Datashare 57:

Distribution of total dissolved solids in McMurray Formation water in the Athabasca oil sands region, Alberta, Canada: Implications for regional hydrogeology and resource development

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APPENDIX

Table 2. Data Source, Location and Total Dissolved Solids (TDS) Values of McMurray Formation Waters

Source	Latitude	Longitude	TDS (mg/L)
BOVAR Environmental, 1996	57.296157	−111.360545	708
BOVAR Environmental, 1996	57.317257	−111.508968	1 056
BOVAR Environmental, 1996	57.317151	−111.501811	1 160
BOVAR Environmental, 1996	57.301993	−111.531080	1 913
BOVAR Environmental, 1996	57.295171	−111.580679	2 046
BOVAR Environmental, 1996	57.301000	−111.501525	2 294
Canadian Natural Resources Ltd. 2006	57.368078	−111.696040	7 005
Canadian Natural Resources Ltd. 2006	57.331694	−111.743407	23 338
Canadian Natural Resources Ltd. 2006	57.324373	−111.689266	24 289
Canadian Natural Resources Ltd. 2006	57.357121	−111.709563	73 813
Canadian Natural Resources Ltd. 2006	57.328030	−111.689268	278 652
Canadian Natural Resources Ltd. 2012	55.335492	−112.176549	3 155
Canadian Natural Resources Ltd. 2012	55.393684	−112.067576	8 633
Canadian Natural Resources Ltd. 2012	55.582633	−111.671682	9 087
Canadian Natural Resources Ltd. 2012	55.542644	−112.098634	10 794
Canadian Natural Resources Ltd. 2012	55.586288	−111.904557	13 292
Canadian Natural Resources Ltd. 2012	55.357341	−111.561196	15 579
Canadian Natural Resources Ltd. 2012	55.557199	−111.852794	15 591
Cenovus Energy Inc., 2011	57.186191	−110.378146	490
Cenovus Energy Inc., 2011	57.193480	−110.364730	510
Deer Creek Energy, Total E&P, 2006	57.297833	−111.739350	8 622
Deer Creek Energy, Total E&P, 2006	57.235742	−111.898840	10 975
Deer Creek Energy, Total E&P, 2006	57.243161	−111.719000	11 096
Deer Creek Energy, Total E&P, 2006	57.221644	−111.788236	14 332
Deer Creek Energy, Total E&P, 2006	57.243034	−111.754392	15 085
Deer Creek Energy, Total E&P, 2006	57.264147	−111.767557	16 070
Deer Creek Energy, Total E&P, 2006	57.243034	−111.754392	16 359
Deer Creek Energy, Total E&P, 2006	57.277169	−111.696137	17 099
Deer Creek Energy, Total E&P, 2006	57.208507	−111.838630	17 262
Deer Creek Energy, Total E&P, 2006	57.264916	−111.835617	18 265
Deer Creek Energy, Total E&P, 2006	57.234243	−111.966379	19 501
Deer Creek Energy, Total E&P, 2006	57.241973	−111.942157	19 576
Deer Creek Energy, Total E&P, 2006	57.218741	−111.893045	20 433
Deer Creek Energy, Total E&P, 2006	57.261139	−111.917331	20 619
Deer Creek Energy, Total E&P, 2006	57.297415	−111.842926	21 319
Deer Creek Energy, Total E&P, 2006	57.273996	−111.885841	21 914

(*continued*)

Table 2. Continued

Source	Latitude	Longitude	TDS (mg/L)
Deer Creek Energy, Total E&P, 2006	57.291417	−111.808294	22 527
Deer Creek Energy, Total E&P, 2006	57.271230	−111.928012	24 491
Deer Creek Energy, Total E&P, 2006	57.306258	−111.689251	59 139
Gibson et al., 2011	57.240000	−111.450000	427
Gibson et al., 2011	57.260000	−111.270000	1 909
Gibson et al., 2011	57.260000	−111.270000	1 965
Gulf Canada and ConocoPhillips, 2001	56.211678	−110.911305	1 590
Gulf Canada and ConocoPhillips, 2001	55.655377	−112.085700	4 346
Gulf Canada and ConocoPhillips, 2001	55.735384	−110.804783	4 650
Gulf Canada and ConocoPhillips, 2001	55.931623	−111.705553	5 270
Gulf Canada and ConocoPhillips, 2001	56.037071	−111.294409	5 836
Gulf Canada and ConocoPhillips, 2001	55.964400	−110.850682	5 906
Gulf Canada and ConocoPhillips, 2001	55.688081	−111.309483	6 079
Gulf Canada and ConocoPhillips, 2001	55.913512	−111.144332	6 090
Gulf Canada and ConocoPhillips, 2001	56.022532	−111.927418	6 180
Gulf Canada and ConocoPhillips, 2001	55.891641	−111.242206	6 823
Gulf Canada and ConocoPhillips, 2001	56.051651	−110.622276	7 052
Gulf Canada and ConocoPhillips, 2001	55.833442	−111.066079	7 153
Gulf Canada and ConocoPhillips, 2001	55.669866	−110.636554	7 260
Gulf Canada and ConocoPhillips, 2001	56.026221	−111.157374	7 330
Gulf Canada and ConocoPhillips, 2001	55.786221	−110.772431	7 445
Gulf Canada and ConocoPhillips, 2001	55.673534	−110.772433	7 567
Gulf Canada and ConocoPhillips, 2001	56.018877	−111.973102	7 640
Gulf Canada and ConocoPhillips, 2001	55.742618	−111.704026	7 641
Gulf Canada and ConocoPhillips, 2001	55.673553	−112.143919	8 072
Gulf Canada and ConocoPhillips, 2001	55.702643	−112.085698	8 082
Gulf Canada and ConocoPhillips, 2001	55.789993	−110.998892	8 203
Gulf Canada and ConocoPhillips, 2001	55.924344	−111.477132	8 205
Gulf Canada and ConocoPhillips, 2001	55.935302	−111.137805	8 383
Gulf Canada and ConocoPhillips, 2001	55.644474	−110.895369	8 748
Gulf Canada and ConocoPhillips, 2001	55.906171	−111.105190	8 951
Gulf Canada and ConocoPhillips, 2001	55.888049	−110.857210	9 437
Gulf Canada and ConocoPhillips, 2001	55.975298	−110.902888	9 770
Gulf Canada and ConocoPhillips, 2001	55.855338	−111.222631	10 100
Gulf Canada and ConocoPhillips, 2001	56.222629	−110.740216	10 577
Gulf Canada and ConocoPhillips, 2001	55.906229	−110.700592	10 690
Gulf Canada and ConocoPhillips, 2001	55.644471	−112.111574	10 870
Gulf Canada and ConocoPhillips, 2001	56.168073	−110.779728	11 127
Gulf Canada and ConocoPhillips, 2001	55.789887	−110.545963	11 438
Gulf Canada and ConocoPhillips, 2001	55.848008	−111.894795	11 520
Gulf Canada and ConocoPhillips, 2001	56.226242	−110.917894	12 154
Gulf Canada and ConocoPhillips, 2001	55.786242	−111.962791	12 486
Gulf Canada and ConocoPhillips, 2001	56.091656	−110.204693	13 202
Gulf Canada and ConocoPhillips, 2001	55.757142	−110.545965	13 826
Gulf Canada and ConocoPhillips, 2001	55.771707	−110.539494	15 130
Gulf Canada and ConocoPhillips, 2001	56.328064	−110.595246	20 000
Gulf Canada and ConocoPhillips, 2001	55.858967	−110.524377	20 650
Gulf Canada and ConocoPhillips, 2001	56.008016	−110.530906	21 110
Gulf Canada and ConocoPhillips, 2001	56.033485	−110.720181	22 149
Gulf Canada and ConocoPhillips, 2001	55.960745	−110.589642	24 000
Gulf Canada and ConocoPhillips, 2001	56.062566	−110.667965	25 300
Gulf Canada and ConocoPhillips, 2001	55.949833	−110.602695	27 100
Gulf Canada and ConocoPhillips, 2001	55.931662	−110.570062	30 721
Gulf Canada and ConocoPhillips, 2001	56.033479	−110.667964	35 000
Gulf Canada and ConocoPhillips, 2001	56.240772	−110.937698	64 067

(*continued*)

Table 2. Continued

Source	Latitude	Longitude	TDS (mg/L)
Gulf Canada and ConocoPhillips, 2001	55.771710	−111.529390	5 080
Hackbarth and Nastasa, 1979	57.346238	−111.100291	642
Hackbarth and Nastasa, 1979	57.262603	−111.276314	1 398
Hackbarth and Nastasa, 1979	57.262603	−111.276314	2 148
Hackbarth and Nastasa, 1979	57.317151	−111.553782	2 397
Hackbarth and Nastasa, 1979	57.295258	−111.635276	2 727
Hackbarth and Nastasa, 1979	57.178891	−111.390808	7 736
Hackbarth and Nastasa, 1979	56.520750	−111.311407	752
Hackbarth and Nastasa, 1979	57.448011	−111.987107	332
Hackbarth and Nastasa, 1979	57.255367	−111.899105	5 080
Hackbarth and Nastasa, 1979	56.767872	−112.487669	10 702
Hackbarth and Nastasa, 1979	57.237149	−111.872028	10 732
Hackbarth and Nastasa, 1979	57.291648	−111.811115	20 925
Hackbarth and Nastasa, 1979	57.291648	−111.811115	21 306
Hackbarth and Nastasa, 1979	57.397151	−111.824623	24 202
Hackbarth and Nastasa, 1979	57.306260	−111.696013	25 616
Harvest Operations Corp. 2013	55.546251	−110.811252	7 506
Harvest Operations Corp. 2013	55.411861	−111.195822	8 296
Harvest Operations Corp. 2013	55.600820	−110.973010	8 943
Harvest Operations Corp. 2013	55.466287	−111.186559	9 346
Harvest Operations Corp. 2013	55.582642	−110.869482	11 932
Harvest Operations Corp. 2013	55.578983	−110.882423	12 635
Harvest Operations Corp. 2013	55.379111	−112.272705	18 509
Husky Energy Inc., 2008	57.335380	−111.093521	510
Husky Energy Inc., 2008	57.346233	−111.113831	516
Husky Energy Inc., 2008	57.346220	−111.147681	518
Husky Energy Inc., 2008	57.324397	−111.120602	628
Husky Energy Inc., 2008	57.324387	−111.147682	650
Husky Energy Inc., 2008	57.317153	−111.113833	667
Husky Energy Inc., 2008	57.342611	−111.134141	815
Husky Energy Inc., 2008	57.258998	−111.201846	818
Husky Energy Inc., 2008	57.255383	−111.195077	967
Husky Energy Inc., 2008	57.240822	−111.208617	1 060
Husky Energy Inc., 2008	57.240824	−111.222157	1 240
Husky Energy Inc., 2008	57.233513	−111.134150	1 659
Imperial Oil Limited, 2007	57.331783	−111.181377	244
Imperial Oil Limited, 2007	57.418964	−111.073222	470
Imperial Oil Limited, 2007	57.321067	−111.262604	539
Imperial Oil Limited, 2007	57.304380	−111.329522	618
Imperial Oil Limited, 2007	57.295307	−111.269456	643
Imperial Oil Limited, 2007	57.394492	−111.123437	649
Imperial Oil Limited, 2007	57.386390	−111.090607	667
Imperial Oil Limited, 2007	57.378798	−111.079712	693
Imperial Oil Limited, 2007	57.306406	−111.154197	699
Imperial Oil Limited, 2007	57.411820	−111.113641	819
Imperial Oil Limited, 2007	57.335672	−111.187741	1 008
Imperial Oil Limited, 2007	57.306729	−111.249921	1 596
Imperial Oil Limited, 2007	57.310578	−111.228483	2 035
Imperial Oil Limited, 2007	57.338551	−111.213207	2 592
Ivanhoe Energy, 2010	56.826432	−111.339620	6 535
Ivanhoe Energy, 2010	56.993534	−111.417669	9 597
Ivanhoe Energy, 2010	57.015374	−111.397553	9 865
Ivanhoe Energy, 2010	56.837022	−111.331273	12 698
Ivanhoe Energy, 2010	56.837024	−111.337900	13 378
Ivanhoe Energy, 2010	56.837012	−111.318029	13 625

(*continued*)

Table 2. Continued

Source	Latitude	Longitude	TDS (mg/L)
Ivanhoe Energy, 2010	56.993536	−111.410962	14 052
Ivanhoe Energy, 2010	56.757078	−111.397525	25 341
Ivanhoe Energy, 2010	56.968070	−111.397544	30 910
Lemay, 2002	56.660206	−111.336723	5 789
Lemay, 2002	55.726726	−110.723283	9 464
Lemay, 2002	56.520851	−111.309494	15 728
Lemay, 2002	56.520851	−111.309494	18 673
Lemay, 2002	56.264247	−112.650671	7 022
Lemay, 2002	56.769241	−112.489243	9 783
Lemay, 2002	55.174896	−113.143097	25 950
Nexen Inc and OPTI Canada, 2007	56.488093	−111.161645	8 295
Nexen Inc and OPTI Canada, 2007	56.393510	−111.122113	14 374
Nexen Inc and OPTI Canada, 2007	56.389876	−111.049710	14 725
Nexen Inc and OPTI Canada, 2007	56.535256	−111.391148	20 857
Nexen Inc and OPTI Canada, 2007	56.386257	−111.082580	28 198
Nexen Inc and OPTI Canada, 2007	56.357147	−110.806037	30 478
Nexen Inc and OPTI Canada, 2007	56.400829	−110.990407	34 671
Nexen Inc and OPTI Canada, 2007	56.404463	−110.726978	39 492
Nexen Inc and OPTI Canada, 2007	56.393517	−111.043116	42 233
Nexen Inc and OPTI Canada, 2007	56.400832	−110.878463	48 732
Nexen Inc and OPTI Canada, 2007	56.386233	−110.759915	54 084
Nexen Inc and OPTI Canada, 2007	56.379034	−110.878468	66 822
Nexen Inc and OPTI Canada, 2007	56.379034	−110.871881	77 252
Petro Canada, 2001	56.189907	−111.444683	2 123
Petro Canada, 2001	56.357156	−110.720390	2 407
Petro Canada, 2001	56.266293	−111.405191	2 706
Petro Canada, 2001	56.306210	−110.792852	3 204
Petro Canada, 2001	56.284467	−111.596098	3 803
Petro Canada, 2001	56.251742	−111.339366	3 803
Petro Canada, 2001	56.266316	−111.517101	4 300
Petro Canada, 2001	56.200901	−111.523680	4 744
Petro Canada, 2001	56.288119	−111.273541	6 034
Petro Canada, 2001	56.426257	−111.003617	6 128
Petro Canada, 2001	56.255387	−111.629016	6 647
Shell Canada Limited, 2002	57.255378	−111.276315	1 252
Shell Canada Limited, 2002	57.258990	−111.276315	1 284
Shell Canada Limited, 2002	57.255382	−111.262775	1 397
Shell Canada Limited, 2002	57.262609	−111.256005	1 410
Shell Canada Limited, 2002	57.255386	−111.384592	1 450
Shell Canada Limited, 2002	57.254244	−111.384003	1 450
Shell Canada Limited, 2002	57.256783	−111.357574	1 880
Shell Canada Limited, 2002	57.263343	−111.278590	2 212
Shell Canada Limited, 2002	57.226291	−111.289858	2 792
Shell Canada Limited, 2002	57.215359	−111.249238	2 792
Shell Canada Limited, 2002	57.237164	−111.411657	2 935
Shell Canada Limited, 2002	57.239067	−111.410851	2 935
Shell Canada Limited, 2002	57.219201	−111.406391	3 003
Shell Canada Limited, 2002	57.219044	−111.242467	3 003
Shell Canada Limited, 2002	57.266224	−111.459016	3 328
Shell Canada Limited, 2002	57.266515	−111.458842	3 328
Shell Canada Limited, 2002	57.264163	−111.425256	3 816
Shell Canada Limited, 2002	57.262606	−111.425187	3 816
Shell Canada Limited, 2002	57.287854	−111.291981	3 836
Shell Canada Limited, 2002	57.284445	−111.147685	3 836
Shell Canada Limited, 2002	57.237147	−111.452251	4 562

(*continued*)

Table 2. Continued

Source	Latitude	Longitude	TDS (mg/L)
Shell Canada Limited, 2002	57.237874	−111.449540	4 589
Southern Pacific Resources Corp., 2011	57.724237	−111.691894	3 116
Southern Pacific Resources Corp., 2011	56.749760	−111.882876	6 213
Southern Pacific Resources Corp., 2011	56.778819	−112.088912	8 033
Southern Pacific Resources Corp., 2011	57.033472	−111.860284	18 025
Southern Pacific Resources Corp., 2011	57.018998	−111.846866	32 000
Suncor Inc, 2003	56.869167	−111.338611	2 636
Suncor Inc., 1998	56.996971	−111.414073	4 439
Suncor Inc., 1998	57.268066	−111.340611	6 535
Suncor Inc., 1998	56.995154	−111.420307	9 597
Suncor Inc., 1998	57.021117	−111.392270	9 869
Suncor Inc., 1998	56.995278	−111.409775	14 062
Suncor Inc., 2007	56.920788	−111.538385	24 399
Suncor Inc., 2007	56.924455	−111.491447	6 624
Suncor Inc., 2007	56.949870	−111.498135	7 036
Suncor Inc., 2007	56.968044	−111.638979	13 904
Suncor Inc., 2007	56.928105	−111.645717	16 299
Suncor Inc., 2007	56.971641	−111.571852	22 707
Suncor Inc., 2007	56.928099	−111.558506	26 485
Teck Resources Ltd., 2011	57.695176	−111.548260	1 038
Teck Resources Ltd., 2011	57.651581	−111.589284	1 391
Teck Resources Ltd., 2011	57.709722	−111.616652	2 548
Teck Resources Ltd., 2011	57.666072	−111.671366	2 765
Teck Resources Ltd., 2011	57.717015	−111.712413	2 816
Teck Resources Ltd., 2011	57.709732	−111.582458	3 441
Teck Resources Ltd., 2011	57.738785	−111.650856	3 468
Teck Resources Ltd., 2011	57.698764	−111.671370	3 821
Teck Resources Ltd., 2011	57.756931	−111.726097	3 918
Teck Resources Ltd., 2011	57.717011	−111.685053	4 527
Teck Resources Ltd., 2011	57.676991	−111.602965	5 915
Teck Resources Ltd., 2011	57.687931	−111.685050	8 014
Teck Resources Ltd., 2011	57.691549	−111.712411	13 152
Teck Resources Ltd., 2011	57.647908	−111.719248	13 268
Teck Resources Ltd., 2011	57.629782	−111.589267	90 989
Teck Resources Ltd., 2011	57.640621	−111.582434	91 570
True North Energy L.P., 2001	57.411642	−111.526757	1 107a
True North Energy L.P., 2001	57.411642	−111.526757	5 966a
True North Energy L.P., 2001	57.411642	−111.526757	61 619a
WorleyParsons Komex, 2007	57.391589	−111.245630	534
WorleyParsons Komex, 2007	57.429827	−111.327777	687
WorleyParsons Komex, 2007	57.407979	−111.360632	693
WorleyParsons Komex, 2007	57.424053	−111.293287	933
WorleyParsons Komex, 2007	57.370336	−111.286022	1 055
WorleyParsons Komex, 2007	57.375116	−111.377057	1 363
WorleyParsons Komex, 2007	57.331681	−111.326443	1 991
WorleyParsons, 2010	57.237153	−111.445485	519
WorleyParsons, 2010	57.182521	−111.129322	2 169
WorleyParsons, 2010	57.219044	−111.404892	3 063
WorleyParsons, 2010	57.291680	−111.445485	3 068
WorleyParsons, 2010	57.291636	−111.621715	3 326
WorleyParsons, 2010	57.146173	−111.639033	531
WorleyParsons, 2010	56.789750	−111.789827	3 384
WorleyParsons, 2010	56.804264	−111.457388	5 745

[a]Three TDS values from groundwater wells within the True North Energy L.P. mine were provided without location data. An arbitrary location in the center of the mine was selected for each of these points.

REFERENCES FOR APPENDIX DATA

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