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# Patterns of Synorogenic Sedimentation Associated with the Unroofing of the Willard-Paris-Meade Thrust Sheets, Sevier Fold-Thrust Belt

Amanda Gentry

*University of Nevada, Las Vegas*, [amanda.l.gentry@gmail.com](mailto:amanda.l.gentry@gmail.com)

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PATTERNS OF SYNOROGENIC SEDIMENTATION ASSOCIATED WITH THE UNROOFING OF THE  
WILLARD-PARIS-MEADE THRUST SHEETS, SEVIER FOLD-THRUST BELT

By

Amanda Leigh Gentry

Bachelor of Science – Geology

Weber State University, Ogden, UT

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A thesis to be submitted in partial fulfillment  
of the requirements for the

Master of Science – Geoscience

Department of Geoscience

College of Sciences

The Graduate College

University of Nevada, Las Vegas

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## **Thesis Approval**

The Graduate College  
The University of Nevada, Las Vegas

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This thesis prepared by

Amanda Leigh Gentry

entitled

Patterns of Synorogenic Sedimentation Associated with the Unroofing of the Willard-Paris-Meade Thrust Sheets, Sevier Fold-Thrust Belt

is approved in partial fulfillment of the requirements for the degree of

Master of Science – Geoscience  
Department of Geoscience

Michael Wells, Ph.D.  
*Examination Committee Chair*

Kathryn Hausbeck Korgan, Ph.D.  
*Graduate College Interim Dean*

Joshua Bonde, Ph.D.  
*Examination Committee Member*

Adolph Yonkee, Ph.D.  
*Examination Committee Member*

George Rhee, Ph.D.  
*Graduate College Faculty Representative*

## Abstract

The Willard-Paris-Meade thrust is the oldest and western-most sheet to develop in the Wyoming salient of the Sevier fold-thrust belt. The 10-15 km thick thrust sheet was emplaced ~60 km eastward and included Jurassic-Triassic strata, mixed siliciclastic-carbonate upper Paleozoic strata, carbonate-rich lower Paleozoic strata, and quartzite-rich basal Cambrian to Neoproterozoic strata. Each stratigraphic interval has a distinctive detrital zircon (DZ) age signature, which can be used in provenance analysis of foreland basin fill. The thrust system had a long deformation history recorded by westward thickening and coarsening synorogenic strata. DZ U-Pb geochronology of 27 synorogenic samples collected from two transects reveals an unroofing sequence with stratigraphically consistent changes in DZ patterns. DZ spectra for the Gannett Group in the lower part of the basin fill are consistent with erosion of Mesozoic to upper Paleozoic strata. Maximum depositional ages (MDA) from limited euhedral and likely volcanic grains for the foreland basin sequence show the following for the northern transect: basal Ephraim Formation,  $150 \pm 2.8$  Ma (n=10); upper Ephraim,  $115.2 \pm 1.8$  Ma (n=13); lower Bechler,  $116.2 \pm 2.3$  Ma (n=9); upper Bechler  $107.3 \pm 3.3$  Ma (n=4). These data clarify that there is not a significant unconformity at the base of the Bechler, and that the Bechler conglomerate facies at Red Mountain spans the depositional interval including the ~112 Ma Draineey Limestone, which is absent at Red Mountain but present elsewhere. The southern transect yields the following MDAs: Upper Gannett,  $109 \pm 6.1$  Ma (n=5) and  $108.3 \pm 3.4$  Ma (n=10); Cokeville,  $101.6 \pm 0.7$  Ma (n=32); Lower Sage Junction  $101.55 \pm 0.5$  Ma (n=67); Upper Sage Junction,  $101.3 \pm 0.6$  Ma (n=29); Aspen,  $98.8 \pm 0.4$  Ma (n=51); lower Frontier,  $99.93 \pm 0.6$  Ma (n=21); upper Frontier,  $95.68 \pm 1.4$  Ma (n=38). DZ spectra for the Bear River and Aspen

formations in the middle part of the basin fill are consistent with erosion of mostly Paleozoic bedrock. DZ spectra in the Frontier Formation in the upper part of the basin fill are consistent with increased erosion of basal Cambrian and Neoproterozoic quartzites. The early history of deposition is elusive due to the potential bias from the early Cretaceous Sierran magmatic lull and a lack of datable materials related to corollary studies.

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Table of Contents	
Title Page.....	i
Copyright.....	ii
Abstract.....	iii
Acknowledgements.....	v
Table of Contents.....	vii
List of Tables .....	ix
List of Figures .....	x
1.0 Introduction .....	1
2.0 Structural Setting .....	4
2.1 Plate tectonic setting.....	4
2.2 Primary architecture .....	4
2.3 Hinterland.....	6
2.5 Willard Thrust sheet.....	8
3.0 Methodology.....	11
3.1 Stratigraphic framework .....	11
3.2 Sedimentary provenance .....	12
3.3 Chronostratigraphic framework.....	13
3.4 Low-T Thermochronology .....	15
4.0 Stratigraphy.....	20
4.1 Salt River Pass.....	20
4.2 Red Mountain.....	21
4.3 Sawtooth Mountain .....	22
5.0 Sedimentology .....	22
5.1 Sedimentology of the Ephraim Formation.....	23
5.1.1 Facies analysis of the Ephraim Formation.....	23
5.1.2 Description and interpretation: major conglomerate (FA1) .....	23
5.1.3 Description and interpretation: minor conglomerate (FA2) .....	24
5.1.4 Description and interpretation: minor tabular to lenticular sandstone (FA3).....	26
5.1.5 Description and interpretation: minor tabular to lenticular siltstone/mudstone (FA4) .....	27

5.1.6 Description and interpretation: massive siltstone/mudstone (FA5) .....	28
5.2 Sedimentology of the Bechler Formation .....	28
5.2.1 Facies analysis of the Bechler Formation .....	28
5.2.2 Description and interpretation: major conglomerate (FA1) .....	29
5.2.3 Description and interpretation: minor conglomerate (FA2) .....	30
5.2.4 Description and interpretation: minor tabular to lenticular sandstone (FA3).....	31
5.2.5 Description and interpretation: minor tabular to lenticular siltstone/mudstone (FA4) .....	32
5.2.6 Description and interpretation: massive siltstone/mudstone (FA5) .....	32
5.3 Remaining foreland basin .....	33
5.4 Structural Relations .....	33
5.5 Paleoclimatology .....	34
6.0 Detrital Zircon studies of Lower Cretaceous synorogenic strata.....	35
6.1 Maximum depositional ages .....	36
6.2 DZ Age Patterns.....	38
7.0 Provenance Study .....	41
8.0 Implications.....	44
9.0 Future Work.....	52
Figure Captions .....	53
Figures.....	56
Table 1. Lithofacies and Facies Associations of Ephraim and Bechler formations.....	80
Table 2. K-S test.....	84
Appendix A: Sample Locations.....	85
Appendix B: U/Pb Data .....	86
Bibliography .....	191
Curriculum Vitae.....	204

List of Tables

Table 1. Lithofacies and Facies Associations of the Ephraim and Bechler formations.....	77
Table 2. K-S Test.....	81

## List of Figures

Figure 1	Regional Map of the Sevier Fold-Thrust Belt.....	64
Figure 2	Synorogenic Sedimentary Record of Basins Adjacent to the Sevier Orogenic Belt.....	65
Figure 3	Proterozoic Source Terranes with Corresponding DZ Patterns.....	66
Figure 4	ZHe Age vs. Paleodepth from Samples Collected Along Wellsville Transect of Willard Thrust Sheet.....	67
Figure 5	Foreland Basin Stratigraphy.....	68
Figure 6	Schematic Map of Field Area with Localities.....	69
Figure 7	Correlation of Regional Stratigraphic Sections.....	70
Figure 8	Bedding Present within the Ephraim Formation.....	71
Figure 9	Paleocurrent Data for the Ephraim Formation.....	72
Figure 10	QFL Plot and Photomicrograph of the Ephraim Formation.....	73
Figure 11	Crevasse Channel Deposit within the Ephraim Formation.....	74
Figure 12	Architectural Elemental Analysis of Bechler Formation.....	75
Figure 13	Representative Measured Section of the Bechler Formation at Salt River Pass Locality.....	76
Figure 14	Example of Bechler Formation Major Conglomerate Lithofacies.....	77
Figure 15	Paleocurrent Direction Measurements of Imbricated Clasts of the Bechler Formation, Red Mountain.....	78
Figure 16	QFL Plot of the Bechler Formation.....	79
Figure 11	Paleocurrent Directions Measured within the Bechler Formation.....	80
Figure 12	Stratigraphic Relations between Foreland Basin Units of the WPM Thrust Sheet.....	81
Figure 19	Age of Apparent Intrusive Influx and Whole Rock Age of Sierra Nevada.....	82
Figure 20	MDA's For Stratigraphic Units within the Foreland Basin.....	83-84
Figure 21	Stratigraphy of the Willard Thrust Sheet with Unique DZ Age Patterns.....	85
Figure 22	DZ Age Patterns Found within Specific Foreland Basin Units.....	86

Figure 23 DZ Patterns from the WPM Thrust Sheet Compared With DZ Patterns from  
within the Foreland Basin Strata.....87

## 1.0 Introduction

Subduction along the Cordilleran margin of North America during Jurassic to Paleogene time resulted in intra-plate deformation that propagated into the continental interior with development of a retro-arc fold-thrust belt spanning >4000 km up the western margin from Canada to Mexico (Armstrong, 1968; Oldow et al., 1989; Price and Mountjoy, 1970; Burchfiel et al., 1992; Dickinson, 2004; DeCelles, 2004; Yonkee and Weil 2015). The Sevier fold-thrust belt, the easternmost contractile belt, is characterized by >200 km of overall E-directed shortening of passive margin sedimentary rocks above a regional decollement (DeCelles, 1994). While the structural geometry and the kinematic evolution of the Sevier fold-thrust belt are well understood, the initial timing of deformation is poorly resolved. Regional tectonic questions remain including whether deformation propagated eastward in a continuous fashion as an orogenic wedge (Camilleri et al., 1997; DeCelles, 2004), or whether deformation was a two-staged process, with Middle to Late Jurassic deformation followed by mid- to Late Cretaceous deformation (e.g., Heller et al., 1986; Smith et al., 1993). Additionally, questions remain regarding the driving mechanism for intraplate deformation at non-collisional plate boundaries (DeCelles, 1994; Yonkee and Weil, 2015). The Willard-Paris-Meade (WPM) thrust sheet is the westernmost and oldest thrust sheet to develop within the Wyoming Salient of the Sevier fold-thrust belt.

By understanding the timing of thrust initiation, as well as controlling structures and composition of provenance sources, a better picture of the evolution of foreland basin fill related to motion of the WPM thrust sheet can be developed. In addition, synorogenic

sedimentation can be used to interpret exhumation history and flexural loading patterns to help construct a more detailed shortening history.

The WPM thrust sheet displays a ramp-flat geometry, with ramps developing in the basal Neoproterozoic strata and Middle Cambrian quartzite and limestone, and flats developing in weaker intervals of shale and evaporite. Overall, >60 km of eastward motion of its hanging wall relative to its footwall was accomplished (Yonkee, 2005; Weil and Yonkee, 2012). Uplift of the thrust sheet over ramps resulted in local faulting, folding and erosional unroofing. Unroofing during thrusting is expected to result in progressively older rocks being eroded with time, which should be recorded in synorogenic strata deposited in the adjacent foreland basin to the east of the thrust front in northern Utah and southern Idaho to southwest Wyoming (Figure 2).

The initial timing of displacement and development of the WPM thrust sheet has received much study and yet remains poorly constrained, with age estimates of initiation ranging from ~150 to 115 Ma (Heller et al., 1986; Yonkee et al., 1989; DeCelles et al., 1995; Yonkee et al., 1997; Currie, 2002; DeCelles, 2004; Yonkee and Weil, 2015). This study utilizes U-Pb analysis of detrital zircon (DZ) grains as well as sedimentologic analysis to address the timing of initiation, timing and development of an unroofing sequence, and changes in paleogeography related to the early kinematic development of the fold-thrust belt. These data will be coupled with recent results from systematic (U-Th)/He zircon low temperature thermochronology through the Willard thrust sheet, which identifies a period of enhanced cooling interpreted to represent uplift-triggered erosion of the Willard thrust sheet beginning

~130 Ma (Eleogram, 2014) to evaluate the paired syntectonic erosional and depositional history.



## 2.0 Structural Setting

### 2.1 Plate tectonic setting

Regionally, the Sevier orogenic belt represents Andean-style thin-skinned retroarc deformation that propagates far into the North American interior. The response of the western margin of North America to variations in plate subduction parameters (e.g., rate, direction, dip) resulted in the diverse evolution of the Cordillera. Before the development of the Sevier orogenic belt, apparent polar wander (APW) paths of North America showed a NW drift during the early Jurassic that shifted to orthogonal convergence with a W-directed drift during the middle Jurassic. In the Early Cretaceous, convergence shifted from orthogonal to sinistral oblique (Dickinson and Lawton, 2001). Magnetic anomalies, fracture zones that developed during the opening of the Atlantic spreading center, as well as tracking of hot spot positions demonstrate increasing convergence rates along the western margin in the early Mid Cretaceous (Torsvik et al., 2008). Humphreys (1995) and Madsen et al. (2006) show that relative convergence rates from 145-130 Ma are estimated to be ~5 cm/yr with an increase to 8-12 cm/yr from ~120-50 Ma. The spreading rate and directions of the Pacific, Atlantic and Indian Oceans experienced significant changes from ~147-145 and could be a result of the eruption of the Shatsky Rise at the Izanagi-Farallon-Pacific triple junction (Engebretson, 1985; Seton et al., 2012).

### 2.2 Primary architecture

The primary crustal architecture of the western margin of North America is essential in understanding the development of deformation within the Cordillera, specifically within the Sevier fold-thrust belt. Basement rocks, composed mostly of Proterozoic and Archean rocks,

were not only important in providing the foundation for initial rifting of the supercontinent Rodinia, but also provided detritus for sedimentary cover with the eventual development of the Paleozoic passive margin. In addition, DZ grains originating within Proterozoic volcanic and metamorphic terranes bracket the age of crustal formation while also acting as a provenance signature for sedimentary sinks, which incorporate sediment from these terranes through paleotranscontinental drainage systems. The basement rocks include granitoid intrusions, supracrustal belts and gneiss of the Wyoming Province (Frost et al., 2006; Mueller and Frost, 2006), granitoids, amphibolite and schist of the Grouse Creek block (Strickland et al., 2011; Isakson, 2012), paragneiss and orthogneiss of the Farmington zone (Bryant, 1988; Mueller et al., 2011), paragneiss and orthogneiss of the Mojave province (Wooden and Miller, 1990; Shufeldt et al., 2010) and juvenile volcanic arc rocks intruded by granitic plutons of the Yavapi and Mazatzal provinces (Bennett and DePaolo, 1987; Karlstrom and Bowring, 1988). Figure 3 from Yonkee et al. (2014) details the location and ages of each Precambrian province based on previously determined DZ age patterns.

Carbonate-rich Paleozoic strata represent development of the passive margin formed from the breakup of Rodinia, quartzarenite of lower Cambrian to upper Neoproterozoic strata represent the transition from rifting to passive margin sedimentation, and a lower level of micaceous Neoproterozoic strata that include diamictite and volcanic deposits is related to protracted rifting of Rodinia. Within the Sevier fold-thrust belt, the stratigraphy provides the mechanical stratigraphic framework that influenced the structural geometry of the fold-thrust belt and erosional unroofing that is recorded in the sedimentary sequence observed in the

foreland basin (Mitra, 1994; Dickinson, 2004; Yonkee, 2005; Yonkee and Weil, 2010; Yonkee and Weil, 2015).

The western thrust system of the Sevier fold-thrust belt is composed of the Willard, Paris and Meade thrust sheets, which incorporate Neoproterozoic through early Mesozoic strata. The eastern system includes the Crawford, Absaroka, and Hogsback thrusts, which incorporate only thinner Paleozoic strata that were deposited on the North American craton. The western and eastern systems exhibit ramps developed in thicker, stronger carbonate and sandstone beds, and flats developed in weaker intervals of shale and evaporite.

Micaceous strata of the Neoproterozoic Perry Canyon and correlative formations acted as a failure plane for the basal decollement of the western system. Eastern thrusts had basal decollements that formed in the Middle Cambrian shale and limestone, and higher decollements in Jurassic evaporite.

### 2.3 Hinterland

The hinterland in Nevada, westernmost Utah and southern Idaho is important to initial development of the Sevier fold-thrust belt, as well as subsequent deformation of the Cordillera. Forces from plate coupling at the western margin and the subducting slab, as well as crustal rheology and lower lithosphere influences resulted in significant thickening of crustal lithosphere (Harris et al., 2007; Cruz-Urbe et al., 2015; Kelly et al., 2015; Bonde et al., 2015). In addition, studies have shown that the hinterland was able to provide some of the initial detritus incorporated into the foreland basin from long range run-out gravels before WPM thrusting began (Heller and Paola, 1989; Benvenuti and Martini, 2002; Heller et al., 2003; Pierson, 2005). Specifically, the basal Ephraim Formation contains a unique collection of red and black cherts

that are thought to have originated from the Antler orogeny derived from the Roberts Mountain allochthon (Gehrels et al., 2000). Due to uplift of the hinterland and thrusting of the Sevier orogenic belt, there are limited preserved deposits from the Early Cretaceous in any hinterland localities.

The Lower Cretaceous Newark Canyon Formation and Upper Cretaceous Sheep Pass Formation are some of the few preserved deposits that record how the evolution of the hinterland either led to further deformation, or helped accommodate the thin-skinned thrusting of the Sevier orogenic belt. Comparison of fossil assemblages of Newark Canyon to those in a stratigraphically correlative position within the developing foreland basin, namely the Cedar Mountain Formation, show that there was minimal elevation differences when the onset of development of thrust-related sedimentary basins first began ~120 Ma (Bonde et al, 2015). Analysis of clumped C-O isotopes found within subsequently deposited primary carbonates of the Sheep Pass Formation show there was uplift of 2-3 km of the hinterland by 70 Ma (Snell et al., 2014). With overall shortening of ~200 km within the Sevier orogenic belt, uplift of 2-3 km is consistent with a crustal thickness of ~50-60 km beneath the hinterland as a result of basement underthrusting, basement-cored nappes, or lower crustal duplexing (Yonkee and Weil, 2015).

Thrusting of the WPM sheet may have effectively cut off western sediment sources for the foreland basin due to formation of topographic barriers. This effect is recorded in the Sevier foreland basin with replacement of hinterland derived radiolarian chert within the basal Ephraim unit with more locally derived chert from Carboniferous and Permian units from the WPM sheet deposited in the upper Ephraim and into the Bechler formations.

## 2.5 Willard Thrust sheet

Thrust belts in the Cordillera are largely controlled by the Neoproterozoic to Cambrian stratigraphic architecture laid down on the passive western margin of Laurentia (Yonkee and Weil, 2015). The western system of the Sevier fold-thrust belt is composed of the WPM thrust sheets that incorporated Neoproterozoic through Paleozoic strata initially formed on a passive margin as well as Triassic and Jurassic strata related to deformation of the western margin. The eastern system includes the Crawford, Absaroka, and Hogsback thrust sheets and incorporate thinner Paleozoic strata, deposited on the North American craton.

The WPM thrust sheet represents initial propagation of the westernmost thrust system within the Wyoming salient (Camilleri et al., 1997). The Willard, and associated Paris-Meade thrusts to the north, had a protracted deformation history during the Early Cretaceous based on relations of synorogenic strata (DeCelles, 1993; DeCelles, 1994), although the chronology of that basal strata is poorly understood. Synorogenic deposits from the WPM thrust sheet are preserved across a large region stretching over 300 km north to south from eastern Idaho to northeast Utah, and over 60 km west to east from present day Montpelier, ID past Kemmerer, WY (Figure 6). Sediment transport of this magnitude is influenced by the paleogeography of the area and may represent initial uplift of the Willard and development of a flexural basin. Overall, the large-scale structural geometry of the belt is well constrained (DeCelles, 1994). The nature of previously deposited stratigraphic packages have significant control on the structural deformation of thrust sheets (Protzman and Mitra, 1990).

The Willard thrust sheet and its deformed footwall are well exposed in northern Utah where younger uplift and erosion have exhumed a wide range of structural levels. The thrust

sheet includes up to 13 km of passive margin strata which include Jurassic to Triassic strata that have been mostly eroded, an upper level of carbonate-rich Paleozoic strata, a middle level of quartzarenitic lower Cambrian to upper Neoproterozoic strata, and a lower level of micaceous Neoproterozoic strata; thin slices of Archean to Paleoproterozoic basement rocks were locally incorporated into the base of the sheet. Upper levels of the sheet exhibit relatively little deformation, but internal deformation increases downward and westward, with development of cleavage, minor folds, and vein arrays (Crittenden, 1972; Camilleri, 1998; Yonkee, 2005).  $^{40}\text{Ar}/^{39}\text{Ar}$  ages of muscovite from syntectonic veins near the base of the Willard sheet vary mostly from 140 to 110 Ma, recording internal deformation that overlapped with major thrust slip (Yonkee et al., 1989).

The Paris and Meade thrusts have been shown to have a complex interaction with emplacement of the Paris sheet resulting in layer-parallel shortening within the proto-hanging wall of the Meade sheet, as well the Paris sheet being passively transported during movement of the Meade sheet (DeCelles et al., 1993). The Meade sheet is a footwall imbricate of the Paris sheet (DeCelles et al., 1993). While initial movement of the Paris sheet occurs before movement of the Meade sheet, it remains unclear if there was synchronous movement of the Meade and Willard sheets.

The Paris sheet has a basal decollement in the micaceous Neoproterozoic to early Cambrian quartzarenite and exposes Proterozoic through Mississippian strata; Pennsylvanian through Upper Jurassic strata were probably once part of the sheet and have subsequently been eroded (Coogan, 1992).

The thrust front of the Meade sheet is ~30 km east of the thrust front of the Paris sheet and has Mississippian through middle Jurassic rocks exposed with detachment within the Pruess Formation. There are imbricates with an overturned section of Triassic and Jurassic strata as well as local development of a structural ramp through Jurassic units (Protzman and Mitra, 1990). The basal decollement formed at the level of the Proterozoic strata of the Paris sheet with total movement of the Meade thrust ~45km (Coogan, 1992). Initial displacement of the Meade thrust sheet has previously been dated to Aptian time (~118-113) based on structural relations and paleontologic data at Red Mountain (DeCelles et al., 1993).

### 3.0 Methodology

Early Cretaceous sedimentary strata in the foreland basin east of the WPM thrust sheet may provide evidence for the timing of development of structurally induced topographic relief and erosional exhumation of the thrust sheet. To better date motion of the WPM thrust sheet and to establish the link between motion and deposition, a stratigraphic framework must be established, incorporating sediment provenance analysis and an improved chronostratigraphic framework. This can then be used to provide an integrated record of active erosional exhumation of the WPM thrust sheet as well as basin deposition.

Integrated studies were completed to determine stratigraphic relations, provenance, maximum depositional ages, and subsidence history of Cretaceous synorogenic strata along the leading edge and east of the Willard-Paris-Meade thrust system. Fieldwork involved description of sedimentary features, clast counts within conglomerate layers, paleocurrent measurements, and collection of samples for petrographic and geochronologic analyses.

#### 3.1 Stratigraphic framework

In order to establish a stratigraphic framework, unit thicknesses were determined at several locations based on best available outcrops and proximity to the WPM thrust sheet. Due to the general incomplete nature of outcrops, rather than measure stratigraphic sections by Jacob's staff, unit thicknesses were determined by interpretation of Google Earth imagery and measured bedding attitudes. One section of the Bechler Formation and one section of the Thomas Fork Formation were exposed in road cuts that allowed detailed measurement for use in architectural elemental analysis inferred in other covered sections. One section was measured near Salt Creek Pass in SE Idaho (Figure 1) that included the Ephraim Formation



through the Thomas Fork Formation. This locality was chosen based on both stratigraphic completeness, and its proximity (<30 km) to the leading edge of the WPM thrust sheet. In addition, this locality provided road cut access to the Bechler Formation and the Thomas Fork Formation. A second section was measured near Red Mountain, ID and represents the most proximal sediment to the thrust sheet, with exposures adjacent to the Paris-Meade section of the thrust. This section only included the Ephraim and Bechler formations, with the Peterson, Draney and subsequent foreland basin stratigraphy absent. A third section was measured near Sawtooth Mountain in SW Wyoming, and included the Ephraim Formation through the Frontier Formation. While this southern section is not proximal to the WPM thrust sheet, this locality lies east of the previously collected thermochronologic data (Eleogram, 2014).

### 3.2 Sedimentary provenance

Small cobble to pebble sized clasts were identified based on lithology, texture, and fossil assemblage and an effort was made to correlate them to possible source strata in the Willard sheet including Early Mesozoic carbonates and sandstones, Paleozoic carbonate and quartzite, lower Cambrian to upper Neoproterozoic quartzarenite, and Neoproterozoic micaceous quartzite clasts; possible source areas further west were also evaluated.

The provenance of sandstones were studied by point counting (300 points per thin section) to estimate volume fractions of monocrystalline quartz, polycrystalline quartz, chert, plagioclase, orthoclase, limestone, dolostone, detrital lithic fragments, volcanic lithic fragments, and matrix (<50  $\mu\text{m}$  grains). 27 samples were processed, with 15 thin sections stained for calcite. The Gazzi-Dickinson technique was necessary due to variation in grain lithology, producing grains of different sizes. Gazzi-Dickinson method used in this study utilized randomly

selected thin sections from sandstone samples. An automated stage was used to randomly select points on a slide with a petrographic microscope. A minimum of 300 representative points were collected with composition of each point determined by the operator. These counts are then converted to percentages and graphed on a QFL ternary diagram in TriPlot (Graham and Midgley, 2015) and used for compositional comparisons in provenance studies. This technique normalizes each sample with respect to grain size (Ingersoll et al., 1984).

Paleocurrent data were collected by locating distinguishable cross bedding or troughs with good three-dimensional control. Orientation data were measured using a Brunton compass. Paleocurrent data were corrected for bedding tilts by restoring bedding back to horizontal, and paleocurrent directions were plotted on Rose diagrams using Stereonet 9 (Allmendinger, 2015).

### 3.3 Chronostratigraphic framework

Due to the relative ease in which zircon grains are incorporated and preserved within sandstone, sandstone-bearing units are the main focus of this study. Identification of sites for collection was based on previously published studies (Eyer, 1969; M'Gonigle and Dover, 1992; DeCelles et al., 1993), as well as remote sensing techniques (Google Earth) and field identification. Stratigraphic sections for collecting samples were selected based on completeness of stratigraphic section, degree of exposure, proximity to depocenter (northern transect) and proximity to previous thermochronological transects (southern transect) through the Willard thrust sheet. For each unit, nine-kilogram samples were collected. In total, 27 samples from well exposed sections of Cretaceous synorogenic strata were collected, focusing

on the basal Lower Cretaceous Ephraim Conglomerate of the Gannet Group and working up section through the Turonian Frontier Formation (Figure 6).

Zircon grains were extracted from samples by traditional methods of crushing, followed by Wilfley table, heavy-liquid, and magnetic separation. Representative splits of zircon fractions were incorporated into epoxy mounts along with fragments of zircon standards, which were polished and high-resolution BSE images were collected on a Hitachi ZZ SEM. U-Pb analysis of grains was done using the laser ablation-inductively coupled plasma mass spectrometry (LA-ICPMS) system at the Arizona LaserChron Center (ALC). Analysis followed procedures given by Gehrels et al. (2006, 2008). Analytical uncertainties were typically less than  $\pm 1\%$  at a 1-sigma level ( $\pm 3$  Ma for a 300 Ma grain). U-Pb data were plotted on age-probability diagrams using the software package Isoplot (Ludwig, 2008). The  $^{206}\text{Pb}/^{207}\text{Pb}$  age was used for grains older than 900 Ma and the  $^{206}\text{Pb}/^{238}\text{U}$  age was used for younger grains. Analyses  $>10\%$  discordant based on comparison of  $^{206}\text{Pb}/^{238}\text{U}$  and  $^{206}\text{Pb}/^{207}\text{Pb}$  ages for grains older than 400 Ma were not plotted; discordance is poorly constrained for young grains. For all SYN 12 samples, grain analysis was performed on up to 100 grains per sample. For all SYN 14 samples, grain analysis was performed on up to 300 grains per sample. The increased number of analyses during the second round of data collection was due to an alternative collection procedure that reduced overall sample collection time.

Methods used to determine the similarity of DZ age spectra as a means of provenance identification have included visual comparison of age-distribution curves and age-bin histograms (Dickinson and Gehrels, 2009; Dickinson and Gehrels, 2009; Lawton et. al., 2010; Leier and Gehrels, 2011). These methods, however, do not provide the high resolution

necessary to visually compare expected DZ patterns eroding from the WPM thrust sheet, with those found within the adjacent foreland sediment. Other workers have resorted to using the Kolmogorov-Smirnov test (K-S test), as a way to quantitatively compare the age-distribution curves between two samples (Gehrels et. al., 2006; Dickinson and Gehrels, 2008; Konstantinou et. al., 2012). The K-S test, as used in this study, is a nonparametric analysis that quantifies the distance between the empirical distribution functions of two samples. The Excel program was provided from the Arizona Laserchron Center (available at [www.geo.arizona.edu/alc](http://www.geo.arizona.edu/alc)). The K-S program takes the calculated ages and associated errors from two samples and determines a P-value, which is the calculated probability of one sample being statistically similar to another. If P is greater than 0.05, there is 95% confidence that the two samples are from the same age populations.

### 3.4 Low-T Thermochronology

Although understanding the sedimentologic history of the foreland basin provides insight into the exhumation history of the Willard-Paris-Meade thrust sheet, it does not provide detailed information on timing of slip and slip rates. This study aims to address the erosional exhumation history of the thrust sheet by coupling the sedimentologic data from this study with previous work using detrital zircon (U-Th)/He thermochrometry (ZHe) within the Willard thrust sheet (Eleogram, 2014) (Figure 4).

ZHe studies allow rock cooling ages to be determined by measuring the radiometric production and subsequent trapping within the crystal lattice of the daughter isotope,  $^4\text{He}$ , from the decay of  $^{238}\text{U}$ ,  $^{235}\text{U}$ , and  $^{235}\text{Th}$ . Within each thermochronologic system, a closure temperature ( $T_c$ ) exists, above which radiogenic daughter isotopes can diffuse out of the crystal

lattice, preventing overall accumulation. The amount of diffusion of the daughter product from the crystal depends on a number of factors, including cooling rate and grain size. At temperatures below the  $T_c$  daughter particles are unable to freely escape, allowing complete accumulation of all daughter products within the crystal lattice (Dodson, 1973; Farley, 2002). The ZHe system has a  $T_c$  of  $180^{\circ}$  to  $200^{\circ}$ , which is exceeded at depths greater than 8-10 km, assuming typical geothermal gradients (Farley, 2002; Reiners, 2005). The range of temperatures at which  $^4\text{He}$  becomes fully to partially locked within the crystal lattice is termed the partial retention zone (PRZ), where  $T_c$  can lie within the PRZ at the base of the section and rocks above the PRZ have cooled through  $T_c$ , recording earlier tectonic events (Reiners, 2005). This can be seen when rapid uplift and exhumation from thrust faulting is preserved as a fossilized PRZ (Braun, et al., 2006).

Inverse time-temperature (t-T) modeling was performed for the Bear River to Browns Hole and Wellsville vertical transects, which was then compared with measured ZHe ages, using sample depths and user defined geothermal gradients that provide thermal histories that fit with measured data (Eleogram, 2014).

ZHe studies were performed on 40 prescreened zircon samples, based on similar U-Pb ages and U/Th contents, with 6 grains run per sample. Slow cooling related to slip on the Willard thrust sheet began  $\sim 130$  Ma with progressively larger exhumation rates from the eastern leading edge of the sheet (0.12 mm/yr) increasing to the western exposures (1.7 mm/yr) from  $\sim 125$  to 90 Ma (Eleogram, 2014).

Application of ZHe is particularly useful within the Willard thrust sheet due to the extensive exposure of stratigraphic levels, the latitudinal extent as well as the significant

structural displacement (Eleogram, 2014). Dates of exhumation determined from specific stratigraphic levels within the thrust sheet provide timing of uplift that is corroborated by depositional ages within the foreland basin. As the thrust sheet is uplifted, the top stratigraphic levels are eroded into the adjacent basin and combined with any available MDA DZ grains. At the same time within lower levels of the thrust sheet, zircon grains are recording an internal uplift history. When the two histories are compared, a detailed uplift and unroofing history can be determined.

By coupling the synorogenic sedimentary history with the exhumation history of the Willard-Paris-Meade thrust sheet, flexural subsidence in western North America will be better understood and can be applied to recognize the driving mechanisms behind intraplate deformation and overall timing of the shortening history of the Sevier orogenic belt.

### 3.5 Foreland basin framework

Adjacent to the WPM thrust sheet, the foreland basin stratigraphy (Figure 4) includes the basal Gannett group, the Smith Formation, Cokeville Formation, Thomas Fork Formation, Sage Junction Formation, Frontier Formation and Hilliard Formation. The Aspen shale is an eastern equivalent of the Sage Junction Formation and the Bear River Formation is an eastern equivalent of the Smiths/Cokeville/Thomas Fork formations.

Within the study area there are no sections that preserve the complete stratigraphy from the bottom of the basin to the top due to erosion, faulting and changes in depositional environments. Sections were chosen for sampling and measurement from localities that had the most complete exposures (Figure 1).

The Aptian to Albian (~125 to 100 Ma) Gannett Group is comprised of the basal Ephraim Formation, Peterson Limestone, Bechler Formation and capping Draney Limestone. Locally, the Ephraim and Bechler formations include thick proximal conglomerates, the presence of which record major slip on the thrust (DeCelles et al., 1993). Westward thickening and coarsening Cenomanian to Turonian (~100 to 90 Ma) strata record continued slip and unroofing of the thrust system. However, details of the slip history, including timing of initiation, are debated and exhumation history is poorly constrained.

The development of foreland basins provides information on rates and magnitudes of thrust loading, dynamic subsidence controls and crustal strength. Traditional basin modeling is based on thrust loading of orogenic wedges (Flemings and Jordan, 1990; Paola, 2000). Models that invoke both crustal loading, as well as flexural and dynamic subsidence, have been created to explain the extent of deposition related to orogenic events as well as the influence of subduction of an oceanic plate (Gurnis, 1992; Liu and Nummendal, 2004; Xie and Heller, 2009; Liu et al., 2011; Painter and Carrapa, 2013; Liuet al., 2014; Fan and Carrapa, 2014). However, the initiation of flexural and dynamic subsidence is difficult to predict without accurate data regarding the initiation and rates of thrust slip as well as depositional characteristics controlling synorogenic sedimentation.

The foreland basin strata of the Sevier orogen have been studied by many (Armstrong, 1968; Heller et al., 1988; Heller and Paola, 1989; Flemings and Jordan, 1990; Schmitt and Steidtmann, 1990; DeCelles et al., 1993; Currie, 1998; DeCelles, 1994; DeCelles and Currie, 1996; DeCelles and Giles, 1996; Stewart et al., 2001; Currie, 2002; DeCelles, 2004; DeCelles and Coogan, 2006; Zaleha, 2006; Dickinson and Gehrels, 2009; Lawton et al., 2010; Hunt et al., 2011; Aschoff and Steel., 2011; Aschoff and Steel, 2011; Laskowski et al., 2013; May et al., 2013). However, most work has focused on the stratigraphic intervals younger than the initiation of slip on the WPM thrust sheet, both in terms of basin fill and provenance.



## 4.0 Stratigraphy

Three complementary stratigraphic sections (Figure 7) were chosen based on stratigraphic completeness, proximity to WPM thrust sheet, and proximity to thermochronology data. These include two northern locations at Red Mountain, ID and Salt River Pass, WY; and one southern section at Sawtooth Mountain, WY.

### 4.1 Salt River Pass

The locality at Salt River Pass, Wyoming preserves the most complete stratigraphy with over 2000 m of section exposed (Figure 7). This section represents part of the early foreland basin that is proximal (<30 km) to the WPM thrust sheet and includes the Ephraim through Thomas Fork formations. The complete foreland basin section includes Ephraim through Frontier formations (Figure 5). A 100 m section of the Bechler Formation and a 50 m section of the Thomas Fork Formation were coherent enough for detailed measurement at this locality. The majority of the Bechler Formation at this location is composed of a reddish brown fine-grained mudstone. The bottom ~70 m consists of the reddish brown mudstone that has minor amounts of calcite concretions present in float. The remaining 30 m demonstrates a transition to reddish brown mudstone interbedded within sub meter fine to medium grained fluvial sandstones. Dips are consistent with a local syncline. The Thomas Fork Formation consists of almost entirely reddish grey to light grey mudstone with calcite concretions present in float throughout the road cut. There are few intervals of fine-grained fluvial sandstone on a sub meter scale (Figure 11). Salt River Pass also provides easy access to multiple outcrops that allow for increased data acquisition for paleocurrents, clast counts and bedding orientation.

## 4.2 Red Mountain

Red Mountain, Idaho preserves a dominantly conglomeratic section of the Gannett Group, encompassing the unconformity at the base of the Ephraim with the Stump Formation, to the latest Bechler Formation (Figure 7). Over 300 meters of Ephraim and over 850 meters of Bechler are preserved in what appears to be a significant localized, proximal structural basin (DeCelles et al., 1993). This locality is at the current leading edge of the Meade section of the WPM thrust sheet and shows evidence for basin development during thrust sheet emplacement. At Red Mountain, there is significant accumulation and preservation of what is assumed to be a structural basin, accounting for the thick section of Bechler that is preserved (Eyer, 1969; DeCelles et al., 1993). In most localities, the Bechler is only ~ 400 m thick; at Red Mountain, the Bechler is over 850 m thick and is dominated by coarse conglomerates (DeCelles et al., 1993). The Peterson Limestone is absent at this locality either due to erosion or lack of deposition. The Ephraim and Bechler conglomerates are inferred to be in contact beneath a ~ 50 m covered interval at this locality.

DeCelles et al. (1993) has suggested that the main reason for a coarse conglomerate lithology at the Red Mountain locality is because this section is the only locality that preserves a localized depocenter related to thrusting of the Meade sheet. This project did not address the reasons for the localized sediment accumulation and preservation, however, it may be due to a combination of flexural loading from the encroaching thrust sheet and a structural basin formed during development of a syncline in the footwall of the Meade thrust (DeCelles et al., 1993); growth stratal relationships associated with the syncline document syntectonic sediment

accumulation. In any case, data were collected for the purposes of timing, provenance study and paleocurrent analysis.

#### 4.3 Sawtooth Mountain

The section at Sawtooth Mountain was chosen for sedimentologic and stratigraphic study based on relatively good exposure of a complete section from the basal Ephraim to Thomas Fork formations (Figure 7). The Sawtooth Mountain section has the additional benefit of lying east of, and potentially recording the accumulation of, the erosional record of the Willard sheet captured in the thermochronological study of Eleogram (2014). To further understand the early development of the WPM emplacement, evidence of thrust initiation and unroofing from this study will be combined with the previously determined thermochronology data. While part of the foreland basin has been preserved adjacent to these localities, this preserved section has been passively transported ~20 km eastward as a result of lying on the Crawford thrust sheet and being transported in the late Cretaceous with movement of the Absaroka thrust sheet. As a result, samples were taken at Sawtooth Mountain to determine timing and provenance; however, additional sections from Red Mountain and Salt River Pass must be used to help place the samples in context.

## 5.0 Sedimentology

### 5.1 Sedimentology of the Ephraim Formation

#### 5.1.1 Facies analysis of the Ephraim Formation

A suite of five lithofacies (Miall, 1977) have been identified for the Ephraim Formation within the Gannet Group. Rudimentary facies associations were defined based on detailed analysis of internal and external geometries and bounding surfaces and sections with significant outcrop (but not complete sections) present. Five primary facies associations were identified for the Ephraim Formation including: major conglomerate (FA1), minor conglomerate (FA2), minor tabular to lenticular sandstone (FA3), tabular to lenticular siltstone/mudstone (FA4), and massive siltstone/mudstone (FA5) (Table 1).

#### 5.1.2 Description and interpretation: major conglomerate (FA1)

Major conglomerates in the Ephraim Formation are defined as laterally discontinuous, matrix supported conglomerate sequences. They may represent single thick units, or multiple thinner, stacked beds that are dominated by conglomerate lithofacies ( $G_{1mm}$ , Table 1). Isolated major conglomerate outcrops are typically several meters thick. Thin, tabular to lenticular lenses of lithofacies  $S_{1p}$  and  $S_{1t}$  (Table 1) are present throughout the conglomerate and do not exceed 1 m in thickness.

FA1 is dominated by massive outcrops composed of pebble-sized, poorly sorted, subangular to subrounded clasts of extraformational red chert, light grey to grey carbonate, tan sandstone, white and grey quartzite. The matrix is reddish brown to reddish tan poorly sorted medium to coarse sand. Outcrops are generally well indurated and tend to be ridge formers. Pebble counts were conducted on conglomerate outcrops by counting and classifying 100 clasts

within a half-meter grid. Red and black cherts tend to dominate the classified lithofacies, along with a moderate amount of light grey to grey carbonate and minor amounts of tan sandstone, white and grey quartzite.

Major conglomerates are found intermittently within the middle to top sections of the Ephraim Formation. Contacts between lithologic facies are difficult to identify in the field, so it is unclear if most contact surfaces are erosional or continuous. Based on clast size and composition, sorting, percentage of matrix support and the presence of trough and planar cross bedding, FA1 is interpreted to represent an alluvial fan deposit. FA1 units are only found at the Red Mountain locality and can be interpreted as unmodified debris flows based on the disordered, 60% matrix-supported nature of the deposits that include larger, angular to subangular clasts located almost directly adjacent to the WPM thrust front.

These observations indicate that alluvial fans and low-grade tributary systems transitioned into an anastomosing river system draining off the eastward propagating thrust front. The alluvial fans would have provided the gravel-sized sediment input seen in the distal fluvially-dominated deposits.

FA1 deposits in the Ephraim Formation are not found in the first ~50 m of the unit, suggesting that uplift and development of the thrust front was not immediate in relation to the formation of perhaps an initially dynamically driven flexural basin, or a flexural basin that formed in response to internal stress regimes.

#### 5.1.3 Description and interpretation: minor conglomerate (FA2)

FA2 is found at one locality, Red Mountain, and represents one of the most proximal synorogenic deposits related to the WPM thrust front. Minor conglomerates of the Ephraim

Formation at Red Mountain are defined as laterally discontinuous, matrix supported conglomerate sequences. They may represent single thick units, or multiple thinner, stacked beds that are dominated by conglomerate lithofacies (G<sub>2</sub>mm, Table 1). Isolated major conglomerate outcrops are typically several meters thick. Thin, tabular to lenticular lenses of lithofacies S<sub>1</sub>p are present throughout the conglomerate and do not exceed 1 m in thickness.

FA2 is dominated by massive outcrops composed of small boulder to pebble-sized, poorly sorted, subangular to rounded clasts of extraformational red chert, light grey to grey carbonate, tan sandstone, white and grey quartzite (Figure 8). The matrix is a reddish brown to reddish tan, poorly sorted medium to coarse moderately sorted sand. Outcrops are generally well indurated and tend to be ridge formers. Pebble counts were conducted on conglomerate outcrops by counting and classifying 100 clasts within a half-meter grid. Red and black cherts tend to dominate the classified lithofacies, along with a moderate amount of light grey to grey carbonate and minor amounts of tan sandstone, white and grey quartzite.

FA2 sequences found at Sawtooth Mountain and Salt River Pass are 40% matrix supported. Clasts are distinctly smaller in size and are subangular to rounded and overall sorting is better suggesting distally derived channel avulsions within an anastomosing river system.

Paleocurrent data collected for the Ephraim Formation (Figure 9) at Red Mountain indicate a dominant W-E flow direction accompanied by a collection of low dispersion flow directions. E-W flow directions are consistent with the presence of a topographic high in an eastern position, while N-S flow directions are consistent with the development of a foreland basin axis running parallel to the thrust front.

The distribution of Lower Cretaceous gravels throughout the North American Cordillera are of particular interest due to the fact that there is far traveled sediment found along the eastern margin. In particular, the Gannett Group is of interest due to the presence of far traveled sediment within units that are thicker than expected. Although previous studies and modeling have attempted to explain these thin, long run-out gravels, the presence of a thicker (>500 m) Ephraim conglomerate ranging from southwest Wyoming to northeastern Utah remains controversial (Heller and Paola, 1989).

These observations indicate that alluvial fans and low-grade tributary systems were likely incorporated into anastomosing river systems draining off the eastward propagating thrust front. The alluvial fans would have provided the gravel-sized sediment input seen in the distal, fluvially-dominated deposits.

#### 5.1.4 Description and interpretation: minor tabular to lenticular sandstone (FA3)

Within the FA3 facies association, minor tabular to lenticular sandstones ( $S_{1p}$ ,  $S_{1t}$ , Table 1) found within the Ephraim Formation are only found interbedded within the conglomerate lithofacies  $G_{1mm}$ . Typical bedding thickness is no greater than 1 m.

Modal assemblages of the sandstone within the Ephraim Formation were plotted on a ternary diagram with an emphasis on QFL percentages (Figure 16). Feldspar grains are absent in all samples collected. Furer (1970) point counted 88 samples from the Ephraim Formation and identified similar modal QFL percentages, again with a distinct lack of feldspar grains. The cement is typically 30% and is composed of either calcite or chert, with minimal evidence of chemical dissolution or major deformation.

Overall paleocurrent directions measured from both planar- and three-dimensionally exposed trough-cross-bedding demonstrate an overall E-W drainage direction. Paleocurrent data collected for the Ephraim Formation (Figure 9) at Salt River Pass and Sawtooth Mountain indicate a dominant W-E flow direction consistent with the presence of a topographic high in an eastern position. Paleocurrent data support clast provenance data in that both proximal and distal clasts can be correlated to stratigraphy within the WPM thrust (discussion in Provenance section below).

S1p, S1t, S1m lithofacies have been identified within FA3. S1t is the most common lithology and consists of uniform bed set thickness of ~20-70 cm thick and a mean set thickness of ~40 cm.

FA3 units within the Ephraim Formation are interpreted as crevasse channel deposits (Figure 11). Sedimentary characteristics supporting this interpretation include planar and trough cross bedding as well as architectural elements such as channels and channel fill. The discontinuous nature of sand bodies within the thick, massive FA5 mudstone and siltstone coupled with low dispersion paleocurrents indicate avulsive channel fill deposits that may be part of an anastomosing system.

#### 5.1.5 Description and interpretation: minor tabular to lenticular siltstone/mudstone (FA4)

Minor tabular to lenticular siltstone and mudstone are found interbedded within the minor tabular to lenticular sandstone and conglomerate units, and typically do not exceed 0.5 m in thickness. Fine grained lithofacies include F<sub>1l</sub> and F<sub>1m</sub> with little preservation of fine laminations due to the nature of the outcrop. F<sub>1l</sub> and F<sub>1m</sub>, when interbedded, consist of fine silt and muds with a dark reddish brown, pale red purple and brown color.



The tabular to lenticular nature of FA4, in addition to the fine to medium grained sands within the deposits, are interpreted as overbank flood and channel fill deposits within an anastomosing river system.

#### 5.1.6 Description and interpretation: massive siltstone/mudstone (FA5)

The massive siltstone and mudstone, FA5, dominates the Ephraim Formation, representing over 70% of the stratigraphic sequence. FA5 is highly variable in overall character and lithofacies composition. Deposits are typically massive, with no discrete sedimentary structure present, and range in thickness from 1 m to over 15 m. The fine grained silt and mud is dark reddish brown, pale red purple and brown. Calcareous nodules are found within float in several locations.

The thick, fine grained nature of FA5 represents significant overbank deposits related to the observed anastomosing drainage system. The lack of reactivation surfaces and massive nature of FA5 indicates fast generation of accommodation space (Schumm, 1981).

## 5.2 Sedimentology of the Bechler Formation

### 5.2.1 Facies analysis of the Bechler Formation

A suite of five lithofacies (Miall, 1977) have been identified for the Bechler Formation within the Gannet Group. Rudimentary facies associations were defined based on detailed analysis of internal and external geometries, bounding surfaces and architectural elemental analysis (Figure 12) of measured section (Figure 13) and sections with significant outcrop (but not complete sections). Five primary facies associations were identified for the Bechler Formation including: major conglomerate (FA1), minor conglomerate (FA2), minor tabular to

lenticular sandstone (FA3), tabular to lenticular siltstone/mudstone (FA4), and massive siltstone/mudstone (FA5) (Table 1).

#### 5.2.2 Description and interpretation: major conglomerate (FA1)

Major conglomerates in the Bechler Formation are defined as laterally discontinuous, matrix supported conglomerate sequences. They may represent single thick units, or multiple thinner, stacked beds that are dominated by conglomerate lithofacies (G<sub>2</sub>mm, Table 1). Isolated major conglomerate outcrops are typically several meters thick. Thin, tabular to lenticular lenses of lithofacies S<sub>1p</sub> and S<sub>1t</sub> are present throughout the conglomerate and do not exceed 1 m in thickness.

FA1 is dominated by massive outcrops composed of small boulder to pebble-sized, poorly sorted, subrounded to rounded clasts of extraformational clear quartzite, red and tan sandstone, carbonate, and red and black chert. The matrix is a reddish brown to reddish light grey, medium to coarse grained, moderately well-sorted sand. Outcrops are generally well indurated and tend to be ridge formers. Pebble counts were conducted on conglomerate outcrops by counting and classifying 100 clasts within a half meter grid. Clear quartzites, red and tan sandstone and carbonates tend to dominate the classified lithofacies, along with subordinate red and black chert.

Major conglomerates are found intermittently throughout the entire Bechler Formation. Contacts between lithologic facies are difficult to identify in the field, so it is unclear if most contact surfaces are erosional or gradational.

Based on clast size and composition, sorting, percentage of matrix support and the presence of interbedded trough and planar cross bedding, FA1 is interpreted to represent an

alluvial fan deposit. FA1 units (Table 1) are only found at the Red Mountain locality and can be interpreted as unmodified debris flows based on the disordered, 60% matrix-supported nature of the deposits that include larger, angular to subangular clasts located almost directly adjacent to the WPM thrust front.

These observations indicate that alluvial fans and steep-grade tributary systems were likely incorporated into an anastomosing river system draining off the eastward propagating thrust front. The alluvial fans would have provided the gravel-sized sediment input seen in the distal fluvially-dominated deposits. Figure 15 shows paleocurrent directions determined by DeCelles et al. (1993) based on imbricated clasts, which demonstrate a NE-E flow direction accompanied by a collection of low dispersion flow directions.

### 5.2.3 Description and interpretation: minor conglomerate (FA2)

FA2 is found at one locality, Red Mountain, and represents one of the most proximal synorogenic deposit related to the WPM thrust front. Minor conglomerates of the Bechler Formation at Red Mountain are defined as laterally discontinuous, matrix supported conglomerate sequences. They may represent single thick units, or multiple thinner, stacked beds that are dominated by conglomerate lithofacies (G<sub>2</sub>mm, Table 1). Isolated major conglomerate outcrops are typically several meters thick. Thin, tabular to lenticular lenses of lithofacies S<sub>1</sub>p are present throughout the conglomerate and do not exceed 1 m in thickness.

FA2 is dominated by massive outcrops composed of cobble to pebble-sized, poorly sorted, subangular to rounded clasts of extraformational clear quartzite, red and tan sandstone, carbonate, and red and black chert. The matrix is a reddish brown to reddish light grey, medium to coarse grained, moderately well sorted sand. Outcrops are generally well indurated and tend

to be ridge formers. Pebble counts were conducted on conglomerate outcrops by counting and classifying 100 clasts within a half meter grid. Clear quartzites, red and tan sandstone and carbonates tend to dominate the classified lithofacies, along with subordinate red and black chert.

#### 5.2.4 Description and interpretation: minor tabular to lenticular sandstone (FA3)

Minor tabular to lenticular sandstones ( $S_{2p}$ ,  $S_{2t}$ , Table 1) found within the Bechler Formation are only found interbedded within the conglomerate lithofacies  $G_{2mm}$ . Typical bedding thickness is no greater than 1 m.

Modal assemblages of the sandstone within the Bechler Formation were plotted on a ternary diagram with an emphasis on QFL percentages QFL (Figure 16). Feldspar grains are absent in all samples. The cement is typically 30% and is composed of either calcite or chert, with minimal evidence of chemical dissolution or deformation.

Overall paleocurrent directions measured from both 2D- and three-dimensionally exposed trough-cross-bedding demonstrate an overall E-W drainage direction with minor dispersal patterns. Paleocurrent data collected for the Bechler Formation (Figure 17) at Red Mountain indicate a dominant W-E flow direction accompanied by a collection of low dispersion flow directions. W-E flow directions are consistent with the presence of a topographic high in an eastern position, while N-S flow directions are consistent with axial flow and development of a foreland basin running parallel to the thrust axis. Poor exposures of the Bechler Formation at Sawtooth Mountain did not provide adequate exposures to obtain reliable paleocurrent measurements.

S1p, S1t, S1m lithofacies have been identified within FA2. S1t is the most common lithology and consists of uniform bed set thickness of ~20-70 cm thick and a mean set thickness of ~40 cm.

#### 5.2.5 Description and interpretation: minor tabular to lenticular siltstone/mudstone (FA4)

Minor tabular to lenticular siltstone and mudstone are found interbedded within the minor tabular to lenticular sandstone, and typically do not exceed 0.5 m in thickness. Fine grained lithofacies include F<sub>2l</sub> and F<sub>2m</sub> with little preservation of fine laminations due to the nature of the outcrop. F<sub>2l</sub> and F<sub>2m</sub>, when interbedded, consist of fine silt and muds with a dark reddish brown, pale red purple and brown color.

The tabular to lenticular nature of FA4, in addition to the fine to medium grained sands within the deposits, are interpreted as overbank flooding and channel fill deposits within an anastomosing river system. Subsequent incision and scouring by overlaying fluvial channels is a possible mechanism that removed any paleosol development that is seen in the more massive siltstone and mudstone deposits.

#### 5.2.6 Description and interpretation: massive siltstone/mudstone (FA5)

The massive siltstone and mudstone, FA5, dominates the Bechler Formation, representing over 70% of the stratigraphic sequence (Figure 13). FA5 is highly variable in overall character and lithofacies composition. Deposits are typically massive, with no discrete sedimentary structure present, and range in thickness from 1 m to over 15 m. The fine grained silt and mud is dark reddish brown, pale red purple and brown. Calcareous nodules are found within float in several locations.

The thick, fine grained nature of FA5 in the Bechler Formation represents significant overbank deposits related to an inferred anastomosing drainage system. As with the massive overbank deposits of the Ephraim Formation, the lack of reactivation surfaces and massive nature of FA5 in the Bechler Formation indicates fast generation of accommodation space (Schumm 1981). Presence of carbonate nodules indicates that these deposits were not buried rapidly, allowing for the development of soils before the next flooding event.

### 5.3 Remaining foreland basin

The remaining units within the foreland basin include the Frontier, Sage Junction, Cokeville, Aspen, and Bear River formations (Figure 5). They represent a collection of marine and terrestrial sandstone and shale units that not only preserve the continued thrusting and erosional unroofing of the WPM thrust sheet, but also record, to a first order effect, the lithospheric response to flexural loading and dynamic subsidence.

### 5.4 Structural Relations

At Salt River Pass, overall bedding of the Bechler Formation dips  $\sim 20^{\circ}$  E, and the Thomas Fork Formation dips  $\sim 5^{\circ}$  E. These dips are consistent with the Bechler Formation representing the western limb of a local syncline, while the Thomas Fork Formation is located near the axis of the syncline.

At Red Mountain, the Ephraim Formation has an overall dip of  $\sim 55^{\circ}$  W while the overlying Bechler dips at only  $\sim 26^{\circ}$  W. This is consistent with development of growth strata within the Ephraim Formation followed by semi-static and proximal deposition of the Bechler Formation.

At Sawtooth Mountain, bedding within the Ephraim and Bechler formations range from ~45-70° W. While this may represent development of growth strata, it is important to recognize that this section of synorogenic strata related to WPM development lies on the mid-late Cretaceous Crawford thrust sheet and was passively transported on the late Cretaceous Absaroka sheet.

### 5.5 Paleoclimatology

Paleoclimate studies on the Early Cretaceous of Western North America demonstrate a warm, humid environment. Paleoclimatology studies of  $\delta O^{18}_p$  within mammals and herbivorous dinosaurs from within the stratigraphically equivalent Cedar Mountain Formation show that the relative humidity during this time was ~58% and had a range of ~42-76% (Suarez et al., 2012). In addition, megaflora fossils found within the Aspen Shale of southwestern Wyoming record climatic conditions most similar to Subzone IIB of the Potomac Group of the eastern United States (Peppe et al., 2008). These, combined with evidence of significant uplift of the Nevada hinterland of up to 4 km (Bonde, 2015; Snell et. al., 2014) demonstrate conditions conducive to the hyperconcentrated flows found within the foreland of the Sevier fold and thrust belt (Heller and Paola, 1989).

## 6.0 Detrital Zircon studies of Lower Cretaceous synorogenic strata

Here we report over 10,000 DZ U-Pb ages from 27 sandstone samples collected from syntectonic sedimentary units representing the early history of the Sevier foreland basin. In addition, data from previously published studies are incorporated to further validate timing and erosional patterns. Grain ages provide information on the age of the deposits in their youngest age populations as maximum depositional ages (MDA), and information on their sedimentary provenance in their DZ age components. The sandstone collected belong to terrestrial fluvial systems that developed in response to topographic relief developed from thrusting over ramps as well as formation of a foreland basin system. Deposition of DZ grains interpreted as MDAs in this study are thought to have been deposited in either of two different ways. (1) Sierran arc-derived airfall zircon grains were deposited in the foreland basin almost immediately after their formation via travel as volcanic ash in the airstream. This interpretation is based on the preservation of a common euhedral crystal structure of the zircon grains indicating little terrestrial transport. In contrast, it is possible that zircon grains were ejected and deposited relatively close to a magmatic source or at an intermediate position and were subsequently remobilized during fluvial transport events into the foreland basin; in this scenario large distance transport occurred with little abrasion to the zircon grains, but deposition still occurs within a relatively short time interval.

The main magmatic source for the western margin of North America during the Mesozoic and Early Cenozoic was the Sierra Nevada magmatic arc. Detailed dating of magmatic pulses related to arc magmatism show a distinctive lull between ~140-120 Ma (Irwin and



Wooden, 2001; DeCelles et al., 2009). Figure 19 shows the main pulses of magmatic activity in the Sierra Nevada.

### 6.1 Maximum depositional ages

Isoplot is a program run on Windows Excel that is used to perform mathematical and graphical analysis of radiogenic-isotopic data (Ludwig, 2008). Using this software, MDA's can be determined using assorted parameters and methods. Previous work has defined various ways of determining MDA's of geologic samples (Dickinson and Gehrels, 2009; Barbeau et al., 2009) and include using 1) the youngest distinct age peak within an age-probability density plot, 2) the youngest single grain with  $1\sigma$  uncertainty, 3) a weighted mean age of the youngest age group of two or more grains within  $1\sigma$  uncertainty, 4) the Unmixing routine within Isoplot that estimates the maximum likelihood of the age of grains within the youngest age group, and 5) the TuffZirc algorithm (Ludwig and Mundil, 2002). Within this study, the age-probability density plot was used to identify the youngest distinct age group. TuffZirc was then used to obtain coherent groups of grains in which their age overlapped by  $1\sigma$ . A minimum of eight grains were required for this program to determine a stratigraphically robust age.

MDA's from limited euhedral, and likely volcanic, grains show the following for the northern transect: basal Ephraim Formation,  $150 \pm 2.8$  Ma (n=10); upper Ephraim,  $115.2 \pm 1.8$  Ma (n=13); lower Bechler,  $116.2 \pm 2.3$  Ma (n=9); and upper Bechler  $107.3 \pm 3.3$  Ma (n=4) (Figure 20). Schwanke and others (2008) dated zircon from reworked volcanic ash that was deposited in shale interbedded in the Draney Limestone. A maximum depositional age of  $112.5 \pm 2.6$  Ma based on a coherent group of 20 DZ grains was determined (Schwanke et al., 2008). The MDA of  $150 \pm 2.8$  Ma (n=10) for the Ephraim Formation might be reflecting recycling of sediment

between the upper Pruess/Morrison formations and lower Ephraim Formation, or it may reflect the depositional age of the lower Ephraim Formation, consistent with earlier but limited biostratigraphy (Eyer, 1989).

These data clarify that there is not a significant hiatus at the base of the Bechler, and that the Bechler conglomerate facies at Red Mountain spans the depositional interval including the ~112 Ma Draine Limestone, which is absent at Red Mountain but present elsewhere. If there is an angular unconformity at the base of the Bechler Formation at Red Mountain as suggested by DeCelles et al. (1993), then folding of the strata is constrained between  $115.2 \pm 1.8$  Ma (upper Ephraim) and,  $116.2 \pm 2.3$  Ma (lower Bechler), or between 117 and 113.9 Ma.

The southern transect yields the following MDAs: Pruess Formation,  $169.33 \pm 1.5$  Ma (n=10); Upper Gannett,  $109 \pm 6.1$  Ma (n=5) and  $108.3 \pm 3.4$  Ma (n=10). The Morrison Formation, which is stratigraphically equivalent to the Pruess Formation, is well constrained with a basal age of  $154.8 \pm 0.5$  Ma in the Tidwell member (Kowallis et. al., 1998), and a capping age of  $148 \pm 0.5$  Ma within the Brushy Basin member (Kowallis, 1991).

The remaining foreland strata in the southern transect, from the Bear River to Frontier formations, represent subsequent movement on the WPM thrust and foreland basin development. MDA's for the remaining foreland strata include: Cokeville,  $101.6 \pm 0.7$  Ma (n=32); Lower Sage Junction  $101.55 \pm 0.5$  Ma (n=67); Upper Sage Junction,  $101.3 \pm 0.6$  Ma (n=29); Aspen,  $98.8 \pm 0.4$  Ma (n=51); lower Frontier,  $99.93 \pm 0.6$  Ma (n=21); and upper Frontier,  $95.68 \pm 1.4$  Ma (n=38) (Figure 20).

## 6.2 DZ Age Patterns

By analyzing DZ age patterns through the stratigraphic succession within the sedimentary basin, chronofacies can be identified that correspond to specific strata within the adjacent thrust sheet (Lawton et al., 2010). These chronofacies represent a unique collection of age patterns, which can be sourced from multiple places. As a result, when erosion of the thrust sheet reaches each exposure gate, and those unique age pattern collections are re-transported to the corresponding basin in a predictable unroofing succession that establishes the chronofacies. For instance, strata near the top of the WPM thrust sheet would include DZ grains that include Jurassic populations as well as a collection of older DZ ages, depending on the drainage systems that existed, whereas basal strata would include only older DZ grains. As a result, the top strata have younger and more variable DZ age patterns and basal strata have DZ patterns with older grain populations.

Comparison of the WPM DZ age spectra with the adjacent foreland basin sediment DZ spectra, shows that a clear expression of a progressive unroofing sequence is preserved (Table 2). P values in comparison of the Nugget Formation with foreland strata include strong correlations with the Ephraim (0.977), Bechler (0.877), Bear Valley (0.187) and Hilliard (0.353) formations. The Moenkopi Formation had no influence on older Cretaceous foreland basin units, and had little influence on the Upper Frontier (0.001) and Hilliard (0.001). The Oquirrh Formation had significant influence on the Cokeville (0.365), Frontier (0.480), Upper Frontier (0.185), Aspen (0.551) and Hilliard (0.139) formations and minor influence on the Sage Junction (0.003) and Bear Valley (0.042) formations. The Swan Peak and Worm Creek, formations appear to have no influence on any of the still preserved foreland basin sediment. The Geertsen

influenced the Upper Frontier Formation (0.159) and had minor influence on the Sage Junction Formation (0.004). The Mutual Formation strongly influenced the Bear Valley (0.067), Frontier (0.198), Upper Frontier (0.076), and Aspen (0.712) formations, with minor influence on the Cokeville (0.002) and Hilliard (0.022) formations. The Caddy Canyon Formation had minor influence on the Ephraim (0.001), Frontier (0.002), Upper Frontier (0.004), and Aspen (0.002) formations. Figure 20 shows the evolution of DZ patterns through time and stratigraphic section.

The unique age of the DZ grains can provide an ultimate source that originated on the North American craton when there was a passive western margin. Grains that range in age from 2.6–3.0 Ga are sourced from the Wyoming province (Frost et al., 2006; Fan et al., 2011). A distinct peak at 2.55 Ga is attributed to the Grouse Creek block (Strickland et al., 2011; Isakson, 2012). There is a mix of 1.7–1.9 Ga grains that belong to the Farmington zone, Mojave province, and Selway terrane, as well as reworked Archean grains (Shufeldt et al., 2010; Mueller et al., 2011; Yonkee et al., 2013). Grains yielding a 1.7–1.8 Ga peak belong to the Yavapai and Mazatzal provinces (Bickford et al., 2008). Eriksson et al. (2003) report ages of 1.3–1.5 Ga for mid-continent granite and A-type granite intrusions in the southwest U.S., 1.0–1.3 Ga ages for the Grenville-Llano province, as well as ~1.1 Ga late granite intrusions in the southwest United States. Relatively younger grains with peaks around 650–470 Ma have been attributed to the Idaho batholith area (Lund et al., 2009) and peaks ~ 300 Ma are sourced from the Appalachians (Dickinson and Gehrels, 2009).

Figure 3 shows the distribution of source terranes for Paleozoic- early Mesozoic DZ grains that could have been incorporated into the WPM thrust sheet. In addition, the age range of these source terranes are superimposed on DZ patterns found within the Willard thrust sheet in Figure 21 in order to make more effective correlations between patterns found within the thrust sheet and within the foreland basin sediment.

In the analysis of an unroofing sequence in the early Sevier foreland basin, the sedimentological history is congruent with DZ patterns correlated directly with the WPM thrust sheet (Figure 22). Within the basal deposits of the Ephraim Formation, clasts include a unique collection of red and black chert thought to originate from the Roberts Mountain allochthon in the hinterland of Nevada (Gehrels et al., 2000). Clasts of the Twin Creek limestone and Wells quartzite that were shed off the top of the WPM thrust sheet when uplift initiated were identified within upper levels of the Ephraim Formation.

## 7.0 Provenance Study

Point counting was performed on 27 petrographic sandstone thin sections, with 15 being calcium stained for carbonates. Clast counts were performed in the field on conglomerate intervals of the Ephraim and Bechler Formations where identification of clast composition was possible. Clast counts were collected at 10 sites for the Ephraim Formation and 3 sites for the Bechler Formation. Petrographic thin section counts were plotted on a QFL diagram, with the quartz apex including monocrystalline and polycrystalline grains, the lithic apex including silicic detritus, carbonate fragments and chert fragments, and the feldspar apex including orthoclase and plagioclase compositions. Samples analyzed follow similar patterns found within typical Gannett samples (DeCelles et al., 1993), compositions of average Gannett samples are plotted against collected samples shown in Figure 10.

Field clast-count data for the Ephraim Conglomerate were collected at all three localities (Figure 1). At Sawtooth Mountain, the conglomerate is composed of red and black chert, white and grey quartzite, carbonate and minor amounts of tan sandstone, with red chert and grey quartzite dominant. At Salt River Pass, the Ephraim conglomerate is composed of white and grey quartzite, red chert, brick red and tan sandstone, and minor amounts of black chert and carbonate clasts. Here the conglomerate is dominated by grey and white quartzite clasts. At Red Mountain, the Ephraim conglomerate is composed of carbonate, brick red sandstone, grey to brownish grey quartzite and minor amounts of red chert, with carbonate and brick red sandstone grains dominant.

Field clast-count data for the Bechler Conglomerate were also collected at three localities (Figure 1): Sawtooth Mountains, Salt River Pass, and Red Mountain. At Sawtooth

Mountain, the Bechler is composed of carbonate, white and grey quartzite, and minor amounts of red and black chert and tan sandstone. At Salt River Pass, the Bechler Conglomerate is composed of grey and white quartzite, red chert, and minor amounts of carbonate, and tan and red sandstone. The Bechler at Red Mountain includes carbonate, red chert, brick red sandstone, grey quartzite and minor amounts of black chert, tan sandstone, and tan quartzite.

Carbonate grains are most likely derived from the Devonian Hyrum Dolomite, the Mississippian Lodgepole or the Monroe Canyon Limestone. Several clasts were found with crinoid fossils. Sandstone clasts were probably derived from Pennsylvanian Wells Formation as well as Jurassic Nugget Formation. Basal Ephraim Ordovician through Devonian aged chert clasts were most likely derived from the Roberts Mountain allochthon or in Mississippian flysch deposits derive from the allochthon (Diamond Peak Formation and correlative units). Subsequent chert clasts were derived from the Mississippian Lodgepole (brown colored chert), Monroe Canyon Formation (yellowish-grey colored chert) or Permian Phosphoria Formation (black colored chert). White-grey quartzite clasts were derived from the Ordovician aged Swan Peak Formation.

Within each unit, overall DZ age data present unique patterns that can be analyzed for provenance. Within samples, paleogeographic and depositional age groups were determined to identify major provenance trends in addition to any local variability introduced during deposition (Figure 23).

The geomorphic breaching of Jurassic sediments in this region represents initiation of uplift and thrusting of the WPM sheet over footwall ramps. This development also marks

cessation of fluvial sediment transport from western hinterland sources, with the WPM sheet acting as a geographic barrier to previous drainage systems.

It is important to keep in mind that DZ patterns can vary through time based on changes in the paleogeography of drainage basins and resulting fluvial systems. These variations can be in both provenance and in basin sediment architecture.



## 8.0 Implications

The depositional environments of the Ephraim and Bechler formations are dominated by deposits of an anastomosing river system that demonstrates periods of hyperconcentrated flows containing both proximal and distal source units (Nadon, 1994). These flows are characterized by subrounded to rounded pebble clasts and overall planar bedding. Because the Ephraim is interpreted to represent the initial formation of a foreland basin related to emplacement of the WPM thrust sheet, similarities between northern and southern sections are important in determining overall thrust development. Within both sections, locally laterally continuous distal conglomerate facies have been identified, while proximal conglomerate facies related to the WPM have been found only at the Red Mountain locality. Although the Sawtooth Mountain locality lies on the Crawford thrust sheet and was passively transported on the late Cretaceous Absaroka sheet, similarities to the Salt River Pass section including bedding, clast size and composition and sedimentary features such as cross bedding, allow comparisons to be made related to thrust emplacement in terms of depositional environments.

Results from previous thermochronology studies of the Willard thrust sheet show the Wellsville transect yields a thermal history with cooling starting at  $\sim 134$  Ma, with an average exhumation rate of 0.11 mm/yr (Eleogram, 2014). These cooling ages are interpreted to broadly represent the initiation of slip, onset of thrust-related uplift and erosion along the Willard thrust.

Development of deformation within the WPM thrust sheet is expected to be recorded within multiple structural and depositional features. MDA's of DZ grains within the earliest Sevier foreland basin are expected to coincide with ZHe ages within the Willard thrust sheet

that record cooling due to erosional exhumation. Emplacement of a significant load would result in a lithospheric flexural response, creating accommodation space capable to preserving and DZ grains that may have been present ~130 Ma (Heller and Paola, 1989). In addition, the presence of marine fossils within the basal Ephraim suggests that conditions were favorable for preservation of any DZ grains brought to the depositional system at this time (Eyer, 1989; Rogers, 1998).

An MDA of  $115.2 \pm 1.8$  Ma within the Ephraim Formation and  $116.2 \pm 2.3$  Ma within the lower Bechler, represents the earliest preserved DZ grains related to basin formation from uplift of the WPM thrust sheet. The main pulse of synorogenic deposition related to uplift of the WPM thrust sheet is well bracketed within units of the Gannett Group in the northern transect. Deposition within the basin began no later than  $115.2 \pm 1.8$  Ma within the Ephraim Formation. The Draney Limestone represents the final depositional unit within the Gannett Group. Previous geochronologic work done on the Draney Limestone near Tincup Canyon, ID, show an MDA of  $(112.5 \pm 2.6$  Ma) (Schwanke et al., 2008). While absent at the Red Mountain locality, the age of the Draney Limestone suggests that the Bechler Formation may have locally spanned the depositional age of the Draney, shutting down the carbonate factory in the process. However, given one sigma error for MDA of the Bechler and the Draney Limestone, the apparent span could also be the result of an overlap of errors by ~4 Ma.

At Red Mountain, the contact between the between the Ephraim and Bechler formations was previously interpreted an angular unconformity (DeCelles et al., 1993). MDA's show that there is at most little time missing and perhaps continuous deposition, as the upper

Ephraim yields an MDA of  $115.2 \pm 1.8$  Ma whereas the lower Bechler yields an MDA of  $116.2 \pm 2.3$  Ma. These data clarify that there is not a significant unconformity at the base of the Bechler. Furthermore, the upper Bechler yields an MDA of  $107.3 \pm 3.3$  Ma, indicating that the Bechler conglomerate facies at Red Mountain spans the depositional interval including the  $\sim 112$  Ma Draney Limestone, which is present elsewhere but absent at Red Mountain.

The lack of 115 Ma DZ grains within the Ephraim Formation in the southern section, as well as  $\sim 130$ -115 Ma grains that would be coeval with the early erosional history of the Willard thrust sheet (as evident in the ZHe cooling ages), could result from several factors. In one case, it could be the result of early local uplift that would prevent depositional preservation.  $^{40}\text{Ar}/^{39}\text{Ar}$  UV laser ablation ages of muscovite from the western margin of the Willard thrust sheet show that early alteration and internal deformation of the Willard thrust sheet may have begun as early as  $\sim 140$ -134 Ma (Giallorenzo, 2013).  $^{40}\text{Ar}/^{39}\text{Ar}$  ages from muscovite found along the basal contact of the Willard thrust sheet demonstrate slip ages of  $\sim 140$ -110 Ma (Yonkee et. al., 1989). Locally, The Wasatch Anticlinorium represents a structural feature that may have contributed to early uplift and erosion, however, it is thought to have experienced uplift beginning  $\sim 90$  Ma (Naeser et. al., 1983) which is significantly later than the suggested  $\sim 134$  Ma uplift history (Eleogram, 2014). Furthermore, uplift of the Wasatch Anticlinorium caused folding within the overlying Willard thrust sheet (DeCelles, 2004), which would require movement of the Willard thrust sheet before uplift of the anticlinorium. Alternatively, uplift of the early foreland basin or propagation of the forebulge may have resulted in erosion of the initial foreland deposits into the adjacent backbulge basin and propagation of the forebulge/backbulge system to the east as lithospheric forces developed (DeCelles and Giles, 1996). The Cloverly Formation, which

is an eastern stratigraphic and latitudinal equivalent of the basal Ephraim Formation, has evidence of palynomorphs ranging in age from 139-126 Ma (DeCelles and Burden, 1992; Painter et. al., 2014). With the dominance of east directed river systems in both the Ephraim and Cloverly formations, the wet and humid climatic conditions, as well as evolution of the forebulge; it is possible that DZ grains, as well as palynomorph fossils, were eroded and redeposited farther out on the basin, thereby eliminating the Early Cretaceous record in proximal parts of the foreland (Fleming, 1994).

Alternatively, the absence of young grains could be the result of a different drainage system that did not bring young DZ grains into the basin at that location. Although ZHe data indicate that structures may have initiated by ~134 Ma (Eleogram, 2014), it is possible that significant topographic relief took longer to develop, allowing the sediments to get deposited in identical environments (Vandervoort, 1987; Vandervoort and Schmitt, 1990). Alternatively, evidence of distal cherts and Jurassic DZ age signatures within lower-, mid-, and upper levels of the early foreland basin (Figure 20), suggests that distally-derived sediment was successfully navigating around the WPM thrust sheet through extensive drainage systems perpendicular to the thrust axis, or within axial flow drainages. Paleocurrent directions within troughs of the Ephraim and Bechler formations (Figures 9 and 17 respectively) show dominant W-E directed flows, while the planar cross bedding data indicate variability within the paleocurrent directions, suggesting that the distal deposits can be arriving through either depositional.

Distinct populations of 150-175 Ma DZ grains combined, with identical lithofacies within both the northern and southern section of the foreland basin, represent a complex erosional history along the western margin. The Morrison Formation, which spans the Jurassic

Kimmeridgian (157-152 Ma) – Tithonian (152-145.5 Ma) stages is stratigraphically equivalent to the Pruess Formation. The Morrison contains units that have been previously dated including a basal age of  $154.8 \pm 0.5$  Ma for the Tidwell member (Kowallis, 1998), and a capping age of  $\sim 148 \pm 5$  Ma within the Brushy Basin member (Kowallis 1991). The MDA of  $150 \pm 2.8$  Ma for the Ephraim Formation within the northern section could be reflecting recycling of provenance material from the upper Pruess/Morrison formations. Alternatively, during the mid to late Jurassic, magmatism related to subduction of the Farallon plate resulted in emplacement of several plutons in the Nevada hinterland that were possible source units for DZ grains found within the early Sevier foreland basin (DeCelles et. al., 2009). Combined with evidence of distally-derived red and black chert pebbles found locally within specific lithologic units of the Ephraim and Bechler formations as well as stratigraphic equivalents in the Cedar Mountain Formation (Heller and Paola, 1989), DZ grains between 150-175 Ma are interpreted to have source areas within the Nevada hinterland, Sierra Nevada, Klamath Mountains and Mojave Desert (Armstrong and Ward, 1993; Wyld, 1996).

Furthermore, the absence of grains in the 140-117 Ma age range could be related to the Sierran magmatic lull that was prominent during this time period (DeCelles et. al., 2009). Several corollary studies that have attempted to identify DZ grains within regionally temporal equivalent deposits of the basal Ephraim Formation as well as slightly older deposits that fall within the magmatic lull, but have not been able to locate any such evidence (Dickinson and Gehrels, 2008; Druschke et. al., 2011; Johnston and Kylander-Clark, 2016).

In comparison of WPM U-Pb DZ age spectra with the adjacent foreland basin sediment DZ spectra, a progressive unroofing sequence is preserved (Table 2). The strongest correlation

between the WPM thrust sheet and foreland strata include the Nugget Formation and the Ephraim (0.977), Bechler (0.877), Bear Valley (0.187) and Hilliard (0.353) formations. The Oquirrh Formation had the second largest influence of the Cokeville (0.365), Frontier (0.480), Upper Frontier (0.185), Aspen (0.551) and Hilliard (0.139) formations. The Swan Peak and Geertsen formations appear to have no influence on any of the foreland basin sediment. The Geertsen and Mutual formations show a distinct influence on sediment within the upper part of the foreland basin (Geertsen - Upper Frontier Formation (0.159); Mutual - Bear Valley (0.067), Frontier (0.198), Upper Frontier (0.076), and Aspen (0.712)). The Caddy Canyon Formation had minor influence on the Ephraim (0.001), Frontier (0.002), Upper Frontier (0.004), and Aspen (0.002) formations.

These data indicate a generalized unroofing pattern with DZ grains from the upper part of the thrust sheet becoming incorporated into basal sediment units of the foreland basin, as well as DZ grains from the mid to lower part of the WPM thrust sheet being incorporated into middle to upper units of the foreland basin. The absence of influence from the Worm Creek or Swan Peak formations may be due to the discontinuous nature of preserved early foreland basin deposits. The sedimentary units that may have contained signatures may simply have been eroded away. A fault propagation fold related to initiation of thrusting of the WPM could have also influenced the signatures, with the production of topographic relief capable of diverting any existing drainage system. Units within the thrust sheet such as the Wells/Weber Formation, and subsequent carbonate units lack a rich DZ signature, which would lead to an apparent lack of DZ influence within the foreland strata. Furthermore, the variation in DZ signatures may be related to out of sequence thrusting of the WPM, in which varying levels of

the thrust sheet provide a complex combination of DZ signatures that are not sequentially recorded in one location within the foreland.

The reappearance of DZ grains with a Nugget Formation age pattern has implications for timing of deformation of the Paris and Meade thrust sheets. Shortening within the northern part of the WPM thrust system began with early deformation of the Paris thrust sheet, followed by movement of the Meade sheet that incorporated and passively transported the Paris sheet (DeCelles et. al., 1993). The topmost Nugget Formation experienced erosion as the Paris sheet was uplifted, and shed DZ grains with a unique age pattern into the adjacent foreland basin. As deeper levels of the thrust sheet were breached by erosion, the DZ pattern changed to reflect the exposed stratigraphic level. Table 2 shows that this initial pulse of Nugget erosion was preserved within the foreland sediment with P values in the Ephraim, Bechler and Bear Valley formations all above 95% certainties. The Hilliard Formation also experienced a strong influence from the Nugget Formation, with a P value of 0.353. The presence of this pattern within the upper stratigraphy of the foreland basin suggests that secondary movement of the Meade thrust sheet reintroduced an erosional surface containing the Nugget Formation. Since uplift and erosion of the Nugget is synorogenic with deposition of the Hilliard based on the P value, then the MDA ( $94.1 \pm 2.3$  Ma (n=4)) from DZ grains within the Hilliard represents a maximum age of deformation related to uplift of the Meade thrust sheet.

In addition, MDA's found from within stratigraphy of the foreland basin demonstrate a well-defined temporal depositional progression. Stratigraphy within the southern transect represent Albian to Cenomanian foreland basin deposits and yield the following MDAs: Upper

Gannett,  $109 \pm 6.1$  Ma and  $108.3 \pm 3.4$  Ma; Cokeville,  $101.6 \pm 0.7$  Ma; Lower Sage Junction  
 $101.55 \pm 0.5$  Ma; Upper Sage Junction,  $101.3 \pm 0.6$  Ma; Aspen,  $98.8 \pm 0.4$  Ma; lower Frontier,  
 $99.93 \pm 0.6$  Ma; and upper Frontier,  $95.68 \pm 1.4$  Ma.



## 9.0 Future Work

To gain a better understanding of the kinematic evolution of the WPM thrust sheet, thermochronologic studies within the Paris and Meade sheets should be performed to identify initiation of cooling, differences in exhumation rates between each sheet and within each sheet. These studies should then be compared to the now resolved exhumation history of the Willard thrust sheet. Vertical transects like those taken in Eleogram, 2014 should be identified based on robust stratigraphic sections as well as take advantage of previously existing data.

In addition, geochemistry of collected DZ grains should be investigated to understand where the young volcanic grains providing maximum depositional ages were sourced from. This would not only help identify Early Cretaceous volcanic centers affecting the western North American Cordillera, but may also provide insight into plate boundary subduction conditions and a different proxy for magmatic flux that may highlight volcanic over plutonic activity, providing further insight into possible driving mechanisms behind crustal deformation.

## Figure Captions

**Figure 1.** Regional map of the Sevier fold-thrust belt, with Willard-Paris-Meade, Crawford, Absaroka and Hogsback thrust sheets outlined (modified from Yonkee and Weil, 2011). Red stars shows sample locations. Yellow bars show locations of previously collected thermochronologic data (Eleogram, 2014)

**Figure 2.** Synorogenic sedimentary record of basins adjacent to the Sevier orogenic belt with depositional equivalents along a stratigraphic section (Yonkee and Weil 2011)

**Figure 3.** Proterozoic source terranes with DZ patterns representing age of formation. These DZ patterns are then used in provenance studies to determine features such as paleocurrent directions and paleotopography (Yonkee et. al., 2014).

**Figure 4.** ZHe age vs. paleodepth from samples collected along Wellsville transect of Willard thrust sheet. Large red circles are sample average ZHe ages, small circles are ZHe ages for individual grains. Grey lines are exhumation curves generated from HeMP modeling software.(Eleogram, 2014).

**Figure 5.** Foreland basin stratigraphy which includes the Gannett Group, which is composed of the Ephraim, Peterson, Bechler and Draney formations); Smiths Formation; Thomas Fork Formation; Bear River Formation which is laterally equivalent with the Cokeville and Sage Junction formations; Frontier Formation; Aspen Formation and Hilliard Formation.

**Figure 6.** Schematic map with localities. Northern section includes Red Mountain and Salt River Pass localities, and southern section includes Sawtooth Mountain locality.

**Figure 7.** Correlation of regional stratigraphic sections. (Modified from Eyer, 1969 and DeCelles, 1994).

**Figure 8.** Bedding present within the Ephraim Formation. Planar bedding and planar cross bedding are present in this figure.

**Figure 9.** Paleocurrent data for the Ephraim Formation. Trough cross bedding are shown at Sawtooth Mountain and Salt River Pass respectively. Planar cross bedding are shown at Sawtooth Mountain and Salt River Pass respectively.

**Figure 10.** A. Ternary QFL plot showing modal assemblages of quartz, feldspar and lithics within the Ephraim Formation. Base plot includes data from Furer, 1970. Red stars represent counts within the Bechler Formation. Blue stars represent counts within the Ephraim Formation. Chert is included within lithic fragments. B. Photomicrograph of the Ephraim Formation demonstrating high percentage of quartz grains cemented with either calcite or chert.

**Figure 11.** Crevasse channel deposit within the Ephraim Formation.

**Figure 12.** Architectural elemental analysis, road cut, Bechler Formation.

**Figure 13.** Representative measured section of the Bechler Formation at Salt River Pass locality.

**Figure 14.** Example of Bechler Formation major conglomerate lithofacies. Note size of boulder clast within outcrop.

**Figure 15.** Paleocurrent direction measurements of imbricated clasts of the Bechler Formation at Red Mountain (DeCelles et al., 1993).

**Figure 16.** QFL diagram showing modal percentages of quartz, feldspar and lithic grains within the Bechler Formation Ternary QFL plot showing modal assemblages of quartz, feldspar and lithics within the Ephraim Formation. Base plot includes data from Furer.

**Figure 17.** Paleocurrent directions measured within the Bechler Formation. Trough cross bedding measured at Salt River Pass and Red Mountain respectively. Planar cross bedding measured at Salt River Pass, Red Mountain and Ham's Fork (near Sawtooth Mountain).

**Figure 18.** Stratigraphic relations between foreland basin units of the WPM thrust sheet. Note the stratigraphic relations between the western units and eastern units (modified from Yankee and Weil, 2015).

**Figure 19.** Age of apparent intrusive influx and whole rock age of Sierra Nevada (modified from DeCelles et. al., 2009).

**Figure 20.** MDA's for stratigraphic units within the foreland basin. A) MDAs plotted against the stratigraphic column. B) 95% confidence plots showing coherent groups within each collection of MDAs for each sample.

**Figure 21.** Stratigraphy of the Willard thrust sheet with unique DZ age patterns plotted in stratigraphic order. Wyoming Province (WY); Grouse Greek Block (GC); Farmington Zone-Mojave province and Selway terrane (F-Mo-Se); 2.45 GA grains from Fe-rich granitic pluton (asterisk); Yovapai and Mazatzal provinces (Y-M); mid-continent granite (MG); Grenville-Llano province (GR) (modified from Yankee and Weil, 2015).

**Figure 22.** DZ age patterns found within specific foreland basin units.

**Figure 23.** Column shows source rock types in WPM thrust sheet. Distinctive DZ age-probability density distributions of different source units are shown on the right. Modified from (9), with DZ data from (8) and (3). B) DZ age-probability density distributions of samples of synorogenic strata; formation name and number of analyzed grains for each sample listed.

Figures

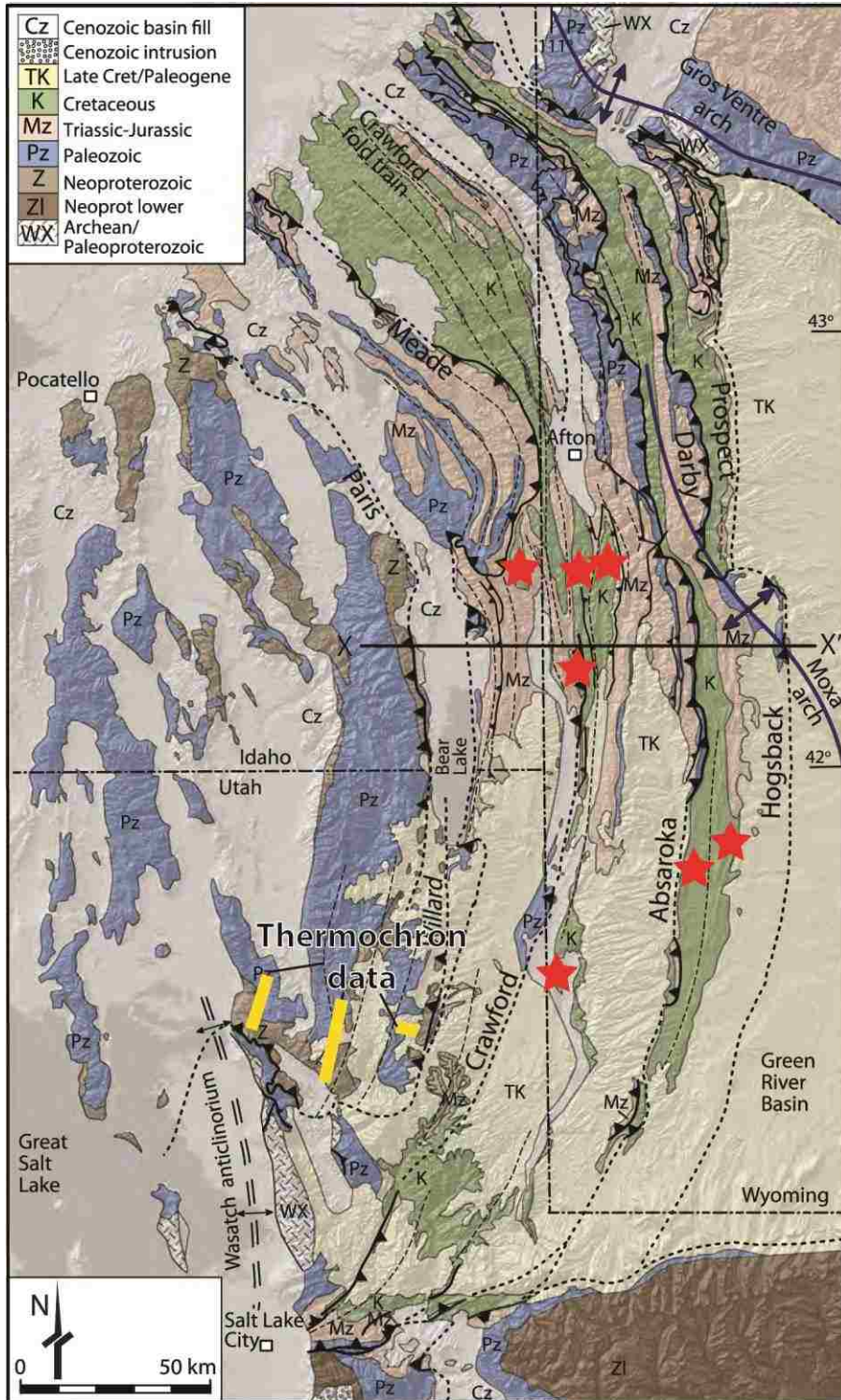


Figure 1. Regional map of the Sevier fold-thrust belt

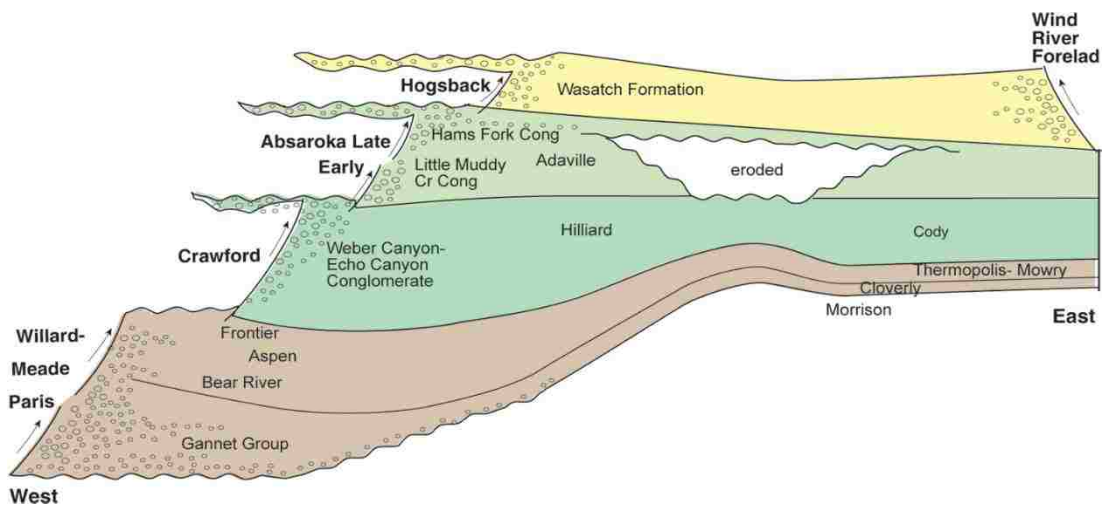


Figure 2. Synorogenic sedimentary record of basins adjacent to the Sevier orogenic belt.

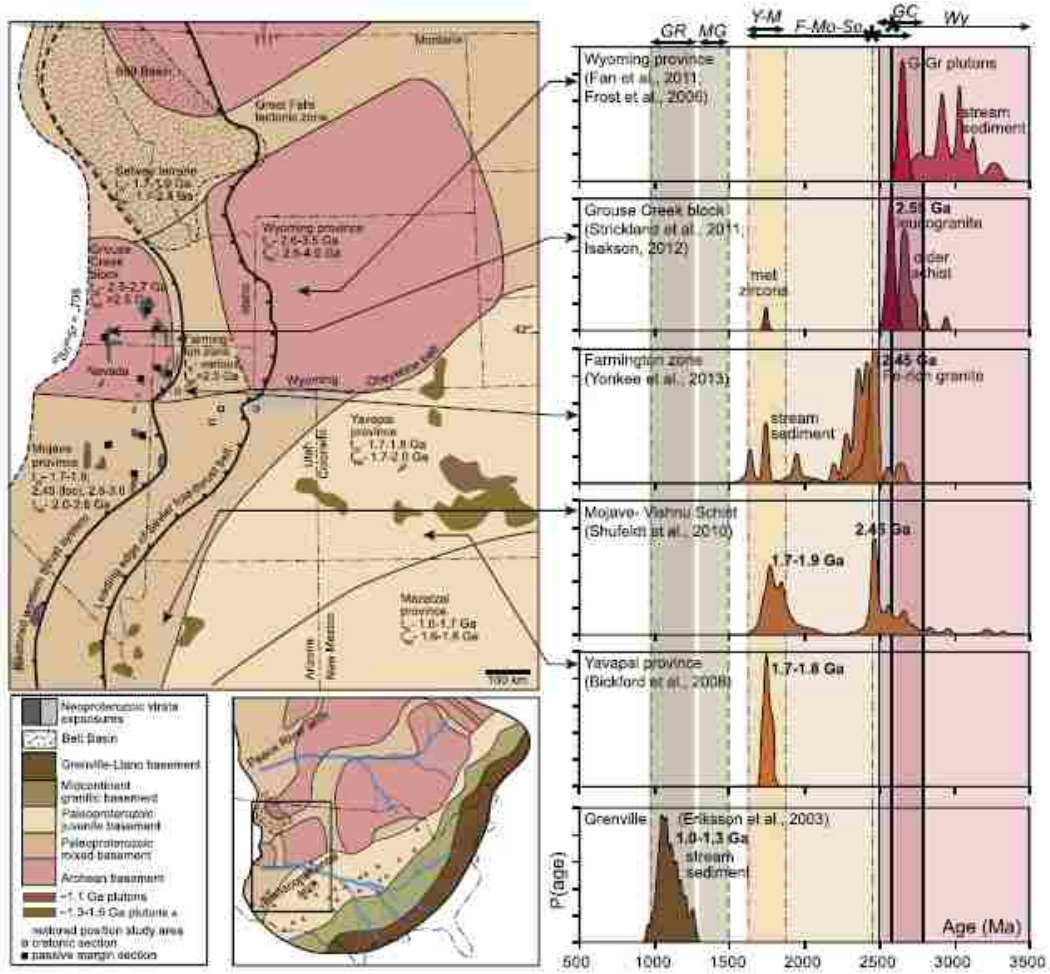
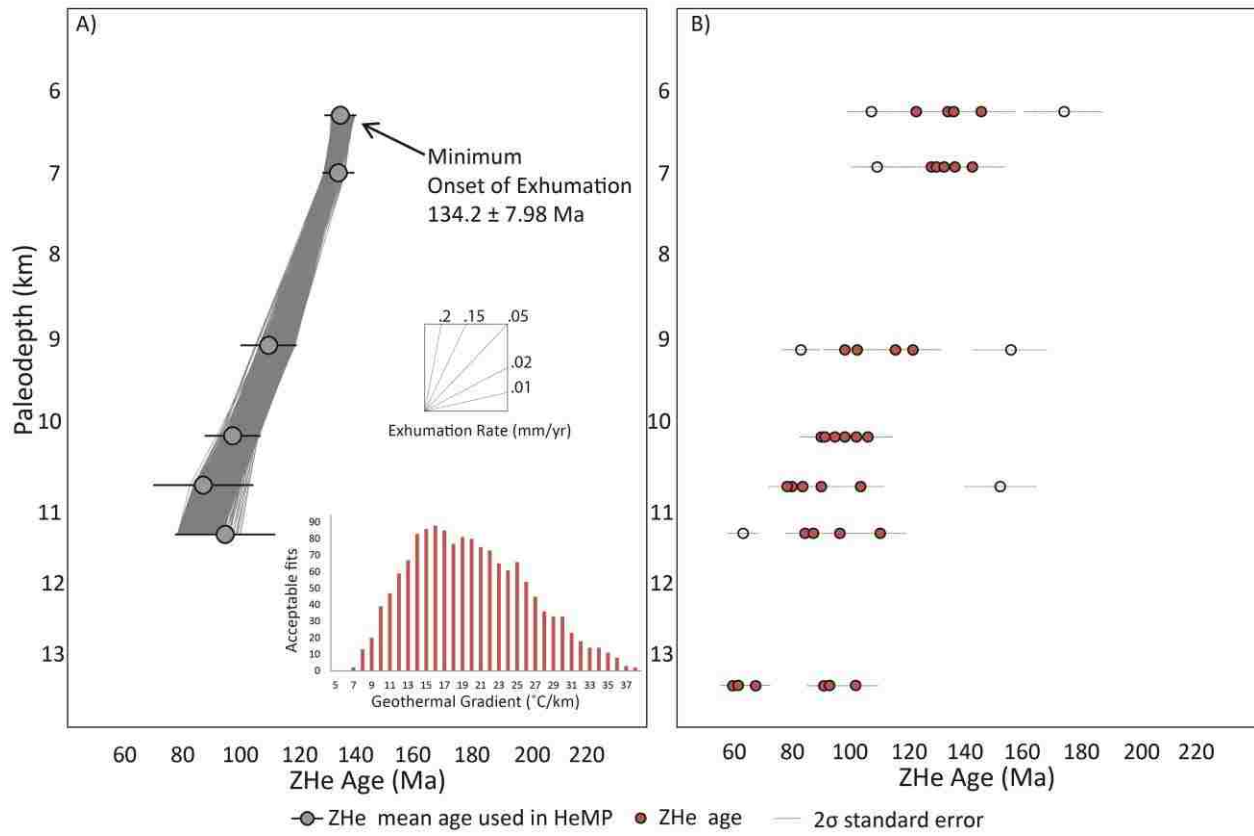


Figure 3. Proterozoic source terranes with corresponding DZ patterns.

Wellsville



**Figure 4. ZHe age vs. paleodepth from samples collected along Wellsville transect of Willard thrust sheet**



# Foreland Basin Stratigraphy

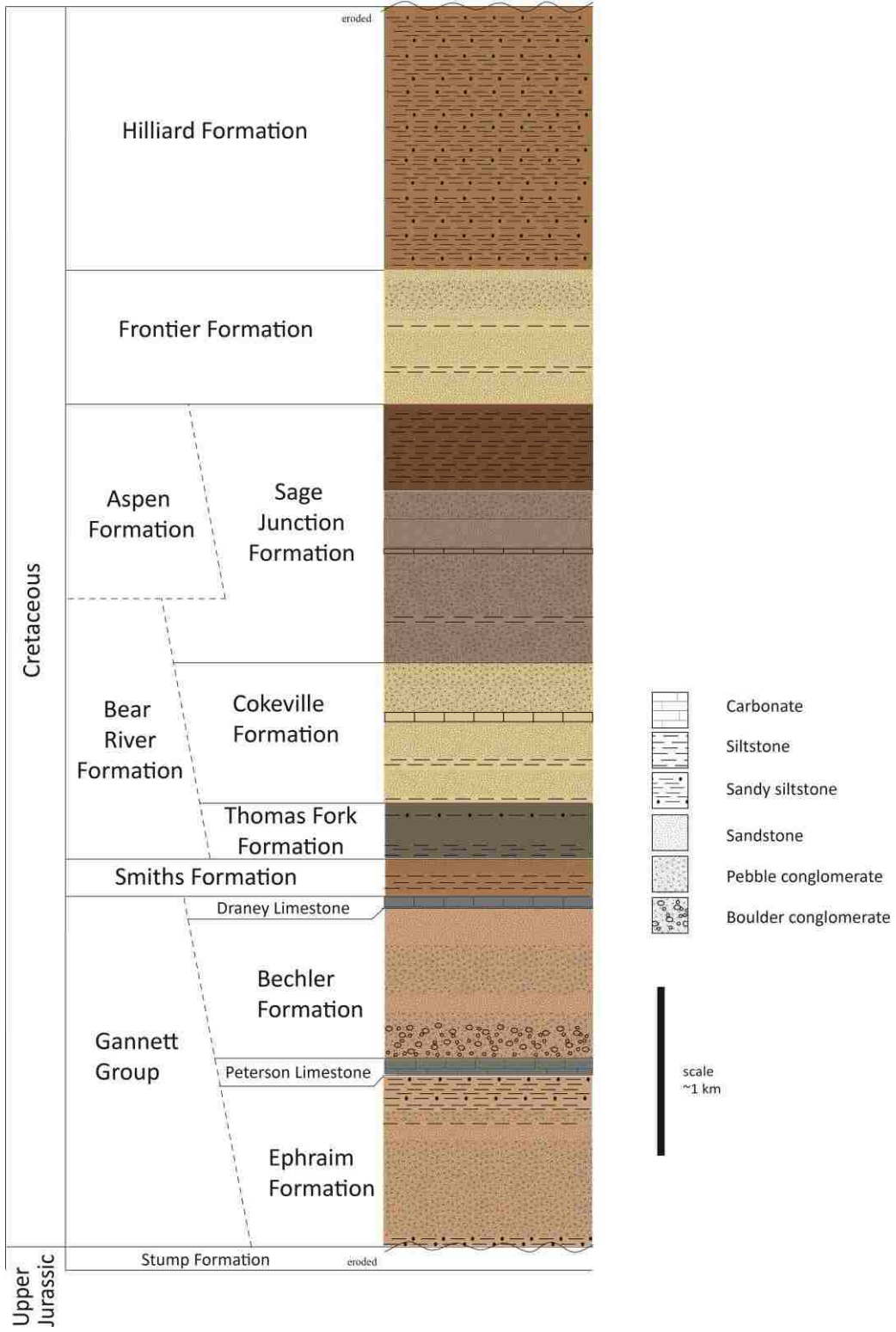


Figure 5. Foreland basin stratigraphy

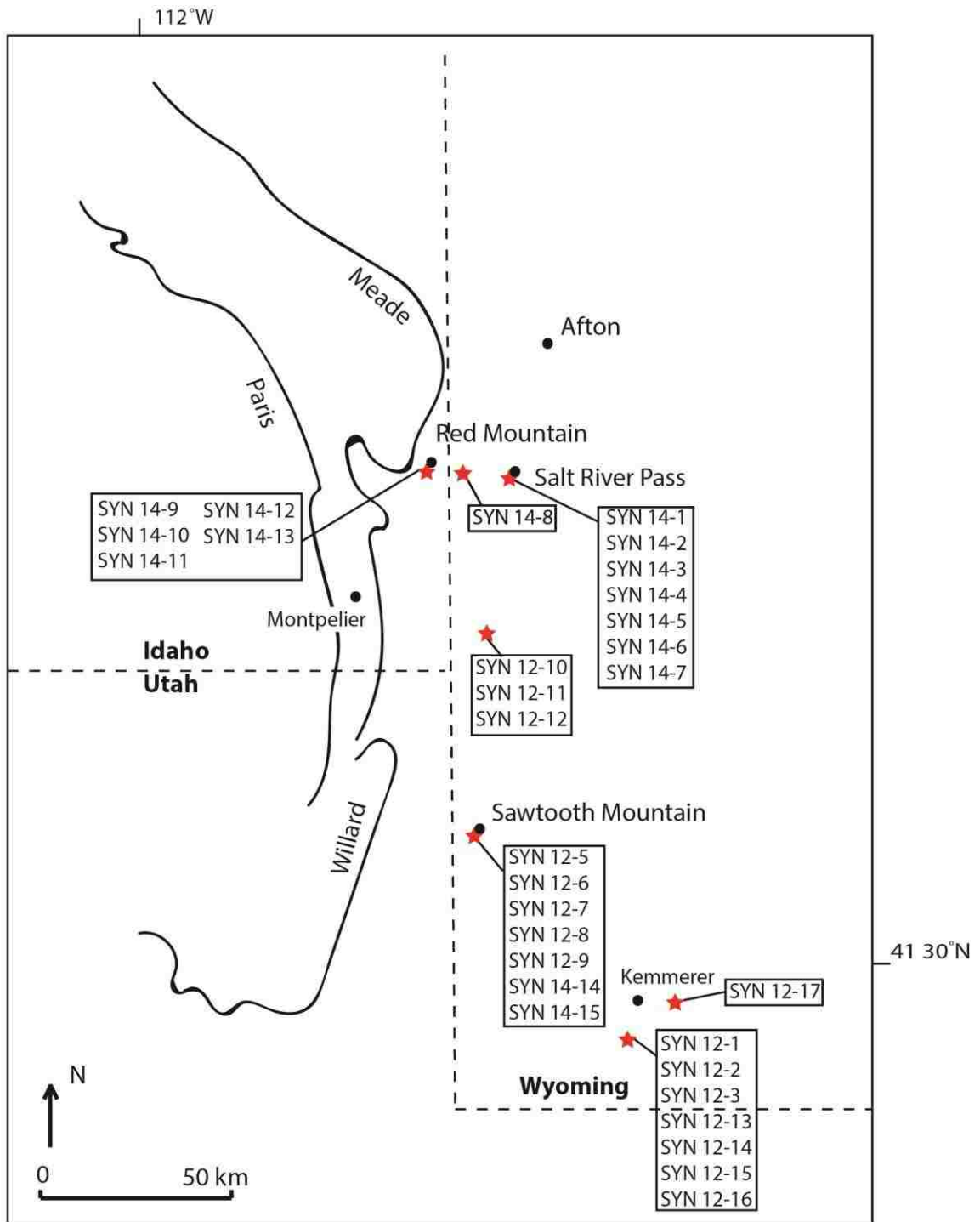
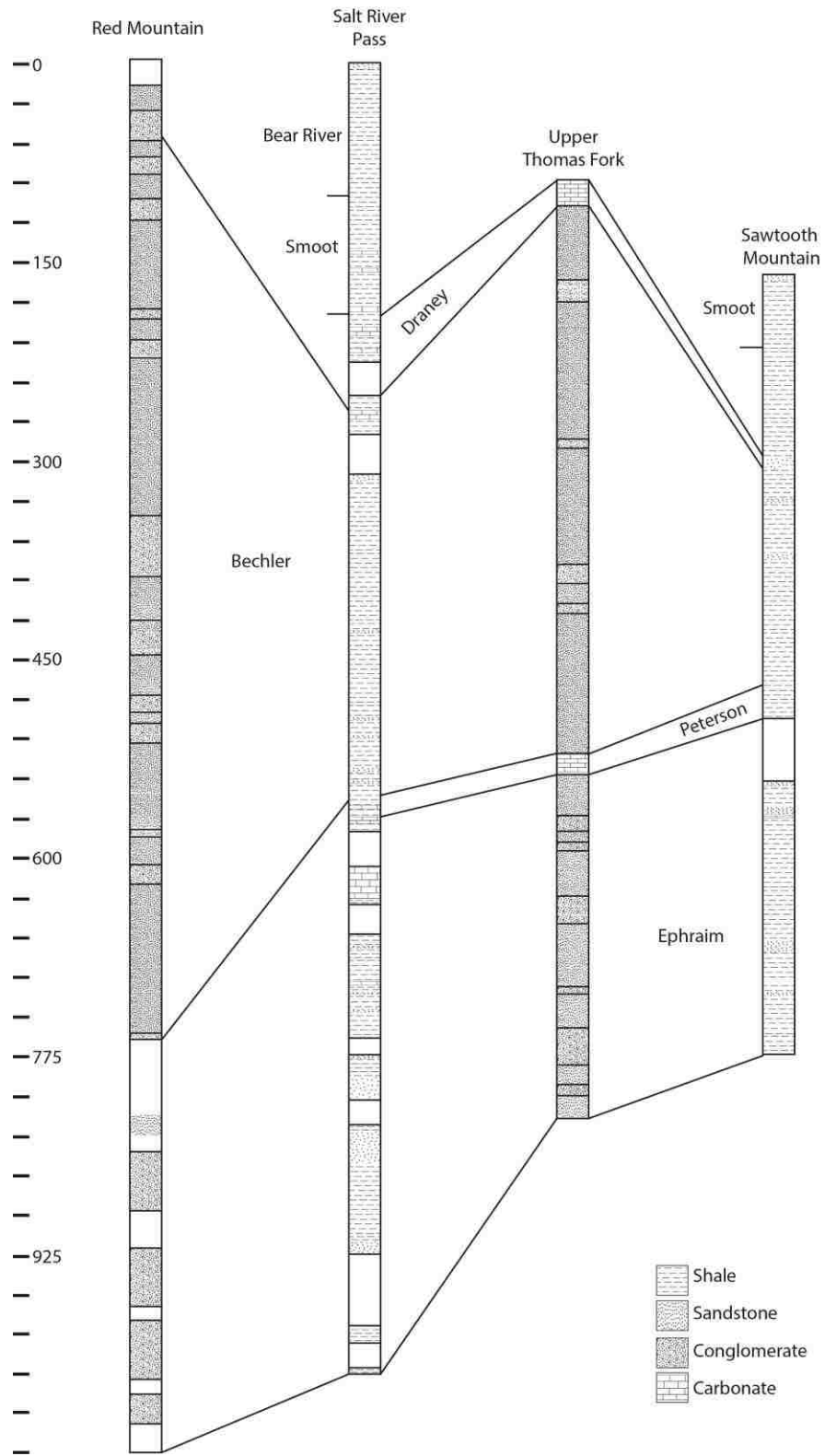


Figure 6. Schematic map of field area with localities



**Figure 7. Correlation of regional stratigraphic sections**



**Figure 8. Bedding present within the Ephraim Formation**

# Ephraim Paleocurrent Directions

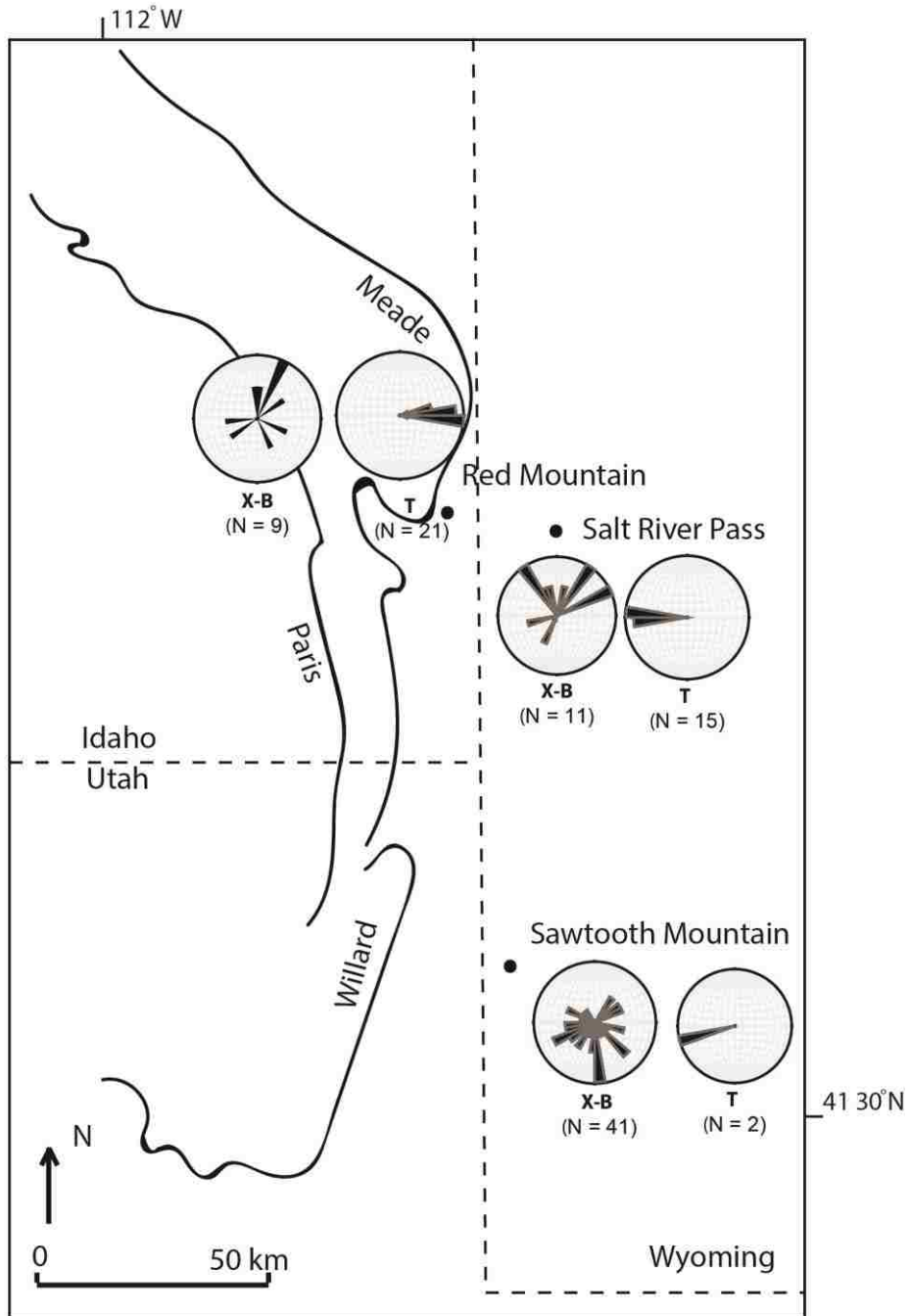
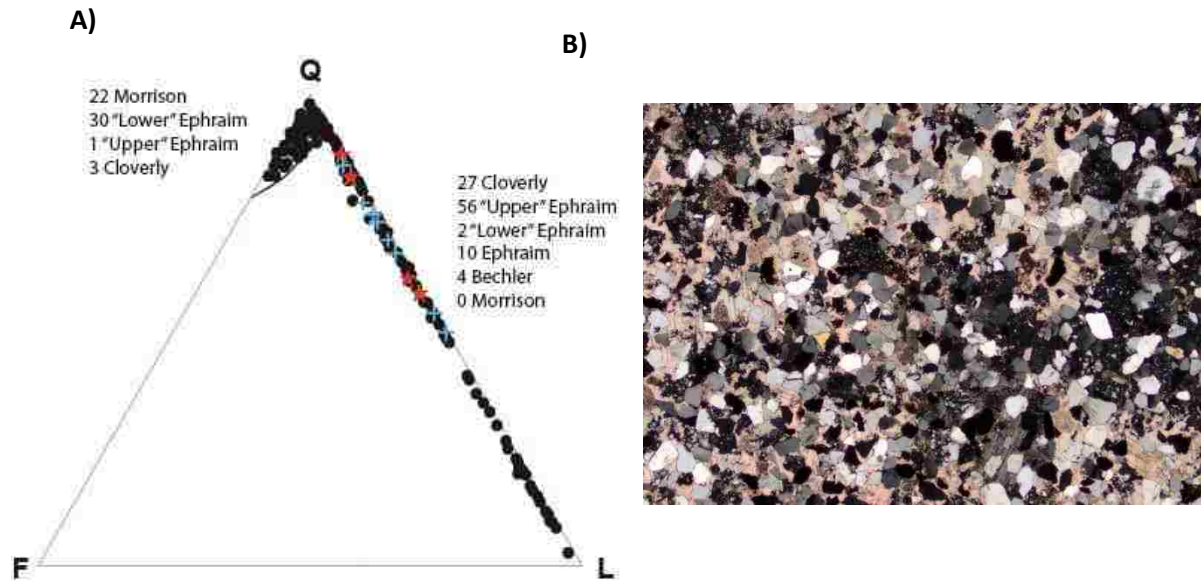


Figure 9. Paleocurrent data for the Ephraim Formation

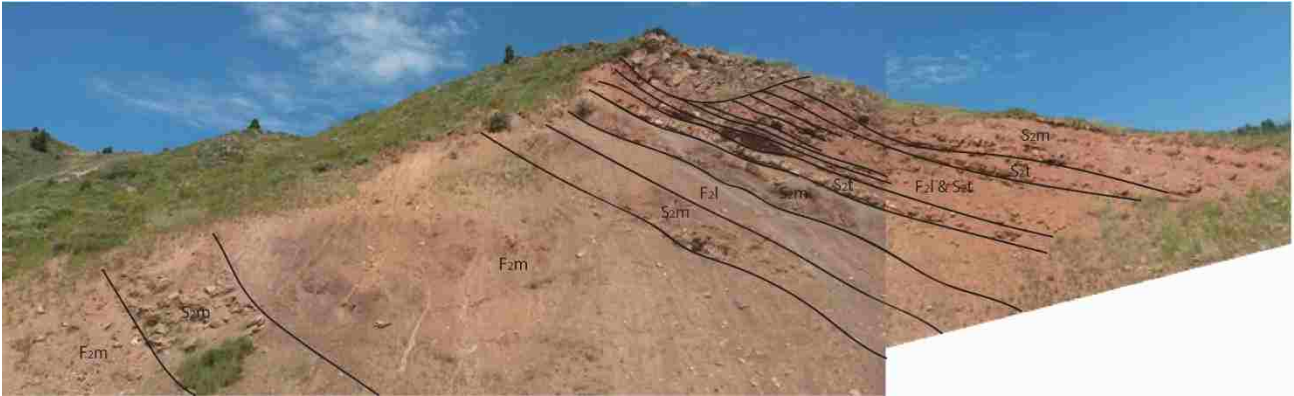


**Figure 10. QFL plot and photomicrograph of the Ephraim Formation**



**Figure 11. Crevasse channel deposit within the Ephraim Formation**





**Figure 12. Architectural elemental analysis of Bechler Formation**



# Bechler Formation Road Cut

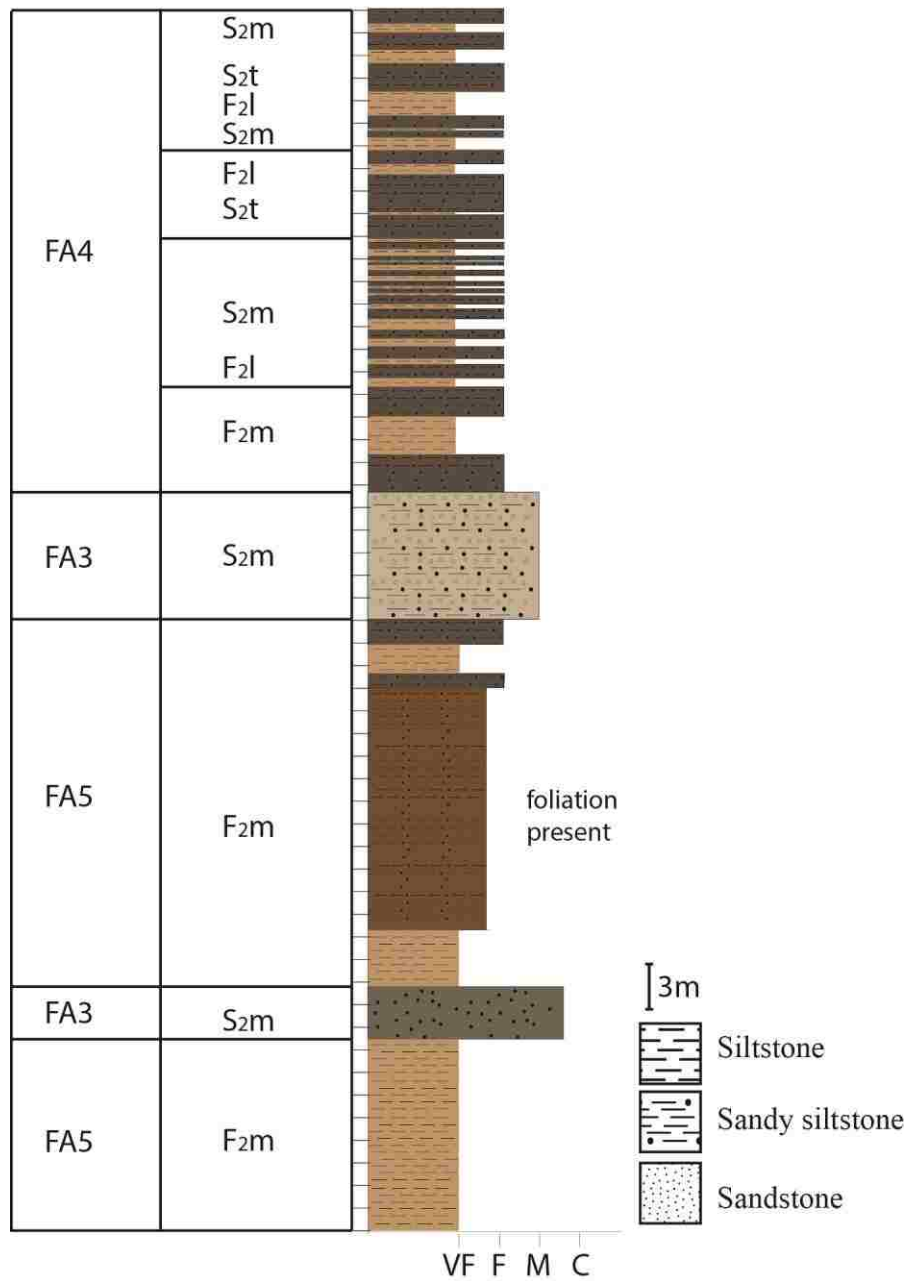
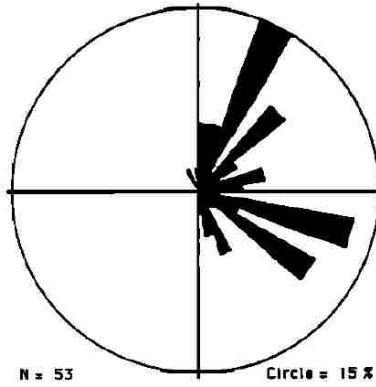


Figure 13. Representative measured section of the Bechler Formation at Salt River Pass locality



**Figure 14. Example of Bechler Formation major conglomerate lithofacies**



**Figure 15. Paleocurrent direction measurements of imbricated clasts of the Bechler Formation at Red Mountain**

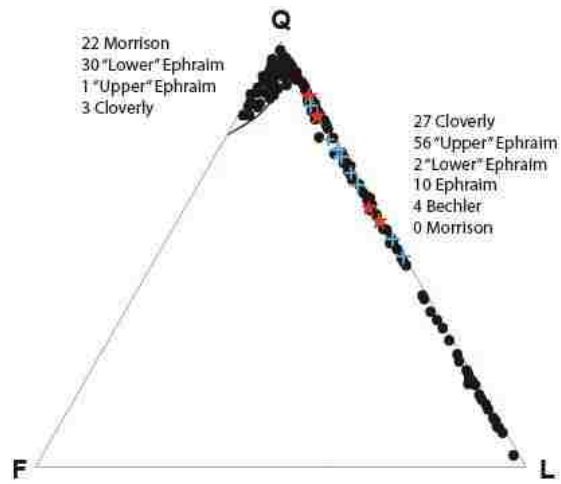


Figure 16. QFL plot of the Bechler Formation

# Bechler Paleocurrent Directions

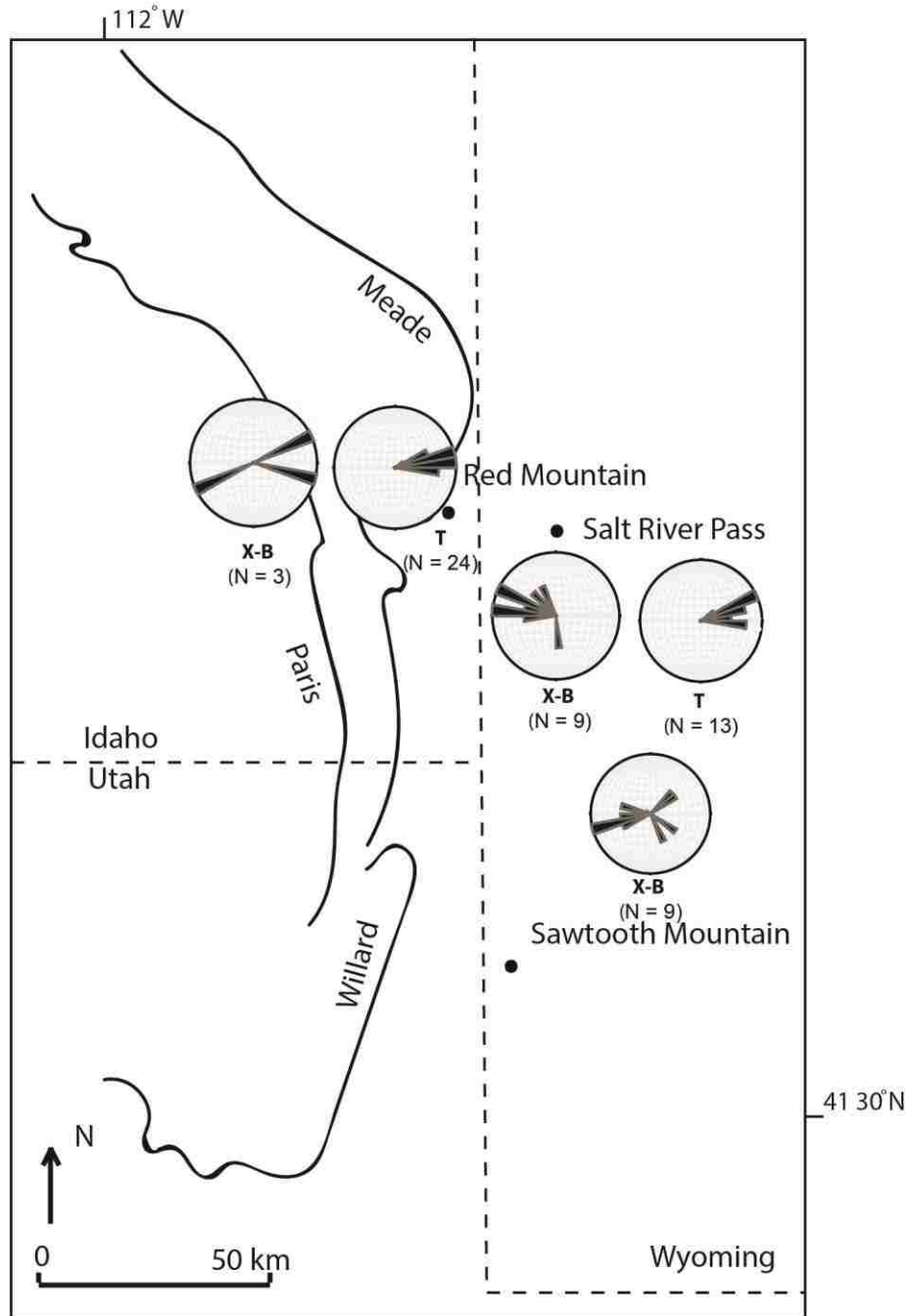


Figure 17. Paleocurrent directions measured within the Bechler Formation

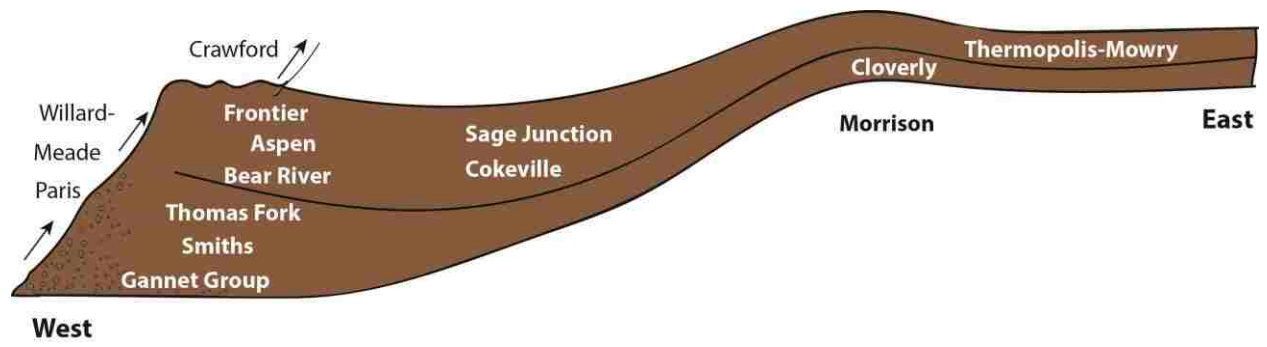
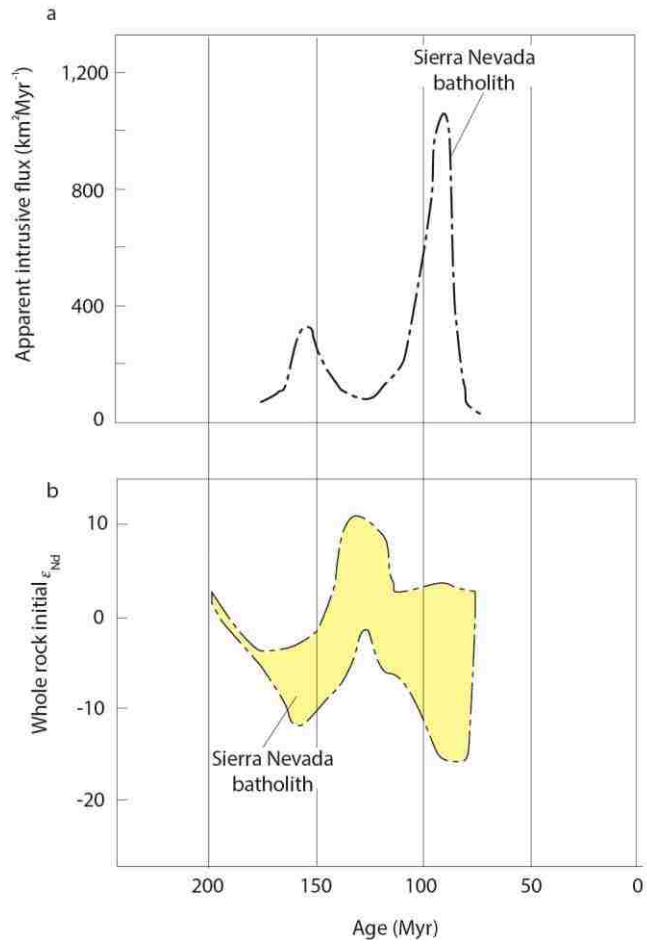


Figure 18. Stratigraphic relations between foreland basin units of the WPM thrust sheet



**Figure 19. Age of apparent intrusive influx and whole rock age of Sierra Nevada**

A)

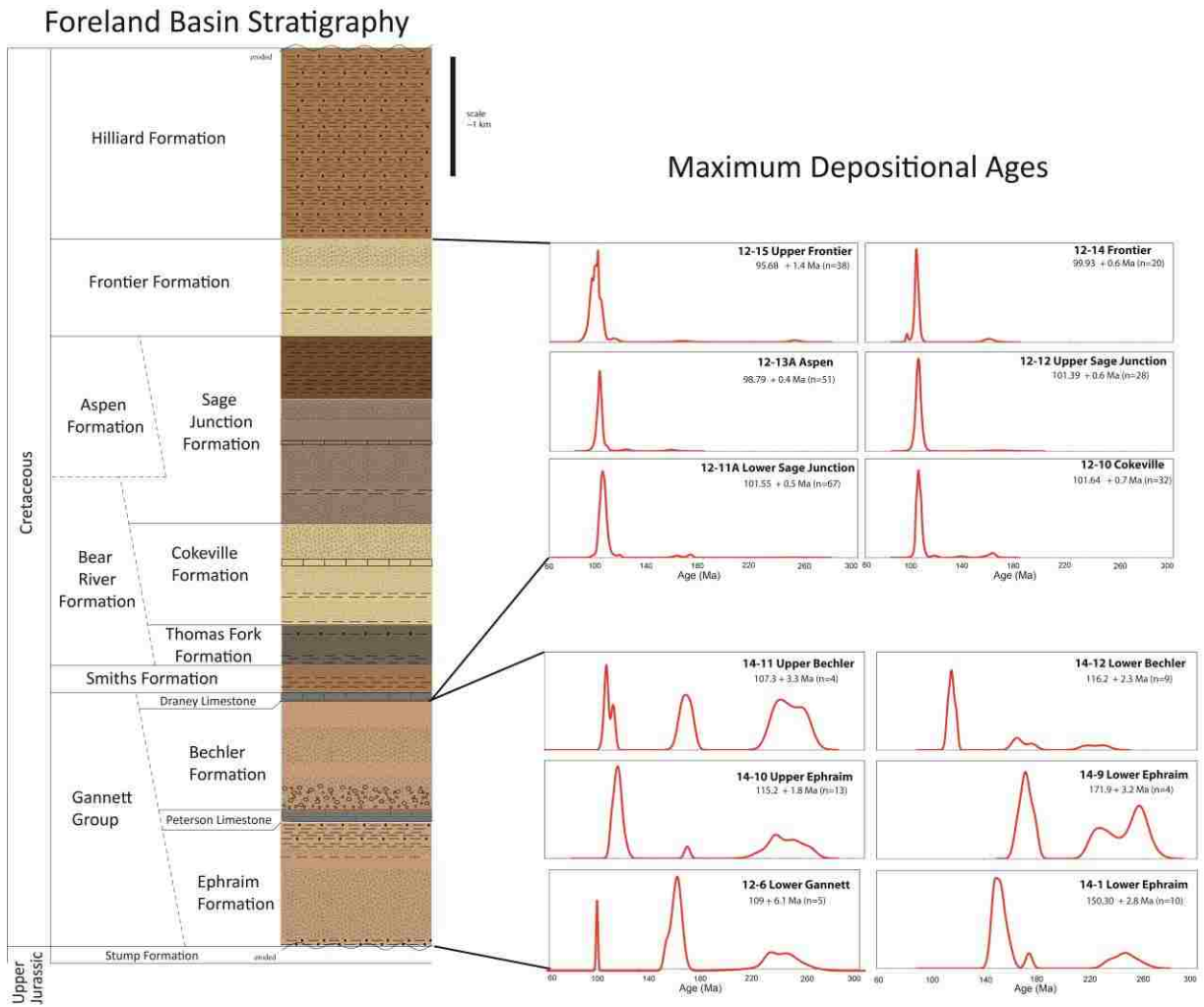


Figure 20. MDA's for stratigraphic units within the foreland basin



B)

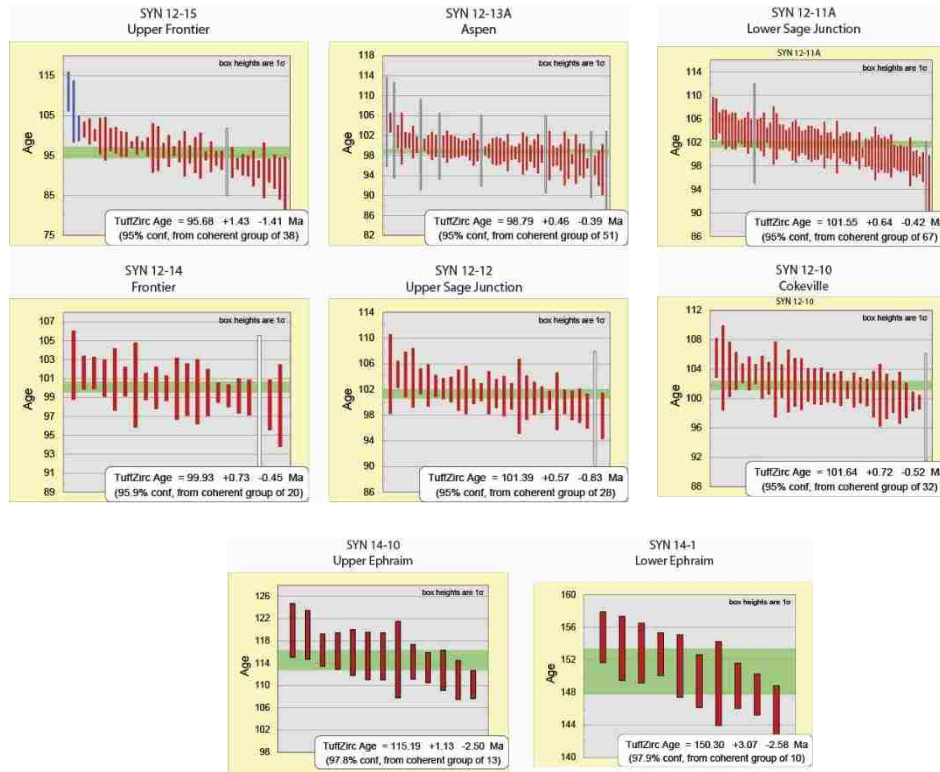


Figure 20. MDA's for stratigraphic units within the foreland basin

# Willard Thrust Sheet

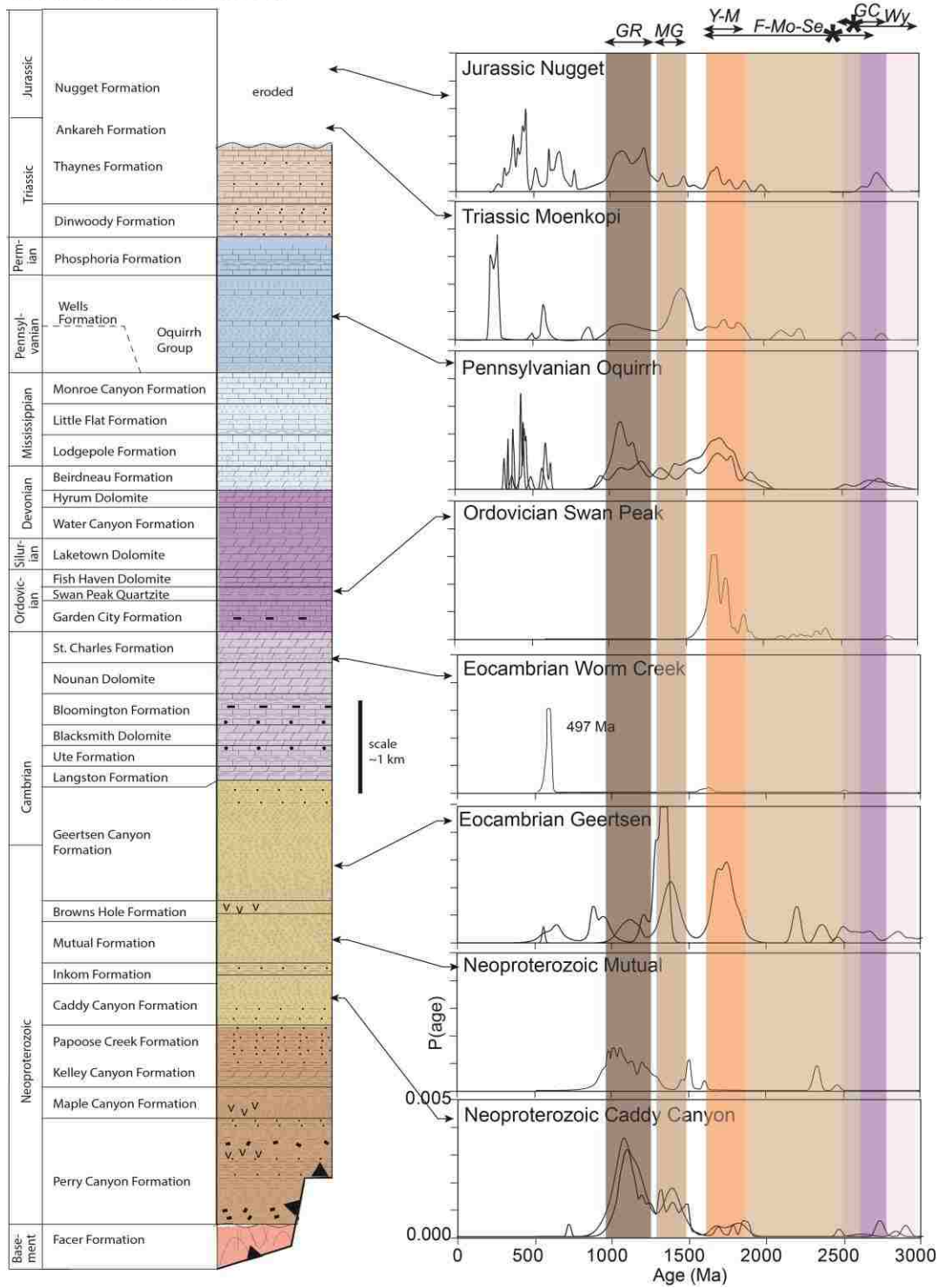


Figure 21. Stratigraphy of the Willard thrust sheet with unique DZ age patterns

# Foreland Basin Stratigraphy

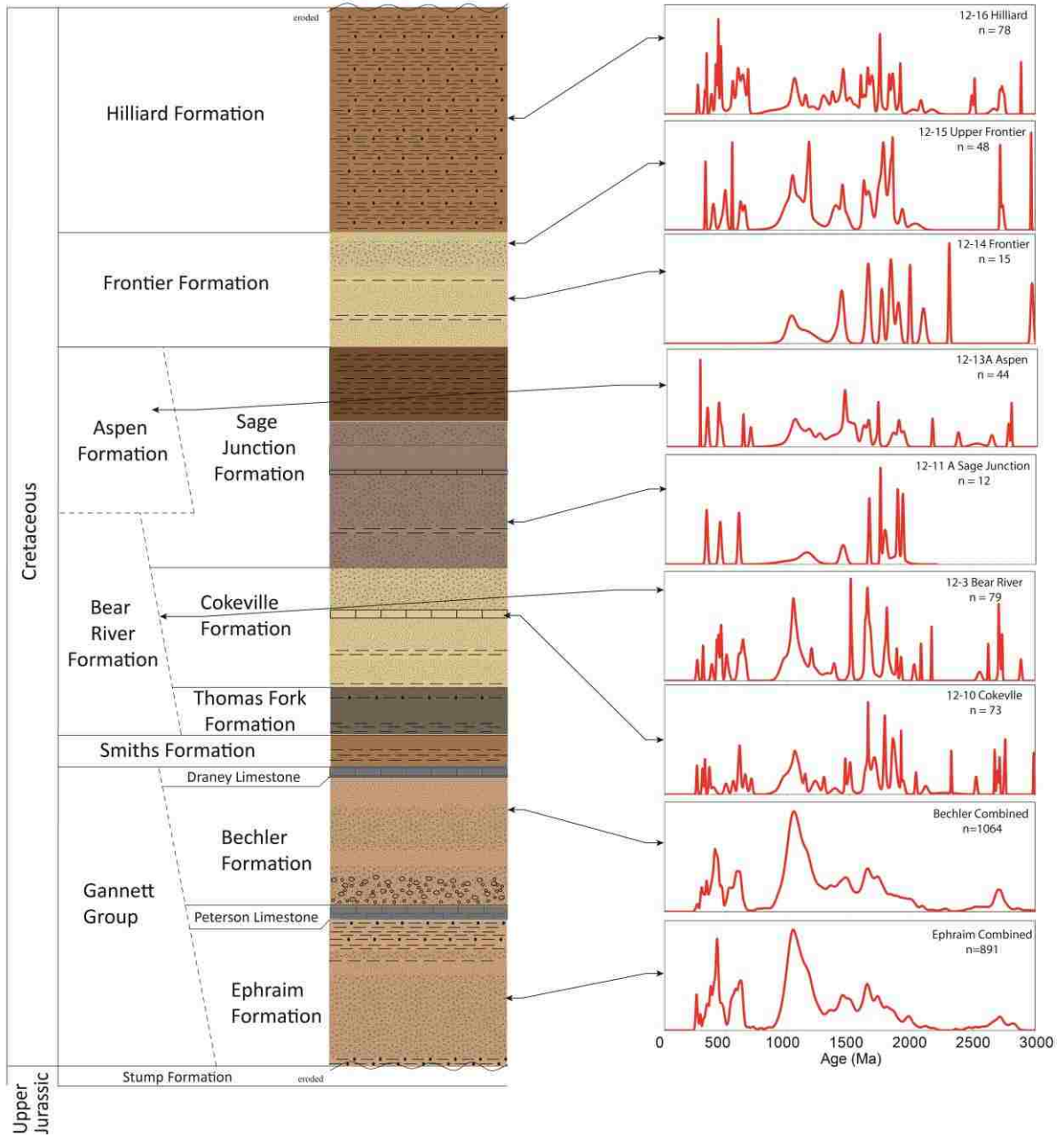
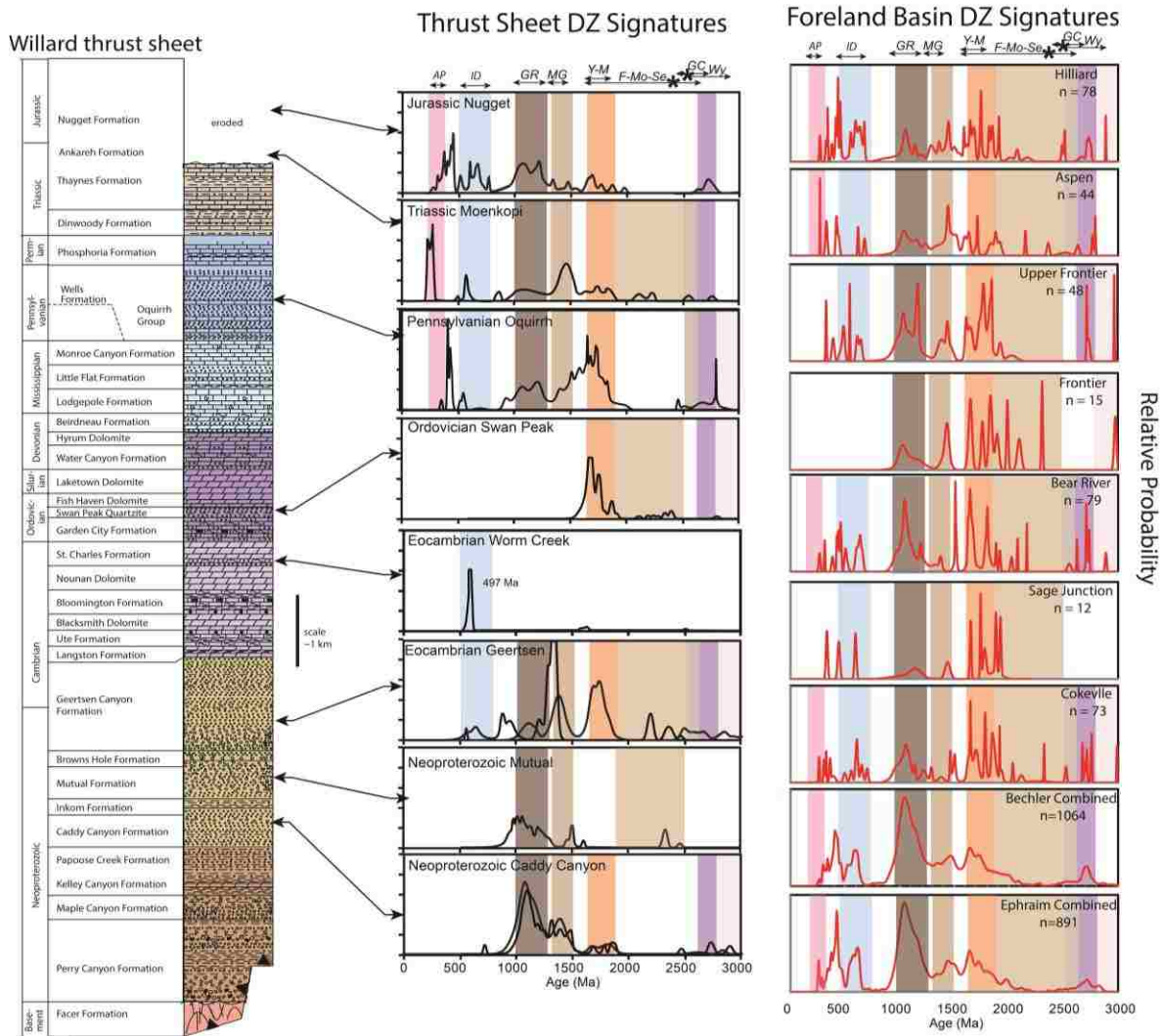


Figure 22. DZ age patterns found within specific foreland basin units



**Figure 23. DZ patterns from the WPM thrust sheet compared with DZ patterns from within the foreland basin strata**

Table 1. Lithofacies and Facies Associations of Ephraim and Bechler formations  
Lithofacies in the Ephraim Formation

Code	Lithofacies	Texture	Structures and features	Color	Interpretation
G <sub>1</sub> mm	Matrix-supported conglomerate	Matrix: poorly sorted medium to coarse sand. <i>Clasts</i> : pebble-sized, poorly sorted, subrounded to rounded, dominated by extraformational red chert, but also include light grey to grey carbonate, and minor amounts of tan sandstone, white and grey quartzite	Typically massive, 1-2 m scale bedding where present, clast orientation within proximal depositsto the thrust front, no grading to weak normal grading	Reddish brown, reddish tan	Debris flows
S <sub>1</sub> p	Planar cross-bedded sandstone	Fine- to medium-grained sand, moderately well sorted	Planar tabular crossbeds; Coset thickness: ranges from 0.1 to 0.4	Red to reddish tan	Lower flow regime 2D dunes within channels
S <sub>1</sub> t	Trough cross-bedded sandstone	Fine- to medium-grained sand, moderately well sorted	Trough crossbeds: Coset thickness 0.1 to 1.5 m		Lower flow regime 3D dunes within channels
S <sub>1</sub> m	Massive sandstone	Fine- to medium-grained sand, moderately well sorted	Massive	Reddish brown, reddish tan	Rapid sedimentation
F <sub>1</sub> l	Finely laminated siltstone and mudstone	Very fine grained silt and mud	Very fine laminations	Dark reddish brown, pale red purple, brown	Suspension load deposits

F <sub>1</sub> m	Massive fines	Very fine grained silt and mud nodules present in float	Massive: calcareous	Dark reddish brown, pale red purple, brown	High-energy, flood stage fluvial and overbank deposits
------------------	---------------	---------------------------------------------------------	---------------------	--------------------------------------------	--------------------------------------------------------

Lithofacies in the Bechler Formation

Code	Lithofacies	Texture	Structures and features	Color	Interpretation
G <sub>2</sub> mm	Matrix-supported conglomerate	Matrix: poorly sorted medium to coarse sand. <i>Clasts:</i> dominately extraformational clear quartzite, red and tan sandstone, minor amounts of carbonate, red and black chert	Typically massive, 1-2 m scale bedding where present, no grading to weak normal grading	Reddish brown, reddish light grey	Debris flows
S <sub>2</sub> p	Planar cross-bedded sandstone	Fine- to medium-grained sand, moderately well sorted	Planar tabular crossbeds; Coset thickness: ranges from 0.1 to 0.5 m	Light grey	Lower flow regime 2D dunes within channels
S <sub>2</sub> t	Trough cross-bedded sandstone	Fine- to medium-grained sand, moderately well sorted	Trough crossbeds: Coset thickness 0.1 to 1.5 m	Light grey; reddish tan, tan	Lower flow regime 3D dunes within channels
S <sub>2</sub> m	Massive sandstone	Fine- to medium-grained sand, moderately well sorted	Massive: possible crude stratification	Reddish tan, tan	Rapid sedimentation
F <sub>2</sub> l	Finely laminated siltstone and mudstone	Very fine grained silt and mud	Very fine laminations	Dark reddish brown, pale red purple, brown	Suspension load deposits

F <sub>2</sub> m	Massive fines	Very fine grained silt and mud nodules present in float	Massive: calcareous	Dark reddish brown, pale red purple, brown	High-energy, flood stage fluvial and overbank deposits
------------------	---------------	---------------------------------------------------------	---------------------	--------------------------------------------	--------------------------------------------------------

Facies associations identified in the Gannet Group

Formation Code	Facies association	Facies and Architectural Elements	Diagnostic Features	Interpretation	
Ephraim Formation	FA1	Major conglomerate	G <sub>1</sub> mm, S <sub>1</sub> p, S <sub>1</sub> t	Massive to crudely stratified	
	FA2	Minor conglomerate	G <sub>1</sub> mm, S <sub>1</sub> p	Massive to crudely stratified	
	FA3	Minor tabular to lenticular sandstone	S <sub>1</sub> p, S <sub>1</sub> t, S <sub>1</sub> m		
	FA4	Minor tabular to lenticular siltstone/mudstone	F <sub>1</sub> l, F <sub>1</sub> m	Pedogenic carbonate	
	FA5	Massive siltstone/mudstone	F <sub>1</sub> m		
Bechler Formation	FA1	Major conglomerate	G <sub>2</sub> mm, S <sub>2</sub> p, S <sub>2</sub> t	Massive to crudely stratified	
	FA2	Minor conglomerate	G <sub>2</sub> mm, S <sub>2</sub> p	Massive to crudely stratified	
	FA3	Minor tabular to lenticular sandstone	S <sub>2</sub> p, S <sub>2</sub> t, S <sub>2</sub> m		
	FA4	Minor tabular to lenticular siltstone/mudstone	F <sub>2</sub> l, F <sub>2</sub> m	Pedogenic carbonate	

FA5            Massive siltstone/mudstone   F<sub>2</sub>m



Table 2. K-S test

**K-S P-values using error in the CDF**

	K-S P-values using error in the CDF							
	Caddy Canyon	Mutual	Geertsen	Worm Creek	Swan Peak	Oquirrh	Moenkopi	Nugget
Ephraim	0.001	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.977</b>
Bechler	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.877</b>
Cokeville	0.000	0.002	0.000	0.000	0.000	<b>0.365</b>	0.000	0.006
Sage Junction	0.000	0.000	0.004	0.000	0.000	0.003	0.000	0.000
Bear Valley	0.000	<b>0.067</b>	0.000	0.000	0.000	0.042	0.000	<b>0.187</b>
Frontier	0.002	<b>0.198</b>	0.000	0.000	0.000	<b>0.480</b>	0.000	0.000
Upper Frontier	0.004	<b>0.076</b>	<b>0.159</b>	0.000	0.000	<b>0.185</b>	0.001	0.000
Aspen	0.002	<b>0.712</b>	0.000	0.000	0.000	<b>0.551</b>	0.000	0.000
Hilliard	0.000	0.022	0.000	0.000	0.000	<b>0.139</b>	0.001	<b>0.353</b>

Appendix A: Sample Locations

<b>Sample</b>	<b>Unit/Formation</b>	<b>Latitude (N)</b>	<b>Longitude (W)</b>	<b>Elevation (m)</b>
SYN 12-1	Ephraim	41°35'58.11"	110°41'00.00"	2071
SYN 12-2	Bechler	41°35'56.94"	110°40'49.43"	2077
SYN 12-3	Bear River	41°35'49.11"	110°40'53.87"	2072
SYN 12-5	Pruess	41°36'01.10"	110°57'40.15"	2307
SYN 12-6	Ephraim	41°36'00.85"	110°57'43.78"	2329
SYN 12-8	Bechler	41°36'00.50"	110°58'12.87"	2228
SYN 12-10	Cokeville	41°54'38.92"	110°56'30.37"	1915
SYN 12-11	Lower Sage Junction	41°54'32.52"	110°56'39.21"	1918
SYN 12-12	Upper Sage Junction	41°54'32.52"	110°56'39.21"	1918
SYN 12-13	Aspen	41°34'57.05"	110°30'54.25"	2051
SYN 12-14	Frontier	41°35'19.08"	110°33'39.99"	2025
SYN 12-15	Upper Frontier	41°53'18.82"	110°34'10.69"	2004
SYN 12-16	Hilliard	41°34'43.45"	110°35'30.58"	2018
SYN 12-17	Ephraim	41°45'45.53"	110°27'29.09"	2123
SYN 12-18	Nugget			0
SYN 12-19	Ankareh			0
SYN 14-1	Ephraim	42°28'54.66"	110°53'47.56"	2405
SYN 14-3	Ephraim	42°28'55.04"	110°54'02.33"	2290
SYN 14-4	Bechler	42°28'52.71"	110°54'11.73"	2222
SYN 14-5	Bechler	42°29'00.95"	110°54'21.68"	2206
SYN 14-9	Ephraim	42°36'41.23"	111°00'38.77"	2227
SYN 14-10	Ephraim	42°29'42.11"	111°08'45.66"	2302
SYN 14-11	Bechler	42°28'45.88"	111°07'55.88"	2555
SYN 14-12	Bechler	42°28'52.80"	111°08'58.25"	2621
SYN 14-13	Bechler	42°28'57.21"	111°08'09.73"	2972
SYN 14-14	Ephraim	41°35'55.23"	110°57'24.54"	2234



SYN12-1-103	611.3	10.9	619.0	18.8	647.4	77.5	611.3	10.9	94.4
SYN12-1-46	640.8	12.8	638.8	27.3	631.8	115.6	640.8	12.8	101.4
SYN12-1-81	650.0	13.9	651.5	29.4	656.7	122.2	650.0	13.9	99.0
SYN12-1-22	1027.8	12.6	1019.1	17.9	1000.5	49.8	1000.5	49.8	102.7
SYN12-1-24	997.1	10.1	1002.5	8.0	1014.5	12.2	1014.5	12.2	98.3
SYN12-1-96	1024.4	14.4	1022.3	10.1	1017.9	7.4	1017.9	7.4	100.6
SYN12-1-82	1020.7	18.6	1020.4	16.2	1019.8	31.7	1019.8	31.7	100.1
SYN12-1-54	1040.8	12.3	1035.3	9.3	1023.8	13.2	1023.8	13.2	101.7
SYN12-1-41	1035.9	15.7	1032.4	17.3	1025.2	42.5	1025.2	42.5	101.0
SYN12-1-77	1048.7	15.7	1042.7	13.8	1030.1	27.7	1030.1	27.7	101.8
SYN12-1-06	1045.8	32.8	1045.0	25.5	1043.2	38.8	1043.2	38.8	100.2
SYN12-1-31	1074.2	15.2	1064.6	16.3	1045.0	39.2	1045.0	39.2	102.8
SYN12-1-11	1058.5	30.6	1056.4	23.5	1052.1	34.9	1052.1	34.9	100.6
SYN12-1-27	1069.6	11.0	1070.2	10.4	1071.3	22.3	1071.3	22.3	99.8
SYN12-1-100	1089.0	16.1	1084.7	11.5	1075.9	12.7	1075.9	12.7	101.2
SYN12-1-35	1025.0	17.5	1052.8	14.7	1111.0	25.1	1111.0	25.1	92.3
SYN12-1-93	1116.7	17.9	1115.0	15.9	1111.6	31.5	1111.6	31.5	100.5
SYN12-1-25	1115.7	13.0	1118.3	28.9	1123.5	81.0	1123.5	81.0	99.3
SYN12-1-75	1129.4	21.0	1128.0	15.7	1125.4	22.1	1125.4	22.1	100.4
SYN12-1-14	1152.9	12.9	1146.5	9.1	1134.5	10.6	1134.5	10.6	101.6
SYN12-1-99	1142.0	16.9	1146.2	15.5	1154.1	31.0	1154.1	31.0	99.0
SYN12-1-13	1142.8	15.7	1147.6	10.8	1156.5	9.2	1156.5	9.2	98.8
SYN12-1-55	1180.2	17.4	1172.0	19.7	1156.9	46.2	1156.9	46.2	102.0
SYN12-1-69	1176.4	16.4	1175.4	11.8	1173.6	14.5	1173.6	14.5	100.2
SYN12-1-58	1135.8	22.2	1162.1	15.5	1211.4	13.2	1211.4	13.2	93.8
SYN12-1-73	1221.4	23.3	1226.1	19.9	1234.5	36.4	1234.5	36.4	98.9
SYN12-1-36	1259.7	19.0	1251.7	12.1	1237.8	5.4	1237.8	5.4	101.8
SYN12-1-71	1045.4	33.5	1117.5	25.0	1260.7	24.4	1260.7	24.4	82.9
SYN12-1-83	1335.2	17.1	1320.7	21.0	1297.3	48.0	1297.3	48.0	102.9
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SYN12-1-67	1345.4	19.6	1348.7	16.2	1354.0	28.0	1354.0	28.0	99.4
SYN12-1-78	1352.3	22.2	1359.8	19.9	1371.6	37.1	1371.6	37.1	98.6
SYN12-1-85	1309.0	17.9	1339.9	15.5	1389.5	27.7	1389.5	27.7	94.2
SYN12-1-03	1500.7	31.7	1472.9	21.0	1433.0	24.6	1433.0	24.6	104.7
SYN12-1-56	1450.5	16.5	1446.0	10.7	1439.3	10.5	1439.3	10.5	100.8
SYN12-1-95	1463.7	12.5	1454.7	12.3	1441.4	24.3	1441.4	24.3	101.5
SYN12-1-97	1478.6	20.1	1474.0	13.3	1467.5	14.8	1467.5	14.8	100.8
SYN12-1-94	1502.5	18.5	1498.4	10.9	1492.5	2.6	1492.5	2.6	100.7
SYN12-1-45	1602.3	22.5	1597.0	13.5	1590.1	10.3	1590.1	10.3	100.8

SYN12-1-53	1643.4	35.2	1635.9	21.4	1626.4	19.2	1626.4	19.2	101.0
SYN12-1-37	1669.5	21.5	1651.7	12.3	1629.2	6.5	1629.2	6.5	102.5
SYN12-1-105	1377.3	29.9	1480.3	18.9	1631.1	4.6	1631.1	4.6	84.4
SYN12-1-48	1674.4	19.8	1663.7	12.6	1650.1	14.3	1650.1	14.3	101.5
SYN12-1-64	1672.1	26.6	1665.8	16.4	1657.8	16.1	1657.8	16.1	100.9
SYN12-1-10	1684.5	16.8	1673.0	9.4	1658.6	3.1	1658.6	3.1	101.6
SYN12-1-19	1648.7	24.0	1656.3	19.3	1666.0	31.2	1666.0	31.2	99.0
SYN12-1-60	1742.3	19.6	1742.4	13.2	1742.6	16.9	1742.6	16.9	100.0
SYN12-1-88	1762.5	14.5	1754.8	9.8	1745.6	13.0	1745.6	13.0	101.0
SYN12-1-07	1776.8	14.8	1768.0	8.1	1757.7	3.4	1757.7	3.4	101.1
SYN12-1-12	1781.2	21.3	1771.5	14.0	1760.1	17.4	1760.1	17.4	101.2
SYN12-1-04	1812.1	32.7	1802.2	22.9	1790.7	31.9	1790.7	31.9	101.2
SYN12-1-98	1843.4	19.1	1824.3	10.7	1802.6	7.7	1802.6	7.7	102.3
SYN12-1-47	1886.3	26.9	1891.8	14.2	1897.9	3.5	1897.9	3.5	99.4
SYN12-1-02	1975.4	21.7	1952.2	12.6	1927.6	12.6	1927.6	12.6	102.5
SYN12-1-09	1757.8	23.5	1851.8	13.6	1959.0	8.6	1959.0	8.6	89.7
SYN12-1-33	1979.1	26.5	1972.6	13.7	1965.8	4.3	1965.8	4.3	100.7
SYN12-1-38	1976.0	18.1	1983.0	10.7	1990.4	11.1	1990.4	11.1	99.3
SYN12-1-68	2419.6	66.5	2401.6	39.4	2386.4	46.6	2386.4	46.6	101.4
SYN12-1-28	2587.1	34.3	2590.4	15.3	2593.0	4.5	2593.0	4.5	99.8
SYN12-1-15	2757.7	33.1	2720.9	14.1	2693.6	2.8	2693.6	2.8	102.4
SYN12-1-52	2811.1	42.1	2822.4	17.8	2830.5	5.3	2830.5	5.3	99.3
SYN12-1-34	2920.1	29.6	2871.8	12.4	2838.0	5.4	2838.0	5.4	102.9
SYN12-1-84	3060.6	173.0	3096.4	69.7	3119.7	18.4	3119.7	18.4	98.1

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-2-101	98.2	12.1	107.6	17.0	321.2	250.3	98.2	12.1	NA
SYN12-2-29	104.4	3.0	106.7	4.9	156.8	89.5	104.4	3.0	NA
SYN12-2-23	105.5	4.0	118.8	15.9	393.8	308.0	105.5	4.0	NA
SYN12-2-20	106.1	3.5	113.0	17.7	261.6	373.9	106.1	3.5	NA
SYN12-2-31	108.0	1.8	105.6	11.7	52.8	275.5	108.0	1.8	NA
SYN12-2-42	108.6	1.9	104.5	9.4	13.5	225.0	108.6	1.9	NA
SYN12-85	109.7	4.1	121.2	12.2	353.0	226.8	109.7	4.1	NA
SYN12-2-107	109.9	1.7	110.3	4.1	119.3	84.3	109.9	1.7	NA
SYN12-88	111.2	3.8	110.4	9.1	94.9	190.1	111.2	3.8	NA

SYN12-2-106	116.6	3.5	110.4	11.5	-21.3	256.9	116.6	3.5	NA
SYN12-2-108	120.5	3.0	101.1	30.4	-334.6	826.8	120.5	3.0	NA
SYN12-81	122.3	4.3	113.7	13.2	-62.5	287.4	122.3	4.3	NA
SYN12-2-109	122.7	1.4	120.9	10.0	84.5	205.7	122.7	1.4	NA
SYN12-2-110	144.2	1.5	142.6	4.8	116.3	81.6	144.2	1.5	NA
SYN12-2-47	149.6	3.6	147.8	12.3	119.1	203.1	149.6	3.6	NA
SYN12-95	150.9	7.9	151.8	30.7	166.9	497.8	150.9	7.9	NA
SYN12-70	154.1	2.7	172.2	15.3	427.5	211.6	154.1	2.7	NA
SYN12-61	155.4	7.4	157.7	11.2	191.7	137.5	155.4	7.4	NA
SYN12-2-8	161.0	4.6	152.6	12.2	23.9	195.8	161.0	4.6	NA
SYN12-58	161.3	3.0	160.4	6.8	147.2	97.5	161.3	3.0	NA
SYN12-93	162.0	2.8	166.4	5.1	228.8	66.1	162.0	2.8	NA
SYN12-96	167.5	1.8	166.3	4.9	150.0	69.9	167.5	1.8	NA
SYN12-2-9	168.0	4.5	172.4	13.0	233.2	179.3	168.0	4.5	NA
SYN12-67	170.6	3.2	180.6	15.4	314.5	207.8	170.6	3.2	NA
SYN12-98	170.9	8.8	142.0	30.5	-317.8	581.0	170.9	8.8	NA
SYN12-2-19	172.3	3.3	175.6	6.2	220.9	76.7	172.3	3.3	NA
SYN12-2-103	172.4	6.1	189.1	53.7	402.8	707.7	172.4	6.1	NA
SYN12-2-102	173.6	2.4	168.3	7.7	93.9	113.4	173.6	2.4	NA
SYN12-73	173.8	3.9	174.6	8.5	185.5	111.1	173.8	3.9	NA
SYN12-2-49	178.0	1.8	176.4	3.7	153.8	48.5	178.0	1.8	NA
SYN12-2-44	180.5	2.2	179.9	6.1	171.4	81.6	180.5	2.2	NA
SYN12-82	181.8	3.2	182.9	12.1	197.7	162.8	181.8	3.2	NA
SYN12-2-18	192.4	6.8	196.6	8.2	248.3	65.4	192.4	6.8	NA
SYN12-2-16	240.9	9.2	259.0	22.3	426.5	199.8	240.9	9.2	NA
SYN12-2-104	303.0	6.1	328.0	43.1	510.2	336.2	303.0	6.1	NA
SYN12-2-37	307.7	5.2	304.4	10.3	279.7	80.9	307.7	5.2	NA
SYN12-64	364.7	4.8	360.3	15.5	332.0	111.5	364.7	4.8	NA
SYN12-2-43	367.6	7.7	373.9	13.5	413.0	84.0	367.6	7.7	NA
SYN12-63	395.5	4.4	394.7	6.0	390.4	32.0	395.5	4.4	NA
SYN12-2-34	413.4	4.7	409.4	6.1	386.6	30.6	413.4	4.7	106.9
SYN12-2-1	417.4	8.0	418.3	9.1	423.0	39.5	417.4	8.0	98.7
SYN12-75	420.3	3.5	413.6	17.5	376.1	114.0	420.3	3.5	111.8
SYN12-89	421.7	11.0	403.2	39.6	298.2	264.9	421.7	11.0	141.4
SYN12-2-13	433.5	11.8	431.2	14.1	419.0	64.1	433.5	11.8	103.5
SYN12-2-51	434.4	8.1	438.1	19.0	458.0	110.4	434.4	8.1	94.8
SYN12-99	435.8	7.8	438.1	9.1	450.3	39.2	435.8	7.8	96.8
SYN12-65	438.5	8.0	435.0	21.0	416.3	125.8	438.5	8.0	105.3
SYN12-68	440.7	16.8	444.9	20.1	466.2	87.0	440.7	16.8	94.5

SYN12-2-3	446.1	11.1	444.4	14.3	435.7	67.3	446.1	11.1	102.4
SYN12-2-4	469.3	8.2	473.8	11.8	495.6	56.0	469.3	8.2	94.7
SYN12-2-46	499.2	6.4	561.2	10.5	821.1	42.5	499.2	6.4	60.8
SYN12-87	558.4	7.9	561.8	10.9	575.3	44.4	558.4	7.9	97.1
SYN12-2-24	559.6	11.7	553.6	17.2	529.3	74.2	559.6	11.7	105.7
SYN12-2-55	572.1	12.6	575.8	20.3	590.6	86.8	572.1	12.6	96.9
SYN12-2-38	603.7	11.3	600.7	28.5	589.4	129.7	603.7	11.3	102.4
SYN12-2-22	609.9	6.6	609.3	7.4	607.3	24.5	609.9	6.6	100.4
SYN12-2-105	615.0	7.0	613.3	8.2	606.6	28.5	615.0	7.0	101.4
SYN12-2-12	622.5	8.1	619.9	11.1	610.4	42.3	622.5	8.1	102.0
SYN12-2-32	632.7	13.9	642.4	37.4	676.8	160.4	632.7	13.9	93.5
SYN12-2-40	1018.8	9.5	1019.3	11.8	1020.4	31.0	1020.4	31.0	99.8
SYN12-78	1030.2	20.0	1027.7	14.9	1022.3	18.9	1022.3	18.9	100.8
SYN12-2-27	1007.2	24.9	1013.2	48.3	1026.2	142.4	1026.2	142.4	98.1
SYN12-2-14	1041.9	16.9	1041.6	15.3	1040.8	31.3	1040.8	31.3	100.1
SYN12-2-33	1017.4	8.7	1026.3	17.9	1045.3	52.8	1045.3	52.8	97.3
SYN12-2-54	1096.6	23.9	1081.2	21.8	1050.4	45.7	1050.4	45.7	104.4
SYN12-62	1069.1	15.3	1064.4	14.1	1054.9	29.8	1054.9	29.8	101.3
SYN12-2-50	1080.5	26.7	1072.6	18.7	1056.7	18.1	1056.7	18.1	102.3
SYN12-2-45	1068.1	9.7	1066.3	8.1	1062.5	14.6	1062.5	14.6	100.5
SYN12-90	1090.1	15.5	1084.8	14.1	1074.1	29.1	1074.1	29.1	101.5
SYN12-2-21	1065.2	20.2	1069.9	14.9	1079.5	18.5	1079.5	18.5	98.7
SYN12-97	1063.1	10.2	1069.3	8.2	1082.1	13.2	1082.1	13.2	98.2
SYN12-92	1101.8	9.7	1097.5	7.6	1089.0	12.3	1089.0	12.3	101.2
SYN12-83	1145.8	23.4	1132.2	19.3	1106.2	34.7	1106.2	34.7	103.6
SYN12-2-7	1099.9	23.2	1104.8	25.3	1114.6	59.5	1114.6	59.5	98.7
SYN12-60	1146.7	27.3	1136.1	23.6	1116.1	45.0	1116.1	45.0	102.7
SYN12-71	1101.3	19.3	1107.9	12.9	1120.8	4.2	1120.8	4.2	98.3
SYN12-2-6	1119.4	30.4	1123.3	20.7	1130.7	14.0	1130.7	14.0	99.0
SYN12-57	1148.4	19.4	1142.9	13.3	1132.5	12.4	1132.5	12.4	101.4
SYN12-77	1140.8	19.1	1143.0	12.8	1147.3	7.5	1147.3	7.5	99.4
SYN12-2-48	1147.1	26.0	1153.9	18.7	1166.7	22.0	1166.7	22.0	98.3
SYN12-2-28	1189.6	19.0	1182.4	13.8	1169.2	18.3	1169.2	18.3	101.8
SYN12-72	1184.6	42.9	1184.3	28.9	1183.7	23.8	1183.7	23.8	100.1
SYN12-2-2	1182.3	10.9	1182.9	9.9	1183.9	19.6	1183.9	19.6	99.9
SYN12-2-10	1088.2	37.0	1122.9	32.6	1190.7	60.2	1190.7	60.2	91.4
SYN12-100	1237.6	24.6	1229.6	16.1	1215.8	11.0	1215.8	11.0	101.8
SYN12-2-39	1215.7	42.0	1217.2	28.1	1219.8	22.1	1219.8	22.1	99.7
SYN12-56	1218.9	23.7	1233.5	26.1	1259.0	57.9	1259.0	57.9	96.8

SYN12-91	1294.7	29.9	1310.8	22.0	1337.1	30.3	1337.1	30.3	96.8
SYN12-84	1322.7	15.6	1328.7	18.1	1338.5	39.9	1338.5	39.9	98.8
SYN12-2-26	1346.9	29.8	1355.3	19.0	1368.5	12.6	1368.5	12.6	98.4
SYN12-86	1396.5	13.5	1393.8	11.4	1389.7	20.0	1389.7	20.0	100.5
SYN12-2-25	1351.4	14.1	1366.5	10.1	1390.2	13.4	1390.2	13.4	97.2
SYN12-2-36	1471.7	31.9	1459.5	19.6	1441.8	14.2	1441.8	14.2	102.1
SYN12-79	1451.1	14.6	1457.1	26.9	1465.8	62.6	1465.8	62.6	99.0
SYN12-66	1576.2	49.6	1576.2	28.8	1576.2	11.0	1576.2	11.0	100.0
SYN12-69	1559.6	14.1	1588.1	8.3	1626.1	4.1	1626.1	4.1	95.9
SYN12-2-53	1706.5	16.8	1706.4	10.7	1706.2	12.1	1706.2	12.1	100.0
SYN12-76	1719.8	24.4	1748.8	13.6	1783.6	3.1	1783.6	3.1	96.4
SYN12-2-52	1817.7	18.1	1812.6	10.0	1806.8	5.3	1806.8	5.3	100.6
SYN12-2-15	1861.6	23.0	1840.5	14.8	1816.7	18.3	1816.7	18.3	102.5
SYN12-2-11	1845.1	12.0	1836.5	7.0	1826.8	6.3	1826.8	6.3	101.0
SYN12-74	1780.6	49.7	1814.8	27.2	1854.3	6.0	1854.3	6.0	96.0
SYN12-2-17	1830.1	28.3	1881.6	15.3	1938.9	4.4	1938.9	4.4	94.4
SYN12-94	2104.7	23.5	2099.3	21.8	2094.1	36.6	2094.1	36.6	100.5
SYN12-2-41	2539.3	21.9	2535.1	11.9	2531.6	12.2	2531.6	12.2	100.3
SYN12-59	2754.1	41.5	2766.4	18.0	2775.4	7.3	2775.4	7.3	99.2
SYN12-2-35	2827.6	47.3	2843.9	19.7	2855.4	1.6	2855.4	1.6	99.0
SYN12-80	2930.7	222.6	2955.0	91.3	2971.5	12.5	2971.5	12.5	98.6

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-3-68	111.8	1.4	111.2	4.5	97.5	96.4	111.8	1.4	NA
SYN12-3-15	181.7	2.5	180.7	5.2	167.7	65.0	181.7	2.5	NA
SYN12-3-34	267.2	7.6	267.7	10.0	272.7	70.9	267.2	7.6	NA
SYN12-3-95	314.0	4.5	312.7	9.2	303.5	70.7	314.0	4.5	NA
SYN12-3-100	385.7	9.5	382.9	10.5	366.0	47.4	385.7	9.5	NA
SYN12-3-37	425.0	4.1	430.3	5.0	458.5	22.2	425.0	4.1	92.7
SYN12-3-39	438.5	4.5	435.5	13.9	419.6	84.2	438.5	4.5	104.5
SYN12-3-35	446.2	11.7	442.1	48.4	420.9	296.3	446.2	11.7	106.0
SYN12-3-1	457.8	5.3	456.2	5.2	448.2	16.2	457.8	5.3	102.1
SYN12-3-52	464.0	5.6	471.2	12.3	506.7	66.0	464.0	5.6	91.6
SYN12-3-23	503.0	8.4	500.5	10.5	489.2	44.5	503.0	8.4	102.8
SYN12-3-28	516.9	13.6	492.8	28.9	382.2	154.9	516.9	13.6	135.2



SYN12-3-60	604.4	9.7	602.1	10.5	593.4	34.2	604.4	9.7	101.9
SYN12-3-38	607.3	17.7	606.9	14.2	605.3	11.9	607.3	17.7	100.3
SYN12-3-5	624.8	9.2	627.2	20.1	635.9	86.1	624.8	9.2	98.3
SYN12-3-44	637.9	7.5	634.9	7.0	624.1	17.3	637.9	7.5	102.2
SYN12-3-49	646.4	12.1	645.4	15.3	642.1	54.2	646.4	12.1	100.7
SYN12-3-36	659.6	10.6	656.9	12.5	647.4	42.4	659.6	10.6	101.9
SYN12-3-4	947.1	20.1	950.3	17.4	957.7	33.8	957.7	33.8	98.9
SYN12-3-7	935.2	26.1	944.0	21.0	964.4	33.3	964.4	33.3	97.0
SYN12-3-85	999.5	7.1	991.5	8.4	974.0	22.1	974.0	22.1	102.6
SYN12-3-19	1030.7	48.1	1016.2	36.1	985.0	50.2	985.0	50.2	104.6
SYN12-3-88	1035.9	12.2	1031.6	10.3	1022.6	19.1	1022.6	19.1	101.3
SYN12-3-40	1058.6	11.4	1047.8	11.0	1025.2	24.7	1025.2	24.7	103.3
SYN12-3-41	1031.9	11.6	1032.8	10.4	1034.5	21.3	1034.5	21.3	99.7
SYN12-3-74	1070.9	9.2	1061.9	7.6	1043.5	14.0	1043.5	14.0	102.6
SYN12-3-45	1093.4	14.8	1076.9	18.6	1043.8	48.1	1043.8	48.1	104.7
SYN12-3-12	1071.6	10.5	1062.8	7.6	1044.9	9.2	1044.9	9.2	102.6
SYN12-3-31	1087.2	19.1	1076.8	14.3	1055.6	20.2	1055.6	20.2	103.0
SYN12-3-21	1074.3	23.5	1069.7	16.4	1060.4	14.6	1060.4	14.6	101.3
61	1081.4	14.9	1075.8	13.7	1064.4	28.8	1064.4	28.8	101.6
SYN12-3-62	1089.5	9.9	1081.5	10.2	1065.3	23.6	1065.3	23.6	102.3
SYN12-3-94	1075.9	14.7	1077.1	28.7	1079.6	81.5	1079.6	81.5	99.7
SYN12-3-89	1092.2	12.0	1089.9	13.0	1085.4	30.9	1085.4	30.9	100.6
SYN12-3-58	1137.3	13.1	1122.6	21.3	1094.3	57.4	1094.3	57.4	103.9
SYN12-3-26	1112.9	16.8	1107.2	21.5	1096.1	54.7	1096.1	54.7	101.5
SYN12-3-25	1070.1	21.2	1079.2	18.2	1097.7	34.1	1097.7	34.1	97.5
SYN12-3-87	1093.9	25.2	1100.4	19.8	1113.2	31.1	1113.2	31.1	98.3
SYN12-3-54	1086.0	79.1	1105.3	61.4	1143.6	89.7	1143.6	89.7	95.0
SYN12-3-51	1236.1	19.7	1219.0	28.3	1188.8	70.6	1188.8	70.6	104.0
SYN12-3-16	1194.9	17.7	1192.8	16.7	1189.2	34.2	1189.2	34.2	100.5
SYN12-3-55	1248.7	19.0	1228.3	12.3	1192.5	8.6	1192.5	8.6	104.7
SYN12-3-97	1215.4	21.7	1217.4	17.3	1220.8	28.7	1220.8	28.7	99.6
SYN12-3-10	1269.4	16.5	1290.3	23.0	1325.2	54.2	1325.2	54.2	95.8
SYN12-3-22	1328.7	21.0	1329.0	19.4	1329.5	37.5	1329.5	37.5	99.9
SYN12-3-2	1396.7	13.6	1388.7	9.4	1376.5	11.7	1376.5	11.7	101.5
SYN12-3-18	1529.7	19.2	1519.4	13.5	1505.0	18.4	1505.0	18.4	101.6
SYN12-3-3	1561.9	15.0	1539.9	8.7	1509.9	2.7	1509.9	2.7	103.4
SYN12-3-73	1508.7	11.2	1509.9	7.1	1511.7	6.6	1511.7	6.6	99.8
SYN12-3-64	1592.4	23.8	1560.5	13.8	1517.7	7.1	1517.7	7.1	104.9
SYN12-3-48	1670.0	17.7	1651.0	10.1	1626.9	5.2	1626.9	5.2	102.7

SYN12-3-96	1661.1	13.5	1647.7	16.9	1630.5	34.4	1630.5	34.4	101.9
SYN12-3-30	1669.7	25.4	1656.0	15.9	1638.6	16.9	1638.6	16.9	101.9
SYN12-3-24	1654.7	18.5	1648.5	11.5	1640.6	11.4	1640.6	11.4	100.9
SYN12-3-77	1688.8	34.3	1668.6	19.3	1643.2	8.7	1643.2	8.7	102.8
SYN12-3-42	1686.7	40.6	1668.2	22.6	1645.1	6.2	1645.1	6.2	102.5
81	1677.9	18.0	1663.9	12.8	1646.2	18.4	1646.2	18.4	101.9
SYN12-3-67	1641.9	36.0	1648.5	21.0	1657.0	12.9	1657.0	12.9	99.1
SYN12-3-82	1715.1	46.1	1692.7	25.6	1665.0	10.4	1665.0	10.4	103.0
SYN12-3-53	1707.5	58.5	1689.3	33.4	1666.6	20.3	1666.6	20.3	102.5
SYN12-3-91	1692.3	18.9	1685.1	11.4	1676.2	10.4	1676.2	10.4	101.0
SYN12-3-56	1676.2	30.5	1693.0	21.5	1713.9	29.3	1713.9	29.3	97.8
SYN12-3-83	1816.8	28.4	1801.3	17.5	1783.4	19.0	1783.4	19.0	101.9
SYN12-3-27	1714.5	31.6	1746.5	18.1	1785.1	9.7	1785.1	9.7	96.0
SYN12-3-33	1811.0	73.1	1804.7	39.4	1797.4	11.1	1797.4	11.1	100.8
SYN12-3-8	1796.5	22.6	1799.4	12.3	1802.8	5.0	1802.8	5.0	99.7
SYN12-3-14	1837.7	11.7	1823.3	7.2	1806.8	8.0	1806.8	8.0	101.7
SYN12-3-76	1866.8	23.5	1846.4	13.7	1823.5	12.7	1823.5	12.7	102.4
SYN12-3-11	1844.9	59.4	1850.5	33.7	1856.8	25.2	1856.8	25.2	99.4
SYN12-3-69	1910.1	10.3	1897.2	5.9	1883.1	5.5	1883.1	5.5	101.4
SYN12-3-66	1943.6	30.1	1931.0	15.8	1917.6	6.7	1917.6	6.7	101.4
SYN12-3-70	2071.4	27.6	2048.0	14.5	2024.5	9.6	2024.5	9.6	102.3
SYN12-3-90	2099.1	39.9	2089.3	19.8	2079.7	4.2	2079.7	4.2	100.9
SYN12-3-75	1961.4	23.8	2062.2	12.5	2164.6	2.9	2164.6	2.9	90.6
SYN12-3-13	2597.8	54.3	2573.1	25.7	2553.7	17.6	2553.7	17.6	101.7
SYN12-3-43	2694.3	48.2	2654.4	20.7	2624.1	4.3	2624.1	4.3	102.7
SYN12-3-29	2757.0	27.2	2728.8	11.6	2708.1	2.8	2708.1	2.8	101.8
SYN12-3-63	2807.9	34.3	2753.7	15.8	2714.3	11.6	2714.3	11.6	103.4
SYN12-3-6	2547.0	55.5	2642.3	24.9	2716.1	4.9	2716.1	4.9	93.8
SYN12-3-17	2745.2	24.6	2740.2	10.6	2736.5	3.6	2736.5	3.6	100.3
SYN12-3-57	2945.8	74.7	2911.8	30.6	2888.4	7.4	2888.4	7.4	102.0

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-5-16	165.2	3.7	161.9	14.4	113.6	221.8	165.2	3.7	NA
SYN12-5-25	168.0	4.1	161.1	12.2	60.9	186.8	168.0	4.1	NA
SYN12-5-76	168.7	3.3	177.9	14.4	302.4	196.4	168.7	3.3	NA

SYN12-5-58	168.8	2.8	164.3	21.0	100.5	325.7	168.8	2.8	NA
SYN12-5-46	169.3	5.7	165.7	15.9	114.0	232.5	169.3	5.7	NA
SYN12-5-101	169.3	2.3	168.6	20.8	158.6	312.9	169.3	2.3	NA
SYN12-5-23	170.8	5.7	171.8	11.9	186.2	156.2	170.8	5.7	NA
SYN12-5-9	171.0	13.6	168.2	17.2	128.9	180.1	171.0	13.6	NA
SYN12-5-99	171.1	11.0	144.3	63.9	-276.3	1256.3	171.1	11.0	NA
SYN12-5-66	176.2	16.4	181.4	71.5	249.9	1005.9	176.2	16.4	NA
SYN12-5-26	218.0	7.4	228.6	25.3	339.1	269.3	218.0	7.4	NA
SYN12-5-80	224.4	9.6	248.6	45.1	483.7	445.5	224.4	9.6	NA
SYN12-5-75	237.8	7.6	257.6	16.8	442.8	147.6	237.8	7.6	NA
SYN12-5-20	239.9	4.4	239.1	18.1	230.8	191.6	239.9	4.4	NA
SYN12-5-32	240.8	4.8	242.1	30.2	255.3	320.1	240.8	4.8	NA
SYN12-5-11	241.1	4.8	228.3	39.9	97.5	462.8	241.1	4.8	NA
SYN12-5-62	242.8	3.8	239.6	18.4	208.6	196.5	242.8	3.8	NA
SYN12-5-36	243.5	15.2	258.7	19.5	399.2	128.1	243.5	15.2	NA
SYN12-5-8	307.0	4.3	304.4	11.9	284.6	98.1	307.0	4.3	NA
SYN12-5-12	324.2	13.3	322.4	72.3	309.5	595.7	324.2	13.3	NA
SYN12-5-85	385.6	5.9	384.2	11.3	376.1	71.4	385.6	5.9	NA
SYN12-5-105	388.6	4.0	385.9	13.4	369.6	90.8	388.6	4.0	NA
SYN12-5-1	402.1	30.4	291.4	92.8	-523.1	980.5	402.1	30.4	NA
SYN12-5-35	413.1	11.1	423.3	21.9	479.5	125.5	413.1	11.1	86.1
SYN12-5-104	421.2	2.7	428.0	6.1	464.8	35.7	421.2	2.7	90.6
SYN12-5-92	433.9	5.2	430.9	9.6	414.9	54.7	433.9	5.2	104.6
SYN12-5-49	458.3	9.2	458.4	30.3	458.8	176.4	458.3	9.2	99.9
SYN12-5-37	472.1	5.5	455.0	20.4	369.4	122.3	472.1	5.5	127.8
SYN12-5-90	525.0	8.5	524.3	27.2	521.6	140.8	525.0	8.5	100.7
SYN12-5-50	529.6	5.5	502.3	27.5	380.0	154.5	529.6	5.5	139.4
SYN12-5-14	539.8	7.2	544.4	20.1	563.9	99.2	539.8	7.2	95.7
SYN12-5-63	540.3	11.1	555.5	25.7	618.5	121.4	540.3	11.1	87.3
SYN12-5-55	543.5	4.2	542.9	8.2	540.1	38.7	543.5	4.2	100.6
SYN12-5-43	547.5	4.6	538.2	15.4	498.9	78.9	547.5	4.6	109.7
SYN12-5-81	571.6	9.1	568.2	16.5	554.5	74.5	571.6	9.1	103.1
SYN12-5-39	588.0	7.2	584.1	19.0	568.9	88.6	588.0	7.2	103.4
SYN12-5-95	588.3	10.7	604.9	33.1	667.7	150.3	588.3	10.7	88.1
SYN12-5-17	592.6	5.8	599.6	13.5	626.2	60.2	592.6	5.8	94.6
SYN12-5-34	596.7	15.9	560.3	67.4	415.0	345.7	596.7	15.9	143.8
SYN12-5-40	627.1	6.2	622.9	18.5	607.7	83.1	627.1	6.2	103.2
SYN12-5-74	631.3	9.1	638.9	15.7	665.8	63.1	631.3	9.1	94.8
SYN12-5-82	646.7	9.1	649.1	16.1	657.3	64.7	646.7	9.1	98.4

SYN12-5-79	756.3	18.3	750.9	44.1	735.0	167.5	756.3	18.3	102.9
SYN12-5-30	820.1	15.0	816.6	22.1	807.0	71.8	820.1	15.0	101.6
SYN12-5-4	1027.1	8.7	1012.3	20.8	980.4	63.5	980.4	63.5	104.8
SYN12-5-77	1020.6	12.4	1011.3	24.5	991.0	73.0	991.0	73.0	103.0
SYN12-5-22	1020.3	22.9	1011.3	31.7	991.9	87.9	991.9	87.9	102.9
SYN12-5-98	1042.2	29.3	1031.2	22.3	1007.9	32.3	1007.9	32.3	103.4
SYN12-5-45	1032.5	7.8	1027.7	11.4	1017.6	31.7	1017.6	31.7	101.5
SYN12-5-7	1024.9	9.5	1023.0	8.1	1019.0	15.5	1019.0	15.5	100.6
SYN12-5-52	1066.6	19.0	1052.3	45.7	1022.6	135.6	1022.6	135.6	104.3
SYN12-5-28	1030.7	16.6	1029.2	18.0	1026.0	44.1	1026.0	44.1	100.5
SYN12-5-3	1000.3	9.5	1008.4	19.2	1026.0	57.0	1026.0	57.0	97.5
SYN12-5-72	1021.1	10.3	1023.2	8.0	1027.6	12.0	1027.6	12.0	99.4
SYN12-5-91	1042.3	6.2	1038.4	12.2	1030.1	35.7	1030.1	35.7	101.2
SYN12-5-57	1017.2	15.0	1022.2	10.6	1033.1	8.4	1033.1	8.4	98.5
SYN12-5-70	1036.2	5.1	1035.3	8.9	1033.4	25.5	1033.4	25.5	100.3
SYN12-5-83	1032.1	8.0	1032.6	10.0	1033.7	26.2	1033.7	26.2	99.8
SYN12-5-27	1029.3	18.4	1031.0	23.5	1034.7	62.1	1034.7	62.1	99.5
SYN12-5-2	1045.3	30.3	1042.3	37.5	1035.9	97.4	1035.9	97.4	100.9
SYN12-5-94	1043.9	15.1	1042.0	20.3	1037.9	54.4	1037.9	54.4	100.6
SYN12-5-73	997.2	8.8	1010.9	16.7	1040.7	49.0	1040.7	49.0	95.8
SYN12-5-89	1032.6	11.8	1036.6	11.2	1045.2	24.3	1045.2	24.3	98.8
SYN12-5-67	997.9	12.0	1014.3	25.2	1049.9	74.8	1049.9	74.8	95.0
SYN12-5-47	1021.3	23.9	1031.4	57.5	1052.9	171.6	1052.9	171.6	97.0
SYN12-5-33	1050.1	6.3	1054.7	6.9	1064.2	16.8	1064.2	16.8	98.7
SYN12-5-13	1064.8	8.4	1067.3	12.0	1072.4	32.2	1072.4	32.2	99.3
SYN12-5-31	1025.0	19.5	1044.6	17.8	1085.8	35.7	1085.8	35.7	94.4
SYN12-5-78	1077.8	8.9	1083.1	27.3	1093.7	80.0	1093.7	80.0	98.6
SYN12-5-42	1047.3	28.1	1073.1	63.8	1125.9	183.2	1125.9	183.2	93.0
SYN12-5-41	1134.2	82.7	1134.1	55.2	1134.0	28.8	1134.0	28.8	100.0
SYN12-5-19	1200.6	17.7	1181.5	24.2	1146.7	60.9	1146.7	60.9	104.7
SYN12-5-64	1187.1	9.7	1173.4	16.3	1148.2	43.1	1148.2	43.1	103.4
SYN12-5-103	1112.1	29.2	1125.1	19.9	1150.1	12.3	1150.1	12.3	96.7
SYN12-5-86	1172.4	47.8	1171.3	74.6	1169.2	193.3	1169.2	193.3	100.3
SYN12-5-100	1255.9	12.2	1249.1	8.9	1237.4	12.5	1237.4	12.5	101.5
SYN12-5-44	1346.7	15.0	1335.3	10.6	1317.2	13.9	1317.2	13.9	102.2
SYN12-5-24	1348.1	14.7	1341.2	12.6	1330.1	22.8	1330.1	22.8	101.4
SYN12-5-51	1444.7	24.2	1433.8	16.4	1417.7	19.9	1417.7	19.9	101.9
SYN12-5-15	1450.9	12.3	1443.6	11.9	1432.8	23.4	1432.8	23.4	101.3
SYN12-5-54	1440.0	21.8	1439.5	14.0	1438.6	12.9	1438.6	12.9	100.1

SYN12-5-48	1461.9	7.9	1455.5	8.5	1446.2	17.5	1446.2	17.5	101.1
SYN12-5-102	1656.4	19.5	1655.6	12.2	1654.5	12.2	1654.5	12.2	100.1
SYN12-5-71	1657.5	17.2	1662.7	17.8	1669.2	33.8	1669.2	33.8	99.3
SYN12-5-97	1716.3	15.0	1717.6	11.2	1719.3	16.7	1719.3	16.7	99.8
SYN12-5-6	1701.5	13.6	1713.7	10.7	1728.5	16.8	1728.5	16.8	98.4
SYN12-5-69	1712.6	23.9	1725.4	13.8	1741.1	8.9	1741.1	8.9	98.4
SYN12-5-61	1739.9	33.0	1742.6	18.4	1745.9	8.0	1745.9	8.0	99.7
SYN12-5-5	1813.7	15.1	1801.4	13.6	1787.1	23.6	1787.1	23.6	101.5
SYN12-5-38	1842.5	11.2	1840.6	10.3	1838.4	18.0	1838.4	18.0	100.2
SYN12-5-60	1996.6	13.9	1992.0	12.7	1987.3	21.5	1987.3	21.5	100.5
SYN12-5-53	2087.7	46.5	2080.3	24.0	2072.9	13.4	2072.9	13.4	100.7
SYN12-5-29	2113.3	12.4	2104.3	8.7	2095.6	12.1	2095.6	12.1	100.8
SYN12-5-88	2523.1	18.4	2504.3	10.1	2489.1	10.7	2489.1	10.7	101.4
SYN12-5-59	2657.8	27.9	2669.1	13.4	2677.7	10.2	2677.7	10.2	99.3
SYN12-5-56	2939.9	51.1	3029.2	21.0	3089.0	3.3	3089.0	3.3	95.2

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-6-21	99.5	1.4	93.3	9.1	-63.8	246.9	99.5	1.4	NA
SYN12-6-101	151.4	2.6	157.5	4.4	250.2	56.1	151.4	2.6	NA
SYN12-6-103	155.4	2.7	156.8	6.5	178.5	95.5	155.4	2.7	NA
SYN12-6-68	157.9	3.5	156.8	4.1	140.2	40.5	157.9	3.5	NA
SYN12-6-60	159.2	3.3	162.2	18.1	205.5	277.3	159.2	3.3	NA
SYN12-6-69	159.2	3.0	157.5	4.4	131.6	55.5	159.2	3.0	NA
SYN12-6-40	160.7	3.6	161.3	7.7	169.1	107.8	160.7	3.6	NA
SYN12-6-88	162.1	3.5	160.2	7.1	131.6	100.3	162.1	3.5	NA
SYN12-6-83	162.2	4.3	164.2	4.6	193.8	34.7	162.2	4.3	NA
SYN12-6-100	228.6	3.8	224.5	11.9	181.7	131.7	228.6	3.8	NA
SYN12-6-23	228.8	17.8	286.1	75.9	785.0	629.2	228.8	17.8	NA
SYN12-6-29	238.3	10.7	224.6	50.5	83.3	592.1	238.3	10.7	NA
SYN12-6-37	240.8	5.0	238.2	14.9	212.8	154.8	240.8	5.0	NA
SYN12-6-05	249.0	8.2	243.5	12.5	190.8	108.4	249.0	8.2	NA
SYN12-6-66	281.1	8.2	290.5	18.5	366.9	151.1	281.1	8.2	NA
SYN12-6-81	287.1	6.7	283.9	10.8	257.8	83.9	287.1	6.7	NA
SYN12-6-65	312.4	8.9	307.5	14.8	271.2	109.3	312.4	8.9	NA
SYN12-6-50	422.0	9.8	414.2	16.6	370.8	96.0	422.0	9.8	113.8

SYN12-6-63	427.8	11.0	431.0	29.8	448.1	179.1	427.8	11.0	95.5
SYN12-6-11	436.0	9.4	442.0	28.9	473.2	171.9	436.0	9.4	92.1
SYN12-6-101	454.0	11.1	546.6	69.5	953.8	333.8	454.0	11.1	47.6
SYN12-6-75	472.1	13.4	465.5	13.9	433.0	51.5	472.1	13.4	109.0
SYN12-6-04	482.6	4.0	487.3	15.7	509.6	87.3	482.6	4.0	94.7
SYN12-6-30	490.0	10.3	484.5	15.7	458.6	76.4	490.0	10.3	106.8
SYN12-6-104	535.7	7.5	526.2	10.6	485.2	47.3	535.7	7.5	110.4
SYN12-6-91	538.5	19.1	537.4	32.1	533.1	147.8	538.5	19.1	101.0
SYN12-6-34	587.0	7.8	585.6	17.2	580.0	78.2	587.0	7.8	101.2
SYN12-6-31	600.3	10.2	603.2	11.6	614.0	39.5	600.3	10.2	97.8
SYN12-6-43	605.7	7.8	609.8	11.3	625.3	44.5	605.7	7.8	96.9
SYN12-6-06	607.3	13.8	611.7	22.2	627.9	90.6	607.3	13.8	96.7
SYN12-6-78	619.3	10.6	617.5	13.0	611.1	47.0	619.3	10.6	101.3
SYN12-6-73	629.0	13.1	623.9	15.3	605.4	52.8	629.0	13.1	103.9
SYN12-6-92	934.8	15.7	923.9	14.8	898.1	34.0	898.1	34.0	104.1
SYN12-6-94	953.1	18.2	947.3	40.2	934.0	127.0	934.0	127.0	102.1
SYN12-6-93	1019.8	28.1	1008.6	52.7	984.2	156.6	984.2	156.6	103.6
SYN12-6-13	997.3	11.2	1002.0	9.4	1012.3	16.9	1012.3	16.9	98.5
SYN12-6-14	988.5	25.6	997.6	18.2	1017.6	12.9	1017.6	12.9	97.1
SYN12-6-57	1027.9	19.9	1026.4	25.3	1023.1	66.9	1023.1	66.9	100.5
SYN12-6-56	1029.4	15.6	1030.4	21.8	1032.6	59.5	1032.6	59.5	99.7
SYN12-6-76	1069.0	19.2	1057.6	32.8	1034.0	92.7	1034.0	92.7	103.4
SYN12-6-44	1018.2	18.3	1024.0	15.2	1036.3	27.0	1036.3	27.0	98.3
SYN12-6-67	1036.0	16.0	1041.7	36.1	1053.6	106.3	1053.6	106.3	98.3
SYN12-6-55	1053.3	13.6	1054.1	10.6	1055.5	16.1	1055.5	16.1	99.8
SYN12-6-87	1070.2	10.8	1065.9	8.7	1057.1	14.9	1057.1	14.9	101.2
SYN12-6-22	1021.1	20.2	1032.7	18.7	1057.5	38.9	1057.5	38.9	96.6
SYN12-6-70	1075.8	27.5	1073.4	21.7	1068.8	35.2	1068.8	35.2	100.7
SYN12-6-18	1069.5	24.1	1069.5	19.5	1069.5	32.8	1069.5	32.8	100.0
SYN12-6-38	1046.5	22.1	1054.0	27.1	1069.6	69.2	1069.6	69.2	97.8
SYN12-6-51	1103.1	24.8	1096.4	23.7	1083.0	51.3	1083.0	51.3	101.9
SYN12-6-15	1085.5	10.2	1087.8	14.6	1092.6	38.8	1092.6	38.8	99.3
SYN12-6-01	1068.6	8.5	1078.9	8.7	1099.8	19.5	1099.8	19.5	97.2
SYN12-6-52	1092.6	24.2	1097.1	31.9	1106.0	82.1	1106.0	82.1	98.8
SYN12-6-96	1120.4	17.7	1115.5	12.0	1106.0	7.7	1106.0	7.7	101.3
SYN12-6-20	1092.3	19.2	1098.0	17.0	1109.2	33.2	1109.2	33.2	98.5
SYN12-6-89	1130.2	16.8	1125.8	11.8	1117.4	12.0	1117.4	12.0	101.1
SYN12-6-09	1069.2	23.7	1087.4	34.3	1123.9	90.5	1123.9	90.5	95.1
SYN12-6-98	1156.5	15.8	1149.6	11.6	1136.6	15.9	1136.6	15.9	101.8

SYN12-6-54	1119.7	19.2	1126.2	21.5	1138.7	50.5	1138.7	50.5	98.3
SYN12-6-48	1163.6	15.2	1156.5	15.9	1143.1	35.9	1143.1	35.9	101.8
SYN12-6-79	1156.4	17.7	1160.5	16.3	1168.1	33.1	1168.1	33.1	99.0
SYN12-6-32	1062.1	36.5	1097.6	27.8	1168.8	36.0	1168.8	36.0	90.9
SYN12-6-62	1137.0	17.8	1148.4	17.7	1170.0	38.1	1170.0	38.1	97.2
SYN12-6-99R	1196.6	19.8	1193.2	13.2	1187.1	9.5	1187.1	9.5	100.8
SYN12-6-90	1212.8	22.5	1204.4	51.5	1189.4	138.4	1189.4	138.4	102.0
SYN12-6-42	1157.2	31.5	1168.6	29.3	1189.8	58.9	1189.8	58.9	97.3
SYN12-6-99C	1154.2	47.0	1167.7	32.7	1192.9	30.5	1192.9	30.5	96.8
SYN12-6-46	1271.9	62.4	1284.9	39.8	1306.8	15.3	1306.8	15.3	97.3
SYN12-6-36	1283.5	12.5	1294.7	20.1	1313.3	49.0	1313.3	49.0	97.7
SYN12-6-27	1305.6	18.6	1309.2	25.0	1314.9	58.4	1314.9	58.4	99.3
SYN12-6-82	1316.3	40.0	1330.4	25.8	1353.1	17.5	1353.1	17.5	97.3
SYN12-6-49	1360.4	30.8	1364.5	23.5	1371.0	36.1	1371.0	36.1	99.2
SYN12-6-59	1385.3	24.0	1390.2	14.8	1397.7	5.7	1397.7	5.7	99.1
SYN12-6-02	1376.0	28.6	1415.0	19.2	1474.2	18.7	1474.2	18.7	93.3
SYN12-6-82	1511.3	44.6	1497.0	27.9	1476.8	24.8	1476.8	24.8	102.3
SYN12-6-71	1498.9	21.6	1503.9	20.9	1510.9	40.0	1510.9	40.0	99.2
SYN12-6-61	1615.3	51.1	1615.9	29.2	1616.8	8.6	1616.8	8.6	99.9
SYN12-6-35	1627.1	50.7	1627.5	30.2	1628.0	22.0	1628.0	22.0	99.9
SYN12-6-47	1621.0	26.9	1627.3	16.3	1635.5	13.4	1635.5	13.4	99.1
SYN12-6-39	1627.5	43.6	1635.6	25.6	1646.0	15.6	1646.0	15.6	98.9
SYN12-6-58	1659.2	42.9	1653.4	24.6	1646.1	13.3	1646.1	13.3	100.8
SYN12-6-72	1655.4	20.7	1653.5	12.8	1651.0	12.6	1651.0	12.6	100.3
SYN12-6-03	1645.2	21.3	1649.1	12.5	1654.0	8.1	1654.0	8.1	99.5
SYN12-6-97	1673.9	17.5	1667.4	10.3	1659.1	7.4	1659.1	7.4	100.9
SYN12-6-33	1649.5	50.9	1669.2	29.5	1693.9	15.9	1693.9	15.9	97.4
SYN12-6-74	1676.5	15.7	1701.2	11.5	1731.8	16.7	1731.8	16.7	96.8
SYN12-6-77	1729.7	30.0	1732.0	16.6	1734.9	5.4	1734.9	5.4	99.7
SYN12-6-16	1734.3	23.5	1741.8	13.3	1750.8	7.5	1750.8	7.5	99.1
SYN12-6-07	1800.6	16.6	1801.2	9.1	1801.8	4.2	1801.8	4.2	99.9
SYN12-6-64	1681.1	28.2	1747.4	16.1	1827.7	5.6	1827.7	5.6	92.0
SYN12-6-95	1544.8	64.2	1679.2	39.4	1851.3	19.8	1851.3	19.8	83.4
SYN12-6-26	1671.3	48.3	1764.0	27.7	1875.6	7.3	1875.6	7.3	89.1
SYN12-6-24	1851.8	15.8	1864.6	9.6	1878.8	10.0	1878.8	10.0	98.6
SYN12-6-10	1857.4	23.9	1871.3	13.0	1886.7	6.0	1886.7	6.0	98.4
SYN12-6-41	1907.2	37.4	1904.4	19.8	1901.4	7.5	1901.4	7.5	100.3
SYN12-6-08	2113.0	30.6	2121.7	16.6	2130.2	13.6	2130.2	13.6	99.2
SYN12-6-45	2747.6	89.3	2700.5	51.9	2665.5	62.4	2665.5	62.4	103.1

SYN12-6-80	2721.5	28.4	2730.9	12.2	2737.8	3.0	2737.8	3.0	99.4
SYN12-6-28	2821.3	31.1	2817.3	14.2	2814.4	10.0	2814.4	10.0	100.2
SYN12-6-25	3116.7	37.2	3091.3	15.2	3074.9	7.3	3074.9	7.3	101.4
SYN12-6-12	3826.2	61.6	3816.9	21.4	3812.0	4.3	3812.0	4.3	100.4

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-8B-82	99.8	5.1	116.7	18.1	477.8	345.4	99.8	5.1	NA
SYN12-8B-55	104.2	6.7	111.4	22.7	267.7	474.4	104.2	6.7	NA
SYN12-8B-85	109.0	2.4	111.5	5.0	163.8	98.1	109.0	2.4	NA
SYN12-8B-59	110.7	4.4	113.8	10.9	180.9	216.3	110.7	4.4	NA
SYN12-8B-76	112.0	4.4	108.6	10.7	35.2	231.2	112.0	4.4	NA
SYN12-8B-78	233.0	3.5	234.0	10.0	244.0	104.0	233.0	3.5	NA
SYN12-8B-66	237.1	3.5	237.0	5.1	236.1	43.3	237.1	3.5	NA
SYN12-8B-89	240.7	4.1	247.5	14.9	312.5	149.5	240.7	4.1	NA
SYN12-8B-62	245.3	8.4	242.1	7.9	210.9	25.7	245.3	8.4	NA
SYN12-8B-31	246.3	3.7	248.5	10.5	269.5	103.0	246.3	3.7	NA
SYN12-8B-81	250.3	4.2	253.1	9.9	279.0	93.8	250.3	4.2	NA
SYN12-8B-33	268.5	12.2	311.2	15.0	645.2	68.0	268.5	12.2	NA
SYN12-8B-65	333.0	6.7	334.4	9.9	344.1	63.5	333.0	6.7	NA
SYN12-8B-83	376.0	6.1	379.9	6.1	403.9	21.0	376.0	6.1	NA
SYN12-8B-60	383.2	5.9	390.0	14.4	430.6	92.8	383.2	5.9	NA
SYN12-8B-92	394.8	5.0	392.8	6.5	380.5	34.0	394.8	5.0	NA
SYN12-8B-49	416.8	14.6	420.3	22.7	439.5	122.5	416.8	14.6	94.8
SYN12-8B-3	416.9	8.2	416.8	23.0	416.3	143.4	416.9	8.2	100.2
SYN12-8B-61	419.4	35.0	286.5	82.3	-694.7	898.3	419.4	35.0	NA
SYN12-8B-15	422.3	5.6	420.4	7.5	409.7	37.9	422.3	5.6	103.1
SYN12-8B-17	423.6	7.6	421.0	8.4	406.4	35.5	423.6	7.6	104.3
SYN12-8B-35	425.1	9.1	433.2	22.2	476.7	130.3	425.1	9.1	89.2
SYN12-8B-25	430.1	11.6	425.9	14.2	403.2	67.3	430.1	11.6	106.7
SYN12-8B-52	431.0	11.2	431.7	14.7	435.3	71.3	431.0	11.2	99.0
SYN12-8B-70	433.6	6.7	433.7	6.8	434.3	24.4	433.6	6.7	99.8
SYN12-8B-48	435.8	4.9	440.4	20.7	464.3	125.9	435.8	4.9	93.9
SYN12-8B-4	448.5	18.9	448.9	16.2	450.7	20.2	448.5	18.9	99.5
SYN12-8B-46	518.1	7.3	511.0	24.7	479.3	132.0	518.1	7.3	108.1
SYN12-8B-16	542.1	10.8	568.9	28.5	677.7	132.5	542.1	10.8	80.0



SYN12-8B-86	558.3	10.6	561.0	10.5	572.0	31.1	558.3	10.6	97.6
SYN12-8B-91	574.0	6.8	572.4	6.0	566.0	12.6	574.0	6.8	101.4
SYN12-8B-77	582.9	6.0	577.6	9.5	556.5	40.6	582.9	6.0	104.7
SYN12-8B-1	593.9	11.9	601.5	20.9	630.3	88.3	593.9	11.9	94.2
SYN12-8B-38	600.3	8.2	596.8	9.3	583.5	32.2	600.3	8.2	102.9
SYN12-8B-13	603.9	7.7	609.4	7.6	629.9	21.0	603.9	7.7	95.9
SYN12-8B-8	606.6	10.8	608.4	11.7	614.8	37.7	606.6	10.8	98.7
SYN12-8B-99	616.1	42.7	623.2	34.2	648.9	21.2	616.1	42.7	94.9
SYN12-8B-41	640.2	11.4	643.7	10.1	656.2	20.8	640.2	11.4	97.6
SYN12-8B-11	653.8	18.9	649.1	27.0	633.0	102.0	653.8	18.9	103.3
SYN12-8B-73	1041.1	21.8	1028.9	30.5	1003.0	84.0	1003.0	84.0	103.8
SYN12-8B-96	1023.8	11.6	1021.4	9.2	1016.2	14.9	1016.2	14.9	100.8
SYN12-8B-29	1023.4	10.1	1026.3	12.2	1032.5	31.6	1032.5	31.6	99.1
SYN12-8B-88	1079.0	23.8	1074.5	56.6	1065.3	164.8	1065.3	164.8	101.3
SYN12-8B-34	1073.9	21.0	1072.2	16.7	1068.6	27.1	1068.6	27.1	100.5
SYN12-8B-72	1063.6	14.3	1066.3	10.2	1071.9	10.0	1071.9	10.0	99.2
SYN12-8B-30	1082.3	19.9	1079.7	16.9	1074.6	31.5	1074.6	31.5	100.7
SYN12-8B-68	1071.8	12.6	1073.9	14.0	1078.1	33.8	1078.1	33.8	99.4
SYN12-8B-100	1048.7	20.3	1060.4	14.1	1084.6	8.1	1084.6	8.1	96.7
SYN12-8B-20	1051.4	8.6	1065.6	8.9	1094.8	20.2	1094.8	20.2	96.0
SYN12-8B-57	1082.0	27.9	1087.4	25.4	1098.2	51.5	1098.2	51.5	98.5
SYN12-8B-94	1200.9	17.7	1182.1	13.5	1147.8	21.1	1147.8	21.1	104.6
SYN12-8B-50	1188.4	28.0	1191.0	18.3	1195.7	8.7	1195.7	8.7	99.4
SYN12-8B-69	1090.2	27.4	1132.5	25.1	1214.4	48.4	1214.4	48.4	89.8
SYN12-8B-32	1168.6	15.1	1184.9	15.8	1214.7	34.7	1214.7	34.7	96.2
SYN12-8B-43	1205.1	21.3	1211.4	20.8	1222.7	43.4	1222.7	43.4	98.6
SYN12-8B-26	1140.1	25.3	1172.7	35.1	1233.4	87.0	1233.4	87.0	92.4
SYN12-8B-63	1251.1	14.8	1247.8	14.2	1241.9	29.1	1241.9	29.1	100.7
SYN12-8B-95	1270.3	26.0	1270.7	19.5	1271.4	28.4	1271.4	28.4	99.9
SYN12-8B-87	1328.0	14.8	1321.6	11.2	1311.2	16.9	1311.2	16.9	101.3
SYN12-8B-51	1305.2	39.4	1317.7	28.8	1338.0	39.4	1338.0	39.4	97.5
SYN12-8B-47	1312.7	25.8	1324.8	17.2	1344.5	15.8	1344.5	15.8	97.6
SYN12-8B-9	1378.4	14.9	1384.0	10.2	1392.5	11.8	1392.5	11.8	99.0
SYN12-8B-21	1237.7	21.2	1309.7	35.0	1429.7	83.3	1429.7	83.3	86.6
SYN12-8B-67	1440.2	18.4	1436.9	12.8	1432.1	16.4	1432.1	16.4	100.6
SYN12-8B-7	1380.7	41.8	1401.1	26.6	1432.2	18.5	1432.2	18.5	96.4
SYN12-8B-91	1502.0	21.0	1500.5	13.2	1498.2	11.9	1498.2	11.9	100.3
SYN12-8B-19	1534.4	123.1	1522.7	71.3	1506.5	8.2	1506.5	8.2	101.9
SYN12-8B-14	1605.3	12.6	1606.8	8.5	1608.9	10.5	1608.9	10.5	99.8

SYN12-8B-90	1664.0	61.3	1641.6	46.7	1613.0	73.2	1613.0	73.2	103.2
SYN12-8B-22	1629.0	46.1	1631.2	26.3	1634.1	8.5	1634.1	8.5	99.7
SYN12-8B-2	1670.1	16.0	1654.6	10.8	1635.0	14.2	1635.0	14.2	102.1
SYN12-8B-28	1613.2	43.6	1624.6	26.4	1639.5	21.3	1639.5	21.3	98.4
SYN12-8B-36	1663.4	13.4	1654.1	8.1	1642.3	7.2	1642.3	7.2	101.3
SYN12-8B-93	1653.0	19.3	1652.3	13.8	1651.3	19.3	1651.3	19.3	100.1
SYN12-8B-27	1624.3	79.2	1642.4	46.3	1665.8	25.9	1665.8	25.9	97.5
SYN12-8B-44	1707.0	57.2	1692.8	31.6	1675.2	8.4	1675.2	8.4	101.9
SYN12-8B-12	1614.1	24.1	1641.8	19.0	1677.4	29.7	1677.4	29.7	96.2
SYN12-8B-97	1653.1	24.9	1688.1	14.1	1731.7	2.3	1731.7	2.3	95.5
SYN12-8B-64	1753.3	23.6	1747.7	14.0	1741.0	12.7	1741.0	12.7	100.7
SYN12-8B-74	1789.9	21.0	1773.1	11.4	1753.3	3.1	1753.3	3.1	102.1
SYN12-8B-6	1758.4	19.9	1770.9	11.0	1785.7	3.8	1785.7	3.8	98.5
SYN12-8B-58	1838.5	39.7	1823.7	21.9	1806.7	13.6	1806.7	13.6	101.8
SYN12-8B-10	1853.1	25.6	1883.3	13.6	1916.7	1.9	1916.7	1.9	96.7
SYN12-8B-75	2019.8	27.3	2024.0	14.0	2028.2	5.1	2028.2	5.1	99.6
SYN12-8B-54	2389.1	48.5	2436.5	22.5	2476.3	3.5	2476.3	3.5	96.5
SYN12-8B-5	2569.3	46.8	2605.2	21.8	2633.3	12.1	2633.3	12.1	97.6
SYN12-8B-71	2693.0	38.7	2688.1	17.0	2684.4	6.9	2684.4	6.9	100.3
SYN12-8B-37	2602.1	47.6	2650.2	28.1	2687.1	33.0	2687.1	33.0	96.8
SYN12-8B-53	2708.7	89.6	2703.8	38.5	2700.1	8.0	2700.1	8.0	100.3
SYN12-8B-98	2804.6	39.1	2745.8	17.1	2702.9	9.2	2702.9	9.2	103.8
SYN12-8B-18	2695.3	35.2	2722.2	15.3	2742.2	4.0	2742.2	4.0	98.3
SYN12-8B-45	2886.0	140.5	2827.7	58.0	2786.3	12.1	2786.3	12.1	103.6

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-10-11	98.8	7.3	90.7	43.0	-118.6	1279.0	98.8	7.3	NA
SYN12-10-4	99.5	0.9	103.4	5.9	194.2	137.8	99.5	0.9	NA
SYN12-10-109	99.6	1.3	102.2	6.9	163.4	164.4	99.6	1.3	NA
SYN12-10-56	99.7	2.4	104.3	6.8	210.1	148.2	99.7	2.4	NA
SYN12-10-3	100.1	3.5	94.1	10.0	-54.4	257.2	100.1	3.5	NA
SYN12-10-23	100.2	2.2	98.8	4.7	64.1	107.6	100.2	2.2	NA
SYN12-10-70	100.3	3.0	84.6	28.2	-339.1	914.7	100.3	3.0	NA
SYN12-10-41	100.4	4.2	111.1	10.7	346.1	210.2	100.4	4.2	NA
SYN12-10-24	100.6	3.1	100.8	4.2	105.9	73.6	100.6	3.1	NA

SYN12-10-83	100.8	1.8	90.2	6.5	-182.8	181.3	100.8	1.8	NA
SYN12-10-66	101.1	1.7	99.0	4.6	49.2	109.5	101.1	1.7	NA
SYN12-10-80	101.1	2.3	104.4	6.4	179.2	140.4	101.1	2.3	NA
SYN12-10-103	101.1	1.1	99.9	5.6	69.8	137.2	101.1	1.1	NA
SYN12-10-64	101.3	2.3	103.7	8.3	158.3	188.9	101.3	2.3	NA
SYN12-10-71	101.4	2.0	95.4	7.6	-51.0	198.9	101.4	2.0	NA
SYN12-10-89	101.5	2.0	99.6	12.1	53.8	302.0	101.5	2.0	NA
SYN12-10-25	101.6	2.5	101.2	9.9	92.4	235.5	101.6	2.5	NA
SYN12-10-58	101.7	2.4	93.0	11.3	-123.0	308.3	101.7	2.4	NA
SYN12-10-119	101.8	2.2	101.4	8.2	91.7	193.8	101.8	2.2	NA
SYN12-10-63	101.9	3.5	95.9	28.0	-51.8	756.0	101.9	3.5	NA
SYN12-10-34	102.2	3.2	100.4	5.6	59.1	118.0	102.2	3.2	NA
SYN12-10-117	102.4	4.2	95.7	21.8	-66.8	581.0	102.4	4.2	NA
SYN12-10-14	102.4	2.2	103.0	7.5	117.8	174.0	102.4	2.2	NA
SYN12-10-40	102.6	5.1	119.4	18.9	469.6	355.3	102.6	5.1	NA
SYN12-10-73	102.7	2.2	97.0	16.3	-42.5	427.0	102.7	2.2	NA
SYN12-10-55	102.9	2.9	100.6	6.1	46.5	135.2	102.9	2.9	NA
SYN12-10-85	103.3	1.3	104.1	2.7	123.8	56.9	103.3	1.3	NA
SYN12-10-2	103.4	2.3	95.3	15.5	-102.0	417.1	103.4	2.3	NA
SYN12-10-07	103.4	1.3	104.6	3.0	131.7	64.0	103.4	1.3	NA
SYN12-10-18	103.7	2.5	100.7	5.6	29.2	126.9	103.7	2.5	NA
SYN12-10-95	104.0	3.7	106.1	8.4	153.8	176.7	104.0	3.7	NA
SYN12-10-76	104.1	5.7	111.9	30.9	280.1	666.7	104.1	5.7	NA
SYN12-10-44	105.5	2.7	109.7	6.4	202.2	129.6	105.5	2.7	NA
SYN12-10-75	113.9	4.0	101.0	33.1	-194.5	878.1	113.9	4.0	NA
SYN12-10-61	135.0	5.2	138.1	16.6	191.3	286.3	135.0	5.2	NA
SYN12-10-28	156.1	5.7	148.0	21.9	20.3	373.7	156.1	5.7	NA
SYN12-10-13	157.7	5.6	149.4	13.5	19.2	217.2	157.7	5.6	NA
SYN12-10-47	159.5	2.4	162.1	7.0	200.9	102.8	159.5	2.4	NA
SYN12-10-97	262.3	5.2	263.6	10.9	275.0	97.7	262.3	5.2	NA
SYN12-10-50	307.4	5.8	298.9	9.9	233.1	76.9	307.4	5.8	NA
SYN12-10-93	327.2	4.2	323.9	9.0	300.3	67.7	327.2	4.2	NA
SYN12-10-36	363.2	6.0	365.1	11.0	376.7	71.2	363.2	6.0	NA
SYN12-10-33	393.9	20.3	381.7	28.6	308.2	164.6	393.9	20.3	NA
SYN12-10-91	497.7	13.6	492.3	76.3	467.5	431.1	497.7	13.6	106.5
SYN12-10-116	556.4	11.1	540.5	41.5	474.2	214.7	556.4	11.1	117.3
SYN12-10-98	597.5	7.9	598.7	8.5	603.3	27.5	597.5	7.9	99.0
SYN12-10-78	609.7	6.6	615.4	7.7	636.4	26.2	609.7	6.6	95.8
SYN12-10-52	609.7	8.8	607.8	12.7	600.7	50.6	609.7	8.8	101.5

SYN12-10-86	641.0	28.4	635.7	24.8	616.9	52.7	641.0	28.4	103.9
SYN12-10-99	653.5	9.7	663.4	22.3	697.2	91.8	653.5	9.7	93.7
SYN12-10-60	702.9	9.6	702.1	12.6	699.6	43.0	702.9	9.6	100.5
SYN12-10-102	953.7	17.9	944.8	18.3	924.2	44.7	924.2	44.7	103.2
SYN12-10-107	944.6	11.1	948.8	10.7	958.4	24.3	958.4	24.3	98.6
SYN12-10-96	976.1	8.8	981.4	13.5	993.3	39.0	993.3	39.0	98.3
SYN12-10-31	1031.6	17.1	1021.4	16.5	999.5	37.2	999.5	37.2	103.2
SYN12-10-17	1037.5	22.7	1028.2	23.9	1008.4	57.8	1008.4	57.8	102.9
SYN12-10-49	1007.6	8.3	1009.2	12.3	1012.8	34.5	1012.8	34.5	99.5
SYN12-10-118	1046.7	15.2	1040.1	13.5	1026.1	27.4	1026.1	27.4	102.0
SYN12-10-29	1017.3	21.0	1023.5	15.6	1036.9	18.7	1036.9	18.7	98.1
SYN12-10-32	1013.5	15.7	1026.2	11.4	1053.4	11.5	1053.4	11.5	96.2
SYN12-10-1	1058.7	27.8	1062.0	25.1	1068.9	50.9	1068.9	50.9	99.1
SYN12-10-105	1075.4	11.8	1074.3	11.0	1072.1	23.1	1072.1	23.1	100.3
SYN12-10-38	1073.8	17.8	1073.7	13.0	1073.5	15.9	1073.5	15.9	100.0
SYN12-10-112	1085.0	16.6	1084.7	13.3	1084.1	22.4	1084.1	22.4	100.1
SYN12-10-15	1096.7	15.0	1097.2	12.1	1098.2	20.0	1098.2	20.0	99.9
SYN12-10-35	1132.9	16.5	1135.0	11.3	1139.2	8.9	1139.2	8.9	99.4
SYN12-10-69	1183.8	42.8	1196.8	29.5	1220.3	27.2	1220.3	27.2	97.0
SYN12-10-30	1214.1	17.0	1216.4	13.7	1220.5	23.0	1220.5	23.0	99.5
SYN12-10-57	1270.3	38.6	1258.9	41.1	1239.5	90.3	1239.5	90.3	102.5
SYN12-10-90	1303.7	19.2	1298.9	12.4	1290.9	9.4	1290.9	9.4	101.0
SYN12-10-39	1442.0	46.2	1417.3	29.2	1380.5	26.0	1380.5	26.0	104.5
SYN12-10-88	1448.7	22.6	1454.6	13.6	1463.3	4.7	1463.3	4.7	99.0
SYN12-10-79	1493.1	19.6	1493.3	17.1	1493.6	30.6	1493.6	30.6	100.0
SYN12-10-19	1489.2	21.2	1491.2	14.1	1494.0	16.2	1494.0	16.2	99.7
SYN12-10-59	1501.7	20.1	1502.7	12.2	1504.1	7.6	1504.1	7.6	99.8
SYN12-10-72	1603.9	35.6	1612.3	20.9	1623.3	11.2	1623.3	11.2	98.8
SYN12-10-51	1673.0	41.2	1655.2	31.6	1632.7	49.8	1632.7	49.8	102.5
SYN12-10-48	1651.6	25.6	1649.7	16.1	1647.1	16.8	1647.1	16.8	100.3
SYN12-10-65	1660.6	15.9	1655.1	9.0	1648.2	2.7	1648.2	2.7	100.8
SYN12-10-87	1620.1	29.9	1632.8	17.6	1649.2	10.8	1649.2	10.8	98.2
SYN12-10-06	1665.0	22.8	1659.4	15.2	1652.4	18.9	1652.4	18.9	100.8
SYN12-10-84	1689.4	34.5	1690.2	21.2	1691.2	20.5	1691.2	20.5	99.9
SYN12-10-12	1675.4	23.1	1682.8	14.2	1692.1	13.6	1692.1	13.6	99.0
SYN12-10-111	1675.8	23.9	1684.4	23.1	1695.3	42.3	1695.3	42.3	98.9
SYN12-10-101	1715.5	20.6	1711.5	13.8	1706.6	17.7	1706.6	17.7	100.5
SYN12-10-114	1728.1	22.8	1721.2	14.2	1712.9	15.1	1712.9	15.1	100.9
SYN12-10-94	1775.4	33.0	1770.1	29.5	1763.8	51.2	1763.8	51.2	100.7

SYN12-10-45	1534.2	31.7	1639.1	19.1	1776.4	6.1	1776.4	6.1	86.4
SYN12-10-54	1776.7	14.3	1780.0	8.0	1783.8	4.5	1783.8	4.5	99.6
SYN12-10-62	1795.0	21.7	1791.1	12.1	1786.6	6.6	1786.6	6.6	100.5
SYN12-10-26	1765.4	22.6	1776.3	13.8	1789.0	13.7	1789.0	13.7	98.7
SYN12-10-77	1843.4	19.6	1843.7	10.9	1844.1	7.2	1844.1	7.2	100.0
SYN12-10-68	1838.5	14.4	1845.1	11.0	1852.6	16.8	1852.6	16.8	99.2
SYN12-10-82	1810.0	38.7	1830.4	21.3	1853.6	10.0	1853.6	10.0	97.6
SYN12-10-37	1831.0	35.3	1843.1	23.2	1856.8	28.6	1856.8	28.6	98.6
SYN12-10-92	1866.3	31.5	1863.1	17.4	1859.6	10.8	1859.6	10.8	100.4
SYN12-10-08	1887.4	48.7	1881.7	26.1	1875.4	11.9	1875.4	11.9	100.6
SYN12-10-67	1797.3	95.5	1841.4	54.3	1891.6	34.6	1891.6	34.6	95.0
SYN12-10-43	1842.7	27.2	1877.3	14.6	1915.7	2.7	1915.7	2.7	96.2
SYN12-10-74	1927.4	28.0	1929.8	15.7	1932.4	12.6	1932.4	12.6	99.7
SYN12-10-115	2010.4	19.8	2023.1	10.6	2036.1	6.7	2036.1	6.7	98.7
SYN12-10-27	2108.4	26.1	2111.7	15.9	2114.9	18.5	2114.9	18.5	99.7
SYN12-10-106	2305.5	58.6	2288.3	55.0	2273.0	90.2	2273.0	90.2	101.4
SYN12-10-09	2347.9	26.6	2334.4	12.5	2322.7	3.5	2322.7	3.5	101.1
SYN12-10-5	2547.3	22.9	2534.0	11.2	2523.3	8.4	2523.3	8.4	101.0
SYN12-10-53	2495.5	29.2	2594.9	13.3	2673.4	3.3	2673.4	3.3	93.3
SYN12-10-20	2712.5	77.1	2703.2	33.1	2696.3	6.3	2696.3	6.3	100.6
SYN12-10-113	2715.4	43.7	2714.6	18.8	2713.9	4.0	2713.9	4.0	100.1
SYN12-10-21	2729.7	39.5	2743.0	17.0	2752.7	4.8	2752.7	4.8	99.2
SYN12-10-120	2824.0	30.9	2786.8	13.0	2760.0	3.4	2760.0	3.4	102.3
SYN12-10-108	3009.0	21.2	2997.2	8.7	2989.4	3.6	2989.4	3.6	100.7

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN11A-93	94.9	4.8	118.6	11.5	623.4	193.3	94.9	4.8	NA
SYN11A-87	95.5	6.5	103.1	21.7	282.9	484.6	95.5	6.5	NA
SYN11A-86	97.8	2.5	86.9	14.1	-201.3	422.9	97.8	2.5	NA
unknown SYN11a-56	98.1	1.4	103.1	4.6	220.7	102.1	98.1	1.4	NA
SYN11A-90	98.4	2.2	109.5	12.9	359.1	275.5	98.4	2.2	NA
SYN11A-46	98.4	2.0	100.5	10.1	151.6	242.7	98.4	2.0	NA
SYN11A-98	98.7	4.1	116.6	27.3	499.3	544.8	98.7	4.1	NA
SYN11A-40	99.2	2.0	99.1	6.0	96.9	144.2	99.2	2.0	NA
SYN11A-41	99.2	2.0	100.8	2.8	139.4	50.9	99.2	2.0	NA

SYN11A-14	99.3	2.2	96.4	6.8	26.6	169.8	99.3	2.2	NA
SYN11A-15	99.3	2.0	94.6	6.2	-21.7	158.2	99.3	2.0	NA
SYN11A-85	99.6	1.9	101.9	15.0	155.1	361.5	99.6	1.9	NA
SYN11A-84	99.7	3.6	94.2	7.0	-42.1	166.3	99.7	3.6	NA
SYN11A-39	99.7	2.8	96.1	7.5	8.6	185.9	99.7	2.8	NA
SYN11A-9	99.9	3.0	95.2	7.0	-21.9	171.2	99.9	3.0	NA
SYN11A-89	100.0	2.7	90.1	14.6	-164.1	418.2	100.0	2.7	NA
SYN11A-57	100.0	3.2	100.3	9.0	106.1	208.7	100.0	3.2	NA
SYN11A-82	100.1	4.5	104.2	20.7	198.6	478.1	100.1	4.5	NA
SYN11A-83	100.1	2.7	91.8	9.3	-119.5	252.1	100.1	2.7	NA
SYN11A-36	100.2	2.2	98.7	5.0	63.7	115.1	100.2	2.2	NA
SYN11A-30	100.2	2.4	98.1	9.4	46.5	234.9	100.2	2.4	NA
SYN11A-78	100.2	0.8	100.0	6.0	95.0	148.6	100.2	0.8	NA
SYN11A-76	100.6	3.1	99.6	7.1	75.8	161.3	100.6	3.1	NA
SYN11A-71	100.6	1.8	97.1	6.6	11.9	167.3	100.6	1.8	NA
SYN11A-35	100.9	1.3	100.5	1.7	91.4	26.7	100.9	1.3	NA
SYN11A-11	100.9	2.7	102.7	6.6	144.1	144.4	100.9	2.7	NA
SYN11A-68	101.1	2.7	106.4	4.6	226.2	85.9	101.1	2.7	NA
SYN11A-60	101.1	2.4	95.6	7.4	-41.6	188.4	101.1	2.4	NA
SYN11A-79	101.2	1.9	99.6	4.0	63.0	90.8	101.2	1.9	NA
SYN11A-18	101.2	4.4	105.4	18.6	201.0	422.3	101.2	4.4	NA
SYN11A-16	101.3	1.1	111.4	18.2	332.7	393.2	101.3	1.1	NA
SYN11A-59	101.4	2.3	100.1	2.8	68.0	44.6	101.4	2.3	NA
SYN11A-53	101.5	2.1	98.2	8.9	20.4	223.9	101.5	2.1	NA
SYN11A-20	101.5	3.9	91.6	12.0	-159.8	329.2	101.5	3.9	NA
SYN11A-80	101.6	1.6	89.1	9.7	-233.6	284.6	101.6	1.6	NA
SYN11A-19	101.6	2.6	104.9	5.5	179.5	114.9	101.6	2.6	NA
SYN11A-38	101.7	2.6	95.9	12.9	-44.6	337.6	101.7	2.6	NA
SYN11A-31	101.7	3.0	99.8	12.1	55.2	296.0	101.7	3.0	NA
SYN11A-23	101.9	2.8	78.6	13.0	-585.2	463.0	101.9	2.8	NA
SYN11A-26	102.0	2.1	99.6	9.4	43.5	233.0	102.0	2.1	NA
SYN11A-94	102.0	1.8	97.9	8.7	-1.2	221.7	102.0	1.8	NA
SYN11A-37	102.2	2.4	103.5	3.7	133.4	66.6	102.2	2.4	NA
SYN11A-48	102.2	3.6	101.3	14.8	80.9	355.2	102.2	3.6	NA
SYN11A-99	102.2	3.2	101.4	5.6	81.7	114.3	102.2	3.2	NA
SYN11A-28	102.5	1.9	108.3	4.2	237.9	84.1	102.5	1.9	NA
SYN11A-52	102.5	1.5	102.1	3.8	91.6	86.3	102.5	1.5	NA
SYN11A-44	102.9	2.1	100.9	4.7	54.3	105.8	102.9	2.1	NA
SYN11A-51	102.9	2.1	104.6	4.1	143.0	84.4	102.9	2.1	NA

SYN11A-24	103.0	3.9	95.7	20.8	-81.6	556.8	103.0	3.9	NA
SYN11A-63	103.2	4.9	99.7	20.9	17.7	521.3	103.2	4.9	NA
SYN11A-47	103.2	2.1	103.4	5.7	108.7	126.6	103.2	2.1	NA
SYN11A-42	103.2	1.2	104.3	5.3	129.5	123.5	103.2	1.2	NA
SYN11A-92	103.3	3.7	95.7	17.8	-90.4	472.4	103.3	3.7	NA
SYN11A-100	103.4	2.7	99.2	7.5	-0.9	180.1	103.4	2.7	NA
SYN11A-3	103.5	2.4	103.7	4.4	108.6	90.8	103.5	2.4	NA
SYN11A-54	103.5	8.5	124.2	19.9	540.9	326.1	103.5	8.5	NA
SYN11A-33	103.6	2.3	104.5	4.4	125.6	90.8	103.6	2.3	NA
SYN11A-75	103.6	3.5	109.2	8.5	231.7	172.3	103.6	3.5	NA
SYN11A-1	103.7	2.4	96.1	15.7	-88.2	417.4	103.7	2.4	NA
SYN11A-66	103.8	2.0	104.3	6.5	117.1	148.7	103.8	2.0	NA
SYN11A-10	103.9	1.8	111.1	14.9	269.3	323.8	103.9	1.8	NA
SYN11A-12	103.9	3.1	103.1	8.1	85.3	182.3	103.9	3.1	NA
SYN11A-97	103.9	3.1	104.2	4.9	110.8	93.8	103.9	3.1	NA
SYN11A-50	104.0	2.6	106.2	7.1	156.7	154.4	104.0	2.6	NA
SYN11A-55	104.2	3.3	103.6	4.9	89.5	90.0	104.2	3.3	NA
SYN11A-34	104.6	2.9	104.0	7.5	90.0	167.0	104.6	2.9	NA
SYN11A-65	105.3	1.7	105.2	4.9	102.0	107.9	105.3	1.7	NA
SYN11A-7	106.0	3.5	108.8	9.5	171.7	202.1	106.0	3.5	NA
SYN11A-4	106.1	3.6	107.8	16.5	146.7	372.7	106.1	3.6	NA
SYN11A-96	106.7	2.2	109.3	4.0	166.3	75.7	106.7	2.2	NA
SYN11A-22	109.2	3.4	105.4	21.8	20.6	522.3	109.2	3.4	NA
SYN11A-27	111.5	5.0	121.8	17.5	328.1	332.4	111.5	5.0	NA
SYN11A-73	114.8	2.5	110.4	15.7	17.0	359.3	114.8	2.5	NA
SYN11A-6	158.8	4.9	153.0	11.8	64.7	183.1	158.8	4.9	NA
SYN11A-81	159.6	2.9	165.2	10.6	245.9	155.1	159.6	2.9	NA
SYN11A-43	168.4	2.3	171.8	8.4	217.9	119.1	168.4	2.3	NA
SYN11A-5	170.5	1.7	168.9	4.4	147.6	62.3	170.5	1.7	NA
SYN11A-8	250.4	7.2	232.2	35.9	52.5	408.8	250.4	7.2	NA
SYN11A-49	333.7	8.4	333.8	13.8	334.1	93.4	333.7	8.4	NA
SYN11A-70	443.1	10.8	444.0	10.0	448.6	26.2	443.1	10.8	98.8
SYN11A-13	595.6	8.8	590.7	13.6	572.2	56.6	595.6	8.8	104.1
SYN11A-69	1019.6	33.6	1028.2	44.7	1046.5	119.5	1046.5	119.5	97.4
SYN11A-77	1145.9	12.2	1147.6	18.9	1150.9	49.4	1150.9	49.4	99.6
SYN11A-25	1464.3	24.0	1453.9	17.1	1438.8	23.8	1438.8	23.8	101.8
SYN11A-62	1626.8	23.5	1637.3	13.6	1650.8	6.9	1650.8	6.9	98.5
SYN11A-2	1794.9	8.4	1770.4	5.0	1741.5	4.8	1741.5	4.8	103.1
SYN11A-17	1785.1	32.2	1782.1	18.5	1778.7	14.2	1778.7	14.2	100.4

SYN11A-88	1834.8	17.2	1851.4	28.7	1870.1	57.6	1870.1	57.6	98.1
SYN11A-21	1896.2	29.6	1889.2	15.8	1881.5	6.7	1881.5	6.7	100.8
SYN11A-61	1975.7	17.5	1950.0	9.5	1922.8	7.0	1922.8	7.0	102.7

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-12-04	97.8	3.5	93.2	23.3	-23.8	637.3	97.8	3.5	NA
SYN12-12-90	98.5	9.4	70.5	24.1	-801.2	991.0	98.5	9.4	NA
SYN12-12-03	98.6	2.7	102.0	30.3	182.0	740.9	98.6	2.7	NA
SYN12-12-64	99.4	2.6	98.5	4.5	77.0	96.1	99.4	2.6	NA
SYN12-12-36	99.5	2.2	76.4	21.3	-598.7	798.4	99.5	2.2	NA
SYN12-12-23	100.1	1.9	95.6	14.3	-13.3	378.1	100.1	1.9	NA
SYN12-12-02	100.1	4.4	106.3	10.3	245.8	212.1	100.1	4.4	NA
SYN12-12-20	100.3	1.4	101.5	12.7	130.7	307.9	100.3	1.4	NA
SYN12-12-31	100.3	2.0	102.6	4.1	154.9	85.9	100.3	2.0	NA
SYN12-12-68	100.6	2.5	96.3	9.6	-8.1	244.5	100.6	2.5	NA
SYN12-12-47	100.7	3.4	96.6	14.4	-1.9	369.7	100.7	3.4	NA
SYN12-12-113	100.9	5.8	99.3	16.2	62.0	386.1	100.9	5.8	NA
SYN12-12-53	100.9	2.0	100.2	15.7	82.9	390.4	100.9	2.0	NA
SYN12-12-62	100.9	3.1	98.1	15.2	30.6	383.5	100.9	3.1	NA
<del>SYN12-12-24</del>	<del>101.0</del>	<del>6.2</del>	<del>90.3</del>	<del>65.4</del>	<del>-182.4</del>	<del>2219.7</del>	<del>101.0</del>	<del>6.2</del>	<del>NA</del>
SYN12-12-72	101.3	2.2	99.6	9.3	57.5	228.0	101.3	2.2	NA
SYN12-12-58	101.5	3.3	91.0	21.3	-174.7	611.6	101.5	3.3	NA
SYN12-12-11	101.6	1.3	86.5	10.7	-312.1	328.7	101.6	1.3	NA
SYN12-12-27	101.7	1.9	98.2	7.7	15.5	192.8	101.7	1.9	NA
SYN12-12-16	101.9	3.7	96.0	13.4	-47.8	345.2	101.9	3.7	NA
SYN12-12-13	101.9	3.2	97.9	11.3	2.4	281.6	101.9	3.2	NA
SYN12-12-43	102.0	1.9	96.2	8.3	-44.5	215.2	102.0	1.9	NA
SYN12-12-37	102.1	1.6	101.5	11.6	87.2	282.5	102.1	1.6	NA
SYN12-12-115	102.5	1.7	102.4	2.3	100.0	38.8	102.5	1.7	NA
SYN12-12-71	102.6	3.2	103.7	6.2	129.2	128.9	102.6	3.2	NA
SYN12-12-59	103.2	2.0	108.2	11.1	218.2	247.7	103.2	2.0	NA
SYN12-12-51	103.8	4.6	99.4	14.9	-3.4	366.2	103.8	4.6	NA
SYN12-12-09	104.3	3.5	99.6	12.4	-10.5	306.4	104.3	3.5	NA
SYN12-12-80	104.3	2.1	97.7	10.5	-59.9	271.2	104.3	2.1	NA
SYN12-12-26	104.4	6.1	105.4	10.8	129.5	211.5	104.4	6.1	NA



SYN12-12-69	163.1	12.1	257.4	21.9	1236.9	117.4	163.1	12.1	NA
SYN12-12-81	403.6	2.5	401.9	3.9	391.7	21.9	403.6	2.5	103.0
SYN12-12-01	405.5	4.9	397.8	21.3	353.2	143.7	405.5	4.9	114.8
SYN12-12-08	421.4	5.3	423.7	13.4	436.2	80.8	421.4	5.3	96.6
SYN12-12-15	454.0	7.1	460.1	28.6	490.8	166.7	454.0	7.1	92.5
SYN12-12-119	466.8	7.8	467.6	17.8	471.4	97.6	466.8	7.8	99.0
SYN12-12-70	552.8	4.9	537.6	16.8	473.4	86.7	552.8	4.9	116.8
SYN12-12-98	575.3	13.4	569.6	28.2	547.0	131.0	575.3	13.4	105.2
SYN12-12-118	610.2	9.6	605.1	19.1	586.1	83.7	610.2	9.6	104.1
SYN12-12-21	854.4	48.7	858.6	36.0	869.3	24.1	854.4	48.7	98.3
SYN12-12-82	1001.8	14.7	1000.7	11.9	998.4	20.0	998.4	20.0	100.3
SYN12-12-83	1033.5	10.0	1024.5	9.5	1005.3	21.1	1005.3	21.1	102.8
SYN12-12-114	1021.6	10.0	1025.4	10.1	1033.7	23.4	1033.7	23.4	98.8
SYN12-12-75	1073.6	5.0	1072.5	6.8	1070.4	17.8	1070.4	17.8	100.3
SYN12-12-74	1074.1	34.6	1074.0	58.5	1073.7	162.7	1073.7	162.7	100.0
SYN12-12-78	1085.3	10.5	1082.6	12.2	1077.0	30.3	1077.0	30.3	100.8
SYN12-12-34	1075.6	7.8	1078.5	6.1	1084.3	9.3	1084.3	9.3	99.2
SYN12-12-95	1059.6	19.9	1070.1	30.3	1091.4	82.2	1091.4	82.2	97.1
SYN12-12-101	1076.8	17.9	1084.0	33.8	1098.4	95.0	1098.4	95.0	98.0
SYN12-12-117	1107.5	24.3	1105.8	26.4	1102.4	62.1	1102.4	62.1	100.5
SYN12-12-40	1126.0	10.9	1128.8	8.9	1134.1	15.2	1134.1	15.2	99.3
SYN12-12-97	1115.8	16.2	1126.7	16.2	1147.9	35.6	1147.9	35.6	97.2
SYN12-12-105	1277.7	15.8	1268.1	20.5	1251.7	48.6	1251.7	48.6	102.1
SYN12-12-29	1332.9	9.8	1328.5	8.2	1321.4	14.4	1321.4	14.4	100.9
SYN12-12-55	1331.7	16.1	1328.4	10.7	1323.0	10.2	1323.0	10.2	100.7
SYN12-12-88	1411.2	23.9	1406.1	41.3	1398.5	97.6	1398.5	97.6	100.9
SYN12-12-60	1427.7	15.1	1427.6	18.0	1427.3	38.9	1427.3	38.9	100.0
SYN12-12-57	1442.8	28.2	1440.8	18.0	1437.9	16.2	1437.9	16.2	100.3
SYN12-12-41	1422.9	11.4	1434.2	12.3	1450.9	25.3	1450.9	25.3	98.1
SYN12-12-25	1479.5	21.3	1470.7	12.9	1457.9	7.4	1457.9	7.4	101.5
SYN12-12-107	1577.6	43.8	1555.4	36.2	1525.5	62.2	1525.5	62.2	103.4
SYN12-12-116	1557.1	29.7	1565.2	20.2	1576.1	25.1	1576.1	25.1	98.8
SYN12-12-87	1648.8	26.4	1638.6	19.1	1625.6	27.5	1625.6	27.5	101.4
SYN12-12-05	1591.8	33.7	1615.0	20.0	1645.3	11.7	1645.3	11.7	96.7
SYN12-12-85	1683.3	17.8	1668.2	10.6	1649.2	9.0	1649.2	9.0	102.1
SYN12-12-99	1669.1	11.6	1661.1	14.5	1650.9	29.4	1650.9	29.4	101.1
SYN12-12-110	1700.5	19.9	1689.2	15.2	1675.2	23.6	1675.2	23.6	101.5
SYN12-12-63	1717.3	42.8	1715.0	23.8	1712.3	8.1	1712.3	8.1	100.3
SYN12-12-22	1681.2	18.6	1698.4	13.0	1719.7	17.4	1719.7	17.4	97.8

SYN12-12-77	1741.6	33.5	1742.4	20.9	1743.3	22.2	1743.3	22.2	99.9
SYN12-12-32	1798.0	31.1	1775.0	17.2	1748.0	9.7	1748.0	9.7	102.9
SYN12-12-89	1786.5	26.1	1778.1	14.3	1768.2	6.0	1768.2	6.0	101.0
SYN12-12-65	1775.6	8.9	1775.2	5.1	1774.7	3.8	1774.7	3.8	100.0
SYN12-12-44	1802.0	28.5	1795.2	15.3	1787.4	3.4	1787.4	3.4	100.8
SYN12-12-108	1799.4	12.7	1794.2	7.6	1788.2	7.4	1788.2	7.4	100.6
SYN12-12-96	1830.1	16.9	1813.3	9.5	1794.0	6.9	1794.0	6.9	102.0
SYN12-12-49	1821.4	15.2	1811.7	10.2	1800.5	13.5	1800.5	13.5	101.2
SYN12-12-33	1810.6	12.5	1808.8	6.8	1806.7	3.2	1806.7	3.2	100.2
SYN12-12-67	1847.5	17.8	1838.7	12.3	1828.7	16.9	1828.7	16.9	101.0
SYN12-12-17	1833.9	23.5	1831.7	13.5	1829.2	11.2	1829.2	11.2	100.3
SYN12-12-46	1837.6	16.1	1836.2	10.3	1834.6	12.2	1834.6	12.2	100.2
SYN12-12-100	1866.5	24.8	1854.9	14.1	1841.9	11.5	1841.9	11.5	101.3
SYN12-12-12	1825.2	12.1	1834.2	7.1	1844.4	6.1	1844.4	6.1	99.0
SYN12-12-103	1870.4	24.0	1859.5	15.8	1847.4	20.2	1847.4	20.2	101.2
SYN12-12-10	1854.8	22.6	1852.2	12.1	1849.3	4.1	1849.3	4.1	100.3
SYN12-12-61	1869.2	15.7	1860.3	8.6	1850.3	5.1	1850.3	5.1	101.0
SYN12-12-50	1850.6	17.9	1850.8	11.3	1851.1	13.1	1851.1	13.1	100.0
SYN12-12-93	1871.3	34.5	1864.4	20.9	1856.8	22.2	1856.8	22.2	100.8
SYN12-12-07	1898.9	36.5	1885.3	19.3	1870.3	7.4	1870.3	7.4	101.5
SYN12-12-86	1908.4	29.2	1890.8	17.9	1871.4	20.2	1871.4	20.2	102.0
SYN12-12-112	1856.7	18.6	1865.6	20.6	1875.5	38.2	1875.5	38.2	99.0
SYN12-12-35	1706.9	68.7	1784.7	38.6	1876.9	6.0	1876.9	6.0	90.9
SYN12-12-54	1908.6	10.1	1900.3	6.0	1891.2	6.0	1891.2	6.0	100.9
SYN12-12-18	1908.6	17.7	1922.0	11.9	1936.5	15.6	1936.5	15.6	98.6
SYN12-12-56	1961.7	22.4	1949.8	15.2	1937.3	20.6	1937.3	20.6	101.3
SYN12-12-39	1940.9	28.3	1953.7	15.1	1967.3	7.3	1967.3	7.3	98.7
SYN12-12-104	2050.8	32.0	2053.7	16.3	2056.6	5.9	2056.6	5.9	99.7
SYN12-12-94	2078.5	36.5	2077.1	18.6	2075.7	8.4	2075.7	8.4	100.1
SYN12-12-14	2155.9	43.3	2213.1	22.3	2266.5	12.4	2266.5	12.4	95.1
SYN12-12-109	2534.1	31.9	2520.7	14.2	2510.0	2.4	2510.0	2.4	101.0
SYN12-12-111	2487.5	67.2	2571.2	39.5	2637.9	44.6	2637.9	44.6	94.3
SYN12-12-45	2682.7	25.1	2683.3	10.9	2683.7	2.9	2683.7	2.9	100.0
SYN12-12-06	2575.5	44.1	2646.5	19.8	2701.2	5.7	2701.2	5.7	95.3
SYN12-12-91	2765.6	20.4	2734.4	9.3	2711.4	6.0	2711.4	6.0	102.0
SYN12-12-84	2755.1	24.8	2738.8	14.7	2726.8	17.9	2726.8	17.9	101.0
SYN12-12-73	2725.2	13.1	2726.5	6.2	2727.4	4.8	2727.4	4.8	99.9
SYN12-12-48	2759.5	21.1	2744.7	9.5	2733.8	5.7	2733.8	5.7	100.9
SYN12-12-42	2578.2	28.2	2670.4	12.7	2740.9	4.1	2740.9	4.1	94.1

SYN12-12-52	2735.2	45.6	2744.4	21.5	2751.1	16.1	2751.1	16.1	99.4
SYN12-12-120	3105.1	19.8	3164.7	14.6	3202.7	20.1	3202.7	20.1	97.0

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-13R-39	94.1	8.6	117.4	43.6	619.9	854.2	94.1	8.6	NA
SYN12-13R-19	95.2	5.1	-129.6	479.5	NA	NA	95.2	5.1	NA
SYN12-13R-55	95.4	3.4	78.5	29.0	-410.2	1031.4	95.4	3.4	NA
SYN12-13R-111	96.0	1.8	95.2	7.6	75.2	193.4	96.0	1.8	NA
SYN12-13R-114	96.2	6.6	51.4	26.7	NA	NA	96.2	6.6	NA
SYN12-13R-109	96.4	0.9	96.8	6.6	105.6	167.9	96.4	0.9	NA
SYN12-13R-69	96.9	3.4	89.1	18.1	-115.1	521.2	96.9	3.4	NA
SYN12-13R-30	97.2	3.1	90.7	23.7	-74.6	672.1	97.2	3.1	NA
SYN12-13R-118	97.2	4.9	95.3	19.0	46.5	487.2	97.2	4.9	NA
SYN12-13R-98	97.3	0.9	97.8	5.7	111.7	143.1	97.3	0.9	NA
SYN12-13R-63	97.3	3.9	98.5	6.2	127.9	121.1	97.3	3.9	NA
SYN12-13R-47	97.3	5.3	90.2	20.2	-93.9	565.4	97.3	5.3	NA
SYN12-13R-34	97.6	2.6	97.2	16.3	87.8	413.7	97.6	2.6	NA
SYN12-13R-74	97.8	1.7	94.6	7.3	15.7	190.1	97.8	1.7	NA
SYN12-13R-32	97.9	2.0	92.4	23.4	-47.0	652.9	97.9	2.0	NA
SYN12-13R-65	97.9	4.9	98.9	7.7	122.6	151.5	97.9	4.9	NA
SYN12-13R-102	98.2	7.8	120.1	16.6	577.4	268.7	98.2	7.8	NA
SYN12-13R-35	98.3	1.7	98.4	4.8	99.8	114.4	98.3	1.7	NA
SYN12-13R-25	98.3	3.9	93.7	25.8	-23.5	704.5	98.3	3.9	NA
SYN12-13R-5	98.4	2.8	93.7	10.4	-24.2	273.5	98.4	2.8	NA
SYN12-13R-67	98.4	1.6	101.4	10.6	172.7	255.1	98.4	1.6	NA
SYN12-13R-85	98.4	3.3	94.3	15.1	-8.8	398.6	98.4	3.3	NA
SYN12-13R-108	98.4	4.1	107.6	15.5	316.6	333.0	98.4	4.1	NA
SYN12-13R-14	98.5	1.8	95.1	9.3	12.9	242.5	98.5	1.8	NA
SYN12-13R-93	98.5	1.2	96.9	7.6	58.4	193.2	98.5	1.2	NA
SYN12-13R-64	98.5	1.4	97.5	4.3	72.0	105.4	98.5	1.4	NA
SYN12-13R-57	98.6	3.7	85.0	9.6	-281.3	284.6	98.6	3.7	NA
SYN12-13R-36	98.8	2.0	90.7	9.4	-117.0	264.5	98.8	2.0	NA
SYN12-13R-2	98.8	2.6	99.2	23.1	107.9	581.8	98.8	2.6	NA
SYN12-13R-38	98.8	2.8	95.0	7.7	-1.0	194.7	98.8	2.8	NA
SYN12-13R-117	98.9	2.5	92.6	11.7	-65.0	317.7	98.9	2.5	NA

SYN12-13R-27	98.9	1.4	101.5	3.5	162.5	77.9	98.9	1.4	NA
SYN12-13R-88	98.9	0.8	100.4	7.7	135.5	188.8	98.9	0.8	NA
SYN12-13R-66	98.9	7.1	99.6	31.4	116.3	778.1	98.9	7.1	NA
SYN12-13R-94	98.9	2.1	100.7	7.8	142.9	184.9	98.9	2.1	NA
SYN12-13R-84	99.2	3.2	107.5	14.8	295.1	325.1	99.2	3.2	NA
SYN12-13R-48	99.3	2.2	95.8	9.0	11.3	230.8	99.3	2.2	NA
SYN12-13R-96	99.5	1.5	106.9	12.6	277.1	283.8	99.5	1.5	NA
SYN12-13R-16	99.5	1.4	99.0	4.1	85.8	97.2	99.5	1.4	NA
SYN12-13R-1	99.5	1.8	101.6	16.4	150.5	398.3	99.5	1.8	NA
SYN12-13R-24	99.7	2.0	93.0	9.0	-76.0	242.5	99.7	2.0	NA
SYN12-13R-11	99.7	2.3	102.1	8.4	157.1	196.0	99.7	2.3	NA
SYN12-13R-77	99.7	3.1	95.4	20.8	-10.3	552.6	99.7	3.1	NA
SYN12-13R-72	99.7	2.1	101.1	10.2	133.1	245.0	99.7	2.1	NA
SYN12-13R-83	99.8	6.6	88.0	21.4	-220.9	625.1	99.8	6.6	NA
SYN12-13R-13	99.9	2.1	95.7	4.0	-7.8	91.2	99.9	2.1	NA
SYN12-13R-40	99.9	2.7	94.5	15.6	-40.3	416.6	99.9	2.7	NA
SYN12-13R-9	100.1	1.8	93.3	17.5	-78.1	483.1	100.1	1.8	NA
SYN12-13R-3	100.1	1.2	95.8	7.4	-9.4	193.0	100.1	1.2	NA
SYN12-13R-92	100.1	9.1	97.1	24.9	22.8	615.7	100.1	9.1	NA
SYN12-13R-49	100.2	1.6	101.1	5.2	123.8	120.8	100.2	1.6	NA
SYN12-13R-87	100.7	3.1	123.2	19.3	584.1	356.5	100.7	3.1	NA
SYN12-13R-8	101.0	1.5	96.7	8.5	-8.1	219.3	101.0	1.5	NA
SYN12-13R-86	101.0	1.6	100.7	5.4	93.6	128.1	101.0	1.6	NA
SYN12-13R-4	101.4	5.1	80.3	43.1	-509.1	1592.9	101.4	5.1	NA
SYN12-13R-120	101.7	2.2	108.7	11.5	264.1	251.3	101.7	2.2	NA
SYN12-13R-76	103.0	9.6	105.8	42.6	168.4	1003.0	103.0	9.6	NA
SYN12-13R-22	104.5	1.9	94.5	22.3	-151.7	620.4	104.5	1.9	NA
SYN12-13R-60	104.6	9.0	135.8	38.7	722.5	631.5	104.6	9.0	NA
SYN12-13R-41	117.8	4.7	122.4	13.2	212.4	248.8	117.8	4.7	NA
SYN12-13R-90	121.0	3.8	94.9	14.3	-521.5	414.4	121.0	3.8	NA
SYN12-13R-103	154.6	7.3	180.1	56.1	529.6	756.2	154.6	7.3	NA
SYN12-13R-113	154.8	4.0	143.8	18.4	-33.5	327.5	154.8	4.0	NA
SYN12-13R-112	270.5	1.9	278.1	9.3	342.7	84.5	270.5	1.9	NA
SYN12-13R-17	328.6	9.0	249.4	76.9	-442.5	933.8	328.6	9.0	NA
SYN12-13R-71	330.5	8.6	326.8	14.2	300.2	98.2	330.5	8.6	NA
SYN12-13R-29	419.1	6.9	400.8	20.2	296.4	133.9	419.1	6.9	141.4
SYN12-13R-45	425.2	7.9	430.1	16.4	456.5	94.6	425.2	7.9	93.2
SYN12-13R-50	442.9	9.0	445.5	13.0	459.3	65.2	442.9	9.0	96.4
SYN12-13R-105	619.4	5.3	624.2	15.8	641.7	70.1	619.4	5.3	96.5

SYN12-13R-115	679.2	8.8	696.2	10.8	751.8	34.9	679.2	8.8	90.3
SYN12-13R-58	991.6	35.7	995.1	38.6	1002.8	95.0	1002.8	95.0	98.9
SYN12-13R-97	996.8	14.3	1003.4	13.9	1017.7	31.3	1017.7	31.3	97.9
SYN12-13R-33	1035.0	6.2	1031.6	11.6	1024.3	33.7	1024.3	33.7	101.0
SYN12-13R-82	993.9	15.3	1008.2	46.6	1039.3	143.5	1039.3	143.5	95.6
SYN12-13R-20	998.8	31.3	1011.6	22.6	1039.6	20.4	1039.6	20.4	96.1
SYN12-13R-99	1037.8	10.5	1042.6	21.5	1052.6	62.8	1052.6	62.8	98.6
SYN12-13R-106	1074.9	12.4	1076.9	12.4	1081.1	28.0	1081.1	28.0	99.4
SYN12-13R-107	1040.8	9.5	1065.9	23.6	1117.8	68.6	1117.8	68.6	93.1
SYN12-13R-42	1195.1	16.2	1175.6	19.9	1139.8	48.5	1139.8	48.5	104.9
SYN12-13R-68	1171.1	7.8	1166.2	9.6	1157.2	23.3	1157.2	23.3	101.2
SYN12-13R-46	1195.4	17.4	1194.4	34.8	1192.6	92.6	1192.6	92.6	100.2
SYN12-13R-26	1175.6	34.3	1194.4	61.4	1228.5	159.8	1228.5	159.8	95.7
SYN12-13R-78	1220.0	9.7	1226.6	9.8	1238.1	20.8	1238.1	20.8	98.5
SYN12-13R-80	1324.9	42.2	1324.0	31.6	1322.6	47.1	1322.6	47.1	100.2
SYN12-13R-15	1361.2	18.5	1355.9	20.4	1347.6	43.8	1347.6	43.8	101.0
SYN12-13R-79	1341.8	10.6	1360.9	18.6	1391.0	44.6	1391.0	44.6	96.5
SYN12-13R-51	1445.2	12.2	1441.0	17.9	1434.7	40.4	1434.7	40.4	100.7
SYN12-13R-21	1453.0	15.8	1448.4	10.0	1441.6	8.7	1441.6	8.7	100.8
SYN12-13R-101	1420.2	14.2	1429.3	16.0	1442.8	33.6	1442.8	33.6	98.4
SYN12-13R-73	1310.0	7.8	1361.8	6.7	1444.0	11.7	1444.0	11.7	90.7
SYN12-13R-56	1458.2	24.7	1456.6	22.7	1454.2	42.7	1454.2	42.7	100.3
SYN12-13R-89	1477.2	16.3	1468.8	15.4	1456.5	29.4	1456.5	29.4	101.4
SYN12-13R-12	1476.1	13.0	1482.2	10.7	1491.0	18.1	1491.0	18.1	99.0
SYN12-13R-81	1516.6	9.6	1515.9	14.4	1514.8	31.8	1514.8	31.8	100.1
SYN12-13R-59	1528.8	13.5	1526.5	9.8	1523.3	13.9	1523.3	13.9	100.4
SYN12-13R-95	1626.3	16.4	1611.7	11.2	1592.8	14.7	1592.8	14.7	102.1
SYN12-13R-28	1539.2	24.3	1565.9	18.7	1602.0	28.7	1602.0	28.7	96.1
SYN12-13R-53	1617.1	15.5	1618.9	12.6	1621.4	20.7	1621.4	20.7	99.7
SYN12-13R-31	1638.1	31.6	1637.2	18.4	1636.0	10.3	1636.0	10.3	100.1
SYN12-13R-7	1666.8	33.7	1683.2	20.2	1703.8	16.3	1703.8	16.3	97.8
SYN12-13R-91	1715.5	27.3	1714.2	15.1	1712.6	4.8	1712.6	4.8	100.2
SYN12-13R-70	1812.4	33.4	1821.8	20.1	1832.5	19.4	1832.5	19.4	98.9
SYN12-13R-116	1860.9	14.0	1852.1	18.9	1842.2	36.9	1842.2	36.9	101.0
SYN12-13R-62	1892.4	29.5	1886.0	16.1	1878.9	9.7	1878.9	9.7	100.7
SYN12-13R-110	1934.3	18.1	1914.6	17.5	1893.3	31.0	1893.3	31.0	102.2
SYN12-13R-54	1931.2	14.5	1924.5	10.7	1917.3	16.0	1917.3	16.0	100.7
SYN12-13R-43	2180.0	16.7	2165.4	8.7	2151.6	6.1	2151.6	6.1	101.3
SYN12-13R-10	2326.6	34.4	2344.8	17.3	2360.7	11.9	2360.7	11.9	98.6

SYN12-13R-104	2579.2	45.3	2542.2	34.6	2512.8	51.0	2512.8	51.0	102.6
SYN12-13R-23	2445.5	60.4	2548.7	28.9	2631.9	15.0	2631.9	15.0	92.9
SYN12-13R-61	2705.5	67.6	2741.4	29.3	2768.0	7.5	2768.0	7.5	97.7
SYN12-13R-6	2786.4	20.1	2789.3	8.7	2791.4	3.9	2791.4	3.9	99.8

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-14-8	92.3	1.9	103.7	6.8	373.6	148.9	92.3	1.9	NA
SYN12-14-22	98.1	4.3	85.4	12.8	-256.7	381.5	98.1	4.3	NA
SYN12-14-17	98.2	2.6	105.0	11.3	262.4	253.8	98.2	2.6	NA
SYN12-14-2	98.4	7.1	79.7	25.1	-452.3	858.6	98.4	7.1	NA
SYN12-14-6	99.0	1.9	95.1	5.4	-0.5	136.3	99.0	1.9	NA
SYN12-14-3	99.1	1.8	100.6	2.8	134.5	54.6	99.1	1.8	NA
SYN12-14-14	99.2	1.2	100.8	1.9	140.6	36.5	99.2	1.2	NA
SYN12-14-19	99.5	1.0	101.9	4.4	158.0	104.3	99.5	1.0	NA
SYN12-14-13	99.5	2.4	103.2	9.6	189.5	220.9	99.5	2.4	NA
SYN12-14-20	99.6	3.4	99.6	5.6	100.0	112.7	99.6	3.4	NA
SYN12-14-26	99.8	2.7	97.3	7.4	36.8	178.7	99.8	2.7	NA
SYN12-14-33	99.9	3.3	99.8	5.4	96.1	111.2	99.9	3.3	NA
SYN12-14-4	100.0	1.3	99.9	3.6	97.3	83.3	100.0	1.3	NA
SYN12-14-38	100.0	2.2	100.2	7.6	104.2	181.9	100.0	2.2	NA
SYN12-14-39	100.2	1.4	93.6	23.5	-70.9	651.1	100.2	1.4	NA
SYN12-14-7	100.3	4.5	103.6	14.8	180.4	336.9	100.3	4.5	NA
SYN12-14-29	100.7	1.5	97.3	4.6	16.6	113.0	100.7	1.5	NA
SYN12-14-27	100.9	3.3	105.3	10.3	205.5	226.8	100.9	3.3	NA
SYN12-14-23	101.0	1.9	101.0	3.9	101.2	85.1	101.0	1.9	NA
SYN12-14-40	101.6	1.7	101.1	2.6	90.0	49.2	101.6	1.7	NA
SYN12-14-9	101.6	1.7	98.0	9.5	11.2	241.4	101.6	1.7	NA
SYN12-14-41	102.4	3.6	102.7	11.2	110.1	257.0	102.4	3.6	NA
SYN12-14-1	155.7	3.9	156.9	5.4	175.5	61.7	155.7	3.9	NA
SYN12-14-12	157.9	6.0	174.0	8.9	399.3	90.3	157.9	6.0	NA
SYN12-14-15	1025.8	14.8	1025.9	14.6	1026.1	33.2	1026.1	33.2	100.0
SYN12-14-24	1031.4	38.9	1048.2	40.8	1083.4	94.8	1083.4	94.8	95.2
SYN12-14-31	1087.2	22.2	1107.4	32.8	1147.3	86.0	1147.3	86.0	94.8
SYN12-14-11	1441.5	9.3	1432.8	16.5	1419.8	38.6	1419.8	38.6	101.5
SYN12-14-36	1451.1	30.4	1445.2	19.3	1436.6	17.2	1436.6	17.2	101.0

SYN12-14-30	1709.3	28.8	1680.8	17.9	1645.5	19.3	1645.5	19.3	103.9
SYN12-14-35	1512.3	100.3	1571.6	59.8	1652.2	13.5	1652.2	13.5	91.5
SYN12-14-10	1756.9	16.9	1758.3	10.6	1759.9	11.8	1759.9	11.8	99.8
SYN12-14-32	1839.3	15.6	1836.0	10.2	1832.2	12.8	1832.2	12.8	100.4
SYN12-14-21	1867.7	18.1	1853.2	13.0	1836.9	18.9	1836.9	18.9	101.7
SYN12-14-34	1917.3	14.0	1906.5	10.5	1894.7	16.0	1894.7	16.0	101.2
SYN12-14-16	2018.6	29.5	2003.7	15.4	1988.4	8.2	1988.4	8.2	101.5
SYN12-14-37	2097.3	17.7	2097.1	12.8	2096.9	18.4	2096.9	18.4	100.0
SYN12-14-25	2326.6	32.5	2315.7	15.6	2306.0	6.4	2306.0	6.4	100.9
SYN12-14-28	2757.5	120.9	2885.1	51.9	2975.5	10.7	2975.5	10.7	92.7

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-15-6	87.7	6.9	248.1	673.2	2307.4	178.6	87.7	6.9	NA
SYN12-15-11	89.2	5.2	77.3	20.2	-275.5	684.7	89.2	5.2	NA
SYN12-15-47	90.9	4.2	84.4	17.2	-95.6	513.6	90.9	4.2	NA
SYN12-15-8	91.2	2.9	92.6	6.7	129.0	160.0	91.2	2.9	NA
SYN12-15-98	91.2	6.9	92.3	15.3	119.0	370.2	91.2	6.9	NA
SYN12-15-86	91.5	2.1	98.3	12.4	265.5	300.4	91.5	2.1	NA
SYN12-15-23	91.7	4.4	90.8	9.6	65.6	236.7	91.7	4.4	NA
SYN12-15-60	92.4	2.6	92.8	15.0	103.9	396.3	92.4	2.6	NA
SYN12-15-90	92.6	2.6	95.3	11.7	163.4	294.8	92.6	2.6	NA
SYN12-15-38	92.9	1.4	95.3	7.1	155.6	180.4	92.9	1.4	NA
SYN12-15-19	93.2	3.8	93.7	7.2	106.0	165.1	93.2	3.8	NA
SYN12-15-96	93.3	8.5	92.1	57.0	59.9	1701.1	93.3	8.5	NA
SYN12-15-80	93.8	2.3	97.6	6.4	193.4	150.4	93.8	2.3	NA
SYN12-15-51	94.3	1.8	90.6	4.8	-6.0	125.2	94.3	1.8	NA
SYN12-15-15	94.7	3.7	78.5	20.1	-391.2	693.7	94.7	3.7	NA
SYN12-15-50	94.9	1.1	92.1	10.5	20.5	286.3	94.9	1.1	NA
SYN12-15-65	94.9	5.7	78.6	33.8	-392.1	1202.3	94.9	5.7	NA
SYN12-15-34	95.1	4.4	93.5	9.2	52.8	218.3	95.1	4.4	NA
SYN12-15-30	95.3	2.2	88.1	12.7	-101.1	367.1	95.3	2.2	NA
SYN12-15-40	95.4	5.6	84.7	95.3	-208.4	1373.4	95.4	5.6	NA
SYN12-15-44	96.0	2.6	102.5	24.5	257.0	583.0	96.0	2.6	NA
SYN12-15-53	96.0	1.2	98.0	7.1	145.1	175.0	96.0	1.2	NA
SYN12-15-75	96.1	3.9	93.3	7.2	20.7	165.8	96.1	3.9	NA
SYN12-15-72	96.2	1.8	83.7	8.7	-258.3	269.8	96.2	1.8	NA

SYN12-15-95	96.7	5.5	94.2	23.0	31.9	604.3	96.7	5.5	NA
SYN12-15-18	96.9	6.1	81.1	65.9	-360.1	2749.8	96.9	6.1	NA
SYN12-15-66	97.1	2.3	92.2	10.7	-32.9	290.4	97.1	2.3	NA
SYN12-15-4	97.4	1.1	99.3	4.1	145.8	98.8	97.4	1.1	NA
SYN12-15-57	97.4	2.2	82.5	16.1	-329.7	522.8	97.4	2.2	NA
SYN12-15-9	97.6	0.7	102.3	3.7	212.9	87.2	97.6	0.7	NA
SYN12-15-83	97.8	3.0	99.4	14.3	140.1	348.9	97.8	3.0	NA
SYN12-15-26	97.8	3.1	82.8	21.7	-331.7	706.6	97.8	3.1	NA
SYN12-15-27	98.8	3.3	105.4	5.5	257.4	99.5	98.8	3.3	NA
SYN12-15-1	98.9	2.8	92.6	19.6	-67.1	542.3	98.9	2.8	NA
SYN12-15-62	99.1	5.4	110.4	17.4	362.1	355.1	99.1	5.4	NA
SYN12-15-39	99.8	4.5	104.9	52.1	221.9	1287.2	99.8	4.5	NA
SYN12-15-71	100.0	1.5	99.2	7.5	78.7	185.6	100.0	1.5	NA
SYN12-15-12	101.0	3.2	106.1	7.4	223.4	152.3	101.0	3.2	NA
SYN12-15-64	101.5	1.9	101.0	13.1	89.9	321.9	101.5	1.9	NA
SYN12-15-49	101.7	3.1	114.0	8.4	377.5	162.0	101.7	3.1	NA
SYN12-15-29	106.0	7.7	125.2	40.8	507.7	765.2	106.0	7.7	NA
SYN12-15-10	111.0	4.9	106.7	25.3	11.6	598.5	111.0	4.9	NA
SYN12-15-93	164.0	8.4	175.0	13.2	326.3	145.8	164.0	8.4	NA
SYN12-15-61	251.1	3.1	246.8	9.4	206.4	95.0	251.1	3.1	NA
SYN12-15-84	331.4	4.4	321.6	14.9	251.3	120.3	331.4	4.4	NA
SYN12-15-86	395.2	11.5	388.2	28.3	346.8	186.6	395.2	11.5	NA
SYN12-15-21	475.2	20.4	489.3	34.9	555.8	170.7	475.2	20.4	85.5
SYN12-15-52	492.9	10.3	513.1	21.5	604.3	105.4	492.9	10.3	81.6
SYN12-15-94	547.6	3.5	539.6	11.5	505.8	58.9	547.6	3.5	108.3
SYN12-15-25	615.5	10.9	619.8	26.8	635.7	117.6	615.5	10.9	96.8
SYN12-15-46	648.2	12.4	674.2	15.2	761.9	49.0	648.2	12.4	85.1
SYN12-15-42	994.3	13.4	992.9	15.0	989.8	37.9	989.8	37.9	100.5
SYN12-15-45	998.7	8.5	996.2	17.2	990.8	51.7	990.8	51.7	100.8
SYN12-15-85	1045.5	18.8	1042.7	13.5	1036.8	14.0	1036.8	14.0	100.8
SYN12-15-82	1024.9	29.2	1029.3	51.3	1038.5	147.5	1038.5	147.5	98.7
SYN12-15-24	1034.5	15.8	1038.3	20.3	1046.3	53.3	1046.3	53.3	98.9
SYN12-15-20	1080.4	28.1	1071.3	38.0	1052.7	100.7	1052.7	100.7	102.6
SYN12-15-81	1041.3	12.5	1053.7	23.1	1079.4	65.7	1079.4	65.7	96.5
SYN12-15-67	1081.6	13.1	1082.1	17.5	1083.0	45.6	1083.0	45.6	99.9
SYN12-15-77	1040.9	28.5	1061.2	27.3	1103.1	58.1	1103.1	58.1	94.4
SYN12-15-2	1153.8	15.7	1139.5	39.0	1112.3	109.8	1112.3	109.8	103.7
SYN12-15-73	1164.1	31.1	1159.6	68.2	1151.3	187.2	1151.3	187.2	101.1
SYN12-15-16	1129.4	7.2	1139.3	6.5	1158.4	12.9	1158.4	12.9	97.5



SYN12-15-97	1169.7	21.7	1168.0	30.0	1164.9	75.6	1164.9	75.6	100.4
SYN12-15-17	1117.3	8.5	1133.6	7.4	1165.0	14.2	1165.0	14.2	95.9
SYN12-15-5	1113.8	36.4	1134.2	24.5	1173.4	7.7	1173.4	7.7	94.9
SYN12-15-32	1387.7	11.2	1384.6	14.5	1379.9	32.5	1379.9	32.5	100.6
SYN12-15-58	1409.3	24.3	1399.6	18.5	1384.9	28.8	1384.9	28.8	101.8
SYN12-15-14	1428.8	9.8	1430.0	18.0	1431.8	42.4	1431.8	42.4	99.8
SYN12-15-43	1457.6	7.7	1451.0	6.3	1441.3	10.5	1441.3	10.5	101.1
SYN12-15-91	1475.2	19.9	1473.8	16.0	1471.7	26.5	1471.7	26.5	100.2
SYN12-15-41	1579.1	7.4	1593.5	5.9	1612.6	9.5	1612.6	9.5	97.9
SYN12-15-100	1655.8	10.2	1642.7	11.0	1626.0	21.5	1626.0	21.5	101.8
SYN12-15-89	1646.2	18.2	1650.5	14.0	1655.9	21.7	1655.9	21.7	99.4
SYN12-15-3	1671.3	19.5	1665.1	14.1	1657.2	20.6	1657.2	20.6	100.8
SYN12-15-63	1652.9	38.0	1669.5	34.4	1690.5	60.7	1690.5	60.7	97.8
SYN12-15-69	1457.3	116.5	1571.9	71.8	1729.2	14.4	1729.2	14.4	84.3
SYN12-15-37	1647.2	41.0	1695.5	24.5	1755.7	17.0	1755.7	17.0	93.8
SYN12-15-92	1752.7	9.8	1755.0	11.3	1757.7	21.9	1757.7	21.9	99.7
SYN12-15-59	1689.5	80.7	1726.9	45.3	1772.5	9.4	1772.5	9.4	95.3
SYN12-15-22	1779.2	21.8	1779.1	13.9	1778.9	15.9	1778.9	15.9	100.0
SYN12-15-35	1783.9	34.0	1788.7	28.2	1794.3	46.4	1794.3	46.4	99.4
SYN12-15-78	1838.1	15.3	1823.6	22.6	1807.2	45.2	1807.2	45.2	101.7
SYN12-15-36	1828.3	24.2	1825.5	14.1	1822.2	12.3	1822.2	12.3	100.3
SYN12-15-79	1857.0	13.4	1846.1	22.0	1833.9	44.3	1833.9	44.3	101.3
SYN12-15-48	1856.4	7.4	1846.8	5.4	1835.9	8.0	1835.9	8.0	101.1
SYN12-15-31	1873.7	11.4	1861.5	6.4	1847.9	5.0	1847.9	5.0	101.4
SYN12-15-56	1956.2	22.6	1941.2	13.8	1925.3	15.6	1925.3	15.6	101.6
SYN12-15-70	2039.5	42.0	2034.8	31.0	2029.9	45.6	2029.9	45.6	100.5
SYN12-15-74	2727.9	17.1	2721.9	7.6	2717.4	3.9	2717.4	3.9	100.4
SYN12-15-33	2728.8	80.4	2732.7	34.9	2735.6	12.0	2735.6	12.0	99.8
SYN12-15-13	2983.9	26.8	2975.0	11.0	2969.0	3.1	2969.0	3.1	100.5

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-16-41	90.2	1.3	89.1	4.3	57.7	116.3	90.2	1.3	NA
SYN12-16-52	93.4	2.0	95.6	5.1	150.8	120.2	93.4	2.0	NA
SYN12-16-95	95.3	1.8	95.8	8.9	108.1	227.4	95.3	1.8	NA
SYN12-16-97	97.8	4.1	92.4	17.0	-42.3	459.4	97.8	4.1	NA

SYN12-16-98	103.3	3.1	99.2	9.8	2.7	238.0	103.3	3.1	NA
SYN12-16-50	201.4	3.9	191.3	11.0	68.3	143.0	201.4	3.9	NA
SYN12-16-72	270.1	5.4	298.6	11.0	527.4	81.9	270.1	5.4	NA
SYN12-16-75	328.0	6.5	339.3	15.5	417.6	111.1	328.0	6.5	NA
SYN12-16-70	341.1	2.7	346.5	7.4	382.3	53.5	341.1	2.7	NA
SYN12-16-3	379.8	7.9	374.5	26.7	342.3	187.0	379.8	7.9	NA
SYN12-16-56	415.9	4.8	402.8	15.3	328.7	100.6	415.9	4.8	126.5
SYN12-16-92	418.3	9.8	415.0	20.3	396.8	122.2	418.3	9.8	105.4
SYN12-16-69	434.0	5.5	437.8	10.4	457.6	58.1	434.0	5.5	94.8
SYN12-16-1	435.3	2.8	437.4	7.5	448.4	44.5	435.3	2.8	97.1
SYN12-16-38	454.5	22.0	465.3	19.3	519.1	27.9	454.5	22.0	87.5
SYN12-16-78	455.0	4.3	450.3	13.9	426.2	82.7	455.0	4.3	106.7
SYN12-16-9	458.7	6.0	462.4	23.9	481.1	138.8	458.7	6.0	95.3
SYN12-16-24	552.1	7.1	561.9	8.4	601.8	30.8	552.1	7.1	91.7
SYN12-16-99	557.9	37.2	573.8	31.1	637.2	28.2	557.9	37.2	87.6
SYN12-16-46	565.3	45.8	583.5	39.4	655.4	57.5	565.3	45.8	86.2
SYN12-16-7	581.0	20.4	624.3	61.2	784.4	265.5	581.0	20.4	74.1
SYN12-16-58	594.0	8.6	593.8	11.1	593.3	42.3	594.0	8.6	100.1
SYN12-16-54	600.9	11.7	604.9	16.2	619.8	62.5	600.9	11.7	97.0
SYN12-16-4	621.1	14.0	621.8	15.2	624.6	48.9	621.1	14.0	99.4
SYN12-16-71	632.6	22.5	663.1	28.0	768.2	92.2	632.6	22.5	82.4
SYN12-16-81	637.5	13.3	647.0	14.6	680.3	45.7	637.5	13.3	93.7
SYN12-16-84	639.5	13.3	670.9	35.7	777.6	145.9	639.5	13.3	82.2
SYN12-16-73	670.3	12.9	692.9	11.7	767.1	24.4	670.3	12.9	87.4
SYN12-16-87	677.0	4.9	675.6	4.7	671.2	12.5	677.0	4.9	100.9
SYN12-16-66	852.6	56.8	841.6	50.1	812.8	106.9	852.6	56.8	104.9
SYN12-16-35	954.5	13.7	957.5	21.0	964.2	61.7	964.2	61.7	99.0
SYN12-16-74	881.2	25.2	924.6	26.1	1029.6	61.1	1029.6	61.1	85.6
SYN12-16-10	1037.8	42.6	1036.4	43.3	1033.4	100.5	1033.4	100.5	100.4
SYN12-16-62	1041.2	17.1	1041.1	13.0	1040.9	18.5	1040.9	18.5	100.0
SYN12-16-2	1070.2	22.4	1063.5	22.7	1049.8	52.2	1049.8	52.2	101.9
SYN12-16-28	1047.5	10.7	1049.6	8.8	1054.1	15.3	1054.1	15.3	99.4
SYN12-16-60	1065.0	7.0	1063.4	9.8	1060.2	26.4	1060.2	26.4	100.5
SYN12-16-47	1055.5	14.1	1061.9	12.4	1075.1	24.0	1075.1	24.0	98.2
SYN12-16-40	1129.3	58.4	1133.6	38.7	1141.7	11.2	1141.7	11.2	98.9
SYN12-16-14	1168.0	24.2	1166.4	27.5	1163.6	64.5	1163.6	64.5	100.4
SYN12-16-61	1193.2	50.0	1196.8	34.2	1203.4	31.3	1203.4	31.3	99.1
SYN12-16-51	1133.9	37.8	1185.2	26.0	1280.1	15.5	1280.1	15.5	88.6
SYN12-16-22	1330.4	25.1	1320.5	19.2	1304.6	30.1	1304.6	30.1	102.0

SYN12-16-88	1282.5	7.4	1292.4	9.1	1308.8	20.6	1308.8	20.6	98.0
SYN12-16-86	1379.3	10.7	1371.8	7.7	1360.2	10.6	1360.2	10.6	101.4
SYN12-16-23	1368.3	7.3	1371.4	11.5	1376.0	27.1	1376.0	27.1	99.4
SYN12-16-6	1460.3	14.8	1437.0	12.9	1402.5	23.9	1402.5	23.9	104.1
SYN12-16-33	1464.3	19.5	1451.8	13.8	1433.5	19.1	1433.5	19.1	102.1
SYN12-16-67	1294.9	13.8	1352.4	11.6	1444.4	19.2	1444.4	19.2	89.7
SYN12-16-94	1497.4	90.5	1477.0	53.1	1447.8	14.8	1447.8	14.8	103.4
SYN12-16-36	1395.7	9.6	1416.7	6.9	1448.2	9.0	1448.2	9.0	96.4
SYN12-16-12	1490.1	22.1	1492.8	15.7	1496.6	21.3	1496.6	21.3	99.6
SYN12-16-68	1515.3	19.0	1509.0	13.7	1500.2	19.6	1500.2	19.6	101.0
SYN12-16-26	1402.7	24.5	1462.2	17.6	1549.8	21.9	1549.8	21.9	90.5
SYN12-16-79	1577.1	10.0	1582.2	6.1	1589.0	5.0	1589.0	5.0	99.3
SYN12-16-16	1587.1	34.6	1596.6	20.5	1609.2	12.4	1609.2	12.4	98.6
SYN12-16-21	1634.0	25.7	1627.8	31.4	1619.9	64.0	1619.9	64.0	100.9
SYN12-16-15	1656.6	32.0	1651.7	18.1	1645.5	6.3	1645.5	6.3	100.7
SYN12-16-93	1649.6	34.9	1647.8	21.7	1645.5	21.4	1645.5	21.4	100.3
SYN12-16-13	1643.0	9.0	1644.6	10.8	1646.7	21.8	1646.7	21.8	99.8
SYN12-16-57	1671.1	9.6	1667.8	7.5	1663.8	11.9	1663.8	11.9	100.4
SYN12-16-76	1668.5	21.9	1672.8	12.7	1678.3	7.8	1678.3	7.8	99.4
SYN12-16-18	1703.1	11.7	1697.7	7.3	1691.0	7.6	1691.0	7.6	100.7
SYN12-16-31	1634.9	25.1	1681.9	14.9	1741.0	9.4	1741.0	9.4	93.9
SYN12-16-64	1489.8	20.0	1597.6	12.6	1742.9	8.2	1742.9	8.2	85.5
SYN12-16-80	1786.6	4.5	1767.5	3.1	1744.9	4.1	1744.9	4.1	102.4
SYN12-16-77	1767.9	18.8	1762.5	14.7	1756.2	23.4	1756.2	23.4	100.7
SYN12-16-8	1810.6	16.2	1814.4	9.1	1818.8	5.6	1818.8	5.6	99.5
SYN12-16-20	1785.1	55.0	1808.1	31.0	1834.6	18.0	1834.6	18.0	97.3
SYN12-16-89	1844.9	13.5	1841.5	17.4	1837.6	33.9	1837.6	33.9	100.4
SYN12-16-34	1767.1	31.4	1803.7	18.0	1846.3	12.1	1846.3	12.1	95.7
SYN12-16-63	1854.1	10.3	1852.4	7.0	1850.4	9.5	1850.4	9.5	100.2
SYN12-16-48	1903.4	12.3	1904.2	8.6	1905.1	12.1	1905.1	12.1	99.9
SYN12-16-83	1844.6	10.9	1875.2	6.2	1909.3	4.2	1909.3	4.2	96.6
SYN12-16-5	2008.7	13.1	2011.6	17.9	2014.6	33.7	2014.6	33.7	99.7
SYN12-16-43	2081.0	59.5	2078.9	30.2	2076.9	12.3	2076.9	12.3	100.2
SYN12-16-30	2060.4	24.1	2114.2	21.1	2166.9	33.8	2166.9	33.8	95.1
SYN12-16-29	2252.6	40.0	2378.7	19.9	2488.7	8.5	2488.7	8.5	90.5
SYN12-16-42	2535.6	19.5	2522.1	9.0	2511.3	4.5	2511.3	4.5	101.0
SYN12-16-45	2661.7	18.6	2664.9	18.4	2667.2	29.2	2667.2	29.2	99.8
SYN12-16-59	2717.0	33.0	2716.3	14.7	2715.8	7.3	2715.8	7.3	100.0
SYN12-16-65	2744.3	43.1	2737.4	18.7	2732.2	6.9	2732.2	6.9	100.4

SYN12-16-11	2694.0	23.8	2725.5	11.3	2749.0	8.4	2749.0	8.4	98.0
SYN12-16-19	2937.9	122.6	2908.0	49.8	2887.3	3.1	2887.3	3.1	101.8

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-17-1	92.1	3.6	94.0	11.0	143.3	274.2	92.1	3.6	NA
SYN12-17-87	92.2	4.8	86.9	15.3	-57.3	431.0	92.2	4.8	NA
SYN12-17-16	93.9	3.5	106.2	15.3	390.7	331.1	93.9	3.5	NA
SYN12-17-96	94.3	1.7	95.4	7.2	120.9	183.1	94.3	1.7	NA
SYN12-17-43	94.4	2.4	106.1	15.1	378.6	334.1	94.4	2.4	NA
SYN12-17-74	94.7	1.8	93.9	9.0	74.6	234.8	94.7	1.8	NA
SYN12-17-97	95.0	2.0	99.3	15.9	204.6	390.1	95.0	2.0	NA
SYN12-17-36	96.1	5.8	80.4	46.3	-364.9	1682.5	96.1	5.8	NA
SYN12-17-81	97.2	4.3	77.1	35.2	-509.9	1323.4	97.2	4.3	NA
SYN12-17-11	98.4	0.4	99.1	1.6	114.6	38.0	98.4	0.4	NA
SYN12-17-59	99.9	2.9	97.0	10.0	25.1	249.6	99.9	2.9	NA
SYN12-17-28	100.4	2.4	95.8	13.0	-16.8	340.5	100.4	2.4	NA
SYN12-17-92	117.0	4.3	123.9	32.8	259.5	650.8	117.0	4.3	NA
SYN12-17-18	159.6	1.0	160.1	1.6	167.1	20.7	159.6	1.0	NA
SYN12-17-95	224.1	2.2	225.6	6.2	241.1	67.0	224.1	2.2	NA
SYN12-17-32	267.8	8.8	288.6	13.8	461.0	96.5	267.8	8.8	NA
SYN12-17-70	387.6	5.6	376.3	20.9	307.8	147.9	387.6	5.6	NA
SYN12-17-8	423.3	4.5	418.0	10.6	389.0	64.8	423.3	4.5	108.8
SYN12-17-101	468.5	3.6	470.6	10.8	480.9	60.6	468.5	3.6	97.4
SYN12-17-34	500.8	19.7	503.8	44.4	517.2	229.0	500.8	19.7	96.8
SYN12-17-73	577.1	13.0	570.5	76.2	544.0	379.9	577.1	13.0	106.1
SYN12-17-4	608.5	5.9	614.6	31.0	637.4	142.9	608.5	5.9	95.5
SYN12-17-46	908.8	7.9	904.6	6.7	894.3	12.6	894.3	12.6	101.6
SYN12-17-26	1031.7	18.1	1018.0	20.9	988.5	53.5	988.5	53.5	104.4
SYN12-17-85	1007.1	12.5	1006.1	17.6	1003.9	49.0	1003.9	49.0	100.3
SYN12-17-61	1039.7	10.2	1030.1	10.7	1009.8	25.8	1009.8	25.8	103.0
SYN12-17-58	1033.2	9.8	1026.4	11.7	1011.7	30.1	1011.7	30.1	102.1
SYN12-17-56	1036.0	9.1	1028.3	10.5	1012.0	26.8	1012.0	26.8	102.4
SYN12-17-84	1034.3	16.7	1028.4	42.8	1015.9	129.4	1015.9	129.4	101.8
SYN12-17-9	1038.1	5.4	1036.1	7.4	1032.0	20.0	1032.0	20.0	100.6
SYN12-17-40	1036.3	5.8	1035.0	15.0	1032.2	45.2	1032.2	45.2	100.4
SYN12-17-55	1078.5	9.1	1063.4	11.6	1032.4	30.6	1032.4	30.6	104.5

SYN12-17-10	1026.2	10.3	1029.0	11.0	1035.0	26.2	1035.0	26.2	99.1
SYN12-17-23	1041.3	9.9	1040.4	6.9	1038.5	5.7	1038.5	5.7	100.3
SYN12-17-68	1036.6	8.9	1038.8	16.0	1043.3	45.9	1043.3	45.9	99.4
SYN12-17-63	1060.0	6.7	1058.2	19.5	1054.5	58.1	1054.5	58.1	100.5
SYN12-17-27	1087.1	10.4	1077.4	17.5	1057.8	48.7	1057.8	48.7	102.8
SYN12-17-78	1052.2	8.8	1056.0	7.6	1063.8	14.6	1063.8	14.6	98.9
SYN12-17-21	1011.2	21.3	1030.3	53.9	1071.2	161.0	1071.2	161.0	94.4
SYN12-17-69	1077.5	15.7	1076.8	17.7	1075.3	43.2	1075.3	43.2	100.2
SYN12-17-31	1077.5	6.5	1079.2	17.0	1082.7	49.7	1082.7	49.7	99.5
SYN12-17-25	1053.5	23.1	1068.8	16.6	1100.0	15.8	1100.0	15.8	95.8
SYN12-17-2	1117.4	6.4	1112.2	5.2	1102.2	9.1	1102.2	9.1	101.4
SYN12-17-41	1134.0	6.6	1130.2	6.3	1122.9	13.5	1122.9	13.5	101.0
SYN12-17-57	1142.6	16.8	1137.1	13.2	1126.8	21.5	1126.8	21.5	101.4
SYN12-17-64	1062.2	20.5	1086.1	15.5	1134.3	20.1	1134.3	20.1	93.6
SYN12-17-33	1113.0	9.3	1123.4	11.5	1143.6	28.4	1143.6	28.4	97.3
SYN12-17-77	1140.5	6.0	1142.1	9.2	1145.3	24.1	1145.3	24.1	99.6
SYN12-17-51	1141.8	10.8	1144.5	21.6	1149.8	59.1	1149.8	59.1	99.3
SYN12-17-13	1171.5	13.0	1165.7	15.3	1155.0	36.6	1155.0	36.6	101.4
SYN12-17-29	1104.4	7.6	1126.5	13.6	1169.3	36.5	1169.3	36.5	94.5
SYN12-17-67	1178.6	8.3	1176.7	6.4	1173.2	10.2	1173.2	10.2	100.5
SYN12-17-30	1137.7	4.7	1157.5	13.8	1194.8	38.3	1194.8	38.3	95.2
SYN12-17-75	1193.6	10.1	1199.1	10.3	1209.1	22.3	1209.1	22.3	98.7
SYN12-17-17	1182.2	15.1	1196.4	50.1	1222.1	137.4	1222.1	137.4	96.7
SYN12-17-5	1170.0	46.6	1202.5	32.5	1261.5	29.9	1261.5	29.9	92.7
SYN12-17-80	1312.6	11.4	1306.4	7.9	1296.3	9.7	1296.3	9.7	101.3
SYN12-17-53	1331.4	19.3	1332.6	32.5	1334.7	78.8	1334.7	78.8	99.8
SYN12-17-54	1399.5	17.0	1391.7	12.8	1379.9	19.5	1379.9	19.5	101.4
SYN12-17-82	1395.4	13.6	1396.8	14.9	1398.8	31.3	1398.8	31.3	99.8
SYN12-17-39	1467.7	10.3	1458.9	7.3	1446.1	9.8	1446.1	9.8	101.5
SYN12-17-50	1463.7	12.8	1458.4	12.2	1450.7	23.7	1450.7	23.7	100.9
SYN12-17-98	1455.3	10.1	1461.0	12.1	1469.4	25.7	1469.4	25.7	99.0
SYN12-17-12	1522.4	6.8	1510.4	4.5	1493.5	5.1	1493.5	5.1	101.9
SYN12-17-99	1475.3	15.1	1493.7	21.6	1519.7	47.4	1519.7	47.4	97.1
SYN12-17-79	1517.1	25.0	1522.1	25.2	1529.0	49.0	1529.0	49.0	99.2
SYN12-17-14	1567.2	4.6	1566.8	7.9	1566.3	17.6	1566.3	17.6	100.1
SYN12-17-93	1563.5	13.0	1574.5	21.0	1589.3	45.9	1589.3	45.9	98.4
SYN12-17-88	1568.3	14.7	1578.9	21.8	1593.0	46.8	1593.0	46.8	98.4
SYN12-17-48	1562.1	22.4	1580.0	14.8	1603.9	17.0	1603.9	17.0	97.4
SYN12-17-44	1655.3	16.3	1644.9	21.2	1631.5	43.7	1631.5	43.7	101.5

SYN12-17-86	1651.6	7.4	1644.9	7.7	1636.2	14.9	1636.2	14.9	100.9
SYN12-17-104	1656.9	16.5	1650.1	12.7	1641.4	19.9	1641.4	19.9	100.9
SYN12-17-38	1644.6	10.1	1643.2	7.8	1641.5	12.3	1641.5	12.3	100.2
SYN12-17-76	1672.4	16.9	1661.1	12.5	1646.8	18.8	1646.8	18.8	101.6
SYN12-17-65	1642.8	10.3	1644.8	8.1	1647.4	12.9	1647.4	12.9	99.7
SYN12-17-89	1664.9	13.4	1659.6	10.3	1652.9	16.2	1652.9	16.2	100.7
SYN12-17-35	1649.1	14.8	1653.0	10.7	1658.0	15.1	1658.0	15.1	99.5
SYN12-17-62	1702.6	12.6	1696.9	7.4	1689.9	5.7	1689.9	5.7	100.7
SYN12-17-60	1756.8	9.6	1747.1	6.7	1735.5	9.4	1735.5	9.4	101.2
SYN12-17-7	1747.9	14.0	1751.7	8.4	1756.2	7.9	1756.2	7.9	99.5
SYN12-17-24	1772.4	12.9	1768.3	11.5	1763.4	19.8	1763.4	19.8	100.5
SYN12-17-6	1850.3	14.4	1838.6	16.6	1825.3	31.5	1825.3	31.5	101.4
SYN12-17-3	1902.9	19.8	1881.7	12.6	1858.3	15.3	1858.3	15.3	102.4
SYN12-17-71	1888.3	14.1	1896.2	12.6	1904.7	21.5	1904.7	21.5	99.1
SYN12-17-100	1939.9	10.2	1924.3	14.2	1907.5	27.4	1907.5	27.4	101.7
SYN12-17-15	1964.7	13.7	1954.6	9.8	1944.0	14.2	1944.0	14.2	101.1
SYN12-17-42	1900.0	19.9	1925.2	13.5	1952.4	17.8	1952.4	17.8	97.3
SYN12-17-90	2010.5	12.0	2018.1	7.1	2025.8	7.6	2025.8	7.6	99.2
SYN12-17-52	2016.7	24.1	2024.2	19.0	2031.9	29.5	2031.9	29.5	99.2
SYN12-17-22	2102.1	16.7	2097.3	8.8	2092.5	5.8	2092.5	5.8	100.5
SYN12-17-49	498.3	21.9	1058.0	31.4	2513.4	23.6	2513.4	23.6	19.8
SYN12-17-47	2472.2	38.0	2577.2	17.7	2660.9	6.2	2660.9	6.2	92.9
SYN12-17-94	2746.8	18.1	2764.9	8.8	2778.1	7.4	2778.1	7.4	98.9
SYN12-17-102	3360.3	78.9	3508.5	29.7	3594.2	1.9	3594.2	1.9	93.5

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN12-18-64	311.2	3.0	315.7	4.9	349.0	34.1	311.2	3.0	NA
SYN12-18-19	314.4	5.2	343.4	61.3	544.8	462.1	314.4	5.2	NA
SYN12-18-23	320.4	4.4	325.5	6.5	361.9	41.4	320.4	4.4	NA
SYN12-18-74	346.2	3.8	345.9	6.1	344.1	40.0	346.2	3.8	NA
SYN12-18-97	346.9	4.3	346.8	11.9	346.1	86.7	346.9	4.3	NA
SYN12-18-41	348.1	2.2	344.7	8.1	322.1	61.6	348.1	2.2	NA
SYN12-18-8	370.6	5.1	379.9	11.2	437.2	72.1	370.6	5.1	NA
SYN12-18-59	371.5	4.9	374.6	8.6	393.9	53.3	371.5	4.9	NA
SYN12-18-67	378.2	2.8	384.3	13.3	420.8	90.9	378.2	2.8	NA
SYN12-18-62	378.5	8.3	379.8	16.5	387.6	105.3	378.5	8.3	NA

SYN12-18-43	385.7	4.3	392.8	19.1	434.6	128.0	385.7	4.3	NA
SYN12-18-76	387.1	12.8	393.4	16.9	430.9	87.6	387.1	12.8	NA
SYN12-18-18	394.4	11.3	413.8	13.3	523.5	56.6	394.4	11.3	NA
SYN12-18-90	404.5	5.3	407.5	14.7	424.4	92.7	404.5	5.3	95.3
SYN12-18-39	404.7	5.8	411.2	13.1	447.8	79.7	404.7	5.8	90.4
SYN12-18-68	406.4	17.2	410.9	15.4	436.6	28.3	406.4	17.2	93.1
SYN12-18-86	410.1	4.9	407.6	9.7	393.8	58.7	410.1	4.9	104.1
SYN12-18-38	412.1	5.9	408.1	16.4	385.2	104.7	412.1	5.9	107.0
SYN12-18-88	414.5	4.4	409.2	8.1	379.0	47.7	414.5	4.4	109.4
SYN12-18-94	419.7	4.2	419.9	13.2	420.9	82.4	419.7	4.2	99.7
SYN12-18-7	431.6	24.2	432.7	21.6	438.3	43.6	431.6	24.2	98.5
SYN12-18-50	432.3	5.9	437.3	11.7	463.4	65.9	432.3	5.9	93.3
SYN12-18-65	436.2	4.2	433.2	9.8	417.5	58.2	436.2	4.2	104.5
SYN12-18-29	436.4	4.0	438.6	5.3	450.1	25.7	436.4	4.0	97.0
SYN12-18-28	445.6	7.5	443.0	7.9	429.3	29.8	445.6	7.5	103.8
SYN12-18-15	459.9	7.7	459.1	10.0	454.8	46.4	459.9	7.7	101.1
SYN12-18-4	469.1	7.3	464.3	17.2	440.8	96.1	469.1	7.3	106.4
SYN12-18-73	535.3	48.3	550.7	40.4	615.0	30.1	535.3	48.3	87.0
SYN12-18-44	554.0	11.5	546.5	46.6	515.1	237.9	554.0	11.5	107.6
SYN12-18-99	558.2	5.7	564.6	16.0	590.4	76.5	558.2	5.7	94.6
SYN12-18-45	588.8	4.1	591.9	4.6	603.7	15.7	588.8	4.1	97.5
SYN12-18-1	588.9	14.5	609.5	26.8	686.8	112.1	588.9	14.5	85.7
SYN12-18-34	596.7	10.9	610.8	13.6	663.3	48.8	596.7	10.9	90.0
SYN12-18-82	597.9	16.4	617.6	55.8	690.3	250.3	597.9	16.4	86.6
SYN12-18-84	609.2	3.5	611.6	8.3	620.6	36.6	609.2	3.5	98.2
SYN12-18-35	617.7	9.9	617.3	10.6	616.0	33.4	617.7	9.9	100.3
SYN12-18-36	623.3	12.1	624.5	14.8	628.9	52.6	623.3	12.1	99.1
SYN12-18-6	623.4	7.3	618.8	44.7	602.0	207.6	623.4	7.3	103.6
SYN12-18-78	636.0	3.8	630.5	13.2	611.1	59.4	636.0	3.8	104.1
SYN12-18-5	661.6	32.7	656.1	33.3	637.1	96.9	661.6	32.7	103.9
SYN12-18-60	684.5	17.3	679.7	40.8	663.8	167.1	684.5	17.3	103.1
SYN12-18-48	942.3	5.6	938.7	10.4	930.1	32.5	930.1	32.5	101.3
SYN12-18-77	913.4	29.7	926.7	22.3	958.6	23.5	958.6	23.5	95.3
SYN12-18-33	1044.2	11.4	1033.6	22.1	1011.1	65.0	1011.1	65.0	103.3
SYN12-18-37	1038.5	9.8	1032.2	12.0	1018.8	31.3	1018.8	31.3	101.9
SYN12-18-47	1047.9	14.3	1045.4	23.8	1040.2	67.3	1040.2	67.3	100.7
SYN12-18-87	1039.1	8.9	1040.6	10.7	1043.6	27.5	1043.6	27.5	99.6
SYN12-18-92	1049.1	5.7	1047.4	7.1	1043.6	18.6	1043.6	18.6	100.5
SYN12-18-42	1071.9	13.3	1063.0	15.3	1044.7	38.0	1044.7	38.0	102.6

SYN12-18-56	1056.9	7.8	1053.5	6.2	1046.3	10.1	1046.3	10.1	101.0
SYN12-18-80	1035.7	6.9	1041.5	11.2	1053.7	31.6	1053.7	31.6	98.3
SYN12-18-85	1078.6	16.0	1074.4	20.4	1066.1	52.5	1066.1	52.5	101.2
SYN12-18-81	1076.3	32.1	1074.4	62.0	1070.6	176.4	1070.6	176.4	100.5
SYN12-18-24	1074.3	5.7	1073.7	17.7	1072.3	52.4	1072.3	52.4	100.2
SYN12-18-75	1070.9	26.4	1072.3	19.4	1075.4	23.9	1075.4	23.9	99.6
SYN12-18-21	1079.7	14.7	1079.3	25.5	1078.3	71.0	1078.3	71.0	100.1
SYN12-18-91	1076.5	9.1	1078.3	6.5	1081.9	6.9	1081.9	6.9	99.5
SYN12-18-52	1105.6	17.0	1106.8	15.4	1109.2	31.1	1109.2	31.1	99.7
SYN12-18-13	1173.5	18.6	1156.3	40.0	1124.0	110.2	1124.0	110.2	104.4
SYN12-18-69	1168.1	27.1	1155.1	22.8	1130.7	42.3	1130.7	42.3	103.3
SYN12-18-61	1131.9	14.5	1133.2	17.1	1135.7	41.4	1135.7	41.4	99.7
SYN12-18-63	1156.4	9.9	1154.9	11.2	1152.1	26.5	1152.1	26.5	100.4
SYN12-18-66	1168.5	8.0	1163.8	6.9	1155.1	13.1	1155.1	13.1	101.2
SYN12-18-20	1164.0	42.9	1161.5	30.7	1156.7	36.8	1156.7	36.8	100.6
SYN12-18-96	1183.8	5.0	1174.5	8.7	1157.4	23.2	1157.4	23.2	102.3
SYN12-18-53	1131.8	9.1	1143.6	6.8	1166.0	9.0	1166.0	9.0	97.1
SYN12-18-16	1194.0	12.4	1187.1	8.7	1174.4	10.3	1174.4	10.3	101.7
SYN12-18-31	1171.9	24.1	1179.6	26.5	1193.8	60.3	1193.8	60.3	98.2
SYN12-18-72	1180.8	10.9	1186.1	16.3	1195.7	41.4	1195.7	41.4	98.7
SYN12-18-55	1219.4	25.1	1217.6	16.8	1214.5	14.3	1214.5	14.3	100.4
SYN12-18-10	1200.2	15.5	1206.2	15.4	1217.1	32.6	1217.1	32.6	98.6
SYN12-18-71	1277.9	8.9	1274.4	22.4	1268.4	58.2	1268.4	58.2	100.8
SYN12-18-2	1252.9	25.3	1262.8	33.3	1279.6	78.6	1279.6	78.6	97.9
SYN12-18-14	1281.1	17.4	1281.7	16.8	1282.6	34.2	1282.6	34.2	99.9
SYN12-18-9	1321.6	12.6	1326.0	8.1	1333.0	5.3	1333.0	5.3	99.1
SYN12-18-79	1382.8	16.2	1380.9	24.4	1377.9	56.7	1377.9	56.7	100.4
SYN12-18-40	1387.6	12.2	1401.8	7.8	1423.4	6.1	1423.4	6.1	97.5
SYN12-18-26	1464.6	18.6	1457.4	22.2	1446.9	47.5	1446.9	47.5	101.2
SYN12-18-98	1397.7	12.9	1431.2	9.4	1481.3	12.7	1481.3	12.7	94.4
SYN12-18-22	1618.6	17.9	1605.8	14.4	1589.1	23.8	1589.1	23.8	101.9
SYN12-18-3	1598.2	17.6	1607.4	15.5	1619.4	27.3	1619.4	27.3	98.7
SYN12-18-11	1678.7	26.4	1681.8	18.4	1685.8	24.9	1685.8	24.9	99.6
SYN12-18-27	1754.4	24.1	1732.1	13.3	1705.3	6.1	1705.3	6.1	102.9
SYN12-18-93	2144.9	16.9	2129.0	8.4	2113.8	3.4	2113.8	3.4	101.5
SYN12-18-89	2341.3	34.8	2505.0	17.6	2640.5	11.1	2640.5	11.1	88.7
SYN12-18-25	2565.4	25.1	2638.8	11.8	2695.6	6.7	2695.6	6.7	95.2
SYN12-18-30	2331.3	56.1	2545.0	27.3	2720.0	10.0	2720.0	10.0	85.7
SYN12-18-54	2754.4	27.6	2748.5	12.9	2744.2	9.5	2744.2	9.5	100.4





SYN12-19-74	797.8	8.9	794.7	13.5	786.0	45.1	797.8	8.9	101.5
SYN12-19-46	1003.1	54.5	998.4	40.6	988.2	51.3	988.2	51.3	101.5
SYN12-19-17	963.4	6.7	971.0	20.5	988.4	65.0	988.4	65.0	97.5
SYN12-19-91	974.1	5.8	980.4	7.4	994.5	20.0	994.5	20.0	97.9
SYN12-19-73	1023.4	9.0	1022.7	10.4	1021.3	26.4	1021.3	26.4	100.2
SYN12-19-2	1033.9	4.8	1030.0	4.8	1021.8	11.1	1021.8	11.1	101.2
SYN12-19-39	1030.2	8.6	1029.0	8.3	1026.4	18.5	1026.4	18.5	100.4
SYN12-19-32	1050.6	7.9	1043.2	7.1	1027.6	14.7	1027.6	14.7	102.2
SYN12-19-25	1061.0	7.5	1054.3	43.3	1040.4	132.5	1040.4	132.5	102.0
SYN12-19-88	1033.4	4.9	1035.7	7.7	1040.5	21.4	1040.5	21.4	99.3
SYN12-19-34	1040.0	11.6	1042.9	13.1	1049.0	32.2	1049.0	32.2	99.1
SYN12-19-49	1075.1	10.0	1067.7	8.2	1052.6	14.5	1052.6	14.5	102.1
SYN12-19-55	1087.4	9.9	1080.5	29.7	1066.4	87.5	1066.4	87.5	102.0
SYN12-19-44	1118.3	10.7	1106.3	12.5	1082.8	30.7	1082.8	30.7	103.3
SYN12-19-43	1086.5	7.2	1086.2	8.6	1085.6	21.6	1085.6	21.6	100.1
SYN12-19-22	1096.1	9.2	1098.0	11.5	1101.9	29.2	1101.9	29.2	99.5
SYN12-19-33	1047.5	10.7	1074.6	42.3	1130.0	125.2	1130.0	125.2	92.7
SYN12-19-35	1107.1	13.4	1114.9	10.0	1130.0	13.0	1130.0	13.0	98.0
SYN12-19-8	1151.4	12.7	1144.2	18.9	1130.6	49.3	1130.6	49.3	101.8
SYN12-19-1	1173.3	4.6	1166.2	3.8	1153.0	6.9	1153.0	6.9	101.8
SYN12-19-57	1150.3	9.1	1151.9	7.0	1154.9	10.5	1154.9	10.5	99.6
SYN12-19-63	1193.9	45.4	1183.8	37.2	1165.4	65.5	1165.4	65.5	102.4
SYN12-19-95	1147.6	17.4	1154.0	24.6	1166.1	62.6	1166.1	62.6	98.4
SYN12-19-14	1094.1	32.3	1123.6	23.4	1181.1	24.5	1181.1	24.5	92.6
SYN12-19-72	1192.5	12.3	1188.7	13.3	1181.8	30.1	1181.8	30.1	100.9
SYN12-19-86	1188.2	9.9	1191.7	13.1	1198.1	32.2	1198.1	32.2	99.2
SYN12-19-98	1198.2	8.6	1199.1	6.6	1200.6	10.3	1200.6	10.3	99.8
SYN12-19-50	1251.3	7.5	1248.8	9.3	1244.3	21.8	1244.3	21.8	100.6
SYN12-19-62	1286.5	5.6	1290.0	5.5	1295.7	11.3	1295.7	11.3	99.3
SYN12-19-10	1345.4	8.3	1340.0	7.3	1331.4	13.5	1331.4	13.5	101.0
SYN12-19-60	1385.7	18.8	1384.4	13.4	1382.4	17.8	1382.4	17.8	100.2
SYN12-19-21	1388.2	11.3	1393.5	7.8	1401.6	9.1	1401.6	9.1	99.0
SYN12-19-89	1384.8	21.4	1421.1	15.9	1475.9	22.5	1475.9	22.5	93.8
SYN12-19-77	1483.7	11.7	1482.2	7.9	1479.9	9.4	1479.9	9.4	100.3
SYN12-19-31	1569.6	23.9	1601.8	30.2	1644.2	61.9	1644.2	61.9	95.5
SYN12-19-56	1700.6	12.2	1678.6	10.4	1651.1	17.9	1651.1	17.9	103.0
SYN12-19-47	1724.3	21.1	1699.6	19.3	1669.2	34.7	1669.2	34.7	103.3
SYN12-19-69	1669.3	22.0	1698.2	12.6	1733.9	5.9	1733.9	5.9	96.3
SYN12-19-92	1738.4	8.3	1748.3	6.2	1760.2	9.2	1760.2	9.2	98.8

SYN12-19-28	1767.8	24.7	1876.2	14.9	1998.4	12.0	1998.4	12.0	88.5
SYN12-19-30	2003.7	13.5	2001.3	8.3	1998.8	9.6	1998.8	9.6	100.2
SYN12-19-18	1981.9	19.2	1998.0	10.3	2014.6	6.4	2014.6	6.4	98.4
SYN12-19-15	1931.8	24.4	1987.6	13.0	2046.1	5.0	2046.1	5.0	94.4
SYN12-19-26	1932.2	29.6	1994.9	16.4	2060.4	11.2	2060.4	11.2	93.8
SYN12-19-99	2500.4	21.2	2489.5	10.7	2480.6	8.9	2480.6	8.9	100.8
SYN12-19-6	2365.4	69.7	2528.7	34.1	2662.4	16.8	2662.4	16.8	88.8
SYN12-19-84	2742.6	14.0	2752.1	6.1	2759.1	1.9	2759.1	1.9	99.4

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN14-1_Run2- 187	145.8	3.0	151.8	6.8	247.9	100.7	145.8	3.0	NA
SYN14-1_Run1- 62	147.7	2.5	146.1	7.9	120.7	130.0	147.7	2.5	NA
SYN14-1_Run1- 13	148.8	2.8	145.8	6.4	97.3	102.7	148.8	2.8	NA
SYN14-1_Run2- 211	149.1	5.2	153.0	13.0	213.8	195.6	149.1	5.2	NA
SYN14-1_Run2- 118	149.4	3.2	150.5	6.5	167.9	95.6	149.4	3.2	NA
SYN14-1_Run1- 7	151.2	3.8	199.8	11.9	820.5	125.9	151.2	3.8	NA
SYN14-1_Run1- 59	152.7	2.6	181.9	9.5	580.6	117.6	152.7	2.6	NA
SYN14-1_Run2- 189	152.8	3.7	146.2	12.6	40.3	214.2	152.8	3.7	NA
SYN14-1_Run1- 87	153.4	4.0	150.8	9.7	110.4	150.8	153.4	4.0	NA
SYN14-1_Run1- 3	154.8	3.1	149.4	5.8	64.3	87.3	154.8	3.1	NA
SYN14-1_Run1- 102	157.6	3.1	158.3	4.1	167.8	45.0	157.6	3.1	NA
SYN14-1_Run1- 48	160.3	3.6	197.5	13.1	668.8	149.1	160.3	3.6	NA
SYN14-1_Run2- 181	174.1	2.9	175.3	3.5	191.2	31.3	174.1	2.9	NA
SYN14-1_Run1- 73	234.6	4.3	239.9	6.2	292.2	51.6	234.6	4.3	NA
SYN14-1_Run1- 80	244.9	3.8	250.3	7.3	301.5	66.1	244.9	3.8	NA
SYN14-1_Run2- 195	251.3	5.9	254.9	7.7	288.4	55.2	251.3	5.9	NA
SYN14-1_Run1- 76	253.3	6.9	256.3	11.9	283.9	102.5	253.3	6.9	NA
SYN14-1_Run1- 49	289.1	5.8	286.3	9.7	263.8	76.4	289.1	5.8	NA
SYN14-1_Run1- 83	344.9	4.5	353.9	6.7	413.6	40.6	344.9	4.5	NA
SYN14-1_Run1- 69	380.3	5.1	377.0	8.3	356.6	50.9	380.3	5.1	NA
SYN14-1_Run1- 9	396.9	6.6	395.1	10.4	384.5	60.2	396.9	6.6	NA
SYN14-1_Run1- 37	399.6	8.0	382.1	16.0	277.5	105.1	399.6	8.0	NA
SYN14-1_Run2- 173	400.5	9.7	398.4	12.6	385.8	65.0	400.5	9.7	103.8
SYN14-1_Run1- 36	413.9	6.4	411.7	9.1	399.1	48.3	413.9	6.4	103.7
SYN14-1_Run2- 190	422.4	4.8	427.8	6.2	456.5	29.7	422.4	4.8	92.5
SYN14-1_Run2- 216	425.4	6.2	432.7	9.7	471.6	51.5	425.4	6.2	90.2

SYN14-1_Run2- 119	428.6	6.9	436.1	11.6	476.3	62.1	428.6	6.9	90.0
SYN14-1_Run2- 120	438.2	9.2	436.9	9.6	429.9	35.8	438.2	9.2	101.9
SYN14-1_Run1- 106	446.0	6.6	449.5	8.6	467.2	39.8	446.0	6.6	95.5
SYN14-1_Run1- 90	454.0	11.7	454.7	12.7	458.5	48.8	454.0	11.7	99.0
SYN14-1_Run1- 24	459.7	9.6	477.7	12.8	565.0	55.8	459.7	9.6	81.4
SYN14-1_Run1- 12	461.2	15.2	458.9	13.9	447.7	36.3	461.2	15.2	103.0
SYN14-1_Run2- 147	544.6	13.3	564.4	15.1	645.0	50.9	544.6	13.3	84.4
SYN14-1_Run1- 99	546.0	9.6	547.5	13.1	553.6	54.6	546.0	9.6	98.6
SYN14-1_Run1- 46	547.9	18.7	552.1	18.1	569.7	50.8	547.9	18.7	96.2
SYN14-1_Run1- 47	553.9	19.4	554.2	21.7	555.4	77.2	553.9	19.4	99.7
SYN14-1_Run1- 16	577.4	10.9	578.9	15.8	584.8	64.9	577.4	10.9	98.7
SYN14-1_Run2- 111	579.8	13.9	590.3	14.1	630.9	40.6	579.8	13.9	91.9
SYN14-1_Run2- 177	595.6	10.0	611.3	12.7	669.7	45.4	595.6	10.0	88.9
SYN14-1_Run1- 20	599.1	11.0	590.9	12.6	559.6	45.0	599.1	11.0	107.1
SYN14-1_Run1- 108	601.7	13.1	606.1	13.2	622.5	38.1	601.7	13.1	96.7
SYN14-1_Run2- 212	603.7	11.7	607.7	12.9	622.2	42.1	603.7	11.7	97.0
SYN14-1_Run2- 186	626.0	9.3	641.8	16.6	697.7	66.5	626.0	9.3	89.7
SYN14-1_Run2- 170	714.6	13.3	718.3	15.2	729.9	46.7	714.6	13.3	97.9
SYN14-1_Run1- 97	1005.6	34.9	979.3	31.8	920.6	70.0	920.6	70.0	109.2
SYN14-1_Run1- 68	897.4	16.4	909.6	14.2	939.4	27.2	939.4	27.2	95.5
SYN14-1_Run1- 6	985.2	20.0	977.3	19.5	959.6	45.0	959.6	45.0	102.7
SYN14-1_Run2- 191	945.6	22.0	951.1	27.6	963.9	75.5	963.9	75.5	98.1
SYN14-1_Run2- 124	906.9	16.4	924.8	13.0	967.7	18.6	967.7	18.6	93.7
SYN14-1_Run2- 209	920.1	13.7	934.4	16.4	968.4	44.1	968.4	44.1	95.0
SYN14-1_Run2- 200	854.1	18.1	887.4	17.4	971.3	38.1	971.3	38.1	87.9
SYN14-1_Run1- 79	957.2	16.5	963.3	17.4	977.3	42.6	977.3	42.6	97.9
SYN14-1_Run1- 74	821.1	20.1	866.6	19.5	985.1	42.5	985.1	42.5	83.3
SYN14-1_Run1- 89	1047.4	13.2	1033.9	18.9	1005.6	52.2	1005.6	52.2	104.2
SYN14-1_Run2- 179	929.8	16.9	952.9	16.9	1006.4	38.8	1006.4	38.8	92.4
SYN14-1_Run2- 204	995.6	19.5	1000.9	21.4	1012.4	52.9	1012.4	52.9	98.3
SYN14-1_Run2- 157	856.4	24.0	902.6	19.4	1017.5	25.4	1017.5	25.4	84.2
SYN14-1_Run1- 29	1064.9	19.8	1049.9	22.0	1018.7	54.6	1018.7	54.6	104.5
SYN14-1_Run1- 51	978.3	14.9	991.7	13.4	1021.6	27.2	1021.6	27.2	95.8
SYN14-1_Run1- 18	997.3	40.8	1005.8	29.9	1024.4	32.0	1024.4	32.0	97.4
SYN14-1_Run2- 116	1028.9	13.8	1027.5	13.2	1024.5	29.1	1024.5	29.1	100.4
SYN14-1_Run2- 112	1023.2	12.4	1025.7	12.2	1031.2	27.6	1031.2	27.6	99.2
SYN14-1_Run2- 199	1011.8	32.1	1018.9	32.6	1034.2	75.2	1034.2	75.2	97.8
SYN14-1_Run1- 65	1024.9	12.1	1028.0	10.7	1034.5	21.1	1034.5	21.1	99.1
SYN14-1_Run2- 214	1016.1	20.0	1022.9	20.7	1037.5	48.6	1037.5	48.6	97.9

SYN14-1_Run1- 25	1080.2	17.3	1067.9	15.0	1042.6	29.3	1042.6	29.3	103.6
SYN14-1_Run1- 50	962.9	22.5	988.8	18.0	1047.0	27.0	1047.0	27.0	92.0
SYN14-1_Run1- 105	1029.9	12.9	1035.6	12.4	1047.7	27.1	1047.7	27.1	98.3
SYN14-1_Run2- 217	1020.1	14.8	1029.0	11.9	1047.9	19.4	1047.9	19.4	97.3
SYN14-1_Run1- 15	1073.2	15.7	1066.0	15.2	1051.3	33.6	1051.3	33.6	102.1
SYN14-1_Run2- 178	1066.7	13.9	1063.9	14.8	1058.0	35.2	1058.0	35.2	100.8
SYN14-1_Run2- 145	1011.3	14.6	1026.4	12.9	1058.6	25.1	1058.6	25.1	95.5
SYN14-1_Run2- 176	1022.6	16.6	1034.8	16.3	1060.8	36.0	1060.8	36.0	96.4
SYN14-1_Run2- 165	992.0	21.0	1014.2	23.1	1062.5	56.0	1062.5	56.0	93.4
SYN14-1_Run1- 72	1025.9	17.0	1037.7	16.9	1062.6	37.6	1062.6	37.6	96.6
SYN14-1_Run2- 163	1013.0	17.9	1029.9	16.4	1065.8	33.3	1065.8	33.3	95.1
SYN14-1_Run2- 218	973.5	21.0	1002.5	17.5	1066.4	29.5	1066.4	29.5	91.3
SYN14-1_Run1- 94	1006.8	12.7	1025.8	12.8	1066.6	28.9	1066.6	28.9	94.4
SYN14-1_Run2- 175	1035.1	13.7	1050.9	14.0	1083.8	32.0	1083.8	32.0	95.5
SYN14-1_Run1- 101	997.2	18.4	1024.9	17.6	1084.4	37.3	1084.4	37.3	92.0
SYN14-1_Run2- 194	1052.9	31.9	1064.2	30.4	1087.5	65.0	1087.5	65.0	96.8
SYN14-1_Run1- 30	1057.8	24.7	1069.0	24.5	1091.9	54.4	1091.9	54.4	96.9
SYN14-1_Run1- 32	1051.1	21.7	1065.2	21.6	1094.3	47.9	1094.3	47.9	96.1
SYN14-1_Run2- 166	1067.9	9.6	1077.7	10.8	1097.5	26.1	1097.5	26.1	97.3
SYN14-1_Run2- 151	1104.3	18.2	1106.4	22.6	1110.5	56.4	1110.5	56.4	99.4
SYN14-1_Run2- 210	1088.8	30.6	1097.2	21.8	1113.8	21.8	1113.8	21.8	97.8
SYN14-1_Run2- 161	1004.4	29.2	1041.2	25.0	1119.3	43.8	1119.3	43.8	89.7
SYN14-1_Run1- 103	1157.7	20.8	1144.6	16.2	1119.8	26.3	1119.8	26.3	103.4
SYN14-1_Run1- 17	1149.0	17.8	1139.2	14.3	1120.4	24.5	1120.4	24.5	102.6
SYN14-1_Run1- 78	1138.0	23.3	1134.8	18.3	1128.6	29.3	1128.6	29.3	100.8
SYN14-1_Run1- 21	1056.2	14.4	1080.6	13.0	1130.2	25.6	1130.2	25.6	93.5
SYN14-1_Run2- 183	1162.6	18.5	1152.7	14.7	1134.2	24.5	1134.2	24.5	102.5
SYN14-1_Run1- 64	1144.3	13.4	1142.4	12.2	1138.7	24.8	1138.7	24.8	100.5
SYN14-1_Run2- 132	1121.5	18.8	1127.4	17.2	1138.8	34.6	1138.8	34.6	98.5
SYN14-1_Run2- 193	1145.6	18.5	1143.4	25.2	1139.1	64.2	1139.1	64.2	100.6
SYN14-1_Run2- 158	1067.2	28.0	1098.3	23.7	1160.5	41.2	1160.5	41.2	92.0
SYN14-1_Run1- 82	1173.0	32.6	1168.9	23.2	1161.4	27.5	1161.4	27.5	101.0
SYN14-1_Run1- 43	1163.3	20.8	1164.4	19.3	1166.4	39.3	1166.4	39.3	99.7
SYN14-1_Run2- 169	1134.3	15.6	1146.3	14.3	1169.1	28.5	1169.1	28.5	97.0
SYN14-1_Run2- 154	1076.9	28.6	1109.8	21.9	1174.7	29.5	1174.7	29.5	91.7
SYN14-1_Run1- 67	1148.0	19.4	1157.4	22.1	1175.0	51.7	1175.0	51.7	97.7
SYN14-1_Run1- 91	1113.2	17.1	1135.9	18.2	1179.6	40.7	1179.6	40.7	94.4
SYN14-1_Run1- 60	1123.8	19.8	1144.2	17.7	1183.0	34.1	1183.0	34.1	95.0
SYN14-1_Run2- 168	1143.7	23.2	1158.6	23.8	1186.6	52.2	1186.6	52.2	96.4

SYN14-1_Run1- 28	1247.9	15.2	1239.3	20.7	1224.5	50.3	1224.5	50.3	101.9
SYN14-1_Run1- 53	1201.4	17.5	1212.8	13.7	1233.2	21.6	1233.2	21.6	97.4
SYN14-1_Run2- 201	1233.9	15.4	1238.9	16.7	1247.5	37.1	1247.5	37.1	98.9
SYN14-1_Run2- 159	1211.4	22.8	1226.0	20.7	1251.8	39.9	1251.8	39.9	96.8
SYN14-1_Run1- 96	1261.1	20.2	1257.9	17.0	1252.2	30.8	1252.2	30.8	100.7
SYN14-1_Run1- 1	1190.7	20.6	1214.4	21.0	1256.8	44.5	1256.8	44.5	94.7
SYN14-1_Run1- 70	1303.2	32.2	1286.1	27.8	1257.7	51.9	1257.7	51.9	103.6
SYN14-1_Run2- 174	1287.8	19.2	1303.4	15.1	1329.2	23.7	1329.2	23.7	96.9
SYN14-1_Run2- 143	1260.4	23.1	1287.0	19.9	1331.6	35.3	1331.6	35.3	94.6
SYN14-1_Run1- 33	1272.9	19.8	1300.3	15.3	1345.7	22.8	1345.7	22.8	94.6
SYN14-1_Run1- 107	1358.3	23.3	1362.3	19.1	1368.6	32.5	1368.6	32.5	99.3
SYN14-1_Run2- 121	1377.0	23.4	1376.0	18.9	1374.3	31.7	1374.3	31.7	100.2
SYN14-1_Run1- 55	1380.3	19.5	1379.5	16.3	1378.1	28.3	1378.1	28.3	100.2
SYN14-1_Run1- 54	1326.7	18.1	1348.8	16.1	1384.0	29.8	1384.0	29.8	95.9
SYN14-1_Run2- 162	1341.3	23.9	1359.8	19.7	1388.8	33.2	1388.8	33.2	96.6
SYN14-1_Run1- 44	1371.1	35.4	1378.2	24.5	1389.3	29.5	1389.3	29.5	98.7
SYN14-1_Run1- 84	1348.2	18.2	1368.4	17.4	1400.1	34.0	1400.1	34.0	96.3
SYN14-1_Run1- 26	1275.2	36.6	1333.1	25.1	1427.4	22.9	1427.4	22.9	89.3
SYN14-1_Run1- 39	1435.1	21.7	1432.2	16.3	1427.9	24.8	1427.9	24.8	100.5
SYN14-1_Run2- 182	1402.3	14.1	1413.8	13.0	1431.2	24.5	1431.2	24.5	98.0
SYN14-1_Run1- 34	1433.9	43.1	1442.2	28.7	1454.5	30.6	1454.5	30.6	98.6
SYN14-1_Run2- 133	1363.8	22.9	1406.0	23.7	1470.6	47.4	1470.6	47.4	92.7
SYN14-1_Run1- 100	1486.0	22.8	1488.8	17.6	1492.6	27.7	1492.6	27.7	99.6
SYN14-1_Run1- 8	1478.1	41.1	1488.3	27.5	1502.8	30.8	1502.8	30.8	98.4
SYN14-1_Run1- 61	1452.8	25.9	1474.0	20.5	1504.6	32.6	1504.6	32.6	96.6
SYN14-1_Run2- 205	1421.0	48.9	1455.3	32.3	1505.7	31.1	1505.7	31.1	94.4
SYN14-1_Run2- 126	1517.3	61.9	1512.9	38.2	1506.8	30.7	1506.8	30.7	100.7
SYN14-1_Run2- 203	1461.1	22.5	1480.4	19.2	1508.1	33.3	1508.1	33.3	96.9
SYN14-1_Run2- 196	1501.1	27.2	1504.4	19.0	1509.1	24.9	1509.1	24.9	99.5
SYN14-1_Run1- 10	1513.8	31.1	1545.1	22.1	1588.1	29.3	1588.1	29.3	95.3
SYN14-1_Run1- 45	1428.0	37.0	1497.5	26.4	1597.2	32.4	1597.2	32.4	89.4
SYN14-1_Run2- 153	1628.0	18.3	1624.0	14.3	1618.7	22.8	1618.7	22.8	100.6
SYN14-1_Run1- 81	1620.2	27.2	1623.6	20.2	1627.9	30.2	1627.9	30.2	99.5
SYN14-1_Run1- 14	1585.8	28.6	1604.9	21.5	1630.1	32.1	1630.1	32.1	97.3
SYN14-1_Run1- 52	1621.3	27.0	1628.2	18.7	1637.2	24.8	1637.2	24.8	99.0
SYN14-1_Run2- 113	1585.3	19.7	1609.1	15.5	1640.4	24.4	1640.4	24.4	96.6
SYN14-1_Run1- 98	1633.7	76.1	1637.6	43.7	1642.5	19.7	1642.5	19.7	99.5
SYN14-1_Run1- 104	1640.6	18.9	1641.4	15.9	1642.6	26.9	1642.6	26.9	99.9
SYN14-1_Run2- 188	1606.5	23.2	1625.2	21.5	1649.6	38.9	1649.6	38.9	97.4

SYN14-1_Run2- 180	1735.9	40.9	1697.7	24.4	1650.7	22.9	1650.7	22.9	105.2
SYN14-1_Run2- 127	1593.7	21.9	1621.2	19.8	1657.2	35.0	1657.2	35.0	96.2
SYN14-1_Run1- 35	1584.1	18.4	1616.1	15.2	1658.1	25.1	1658.1	25.1	95.5
SYN14-1_Run2- 122	1609.5	49.9	1632.6	30.2	1662.4	23.3	1662.4	23.3	96.8
SYN14-1_Run2- 220	1581.3	41.4	1617.6	25.7	1665.1	21.4	1665.1	21.4	95.0
SYN14-1_Run2- 146	1654.5	24.5	1659.5	17.1	1666.0	23.1	1666.0	23.1	99.3
SYN14-1_Run2- 184	1615.3	54.7	1637.7	33.6	1666.5	28.9	1666.5	28.9	96.9
SYN14-1_Run2- 215	1587.1	23.1	1628.4	21.7	1682.0	39.1	1682.0	39.1	94.4
SYN14-1_Run1- 95	1360.4	20.5	1498.2	15.8	1699.0	20.7	1699.0	20.7	80.1
SYN14-1_Run2- 208	1677.4	18.5	1690.0	17.0	1705.8	30.4	1705.8	30.4	98.3
SYN14-1_Run2- 160	1732.1	31.4	1721.7	20.7	1709.1	25.8	1709.1	25.8	101.3
SYN14-1_Run2- 123	1522.9	23.0	1607.2	20.0	1719.4	33.3	1719.4	33.3	88.6
SYN14-1_Run2- 125	1739.0	46.5	1731.0	26.8	1721.4	19.0	1721.4	19.0	101.0
SYN14-1_Run2- 185	1755.2	24.0	1740.3	16.7	1722.4	23.4	1722.4	23.4	101.9
SYN14-1_Run2- 156	1715.1	26.9	1722.4	17.7	1731.3	21.2	1731.3	21.2	99.1
SYN14-1_Run1- 57	1708.1	22.4	1720.6	15.5	1735.9	20.8	1735.9	20.8	98.4
SYN14-1_Run1- 88	1684.7	16.3	1707.8	13.4	1736.1	21.9	1736.1	21.9	97.0
SYN14-1_Run1- 11	1729.0	20.4	1735.7	18.0	1743.8	31.0	1743.8	31.0	99.1
SYN14-1_Run1- 5	1661.1	25.0	1700.6	21.1	1749.7	34.8	1749.7	34.8	94.9
SYN14-1_Run2- 130	1704.8	24.8	1732.6	18.4	1766.4	26.9	1766.4	26.9	96.5
SYN14-1_Run2- 197	1764.8	19.7	1772.1	14.3	1780.8	20.6	1780.8	20.6	99.1
SYN14-1_Run1- 110	1782.2	39.7	1788.1	23.6	1795.0	21.3	1795.0	21.3	99.3
SYN14-1_Run1- 2	1748.0	37.8	1771.8	22.5	1799.9	19.1	1799.9	19.1	97.1
SYN14-1_Run1- 77	1773.3	28.4	1786.0	18.8	1800.9	23.3	1800.9	23.3	98.5
SYN14-1_Run1- 38	1777.1	22.7	1791.5	15.5	1808.3	20.3	1808.3	20.3	98.3
SYN14-1_Run1- 85	1773.5	28.5	1792.6	18.6	1814.8	22.4	1814.8	22.4	97.7
SYN14-1_Run2- 167	1813.7	32.6	1816.5	25.6	1819.8	40.1	1819.8	40.1	99.7
SYN14-1_Run2- 198	1772.5	34.5	1798.5	21.4	1828.8	22.1	1828.8	22.1	96.9
SYN14-1_Run2- 171	1815.8	30.3	1822.1	21.6	1829.3	30.7	1829.3	30.7	99.3
SYN14-1_Run1- 92	1836.3	24.4	1836.2	15.8	1836.0	19.2	1836.0	19.2	100.0
SYN14-1_Run1- 71	1589.3	25.5	1699.2	17.4	1837.5	19.8	1837.5	19.8	86.5
SYN14-1_Run1- 63	1827.8	39.0	1832.4	24.8	1837.6	29.0	1837.6	29.0	99.5
SYN14-1_Run2- 152	1819.7	25.1	1838.1	15.7	1859.0	17.0	1859.0	17.0	97.9
SYN14-1_Run2- 155	1873.3	25.9	1878.6	17.7	1884.6	23.7	1884.6	23.7	99.4
SYN14-1_Run1- 27	1807.7	41.2	1846.3	28.6	1890.1	38.2	1890.1	38.2	95.6
SYN14-1_Run2- 150	1643.7	24.2	1760.8	17.4	1902.6	22.6	1902.6	22.6	86.4
SYN14-1_Run2- 129	1925.9	37.6	1937.2	22.3	1949.3	22.1	1949.3	22.1	98.8
SYN14-1_Run2- 144	1929.3	28.5	1952.7	19.1	1977.6	24.8	1977.6	24.8	97.6
SYN14-1_Run2- 213	1896.2	29.7	1938.9	20.4	1984.8	27.0	1984.8	27.0	95.5

SYN14-1_Run1- 23	1932.7	25.4	1961.1	16.9	1991.2	21.6	1991.2	21.6	97.1
SYN14-1_Run2- 172	2470.1	31.1	2453.2	17.1	2439.3	18.0	2439.3	18.0	101.3
SYN14-1_Run1- 40	2092.8	54.5	2324.7	29.9	2535.0	20.2	2535.0	20.2	82.6
SYN14-1_Run2- 149	2571.7	42.3	2627.3	22.1	2670.3	20.7	2670.3	20.7	96.3
SYN14-1_Run1- 66	2676.8	43.6	2707.0	22.5	2729.5	21.7	2729.5	21.7	98.1
SYN14-1_Run2- 114	2720.8	32.1	2742.0	18.7	2757.6	22.1	2757.6	22.1	98.7
SYN14-1_Run2- 219	2637.3	45.2	2708.0	24.4	2761.3	25.1	2761.3	25.1	95.5
SYN14-1_Run1- 109	2696.4	50.8	2742.3	24.3	2776.3	18.3	2776.3	18.3	97.1
SYN14-1_Run2- 192	2804.8	38.0	2812.2	18.5	2817.5	16.2	2817.5	16.2	99.5

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN14-3_Run1- 10	108.8	2.2	131.6	8.0	567.1	134.6	108.8	2.2	NA
SYN14-3_Run1- 83	112.9	2.9	105.6	7.6	56.2	172.7	112.9	2.9	NA
SYN14-3_Run2- 199	123.0	2.2	122.9	3.9	119.6	66.4	123.0	2.2	NA
SYN14-3_Run2- 217	164.0	6.5	169.3	7.9	243.9	71.6	164.0	6.5	NA
SYN14-3_Run2- 171	235.1	4.3	235.1	7.3	234.6	67.0	235.1	4.3	NA
SYN14-3_Run2- 170	290.7	4.9	298.6	8.2	360.8	59.9	290.7	4.9	NA
SYN14-3_Run1- 43	319.1	6.7	331.9	10.6	422.6	68.6	319.1	6.7	NA
SYN14-3_Run1- 27	334.7	6.4	343.7	9.0	405.3	53.1	334.7	6.4	NA
SYN14-3_Run2- 202	347.1	8.3	357.3	10.2	424.1	52.3	347.1	8.3	NA
SYN14-3_Run1- 13	350.4	7.2	358.3	8.9	410.1	46.6	350.4	7.2	NA
SYN14-3_Run1- 46	368.0	6.0	370.5	8.5	386.0	48.4	368.0	6.0	NA
SYN14-3_Run1- 91	379.9	7.2	443.1	9.0	786.2	33.0	379.9	7.2	NA
SYN14-3_Run2- 210	394.8	7.9	404.7	10.5	461.6	52.0	394.8	7.9	NA
SYN14-3_Run1- 55	401.3	10.6	406.4	11.8	435.6	49.5	401.3	10.6	92.1
SYN14-3_Run1- 78	402.6	9.1	397.4	9.9	367.4	43.0	402.6	9.1	109.6
SYN14-3_Run1- 89	403.3	5.7	392.9	10.5	332.2	65.2	403.3	5.7	121.4
SYN14-3_Run2- 183	419.0	7.6	433.5	10.4	511.2	50.5	419.0	7.6	82.0
SYN14-3_Run2- 215	423.2	9.6	436.7	13.4	508.3	64.9	423.2	9.6	83.3
SYN14-3_Run2- 219	424.3	7.1	430.3	8.8	462.3	40.2	424.3	7.1	91.8
SYN14-3_Run1- 26	425.6	7.3	424.7	11.6	419.9	62.8	425.6	7.3	101.3
SYN14-3_Run1- 47	425.9	6.3	427.9	11.5	438.9	64.8	425.9	6.3	97.0
SYN14-3_Run2- 180	429.3	9.3	426.4	11.4	410.7	53.3	429.3	9.3	104.5
SYN14-3_Run1- 80	431.2	5.8	428.6	9.7	414.9	54.0	431.2	5.8	103.9
SYN14-3_Run2- 120	435.2	6.5	434.9	9.1	433.5	45.6	435.2	6.5	100.4
SYN14-3_Run2- 173	435.2	9.0	435.4	10.4	436.5	44.5	435.2	9.0	99.7



SYN14-3_Run1- 82	435.7	8.5	438.5	11.4	453.0	55.3	435.7	8.5	96.2
SYN14-3_Run1- 99	462.1	10.2	457.1	13.7	432.1	65.3	462.1	10.2	106.9
SYN14-3_Run1- 51	463.1	8.1	471.9	10.6	515.0	47.4	463.1	8.1	89.9
SYN14-3_Run1- 66	466.3	26.3	466.3	24.2	466.2	61.9	466.3	26.3	100.0
SYN14-3_Run1- 40	474.5	9.5	469.3	12.0	444.2	53.9	474.5	9.5	106.8
SYN14-3_Run1- 56	474.5	7.8	478.3	10.5	496.5	47.4	474.5	7.8	95.6
SYN14-3_Run1- 62	475.3	7.9	489.6	9.1	557.2	34.5	475.3	7.9	85.3
SYN14-3_Run1- 50	489.9	6.2	492.1	7.1	502.0	27.3	489.9	6.2	97.6
SYN14-3_Run2- 161	531.3	8.9	546.0	12.0	607.6	48.4	531.3	8.9	87.4
SYN14-3_Run2- 205	533.8	19.9	539.5	20.5	563.6	65.3	533.8	19.9	94.7
SYN14-3_Run1- 59	535.9	10.2	539.6	11.4	555.6	40.4	535.9	10.2	96.4
SYN14-3_Run1- 14	555.3	7.2	582.3	9.5	689.0	35.8	555.3	7.2	80.6
SYN14-3_Run2- 184	569.4	7.4	583.9	8.4	640.6	28.1	569.4	7.4	88.9
SYN14-3_Run2- 185	570.4	9.7	567.8	9.5	557.4	27.6	570.4	9.7	102.3
SYN14-3_Run1- 9	578.2	8.4	583.6	9.6	604.5	33.3	578.2	8.4	95.6
SYN14-3_Run2- 194	579.3	9.2	595.0	9.1	655.4	24.8	579.3	9.2	88.4
SYN14-3_Run1- 61	581.3	10.9	593.0	12.8	638.1	44.2	581.3	10.9	91.1
SYN14-3_Run2- 212	599.9	12.4	609.8	13.2	646.5	41.2	599.9	12.4	92.8
SYN14-3_Run2- 116	605.6	7.9	610.9	12.1	630.5	48.4	605.6	7.9	96.0
SYN14-3_Run2- 190	609.9	21.1	627.6	19.3	691.8	42.2	609.9	21.1	88.2
SYN14-3_Run1- 15	612.7	13.8	618.6	14.7	640.2	45.2	612.7	13.8	95.7
SYN14-3_Run2- 168	613.2	20.8	639.6	19.5	734.1	43.5	613.2	20.8	83.5
SYN14-3_Run1- 86	615.8	11.2	617.7	11.0	624.4	30.4	615.8	11.2	98.6
SYN14-3_Run1- 74	624.1	22.2	615.8	17.9	585.7	22.8	624.1	22.2	106.6
SYN14-3_Run2- 137	624.2	9.7	648.6	10.4	734.8	29.9	624.2	9.7	84.9
SYN14-3_Run2- 149	630.7	19.9	645.0	19.1	695.3	48.2	630.7	19.9	90.7
SYN14-3_Run2- 142	780.6	14.0	809.1	13.4	888.4	30.0	780.6	14.0	87.9
SYN14-3_Run2- 122	840.9	19.0	839.0	15.6	834.1	26.9	840.9	19.0	100.8
SYN14-3_Run2- 198	948.7	11.7	941.5	12.0	925.0	29.7	925.0	29.7	102.6
SYN14-3_Run1- 104	926.3	33.8	908.2	28.2	864.4	53.5	926.3	33.8	107.2
SYN14-3_Run2- 204	953.3	19.5	958.2	17.5	969.4	35.8	969.4	35.8	98.3
SYN14-3_Run1- 54	970.8	17.8	970.9	16.0	971.3	33.0	971.3	33.0	99.9
SYN14-3_Run2- 118	983.5	15.3	983.7	12.2	984.2	19.7	984.2	19.7	99.9
SYN14-3_Run1- 57	1010.0	12.5	1005.0	13.9	994.1	34.7	994.1	34.7	101.6
SYN14-3_Run1- 109	994.3	14.3	994.5	16.5	994.9	42.4	994.9	42.4	99.9
SYN14-3_Run2- 164	899.0	19.4	931.7	18.4	1009.9	39.1	1009.9	39.1	89.0
SYN14-3_Run2- 211	1042.8	25.6	1040.4	19.7	1035.3	28.9	1035.3	28.9	100.7
SYN14-3_Run2- 206	987.8	18.3	1003.5	14.2	1038.0	20.0	1038.0	20.0	95.2
SYN14-3_Run2- 165	962.4	14.8	985.9	15.3	1038.5	35.9	1038.5	35.9	92.7

SYN14-3_Run1- 19	909.2	16.0	956.5	14.2	1066.8	26.0	1066.8	26.0	85.2
SYN14-3_Run1- 106	1045.8	17.3	1055.8	15.6	1076.5	31.1	1076.5	31.1	97.1
SYN14-3_Run2- 134	1000.0	16.1	1024.7	13.3	1077.9	22.5	1077.9	22.5	92.8
SYN14-3_Run1- 1	887.1	15.1	944.2	23.7	1079.9	68.2	1079.9	68.2	82.1
SYN14-3_Run2- 125	997.6	31.1	1024.3	24.7	1081.8	36.8	1081.8	36.8	92.2
SYN14-3_Run2- 157	1057.0	30.7	1066.1	22.4	1084.7	25.4	1084.7	25.4	97.5
SYN14-3_Run2- 214	1006.7	20.9	1031.7	18.1	1085.3	33.3	1085.3	33.3	92.8
SYN14-3_Run1- 24	1099.4	21.0	1095.3	17.6	1087.0	32.1	1087.0	32.1	101.1
SYN14-3_Run2- 196	1049.7	22.1	1063.2	18.0	1090.9	30.2	1090.9	30.2	96.2
SYN14-3_Run2- 143	1066.1	13.1	1074.3	11.6	1091.1	22.7	1091.1	22.7	97.7
SYN14-3_Run1- 42	1102.8	19.0	1102.2	17.5	1101.0	36.1	1101.0	36.1	100.2
SYN14-3_Run2- 160	1057.6	16.4	1072.3	16.8	1102.4	38.0	1102.4	38.0	95.9
SYN14-3_Run1- 23	1002.3	16.4	1041.6	14.4	1124.8	26.3	1124.8	26.3	89.1
SYN14-3_Run2- 197	1132.2	21.8	1134.9	21.0	1140.2	44.6	1140.2	44.6	99.3
SYN14-3_Run2- 169	1032.3	12.9	1067.8	11.6	1141.1	22.3	1141.1	22.3	90.5
SYN14-3_Run2- 220	1140.4	18.8	1145.7	15.8	1155.6	28.3	1155.6	28.3	98.7
SYN14-3_Run2- 153	971.1	28.1	1031.3	25.9	1161.3	49.5	1161.3	49.5	83.6
SYN14-3_Run2- 145	1150.8	23.3	1156.7	17.5	1167.7	24.7	1167.7	24.7	98.6
SYN14-3_Run1- 11	998.5	35.2	1055.1	27.2	1174.3	32.8	1174.3	32.8	85.0
SYN14-3_Run2- 155	1045.9	18.1	1088.6	16.2	1175.0	30.5	1175.0	30.5	89.0
SYN14-3_Run1- 77	1066.1	22.5	1104.4	23.6	1180.7	52.7	1180.7	52.7	90.3
SYN14-3_Run2- 129	1039.2	15.8	1086.7	13.2	1183.0	21.8	1183.0	21.8	87.8
SYN14-3_Run1- 49	1152.1	20.6	1171.1	17.8	1206.5	32.9	1206.5	32.9	95.5
SYN14-3_Run2- 113	1183.4	26.3	1194.4	20.8	1214.4	32.9	1214.4	32.9	97.5
SYN14-3_Run2- 213	1221.1	23.4	1219.8	18.7	1217.4	30.9	1217.4	30.9	100.3
SYN14-3_Run1- 72	1237.9	23.8	1241.1	18.9	1246.6	31.2	1246.6	31.2	99.3
SYN14-3_Run2- 172	1297.9	23.1	1295.7	17.5	1292.1	26.3	1292.1	26.3	100.5
SYN14-3_Run2- 119	1071.6	29.9	1153.2	24.3	1310.2	35.1	1310.2	35.1	81.8
SYN14-3_Run1- 93	1321.0	23.1	1320.6	18.3	1320.0	30.1	1320.0	30.1	100.1
SYN14-3_Run1- 53	1262.5	25.1	1292.9	19.4	1343.8	29.2	1343.8	29.2	94.0
SYN14-3_Run2- 163	1214.4	19.9	1273.0	18.7	1373.3	35.7	1373.3	35.7	88.4
SYN14-3_Run2- 182	1184.6	21.8	1255.5	16.4	1379.1	20.3	1379.1	20.3	85.9
SYN14-3_Run2- 121	1364.3	18.8	1375.6	16.8	1393.2	31.3	1393.2	31.3	97.9
SYN14-3_Run1- 48	1365.1	23.9	1379.5	19.7	1401.8	33.4	1401.8	33.4	97.4
SYN14-3_Run2- 200	1359.4	20.5	1377.2	18.3	1404.9	33.7	1404.9	33.7	96.8
SYN14-3_Run2- 195	1384.5	28.6	1397.2	21.0	1416.7	29.8	1416.7	29.8	97.7
SYN14-3_Run2- 141	1344.9	19.9	1382.8	15.3	1441.9	22.8	1441.9	22.8	93.3
SYN14-3_Run2- 166	1421.0	17.0	1431.3	14.7	1446.7	26.1	1446.7	26.1	98.2
SYN14-3_Run2- 188	1350.0	22.7	1388.1	18.3	1447.3	29.5	1447.3	29.5	93.3

SYN14-3_Run1- 92	1413.1	24.9	1427.3	17.1	1448.5	20.4	1448.5	20.4	97.6
SYN14-3_Run1- 16	1364.2	30.6	1411.4	21.6	1483.3	25.4	1483.3	25.4	92.0
SYN14-3_Run1- 100	1493.5	24.2	1489.4	17.5	1483.6	25.1	1483.6	25.1	100.7
SYN14-3_Run1- 107	1468.4	21.5	1477.7	15.1	1491.1	19.7	1491.1	19.7	98.5
SYN14-3_Run2- 209	1372.2	25.1	1420.2	17.9	1492.9	22.0	1492.9	22.0	91.9
SYN14-3_Run2- 115	1460.5	26.0	1478.8	20.5	1505.0	32.4	1505.0	32.4	97.0
SYN14-3_Run2- 147	1495.7	25.0	1500.1	18.0	1506.3	25.1	1506.3	25.1	99.3
SYN14-3_Run2- 175	1424.4	25.3	1458.1	20.3	1507.6	32.5	1507.6	32.5	94.5
SYN14-3_Run1- 87	1455.6	23.6	1478.0	18.6	1510.3	29.5	1510.3	29.5	96.4
SYN14-3_Run2- 179	1437.9	33.3	1467.9	22.7	1511.5	25.9	1511.5	25.9	95.1
SYN14-3_Run1- 102	1449.6	23.4	1477.4	16.0	1517.6	18.8	1517.6	18.8	95.5
SYN14-3_Run2- 124	1270.2	19.2	1367.0	15.8	1521.6	24.1	1521.6	24.1	83.5
SYN14-3_Run2- 191	1460.7	21.1	1485.8	17.5	1521.9	29.3	1521.9	29.3	96.0
SYN14-3_Run1- 17	1505.9	28.7	1512.6	21.6	1522.0	32.7	1522.0	32.7	98.9
SYN14-3_Run1- 69	1417.7	19.6	1460.5	17.5	1523.2	31.0	1523.2	31.0	93.1
SYN14-3_Run2- 152	1426.4	23.9	1466.3	23.1	1524.6	43.8	1524.6	43.8	93.6
SYN14-3_Run1- 96	1488.2	27.3	1503.3	18.2	1524.7	20.5	1524.7	20.5	97.6
SYN14-3_Run2- 133	1441.1	38.5	1478.0	26.2	1531.3	29.1	1531.3	29.1	94.1
SYN14-3_Run2- 201	1326.6	23.2	1416.7	20.4	1554.7	34.4	1554.7	34.4	85.3
SYN14-3_Run2- 144	1503.2	16.8	1526.4	24.0	1558.8	51.9	1558.8	51.9	96.4
SYN14-3_Run2- 131	1592.9	29.4	1580.8	19.6	1564.6	23.9	1564.6	23.9	101.8
SYN14-3_Run1- 79	1513.7	22.9	1539.0	18.7	1574.0	30.7	1574.0	30.7	96.2
SYN14-3_Run1- 12	1394.7	15.3	1468.0	15.0	1575.6	28.0	1575.6	28.0	88.5
SYN14-3_Run1- 18	1512.9	25.1	1544.4	19.9	1587.8	31.3	1587.8	31.3	95.3
SYN14-3_Run2- 207	1279.1	33.0	1401.8	23.5	1593.6	22.7	1593.6	22.7	80.3
SYN14-3_Run2- 159	1563.1	26.6	1576.4	17.8	1594.1	20.9	1594.1	20.9	98.1
SYN14-3_Run1- 67	1464.3	37.2	1521.0	24.5	1600.8	23.6	1600.8	23.6	91.5
SYN14-3_Run2- 192	1511.5	25.3	1551.6	18.6	1606.7	26.0	1606.7	26.0	94.1
SYN14-3_Run1- 103	1601.2	25.6	1607.3	17.3	1615.2	21.3	1615.2	21.3	99.1
SYN14-3_Run2- 174	1595.1	20.1	1605.3	15.9	1618.7	25.3	1618.7	25.3	98.5
SYN14-3_Run1- 76	1573.6	28.4	1594.4	19.5	1621.9	24.6	1621.9	24.6	97.0
SYN14-3_Run1- 90	1589.7	26.7	1606.1	18.6	1627.6	24.6	1627.6	24.6	97.7
SYN14-3_Run2- 154	1596.7	31.3	1610.2	24.5	1627.8	38.6	1627.8	38.6	98.1
SYN14-3_Run1- 98	1537.1	27.2	1575.8	22.0	1627.8	35.5	1627.8	35.5	94.4
SYN14-3_Run2- 156	1666.4	33.7	1650.5	20.2	1630.4	17.1	1630.4	17.1	102.2
SYN14-3_Run2- 128	1627.5	19.4	1630.4	12.2	1634.0	12.1	1634.0	12.1	99.6
SYN14-3_Run2- 146	1585.6	22.7	1607.0	18.2	1635.1	29.4	1635.1	29.4	97.0
SYN14-3_Run2- 178	1629.5	38.7	1633.4	25.6	1638.4	30.6	1638.4	30.6	99.5
SYN14-3_Run1- 75	1611.7	25.7	1624.5	17.8	1641.1	23.1	1641.1	23.1	98.2

SYN14-3_Run1- 29	1574.0	25.2	1606.5	17.3	1649.4	21.3	1649.4	21.3	95.4
SYN14-3_Run2- 218	1641.1	26.0	1644.9	16.9	1649.8	19.6	1649.8	19.6	99.5
SYN14-3_Run2- 150	1676.2	29.5	1666.1	18.0	1653.4	16.9	1653.4	16.9	101.4
SYN14-3_Run1- 73	1604.7	34.7	1634.3	22.2	1672.5	22.7	1672.5	22.7	95.9
SYN14-3_Run2- 208	1410.7	58.1	1519.1	38.8	1673.6	32.9	1673.6	32.9	84.3
SYN14-3_Run1- 5	1681.2	24.7	1684.9	17.1	1689.6	22.9	1689.6	22.9	99.5
SYN14-3_Run2- 167	1597.6	30.6	1645.0	20.7	1706.0	24.3	1706.0	24.3	93.6
SYN14-3_Run1- 41	1657.4	30.1	1680.6	21.0	1709.6	28.0	1709.6	28.0	96.9
SYN14-3_Run2- 187	1665.0	21.3	1686.9	18.1	1714.2	30.3	1714.2	30.3	97.1
SYN14-3_Run1- 70	1463.1	54.5	1571.8	39.7	1720.9	49.6	1720.9	49.6	85.0
SYN14-3_Run1- 8	1693.8	27.3	1712.1	18.0	1734.7	21.6	1734.7	21.6	97.6
SYN14-3_Run1- 2	1807.5	27.8	1776.9	18.1	1741.1	22.8	1741.1	22.8	103.8
SYN14-3_Run1- 64	1750.4	20.5	1752.2	13.7	1754.2	17.5	1754.2	17.5	99.8
SYN14-3_Run1- 84	1747.6	28.0	1751.2	18.6	1755.5	23.3	1755.5	23.3	99.5
SYN14-3_Run1- 60	1720.2	26.0	1743.0	17.1	1770.4	20.5	1770.4	20.5	97.2
SYN14-3_Run2- 123	1722.3	29.2	1757.0	18.8	1798.4	21.2	1798.4	21.2	95.8
SYN14-3_Run2- 193	1555.1	30.2	1662.4	20.5	1800.8	22.1	1800.8	22.1	86.4
SYN14-3_Run1- 65	1775.5	31.3	1790.5	19.5	1808.1	20.9	1808.1	20.9	98.2
SYN14-3_Run1- 58	1866.0	59.3	1861.3	33.1	1855.9	23.3	1855.9	23.3	100.5
SYN14-3_Run2- 189	1640.1	26.0	1760.2	19.3	1906.0	26.2	1906.0	26.2	86.0
SYN14-3_Run1- 110	1816.7	31.9	1870.4	21.6	1930.5	27.5	1930.5	27.5	94.1
SYN14-3_Run2- 203	1842.6	29.9	1898.1	20.5	1959.4	26.4	1959.4	26.4	94.0
SYN14-3_Run1- 20	1936.0	29.9	1948.2	21.5	1961.2	30.8	1961.2	30.8	98.7
SYN14-3_Run1- 28	1757.3	27.9	1856.0	17.8	1968.5	18.6	1968.5	18.6	89.3
SYN14-3_Run1- 97	1950.7	30.3	1960.8	17.4	1971.4	15.8	1971.4	15.8	99.0
SYN14-3_Run2- 140	1900.7	25.2	1938.1	17.0	1978.4	21.9	1978.4	21.9	96.1
SYN14-3_Run2- 162	1666.2	52.5	1821.4	32.7	2003.8	26.0	2003.8	26.0	83.1
SYN14-3_Run1- 95	1737.1	60.4	1866.3	36.1	2013.3	26.2	2013.3	26.2	86.3
SYN14-3_Run2- 186	1928.7	47.3	2008.4	26.8	2091.5	20.5	2091.5	20.5	92.2
SYN14-3_Run2- 176	2364.7	33.1	2495.2	19.5	2603.2	21.1	2603.2	21.1	90.8
SYN14-3_Run1- 94	2426.0	52.3	2532.8	28.6	2619.5	27.4	2619.5	27.4	92.6
SYN14-3_Run2- 136	2610.0	36.6	2628.2	19.1	2642.3	18.6	2642.3	18.6	98.8
SYN14-3_Run1- 88	2472.4	41.3	2567.0	22.2	2642.5	21.1	2642.5	21.1	93.6
SYN14-3_Run2- 112	2404.5	35.0	2554.2	18.1	2675.4	14.2	2675.4	14.2	89.9
SYN14-3_Run1- 4	2665.5	29.7	2688.5	15.3	2705.8	14.4	2705.8	14.4	98.5
SYN14-3_Run2- 111	2647.0	44.7	2681.8	22.8	2708.1	20.9	2708.1	20.9	97.7
SYN14-3_Run1- 3	2627.1	38.0	2676.9	21.9	2714.7	24.9	2714.7	24.9	96.8
SYN14-3_Run2- 177	2765.1	41.4	2789.3	19.5	2806.9	14.9	2806.9	14.9	98.5
SYN14-3_Run2- 181	2714.0	37.3	2786.0	17.9	2838.6	13.7	2838.6	13.7	95.6



SYN14-4 run 1-- 37	1540.9	52.1	1565.4	41.5	1598.7	66.3	1598.7	66.3	96.4
SYN14-4 run 1-- 38	532.5	12.0	542.1	15.8	582.3	63.5	532.5	12.0	91.5
SYN14-4 run 1-- 39	993.6	31.1	1020.7	28.1	1079.4	55.1	1079.4	55.1	92.1
SYN14-4 run 1-- 40	1203.3	47.5	1232.3	37.2	1283.5	56.4	1283.5	56.4	93.7
SYN14-4 run 1-- 41	1250.7	43.4	1309.1	32.2	1406.3	41.0	1406.3	41.0	88.9
SYN14-4 run 1-- 42	424.7	12.5	434.9	19.4	489.6	100.5	424.7	12.5	86.7
SYN14-4 run 1-- 43	912.5	27.6	929.9	26.8	971.2	60.6	971.2	60.6	94.0
SYN14-4 run 1-- 44	1800.7	62.1	1797.2	37.9	1793.2	39.3	1793.2	39.3	100.4
SYN14-4 run 1-- 45	393.0	13.5	408.8	16.9	498.5	78.7	393.0	13.5	NA
SYN14-4 run 1-- 46	1132.3	25.8	1139.3	20.2	1152.7	31.3	1152.7	31.3	98.2
SYN14-4 run 1-- 47	1008.3	32.0	1010.8	31.3	1016.2	70.7	1016.2	70.7	99.2
SYN14-4 run 1-- 49	1335.3	26.7	1363.9	21.8	1408.8	35.9	1408.8	35.9	94.8
SYN14-4 run 1-- 50	2582.0	53.1	2635.5	31.1	2676.8	35.9	2676.8	35.9	96.5
SYN14-4 run 1-- 51	1100.8	28.1	1089.9	27.3	1068.4	60.1	1068.4	60.1	103.0
SYN14-4 run 1-- 52	967.6	50.5	1012.1	37.3	1109.9	30.0	1109.9	30.0	87.2
SYN14-4 run 1-- 53	407.3	10.2	414.2	11.9	452.7	52.1	407.3	10.2	90.0
SYN14-4 run 1-- 56	1274.0	30.3	1285.0	24.6	1303.4	41.2	1303.4	41.2	97.7
SYN14-4 run 1-- 57	2327.9	57.6	2423.9	32.0	2505.6	31.0	2505.6	31.0	92.9
SYN14-4 run 1-- 58	1054.9	48.8	1045.3	35.0	1025.3	38.5	1025.3	38.5	102.9
SYN14-4 run 1-- 59	1721.7	52.3	1754.7	35.2	1794.2	43.8	1794.2	43.8	96.0
SYN14-4 run 1-- 60	457.2	13.7	471.7	14.3	542.8	47.5	457.2	13.7	84.2
SYN14-4 run 1-- 61	584.6	33.0	599.4	29.0	656.1	53.5	584.6	33.0	89.1
SYN14-4 run 1-- 62	983.5	25.5	1007.4	25.9	1060.0	59.1	1060.0	59.1	92.8
SYN14-4 run 1-- 63	934.9	26.4	952.7	24.2	994.3	50.0	994.3	50.0	94.0
SYN14-4 run 1-- 64	1431.9	34.5	1445.1	23.2	1464.5	25.7	1464.5	25.7	97.8
SYN14-4 run 1-- 65	1437.0	39.0	1451.6	28.1	1473.1	38.2	1473.1	38.2	97.6
SYN14-4 run 1-- 66	572.4	14.6	578.6	15.3	603.1	48.3	572.4	14.6	94.9
SYN14-4 run 1-- 67	1686.5	65.9	1708.2	41.5	1734.8	42.9	1734.8	42.9	97.2
SYN14-4 run 1-- 68	1280.1	36.7	1305.4	24.6	1347.1	21.8	1347.1	21.8	95.0
SYN14-4 run 1-- 69	919.1	19.6	906.7	22.3	876.5	60.5	919.1	19.6	104.9
SYN14-4 run 1-- 70	1443.6	33.6	1454.4	22.8	1470.1	26.7	1470.1	26.7	98.2
SYN14-4 run 1-- 72	583.0	28.8	587.2	30.0	603.5	92.9	583.0	28.8	96.6
SYN14-4 run 1-- 73	1049.4	24.0	1076.3	21.3	1131.3	40.5	1131.3	40.5	92.8
SYN14-4 run 1-- 74	1341.9	27.0	1333.1	20.5	1319.0	31.5	1319.0	31.5	101.7
SYN14-4 run 1-- 75	1708.2	49.8	1717.9	30.4	1729.7	29.0	1729.7	29.0	98.8
SYN14-4 run 1-- 76	1882.6	58.8	1895.0	35.2	1908.6	35.2	1908.6	35.2	98.6
SYN14-4 run 1-- 77	1601.4	60.2	1637.6	35.9	1684.4	21.8	1684.4	21.8	95.1
SYN14-4 run 1-- 78	2176.1	94.2	2220.3	48.8	2261.4	31.2	2261.4	31.2	96.2
SYN14-4 run 1-- 79	2629.3	59.9	2683.6	33.6	2724.7	36.8	2724.7	36.8	96.5

SYN14-4 run 1-- 80	1583.9	48.8	1615.8	30.7	1657.5	27.9	1657.5	27.9	95.6
SYN14-4 run 1-- 81	1797.3	71.2	1795.7	43.8	1793.8	46.3	1793.8	46.3	100.2
SYN14-4 run 1-- 82	1815.0	52.5	1782.5	30.7	1744.7	27.9	1744.7	27.9	104.0
SYN14-4 run 1-- 83	981.7	41.1	994.8	30.9	1023.7	36.8	1023.7	36.8	95.9
SYN14-4 run 1-- 85	388.4	12.0	386.3	13.0	373.8	55.9	388.4	12.0	NA
SYN14-4 run 1-- 86	1002.2	24.3	1013.7	20.3	1038.6	35.9	1038.6	35.9	96.5
SYN14-4 run 1-- 87	1268.2	31.5	1298.6	22.8	1349.1	28.7	1349.1	28.7	94.0
SYN14-4 run 1-- 88	1391.9	44.5	1436.8	33.3	1504.1	46.7	1504.1	46.7	92.5
SYN14-4 run 1-- 89	1640.3	43.8	1654.8	29.1	1673.2	34.6	1673.2	34.6	98.0
SYN14-4 run 1-- 90	380.2	7.5	381.1	9.2	386.9	46.9	380.2	7.5	NA
SYN14-4 run 1-- 91	1276.4	50.3	1273.2	34.8	1267.8	39.4	1267.8	39.4	100.7
SYN14-4 run 1-- 92	1902.5	41.9	1872.1	26.6	1838.4	32.6	1838.4	32.6	103.5
SYN14-4 run 1-- 93	979.7	36.3	986.1	30.7	1000.2	56.2	1000.2	56.2	97.9
SYN14-4 run 1-- 94	1229.2	25.7	1236.1	22.7	1248.2	42.8	1248.2	42.8	98.5
SYN14-4 run 1-- 95	327.0	12.0	322.5	14.6	290.4	84.2	327.0	12.0	NA
SYN14-4 run 1-- 96	1561.1	36.6	1597.3	34.1	1645.2	61.6	1645.2	61.6	94.9
SYN14-4 run 1-- 97	2137.2	57.7	2156.7	34.3	2175.4	37.6	2175.4	37.6	98.2
SYN14-4 run 1-- 98	1444.8	54.8	1472.9	42.2	1513.6	64.1	1513.6	64.1	95.5
SYN14-4 run 1-- 99	1010.8	24.7	1014.5	22.8	1022.4	48.2	1022.4	48.2	98.9
SYN14-4 run 1-- 100	1493.1	34.0	1524.8	24.0	1569.1	31.1	1569.1	31.1	95.2
SYN14-4 run 1-- 101	1116.0	34.6	1140.5	25.4	1187.5	30.0	1187.5	30.0	94.0
SYN14-4 run 1-- 102	1498.0	32.2	1485.0	23.7	1466.5	35.0	1466.5	35.0	102.1
SYN14-4 run 1-- 103	1622.9	41.9	1611.5	30.5	1596.7	44.6	1596.7	44.6	101.6
SYN14-4 run 1-- 104	1468.7	33.8	1478.7	24.2	1493.0	33.1	1493.0	33.1	98.4
SYN14-4 run 1-- 105	1049.8	24.5	1045.0	19.6	1035.1	32.6	1035.1	32.6	101.4
SYN14-4 run 1-- 106	1285.1	38.2	1302.4	31.0	1331.0	51.5	1331.0	51.5	96.5
SYN14-4 run 1-- 107	1480.1	41.4	1484.5	27.8	1490.8	32.0	1490.8	32.0	99.3
SYN14-4 run 1-- 108	1304.5	29.9	1300.5	22.5	1293.9	33.7	1293.9	33.7	100.8
SYN14-4 run 1-- 109	2681.6	78.5	2701.1	37.7	2715.8	29.1	2715.8	29.1	98.7
SYN14-4 run 1-- 110	1238.1	26.6	1222.8	20.3	1196.0	31.6	1196.0	31.6	103.5
SYN14-4_Run2- 163	301.3	9.1	327.6	18.1	519.1	125.2	301.3	9.1	NA
SYN14-4_Run2- 205	341.5	9.6	340.4	11.9	333.1	67.0	341.5	9.6	NA
SYN14-4_Run2- 218	372.7	15.7	374.7	20.9	387.2	114.1	372.7	15.7	NA
SYN14-4_Run2- 144	393.1	9.8	395.5	10.6	410.0	43.6	393.1	9.8	NA
SYN14-4_Run2- 116	405.0	11.0	405.7	12.2	409.5	52.5	405.0	11.0	98.9
SYN14-4_Run2- 213	409.9	9.2	415.1	12.3	444.3	61.9	409.9	9.2	92.2
SYN14-4_Run2- 200	413.5	11.5	411.0	13.4	397.1	61.6	413.5	11.5	104.1
SYN14-4_Run2- 191	414.8	10.4	420.7	13.6	453.2	66.6	414.8	10.4	91.5
SYN14-4_Run2- 139	420.2	11.2	429.4	14.3	479.2	67.0	420.2	11.2	87.7

SYN14-4_Run2- 182	424.5	10.9	429.3	11.4	455.3	41.2	424.5	10.9	93.2
SYN14-4_Run2- 153	426.4	7.2	429.2	11.0	444.4	57.9	426.4	7.2	96.0
SYN14-4_Run2- 141	463.4	13.4	468.0	16.8	490.7	73.4	463.4	13.4	94.4
SYN14-4_Run2- 186	520.2	27.5	521.3	26.2	526.1	72.6	520.2	27.5	98.9
SYN14-4_Run2- 199	554.8	22.5	561.1	23.5	587.1	74.6	554.8	22.5	94.5
SYN14-4_Run2- 190	570.8	16.3	586.5	19.6	648.0	69.5	570.8	16.3	88.1
SYN14-4_Run2- 133	580.6	11.9	581.5	18.3	585.0	76.8	580.6	11.9	99.2
SYN14-4_Run2- 193	599.4	17.3	606.4	17.5	632.8	50.9	599.4	17.3	94.7
SYN14-4_Run2- 118	610.9	13.8	621.5	16.1	660.3	54.5	610.9	13.8	92.5
SYN14-4_Run2- 155	615.5	15.1	624.3	16.0	656.5	48.4	615.5	15.1	93.8
SYN14-4_Run2- 208	762.9	28.4	763.4	29.0	764.9	77.8	762.9	28.4	99.7
SYN14-4_Run2- 220	958.4	27.4	955.7	25.5	949.5	56.1	949.5	56.1	100.9
SYN14-4_Run2- 185	968.7	19.7	967.8	19.3	965.8	44.7	965.8	44.7	100.3
SYN14-4_Run2- 215	989.8	27.1	982.4	25.0	966.1	54.3	966.1	54.3	102.5
SYN14-4_Run2- 131	955.2	25.8	958.7	22.6	966.8	44.7	966.8	44.7	98.8
SYN14-4_Run2- 166	1019.8	26.6	1007.8	26.4	981.6	61.7	981.6	61.7	103.9
SYN14-4_Run2- 201	1033.4	34.8	1020.2	27.7	991.9	46.8	991.9	46.8	104.2
SYN14-4_Run2- 152	931.8	24.0	950.9	21.5	995.5	43.1	995.5	43.1	93.6
SYN14-4_Run2- 198	977.0	22.2	983.3	24.0	997.5	59.2	997.5	59.2	97.9
SYN14-4_Run2- 113	942.1	20.9	958.9	18.7	997.6	37.2	997.6	37.2	94.4
SYN14-4_Run2- 192	949.6	23.8	968.8	30.4	1012.7	82.1	1012.7	82.1	93.8
SYN14-4_Run2- 135	1027.1	25.7	1026.4	24.3	1024.8	53.0	1024.8	53.0	100.2
SYN14-4_Run2- 196	1001.1	27.7	1013.1	22.7	1039.0	38.1	1039.0	38.1	96.4
SYN14-4_Run2- 158	961.4	21.2	985.7	21.5	1040.0	49.5	1040.0	49.5	92.4
SYN14-4_Run2- 194	1020.8	43.0	1027.2	33.4	1040.9	49.1	1040.9	49.1	98.1
SYN14-4_Run2- 128	1008.5	25.4	1019.6	21.3	1043.3	38.1	1043.3	38.1	96.7
SYN14-4_Run2- 127	1008.2	21.3	1019.7	27.1	1044.4	71.5	1044.4	71.5	96.5
SYN14-4_Run2- 170	1065.3	18.8	1065.5	17.5	1066.1	37.0	1066.1	37.0	99.9
SYN14-4_Run2- 160	1054.0	27.3	1058.6	24.4	1068.2	48.7	1068.2	48.7	98.7
SYN14-4_Run2- 212	1027.4	32.2	1043.1	26.3	1075.9	43.8	1075.9	43.8	95.5
SYN14-4_Run2- 171	1062.4	27.5	1069.4	21.1	1083.7	30.3	1083.7	30.3	98.0
SYN14-4_Run2- 216	1042.6	29.4	1056.0	22.5	1083.9	31.3	1083.9	31.3	96.2
SYN14-4_Run2- 112	1048.9	41.3	1061.2	40.8	1086.6	90.0	1086.6	90.0	96.5
SYN14-4_Run2- 111	1023.9	25.9	1044.5	23.5	1088.1	47.1	1088.1	47.1	94.1
SYN14-4_Run2- 156	1114.0	28.5	1105.4	22.6	1088.7	37.3	1088.7	37.3	102.3
SYN14-4_Run2- 169	1081.1	24.1	1083.8	19.7	1089.2	33.9	1089.2	33.9	99.3
SYN14-4_Run2- 165	1082.3	24.8	1085.2	22.9	1090.9	47.5	1090.9	47.5	99.2
SYN14-4_Run2- 137	1018.8	25.9	1042.5	20.9	1092.5	32.9	1092.5	32.9	93.3
SYN14-4_Run2- 161	1060.1	26.1	1071.5	25.7	1094.7	56.5	1094.7	56.5	96.8



SYN14-4_Run2- 168	1005.7	31.6	1034.1	25.9	1094.7	41.8	1094.7	41.8	91.9
SYN14-4_Run2- 188	1123.5	27.0	1116.3	25.4	1102.2	53.7	1102.2	53.7	101.9
SYN14-4_Run2- 146	1057.4	27.7	1073.0	21.2	1104.9	29.6	1104.9	29.6	95.7
SYN14-4_Run2- 164	1161.0	26.3	1144.5	21.1	1113.4	36.3	1113.4	36.3	104.3
SYN14-4_Run2- 209	1122.5	23.0	1120.1	21.4	1115.5	44.4	1115.5	44.4	100.6
SYN14-4_Run2- 175	1183.6	33.4	1164.2	26.8	1128.4	46.2	1128.4	46.2	104.9
SYN14-4_Run2- 121	1054.2	44.4	1081.0	33.5	1135.5	42.1	1135.5	42.1	92.8
SYN14-4_Run2- 181	1069.8	21.0	1094.7	18.8	1144.5	36.3	1144.5	36.3	93.5
SYN14-4_Run2- 195	1127.9	40.0	1136.0	29.7	1151.5	39.1	1151.5	39.1	97.9
SYN14-4_Run2- 147	1158.0	38.9	1159.8	27.4	1163.2	30.0	1163.2	30.0	99.5
SYN14-4_Run2- 206	1131.1	48.8	1153.2	37.3	1194.9	52.6	1194.9	52.6	94.7
SYN14-4_Run2- 150	1122.5	36.5	1148.3	28.0	1197.6	39.5	1197.6	39.5	93.7
SYN14-4_Run2- 177	1222.5	30.1	1228.3	24.8	1238.6	43.3	1238.6	43.3	98.7
SYN14-4_Run2- 129	1220.4	17.7	1233.2	16.4	1255.7	32.3	1255.7	32.3	97.2
SYN14-4_Run2- 149	1283.0	27.7	1288.2	19.5	1296.7	23.4	1296.7	23.4	98.9
SYN14-4_Run2- 172	1216.6	39.8	1259.1	32.7	1332.5	53.8	1332.5	53.8	91.3
SYN14-4_Run2- 140	1356.3	31.5	1352.2	23.7	1345.7	35.5	1345.7	35.5	100.8
SYN14-4_Run2- 167	1414.9	39.2	1396.5	26.8	1368.4	33.3	1368.4	33.3	103.4
SYN14-4_Run2- 148	1430.3	41.9	1408.8	28.1	1376.4	33.0	1376.4	33.0	103.9
SYN14-4_Run2- 174	1409.6	38.3	1403.6	30.6	1394.6	50.8	1394.6	50.8	101.1
SYN14-4_Run2- 132	1334.0	36.1	1374.2	28.0	1437.2	41.9	1437.2	41.9	92.8
SYN14-4_Run2- 126	1407.4	37.5	1421.0	25.0	1441.4	25.8	1441.4	25.8	97.6
SYN14-4_Run2- 123	1416.6	34.3	1439.8	27.3	1474.2	43.7	1474.2	43.7	96.1
SYN14-4_Run2- 143	1294.5	46.0	1365.0	32.2	1477.2	32.7	1477.2	32.7	87.6
SYN14-4_Run2- 145	1439.2	40.6	1468.4	28.4	1510.9	34.8	1510.9	34.8	95.3
SYN14-4_Run2- 122	1502.9	92.9	1527.4	56.2	1561.4	29.8	1561.4	29.8	96.3
SYN14-4_Run2- 197	1605.6	49.6	1626.5	34.2	1653.5	43.7	1653.5	43.7	97.1
SYN14-4_Run2- 204	1601.9	38.5	1630.4	25.8	1667.4	30.8	1667.4	30.8	96.1
SYN14-4_Run2- 154	1598.2	27.8	1645.1	24.0	1705.6	40.4	1705.6	40.4	93.7
SYN14-4_Run2- 173	1750.7	46.6	1737.5	31.2	1721.8	40.3	1721.8	40.3	101.7
SYN14-4_Run2- 114	1609.7	29.3	1661.8	21.2	1728.3	28.9	1728.3	28.9	93.1
SYN14-4_Run2- 117	1638.7	36.1	1695.2	25.6	1765.8	33.9	1765.8	33.9	92.8
SYN14-4_Run2- 187	1672.4	36.0	1714.3	23.6	1766.0	26.6	1766.0	26.6	94.7
SYN14-4_Run2- 138	1769.3	46.0	1791.0	29.6	1816.3	34.3	1816.3	34.3	97.4
SYN14-4_Run2- 151	1621.7	37.7	1719.2	25.9	1840.2	30.5	1840.2	30.5	88.1
SYN14-4_Run2- 176	1814.1	69.3	1838.5	42.0	1866.2	41.4	1866.2	41.4	97.2
SYN14-4_Run2- 184	1840.3	41.7	1868.8	28.5	1900.7	37.6	1900.7	37.6	96.8
SYN14-4_Run2- 179	1852.5	46.0	1888.7	28.4	1928.8	29.8	1928.8	29.8	96.0
SYN14-4_Run2- 134	1732.9	45.1	1831.2	28.1	1944.8	26.4	1944.8	26.4	89.1

SYN14-4_Run2- 159	1457.4	44.9	1686.3	35.9	1984.1	47.7	1984.1	47.7	73.5
SYN14-4_Run2- 142	1975.8	58.8	1985.3	33.4	1995.2	29.4	1995.2	29.4	99.0
SYN14-4_Run2- 211	2054.6	77.7	2028.6	41.8	2002.3	31.6	2002.3	31.6	102.6
SYN14-4_Run2- 115	1951.9	34.6	2004.8	23.1	2059.6	29.2	2059.6	29.2	94.8
SYN14-4_Run2- 162	2440.1	68.6	2484.5	36.6	2521.0	34.3	2521.0	34.3	96.8
SYN14-4_Run2- 219	2573.6	45.8	2587.9	25.6	2599.0	27.9	2599.0	27.9	99.0
SYN14-4_Run2- 130	2716.4	64.2	2688.3	32.6	2667.2	31.0	2667.2	31.0	101.8
SYN14-4_Run2- 119	2343.5	59.9	2524.8	32.0	2674.0	26.3	2674.0	26.3	87.6
SYN14-4_Run2- 207	2580.7	81.6	2641.4	42.2	2688.2	38.6	2688.2	38.6	96.0
SYN14-4_Run2- 214	3141.7	81.2	3225.1	38.7	3277.4	35.7	3277.4	35.7	95.9
- SYN14-4 run 3-- 307	220.3	7.2	219.0	8.8	205.0	68.3	220.3	7.2	NA
- SYN14-4 run 3-- 243	245.9	8.9	246.6	9.4	253.0	51.6	245.9	8.9	NA
- SYN14-4 run 3-- 315	304.5	13.9	311.1	14.2	360.7	57.8	304.5	13.9	NA
- SYN14-4 run 3-- 311	341.0	7.9	341.4	9.6	344.3	52.6	341.0	7.9	NA
- SYN14-4 run 3-- 225	349.2	10.5	349.2	12.9	349.0	70.4	349.2	10.5	NA
- SYN14-4 run 3-- 222	379.0	11.6	380.8	12.1	391.7	48.2	379.0	11.6	NA
- SYN14-4 run 3-- 229	396.5	11.7	394.9	12.3	385.8	49.4	396.5	11.7	NA
- SYN14-4 run 3-- 319	398.1	8.5	391.0	11.0	349.3	57.8	398.1	8.5	NA
- SYN14-4 run 3-- 238	399.3	11.6	396.5	11.6	379.9	41.8	399.3	11.6	NA
- SYN14-4 run 3-- 269	400.0	16.0	391.7	15.6	342.9	55.9	400.0	16.0	NA
- SYN14-4 run 3-- 265	419.1	11.8	432.1	12.5	501.8	44.3	419.1	11.8	83.5
- SYN14-4 run 3-- 257	426.3	12.1	446.6	22.2	552.7	118.1	426.3	12.1	77.1
- SYN14-4 run 3-- 282	512.1	18.5	537.3	21.1	646.0	73.0	512.1	18.5	79.3
- SYN14-4 run 3-- 250	513.3	13.7	536.9	18.3	638.4	73.2	513.3	13.7	80.4
- SYN14-4 run 3-- 293	513.4	11.0	586.8	15.7	881.8	56.8	513.4	11.0	58.2
- SYN14-4 run 3-- 286	527.8	17.3	534.3	21.4	562.2	84.5	527.8	17.3	93.9
- SYN14-4 run 3-- 318	536.8	14.0	542.6	14.6	566.9	47.3	536.8	14.0	94.7
- SYN14-4 run 3-- 288	540.9	12.3	540.2	16.5	537.3	68.4	540.9	12.3	100.7
- SYN14-4 run 3-- 274	547.8	22.9	543.6	27.7	526.1	108.2	547.8	22.9	104.1
- SYN14-4 run 3-- 308	564.7	13.2	588.3	18.2	680.0	69.8	564.7	13.2	83.0
- SYN14-4 run 3-- 252	584.7	13.3	588.4	14.6	602.9	48.7	584.7	13.3	97.0
- SYN14-4 run 3-- 234	591.2	16.5	607.9	20.4	671.0	72.1	591.2	16.5	88.1
- SYN14-4 run 3-- 228	607.7	17.6	606.5	17.8	602.3	52.7	607.7	17.6	100.9
- SYN14-4 run 3-- 268	702.0	24.0	729.4	29.0	814.7	88.9	702.0	24.0	86.2
- SYN14-4 run 3-- 305	960.1	26.5	934.6	27.7	875.0	70.9	875.0	26.5	109.7
- SYN14-4 run 3-- 289	964.2	25.5	943.9	26.6	896.9	67.2	896.9	25.5	107.5
- SYN14-4 run 3-- 325	922.6	24.8	901.0	22.9	848.5	52.2	922.6	24.8	108.7
- SYN14-4 run 3-- 326	922.5	27.6	928.9	22.4	944.3	37.0	944.3	27.6	97.7
- SYN14-4 run 3-- 323	967.2	26.4	963.3	21.9	954.4	39.2	954.4	26.4	101.3

- SYN14-4 run 3-- 270	905.7	26.7	921.0	22.9	957.8	42.5	957.8	42.5	94.6
- SYN14-4 run 3-- 248	1018.8	33.6	1009.6	27.5	989.8	48.7	989.8	48.7	102.9
- SYN14-4 run 3-- 328	1034.9	36.5	1021.9	27.5	994.4	38.5	994.4	38.5	104.1
- SYN14-4 run 3-- 300	897.1	30.9	927.4	28.3	1000.1	58.0	1000.1	58.0	89.7
- SYN14-4 run 3-- 267	988.5	29.4	996.1	30.5	1013.1	72.4	1013.1	72.4	97.6
- SYN14-4 run 3-- 237	1024.6	26.4	1022.2	22.9	1016.8	44.7	1016.8	44.7	100.8
- SYN14-4 run 3-- 322	1057.6	49.5	1049.1	41.6	1031.4	77.6	1031.4	77.6	102.5
- SYN14-4 run 3-- 279	1031.7	28.8	1035.3	25.6	1042.8	50.9	1042.8	50.9	98.9
- SYN14-4 run 3-- 253	987.9	27.1	1007.2	21.7	1049.5	33.3	1049.5	33.3	94.1
- SYN14-4 run 3-- 313	1059.3	22.2	1056.4	17.7	1050.4	29.3	1050.4	29.3	100.8
- SYN14-4 run 3-- 276	983.2	20.0	1006.4	21.4	1057.5	50.9	1057.5	50.9	93.0
- SYN14-4 run 3-- 224	1033.5	30.3	1043.5	28.7	1064.5	61.4	1064.5	61.4	97.1
- SYN14-4 run 3-- 242	1075.5	20.4	1073.4	15.9	1069.1	24.9	1069.1	24.9	100.6
- SYN14-4 run 3-- 275	1002.5	23.7	1024.4	19.0	1071.4	29.6	1071.4	29.6	93.6
- SYN14-4 run 3-- 260	976.9	26.4	1006.8	26.4	1072.2	58.9	1072.2	58.9	91.1
- SYN14-4 run 3-- 310	1039.2	30.1	1054.4	24.2	1086.0	38.8	1086.0	38.8	95.7
- SYN14-4 run 3-- 240	990.5	28.8	1023.3	27.7	1094.0	58.6	1094.0	58.6	90.5
- SYN14-4 run 3-- 290	1088.9	48.6	1092.7	37.3	1100.5	55.0	1100.5	55.0	98.9
- SYN14-4 run 3-- 302	1151.5	23.3	1135.6	19.5	1105.2	36.0	1105.2	36.0	104.2
- SYN14-4 run 3-- 277	1033.3	32.0	1058.1	23.5	1109.4	25.2	1109.4	25.2	93.1
- SYN14-4 run 3-- 245	1121.4	28.9	1130.0	22.9	1146.6	36.9	1146.6	36.9	97.8
- SYN14-4 run 3-- 317	1152.8	22.5	1151.6	20.4	1149.5	40.9	1149.5	40.9	100.3
- SYN14-4 run 3-- 298	1128.4	25.8	1144.2	20.8	1174.3	34.5	1174.3	34.5	96.1
- SYN14-4 run 3-- 292	1114.4	29.1	1136.5	22.1	1179.0	30.3	1179.0	30.3	94.5
- SYN14-4 run 3-- 281	1060.2	19.3	1109.7	22.4	1208.0	52.4	1208.0	52.4	87.8
- SYN14-4 run 3-- 223	1144.7	28.1	1167.7	29.1	1210.6	63.3	1210.6	63.3	94.6
- SYN14-4 run 3-- 261	1130.2	25.8	1161.9	21.0	1221.4	34.2	1221.4	34.2	92.5
- SYN14-4 run 3-- 324	1215.1	54.8	1224.4	37.0	1240.8	31.4	1240.8	31.4	97.9
- SYN14-4 run 3-- 299	1185.6	52.3	1206.5	37.9	1244.2	45.7	1244.2	45.7	95.3
- SYN14-4 run 3-- 284	1184.7	31.3	1211.0	23.0	1258.1	29.2	1258.1	29.2	94.2
- SYN14-4 run 3-- 259	1355.9	39.1	1362.8	28.2	1373.6	38.0	1373.6	38.0	98.7
- SYN14-4 run 3-- 232	1282.4	22.9	1328.0	19.9	1402.4	35.0	1402.4	35.0	91.4
- SYN14-4 run 3-- 291	1349.2	33.3	1386.3	28.0	1443.8	47.6	1443.8	47.6	93.4
- SYN14-4 run 3-- 321	1463.5	32.0	1455.9	22.0	1444.8	27.9	1444.8	27.9	101.3
- SYN14-4 run 3-- 297	1342.1	32.8	1385.3	27.0	1452.6	44.2	1452.6	44.2	92.4
- SYN14-4 run 3-- 246	1369.4	29.7	1409.1	26.9	1469.7	49.1	1469.7	49.1	93.2
- SYN14-4 run 3-- 312	1349.0	35.1	1400.9	26.2	1480.8	35.9	1480.8	35.9	91.1
- SYN14-4 run 3-- 273	1452.4	46.4	1472.6	30.9	1501.8	33.1	1501.8	33.1	96.7
- SYN14-4 run 3-- 329	1434.5	41.6	1463.1	32.4	1504.9	49.8	1504.9	49.8	95.3

- SYN14-4 run 3-- 221	1473.6	48.2	1487.3	31.6	1506.7	32.5	1506.7	32.5	97.8
- SYN14-4 run 3-- 306	1443.1	47.5	1471.1	34.8	1511.6	48.4	1511.6	48.4	95.5
- SYN14-4 run 3-- 330	1638.6	49.6	1606.8	35.0	1565.3	49.9	1565.3	49.9	104.7
- SYN14-4 run 3-- 251	1625.9	32.3	1623.6	23.7	1620.6	34.9	1620.6	34.9	100.3
- SYN14-4 run 3-- 258	1526.0	51.1	1566.1	34.4	1620.6	39.0	1620.6	39.0	94.2
- SYN14-4 run 3-- 287	1613.0	33.4	1616.9	23.8	1621.8	33.3	1621.8	33.3	99.5
- SYN14-4 run 3-- 231	1668.6	29.4	1649.6	20.6	1625.6	28.6	1625.6	28.6	102.6
- SYN14-4 run 3-- 241	1622.6	39.8	1627.9	27.3	1634.8	35.4	1634.8	35.4	99.3
- SYN14-4 run 3-- 227	1143.4	28.1	1326.7	22.7	1636.3	27.6	1636.3	27.6	69.9
- SYN14-4 run 3-- 301	1541.7	36.0	1588.5	26.3	1651.2	36.2	1651.2	36.2	93.4
- SYN14-4 run 3-- 271	1626.0	37.3	1638.2	27.7	1653.8	41.0	1653.8	41.0	98.3
- SYN14-4 run 3-- 230	1599.1	41.5	1624.0	28.8	1656.4	37.3	1656.4	37.3	96.5
- SYN14-4 run 3-- 235	1609.7	51.8	1647.1	39.1	1695.1	57.8	1695.1	57.8	95.0
- SYN14-4 run 3-- 303	1615.0	36.8	1660.1	27.0	1717.5	37.9	1717.5	37.9	94.0
- SYN14-4 run 3-- 239	1685.9	39.8	1703.0	28.2	1724.2	38.7	1724.2	38.7	97.8
- SYN14-4 run 3-- 278	1768.3	43.3	1752.2	25.9	1733.0	24.4	1733.0	24.4	102.0
- SYN14-4 run 3-- 233	1840.1	41.3	1791.1	26.9	1734.6	34.8	1734.6	34.8	106.1
- SYN14-4 run 3-- 264	1710.7	27.9	1739.0	20.1	1773.2	28.0	1773.2	28.0	96.5
- SYN14-4 run 3-- 266	1410.0	34.7	1565.3	27.4	1781.6	37.7	1781.6	37.7	79.1
- SYN14-4 run 3-- 304	1421.6	32.3	1573.7	24.2	1784.0	30.1	1784.0	30.1	79.7
- SYN14-4 run 3-- 309	1849.3	37.8	1822.9	24.4	1792.8	30.2	1792.8	30.2	103.2
- SYN14-4 run 3-- 272	1764.5	38.9	1815.4	26.9	1874.4	34.9	1874.4	34.9	94.1
- SYN14-4 run 3-- 226	1872.7	41.1	1874.9	26.4	1877.2	31.7	1877.2	31.7	99.8
- SYN14-4 run 3-- 236	1760.9	31.7	1847.0	25.4	1945.3	38.7	1945.3	38.7	90.5
- SYN14-4 run 3-- 262	1829.0	56.9	1897.5	36.9	1973.3	42.4	1973.3	42.4	92.7
- SYN14-4 run 3-- 244	1852.3	61.7	1912.1	39.6	1977.5	45.1	1977.5	45.1	93.7
- SYN14-4 run 3-- 254	1907.6	39.8	1943.3	29.3	1981.5	42.1	1981.5	42.1	96.3
- SYN14-4 run 3-- 255	1919.4	60.6	1982.1	36.2	2048.2	35.0	2048.2	35.0	93.7
- SYN14-4 run 3-- 296	2510.1	42.6	2522.0	24.7	2531.5	28.3	2531.5	28.3	99.2
- SYN14-4 run 3-- 314	2614.7	63.2	2609.9	30.0	2606.1	21.2	2606.1	21.2	100.3
- SYN14-4 run 3-- 263	2573.2	56.3	2634.0	31.4	2681.0	33.6	2681.0	33.6	96.0
- SYN14-4 run 3-- 316	2585.1	46.4	2643.0	24.5	2687.6	23.5	2687.6	23.5	96.2
- SYN14-4 run 3-- 327	2615.8	62.8	2660.2	30.8	2694.1	24.5	2694.1	24.5	97.1
- SYN14-4 run 3-- 294	2584.3	78.2	2650.8	38.5	2702.0	29.5	2702.0	29.5	95.6
- SYN14-4 run 3-- 249	2717.7	119.0	2745.3	54.3	2765.6	32.6	2765.6	32.6	98.3
- SYN14-4 run 3-- 295	2733.5	56.5	2756.2	29.9	2772.8	30.6	2772.8	30.6	98.6
- SYN14-4 run 3-- 283	3235.5	65.2	3065.4	29.2	2955.7	26.0	2955.7	26.0	109.5
- SYN14-4 run 3-- 320	3067.1	62.7	3057.1	30.7	3050.4	30.0	3050.4	30.0	100.5



SYN14-5_Run2- 111	438.3	7.7	436.3	8.6	426.0	35.7	438.3	7.7	102.9
SYN14-5_Run3- 233	438.8	6.0	435.6	7.0	419.0	30.5	438.8	6.0	104.7
SYN14-5_Run1- 49	438.9	7.6	445.0	9.7	476.4	44.4	438.9	7.6	92.1
SYN14-5_Run2- 146	451.6	10.9	453.0	10.5	460.3	31.3	451.6	10.9	98.1
SYN14-5_Run3- 329	453.5	6.0	463.9	6.3	515.5	21.9	453.5	6.0	88.0
SYN14-5_Run2- 200	459.5	8.6	460.7	13.6	466.5	69.0	459.5	8.6	98.5
SYN14-5_Run3- 246	461.0	7.3	468.4	17.6	504.8	96.8	461.0	7.3	91.3
SYN14-5_Run3- 248	462.1	9.5	463.2	10.2	468.6	37.7	462.1	9.5	98.6
SYN14-5_Run1- 38	469.9	5.0	472.3	7.4	484.1	35.5	469.9	5.0	97.1
SYN14-5_Run2- 169	472.9	6.2	473.6	9.9	476.9	49.6	472.9	6.2	99.1
SYN14-5_Run2- 114	521.1	8.7	524.5	9.4	539.3	33.0	521.1	8.7	96.6
SYN14-5_Run2- 204	524.8	9.5	528.2	20.3	542.6	99.3	524.8	9.5	96.7
SYN14-5_Run3- 247	539.5	9.3	541.1	11.0	547.7	41.6	539.5	9.3	98.5
SYN14-5_Run3- 319	540.6	8.1	543.5	19.4	555.6	94.9	540.6	8.1	97.3
SYN14-5_Run3- 323	546.6	10.6	551.7	13.5	572.9	53.5	546.6	10.6	95.4
SYN14-5_Run3- 253	562.2	11.4	561.1	19.5	556.4	87.3	562.2	11.4	101.1
SYN14-5_Run1- 29	567.5	12.1	575.1	13.0	604.9	42.3	567.5	12.1	93.8
SYN14-5_Run1- 96	568.9	7.6	575.7	12.5	602.6	53.8	568.9	7.6	94.4
SYN14-5_Run2- 137	577.7	8.1	577.0	9.2	574.1	32.6	577.7	8.1	100.6
SYN14-5_Run2- 194	578.4	8.0	600.7	11.4	685.7	43.9	578.4	8.0	84.4
SYN14-5_Run2- 208	582.9	7.5	594.3	9.1	638.3	32.7	582.9	7.5	91.3
SYN14-5_Run1- 10	586.2	13.9	590.7	18.8	608.3	73.4	586.2	13.9	96.4
SYN14-5_Run1- 51	594.6	9.0	607.3	12.6	654.8	48.7	594.6	9.0	90.8
SYN14-5_Run3- 298	599.0	13.0	605.7	15.9	630.8	57.2	599.0	13.0	95.0
SYN14-5_Run2- 160	599.6	12.0	603.7	22.2	619.1	94.9	599.6	12.0	96.8
SYN14-5_Run1- 72	603.7	9.9	604.5	12.1	607.6	44.1	603.7	9.9	99.3
SYN14-5_Run3- 288	604.0	22.0	618.1	20.8	670.1	50.4	604.0	22.0	90.1
SYN14-5_Run2- 182	609.2	13.0	606.0	15.7	593.9	56.9	609.2	13.0	102.6
SYN14-5_Run2- 121	609.7	12.1	619.5	13.5	655.6	43.9	609.7	12.1	93.0
SYN14-5_Run3- 293	611.3	7.5	611.6	10.0	613.0	37.7	611.3	7.5	99.7
SYN14-5_Run1- 22	615.0	8.6	616.7	10.3	622.7	36.3	615.0	8.6	98.8
SYN14-5_Run2- 143	615.1	12.8	636.9	15.2	715.2	50.3	615.1	12.8	86.0
SYN14-5_Run3- 243	617.7	12.1	614.7	18.9	603.8	76.4	617.7	12.1	102.3
SYN14-5_Run3- 268	620.0	9.3	624.9	9.8	642.5	29.9	620.0	9.3	96.5
SYN14-5_Run3- 229	626.9	10.6	622.2	11.2	605.4	34.8	626.9	10.6	103.5
SYN14-5_Run3- 235	627.5	12.8	643.1	20.8	698.3	81.1	627.5	12.8	89.9
SYN14-5_Run3- 227	629.6	14.5	638.9	14.2	671.9	37.6	629.6	14.5	93.7
SYN14-5_Run2- 186	633.2	11.2	641.8	12.9	672.2	42.0	633.2	11.2	94.2
SYN14-5_Run2- 165	646.7	9.5	643.6	12.4	633.1	44.9	646.7	9.5	102.1

SYN14-5_Run1- 8	924.0	15.5	921.1	19.6	914.2	55.6	914.2	55.6	101.1
SYN14-5_Run3- 286	925.7	16.6	925.3	15.5	924.5	34.3	924.5	34.3	100.1
SYN14-5_Run1- 107	884.3	14.1	896.8	14.9	928.0	37.8	928.0	37.8	95.3
SYN14-5_Run1- 86	912.1	12.4	918.5	14.8	933.9	40.2	933.9	40.2	97.7
SYN14-5_Run1- 101	910.8	15.2	918.8	18.7	938.1	51.7	938.1	51.7	97.1
SYN14-5_Run3- 321	952.6	18.8	954.1	20.9	957.6	53.8	957.6	53.8	99.5
SYN14-5_Run2- 207	947.8	19.9	953.4	19.8	966.3	46.6	966.3	46.6	98.1
SYN14-5_Run3- 278	966.0	9.8	967.2	16.2	970.0	48.1	970.0	48.1	99.6
SYN14-5_Run3- 249	958.5	12.9	962.2	11.9	970.7	25.7	970.7	25.7	98.7
SYN14-5_Run2- 214	1001.6	18.1	998.7	18.5	992.3	43.9	992.3	43.9	100.9
SYN14-5_Run1- 94	1013.8	20.1	1008.8	27.3	998.1	75.0	998.1	75.0	101.6
SYN14-5_Run1- 45	1028.6	16.9	1019.1	16.9	998.7	39.3	998.7	39.3	103.0
SYN14-5_Run2- 192	937.0	13.6	956.0	18.1	999.9	50.3	999.9	50.3	93.7
SYN14-5_Run1- 110	970.1	12.3	979.3	14.5	999.9	37.8	999.9	37.8	97.0
SYN14-5_Run2- 151	1026.6	11.6	1019.1	14.4	1002.9	38.0	1002.9	38.0	102.4
SYN14-5_Run2- 113	993.1	15.0	997.3	15.2	1006.3	35.5	1006.3	35.5	98.7
SYN14-5_Run3- 271	1014.2	16.0	1011.9	14.6	1006.9	30.8	1006.9	30.8	100.7
SYN14-5_Run1- 41	999.2	13.7	1001.7	12.0	1007.0	23.7	1007.0	23.7	99.2
SYN14-5_Run2- 156	967.3	13.6	979.8	17.5	1007.8	47.3	1007.8	47.3	96.0
SYN14-5_Run3- 230	1008.5	15.1	1008.9	18.1	1009.7	47.3	1009.7	47.3	99.9
SYN14-5_Run3- 257	970.5	15.3	982.7	13.5	1009.9	26.4	1009.9	26.4	96.1
SYN14-5_Run3- 295	1031.2	16.5	1026.2	15.1	1015.4	31.9	1015.4	31.9	101.6
SYN14-5_Run1- 98	997.2	15.6	1003.4	14.7	1016.7	31.8	1016.7	31.8	98.1
SYN14-5_Run2- 154	1030.0	14.2	1025.9	17.0	1017.2	43.9	1017.2	43.9	101.3
SYN14-5_Run1- 28	1017.0	22.1	1017.2	20.0	1017.6	41.5	1017.6	41.5	99.9
SYN14-5_Run1- 109	967.7	12.6	983.2	15.9	1018.0	42.5	1018.0	42.5	95.1
SYN14-5_Run1- 36	1018.8	18.5	1018.6	14.9	1018.1	25.0	1018.1	25.0	100.1
SYN14-5_Run3- 239	1024.4	15.7	1022.7	13.1	1019.1	23.7	1019.1	23.7	100.5
SYN14-5_Run1- 88	1000.8	17.5	1006.8	15.8	1019.8	32.1	1019.8	32.1	98.1
SYN14-5_Run1- 61	939.9	18.5	964.4	18.5	1020.7	42.2	1020.7	42.2	92.1
SYN14-5_Run1- 55	894.8	21.3	932.1	24.0	1021.4	61.0	1021.4	61.0	87.6
SYN14-5_Run2- 117	914.9	28.8	946.8	23.6	1021.7	36.6	1021.7	36.6	89.6
SYN14-5_Run3- 305	1003.4	11.7	1009.2	12.7	1021.7	30.9	1021.7	30.9	98.2
SYN14-5_Run1- 80	1019.9	16.5	1021.2	13.6	1024.0	24.4	1024.0	24.4	99.6
SYN14-5_Run1- 104	1027.7	14.6	1026.8	11.1	1024.8	15.5	1024.8	15.5	100.3
SYN14-5_Run2- 112	936.9	15.2	963.5	13.8	1024.8	27.9	1024.8	27.9	91.4
SYN14-5_Run2- 157	1025.4	12.1	1025.6	13.4	1025.9	33.0	1025.9	33.0	99.9
SYN14-5_Run1- 63	1048.8	20.8	1041.5	16.5	1026.1	27.2	1026.1	27.2	102.2
SYN14-5_Run3- 292	1046.0	21.2	1039.7	19.6	1026.4	41.7	1026.4	41.7	101.9

SYN14-5_Run2- 139	1021.5	14.9	1024.1	15.2	1029.8	35.3	1029.8	35.3	99.2
SYN14-5_Run3- 316	1050.1	15.8	1043.9	16.8	1030.7	40.3	1030.7	40.3	101.9
SYN14-5_Run3- 232	1076.8	17.9	1062.4	15.5	1032.8	30.7	1032.8	30.7	104.3
SYN14-5_Run1- 9	1006.3	15.8	1015.7	15.1	1036.2	33.1	1036.2	33.1	97.1
SYN14-5_Run1- 7	985.3	16.1	1001.5	15.2	1037.1	32.7	1037.1	32.7	95.0
SYN14-5_Run3- 313	1023.0	18.3	1027.9	14.4	1038.3	22.0	1038.3	22.0	98.5
SYN14-5_Run3- 277	1047.9	15.3	1045.0	12.2	1039.0	20.1	1039.0	20.1	100.9
SYN14-5_Run1- 48	1031.3	11.2	1034.5	12.8	1041.3	32.0	1041.3	32.0	99.0
SYN14-5_Run1- 75	1073.3	19.0	1063.0	21.1	1042.0	51.5	1042.0	51.5	103.0
SYN14-5_Run2- 144	990.8	11.2	1007.0	13.9	1042.6	36.2	1042.6	36.2	95.0
SYN14-5_Run1- 17	1054.9	29.8	1051.0	22.8	1043.0	33.8	1043.0	33.8	101.1
SYN14-5_Run2- 170	1017.4	16.0	1026.0	14.9	1044.3	31.4	1044.3	31.4	97.4
SYN14-5_Run2- 135	1008.8	13.2	1020.3	13.6	1045.0	31.8	1045.0	31.8	96.5
SYN14-5_Run1- 59	984.4	12.1	1003.4	11.3	1045.1	23.6	1045.1	23.6	94.2
SYN14-5_Run2- 134	1004.3	30.8	1017.4	22.6	1045.6	24.2	1045.6	24.2	96.0
SYN14-5_Run1- 13	1038.1	18.9	1040.6	20.2	1045.9	48.4	1045.9	48.4	99.2
SYN14-5_Run2- 187	1032.0	16.1	1036.9	20.7	1047.2	54.6	1047.2	54.6	98.6
SYN14-5_Run3- 241	982.0	15.9	1002.4	15.0	1047.3	32.1	1047.3	32.1	93.8
SYN14-5_Run1- 69	1037.9	19.3	1041.2	16.1	1048.1	28.7	1048.1	28.7	99.0
SYN14-5_Run3- 228	1014.4	19.1	1028.1	16.2	1057.4	29.5	1057.4	29.5	95.9
SYN14-5_Run3- 275	1076.0	14.1	1069.9	13.4	1057.5	28.9	1057.5	28.9	101.7
SYN14-5_Run3- 245	1022.5	17.8	1033.7	15.7	1057.5	30.7	1057.5	30.7	96.7
SYN14-5_Run1- 92	1022.2	38.6	1033.7	27.9	1058.2	27.3	1058.2	27.3	96.6
SYN14-5_Run2- 211	1049.0	19.2	1052.2	18.6	1058.8	40.7	1058.8	40.7	99.1
SYN14-5_Run2- 179	995.3	14.5	1015.6	18.6	1059.6	49.0	1059.6	49.0	93.9
SYN14-5_Run1- 1	1100.0	13.1	1086.9	11.1	1060.8	21.2	1060.8	21.2	103.7
SYN14-5_Run1- 47	1056.3	16.2	1057.8	19.1	1061.0	48.1	1061.0	48.1	99.6
SYN14-5_Run3- 315	1020.5	21.4	1033.5	19.3	1061.2	39.1	1061.2	39.1	96.2
SYN14-5_Run1- 85	1054.3	15.1	1056.9	13.2	1062.3	25.7	1062.3	25.7	99.2
SYN14-5_Run3- 238	1054.3	15.7	1057.7	12.7	1064.8	21.3	1064.8	21.3	99.0
SYN14-5_Run3- 310	993.8	22.1	1016.8	20.6	1066.7	42.7	1066.7	42.7	93.2
SYN14-5_Run1- 91	1040.7	13.5	1050.0	13.4	1069.3	29.8	1069.3	29.8	97.3
SYN14-5_Run1- 33	1045.0	16.8	1054.8	13.6	1075.2	22.3	1075.2	22.3	97.2
SYN14-5_Run2- 163	1021.3	22.1	1038.7	25.5	1075.6	63.4	1075.6	63.4	95.0
SYN14-5_Run1- 20	1030.3	17.5	1045.1	17.1	1076.2	37.4	1076.2	37.4	95.7
SYN14-5_Run3- 260	1039.9	19.1	1053.1	17.0	1080.7	33.5	1080.7	33.5	96.2
SYN14-5_Run1- 35	1014.0	14.6	1036.2	14.1	1083.5	30.3	1083.5	30.3	93.6
SYN14-5_Run2- 220	1021.3	34.1	1041.4	28.2	1083.9	48.0	1083.9	48.0	94.2
SYN14-5_Run2- 171	1078.6	21.1	1080.5	16.0	1084.3	22.8	1084.3	22.8	99.5



SYN14-5_Run2- 203	1040.3	40.5	1054.6	32.1	1084.3	49.7	1084.3	49.7	95.9
SYN14-5_Run1- 60	1043.5	18.5	1058.5	21.0	1089.7	51.2	1089.7	51.2	95.8
SYN14-5_Run3- 291	1051.3	15.2	1063.9	14.8	1089.9	32.1	1089.9	32.1	96.5
SYN14-5_Run2- 115	1077.9	22.7	1082.7	16.5	1092.4	19.1	1092.4	19.1	98.7
SYN14-5_Run3- 266	1041.7	14.1	1058.7	11.9	1093.8	20.9	1093.8	20.9	95.2
SYN14-5_Run2- 132	1090.5	14.5	1092.3	13.6	1095.8	28.6	1095.8	28.6	99.5
SYN14-5_Run2- 150	1059.4	15.0	1071.9	13.5	1097.4	26.7	1097.4	26.7	96.5
SYN14-5_Run2- 162	1040.5	13.8	1059.1	20.2	1097.7	54.3	1097.7	54.3	94.8
SYN14-5_Run3- 322	1037.4	22.1	1057.2	21.3	1098.5	45.6	1098.5	45.6	94.4
SYN14-5_Run3- 234	1055.2	17.6	1070.5	19.3	1101.8	45.6	1101.8	45.6	95.8
SYN14-5_Run2- 145	1057.5	22.2	1072.5	21.2	1103.0	45.1	1103.0	45.1	95.9
SYN14-5_Run3- 222	1076.2	15.7	1086.4	13.7	1106.8	26.0	1106.8	26.0	97.2
SYN14-5_Run1- 50	1043.1	33.2	1064.0	26.3	1107.0	40.1	1107.0	40.1	94.2
SYN14-5_Run3- 240	1098.0	19.2	1101.4	16.6	1108.0	31.7	1108.0	31.7	99.1
SYN14-5_Run3- 296	1077.0	20.4	1088.5	22.6	1111.6	53.7	1111.6	53.7	96.9
SYN14-5_Run2- 198	1125.5	12.0	1122.4	18.8	1116.5	49.9	1116.5	49.9	100.8
SYN14-5_Run3- 284	1116.2	18.5	1116.9	18.4	1118.2	40.4	1118.2	40.4	99.8
SYN14-5_Run3- 281	1142.3	22.1	1135.2	19.9	1121.5	40.0	1121.5	40.0	101.9
SYN14-5_Run2- 188	1100.5	20.1	1107.9	18.3	1122.5	36.9	1122.5	36.9	98.0
SYN14-5_Run2- 125	1076.8	22.7	1093.3	21.7	1126.1	45.8	1126.1	45.8	95.6
SYN14-5_Run1- 53	1059.3	15.6	1081.7	15.0	1127.0	31.6	1127.0	31.6	94.0
SYN14-5_Run3- 267	1093.3	13.0	1104.8	12.6	1127.5	26.9	1127.5	26.9	97.0
SYN14-5_Run1- 57	998.7	12.7	1041.0	11.9	1131.1	23.8	1131.1	23.8	88.3
SYN14-5_Run1- 102	1094.4	16.5	1108.1	13.8	1135.2	24.3	1135.2	24.3	96.4
SYN14-5_Run2- 158	1051.5	13.6	1079.8	17.4	1137.4	44.1	1137.4	44.1	92.5
SYN14-5_Run2- 118	1150.7	21.0	1147.0	15.6	1140.2	21.5	1140.2	21.5	100.9
SYN14-5_Run1- 67	1088.2	18.5	1106.4	17.5	1142.3	36.1	1142.3	36.1	95.3
SYN14-5_Run1- 64	1155.9	19.9	1151.3	15.7	1142.6	25.5	1142.6	25.5	101.2
SYN14-5_Run2- 216	1016.5	16.1	1058.2	23.6	1145.0	62.8	1145.0	62.8	88.8
SYN14-5_Run1- 82	1158.6	12.8	1157.0	12.1	1154.0	25.0	1154.0	25.0	100.4
SYN14-5_Run3- 289	1105.4	18.7	1122.8	15.6	1156.6	27.3	1156.6	27.3	95.6
SYN14-5_Run2- 184	944.4	12.5	1011.4	11.8	1159.3	23.2	1159.3	23.2	81.5
SYN14-5_Run3- 326	1181.2	15.8	1173.8	12.1	1160.1	18.6	1160.1	18.6	101.8
SYN14-5_Run2- 215	1155.5	12.2	1158.6	10.9	1164.3	21.1	1164.3	21.1	99.2
SYN14-5_Run1- 16	1116.6	16.2	1134.0	13.9	1167.6	25.3	1167.6	25.3	95.6
SYN14-5_Run2- 189	1118.6	27.2	1135.8	19.8	1168.7	22.9	1168.7	22.9	95.7
SYN14-5_Run3- 330	1103.6	41.2	1126.5	32.6	1170.8	49.8	1170.8	49.8	94.3
SYN14-5_Run2- 147	1127.9	13.4	1142.7	15.5	1171.0	36.8	1171.0	36.8	96.3
SYN14-5_Run1- 24	1155.5	19.8	1161.4	25.0	1172.6	61.1	1172.6	61.1	98.5

SYN14-5_Run2- 178	1157.4	14.5	1163.4	15.2	1174.6	34.1	1174.6	34.1	98.5
SYN14-5_Run1- 5	1154.8	18.5	1164.9	24.2	1183.9	59.7	1183.9	59.7	97.5
SYN14-5_Run3- 306	1128.1	41.8	1149.5	31.2	1190.2	40.6	1190.2	40.6	94.8
SYN14-5_Run1- 81	1146.2	22.4	1162.3	20.5	1192.3	40.6	1192.3	40.6	96.1
SYN14-5_Run1- 77	1147.0	14.4	1164.3	13.3	1196.8	26.4	1196.8	26.4	95.8
SYN14-5_Run1- 79	1119.2	24.2	1146.2	20.5	1197.9	35.9	1197.9	35.9	93.4
SYN14-5_Run2- 168	1166.7	27.0	1178.1	24.9	1199.2	49.6	1199.2	49.6	97.3
SYN14-5_Run3- 259	1209.0	13.2	1205.8	11.0	1199.9	19.9	1199.9	19.9	100.8
SYN14-5_Run1- 70	1169.1	27.8	1181.8	21.9	1205.2	34.3	1205.2	34.3	97.0
SYN14-5_Run3- 251	1239.2	20.6	1227.6	17.4	1207.4	32.1	1207.4	32.1	102.6
SYN14-5_Run1- 84	1059.8	39.1	1113.0	29.6	1218.4	35.2	1218.4	35.2	87.0
SYN14-5_Run3- 324	1126.1	26.8	1159.8	26.0	1223.5	53.3	1223.5	53.3	92.0
SYN14-5_Run1- 30	1189.4	18.3	1207.3	16.5	1239.4	31.7	1239.4	31.7	96.0
SYN14-5_Run3- 309	1207.5	18.5	1222.0	21.4	1247.8	49.0	1247.8	49.0	96.8
SYN14-5_Run1- 46	1220.5	15.9	1231.3	14.7	1250.2	29.0	1250.2	29.0	97.6
SYN14-5_Run3- 285	1190.0	25.7	1213.2	21.9	1254.8	39.0	1254.8	39.0	94.8
SYN14-5_Run3- 265	1245.6	14.7	1251.5	12.7	1261.7	23.4	1261.7	23.4	98.7
SYN14-5_Run3- 302	1254.4	19.2	1260.1	15.0	1270.0	23.5	1270.0	23.5	98.8
SYN14-5_Run2- 173	1256.6	26.4	1263.2	19.3	1274.5	26.1	1274.5	26.1	98.6
SYN14-5_Run2- 183	1235.5	16.5	1269.9	14.5	1328.8	26.2	1328.8	26.2	93.0
SYN14-5_Run1- 12	1362.5	15.6	1350.8	17.2	1332.3	37.3	1332.3	37.3	102.3
SYN14-5_Run3- 256	1314.3	24.2	1322.3	17.9	1335.2	25.2	1335.2	25.2	98.4
SYN14-5_Run1- 71	1274.3	16.3	1297.3	13.7	1335.7	23.8	1335.7	23.8	95.4
SYN14-5_Run1- 62	1306.8	32.6	1318.5	23.3	1337.6	29.7	1337.6	29.7	97.7
SYN14-5_Run1- 26	1231.7	20.6	1272.1	22.1	1341.2	46.9	1341.2	46.9	91.8
SYN14-5_Run1- 19	1384.2	25.3	1370.5	17.3	1349.3	20.9	1349.3	20.9	102.6
SYN14-5_Run2- 172	1313.3	19.0	1327.2	18.3	1349.8	36.3	1349.8	36.3	97.3
SYN14-5_Run2- 140	1372.8	21.0	1364.9	16.1	1352.5	25.2	1352.5	25.2	101.5
SYN14-5_Run3- 255	1385.8	19.6	1379.1	15.7	1368.7	26.1	1368.7	26.1	101.2
SYN14-5_Run1- 106	1358.1	31.4	1367.9	23.3	1383.4	33.3	1383.4	33.3	98.2
SYN14-5_Run2- 128	1362.1	16.4	1370.8	12.0	1384.4	16.6	1384.4	16.6	98.4
SYN14-5_Run1- 87	1317.0	32.1	1343.6	22.3	1386.1	25.3	1386.1	25.3	95.0
SYN14-5_Run1- 99	1323.2	20.7	1348.7	18.5	1389.2	34.1	1389.2	34.1	95.2
SYN14-5_Run3- 237	1363.4	18.3	1382.7	13.1	1412.6	17.2	1412.6	17.2	96.5
SYN14-5_Run3- 287	1397.6	25.6	1410.1	18.2	1428.9	23.8	1428.9	23.8	97.8
SYN14-5_Run3- 328	1408.5	17.3	1419.9	15.5	1437.0	28.6	1437.0	28.6	98.0
SYN14-5_Run2- 148	1322.6	29.9	1368.6	23.4	1441.2	35.1	1441.2	35.1	91.8
SYN14-5_Run2- 206	1428.0	19.7	1433.3	17.4	1441.2	31.7	1441.2	31.7	99.1
SYN14-5_Run2- 133	1352.0	20.1	1388.5	15.2	1444.9	21.8	1444.9	21.8	93.6

SYN14-5_Run2- 153	1407.6	28.0	1422.7	19.9	1445.3	26.1	1445.3	26.1	97.4
SYN14-5_Run3- 312	1524.4	27.3	1496.5	17.7	1457.0	19.8	1457.0	19.8	104.6
SYN14-5_Run1- 25	1431.4	17.2	1443.6	15.0	1461.6	27.0	1461.6	27.0	97.9
SYN14-5_Run3- 269	1428.3	31.2	1442.6	23.4	1463.7	34.8	1463.7	34.8	97.6
SYN14-5_Run3- 274	1453.5	25.3	1459.0	21.8	1467.1	38.5	1467.1	38.5	99.1
SYN14-5_Run2- 116	1449.7	35.9	1460.8	24.2	1476.9	27.7	1476.9	27.7	98.2
SYN14-5_Run1- 54	1451.1	24.1	1463.0	16.8	1480.2	21.4	1480.2	21.4	98.0
SYN14-5_Run3- 314	1424.0	23.7	1447.1	19.6	1481.2	32.9	1481.2	32.9	96.1
SYN14-5_Run1- 44	1471.4	25.0	1475.6	16.4	1481.7	17.5	1481.7	17.5	99.3
SYN14-5_Run3- 261	1500.4	23.2	1498.5	16.9	1495.8	24.4	1495.8	24.4	100.3
SYN14-5_Run1- 42	1477.0	20.8	1485.1	15.9	1496.8	24.5	1496.8	24.5	98.7
SYN14-5_Run2- 213	1468.7	20.7	1487.8	16.3	1515.1	25.8	1515.1	25.8	96.9
SYN14-5_Run1- 11	1395.4	23.2	1454.9	20.6	1542.9	36.1	1542.9	36.1	90.4
SYN14-5_Run2- 212	1499.7	29.1	1520.5	18.6	1549.6	17.3	1549.6	17.3	96.8
SYN14-5_Run1- 90	1520.7	15.1	1535.4	13.6	1555.7	24.6	1555.7	24.6	97.8
SYN14-5_Run2- 131	1534.6	36.1	1544.3	22.9	1557.6	21.6	1557.6	21.6	98.5
SYN14-5_Run3- 290	1499.2	18.4	1527.7	13.6	1567.3	19.3	1567.3	19.3	95.7
SYN14-5_Run1- 73	1546.9	31.7	1570.2	22.2	1601.7	29.1	1601.7	29.1	96.6
SYN14-5_Run1- 32	1533.0	25.4	1570.3	19.6	1620.7	29.9	1620.7	29.9	94.6
SYN14-5_Run2- 201	1592.6	44.0	1604.9	28.6	1621.1	31.3	1621.1	31.3	98.2
SYN14-5_Run1- 37	1614.6	22.0	1621.4	16.6	1630.3	25.2	1630.3	25.2	99.0
SYN14-5_Run2- 164	1620.3	22.0	1626.9	15.5	1635.5	21.3	1635.5	21.3	99.1
SYN14-5_Run3- 304	1629.1	31.0	1633.7	19.3	1639.7	18.4	1639.7	18.4	99.4
SYN14-5_Run1- 89	1587.1	24.8	1610.0	18.3	1640.1	26.4	1640.1	26.4	96.8
SYN14-5_Run3- 318	1683.9	20.1	1665.9	14.4	1643.3	20.6	1643.3	20.6	102.5
SYN14-5_Run2- 174	1648.8	28.0	1646.8	19.6	1644.1	26.5	1644.1	26.5	100.3
SYN14-5_Run2- 129	1617.8	30.5	1631.2	20.8	1648.4	26.6	1648.4	26.6	98.1
SYN14-5_Run3- 270	1620.5	21.6	1632.8	17.4	1648.6	28.3	1648.6	28.3	98.3
SYN14-5_Run3- 279	1679.5	35.8	1665.8	21.5	1648.6	18.9	1648.6	18.9	101.9
SYN14-5_Run2- 217	1622.9	22.4	1636.3	18.3	1653.6	30.2	1653.6	30.2	98.1
SYN14-5_Run3- 311	1651.1	23.9	1652.6	16.6	1654.5	22.4	1654.5	22.4	99.8
SYN14-5_Run2- 202	1617.7	16.5	1635.7	15.2	1658.9	27.4	1658.9	27.4	97.5
SYN14-5_Run3- 254	1625.9	25.1	1645.1	18.2	1669.7	25.7	1669.7	25.7	97.4
SYN14-5_Run3- 236	1718.8	31.3	1701.6	20.3	1680.4	24.6	1680.4	24.6	102.3
SYN14-5_Run3- 280	1696.0	28.4	1701.7	20.9	1708.7	30.8	1708.7	30.8	99.3
SYN14-5_Run2- 190	1674.7	30.6	1691.8	24.7	1713.1	39.9	1713.1	39.9	97.8
SYN14-5_Run2- 166	1725.8	23.4	1724.6	18.8	1723.1	30.3	1723.1	30.3	100.2
SYN14-5_Run3- 223	1686.0	22.2	1702.9	14.9	1723.8	18.3	1723.8	18.3	97.8
SYN14-5_Run2- 123	1680.9	23.9	1701.2	16.2	1726.3	20.6	1726.3	20.6	97.4

SYN14-5_Run1- 31	1733.8	19.5	1731.2	16.0	1728.1	26.5	1728.1	26.5	100.3
SYN14-5_Run3- 320	1729.1	23.8	1729.4	15.9	1729.7	20.0	1729.7	20.0	100.0
SYN14-5_Run1- 76	1720.3	20.4	1725.1	15.7	1730.9	24.3	1730.9	24.3	99.4
SYN14-5_Run3- 327	1735.5	28.6	1734.7	18.7	1733.7	22.5	1733.7	22.5	100.1
SYN14-5_Run1- 66	1732.9	25.6	1736.1	16.1	1740.1	17.6	1740.1	17.6	99.6
SYN14-5_Run3- 231	1745.0	24.0	1744.8	20.7	1744.6	35.2	1744.6	35.2	100.0
SYN14-5_Run2- 122	1714.2	24.1	1729.2	18.2	1747.2	27.4	1747.2	27.4	98.1
SYN14-5_Run2- 219	1727.8	22.4	1742.2	15.4	1759.5	20.3	1759.5	20.3	98.2
SYN14-5_Run1- 3	1706.2	17.4	1734.7	13.9	1769.2	22.1	1769.2	22.1	96.4
SYN14-5_Run2- 141	1710.2	35.7	1739.8	21.0	1775.4	15.7	1775.4	15.7	96.3
SYN14-5_Run1- 40	1648.9	22.2	1717.0	21.4	1801.1	38.0	1801.1	38.0	91.5
SYN14-5_Run3- 325	1867.4	30.3	1845.9	19.8	1821.9	25.2	1821.9	25.2	102.5
SYN14-5_Run3- 262	1814.3	22.6	1824.4	15.1	1835.9	19.3	1835.9	19.3	98.8
SYN14-5_Run1- 21	1816.4	26.2	1825.8	17.7	1836.4	23.1	1836.4	23.1	98.9
SYN14-5_Run1- 34	1811.2	24.8	1824.7	19.2	1840.2	29.6	1840.2	29.6	98.4
SYN14-5_Run1- 4	1803.7	29.2	1838.4	17.7	1877.9	17.3	1877.9	17.3	96.0
SYN14-5_Run2- 126	1898.3	26.3	1896.2	17.0	1893.8	21.2	1893.8	21.2	100.2
SYN14-5_Run2- 185	1855.9	24.5	1890.6	21.6	1928.9	35.8	1928.9	35.8	96.2
SYN14-5_Run3- 301	1958.2	22.0	1945.8	15.6	1932.7	22.3	1932.7	22.3	101.3
SYN14-5_Run3- 250	1974.8	22.0	1977.8	14.4	1980.9	18.3	1980.9	18.3	99.7
SYN14-5_Run1- 105	1934.6	21.5	1964.0	16.1	1995.2	23.8	1995.2	23.8	97.0
SYN14-5_Run3- 294	1980.0	24.7	1991.7	14.7	2003.9	15.3	2003.9	15.3	98.8
SYN14-5_Run2- 159	1994.2	24.6	2002.5	16.3	2011.1	21.1	2011.1	21.1	99.2
SYN14-5_Run2- 218	2037.2	24.5	2032.6	16.2	2028.0	21.2	2028.0	21.2	100.5
SYN14-5_Run3- 299	2056.1	39.0	2059.3	24.3	2062.6	28.9	2062.6	28.9	99.7
SYN14-5_Run2- 119	2051.7	40.4	2069.0	22.6	2086.1	19.7	2086.1	19.7	98.4
SYN14-5_Run1- 43	2064.5	28.9	2076.1	16.1	2087.7	13.9	2087.7	13.9	98.9
SYN14-5_Run3- 244	2042.3	22.8	2067.2	15.3	2092.1	20.0	2092.1	20.0	97.6
SYN14-5_Run1- 23	2057.7	29.6	2099.4	20.4	2140.5	27.6	2140.5	27.6	96.1
SYN14-5_Run1- 108	2358.5	41.2	2399.3	22.6	2434.0	22.0	2434.0	22.0	96.9
SYN14-5_Run2- 176	2177.5	64.4	2325.3	32.8	2457.7	14.6	2457.7	14.6	88.6
SYN14-5_Run1- 68	2548.2	32.2	2560.9	19.4	2571.0	23.5	2571.0	23.5	99.1
SYN14-5_Run3- 297	2523.3	47.9	2620.3	22.9	2696.0	13.9	2696.0	13.9	93.6
SYN14-5_Run1- 100	2634.3	46.8	2671.4	24.0	2699.6	22.1	2699.6	22.1	97.6
SYN14-5_Run2- 136	2550.9	36.3	2638.7	19.0	2706.7	17.3	2706.7	17.3	94.2
SYN14-5_Run1- 95	2624.1	34.3	2674.8	20.8	2713.3	25.3	2713.3	25.3	96.7
SYN14-5_Run2- 161	2716.9	31.4	2722.3	14.5	2726.2	9.6	2726.2	9.6	99.7
SYN14-5_Run2- 138	2747.1	43.6	2756.9	20.5	2764.0	15.3	2764.0	15.3	99.4
SYN14-5_Run3- 273	2855.5	55.4	2894.3	31.7	2921.4	37.0	2921.4	37.0	97.7



SYN14_9_Run 2-- 122	434.1	7.3	437.0	13.1	452.7	72.7	434.1	7.3	95.9
SYN14_9_Run 3-- 235	448.4	7.9	434.8	11.9	363.7	63.9	448.4	7.9	123.3
SYN14_9_Run 2-- 183	457.5	7.6	451.6	12.2	421.8	64.1	457.5	7.6	108.5
SYN14_9_Run 3-- 247	457.7	7.1	460.6	11.7	475.6	60.0	457.7	7.1	96.2
SYN14_9_Run 2-- 132	468.8	13.6	478.4	16.0	524.6	63.5	468.8	13.6	89.4
SYN14_9_Run 1-- 27	476.7	10.5	473.5	12.3	457.8	51.3	476.7	10.5	104.1
SYN14_9_Run 2-- 196	511.6	13.3	532.8	18.0	624.7	73.2	511.6	13.3	81.9
SYN14_9_Run 1-- 25	533.1	12.3	535.0	13.1	542.9	44.7	533.1	12.3	98.2
SYN14_9_Run 3-- 290	553.4	13.7	549.0	14.8	530.7	51.0	553.4	13.7	104.3
SYN14_9_Run 2-- 195	560.0	12.1	555.5	19.9	537.2	88.7	560.0	12.1	104.2
SYN14_9_Run 3-- 313	561.7	13.0	589.2	15.3	696.8	51.6	561.7	13.0	80.6
SYN14_9_Run 3-- 314	562.2	10.4	560.8	17.0	555.4	75.0	562.2	10.4	101.2
SYN14_9_Run 1-- 53	577.8	18.8	573.6	18.4	557.2	53.6	577.8	18.8	103.7
SYN14_9_Run 3-- 245	595.9	10.7	605.4	12.8	641.0	44.8	595.9	10.7	93.0
SYN14_9_Run 1-- 9	608.8	15.7	612.6	14.6	626.7	35.4	608.8	15.7	97.1
SYN14_9_Run 1-- 37	611.5	10.4	619.9	14.2	650.7	53.7	611.5	10.4	94.0
SYN14_9_Run 2-- 201	614.0	10.2	619.3	15.8	638.9	63.1	614.0	10.2	96.1
SYN14_9_Run 3-- 233	615.7	11.3	616.6	11.9	619.6	36.6	615.7	11.3	99.4
SYN14_9_Run 2-- 153	617.8	12.7	623.7	15.3	645.2	53.0	617.8	12.7	95.8
SYN14_9_Run 2-- 163	620.6	9.7	620.1	12.5	618.1	46.4	620.6	9.7	100.4
SYN14_9_Run 3-- 224	632.9	8.6	630.1	12.9	620.1	50.9	632.9	8.6	102.1
SYN14_9_Run 1-- 47	633.0	10.9	636.0	13.8	646.9	49.3	633.0	10.9	97.9
SYN14_9_Run 2-- 184	636.1	11.0	634.0	11.0	626.5	31.6	636.1	11.0	101.5
SYN14_9_Run 1-- 48	638.8	12.2	637.6	12.8	633.4	39.0	638.8	12.2	100.8
SYN14_9_Run 3-- 328	677.6	14.4	699.1	19.2	768.6	64.5	677.6	14.4	88.2
SYN14_9_Run 2-- 185	934.7	14.7	934.9	17.1	935.3	45.9	935.3	45.9	99.9
SYN14_9_Run 2-- 162	938.0	17.3	946.6	18.3	966.8	45.1	966.8	45.1	97.0
SYN14_9_Run 1-- 98	905.8	16.7	927.6	16.8	979.5	39.4	979.5	39.4	92.5
SYN14_9_Run 2-- 171	950.4	20.0	961.0	25.7	985.1	70.3	985.1	70.3	96.5
SYN14_9_Run 3-- 311	1006.4	15.4	1002.7	13.2	994.7	25.3	994.7	25.3	101.2
SYN14_9_Run 2-- 177	996.0	15.5	997.7	15.2	1001.2	34.7	1001.2	34.7	99.5
SYN14_9_Run 1-- 30	1016.6	19.5	1013.2	19.7	1005.8	45.9	1005.8	45.9	101.1
SYN14_9_Run 2-- 123	1023.5	13.2	1018.3	15.0	1007.0	38.0	1007.0	38.0	101.6
SYN14_9_Run 1-- 87	1008.0	13.1	1008.2	11.3	1008.8	21.8	1008.8	21.8	99.9
SYN14_9_Run 3-- 318	983.3	17.2	991.5	20.3	1009.7	52.4	1009.7	52.4	97.4
SYN14_9_Run 2-- 131	968.5	13.1	981.3	17.5	1010.1	48.0	1010.1	48.0	95.9
SYN14_9_Run 3-- 223	987.6	9.6	994.7	10.5	1010.4	25.8	1010.4	25.8	97.7
SYN14_9_Run 2-- 114	1016.0	18.9	1016.0	26.7	1016.0	73.8	1016.0	73.8	100.0
SYN14_9_Run 3-- 229	1022.7	22.5	1020.9	18.8	1017.0	34.4	1017.0	34.4	100.6

SYN14_9_Run 1-- 59	1030.3	20.2	1026.3	22.8	1018.0	57.1	1018.0	57.1	101.2
SYN14_9_Run 2-- 148	1020.4	17.0	1020.0	18.1	1019.2	43.8	1019.2	43.8	100.1
SYN14_9_Run 1-- 69	1030.3	20.0	1028.3	16.4	1024.0	29.0	1024.0	29.0	100.6
SYN14_9_Run 2-- 129	1027.8	18.7	1026.6	15.7	1024.0	28.7	1024.0	28.7	100.4
SYN14_9_Run 2-- 130	990.6	20.1	1001.4	30.2	1025.2	85.2	1025.2	85.2	96.6
SYN14_9_Run 3-- 294	1044.7	11.6	1039.2	10.4	1027.6	21.4	1027.6	21.4	101.7
SYN14_9_Run 2-- 146	1013.1	17.4	1019.7	14.3	1033.9	25.0	1033.9	25.0	98.0
SYN14_9_Run 3-- 285	923.1	16.6	956.7	13.5	1034.6	19.9	1034.6	19.9	89.2
SYN14_9_Run 2-- 180	1025.5	24.6	1028.7	18.7	1035.6	25.7	1035.6	25.7	99.0
SYN14_9_Run 2-- 216	1033.8	15.4	1034.6	12.7	1036.4	22.4	1036.4	22.4	99.8
SYN14_9_Run 3-- 246	998.7	16.4	1010.7	19.3	1036.7	49.0	1036.7	49.0	96.3
SYN14_9_Run 1-- 24	1106.1	21.5	1084.0	18.7	1039.8	37.1	1039.8	37.1	106.4
SYN14_9_Run 2-- 137	1015.5	15.0	1023.8	12.1	1041.6	20.0	1041.6	20.0	97.5
SYN14_9_Run 2-- 187	1056.6	22.9	1051.8	17.1	1041.7	22.8	1041.7	22.8	101.4
SYN14_9_Run 1-- 57	1031.2	16.7	1035.3	15.4	1043.9	32.1	1043.9	32.1	98.8
SYN14_9_Run 1-- 71	1005.1	30.4	1017.8	22.6	1045.1	26.1	1045.1	26.1	96.2
SYN14_9_Run 1-- 36	1015.5	16.8	1025.1	15.9	1045.6	34.1	1045.6	34.1	97.1
SYN14_9_Run 2-- 211	993.2	16.8	1009.9	18.8	1046.2	46.6	1046.2	46.6	94.9
SYN14_9_Run 1-- 38	989.8	12.6	1008.0	13.3	1047.8	31.4	1047.8	31.4	94.5
SYN14_9_Run 1-- 79	1030.5	13.1	1037.1	13.5	1050.9	31.5	1050.9	31.5	98.1
SYN14_9_Run 2-- 197	1051.1	18.7	1052.0	16.3	1053.9	31.7	1053.9	31.7	99.7
SYN14_9_Run 1-- 39	990.5	16.5	1011.3	17.7	1056.5	42.2	1056.5	42.2	93.7
SYN14_9_Run 2-- 149	1079.8	26.2	1072.2	22.9	1056.8	45.0	1056.8	45.0	102.2
SYN14_9_Run 2-- 193	994.5	18.2	1014.6	17.8	1058.3	39.3	1058.3	39.3	94.0
SYN14_9_Run 3-- 320	1024.3	18.0	1035.2	16.9	1058.3	35.7	1058.3	35.7	96.8
SYN14_9_Run 2-- 143	1063.1	13.4	1062.9	12.8	1062.4	27.7	1062.4	27.7	100.1
SYN14_9_Run 2-- 145	1014.8	24.4	1030.4	19.2	1063.8	28.4	1063.8	28.4	95.4
SYN14_9_Run 2-- 111	1009.3	19.2	1027.1	16.1	1065.3	28.5	1065.3	28.5	94.7
SYN14_9_Run 3-- 282	1037.4	12.3	1047.0	13.3	1067.2	31.7	1067.2	31.7	97.2
SYN14_9_Run 1-- 6	983.5	23.8	1011.4	18.6	1072.2	25.5	1072.2	25.5	91.7
SYN14_9_Run 3-- 310	1045.9	13.9	1055.2	14.9	1074.4	35.3	1074.4	35.3	97.3
SYN14_9_Run 3-- 240	1047.4	17.1	1056.3	18.6	1074.7	44.5	1074.7	44.5	97.5
SYN14_9_Run 1-- 54	1053.1	17.3	1060.3	15.6	1075.3	31.5	1075.3	31.5	97.9
SYN14_9_Run 3-- 248	1024.7	19.7	1041.1	19.2	1075.6	42.0	1075.6	42.0	95.3
SYN14_9_Run 2-- 179	1071.0	14.3	1072.8	11.2	1076.4	17.5	1076.4	17.5	99.5
SYN14_9_Run 3-- 232	1002.2	15.0	1026.4	21.8	1078.5	59.5	1078.5	59.5	92.9
SYN14_9_Run 1-- 50	1037.0	17.4	1050.7	18.1	1079.3	42.0	1079.3	42.0	96.1
SYN14_9_Run 1-- 51	1086.5	23.0	1084.4	19.6	1080.1	37.0	1080.1	37.0	100.6
SYN14_9_Run 2-- 186	1039.4	18.2	1052.7	16.1	1080.2	31.5	1080.2	31.5	96.2

SYN14_9_Run 2-- 165	1013.1	15.8	1035.0	16.2	1081.6	37.0	1081.6	37.0	93.7
SYN14_9_Run 3-- 252	1073.6	23.5	1076.9	18.7	1083.4	30.1	1083.4	30.1	99.1
SYN14_9_Run 1-- 92	1014.7	16.9	1037.6	18.2	1086.3	43.2	1086.3	43.2	93.4
SYN14_9_Run 3-- 288	1052.4	14.0	1064.1	16.7	1088.3	41.8	1088.3	41.8	96.7
SYN14_9_Run 2-- 167	996.2	18.9	1025.6	26.2	1089.0	70.1	1089.0	70.1	91.5
SYN14_9_Run 1-- 82	1088.0	24.5	1088.5	18.5	1089.5	26.0	1089.5	26.0	99.9
SYN14_9_Run 2-- 217	1002.9	22.3	1030.9	22.4	1090.9	49.8	1090.9	49.8	91.9
SYN14_9_Run 2-- 176	1065.6	27.4	1074.0	25.5	1091.1	53.2	1091.1	53.2	97.7
SYN14_9_Run 2-- 206	1033.6	22.4	1054.3	24.7	1097.5	58.9	1097.5	58.9	94.2
SYN14_9_Run 2-- 181	1050.1	15.5	1065.7	12.7	1097.8	21.5	1097.8	21.5	95.7
SYN14_9_Run 1-- 52	1044.1	22.4	1063.6	18.7	1103.7	32.5	1103.7	32.5	94.6
SYN14_9_Run 1-- 18	1068.8	19.2	1081.7	20.5	1107.8	47.7	1107.8	47.7	96.5
SYN14_9_Run 1-- 58	1011.5	13.6	1043.1	15.1	1109.8	36.1	1109.8	36.1	91.1
SYN14_9_Run 2-- 150	1064.3	20.0	1082.4	17.8	1118.8	34.7	1118.8	34.7	95.1
SYN14_9_Run 3-- 309	1089.5	17.2	1099.3	16.9	1118.9	36.9	1118.9	36.9	97.4
SYN14_9_Run 3-- 238	1111.5	15.5	1114.2	15.8	1119.6	35.5	1119.6	35.5	99.3
SYN14_9_Run 1-- 35	1073.2	22.0	1089.5	17.0	1122.1	24.9	1122.1	24.9	95.6
SYN14_9_Run 3-- 236	1020.0	19.2	1054.1	17.1	1125.4	32.4	1125.4	32.4	90.6
SYN14_9_Run 1-- 33	1091.8	19.8	1103.9	18.6	1127.9	38.7	1127.9	38.7	96.8
SYN14_9_Run 1-- 65	1045.6	14.0	1073.1	19.3	1129.3	50.4	1129.3	50.4	92.6
SYN14_9_Run 3-- 228	1121.7	19.3	1125.2	17.5	1131.8	34.9	1131.8	34.9	99.1
SYN14_9_Run 2-- 164	1165.3	12.1	1155.4	11.8	1136.8	25.4	1136.8	25.4	102.5
SYN14_9_Run 2-- 204	1089.3	21.9	1105.6	19.7	1137.8	38.9	1137.8	38.9	95.7
SYN14_9_Run 2-- 189	1149.5	21.6	1146.0	20.9	1139.4	44.5	1139.4	44.5	100.9
SYN14_9_Run 3-- 241	1098.9	19.3	1112.7	18.5	1139.9	38.8	1139.9	38.8	96.4
SYN14_9_Run 2-- 170	1148.6	20.2	1146.8	16.2	1143.3	27.4	1143.3	27.4	100.5
SYN14_9_Run 1-- 77	1124.8	19.1	1133.5	18.7	1150.1	40.1	1150.1	40.1	97.8
SYN14_9_Run 3-- 289	1094.3	22.7	1114.2	21.7	1153.3	45.1	1153.3	45.1	94.9
SYN14_9_Run 3-- 330	1121.7	16.1	1134.5	13.7	1159.3	25.1	1159.3	25.1	96.8
SYN14_9_Run 3-- 273	1182.4	21.1	1174.7	16.1	1160.5	24.8	1160.5	24.8	101.9
SYN14_9_Run 1-- 64	1152.3	13.1	1155.3	14.9	1160.9	35.0	1160.9	35.0	99.3
SYN14_9_Run 3-- 283	1155.1	19.5	1157.8	17.2	1163.0	33.3	1163.0	33.3	99.3
SYN14_9_Run 3-- 304	1103.0	10.4	1124.4	12.7	1165.9	31.0	1165.9	31.0	94.6
SYN14_9_Run 1-- 7	1163.7	13.0	1164.5	11.5	1165.9	22.5	1165.9	22.5	99.8
SYN14_9_Run 1-- 21	1069.9	20.3	1103.5	16.4	1170.5	26.1	1170.5	26.1	91.4
SYN14_9_Run 2-- 138	1152.5	21.6	1161.2	17.5	1177.5	29.4	1177.5	29.4	97.9
SYN14_9_Run 3-- 321	1132.1	21.6	1148.3	19.7	1179.1	39.1	1179.1	39.1	96.0
SYN14_9_Run 1-- 97	1154.8	17.3	1163.5	18.4	1179.6	41.3	1179.6	41.3	97.9
SYN14_9_Run 3-- 243	1147.4	28.6	1159.1	21.7	1181.1	30.8	1181.1	30.8	97.1



SYN14_9_Run 2-- 191	1131.6	23.5	1149.0	16.6	1181.9	16.5	1181.9	16.5	95.7
SYN14_9_Run 3-- 237	1143.6	13.2	1157.2	11.8	1182.6	22.8	1182.6	22.8	96.7
SYN14_9_Run 2-- 178	1082.5	16.4	1117.1	16.1	1185.1	33.7	1185.1	33.7	91.3
SYN14_9_Run 1-- 19	1183.1	24.6	1184.5	21.7	1187.2	41.4	1187.2	41.4	99.6
SYN14_9_Run 1-- 80	1141.2	18.5	1159.2	16.2	1193.0	30.2	1193.0	30.2	95.7
SYN14_9_Run 1-- 61	1159.2	20.3	1171.0	26.6	1193.0	65.6	1193.0	65.6	97.2
SYN14_9_Run 2-- 152	1160.8	17.6	1174.9	14.3	1200.8	24.2	1200.8	24.2	96.7
SYN14_9_Run 3-- 305	1213.1	17.9	1209.5	13.6	1202.9	20.2	1202.9	20.2	100.8
SYN14_9_Run 2-- 200	1121.0	16.5	1150.0	14.8	1205.3	28.1	1205.3	28.1	93.0
SYN14_9_Run 2-- 121	1137.2	17.7	1161.6	19.0	1207.4	42.6	1207.4	42.6	94.2
SYN14_9_Run 2-- 173	1194.7	16.8	1211.2	15.7	1240.6	31.4	1240.6	31.4	96.3
SYN14_9_Run 2-- 133	1176.4	23.5	1199.3	19.0	1240.7	31.1	1240.7	31.1	94.8
SYN14_9_Run 1-- 62	1082.3	14.2	1137.3	13.4	1244.0	26.1	1244.0	26.1	87.0
SYN14_9_Run 3-- 306	1186.8	27.6	1207.8	25.7	1245.4	50.9	1245.4	50.9	95.3
SYN14_9_Run 2-- 116	1263.5	27.4	1260.3	23.2	1254.8	42.1	1254.8	42.1	100.7
SYN14_9_Run 2-- 119	1218.5	37.2	1247.4	30.4	1297.5	50.2	1297.5	50.2	93.9
SYN14_9_Run 1-- 86	1295.8	22.0	1300.7	18.8	1308.8	33.8	1308.8	33.8	99.0
SYN14_9_Run 1-- 100	1287.1	22.7	1298.9	20.8	1318.4	40.0	1318.4	40.0	97.6
SYN14_9_Run 1-- 83	1305.7	21.7	1311.4	16.6	1320.7	25.5	1320.7	25.5	98.9
SYN14_9_Run 1-- 23	1328.5	32.0	1333.1	22.9	1340.6	30.0	1340.6	30.0	99.1
SYN14_9_Run 2-- 140	1389.8	21.9	1371.4	16.6	1342.8	26.0	1342.8	26.0	103.5
SYN14_9_Run 1-- 32	1386.6	21.0	1376.5	17.7	1360.8	31.7	1360.8	31.7	101.9
SYN14_9_Run 2-- 207	1290.9	24.6	1326.8	20.2	1385.3	33.4	1385.3	33.4	93.2
SYN14_9_Run 1-- 89	1361.1	23.4	1372.1	17.3	1389.3	24.7	1389.3	24.7	98.0
SYN14_9_Run 1-- 67	1353.1	25.7	1377.5	20.6	1415.5	33.3	1415.5	33.3	95.6
SYN14_9_Run 2-- 220	1451.5	26.2	1442.4	18.3	1429.0	24.2	1429.0	24.2	101.6
SYN14_9_Run 2-- 128	1377.6	16.6	1401.2	12.7	1437.3	19.2	1437.3	19.2	95.8
SYN14_9_Run 3-- 308	1435.1	15.7	1436.1	11.2	1437.6	15.2	1437.6	15.2	99.8
SYN14_9_Run 2-- 139	1388.4	30.0	1408.6	22.9	1439.2	34.3	1439.2	34.3	96.5
SYN14_9_Run 2-- 210	1470.9	25.2	1458.2	18.2	1439.9	26.1	1439.9	26.1	102.2
SYN14_9_Run 3-- 323	1357.9	29.7	1391.0	31.1	1442.0	63.1	1442.0	63.1	94.2
SYN14_9_Run 3-- 325	1420.0	23.4	1433.3	17.8	1453.3	26.9	1453.3	26.9	97.7
SYN14_9_Run 1-- 45	1479.9	22.5	1473.0	18.3	1463.1	30.9	1463.1	30.9	101.1
SYN14_9_Run 1-- 1	1470.1	22.0	1469.6	17.6	1468.8	29.1	1468.8	29.1	100.1
SYN14_9_Run 3-- 244	1479.4	22.1	1475.1	21.3	1468.9	41.1	1468.9	41.1	100.7
SYN14_9_Run 2-- 208	1265.0	21.4	1348.2	22.7	1482.9	45.5	1482.9	45.5	85.3
SYN14_9_Run 2-- 194	1457.0	23.5	1469.7	21.8	1488.1	40.8	1488.1	40.8	97.9
SYN14_9_Run 2-- 209	1515.3	23.2	1508.4	15.8	1498.9	19.5	1498.9	19.5	101.1
SYN14_9_Run 1-- 60	1426.9	27.9	1462.6	23.1	1514.8	38.6	1514.8	38.6	94.2

SYN14_9_Run 2-- 205	1441.5	21.6	1474.2	17.9	1521.5	29.7	1521.5	29.7	94.7
SYN14_9_Run 2-- 127	1554.0	25.6	1553.7	20.0	1553.3	31.7	1553.3	31.7	100.0
SYN14_9_Run 2-- 134	1484.4	47.7	1519.8	30.8	1569.5	28.8	1569.5	28.8	94.6
SYN14_9_Run 1-- 102	1353.1	39.0	1449.5	28.0	1594.0	32.1	1594.0	32.1	84.9
SYN14_9_Run 2-- 144	1576.0	18.2	1583.8	15.7	1594.1	27.4	1594.1	27.4	98.9
SYN14_9_Run 1-- 31	1438.8	21.8	1510.5	17.1	1612.5	25.5	1612.5	25.5	89.2
SYN14_9_Run 3-- 324	1589.4	25.5	1604.3	22.0	1623.9	38.0	1623.9	38.0	97.9
SYN14_9_Run 3-- 329	1630.6	24.1	1628.1	17.1	1624.8	23.6	1624.8	23.6	100.4
SYN14_9_Run 3-- 250	1634.1	19.4	1633.3	14.0	1632.3	20.0	1632.3	20.0	100.1
SYN14_9_Run 2-- 199	1584.3	27.2	1609.6	18.0	1642.9	20.6	1642.9	20.6	96.4
SYN14_9_Run 2-- 182	1631.2	25.8	1639.1	19.2	1649.1	28.5	1649.1	28.5	98.9
SYN14_9_Run 3-- 286	1582.5	19.6	1612.2	16.3	1651.1	26.8	1651.1	26.8	95.8
SYN14_9_Run 2-- 192	1617.5	19.4	1632.9	14.3	1652.9	20.9	1652.9	20.9	97.9
SYN14_9_Run 1-- 29	1660.7	21.3	1657.4	15.9	1653.3	23.7	1653.3	23.7	100.4
SYN14_9_Run 3-- 307	1672.6	26.9	1676.8	17.4	1682.0	19.8	1682.0	19.8	99.4
SYN14_9_Run 1-- 22	1638.6	26.5	1660.5	19.6	1688.3	28.6	1688.3	28.6	97.1
SYN14_9_Run 1-- 96	1550.0	34.2	1614.5	25.6	1699.7	36.2	1699.7	36.2	91.2
SYN14_9_Run 2-- 174	1636.8	38.8	1667.0	24.0	1705.2	21.6	1705.2	21.6	96.0
SYN14_9_Run 1-- 88	1603.2	24.9	1650.7	20.9	1711.7	34.2	1711.7	34.2	93.7
SYN14_9_Run 3-- 327	1772.0	31.9	1746.5	18.3	1716.0	13.7	1716.0	13.7	103.3
SYN14_9_Run 3-- 221	1742.0	20.2	1734.7	12.9	1725.9	14.9	1725.9	14.9	100.9
SYN14_9_Run 3-- 284	1739.6	32.5	1733.5	22.0	1726.2	28.9	1726.2	28.9	100.8
SYN14_9_Run 2-- 202	1676.1	26.2	1698.7	16.7	1726.6	17.8	1726.6	17.8	97.1
SYN14_9_Run 3-- 319	1718.7	30.8	1723.9	28.7	1730.2	51.2	1730.2	51.2	99.3
SYN14_9_Run 1-- 68	1768.8	30.0	1760.4	18.9	1750.5	21.2	1750.5	21.2	101.0
SYN14_9_Run 3-- 315	1710.8	28.7	1729.5	18.8	1752.2	22.3	1752.2	22.3	97.6
SYN14_9_Run 2-- 135	1719.8	29.6	1740.5	19.1	1765.3	21.9	1765.3	21.9	97.4
SYN14_9_Run 1-- 99	1743.4	29.0	1763.9	19.5	1788.1	24.6	1788.1	24.6	97.5
SYN14_9_Run 1-- 84	1813.2	36.1	1806.9	20.3	1799.6	13.9	1799.6	13.9	100.8
SYN14_9_Run 1-- 28	1772.4	23.4	1785.8	15.5	1801.6	19.5	1801.6	19.5	98.4
SYN14_9_Run 2-- 166	1844.2	27.1	1826.7	19.3	1806.8	27.7	1806.8	27.7	102.1
SYN14_9_Run 2-- 198	1513.4	39.2	1646.5	27.2	1820.9	29.6	1820.9	29.6	83.1
SYN14_9_Run 3-- 265	1687.5	25.5	1748.3	15.8	1821.8	14.8	1821.8	14.8	92.6
SYN14_9_Run 1-- 8	1641.6	24.9	1732.9	17.6	1844.8	22.2	1844.8	22.2	89.0
SYN14_9_Run 1-- 66	1880.3	29.7	1866.8	19.8	1851.7	25.8	1851.7	25.8	101.5
SYN14_9_Run 2-- 218	1829.1	24.6	1840.5	15.8	1853.4	18.6	1853.4	18.6	98.7
SYN14_9_Run 1-- 20	1665.1	28.2	1753.8	19.8	1861.2	25.2	1861.2	25.2	89.5
SYN14_9_Run 3-- 317	1820.6	23.9	1842.6	17.0	1867.4	23.6	1867.4	23.6	97.5
SYN14_9_Run 2-- 118	1982.5	28.1	1938.1	18.0	1891.1	22.7	1891.1	22.7	104.8

SYN14_9_Run 3-- 222	1864.0	32.6	1885.6	21.0	1909.5	25.1	1909.5	25.1	97.6
SYN14_9_Run 3-- 322	1910.5	27.1	1918.3	16.3	1926.9	16.7	1926.9	16.7	99.1
SYN14_9_Run 1-- 17	1961.9	37.3	1956.5	20.2	1950.7	13.8	1950.7	13.8	100.6
SYN14_9_Run 2-- 190	1888.4	23.6	1935.7	16.2	1986.7	21.4	1986.7	21.4	95.0
SYN14_9_Run 2-- 175	1946.1	27.3	1968.8	16.9	1992.7	19.1	1992.7	19.1	97.7
SYN14_9_Run 2-- 142	2007.3	25.5	2021.7	15.5	2036.4	17.3	2036.4	17.3	98.6
SYN14_9_Run 1-- 55	2440.1	33.6	2455.0	17.4	2467.3	15.0	2467.3	15.0	98.9
SYN14_9_Run 1-- 95	2592.9	43.1	2585.4	21.2	2579.5	17.0	2579.5	17.0	100.5
SYN14_9_Run 2-- 113	2590.5	39.7	2611.0	24.8	2626.9	31.2	2626.9	31.2	98.6
SYN14_9_Run 1-- 10	2518.6	47.9	2596.0	23.2	2657.0	15.4	2657.0	15.4	94.8
SYN14_9_Run 1-- 74	2693.2	29.4	2686.9	16.7	2682.2	19.2	2682.2	19.2	100.4
SYN14_9_Run 2-- 124	2422.9	34.6	2567.6	21.3	2683.9	24.9	2683.9	24.9	90.3
SYN14_9_Run 3-- 287	2655.7	34.7	2684.3	20.1	2705.9	23.3	2705.9	23.3	98.1
SYN14_9_Run 2-- 120	2619.4	48.7	2678.5	25.4	2723.4	24.0	2723.4	24.0	96.2
SYN14_9_Run 1-- 34	2666.1	43.7	2700.0	20.9	2725.5	15.7	2725.5	15.7	97.8
SYN14_9_Run 1-- 78	2637.6	48.6	2689.8	24.4	2729.2	21.0	2729.2	21.0	96.6
SYN14_9_Run 3-- 312	2739.2	56.8	2792.3	26.4	2830.8	18.1	2830.8	18.1	96.8
SYN14_9_Run 2-- 141	2841.8	42.5	2846.9	20.3	2850.5	17.3	2850.5	17.3	99.7
SYN14_9_Run 3-- 253	3121.5	73.0	3196.8	30.9	3244.3	18.5	3244.3	18.5	96.2

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN14-10 run 1-- 53	110.1	2.5	111.8	9.4	147.5	202.4	110.1	2.5	NA
SYN14-10 run 1-- 89	112.7	3.6	115.8	10.9	179.7	220.0	112.7	3.6	NA
SYN14-10 run 1-- 39	114.2	3.1	108.9	7.2	5.0	153.9	114.2	3.1	NA
SYN14-10 run 1-- 40	115.2	4.2	115.4	10.2	120.4	203.2	115.2	4.2	NA
SYN14-10 run 1-- 47	115.3	4.3	128.0	9.6	371.1	158.5	115.3	4.3	NA
SYN14-10 run 1-- 96	119.1	4.4	113.7	9.1	1.5	182.4	119.1	4.4	NA
SYN14-10 run 1-- 103	119.9	4.8	115.1	8.4	18.6	156.6	119.9	4.8	NA
SYN14-10 run 1-- 87	<del>188.5</del>	<del>5.4</del>	<del>311.2</del>	<del>8.8</del>	<del>1375.1</del>	<del>28.9</del>	<del>188.5</del>	<del>5.4</del>	<del>NA</del>
SYN14-10 run 1-- 102	237.2	5.0	245.0	7.1	320.5	55.0	237.2	5.0	NA
SYN14-10 run 1-- 23	246.1	4.1	246.6	6.0	251.1	48.9	246.1	4.1	NA
SYN14-10 run 1-- 110	246.6	6.6	246.0	8.4	240.3	62.2	246.6	6.6	NA
SYN14-10 run 1-- 49	268.0	6.7	270.0	16.6	286.8	149.0	268.0	6.7	NA
SYN14-10 run 1-- 97	287.9	10.2	311.0	17.4	488.3	118.7	287.9	10.2	NA
SYN14-10 run 1-- 99	322.8	5.6	325.0	9.0	341.4	61.3	322.8	5.6	NA
SYN14-10 run 1-- 9	353.8	7.2	361.3	8.3	409.9	39.7	353.8	7.2	NA

SYN14-10 run 1-- 84	409.0	8.1	411.0	9.4	422.6	42.4	409.0	8.1	96.8
SYN14-10 run 1-- 13	412.8	8.5	411.2	11.0	402.4	55.2	412.8	8.5	102.6
SYN14-10 run 1-- 26	426.8	10.7	500.0	34.4	851.0	173.1	426.8	10.7	50.1
SYN14-10 run 1-- 57	434.1	10.8	426.8	12.5	387.5	56.4	434.1	10.8	112.0
SYN14-10 run 1-- 73	435.8	11.9	440.9	12.2	467.5	42.2	435.8	11.9	93.2
SYN14-10 run 1-- 29	438.8	14.8	417.7	19.6	302.3	103.7	438.8	14.8	145.1
SYN14-10 run 1-- 65	482.6	10.1	484.6	12.3	494.2	51.2	482.6	10.1	97.7
SYN14-10 run 1-- 12	510.7	15.3	518.2	20.6	551.6	87.8	510.7	15.3	92.6
SYN14-10 run 1-- 36	528.2	14.4	533.1	15.2	554.2	50.6	528.2	14.4	95.3
SYN14-10 run 1-- 59	545.8	11.8	539.6	13.1	513.3	48.1	545.8	11.8	106.3
SYN14-10 run 1-- 64	551.6	14.4	553.2	13.4	559.9	34.6	551.6	14.4	98.5
SYN14-10 run 1-- 104	558.0	9.3	571.3	11.6	624.9	43.3	558.0	9.3	89.3
SYN14-10 run 1-- 83	576.0	10.8	582.7	13.7	609.2	51.5	576.0	10.8	94.6
SYN14-10 run 1-- 37	580.4	10.8	592.4	11.6	638.9	36.9	580.4	10.8	90.8
SYN14-10 run 1-- 54	582.3	15.8	600.7	25.7	670.8	104.8	582.3	15.8	86.8
SYN14-10 run 1-- 45	584.4	12.3	587.2	18.7	598.4	77.0	584.4	12.3	97.7
SYN14-10 run 1-- 56	589.6	22.7	610.6	23.1	689.2	64.2	589.6	22.7	85.6
SYN14-10 run 1-- 106	589.7	9.4	592.1	16.9	601.2	72.9	589.7	9.4	98.1
SYN14-10 run 1-- 92	599.4	12.8	607.7	11.9	638.5	28.1	599.4	12.8	93.9
SYN14-10 run 1-- 5	606.0	16.1	611.0	17.3	629.7	54.7	606.0	16.1	96.2
SYN14-10 run 1-- 51	610.3	26.2	613.4	23.6	624.9	52.8	610.3	26.2	97.7
SYN14-10 run 1-- 81	613.3	16.1	614.4	14.2	618.4	30.5	613.3	16.1	99.2
SYN14-10 run 1-- 78	618.6	15.1	625.5	16.3	650.7	51.0	618.6	15.1	95.1
SYN14-10 run 1-- 77	1015.7	20.5	995.9	20.2	952.6	47.5	952.6	47.5	106.6
SYN14-10 run 1-- 7	938.2	14.3	943.9	16.1	957.1	41.6	957.1	41.6	98.0
SYN14-10 run 1-- 86	990.1	13.2	984.6	16.2	972.4	43.5	972.4	43.5	101.8
SYN14-10 run 1-- 85	1003.7	20.0	995.5	17.5	977.4	35.5	977.4	35.5	102.7
SYN14-10 run 1-- 93	1055.9	12.3	1033.2	13.5	985.3	33.4	985.3	33.4	107.2
SYN14-10 run 1-- 88	1023.2	18.3	1013.5	15.9	992.5	31.6	992.5	31.6	103.1
SYN14-10 run 1-- 44	987.3	21.7	992.0	19.9	1002.3	41.7	1002.3	41.7	98.5
SYN14-10 run 1-- 79	1002.0	16.4	1002.8	12.9	1004.4	19.8	1004.4	19.8	99.8
SYN14-10 run 1-- 75	1029.7	23.5	1022.7	19.2	1007.9	34.0	1007.9	34.0	102.2
SYN14-10 run 1-- 63	1071.4	20.7	1052.8	17.7	1014.6	34.6	1014.6	34.6	105.6
SYN14-10 run 1-- 52	972.4	20.9	985.8	17.0	1015.6	28.1	1015.6	28.1	95.7
SYN14-10 run 1-- 35	1058.6	22.6	1046.5	24.6	1021.2	60.3	1021.2	60.3	103.7
SYN14-10 run 1-- 60	1011.3	20.5	1016.3	22.2	1027.3	54.1	1027.3	54.1	98.4
SYN14-10 run 1-- 18	1028.9	14.5	1029.6	13.9	1031.0	30.5	1031.0	30.5	99.8
SYN14-10 run 1-- 91	1030.2	36.9	1031.0	27.5	1032.7	35.5	1032.7	35.5	99.8
SYN14-10 run 1-- 38	1054.3	17.1	1048.4	15.7	1036.2	33.2	1036.2	33.2	101.7

SYN14-10 run 1-- 19	999.6	20.0	1013.0	19.4	1042.1	42.9	1042.1	42.9	95.9
SYN14-10 run 1-- 2	1038.2	14.6	1042.6	12.7	1051.7	24.6	1051.7	24.6	98.7
SYN14-10 run 1-- 95	1041.9	23.8	1045.3	17.8	1052.3	23.3	1052.3	23.3	99.0
SYN14-10 run 1-- 33	1006.9	23.8	1024.2	21.4	1061.5	42.7	1061.5	42.7	94.8
SYN14-10 run 1-- 62	1077.1	16.6	1078.0	15.7	1080.0	33.7	1080.0	33.7	99.7
SYN14-10 run 1-- 1	1019.7	17.5	1039.6	16.6	1081.8	34.9	1081.8	34.9	94.3
SYN14-10 run 1-- 4	1102.0	60.1	1096.6	41.7	1085.9	36.7	1085.9	36.7	101.5
SYN14-10 run 1-- 14	1041.0	23.4	1056.6	20.2	1089.0	37.8	1089.0	37.8	95.6
SYN14-10 run 1-- 42	1118.9	38.5	1111.3	31.4	1096.4	55.1	1096.4	55.1	102.1
SYN14-10 run 1-- 69	1050.1	32.4	1065.5	26.0	1097.0	41.6	1097.0	41.6	95.7
SYN14-10 run 1-- 70	1032.1	21.1	1054.3	20.0	1100.6	41.8	1100.6	41.8	93.8
SYN14-10 run 1-- 17	1042.7	16.6	1063.6	14.9	1106.6	29.4	1106.6	29.4	94.2
SYN14-10 run 1-- 32	1014.7	20.0	1046.0	20.6	1111.9	46.3	1111.9	46.3	91.3
SYN14-10 run 1-- 74	967.0	19.0	1013.5	23.1	1115.3	58.1	1115.3	58.1	86.7
SYN14-10 run 1-- 68	1114.4	27.7	1119.7	24.6	1130.1	48.3	1130.1	48.3	98.6
SYN14-10 run 1-- 67	1154.5	20.3	1150.5	18.8	1143.0	38.5	1143.0	38.5	101.0
SYN14-10 run 1-- 82	1111.5	21.3	1122.2	19.4	1143.1	38.6	1143.1	38.6	97.2
SYN14-10 run 1-- 109	1139.8	16.7	1142.8	13.8	1148.6	24.5	1148.6	24.5	99.2
SYN14-10 run 1-- 3	1186.9	17.0	1187.8	13.5	1189.3	22.2	1189.3	22.2	99.8
SYN14-10 run 1-- 41	1238.4	22.1	1231.6	16.3	1219.8	22.8	1219.8	22.8	101.5
SYN14-10 run 1-- 20	1038.0	18.9	1101.3	15.7	1228.5	24.7	1228.5	24.7	84.5
SYN14-10 run 1-- 21	1143.0	23.7	1180.1	23.6	1248.6	49.2	1248.6	49.2	91.5
SYN14-10 run 1-- 8	1318.1	44.0	1307.1	28.7	1289.2	24.3	1289.2	24.3	102.2
SYN14-10 run 1-- 11	1081.3	15.5	1165.2	17.9	1324.8	40.0	1324.8	40.0	81.6
SYN14-10 run 1-- 46	1259.3	17.0	1289.1	13.1	1338.9	19.4	1338.9	19.4	94.1
SYN14-10 run 1-- 107	1431.3	21.7	1429.4	16.0	1426.6	23.3	1426.6	23.3	100.3
SYN14-10 run 1-- 27	1368.9	18.4	1393.9	16.7	1432.4	31.1	1432.4	31.1	95.6
SYN14-10 run 1-- 98	1432.1	31.9	1436.5	21.9	1442.9	26.8	1442.9	26.8	99.3
SYN14-10 run 1-- 22	1433.9	23.4	1440.6	19.5	1450.4	33.5	1450.4	33.5	98.9
SYN14-10 run 1-- 10	1420.9	64.8	1435.2	39.7	1456.3	18.0	1456.3	18.0	97.6
SYN14-10 run 1-- 16	1442.2	48.8	1454.6	31.7	1472.7	30.2	1472.7	30.2	97.9
SYN14-10 run 1-- 105	1127.9	30.1	1253.0	23.5	1474.9	28.5	1474.9	28.5	76.5
SYN14-10 run 1-- 90	1487.1	27.5	1495.3	26.3	1506.9	50.1	1506.9	50.1	98.7
SYN14-10 run 1-- 66	1565.2	19.8	1560.6	14.9	1554.4	22.8	1554.4	22.8	100.7
SYN14-10 run 1-- 61	1605.0	40.6	1622.3	25.4	1644.8	24.0	1644.8	24.0	97.6
SYN14-10 run 1-- 24	1649.3	29.3	1653.6	18.8	1659.2	20.6	1659.2	20.6	99.4
SYN14-10 run 1-- 94	1708.0	32.4	1714.7	20.2	1722.8	20.8	1722.8	20.8	99.1
SYN14-10 run 1-- 108	1711.4	54.6	1720.1	31.8	1730.7	22.8	1730.7	22.8	98.9
SYN14-10 run 1-- 72	1719.1	26.3	1724.7	16.4	1731.4	17.2	1731.4	17.2	99.3

SYN14-10 run 1-- 80	1693.3	31.2	1723.0	20.8	1759.3	25.2	1759.3	25.2	96.2
SYN14-10 run 1-- 15	1759.6	25.1	1760.0	16.8	1760.4	21.5	1760.4	21.5	100.0
SYN14-10 run 1-- 50	1738.0	38.2	1748.3	24.8	1760.7	29.0	1760.7	29.0	98.7
SYN14-10 run 1-- 101	1781.6	31.6	1782.5	20.2	1783.6	23.7	1783.6	23.7	99.9
SYN14-10 run 1-- 28	1748.4	26.7	1782.1	21.9	1821.7	35.3	1821.7	35.3	96.0
SYN14-10 run 1-- 100	1817.7	57.2	1842.1	33.1	1869.8	26.2	1869.8	26.2	97.2
SYN14-10 run 1-- 30	1833.1	27.2	1852.8	22.8	1875.0	37.1	1875.0	37.1	97.8
SYN14-10 run 1-- 71	1904.4	20.4	1894.4	14.4	1883.3	20.5	1883.3	20.5	101.1
SYN14-10 run 1-- 48	1939.2	31.4	1960.5	19.6	1983.0	22.4	1983.0	22.4	97.8
SYN14-10 run 1-- 31	2008.9	49.2	2062.3	26.8	2116.0	18.3	2116.0	18.3	94.9
SYN14-10 run 1-- 34	2100.4	35.0	2143.2	22.0	2184.5	26.0	2184.5	26.0	96.2
SYN14-10 run 1-- 58	2473.9	50.8	2499.3	26.5	2520.1	24.0	2520.1	24.0	98.2
SYN14-10 run 1-- 25	2512.1	47.8	2541.3	23.3	2564.6	16.4	2564.6	16.4	98.0
SYN14-10 run 1-- 43	2553.7	39.0	2628.9	20.4	2687.2	18.8	2687.2	18.8	95.0
SYN14-10 run 1-- 55	<del>657.9</del>	<del>236.7</del>	<del>1362.8</del>	<del>346.2</del>	<del>2749.5</del>	<del>389.3</del>	<del>2749.5</del>	<del>389.3</del>	<del>23.9</del>
SYN14-10 run 1-- 76	2911.5	45.8	2882.2	26.8	2861.8	32.8	2861.8	32.8	101.7
SYN14-10 Run2- 126	113.2	2.7	107.3	6.8	20.9	150.7	113.2	2.7	NA
SYN14-10 Run2- 192	114.6	6.9	118.0	12.5	186.5	220.6	114.6	6.9	NA
SYN14-10 Run2- 147	115.9	4.1	123.8	7.1	277.6	112.3	115.9	4.1	NA
SYN14-10 Run2- 178	116.1	3.3	106.5	7.3	104.8	162.6	116.1	3.3	NA
SYN14-10 Run2- 215	167.0	2.5	170.9	8.5	223.9	119.9	167.0	2.5	NA
SYN14-10 Run2- 163	227.1	8.9	229.6	12.4	256.0	104.5	227.1	8.9	NA
SYN14-10 Run2- 145	231.1	6.3	230.4	15.0	223.0	155.2	231.1	6.3	NA
SYN14-10 Run2- 116	247.2	7.4	251.3	8.6	290.0	53.8	247.2	7.4	NA
SYN14-10 Run2- 144	248.3	4.5	254.7	8.1	314.1	70.1	248.3	4.5	NA
SYN14-10 Run2- 121	262.7	5.4	268.1	7.2	315.0	51.1	262.7	5.4	NA
SYN14-10 Run2- 142	272.0	5.1	274.8	10.6	298.9	90.9	272.0	5.1	NA
SYN14-10 Run2- 216	315.2	5.7	319.4	11.5	349.5	84.9	315.2	5.7	NA
SYN14-10 Run2- 187	331.0	5.4	328.4	7.3	309.4	45.3	331.0	5.4	NA
SYN14-10 Run2- 119	363.4	5.4	365.4	5.9	377.6	26.5	363.4	5.4	NA
SYN14-10 Run2- 206	368.5	7.3	379.2	8.8	444.9	41.6	368.5	7.3	NA
SYN14-10 Run2- 166	372.2	5.2	370.8	11.1	361.8	73.6	372.2	5.2	NA
SYN14-10 Run2- 203	375.9	4.9	376.9	10.1	383.0	65.5	375.9	4.9	NA
SYN14-10 Run2- 172	390.1	6.3	389.9	7.4	388.4	35.4	390.1	6.3	NA
SYN14-10 Run2- 164	391.2	15.5	399.1	15.1	445.1	46.0	391.2	15.5	NA
SYN14-10 Run2- 129	402.2	10.9	403.7	10.5	412.0	32.0	402.2	10.9	97.6
SYN14-10 Run2- 208	420.4	7.7	429.6	9.6	478.7	44.2	420.4	7.7	87.8
SYN14-10 Run2- 139	425.1	9.6	421.8	10.3	404.0	41.8	425.1	9.6	105.2
SYN14-10 Run2- 134	426.0	10.4	431.9	15.2	463.5	78.1	426.0	10.4	91.9

SYN14-10 Run2- 220	426.8	7.8	427.6	11.5	431.8	59.7	426.8	7.8	98.8
SYN14-10 Run2- 168	429.0	11.2	426.6	11.4	413.8	41.6	429.0	11.2	103.7
SYN14-10 Run2- 205	437.3	10.3	436.5	11.1	431.9	43.3	437.3	10.3	101.3
SYN14-10 Run2- 217	470.3	40.8	572.7	55.5	1003.1	181.2	470.3	40.8	46.9
SYN14-10 Run2- 167	473.2	9.8	476.6	15.3	492.9	74.6	473.2	9.8	96.0
SYN14-10 Run2- 194	534.9	9.0	558.1	14.0	654.3	58.7	534.9	9.0	81.7
SYN14-10 Run2- 151	548.3	9.1	554.0	12.0	577.8	48.1	548.3	9.1	94.9
SYN14-10 Run2- 189	566.7	12.1	570.8	12.5	587.5	38.7	566.7	12.1	96.5
SYN14-10 Run2- 112	573.5	24.8	583.3	26.8	621.5	86.7	573.5	24.8	92.3
SYN14-10 Run2- 211	600.0	9.2	607.3	10.2	634.7	33.1	600.0	9.2	94.5
SYN14-10 Run2- 169	610.1	13.2	606.8	16.2	594.6	59.4	610.1	13.2	102.6
SYN14-10 Run2- 165	622.0	10.9	616.6	11.3	597.2	34.8	622.0	10.9	104.2
SYN14-10 Run2- 197	625.8	7.9	630.6	10.0	648.2	36.1	625.8	7.9	96.5
SYN14-10 Run2- 152	628.1	12.7	634.9	12.5	659.2	34.3	628.1	12.7	95.3
SYN14-10 Run2- 118	635.3	10.8	635.3	11.2	635.4	34.1	635.3	10.8	100.0
SYN14-10 Run2- 159	673.3	18.7	680.3	16.3	703.6	31.9	673.3	18.7	95.7
SYN14-10 Run2- 155	836.9	22.7	827.5	18.1	802.4	28.9	836.9	22.7	104.3
SYN14-10 Run2- 150	1015.9	12.7	996.0	16.0	952.4	43.5	952.4	43.5	106.7
SYN14-10 Run2- 174	976.6	15.5	970.0	17.0	955.1	43.4	955.1	43.4	102.2
SYN14-10 Run2- 213	870.6	19.4	900.9	18.7	975.9	41.4	975.9	41.4	89.2
SYN14-10 Run2- 128	1011.6	30.7	1006.1	24.2	994.2	38.5	994.2	38.5	101.7
SYN14-10 Run2- 190	957.7	20.8	973.3	17.6	1008.8	31.9	1008.8	31.9	94.9
SYN14-10 Run2- 195	999.0	19.6	1003.2	18.4	1012.4	39.9	1012.4	39.9	98.7
SYN14-10 Run2- 120	1014.7	20.9	1015.1	19.2	1015.9	40.3	1015.9	40.3	99.9
SYN14-10 Run2- 113	1012.2	21.0	1015.7	18.4	1023.3	36.1	1023.3	36.1	98.9
SYN14-10 Run2- 125	1010.6	18.2	1015.1	19.6	1024.8	47.8	1024.8	47.8	98.6
SYN14-10 Run2- 153	1006.5	23.0	1012.5	18.9	1025.4	32.6	1025.4	32.6	98.2
SYN14-10 Run2- 133	999.5	29.1	1008.2	21.5	1027.0	24.0	1027.0	24.0	97.3
SYN14-10 Run2- 179	990.5	18.7	1003.3	24.0	1031.2	64.0	1031.2	64.0	96.1
SYN14-10 Run2- 156	1038.5	13.2	1037.1	12.4	1034.1	26.5	1034.1	26.5	100.4
SYN14-10 Run2- 141	1021.6	19.0	1026.7	23.4	1037.6	61.0	1037.6	61.0	98.5
SYN14-10 Run2- 132	1006.2	22.6	1019.2	22.8	1047.1	52.2	1047.1	52.2	96.1
SYN14-10 Run2- 199	1035.9	19.5	1039.6	16.4	1047.5	30.1	1047.5	30.1	98.9
SYN14-10 Run2- 188	1056.0	17.9	1053.2	18.0	1047.6	41.2	1047.6	41.2	100.8
SYN14-10 Run2- 136	985.9	16.2	1005.7	15.2	1049.0	32.3	1049.0	32.3	94.0
SYN14-10 Run2- 182	1005.3	14.1	1020.2	14.4	1052.4	33.2	1052.4	33.2	95.5
SYN14-10 Run2- 124	964.5	23.6	992.6	23.2	1055.3	51.1	1055.3	51.1	91.4
SYN14-10 Run2- 210	1038.0	18.6	1046.2	19.5	1063.4	45.8	1063.4	45.8	97.6
SYN14-10 Run2- 170	1005.7	21.2	1024.7	19.8	1065.6	41.1	1065.6	41.1	94.4

SYN14-10 Run2- 140	1006.0	20.9	1031.1	22.9	1084.8	54.9	1084.8	54.9	92.7
SYN14-10 Run2- 209	1020.1	13.3	1041.4	16.8	1086.6	43.5	1086.6	43.5	93.9
SYN14-10 Run2- 214	1005.8	24.6	1034.5	22.4	1095.8	44.4	1095.8	44.4	91.8
SYN14-10 Run2- 180	1073.9	20.7	1082.2	17.1	1098.8	29.9	1098.8	29.9	97.7
SYN14-10 Run2- 175	1089.4	22.8	1093.1	16.7	1100.5	20.2	1100.5	20.2	99.0
SYN14-10 Run2- 204	1108.8	19.4	1108.4	18.2	1107.6	38.2	1107.6	38.2	100.1
SYN14-10 Run2- 200	1050.6	35.8	1073.5	28.9	1120.5	46.1	1120.5	46.1	93.8
SYN14-10 Run2- 160	1182.2	21.5	1176.8	16.9	1166.9	27.4	1166.9	27.4	101.3
SYN14-10 Run2- 177	1142.9	20.1	1152.4	18.0	1170.3	35.1	1170.3	35.1	97.7
SYN14-10 Run2- 212	1153.5	25.8	1163.0	20.2	1180.8	31.6	1180.8	31.6	97.7
SYN14-10 Run2- 171	1169.6	23.5	1180.8	21.7	1201.3	43.4	1201.3	43.4	97.4
SYN14-10 Run2- 193	1151.7	34.8	1177.3	24.8	1224.7	26.3	1224.7	26.3	94.0
SYN14-10 Run2- 181	1133.0	21.9	1167.5	20.4	1232.2	40.1	1232.2	40.1	91.9
SYN14-10 Run2- 202	1164.1	17.8	1194.8	14.2	1250.7	22.6	1250.7	22.6	93.1
SYN14-10 Run2- 185	1225.1	24.7	1239.9	18.8	1265.7	27.9	1265.7	27.9	96.8
SYN14-10 Run2- 198	1314.8	16.7	1319.2	14.3	1326.3	25.8	1326.3	25.8	99.1
SYN14-10 Run2- 191	1349.0	21.7	1344.2	15.7	1336.4	21.6	1336.4	21.6	100.9
SYN14-10 Run2- 161	1369.0	20.9	1356.7	15.4	1337.3	22.6	1337.3	22.6	102.4
SYN14-10 Run2- 219	1381.2	23.6	1398.3	18.6	1424.5	29.6	1424.5	29.6	97.0
SYN14-10 Run2- 143	1406.6	23.5	1417.3	18.3	1433.5	28.7	1433.5	28.7	98.1
SYN14-10 Run2- 122	1412.0	20.4	1424.9	16.0	1444.2	25.4	1444.2	25.4	97.8
SYN14-10 Run2- 149	1253.2	24.5	1329.6	20.2	1454.9	31.7	1454.9	31.7	86.1
SYN14-10 Run2- 186	1427.5	19.0	1446.6	15.7	1474.7	26.5	1474.7	26.5	96.8
SYN14-10 Run2- 138	1448.9	32.4	1460.6	21.1	1477.8	20.6	1477.8	20.6	98.0
SYN14-10 Run2- 218	1425.2	31.8	1453.6	25.5	1495.5	41.1	1495.5	41.1	95.3
SYN14-10 Run2- 130	1576.3	28.6	1595.9	27.5	1621.9	50.8	1621.9	50.8	97.2
SYN14-10 Run2- 184	1685.1	29.1	1660.3	20.4	1629.0	28.7	1629.0	28.7	103.4
SYN14-10 Run2- 137	1463.8	32.0	1538.3	23.9	1642.1	32.8	1642.1	32.8	89.1
SYN14-10 Run2- 176	1566.9	32.1	1599.9	22.5	1643.6	29.3	1643.6	29.3	95.3
SYN14-10 Run2- 196	1612.5	50.8	1641.5	31.3	1678.7	26.7	1678.7	26.7	96.1
SYN14-10 Run2- 123	1709.0	22.7	1708.0	17.7	1706.9	28.0	1706.9	28.0	100.1
SYN14-10 Run2- 131	1688.7	25.4	1703.1	17.4	1720.8	22.8	1720.8	22.8	98.1
SYN14-10 Run2- 114	1730.6	26.5	1745.0	17.5	1762.1	21.5	1762.1	21.5	98.2
SYN14-10 Run2- 201	1857.3	32.7	1854.6	22.5	1851.5	30.8	1851.5	30.8	100.3
SYN14-10 Run2- 207	1655.7	42.6	1752.8	29.0	1870.7	34.0	1870.7	34.0	88.5
SYN14-10 Run2- 115	1851.5	28.4	1913.8	19.3	1981.9	24.6	1981.9	24.6	93.4
SYN14-10 Run2- 111	1929.1	27.6	1975.3	19.2	2024.0	25.7	2024.0	25.7	95.3
SYN14-10 Run2- 148	2044.1	33.6	2052.2	20.8	2060.3	24.2	2060.3	24.2	99.2
SYN14-10 Run2- 127	1642.4	62.7	1846.7	39.5	2085.4	29.6	2085.4	29.6	78.8



SYN14-10 Run2- 117	1995.6	27.3	2066.8	17.3	2138.5	20.0	2138.5	20.0	93.3
SYN14-10 Run2- 135	2120.9	38.3	2246.7	21.0	2363.3	16.3	2363.3	16.3	89.7
SYN14-10 Run2- 162	2418.7	34.0	2450.2	21.2	2476.4	26.3	2476.4	26.3	97.7
SYN14-10 Run2- 183	2464.5	42.3	2491.7	21.7	2513.9	18.4	2513.9	18.4	98.0
SYN14-10 Run2- 157	2576.9	54.7	2656.1	26.7	2717.0	19.3	2717.0	19.3	94.8
SYN14-10 Run2- 173	2673.7	79.4	2699.6	36.1	2718.9	19.7	2718.9	19.7	98.3
SYN14-10 Run2- 158	2730.0	37.9	2746.0	20.0	2757.7	20.4	2757.7	20.4	99.0
SYN14-10 Run3- 267	111.0	3.5	102.1	7.6	100.8	176.2	111.0	3.5	NA
SYN14-10 Run3- 255	116.3	2.9	122.5	10.3	244.1	197.7	116.3	2.9	NA
SYN14-10 Run3- 264	222.9	5.9	226.4	7.2	263.0	51.6	222.9	5.9	NA
SYN14-10 Run3- 318	231.9	3.0	229.9	5.4	209.4	52.8	231.9	3.0	NA
SYN14-10 Run3- 270	235.0	3.7	233.8	8.3	221.9	84.7	235.0	3.7	NA
SYN14-10 Run3- 238	255.7	5.6	253.5	6.5	232.9	42.5	255.7	5.6	NA
SYN14-10 Run3- 322	259.6	3.5	252.6	7.4	188.2	69.7	259.6	3.5	NA
SYN14-10 Run3- 277	264.6	5.3	265.1	6.0	269.4	35.4	264.6	5.3	NA
SYN14-10 Run3- 275	289.2	5.2	288.4	8.3	282.1	62.5	289.2	5.2	NA
SYN14-10 Run3- 258	309.2	6.6	317.3	12.6	376.8	92.1	309.2	6.6	NA
SYN14-10 Run3- 320	354.0	8.4	368.4	13.2	460.2	77.5	354.0	8.4	NA
SYN14-10 Run3- 235	364.6	8.8	359.9	10.2	329.5	52.0	364.6	8.8	NA
SYN14-10 Run3- 292	373.8	10.8	378.1	13.1	404.2	64.1	373.8	10.8	NA
SYN14-10 Run3- 245	381.5	9.2	385.5	19.5	409.6	124.0	381.5	9.2	NA
SYN14-10 Run3- 288	<del>396.3</del>	<del>13.6</del>	<del>827.0</del>	<del>144.4</del>	<del>2274.5</del>	<del>440.3</del>	<del>396.3</del>	<del>13.6</del>	NA
SYN14-10 Run3- 252	400.8	13.6	413.4	15.4	484.9	63.7	400.8	13.6	82.7
SYN14-10 Run3- 306	408.0	8.0	398.5	10.0	343.5	51.3	408.0	8.0	118.8
SYN14-10 Run3- 268	415.8	9.0	425.7	9.3	479.9	32.5	415.8	9.0	86.6
SYN14-10 Run3- 253	418.6	13.2	428.3	13.3	480.5	44.3	418.6	13.2	87.1
SYN14-10 Run3- 274	421.3	7.8	425.4	10.7	447.5	53.5	421.3	7.8	94.1
SYN14-10 Run3- 305	430.8	8.3	436.8	11.5	468.9	56.3	430.8	8.3	91.9
SYN14-10 Run3- 231	533.5	8.5	532.2	11.1	526.7	45.9	533.5	8.5	101.3
SYN14-10 Run3- 327	<del>539.0</del>	<del>17.1</del>	<del>658.0</del>	<del>26.3</del>	<del>1090.7</del>	<del>86.2</del>	<del>539.0</del>	<del>17.1</del>	49.4
SYN14-10 Run3- 289	543.0	8.7	547.1	12.4	564.1	52.4	543.0	8.7	96.2
SYN14-10 Run3- 328	568.2	11.8	569.3	15.1	573.9	58.9	568.2	11.8	99.0
SYN14-10 Run3- 250	572.4	14.9	575.3	14.4	587.1	40.1	572.4	14.9	97.5
SYN14-10 Run3- 291	615.0	10.3	618.2	10.6	630.0	32.1	615.0	10.3	97.6
SYN14-10 Run3- 279	626.3	10.7	632.1	12.2	653.2	40.4	626.3	10.7	95.9
SYN14-10 Run3- 282	720.1	16.9	714.1	17.4	695.3	49.2	720.1	16.9	103.6
SYN14-10 Run3- 247	758.3	35.4	764.0	27.5	780.7	28.5	758.3	35.4	97.1
SYN14-10 Run3- 237	992.9	21.2	987.8	17.9	976.4	33.5	976.4	33.5	101.7
SYN14-10 Run3- 273	1006.6	21.6	998.0	16.9	978.9	26.9	978.9	26.9	102.8

SYN14-10 Run3- 299	958.1	14.4	964.7	15.6	979.8	39.0	979.8	39.0	97.8
SYN14-10 Run3- 243	901.5	31.3	927.0	27.7	988.0	53.3	988.0	53.3	91.2
SYN14-10 Run3- 229	998.6	18.7	996.3	19.9	991.3	48.9	991.3	48.9	100.7
SYN14-10 Run3- 272	989.0	18.2	990.3	21.1	993.1	54.7	993.1	54.7	99.6
SYN14-10 Run3- 314	998.3	19.3	998.2	15.3	998.0	24.5	998.0	24.5	100.0
SYN14-10 Run3- 244	951.0	23.0	965.3	19.3	998.2	34.5	998.2	34.5	95.3
SYN14-10 Run3- 300	1027.0	23.2	1018.0	18.5	998.7	30.7	998.7	30.7	102.8
SYN14-10 Run3- 321	931.0	21.3	951.5	21.4	999.3	50.0	999.3	50.0	93.2
SYN14-10 Run3- 298	978.8	15.3	986.0	17.9	1001.9	46.3	1001.9	46.3	97.7
SYN14-10 Run3- 240	973.9	32.0	984.0	24.8	1006.5	34.6	1006.5	34.6	96.8
SYN14-10 Run3- 302	961.0	18.3	976.2	19.1	1010.4	45.5	1010.4	45.5	95.1
SYN14-10 Run3- 257	953.3	19.4	971.2	16.1	1012.0	27.5	1012.0	27.5	94.2
SYN14-10 Run3- 234	1057.7	16.2	1043.0	13.4	1012.3	24.5	1012.3	24.5	104.5
SYN14-10 Run3- 297	1054.7	96.0	1041.0	64.7	1012.5	20.8	1012.5	20.8	104.2
SYN14-10 Run3- 256	991.1	20.1	998.3	18.4	1014.1	38.2	1014.1	38.2	97.7
SYN14-10 Run3- 224	989.8	15.8	997.7	14.5	1015.2	30.4	1015.2	30.4	97.5
SYN14-10 Run3- 312	1043.0	13.7	1034.3	14.2	1016.0	33.7	1016.0	33.7	102.7
SYN14-10 Run3- 325	1060.1	16.9	1046.0	17.2	1016.6	40.2	1016.6	40.2	104.3
SYN14-10 Run3- 223	1016.6	15.0	1017.0	12.8	1017.9	24.0	1017.9	24.0	99.9
SYN14-10 Run3- 330	1002.3	16.5	1008.1	16.0	1020.7	35.5	1020.7	35.5	98.2
SYN14-10 Run3- 230	1014.5	18.3	1017.7	16.0	1024.5	31.3	1024.5	31.3	99.0
SYN14-10 Run3- 259	1008.6	18.3	1014.3	15.9	1026.7	30.7	1026.7	30.7	98.2
SYN14-10 Run3- 251	1032.9	22.7	1031.9	17.7	1030.0	27.5	1030.0	27.5	100.3
SYN14-10 Run3- 248	1023.7	23.2	1026.2	23.6	1031.5	54.7	1031.5	54.7	99.2
SYN14-10 Run3- 261	1037.9	35.7	1038.0	25.8	1038.3	27.4	1038.3	27.4	100.0
SYN14-10 Run3- 319	998.8	25.5	1011.5	21.0	1039.0	35.9	1039.0	35.9	96.1
SYN14-10 Run3- 242	997.1	20.7	1011.9	17.7	1044.1	32.5	1044.1	32.5	95.5
SYN14-10 Run3- 310	1016.4	25.8	1025.4	21.2	1044.5	36.3	1044.5	36.3	97.3
SYN14-10 Run3- 303	1102.4	29.6	1085.1	23.4	1050.4	39.3	1050.4	39.3	104.9
SYN14-10 Run3- 266	1030.9	38.5	1044.7	28.8	1073.8	35.7	1073.8	35.7	96.0
SYN14-10 Run3- 227	1148.8	58.5	1126.0	42.0	1082.1	53.9	1082.1	53.9	106.2
SYN14-10 Run3- 286	1055.0	15.0	1065.1	13.6	1085.8	27.6	1085.8	27.6	97.2
SYN14-10 Run3- 254	1032.9	18.1	1050.2	18.0	1086.2	40.0	1086.2	40.0	95.1
SYN14-10 Run3- 232	1048.9	17.6	1062.0	20.7	1089.2	51.3	1089.2	51.3	96.3
SYN14-10 Run3- 246	1065.5	17.1	1075.9	16.6	1097.1	36.0	1097.1	36.0	97.1
SYN14-10 Run3- 280	1071.8	20.3	1081.6	15.3	1101.4	20.5	1101.4	20.5	97.3
SYN14-10 Run3- 260	970.5	14.0	1012.8	16.0	1105.3	38.9	1105.3	38.9	87.8
SYN14-10 Run3- 278	1092.4	24.5	1104.8	21.0	1129.4	38.6	1129.4	38.6	96.7
SYN14-10 Run3- 293	1142.7	26.2	1139.6	20.7	1133.9	34.1	1133.9	34.1	100.8

SYN14-10 Run3- 323	1155.5	21.0	1148.5	16.8	1135.3	28.1	1135.3	28.1	101.8
SYN14-10 Run3- 239	1155.8	19.0	1154.5	17.6	1152.0	36.1	1152.0	36.1	100.3
SYN14-10 Run3- 222	1164.2	27.3	1160.3	23.3	1153.2	43.6	1153.2	43.6	101.0
SYN14-10 Run3- 296	1149.0	29.1	1150.9	21.3	1154.6	27.3	1154.6	27.3	99.5
SYN14-10 Run3- 290	1146.8	22.7	1151.3	17.0	1159.9	23.5	1159.9	23.5	98.9
SYN14-10 Run3- 225	1154.3	17.1	1156.8	13.3	1161.5	20.4	1161.5	20.4	99.4
SYN14-10 Run3- 241	1129.0	19.8	1145.5	18.5	1176.8	37.5	1176.8	37.5	95.9
SYN14-10 Run3- 284	1127.8	18.2	1145.7	19.3	1179.8	43.4	1179.8	43.4	95.6
SYN14-10 Run3- 294	1106.2	22.8	1134.7	25.6	1189.5	59.2	1189.5	59.2	93.0
SYN14-10 Run3- 309	1161.0	15.9	1175.7	21.2	1202.8	52.3	1202.8	52.3	96.5
SYN14-10 Run3- 308	1224.0	31.0	1232.9	21.5	1248.5	22.3	1248.5	22.3	98.0
SYN14-10 Run3- 301	1262.6	34.8	1266.9	25.1	1274.2	32.9	1274.2	32.9	99.1
SYN14-10 Run3- 228	1257.7	24.5	1268.7	19.3	1287.5	30.7	1287.5	30.7	97.7
SYN14-10 Run3- 326	1320.5	24.6	1309.2	19.9	1290.7	34.1	1290.7	34.1	102.3
SYN14-10 Run3- 316	1333.4	28.9	1344.7	20.5	1362.7	26.2	1362.7	26.2	97.8
SYN14-10 Run3- 307	1416.6	23.4	1406.8	17.8	1392.1	27.6	1392.1	27.6	101.8
SYN14-10 Run3- 233	1353.7	22.1	1380.0	16.7	1420.8	24.2	1420.8	24.2	95.3
SYN14-10 Run3- 324	1435.8	13.0	1432.9	13.5	1428.7	27.6	1428.7	27.6	100.5
SYN14-10 Run3- 269	1399.4	37.0	1413.2	25.2	1433.9	28.9	1433.9	28.9	97.6
SYN14-10 Run3- 226	1377.9	40.2	1406.9	27.2	1451.0	28.5	1451.0	28.5	95.0
SYN14-10 Run3- 283	1400.7	22.3	1440.4	19.8	1499.5	35.1	1499.5	35.1	93.4
SYN14-10 Run3- 329	1524.9	35.9	1541.7	23.3	1564.7	23.9	1564.7	23.9	97.5
SYN14-10 Run3- 236	1602.4	30.0	1590.1	19.4	1573.8	21.7	1573.8	21.7	101.8
SYN14-10 Run3- 315	1615.3	76.0	1622.3	44.5	1631.3	25.4	1631.3	25.4	99.0
SYN14-10 Run3- 311	1622.7	21.4	1627.7	14.6	1634.3	18.9	1634.3	18.9	99.3
SYN14-10 Run3- 317	1615.2	29.2	1628.7	21.9	1646.1	32.9	1646.1	32.9	98.1
SYN14-10 Run3- 249	1590.0	56.3	1616.2	35.2	1650.4	31.7	1650.4	31.7	96.3
SYN14-10 Run3- 276	1711.6	24.9	1701.7	17.2	1689.6	23.3	1689.6	23.3	101.3
SYN14-10 Run3- 265	1685.4	41.4	1687.3	26.6	1689.7	30.1	1689.7	30.1	99.7
SYN14-10 Run3- 313	1804.2	22.9	1825.5	14.8	1849.8	17.6	1849.8	17.6	97.5
SYN14-10 Run3- 281	2098.9	29.2	2107.9	17.4	2116.7	19.1	2116.7	19.1	99.2
SYN14-10 Run3- 285	2088.7	33.0	2133.3	19.0	2176.4	18.5	2176.4	18.5	96.0
SYN14-10 Run3- 304	2597.5	36.9	2616.1	21.2	2630.4	24.2	2630.4	24.2	98.8
SYN14-10 Run3- 263	2682.1	115.1	2707.1	51.3	2725.8	23.0	2725.8	23.0	98.4
SYN14-10 Run3- 271	2740.5	44.3	2776.0	22.3	2801.9	20.4	2801.9	20.4	97.8
SYN14-10 Run3- 262	2812.3	45.6	2809.8	24.3	2808.0	25.9	2808.0	25.9	100.2
SYN14-10 Run3- 221	3354.1	91.1	3407.7	36.4	3439.3	20.0	3439.3	20.0	97.5

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
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	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN14-11_Run1- 10	1707.3	20.5	1705.3	16.8	1702.9	27.8	1702.9	27.8	100.3
SYN14-11_Run1- 79	106.0	4.0	114.4	14.1	293.0	286.2	106.0	4.0	NA
SYN14-11_Run2- 201	106.5	2.5	106.7	4.6	110.5	92.5	106.5	2.5	NA
SYN14-11_Run1- 110	111.6	2.8	116.6	5.2	220.1	91.5	111.6	2.8	NA
SYN14-11_Run3- 278	163.2	4.0	166.3	12.2	211.2	176.2	163.2	4.0	NA
SYN14-11_Run3- 297	164.8	5.8	161.6	7.1	114.5	73.9	164.8	5.8	NA
SYN14-11_Run2- 204	166.3	4.7	165.5	8.0	155.5	102.3	166.3	4.7	NA
SYN14-11_Run1- 21	170.2	3.4	171.7	6.6	191.9	85.5	170.2	3.4	NA
SYN14-11_Run2- 118	232.6	4.5	237.2	8.7	282.5	82.0	232.6	4.5	NA
SYN14-11_Run1- 52	234.2	5.6	234.2	6.4	233.8	42.6	234.2	5.6	NA
SYN14-11_Run2- 133	234.4	5.7	235.4	7.6	245.4	61.1	234.4	5.7	NA
SYN14-11_Run2- 168	238.6	5.4	256.6	9.5	423.8	77.8	238.6	5.4	NA
SYN14-11_Run1- 47	244.8	4.8	243.8	7.2	234.0	61.7	244.8	4.8	NA
SYN14-11_Run2- 187	246.4	6.2	247.0	7.1	252.8	44.6	246.4	6.2	NA
SYN14-11_Run2- 115	252.6	7.2	265.1	9.9	377.1	69.1	252.6	7.2	NA
SYN14-11_Run1- 53	254.2	4.6	294.5	7.6	627.2	50.6	254.2	4.6	NA
SYN14-11_Run1- 100	256.2	3.9	255.2	5.3	245.5	40.2	256.2	3.9	NA
SYN14-11_Run2- 144	266.1	6.4	260.5	11.7	211.1	103.0	266.1	6.4	NA
SYN14-11_Run3- 250	267.7	4.8	268.2	6.4	272.7	45.9	267.7	4.8	NA
SYN14-11_Run1- 92	278.6	5.5	275.2	9.1	246.2	73.2	278.6	5.5	NA
SYN14-11_Run2- 218	286.6	5.6	290.1	6.2	318.0	32.3	286.6	5.6	NA
SYN14-11_Run1- 57	314.7	7.1	321.0	9.8	367.2	60.3	314.7	7.1	NA
SYN14-11_Run1- 108	314.9	9.1	314.8	11.9	314.5	74.3	314.9	9.1	NA
SYN14-11_Run1- 91	315.0	7.9	314.0	9.5	306.2	54.6	315.0	7.9	NA
SYN14-11_Run2- 153	317.3	4.9	323.5	9.7	368.2	70.6	317.3	4.9	NA
SYN14-11_Run1- 66	321.3	4.8	308.4	10.4	212.1	83.3	321.3	4.8	NA
SYN14-11_Run1- 24	346.1	5.8	338.4	8.0	286.0	49.5	346.1	5.8	NA
SYN14-11_Run2- 163	350.3	5.3	369.2	5.6	489.5	21.0	350.3	5.3	NA
SYN14-11_Run3- 314	369.5	6.3	375.2	8.7	410.9	48.4	369.5	6.3	NA
SYN14-11_Run1- 56	373.9	7.0	367.5	12.4	327.2	80.0	373.9	7.0	NA
SYN14-11_Run2- 114	377.6	7.4	376.5	7.9	369.4	33.7	377.6	7.4	NA
SYN14-11_Run2- 155	385.1	8.8	382.1	13.3	363.9	77.5	385.1	8.8	NA
SYN14-11_Run3- 311	392.3	5.7	396.1	15.8	418.1	102.1	392.3	5.7	NA
SYN14-11_Run1- 63	392.9	6.7	396.4	8.1	417.3	39.0	392.9	6.7	NA
SYN14-11_Run1- 3	394.0	5.8	392.6	7.6	384.4	39.2	394.0	5.8	NA
SYN14-11_Run3- 221	397.2	5.6	414.2	10.3	510.1	58.3	397.2	5.6	NA

SYN14-11_Run1- 40	399.3	6.6	404.9	10.4	437.3	57.9	399.3	6.6	NA
SYN14-11_Run3- 246	399.9	7.8	409.2	11.8	462.4	63.6	399.9	7.8	NA
SYN14-11_Run3- 299	411.4	10.0	420.9	9.5	473.2	25.8	411.4	10.0	86.9
SYN14-11_Run2- 127	411.7	6.8	417.2	8.9	448.0	43.4	411.7	6.8	91.9
SYN14-11_Run3- 301	415.1	7.3	418.4	9.9	436.5	49.6	415.1	7.3	95.1
SYN14-11_Run3- 307	417.9	6.7	419.1	9.2	426.1	46.7	417.9	6.7	98.1
SYN14-11_Run2- 161	418.5	6.5	432.4	10.5	507.2	55.1	418.5	6.5	82.5
SYN14-11_Run1- 86	418.9	6.0	409.2	9.2	355.0	52.2	418.9	6.0	118.0
SYN14-11_Run2- 172	419.1	6.4	413.4	9.0	381.9	48.1	419.1	6.4	109.7
SYN14-11_Run1- 81	429.0	7.5	429.2	10.8	430.1	55.4	429.0	7.5	99.7
SYN14-11_Run1- 102	434.6	7.4	434.3	9.8	432.6	48.0	434.6	7.4	100.5
SYN14-11_Run3- 258	438.0	9.1	439.6	11.6	447.8	54.0	438.0	9.1	97.8
SYN14-11_Run1- 32	438.8	8.6	438.7	8.9	438.4	32.6	438.8	8.6	100.1
SYN14-11_Run2- 205	438.9	7.9	437.1	9.6	427.2	43.6	438.9	7.9	102.8
SYN14-11_Run3- 296	443.1	8.6	440.6	10.1	427.4	44.7	443.1	8.6	103.7
SYN14-11_Run3- 257	454.7	7.1	454.7	12.7	454.9	67.9	454.7	7.1	99.9
SYN14-11_Run3- 236	456.9	9.1	456.9	9.4	456.8	33.5	456.9	9.1	100.0
SYN14-11_Run2- 210	462.4	10.3	477.6	11.5	551.3	42.3	462.4	10.3	83.9
SYN14-11_Run3- 275	466.2	12.4	464.5	12.3	455.9	40.1	466.2	12.4	102.3
SYN14-11_Run2- 200	514.1	9.9	520.8	13.2	550.3	55.3	514.1	9.9	93.4
SYN14-11_Run1- 33	547.5	9.2	549.5	10.5	557.7	38.1	547.5	9.2	98.2
SYN14-11_Run1- 46	552.5	8.1	562.7	9.3	603.9	32.7	552.5	8.1	91.5
SYN14-11_Run1- 27	556.5	7.6	564.2	7.9	595.7	24.4	556.5	7.6	93.4
SYN14-11_Run2- 219	580.1	7.8	583.4	9.4	596.3	34.1	580.1	7.8	97.3
SYN14-11_Run3- 312	584.2	14.6	604.8	14.9	682.7	41.8	584.2	14.6	85.6
SYN14-11_Run2- 214	594.5	11.3	600.6	11.5	623.6	34.1	594.5	11.3	95.3
SYN14-11_Run2- 175	596.8	9.5	598.6	11.3	605.5	40.6	596.8	9.5	98.6
SYN14-11_Run3- 313	598.8	14.5	586.6	12.7	539.8	28.5	598.8	14.5	110.9
SYN14-11_Run1- 19	600.1	12.8	616.1	16.4	675.7	58.9	600.1	12.8	88.8
SYN14-11_Run1- 45	600.3	9.9	614.7	10.4	668.1	31.0	600.3	9.9	89.8
SYN14-11_Run1- 42	601.8	21.7	599.0	21.6	588.1	63.1	601.8	21.7	102.3
SYN14-11_Run1- 69	607.1	10.7	609.0	11.7	616.1	38.2	607.1	10.7	98.5
SYN14-11_Run2- 174	612.1	9.1	619.2	14.2	645.4	56.4	612.1	9.1	94.8
SYN14-11_Run1- 62	615.7	9.5	622.3	10.7	646.6	34.9	615.7	9.5	95.2
SYN14-11_Run2- 166	625.7	7.0	629.3	7.5	642.5	23.4	625.7	7.0	97.4
SYN14-11_Run1- 29	629.2	6.1	627.8	8.7	622.7	33.7	629.2	6.1	101.0
SYN14-11_Run1- 39	641.1	12.1	651.0	11.0	685.5	24.5	641.1	12.1	93.5
SYN14-11_Run1- 85	641.4	14.7	641.6	15.2	642.4	45.2	641.4	14.7	99.8
SYN14-11_Run2- 119	661.8	7.5	659.7	9.1	652.7	31.4	661.8	7.5	101.4

SYN14-11_Run2- 117	666.7	13.1	663.0	20.5	650.3	78.7	666.7	13.1	102.5
SYN14-11_Run3- 284	683.0	13.1	677.3	13.3	658.3	38.1	683.0	13.1	103.8
SYN14-11_Run2- 134	686.0	10.7	694.5	10.9	722.2	30.3	686.0	10.7	95.0
SYN14-11_Run3- 281	934.5	16.9	932.4	18.1	927.6	46.1	927.6	46.1	100.7
SYN14-11_Run3- 233	924.6	17.2	927.7	16.5	935.1	37.9	935.1	37.9	98.9
SYN14-11_Run3- 326	946.2	15.4	948.4	14.2	953.6	30.4	953.6	30.4	99.2
SYN14-11_Run1- 90	971.9	13.2	967.0	14.1	955.8	35.4	955.8	35.4	101.7
SYN14-11_Run2- 196	960.5	19.4	959.4	20.4	956.7	50.6	956.7	50.6	100.4
SYN14-11_Run3- 308	977.6	15.4	972.0	14.2	959.4	31.0	959.4	31.0	101.9
SYN14-11_Run3- 249	933.7	18.4	941.5	18.6	959.6	44.4	959.6	44.4	97.3
SYN14-11_Run1- 77	917.6	19.2	930.3	15.2	960.5	22.3	960.5	22.3	95.5
SYN14-11_Run2- 180	969.9	14.6	968.2	12.3	964.3	22.6	964.3	22.6	100.6
SYN14-11_Run1- 12	1001.3	23.1	990.9	20.0	968.1	39.7	968.1	39.7	103.4
SYN14-11_Run2- 137	955.6	19.0	959.5	16.7	968.4	33.3	968.4	33.3	98.7
SYN14-11_Run3- 283	989.4	17.4	983.6	16.8	970.6	38.1	970.6	38.1	101.9
SYN14-11_Run1- 61	938.9	24.2	948.7	18.7	971.5	25.1	971.5	25.1	96.6
SYN14-11_Run3- 230	946.8	18.0	955.7	18.5	976.4	44.3	976.4	44.3	97.0
SYN14-11_Run1- 70	1024.7	21.1	1012.4	18.3	986.0	36.7	986.0	36.7	103.9
SYN14-11_Run1- 103	976.5	12.6	980.5	14.9	989.4	39.2	989.4	39.2	98.7
SYN14-11_Run1- 104	1048.6	16.1	1030.4	12.8	991.9	21.8	991.9	21.8	105.7
SYN14-11_Run1- 64	1036.8	18.0	1022.8	15.7	992.9	31.7	992.9	31.7	104.4
SYN14-11_Run3- 287	1017.3	15.1	1010.0	13.1	994.1	26.0	994.1	26.0	102.3
SYN14-11_Run3- 264	944.2	16.2	959.9	16.6	996.1	39.3	996.1	39.3	94.8
SYN14-11_Run1- 28	983.1	14.1	987.2	11.9	996.3	21.7	996.3	21.7	98.7
SYN14-11_Run2- 191	1020.4	17.2	1012.8	15.4	996.5	31.9	996.5	31.9	102.4
SYN14-11_Run1- 7	1053.6	13.3	1035.5	14.0	997.6	33.9	997.6	33.9	105.6
SYN14-11_Run2- 136	864.0	14.8	902.6	12.8	998.2	22.4	998.2	22.4	86.6
SYN14-11_Run1- 17	1029.6	13.7	1019.9	12.0	999.2	23.9	999.2	23.9	103.0
SYN14-11_Run2- 215	1021.1	18.6	1014.3	15.1	999.6	26.1	999.6	26.1	102.2
SYN14-11_Run3- 289	983.4	20.1	988.5	18.0	999.7	36.7	999.7	36.7	98.4
SYN14-11_Run3- 259	1006.1	13.5	1005.2	11.6	1003.1	22.1	1003.1	22.1	100.3
SYN14-11_Run2- 111	1054.2	12.5	1039.1	17.8	1007.3	48.9	1007.3	48.9	104.7
SYN14-11_Run1- 98	1013.8	18.7	1012.3	15.2	1009.0	25.9	1009.0	25.9	100.5
SYN14-11_Run3- 272	957.1	17.4	974.0	16.0	1012.3	33.1	1012.3	33.1	94.6
SYN14-11_Run2- 124	1078.3	24.9	1057.0	25.7	1013.1	60.7	1013.1	60.7	106.4
SYN14-11_Run3- 309	1019.0	20.9	1017.3	16.5	1013.7	26.1	1013.7	26.1	100.5
SYN14-11_Run1- 83	1026.8	18.4	1023.7	14.6	1017.1	23.8	1017.1	23.8	100.9
SYN14-11_Run2- 129	956.5	19.4	975.4	20.8	1018.0	50.6	1018.0	50.6	94.0
SYN14-11_Run1- 95	1024.1	13.3	1022.4	18.1	1018.7	49.3	1018.7	49.3	100.5

SYN14-11_Run3- 304	1017.0	16.3	1017.7	14.4	1019.1	28.6	1019.1	28.6	99.8
SYN14-11_Run3- 330	943.0	16.1	966.2	13.4	1019.3	22.3	1019.3	22.3	92.5
SYN14-11_Run3- 241	972.4	12.2	987.3	16.2	1020.5	44.2	1020.5	44.2	95.3
SYN14-11_Run2- 198	1003.7	13.8	1009.1	12.8	1020.9	27.2	1020.9	27.2	98.3
SYN14-11_Run2- 208	999.4	19.1	1006.3	22.0	1021.3	55.9	1021.3	55.9	97.8
SYN14-11_Run1- 23	1043.0	11.8	1036.1	17.4	1021.7	48.1	1021.7	48.1	102.1
SYN14-11_Run1- 5	1061.7	14.1	1049.4	11.9	1023.9	22.7	1023.9	22.7	103.7
SYN14-11_Run3- 243	825.7	21.0	881.5	24.0	1024.3	61.2	1024.3	61.2	80.6
SYN14-11_Run3- 320	1025.5	15.1	1025.3	14.1	1025.0	30.1	1025.0	30.1	100.1
SYN14-11_Run3- 295	1053.2	18.7	1044.7	14.9	1026.8	25.0	1026.8	25.0	102.6
SYN14-11_Run2- 190	990.7	17.7	1002.1	15.4	1027.3	29.7	1027.3	29.7	96.4
SYN14-11_Run2- 116	1069.5	21.6	1057.2	21.4	1031.9	48.8	1031.9	48.8	103.6
SYN14-11_Run1- 107	1037.8	20.9	1036.5	17.2	1033.8	30.3	1033.8	30.3	100.4
SYN14-11_Run1- 51	1035.0	18.3	1034.8	18.2	1034.3	41.7	1034.3	41.7	100.1
SYN14-11_Run2- 179	975.6	17.2	994.0	15.7	1034.9	31.9	1034.9	31.9	94.3
SYN14-11_Run2- 132	1019.3	12.9	1024.3	11.0	1035.0	20.6	1035.0	20.6	98.5
SYN14-11_Run3- 225	1017.3	15.3	1023.5	12.4	1036.6	20.7	1036.6	20.7	98.1
SYN14-11_Run3- 280	1004.6	24.5	1016.2	19.5	1041.2	30.5	1041.2	30.5	96.5
SYN14-11_Run2- 181	1079.3	21.0	1067.0	16.8	1042.0	28.3	1042.0	28.3	103.6
SYN14-11_Run2- 185	993.7	14.0	1009.4	16.8	1043.6	43.2	1043.6	43.2	95.2
SYN14-11_Run3- 292	1095.4	20.3	1078.3	14.9	1043.8	19.9	1043.8	19.9	104.9
SYN14-11_Run1- 74	1090.6	14.2	1075.4	15.4	1044.7	37.3	1044.7	37.3	104.4
SYN14-11_Run3- 306	1023.5	20.7	1030.4	17.2	1045.1	30.7	1045.1	30.7	97.9
SYN14-11_Run3- 262	1053.5	20.2	1051.2	18.5	1046.5	38.5	1046.5	38.5	100.7
SYN14-11_Run2- 183	1053.2	17.6	1051.9	15.6	1049.2	31.0	1049.2	31.0	100.4
SYN14-11_Run3- 265	996.2	20.6	1013.1	18.7	1049.9	38.0	1049.9	38.0	94.9
SYN14-11_Run1- 72	1007.1	15.4	1020.7	12.9	1050.1	22.7	1050.1	22.7	95.9
SYN14-11_Run2- 207	997.5	26.4	1014.3	21.5	1050.8	35.5	1050.8	35.5	94.9
SYN14-11_Run2- 220	1018.8	19.4	1029.2	14.7	1051.3	19.2	1051.3	19.2	96.9
SYN14-11_Run3- 226	1057.8	17.7	1056.4	15.0	1053.6	28.0	1053.6	28.0	100.4
SYN14-11_Run2- 171	991.9	16.9	1011.7	14.6	1054.8	27.3	1054.8	27.3	94.0
SYN14-11_Run3- 316	1056.2	16.8	1056.6	15.2	1057.6	31.1	1057.6	31.1	99.9
SYN14-11_Run3- 256	1071.8	20.6	1067.7	16.2	1059.4	25.9	1059.4	25.9	101.2
SYN14-11_Run3- 327	1063.0	15.1	1062.3	13.1	1060.8	25.3	1060.8	25.3	100.2
SYN14-11_Run2- 151	1007.4	23.2	1025.0	23.3	1062.6	52.8	1062.6	52.8	94.8
SYN14-11_Run1- 11	1041.2	15.3	1048.1	18.7	1062.7	47.8	1062.7	47.8	98.0
SYN14-11_Run1- 94	1033.2	21.5	1042.9	19.0	1063.3	37.3	1063.3	37.3	97.2
SYN14-11_Run2- 209	1069.9	19.7	1068.3	15.3	1065.0	23.5	1065.0	23.5	100.5
SYN14-11_Run1- 60	1028.1	15.9	1040.6	13.5	1066.8	24.5	1066.8	24.5	96.4

SYN14-11_Run2- 162	949.4	33.0	986.5	26.2	1070.0	36.1	1070.0	36.1	88.7
SYN14-11_Run1- 35	1074.6	17.6	1073.2	14.1	1070.4	23.4	1070.4	23.4	100.4
SYN14-11_Run2- 217	1028.9	16.5	1042.5	17.0	1071.2	39.3	1071.2	39.3	96.1
SYN14-11_Run1- 82	1054.7	27.6	1060.1	22.4	1071.2	37.6	1071.2	37.6	98.5
SYN14-11_Run3- 315	934.9	12.9	976.5	12.9	1071.4	28.6	1071.4	28.6	87.3
SYN14-11_Run3- 251	1048.9	18.8	1056.6	14.7	1072.4	22.4	1072.4	22.4	97.8
SYN14-11_Run2- 184	1070.1	18.2	1071.1	16.2	1073.2	32.1	1073.2	32.1	99.7
SYN14-11_Run2- 216	1061.2	26.1	1065.3	19.3	1073.6	23.8	1073.6	23.8	98.8
SYN14-11_Run2- 120	976.9	19.4	1007.7	16.8	1075.2	30.6	1075.2	30.6	90.9
SYN14-11_Run2- 152	1049.0	25.2	1058.5	21.6	1078.2	40.4	1078.2	40.4	97.3
SYN14-11_Run3- 248	1080.7	19.7	1080.0	18.2	1078.5	37.8	1078.5	37.8	100.2
SYN14-11_Run3- 234	1066.2	16.0	1071.2	14.9	1081.4	31.1	1081.4	31.1	98.6
SYN14-11_Run1- 8	1082.0	20.3	1081.9	17.8	1081.5	34.5	1081.5	34.5	100.0
SYN14-11_Run2- 203	1054.2	18.0	1063.5	14.4	1082.5	23.4	1082.5	23.4	97.4
SYN14-11_Run2- 158	1069.1	18.5	1073.6	14.8	1082.7	24.4	1082.7	24.4	98.7
SYN14-11_Run2- 199	1064.4	17.5	1071.7	15.4	1086.7	30.0	1086.7	30.0	97.9
SYN14-11_Run1- 30	1050.7	20.2	1063.1	17.1	1088.6	31.0	1088.6	31.0	96.5
SYN14-11_Run3- 318	1103.5	15.4	1101.0	13.2	1096.2	24.8	1096.2	24.8	100.7
SYN14-11_Run3- 323	1074.0	17.4	1084.5	16.1	1105.5	32.9	1105.5	32.9	97.1
SYN14-11_Run3- 244	1059.0	16.6	1074.9	14.2	1107.3	26.1	1107.3	26.1	95.6
SYN14-11_Run2- 141	1047.4	16.0	1067.2	25.0	1108.0	68.0	1108.0	68.0	94.5
SYN14-11_Run2- 138	1063.5	14.5	1079.1	14.1	1110.6	30.3	1110.6	30.3	95.8
SYN14-11_Run3- 328	946.4	26.5	997.7	21.2	1111.9	29.1	1111.9	29.1	85.1
SYN14-11_Run2- 186	1130.4	18.1	1127.3	15.9	1121.4	31.0	1121.4	31.0	100.8
SYN14-11_Run3- 239	1072.7	19.2	1089.1	17.7	1122.0	36.1	1122.0	36.1	95.6
SYN14-11_Run1- 34	1091.6	21.0	1101.9	19.1	1122.1	38.5	1122.1	38.5	97.3
SYN14-11_Run2- 112	1137.6	19.2	1133.9	21.0	1126.7	48.9	1126.7	48.9	101.0
SYN14-11_Run1- 105	1141.8	18.4	1136.9	14.2	1127.6	22.0	1127.6	22.0	101.3
SYN14-11_Run1- 88	1117.4	14.5	1122.1	13.2	1131.1	26.5	1131.1	26.5	98.8
SYN14-11_Run3- 291	1168.1	22.4	1155.3	19.1	1131.5	36.0	1131.5	36.0	103.2
SYN14-11_Run2- 178	1138.0	16.7	1135.8	15.6	1131.6	32.5	1131.6	32.5	100.6
SYN14-11_Run2- 128	1137.3	18.0	1136.8	16.4	1136.0	33.0	1136.0	33.0	100.1
SYN14-11_Run2- 189	1186.4	17.2	1171.0	12.9	1142.5	18.9	1142.5	18.9	103.8
SYN14-11_Run3- 269	1135.7	15.0	1139.7	15.9	1147.4	36.3	1147.4	36.3	99.0
SYN14-11_Run2- 194	1053.7	15.6	1086.1	15.4	1151.8	33.1	1151.8	33.1	91.5
SYN14-11_Run3- 229	1149.3	19.9	1150.5	18.7	1152.8	38.9	1152.8	38.9	99.7
SYN14-11_Run3- 271	1185.1	15.9	1174.0	12.4	1153.5	19.9	1153.5	19.9	102.7
SYN14-11_Run2- 182	1147.7	17.3	1149.8	17.5	1153.7	38.4	1153.7	38.4	99.5
SYN14-11_Run3- 222	1117.0	18.4	1133.7	16.5	1165.8	32.2	1165.8	32.2	95.8



SYN14-11_Run3- 329	1196.3	28.3	1186.5	22.6	1168.7	38.2	1168.7	38.2	102.4
SYN14-11_Run2- 121	1146.5	18.9	1155.0	13.9	1170.9	17.7	1170.9	17.7	97.9
SYN14-11_Run1- 99	1154.6	22.1	1161.5	17.6	1174.5	28.6	1174.5	28.6	98.3
SYN14-11_Run2- 211	1140.9	20.2	1152.6	15.5	1174.6	22.9	1174.6	22.9	97.1
SYN14-11_Run1- 96	1118.7	32.5	1138.2	24.7	1175.5	34.2	1175.5	34.2	95.2
SYN14-11_Run1- 50	1150.5	22.9	1159.5	19.7	1176.4	36.4	1176.4	36.4	97.8
SYN14-11_Run1- 9	1190.6	14.5	1186.0	11.5	1177.7	18.8	1177.7	18.8	101.1
SYN14-11_Run3- 266	1233.0	14.5	1213.5	12.7	1179.0	24.4	1179.0	24.4	104.6
SYN14-11_Run1- 59	1148.1	14.0	1159.2	15.8	1180.0	36.8	1180.0	36.8	97.3
SYN14-11_Run2- 164	1162.2	19.5	1169.4	15.9	1183.0	27.3	1183.0	27.3	98.2
SYN14-11_Run2- 177	1146.0	20.3	1159.2	18.0	1183.9	34.7	1183.9	34.7	96.8
SYN14-11_Run3- 282	1246.4	24.1	1227.5	19.2	1194.2	32.7	1194.2	32.7	104.4
SYN14-11_Run2- 139	1192.8	18.5	1194.8	17.7	1198.3	36.8	1198.3	36.8	99.5
SYN14-11_Run2- 159	1166.7	24.3	1179.0	21.1	1201.7	39.2	1201.7	39.2	97.1
SYN14-11_Run2- 156	1190.5	18.3	1199.5	19.1	1215.7	41.7	1215.7	41.7	97.9
SYN14-11_Run3- 288	1220.8	23.6	1220.3	18.9	1219.5	31.7	1219.5	31.7	100.1
SYN14-11_Run2- 130	1169.5	15.6	1187.5	12.7	1220.3	21.0	1220.3	21.0	95.8
SYN14-11_Run2- 157	1136.9	19.7	1166.3	27.9	1221.3	69.9	1221.3	69.9	93.1
SYN14-11_Run2- 123	1232.1	27.6	1229.2	22.1	1224.2	37.2	1224.2	37.2	100.6
SYN14-11_Run3- 277	1274.0	23.1	1257.0	17.5	1228.0	27.2	1228.0	27.2	103.7
SYN14-11_Run2- 149	1259.5	19.5	1250.4	16.9	1234.8	31.7	1234.8	31.7	102.0
SYN14-11_Run2- 197	1243.5	15.5	1242.5	12.0	1240.8	19.1	1240.8	19.1	100.2
SYN14-11_Run3- 285	1065.1	19.1	1124.6	17.0	1241.4	30.5	1241.4	30.5	85.8
SYN14-11_Run1- 26	1232.2	13.0	1238.2	15.6	1248.6	36.1	1248.6	36.1	98.7
SYN14-11_Run2- 113	1176.3	16.9	1208.1	13.6	1265.3	21.5	1265.3	21.5	93.0
SYN14-11_Run3- 274	1260.3	20.2	1267.8	15.7	1280.5	24.5	1280.5	24.5	98.4
SYN14-11_Run3- 255	1294.5	25.2	1305.0	26.3	1322.3	55.6	1322.3	55.6	97.9
SYN14-11_Run3- 300	1325.5	21.2	1324.8	16.8	1323.9	27.5	1323.9	27.5	100.1
SYN14-11_Run3- 245	1251.1	18.1	1279.5	27.6	1327.6	66.7	1327.6	66.7	94.2
SYN14-11_Run2- 146	1276.9	18.2	1296.8	15.7	1330.0	28.2	1330.0	28.2	96.0
SYN14-11_Run3- 232	1325.6	22.8	1337.2	21.3	1355.8	41.1	1355.8	41.1	97.8
SYN14-11_Run3- 253	1312.9	44.6	1330.9	29.2	1359.9	23.1	1359.9	23.1	96.5
SYN14-11_Run2- 193	1429.5	16.0	1404.4	13.7	1366.6	24.8	1366.6	24.8	104.6
SYN14-11_Run3- 242	1142.0	22.0	1222.3	20.0	1366.8	36.0	1366.8	36.0	83.6
SYN14-11_Run2- 202	1403.8	27.3	1392.7	22.6	1375.7	39.6	1375.7	39.6	102.0
SYN14-11_Run1- 80	1367.1	26.0	1370.6	20.5	1375.9	33.3	1375.9	33.3	99.4
SYN14-11_Run3- 227	1390.3	16.2	1385.5	11.8	1378.2	16.9	1378.2	16.9	100.9
SYN14-11_Run3- 247	1354.3	23.9	1371.4	18.6	1398.2	28.9	1398.2	28.9	96.9
SYN14-11_Run2- 165	1423.8	23.0	1418.2	15.7	1409.9	19.0	1409.9	19.0	101.0

SYN14-11_Run1- 84	1441.9	24.6	1430.5	17.6	1413.5	24.7	1413.5	24.7	102.0
SYN14-11_Run3- 322	1485.5	23.0	1461.1	16.1	1425.8	21.8	1425.8	21.8	104.2
SYN14-11_Run2- 143	1392.5	22.2	1406.2	19.3	1427.0	34.6	1427.0	34.6	97.6
SYN14-11_Run1- 2	1423.9	25.4	1425.5	18.2	1428.0	24.9	1428.0	24.9	99.7
SYN14-11_Run1- 44	1428.0	24.0	1432.5	16.7	1439.2	21.1	1439.2	21.1	99.2
SYN14-11_Run3- 263	1430.7	17.4	1444.8	20.9	1465.6	44.6	1465.6	44.6	97.6
SYN14-11_Run3- 276	1437.6	32.8	1451.6	22.9	1472.2	28.7	1472.2	28.7	97.6
SYN14-11_Run3- 321	1463.4	25.8	1468.6	19.4	1476.2	29.2	1476.2	29.2	99.1
SYN14-11_Run3- 260	1509.4	22.6	1500.7	18.0	1488.4	29.8	1488.4	29.8	101.4
SYN14-11_Run1- 15	1475.3	25.9	1484.0	18.3	1496.5	24.1	1496.5	24.1	98.6
SYN14-11_Run3- 290	1267.8	19.7	1359.9	14.4	1507.6	16.2	1507.6	16.2	84.1
SYN14-11_Run3- 237	1521.2	26.9	1519.5	20.3	1517.0	31.1	1517.0	31.1	100.3
SYN14-11_Run2- 150	1524.8	28.1	1532.5	21.3	1543.1	32.3	1543.1	32.3	98.8
SYN14-11_Run2- 125	1373.2	27.0	1447.1	19.6	1557.3	24.4	1557.3	24.4	88.2
SYN14-11_Run3- 224	1528.3	21.7	1549.7	25.9	1579.0	53.2	1579.0	53.2	96.8
SYN14-11_Run1- 20	1629.5	21.5	1616.9	14.3	1600.4	17.7	1600.4	17.7	101.8
SYN14-11_Run2- 173	1495.8	39.6	1548.2	26.2	1620.5	27.1	1620.5	27.1	92.3
SYN14-11_Run3- 261	1632.8	27.5	1630.4	20.8	1627.4	32.0	1627.4	32.0	100.3
SYN14-11_Run2- 212	1552.8	20.6	1585.3	18.9	1628.9	33.7	1628.9	33.7	95.3
SYN14-11_Run2- 148	1604.1	21.2	1616.1	16.3	1631.8	25.2	1631.8	25.2	98.3
SYN14-11_Run2- 170	1646.8	19.3	1644.0	15.1	1640.5	23.9	1640.5	23.9	100.4
SYN14-11_Run1- 71	1625.6	16.6	1635.8	12.6	1649.0	19.2	1649.0	19.2	98.6
SYN14-11_Run3- 273	1657.8	27.0	1654.2	19.6	1649.7	28.6	1649.7	28.6	100.5
SYN14-11_Run1- 109	1604.5	39.5	1626.7	24.4	1655.5	21.2	1655.5	21.2	96.9
SYN14-11_Run3- 223	1614.1	24.0	1632.2	17.5	1655.7	25.1	1655.7	25.1	97.5
SYN14-11_Run1- 89	1649.8	24.8	1653.9	19.1	1659.1	29.7	1659.1	29.7	99.4
SYN14-11_Run1- 73	1611.3	21.6	1633.9	14.4	1663.1	17.1	1663.1	17.1	96.9
SYN14-11_Run1- 38	1639.3	44.0	1662.4	28.8	1691.7	32.7	1691.7	32.7	96.9
SYN14-11_Run2- 147	1658.4	37.5	1674.1	23.5	1693.9	23.5	1693.9	23.5	97.9
SYN14-11_Run2- 188	1677.3	25.1	1685.8	17.9	1696.4	25.0	1696.4	25.0	98.9
SYN14-11_Run2- 192	1642.5	29.2	1668.1	19.4	1700.4	22.9	1700.4	22.9	96.6
SYN14-11_Run3- 238	1669.9	30.3	1684.3	20.3	1702.4	25.0	1702.4	25.0	98.1
SYN14-11_Run3- 240	1675.7	27.2	1691.9	18.7	1712.1	24.4	1712.1	24.4	97.9
SYN14-11_Run1- 48	1672.1	27.7	1691.6	19.5	1715.8	26.6	1715.8	26.6	97.5
SYN14-11_Run1- 16	1640.1	34.5	1674.4	23.0	1717.6	27.1	1717.6	27.1	95.5
SYN14-11_Run2- 206	1706.0	24.5	1712.0	16.5	1719.3	21.0	1719.3	21.0	99.2
SYN14-11_Run2- 140	1740.3	24.9	1730.9	15.4	1719.5	16.4	1719.5	16.4	101.2
SYN14-11_Run3- 319	1700.2	26.9	1716.9	18.8	1737.2	25.5	1737.2	25.5	97.9
SYN14-11_Run2- 135	1739.6	24.9	1741.3	17.4	1743.2	24.0	1743.2	24.0	99.8

SYN14-11_Run2- 154	1711.0	32.1	1727.4	21.7	1747.3	27.6	1747.3	27.6	97.9
SYN14-11_Run3- 294	1767.4	29.5	1759.1	21.2	1749.3	30.5	1749.3	30.5	101.0
SYN14-11_Run1- 43	1724.8	25.8	1738.5	16.2	1755.1	17.4	1755.1	17.4	98.3
SYN14-11_Run3- 228	1666.9	28.7	1706.4	19.2	1755.3	23.2	1755.3	23.2	95.0
SYN14-11_Run3- 310	1732.9	30.5	1743.8	19.4	1756.9	21.7	1756.9	21.7	98.6
SYN14-11_Run3- 252	1706.4	36.3	1739.1	22.9	1778.5	23.8	1778.5	23.8	95.9
SYN14-11_Run1- 14	1767.9	40.1	1774.4	23.9	1782.1	21.5	1782.1	21.5	99.2
SYN14-11_Run2- 126	1733.6	16.8	1759.7	16.2	1790.7	29.0	1790.7	29.0	96.8
SYN14-11_Run2- 160	1683.5	27.8	1732.8	20.3	1792.9	28.5	1792.9	28.5	93.9
SYN14-11_Run1- 54	1762.0	20.2	1779.0	13.8	1798.9	18.1	1798.9	18.1	97.9
SYN14-11_Run3- 324	1757.9	41.6	1776.9	25.5	1799.2	25.2	1799.2	25.2	97.7
SYN14-11_Run3- 279	1795.8	34.6	1799.4	20.5	1803.4	18.6	1803.4	18.6	99.6
SYN14-11_Run1- 49	1814.9	24.3	1826.8	17.6	1840.4	25.3	1840.4	25.3	98.6
SYN14-11_Run3- 317	1800.4	31.4	1831.2	21.2	1866.4	27.0	1866.4	27.0	96.5
SYN14-11_Run3- 267	1881.5	21.9	1886.5	13.9	1891.9	16.5	1891.9	16.5	99.5
SYN14-11_Run1- 25	1951.4	22.0	1930.7	14.9	1908.6	20.2	1908.6	20.2	102.2
SYN14-11_Run2- 176	1947.8	31.4	1948.3	17.8	1948.9	15.2	1948.9	15.2	99.9
SYN14-11_Run2- 169	2028.1	33.2	2023.3	19.8	2018.3	21.6	2018.3	21.6	100.5
SYN14-11_Run2- 195	2045.5	29.3	2032.1	17.8	2018.6	20.2	2018.6	20.2	101.3
SYN14-11_Run1- 65	2026.1	33.0	2046.1	18.0	2066.2	13.5	2066.2	13.5	98.1
SYN14-11_Run3- 235	2088.8	32.5	2091.9	21.7	2095.0	28.9	2095.0	28.9	99.7
SYN14-11_Run2- 131	2006.5	32.1	2055.8	20.6	2105.6	24.8	2105.6	24.8	95.3
SYN14-11_Run3- 293	1951.9	39.7	2078.7	25.2	2206.8	27.7	2206.8	27.7	88.4
SYN14-11_Run2- 167	2120.3	29.7	2212.1	19.7	2298.3	24.8	2298.3	24.8	92.3
SYN14-11_Run3- 302	2387.8	40.7	2399.6	21.6	2409.6	19.7	2409.6	19.7	99.1
SYN14-11_Run1- 67	2518.2	26.3	2516.0	19.1	2514.3	27.3	2514.3	27.3	100.2
SYN14-11_Run2- 145	2457.6	36.1	2504.7	19.3	2543.0	18.4	2543.0	18.4	96.6
SYN14-11_Run1- 4	2547.4	23.9	2545.4	16.1	2543.8	21.8	2543.8	21.8	100.1
SYN14-11_Run1- 93	2514.0	39.6	2535.8	20.7	2553.4	19.1	2553.4	19.1	98.5
SYN14-11_Run1- 58	2591.4	26.6	2598.5	16.2	2603.9	20.0	2603.9	20.0	99.5
SYN14-11_Run1- 87	2622.3	36.3	2644.8	19.5	2662.1	20.1	2662.1	20.1	98.5
SYN14-11_Run1- 55	2622.4	32.4	2647.5	18.9	2666.7	22.1	2666.7	22.1	98.3
SYN14-11_Run1- 6	2723.6	42.8	2696.8	23.1	2676.9	24.9	2676.9	24.9	101.7
SYN14-11_Run2- 142	2625.8	35.7	2656.5	18.7	2679.9	18.3	2679.9	18.3	98.0
SYN14-11_Run1- 36	2528.4	35.8	2615.1	21.4	2682.9	24.9	2682.9	24.9	94.2
SYN14-11_Run1- 75	2564.4	42.6	2633.2	22.4	2686.4	20.9	2686.4	20.9	95.5
SYN14-11_Run1- 22	2679.3	31.6	2692.7	16.1	2702.7	15.0	2702.7	15.0	99.1
SYN14-11_Run3- 268	2690.7	27.8	2698.0	16.4	2703.5	19.6	2703.5	19.6	99.5
SYN14-11_Run3- 298	2672.7	35.2	2695.6	18.9	2712.8	19.7	2712.8	19.7	98.5

SYN14-11_Run3- 254	2687.4	59.2	2706.4	28.6	2720.5	22.6	2720.5	22.6	98.8
SYN14-11_Run1- 31	2735.6	38.6	2727.5	20.2	2721.4	20.5	2721.4	20.5	100.5
SYN14-11_Run1- 106	2651.0	33.0	2702.4	17.0	2741.0	16.1	2741.0	16.1	96.7
SYN14-11_Run3- 305	2792.2	41.7	2764.3	23.1	2744.0	26.3	2744.0	26.3	101.8
SYN14-11_Run3- 303	2721.0	47.3	2755.7	23.0	2781.2	19.0	2781.2	19.0	97.8
SYN14-11_Run1- 97	2679.7	34.2	2752.5	17.9	2806.3	17.3	2806.3	17.3	95.5

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN14-12_Run1- 1	856.3	27.9	907.2	25.8	1033.2	51.2	1033.2	51.2	82.9
SYN14-12_Run1- 10	1024.0	20.5	1017.6	16.7	1003.9	29.3	1003.9	29.3	102.0
SYN14-12_Run1- 100	988.7	20.7	1010.0	17.5	1056.3	31.0	1056.3	31.0	93.6
SYN14-12_Run1- 101	300.3	6.8	310.9	10.7	391.7	72.8	300.3	6.8	NA
SYN14-12_Run1- 102	963.6	27.5	941.7	24.8	890.9	54.2	890.9	54.2	108.2
SYN14-12_Run1- 103	2619.4	83.7	2676.0	38.8	2719.1	22.0	2719.1	22.0	96.3
SYN14-12_Run1- 104	1871.1	27.9	1858.7	18.9	1844.9	25.4	1844.9	25.4	101.4
SYN14-12_Run1- 105	1129.7	32.0	1143.8	22.5	1170.5	22.3	1170.5	22.3	96.5
SYN14-12_Run1- 106	418.5	10.1	421.6	10.3	438.9	36.9	418.5	10.1	95.3
SYN14-12_Run1- 107	1064.2	20.1	1064.3	21.3	1064.7	50.1	1064.7	50.1	99.9
SYN14-12_Run1- 108	933.7	26.1	971.0	25.0	1056.6	53.3	1056.6	53.3	88.4
SYN14-12_Run1- 109	1045.1	22.2	1049.0	22.1	1057.2	49.6	1057.2	49.6	98.9
SYN14-12_Run1- 110	1159.1	30.3	1168.9	24.4	1187.0	40.7	1187.0	40.7	97.7
SYN14-12_Run1- 12	362.3	7.6	370.4	10.1	421.3	54.0	362.3	7.6	NA
SYN14-12_Run1- 13	1193.5	23.3	1181.6	19.3	1159.9	34.8	1159.9	34.8	102.9
SYN14-12_Run1- 14	2438.7	53.5	2471.2	27.6	2498.0	23.2	2498.0	23.2	97.6
SYN14-12_Run1- 15	560.5	16.7	561.5	18.9	565.7	67.1	560.5	16.7	99.1
SYN14-12_Run1- 16	1623.4	28.1	1617.8	20.9	1610.4	31.4	1610.4	31.4	100.8
SYN14-12_Run1- 17	1046.0	17.0	1047.2	15.8	1049.6	33.3	1049.6	33.3	99.7
SYN14-12_Run1- 18	1148.1	36.2	1154.6	27.6	1166.8	40.3	1166.8	40.3	98.4
SYN14-12_Run1- 19	1900.1	30.7	1911.0	20.4	1922.8	26.2	1922.8	26.2	98.8
SYN14-12_Run1- 2	1070.9	24.5	1073.9	19.8	1080.0	33.1	1080.0	33.1	99.1
SYN14-12_Run1- 20	2628.8	46.2	2677.4	27.4	2714.4	32.5	2714.4	32.5	96.8
SYN14-12_Run1- 21	1088.8	43.3	1089.4	31.3	1090.5	36.1	1090.5	36.1	99.8
SYN14-12_Run1- 22	1909.8	66.3	1921.6	37.9	1934.4	32.0	1934.4	32.0	98.7
SYN14-12_Run1- 23	1037.2	18.6	1047.5	16.1	1069.2	30.5	1069.2	30.5	97.0
SYN14-12_Run1- 24	1022.7	23.3	1031.6	17.7	1050.5	23.9	1050.5	23.9	97.4
SYN14-12_Run1- 25	311.8	8.5	313.9	10.2	329.8	57.1	311.8	8.5	NA

SYN14-12_Run1- 26	1627.7	34.3	1641.4	24.2	1658.9	33.1	1658.9	33.1	98.1
SYN14-12_Run1- 27	1033.3	28.8	1036.8	22.0	1044.3	31.4	1044.3	31.4	98.9
SYN14-12_Run1- 28	1130.2	28.1	1147.6	23.9	1180.6	43.2	1180.6	43.2	95.7
SYN14-12_Run1- 29	1605.3	22.2	1626.2	19.2	1653.4	33.0	1653.4	33.0	97.1
SYN14-12_Run1- 3	854.1	22.3	884.5	18.8	961.3	31.1	961.3	31.1	88.8
SYN14-12_Run1- 30	1015.9	25.8	1032.5	23.3	1068.0	46.4	1068.0	46.4	95.1
SYN14-12_Run1- 31	800.0	19.3	830.6	19.1	913.3	45.0	800.0	19.3	87.6
SYN14-12_Run1- 32	1529.9	30.6	1558.3	20.5	1596.8	23.6	1596.8	23.6	95.8
SYN14-12_Run1- 33	1034.4	18.7	1046.2	20.1	1071.1	47.9	1071.1	47.9	96.6
SYN14-12_Run1- 34	1231.0	32.2	1227.5	22.0	1221.5	22.5	1221.5	22.5	100.8
SYN14-12_Run1- 35	1338.0	48.0	1343.6	32.8	1352.6	36.4	1352.6	36.4	98.9
SYN14-12_Run1- 36	2472.8	60.3	2506.7	30.3	2534.3	23.7	2534.3	23.7	97.6
SYN14-12_Run1- 37	1009.5	21.3	1020.7	18.3	1044.8	34.4	1044.8	34.4	96.6
SYN14-12_Run1- 38	2037.7	39.6	2071.6	23.0	2105.5	22.5	2105.5	22.5	96.8
SYN14-12_Run1- 39	2634.4	44.8	2670.6	25.4	2698.0	28.5	2698.0	28.5	97.6
SYN14-12_Run1- 4	1043.0	25.3	1041.6	22.2	1038.7	43.8	1038.7	43.8	100.4
SYN14-12_Run1- 40	1452.4	34.1	1436.9	22.6	1414.0	25.7	1414.0	25.7	102.7
SYN14-12_Run1- 41	534.3	21.5	511.0	19.0	408.2	49.8	534.3	21.5	130.9
SYN14-12_Run1- 42	1943.3	32.5	1947.3	20.6	1951.6	24.5	1951.6	24.5	99.6
SYN14-12_Run1- 43	1030.3	29.4	1061.5	31.0	1126.1	70.7	1126.1	70.7	91.5
SYN14-12_Run1- 44	1007.5	21.5	1020.5	20.1	1048.7	42.5	1048.7	42.5	96.1
SYN14-12_Run1- 45	612.0	14.5	610.4	16.6	604.3	57.0	612.0	14.5	101.3
SYN14-12_Run1- 46	1668.2	37.0	1682.1	23.0	1699.4	22.5	1699.4	22.5	98.2
SYN14-12_Run1- 47	1669.2	63.5	1685.0	37.6	1704.7	27.6	1704.7	27.6	97.9
SYN14-12_Run1- 48	1034.2	20.6	1038.9	19.3	1048.8	41.2	1048.8	41.2	98.6
SYN14-12_Run1- 49	2534.0	40.0	2591.6	20.2	2637.0	16.7	2637.0	16.7	96.1
SYN14-12_Run1- 50	1697.1	28.8	1684.7	23.0	1669.2	37.5	1669.2	37.5	101.7
SYN14-12_Run1- 51	1056.3	29.5	1065.7	24.5	1085.1	43.2	1085.1	43.2	97.3
SYN14-12_Run1- 53	230.3	7.9	228.6	9.5	212.1	71.1	230.3	7.9	NA
SYN14-12_Run1- 54	1792.7	29.0	1780.1	20.3	1765.4	28.5	1765.4	28.5	101.5
SYN14-12_Run1- 55	1214.8	39.4	1221.4	29.8	1233.1	43.5	1233.1	43.5	98.5
SYN14-12_Run1- 56	956.9	22.6	950.6	20.4	936.0	43.3	936.0	43.3	102.2
SYN14-12_Run1- 57	1003.7	27.5	1008.0	21.8	1017.4	34.4	1017.4	34.4	98.7
SYN14-12_Run1- 58	1005.9	22.2	1019.3	21.8	1048.3	48.4	1048.3	48.4	96.0
SYN14-12_Run1- 59	1041.4	31.1	1032.4	23.9	1013.2	36.2	1013.2	36.2	102.8
SYN14-12_Run1- 6	1089.2	19.8	1071.1	17.8	1034.5	36.6	1034.5	36.6	105.3
SYN14-12_Run1- 60	1049.3	22.8	1058.1	19.3	1076.5	35.3	1076.5	35.3	97.5
SYN14-12_Run1- 61	1031.0	21.1	1016.3	20.1	984.8	45.2	984.8	45.2	104.7
SYN14-12_Run1- 62	2700.4	61.3	2703.7	31.0	2706.1	28.8	2706.1	28.8	99.8

SYN14-12_Run1- 63	1653.1	28.0	1652.1	19.2	1650.8	25.1	1650.8	25.1	100.1
SYN14-12_Run1- 64	1039.5	22.9	1051.4	23.9	1076.2	55.3	1076.2	55.3	96.6
SYN14-12_Run1- 65	2597.9	65.8	2669.1	33.3	2723.4	28.5	2723.4	28.5	95.4
SYN14-12_Run1- 66	437.2	11.4	452.1	17.3	528.6	85.8	437.2	11.4	82.7
SYN14-12_Run1- 67	1037.7	39.7	1051.1	28.7	1079.0	29.0	1079.0	29.0	96.2
SYN14-12_Run1- 68	1225.9	44.9	1243.1	30.7	1272.9	28.3	1272.9	28.3	96.3
SYN14-12_Run1- 69	1005.6	17.7	1001.7	21.1	993.0	55.2	993.0	55.2	101.3
SYN14-12_Run1- 7	994.0	23.0	1004.4	19.7	1027.2	37.0	1027.2	37.0	96.8
SYN14-12_Run1- 70	2742.8	45.8	2744.3	23.8	2745.4	23.9	2745.4	23.9	99.9
SYN14-12_Run1- 71	1401.3	24.4	1410.8	17.7	1425.1	24.2	1425.1	24.2	98.3
SYN14-12_Run1- 72	233.7	5.2	221.3	11.3	91.2	123.1	233.7	5.2	NA
SYN14-12_Run1- 73	1150.2	33.8	1138.0	27.9	1114.8	50.0	1114.8	50.0	103.2
SYN14-12_Run1- 74	1665.2	32.7	1714.8	24.4	1776.0	35.3	1776.0	35.3	93.8
SYN14-12_Run1- 75	1079.6	16.0	1061.0	15.2	1022.9	33.7	1022.9	33.7	105.5
SYN14-12_Run1- 76	1348.3	36.8	1377.9	26.6	1424.0	34.8	1424.0	34.8	94.7
SYN14-12_Run1- 77	1043.8	35.9	1034.4	25.4	1014.8	24.2	1014.8	24.2	102.9
SYN14-12_Run1- 78	1483.6	36.1	1457.3	23.7	1419.2	27.1	1419.2	27.1	104.5
SYN14-12_Run1- 79	1038.6	17.8	1045.1	17.1	1058.7	37.2	1058.7	37.2	98.1
SYN14-12_Run1- 8	239.0	7.7	240.7	8.5	258.1	52.5	239.0	7.7	NA
SYN14-12_Run1- 80	1296.9	25.7	1318.9	22.0	1354.8	38.9	1354.8	38.9	95.7
SYN14-12_Run1- 81	592.6	15.8	602.8	18.5	641.5	63.9	592.6	15.8	92.4
SYN14-12_Run1- 82	236.4	6.7	233.9	8.8	208.3	71.4	236.4	6.7	NA
SYN14-12_Run1- 83	975.0	16.5	989.8	19.6	1022.7	50.9	1022.7	50.9	95.3
SYN14-12_Run1- 84	770.3	20.3	763.6	19.1	744.0	46.3	770.3	20.3	103.5
SYN14-12_Run1- 85	585.8	15.6	584.6	16.4	580.0	52.7	585.8	15.6	101.0
SYN14-12_Run1- 86	433.8	8.1	434.3	9.6	436.7	42.8	433.8	8.1	99.3
SYN14-12_Run1- 87	2691.7	60.8	2722.4	29.6	2745.3	24.3	2745.3	24.3	98.0
SYN14-12_Run1- 88	1485.0	34.8	1481.4	22.5	1476.3	22.8	1476.3	22.8	100.6
SYN14-12_Run1- 89	1730.0	34.3	1727.9	24.7	1725.4	35.5	1725.4	35.5	100.3
SYN14-12_Run1- 9	1099.9	29.0	1088.3	28.5	1065.1	63.8	1065.1	63.8	103.3
SYN14-12_Run1- 90	379.9	6.0	376.1	6.9	352.4	32.9	379.9	6.0	NA
SYN14-12_Run1- 91	905.0	22.3	927.9	19.9	982.7	39.4	982.7	39.4	92.1
SYN14-12_Run1- 92	1045.9	25.9	1024.4	19.1	978.8	25.6	978.8	25.6	106.9
SYN14-12_Run1- 93	1126.7	26.8	1140.5	21.4	1166.8	34.3	1166.8	34.3	96.6
SYN14-12_Run1- 94	429.7	8.8	440.8	12.2	499.2	58.4	429.7	8.8	86.1
SYN14-12_Run1- 95	1578.3	31.5	1569.0	21.7	1556.5	28.6	1556.5	28.6	101.4
SYN14-12_Run1- 96	1128.7	26.8	1133.6	23.7	1143.0	46.2	1143.0	46.2	98.7
SYN14-12_Run1- 97	1089.6	30.6	1110.0	28.4	1150.3	57.3	1150.3	57.3	94.7
SYN14-12_Run1- 98	1126.8	22.4	1163.8	22.2	1233.3	46.4	1233.3	46.4	91.4

SYN14-12_Run1- 99	1131.4	21.0	1133.9	17.1	1138.5	29.1	1138.5	29.1	99.4
SYN14-12_Run2- 111	980.7	28.9	986.1	21.4	997.9	24.3	997.9	24.3	98.3
SYN14-12_Run2- 112	419.2	17.4	420.5	19.2	427.8	79.5	419.2	17.4	98.0
SYN14-12_Run2- 113	808.2	17.8	838.9	18.4	921.2	45.3	808.2	17.8	87.7
SYN14-12_Run2- 114	1003.2	16.9	1007.6	14.7	1017.3	28.6	1017.3	28.6	98.6
SYN14-12_Run2- 115	1000.8	30.0	988.4	23.0	961.0	34.4	961.0	34.4	104.1
SYN14-12_Run2- 116	403.7	7.4	398.6	8.9	369.0	43.0	403.7	7.4	109.4
SYN14-12_Run2- 117	996.9	21.2	1018.3	20.1	1064.7	42.8	1064.7	42.8	93.6
SYN14-12_Run2- 118	1021.2	23.3	1025.6	20.0	1034.9	38.2	1034.9	38.2	98.7
SYN14-12_Run2- 119	1906.3	30.1	1929.5	20.7	1954.5	27.8	1954.5	27.8	97.5
SYN14-12_Run2- 120	1187.3	50.9	1212.5	36.7	1257.6	43.1	1257.6	43.1	94.4
SYN14-12_Run2- 121	1101.4	23.6	1093.8	18.2	1078.6	28.0	1078.6	28.0	102.1
SYN14-12_Run2- 123	1005.4	16.3	1015.4	15.9	1037.0	35.1	1037.0	35.1	96.9
SYN14-12_Run2- 126	1123.4	21.8	1133.2	20.2	1152.2	40.9	1152.2	40.9	97.5
SYN14-12_Run2- 127	1415.6	52.4	1439.1	32.8	1473.9	20.6	1473.9	20.6	96.0
SYN14-12_Run2- 128	989.2	20.9	1009.4	16.6	1053.6	25.2	1053.6	25.2	93.9
SYN14-12_Run2- 129	2296.2	48.3	2350.0	28.6	2397.0	31.7	2397.0	31.7	95.8
SYN14-12_Run2- 130	322.9	6.9	305.8	9.5	177.0	66.6	322.9	6.9	NA
SYN14-12_Run2- 131	2717.9	46.4	2739.0	25.5	2754.5	27.7	2754.5	27.7	98.7
SYN14-12_Run2- 132	1083.7	22.1	1092.6	17.7	1110.3	29.2	1110.3	29.2	97.6
SYN14-12_Run2- 133	1618.3	32.7	1622.6	21.1	1628.2	23.1	1628.2	23.1	99.4
SYN14-12_Run2- 134	415.1	10.4	416.0	13.6	421.0	67.8	415.1	10.4	98.6
SYN14-12_Run2- 135	989.6	16.0	990.4	16.5	992.2	39.5	992.2	39.5	99.7
SYN14-12_Run2- 137	981.4	29.4	999.6	24.7	1039.7	43.8	1039.7	43.8	94.4
SYN14-12_Run2- 138	561.6	18.1	570.1	21.1	604.3	75.1	561.6	18.1	92.9
SYN14-12_Run2- 139	367.7	8.6	368.2	10.4	371.2	53.2	367.7	8.6	NA
SYN14-12_Run2- 140	1208.2	26.8	1237.4	20.8	1288.6	31.0	1288.6	31.0	93.8
SYN14-12_Run2- 141	1677.4	61.9	1694.4	36.9	1715.5	29.1	1715.5	29.1	97.8
SYN14-12_Run2- 142	1070.0	32.5	1089.2	25.1	1128.0	35.6	1128.0	35.6	94.9
SYN14-12_Run2- 144	1405.6	48.6	1438.7	32.2	1488.0	31.0	1488.0	31.0	94.5
SYN14-12_Run2- 145	1041.4	24.1	1036.2	18.7	1025.2	29.0	1025.2	29.0	101.6
SYN14-12_Run2- 146	298.1	6.1	304.4	8.5	352.4	55.4	298.1	6.1	NA
SYN14-12_Run2- 147	1036.7	25.2	1055.5	21.1	1094.6	37.1	1094.6	37.1	94.7
SYN14-12_Run2- 148	1110.8	32.1	1133.7	22.7	1177.8	20.7	1177.8	20.7	94.3
SYN14-12_Run2- 149	2627.9	37.4	2660.9	19.5	2686.1	18.8	2686.1	18.8	97.8
SYN14-12_Run2- 150	590.3	14.6	601.7	18.6	644.8	68.6	590.3	14.6	91.5
SYN14-12_Run2- 151	408.4	5.6	411.0	7.3	425.8	36.0	408.4	5.6	95.9
SYN14-12_Run2- 152	1009.2	21.4	1022.1	19.7	1050.0	40.8	1050.0	40.8	96.1
SYN14-12_Run2- 153	1795.8	27.7	1791.9	21.8	1787.3	34.6	1787.3	34.6	100.5

SYN14-12_Run2- 155	397.9	7.6	401.0	8.3	419.2	33.8	397.9	7.6	NA
SYN14-12_Run2- 156	1004.1	23.4	1013.0	19.9	1032.3	36.7	1032.3	36.7	97.3
SYN14-12_Run2- 157	977.9	12.9	986.4	13.2	1005.2	31.0	1005.2	31.0	97.3
SYN14-12_Run2- 158	1129.1	34.6	1143.3	30.5	1170.2	57.9	1170.2	57.9	96.5
SYN14-12_Run2- 159	2669.2	37.7	2696.9	20.2	2717.6	20.7	2717.6	20.7	98.2
SYN14-12_Run2- 160	1138.5	31.3	1142.8	22.8	1150.9	28.7	1150.9	28.7	98.9
SYN14-12_Run2- 161	1050.4	16.0	1054.8	16.3	1064.0	37.2	1064.0	37.2	98.7
SYN14-12_Run2- 162	250.7	7.1	248.9	10.2	231.8	82.5	250.7	7.1	NA
SYN14-12_Run2- 163	1938.7	36.4	1943.8	21.1	1949.3	19.6	1949.3	19.6	99.5
SYN14-12_Run2- 164	1036.8	20.4	1028.7	17.2	1011.3	32.1	1011.3	32.1	102.5
SYN14-12_Run2- 177	862.4	27.7	911.8	25.5	1033.5	50.0	1033.5	50.0	83.4
SYN14-12_Run2- 178	446.3	10.3	452.1	14.0	482.1	66.0	446.3	10.3	92.6
SYN14-12_Run2- 179	2672.7	75.8	2731.5	35.8	2775.2	24.8	2775.2	24.8	96.3
SYN14-12_Run2- 180	1703.1	49.7	1702.3	31.3	1701.2	33.8	1701.2	33.8	100.1
SYN14-12_Run2- 181	1481.2	33.4	1617.4	23.6	1799.5	26.5	1799.5	26.5	82.3
SYN14-12_Run2- 182	2590.4	80.4	2672.0	40.0	2734.3	32.1	2734.3	32.1	94.7
SYN14-12_Run2- 183	1170.1	24.8	1189.3	19.8	1224.3	31.6	1224.3	31.6	95.6
SYN14-12_Run2- 184	441.1	12.5	435.9	13.1	408.6	50.8	441.1	12.5	107.9
SYN14-12_Run2- 185	664.4	13.6	721.4	14.7	902.8	38.7	664.4	13.6	73.6
SYN14-12_Run2- 186	1009.8	32.8	1007.2	27.0	1001.5	47.9	1001.5	47.9	100.8
SYN14-12_Run2- 187	1830.6	52.3	1873.3	31.0	1921.0	27.8	1921.0	27.8	95.3
SYN14-12_Run2- 188	1782.0	32.0	1767.9	20.6	1751.1	24.7	1751.1	24.7	101.8
SYN14-12_Run2- 189	1719.8	37.4	1719.9	25.3	1719.9	32.8	1719.9	32.8	100.0
SYN14-12_Run2- 190	1347.8	39.6	1351.1	27.3	1356.4	31.8	1356.4	31.8	99.4
SYN14-12_Run2- 191	1051.7	21.0	1055.3	17.1	1062.8	29.0	1062.8	29.0	99.0
SYN14-12_Run2- 192	1685.5	29.7	1706.6	18.9	1732.5	20.5	1732.5	20.5	97.3
SYN14-12_Run2- 193	1250.0	26.0	1224.4	21.9	1179.7	40.5	1179.7	40.5	106.0
SYN14-12_Run2- 194	1674.9	39.6	1709.2	28.4	1751.5	39.4	1751.5	39.4	95.6
SYN14-12_Run2- 196	905.8	21.6	928.1	19.6	981.4	40.0	981.4	40.0	92.3
SYN14-12_Run2- 197	1633.3	29.7	1639.4	22.6	1647.2	34.6	1647.2	34.6	99.2
SYN14-12_Run2- 198	617.4	10.4	609.6	10.9	580.7	34.2	617.4	10.4	106.3
SYN14-12_Run2- 200	1675.7	40.0	1679.2	25.1	1683.6	26.4	1683.6	26.4	99.5
SYN14-12_Run2- 201	1563.4	31.0	1572.3	20.3	1584.2	22.7	1584.2	22.7	98.7
SYN14-12_Run2- 202	272.1	6.3	277.7	7.1	324.5	39.4	272.1	6.3	NA
SYN14-12_Run2- 203	1525.4	27.6	1538.6	22.2	1556.7	36.3	1556.7	36.3	98.0
SYN14-12_Run2- 204	1034.5	28.2	1047.5	24.1	1074.7	44.3	1074.7	44.3	96.3
SYN14-12_Run2- 205	1379.6	46.1	1405.6	31.6	1445.3	35.5	1445.3	35.5	95.5
SYN14-12_Run2- 206	1830.5	57.9	1854.1	32.5	1880.7	20.9	1880.7	20.9	97.3
SYN14-12_Run2- 207	1461.3	38.8	1446.0	26.7	1423.4	34.0	1423.4	34.0	102.7



SYN14-12_Run2- 208	168.7	4.5	174.8	6.0	258.9	59.5	168.7	4.5	NA
SYN14-12_Run2- 209	1362.2	17.1	1380.5	14.3	1408.8	24.6	1408.8	24.6	96.7
SYN14-12_Run2- 210	348.1	8.4	348.1	9.3	348.2	44.0	348.1	8.4	NA
SYN14-12_Run2- 211	2505.6	71.1	2551.8	36.2	2588.7	30.4	2588.7	30.4	96.8
SYN14-12_Run2- 212	566.0	11.7	568.4	12.4	578.2	40.3	566.0	11.7	97.9
SYN14-12_Run2- 213	1854.2	83.7	1863.0	46.5	1872.9	29.4	1872.9	29.4	99.0
SYN14-12_Run2- 214	589.1	14.9	600.1	17.7	642.2	61.9	589.1	14.9	91.7
SYN14-12_Run2- 215	998.8	30.9	1003.2	22.8	1012.8	25.8	1012.8	25.8	98.6
SYN14-12_Run2- 216	1756.2	58.5	1742.8	34.0	1726.6	27.1	1726.6	27.1	101.7
SYN14-12_Run2- 217	1074.7	18.1	1081.0	18.9	1093.7	43.6	1093.7	43.6	98.3
SYN14-12_Run2- 218	960.9	15.8	974.5	14.0	1005.3	27.6	1005.3	27.6	95.6
SYN14-12_Run2- 219	1095.2	32.6	1105.4	24.4	1125.4	32.5	1125.4	32.5	97.3
SYN14-12_Run2- 220	1014.8	26.6	1030.8	20.8	1065.0	30.7	1065.0	30.7	95.3
SYN14-12_Run3- 221	2727.6	56.6	2788.0	27.7	2832.1	23.3	2832.1	23.3	96.3
SYN14-12_Run3- 222	1343.3	26.2	1349.0	18.7	1358.0	24.2	1358.0	24.2	98.9
SYN14-12_Run3- 223	1069.5	35.3	1066.6	25.7	1060.7	30.9	1060.7	30.9	100.8
SYN14-12_Run3- 224	2620.6	47.3	2718.8	23.2	2792.5	17.9	2792.5	17.9	93.8
SYN14-12_Run3- 225	525.0	10.6	524.8	10.0	524.0	27.0	525.0	10.6	100.2
SYN14-12_Run3- 226	1315.6	44.2	1314.3	30.3	1312.2	34.0	1312.2	34.0	100.3
SYN14-12_Run3- 227	1155.1	21.9	1183.9	18.6	1236.9	32.7	1236.9	32.7	93.4
SYN14-12_Run3- 228	311.1	12.0	300.7	17.4	220.5	124.6	311.1	12.0	NA
SYN14-12_Run3- 229	460.4	6.9	450.5	10.2	400.8	52.3	460.4	6.9	114.9
SYN14-12_Run3- 230	1005.6	20.1	1026.6	21.9	1071.8	52.4	1071.8	52.4	93.8
SYN14-12_Run3- 231	410.6	10.6	418.5	10.9	462.4	38.0	410.6	10.6	88.8
SYN14-12_Run3- 232	1141.7	17.9	1176.4	15.9	1240.8	29.7	1240.8	29.7	92.0
SYN14-12_Run3- 233	612.8	10.9	600.2	10.7	552.6	31.7	612.8	10.9	110.9
SYN14-12_Run3- 234	1305.0	64.2	1335.6	45.8	1384.9	55.6	1384.9	55.6	94.2
SYN14-12_Run3- 235	1133.8	29.8	1134.4	23.6	1135.4	38.4	1135.4	38.4	99.9
SYN14-12_Run3- 236	342.6	7.4	340.9	12.8	329.5	86.5	342.6	7.4	NA
SYN14-12_Run3- 237	1878.4	35.7	1876.1	21.9	1873.5	23.9	1873.5	23.9	100.3
SYN14-12_Run3- 238	1351.5	26.8	1356.2	21.3	1363.5	34.8	1363.5	34.8	99.1
SYN14-12_Run3- 239	1038.9	31.9	1043.7	22.9	1053.8	22.3	1053.8	22.3	98.6
SYN14-12_Run3- 240	1435.3	33.7	1432.5	23.4	1428.5	29.5	1428.5	29.5	100.5
SYN14-12_Run3- 241	1455.7	24.9	1479.4	18.3	1513.6	25.7	1513.6	25.7	96.2
SYN14-12_Run3- 242	1015.7	22.4	1025.3	18.5	1046.0	32.0	1046.0	32.0	97.1
SYN14-12_Run3- 243	998.8	29.9	993.6	26.1	982.2	52.1	982.2	52.1	101.7
SYN14-12_Run3- 244	312.7	12.7	308.0	12.8	272.5	55.7	312.7	12.7	NA
SYN14-12_Run3- 245	1068.5	34.1	1080.1	25.0	1103.6	29.4	1103.6	29.4	96.8
SYN14-12_Run3- 246	1430.2	39.1	1437.3	28.2	1447.8	38.8	1447.8	38.8	98.8

SYN14-12_Run3- 247	1362.1	25.8	1381.0	19.9	1410.3	30.6	1410.3	30.6	96.6
SYN14-12_Run3- 248	514.6	14.1	578.0	16.3	835.6	48.8	514.6	14.1	61.6
SYN14-12_Run3- 249	981.4	29.5	1002.8	37.1	1050.0	97.6	1050.0	97.6	93.5
SYN14-12_Run3- 250	1217.0	23.4	1226.6	21.3	1243.4	41.4	1243.4	41.4	97.9
SYN14-12_Run3- 251	459.9	8.7	460.0	9.3	460.7	35.1	459.9	8.7	99.8
SYN14-12_Run3- 252	2608.4	75.3	2609.6	35.7	2610.6	24.4	2610.6	24.4	99.9
SYN14-12_Run3- 253	1012.8	22.1	1009.3	19.3	1001.7	37.9	1001.7	37.9	101.1
SYN14-12_Run3- 254	1009.6	21.2	1019.9	16.7	1042.0	25.0	1042.0	25.0	96.9
SYN14-12_Run3- 255	1114.0	32.5	1082.6	23.7	1019.9	32.5	1019.9	32.5	109.2
SYN14-12_Run3- 256	1175.7	27.7	1129.0	20.7	1040.2	32.2	1040.2	32.2	113.0
SYN14-12_Run3- 266	1347.8	39.3	1338.8	27.0	1324.3	32.3	1324.3	32.3	101.8
SYN14-12_Run3- 267	1758.7	29.3	1774.2	20.2	1792.5	26.8	1792.5	26.8	98.1
SYN14-12_Run3- 268	949.8	19.5	939.3	16.3	914.8	30.5	914.8	30.5	103.8
SYN14-12_Run3- 269	1051.5	19.6	1065.8	16.3	1095.1	28.7	1095.1	28.7	96.0
SYN14-12_Run3- 270	2616.3	41.8	2646.8	23.5	2670.2	25.9	2670.2	25.9	98.0
SYN14-12_Run3- 271	351.0	14.6	344.8	14.5	303.1	58.1	351.0	14.6	NA
SYN14-12_Run3- 272	438.7	10.1	455.7	18.8	542.5	99.3	438.7	10.1	80.9
SYN14-12_Run3- 273	750.2	14.2	808.2	13.8	971.3	29.9	750.2	14.2	77.2
SYN14-12_Run3- 274	1386.2	21.4	1412.9	16.1	1453.4	23.4	1453.4	23.4	95.4
SYN14-12_Run3- 275	1005.7	15.6	998.7	14.4	983.4	31.2	983.4	31.2	102.3
SYN14-12_Run3- 276	1187.2	17.4	1185.5	15.2	1182.4	29.0	1182.4	29.0	100.4
SYN14-12_Run3- 277	1329.2	60.2	1334.8	39.7	1343.7	35.8	1343.7	35.8	98.9
SYN14-12_Run3- 278	1694.8	54.3	1689.1	31.9	1682.0	24.3	1682.0	24.3	100.8
SYN14-12_Run3- 279	997.6	24.1	997.9	20.0	998.5	35.5	998.5	35.5	99.9
SYN14-12_Run3- 280	1437.2	28.9	1446.5	23.1	1460.1	37.7	1460.1	37.7	98.4
SYN14-12_Run3- 281	429.7	8.3	427.7	11.8	417.1	60.8	429.7	8.3	103.0
SYN14-12_Run3- 282	2713.6	47.7	2720.4	24.1	2725.5	22.3	2725.5	22.3	99.6
SYN14-12_Run3- 283	1028.4	25.0	1049.0	22.6	1092.3	44.9	1092.3	44.9	94.1
SYN14-12_Run3- 284	458.8	12.6	453.7	11.6	428.0	31.5	458.8	12.6	107.2
SYN14-12_Run3- 285	1416.3	29.3	1430.7	20.7	1452.0	26.7	1452.0	26.7	97.5
SYN14-12_Run3- 286	593.2	9.9	582.0	9.8	538.5	29.9	593.2	9.9	110.2
SYN14-12_Run3- 287	1612.8	33.1	1617.2	23.7	1622.9	33.2	1622.9	33.2	99.4
SYN14-12_Run3- 288	1062.6	26.3	1038.5	23.6	988.3	49.6	988.3	49.6	107.5
SYN14-12_Run3- 289	974.2	20.3	1004.2	16.9	1070.2	28.5	1070.2	28.5	91.0
SYN14-12_Run3- 290	1867.7	37.3	1884.2	21.9	1902.4	20.0	1902.4	20.0	98.2
SYN14-12_Run3- 291	945.6	35.8	958.7	26.4	988.8	25.2	988.8	25.2	95.6
SYN14-12_Run3- 292	1052.4	23.0	1024.7	27.7	966.1	73.2	966.1	73.2	108.9
SYN14-12_Run3- 293	1131.8	23.4	1139.4	17.6	1153.9	24.1	1153.9	24.1	98.1
SYN14-12_Run3- 294	1094.9	40.7	1097.3	29.3	1101.9	33.2	1101.9	33.2	99.4

SYN14-12_Run3- 295	1020.1	21.1	1043.8	19.8	1093.7	41.3	1093.7	41.3	93.3
SYN14-12_Run3- 296	1425.1	52.3	1423.3	33.2	1420.5	27.9	1420.5	27.9	100.3
SYN14-12_Run3- 297	1050.3	22.4	1050.9	19.8	1052.3	39.4	1052.3	39.4	99.8
SYN14-12_Run3- 299	1118.1	29.4	1132.9	21.4	1161.2	25.3	1161.2	25.3	96.3
SYN14-12_Run3- 300	1036.5	17.7	1031.0	16.0	1019.2	33.3	1019.2	33.3	101.7
SYN14-12_Run3- 301	1051.5	27.3	1046.9	19.8	1037.3	22.4	1037.3	22.4	101.4
SYN14-12_Run3- 302	2301.8	41.0	2409.8	23.1	2502.3	22.7	2502.3	22.7	92.0
SYN14-12_Run3- 303	436.0	8.0	444.1	13.2	486.4	69.3	436.0	8.0	89.6
SYN14-12_Run3- 304	2391.0	73.0	2478.6	36.0	2551.2	21.8	2551.2	21.8	93.7
SYN14-12_Run3- 305	1445.6	32.4	1563.7	27.1	1726.9	42.3	1726.9	42.3	83.7
SYN14-12_Run3- 306	411.9	8.1	411.9	9.5	412.2	43.1	411.9	8.1	99.9
SYN14-12_Run3- 307	1009.8	20.5	1019.7	18.0	1041.1	35.0	1041.1	35.0	97.0
SYN14-12_Run3- 308	993.5	21.6	984.2	23.2	963.7	58.1	963.7	58.1	103.1
SYN14-12_Run3- 309	1951.1	32.7	1967.6	24.4	1984.9	36.2	1984.9	36.2	98.3
SYN14-12_Run3- 310	966.0	21.8	989.0	23.3	1040.3	56.1	1040.3	56.1	92.9
SYN14-12_Run3- 311	1444.9	25.5	1476.5	18.5	1522.1	25.1	1522.1	25.1	94.9
SYN14-12_Run3- 312	1304.3	23.6	1318.7	21.1	1342.3	39.6	1342.3	39.6	97.2
SYN14-12_Run3- 313	983.4	22.8	986.2	19.5	992.5	37.0	992.5	37.0	99.1
SYN14-12_Run3- 314	1196.5	25.4	1191.9	19.3	1183.4	29.3	1183.4	29.3	101.1
SYN14-12_Run3- 315	1033.5	24.6	1066.9	25.8	1135.9	58.5	1135.9	58.5	91.0
SYN14-12_Run3- 316	994.2	20.6	1022.4	18.9	1083.3	38.2	1083.3	38.2	91.8
SYN14-12_Run3- 317	1882.3	37.6	1867.1	24.5	1850.2	30.9	1850.2	30.9	101.7
SYN14-12_Run3- 318	422.0	5.9	426.3	10.2	449.8	57.0	422.0	5.9	93.8
SYN14-12_Run3- 319	343.3	9.2	340.6	9.7	322.3	42.9	343.3	9.2	NA
SYN14-12_Run3- 320	1806.0	41.5	1819.7	25.4	1835.4	26.2	1835.4	26.2	98.4
SYN14-12_Run3- 321	308.2	8.0	313.8	10.4	355.4	62.5	308.2	8.0	NA
SYN14-12_Run3- 322	961.2	16.3	953.1	14.9	934.6	32.3	934.6	32.3	102.8
SYN14-12_Run3- 323	1048.1	38.7	1054.9	29.5	1069.0	40.9	1069.0	40.9	98.0
SYN14-12_Run3- 324	1408.3	43.3	1430.7	31.3	1464.2	42.2	1464.2	42.2	96.2
SYN14-12_Run3- 326	1166.1	17.9	1164.1	17.3	1160.5	36.7	1160.5	36.7	100.5
SYN14-12_Run3- 327	994.6	17.8	1010.2	16.1	1044.4	32.7	1044.4	32.7	95.2
SYN14-12_Run3- 328	1864.7	70.9	1888.9	40.8	1915.6	33.2	1915.6	33.2	97.3
SYN14-12_Run3- 329	2659.6	48.2	2685.9	24.7	2705.7	23.2	2705.7	23.2	98.3
SYN14-12_Run3- 330	1452.7	28.5	1446.7	20.1	1437.8	27.2	1437.8	27.2	101.0

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)

SYN14-13_Run1- 1	230.2	4.6	238.4	6.2	320.1	48.0	230.2	4.6	NA
SYN14-13_Run1- 73	113.4	2.2	115.8	5.4	166.1	106.3	113.4	2.2	NA
SYN14-13_Run2- 215	113.9	3.1	114.0	4.9	114.8	86.4	113.9	3.1	NA
SYN14-13_Run2- 212	114.4	3.8	122.2	7.6	276.9	129.3	114.4	3.8	NA
SYN14-13_Run2- 116	115.9	1.9	117.9	3.0	158.2	50.3	115.9	1.9	NA
SYN14-13_Run1- 76	116.2	3.1	122.7	7.4	250.6	133.4	116.2	3.1	NA
SYN14-13_Run1- 64	116.5	3.1	116.9	5.3	125.2	94.2	116.5	3.1	NA
SYN14-13_Run2- 131	117.0	2.4	117.4	3.9	125.5	67.3	117.0	2.4	NA
SYN14-13_Run2- 132	118.6	2.6	116.6	5.2	75.5	99.0	118.6	2.6	NA
SYN14-13_Run2- 119	119.9	1.9	117.8	4.1	75.7	80.0	119.9	1.9	NA
SYN14-13_Run1- 6	164.2	4.2	205.2	17.8	706.9	196.6	164.2	4.2	NA
SYN14-13_Run1- 68	166.2	4.9	167.4	6.0	184.8	57.3	166.2	4.9	NA
SYN14-13_Run1- 86	176.4	4.3	213.1	8.4	642.1	76.5	176.4	4.3	NA
SYN14-13_Run1- 96	217.3	5.0	216.4	6.8	206.2	59.8	217.3	5.0	NA
SYN14-13_Run1- 43	291.8	5.3	301.2	10.1	374.6	76.8	291.8	5.3	NA
SYN14-13_Run1- 79	328.5	6.3	333.4	7.4	368.2	38.8	328.5	6.3	NA
SYN14-13_Run1- 71	370.3	13.7	435.9	15.5	799.4	45.3	370.3	13.7	NA
SYN14-13_Run1- 74	371.5	27.8	700.0	42.6	1976.2	59.6	371.5	27.8	NA
SYN14-13_Run2- 169	384.2	10.4	407.1	14.1	539.2	68.9	384.2	10.4	NA
SYN14-13_Run2- 111	395.2	8.6	393.5	10.7	383.8	54.1	395.2	8.6	NA
SYN14-13_Run2- 170	398.7	9.2	401.7	11.1	419.0	52.8	398.7	9.2	NA
SYN14-13_Run1- 3	417.5	12.4	424.6	12.4	463.0	40.7	417.5	12.4	90.2
SYN14-13_Run1- 53	421.8	25.4	425.6	22.7	445.9	45.2	421.8	25.4	94.6
SYN14-13_Run1- 84	428.2	9.2	425.1	10.9	408.2	49.5	428.2	9.2	104.9
SYN14-13_Run1- 7	428.7	7.7	427.7	9.6	422.5	44.8	428.7	7.7	101.5
SYN14-13_Run1- 91	466.3	9.0	466.6	11.7	468.0	53.0	466.3	9.0	99.6
SYN14-13_Run1- 18	487.0	10.2	491.3	10.5	511.4	34.9	487.0	10.2	95.2
SYN14-13_Run2- 204	496.0	7.4	512.3	9.5	585.7	38.4	496.0	7.4	84.7
SYN14-13_Run1- 98	505.7	9.4	521.1	10.5	589.3	37.2	505.7	9.4	85.8
SYN14-13_Run1- 21	513.8	11.5	528.5	15.7	592.4	65.6	513.8	11.5	86.7
SYN14-13_Run1- 34	518.3	9.5	540.2	19.2	633.7	90.0	518.3	9.5	81.8
SYN14-13_Run2- 123	528.4	11.0	530.3	12.2	538.3	44.2	528.4	11.0	98.2
SYN14-13_Run1- 82	545.7	9.0	550.4	10.3	570.1	37.3	545.7	9.0	95.7
SYN14-13_Run1- 101	556.1	9.3	563.2	10.6	591.8	37.4	556.1	9.3	94.0
SYN14-13_Run2- 202	561.6	8.0	560.0	12.7	553.3	55.8	561.6	8.0	101.5
SYN14-13_Run2- 220	581.0	11.7	606.8	13.8	704.4	46.3	581.0	11.7	82.5
SYN14-13_Run2- 113	582.0	10.8	586.3	12.5	602.9	43.6	582.0	10.8	96.5
SYN14-13_Run1- 63	589.7	8.8	605.3	11.7	664.4	43.9	589.7	8.8	88.8
SYN14-13_Run1- 41	593.8	13.5	598.4	12.8	616.0	33.1	593.8	13.5	96.4

SYN14-13_Run2- 213	600.3	11.4	605.9	13.0	626.6	44.1	600.3	11.4	95.8
SYN14-13_Run2- 128	603.1	10.6	597.1	13.5	574.5	51.1	603.1	10.6	105.0
SYN14-13_Run2- 196	611.6	15.2	609.1	17.5	599.7	60.9	611.6	15.2	102.0
SYN14-13_Run1- 100	646.3	10.6	659.9	12.5	706.6	40.4	646.3	10.6	91.5
SYN14-13_Run2- 199	834.5	16.1	842.9	16.8	865.1	43.3	834.5	16.1	96.5
SYN14-13_Run1- 17	920.8	16.9	916.7	15.0	906.6	31.5	906.6	31.5	101.6
SYN14-13_Run2- 146	928.6	16.5	939.1	15.9	963.8	36.0	963.8	36.0	96.4
SYN14-13_Run2- 124	953.8	20.4	963.7	20.4	986.5	47.8	986.5	47.8	96.7
SYN14-13_Run1- 36	1020.3	15.8	1010.6	18.0	989.5	46.1	989.5	46.1	103.1
SYN14-13_Run1- 48	983.3	22.8	991.3	19.3	1009.1	35.1	1009.1	35.1	97.4
SYN14-13_Run2- 141	1066.0	27.6	1058.7	26.0	1043.6	56.1	1043.6	56.1	102.2
SYN14-13_Run2- 179	1058.3	28.9	1055.4	23.1	1049.4	38.6	1049.4	38.6	100.8
SYN14-13_Run2- 158	1064.5	20.3	1060.3	17.8	1051.8	35.2	1051.8	35.2	101.2
SYN14-13_Run2- 125	1029.7	22.2	1043.7	19.7	1073.1	38.6	1073.1	38.6	96.0
SYN14-13_Run1- 95	1070.3	10.0	1078.7	12.3	1095.7	30.8	1095.7	30.8	97.7
SYN14-13_Run1- 67	1059.7	24.6	1074.5	26.2	1104.8	61.0	1104.8	61.0	95.9
SYN14-13_Run1- 75	1086.0	31.0	1096.2	23.3	1116.3	31.0	1116.3	31.0	97.3
SYN14-13_Run1- 54	952.3	19.6	1003.3	17.4	1116.6	32.0	1116.6	32.0	85.3
SYN14-13_Run2- 164	1123.7	27.5	1122.8	21.6	1121.1	34.2	1121.1	34.2	100.2
SYN14-13_Run2- 218	1063.7	22.5	1083.6	17.7	1123.9	26.5	1123.9	26.5	94.6
SYN14-13_Run1- 107	1066.1	17.3	1089.3	15.2	1136.1	28.8	1136.1	28.8	93.8
SYN14-13_Run1- 49	1054.1	20.6	1083.3	17.6	1142.6	31.5	1142.6	31.5	92.3
SYN14-13_Run1- 27	1099.5	40.1	1114.2	28.5	1143.1	28.0	1143.1	28.0	96.2
SYN14-13_Run1- 42	1123.5	19.1	1130.7	15.4	1144.5	25.5	1144.5	25.5	98.2
SYN14-13_Run1- 14	1023.7	25.5	1064.2	20.6	1148.3	31.5	1148.3	31.5	89.1
SYN14-13_Run2- 150	1117.4	19.1	1128.8	21.3	1150.7	49.7	1150.7	49.7	97.1
SYN14-13_Run2- 217	1164.9	20.4	1164.0	16.6	1162.3	28.5	1162.3	28.5	100.2
SYN14-13_Run2- 154	1117.3	33.9	1133.8	24.6	1165.6	28.3	1165.6	28.3	95.9
SYN14-13_Run2- 167	1108.2	19.1	1130.6	16.7	1173.9	30.9	1173.9	30.9	94.4
SYN14-13_Run1- 97	1180.3	20.7	1186.5	17.7	1197.8	32.7	1197.8	32.7	98.5
SYN14-13_Run2- 208	1156.0	28.9	1172.3	24.2	1202.5	42.7	1202.5	42.7	96.1
SYN14-13_Run1- 105	1218.9	24.4	1214.5	20.8	1206.5	38.4	1206.5	38.4	101.0
SYN14-13_Run1- 16	1224.0	27.0	1218.7	20.8	1209.3	32.6	1209.3	32.6	101.2
SYN14-13_Run1- 77	1222.3	20.0	1218.5	14.3	1211.7	18.0	1211.7	18.0	100.9
SYN14-13_Run2- 183	1012.5	33.9	1083.0	27.3	1227.7	37.7	1227.7	37.7	82.5
SYN14-13_Run1- 104	1241.9	27.1	1244.5	19.4	1248.9	24.4	1248.9	24.4	99.4
SYN14-13_Run1- 30	1273.5	31.8	1266.3	23.4	1254.1	32.9	1254.1	32.9	101.5
SYN14-13_Run2- 174	1204.7	39.2	1225.6	28.1	1262.5	33.2	1262.5	33.2	95.4
SYN14-13_Run1- 59	1092.7	43.7	1155.5	30.9	1275.2	21.0	1275.2	21.0	85.7

SYN14-13_Run1- 45	1240.6	29.7	1257.3	20.4	1286.0	20.5	1286.0	20.5	96.5
SYN14-13_Run1- 35	1211.0	19.9	1239.6	17.7	1289.5	33.2	1289.5	33.2	93.9
SYN14-13_Run2- 191	1153.2	24.1	1206.0	18.9	1301.7	27.2	1301.7	27.2	88.6
SYN14-13_Run1- 66	1307.6	23.9	1307.5	20.4	1307.3	37.0	1307.3	37.0	100.0
SYN14-13_Run2- 161	1309.5	42.5	1309.3	33.9	1309.0	56.1	1309.0	56.1	100.0
SYN14-13_Run1- 69	1309.3	28.8	1312.6	22.4	1318.1	35.3	1318.1	35.3	99.3
SYN14-13_Run2- 149	1291.0	22.7	1303.6	16.7	1324.4	23.2	1324.4	23.2	97.5
SYN14-13_Run1- 37	1211.9	28.5	1261.3	25.2	1346.6	45.5	1346.6	45.5	90.0
SYN14-13_Run2- 209	1267.4	27.6	1298.5	21.4	1350.1	32.5	1350.1	32.5	93.9
SYN14-13_Run2- 151	1394.2	20.0	1377.4	15.8	1351.4	26.3	1351.4	26.3	103.2
SYN14-13_Run2- 112	1391.6	43.8	1381.9	31.9	1366.9	45.4	1366.9	45.4	101.8
SYN14-13_Run1- 13	1406.9	24.6	1402.5	17.9	1395.8	25.4	1395.8	25.4	100.8
SYN14-13_Run2- 133	1358.8	39.6	1376.2	26.0	1403.3	22.8	1403.3	22.8	96.8
SYN14-13_Run1- 89	1396.7	33.7	1401.4	24.6	1408.4	34.7	1408.4	34.7	99.2
SYN14-13_Run1- 20	1366.7	25.2	1384.4	18.5	1411.6	25.8	1411.6	25.8	96.8
SYN14-13_Run2- 152	1349.1	33.3	1379.2	23.0	1426.0	25.7	1426.0	25.7	94.6
SYN14-13_Run1- 92	1462.1	18.4	1462.6	17.8	1463.3	34.3	1463.3	34.3	99.9
SYN14-13_Run1- 38	1295.1	43.1	1363.1	31.8	1471.4	40.2	1471.4	40.2	88.0
SYN14-13_Run1- 99	1502.3	54.1	1492.4	32.9	1478.3	22.0	1478.3	22.0	101.6
SYN14-13_Run2- 184	1331.0	26.4	1394.1	19.7	1492.0	26.4	1492.0	26.4	89.2
SYN14-13_Run1- 58	1498.0	27.8	1496.6	20.9	1494.6	31.5	1494.6	31.5	100.2
SYN14-13_Run2- 180	1482.8	28.8	1489.0	19.7	1497.9	24.4	1497.9	24.4	99.0
SYN14-13_Run2- 211	1494.1	24.1	1500.2	19.4	1508.7	31.9	1508.7	31.9	99.0
SYN14-13_Run1- 33	1536.8	25.1	1526.4	17.7	1511.9	24.2	1511.9	24.2	101.6
SYN14-13_Run2- 166	1438.7	34.1	1477.6	23.6	1533.9	28.1	1533.9	28.1	93.8
SYN14-13_Run1- 55	1524.0	30.0	1531.8	22.9	1542.6	35.3	1542.6	35.3	98.8
SYN14-13_Run1- 93	1382.0	21.4	1447.2	17.1	1544.3	26.5	1544.3	26.5	89.5
SYN14-13_Run1- 65	1489.9	29.3	1515.5	23.4	1551.4	37.6	1551.4	37.6	96.0
SYN14-13_Run2- 172	1419.0	60.9	1475.4	39.6	1557.5	33.1	1557.5	33.1	91.1
SYN14-13_Run2- 118	1342.0	28.6	1432.2	23.6	1568.8	36.9	1568.8	36.9	85.5
SYN14-13_Run1- 24	1411.0	27.1	1476.3	23.7	1571.4	40.7	1571.4	40.7	89.8
SYN14-13_Run2- 138	1285.7	31.6	1405.7	22.2	1592.6	19.7	1592.6	19.7	80.7
SYN14-13_Run1- 70	1561.0	42.4	1576.2	27.5	1596.5	29.1	1596.5	29.1	97.8
SYN14-13_Run2- 144	1583.8	64.6	1592.9	38.2	1604.9	21.9	1604.9	21.9	98.7
SYN14-13_Run1- 90	1590.7	28.5	1597.3	20.1	1605.9	27.5	1605.9	27.5	99.1
SYN14-13_Run2- 176	1583.9	21.6	1594.8	16.7	1609.3	26.1	1609.3	26.1	98.4
SYN14-13_Run2- 203	1584.0	29.7	1596.7	22.5	1613.5	34.3	1613.5	34.3	98.2
SYN14-13_Run2- 186	1618.8	37.9	1619.9	24.4	1621.4	26.7	1621.4	26.7	99.8
SYN14-13_Run2- 159	1418.7	20.4	1503.5	15.9	1625.2	23.2	1625.2	23.2	87.3

SYN14-13_Run1- 31	1320.9	29.6	1444.6	21.8	1631.5	25.4	1631.5	25.4	81.0
SYN14-13_Run2- 163	1601.7	40.4	1614.7	24.4	1631.6	18.4	1631.6	18.4	98.2
SYN14-13_Run2- 122	1661.3	36.8	1648.7	23.6	1632.6	26.6	1632.6	26.6	101.8
SYN14-13_Run2- 147	1607.4	27.9	1618.4	20.4	1632.8	29.2	1632.8	29.2	98.4
SYN14-13_Run1- 81	1613.8	21.0	1622.5	17.3	1633.8	28.7	1633.8	28.7	98.8
SYN14-13_Run2- 194	1627.1	30.0	1630.3	21.2	1634.5	29.3	1634.5	29.3	99.6
SYN14-13_Run1- 5	1618.7	44.0	1625.6	27.6	1634.6	27.2	1634.6	27.2	99.0
SYN14-13_Run1- 32	1639.6	21.6	1639.3	16.7	1638.9	26.2	1638.9	26.2	100.0
SYN14-13_Run2- 156	1603.1	32.0	1619.5	22.1	1641.0	28.5	1641.0	28.5	97.7
SYN14-13_Run1- 80	1639.4	28.3	1641.7	21.8	1644.7	33.8	1644.7	33.8	99.7
SYN14-13_Run1- 4	1498.7	73.5	1563.0	45.1	1650.9	24.5	1650.9	24.5	90.8
SYN14-13_Run1- 106	1639.9	25.6	1645.1	17.6	1651.8	23.1	1651.8	23.1	99.3
SYN14-13_Run2- 187	1379.9	23.7	1491.4	17.6	1653.7	22.0	1653.7	22.0	83.4
SYN14-13_Run2- 115	1617.0	20.9	1633.6	17.7	1654.9	30.0	1654.9	30.0	97.7
SYN14-13_Run2- 121	1648.2	34.1	1659.0	22.7	1672.8	27.8	1672.8	27.8	98.5
SYN14-13_Run2- 173	1542.7	25.4	1598.6	16.9	1673.0	18.5	1673.0	18.5	92.2
SYN14-13_Run2- 157	1494.4	55.7	1572.8	35.0	1679.5	24.5	1679.5	24.5	89.0
SYN14-13_Run2- 136	1568.8	31.1	1617.0	25.9	1680.3	42.3	1680.3	42.3	93.4
SYN14-13_Run2- 137	1447.0	48.5	1554.0	31.9	1702.6	26.7	1702.6	26.7	85.0
SYN14-13_Run2- 160	1645.2	39.7	1671.3	25.3	1704.3	26.4	1704.3	26.4	96.5
SYN14-13_Run2- 219	1712.8	23.2	1709.6	18.3	1705.6	29.2	1705.6	29.2	100.4
SYN14-13_Run2- 205	1389.1	23.1	1521.4	20.0	1710.6	32.0	1710.6	32.0	81.2
SYN14-13_Run1- 52	1730.9	61.4	1723.1	35.5	1713.6	25.7	1713.6	25.7	101.0
SYN14-13_Run2- 162	1698.1	29.3	1705.6	18.6	1714.8	20.4	1714.8	20.4	99.0
SYN14-13_Run2- 140	1654.4	28.6	1682.1	19.4	1716.8	24.0	1716.8	24.0	96.4
SYN14-13_Run1- 10	1732.9	36.2	1735.7	23.4	1739.0	27.6	1739.0	27.6	99.6
SYN14-13_Run1- 102	1551.0	61.1	1642.5	38.6	1761.6	30.4	1761.6	30.4	88.0
SYN14-13_Run2- 185	1686.8	34.7	1721.6	21.9	1764.2	22.4	1764.2	22.4	95.6
SYN14-13_Run1- 85	1726.0	33.1	1745.1	21.2	1768.0	24.0	1768.0	24.0	97.6
SYN14-13_Run2- 206	1777.8	34.3	1777.6	21.7	1777.3	24.5	1777.3	24.5	100.0
SYN14-13_Run1- 57	1789.9	30.3	1791.6	19.8	1793.5	24.2	1793.5	24.2	99.8
SYN14-13_Run1- 108	1782.9	27.1	1793.3	19.6	1805.3	28.1	1805.3	28.1	98.8
SYN14-13_Run2- 142	1749.9	40.8	1782.1	24.2	1820.0	19.7	1820.0	19.7	96.1
SYN14-13_Run2- 171	1510.6	17.4	1652.4	13.2	1837.8	17.7	1837.8	17.7	82.2
SYN14-13_Run2- 189	1821.5	45.5	1834.8	27.4	1849.8	26.8	1849.8	26.8	98.5
SYN14-13_Run2- 192	1801.8	35.7	1824.7	23.2	1850.9	27.8	1850.9	27.8	97.3
SYN14-13_Run2- 210	1551.9	28.1	1696.2	19.4	1879.5	21.4	1879.5	21.4	82.6
SYN14-13_Run1- 61	1847.1	28.3	1869.0	20.5	1893.4	29.4	1893.4	29.4	97.6
SYN14-13_Run2- 200	1709.0	21.8	1805.5	17.3	1918.7	25.9	1918.7	25.9	89.1

SYN14-13_Run1- 9	1910.8	26.6	1935.9	17.6	1962.7	22.3	1962.7	22.3	97.4
SYN14-13_Run2- 182	1843.2	32.2	1910.5	22.5	1984.4	29.7	1984.4	29.7	92.9
SYN14-13_Run1- 103	1935.6	42.1	1961.5	25.0	1988.9	24.7	1988.9	24.7	97.3
SYN14-13_Run2- 214	1899.6	35.4	1945.4	22.9	1994.6	27.3	1994.6	27.3	95.2
SYN14-13_Run2- 120	2054.7	28.7	2041.0	17.2	2027.2	19.0	2027.2	19.0	101.4
SYN14-13_Run1- 109	2217.2	40.3	2197.6	22.7	2179.3	22.9	2179.3	22.9	101.7
SYN14-13_Run2- 175	2025.7	37.7	2137.8	22.0	2247.4	20.1	2247.4	20.1	90.1
SYN14-13_Run1- 40	1879.6	63.6	2078.0	35.3	2280.8	14.2	2280.8	14.2	82.4
SYN14-13_Run1- 44	2243.2	37.4	2267.0	23.5	2288.5	29.1	2288.5	29.1	98.0
SYN14-13_Run1- 12	2528.5	50.8	2523.7	29.6	2519.8	34.5	2519.8	34.5	100.3
SYN14-13_Run2- 135	2360.9	34.6	2484.2	21.2	2586.6	24.6	2586.6	24.6	91.3
SYN14-13_Run1- 83	2492.4	43.0	2593.6	22.3	2673.7	19.3	2673.7	19.3	93.2
SYN14-13_Run2- 168	2582.2	46.2	2635.7	24.4	2677.0	23.7	2677.0	23.7	96.5
SYN14-13_Run2- 201	2639.5	49.6	2669.1	24.4	2691.6	20.1	2691.6	20.1	98.1
SYN14-13_Run2- 127	2681.5	46.4	2694.8	25.6	2704.7	27.9	2704.7	27.9	99.1
SYN14-13_Run2- 153	2682.2	61.2	2700.8	29.9	2714.8	24.5	2714.8	24.5	98.8
SYN14-13_Run2- 129	2579.8	92.5	2663.2	42.1	2727.1	16.4	2727.1	16.4	94.6
SYN14-13_Run1- 11	2883.5	67.7	2860.9	30.9	2845.0	22.8	2845.0	22.8	101.4
SYN14-13_Run2- 197	2794.1	36.9	2831.4	20.6	2858.1	23.1	2858.1	23.1	97.8
SYN14-13_Run2- 181	2662.9	39.5	2783.7	19.5	2872.4	15.6	2872.4	15.6	92.7
SYN14-13_Run1- 56	2709.2	78.2	2882.8	35.6	3006.5	19.0	3006.5	19.0	90.1
SYN14-13_Run1- 51	3078.2	53.6	3219.7	27.0	3309.1	26.7	3309.1	26.7	93.0

Analysis	206Pb*	±	207Pb*	±	206Pb*	±	Best age	±	Conc
	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(Ma)	(Ma)	(%)
SYN14-14 Run1- 2 - 58	305.7	6.8	307.1	9.5	317.5	62.7	305.7	6.8	NA
SYN14-14 Run1- 2 - 86	316.4	7.8	320.3	10.9	348.7	69.1	316.4	7.8	NA
SYN14-14 Run1-1- 42	317.4	6.9	331.2	9.6	428.6	57.8	317.4	6.9	NA
SYN14-14 Run1-1- 18	330.4	20.6	362.3	23.0	571.9	87.2	330.4	20.6	NA
SYN14-14 Run1- 2 - 63	334.3	7.1	319.9	10.6	215.9	74.1	334.3	7.1	NA
SYN14-14 Run1- 2 - 64	342.7	6.5	344.3	6.6	355.4	24.6	342.7	6.5	NA
SYN14-14 Run1- 2 - 72	346.2	7.5	351.9	15.3	389.8	104.6	346.2	7.5	NA
SYN14-14 Run1- 2 - 85	409.0	7.2	414.6	8.7	445.9	39.8	409.0	7.2	91.7



SYN14-14 Run1-1- 17	423.8	8.8	434.1	12.4	489.0	60.8	423.8	8.8	86.7
SYN14-14 Run1- 2 - 53	515.6	14.2	619.0	33.1	1018.0	132.5	515.6	14.2	50.6
SYN14-14 Run1- 2 - 67	516.0	10.1	521.7	13.1	546.7	54.4	516.0	10.1	94.4
SYN14-14 Run1- 2 - 80	531.4	10.9	525.8	13.0	502.0	51.5	531.4	10.9	105.8
SYN14-14 Run1- 2 - 69	544.0	6.7	575.5	14.6	702.3	65.2	544.0	6.7	77.5
SYN14-14 Run1- 2 - 98	545.6	10.0	552.6	15.5	581.6	67.2	545.6	10.0	93.8
SYN14-14 Run1- 2 - 77	567.2	8.6	566.6	8.2	564.4	22.7	567.2	8.6	100.5
SYN14-14 Run1-1- 6	569.4	12.4	581.2	15.4	627.7	56.6	569.4	12.4	90.7
SYN14-14 Run1- 2 - 96	586.0	13.1	577.1	14.8	542.0	52.6	586.0	13.1	108.1
SYN14-14 Run1-1- 10	598.4	10.2	601.7	13.5	614.1	51.1	598.4	10.2	97.4
SYN14-14 Run1- 2 - 83	599.7	8.8	603.4	11.0	617.5	40.4	599.7	8.8	97.1
SYN14-14 Run1-1- 45	623.9	20.2	656.2	24.5	768.9	79.4	623.9	20.2	81.1
SYN14-14 Run1-1- 7	630.9	9.9	635.2	10.3	650.9	30.4	630.9	9.9	96.9
SYN14-14 Run1- 2 - 62	856.4	18.7	872.9	15.7	915.0	27.4	856.4	18.7	93.6
SYN14-14 Run1-1- 9	969.9	14.6	961.6	19.5	942.4	55.0	942.4	55.0	102.9
SYN14-14 Run1- 2 - 65	965.6	42.7	971.1	31.6	983.7	34.6	983.7	34.6	98.2
SYN14-14 Run1- 2 - 75	943.2	24.4	956.7	18.8	987.7	24.6	987.7	24.6	95.5
SYN14-14 Run1- 2 - 91	942.3	16.5	959.4	14.6	998.7	28.3	998.7	28.3	94.4
SYN14-14 Run1-1- 15	932.2	15.8	959.2	21.9	1021.7	61.2	1021.7	61.2	91.2
SYN14-14 Run1- 2 - 78	1012.0	17.0	1015.3	18.6	1022.5	45.5	1022.5	45.5	99.0
SYN14-14 Run1-1- 3	1029.8	26.5	1029.9	25.9	1030.1	58.4	1030.1	58.4	100.0
SYN14-14 Run1- 2 - 84	940.6	18.7	973.5	19.4	1048.4	45.1	1048.4	45.1	89.7
SYN14-14 Run1- 2 - 60	1017.2	34.7	1030.9	26.3	1060.2	34.2	1060.2	34.2	95.9
SYN14-14 Run1- 2 - 92	1013.6	18.0	1039.1	19.7	1093.2	47.0	1093.2	47.0	92.7
SYN14-14 Run1- 2 - 66	1017.0	31.8	1042.2	24.4	1095.5	32.7	1095.5	32.7	92.8
SYN14-14 Run1-1- 5	1070.4	19.9	1079.0	22.2	1096.5	53.2	1096.5	53.2	97.6
SYN14-14 Run1-1- 4	1147.4	17.6	1147.6	16.0	1147.8	32.2	1147.8	32.2	100.0
SYN14-14 Run1- 2 -	1131.7	16.0	1142.9	20.1	1164.0	49.6	1164.0	49.6	97.2

61									
SYN14-14 Run1-1- 41	1203.0	18.9	1199.7	17.9	1193.6	37.0	1193.6	37.0	100.8
SYN14-14 Run1-1- 13	1338.5	20.0	1332.2	15.9	1322.1	26.6	1322.1	26.6	101.2
SYN14-14 Run1-1- 12	1240.2	36.6	1278.3	25.5	1343.0	26.2	1343.0	26.2	92.3
SYN14-14 Run1- 2 - 87	1299.7	24.5	1325.2	20.1	1366.8	33.6	1366.8	33.6	95.1
SYN14-14 Run1- 2 - 76	1352.4	23.4	1362.2	21.8	1377.5	42.1	1377.5	42.1	98.2
SYN14-14 Run1- 2 - 97	<del>830.1</del>	<del>16.6</del>	<del>999.4</del>	<del>16.9</del>	<del>1392.1</del>	<del>30.4</del>	<del>1392.1</del>	<del>30.4</del>	<del>59.6</del>
SYN14-14 Run1- 2 - 100	1322.2	33.5	1352.8	23.0	1401.6	24.0	1401.6	24.0	94.3
SYN14-14 Run1- 2 - 88	1399.5	25.7	1407.0	19.8	1418.3	30.6	1418.3	30.6	98.7
SYN14-14 Run1-1- 14	1449.0	21.7	1442.0	14.0	1431.8	13.5	1431.8	13.5	101.2
SYN14-14 Run1- 2 - 52	1299.0	22.1	1353.6	17.6	1440.8	27.1	1440.8	27.1	90.2
SYN14-14 Run1- 2 - 90	1336.5	27.0	1381.3	19.4	1451.0	23.9	1451.0	23.9	92.1
SYN14-14 Run1-1- 48	1442.4	21.6	1447.6	16.1	1455.3	23.7	1455.3	23.7	99.1
SYN14-14 Run1-1- 11	1416.6	16.4	1437.3	13.5	1468.1	22.5	1468.1	22.5	96.5
SYN14-14 Run1- 2 - 93	1486.0	39.4	1478.9	25.1	1468.7	23.9	1468.7	23.9	101.2
SYN14-14 Run1- 2 - 74	1327.1	31.3	1403.5	21.2	1521.4	18.2	1521.4	18.2	87.2
SYN14-14 Run1- 2 - 81	1467.8	20.7	1495.7	15.8	1535.5	23.8	1535.5	23.8	95.6
SYN14-14 Run1- 2 - 59	1291.6	32.3	1404.9	23.3	1581.3	24.7	1581.3	24.7	81.7
SYN14-14 Run1-1- 19	1596.7	27.2	1598.2	17.8	1600.1	20.2	1600.1	20.2	99.8
SYN14-14 Run1- 2 - 99	1459.0	41.2	1519.8	28.1	1605.6	30.9	1605.6	30.9	90.9
SYN14-14 Run1-1- 49	1615.8	20.0	1614.3	16.5	1612.2	27.5	1612.2	27.5	100.2
SYN14-14 Run1-1- 20	1667.8	18.4	1647.7	13.8	1622.2	21.1	1622.2	21.1	102.8
SYN14-14 Run1-1- 16	1578.3	26.2	1602.6	19.5	1634.6	28.4	1634.6	28.4	96.6
SYN14-14 Run1-1- 44	1617.1	29.3	1634.1	20.5	1656.1	27.2	1656.1	27.2	97.6
SYN14-14 Run1-1- 47	1654.0	27.8	1655.0	19.7	1656.3	27.3	1656.3	27.3	99.9
SYN14-14 Run1- 2 - 71	1544.1	33.6	1598.3	22.1	1670.5	22.9	1670.5	22.9	92.4
SYN14-14 Run1-1- 50	1602.0	22.4	1633.8	19.8	1675.0	34.4	1675.0	34.4	95.6
SYN14-14 Run1- 2 - 79	1496.7	34.8	1577.6	22.9	1687.5	21.9	1687.5	21.9	88.7
SYN14-14 Run1- 2 - 55	1742.6	28.9	1725.3	19.0	1704.3	23.5	1704.3	23.5	102.2

SYN14-14 Run1- 2 - 54	1319.1	21.9	1492.5	15.6	1748.3	14.5	1748.3	14.5	75.4
SYN14-14 Run1- 2 - 73	1673.0	44.7	1717.7	27.7	1772.6	25.9	1772.6	25.9	94.4
SYN14-14 Run1- 2 - 95	1736.5	24.7	1755.7	18.7	1778.6	28.1	1778.6	28.1	97.6
SYN14-14 Run1- 2 - 94	1810.4	42.8	1837.8	28.7	1869.0	36.3	1869.0	36.3	96.9
SYN14-14 Run1-1- 43	1846.2	30.9	1859.0	21.8	1873.4	30.3	1873.4	30.3	98.6
SYN14-14 Run1- 2 - 56	1917.3	25.2	1905.4	14.9	1892.4	15.1	1892.4	15.1	101.3
SYN14-14 Run1-1- 2	1898.5	40.0	1928.3	23.1	1960.4	19.9	1960.4	19.9	96.8
SYN14-14 Run1-1- 46	2603.8	31.9	2634.2	18.9	2657.6	22.4	2657.6	22.4	98.0
SYN14-14 Run1- 2 - 68	2562.6	43.1	2630.9	21.5	2683.9	17.3	2683.9	17.3	95.5
SYN14-14 Run1- 2 - 89	2681.4	43.3	2711.1	22.1	2733.4	20.6	2733.4	20.6	98.1
SYN14-14 Run1- 2 - 82	2639.0	26.3	2721.5	17.4	2783.3	22.6	2783.3	22.6	94.8
SYN14-14 Run1- 2 - 51	2768.5	36.7	2792.3	21.5	2809.5	25.5	2809.5	25.5	98.5
SYN14-14 Run1- 2 - 57	2738.8	36.7	2782.2	18.7	2813.8	17.7	2813.8	17.7	97.3
SYN14-14 Run1- 2 - 70	2806.6	45.9	2845.7	23.4	2873.5	22.8	2873.5	22.8	97.7
SYN14-14 Run1-1- 8	2851.1	80.6	2903.9	36.9	2940.7	26.0	2940.7	26.0	97.0

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## Curriculum Vitae

### **AMANDA GENTRY**

6530 Annie Oakley Dr. Apt. 2421, Henderson, NV 89014

303-319-0695

Amanda.L.Gentry@gmail.com

#### **Education**

University of Nevada, Las Vegas

August 2014 – present

Graduate program – M.S. emphasis on sedimentary basins- 2<sup>nd</sup> year teaching assistant; GPA 3.8

Weber State University

January 2010 - December 2012

Bachelor of Science in Geology, Minor in Geospatial Analysis GPA - 3.74 –departmental honors

#### **Geoscience Courses**

Tectonics of Orogenic Belts

Sedimentary Basins

Environmental Systems Change

Evolution of Western North America

Deformation Crystalline Materials

Field Camp

Carbonate Depositional Systems

Tectonics and Structure

Field Methods

Plate Tectonics

Sedimentology and Stratigraphy

GIS I & II

Structural Geology

Petrology

Earth Materials

Geochemistry

Remote Sensing I & II

#### ***Awards and Scholarships***

Excellence in Service Award

AWG Susan Ekdale Memorial Scholarship

SGE W.A. National Tarr Award

Norman and Barbara Tanner Scholarship

Questar Scholarship

#### ***Professional Memberships***

American Association of Petroleum Geologists

Geological Society of Nevada

Geological Society of America

Association of Women Geoscientists

#### **Research**

#### **Patterns of Synorogenic Sedimentation Associated with the Unroofing of the Willard-Paris-Meade Thrust Sheets, Sevier Fold-Thrust Belt**

Synorogenic basin development associated with emplacement of the Willard-Paris-Meade thrust sheet in northeast Utah, southeast Idaho, and southwest Wyoming during the Early Cretaceous as it relates to the early deformation history of the Sevier orogenic belt and its bearing on whether the Sevier orogen experienced a two-stage or continuous shortening history.

#### **Honors Affiliations and Achievements**

- Fundraising and Silent Auction committee chair, UNLV GeoSymposium
- UNLV Geoscience GPSA representative, Activities Committee member
- Secretary and Event Coordinator, UNLV AAPG student chapter
- Past-president, Association of Women Geoscientists Salt Lake Chapter
- Past-treasurer, nationally recognized honors society: *Sigma Gamma Epsilon*, Eta Gamma Chapter

- Directed, designed, and implemented a science-based trail system modeled on community hiking programs and professional input that was in partnership with Weber State University, Ogden City, and the USDA Forest Service