

K-Ar

Sample Number(s) and Reference(s)	material	Date	1 $\sigma$ error
Lab No: NC-67-16	decay constants: (Whole Rock)		69.5 ± 2.0 Ma
Ref: Carter, 1974	□ 4.72/.584/1.19	( )	± Ma
	✓ 4.72/.584/1.18	( )	± Ma
	■ 4.96/.581/1.167	( WR )	70.7 ± 2.0 Ma

Record No: \_\_\_\_\_  
 Suite No: \_\_\_\_\_ □ not reported  
 Sample Name: Huber  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ (X° Y' Z" or X° Y.Y')  
 (54° 30' " N , 126° 42' " W (± ) ;  
 UTM Zone \_\_\_\_\_ E \_\_\_\_\_ N; Province BC  
 Sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_; \_\_\_\_\_ Co., State \_\_\_\_\_  
 (NTS 93L ) \_\_\_\_\_ Smithers \_\_\_\_\_ Map Area, Scale 1:250,000

Location: Huber porphyry Mo 8 mi N of Houston 1 mi E  
 Source Type: trench of Hwy 16  
 Rock: Biotite hornfels mineralized  
 Geologic Unit: Bulkley intrusion alaskite dyke cuts Hazelton  
 Geologic Age: \_\_\_\_\_ Group crystal tuff  
 Material Analyzed: Whole rock

Analytical Data: (list duplicate analyses or indicate n = 2, n = 3, etc.)

K = 1.07 ± 0.002	% ; (Ar <sup>40*</sup> = 3.001	x10 <sup>-6</sup> cc/gm )	
K <sub>2</sub> O =	% ; (Ar <sup>40*</sup> =	x10 <sup>-10</sup> mol/gm) ; ( 82	%ΣAr <sup>40</sup> )
K =	% ; (Ar <sup>40*</sup> =	x10 <sup>-6</sup> cc/gm ) ; (	%ΣAr <sup>40</sup> )
K <sub>2</sub> O =	% ; (Ar <sup>40*</sup> =	x10 <sup>-10</sup> mol/gm)	
K =	% ; (Ar <sup>40*</sup> =	x10 <sup>-6</sup> cc/gm ) ; (	%ΣAr <sup>40</sup> )
K <sub>2</sub> O =	% ; (Ar <sup>40*</sup> =	x10 <sup>-10</sup> mol/gm)	
K =	% ; (Ar <sup>40*</sup> =	x10 <sup>-6</sup> cc/gm )	
K <sub>2</sub> O =	% ; (Ar <sup>40*</sup> =	x10 <sup>-10</sup> mol/gm) ; (	%ΣAr <sup>40</sup> )

Comment on Analyses: \_\_\_\_\_

Interpretation: \_\_\_\_\_

Collected by: N. Carter  
 Dated by: J.E. Harkal, N. Carter, and V. Bobik  
 Listed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 (name, institution)

K-Ar

Sample Number(s) and Reference(s)	material	Date	1σ error
Lab No: NC - 69 - 4	decay constants: (Biotite)	176 ± 7 Ma	
	□ 4.72/.584/1.19	( )	± Ma
Ref: Carter, 1974	✓ 4.72/.584/1.18	( )	± Ma
	■ 4.96/.581/1.167	( Bi )	178 ± 7 Ma

Record No: \_\_\_\_\_  
 Suite No: \_\_\_\_\_ □ not reported

Sample Name: Tachek Creek

Latitude: \_\_\_\_\_ Longitude: (X° Y' Z" or X° Y.Y')  
 (54° 45' " N, 126° 11' " W (± ) );

UTM Zone \_\_\_\_\_ E \_\_\_\_\_ N; Province BC  
 Sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_; \_\_\_\_\_ Co., State \_\_\_\_\_.

(NTS 93L ) Smithers Map Area, Scale 1:250,000

Location: Tachek Creek (Tachi) porphyry Cu-Mo 4 mi S of  
 Source Type: \_\_\_\_\_  
 Rock: Hornblende - biotite - quartz -feldspar porphyry Topley Landing  
 Geologic Unit: Topley dike late phase cuts Hazelton  
 Geologic Age: \_\_\_\_\_  
 Material Analyzed: Biotite poikilitic plates with some chloritic alteration

Analytical Data: (list duplicate analyses or indicate n = 2, n = 3, etc.)

K = <u>6.54 ± 0.03</u>	%; (Ar <sup>40*</sup> = <u>47.63</u>	x10 <sup>-6</sup> cc/gm )	
K <sub>2</sub> O =	%;	x10 <sup>-10</sup> mol/gm); ( <u>93</u>	%ΣAr <sup>40</sup> )
K =	%; (Ar <sup>40*</sup> =	x10 <sup>-6</sup> cc/gm ); (	%ΣAr <sup>40</sup> )
K <sub>2</sub> O =	%	x10 <sup>-10</sup> mol/gm)	
K =	%; (Ar <sup>40*</sup> =	x10 <sup>-6</sup> cc/gm ); (	%ΣAr <sup>40</sup> )
K <sub>2</sub> O =	%	x10 <sup>-10</sup> mol/gm)	
K =	%; (Ar <sup>40*</sup> =	x10 <sup>-6</sup> cc/gm )	
K <sub>2</sub> O =	%;	x10 <sup>-10</sup> mol/gm); (	%ΣAr <sup>40</sup> )

Comment on Analyses: \_\_\_\_\_

Interpretation: \_\_\_\_\_

Collected by: N. Carter

Dated by: J.E. HaraKal, N. Carter, and V. Bobik

Listed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 (name, institution)

# K-Ar

Sample Number(s) and Reference(s)	material	Date	1 $\sigma$ error
Lab No: <u>NC - 67-7</u>	decay constants: (Biotite)	48.7 ± 1.9 Ma	
	<input type="checkbox"/> 4.72/.584/1.19	( )	± Ma
Ref: <u>Carter, 1974</u>	<input checked="" type="checkbox"/> 4.72/.584/1.18	( )	± Ma
	<input type="checkbox"/> 4.96/.581/1.167	( Bi )	49.5 ± 1.9 Ma

Record No: \_\_\_\_\_  
 Suite No: \_\_\_\_\_  not reported

Sample Name: Big Onion

Latitude: \_\_\_\_\_ Longitude: (X° Y' Z" or X° Y.Y')  
(54° 49' " N, 126° 53' " W (± );

UTM Zone \_\_\_\_\_ E \_\_\_\_\_ N; Province BC

Sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_; \_\_\_\_\_ Co., State \_\_\_\_\_.

(NTS 93L ) \_\_\_\_\_ Smithers Map Area, Scale 1:250,000

Location: Big Onion porphyry Cu-Mo 12 mi E of Smithers  
S side Astlais Mtn

Source Type: roadcut

Rock: Quartz monzonite post mineralization

Geologic Unit: Late phase dike Nanika cuts Hazelton

Geologic Age: \_\_\_\_\_

Material Analyzed: Biotite 1-2 mm plates, up to 10% chlorite

Analytical Data: (list duplicate analyses or indicate n = 2, n = 3, etc.)

K = <u>4.50 ± 0.01</u>	%; (Ar <sup>40*</sup> = <u>8.782</u>	x10 <sup>-6</sup> cc/gm )	
K <sub>2</sub> O = _____	%;	x10 <sup>-10</sup> mol/gm); ( <u>77</u>	%ΣAr <sup>40</sup> )
K = _____	%; (Ar <sup>40*</sup> = _____	x10 <sup>-6</sup> cc/gm ); ( _____	%ΣAr <sup>40</sup> )
K <sub>2</sub> O = _____	%;	x10 <sup>-10</sup> mol/gm)	
K = _____	%; (Ar <sup>40*</sup> = _____	x10 <sup>-6</sup> cc/gm ); ( _____	%ΣAr <sup>40</sup> )
K <sub>2</sub> O = _____	%;	x10 <sup>-10</sup> mol/gm)	
K = _____	%; (Ar <sup>40*</sup> = _____	x10 <sup>-6</sup> cc/gm )	
K <sub>2</sub> O = _____	%;	x10 <sup>-10</sup> mol/gm); ( _____	%ΣAr <sup>40</sup> )

Comment on Analyses: \_\_\_\_\_

Interpretation: \_\_\_\_\_

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Collected by: N. Carter

Dated by: J.E. HaraKal, N. Carter, and V. Bobik

Listed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 (name, institution)

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## K-Ar

Sample Number(s) and Reference(s)	material	Date	1 $\sigma$ error
Lab No: <u>G76 TR 2</u>	decay constants: <u>(Biotite)</u>	<u>74.7</u>	$\pm$ <u>2.6</u> Ma
Ref: <u>GODWIN</u>	<input type="checkbox"/> 4.72/.584/1.19	( )	$\pm$ Ma
	<input type="checkbox"/> 4.72/.584/1.18	( )	$\pm$ Ma
	<input checked="" type="checkbox"/> 4.96/.581/1.167	( )	$\pm$ Ma

Record No: \_\_\_\_\_  
 Suite No: \_\_\_\_\_  not reported

Sample Name: \_\_\_\_\_

Big Onion

Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ (X° Y' Z" or X° Y.Y')

(54° 47' " N, 126° 51' " W ( $\pm$  ) ;

UTM Zone \_\_\_\_\_ E \_\_\_\_\_ N; Province BC

Sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_; \_\_\_\_\_ Co., State \_\_\_\_\_.

(NTS 93L ) Smithers Map Area, Scale 1:250,000

Location: E of Big Onion porphyry

Source Type: \_\_\_\_\_

Rock: Small Hb-bio. granodiorite, stock, near Big Onion porphyry

Geologic Unit: \_\_\_\_\_ unmineralized

Geologic Age: \_\_\_\_\_

Material Analyzed: Biotite, quality very fine

Analytical Data: (list duplicate analyses or indicate n = 2, n = 3, etc.)

K = <u>7.56 7.54 (<math>\pm 0.3\%</math>)</u> %	(Ar <sup>40*</sup> = <u>22.386</u> )	x10 <sup>-6</sup> cc/gm )	
K <sub>2</sub> O = _____ %	(Ar <sup>40*</sup> = <u>9.989</u> )	x10 <sup>-10</sup> mol/gm )	( <u>93.0</u> % Ar <sup>40</sup> )
K = _____ %	(Ar <sup>40*</sup> = _____)	x10 <sup>-6</sup> cc/gm )	( % Ar <sup>40</sup> )
K <sub>2</sub> O = _____ %	(Ar <sup>40*</sup> = _____)	x10 <sup>-10</sup> mol/gm )	( % Ar <sup>40</sup> )
K = _____ %	(Ar <sup>40*</sup> = _____)	x10 <sup>-6</sup> cc/gm )	( % Ar <sup>40</sup> )
K <sub>2</sub> O = _____ %	(Ar <sup>40*</sup> = _____)	x10 <sup>-10</sup> mol/gm )	( % Ar <sup>40</sup> )
K = _____ %	(Ar <sup>40*</sup> = _____)	x10 <sup>-6</sup> cc/gm )	( % Ar <sup>40</sup> )
K <sub>2</sub> O = _____ %	(Ar <sup>40*</sup> = _____)	x10 <sup>-10</sup> mol/gm )	( % Ar <sup>40</sup> )

Comment on Analyses: \_\_\_\_\_

Interpretation: \_\_\_\_\_

Collected by: C. Godwin

Dated by: J.E. Harakal

Listed by: \_\_\_\_\_  
 (name, institution)

Date: 2-1-79

### K-Ar

Sample Number(s) and Reference(s)	material	Date	1 $\sigma$ error
Lab No: <u>G76 TR 54KF</u>	decay constants: <u>(K. Feld.)</u>	<u>63.7</u>	<u>± 2.2 Ma</u>
Ref: <u>GODWIN</u>	<input type="checkbox"/> 4.72/.584/1.19	( )	± Ma
	<input type="checkbox"/> 4.72/.584/1.18	( )	± Ma
	<input checked="" type="checkbox"/> 4.96/.581/1.167	( )	± Ma

Record No: \_\_\_\_\_  
 Suite No: \_\_\_\_\_  not reported

Sample Name: Huber

Latitude: \_\_\_\_\_ Longitude: (X° Y' Z" or X° Y.Y')  
(54° 31' " N, 126° 43.5' " W (± );  
 UTM Zone \_\_\_\_\_ E \_\_\_\_\_ N; Province B.C.  
 Sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_; Co., State \_\_\_\_\_  
 (NTS 93 L ) Smithers Map Area, Scale 1:250,000

Location: Near Huber (Mineral Hill) area.  
 Source Type: \_\_\_\_\_  
 Rock: Med.-coarse grained porphyritic quartz monzonite  
 Geologic Unit: Stock with minor mineralization. (Mo-Cu)  
 Geologic Age: \_\_\_\_\_  
 Material Analyzed: K. feldspar, quality very fine.

Analytical Data: (list duplicate analyses or indicate n = 2, n = 3, etc.)

K = <u>9.70</u>	<u>9.37 (±3.5%)</u> %	;(Ar <sup>40*</sup> = <u>24.004</u>	x10 <sup>-6</sup> cc/gm )	
K <sub>2</sub> O =		<u>10.711</u>	x10 <sup>-10</sup> mol/gm)	( <u>89.8</u> %ΣAr <sup>40</sup> )
K =	%	;(Ar <sup>40*</sup> =	x10 <sup>-6</sup> cc/gm )	( %ΣAr <sup>40</sup> )
K <sub>2</sub> O =	%		x10 <sup>-10</sup> mol/gm)	
K =	%	;(Ar <sup>40*</sup> =	x10 <sup>-6</sup> cc/gm )	( %ΣAr <sup>40</sup> )
K <sub>2</sub> O =	%		x10 <sup>-10</sup> mol/gm)	
K =	%	;(Ar <sup>40*</sup> =	x10 <sup>-6</sup> cc/gm )	( %ΣAr <sup>40</sup> )
K <sub>2</sub> O =	%		x10 <sup>-10</sup> mol/gm)	

Comment on Analyses: \_\_\_\_\_

Interpretation: \_\_\_\_\_

Collected by: C. Godwin

Dated by: J.E. Harakal

Listed by: \_\_\_\_\_  
 (name, institution)

Date: 6.25.79



## K-Ar

Sample Number(s) and Reference(s)      material      Date      1 $\sigma$  error

Lab No: G78 DL 1      decay constants: (Biotite) 47.1  $\pm 1.6$  Ma

4.72/.584/1.19      (      )       $\pm$       Ma

Ref: Godwin       4.72/.584/1.18      (      )       $\pm$       Ma

4.96/.581/1.167      (      )       $\pm$       Ma

Record No: \_\_\_\_\_

Suite No: \_\_\_\_\_  not reported

Sample Name: \_\_\_\_\_

Del Santo

Latitude: \_\_\_\_\_ Longitude: (X° Y' Z" or X° Y.Y')

(54° 39' " N , 126° 42' " W (±      ));UTM Zone \_\_\_\_\_ E \_\_\_\_\_ N; Province BC

Sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_; \_\_\_\_\_ Co., State \_\_\_\_\_.

(NTS 93L ) \_\_\_\_\_ Smithers Map Area, Scale 1:250,000Location: Del Santo

Source Type: \_\_\_\_\_

Rock: Granodiorite

Geologic Unit: \_\_\_\_\_

Geologic Age: \_\_\_\_\_

Material Analyzed: Biotite, quality fine-very fine.

Analytical Data: (list duplicate analyses or indicate n = 2, n = 3, etc.)

K =  $\bar{X} = 5.13 \pm 0.15$  (5) %; (Ar<sup>40\*</sup> = 9.523 x10<sup>-6</sup> cc/gm )

K<sub>2</sub>O = %; (Ar<sup>40\*</sup> = 4.250 x10<sup>-10</sup> mol/gm); ( 84.9 %ΣAr<sup>40</sup> )

K = %; (Ar<sup>40\*</sup> = x10<sup>-6</sup> cc/gm ); ( %ΣAr<sup>40</sup> )

K<sub>2</sub>O = %; (Ar<sup>40\*</sup> = x10<sup>-10</sup> mol/gm)

K = %; (Ar<sup>40\*</sup> = x10<sup>-6</sup> cc/gm ); ( %ΣAr<sup>40</sup> )

K<sub>2</sub>O = %; (Ar<sup>40\*</sup> = x10<sup>-10</sup> mol/gm)

K = %; (Ar<sup>40\*</sup> = x10<sup>-6</sup> cc/gm )

K<sub>2</sub>O = %; (Ar<sup>40\*</sup> = x10<sup>-10</sup> mol/gm); ( %ΣAr<sup>40</sup> )

Comment on Analyses: \_\_\_\_\_

Interpretation: \_\_\_\_\_

Collected by: C. GodwinDated by: J.E. HarekalListed by: \_\_\_\_\_  
(name, institution)Date: 10.24.79