

**University of Toronto Archives
and Record Management Services**



Derek York fonds

B2018-0012

Prepared by:

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University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Table of Contents

| | |
|---|----|
| Biographical sketch..... | 2 |
| Scope and content | 3 |
| Series 1: Personal & biographical..... | 4 |
| Series 2: Manuscripts & publications..... | 4 |
| Series 3: University of Toronto activities..... | 5 |
| Series 4: Addresses..... | 5 |
| Series 5: Research | 6 |
| Appendix 1, Series 2: Manuscripts & publications..... | 7 |
| Appendix 2, Series 5: Research | 13 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Biographical sketch¹

Professor emeritus Derek York (1936-2007) was born on August 12, 1936 in Normanton, Yorkshire, England. He attended Oxford University, graduating with a B.A. in Physics in 1957 and a PhD in Earth Science in 1960. During his time as a graduate student, York worked with physicist Ken Mayne to establish the first potassium-argon lab in the UK. In his final year of graduate school, York met distinguished Toronto physicist Tuzo Wilson at a departmental colloquium. The meeting clearly had an impact on York as he joined the University of Toronto physics faculty later that year as a Lecturer, moving to Assistant Professor in 1962, Associate Professor in 1966, and full Professor in 1972. Prof. York also acted as chair of the department for a time (1992-1997) and held the inaugural J. Tuzo Wilson Professor of Geophysics position from 1995-2000.

Prof. York's research focused primarily on potassium-argon dating, thermochronometry, meteoroid impact dating, and the chronology of human evolution. During his time at U of T, the U of T Geochronology lab became known as a leader in the field of $^{40}\text{Ar}/^{39}\text{Ar}$ potassium-argon dating. It was at this lab that Prof. York and his colleagues first used lasers to extract argon from samples in the 1980s. Their later development of one of the world's first extraction lines which enabled data to be collected over the course of a 24 hour day, along with the use of a gas purification system, mass spectrometer, and unattended operation of the laser changed the way Prof. York and his colleagues worked, allowing them to focus their energies on more creative ideas.

In addition to his research activities, Prof. York also taught several courses in physics and geophysics and sat on various committees during his time at U of T. Many of his students went on to establish $^{40}\text{Ar}/^{39}\text{Ar}$ labs around the world. In terms of committees, Prof. York sat on several, both as chairman and member. These committees included: Welsh Lectures in Physics Committee (1979-1982), Department Council, Department of Physics, University of Toronto (1980-1981), University of Toronto Research Board (1984-1985), Graduate Students Admissions Committee (1988-1991), and the University Grievance Committee.

Outside of U of T, Prof. York participated in several committees and professional associations, including the NRC Sub-Committee for Isotope Studies and Geochronology (acting as Chairman from 1967-1973) and the NRC Associate Committee for Geodesy and Geophysics (1970-1973). He was also the foreign principle investigator for NASA during the Apollo missions to the moon. In addition to the numerous articles Prof. York authored or co-authored, he also wrote several books, including *The Earth's Age and Geochronology* with R.M. Farquhar and *In Search of Lost Time* (published in 1997). These books, along with his 70+ articles in *The Globe and Mail*, ensured that Prof. York was a sought after expert in his field.

¹ This sketch is drawn from Paul R. Renne. "Derek York (1937-2007)," *Geophysicists*, 89 (2008): 50-51., from Judith Knelman. "Derek York," *Canadian Encyclopedia* (2013), and from Derek York's CV.

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Biographical sketch²

Over the course of his career, Prof. York's work won him numerous awards and honours. He was a fellow of the Royal Society of Canada (1985), the American Geophysical Union (1995), and the Geochemical Society and the European Association for Geochemistry (1997). In addition to this, Prof. York received the Past President's Medal of the Geological Association of Canada (1985), the Bancroft Award of the Royal Society of Canada (1986), the Sandford Fleming Medal of the Royal Canadian Institute (1996), and the Canadian Association of Physicists' Lifetime Achievement Award (2005). Prof. York passed away on August 9, 2007 and is survived by his wife Lydia and son Link.

Scope and content

1950-2014

1.2m of textual material, graphic material, and publications (12 boxes)

67 photographs

34 5.25 inch floppy disks

Personal records of Derek York, professor emeritus of physics at the University of Toronto. Included are mass spectrometer log books and the world's first mass spectrometer manual; laser manual for the earliest commercially available high-powered laser; instruction manuals, laboratory notes, argon geochronology laboratory reports; Pat Smith's lab books; sample maps, photographs, offprints and articles; contracts and contract reports; research binder on birds; other research binders, including some with Pat Smith and also some of the latter's lab books; press clippings about Professor York; floppy discs. Digital files on floppy disks are unprocessed and not available for researcher use at this time. Please contact the Archives for more information.

Access: Open

² This sketch is drawn from Paul R. Renne. "Derek York (1937-2007)," *Geophysicists*, 89 (2008): 50-51., from Judith Knelman. "Derek York," *Canadian Encyclopedia* (2013), and from Derek York's CV.

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Series 1: Personal/biographical

1994, 1998

0.02m of textual records

14 photographs

This series contains material relating to Prof. York's life. It includes a curriculum vitae from 1998 and a copy of the U of T National Report on Derek York and his work with laser probe argon-argon dating.

| Accession/box(file) | Description | Date(s) |
|------------------------------|--|----------------|
| | | |
| B2018-0012/001(01) | Derek York with Grenville Turner, Stephen Moorbathe | 1994 |
| B2018-0012/001(02) | Curriculum vitae, April 1998 | 1998 |
| B2018-0012/001(03) | U of T National Report: Things large and small. Paragraph on Derek York and laser probe argon-argon dating technique | n.d. |
| B2018-0012/ 001P (01) | Photos of Derek York and colleagues in lab | n.d. |

Series 2: Manuscripts & publications

1965-2006

0.16m of textual records, publications

This series documents the writing activities of Professor York in terms the publication of papers in scholarly journals. Files contain correspondence, and notes, as well as drafts of articles and unpublished manuscripts. The arrangement is chronological.

For a detailed listing of this series, see Appendix 1, Series 2: Manuscripts & publications

| Accession/Box(file) | Dates |
|----------------------------|--------------|
| B2018-0012/001(04)-(39) | 1965-1992 |
| B2018-0012/002(01)-(20) | 1992-2006 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Series 3: U of T activities

1966, 1982

0.08m of textual records

This series contains material relating to two PhD theses Prof. York supervised during his time at the University of Toronto.

| Accession/box(file) | Description | Date(s) |
|----------------------------|--|----------------|
| | | |
| B2018-0012/002(21) | Studies in Potassium-Argon Dating by Robert M. Macintyre. PhD thesis supervised by Derek York | 1966 |
| B2018-0012/002(22) | Studies in Potassium-Argon Dating by Robert M. Macintyre. PhD thesis supervised by Derek York | 1966 |
| B2018-0012/002(23) | ^{40}Ar - ^{39}Ar Dating of Melt Rock from Impact Craters by Richard J. Bottomley. PhD thesis supervised by Derek York | 1982 |
| B2018-0012/002(24) | ^{40}Ar - ^{39}Ar Dating of Melt Rock from Impact Craters by Richard J. Bottomley. PhD thesis supervised by Derek York | 1982 |

Series 4: Addresses

1997

0.02m of textual records

This series contains material relating to Prof. York's addresses. Included are research materials, slides, and drafts.

| Accession/box(file) | Description | Date(s) |
|----------------------------|---|----------------|
| | | |
| B2018-0012/002(25) | Chen, Y., Smith, P.E., Evensen, N.M., York, D. "Towards Calibrating the Recent Time Scale: ^{40}Ar / ^{39}Ar Dating of the Wilson Creek Beds Mono Basin, California" slides | n.d. |
| B2018-0012/002(26) | Hu, Q., Evensen, N.M., Smith, P.E., York, D. "An ^{40}Ar - ^{39}Ar Laser Probe Reconnaissance of Proterozoic Sediments from the Canadian Shield" Moorbath Festschrift, Precambrian Geology research materials, drafts | 1997 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Series 5: Research

1950-2013

0.92m of textual records

53 photographs

34 5.25 inch floppy disks

This series contains material relating to Prof. York's research activities. It includes experiment notes, schemas, lab data, and notes relating to various York publications and topics. Also included are reports, contracts, correspondence, and lab data relating to the U of T Geochronology Lab's commercial work. Also included are 34 5.25 floppy disks but the digital files are unprocessed and not available for researcher use at this time. Please contact the Archives for more information.

For a detailed listing of this series, see Appendix 2, Series 5: Research Materials

| Accession/Box(file) | Dates |
|----------------------------|--------------|
| B2018-0012/002(27)-/003 | 1950-1966 |
| B2018-0012/004, /010 | 1966-1991 |
| B2018-0012/005 | 1973-1982 |
| B2018-0012/006, /001P(02) | 1987-1995 |
| B2018-0012/007, /001P(03) | 1991-1997 |
| B2018-0012/008 | 1996-2000 |
| B2018-0012/009 | 1998-2013 |
| B2018-0012/001Art | [1998-2013?] |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 1, Series 2: Manuscripts & publications

| Accession/box(file) | Description | Date(s) |
|----------------------------|---|----------------|
| B2018-0012/001(04) | Farrar, E. MacIntyre, R.M. "A Simple Mass Spectrometer for Analysis of Argon at Ultra-High Vacuum." Paper presented at the 12 th Annual E 14 Meeting on Mass Spectrometry at Montreal Organised by the ASTM Committee | n.d. |
| B2018-0012/001(05) | Hayatsu, A., York, D., Farquhar, R.M., Gittins, J. "Significance of Strontium Isotope Ratios in Theories of Carbonatite Genesis" <i>Nature</i> , 207 (1965): 625-626. | 1965 |
| B2018-0012/001(06) | Harris, P.M., Farrar, E., MacIntyre, R.M., York, D. "Potassium-Argon Age Measurements on Two Igneous Rocks from the Ordovician System of Scotland" <i>Nature</i> , 205, 4969 (1965): 352-353. | 1965 |
| B2018-0012/001(07) | "Least Squares Fitting of a Straight Line." <i>Canadian Journal of Physics</i> , 44, 5 (1966): 1079-1086. | 1966 |
| B2018-0012/001(08) | "The Best Isochron" <i>Earth and Planetary Science Letters</i> , 2 (1967): 479-482 | 1967 |
| B2018-0012/001(09) | "Least Squares Fitting of a Straight Line with Correlated Errors." <i>Earth and Planetary Science Letters</i> 7, 1 (1969): 320-324 | 1969 |
| B2018-0012/001(10) | York, D., Berger, G.W. " ⁴⁰ Ar- ³⁹ Ar age determinations on nepheline and basic whole rocks." <i>Earth and Planetary Science Letters</i> , 7, 4 (1970): 333-336 | 1970 |
| B2018-0012/001(11) | York, D., Yanase, Y. and Berger, G.W. "Determination of Geological Time with a Nuclear Reactor and a Mass Spectrometer" <i>Proc. NATO Adv. Study Inst. On Activation Analysis in Geochemistry and Cosmochemistry</i> , Kjeller, Norway, ed. A.O. Brunfelt and E. Steinners (1970): 419-422. | 1970 |
| B2018-0012/001(12) | "Recent Developments in Potassium-Argon Dating" <i>Comments on Earth Sciences Geophysics</i> , 1, 2 (1970): 47-53 | 1970 |
| B2018-0012/001(13) | York, D., Doyle, R.J. "Commentary on the Least Squares Cubic Computer Program" | 1971 |
| B2018-0012/001(14) | "Evolution of Triple Junctions" <i>Nature</i> , 244 (1973): 341-342 | 1973 |
| B2018-0012/001(15) | "A Graphical Approach to Dispersion" draft | 1974 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 1, Series 2: Manuscripts & publications

| Accession/box(file) | Description | Date(s) |
|----------------------------|--|----------------|
| | | |
| B2018-0012/001(16) | "Evolution of Triple Junctions" <i>Canadian Journal of Earth Sciences</i> , 12, 3 (1975): 516-519 | 1975 |
| B2018-0012/001(17) | Mak, E.K., York, D., Grieve, R.A.F., Dence, M.R. "The Age of the Mistasin Lake Crater, Labrador, Canada." <i>Earth and Planetary Science Letters</i> , 31 (1976): 345-357. Early drafts, notes | n.d.-1976 |
| B2018-0012/001(18) | Smith, P.E., Evensen, N.M., York, D. "Single-grain ^{40}Ar - ^{39}Ar Ages Reveal the Secret Life Span of Glauconies: Implications for the Geologic Time-Scale." Research materials, correspondence, drafts | 1977 |
| B2018-0012/001(19) | Smith, P.E., Evensen, N.M. "Single-grain ^{40}Ar - ^{39}Ar Ages Reveal the Secret Early Lives of Glauconies: Implications for the Geologic Time-Scale." Research materials, correspondence, crafts | 1977-1978 |
| B2018-0012/001(20) | Bottomley, R.J., York, D., Grieve, R.A.F., " ^{40}Ar / ^{39}Ar Ages of Scandinavian Impact Structures: I Mien and Siljan." <i>Contributions to Mineralogy and Petrology</i> , 68 (1978): 79-84 | 1978 |
| B2018-0012/001(21) | Hanes, J.A., York, D. "A detailed ^{40}Ar / ^{39}Ar age study of an Abitibi dike from the Canadian Superior Province." <i>Canadian Journal of Earth Science</i> , 16, 5 (1979): 1060-1070. | 1979 |
| B2018-0012/001(22) | Berger, G.W., York, D. " ^{40}Ar / ^{39}Ar dating of multicomponent magnetizations in the Archean Shelley Lake granite, northwestern Ontario." <i>Canadian Journal of Earth Sciences</i> , 16, 10 (1979): 1933-1941. | 1979 |
| B2018-0012/001(23) | Berger, G.W., York, D. "Reinterpretation of the North American apparent polar wander curve for interval 800-1500 Ma." <i>Canadian Journal of Earth Sciences</i> , 17, 9 (1980): 1229-1235. | 1980 |
| B2018-0012/001(24) | York, D., Yanase, Y., Hall, C.M., Hanes, J., Kenyon, W.J. "Laser Dating of Terrestrial Minerals with a continuous laser" <i>Geophysical Research Letters</i> , 8, 11 (1981): 1136-1138. | 1981 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 1, Series 2: Manuscripts & publications

| Accession/box(file) | Description | Date(s) |
|----------------------------|---|----------------|
| B2018-0012/001(25) | Berger, G.W., York, D. “ ⁴⁰ Ar/ ³⁹ Ar dating of the Thanet Gabbro, Ontario: looking through the Grenvillian metamorphic veil and implications for paleomagnetism.” <i>Canadian Journal of Earth Sciences</i> , 18, 2 (1981): 266-273 | 1981 |
| B2018-0012/001(26) | York, D., Masliwec, A. Kuybida, P., Hall, C.M., Kenyon, W. J., Hanes, J.A., Spooner, E.T.C., Scott, S.D. “Ontario Geoscience Research Grant Program, Grant No. 62 The Direct Dating of Ore Minerals” <i>Ontario Geological Survey</i> | 1983 |
| B2018-0012/001(27) | Lopez-Martinez, M., York, D., Hall, C.M., Hanes, J.A. “The oldest Reliable ⁴⁰ Ar/ ³⁹ Ar Ages on Terrestrial Rocks: Barberton Mountain Komatiites” <i>Nature</i> , 307 (1984): 352-354. | 1984 |
| B2018-0012/001(28) | “Cooling Histories from ⁴⁰ Ar/ ³⁹ Ar Spectra: Implications for Precambrian Plate Tectonics. <i>Annual Review of Earth and Planetary Sciences</i> , 12 (1984): 384-409 | 1984 |
| B2018-0012/001(29) | Hanes, J.A., York, D., Hall, C.M. “An ⁴⁰ Ar/ ³⁹ Ar geochronological and electron microprobe investigation of an Archean pyroxenite and its bearing on ancient atmospheric compositions.” <i>Canadian Journal of Earth Sciences</i> , 22 (1985): 947-958 | 1985 |
| B2018-0012/001(30) | York, D., Lopez-Martinez, M. “The Two-Faced Mica.” <i>Geophysical Research Letters</i> , 13, 9 (1986): 973-975 | 1986 |
| B2018-0012/001(31) | Glass, B.P., Hall, C.M., York, D. “ ⁴⁰ Ar/ ³⁹ Ar Laser-Probe Dating of North American Tektite Fragments from Barbados and the Age of Eocene-Oligocene Boundary.” <i>Chemical Geology</i> , 59 (1986): 181-186 | 1986 |
| B2018-0012/001(32) | Bottomley, R., York, D. “Age Measurement of the Montagnais Impact Crater.” <i>Geophysical Letters</i> , 15, 12 (1988): 1409-1412 | 1988 |
| B2018-0012/001(33) | Onstott, T.C., Hall, C.M., York, D. “ ⁴⁰ Ar/ ³⁹ Ar Thermochronometry of the Imataca Complex, Venezuela.” <i>Precambrian Research</i> , 42 (1989): 255-291 | 1989 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 1, Series 2: Manuscripts & publications

| Accession/box(file) | Description | Date(s) |
|----------------------------|---|----------------|
| B2018-0012/001(34) | Layer, P.W., Kröner, A., McWilliams, M., York, D. "Elements of the Archean thermal history and apparent polar wander of the eastern Kaapvaal Craton, Swaziland, from single grain dating and paleomagnetism." <i>Earth and Planetary Science Letters</i> , 93 (1989): 23-34. | 1989 |
| B2018-0012/001(35) | Özdemir, Ö, York, D. " ⁴⁰ Ar/ ³⁹ Ar Laser Dating of a Single grain of magnetite" <i>Tectonophysics</i> , 183 (1990): 1-13. | 1990 |
| B2018-0012/001(36) | Bottomley, R.J., York, D., Grieve, R.A.F. " ⁴⁰ Argon- ³⁹ Argon Dating of Impact Craters" <i>Proceedings of the 20th Lunar and Planetary Institute</i> (Houston, 1990): 421-431 | 1990 |
| B2018-0012/001(37) | Wright, N., Layer, P.W., York, D. "New Insights into Thermal History from Single Grain ⁴⁰ Ar/ ³⁹ Ar Analysis of Biotite" <i>Earth and Planetary Science Letters</i> , 104 (1991): 70-79 | 1991 |
| B2018-0012/001(38) | de Ronde, C.J., Hall, C.M., York, D., Spooner, E.T.C. "Laser step-heating ⁴⁰ Ar/ ³⁹ Ar Age Spectra from Early Archean (3.5 Ga) Barberton Greenstone Belt Sediments: A Technique for Detecting Crypto Tectono-Thermal Events." <i>Geochimica et Cosmochimica Acta</i> , 55 (1991): 1933-1951 | 1991 |
| B2018-0012/001(39) | Layer, P.W., Kröner, A., York, D. "Pre-3000 Ma Thermal History of the Archean Kaap Valley Pluton, South Africa" <i>Geology</i> , 20 (1992): 717-720 | 1992 |
| B2018-0012/002(01) | Özdemir, Ö, York, D. " ⁴⁰ Ar/ ³⁹ Ar Laser Dating of Biotite Inclusions in a Single Crystal of Magnetite." <i>Geophysical Research Letters</i> , 19 (1992): 1799-1802 | 1992 |
| B2018-0012/002(02) | Thomas, A.R., Dahl, W.D., Hall, C.M., York, D. " ⁴⁰ Ar/ ³⁹ Ar Analyses of Authigenic Muscovite, Timing of Styolitization, and Implications for Pressure Solution Mechanisms: Jurassic Norphlet Formation, Offshore Alabama." <i>Clay and Clay Minerals</i> , 41 (1993): 269-279 | 1993 |
| B2018-0012/002(03) | "The Earliest History of the Earth" <i>Scientific American</i> (1993): 90-96. | 1993 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 1, Series 2: Manuscripts & publications

| Accession/box(file) | Description | Date(s) |
|----------------------------|---|----------------|
| B2018-0012/002(04) | Smith, P.E., Schandl, E.S., York, D. "Timing of Metasomatic Alteration of the Archaen Kidd Creek Massive Sulphide Deposit, Ontario Using $^{40}\text{Ar}/^{39}\text{Ar}$ Laser Dating of Single Crystals of Fuchsite." <i>Economic Geology</i> , 88 (1993): 1636-1642 | 1993 |
| B2018-0012/002(05) | Smith, P.E., York, D., Easton, R.M., Özdemir, Ö. "A Laser $^{40}\text{Ar}/^{39}\text{Ar}$ Study of Minerals Across the Grenville Front: Investigation of Reproducible Excess Ar Patterns" <i>Canadian Journal of Earth Sciences</i> , 31 (1994): 808-817 | 1994 |
| B2018-0012/002(06) | Hu, Q., Smith, P.E., Evensen, N.M., York, D. "Lasing in the Holocene: Extending the $^{40}\text{Ar}/^{39}\text{Ar}$ Laser Probe Method into the Carbon-14 Age Range." <i>Earth and Planetary Science Letters</i> , 123 (1994): 331-336 | 1994 |
| B2018-0012/002(07) | Irving, E., Baker, J., Wright, N., Yorath, C.J., Enkin, R.J., York, D. "Magnetism and Age of the Porteau Pluton, Southern Coast Belt, British Columbia: Evidence for Tilt and Translation." <i>Canadian Journal of Earth Sciences</i> , 32 (1995): 380-392 | 1995 |
| B2018-0012/002(08) | Chen, Y., Smith, P.E., Evensen, N.M., York, D., Lajoie, K.R., "The Edge of Time: Dating Volcanic Ash Layers with $^{40}\text{Ar}-^{39}\text{Ar}$ Laser Probe." <i>Science</i> , 274 (1996): 1176-1178 | 1996 |
| B2018-0012/002(09) | "Geological Dating" <i>The Canadian Encyclopedia</i> | 1996 |
| B2018-0012/002(10) | Smith, P.E., Evensen, N.M., York, D., Odin, G.S., "Single-grain argon-argon ages of glauconies: Implications for the geological time-scale and global sea-level variations." <i>Science</i> , 279(1998): 1517-1519. Draft | 1997 |
| B2018-0012/002(11) | de Wit, M., van Hoof, T., Berg, H., York, D., White, S., Langereis, C. "Paleomagnetic investigations within and around the 3.2-3.5 Ga Barberton greenstone belt, South Africa: Paleomagnetic tests for Early Archean tectonics." Unpublished | 1997 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 1, Series 2: Manuscripts & publications

| Accession/box(file) | Description | Date(s) |
|----------------------------|--|----------------|
| B2018-0012/002(12) | Bottomley, R., Grieve, R., York, D., Masaitas, V. "The age of the Popigai impact event and its relation to events at the Eocene/Oligocene boundary." <i>Nature</i> , 388 (1997): 365-368 | 1997 |
| B2018-0012/002(13) | "What's Read in the Bones" <i>The Globe and Mail</i> . Week of February 26 199- | 199- |
| B2018-0012/002(14) | Smith, P.E., Evensen, N.M., York, D. "Sedimentary Pyrite ^{40}Ar - ^{39}Ar Isochrones: Exploiting a Natural Clay Time-Capsule in Shale" | 200- |
| B2018-0012/002(15) | "Rock Stars: J. Tuzo Wilson" <i>Geological Society of America Today</i> . September 2001 | 2001 |
| B2018-0012/002(16) | Smith, P.E., Evensen, N.M., York, D. "Single-crystal ^{40}Ar - ^{39}Ar dating of pyrite: No fool's clock" <i>Geology</i> , 29, 5 (2001): 403-406 | 2001 |
| B2018-0012/002(17) | Smith, P.E., Evensen, N.M., York, D. (2001)"Whispers of Time: Lowest Temperature Regions of Argon Age Spectra" <i>AGU Fall Meeting Abstracts</i> | 2001 |
| B2018-0012/002(18) | York, E., Evensen, N. "Unified equations for the slope, intercept, and standard errors of the best straight line." <i>American Journal of Physics</i> , 72, 3 (2004): 367-375 | 2004 |
| B2018-0012/002(19) | Smith, P.E., Evensen, N.M., York, D., Moorbat, S. "Oldest reliable terrestrial ^{40}Ar - ^{39}Ar age from pyrite crystals at Isua West Greenland" <i>Geophysical Research Letters</i> , 32, L21318 (2005): 1-4 | 2005 |
| B2018-0012/002(20) | Reis, N.J., Szatmari, P., Wanderley Fihlo, J.R., York, D., Evensen, N.M., Smith, P.E. "Dois Eventos De Magmatismo Mafuco Mesozóico Na Fronteira Brasil-Guiana, Escudo Das Guianas: Enfoque à Região do Rifte Tacutu-North Savannas" <i>Trabalhos apresentados em eventos</i> | 2006 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 2, Series 5: Research

| Accession/box(file) | Description | Date(s) |
|-----------------------------|---|----------------|
| B2018-0012/002(27) | Metropolitan-Vickers Mass Spectrometer MS2 Schemas | 1950 |
| B2018-0012/ 003 (01) | Metropolitan-Vickers Mass Spectrometer MS2 Instruction Manual | 1952 |
| B2018-0012/003(02) | 90° Metropolitan Vickers Mass Spectrometer li instrumentation book | 1955- |
| B2018-0012/003(03) | Bail Hill Carbonatites lab book | 1960s? |
| B2018-0012/003(04) | Brazing and Welding Johnson Matthey and Mallory Ltd material | 1960 |
| B2018-0012/003(05) | Diffusion pump article, operating instructions | 1960 |
| B2018-0012/003(06) | Gas handling results book | 1963-1965 |
| B2018-0012/003(07) | Mass spectrometer log book | 1963-1964 |
| B2018-0012/003(08) | Mass spectrometer 10 log book | 1963-1968 |
| B2018-0012/003(09) | E. Farrar, M. MacIntyre lab record book | 1964 |
| B2018-0012/003(10) | Cobalt Silver Area Southeastern Sheet: Timiskaming District by the Ontario Department of Mines | 1964 |
| B2018-0012/003(11) | Cobalt Silver Area Southeastern Sheet: Timiskaming District by the Ontario Department of Mines | 1964 |
| B2018-0012/003(12) | Cobalt Silver Area Northern Sheet: Timiskaming District by Ontario Department of Mines | 1964 |
| B2018-0012/003(13) | Cobalt Silver Area: Southwestern Sheet: Timiskaming District by the Ontario Department of Mines | 1964 |
| B2018-0012/003(14) | Mass spectrometer 10 log book | 1965-1966 |
| B2018-0012/ 004 (01) | General Electric Nuclides and Isotopes booklet, application, data | 1966 |
| B2018-0012/004(02) | Mid Atlantic Ridge Project research materials | 1967-1969 |
| B2018-0012/004(03) | Ion Repeller Voltage Adjustment lab data (graphs, notes) | 1967-1972 |
| B2018-0012/004(04) | H.F. Generator PH 1006/11/12 manual, drawings | 1968 |
| B2018-0012/004(05) | Codes of Practice for the Protection of Persons Exposed to Ionising Radiation | 1969 |
| B2018-0012/004(06) | Mass spectrometer notes | 197?-? |
| B2018-0012/004(07) | MS-1200 Digital Integration, atmospheric Argon diagrams, lab notes | 1970 |
| B2018-0012/ 010 (01) | Derek York, W. John Kenyon lab book | 1970-1981 |
| B2018-0012/004(08) | Fusion system, fusion furnace drawings | 1971 |
| B2018-0012/004(09) | Argon-38 spike lab data | 1971-1975 |
| B2018-0012/004(10) | Pat Smith lab book | 1971-1987 |
| B2018-0012/004(11) | Laboratory notes | 1972 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 2, Series 5: Research

| Accession/box(file) | Description | Date(s) |
|------------------------------|---|----------------|
| B2018-0012/004(12) | Mistasin Lake research materials, correspondence | 1972-1973 |
| B2018-0012/004(13) | Irradiation reports, lab data | 1972-1979 |
| B2018-0012/004(14) | Mass spectrometer notes, diagrams, schemas | 1972-1991 |
| B2018-0012/ 005 (01) | Timmins-Kirkland Lake Geological Compilation Series: Cochrane, Sudbury and Timiskaming districts by the Ontario Division of Mines | 1973 |
| B2018-0012/005(02) | Ministry of Natural Resources. Index to published geological maps 1891-1960 (updated June 1975) | 1975 |
| B2018-0012/005(03) | Ministry of Natural Resources. Index to published geoscience maps 1961-present (updated June 1975) | 1975 |
| B2018-0012/005(04) | Ministry of Natural Resources Index to Preliminary Maps Geological Series (revised to June 1975) | 1975 |
| B2018-0012/005(05) | Ministry of Natural Resources Index to Preliminary Maps – Geochemical-Geophysical Series (revised to June 1975) | 1975 |
| B2018-0012/005(06) | Ministry of Natural Resources Index to Preliminary Maps Data Series (revised to June 1975) | 1975 |
| B2018-0012/005(07) | Experiment Schemas | 1976-1978 |
| B2018-0012/005(08) | Mass spectrometer notes, diagrams, schemas | 1976-1982 |
| B2018-0012/005(09) | Mass spectrometer 10 lab record book | 1976-1984 |
| B2018-0012/005(10) | Spectra Physics Model 171 Ion Laser Manual | 1977 |
| B2018-0012/005(11) | Pat Smith? manuscript on K-Ar and $^{40}\text{Ar}/^{39}\text{Ar}$ dating | 1978? |
| B2018-0012/005(12) | Lab notes, irradiation sample notes | 1981 |
| B2018-0012/005(13) | Barnes Infrared Microscope correspondence, product information | 1981-1982 |
| B2018-0012/ 006 (01) | VG Isotopes Mass Spectrometer computer manual | 1982 |
| B2018-0012/006(02) | Vacuum Rebuild Project notes, drawings, invoices | 1984-1985 |
| B2018-0012/006(03) | Fusion lab sheets | 1985-1986 |
| B2018-0012/006(04) | Lindberg blank lab data | 1985-1986 |
| B2018-0012/006(05) | Lindberg Fusion System, R.F. Fusion System, MS10 procedure manuals | 1986 |
| B2018-0012/006(06) | Geological Highway Map of Northern Ontario by the Ministry of Northern Development and Mines | 1986 |
| B2018-0012/006(07) | Main Ion Pump Valve Driver installation instructions, purchase information | 1987 |
| B2018-0012/ 001P (02) | Photos of lab equipment | 1987-1988 |
| B2018-0012/006(09) | UT Lamp Controller Manual. August 1988 | 1988 |
| B2018-0012/006(10) | Radiance values for Infrared Microscope data, graphs | 1990 |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 2, Series 5: Research

| Accession/box(file) | Description | Date(s) |
|-----------------------------|--|----------------|
| | | |
| B2018-0012/006(11) | Geologic Map of Yellowstone National Park by the U.S. Geological Survey | 1991 |
| B2018-0012/006(12) | Irradiation lab notes | 1992 |
| B2018-0012/006(13) | Devonian Barite lab notes | 1992 |
| B2018-0012/006(14) | Alan Hildebrand Project notes, correspondence | 1992 |
| B2018-0012/006(15) | Devonian spherule lab notes | 1992 |
| B2018-0012/006(16) | Popagai lab notes | 1992 |
| B2018-0012/006(17) | McMaster University Nuclear Reactor notes, irradiation request | 1994 |
| B2018-0012/006(18) | Electron multiplier notes, correspondence, product information | 1994 |
| B2018-0012/006(19) | Potassium-Argon calculations, notes, correspondence | 1994 |
| B2018-0012/006(20) | Mass spectrometer logbook vol. 1. April 1992-June 1995 | 1992-1995 |
| B2018-0012/ 007 (01) | Leak Data Residual Gas Analyser | 1995 |
| B2018-0012/007(02) | Glauconies research materials (notes, correspondence, etc.) [photographs removed to B2018-0012/001P(03)] | 1991-1997 |
| B2018-0012/007(03) | Mass spectrometer lab notes and diagrams | 1995-1998 |
| B2018-0012/007(04) | Mass spectrometer log book vol. 2, June 1995-September 2000 | 1995-2000 |
| B2018-0012/007(05) | Mass spectrometer log book vol. 3, October 2000-April 2014 | 2000-2014 |
| B2018-0012/007(06) | Kos maps, graphs, data | 1996 |
| B2018-0012/007(07) | Hyaloo-sphenochron diagrams, notes, lab data | 1996 |
| B2018-0012/007(08) | U of T Geochronology Lab Press Clippings | 1996-1997 |
| B2018-0012/ 008 (01) | Yixin Formation project research materials, correspondence | 1996-1997 |
| B2018-0012/008(02) | Research material on birds (correspondence, notes, articles) | 1998-2001 |
| B2018-0012/008(03) | Pat Smith laser lab notes | 2000 |
| B2018-0012/008(04) | Sample maps | 2001-2007 |
| B2018-0012/008(05) | Description of the Toronto Argon Geochronology Lab | 2007 |
| B2018-0012/008(06) | Carnallite research notes | 2008-2010 |
| B2018-0012/008(07) | Mass spectrometer mapping samples | 2011-2013 |
| B2018-0012/008(08) | Letter from U of T Department of Geology faculty member John regarding resting rock samples | n.d. |
| B2018-0012/008(09) | Edwards 'O' Rings data | n.d. |
| B2018-0012/008(10) | Getter lab data (notes drawings) | n.d. |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 2, Series 5: Research

| Accession/box(file) | Description | Date(s) |
|--------------------------------|---|--------------|
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| | | |
| B2018-0012/008(11) | Vacuum Instrument Corporation. Operating and Maintenance Procedures for Ionization Gauge Control Model 34 | n.d. |
| B2018-0012/008(12) | Derek York's writing about the U of T Geochronology Lab | n.d. |
| B2018-0012/008(13) | Drawings for Argon Testing Sedimentary Rock | n.d. |
| | | |
| | Commercial Work | |
| B2018-0012/008(14) | U of T Geochronology Lab commercial work – Guaniamo Mining Company Ltd. Correspondence, lab data | 1996 |
| B2018-0012/008(15) | U of T Geochronology Lab commercial work – ARCO International Oil and Gas Company correspondence, lab data | 1996-1997 |
| B2018-0012/008(16) | U of T Geochronology Lab commercial work – Hong Kong Geological Survey correspondence, lab data | 1998-2000 |
| B2018-0012/ 009 (01) | U of T Geochronology Lab contract with Petrobras (notes, correspondence, drafts) | 1998-2001 |
| B2018-0012/009(02) | Argon Geochronology Lab reports for Petrobras | 1999-2000 |
| B2018-0012/009(03) | U of T Geochronology lab commercial work invoices | 1999-2002 |
| B2018-0012/009(04) | Report, lab data for Petrobras samples | 2000 |
| B2018-0012/009(05) | U of T Geochronology lab commercial work – Departamento de Geologia, Universidad nacional de San Luis (Carlos Costa) report | 2001 |
| B2018-0012/009(06) | Petrobras reports, correspondence, research materials | 2001-2002 |
| B2018-0012/009(07) | Petrobras reports, correspondence, research material | 2003-2004 |
| B2018-0012/009(08) | TerraChron Reports to Petrobras, notes | 2010-2013 |
| B2018-0012/009(09) | PF 57/103 rock sample notes | [1998-2013?] |
| B2018-0012/009(10) | PF 57/10 rock sample notes | [1998-2013?] |
| B2018-0012/009(11) | RF1, RF-2 rock sample notes | [1998-2013?] |
| B2018-0012/009(12) | PF 57/49 rock sample notes | [1998-2013?] |
| B2018-0012/009(13) | PF 57/77 rock sample notes | [1998-2013?] |
| B2018-0012/009(14) | PFS 57/85 rock sample notes | [1998-2013?] |
| B2018-0012/009(15) | PF 57/86 rock sample notes | [1998-2013?] |
| B2018-0012/009(16) | PF 57/102 rock sample notes | [1998-2013?] |
| B2018-0012/ 001Art (01) | PF 57/103 rock sample | [1998-2013?] |
| B2018-0012/001Art(02) | PF 57/10 rock sample | [1998-2013?] |

University of Toronto Archives and Record Management Services

B2018-0012

Derek York

Appendix 2, Series 5: Research

| Accession/box(file) | Description | Date(s) |
|----------------------------|-----------------------|----------------|
| | | |
| B2018-0012/001Art(03) | RF1, RF-2 rock sample | [1998-2013?] |
| B2018-0012/001Art(04) | PF 57/49 rock sample | [1998-2013?] |
| B2018-0012/001Art(05) | PF 57/77 rock sample | [1998-2013?] |
| B2018-0012/001Art(06) | PFS 57/85 rock sample | [1998-2013?] |
| B2018-0012/001Art(07) | PF 57/86 rock sample | [1998-2013?] |
| B2018-0012/001Art(08) | PF 57/102 rock sample | [1998-2013?] |