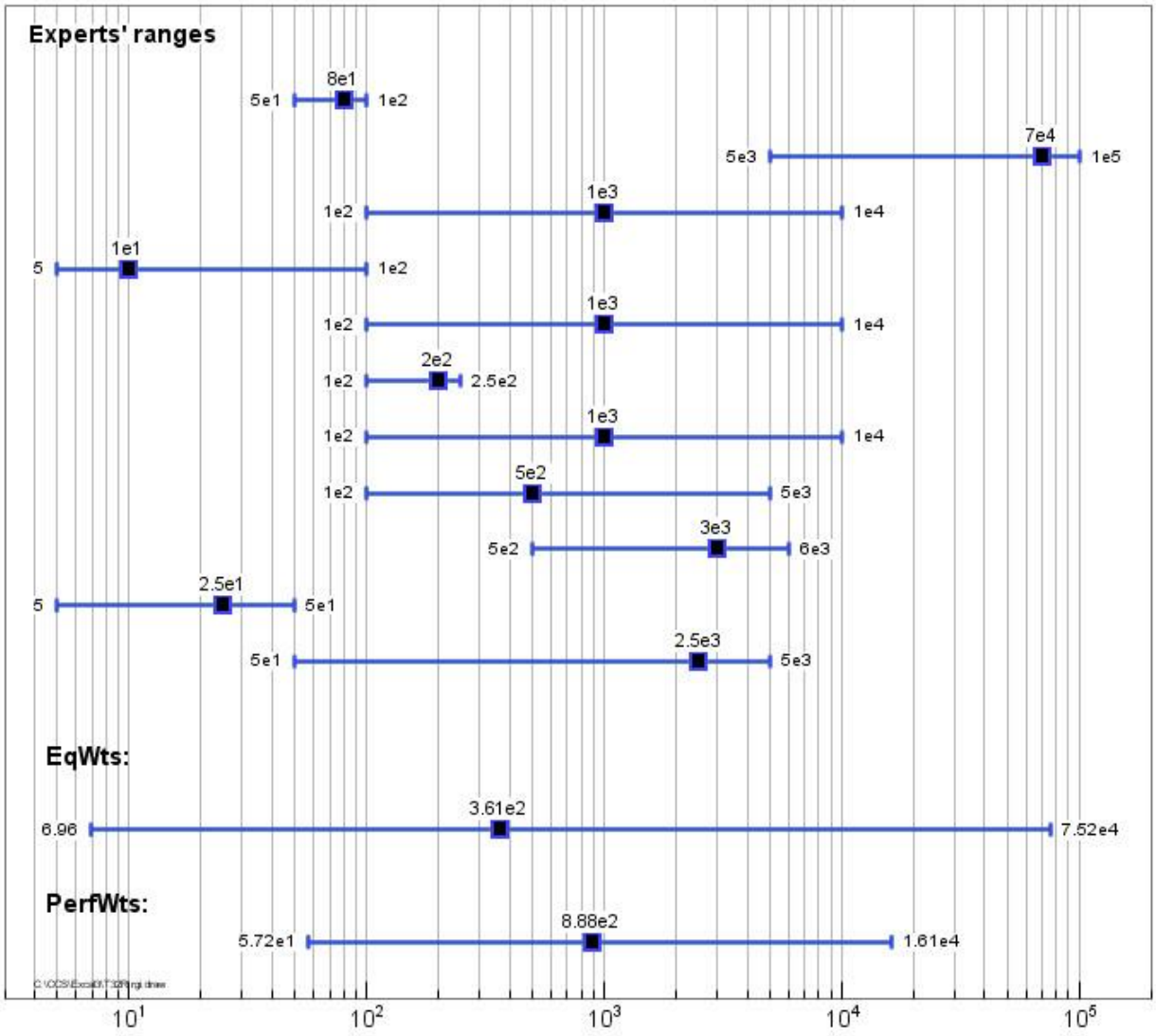
Target T29(R): Storage - likelihood of major CO_2 leakage: 0- 50 yrs [1 in X]



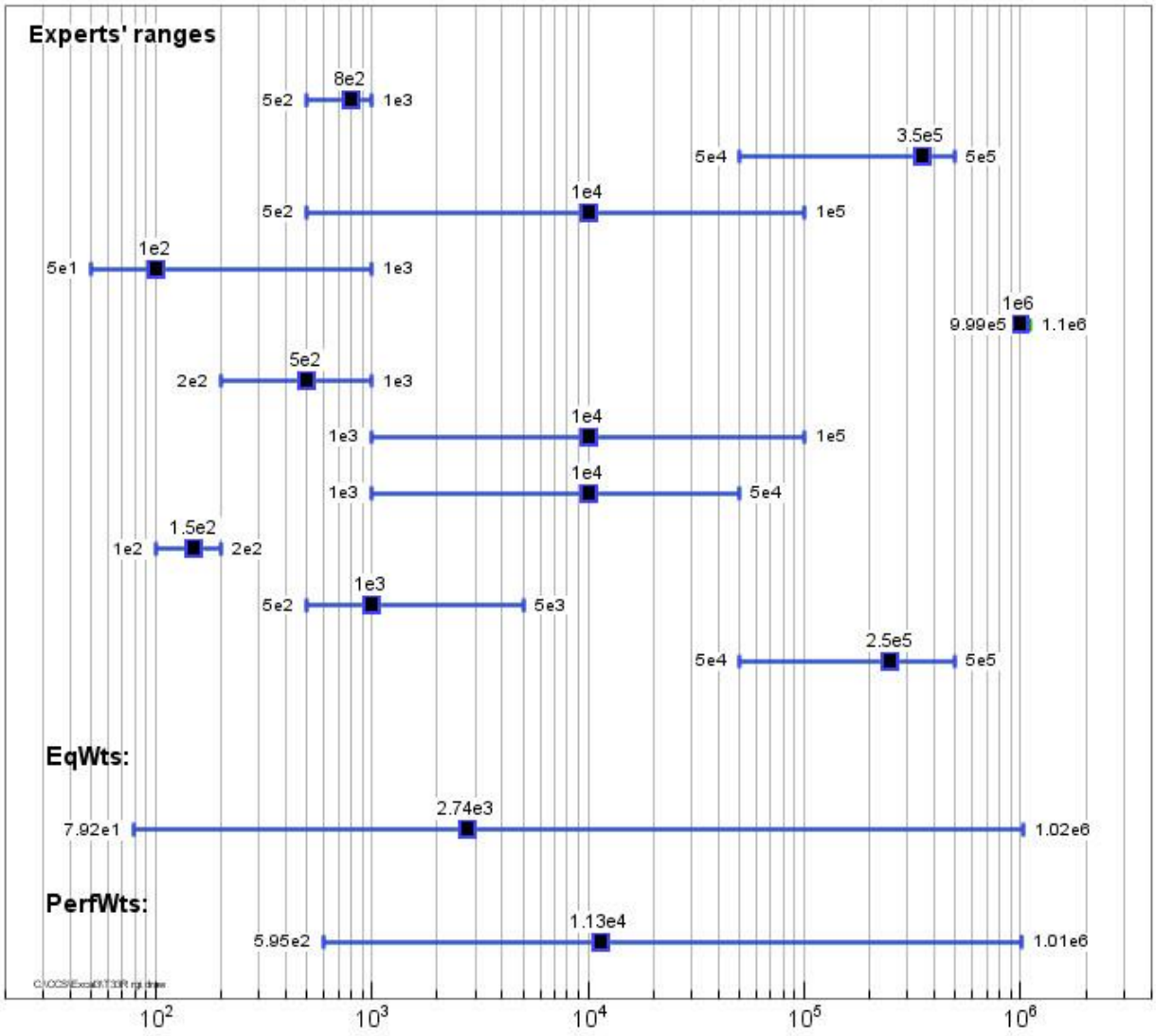
Target T30(R): Storage - likelihood of catastrophic CO_2 leakage: 0-50 yrs [1 in X]



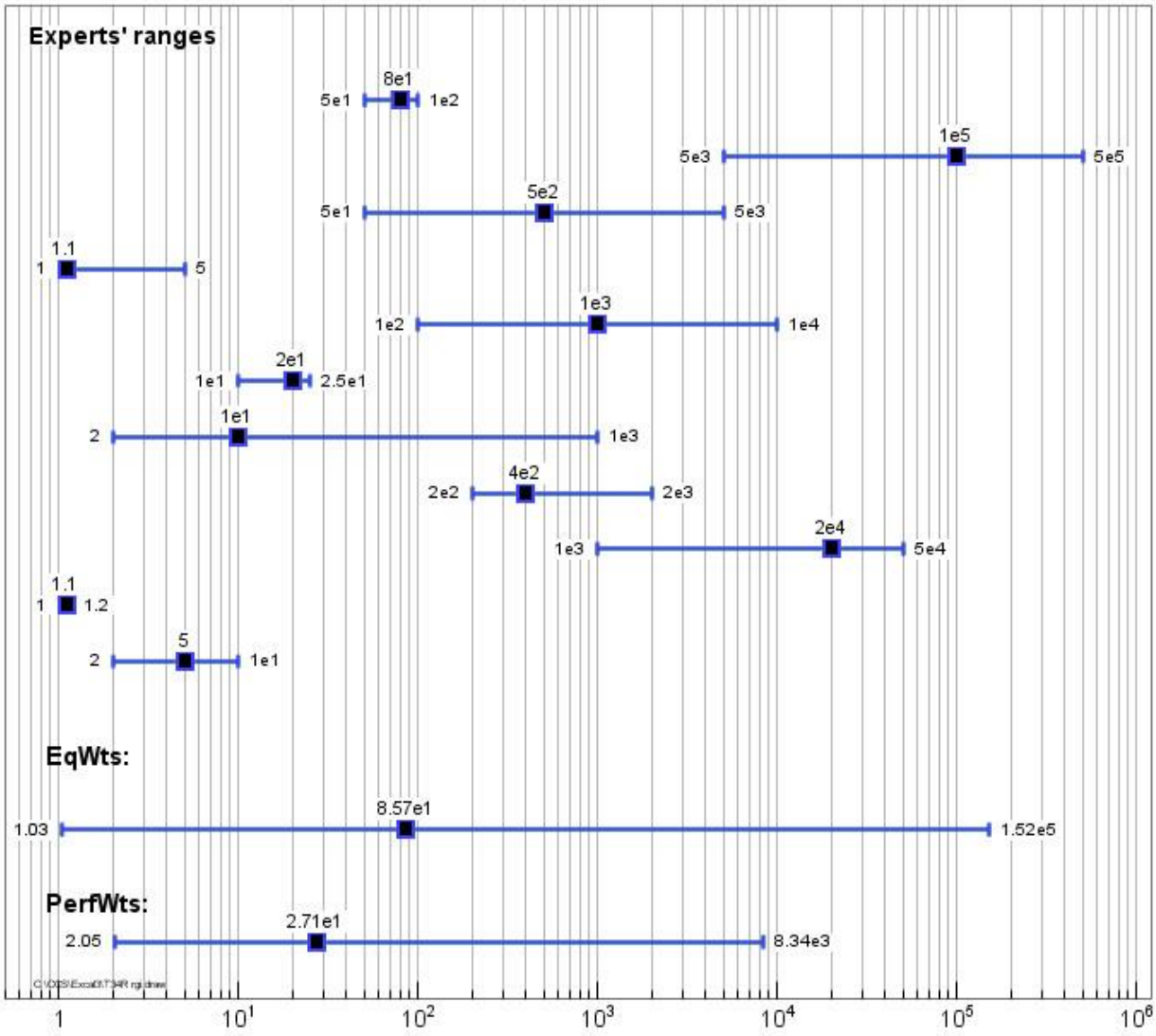
Target T31(R): Storage - likelihood of minor CO_2 leakage: 51-499 yrs [1 in X]



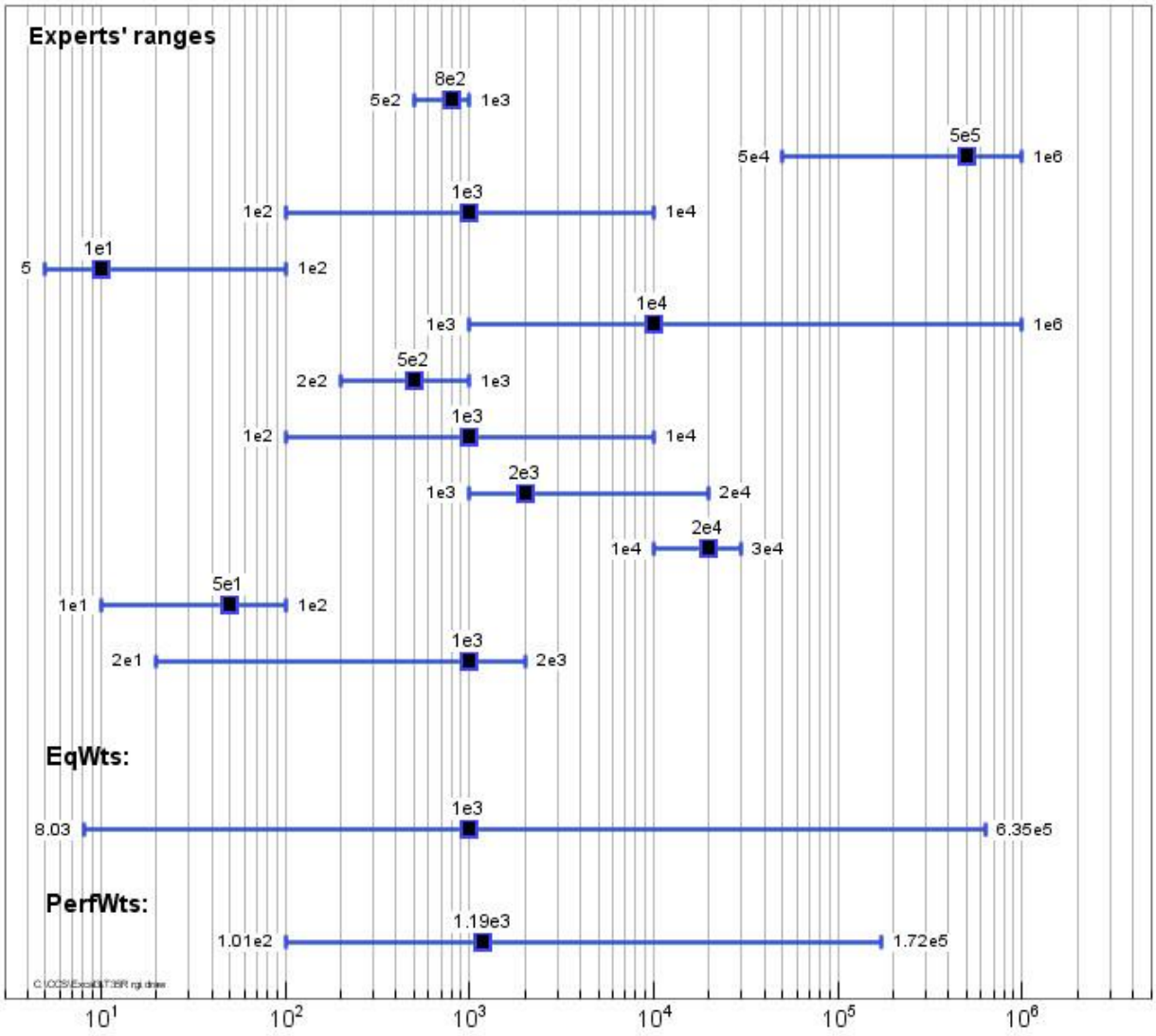
Target T32(R): Storage - likelihood of major CO_2 leakage: 51-499 yrs [1 in X]



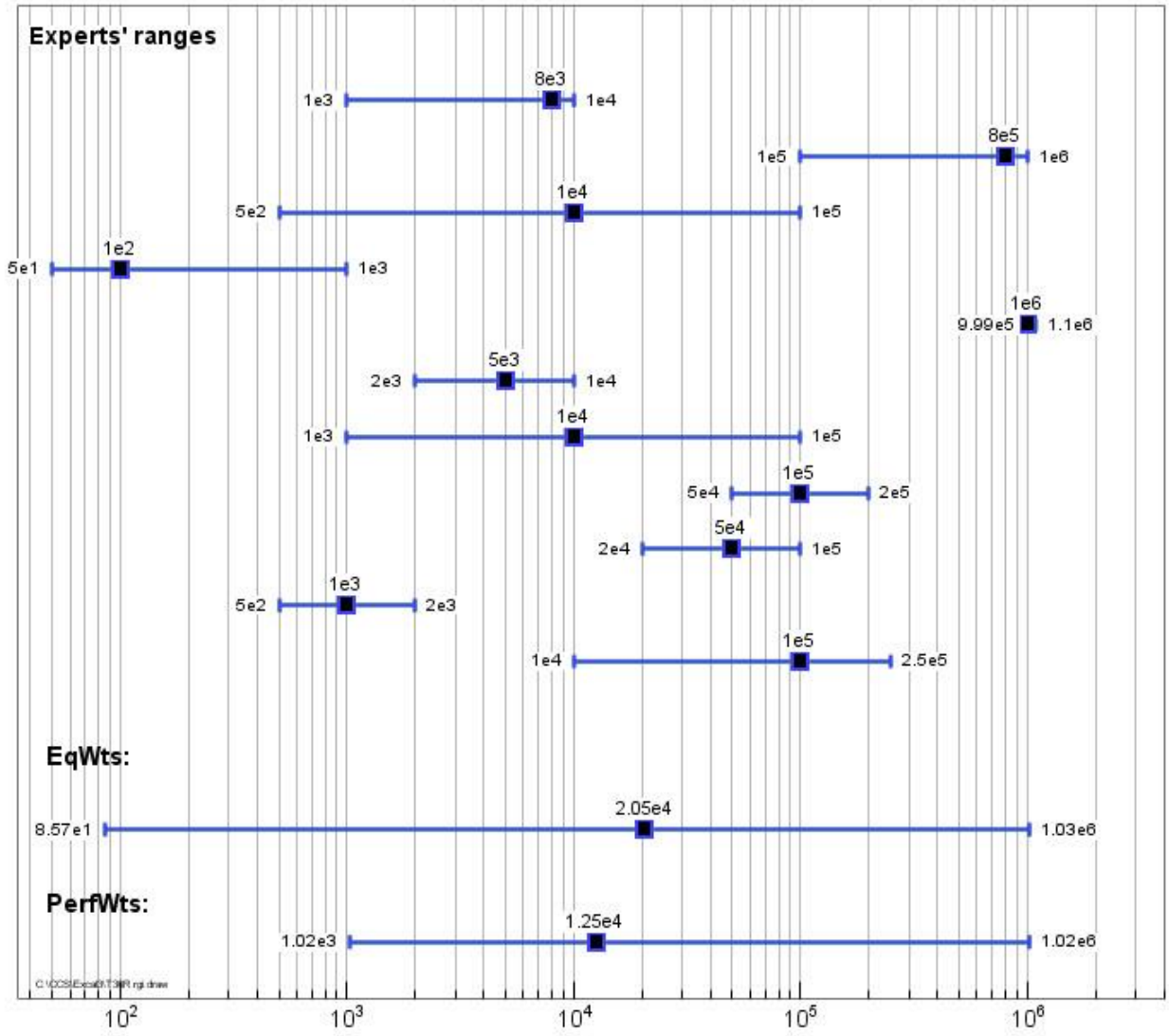
Target T33(R): Storage - likelihood of catastrophic CO_2 leakage: 51-499 yrs [1 in X]



Target T34(R): Storage - likelihood of minor CO_2 leakage: 500+ yrs [1 in X]



Target T35(R): Storage - likelihood of major CO_2 leakage: 500+ yrs [1 in X]

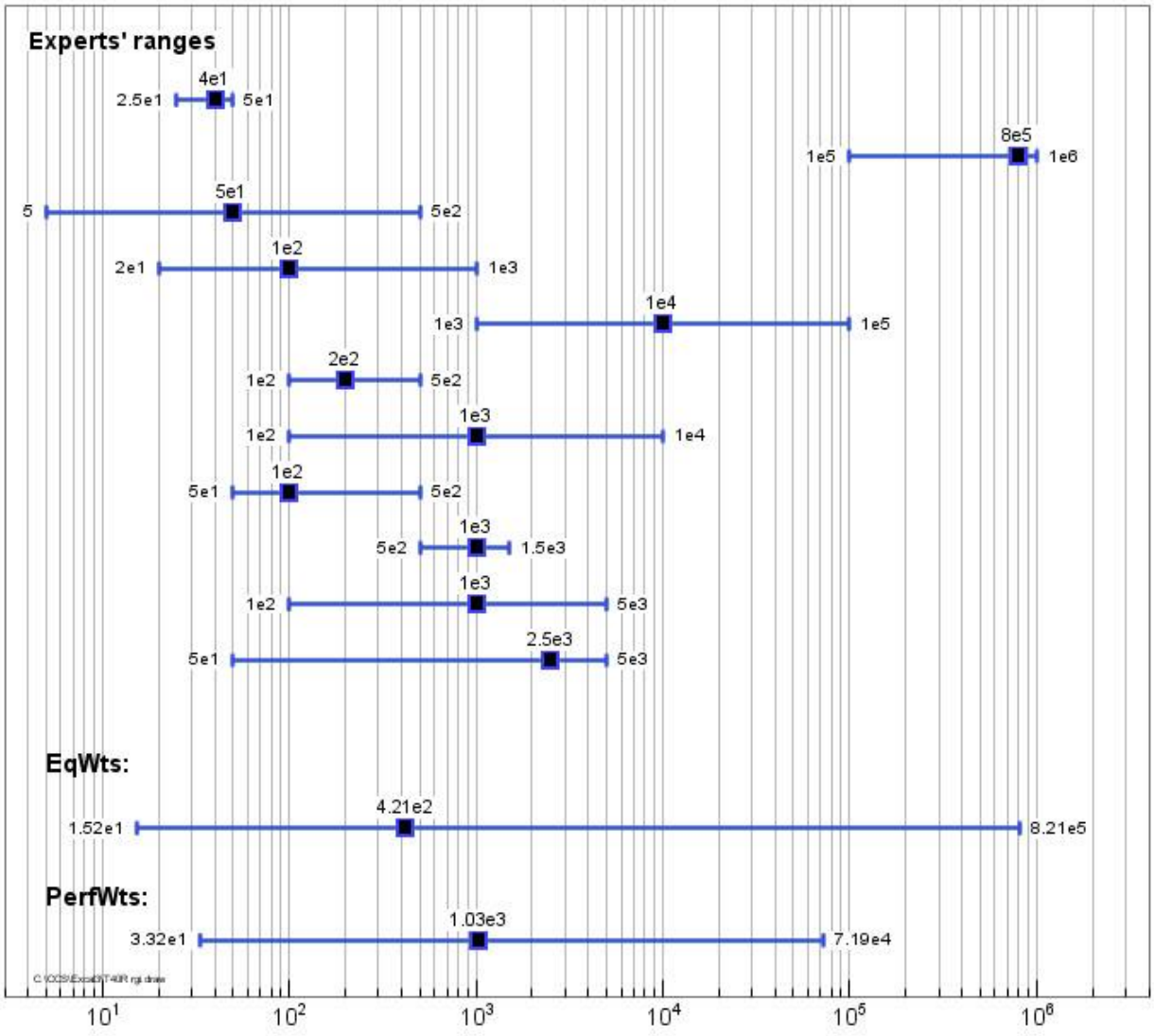


Target T36(R): Storage - likelihood of catastrophic CO_2 leakage 500+ yrs [1 in X]

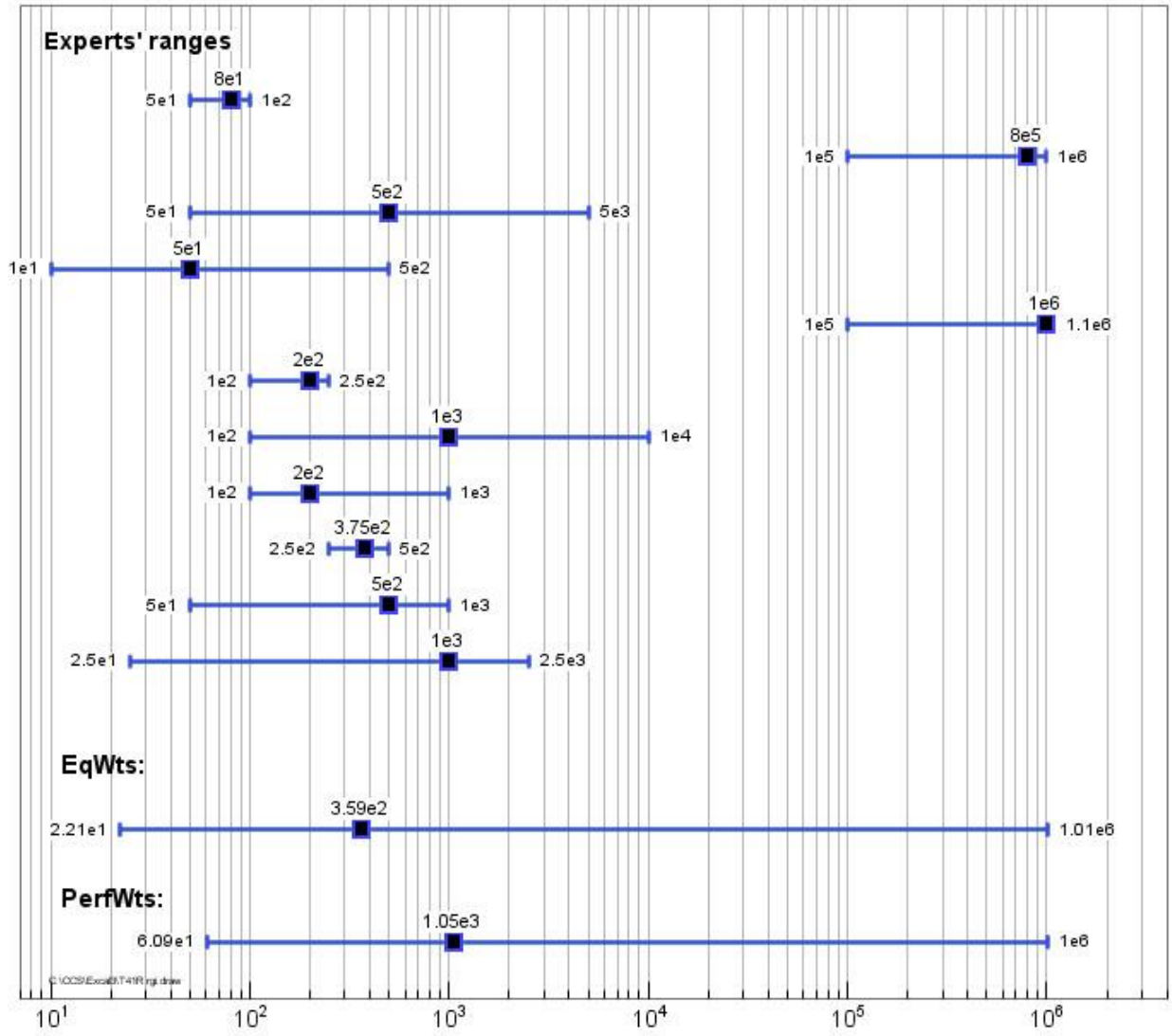
T40-T42Rev: This triplet of questions concerns the likelihood of major CO_2 leakage in a typical saline aquifer that would result in significant effects on the local environment or human health, in each of three time periods: 0-50 yrs; 51-499 yrs; and over 500 yrs.

T40-42Rev: In a typical saline aquifer storage site, what is the likelihood of major CO_2 leakage that would result in measurable negative environmental impact or adverse public health impact in each of the time periods (1 in X, where X≥1; for example, 1 in 100 would represent a 1% likelihood)?

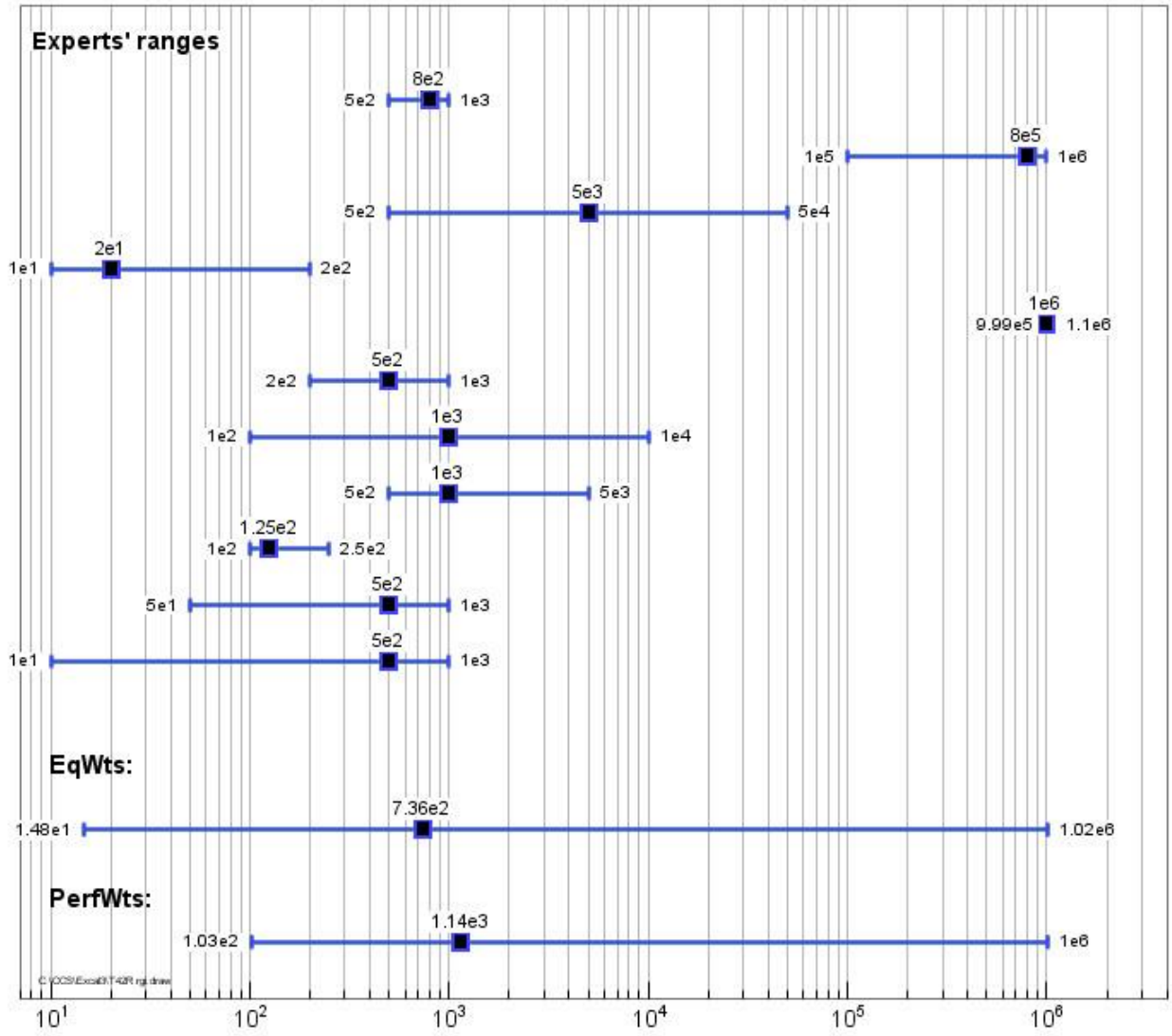
Time period (years)	Lower limit (5^{th} percentile)	Mean	Central Value (median)	Upper limit (95^{th} percentile)
[T40R] 0-50 yrs	1 in 33 (1 in 15)	8900 (58,900)	1 in 1030 (1 in 420)	1 in 71,900 (1 in 821,000)
[T41R] 51-499 yrs	1 in 61 (1 in 22)	78,900 (69,700)	1 in 1050 (1 in 360)	1 in 1 million (1 in 1 million)
[T42R] 500+ yrs	1 in 103 (1 in 15)	79,900 (76,100)	1 in 1140 (1 in 736)	1 in 1 million (1 in 1 million)



Target T40(R): Saline aquifer storage - likelihood of minor CO_2 leakage with environ/health impacts 0-50 yrs [1 in X]



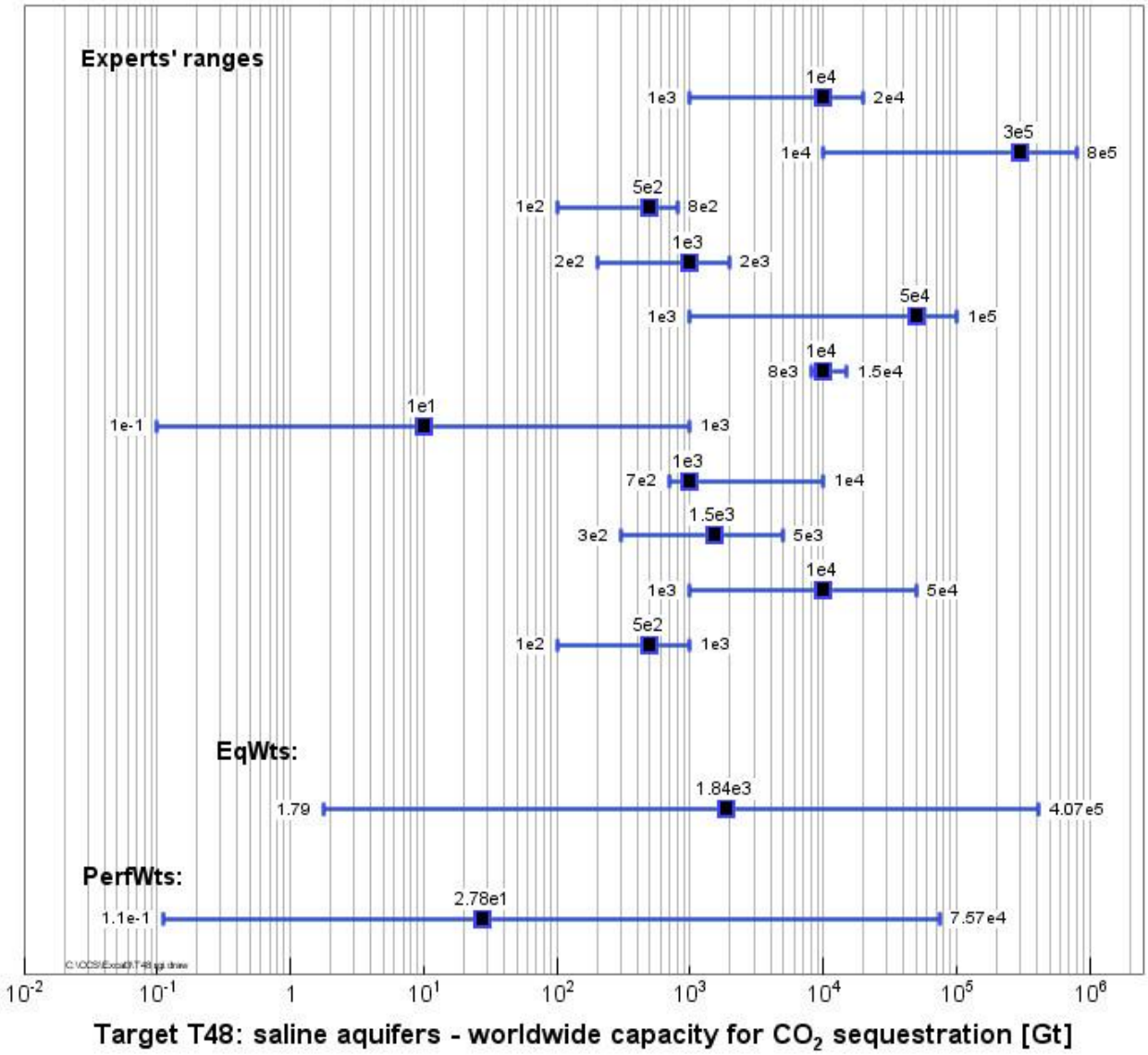
Target T41(R): Saline aquifer storage - likelihood of major CO_2 leakage with environ/health impacts 51 - 499 yrs [1 in X]



Target T42(R): Saline aquifer storage - likelihood of major CO_2 leakage with environ/health impacts 500+ yrs [1 in X]

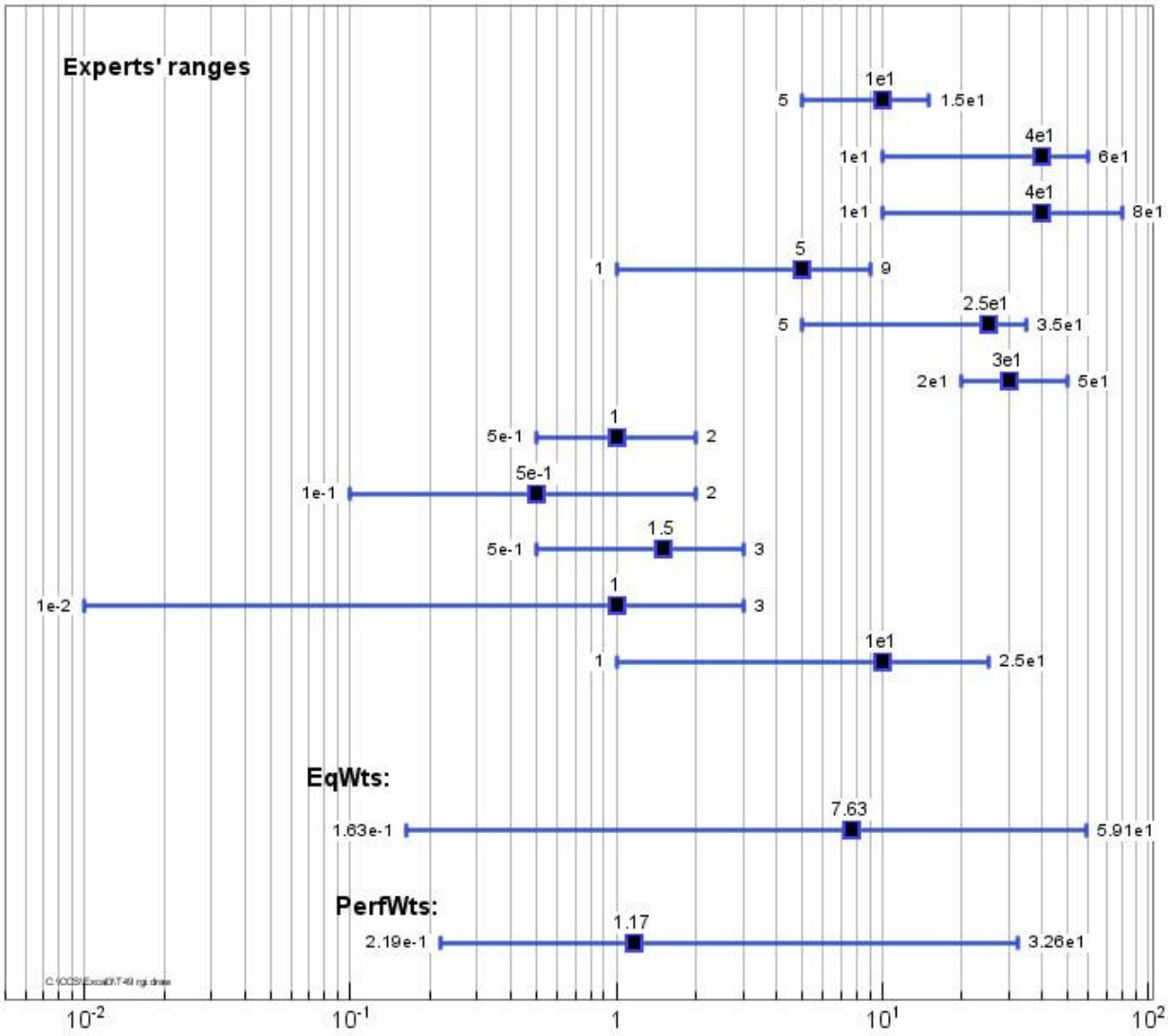
T48: What is the worldwide capacity for geological CO_2 sequestration in saline aquifers ($GtCO_2$)?

Lower limit (5th percentile)	Mean	Median	Upper limit (95th percentile)
0.1 Gt (2 Gt)	5100 Gt (40000 Gt)	28 Gt (1840 Gt)	76000 Gt (410000 Gt)



T49: What is the ultimate CO_2 sequestration capacity in solution as a percent (%) of a deep saline aquifer?

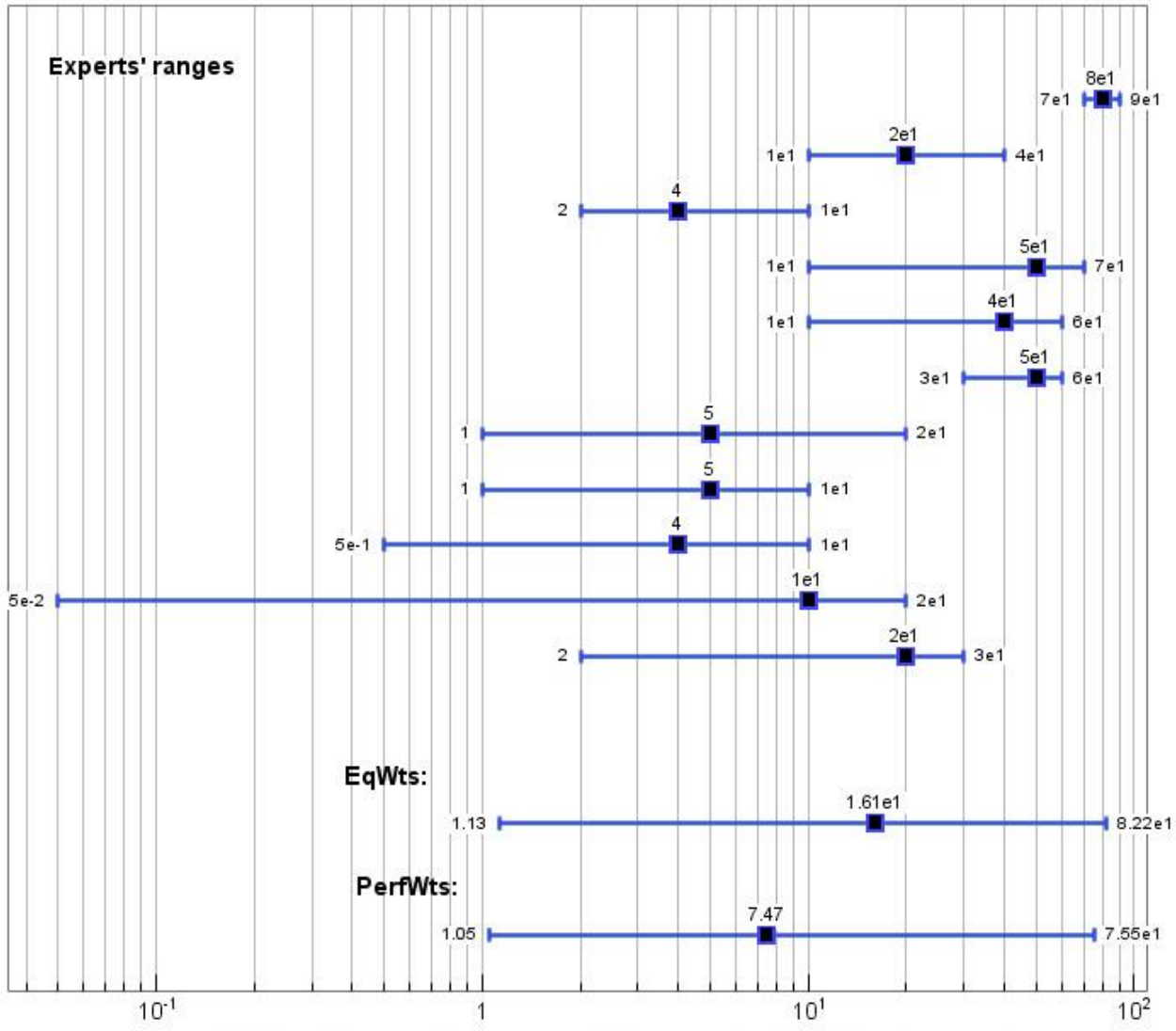
Lower limit (5th percentile)	Mean	Median	Upper limit (95th percentile)
0.2% (0.2%)	9% (19%)	1.2% (7.6%)	33% (59%)



Target T49: deep saline aquifer - ultimate capacity for CO_2 sequestration [%]

T50: What percentage of a theoretical repository capacity for a reasonable quality saline aquifer would you generally expect could be accessed by carbon dioxide placement using horizontal wells (%)?

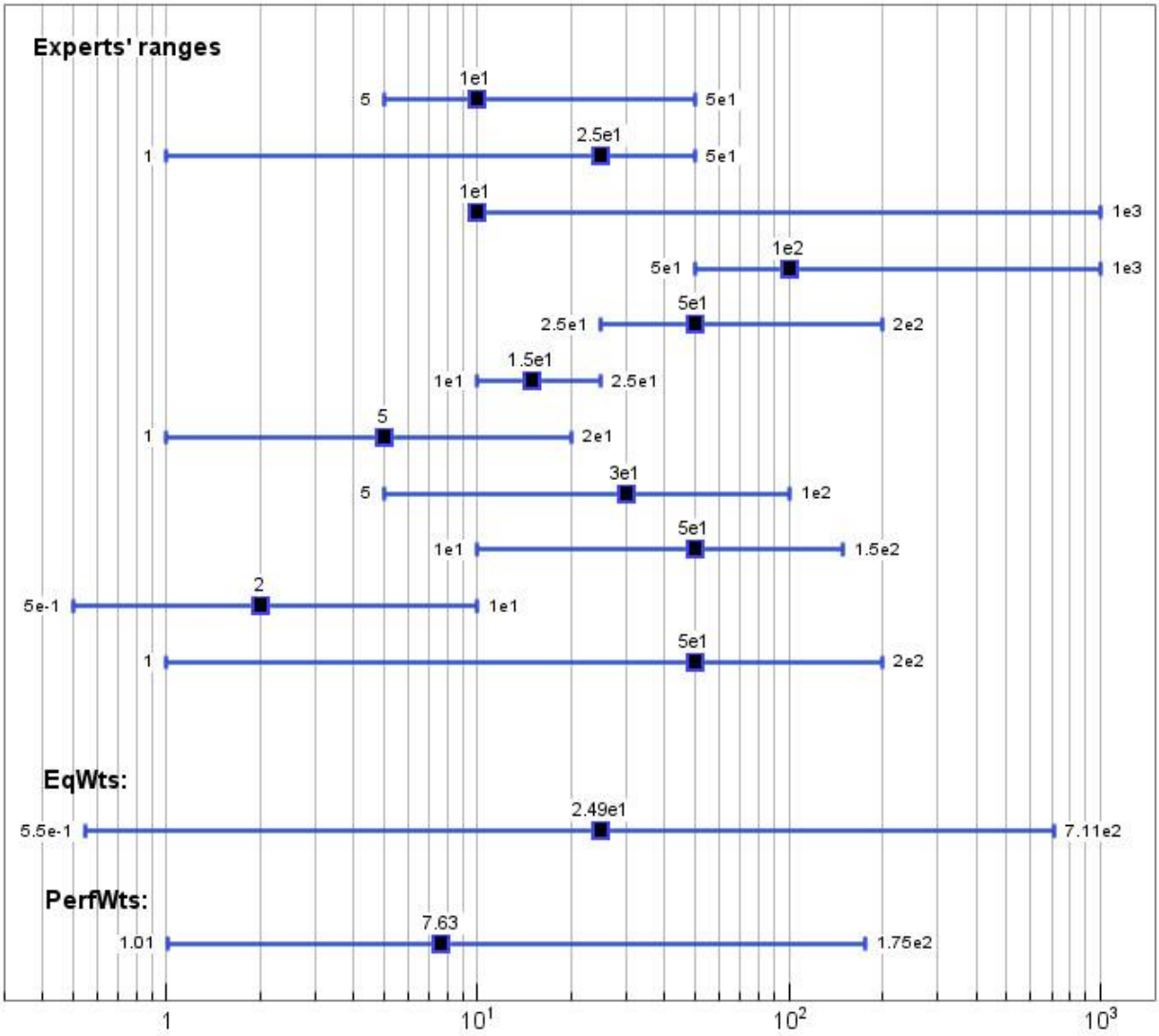
Lower limit (5th percentile)	Mean	Median	Upper limit (95th percentile)
1.0% (1.1%)	16% (29%)	7.5% (16%)	76% (82%)



Target T50: saline aquifer - accessible capacity for CO_2 placement with horizontal wells [%]

T51: In a CO_2 injection scheme in deep saline aquifer (~1 $MtCO_2$/year), what is the modal distance from the injection well that is likely to be affected by salt precipitation (metres)?

Lower limit (5th percentile)	Mean	Median	Upper limit (95th percentile)
1 m (0.55 m)	49 m (195 m)	7.6 m (25 m)	175 m (710 m)



Target T51: CO_2 injection in deep saline aquifer - salt precipitation modal distance [m]

Section 3
Composite plots of linked piecewise uncertainty distributions

The following plots show the Performance Weights (PW) solution quantiles and piecewise cumulative uncertainty distributions for compound target questions – i.e. those items which have one or more counterpart scenarios with different or alternative conditions.

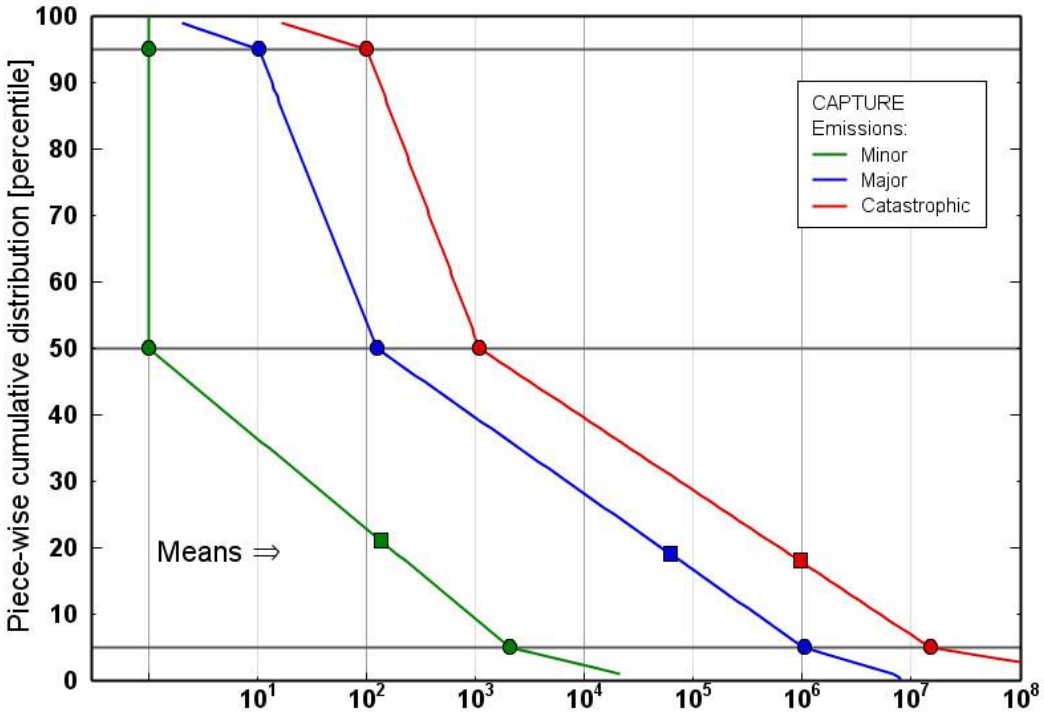
The piecewise distributions are 'minimum information' representations of uncertainty, simply defined by the three quantiles (i.e. 5th, 50th and 95th percentiles) derived by aggregating the weighted combination of experts' judgments.

In risk assessment practice, standard distribution forms may be fitted as appropriate to the quantiles, e.g. normal, lognormal, beta, Weibull …..

Targets T19 – T21
In the Capture phase of an integrated CCS project, in which there is a 50 year active phase followed by a purely storage phase, what in your opinion is the likelihood of

b) minor leakage; b) major leakage; and c) catastrophic leakage

Capture				
Assessment criteria	Lower limit (5th percentile)	Mean	Median	Upper limit (95th percentile)
Minor emissions of dense phase CO_2, NO_2, $PM_{2.5}$, Amines and their degradation products				
[T19] 0-50 years	1 in 2100 (1 in 6500)	1 in 180 (1 in 480)	1 in 1 (1 in 3.2)	1 in 1 (1 in 1)
Major emissions of dense phase CO_2, NO_2, $PM_{2.5}$, Amines and their degradation products				
[T20] 0-50 years	1 in $1.0x10^6$ (1 in $1.2x10^6$)	1 in 65600 (1 in $7.8x10^3$)	1 in 125 (1 in 290)	1 in 10 (1 in 6)
Catastrophic emissions of dense phase CO_2, NO_2, $PM_{2.5}$, Amines and their degradation products				
[T21] 0-50 years	1 in $1.5x10^7$ (1 in $2.3x10^7$)	1 in 95000 (1 in $1.4x10^6$)	1 in 1100 (1 in 3200)	1 in 100 (1 in 16)

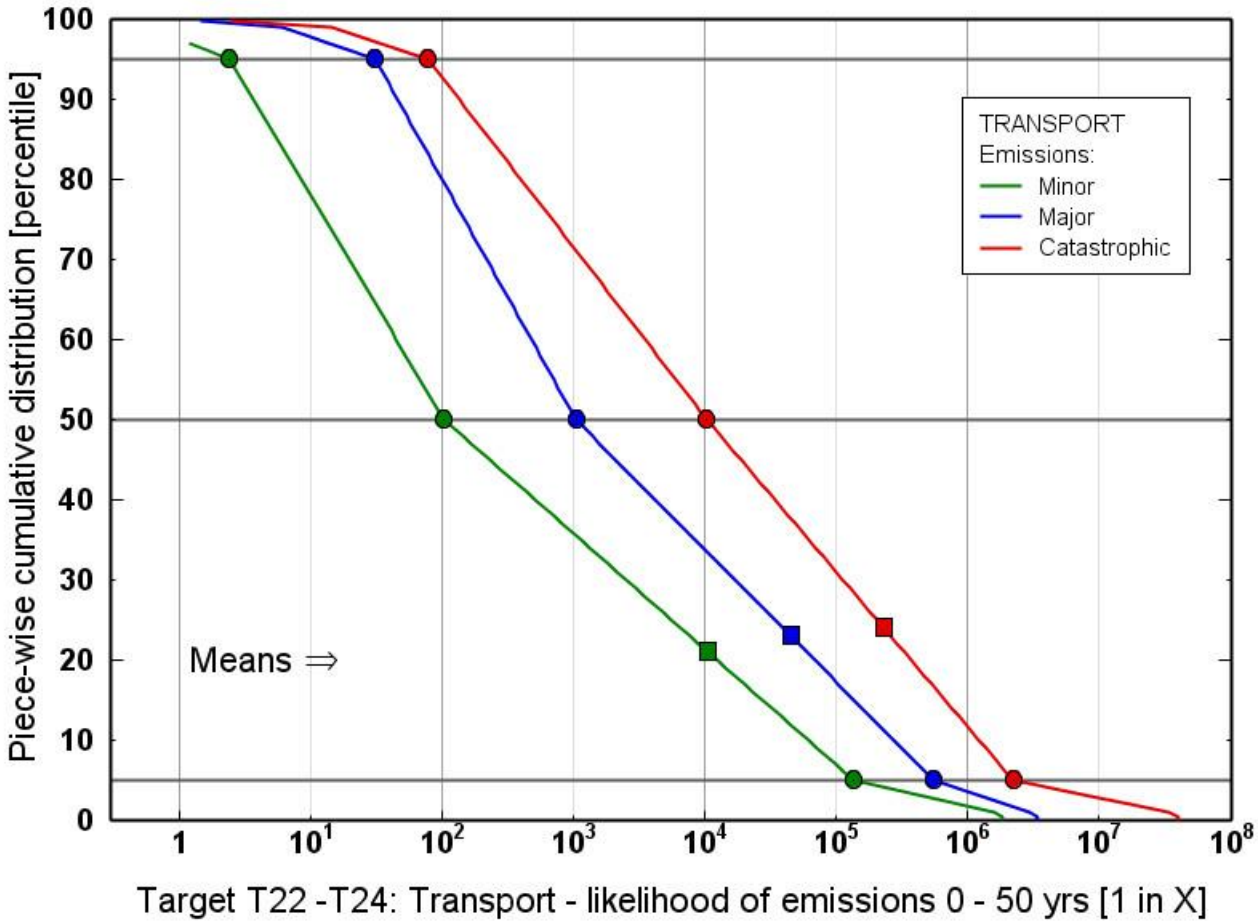


Target T19 -T21: Capture - likelihood of emissions 0 - 50 yrs [1 in X]

Targets T22 – T24
In the Transport phase of an integrated CCS project, in which there is a 50 year active phase followed by a purely storage phase, what in your opinion is the likelihood of

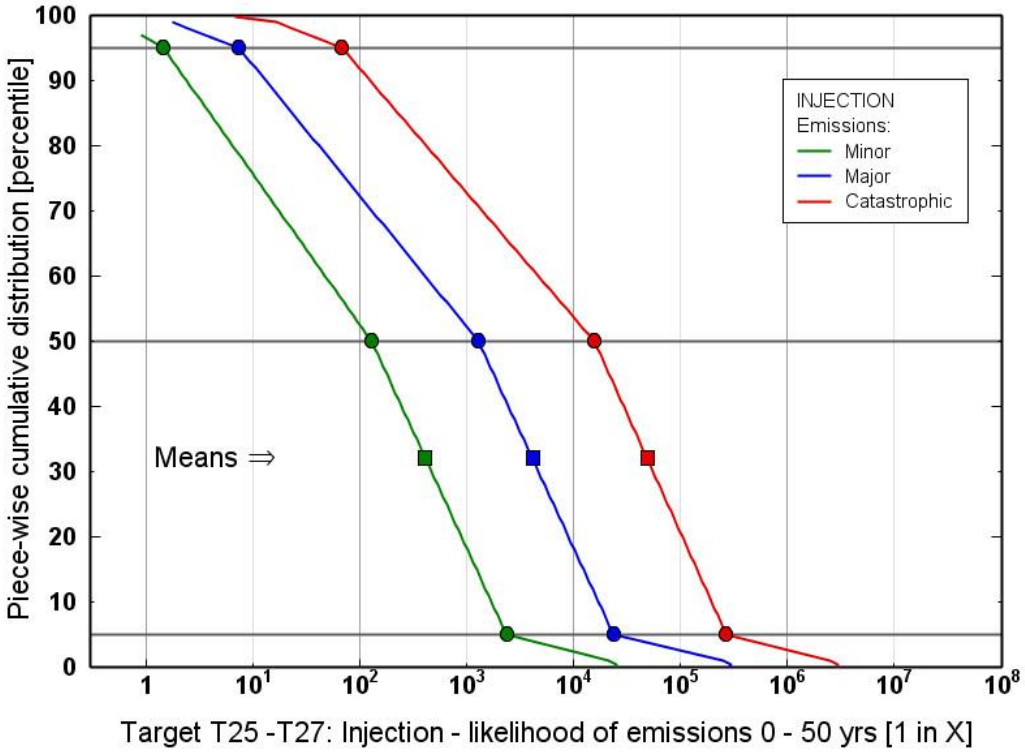
a) minor leakage; b) major leakage; and c) catastrophic leakage

Transport				
Assessment criteria	Lower limit (5^{th} percentile)	Mean	Median	Upper limit (95^{th} percentile)
Minor CO_2 stream leakage				
[T22] 0-50 years	1 in 135000 (1 in 137000)	1 in 12100 (1 in 8850)	1 in 105 (1 in 13)	1 in 2.4 (1 in 1)
Major CO_2 stream leakage				
[T23] 0-50 years	1 in 550000 (1 in 600000)	1 in 50000 (1 in 44000)	1 in 1050 (1 in 350)	1 in 31 (1 in 12)
Catastrophic CO_2 stream leakage				
[T24] 0-50 years	1 in $2.2x10^6$ (1 in $7.0x10^6$)	1 in 240000 (1 in 490000)	1 in 10400 (1 in 3000)	1 in 79 (1 in 39.5)



Targets T25 – T27
In the Injection phase of an integrated CCS project, in which there is a 50 year active phase followed by a purely storage phase, what in your opinion is the likelihood of
minor leakage; b) major leakage; and c) catastrophic leakage

Injection				
Assessment criteria	Lower limit (5th percentile)	Mean	Median	Upper limit (95th percentile)
Minor CO_2 leakage				
[T25] 0-50 years	1 in 2400 (1 in 5700)	1 in 455 (1 in 500)	1 in 130 (1 in 13)	1 in 1.5 (1 in 1)
Major CO_2 leakage				
[T26] 0-50 years	1 in 23700 (1 in 76700)	1 in 4550 (1 in 6600)	1 in 1290 (1 in 157)	1 in 7.5 (1 in 5)
Catastrophic CO_2 leakage				
[T27] 0-50 years	1 in 270000 (1 in 880000)	1 in 53500 (1 in 92000)	1 in 15700 (1 in 5360)	1 in 69 (1 in 42)



28-T30Rev: In the first 50 years of an integrated carbon sequestration project, what is the likelihood of the following leakage scenarios (1 in X, where X ≥1; for example, 1 in 100 would represent a 1% likelihood)?

b) Minor leakage b) Major leakage c) Catastrophic leakage

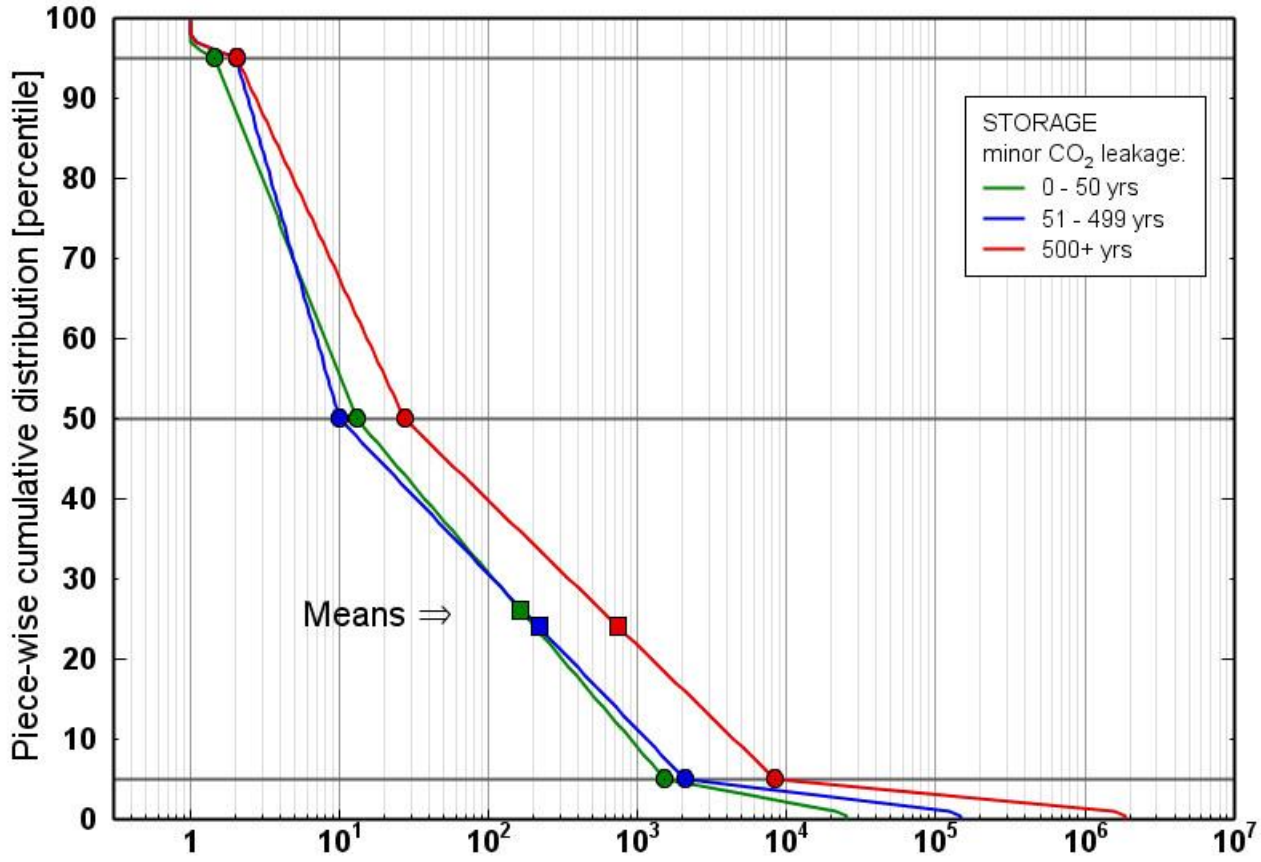
T31-T33Rev: From year 51-499 of an integrated carbon sequestration project, what is the likelihood of the following leakage scenarios (1 in X, where X ≥1; for example, 1 in 100 would represent a 1% likelihood)?

b) Minor leakage b) Major leakage c) Catastrophic leakage

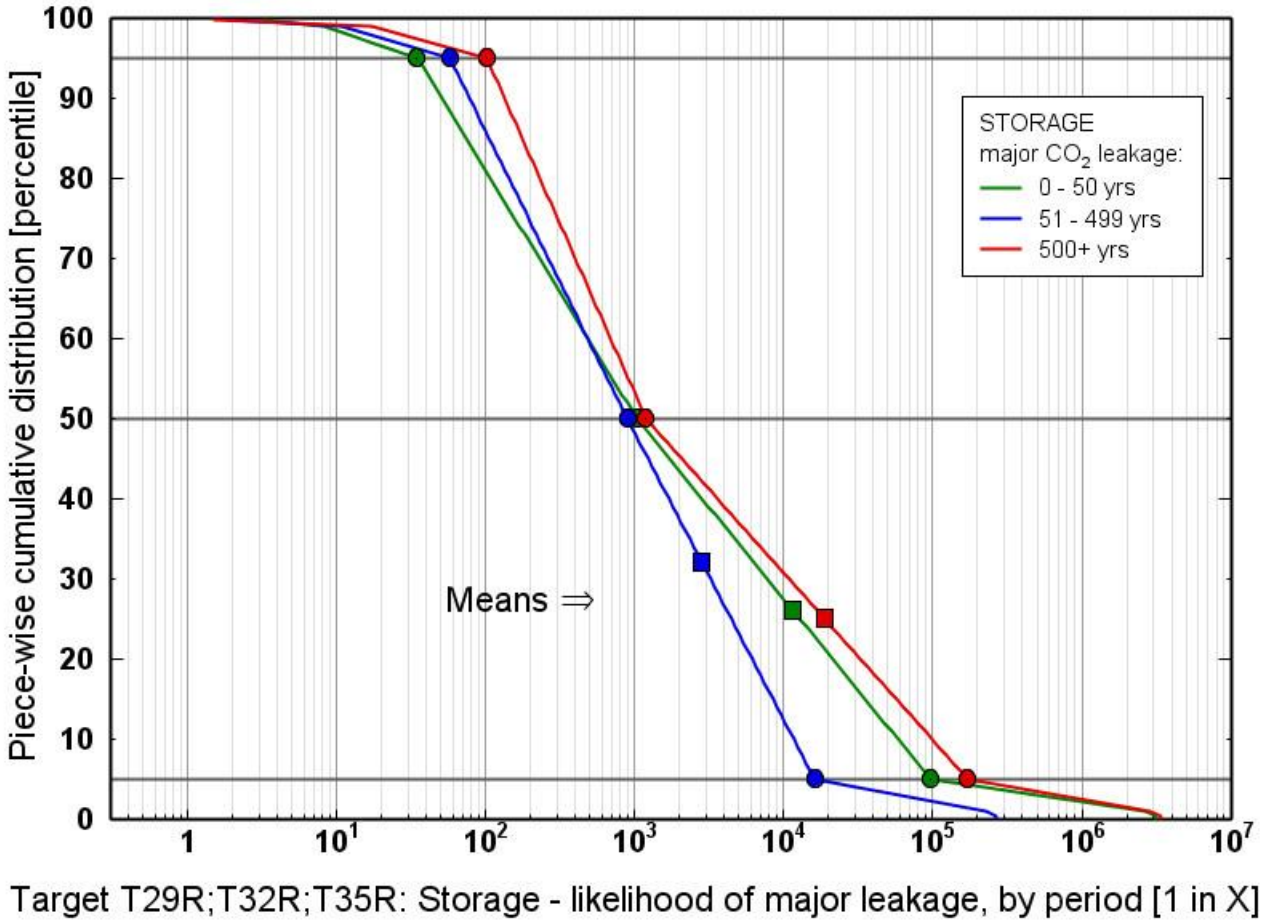
T34-T36Rev: From year 500 onwards of an integrated carbon sequestration project, what is the likelihood of the following leakage scenarios (1 in X, where X ≥1; for example, 1 in 100 would represent a 1% likelihood)?

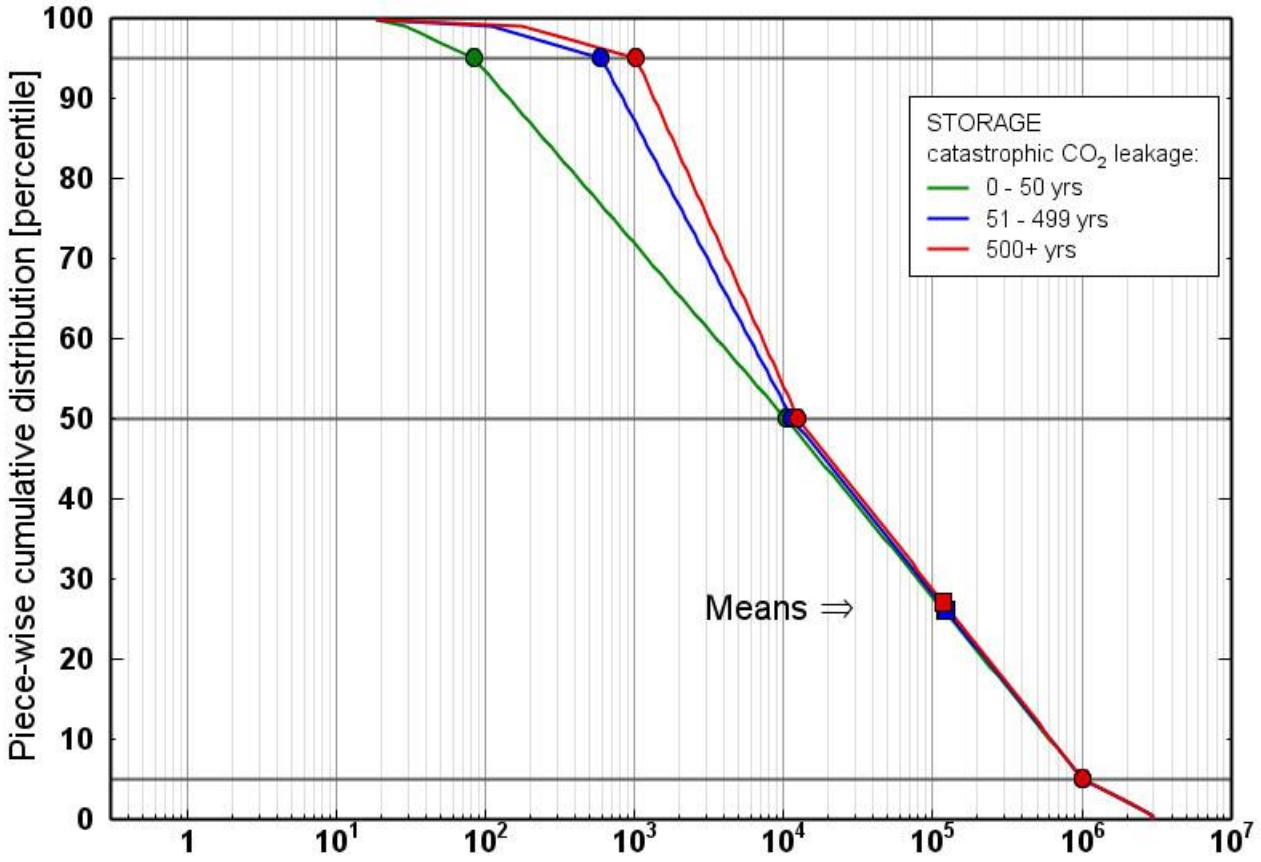
b) Minor leakage b) Major leakage c) Catastrophic leakage

Storage Leakage Likelihood				
Period/Leakage	Lower limit (5^{th} percentile)	Mean	Central value (median)	Upper limit (95^{th} percentile)
0-50 years				
[T28R] Minor	1 in 1.4 (1 in 1.0)	170 (530)	1 in 13 (1 in 18)	1 in 1520 (1 in 5730)
[T29R] Major	1 in 35 (1 in 12)	11,200 (6900)	1 in 1030 (1 in 180)	1 in 96,400 (1 in 78,400)
[T30R] Catastrophic	1 in 83 (1 in 59)	116,000 (95,500)	1 in 10,300 (1 in 3440)	1 in 1 million (1 in 1 million)
51-499 years				
[T31R] Minor	1 in 2 (1 in 1)	210 (1910)	1 in 9.9 (1 in 24)	1 in 2070 (1 in 25,000)
[T32R] Major	1 in 57 (1 in 7)	2900 (7500)	1 in 890 (1 in 360)	1 in 16,100 (1 in 75,000)
[T33R] Catastrophic	1 in 595 (1 in 80)	119,000 (92,000)	1 in 11,300 (1 in 2750)	1 in 1 million (1 in 1 million)
Over 500 years				
[T34R] Minor	1 in 2 (1 in 1)	780 (11,000)	1 in 27 (1 in 86)	1 in 8,340 (1 in 152,000)
[T35R] Major	1 in 100 (1 in 8)	18,300 (52,900)	1 in 1200 (1 in 1000)	1 in 172,000 (1 in 630,000)
[T36R] Catastrophic	1 in 1020 (1 in 86)	122,000 (136,000)	1 in 12,500 (1 in 20,000)	1 in 1 million (1 in 1 million)



Target T28R;T31R;T34R: Storage - likelihood of minor leakage, by period [1 in X]

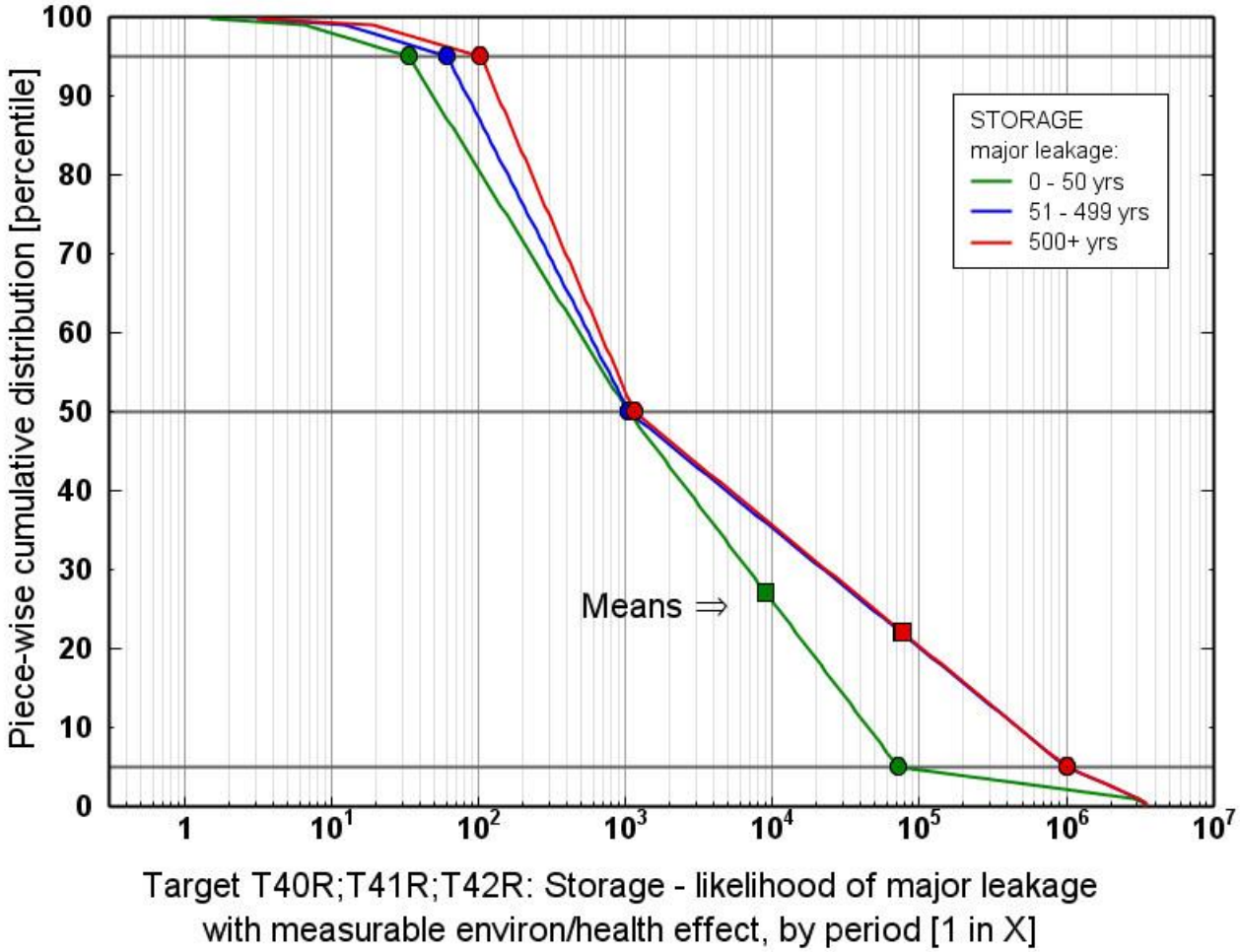

Piece-wise cumulative distribution [percentile]
100
90
80
70
60
50
40
30
20
10
0
1
10^1
10^2
10^3
10^4
10^5
10^6
10^7
STORAGE
major CO2 leakage:
0 - 50 yrs
51 - 499 yrs
500+ yrs
Means ⇒
Target T29R;T32R;T35R: Storage - likelihood of major leakage, by period [1 in X]



Target T30R;T33R;T36R: Storage - likelihood catastrophic leakage, by period [1 in X]

T40-42Rev: In a typical saline aquifer storage site, what is the likelihood of major CO_2 leakage that would result in measurable negative environmental impact or adverse public health impact in each of the time periods (1 in X, where X≥1; for example, 1 in 100 would represent a 1% likelihood)?

Time period (years)	Lower limit (5th percentile)	Mean	Central Value (median)	Upper limit (95th percentile)
[T40R] 0-50 yrs	1 in 33 (1 in 15)	8900 (58,900)	1 in 1030 (1 in 420)	1 in 71,900 (1 in 821,000)
[T41R] 51-499 yrs	1 in 61 (1 in 22)	78,900 (69,700)	1 in 1050 (1 in 360)	1 in 1 million (1 in 1 million)
[T42R] 500+ yrs	1 in 103 (1 in 15)	79,900 (76,100)	1 in 1140 (1 in 736)	1 in 1 million (1 in 1 million)



Target T40R;T41R;T42R: Storage - likelihood of major leakage with measurable environ/health effect, by period [1 in X]

Section 4 – Injection and Storage Hazards

Likelihood and Severity

Part A: Likelihood and severity mean rating and uncertainty

Four hazard circumstances were assessed: Leakage from Wells, Injection, Inherent Storage Hazards and Induced Storage Hazards. The following charts and graphs depict (i) the count of the likelihood and severity responses for each level and (ii) the mean rating value with standard error. The latter was calculated by first assigning a multiplier to each level of the Likert scale: 1 for Level 1; 2 for Level 2 … through 5 points for Level 5 responses; the total sum of points including all experts was then divided by the number of expert responses.

Questions:

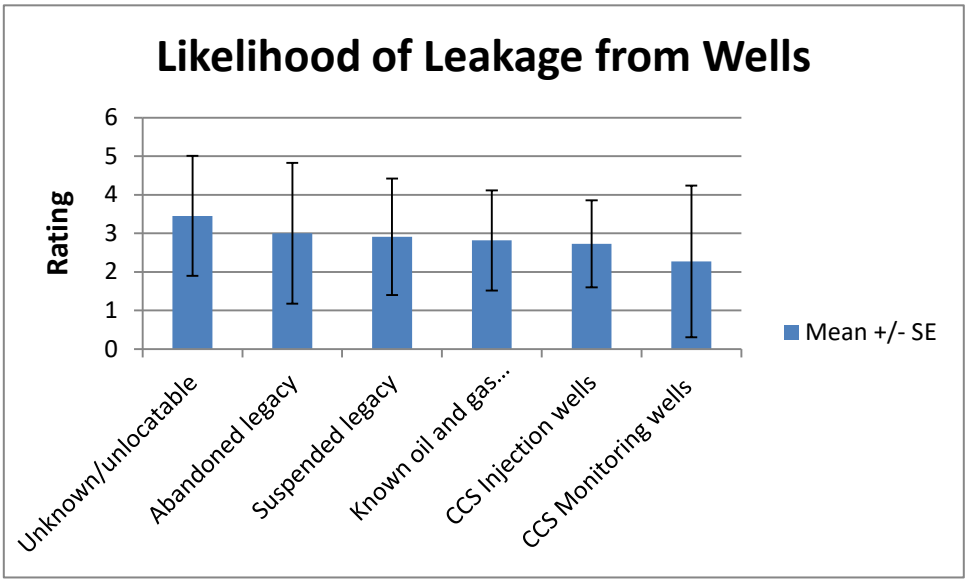
Please rate the likelihood of each of the hazards associated with injection and storage phases of CCS using the following 5-point Likert scale:

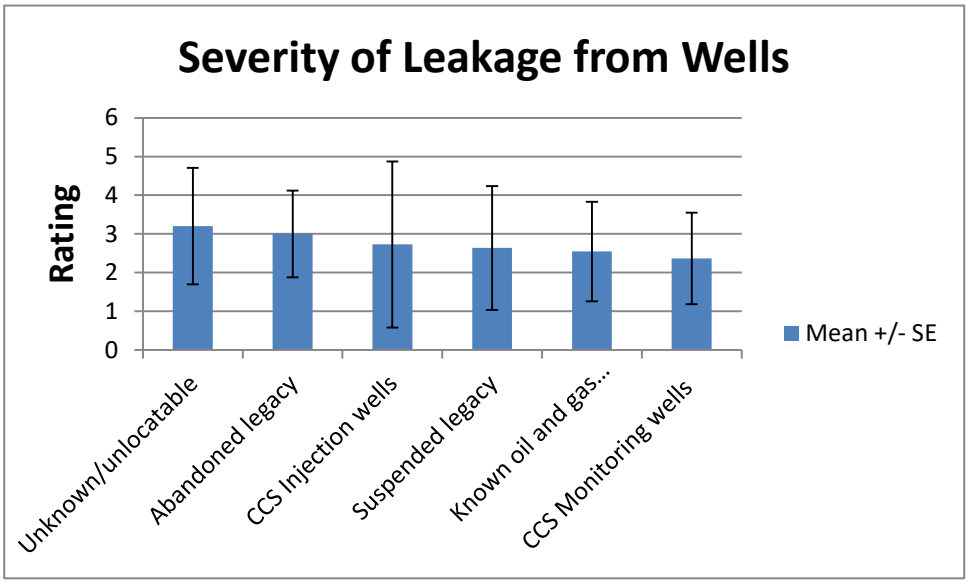
Likelihood	**Level**	**If there were 100 similar projects, frequency of this hazard element would occur . . .**
Improbable	1	Probably not at all, never
Unlikely	2	Fewer than three times among the 100 projects
Possible	3	5–10 times among the 100 projects
Likely	4	In around half of the 100 projects
Probable	5	In most or nearly all of the projects

Should a hazard exist, please rate the severity using the following 5-point Likert scale:

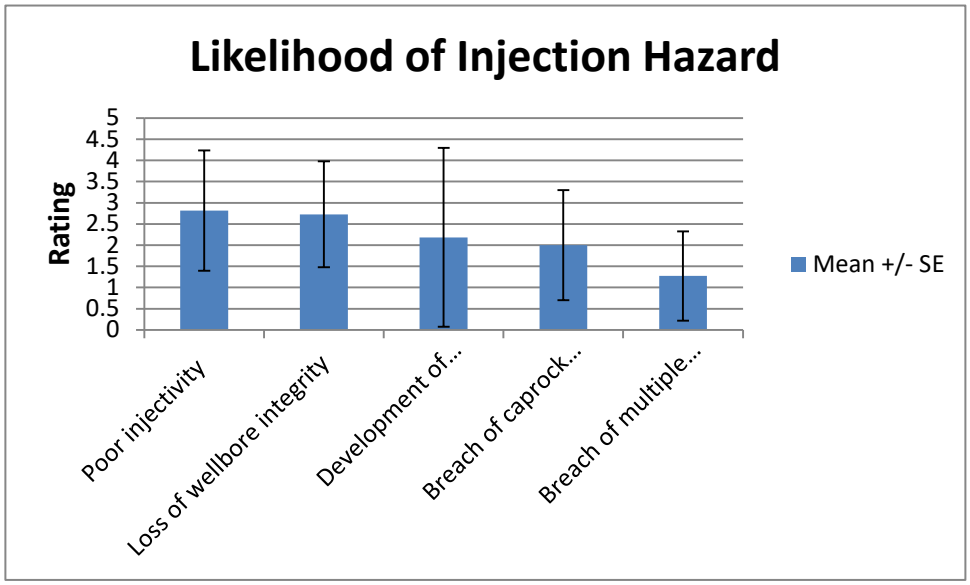
Severity	**Level**	**Change in state**
Light	1	No modification to initial state
Serious	2	Modification to initial state within acceptable limits
Major	3	Modification to initial state above acceptable limits but without damage
Catastrophic	4	Modification to initial state above acceptable limit with repairable damage
Multi-catastrophic	5	Considerable modifications to initial state which is not repairable with existing technologies

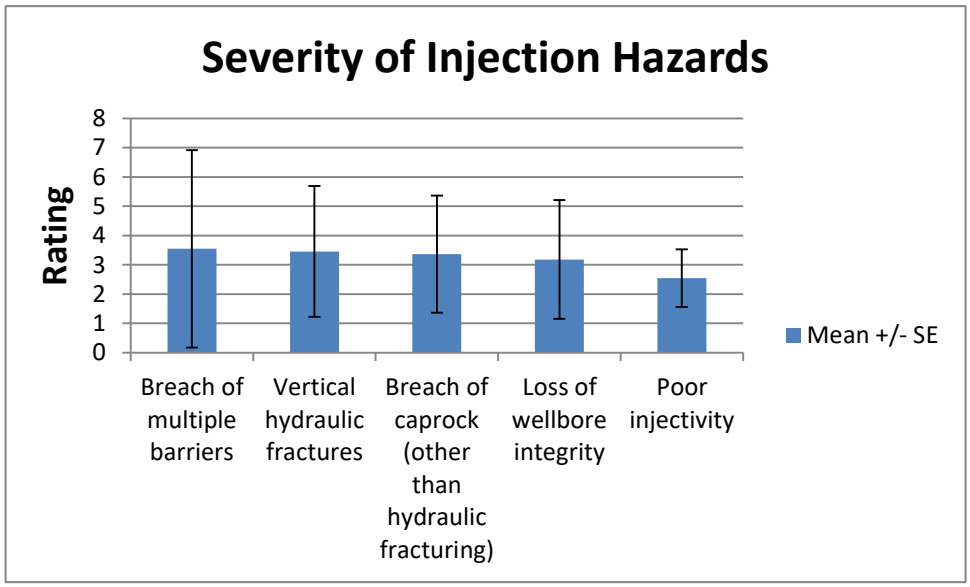
Well leakage hazards



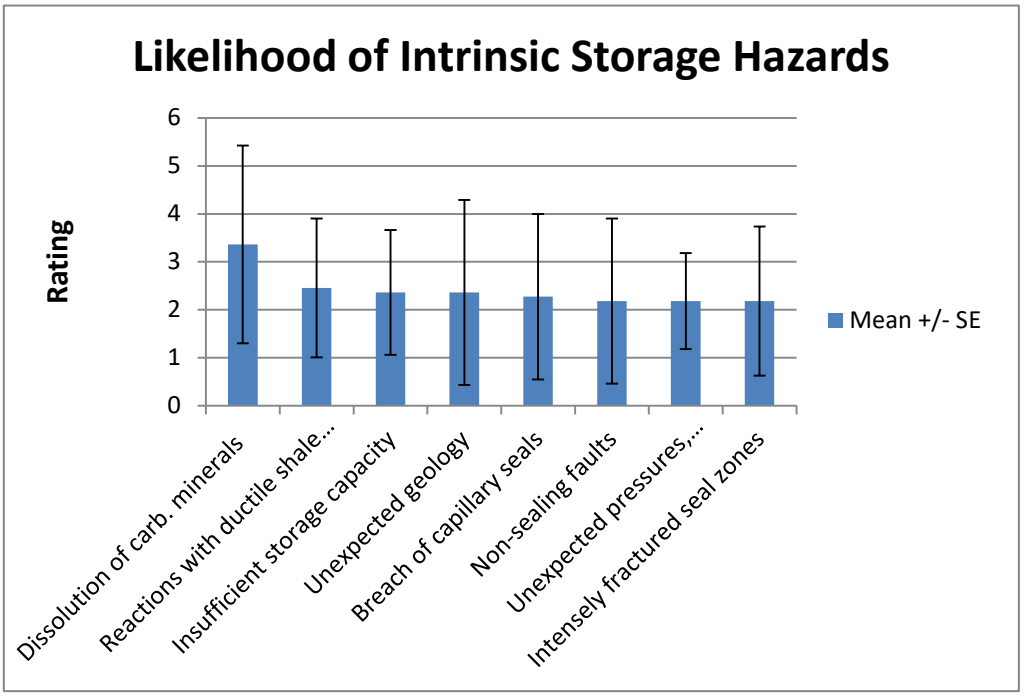


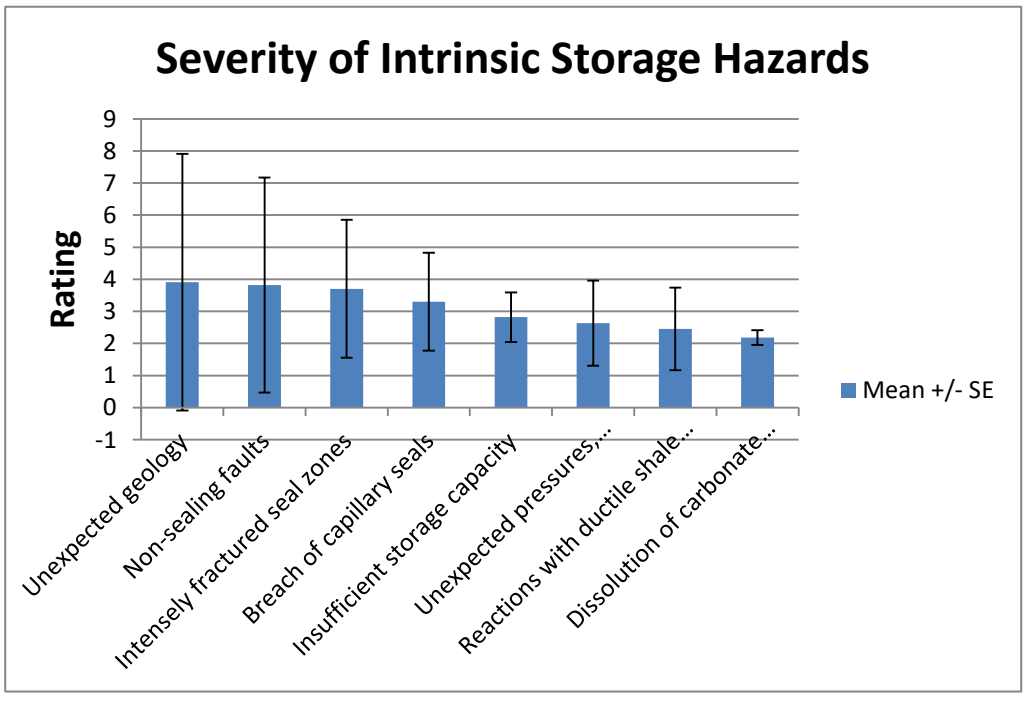
Injection Hazards



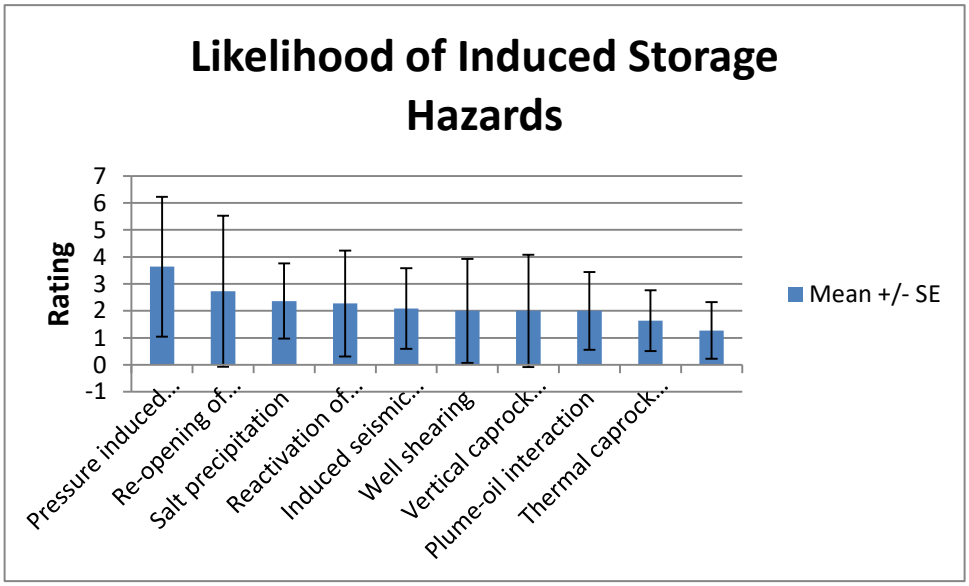


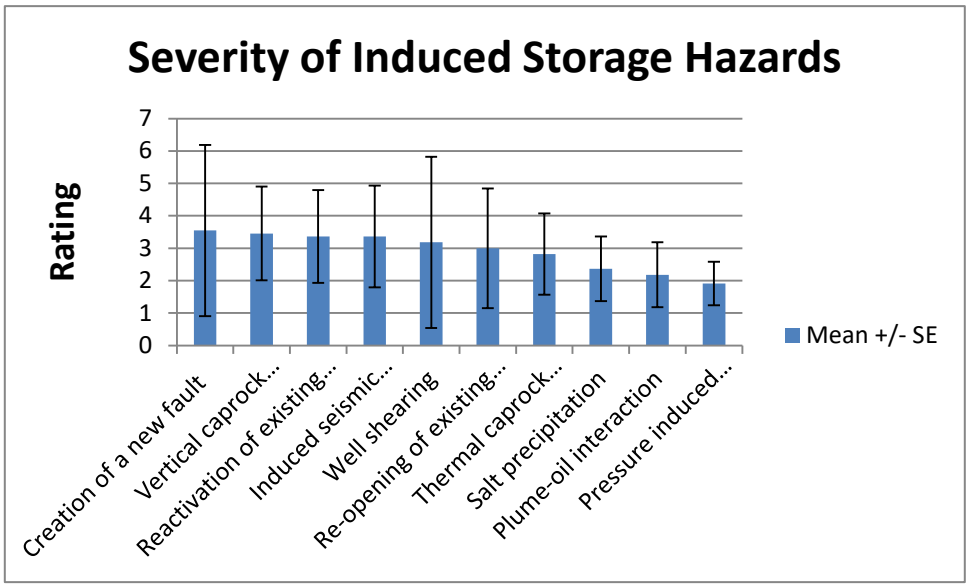
Intrinsic storage hazards





Induced Storage Hazards





Risk Matrix guide

Risk matrices reflect classes of risk based on combined likelihood (probability) and severity (consequence) of hazards.

Guide

Likelihood			Severity				
			1	2	3	4	5
			Light	Serious	Major	Catastrophic	Multi Catastrophic
	5	Probable	Medium	High	High	Very high	Very high
	4	Likely	Low	Medium	High	High	Very high
	3	Possible	Low	Medium	Medium	High	High
	2	Unlikely	Low	Medium	Medium	Medium	High
	1	Improbable	Low	Low	Low	Medium	High